Signify

Maxolid Range Extension

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May 2019

Customer needs

01. Reliable and Robust Product

03. Higher Mounting Heights

02. High Quality Light

04. Energy Efficiency

Maxolid Highbay BY416

Beyond standard application

Applications : Steel Factory, Long Operations, Tobacco Factories

Other applications: Warehouse; Distribution center; Airport; Suitable for harsh industrial environments

Unique Selling Points:

- Excellent quality assure high performance in harsh industrial environments
- System efficacy > 125lm/W offers maximum 65% energy savings comparing to HID systems
- System lumen 23000lm, 24500lm, 26000lm , 28000lm & 28500lm options
- 1 to 1 replacement to HID for both new install & retrofit applications
- Lifetime 50,000 hours @ Ta45^{o}C; BIS approbations – Safe and Reliable performance
- Tempered glass cover provides strong protection from high pollution
- Professional optical design provides precise light distribution
- Robust aluminum die-casting housing provides excellent thermal efficiency and assure high quality of light in whole life time
- IP65, effectively prevent dusts & moisture from luminaire to assure the performance for long term
- Operating voltage of 140-270V with High Voltage cut off and auto restart feature @325V, Phase to phase 440V protection for 8 hours

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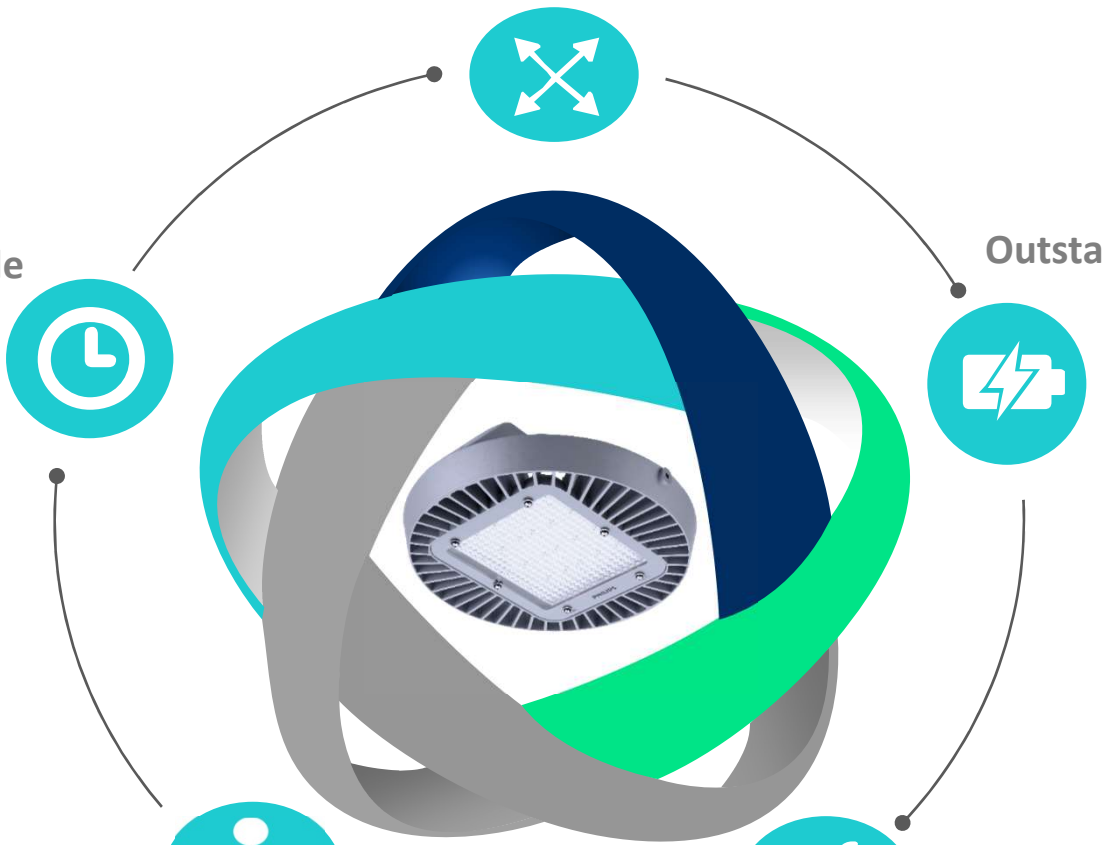
Features and benefits



