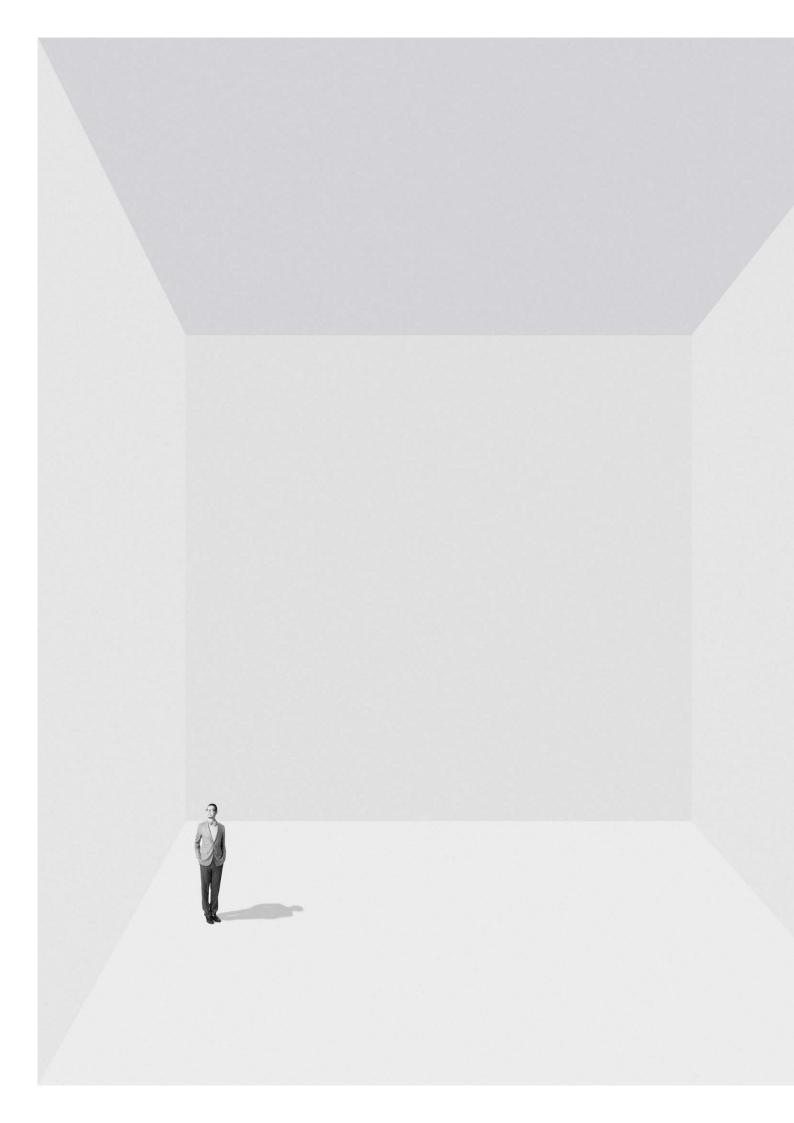
Please contact Panasonic Corporation Eco Solutions Company Lighting Equipment Business Unit, Lighting Business Division
■ 1048, Kadoma Osaka 571-8686, Japan ■ Telephone: +81-6-6908-1131

Panasonic

SmartArchi 2016 - Architectural Lighting

SmartArchi

Architectural Lighting 2016



Bringing new freedom to architecture.

In our current era, definitions of affluence and fulfillment are changing. Architecture, with an integral relationship to human beings and to the environment, society, and our future, is a key field in which new values are being sought. In this context the role of lighting, which works together with architecture and clarifies its message while creating atmosphere and stimulating human emotions, is bound to grow ever more important. With SmartArchi, we at Panasonic aim to develop lighting that broadly expands the creative freedom of the architect, from the three vantage points of scientific lighting methodology, design, and light quality. To this end we have developed an index measuring human sense of brightness known as "Feu," an innovation that turns the focus in lighting design from the conventional "illuminance," the amount of light striking a surface, to "luminance," the human sense of brightness.

The goal is lighting design that effectively utilizes the new performance standards offered by LED, and can be more thoroughly artistically integrated with architecture. Its design delivers light quality that brings people a sense of fulfillment and stirs their emotions. With aspects of both "hard" (lighting fixture) and "soft" (visual environment), SmartArchi is a system that can deliver the pleasant and environmentally responsible lighting that people want today. We see it as not only an indispensable part of the architect's tool kit, but also an inspirational force that can drive architectural creativity.

Bringing new freedom to architecture. SmartArchi.

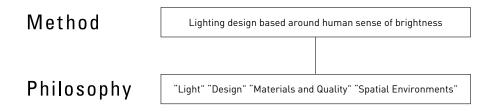
Method

The basic idea: Lighting design based around human sense of brightness

What's the best way to create an eco-conscious, efficient and pleasant lighting environment? How is this effort affected by the ongoing diversification of lighting, with increased emphasis on indirect and architectural light sources? What sort of lighting is most appropriate for today's office environments, where computers play a central role? These are just some of the considerations that cannot be addressed effectively with conventional lighting design based around "illuminance," the amount of light striking a surface. Panasonic was quick to catch on to this new reality, and has been focusing on both "hard" (lighting fixture) and "soft" (visual environment) aspects as we pursue an industry-leading approach to lighting design based instead around "luminance," intensity of light emitted from reflected surface. A key part of the "soft" side of this endeavor has been the development of "Feu," a spatial brightness-level index that quantitatively measures human sense of brightness.

SmartArchi builds on scientific data derived from this index to heighten lighting performance and move forward with luminance-based lighting design. There have been challenges, such as how to go about creating illuminated surfaces with a high uniformity ratio, how to achieve glarefree light, and how to get the greatest subjective spatial brightness with a minimum number of lighting fixtures.

Maximizing lighting performance and making dramatic improvements to light environments through a new, luminance-based lighting design approach: this is the central innovation of SmartArchi.

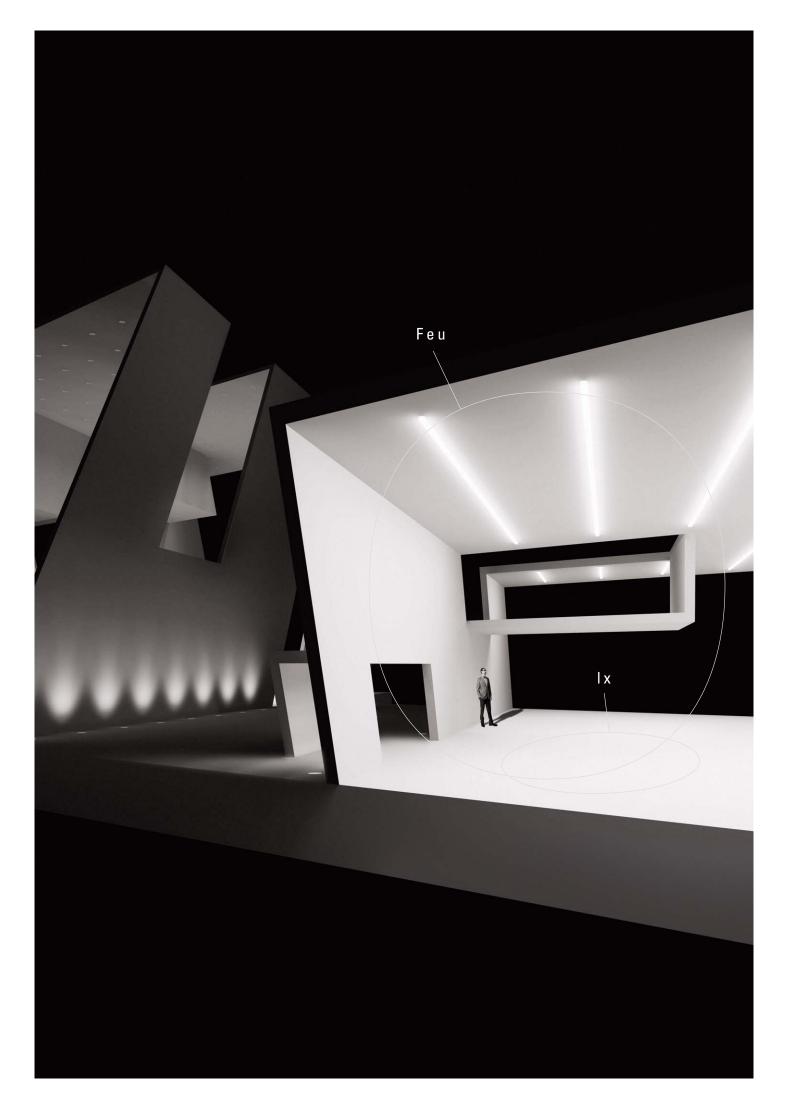


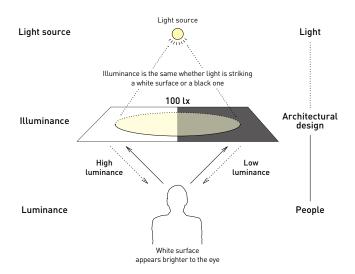
Philosophy

Four areas of focus: "Light," "Design," "Materials and Quality," and "Spatial Environments"

The era when "the brighter, the better" was the conventional wisdom has ended, and people are re-examining the roles that lighting plays in our lives. People are looking for lighting that is sophisticated and beautiful, creating an emotionally fulfilling and enriching human-oriented environment; In other words, lighting that is environmentally friendly, and at the same time effectively delivers the optimum amount of light for the room's purpose. SmartArchi utilizes highly advanced technology to provide the elegant lighting that people seek, focusing attention on both illuminated surfaces and light-emitting surfaces. Through sophisticated optical design technology incorporating lenses, SmartArchi extracts maximum performance from limited quantities of light and utilizes the properties of LED to achieve lighting of the highest efficiency. Sophisticated light-distribution design technology produces illuminated surfaces with elegant quality and a high degree of uniformity. Stress-free, glareless light is achieved through dramatic improvements to the performance of reflective surfaces. Bringing all of our amassed technologies to bear on the mission of refining quality of light. This is the philosophy behind SmartArchi.

Another goal of SmartArchi is lighting design that is fully integrated with architecture. We recognize that of all the creative fields, architecture is the one that faces the greatest number of constraints, and we believe an important role of lighting design is to help overcome these constraints and broaden the creative scope of architecture while at the same time fulfilling practical functions. Lighting fixtures themselves ought to be understated and as simple as possible. Excess formal elements should be removed from spaces, leaving only refined and sophisticated forms. And, there must be no compromise on materials and quality as we pursue the ultimate in high-quality lighting. We consistently pay scrupulous attention to detail, seamless compatibility with architectural design, and impeccable quality down to the smallest screw. SmartArchi blends synergistically with the architect's vision and provides added inspiration. SmartArchi: the new design frontier is here.

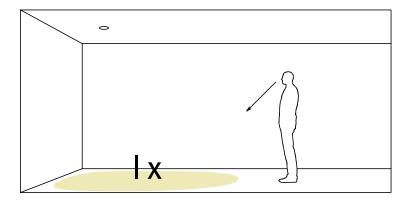




Lighting design based around human sense of space brightness

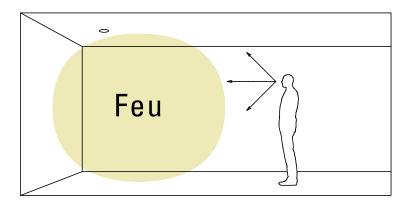
We aim to create a more pleasant and fulfilling lighting environment that also saves energy through highly efficient lighting design. We also aim for effective incorporation of increasingly diverse light sources, including indirect and architectural lighting. This endeavor requires a benchmark other than the one conventionally used. As shown in the diagram above, the unit "lux" (symbol: "lx") is used to measure illuminance (objective brightness of a planar surface) and indicates the amount of light illuminating a surface (i.e. a part of the architectural environment such as a floor or desktop), but it does not accurately convey the way the human eye perceives brightness. Meanwhile, luminance measures the total amount of light emitted from surfaces including reflections, etc., and a very different reading is taken depending on whether the surface in question is white or black, just as the human eye perceives a white surface as much brighter than a black one. Focusing on measuring luminance, and delving into emotional and psychological aspects as well, we sought to express human sense of brightness quantitatively and bind lighting, architectural spaces, and their human inhabitants in one seamless whole. The result of this endeavor is the "Feu" index of the human sense of space brightnes. Application of this index enables design of the atmosphere of a space based on quantitative measurement. This new approach, "lighting design based around human sense of brightness," is the idea behind SmartArchi.

Light indexes



Ix: Brightness of a planar surface

lx is the standard measure of the brightness per unit area of an illuminated planar surface such as a floor or work plane. It is usually used to indicate the level of brightness required to perform work.



Feu : Human sense of space brightness

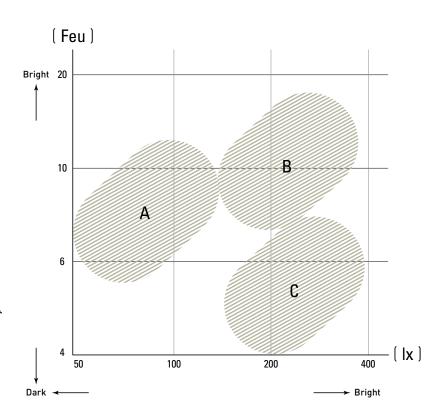
When humans look into a space, they naturally perceive not only the floor but also the ceiling, walls, etc. "Feu" is the quantifiable space brightness index which includes these effects comprehensively.



Design guidelines

Light indexes can be combined to form a set of guidelines for more precisely targeted and higher-quality lighting design.

Human sense of space brightness



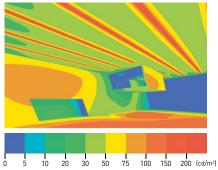
- ${\bf A}$ Soft atmosphere
- **B** Open atmosphere
- ${f C}$ Calm atmosphere

Guidelines for brightness of interior spaces

Combined use of the units "lx," which measures average floor-level brightness, and "Feu," which gauges human sense of space brightness, enables lighting design precisely targeted to create specific atmospheres such as "soft," "open," "calm," etc.

Feu

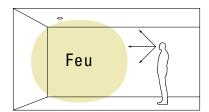




The "Feu" for this space, visualized as a building lobby, is 16.8. The atmosphere is open. LED base lights are capable of illuminating the ceiling as well, and generate higher brightness than conventional base lights.



LED Base Light FYY26677C FYY26681C



What is "Feu"?

"Feu" is a space brightness index that quantifiers the human sense of brightness. In other words, it assigns a numerical value to brightness as perceived by the human eye. Using "Feu," it is possible to execute lighting design more objectively and quantitatively, rather than relying solely on the perceptions of the designer. In spaces where indirect or architectural lighting is utilized, a lighting designer can plan the overall environment so that it appears bright to the eye, without excessively raising the average illuminance at floor level.

"Feu" makes it possible to express, in concrete terms, the "human sense of space brightness," which cannot be achieved with "illuminance," the conventional index of brightness.

It is a new approach that promises to facilitate both energy conservation and the design of pleasant, comfortable light environments.

Feu" makes it possible to express human sense of brightness in numerical terms.

Space A



| Feu | 10 |
|--------------------------------|-----|
| X Average illuminance of floor | 120 |

Space B



| Feu | 6 |
|---|-----|
| X Average illuminance of floor | 190 |

If you compare the two spaces shown above, Space A appears to be brighter. However, the average illuminance of floor in Space A is 120 lx, while that of Space B is 190 lx, meaning that when measuring illuminance (brightness of a planar surface, in this case the floor), Space B is actually brighter. When using "Feu," however, the brightness of Space A is Feu10 while that of Space B is Feu6, clearly and numerically expressing the greater brightness of Space A.

2 "Feu" can be utilized for energy-efficient, pleasant lighting plans.

Space A



| Feu | 12.5 |
|--------------------------------|---|
| X Average illuminance of floor | 290 |
| W | 168 |
| Number of lighting fixtures | Four fixtures Wallwasher Down Lights Arrayed around periphery |

Space B



| Feu | 9.5 | |
|--|---|--|
| X Average illuminance of floor | 420 | |
| W | 210 | |
| Number of lighting fixtures | Five fixtures Down Lights Clustered in the center | |

If you compare the two spaces shown above, Space A appears to be brighter. However, Space A contains only four lighting fixtures, while Space B has five, meaning A consumes less energy. With "Feu" it is possible to predict the overall brightness of the space, including walls and ceiling, which could not be done by quantifying average illuminance of floor, and facilitates energy-efficient lighting plans.

Precisely targeted lighting design is possible with combined use of "Feu" and "lx" values.

Combined use of the units "lx," which measures illuminance, and "Feu," which gauges overall brightness, enables lighting design precisely targeted to create specific atmospheres such as "soft," "open," "calm," etc.

Simulation A



| Feu | 7 |
|--|-----|
| X Average illuminance of floor | 120 |

Simulation B



| | Feu | 10 | |
|------|----------------------------------|-----|--|
| Aver | X age illuminance of floor | 160 | |

Simulation C

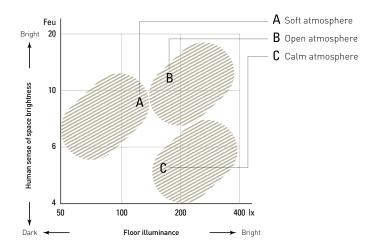


| Feu | 5 |
|---------------------------------------|-----|
| X Average illuminance of floor | 160 |

Feu value benchmarks for each area

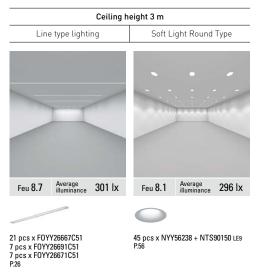
| Feu 24 – | Entrance Elevator lobby | Corridor | Offices Meeting rooms |
|-------------|----------------------------|----------|--------------------------|
| 20 – | | | Brighter |
| 16 – | | Brighter | |
| 13 – | Brighter | | Standard |
| 10 – | | Standard | |
| 8 – | Standard | | Dimmer |
| 6 – | | Dimmer | |
| 5 – | Dimmer | | |
| 4 – | | | |

- Values shown above are for office buildings • For example, the Feu value benchmark for
- For example, the Feu value benchmark for standard brightness in work areas is Feu 10 - 16.



