Panasonic

Factory Lighting

For more information, please visit the website:
» panasonic.net/es/id/

ISO9001 : ID04/0443   ISO 14001 : ID03/60117

Panasonic®

2015.5

Panasonic LED

A wide range of LED lighting fixtures for high ceilings (6-10 m) is now available.
We offer a safe lighting environment that is both comfortable and energy efficient, ideal for factories.

Advantages of Panasonic LED lighting for High-ceiling (6-10 m) spaces

Energy saving
About 50% or more energy* can be saved with almost the same brightness as conventional lighting fixtures.

*See the comparison table below.

Long-life light source
Light source life of 40,000 or 60,000 hours reduces maintenance such as lamp replacement.

Instant lighting
The light can be frequently switched on and off since it can instantly be lit. This allows users to save energy.

External driver type
External driver type DB series makes it possible to change to LED lights by using the existing wiring.

LED lighting fixtures for high ceilings
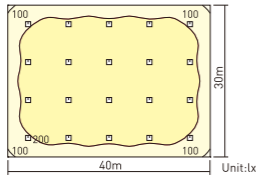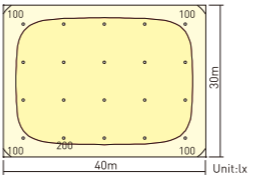[External driver type]
DB series

Integrated driver type
Brightness can be changed depending on time and work, allowing for power savings.

LED lighting fixtures for high ceilings
Module type [Integrated driver type]
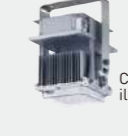
Line type
The iD series lighting fixtures for factories can save roughly as much energy as 76% compared with a mercury lamp 400 model.

iD series lighting fixtures for factories

Example of economic comparison with conventional models
About 50% energy savings is possible compared with conventional multiple halogen lights.

Ceiling height 8m	Metal halide lamp 400 model Holder: YB16854 + Shade: YK34380	LED lighting fixtures for high ceilings [External driver type] DB series Equivalent to multiple halogen light 400 models LDR180NHK
Illuminance distribution chart		
Number of units	20 units	20 units
Light source	MF400·L/BU-SC-2	LED
Illuminance setting	200 lx	200 lx
Total luminous flux	43,000 lm	21,000 lm
Maintenance factor	0.47	0.78
Power consumption	410W x 20 units = 8,200W	About 50% energy saving	205W x 20 units = 4,100W
Lifetime	12,000 hours	About 3.3 times	40,000 hours

Recommended LED lighting fixtures by ceiling height

LED lighting fixtures for high ceilings [External driver type] DB series	LED lighting fixtures for high ceilings module type [Intergrated driver type]	iD Series lighting fixtures for factories

[Height:m] 10

Suitable for replacement of HID high bay

Equivalent to metal halide lamp 400 model
DB

2500 model
Equivalent to mercury lamp 700 model

Suitable for large factories

Conceptual illustration

Equivalent to mercury lamp 400 model
DB

2000 model
Equivalent to metal halide lamp 400 model

Conceptual illustration

8

1300 model
Equivalent to metal halide lamp 250 model

Suitable for high-ceiling space with ceiling raceway

Lighting fixtures for high ceilings (Prism type light bar for high ceilings)
iD

Equivalent to mercury lamp 300 model
DB

Conceptual illustration

6

Lighting fixtures for mid-height ceilings (Prism type light bar) V Shape type
iD

5

Lighting fixtures for standard height ceilings (Regular type light bar) V Shape type
iD

3

0

0

DB Series
LED lighting fixtures for high ceilings [External driver type]

The compact shape and equivalent weight to HID fixtures have been achieved by utilizing an external driver. Replacement of HID fixtures with LED is made easy since already existing wiring can be used.

| DB | Suitable for replacement of HID high bay |

Features

A quick connection terminal block is built in for easy installation.
This model can be connected to a round junction box using the existing wiring.

Built-in quick connection terminal block

Round junction box (not included)

Four mounting screws (not included)

Easy wiring and installation

Slim & lightweight design

This model is suitable for replacement using the existing facility because of the slim and lightweight design equivalent to conventional lighting fixtures for high ceilings.
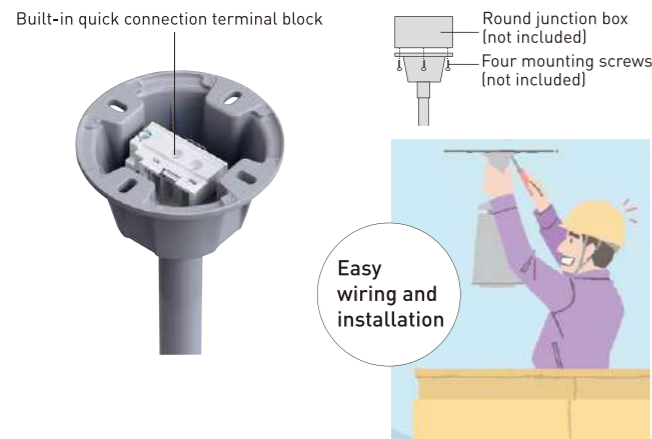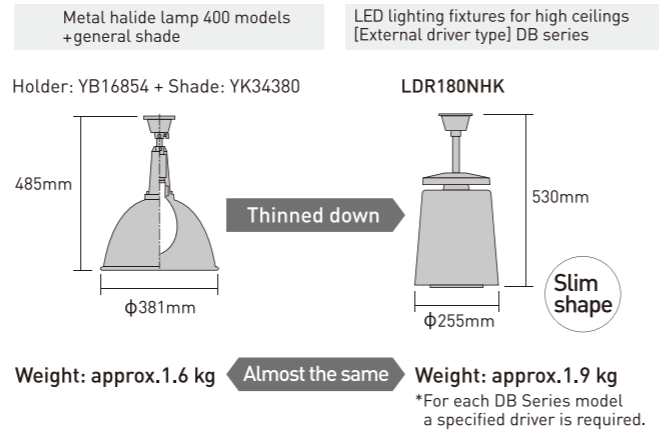
Metal halide lamp 400 models +general shade

LED lighting fixtures for high ceilings [External driver type] DB series

Holder: YB16854 + Shade: YK34380

LDR180NHK

485mm

Thinned down

530mm

φ381mm

φ255mm

Slim shape

Weight: approx.1.6 kg Almost the same **Weight: approx.1.9 kg**

*For each DB Series model a specified driver is required.