Features and benefits

Robust and durable

- High Power LED module (suitable for harsh environments)
- Efficient heat dissipation assure long time at high temperature application
- Designed for operations under diverse environment from -10˚C to 50˚C
- IP65 prevents dusts & moisture from luminaire to assure the performance for long term
- L70B50 50k hours @ Ta45˚C
- Philips Xitanium LED driver and provision for 10KV Series SPD
- High Cut @ 325 ± 15V & Auto Restart
- 440V Protection for 8 Hrs. (Phase to Phase)

High-quality materials and design

- Tempered glass cover provides strong protection from high pollution
- Pressure die-cast housing offers excellent corrosion-resistance and robustness

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Features and benefits

Outstanding Energy Efficiency

- Incorporates extremely efficient, state-of-the-art LED technology
- System efficiency >125 lm/W
- 65% energy savings versus conventional HID static light

1:1 retrofit / HID replacement

- Maxolid new range is ideal solution for both new install & retrofit applications
- Point to point replacement for a HPI 400W Highbay

Versatile applications

- Five lumen choices with four optics: Suitable for 15 to 30 meter height
- Wide Beam (WB) brings high uniformity to the whole area
- Narrow Beam (NB) delivers high efficient light to make a brighter world
- Extra Narrow Beam (ENB) delivers desired lux level at higher mounting heights

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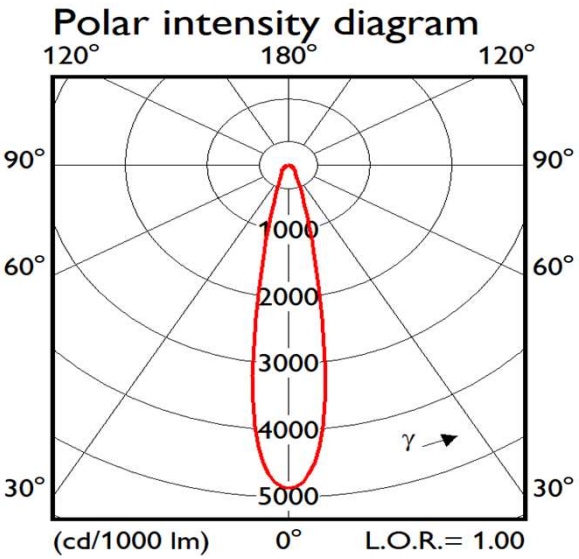
Precision optics

Lighting comfort improves productivity

- New designed optic module allows UGR＜25
- Professional Lens structure to realize the accurate distribution of light, dramatically improved uniformity and lux level

SY20º (ENB)



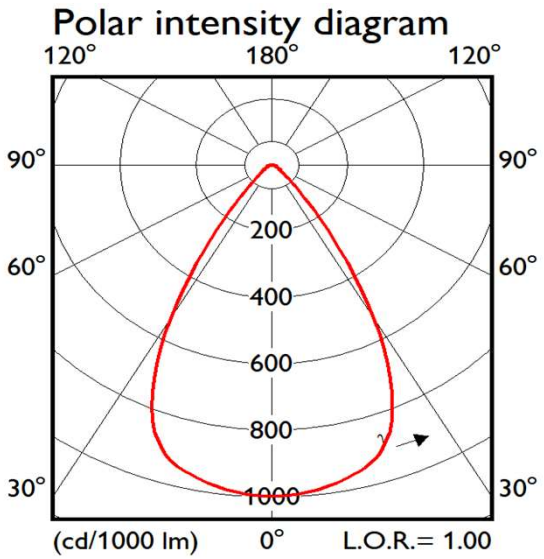
Extra Narrow beam

FWHM 20°

Rotational symmetry

Centralized beam fit for high ceiling

SK60º (NB)



Narrow beam

FWHM 60°

Rotational symmetry

Fit for low ceiling and general lighting

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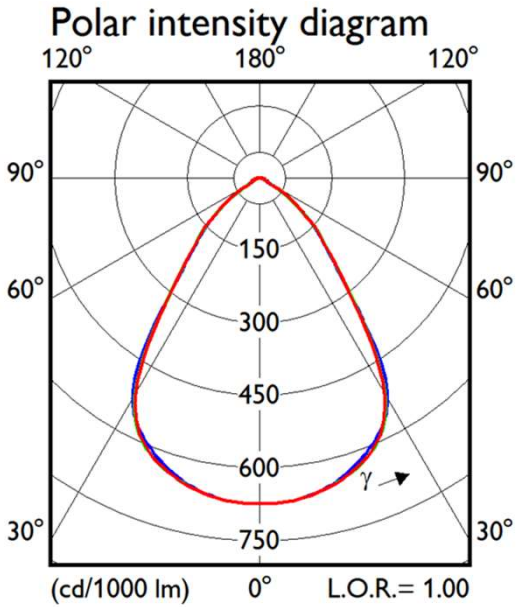
Precision optics