Model Plan

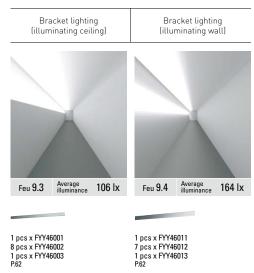
Entrance Space dimensions 7.2 m×14.4 m×ceiling heights 3 m, 7 m



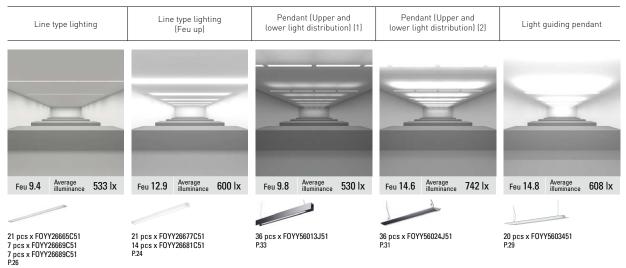


21 pcs x FOYY26667C51 7 pcs x FOYY26691C51 7 pcs x FOYY26671C51 P.26

Corridor Space dimensions 2 m×14.4 m×ceiling heights 2.5 m



Meeting room Space dimensions 7.2 m×14.4 m×ceiling heights 3 m

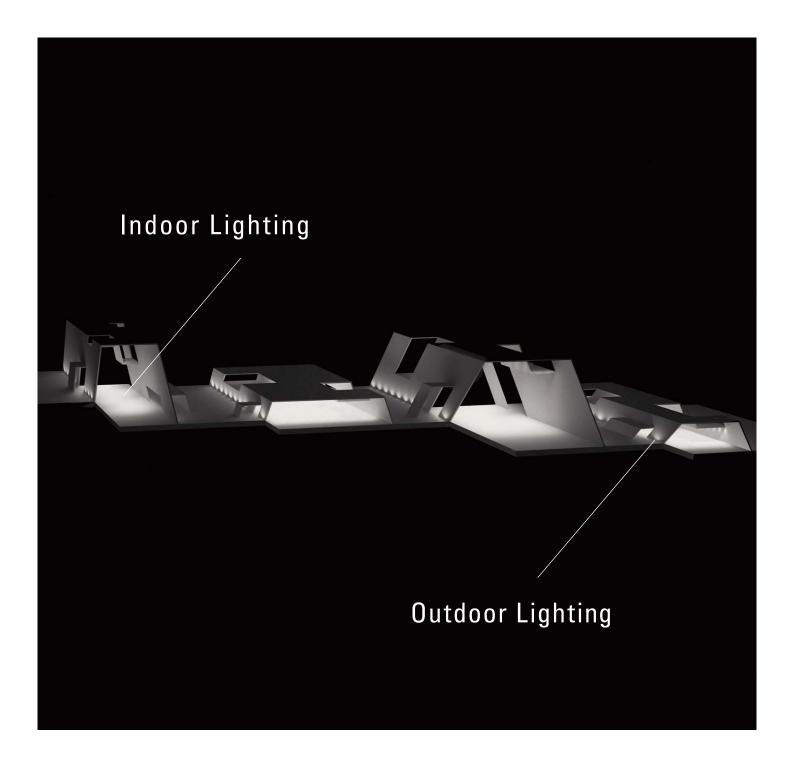


 $\textbf{Sheltered passageway} \quad \text{Space dimensions 3.6 m} \times 32.4 \text{ m} \times \text{ceiling heights 3 m}$

Upper Ligthing Bracket





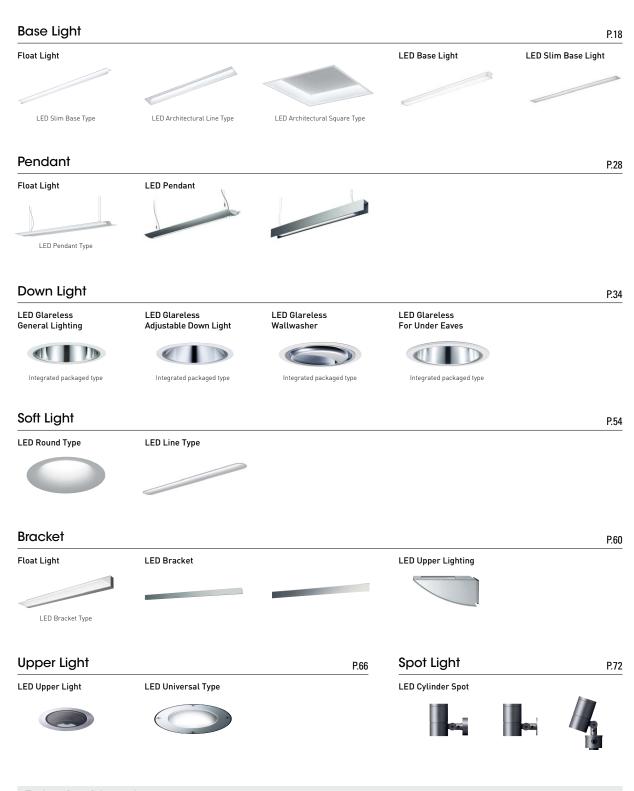


Consistent, integrated planning for entire spaces.

A single piece of architecture includes many different areas, from private interiors to public spaces and outdoor areas. Part of the role of lighting is to tie these spaces together into a single continuous environment, while at the same time ensuring lighting for each area meets the functional and performance specifications for the area's intended purpose.

SmartArchi provides support for unified lighting design for all sorts of architectural spaces, with a unified lighting concept, consistent design sense, and outstanding quality across the board.

Product



Explanation of the mark



This product received the iF Product Design Award from iF Industrie Forum Design Hannover e.V.



This product received the Good Design Award from the Japan Institute of Design Promotion.



Cut off angle set at 30° so as to eliminate unpleasant glare from the field of vision.



Shows light distribution angle of soft lights, downlights and adjustable downlights.



Shows light swing angle of adjustable downlights.



Real CG simulation (Half-embedded type)



Real CG simulation (Embedded type)

Base Light

Float Light LED Slim Base Type

This new style of base light features a light guide panel with a slim light-emitting surface with thickness of only 4mm that produces optimum light distribution, achieving both subjective ceiling brightness and sufficient illuminance, and creating an expansive-feeling space.

Half-embedded type L1200 type



LED (4000K)

FYY26040

CRI83

[2810 lm, 24W, 117.0 lm/W]

 Modular light fixture: FYY26041 (Middle of linked series) FYY26042 (End of linked series)

LED (3500K)

FYY26000

CRI83

(2760 lm, 24W, 115.0 lm/W)

• Modular light fixture: FYY26001 (Middle of linked series) FYY26002 (End of linked series)

LED (3000K)

FYY26030

CRI83

(2680 lm, 24W, 111.6 lm/W)

 Modular light fixture: FYY26031 (Middle of linked series) FYY26032 (End of linked series)

• 5000K Available

Common specifications

- · Built-in LED, Built-in power supply unit
- AC 100-242V
- Lifetime: 40,000h
 (Luminous flux maintenance rate 85%)
- Body: Steel, Highly reflective white powder coating
 Panel: Acrylic, Transparent
 Weight: 4.5 kg

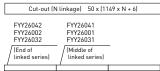
- For embedding in horizontal ceilings

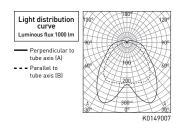
50 x 1155



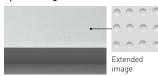
Insertion height 200 (Including range of panel move

When link in series





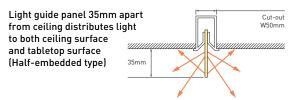
Molding of a microlens produces optimum light distribution

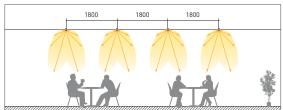


Panel image (When light is on)

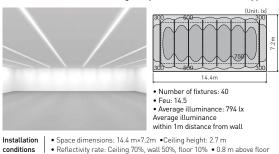


Panel edge surface is designed to curtail glare.





Increase in the ceiling surface's subjective brightness (Feu) creates an extensive-feeling to space (Half-embedded type)



Modular units can be assembled to blend atmosphere



Joints are not noticeable and units are compact and streamlined, providing beautiful, continuous unbroken light.

*When units are connected, there are interstice: between the panels

Embedded type L1200 type



LED (4000K)

FYY26140

[2300 lm, 24W, 95.8 lm/W]

 Modular light fixture FYY26141 (Middle of linked series) FYY26142 (End of linked series)

LED (3500K)

FYY26100

CRI83

CRI83

(2270 lm, 24W, 94.5 lm/W)

 Modular light fixture: FYY26101 (Middle of linked series) FYY26102 (End of linked series)

LED (3000K)

FYY26130

CRI83

(2200 lm, 24W, 91.6 lm/W)

• Modular light fixture FYY26131 (Middle of linked series) FYY26132 (End of linked series)

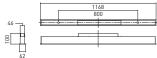
• 5000K Available

Common specifications

- Built-in LED, Built-in power supply unit
- AC 100-242V
- Lifetime: 40,000h (Luminous flux maintenance rate 85%)
- Body: Steel, Highly reflective white powder coating
 Panel: Acrylic, Transparent
 Weight: 4.3 kg

- · For embedding in horizontal ceilings

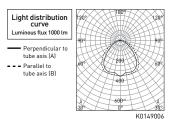
50 x 1155

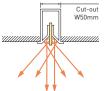


Insertion height 200 (Including range of panel movement)

When link in series

Cut-out (N linkage) 50 x (1149 x N + 6) FYY26141 FYY26101 FYY26131 FYY26142 FYY26102 FYY26132 (End of linked series) (Middle of linked series)





Float Light LED Architectural Line Type

New style in which base lights are incorporated into the architecture, and attention is not drawn to light source because light is emitted from side slits in coved ceiling. Vertical placement of light guide panel achieves optimum wide light distribution.

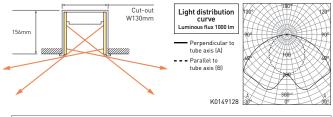


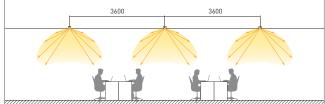
Real CG simulation



Because light is emitted from side slits in coved ceiling, this style achieves optimum wide light distribution without drawing attention to light source. Panel surface is designed to curtail glare.

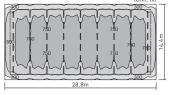
Wide, uniformed light distribution is possible by the optical design of the light guide plate inside fixture, even on wide-span mounting.





Maintains average illuminance of 750 $\rm lx~or~above~even~scattered~placement~with~3.2m~pitch~(High~luminous~flux~type)$

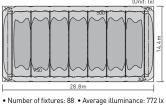




• Number of fixtures: 54 • Average illuminance: 775 lx Average illuminance within 1m distance from wall

Secures average illuminance of 750 lx or above even with 3.6m pitch (Low luminous flux type)





Average illuminance within 1m distance from wall

Installation conditions | • Space dimensions: 28.8m×14.4m • Ceiling height: 2.7 m • Reflectivity rate: Ceiling 70%, wall 50%, floor 10% • 0.8 m above floor



High luminous flux type L1200 type

LED (4000K)

FYY26340

CRI83

CRI83

CRI83

(7240 lm, 82W, 88.2 lm/W) Modular light fixture:

FYY26341 (Middle of linked series) FYY26342 (Right end of linked series) FYY26343 (Left end of linked series)

LED (3500K)

FYY26300

(7130 lm, 82W, 86.9 lm/W)

 Modular light fixture:
 FYY26301 (Middle of linked series) FYY26302 (Right end of linked series) FYY26303 (Left end of linked series)

LED (3000K)

FYY26330

(6930 lm, 82W, 84.5 lm/W)

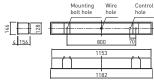
Modular light fixture:
 FYY26331 [Middle of linked series]
 FYY26332 [Right end of linked series]
 FYY26333 [Left end of linked series]

• 5000K Available

Common specifications

- Built-in LED, Built-in power supply unit
 AC 100-242V
 Lifetime: 40,000h (Luminous flux maintenance rate 85%)
- Lifettime: 40,000h (Luminous flux maintenance rate Body: Steel, Highly reflective white powder coating Panel: Acrylic, Transparent
 Weight: 7.5 kg
 For embedding in horizontal ceilings

130 x 1160



Insertion height 170 (Including range of panel movement)

Low luminous flux type L1200 type

CRI83

CRI83

CRI83

LED (4000K)

FYY26240

(4450 lm, 49W, 90.8 lm/W)

Modular light fixture:
 FYY26241 [Middle of linked series]
 FYY26242 [Right end of linked series]
 FYY26243 [Left end of linked series]

LED (3500K)

FYY26200

(4380 lm, 49W, 89.3 lm/W)

 Modular light fixture: FYY26201 (Middle of linked series) FYY26202 (Right end of linked series) FYY26203 (Left end of linked series)

LED (3000K)

FYY26230

(4250 lm, 49W, 86.7 lm/W)

- Modular light fixture:
 FYY26231 (Middle of linked series)
 FYY26232 (Right end of linked series) FYY26233 (Left end of linked series)
- 5000K Available



there are interstices between the panels.

When link in series

| Wileii diik iii 3 | iei ies | | |
|-------------------|-----------|-----------|----------------|
| Cut-out (N | linkage) | 130 x [11 | 52 x N + 10) |
| FYY26343 | FYY263 | 341 | FYY26342 |
| FYY26303 | FYY263 | 301 | FYY26302 |
| FYY26333 | FYY263 | 331 | FYY26332 |
| FYY26243 | FYY262 | 241 | FYY26242 |
| FYY26203 | FYY262 | 201 | FYY26202 |
| FYY26233 | FYY262 | 231 | FYY26232 |
| Left end of | / [Middle | of | (Right end of |
| linked series) | linked | | linked series) |
| ľ | T | | ľ |

Float Light LED Architectural Square Type

New style of architectural base lighting in which light is emitted from sides of coved ceiling.

Vertical placement of light guide panel creates soft indirect light while achieving optimum wide light distribution with sufficient illuminance

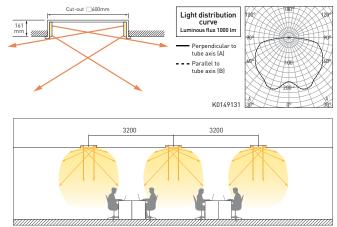


Real CG simulation

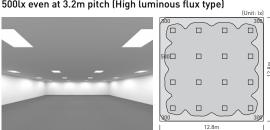


Optimum wide light distribution that achieves both soft indirect light and sufficient illuminance. Panel edge surface is designed to curtail glare.

Wide, uniformed light distribution is possible by the optical design of the light guide plate inside fixture, even on wide-span mounting.



Maintains average illuminance of 500lx even at 3.2m pitch (High luminous flux type)



• Number of fixtures: 16 • Average illuminance: 552 lx

Installation conditions | • Space dimensions: 12.8 m×12.8m • Ceiling height: 2.7 m • Reflectivity rate: Ceiling 70%, wall 50%, floor 10% • 0.8 m above floor



High luminous flux type



Low luminous flux type



• 5000K Available

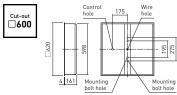
- Common specifications

 Built-in LED, Built-in power supply unit

 AC 100-242V

 Lifetime: 40,000h (Luminous flux maintenance rate 85%)
- Body: Steel, Highly reflective white powder coating
 Panel: Acrylic, Transparent
 Weight: 9.6 kg

- For embedding in horizontal ceilings



Insertion height 180 (Including range of panel movement)

LED Base Light

Base lights increase human sense of space brightness (Feu) for a pleasant environment and energy savings.



F0YY26673C51



FOYY26673C51 CRI83

(2880 lm, 31W, 92.9 lm/W)

 Modular light fixture: FOYY26677C51 (Middle of linked series) FOYY26681C51 (End of linked series)

LED (3500K)

FOYY26674C51

[2850 lm, 31W, 91.9 lm/W]

Modular light fixture:
 F0YY26678C51 (Middle of linked series)
 F0YY26682C51 (End of linked series)

LED (3000K)

FOYY26675C51 CRI83

(2830 lm, 31W, 91.3 lm/W)

- Modular light fixture:
 F0YY26679C51 (Middle of linked series) FOYY26683C51 (End of linked series)
- 5000K Available

Common specifications

- Built-in LED, Built-in power supply unit

- Built-in LED, Built-in power supply unit
 AC 100-242V
 Lifetime: 40,000h
 [Luminous flux maintenance rate 85%]
 Body: Steel, Cool white
 Cover: Acrylic, Opal, Prism on both sides
 Weight: 3.8 kg
 For embedding in horizontal ceilings



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| — <u> </u> | 8 | 00 |
| 32 84 | 11 | 24 |

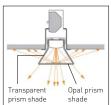
Insertion height 100

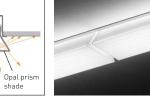
When link in series

| Cut-out (N | linkage) 50 x (1105 x N + 6) |
|--|--|
| F0YY26681C51 F0YY26682C51 F0YY26683C51 | F0YY26677C51 F0YY26678C51 F0YY26679C51 |
| [End of linked series] | [Middle of linked series] |









Shade is formed in two colors, transparent prism and opal prism, to cut glare and achieve effective light distribution.

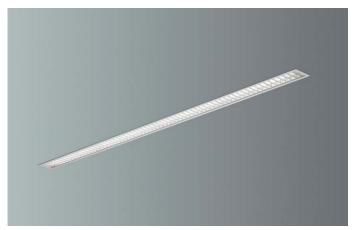
Detail of link designed to achieve unbroken, continuous light source.



Kobe Steel, Ltd. Head Office Building

LED Slim Base Light

Stylish form de-emphasizes the light fixture itself for an elegant, streamlined interior.



F0YY26661C51

LED (4000K)

FOYY26661C51

CRI83

(2390 lm, 31W, 77.1 lm/W)

 Modular light fixture: FOYY26665C51 [Middle of linked series] FOYY26669C51 [Left end of linked series] FOYY26689C51 (Right end of linked series)

LED (3500K)

FOYY26662C51

CRI83

(2370 lm, 31W, 76.5 lm/W)

 Modular light fixture: FOYY26666C51 [Middle of linked series] FOYY26670C51 [Left end of linked series] FOYY26690C51 (Right end of linked series)

LED (3000K)

FOYY26663C51

(2350 lm, 31W, 75.8 lm/W)

- Modular light fixture:
 F0YY2667051 [Middle of linked series]
 F0YY26671051 [Left end of linked series]
 F0YY26691051 [Right end of linked series]
- 5000K Available

Common specifications

- Built-in LED, Built-in power supply unit
- AC 100-242V Lifetime: 40,000h
- Lluminous flux maintenance rate 85%)
 Body: Steel, Cool white
 Louver: Steel, Cool white
 Weight: 4.1 kg
 For embedding in horizontal ceilings



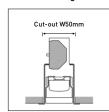


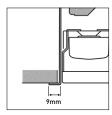
Insertion height 100

When link in series

| Cut-out (N | linkage) | 50 x (110 | 05 x N + 6) | |
|--|------------------|----------------------------------|----------------------------|-----------------|
| F0YY26669C51 F0YY26670C51 F0YY26671C51 | FOYY2 | 26665C51 26666C51 26667C51 | FOYY26 FOYY26 FOYY26 | 690C51 |
| (Left end of linked series) | (Middl linked | e of I series) | (Right er linked s | nd of eries) |

Realizing highly efficient lighting with slim design





Width of frame reduced to blend in with the ceiling.