Three types suitable for replacement are available.

Equivalent to metal halide lamp 400 models

Equivalent to mercury lamp 400 model

Equivalent to mercury lamp 300 model

8-10m

6-8m

Light source life of 40,000 hours
(87% luminous flux maintenance rate)

The design releasing the LED heat efficiently has achieved 87% luminous flux maintenance rate, ensuring brightness from installation to the end of product lifetime.

Dust-proof clean body

The optimized heat releasing design has achieved a clean dust-proof body without radiation fins.

Dust-proof clean body

Recommended products

	Equivalent to metal halide lamp 400 model		Equivalent to mercury lamp 400 model		Equivalent to mercury lamp 300 model	
	Direct-mount type	Specified driver	Direct-mount type	Specified driver	Direct-mount type	Specified driver
CRI 70	Wide angle (95° beam angle)		Wide angle (95° beam angle)		Wide angle (95° beam angle)	
5000K	LDR180NHK (21000 lm-205W-102.4 lm/W) Weight: 1.9 kg	NNY28111 Weight: 1.5 kg	LDR140NHK (16000 lm-160W-100.0 lm/W) Weight: 1.7 kg	NNY28112 Weight: 1.5 kg	LDR95NHK (11000 lm-110W-100.0 lm/W) Weight: 1.5 kg	NNY28101 Weight: 1.0 kg

Note)
*Please use DB Series fixtures with their specified driver.
*The ambient temperature range for both the fixture and the driver is -20~40 ℃. The fixture and driver may operate in temperatures up to 45℃ for short periods of time.
 Operating outside the ambient temperature range may shorten the lifetime and decrease the brightness of the LED.
*Must not be used in areas subject to windy conditions. Must only be used indoors.

LED lighting fixtures
for high ceilings module type [Intergrated driver type]

The integrated driver design saves labor with less required wiring.

| Suitable for large factories |

Features

Initial illuminance correction and dimming function are equipped to contribute to considerable power saving.

The initial illuminance correction function, which reduces the initial excess brightness of light source and automatically adjusts to proper brightness, is equipped.

Light source life of 60,000 hours
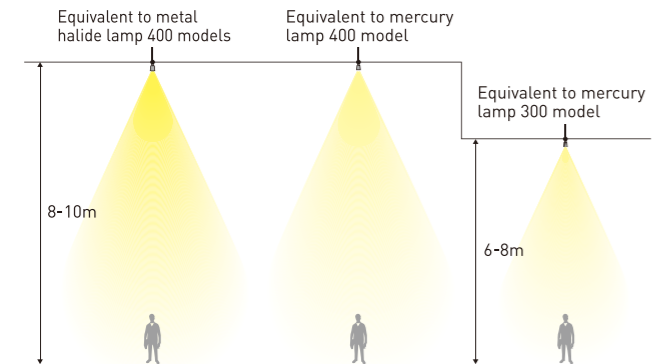(85% luminous flux maintenance rate)

The design releasing the LED heat efficiently has achieved 85% luminous flux maintenance rate, ensuring brightness from installation to the end of product lifetime.

The lightweight design of about 9kg*saves labor for installation.

*In the case of NNY20630K

NNY20630K
Weight: approx. 9 kg

LED lighting fixtures for high ceilings module type 2500 model [Integrated driver type]
Equivalent to mercury lamp 700 model

Safety anti-drop wire is equipped as standard.

For safety, anti-drop wire is equipped as standard.

Anti-drop wire
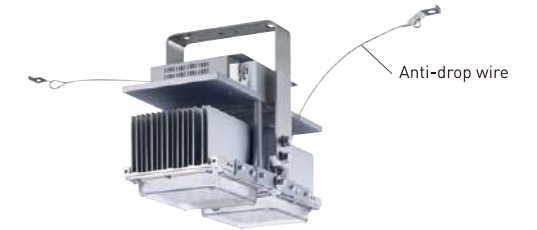
Two types (medium/wide angle) of light distribution are available depending on your needs.

The medium angle type, which ensures floor illuminance efficiently, and the wide angle type, which ensures spatial brightness, are available.

Recommended products

		2500 model equivalent to mercury lamp 700 model	2000 model equivalent to metal halide lamp 400 model	1300 model equivalent to metal halide lamp 250 model
		Direct-mount type		
CRI 70 Continuous dimming (approx. 25-85%) initial illuminance correction type		Medium/Wide angle	Medium/Wide angle	Medium/Wide angle
5000K	Medium angle	NNY20630K (28000 lm-214W-130.8 lm/W)	NNY20620K (23000 lm-188W-122.3 lm/W)	NNY20610K (14000 lm-115W-121.7 lm/W)
	Wide angle	NNY20631K (29000 lm-214W-135.5 lm/W)	NNY20621K (23700 lm-188W-126.1 lm/W)	NNY20611K (14500 lm-115W-126.1 lm/W)
	Specfications	Initial illuminance correction type (average power 198 W) Weight: 9.0 kg	Initial illuminance correction type (average power 174 W) Weight: 9.0 kg	Initial illuminance correction type (average power 106 W) Weight: 6.4 kg