Lighting comfort improves productivity

NB



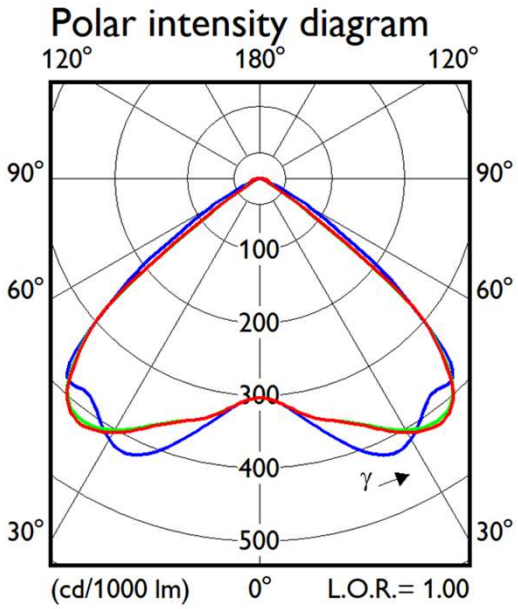
Narrow beam

FWHM 60°

Rotational symmetry

Centralized beam fit for high ceiling

WB



Wide beam

FWHM 110°

Rotational symmetry

Fit for low ceiling and general lighting

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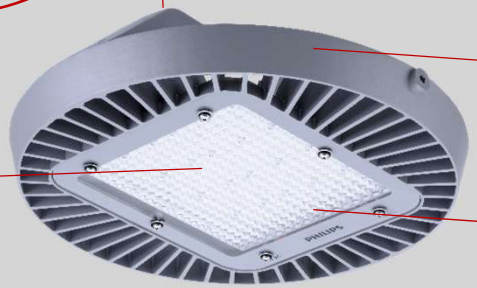
Long-lasting performance

All Philips key components and production assure long lasting performance

Philips Xitanium driver

- 440V Phase to Phase Protection for 8 Hrs.
- High cut @ 325±15V and auto Restart
- Future Proof Drivers (Comes with 1-10V Dimming)
- 4KV internal surge protection

Robust high efficient aluminum die-casting housing
(Excellent corrosion resistance and robustness)



CRI≥70,80

High quality PC lens
+
Tempered glass (IK08)

- **3D lens build accurate optic**
- **High Power robust LED system with controlled lighting technology**

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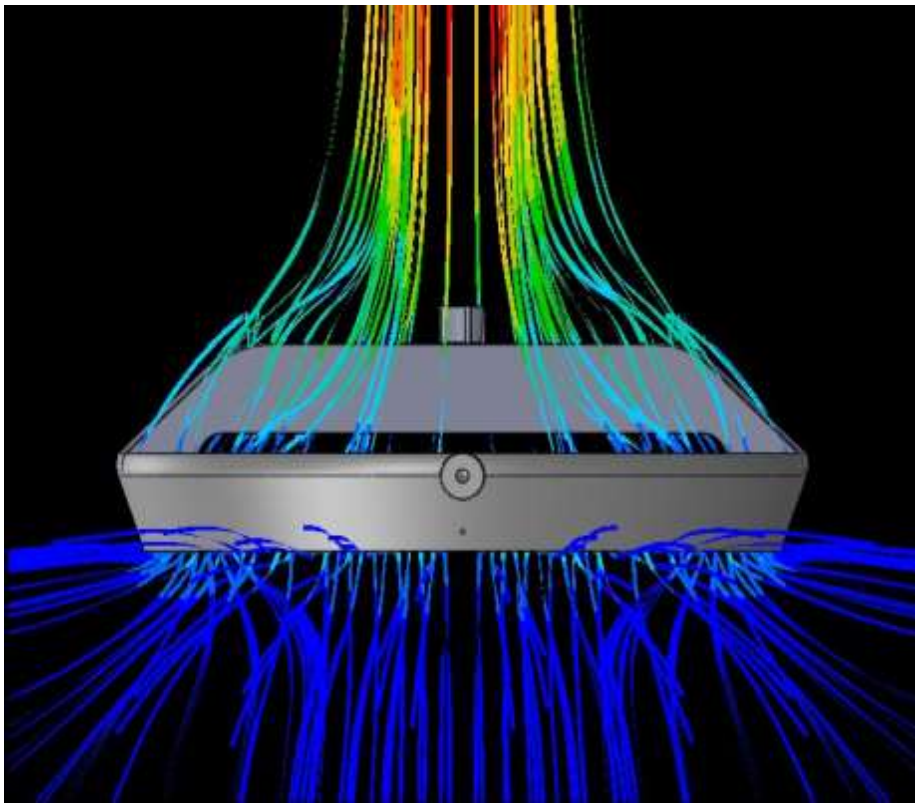
High efficient thermal design