Louver pitch designed to make linked fixture appear as one fixture





Kobe Steel, Ltd. Head Office Building



Sanko Gakuen Ayase School Building

Pendant

Float Light LED Pendant Type

Light quide panel pendant illuminates both ceiling and tabletop. Ultra-slim fixture form looks like a bar of light itself. Highly uniform light even when pitch between fixtures is as wide as three meters.



LED (5000K)

FOYY5603051

(5600 lm, 47W, 119.1 lm/W)

 Modular light fixture: FOYY5603151 (Linked power supply series) FOYY5603251 (Middle of linked series) FOYY5603351 (Linked signal series)

LED (4000K)

CRI83 FOYY5603451

(5360 lm, 47W, 114.0 lm/W)

Modular light fixture:
 F0YY5603551 (Linked power supply series)
 F0YY5603651 (Middle of linked series)

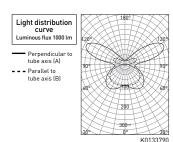
FOYY5603751 (Linked signal series)

Common specifications

- Built-in LED, Built-in power supply unit
- AC 100-242V
- Lifetime: 40,000h (Luminous flux maintenance rate 85%) Body: Aluminium, White matte finish
- · Panel: Acrylic, Transparent
- Weight:4.1 kg

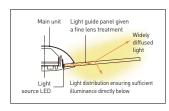
Suspension hardware sold separately





Light guide panel enables different upper and lower light distribution

The upper surface of the light guide panel is given a fine lens treatment and light guide technology is employed to diffuse light across the ceiling as well. Light diffuses widely across the ceiling, while sufficient illuminance is also ensured below the fixture.





Degree of uniformity where luminance ratio A:B = 10:1 or less

If ratio of luminance at point A and point B is less than 10:1, unevenness of ceiling surface illumination is within allowable range (according to Panasonic image evaluation).

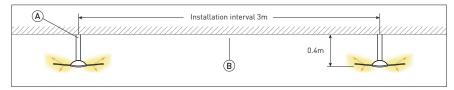


Diagram of ceiling luminance distribution

- Number of fixtures: 20 Power consumption: 940W
 Luminance at point A: 137.5 cd/m² Luminance at point B: 55.9 cd/m²

Installation conditions

- Space dimensions: 14.4 m×7.2m Ceiling height: 3 m
 Reflectivity rate: Ceiling 70%, wall 50%, floor 10% 0.7 m above floor
- Simulation assuming uniform diffusion surface

Panel has glowing surface when light is on, is transparent when light is off

Slim form minimizes obtrusive presence in interior. When light is off, panel appears transparent, reducing the noticeability of the fixture and making the space seem more expansive





Modular units can be assembled to fit interior

Joints are not noticeable and units are compact and streamlined, providing beautiful, continuous unbroken light



*When units are connected, there are interstices between the panels.



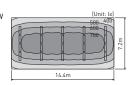
Diagram of desktop luminance distribution

- Number of fixtures: 20 Power consumption: 940W
 Feu: 18.1 Average illuminance: 618 lx

Installation conditions

- Space dimensions: 14.4 m×7.2m •Ceiling height: 3 m • Reflectivity rate: Ceiling 70%, wall 50%, floor 10%
- 0.7 m above floor

Simulation assuming uniform diffusion surface



Modular light fixture

| Single units | FOYY5603051 FOYY5603451 |
|----------------------------|----------------------------|
| Linked power supply series | FOYY5603151 FOYY5603551 |
| Middle of linked series | FOYY5603251 FOYY5603651 |
| Linked signal series | FOYY5603351 FOYY5603751 |

Specialized suspension hardware



For single units or modules at end of series (with power cable)

FOYY80105

- Common specifications
- Body: Steel, White
 Cover: Steel, White
- Wire adjustment length: 400~1000 mm (Distance from ceiling to lower surface of fixture)
- Cut-out: ø85 mm
- Embedding height: 70 mm

Note: Cannot be mounted on diagonally sloping ceilings.



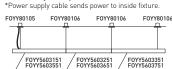
For linking sections (single unit / linking section)

■ Ex. With single unit





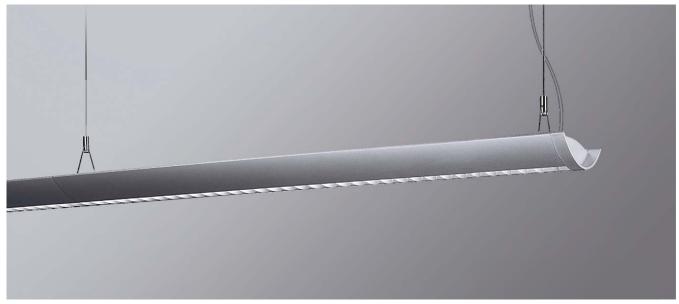
■ Assembly example



LED Pendant Upper and lower light distribution, scene adjustment type

Stylish pendant with light sources both above and below enables balance adjustment of Feu (human sense of space brightness) and average illuminance of floor in accordance with the situation.







Simple, slim and unobtrusive design blends into the interior.



Lower light ensures sufficient illuminance, with glare cut by a silver metallic louver.



Plentiful upper light gives the interior an expansive feel.



Louvers at joint sections are designed for maximum continuity of light.

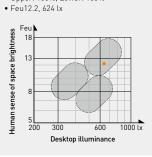
A Panasonic simulation gauging suitability for meeting rooms determined that this lighting is geared toward stimulation (during discussions), relaxation (meals, etc.), and concentration (while working).

*Graph shows subjective judgments from an in-house experiment. *Photo is a simulated image

Stimulation (during discussions)



• Upper: 100%, Lower: 100%

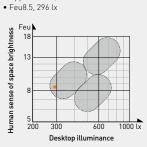


Full-strength light above and below creates a stimulating environment that encourages discussion

Relaxation (meals, etc.)



• Upper: 100%, Lower: 30%

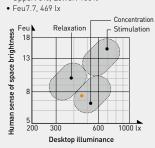


Indirect light sources generate a relaxing atmosphere.

Concentration (while working)



• Upper: 0%, Lower: 100%



Direct light only eliminates surrounding distractions and enables focus on work.

Presentation



• Upper: 0%, Lower: 25%

Light can be adjusted during presentations to provide sufficient light for the presenter to see materials, etc.

discussion.

• 5000K • Space dimensions: 4.2m×7.2m • Ceiling height: 2.7 m • Reflectivity rate: Ceiling 80%, wall 75%, floor 15% • Desktop reflectivity rate: 65% • 0.8 m above floor • Maintenance factor: 0.72

Installation

30



LED (5000K)

FOYY56020J51

CRI83

(3990 lm, 52W, 76.7 lm/W)

 Modular light fixture: FOYY56021J51 (Linked power supply series) FOYY56022J51 (Middle of linked series) FOYY56023J51 (Linked signal series)

LED (4000K)

FOYY56024J51

CRI83

(3670 lm, 52W, 70.6 lm/W)

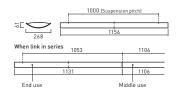
 Modular light fixture:
 FOYY56025J51 (Linked power supply series)
 FOYY56026J51 (Middle of linked series) FOYY56027J51 (Linked signal series)

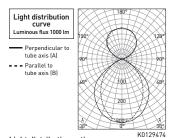
Common specifications

- Built-in LED, Built-in power supply unit
 AC 100-242V

- Lifetime: 40,000h
 (Luminous flux maintenance rate 85%)
 Body: Aluminum, Silver metallic
- Louver: Steel plate, Silver metallic
 Ends: ABS resin, Silver metallic
 Upper and lower light distribution
- can be separately controlled (ON/OFF)
- Weight: 7.0 kg

Note:
• Suspension hardware sold separately



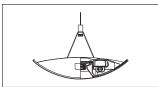


Light distribution ratio

- Upper light distribution: 40%
- Lower light distribution: 60%

Separate control feature for upper and lower light distribution

• 25% - 100% • ON/OFF



Cross-section

Louver shielding angle: Vertical direction 32°, horizontal direction 25°



Photo is a simulated image.

Modular light fixture

| Single units | FOYY56020J51 | FOYY56024J51 |
|--------------------------------|--------------|--------------|
| Linked power supply series | FOYY56021J51 | FOYY56025J51 |
| Middle of linked series | FOYY56022J51 | FOYY56026J51 |
| Linked signal series | FOYY56023J51 | FOYY56027J51 |

Specialized suspension hardware



For single units or modules at end of series (with power cable)



With cord (gray) for wiring



For linking sections (single unit / linking section)

FOYY80031



Common specifications

- Body: Steel, white
- Cover: Steel, Silver metallic
 Wire adjustment length: 400~1000 mm (Distance from ceiling to lower surface of fixture)
 Cut-out: ø85 mm
- Embedding height: 70 mm

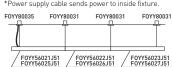
Note: Cannot be mounted on diagonally sloping ceilings.

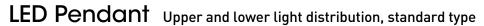
■ Ex. With single unit

F0YY80035 F0YY80031 F0YY56020J51 F0YY56024J51

■ Assembly example

*Power supply cable sends power to inside fixture.







Sleek, simple form blends into interior.

Achieves light distribution equivalent to conventional light source (fluorescent) while consuming less power.





Blends smoothly into interior with detailing similar to that of architectural elements.



Louvers at joint sections are designed for maximum continuity of light.

The Long Life Design Award

The Long Life Design Award is a special honor conferred by the Good Design Award committee on products that win the Good Design Award and after ten years are still on the market and popular with consumers. Panasonic succeeded in maintaining the same design while switching light sources to LED.



LED (5000K)

FOYY56010J51

(2540 lm, 31W, 81.9 lm/W)

 Modular light fixture: FOYY56012J51 (Middle of linked series) FOYY56011J51 (End of linked series)

LED (4000K)

FOYY56013J51



(2330 lm, 31W, 75.2 lm/W)

 Modular light fixture: FOYY56015J51 (Middle of linked series) FOYY56014J51 (End of linked series)

Common specifications

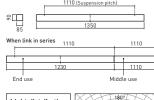
- Built-in LED, Built-in power supply unit

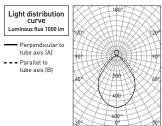
- AC 100-242V
 Lifetime: 40,000h
 [Luminous flux maintenance rate 85%]
- Body: Steel, Highly reflective white powder coating
 Reflector: Steel, Highly reflective
- Neitecturi : steet, riiginy renettive white powder coating
 Louver: Zinc-steel, Highly reflective white powder coating
 Shade: Aluminum, Silver metallic
 Panel: Acrylic, Translucent prism
 Ends: Plastic, Silver metallic
 Weisbet, 2, 1c.

- Weight: 6.3 kg

Note:

• Suspension hardware sold separately

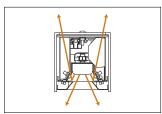




K0128722

Light distribution ratio

- Upper light distribution: 10%Lower light distribution: 90%



Internal reflector diffuses light both upward

Louver shielding angle: Vertical direction 27°, horizontal direction 31°



Shizuoka University Faculty of Humanities and Social Sciences

Modular light fixture

| | Single units | FOYY56010J51 | FOYY56013J51 |
|--|-------------------------|--------------|--------------|
| | Middle of linked series | FOYY56012J51 | FOYY56015J51 |
| | End of linked series | FOYY56011J51 | FOYY56014J51 |

Specialized suspension hardware



For single units or modules at end of series (with power

cable) FOYY80000 With cord (white) for wiring



For single units or linking sections FOYY80001



For linking sections FOYY80002

Common specifications

- Body: Steel, White
 Cover: Steel, Silver metallic
- Wire adjustment length: 400–1000 mm (Distance from ceiling to lower surface of fixture)
 Cut-out: ø85 mm
 Embedding height: 70 mm

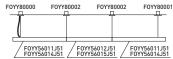
Note: Cannot be mounted on diagonally sloping ceilings.

■ Ex. With single unit



Assembly example

*Power supply cable sends power to inside fixture.





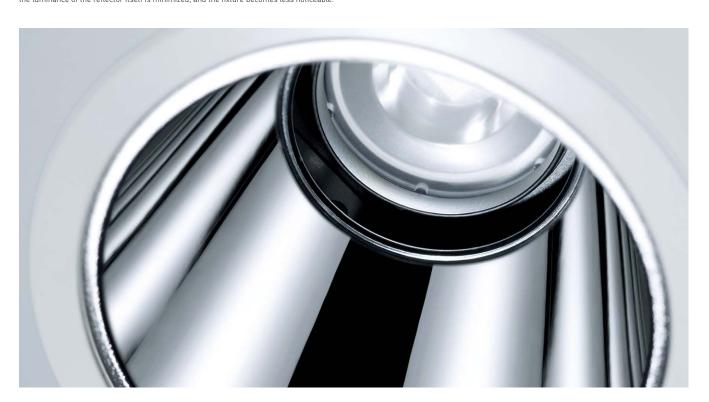
 $Nibancho\ Terrace$ *Photo shows case example of Glareless Down Lights installed. (Conventional light source in use as well)

Down Light

Glareless

Outstanding reflectivity without glare through deposition technology

With aluminum deposition mirrored-surface reflector, the luminance of the reflector itself is minimized, and the fixture becomes less noticeable.



Mirrored-surface reflector made with aluminum deposition

We took scrupulous care with the aluminum deposition treatment to create a highly reflective surface that creates interiors with a premium-quality, luxurious atmosphere.

Glareless Down Light

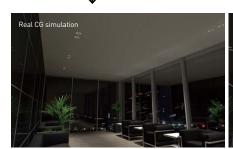




*Comparison of Panasonic aluminum deposition reflector and silver mirrored-surface reflector (Survey by Panasonic)

Aluminum deposition mirrored-surface reflector

With a degree of reflectivity, surface achieves specular reflection (mirror-like reflection of light from a single incoming direction in a single outgoing direction), with virtually no glare from background reflections.



Light fixture is rendered less noticeable, and light's center of gravity is lower, creating a calm atmosphere.

Standard Down Light



Silver mirrored-surface reflector

Low reflectivity compared to aluminum deposition, meaning light is diffused and blurred.

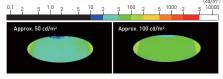


Reflections off glass, and the light fixture itself, are noticeable.

■Luminance comparison

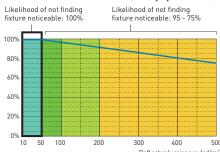
with standard silver mirrored-surface reflector

Luminance measurement (comparison of LED 200 type Down Lights, dia. 125)



SmartArchi Glareless Aluminum deposition mirrored-surface reflector Standard downlight Silver mirrored-surface reflector

■Glare assessment test results (survey by Panasonic)



Incorporates highly reflector that achieves specular reflection (mirror-like reflection of light from a single incoming direction in a single outgoing direction), with virtually no glare from background reflections. Both the noticeability of the light fixture and glare off glass surfaces are minimized, achieving a calm environment that lets the night view out the window take center stage.

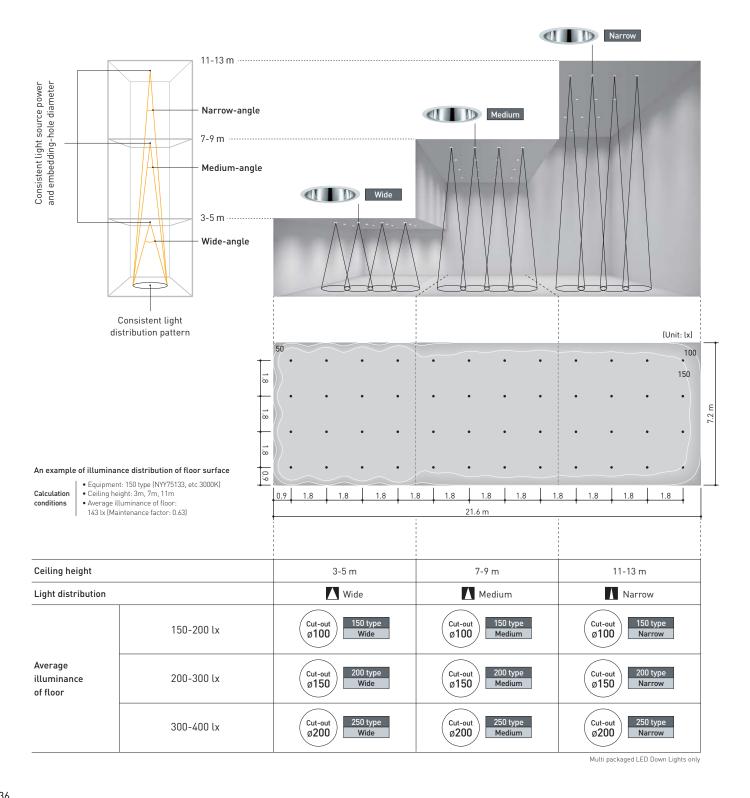
*Approx. 1/2 luminance (comparison under same conditions including light source, conformation of reflector, etc.)

Modular Lighting

Light distribution arrangement inspired by the concept of architectural modules. Simplifies the lighting design process.

Modular Lighting is a new method of lighting planning inspired by architectural modules.

Layout is envisioned and light distribution arranged based on length of spans between architectural supports. Even in an interior with three different ceiling heights, simply select among narrow-angle, medium-angle and wide-angle light distribution in accordance with ceiling height, and the illumination patterns and levels will be the same. This enables consistent fixture layout, embedding-hole diameter, and light source power, simplifying the process of lighting design.



Lighting design simulation of Modular Lighting

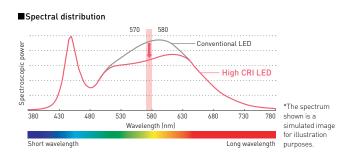
■Glareless even lighting design

| Designed illuminance | Model plan | | 7m 11m 7m 3m | | 8m 12m 8m 4m | | 13m 9m |
|----------------------|---------------------|--|------------------------------|---|------------------------------|--|------------------------------|
| | Brightness level | Equipment* | Average illuminance of floor | Equipment* | Average illuminance of floor | Equipment* | Average illuminance of floor |
| 100-200 lx | 150 type | CH 3: NYY75133 CH 7: NYY75123 CH 11: NYY75113 | 143 lx | CH 4: NYY75133 CH 8: NYY75123 CH 12: NYY75113 | 137 lx | CH 5: NYY75133 CH 9: NYY75123 CH 13: NYY75113 | 132 lx |
| 200-300 lx | 200 type | CH 3: NYY75933 CH 7: NYY75923 CH 11: NYY75913 | 281 lx | CH 4: NYY75933 CH 8: NYY75923 CH 12: NYY75913 | 270 lx | CH 5: NYY75933 CH 9: NYY75923 CH 13: NYY75913 | 259 lx |
| 300-400 lx | 250 type | CH 3: NYY75933 CH 7: NYY75923 CH 11: NYY75913 | 381 lx | CH 4: NYY75933 CH 8: NYY75923 CH 12: NYY75913 | 367 lx | CH 5: NYY75933 CH 9: NYY75923 CH 13: NYY75913 | 353 lx |

^{*}Color temperature of all equipments shown above are 3000K. Please see P.40 onward for more information about the other equipments

High CRI LED

Natural object colors Features high color rendering as shown in CRI95, which make colors look close to the way they appear under sunlight.

