

For more information, please visit the website:  
» [panasonic.net/es/id/](http://panasonic.net/es/id/)

Please contact .....

**PT. Panasonic Gobel Eco Solutions Sales Indonesia**

■ Summitmas 1, 8th Floor Jl. Jend. Sudirman Kav. 61-62, Jakarta 12190  
■ Telephone. +62-21-252-1616 ■ Facsimile. +62-21-252-1686

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



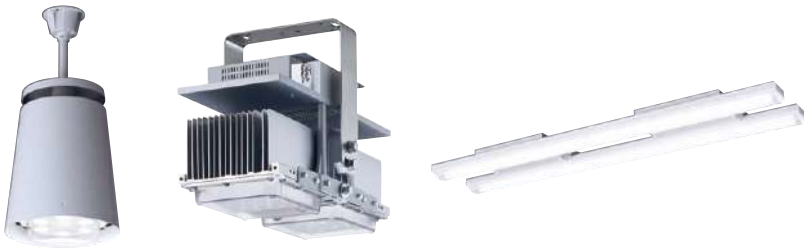
ISO9001 : ID04/0443



ISO 14001 : ID03/60117

# Panasonic®

All Rights Reserved © 2015 COPYRIGHT PT. Panasonic Gobel Eco Solutions Sales Indonesia



# 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]





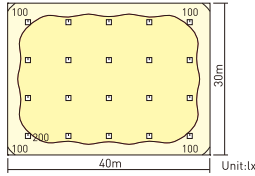
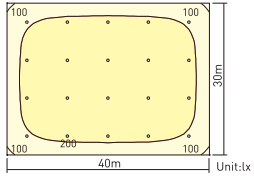
#### Line type

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	205W x 20 units = 4,100W
Lifetime	12,000 hours	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	<div>Suitable for replacement of HID high bay</div> <div>Equivalent to metal halide lamp 400 model</div> <div>DB</div> 	<div>2500 model Equivalent to mercury lamp 700 model</div> <div>Suitable for large factories</div> <div>Conceptual illustration</div>  <div>2000 model Equivalent to metal halide lamp 400 model</div> <div>Conceptual illustration</div> 	
8	<div>Equivalent to mercury lamp 400 model</div> <div>DB</div> 	<div>1300 model Equivalent to metal halide lamp 250 model</div> <div>Conceptual illustration</div> 	<div>Suitable for high-ceiling space with ceiling raceway</div> <div>Lighting fixtures for high ceilings (Prism type light bar for high ceilings)</div> <div>iD</div> 
6	<div>Equivalent to mercury lamp 300 model</div> <div>DB</div> 		<div>Lighting fixtures for mid-height ceilings (Prism type light bar) V Shape type</div> <div>iD</div> 
5			<div>Lighting fixtures for standard height ceilings (Regular type light bar) V Shape type</div> <div>iD</div> 
3			
0			



# DB Series

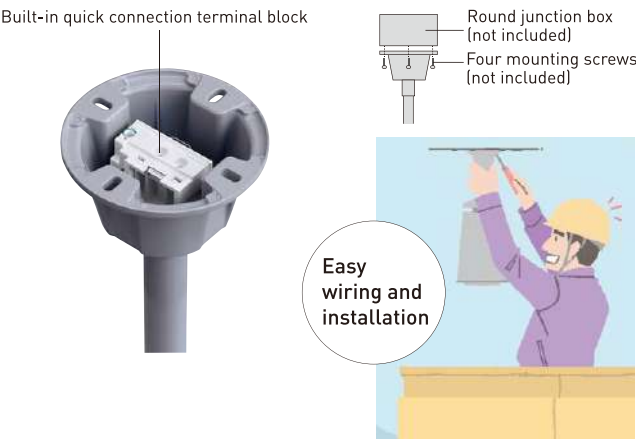
## LED lighting fixtures for high ceilings [External driver type]

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.