- Excellent Efficient heat dissipation feature, without being influenced by dirt and installation angle, keeps it cool in high temperature environment.
- Innovative heat-sink design creates an airflow through the product to prevent dirt from accumulating on the surface, suitable for eye bolt installation.
- In higher lumen variant (High power LED's) separate gear unit designed to prevent driver from heat interaction as it has been found to be more sensitive to heat than the LEDs themselves.
- Stable operation between -10^{o}C ~ +50^{o}C, ensuring the durable and reliable performance at Ta 45^{o}C.



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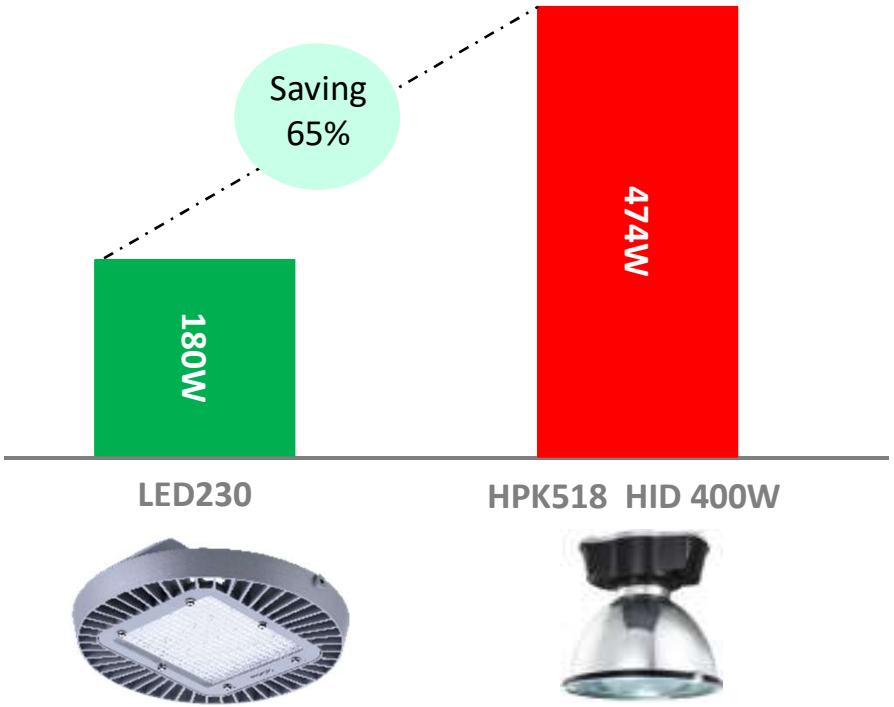
Energy saving – *New installation*



Life time

2.5 times

HPI Plus lamp	20000 hrs
BY416P	50000 hrs

HID	HPI Plus lamp				Maxolid Range			*Saving %*
	Lamp	**Lamp Lumen**	**Power**	**System Lumen**	**Product**	**Power**	**System Lumen**	
	HPI P 400W	32500lm	***474W***	20760lm	BY416P	***180W***	23000lm	*65%*

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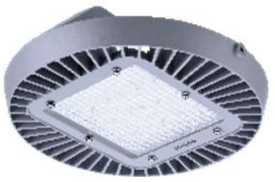
Energy saving – *Retrofit installation*

Save 73%

	 HPI P 400W Conventional Highbay	 BY416P LED Highbay
Lamp watt	400 W	180 W
System consumption	474 W	180 W
Initial lumen output	32500 lm	23000 lm
Light output ratio (LOR)	60%	100%
Average system lumen output (10000 hrs)	19500 lm	23000 lm
		65%

Total energy saving with 15% Lux higher

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What does this product compare with?