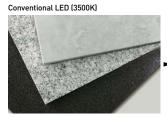


\blacksquare CRI95 is light that makes illuminated objects appear their natural color.



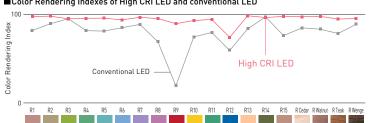
■Attractively showcases the actual look, color, and texture of objects such as architectural elements and furniture







■ Color Rendering Indexes of High CRI LED and conventional LED



Examination of the appearance of each test color*1 and material reveals that High CRI LED especially greatly improves the appearance of reds compared to conventional LED. It also greatly improves the appearance of colors with R material*². It brings out the natural colors and material textures of architectural elements and furniture that make up interiors, as well as fabrics, etc. to produce interior spaces with a higher-grade, luxury feel.

These Down Lights secure almost the same average illuminance of floor regardless of their colour temperature

^{*1} Test colors: Colors for evaluating the color rendering properties of light sources, as defined by JIS Z 8726-1990. The Average Color Rendering Index [Ra] is the average value of test colors R1 - R8, while R9 - R15 are defined as the Special Color Rendering Index. *2 R material: The Special Color Rendering Index calculated from the spectral radiance factor of wood, according to the calculation method of R1 - R15 in JIS Z 8726-1990.

LED Down Light Matrix

| Brigh | tness level | | 100/60 type | 150/100 type | 150 type | 200/150 type | 200 type | 250/200 type |
|-------------------------------------|-------------|----------------|---|---|-----------------|---|-----------------|---|
| Cut-o | ut | | ©ut-out Ø100 | ©ut-out Ø100 | ©ut-out Ø100 | ©ut-out Ø125 | ©ut-out Ø100 | ©ut-out Ø125 |
| | | Narrow | | CRI85 | | | CRI85 | CRI85 ONYY75914 ONYY75910 ONYY75913 ONYY75912 |
| neral Lighting | | Medium | | CRI85 | | | CRI85 | CRI85 ONYY75924 ONYY75920 ONYY75923 ONYY75922 |
| LED Glareless General Lighting | | Wide | | CRI85 ONYY75134 ONYY75130 ONYY75133 ONYY75132 CRI95 ONYY75184 ONYY75180 ONYY75183 ONYY75182 | | | CRI85 | CRI85 ONYY75934 ONYY75930 ONYY75933 ONYY75932 |
| | | Wide spread | | | | | CRI85 | CRI85 ONYY75944 ONYY75940 ONYY75943 ONYY75942 |
| stable Down Light | | Narrow | CRI85 ONYY71114 ONYY71110 ONYY71113 ONYY71112 CRI95 ONYY71164 ONYY71160 ONYY71163 ONYY71162 | | CRI85 | CRI85 ONYY71914 ONYY71910 ONYY71913 ONYY71912 | | |
| LED Glareless Adjustable Down Light | | Medium | CRI85 ONYY71124 ONYY71120 ONYY71123 ONYY71122 CRI95 ONYY71174 ONYY71170 ONYY71173 ONYY71172 | | CRI85 | CRI85 ONYY71924 ONYY71920 ONYY71923 ONYY71922 | | |

O5000K O4000K O3500K ●3000K ●2700K

| Brigh | itness level | | 60 type | 100 type | 150/100 type | 150 type | 200 type | 250/200 type | 550 type | |
|-------------------------------|--------------|-----------------|-----------------|-------------------------------------|---|-------------------------------------|-------------------------------------|---|---|---|
| Cut-c | out | | ©ut-out Ø125 | ©ut-out Ø125 | ©ut-out Ø150 | ©ut-out Ø125 | ©ut-out Ø125 | ©ut-out Ø200 | ©ut-out Ø450 | L1200 type |
| Soft Light LED Round Type | | Wide spread | CRI85 | | CRI85 ONYY56158 ONYY56148 ONYY56108 ONYY56138 CRI95 ONYY56159 ONYY56149 ONYY56109 ONYY56139 | | | CRI85 ONYY56258 ONYY56248 ONYY56208 ONYY56238 CRI95 ONYY56259 ONYY56249 ONYY56209 ONYY56239 | CRI85 ONYY56558 ONYY56508 ONYY56508 ONYY56538 CRI95 ONYY56559 ONYY56509 ONYY56509 ONYY56539 | |
| Soft Light LED Line Type | | Line Type | | | | | | | | CRI83 >FOYY5101051 •FOYY5102051 •FOYY5103051 |
| LED Glareless Wallwasher | | Wall- washer | | | | CRI85 ONYY16316 ONYY16317 ONYY16318 | CRI85 ONYY16326 ONYY16327 ONYY16328 | | | |
| LED Glareless For Under Eaves | | Wide | | CRI85 ONYY16906 ONYY16907 ONYY16909 | | CRI85 ONYY16916 ONYY16917 ONYY16919 | CRI85 ONYY16926 ONYY16927 ONYY16929 | | | |

LED Glareless General Lighting Integrated packaged type







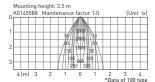
LED 150/100 type



Narrow

Medium

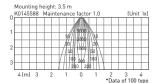
○4000K, CRI85



NYY75114

150 type (730 lm, 15.5W, 47.0 lm/W) 100 type (490 lm, 8.5W, 57.6 lm/W)

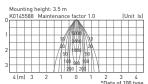
3500K, CRI85



NYY75110

150 type (715 lm, 15.5W, 46.1 lm/W) 100 type (480 lm, 8.5W, 56.4 lm/W)

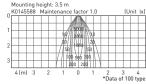
3000K, CRI85



NYY75113

150 type (700 lm, 15.5W, 45.1 lm/W) 100 type (470 lm, 8.5W, 55.2 lm/W)

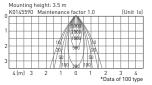
2700K, CRI85



NYY75112

150 type (665 lm, 15.5W, 42.9 lm/W) 100 type (445 lm, 8.5W, 52.3 lm/W)

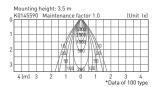
4000K, CRI85



NYY75124

150 type (840 lm, 15.5W, 54.1 lm/W) 100 type (560 lm, 8.5W, 65.8 lm/W)

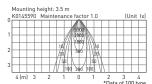
3500K, CRI85



NYY75120

150 type (825 lm, 15.5W, 53.2 lm/W) 100 type (550 lm, 8.5W, 64.7 lm/W

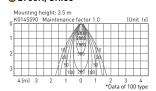
3000K, CRI85



NYY75123

150 type (805 lm, 15.5W, 51.9 lm/W) 100 type (540 lm, 8.5W, 63.5 lm/W)

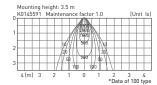
2700K, CRI85



NYY75122

150 type (765 lm, 15.5W, 49.3 lm/W) 100 type (510 lm, 8.5W, 60.0 lm/W)

○4000K, CRI85

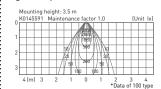


Wide

NYY75134

150 type (795 lm, 15.5W, 51.2 lm/W) 100 type (535 lm, 8.5W, 62.9 lm/W)

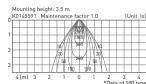
3500K, CRI85



NYY75130

150 type (780 lm, 15.5W, 50.3 lm/W) 100 type (520 lm, 8.5W, 61.1 lm/W)

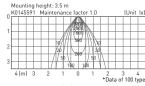
3000K, CRI85



NYY75133

150 type (765 lm, 15.5W, 49.3 lm/W) 100 type (510 lm, 8.5W, 60.0 lm/W)

@2700K, CRI85

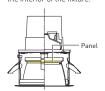


NYY75132

150 type (725 lm, 15.5W, 46.7 lm/W) 100 type (485 lm, 8.5W, 57.0 lm/W)

Structured so that interior of fixture and ceiling are not easily visible

A high-diffusion panel mounted on top of the reflecting panel makes it difficult to see the interior of the fixture.



Compatible power supply unit

Sold separately

For 150 type





For 100 type

Non-dimming

NTS90100 LZ9



Common specifications

- AC 100-242V
- Weight: 0.3 kg
 In some cases, fixtures used in combination may not be attachable from the mounting side of the lamp. Please verify.



Options

Sold separately

Diffusion sheet

NYY92100

Spread sheet

NYY91100

For "Narrow" and "Medium



Common specifications

- Built-in LED
 Lifetime: 40,000h (Luminous flux maintenance rate 70%)
 Reflector: Aluminum, aluminum-deposition mirrored surface
 Frame: Aluminum die-casting, White matte finish

- Weight: 0.5 kg
 Compatible power supply unit
 For 150 type: NTS90150 LE9 (Sold separately)
 For 100 type: NTS90100 LZ9 (Sold separately)

- Please make sure to use in combination with compatible power supply unit.
 Minimum allowable distance directly below fixture: 30 cm
- . Does not have thermal insulation specifications.



High CRI LED

*Please see P.37 for more information about High CRI LED.





LED 150/100 type



Narrow



Medium

Wide

○4000K, CRI95

Mounting height: 3.5 m

K0145591 Maintenan

NYY75184

○ 3500K, CRI95

NYY75180

3000K, CRI95

Mounting height: 3.5 m K0145591 Maintenan

150 type (650 lm, 15.5W, 41.9 lm/W) 100 type (435 lm, 8.5W, 51.1 lm/W)

150 type (660 lm, 15.5W, 42.5 lm/W) 100 type (440 lm, 8.5W, 51.7 lm/W)

Compatible power supply unit

Sold separately

For 150 type

Non-dimming





For 100 type

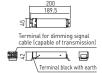
Non-dimming

NTS90100 LZ9



Common specifications

- AC 100-242V
- Weight: 0.3 kg
 In some cases, fixtures used in combination may not be attachable from the mounting side of the lamp. Please verify.



Options

Sold separately

Diffusion sheet



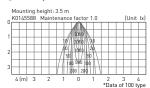


Spread sheet

NYY91100

For "Narrow" and "Medium"

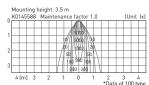
4000K, CRI95



NYY75164

150 type (605 lm, 15.5W, 39.0 lm/W) 100 type (405 lm, 8.5W, 47.6 lm/W)

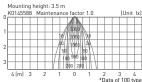
3500K, CRI95



NYY75160

150 type (595 lm, 15.5W, 38.3 lm/W) 100 type (400 lm, 8.5W, 47.0 lm/W)

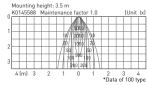
3000K, CRI95



NYY75163

150 type (580 lm, 15.5W, 37.4 lm/W) 100 type (390 lm, 8.5W, 45.8 lm/W)

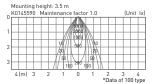
2700K, CRI95



NYY75162

150 type (550 lm, 15.5W, 35.4 lm/W) 100 type (370 lm, 8.5W, 43.5 lm/W)

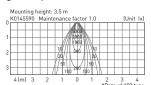
○4000K, CRI95



NYY75174

150 type (700 lm, 15.5W, 45.1 lm/W) 100 type (465 lm, 8.5W, 54.7 lm/W)

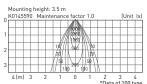
3500K, CRI95



NYY75170

150 type (685 lm, 15.5W, 44.1 lm/W) 100 type (460 lm, 8.5W, 54.1 lm/W)

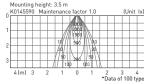
3000K, CRI95



NYY75173

150 type (670 lm, 15.5W, 43.2 lm/W) 100 type (445 lm, 8.5W, 52.3 lm/W)

2700K, CRI95



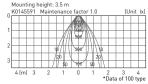
NYY75172

150 type (635 lm, 15.5W, 40.9 lm/W) 100 type (425 lm, 8.5W, 50.0 lm/W)

NYY75183

150 type (635 lm, 15.5W, 40.9 lm/W) 100 type (425 lm, 8.5W, 50.0 lm/W)

@2700K, CRI95



NYY75182

150 type (600 lm, 15.5W, 38.7 lm/W) 100 type (400 lm, 8.5W, 47.0 lm/W)

Common specifications

- Built-in LED
- Buitt-in LEU
 Lifetime: 40,000h (Luminous flux maintenance rate 70%)
 Reflector: Aluminum, aluminum-deposition mirrored surface
 Frame: Aluminum die-casting, White matte finish

- Weight: 0.5 kg
 Compatible power supply unit
 For 150 type: NTS90150 LE9 (Sold separately)
 For 100 type: NTS90100 LZ9 (Sold separately)

- Please make sure to use in combination with compatible power supply unit.
 Minimum allowable distance directly below fixture: 30 cm
- Does not have thermal insulation specifications.

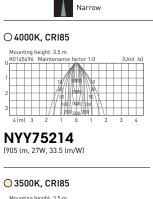


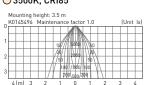
LED Glareless General Lighting Integrated packaged type







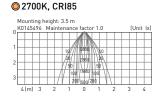






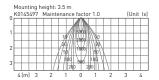






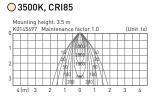
NYY75212 (825 lm, 27W, 30.5 lm/W)



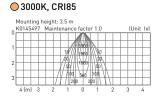


Medium





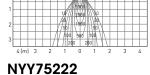




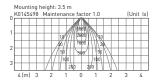


NYY75223

(785 lm, 27W, 29.0 lm/W)

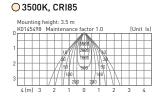




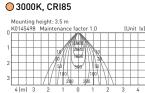


Wide

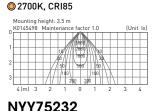






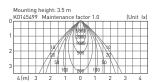






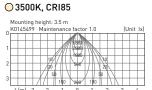
NYY75232 (1030 lm, 27W, 38.1 lm/W)

4000K, CRI85

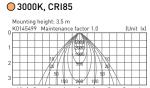


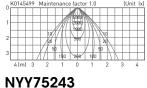
Wide spread

NYY75244 (1285 lm, 27W, 47.5 lm/W)



NYY75240 (1260 lm, 27W, 46.6 lm/W)







NYY75242 [1170 lm, 27W, 43.3 lm/W]

(1230 lm, 27W, 45.5 lm/W)

Common specifications

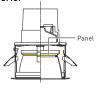
- Built-in LED Lifetime: 40,000h (Luminous flux maintenance rate 70%)
 Reflector: Aluminum, aluminum-deposition mirrored surface
 Frame: Aluminum die-casting, White matte finish
 Weight: 1.1 kg Compatible power supply unit: NTS90250 LE9 (Sold separately)

- Please make sure to use in combination with compatible power supply unit.
- Minimum allowable distance directly below fixture: 30 cr
- Does not have thermal insulation specifications.

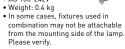
Sold separately

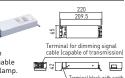
Structured so that interior of fixture and ceiling are not easily visible

A high-diffusion panel mounted on top of the reflecting panel makes it difficult to see the interior of the fixture.









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|---|---|----|---|---|---|--|
| | | | | | | |

Diffusion sheet NYY92100

Spread sheet NYY91100





*Please see P.37 for more information about High CRI LED.





LED 200 type



Narrow



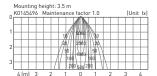
Medium





Wide spread

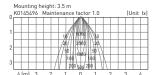
○4000K, CRI95



NYY75264

(755 lm, 27W, 27.9 lm/W)

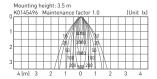
3500K, CRI95



NYY75260

(740 lm, 27W, 27.4 lm/W)

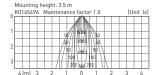
3000K, CRI95



NYY75263

(720 lm, 27W, 26.6 lm/W)

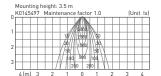
@2700K, CRI95



NYY75262

(685 lm, 27W, 25.3 lm/W)

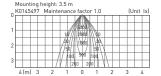
○4000K, CRI95



NYY75274

(715 lm, 27W, 26.4 lm/W)

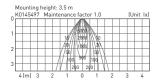
3500K, CRI95



NYY75270

(700 lm, 27W, 25.9 lm/W)

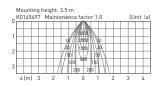
3000K, CRI95



NYY75273

(685 lm, 27W, 25.3 lm/W)

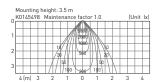
2700K, CRI95



NYY75272

(650 lm, 27W, 24.0 lm/W)

○4000K, CRI95



NYY75284

(940 lm, 27W, 34.8 lm/W)

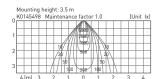
3500K, CRI95



NYY75280

(920 lm, 27W, 34.0 lm/W)

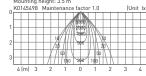
3000K, CRI95



NYY75283

(900 lm, 27W, 33.3 lm/W)

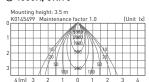
@2700K, CRI95



NYY75282

(855 lm, 27W, 31.6 lm/W)

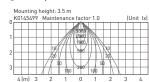
○4000K, CRI95



NYY75294

(1065 lm, 27W, 39.4 lm/W)

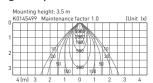
3500K, CRI95



NYY75290

(1045 lm, 27W, 38.7 lm/W)

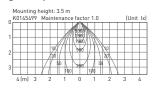
3000K, CRI95



NYY75293

(1020 lm, 27W, 37.7 lm/W)

2700K, CRI95



NYY75292

(970 lm, 27W, 35.9 lm/W)

Common specifications

- Built-in LED Lifetime: 40,000h (Luminous flux maintenance rate 70%)

- Reflector: Aluminum, aluminum-deposition mirrored surface
 Frame: Aluminum die-casting, White matte finish
 Weight: 1.1 kg
 Compatible power supply unit: NTS90250 LE9 (Sold separately)

Please make sure to use in combination with compatible power supply unit.

Sold separately

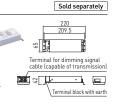
Minimum allowable distance directly below fixture: 30 cm
 Does not have thermal insulation specifications.



Compatible power supply unit

Non-dimmina NTS90250 LE9

- AC 100-242V Weight: 0.4 kg
- In some cases, fixtures used in combination may not be attachable from the mounting side of the lamp. Please verify.