Note)
*Equivalent types to 5000 model mercury lamp 700 model x 2 units and 4000 model metal halide lamp 1000 model are also available.
*The ambient temperature range for both the fixture and the driver is -20~40℃. The fixture and driver may operate in temperatures up to 50℃ for short periods of time.
 Operating outside the ambient temperature range may shorten the lifetime and decrease the brightness of the LED.
*Must not be used in areas subject to windy conditions. Must only be used indoors.

iD Series
Lighting fixtures for high ceilings

The high-efficiency, narrow-angle distribution light bar(prism type for high ceilings) and
the light condensing and diffusion (low glare) light bar (prism type)have been introduced into the product lineup.
These types are suitable for spaces with high ceilings such as factories and warehouses.
For safety, a polycarbonate anti-scattering cover is equipped in case of an unforeseen accident.

iD Series lighting fixtures for high ceilings (Prism type light bar for high ceilings)

Suitable for spaces with high ceilings such as factories and warehouses

High efficiency, narrower-angle prism type light bar is equipped for high ceilings.
This model is suitable for about 8-meter-high ceilings of factories
and warehouses.

■ Light distribution curve
(cd/1,000 lm)   Provisional values

1/2-beam angle: approx. 60° (general type: 120°)
Maximum light intensity: approx. 500 cd (general type: approx. 300 cd)

— Prism type light bar for high ceilings: vertical A cross-section
— Opalescent type light bar: vertical A cross-section
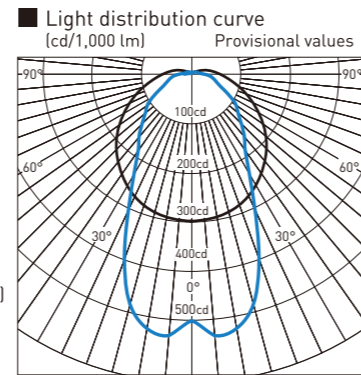
About 79% power saving is possible, compared with a mercury lamp 400 model.

■ In case of an 8-meter-high ceiling   Illuminance distribution and power are provisional values.

	Mercury lamp 400 model Shade: YK34380 Holder: YB16854 Lamp: HF400XW		iD series lighting equipment for high ceilings Equipment body: XLX490NTNC
Illuminance distribution chart	(300 / 400 / 200) 32m 20m Unit:lx		(200 / 300 / 100) 32m 20m Unit:lx
Average illuminance	332 lx	About **90**% brightness	297 lx
Equipment power x number of units	415W x 24 units		91.8W x 24 units
Power consumption	9,960W	About **78**% power saving	2,203W

Comparison conditions: room space: 32 m x 20 m x installation height 8 m / reflectance: ceiling 30%, wall 30%,
floor 10% maintenance factor: mercury lamp 0.69, iD series 0.81

These user-friendly lighting fixtures for high ceilings have been introduced to the product lineup.

The lighting fixture for high ceilings is lightweight (body: approx. 2.7 kg / light bar: approx. 1.1 kg)
for easy installation and the thin white non-oppressive shape is suitable
for high ceilings of factories and warehouses with ceiling raceways.
Light with high flux and high color rendering (CRI 83) in combination with the prism light bar
for high ceilings is available at an affordable price.

Light source with a plastic anti-scattering light cover

For safety, a polycarbonate anti-scattering cover is equipped
in case of an unforeseen accident.

Polycarbonate, which has flame resistance and toughness,
is used for the translucent plastic cover of the LED light source.

*The ambient temperature range for both the fixture and the driver is 5~35℃.
 Operating outside the ambient temperature range may shorten the lifetime and decrease the brightness of the LED.
*Must not be used in areas subject to windy conditions. Must only be used indoors.

Body

NNLK42590

Body + Light bar ×2

Light bar
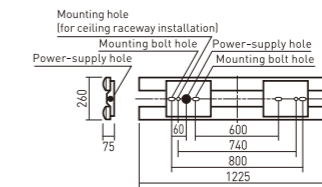
Prism type light bar for high ceilings

Specifications
• Built-in LEDbuilt-in power supply unit
• Voltage: 100-242 V
• Body: galvanized steel plate (white)
• Light source mounting part: steel plate (white powder coating)
• Light bar (cover): polycarbonate (prism)
• Weight: 4.9 kg
• Life of light source: 40,000 hours
(85% luminous flux maintenance rate)

Remarks
• For direct mounting on ceilings only

Type of brightness	Light bar model number	Color temperature
6900 lm type	NNL4600TNC LE9	■ 5000K
5200 lm type	NNL4500TNC LE9	

Mounting hole
(for ceiling raceway installation)
Mounting bolt hole / Power-supply hole
Power-supply hole / Mounting bolt hole
260 / 75 / 60 / 600 / 740 / 800 / 1225

Note) The LED light source may look glaring if the prism type light bar for high ceilings is installed in a place
     where the light source directly comes into sight.
Note) Use the prism type light bar for high ceilings in combination with the specified iD Series body.
     When one light bar is used, non-uniformity of the irradiation surface (striped shades) may appear depending on the installation location.
Note) Feed wiring in the fixture is not possible. Return the feed wiring of the power cable back to the ceiling.
Note) This fixture satisfies the performance in combination with the body and light bar for the Panasonic iD Series.
     Do not use the light bar by itself or combine with different products from the Panasonic iD Series.
Note) This fixture is designed for general indoor use. Do not use this fixture outdoors (including semi-outdoor conditions such as under eaves)
     or a place where the fixture is exposed to corrosive gas or direct sunlight.
Note) Products with the same model number may have different luminous colors or brightness because LEDs have some variations.