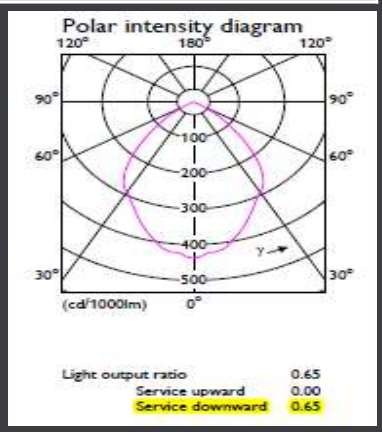
Best Energy Efficiency

Parameter	400W HPI BU High Bay	Maxolid Highbay- NI
Lamp wattage	HPI BU 400W	180W LED System
Lamp lumen output	32500	
Luminaire efficiency	.6	
Effective lumen output	19500	23000
System wattage	474W	180W
Savings		~294W Per point
		>62% Per point

Savings < 70% against the conventional Highbay on EM (HPL) Gear

Downward Light Output Ratio = DLOR

= Optical efficiency of the conventional luminaire in throwing the light downward compared to the lumens generated by the lamp inside the optical chamber.



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What does this product compare with?

Best Energy Efficiency

Retrofit Project against 2 years old installed Highbay

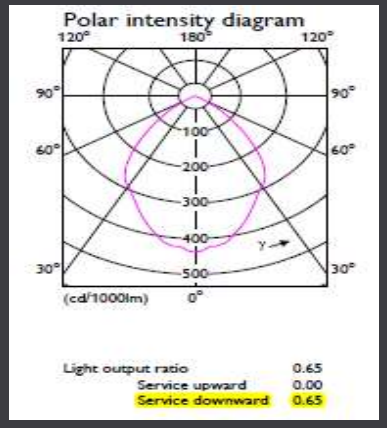
Parameter	400W Highbay	Maxolid LED Highbay
Lamp wattage	HPI BU 400W	180W LED System
Lamp lumen output	42000	
LM@10K & DLOR	70% & .7	
Effective lumen output	20580	23000
System wattage	474W	180W
Savings		~294 Per point
		>65% Per point

Lumen maintenance @ 10000 Hr : 70%

Savings < 50% against the conventional Highbay on EM(SON) Gear

Downward Light Output Ratio = DLOR

= Optical efficiency of the conventional luminaire in throwing the light downward compared to the lumens generated by the lamp inside the optical chamber.



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What does this product compare with?

Best Energy Efficiency

Retrofit Project against 2 years old installed Highbay

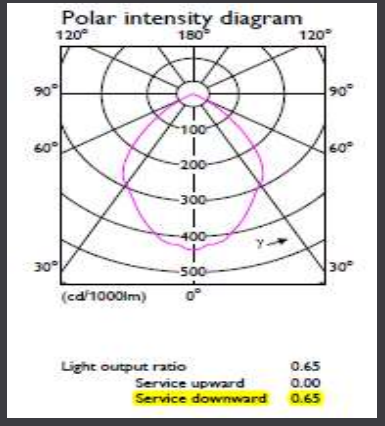
Parameter	400W Highbay	Maxolid LED Highbay
Lamp wattage	HPI BU 400W	180W LED System
Lamp lumen output	32500	
LM@10K & DLOR	70% & .65	
Effective lumen output	16000	23000
System wattage	474W	180W
Savings		~294 Per point
		>65% Per point

Savings < 50% against the conventional Highbay on EM(HPL) Gear

Lumen maintenance @ 10000 Hr : 70%

Downward Light Output Ratio = DLOR

= Optical efficiency of the conventional luminaire in throwing the light downward compared to the lumens generated by the lamp inside the optical chamber.