Options

Diffusion sheet NYY92100

Spread sheet NYY91100



LED Glareless General Lighting Integrated packaged type







LED 250/200 type



Narrow



4000K, CRI85

Mounting height: 3.5 m

K0143819 Maintenance

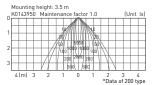
NYY75924

250 type (2450 lm, 35W, 70.0 lm/W) 200 type (1885 lm, 27W, 69.8 lm/W)

Medium



○4000K, CRI85



NYY75914

3500K, CRI85

250 type (2265 lm, 35W, 64.7 lm/W) 200 type (1720 lm, 27W, 63.7 lm/W)

3500K, CRI85



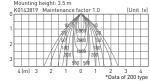
NYY75910

3000K, CRI85

Mounting height: 3.5 m K0143950 Maintenance

250 type (2220 lm, 35W, 63.4 lm/W) 200 type (1685 lm, 27W, 62.4 lm/W)

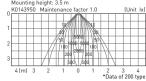
250 type (2400 lm, 35W, 68.5 lm/W) 200 type (1850 lm, 27W, 68.5 lm/W)



NYY75913

250 type (2165 lm, 35W, 61.8 lm/W) 200 type (1645 lm, 27W, 60.9 lm/W)

2700K, CRI85



NYY75912

250 type (2060 lm, 35W, 58.8 lm/W) 200 type (1565 lm, 27W, 57.9 lm/W)

NYY75920

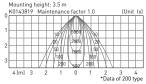
3000K, CRI85



NYY75923

250 type (2345 lm, 35W, 67.0 lm/W) 200 type (1805 lm, 27W, 66.8 lm/W)

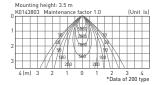
2700K, CRI85



NYY75922

250 type (2225 lm, 35W, 63.5 lm/W) 200 type (1715 lm, 27W, 63.5 lm/W)

4000K, CRI85



NYY75934

250 type (2595 lm, 35W, 74.1 lm/W) 200 type (1915 lm, 27W, 70.9 lm/W)

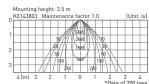
3500K, CRI85



NYY75930

250 type (2545 lm, 35W, 72.7 lm/W) 200 type (1875 lm, 27W, 69.4 lm/W)

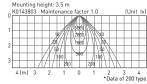
3000K, CRI85



NYY75933

250 type (2485 lm, 35W, 71.0 lm/W) 200 type (1830 lm, 27W, 67.7 lm/W)

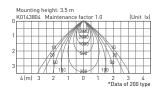
@2700K, CRI85



NYY75932

250 type (2360 lm, 35W, 67.4 lm/W) 200 type (1740 lm, 27W, 64.4 lm/W)

○ 4000K, CRI85

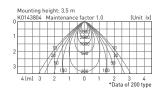


Wide spread

NYY75944

250 type (2590 lm, 35W, 74.0 lm/W) 200 type (1930 lm, 27W, 71.4 lm/W)

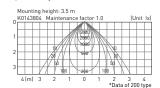
3500K, CRI85



NYY75940

250 type (2540 lm, 35W, 72.5 lm/W) 200 type (1890 lm, 27W, 70.0 lm/W)

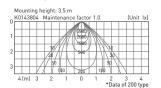
3000K, CRI85



NYY75943

250 type (2480 lm, 35W, 70.8 lm/W) 200 type (1845 lm, 27W, 68.3 lm/W)

@2700K, CRI85



NYY75942

250 type (2355 lm, 35W, 67.2 lm/W) 200 type (1755 lm, 27W, 65.0 lm/W)

Common specifications

- Built-in LED
- Lifetime: 40,000h (Luminous flux maintenance rate 70%)
- Reflector: Aluminum, aluminum-deposition mirrored surface
 Frame: Aluminum die-casting, White matte finish
 Weight: 1.1 kg

- Compatible power supply unit:
 For 250 type: NTS90350 LE9 (Sold separately)
 For 200 type: NTS90250 LE9 (Sold separately)

- · Please make sure to use in combination with compatible power supply unit.
- Minimum allowable distance directly below fixture: 30 cm
 Does not have thermal insulation specifications.



Compatible power supply unit

Sold separately

For 250 type

Non-dimming NTS90350 LE9



For 200 type

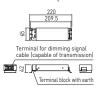
Non-dimming



Common specifications

- AC 100-242V

 Weight: 0.4 kg
 In some cases, fixtures used in combination may not be attachable from the mounting side of the lamp. Please verify.



Options

Sold separately

Diffusion sheet

NYY92125



Spread sheet

NYY91125

Note: For "Narrow" and "Medium"

LED Glareless Adjustable Down Light Integrated packaged type







LED 100/60 type



Narrow

Medium

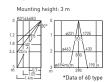
○4000K, CRI85



NYY71114

100 type (430 lm, 15.5W, 27.7 lm/W) 60 type (280 lm, 8.5W, 32.9 lm/W)

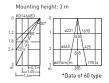
3500K, CRI85



NYY71110

100 type (420 lm, 15.5W, 27.0 lm/W) 60 type (275 lm, 8.5W, 32.3 lm/W)

3000K, CRI85



NYY71113

100 type (410 lm, 15.5W, 26.4 lm/W) 60 type (270 lm, 8.5W, 31.7 lm/W)

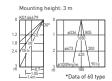
2700K, CRI85



NYY71112

100 type (390 lm, 15.5W, 25.1 lm/W) 60 type (255 lm, 8.5W, 30.0 lm/W)

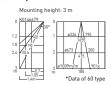
○4000K, CRI85



NYY71124

100 type (485 lm, 15.5W, 31.2 lm/W) 60 type (305 lm, 8.5W, 35.8 lm/W)

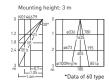
○ 3500K, CRI85



NYY71120

100 type (475 lm, 15.5W, 30.6 lm/W) 60 type (300 lm, 8.5W, 35.2 lm/W)

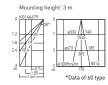
3000K, CRI85



NYY71123

100 type (465 lm, 15.5W, 30.0 lm/W) 60 type (295 lm, 8.5W, 34.7 lm/W)

2700K, CRI85



NYY71122

100 type (440 lm, 15.5W, 28.3 lm/W) 60 type (280 lm, 8.5W, 32.9 lm/W)

Common specifications

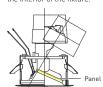
- Built-in LED
- Lifetime: 40,000h (Luminous flux maintenance rate 70%)
 Reflector: Aluminum, aluminum-deposition mirrored surface
 Frame: Aluminum die-casting, White matte finish

- Weight: 0.5 kg
 Compatible power supply unit:
 For 100 type: NTS90150 LE9 (Sold separately) For 60 type: NTS90100 LZ9 (Sold separately)

- Please make sure to use in combination with compatible power supply unit.
 Minimum allowable distance directly below fixture: 30 cm
- . Does not have thermal insulation specifications.

Structured so that interior of fixture and ceiling are not easily visible

A high-diffusion panel mounted on top of the reflecting panel makes it difficult to see the interior of the fixture.



Compatible power supply unit Sold separately

For 100 type

NTS90150 LE9



For 60 type

Non-dimming

NTS90100 LZ9



Common specifications

- AC 100-242V
- In some cases, fixtures used in combination may not be attachable from the mounting side of the lamp. Please verify.



| NYY92100 | |
|-----------------|-----------------|
| Diffusion sheet | |
| Options | Sold separately |
| | |

Spread sheet





*Please see P.37 for more information about High CRI LED.







LED 100/60 type



Narrow

Medium

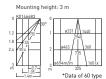
○4000K, CRI95



*Data of 60 type NYY71164

100 type (355 lm, 15.5W, 22.9 lm/W) 60 type (235 lm, 8.5W, 27.6 lm/W)

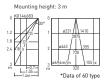
3500K, CRI95



NYY71160

100 type (350 lm, 15.5W, 22.5 lm/W) 60 type (230 lm, 8.5W, 27.0 lm/W)

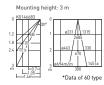
3000K, CRI95



NYY71163

100 type (340 lm, 15.5W, 21.9 lm/W) 60 type (225 lm, 8.5W, 26.4 lm/W)

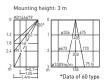
2700K, CRI95



NYY71162

100 type (325 lm, 15.5W, 20.9 lm/W) 60 type (210 lm, 8.5W, 24.7 lm/W)

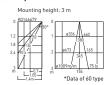
○4000K, CRI95



NYY71174

100 type (400 lm, 15.5W, 25.8 lm/W) 60 type (255 lm, 8.5W, 30.0 lm/W)

○ 3500K, CRI95



NYY71170

100 type (395 lm, 15.5W, 25.4 lm/W) 60 type (250 lm, 8.5W, 29.4 lm/W)

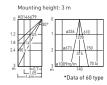
3000K, CRI95



NYY71173

100 type (385 lm, 15.5W, 24.8 lm/W) 60 type (245 lm, 8.5W, 28.8 lm/W)

2700K, CRI95



NYY71172

100 type (365 lm, 15.5W, 23.5 lm/W) 60 type (230 lm, 8.5W, 27.0 lm/W)

Common specifications

- Built-in LED
- Lifetime: 40,000h (Luminous flux maintenance rate 70%)
 Reflector: Aluminum, aluminum-deposition mirrored surface
 Frame: Aluminum die-casting, White matte finish

- Weight: 0.5 kg
 Compatible power supply unit:
 For 100 type: NTS90150 LE9 [Sold separately] For 60 type: NTS90100 LZ9 (Sold separately)

Note:

- Please make sure to use in combination with compatible power supply unit.
 Minimum allowable distance directly below fixture: 30 cm
- · Does not have thermal insulation specifications.

Compatible power supply unit For 100 type

Sold separately

Non-dimming

NTS90150 LE9



For 60 type

Non-dimmina NTS90100 LZ9



Common specifications

- AC 100-242V
- Weight: 0.3 kg
 In some cases, fixtures used in combination may not be attachable from the mounting side of the lamp. Please verify.



Options

Diffusion sheet

NYY92100

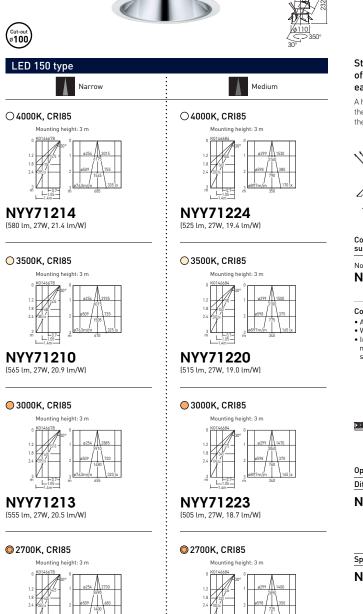


Sold separately

Spread sheet



LED Glareless Adjustable Down Light Integrated packaged type

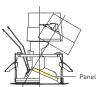


NYY71222

(480 lm, 27W, 17.7 lm/W)

Structured so that interior of fixture and ceiling are not easily visible

A high-diffusion panel mounted on top of the reflecting panel makes it difficult to see the interior of the fixture.



Compatible power supply unit Sold separately Non-dimmina NTS90250 LE9

Common specifications

- AC 100-242V
- Weight: 0.4 kg
 In some cases, fixtures used in combination may not be attachable from the mounting side of the lamp. Please verify.



| Options | Sold separately |
|-----------------|-----------------|
| Diffusion sheet | |
| NYY92125 | • |

Spread sheet

NYY91125



(525 lm, 27W, 19.4 lm/W)

- Common specifications

 Built-in LED

 Lifetime: 40,000h (Luminous flux maintenance rate 70%)

 Reflector: Aluminum, aluminum-deposition mirrored surface

 Frame: Aluminum die-casting, White matte finish

- Compatible power supply unit: NTS90250 LE9 (Sold separately)

- Note:
 Please make sure to use in combination with compatible power supply unit.
- Minimum allowable distance directly below fixture: 30 cm
 Does not have thermal insulation specifications.

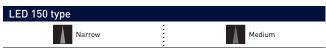


*Please see P.37 for more information about High CRI LED.

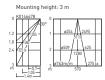








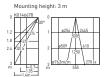




NYY71264

(480 lm, 27W, 17.7 lm/W)

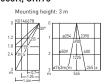
3500K, CRI95



NYY71260

(470 lm, 27W, 17.4 lm/W)

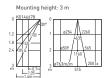
3000K, CRI95



NYY71263

(460 lm, 27W, 17.0 lm/W)

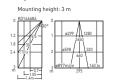
2700K, CRI95



NYY71262

(435 lm, 27W, 16.1 lm/W)

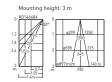
○4000K, CRI95



NYY71274

(440 lm, 27W, 16.2 lm/W)

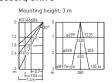
3500K, CRI95



NYY71270

(430 lm, 27W, 15.9 lm/W)

3000K, CRI95



NYY71273

(420 lm, 27W, 15.5 lm/W)

2700K, CRI95



NYY71272

(400 lm, 27W, 14.8 lm/W)

Common specifications • Built-in LED

- Elifetime: 40,000h (Luminous flux maintenance rate 70%)
 Reflector: Aluminum, aluminum-deposition mirrored surface
 Frame: Aluminum die-casting, White matte finish

- Weight: 1.1 kg
 Compatible power supply unit: NTS90250 LE9 (Sold separately)

- Note:
 Please make sure to use in combination with compatible power supply unit.
 Minimum allowable distance directly below fixture: 30 cm
 Does not have thermal insulation specifications.

Compatible power supply unit

Sold separately

Non-dimming

NTS90250 LE9



Common specifications

- AC 100-242V
- Act : IUU-242Y
 Weight: 0.4 kg
 In some cases, fixtures used in combination may not be attachable from the mounting side of the lamp. Please verify.



| Option Sold separately Diffusion sheet | | |
|---|-----------------|-----------------|
| Diffusion sheet | Option | Sold separately |
| | Diffusion sheet | |

NYY92125



Spread sheet



LED Glareless Adjustable Down Light Integrated packaged type









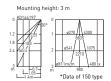
Narrow

NYY71914

LED 200/150 type

200 type (1350 lm, 35W, 38.5 lm/W) 150 type (1015 lm, 27W, 37.5 lm/W)

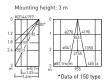
3500K, CRI85



NYY71910

200 type (1325 lm, 35W, 37.8 lm/W) 150 type (995 lm, 27W, 36.8 lm/W)

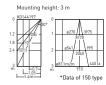
3000K, CRI85



NYY71913

200 type (1290 lm, 35W, 36.8 lm/W) 150 type (970 lm, 27W, 35.9 lm/W)

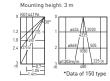
2700K, CRI85



NYY71912

200 type (1230 lm, 35W, 35.1 lm/W) 150 type (920 lm, 27W, 34.0 lm/W)

○4000K, CRI85

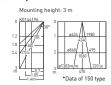


Medium

NYY71924

200 type (1400 lm, 35W, 40.0 lm/W) 150 type (1015 lm, 27W, 37.5 lm/W)

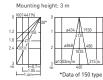
3500K, CRI85



NYY71920

200 type (1370 lm, 35W, 39.1 lm/W) 150 type (995 lm, 27W, 36.8 lm/W)

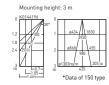
3000K, CRI85



NYY71923

200 type (1340 lm, 35W, 38.2 lm/W) 150 type (970 lm, 27W, 35.9 lm/W)

2700K, CRI85



NYY71922

200 type (1270 lm, 35W, 36.2 lm/W) 150 type (920 lm, 27W, 34.0 lm/W)

Common specifications

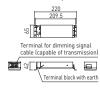
- Built-in LED
- Lifetime: 40,000h (Luminous flux maintenance rate 70%)
 Reflector: Aluminum, aluminum-deposition mirrored surface
 Frame: Aluminum die-casting, White matte finish

- Weight: 1.2 kg
 Compatible power supply unit:
 For 200 type: NTS90350 LE9 (Sold separately)
 For 150 type: NTS90250 LE9 (Sold separately)

- Please make sure to use in combination with compatible power supply unit.
 Minimum allowable distance directly below fixture: 30 cm
- . Does not have thermal insulation specifications.



In some cases, fixtures used in combination may not be attachable from the mounting side of the lamp. Please verify.



| Options | Sold separately |
|-----------------|-----------------|
| Diffusion sheet | |
| NYY92125 | • |

Spread sheet



LED Glareless Wallwasher Integrated packaged type

Glareless, plus vertical and horizontal evenness of light on wall surface is greatly improved. Makes wall appear brighter.



Highly even wall surface illumination Supplementary reflector casts light as far as vicinity of ceiling, enabling beautiful, even wall surface illumination. And glareless design minimizes noticeability of the light fixtures. Cut off angle 30°



1200 mm pitch

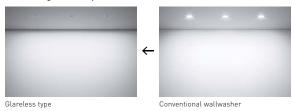
*Distance from wall: 900 mm



900 mm pitch

1500 mm pitch

Reduced glare compared to conventional wallwasher









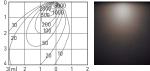


LED 200 type



○4000K, CRI85

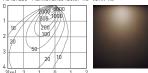
K0127225 Maintenance factor 1.0



NYY16326

(535 lm, 19.9W, 26.9 lm/W)

3500K, CRI85

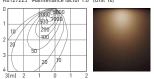


NYY16327

(510 lm, 19.9W, 25.6 lm/W)

3000K, CRI85

K0127225 Maintenance factor 1.0 (Unit Ix)



NYY16328

[485 lm, 19.9W, 24.4 lm/W]

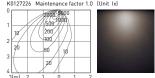
• 5000K Available (CRI70)

LED 150 type



○4000K, CRI85

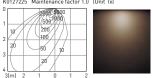
K0127226 Maintenance factor 1.0



NYY16316

(475 lm, 16.5W, 28.8 lm/W)

3500K, CRI85



NYY16317

(460 lm, 16.5W, 27.9 lm/W)

3000K, CRI85

K0127226 Maintenance factor 1.0 (Unit Ix) 50

NYY16318

(435 lm, 16.5W, 26.4 lm/W)

• 5000K Available (CRI70)

Common specifications

- ullet Built-in LED, Built-in power supply unit ullet AC 100-242V
- Lifetime: 40,000h (Luminous flux maintenance rate 70%)
 Reflector: Plastic, aluminum-deposition mirrored surface
 Frame: Aluminum, Cool white matte finish
 Panel: Plastic Weight: 0.9 kg

Note:

- Minimum allowable distance directly below fixture: 10 cm Does not have thermal insulation specifications.
- *When pointed toward wall surface



LED Glareless For Under Eaves Integrated packaged type

Achieves a design similar to that of indoor lighting by positioning a waterproof glass panel atop a reflective panel.