Combinations of body and prism type light bar for high ceilings

Type of brightness	Type		■ 5000K
6900 lm type	XLX490NTNC LE9 14080 lm · 91.8W · 153.4 lm/W Body NNLK42590 Light bar ■ NNL4600TNC LE9 x 2		
5200 lm type	10600 lm · 69.2W · 153.2 lm/W Body NNLK42590 Light bar ■ NNL4500TNC LE9 x 2		

iD Series
# Lighting fixtures for mid-height (5-meter) ceilings

iD Series lighting fixtures (Prism type light bar for mid-height ceilings)

Suitable for applications such as factories and warehouses

Use this prism type light bar, for mid-height ceilings which has light condensing and diffusion (low glare) properties,used in combination with the iD Series body. This type is suitable for applications such as factories and warehouses with about 5-meter-high ceilings.

■ Light distribution curve (cd/1,000 lm)

1/2-beam angle: approx. 80º (general type: 120º)
Light intensity immediately below light source: approx. 400 cd (general type: approx. 300 cd)

— Prism type light bar: vertical A cross-section
— Opalescent type light bar: vertical A cross-section
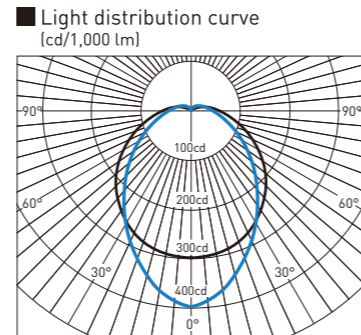
About 65% energy savings is possible compared with conventional fluorescent lights
■ In case of a 5-meter-high ceiling

	Conventional fluorescent lamp Fixture: Hf32 model high-power type two lights(FSA42001F)	iD Series (Prism type light bar) Body: 40 model D style (NNLK41515) Light bar: condenser prism type light bar (NNL4500SNC)	iD Series(Regular) Body: 40 model D style (NNLK41515) Light bar: Opalescent type light bar (NNL4600EDC)
Illuminance distribution chart			
Average illuminance	306 lx · About 88% brightness →	270 lx · About 87% brightness →	309 lx
Equipment power x number of units	88W x 35 units	34.6W x 35 units	45.9W x 32 units
Power consumption	3,080W · About 61% energy saving →	1,211W · About 18% energy saving →	1,469W

Comparison conditions: room space: 25 m x 15 m x installation height 5 m / reflectance: ceiling 30%, wall 30%, floor 10% maintenance factor: conventional fluorescent light 0.69, iD Series 0.81

Light bar

Prism type light bar for mid-height ceilings

Type of brightness	Light bar model number	Color temperature
6900 lm type	NNL4600SNC LE9	■ 5000K
5200 lm type	NNL4500SNC LE9	■ 5000K

iD Series body

V Shape type

NNLK41515

·Build-in LED,
 Build-in power supply unit
·AC 100-242V
·Body: Steel sheet (White powder coating)
·Light bar(cover): Polycarbonate (Milky white)
·Weight: 2.0 kg
·Lifetime: 40,000h
 (Luminous flux maintenance rate 85%)

Remarks
Pitches of 600 mm and 800 mm for the mounting bolt holes are available.
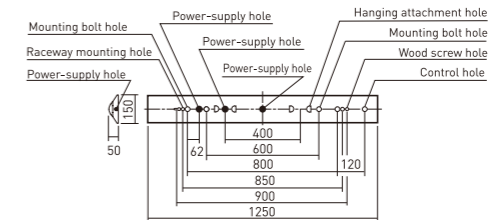
Combination of V Shape type body and light bar
Prism type(CRI 83)

Type of brightness	Light bar model number	Fixture luminous flux · power consumption · energy efficiency	Color temperature
6900 lm	NNL4600SNC LE9	6600 lm · 45.9W · 143.8 lm/W	■ 5000K
5200 lm	NNL4500SNC LE9	4970 lm · 34.6W · 143.6 lm/W	■ 5000K

Regular type(CRI 83)

Type of brightness	Light bar model number	Fixture luminous flux · power consumption · energy efficiency	Color temperature
6900 lm	NNL4600EDC LE9	6640 lm · 45.9W · 144.7 lm/W	■ 6500K
6900 lm	NNL4600ENC LE9	6900 lm · 45.9W · 150.3 lm/W	■ 5000K
5200 lm	NNL4500EDC LE9	5000 lm · 34.6W · 144.5 lm/W	■ 6500K
5200 lm	NNL4500ENC LE9	5200 lm · 34.6W · 150.3 lm/W	■ 5000K
4000 lm	NNL4400EDC LE9	3840 lm · 27.3W · 140.7 lm/W	■ 6500K
4000 lm	NNL4400ENC LE9	4000 lm · 27.3W · 146.5 lm/W	■ 5000K

iD Series
Lighting fixtures for factories

iD Series body

Reflector Shade type
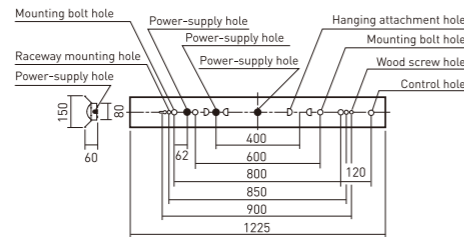
NNLK41517

·Build-in LED,
 Build-in power supply unit
·AC 100-242V
·Body: Steel sheet (White powder coating)
·Light bar(cover): Polycarbonate (Milky white)
·Weight: 2.1 kg
·Lifetime: 40,000h
 (Luminous flux maintenance rate 85%)

Remarks
Pitches of 600 mm and 800 mm for the mounting
bolt holes are available.