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Detail Specification

SPECIFICATION		BY416P LED230S	BY416P LED260S	BY416P LED280S NI	BY415P LED240S	BY415P LED275S
System	Flux packages (lm)	23000lm	26000lm	28500lm	24500 lm	28000 lm
	CCT/color	5700K			6500K	
	CRI	≥ 70			≥ 80	
	System efficacy(typical)	127lm/W	127lm/W	127lm/W	130 lm/W	127 lm/W
	System wattage	180W	205W	225W	190W	220W
	SDCM	<5				
Optics	Light distribution	SY20^{o} / SK60^{o}			NB (60^{o})/ WB(110^{o})	
	Lens	PC				
	Optical cover	High Transmittance Tempered Glass				
Electrical	Input voltage	140~270V- 50 Hz				
	Power Factor	>0.95				
	THD	<10%				
	Driver	Fixed ; 1-10V Dimming				
	Surge protection	4KV ; 10KV on demand				
	Serviceability / Electrical	Class B/ Class 1				
Lifetime	Luminaire life time	50k hours (L70B50 @Ta45°C)				
Environment	Operating temperature	- 10ºC < Ta< 50ºC				
	IP Rate	IP65				
	IK Rate	IK08				
Mechanical	Mounting	Eye Bolt mounted				
	Housing material	Aluminum Die-casting				
Approbation / Norms	Approbation	BIS				
	Sustainability	RoHS				

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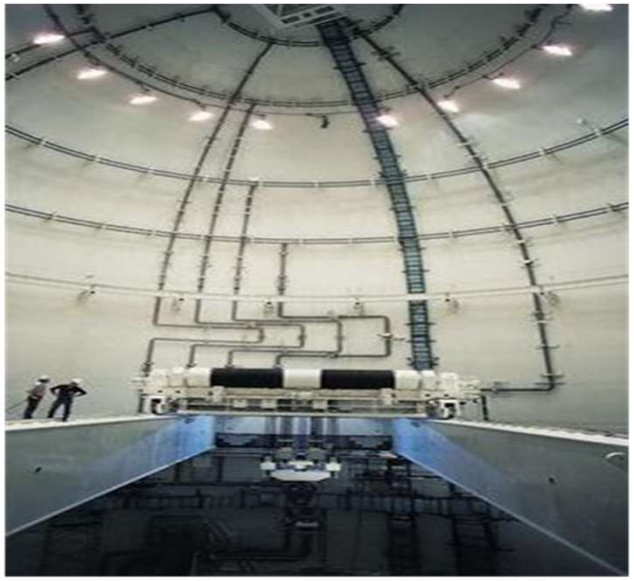
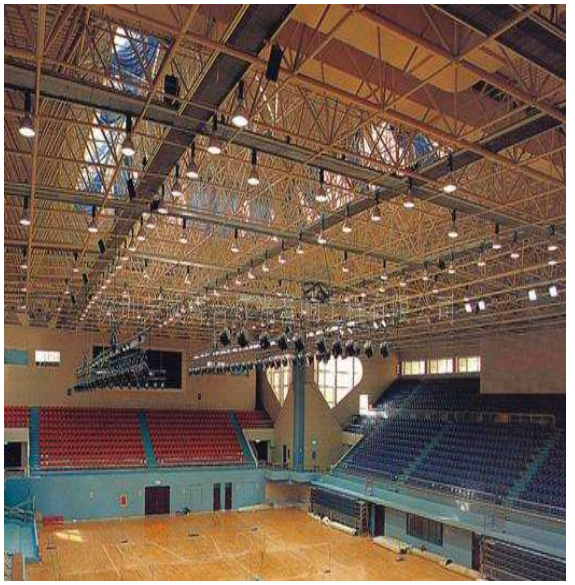
Applications