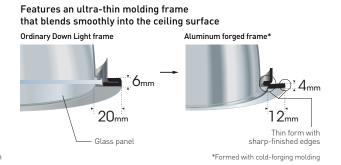
Nagoya Prime Central Tower *Photo shows case example of Glareless Down Lights installed. (Conventional light source in use as well)



Ensures rust prevention and waterproofing resistant to wind and rain, required for lighting under eaves



Employs a dedicated power source suitable for spaces under eaves, where temperature difference with the outside air can cause condensation

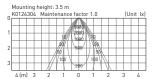




LED 200 type



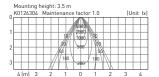
○4000K, CRI85



NYY16926 LE9

[940 lm, 19.9W, 47.2 lm/W]

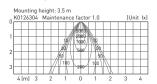
3500K, CRI85



NYY16927 LE9

(895 lm, 19.9W, 45.0 lm/W)

3000K, CRI85



NYY16929 LE9

(855 lm, 19.9W, 43.0 lm/W)

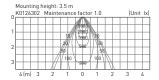
• 5000K Available (CRI70)

LED 150 type



Wide

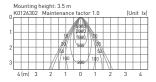
○4000K, CRI85



NYY16916 LE9

(870 lm, 16.5W, 52.7 lm/W)

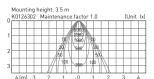
3500K, CRI85



NYY16917 LE9

(840 lm, 16.5W, 50.9 lm/W)

3000K, CRI85



NYY16919 LE9

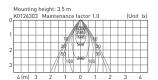
(800 lm, 16.5W, 48.5 lm/W)

• 5000K Available (CRI70)

LED 100 type



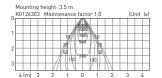
○4000K, CRI85



NYY16906 LE9

(585 lm, 11.1W, 52.7 lm/W)

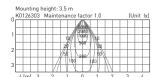
○ 3500K, CRI85



NYY16907 LE9

(565 lm, 11.1W, 50.9 lm/W)

3000K, CRI85



NYY16909 LE9

(540 lm, 11.1W, 48.6 lm/W)

• 5000K Available (CRI70)

Rain-resistant type



Common specifications

- Built-in LED, Built-in power supply unit
 Lifetime: 40,000h (Luminous flux maintenance rate 70%)
 Reflector: Aluminum, Silver mirrored surface
- Frame: Aluminum, Cool white matte finish
 Panel: Glass, tranceparent matte
 Weight: 1.0 kg

Note:

- Minimum allowable distance directly below fixture: 10 cm Does not have thermal insulation specifications.



Matsushita Memorial Library

Soft Light

LED Round Type

Reflective curve designed based on scientific evaluation of people's natural perceptions of luminance gradation. (Gradated Reflector) Both fixture's noticeability and glare are reduced so as to let light itself take center stage. (Soft Light Trim)



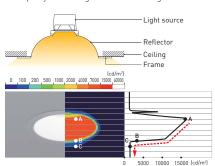


Real CG simulation

■ Luminance comparison with standard white reflector

Standard white reflector

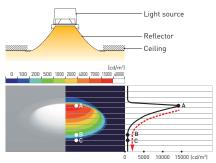
Luminance of reflector is increased, causing visible discrepancy between light fixture and ceiling surface



The sudden spike in the line graph (right) extrapolated from the luminance distribution map (left) indicates the stark luminance discrepancy with the ceiling.

Soft ligh

Smooth luminance gradation from top of reflector to ceiling

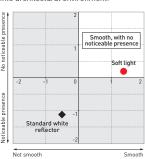


The smooth luminance gradation (left) and the swelling curve of the line graph coordinated with it (right) indicate the unobtrusive presence of the fixture.

\blacksquare Results of subjective evaluation experiment by Panasonic

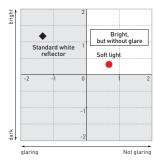
Reciprocal relationship between smoothness and noticeability

Soft light was perceived as being smooth and the fixture unnoticeable, blending into architectural environment.



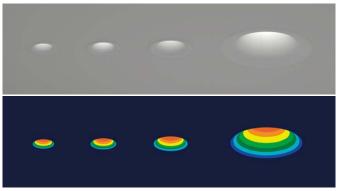
Reciprocal relationship between glare and perceived brightness

Soft light is perceived as bright, but without glare, making it ideal for environments with a gentle atmosphere.



■ Luminance of integrated reflector

Average luminance is set at same level even if light source power level differs, meaning there is no noticeable difference when used in the same space.



Simulation of luminance distribution

LED Round Type General Lighting





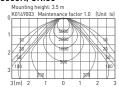


LED 550 type



Wide spread

○5000K, CRI85



NYY56558

(5440 lm, 49.9W, 109.0 lm/W) • Weight: 4.1 kg

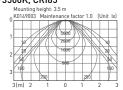
○4000K, CRI85



NYY56548

(5350 lm, 49.9W, 107.2 lm/W) • Weight: 4.1 kg

3500K, CRI85



NYY56508

(5265 lm, 49.9W, 105.5 lm/W) • Weight: 4.1 kg

3000K, CRI85



bolitt-II LED
 Lifetime: 40,000h (Luminous flux maintenance rate 85%)
 *550 type: 60,000h (Luminous flux maintenance rate 80%)
 Refrector (Top): Plastic, White

· Reflector/ Frame: Aluminum, White matte finish

NYY56538

(5145 lm, 49.9W, 103.1 lm/W) • Weight: 4.1 kg

Built-in LED

Common specifications





LED 250/200 type



Wide spread

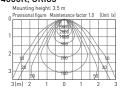
○5000K. CRI85



NYY56258

250 type (1735 lm, 20.1W, 86.3 lm/W) 200 type (1430 lm, 15.9W, 89.9 lm/W) • Weight: 0.8 kg

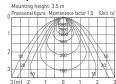
○4000K, CRI85



NYY56248

250 type (1730 lm, 20.1W, 86.0 lm/W) 200 type (1425 lm, 15.9W, 89.6 lm/W) • Weight: 0.8 kg

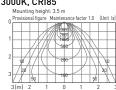
3500K, CRI85



NYY56208

250 type (1695 lm, 20.1W, 84.3 lm/W) 200 type (1400 lm, 15.9W, 88.0 lm/W) • Weight: 0.8 kg

3000K, CRI85



NYY56238

250 type (1665 lm, 20.1W, 82.8 lm/W) 200 type (1375 lm, 15.9W, 86.4 lm/W) • Weight: 0.8 kg

- Please make sure to use in combination with compatible power supply unit.
- Minimum distance directly below fixture:10 cm
- · Does not have thermal insulation specifications



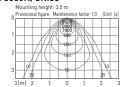


LED 150/100 type



Wide spread

○5000K, CRI85

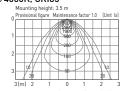


NYY56158

150 type (1065 lm, 13W, 81.9 lm/W) 100 type (660 lm, 7.7W, 85.7 lm/W)

• Weight: 0.7 kg

○4000K, CRI85



NYY56148

150 type (1060 lm, 13W, 81.5 lm/W) 100 type (660 lm, 7.7W, 85.7 lm/W) • Weight: 0.7 kg

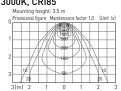
3500K, CRI85



NYY56108

150 type (1035 lm, 13W, 79.6 lm/W) 100 type (645 lm, 7.7W, 83.7 lm/W) • Weight: 0.7 kg

3000K, CRI85



NYY56138

150 type (1020 lm, 13W, 78.4 lm/W) 100 type (635 lm, 7.7W, 82.4 lm/W) • Weight: 0.7 kg

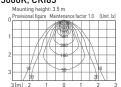


LED 60 type



Wide spread

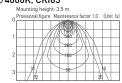
○5000K, CRI85



NYY56058

(570 lm, 6.3W, 90.4 lm/W) • Weight: 0.7 kg

○4000K, CRI85



NYY56048

(565 lm, 6.3W, 89.6 lm/W) • Weight: 0.7 kg

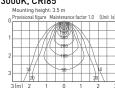
3500K, CRI85



NYY56008

(555 lm, 6.3W, 88.0 lm/W) • Weight: 0.7 kg

3000K, CRI85



NYY56038

(545 lm, 6.3W, 86.5 lm/W) • Weight: 0.7 kg

Compatible power supply unit 550 type: NTS90551 LZ9 (Sold separately) 500 type: NISY0501 LZY (Sold separately) 250 type: NTSY0200 LEP (Sold separately) 150 type: NTSY0150 LEP (Sold separately) 150 type: NTSY0151 LEP (Sold separately) 100 type: NTSY0101 LEP (Sold separately) 60 type: NTSY0060 LEP (Sold separately)



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LED Round Type High CRI LED



*Please see P.37 for more information about High CRI LED.





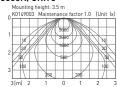


LED 550 type



Wide spread

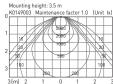
O 5000K. CRI95



NYY56559

[4490 lm, 49.9W, 89.9 lm/W] • Weight: 4.1 kg

○4000K, CRI95

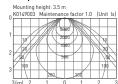


NYY56549

[4435 lm, 49.9W, 88.8 lm/W]

• Weight: 4.1 kg

3500K, CRI95



NYY56509

(4350 lm, 49.9W, 87.1 lm/W) • Weight: 4.1 kg

3000K, CRI95



Lifetime: 40,000h (Luminous flux maintenance rate 85%)
 *550 type: 60,000h (Luminous flux maintenance rate 80%)

· Reflector/ Frame: Aluminum, White matte finish

NYY56539

(4245 lm, 49.9W, 85.0 lm/W) • Weight: 4.1 kg

Common specifications

Refrector (Top): Plastic, White







LED 250/200 type



Wide spread

O 5000K. CRI95



NYY56259

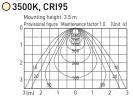
250 type (1440 lm, 20.1W, 71.6 lm/W) 200 type (1185 lm, 15.9W, 74.5 lm/W) • Weight: 0.8 kg

○4000K, CRI95



NYY56249

250 type (1510 lm, 20.1W, 75.1 lm/W) 200 type (1245 lm, 15.9W, 78.3 lm/W) • Weight: 0.8 kg



NYY56209

250 type (1465 lm, 20.1W, 72.8 lm/W) 200 type (1205 lm, 15.9W, 75.7 lm/W) • Weight: 0.8 kg

3000K, CRI95



NYY56239

250 type (1380 lm, 20.1W, 68.6 lm/W) 200 type (1135 lm, 15.9W, 71.3 lm/W)

• Weight: 0.8 kg





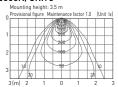


LED 150/100 type



Wide spread

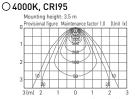
O 5000K. CRI95



NYY56159

150 type (880 lm, 13W, 67.6 lm/W) 100 type (550 lm, 7.7W, 71.4 lm/W)

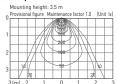
• Weight: 0.7 kg



NYY56149

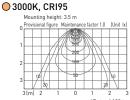
150 type (925 lm, 13W, 71.1 lm/W) 100 type (575 lm, 7.7W, 74.6 lm/W)
• Weight: 0.7 kg

3500K, CRI95



NYY56109

150 type (890 lm, 13W, 68.4 lm/W) 100 type (555 lm, 7.7W, 72.0 lm/W) • Weight: 0.7 kg



NYY56139

150 type (845 lm, 13W, 65.0 lm/W) 100 type (525 lm, 7.7W, 68.1 lm/W)

• Weight: 0.7 kg





LED 60 type



Wide spread

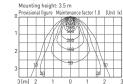
O 5000K. CRI95



NYY56059

(470 lm, 6.3W, 74.6 lm/W) • Weight: 0.7 kg

○4000K, CRI95

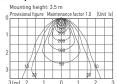


NYY56049

[495 lm, 6.3W, 78.5 lm/W]

• Weight: 0.7 kg

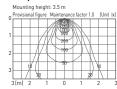
3500K, CRI95



NYY56009

(475 lm, 6.3W, 75.3 lm/W) • Weight: 0.7 kg

3000K, CRI95



NYY56039

(455 lm, 6.3W, 72.2 lm/W) • Weight: 0.7 kg

Compatible power supply unit
550 type: NTS90551 LZ9 (Sold separately)
250 type: NTS90200 LE9 (Sold separately)
200 type: NTS90150 LE9 (Sold separately)
150 type: NTS90151 LE9 (Sold separately)
100 type: NTS90101 LE9 (Sold separately)
60 type: NTS90060 LE9 (Sold separately)

- Please make sure to use in combination with compatible power supply unit.
- Minimum distance directly below fixture: 10 cm
 Does not have thermal insulation specifications

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LED Round Type

Compatible power supply unit for General lighting/ High CRI LED

Sold separately

For 550 type

NTS90551 LZ9

• Weight: 0.4 kg



For 250 type

NTS90200 LE9

• Weight: 0.3 kg



For 200 type

• Weight: 0.3 kg

NTS90150 LE9



For 150 type

Non-dimming

NTS90151 LE9

• Weight: 0.3 kg



For 100 type

Non-dimming

NTS90101 LE9

• Weight: 0.3 kg



For 60 type

Non-dimming

NTS90060 LE9

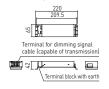




Common specifications

- AC 100-242V
 In some cases, fixtures used in combination may not be attachable from the mounting side of the lamp. Please verify.

For 550 type



For 250/200/150/100/60 type





NTT WEST Training Institute / Main Building



AISIN AW CO., LTD. Okazaki East Plant

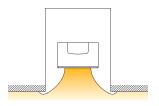
LED Line Type

Gives impression of natural light coming through slits in fixture integrated with the ceiling.



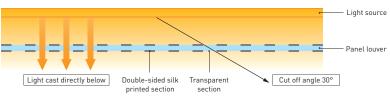


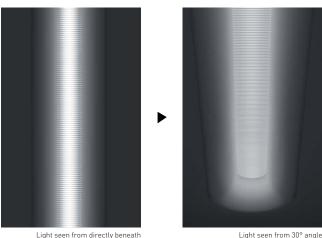
Real CG simulation



■ Special panel louver used

Unpleasant 30° glare cut even when viewed vertically. While allowing light to pass through and illuminate directly below with no loss of efficiency, double-sided silk printing converts light cast at 30° angle to soft light as if seen through milk-white panels.





■ Continuity of light emphasized

Lineup of fixtures for right side, middle, and left side. Link modules together to fit interior.





L1200 type

LED (4000K)

FOYY5101051

(1780 lm, 31W, 57.4 lm/W)

 Modular light fixture:
 F0YY5101151 (Left end of linked series)
 F0YY5101251 (Middle of linked series) F0YY5101351 (Right end of linked series)

LED (3500K)

FOYY5102051

CRI83

(1640 lm, 31W, 52.9 lm/W)

 Modular light fixture:
 F0YY5102151 (Left end of linked series)
 F0YY5102251 (Middle of linked series) FOYY5102351 (Right end of linked series)

LED (3000K)

FOYY5103051

CRI83

[1640 lm, 31W, 52.9 lm/W]

 Modular light fixture:
 F0YY5103151 (Left end of linked series)
 F0YY5103251 (Middle of linked series) FOYY5103351 (Right end of linked series)

• 5000K Available

Common specifications

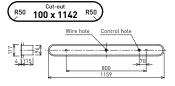
 Built-in LED. Built-in power supply unit • AC 100-242V

• Lifetime: 40,000h

(Luminous flux maintenance rate 70%)

- Body: Zinc-steel

- Body: Zinc-steel
 Reflector/Frame:
 Aluminum, White matte finish
 Panel: Acrylic, Transparent matte, Silk printed
 Weight: single units 5.5 kg,
 Left end of linked series 5.5 kg,
 Middle of linked series 5.5 kg,
 Right end of linked series 5.5 kg
- For embedding in horizontal ceilings



When link in series

R50 Cut-out (N linkage) 100 x (1106 x N + 36) F0YY5101251 F0YY5102251 F0YY5103251 F0YY5101151 F0YY5101351 F0YY5102151 F0YY5103151 F0YY5102351 F0YY5103351 (Left end of linked series) (Middle of linked series) (Right end of linked series)



Photo is a simulated image.

Bracket

GOOD DESIGN

Float Light LED Bracket Type

Bracket lighting that delivers both subjective brightness (Feu) and illuminance (lx) in a wide variety of spaces. Features a high-efficiency light guide panel that distributes light differently upward and downward





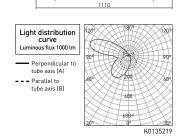


Common specifications

- Built-in LED, Built-in power supply unit AC 100-242V Lifetime: 40,000h (Luminous flux maintenance rate 85%)
- . Body: Steel. White matte finish
- Panel: Acrylic, Transparent Weight: 3.3 kg

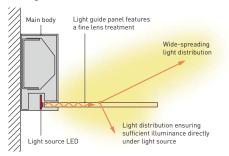
Cannot be mounted facing any other direction than one shown in photo





Light guide panel enabling different light distribution above and below

Top surface of light guide panel features a fine lens treatment, applying light induction technology to deliver light to ceiling surface as well. Light distribution delivers light widely across ceiling surface while securing sufficient illuminance directly under light source.

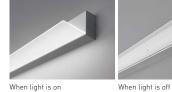


Modular units can be assembled to fit interior



*When units are connected, there are interstices between the panels.

Panel becomes transparent when turned off, making its presence less noticeable.



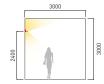


Case examples of achieving both subjective brightness (Feu) and illuminance (lx) *Pictures are simulated images.

Corridor / Foyer



- Average illuminance of floor: 350 lx
- Feu: 14.1

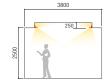


- Space dimensions: 3.0 m x 14.4 m
- Number of fixtures: 12

Entrance / Lobby / Elevator lobby



- Average illuminance of floor: 456 lx
- Feu: 17.2

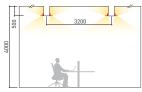


- Space dimensions: 3.8 m x 6.4 m
- Number of fixtures: 8
- •Reflectivity rate: Ceiling 70%, wall 50%, floor 10% Maintenance factor: 0.81 (common for all cases)

Skeleton ceiling



- Average illuminance of desktop: 890 lx
- Feu: 24.3



- Space dimensions: 12.2 m x 9.0 m.
- Number of fixtures: 64

Powder room



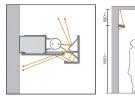
- Average illuminance on vertical surface at face height: 879 lx
- Feu: 17.0



- Space dimensions: 2.4 m x 2.4 m
- Number of fixtures: 2

LED Line Bracket

Line Brackets create bright impression with indirect light.



Light diffusion design creates the impression of a bright interior

While casting a large amount of light on the ceiling surface, these fixtures illuminate walls with a small amount of light to avoid a dark impression, creating an overall subjective impression of brightness.