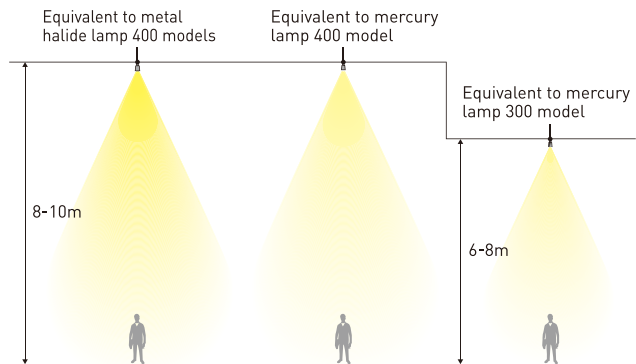
DB  
Suitable for replacement of HID high bay

### 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.



Three types suitable for replacement are available.



### 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
	Wide angle (95° beam angle)		Wide angle (95° beam angle)		Wide angle (95° beam angle)	
CRI 70						
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 °C. The fixture and driver may operate in temperatures up to 45°C 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

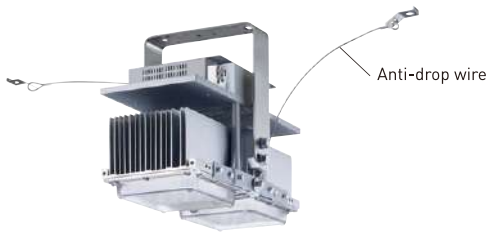
NNY20630K  
Weight: approx. 9 kg



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.



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°C. The fixture and driver may operate in temperatures up to 50°C 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.

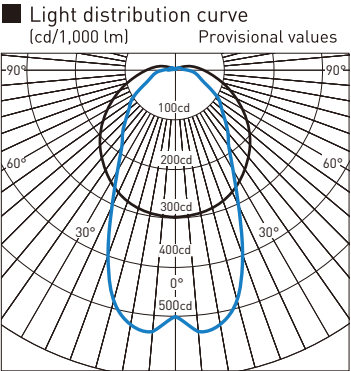
### iD Series lighting fixtures for high ceilings (Prism type light bar for high ceilings)

#### 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.

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		
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°C.  
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

#### 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)

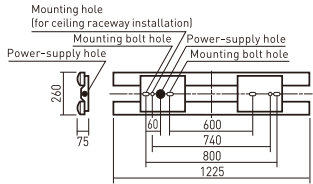
Remarks

- For direct mounting on ceilings only

Body + Light bar x2



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



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

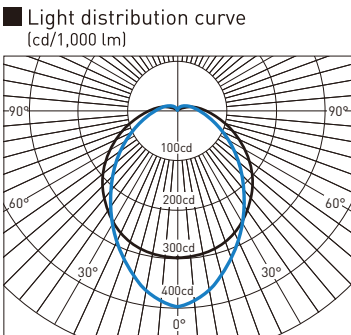
### iD Series lighting fixtures (Prism type light bar for mid-height ceilings)

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.

1/2-beam angle: approx. 80° (general type: 120°)  
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

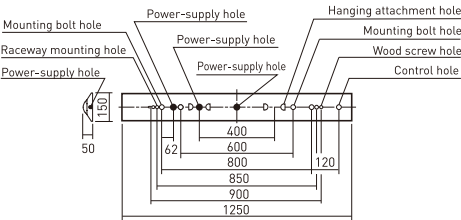
### iD Series body

#### 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
	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



# iD Series

## Lighting fixtures for factories

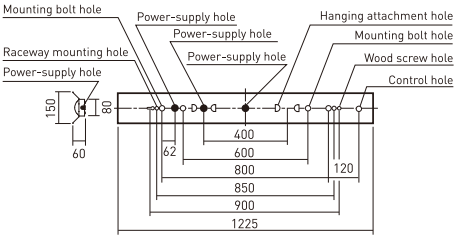
### iD Series body

#### 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.



#### 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

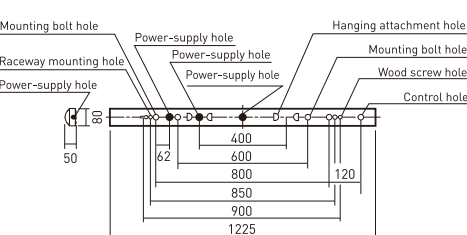
### iD Series body

#### 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.



#### 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)



FSK90702  
(200V-220V)

cut-out  
φ100