Direct-mount type reflector shade model

Mounting bolt hole
Power-supply hole
Power-supply hole
Hanging attachment hole
Raceway mounting hole
Power-supply hole
Mounting bolt hole
Power-supply hole
Wood screw hole
Control hole
150 / 80 / 60 / 62 / 400 / 600 / 800 / 850 / 900 / 1225 / 120

Combination of reflector shade type body and light bar
Prism type(CRI 83)

Type of brightness	Light bar model number	Fixture luminous flux · power consumption · energy efficiency	Color temperature
6900 lm	NNL4600SNC LE9	6500 lm · 45.9W · 141.6 lm/W	■ 6500K
5200 lm	NNL4500SNC LE9	4890 lm · 34.6W · 141.3 lm/W	■ 5000K

Regular type(CRI 83)

Type of brightness	Light bar model number	Fixture luminous flux · power consumption · energy efficiency	Color temperature
6900 lm	NNL4600EDC LE9	6510 lm · 45.9W · 141.8 lm/W	■ 6500K
	NNL4600ENC LE9	6770 lm · 45.9W · 147.5 lm/W	■ 5000K
5200 lm	NNL4500EDC LE9	4900 lm · 34.6W · 141.6 lm/W	■ 6500K
	NNL4500ENC LE9	5100 lm · 34.6W · 147.4 lm/W	■ 5000K
4000 lm	NNL4400EDC LE9	3770 lm · 27.3W · 138.1 lm/W	■ 6500K
	NNL4400ENC LE9	3920 lm · 27.3W · 143.6 lm/W	■ 5000K

iD Series body

Batten type

NNLK41509

·Build-in LED,
 Build-in power supply unit
·AC 100-242V
·Body: Steel sheet (White powder coating)
·Light bar(cover): Polycarbonate (Milky white)
·Weight: 1.7 kg
·Lifetime: 40,000h
 (Luminous flux maintenance rate 85%)

Remarks
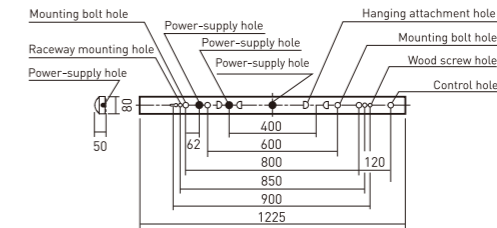Pitches of 600 mm and 800 mm for the mounting
bolt holes are available.

Mounting bolt hole
Power-supply hole
Hanging attachment hole
Raceway mounting hole
Power-supply hole
Mounting bolt hole
Power-supply hole
Power-supply hole
Wood screw hole
Control hole
80 / 50 / 62 / 400 / 600 / 800 / 850 / 900 / 1225 / 120

Combination of Batten type body and light bar
Regular type(CRI 83)

Type of brightness	Light bar model number	Fixture luminous flux · power consumption · energy efficiency	Color temperature
6900 lm	NNL4600EDC LE9	6640 lm · 45.9W · 144.7 lm/W	■ 6500K
	NNL4600ENC LE9	6900 lm · 45.9W · 150.3 lm/W	■ 5000K
5200 lm	NNL4500EDC LE9	5000 lm · 34.6W · 144.5 lm/W	■ 6500K
	NNL4500ENC LE9	5200 lm · 34.6W · 150.3 lm/W	■ 5000K
4000 lm	NNL4400EDC LE9	3840 lm · 27.3W · 140.7 lm/W	■ 6500K
	NNL4400ENC LE9	4000 lm · 27.3W · 146.5 lm/W	■ 5000K

External sensor (Motion sensor on/off type)

Sensing the movement of a person, the sensor automatically turns the light on and off.
When there is no one around the lights will automatically be turned off and save energy.

When someone is around the lights will automatically be 100% turned on.
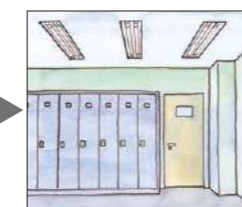
When no one is around the lights will automatically be turned off.

When it is bright enough, light will not be turned on. (Even if someone is present)

Recessed type

FSK90702
(200V-220V)

cut-out
φ100
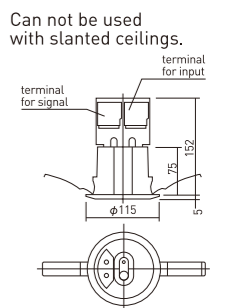
Can not be used with slanted ceilings.

terminal for input
terminal for signal
φ115

Panasonic

LED Floodlights

Prambanan Temple Compounds illuminated by Panasonic LED
[The floodlights used in the above image are not in this catalog.]

For more information, please visit the website:

» panasonic.net/es/id/

Please contact ....

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PT. Panasonic Gobel Eco Solutions Manufacturing Indonesia
Panasonic Corporation Eco Solutions Company
Lighting Equipment Business Unit, Lighting Business Division

ISO9001 : ID04/0443   ISO 14001 : ID03/60117

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2015.5

Panasonic LED

New energy-efficient LED floodlights.

High-efficiency exceeding 100 lm / W*

Significantly High-efficiency has been achieved while maintaining a brightness equivalent to conventional HID floodlights.
This floodlight illuminates spaces with low power consumption.
* 1/10-beam angle 35º, 50º, and 70º types

Over 100lm / W*

Lumens per watt (lm/W) is an indicator of cost efficiency. Lumens per watt is a unit of efficiency representing how much light (light flux: lm) per 1 W of power consumption is emitted. The higher lumens per watt, the more energy will be saved.

About 50% reduction in power consumption*

Power consumption has been reduced by about 50%* while maintaining a brightness equivalent to conventional HID 1000 model floodlights, contributing to cost savings.