LDL40

FYY46000

CRI84

Dimming signal hole

$3800\ lm\ type\ (Equivalent\ to\ Hf32W\ high-output\ fixture)$

 Fixture: FYY46000 • Lamp: LDL40S, N/29/38-K (2200 lm, 33W, 66.7 lm/W)

Specifications

- Lamp separate sale
 Built-in LED, Built-in power supply unit
 AC 100-242V
- Lifetime: 40,000h (Luminous flux maintenance rate 85%)
 Body: Steel, Highly reflective white powder coating
- Reflector: Steel, Highly reflective white powder coating
 Cover: Aluminum, Silver metallic
 Weight: 4.5 kg

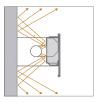
- Modular light fixture: FYY46001 (Left end of linked series), FYY46002 (Middle of linked series), FYY46003 (Right end of linked series)

Note: Cannot be mounted facing any other direction than one shown in photo. *3800 lm straight-tube LED lamp recommended for use.

LED Bracket



Brackets are designed to cast lovely indirect light on wall surfaces.



Lovely indirect light

Lamps are positioned on the light-shielding plate side of the fixture so as to avoid casting shadows on the wall surface. Light spreads over vertical surfaces with fluidity.



LDL40

FYY46010

CRI84

$3800\ lm\ type\ (Equivalent\ to\ Hf32W\ high-output\ fixture)$

• Fixture: FYY46010 • Lamp: LDL40S, N/29/38-K (2990 lm, 33W, 90.6 lm/W)

Specifications

- Lifetime: 40,000h (Luminous flux maintenance rate 85%)
 Body: Steel, Highly reflective white powder coating
- Cover: Aluminum. Silver metallic
- Weight: 3.5 kg
 Weight: 3.5 kg
 Modular light fixture: FYY46011 (Left end of linked series), FYY46012 (Middle of linked series), FYY46013 (Right end of linked series)

Dimming signal hol

Note: Cannot be mounted facing any other direction than one shown in photo.

*3800 lm straight-tube LED lamp recommended for use.

Common specifications

- Compatible lamps: For straight-tube LED lamps.
- Please verify prices of lamps separately.

- Note:

 When mounting straight-tube LED lamps, please verify the insertion direction. Mount the non-electrical supply side of the lamp in the socket with a 7 mark.

 Please use Panasonic LED lamps. Fixtures are designed in accordance with the properties of Panasonic LED lamps, so using LED lamps made by other manufacturers may result in subtracked red reference. n substandard performance.
- \bullet Straight-tube LED lamps are made of glass. Please handle with care.

Modular light fixture

| Single units | FYY46000 | FYY46010 |
|----------------------------|----------|----------|
| Middle of linked series | FYY46002 | FYY46012 |
| Left end of linked series | FYY46001 | FYY46011 |
| Right end of linked series | FYY46003 | FYY46013 |

* Lamp sold separately

Compatible lamp

| ompatible lamp | | | | | | |
|----------------|-------------------------------|--|---------------|------------|--|--|
| Brigh | tness type* | Product number | Order number | Color Temp | | |
| | | LDL40S, D/29/35-K | LDL40SD2935K | 6500K | | |
| | | LDL40S, N/29/38-K | LDL40SN2938K | 5000K | | |
| | | LDL40S, N/29/35P-K (With shatterproof film) | LDL40SN2935PK | 5000K | | |
| LDL40 | 3800 lm type (High output) | LDL40S, W/29/37-K | LDL40SW2937K | 4000K | | |
| | | LDL40S, W/29/34P-K (With shatterproof film) | LDL40SW2934PK | 4000K | | |
| | | LDL40S, WW/29/35-K | LDL40SWW2935K | 3500K | | |
| | | LDL40S, L/29/33-K | LDL40SL2933K | 3000K | | |

 $^{^{\}star}$ Classified with 5000K lamp as representative sample. Luminous flux of lamps may differ depending on light temperature and color

The Long Life Design Award

The Long Life Design Award is a special honor conferred by the Good Design Award committee on products that win the Good Design Award and after ten years are still on the market and popular with consumers. Panasonic succeeded in maintaining the same design while switching light sources to LED.

^{*} Classified with 5000K lamp as representative sample. Luminous flux of lamps may differ depending on light temperature and color



Unosawa Tokyu Building *Photo shows case example of Line Brackets installed. (Conventional light source in use as well)



College of healthcare management
*Photo shows case example of Brackets installed.
[Conventional light source in use as well]

LED Upper Lighting (Versatile indoor/outdoor type) Upper light distribution type

Upper light distribution type illuminates ceiling surface with very even light.

Versatile indoor/outdoor type

For indirect lighting in spaces with vaulted ceilings or in shelters, etc.



Photo shows a synthesized simulation

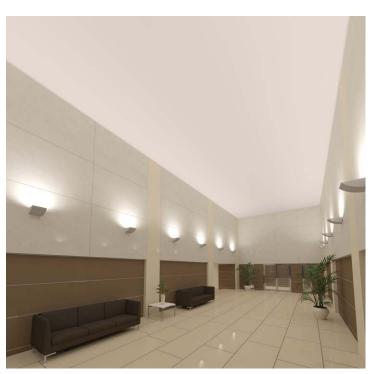
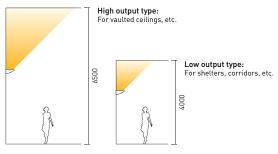


Photo shows a synthesized simulation

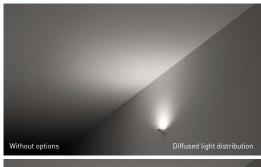
Choose from two brightness levels depending on type of space





Three light distribution variations

Use of optional lens enables front and wide light distribution.











LED (4000K)

YYY46044Z

CRI85 (4320 lm, 67W, 64.4 lm/W)

LED (3000K)

YYY46045Z

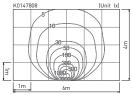
CRI85

(4130 lm, 67W, 61.6 lm/W)

YYY46044Z

Diffused Light Distribution Front Light Distribution

Illuminance distribution on vertical surface



- Maintenance factor: 1.0
 Mounting position: 0.15 m from wall surface
- Maintenance factor: 1.0
 Mounting position: 0.15 m from wall surface

6m

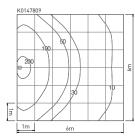
Wide Light Distribution

Maintenance factor: 1.0
 Mounting position: 0.15 m from wall surface

Illuminance distribution on ceiling surface

K0147808

- Mounting height: 3 m
 Maintenance factor: 1.0
 Mounting position: 0.15 m from wall surface
- K0147810
- Mounting height: 3 m
 Maintenance factor: 1.0
 Mounting position: 0.15 m from wall surface



- Mounting height: 3 m
 Maintenance factor: 1.0
 Mounting position: 0.15 m from wall surface

Low output type



LED (4000K)

YYY46024Z

[2670 lm, 37W, 72.1 lm/W]

LED (3000K)

YYY46025Z

(2550 lm, 37W, 68.9 lm/W)

CRI85

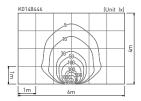
CRI85

YYY46024Z

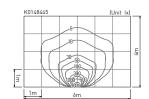
Diffused Light Distribution

Front Light Distribution

Illuminance distribution on vertical surface



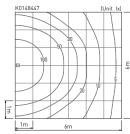
Maintenance factor: 1.0
 Mounting position: 0.15 m from wall surface



Wide Light Distribution

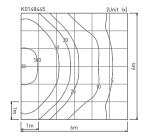
Maintenance factor: 1.0
 Mounting position: 0.15 m from wall surface

Illuminance distribution on ceiling surface



Maintenance factor: 1.0
 Mounting position: 0.15 m from wall surface

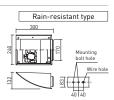
- Mounting height: 3 m
 Maintenance factor: 1.0
 Mounting position: 0.15 m from wall surface
- K0148446
- Mounting height: 3 m
 Maintenance factor: 1.0
 Mounting position: 0.15 m from wall surface



- Mounting height: 3 m
 Maintenance factor: 1.0
 Mounting position: 0.15 m from wall surface

Common specifications

- Built-in LED, Built-in power supply unit
- AC 100-242V
 Lifetime: 40,000h (Luminous flux maintenance rate 70%)
- · Body: Aluminum die-casting, Silver metallic matte finish
- Panel: Hard glass
 Weight: High output type 5.3kg Low output type 5.2kg



Options

Shared lens for front / wide-angle light distribution

YYY96222Z

- Acrylic,Clear
- Set of two lenses
 (Two used for each fixture)



Specialized hood

YYY96204

 Body: Stainless steel. Off-black matte finish



Sold separately





Fukuoka Children's Hospital

Upper Light

LED Upper Light Integrated packaged type ø93

Beautiful light distribution with minimized glare. Multiple light distribution variations are available for different applications.



Excellent light distribution and reliable waterproof performance

Omnidirectional type





Shielded type









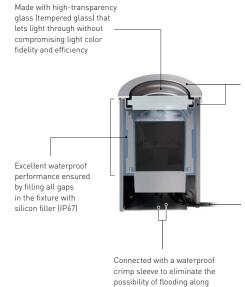
Honeycomb louver type











the interiors of wires

All material used on outer periphery is highly rustresistant stainless steel

Waterproof properties of fixture ensured by connecting power cable to connection box outside fixture (connection box sold separately). Also comes with filling material for the connecting element on the exterior of the fixture, which prevents water from leaking in through the interiors of wires.

Waterproof properties

LED Universal Type Integrated packaged type Ø180

Compact design blends into the interior, scalloping minimized for beautiful light distribution.

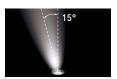


Excellent light distribution and reliable waterproof performance

Light distribution performance achieves effective irradiation and curtails glare



Secures light shielding angle of 30°



Surface temperature low enough to touch safety



Surface temperature is below 60°, can be touched without risk of injury

Light distribution can be controlled with options



Without options







glass (tempered glass) that outer periphery is of fixture ensured by lets light through without highly rust-resistant connecting power cable compromising light color to connection box outside stainless steel fidelity and efficiency fixture. Also comes with filling material for the Excellent waterproof connecting element on performance ensured (IP67). the exterior of the fixture. Employs 3D molded rubber which prevents water from packing (triple-ribbed leaking in through the interiors of wires. structure, etc.) Connecting element Three wires are not bundled caulked to prevent water together, but rather each from leaking in through wire has separate packing to the interiors of wires prevent water from entering

All material used on



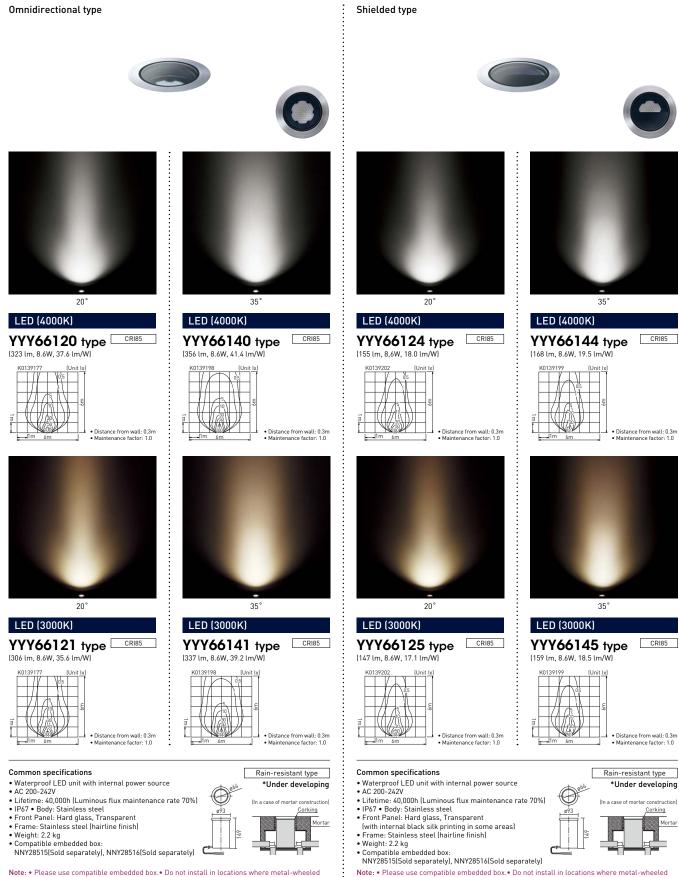
Made with high-transparency

Comes packaged with hygroscopic material (remove from bag and place inside fixture when setting up lighting). Greatest possible prevention of condensation due to exposure to moisture in the air when opening and closing the fixture





LED Upper Light Integrated packaged type ø93

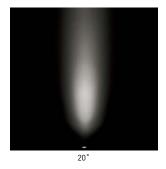


vehicles, heavy load-bearing vehicles, or standard vehicles pass through. • Corking must be removed when performing fixture maintenance.

Honeycomb louver type







LED (4000K)

YYY66160 type

[59 lm, 8.6W, 6.9 lm/W]



Distance from wall: 0.3m
 Maintenance factor: 1.0

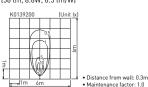
CRI85



LED (3000K)

YYY66161 type

(56 lm, 8.6W, 6.5 lm/W)



(In a case of mortar construction)

Corking

Common specifications

- Waterproof LED unit with internal power source

- Waterproof LED unit with internal power source
 AC 200-242V
 Lifetime: 40,000h (Luminous flux maintenance rate 70%)
 IP67 Body: Stainless steel
 Front Panel: Hard glass, Transparent
 Honeycomb louver: Aluminum (black coated)
 Frame: Stainless steel (hairline finish)
 Weight: 22 kg
 Compatible embedded box:
 NNY28515(Sold separately), NNY28516(Sold separately)

Note: • Please use compatible embedded box.• Do not install in locations where metal-wheeled vehicles, heavy load-bearing vehicles, or standard vehicles pass through. • Corking must be removed when performing fixture maintenance.

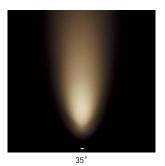
YYY66165 type CRI85 (66 lm, 8.6W, 7.7 lm/W) Distance from wall: 0.3m Maintenance factor: 1.0 Rain-resistant type *Under developing

LED (4000K)

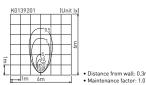
YYY66164 type



Distance from wall: 0.3m
 Maintenance factor: 1.0



LED (3000K)

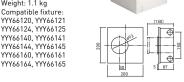


Sold separately Embedded box for mortar construction

NNY28515

- Body: Stainless steel

Body: Stainless steel
 Weight: 1.1 kg
 Compatible fixture:
 YYY66120, YYY66121
 YYY66124, YYY66125
 YY66140, YYY66141
 YYY66144, YYY66145
 YYY66160, YYY66161
 YYY66164, YYY66164
 YYY66164



Embedded box for soil installation

NNY28516

- Body: Stainless steel
- Body: Stainless steel
 Weight: 1.2 kg
 Compatible fixture:
 YYY66120, YYY66121
 YYY66124, YYY66125
 YY66140, YYY66141
 YYY66140, YYY66145
 YYY66160, YYY66161
 YYY66164, YYY66165

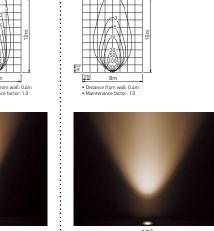


LED Universal Type Integrated packaged type ø180

LED 1100 lm type

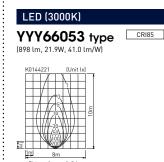






LED (4000K)

YYY66054 type











Rain-resistant type

*Under developing

ø180

Common specifications

LED (3000K)

YYY66051 type

(938 lm, 21.9W, 42.8 lm/W)

- Waterproof LED unit with internal power source
- AC 200-242V
 Lifetime: 40,000h (Luminous flux maintenance rate 70%)
 IP67
- Body: Stainless steel
 Front Panel: Hard glass, Transparent
 Frame: Stainless steel
- With light beam direction adjustment function
 Weight: 11.0 kg

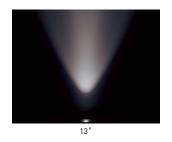
Note:

Do not install in locations where metal-wheeled vehicles, heavy load-bearing vehicles, or standard vehicles pass through.



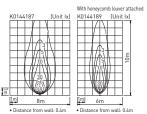
LED 700 lm type

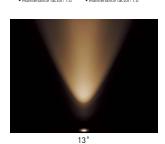




LED (4000K)

YYY66002 type CRISS

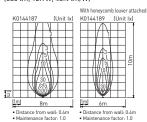




LED (3000K)

YYY66001 type CRI85

(586 lm, 12.9W, 45.4 lm/W)



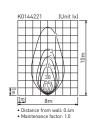


CRI85

CRI85

LED (4000K)

YYY66004 type





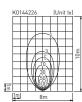
LED (3000K)

YYY66003 type (561 lm, 12.9W, 43.8 lm/W)



LED (4000K)

YYY66006 type CRI85

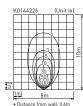




LED (3000K)

YYY66005 type

(566 lm, 12.9W, 43.8 lm/W)





Rain-resistant type *Under developing

CRI85

Diffusion lens **YYY96228**

YYY96224

Options Spread lens



Sold separately

Honeycomb louver

YYY96220



Common specifications

- Waterproof LED unit with internal power source
- AC 200-242V
 Lifetime: 40,000h (Luminous flux maintenance rate 70%)
 P67
- Body: Stainless steel
 Front Panel: Hard glass,Transparent
 Frame: Stainless steel
- With light beam direction adjustment function Weight: 11.0 kg

Note:
• Do not install in locations where metal-wheeled vehicles, heavy load-bearing vehicles, or standard vehicles pass through.

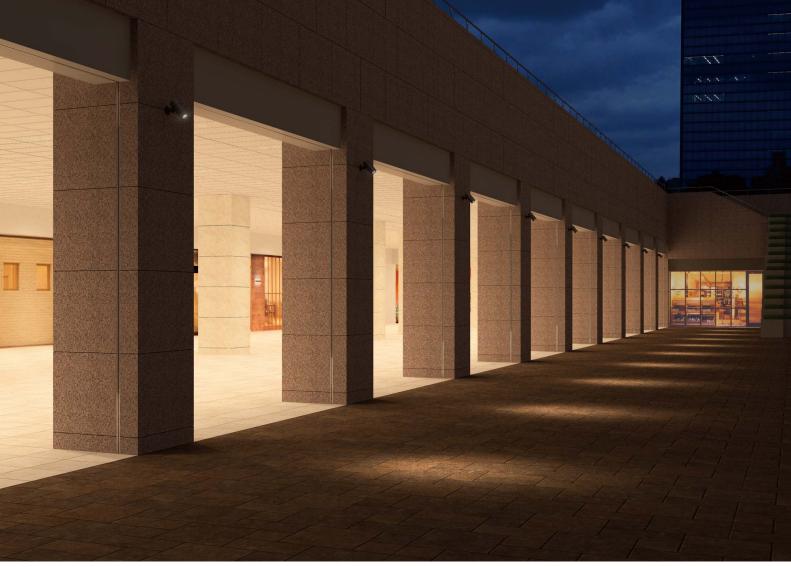


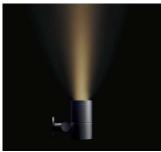
Photo is a simulated image.