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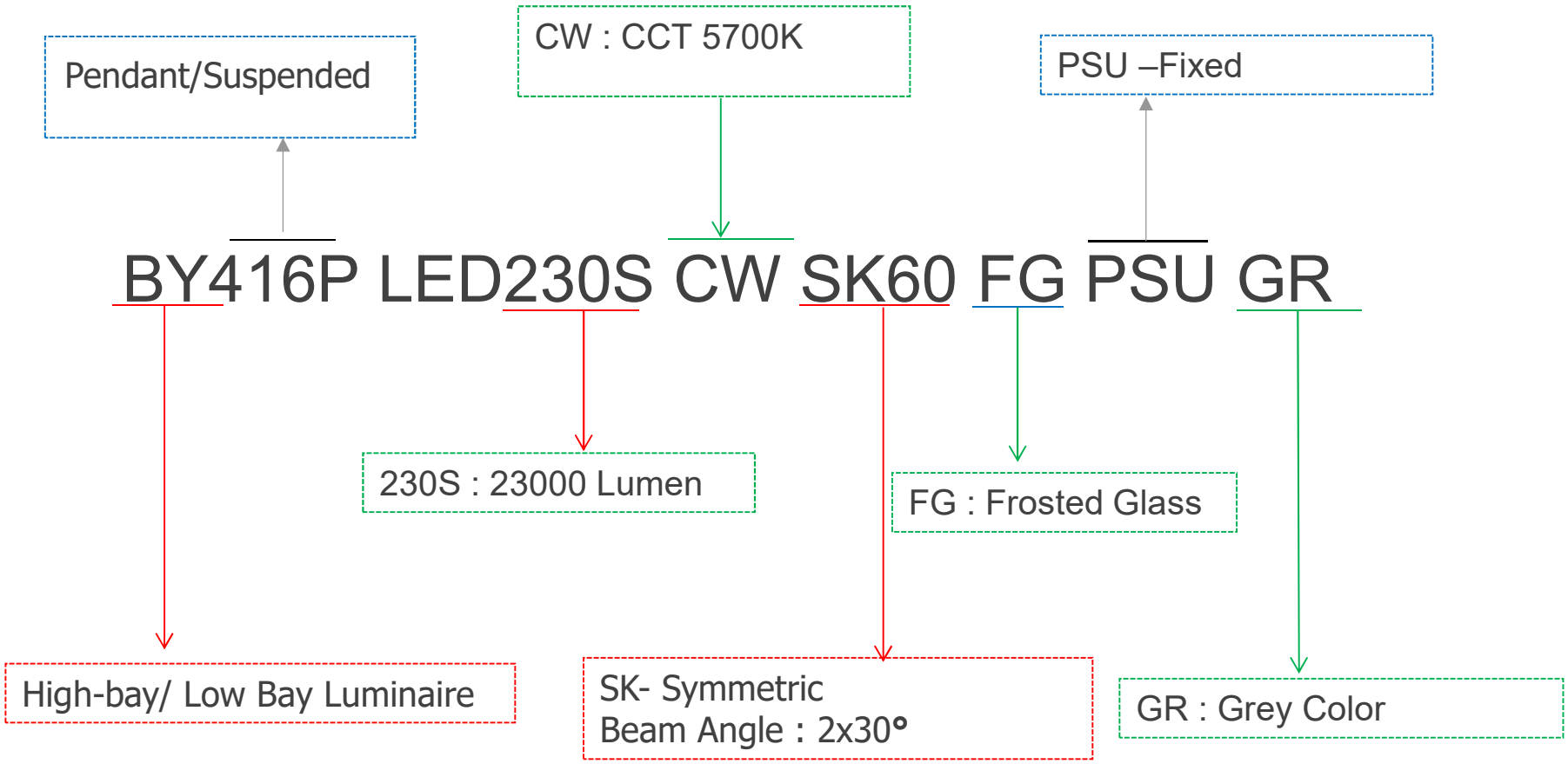

How to read the Cat ref!