Comparison of power consumption

About **50%** reduction in power consumption*

Average LED **549W**

Conventional HID 1000 model floodlight:1090W

*Comparison between an HID 1000 model floodlight YAX56565K-lamp MF1000B/BH-SCx1 and a LED floodlight NNY24626

Equipped with a safety wire

In case of severe vibrations or strong winds, the safety wire is included as a standard to prevent the fixture from falling.
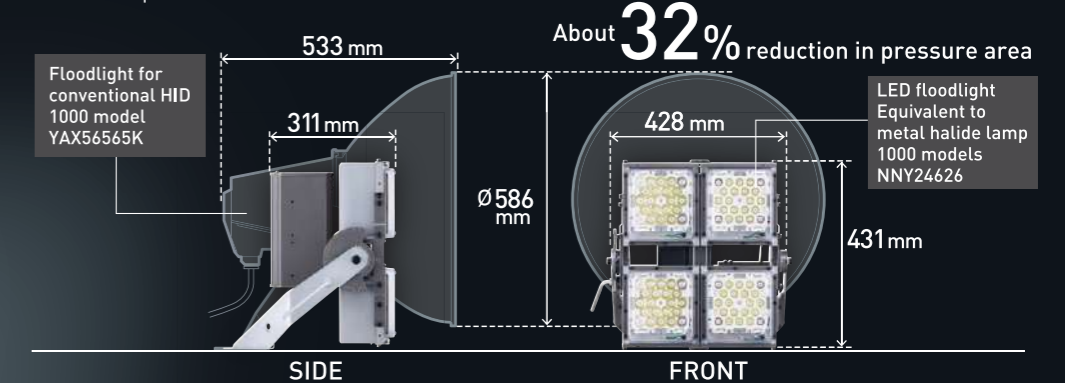
Brightness is ensured throughout the product lifetime

Due to a good thermal management design that releases the LED heat efficently, 85% luminous flux maintenance rate can be achieved throughout the lifetime of this floodlight.

Integrated driver — Radiator

NNY24626

Compact body with a reduced pressure area

This small pressure area reduces the load on the base.

About **32%** reduction in pressure area

Floodlight for conventional HID 1000 model YAX56565K

533 mm
311 mm
Ø586 mm

SIDE

LED floodlight Equivalent to metal halide lamp 1000 models NNY24626

428 mm
431 mm

FRONT

Four types of light distribution*

There are four types of light distribution types available to suit your needs.
1/10 beam angle of 125º is also available upon special request.

*LED floodlight (equivalent to metal halide lamp 2000/1500 models1000 models)

1/10-beam angle
LED floodlight
(equivalent to metal halide lamp 2000/1500 models)

28°   35°   50°   75°

Shock-resistant front panel

Shock-resistant polycarbonate front panel is utilized to prevent scattering when damaged.
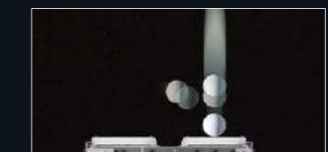
Conceptual illustration

Integrated driver type for easy installation

Unlike conventional HID floodlights, this integrated driver type does not need to secure a place for installing a integrated driver. This type can be easily installed with the wiring box at the back.

Wiring box — Integrated driver
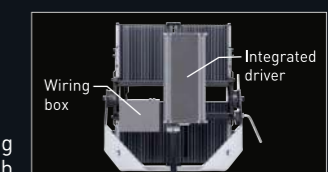
Back of LED floodlight

The initial light flux correction feature contributes to saving energy.

The initial luminous flux correction function, which automatically corrects the excess brightness of the initial light source, is equipped to contribute to saving energy.

Salt-resistant specification

This model can be used in areas adjacent to the coast.

LED light source life of 40,000 (60,000) hours

These LED floodlights can produce maximum brightness instantly.

We offer a wide selection of brightness and light distribution options to fulfill your unique needs.

Recommended options for each application.

○···Highly recommended　○···Recommended

Equivalent to metal halide lamp 2000/1500 models	Stadium	Landmark
	Conceptual illustration	Prambanan Temple Compounds, Indonesia
28° NNY24640	●	○
1/10-beam angle 35° NNY24643	●	●
50° NNY24641	○	●
75° NNY24642	—	○

Equivalent to metal halide lamp 1000 models	Playing field	Driving range	Equivalent to mercury lamp 1000 models	Equivalent to metal halide lamp 400 models	Open space, parking lot, etc.
	Conceptual illustration	Conceptual illustration			Conceptual illustration
28° NNY24625	—	●	NNY24610K	NNY24600K	○
1/10-beam angle 38° NNY24628	○	●	—	—	—
50° NNY24626	●	○	NNY24611K	NNY24601K	○
75° NNY24627	●	—	NNY24612K	NNY24602K	●

These High-efficiency LED floodlights can save significant energy for lighting of outdoor sports facilities.

Stadium (soccer)

HID floodlight metal halide lamp 1500 models

About **59**% power saving

Equipment used (light source): YA56384(MT1500B/BH-SCM)

LED floodlight equivalent to metal halide lamp 2000/1500 models

Equipment used:
NNY24641 ············· 22 units
NNY24643 ············· 8 units
NNY24642 ············· 2 units

Number of units installed	48 units	reduced by 16 units	32 units
Average illuminance	soccer field: 213 lx　entire field: 200 lx	almost the same	soccer field: 202 lx　entire field: 208 lx
Power consumption	approx. 78.2 kW	about 59% power saving	approx. 31.8 kW (average power)
Uniformity ratio (minimum/average)	soccer field: 0.782　entire field: 0.550	almost the same	soccer field: 0.561　entire field: 0.546

[Conditions of illumination design] target average illuminance: soccer field 200 lx / target uniformity ratio (minimum/average): soccer field 0.5
Lighting pylon: 6 units / equipment installation height: 24 m / height for calculation: 0 m / maintenance factor: HID floodlight 0.69, LED floodlight 0.81

Playing field

HID floodlight

About **50**% power saving

Equipment used (light source):
YA56305K(M1000B/BH-SC)·····32 units
YA56384(MT1000B/BH-SC)·····16 units