Spot Light

LED Cylinder Spot

Spot light with fixture design and light quality that harmonize with interiors.









Features tightening screws for robust fixation structure. Designed so that illumination direction does not change due to vibrations, etc.

Contains built-in fall prevention wire. Safety doubly ensured in the event that a screw breaks

*Anchor bolt or Embedded box are separate

Light distribution can be controlled with options











ith snoot attached

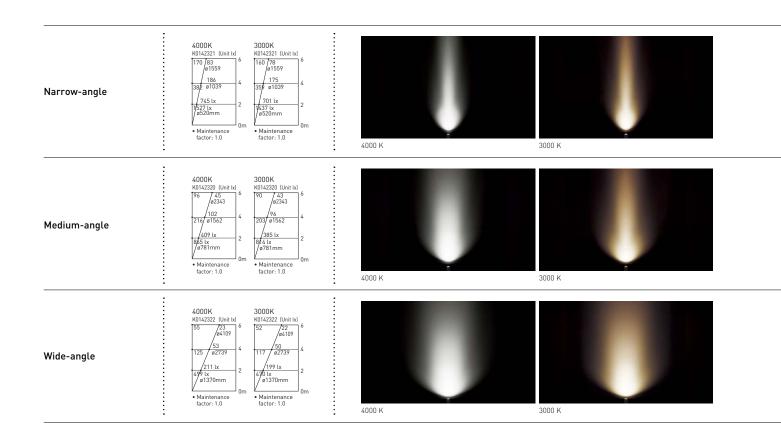
With honeycomb louver attached

Mount in a wide variety of ways

| mount in a wide variety of ways | | | | |
|--|-----------------------------------|---------|------------------------|---|
| | Wall surface | Ceiling | | Floor surface |
| Specialized wall-mounted type | Embedded box [Sold separately] | _ | | _ |
| Freely mountable type | | | Soil Sold separately | Mount in a standing position so fixture does not get immersed in water grant of the standing position, please order a custom plate bracket separately. Concrete Concrete |
| Specialized floor-standing type (exposed wiring) | | | Spite (Soil Sparately) | Floor-mounting plate [Sold separately] |

LED Cylinder Spot

LED 1100 lm type*1





Specialized wall-mounted type



Freely mountable type



Specialized floor-standing type



LED (4000K)

YYY36912 type (1100 lm, 21.9W, 50.2 lm/W)

CRI85

CRI85

CRI85

CRI85

CRI85

CRI85

LED (3000K)

YYY36911 type

(1035 lm, 21.9W, 47.3 lm/W)

LED (4000K)

YYY36932 type

(1100 lm, 21.9W, 50.2 lm/W)

LED (3000K)

YYY36931 type

(1035 lm, 21.9W, 47.3 lm/W)

LED (4000K)

CRI85

CRI85

CRI85

CRI85

CRI85

CRI85

Rain-resistant type

YYY36952 type [1100 lm, 21.9W, 50.2 lm/W]

CRI85

LED (3000K)

YYY36951 type (1035 lm, 21.9W, 47.3 lm/W)

CRI85

LED (4000K)

YYY36914 type

(1010 lm, 21.9W, 46.1 lm/W

LED (3000K)

YYY36913 type

(950 lm, 21.9W, 43.4 lm/W)

LED (4000K)

YYY36934 type

(1010 lm, 21.9W, 46.1 lm/V

LED (3000K)

YYY36933 type

(950 lm, 21.9W, 43.4 lm/W)

LED (4000K)

YYY36954 type

(1010 lm, 21.9W, 46.1 lm/

LED (3000K)

YYY36953 type (950 lm, 21.9W, 43.4 lm/W)

CRI85

CRI85

LED (4000K)

YYY36916 type

(1030 lm, 21.9W, 47.0 lm/W)

LED (3000K)

YYY36915 type

(970 lm, 21.9W, 44.3 lm/W)

LED (4000K)

YYY36936 type

(1030 lm, 21.9W, 47.0 lm/W)

LED (3000K)

YYY36935 type

(970 lm, 21.9W, 44.3 lm/W)

LED (4000K)

YYY36956 type

[1030 lm, 21.9W, 47.0 lm/W]

LED (3000K)

YYY36955 type

(970 lm, 21.9W, 44.3 lm/W)

CRI85

Rain-resistant type

*Under developing

CRI85

Common specifications of

Rain-resistant type Specialized wall-mounted type *Under developing

• Built-in LED, Built-in power supply unit

 Weight: 2.3 kg
 Compatible embedded box: DS37544 (Sold separately) --DS4611 (Sold separately)

Note:

• Please use compatible embedded box.



Options for Specialized wall-mounted type Sold separately

Embedded Box DS37544

· Medium-sized square outlet box deep type

 Width: 102, Height: 102, Thickness: 54
 Body: Electrogalvanized steel plate • JIS C8340 • Weight: 0.35 kg • Side knockout G16 (C19) x 1, G22 (C25) x1

Cover for embedded box

DS4611

- Medium-sized square switch cover
- Width: 106, Height: 106, Thickness: 13
 Body: Electrogalvanized steel plate
- JIS C8340 Weight: 0.1 kg

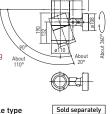
Common specifications of Freely mountable type

*Under developing • Built-in LED, Built-in power supply unit
• AC 200-2427 • Lifetime: 40,000h (Luminous flux maintenance rate 70%)
• IP65 • Body: Aluminum die-casting
• Front Panel: Hard glass, Transparent

Weight: 3.0 kg
 Compatible embedded box: YYY90130 (Sold separately)

Note: Please use compatible

embedded box. • Do not mount in locations where there is risk of flooding or water is likely to collect.



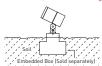
Options for Freely mountable type

Embedded Box

YYY90130

- Width: 200, Height: 200, Thickness: 130 Body: Stainless steel Weight: 1.2 kg

Note: • Embedded box opens from the bottom. Please be sure to install wastewater treatment pipes. • If mounting in a location where it can easily be touched, fasten the embedded box in place with mortar, etc. so that the light fixture does not move



Common specifications of Specialized floor-standing type

Built-in LED,Built-in power supply unit

AC 200-242V • Lifetime: 40,000h (Luminous flux maintenance rate 70%)

• IP65 • Body: Aluminum die-casting

· Front Panel: Hard glass, Transparent

Weight: 2.7 kg
 Compatible spike:
 YYY97173K (Sold separately)

• Do not mount in locations where there is risk of flooding or water is likely

to collect • Cannot be mounted facing any other



Spike

Options for Specialized floor-standing type Sold separately Floor-mounting plate

YYY97173K

• Weight: 0.38 kg

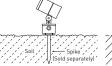




Width: ø150

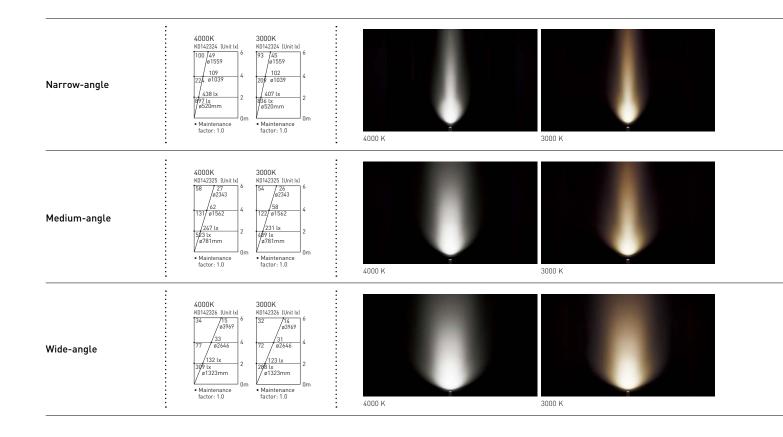
Weight: 0.32 kg

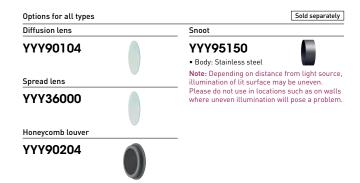






LED 700 lm type*1





Specialized wall-mounted type



Freely mountable type



Specialized floor-standing type



LED (4000K)

YYY36612 type (655 lm, 12.9W, 50.8 lm/W)

CRI85

CRI85

CRI85

CRI85

CRI85

CRI85

LED (3000K)

YYY36611 type

(610 lm, 12.9W, 47.3 lm/W)

LED (4000K)

YYY36632 type

(655 lm, 12.9W, 50.8 lm/W)

LED (3000K)

YYY36631 type

(610 lm, 12.9W, 47.3 lm/W)

LED (4000K)

CRI85

CRI85

CRI85

CRI85

CRI85

CRI85

Rain-resistant type

Sold separately

YYY36652 type (655 lm, 12.9W, 50.8 lm/W)

LED (3000K)

YYY36651 type (610 lm, 12.9W, 47.3 lm/W)

CRI85

CRI85

LED (4000K)

YYY36614 type

(610 lm, 12.9W, 47.3 lm/W

LED (3000K)

YYY36613 type

(570 lm, 12.9W, 44.2 lm/W)

LED (4000K)

YYY36634 type

[610 lm, 12.9W, 47.3 lm/W

LED (3000K)

YYY36633 type

(570 lm, 12.9W, 44.2 lm/W)

LED (4000K)

YYY36654 type

(610 lm, 12.9W, 47.3 lm/W

LED (3000K)

YYY36653 type (570 lm, 12.9W, 44.2 lm/W)

CRI85

CRI85

LED (4000K)

YYY36616 type

(605 lm, 12.9W, 46.9 lm/W)

LED (3000K)

YYY36615 type

(565 lm, 12.9W, 43.8 lm/W)

LED (4000K)

YYY36636 type

(605 lm, 12.9W, 46.9 lm/W)

LED (3000K)

YYY36635 type

(565 lm, 12.9W, 43.8 lm/W)

LED (4000K)

YYY36656 type

(605 lm, 12.9W, 46.9 lm/W)

LED (3000K)

YYY36655 type

(565 lm, 12.9W, 43.8 lm/W)

CRI85

Rain-resistant type

*Under developing

CRI85

Common specifications of Specialized wall-mounted type Rain-resistant type

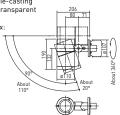
*Under developing

• Built-in LED, Built-in power supply unit AC 200-242V • Lifetime: 40,000h (Luminous flux maintenance rate 70%)
 IP65 • Body: Aluminum die-casting
 Front Panel: Hard glass,Transparent

 Weight: 2.3 kg
 Compatible embedded box: DS37544(Sold separately) --DS4611(Sold separately)

Note:

• Please use compatible embedded box.



Options for Specialized wall-mounted type Sold separately

Embedded Box DS37544

· Medium-sized square outlet box deep type

Width: 102, Height: 102, Thickness: 54
 Body: Electrogalvanized steel plate

• JIS C8340 • Weight: 0.35 kg • Side knockout G16 (C19) x 1, G22 (C25) x1

Cover for embedded box

DS4611

- Medium-sized square switch cover
- Width: 106, Height: 106, Thickness: 13
 Body: Electrogalvanized steel plate
- JIS C8340 Weight: 0.1 kg



- *Under developing
- Built-in LED, Built-in power supply unit
 AC 200-2427 Lifetime: 40,000h (Luminous flux maintenance rate 70%)
 IP65 Body: Aluminum die-casting
 Front Panel: Hard glass, Transparent

- Weight: 3.0 kg
 Compatible embedded box: YYY90130 (Sold separately) Note:
- Please use compatible embedded box.



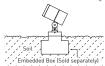
Options for Freely mountable type

Embedded Box

YYY90130

- Width: 200, Height: 200, Thickness: 130 Body: Stainless steel Weight: 1.2 kg

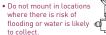
Note: • Embedded box opens from the bottom. Please be sure to install wastewater treatment pipes. • If mounting in a location where it can easily be touched, fasten the embedded box in place with mortar, etc. so that the light fixture does not move



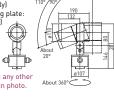
Common specifications of

- Specialized floor-standing type Built-in LED,Built-in power supply unit
- AC 200-242V Lifetime: 40,000h (Luminous flux maintenance rate 70%)

 IP65 Body: Aluminum die-casting
- · Front Panel: Hard glass, Transparent
- Weight: 2.7 kg
 Compatible spike:
 YYY97173K (Sold separately)
- Compatible floor-mounting plate: YYY36004 (Sold separately)



• Cannot be mounted facing any other



Options for Specialized floor-standing type Sold separately Spike Floor-mounting plate

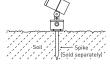
YYY97173K

- · Body: Stainless steel • Weight: 0.38 kg

YYY36004 Width: ø150

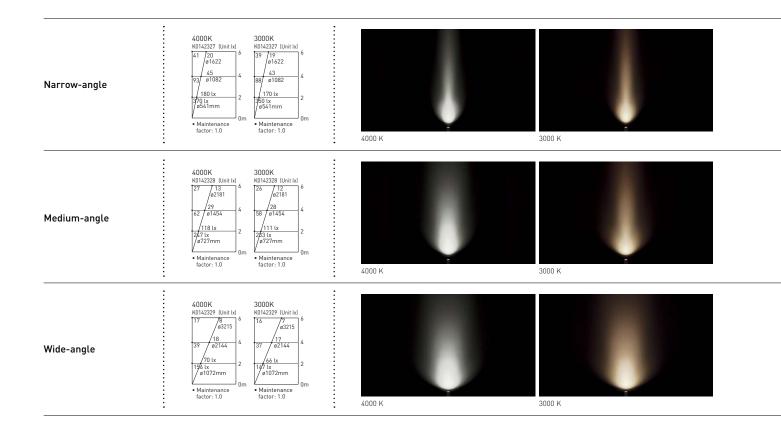


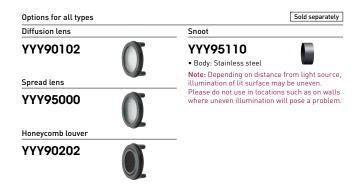






LED 300 lm type*1





Specialized wall-mounted type Freely mountable type Specialized floor-standing type LED (4000K) LED (4000K) LED (4000K) CRI85 CRI85 YYY36312 type YYY36332 type (275 lm, 8.5W, 32.4 lm/W) (275 lm, 8.5W, 32.4 lm/W) (275 lm, 8.5W, 32.4 lm/W) LED (3000K) LED (3000K) LED (3000K) CRI85 CRI85 YYY36311 type YYY36331 type (260 lm, 8.5W, 30.6 lm/W) (260 lm, 8.5W, 30.6 lm/W) (260 lm, 8.5W, 30.6 lm/W) LED (4000K) LED (4000K) LED (4000K) YYY36314 type CRI85 YYY36334 type CRI85 (265 lm, 8.5W, 31.2 lm/W (265 lm, 8.5W, 31.2 lm/W) (265 lm, 8.5W, 31.2 lm/W LED (3000K) LED (3000K) LED (3000K) YYY36313 type CRI85 CRI85 YYY36333 type (250 lm, 8.5W, 29.4 lm/W) (250 lm, 8.5W, 29.4 lm/W) LED (4000K) LED (4000K)

YYY36316 type

(260 lm, 8.5W, 30.6 lm/W)

LED (3000K)

YYY36315 type

(245 lm, 8.5W, 28.8 lm/W)

CRI85

CRI85

Common specifications of Rain-resistant type Specialized wall-mounted type *Under developing

• Built-in LED, Built-in power supply unit

AC 200-242V • Lifetime: 40,000h (Luminous flux maintenance rate 70%)

IP65 • Body: Aluminum die-casting

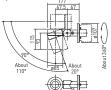
Front Panel: Hard glass,Transparent

177

 Weight: 2.3 kg
 Compatible embedded box: DS37544(Sold separately) DS4611(Sold separately)

Note:

• Please use compatible embedded box.



Options for Specialized wall-mounted type Sold separately

Embedded Box

DS37544

- · Medium-sized square outlet box deep type
- Width: 102, Height: 102, Thickness: 54
 Body: Electrogalvanized steel plate
- JIS C8340 Weight: 0.35 kg Side knockout G16 (C19) x 1, G22 (C25) x1

Cover for embedded box

DS4611

- Medium-sized square switch cover
- Width: 106, Height: 106, Thickness: 13
 Body: Electrogalvanized steel plate
- JIS C8340 Weight: 0.1 kg



YYY36336 type

YYY36335 type

(260 lm, 8.5W, 30.6 lm/W)

(245 lm, 8.5W, 28.8 lm/W)

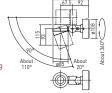
LED (3000K)

- *Under developing
- Front Panel: Hard glass, Transparent
- Weight: 3.0 kg
 Compatible embedded box: YYY90130 (Sold separately)

Note:

 Please use compatible embedded box.

• Do not mount in locations where there is risk of flooding or water is likely to collect.



Sold separately

CRI85

CRI85

Rain-resistant type

Options for Freely mountable type

Embedded Box

YYY90130

- Width: 200, Height: 200, Thickness: 130 Body: Stainless steel Weight: 1.2 kg

Note: • Embedded box opens from the bottom. Please be sure to install wastewater treatment pipes. • If mounting in a location where it can easily be touched, fasten the embedded box in place with mortar, etc. so that the light fixture does not move





YYY36352 type

CRI85

CRI85

YYY36351 type

YYY36354 type

YYY36353 type

(250 lm, 8.5W, 29.4 lm/W)

CRI85

CRI85

LED (4000K)

YYY36356 type (260 lm, 8.5W, 30.6 lm/W)

LED (3000K)

YYY36355 type

(245 lm, 8.5W, 28.8 lm/W)

CRI85

Rain-resistant type

*Under developing

CRI85

Common specifications of

Specialized floor-standing type Built-in LED,Built-in power supply unit

AC 200-242V • Lifetime: 40,000h (Luminous flux maintenance rate 70%)

• IP65 • Body: Aluminum die-casting

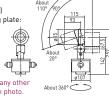
- Front Panel: Hard glass, Transparent
- Weight: 2.7 kg
 Compatible spike:
 YYY97173K (Sold separately)

- Compatible floor-mounting plate: YYY36004 (Sold separately)

• Do not mount in locations

where there is risk of flooding or water is likely to collect

• Cannot be mounted facing any other



Spike

Options for Specialized floor-standing type Sold separately Floor-mounting plate

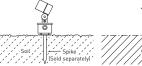
YYY97173K

· Body: Stainless steel • Weight: 0.38 kg

YYY36004







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