LED floodlight equivalent to metal halide lamp 1000 models

Equipment used:
NNY24627 ············· 32 units
NNY24626 ············· 16 units

Number of units installed	48 units	same number of units	48 units
Average illuminance	infield: 270 lx　outfield: 147 lx　soccer field: 174 lx　entire field: 169 lx	almost the same	infield: 252 lx　outfield: 140 lx　soccer field: 170 lx　entire field: 157 lx
Power consumption	approx. 52.3 kW	about 50% power saving	approx. 26.4 kW (average power)

[Conditions of illumination design] target average illuminance: infield 200 lx, outfield 100 lx, soccer field 100 lx, entire field 100 lx
Lighting pylon: 8 units / equipment installation height: 14 m / height for calculation: 0 m / maintenance factor: HID floodlight 0.69, LED floodlight 0.81
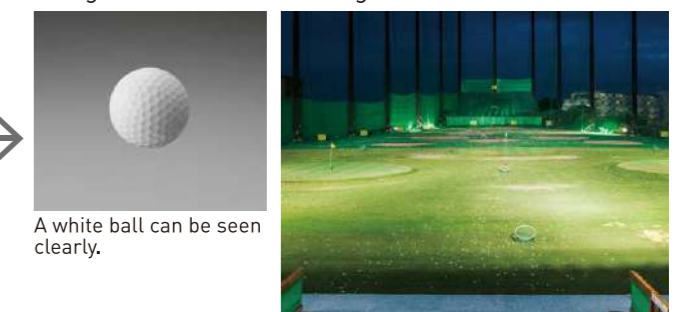
Daylight color that makes a white ball stand out

■ Light color of conventional equipment (4000K)

A white ball looks yellowish and is less likely to stand out.

An example of a view from a tee
* This view does not correspond below illuminance distribution.

■ Light color of LED floodlight (5000K)

A white ball can be seen clearly.

An example of a view from a tee
* This view does not correspond below illuminance distribution.

Driving range

HID floodlight

About **48**% power saving

Equipment used (light source):
YA56115(M1000B/BH-SC) ······· 14 units
YA56165(MT1000B/BH-SC) ····· 8 units

LED floodlight equivalent to multiple halogen light S type 1000 models

Equipment used:
NNY24620 ············· 14 units
NNY24621 ············· 8 units

|			
Number of units installed	22 units	same number of units	22 units
Average illuminance	Overall horizontal illuminance: 39.1lx　Vertical illuminance:[40y] 193 lx • [40y] 121 lx • [200y] 110 lx	almost the same	Overall horizontal illuminance: 37.2 lx　Vertical illuminance:[40y] 179 lx • [40y] 137 lx • [200y] 140 lx
Power consumption	approx. 24.0 kW	about 48% power saving	approx. 12.4 kW (average power)

[Conditions of illumination design] target vertical illuminance: 100 lx / equipment installation height: 8 m / floor level for horizontal illuminance calculation: 1 m
maintenance factor: HID floodlight 0.68, LED floodlight 0.81

LED floodlight module type lineup

Equivalent to metal halide lamp
2000/1500 models

Suitable for stadiums
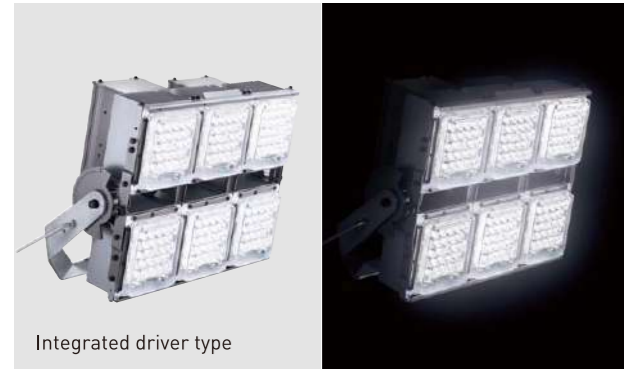
Integrated driver type

Louver is equivalent to metal halide lamp 2000/1500 models

NNY28438K `Salt-resistant`
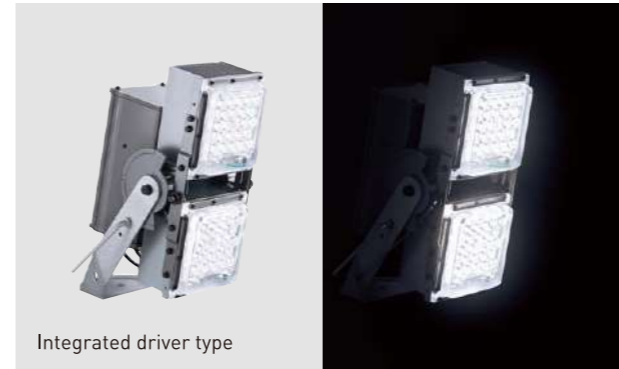
Specifications
• Body: stainless steel (off-black)

Remarks
• Applicable model number:
  NNY24640・NNY24643・
  NNY24641・NNY24642

1/10-beam angle	Model		
28°	**NNY24640** 98500 lm 1075W (Average power: 994W) 91.6 lm/W	`CRI 70`
35°	**NNY24643** 111400 lm 1075W (Average power: 994W) 103.6 lm/W	`CRI 70`
50°	**NNY24641** 117800 lm 1075W (Average power: 994W) 109.6 lm/W	`CRI 70`
75°	**NNY24642** 115000 lm 1075W (Average power: 994W) 107.0 lm/W	`CRI 70`

Major features
• Lifetime: 40,000h
• Luminous flux maintenance rate: 85%
• Rated power type initial light flux correction
• 5000K
• Polycarbonate front panel
• Rainproof
• Salt-resistant
• Safety wire equipped

Specifications
• Built-in LED・built-in power supply unit
• Voltage: 200–242 V
• Body: aluminum
• Front panel: polycarbonate (transparent)
• Arm: steel (hot-dip galvanized)
• Handle: stainless steel
• Survival wind speed: 60 m/sec.
• Weight: 30.4 kg

Note) Dimming not possible

693　423　477　Mounting hole Ø18　551

Fixture angle range
• Horizontal mounting
• Vertical mounting (downward)
• Vertical mounting (upward)

Equivalent to metal halide lamp
1000 models

Suitable for playing fields/driving ranges

Integrated driver type

Louver is equivalent to metal halide lamp 1000 models

NNY28437K `Salt-resistant`

Specifications
• Body: stainless steel (off-black)

Remarks
• Applicable model number:
  NNY24625・NNY24628・
  NNY24626・NNY24627

1/10-beam angle	Model		
28°	**NNY24625** 53700 lm 593W (Average power: 549W) 90.6 lm/W	`CRI 70`
38°	**NNY24628** 59000 lm 593W (Average power: 549W) 99.5 lm/W	`CRI 70`
50°	**NNY24626** 64200 lm 593W (Average power: 549W) 108.3 lm/W	`CRI 70`
75°	**NNY24627** 62500 lm 593W (Average power: 549W) 105.4 lm/W	`CRI 70`

Major features
• Lifetime: 40,000h
• Luminous flux maintenance rate: 85%
• Rated power type initial light flux correction
• 5000K
• Polycarbonate front panel
• Rainproof
• Salt-resistant
• Safety wire equipped

Specifications
• Built-in LED・built-in power supply unit
• Voltage: 200–242 V
• Body: aluminum
• Front panel: polycarbonate (transparent)
• Arm: steel (hot-dip galvanized)
• Handle: stainless steel
• Survival wind speed: 60 m/sec.
• Weight: 20.1 kg

Note) Dimming not possible

504　423　475　Mounting hole Ø18　55

Fixture angle range
• Horizontal mounting
• Vertical mounting (downward)
• Vertical mounting (upward)

lm: light flux emitted from LED equipment W: consumption power average power lm/W: intrinsic energy consumption efficiency (at 200 V)
Note) Products with the same model number may have different luminous color or brightness because LED has some variations.

Equivalent to mercury lamp
1000 models

Suitable for open spaces, parking lots, etc.

Integrated driver type

Louver is equivalent to mercury lamp 1000 models

NNY28436 `Salt-resistant`
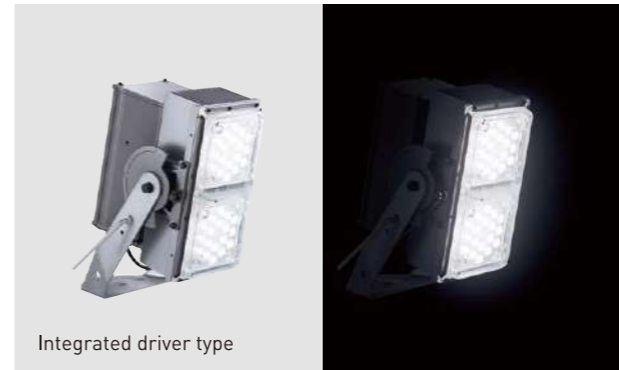
Specifications
• Body: stainless steel (off-black)

Remarks
• Applicable model number:
  NNY24610K・NNY24611K・
  NNY24612K

1/10-beam angle	Model		
28°	**NNY24610K** 32800 lm 354W (Average power: 327W) 92.7 lm/W	`CRI 70`
50°	**NNY24611K** 39500 lm 354W (Average power: 327W) 111.6 lm/W	`CRI 70`
75°	**NNY24612K** 38500 lm 354W (Average power: 327W) 108.8 lm/W	`CRI 70`

Major features
• Lifetime: 40,000h
• Luminous flux maintenance rate: 85%
• Rated power type initial light flux correction
• 5000K
• Polycarbonate front panel
• Rainproof
• Salt-resistant
• Safety wire equipped

Specifications
• Built-in LED・built-in power supply unit
• Voltage: 200–242 V
• Body: aluminum
• Front panel: polycarbonate (transparent)
• Arm: steel (hot-dip galvanized)
• Handle: stainless steel
• Survival wind speed: 60 m/sec.
• Weight: 11.8 kg

Note) Dimming not possible

314　385　47　Mounting hole Ø18　18　551

Fixture angle range
• Horizontal mounting
• Vertical mounting (downward)
• Vertical mounting (upward)

Equivalent to metal halide lamp
400 models

Suitable for open spaces, parking lots, etc.

Integrated driver type

Louver is equivalent to metal halide lamp 400 models

NNY28435 `Salt-resistant`

Specifications
• Body: stainless steel (off-black)

Remarks
• Applicable model number:
  NNY24600K・NNY24601K・
  NNY24602K

1/10-beam angle	Model		
28°	**NNY24600K** 18300 lm 188W (Average power: 174W) 97.3 lm/W	`CRI 70`
50°	**NNY24601K** 22800 lm 188W (Average power: 174W) 121.3 lm/W	`CRI 70`
75°	**NNY24602K** 22000 lm 188W (Average power: 174W) 117 lm/W	`CRI 70`

Major features
• Lifetime: 60,000h
• Luminous flux maintenance rate: 85%
• Rated power type initial light flux correction
• 5000K
• Polycarbonate front panel
• Rainproof
• Salt-resistant
• Safety wire equipped

Specifications
• Built-in LED・built-in power supply unit
• Voltage: 100–242 V
• Body: aluminum
• Front panel: polycarbonate (transparent)
• Arm: steel (hot-dip galvanized)
• Handle: stainless steel
• Survival wind speed: 60 m/sec.
• Weight: 10.7 kg

Note) Dimming not possible

314　384　417　Mounting hole Ø18　18　551

Fixture angle range
• Horizontal mounting
• Vertical mounting (downward)
• Vertical mounting (upward)