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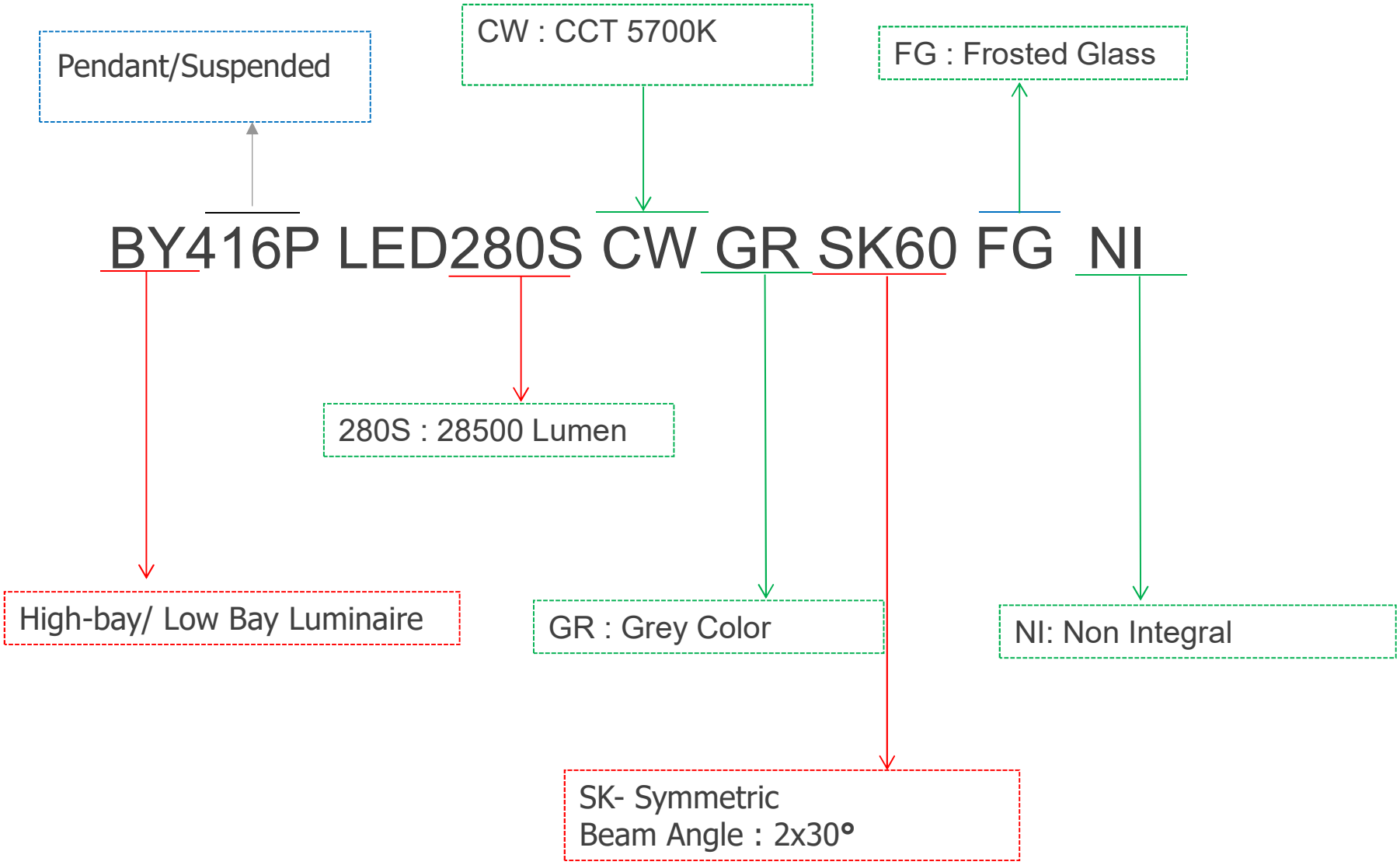

How to read the Cat ref!

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Mounting Instruction- *Eye Bolt Mounting*

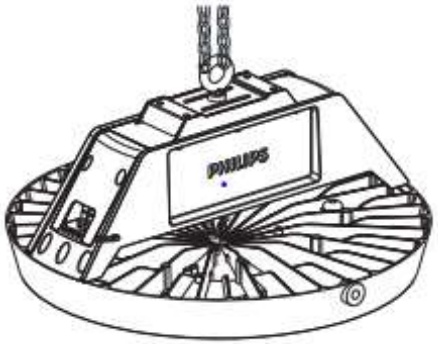
LED HIGHBAY

Installation Instruction

Dimensions

Indoor Luminaire

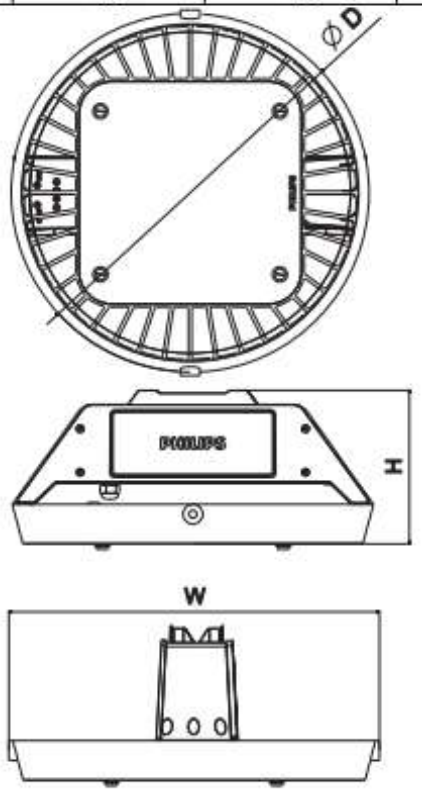
I Bolt Mounting



TYPE	: BY416P
LAMP	: LED
VOLTAGE	: 240 V, 50 Hz
IP CLASSIFICATION	: IP 65
NET WEIGHT	: 8.0 Kg.
MAX. PROJECTED AREA	: 0.16 m²
CCT	: 5700K
APPLICATION	: INDUSTRIAL HIGHBAY

IP-65 Ta-45

TYPE	DIMENSIONS(mm)		
	D	W	H
	456	466	194



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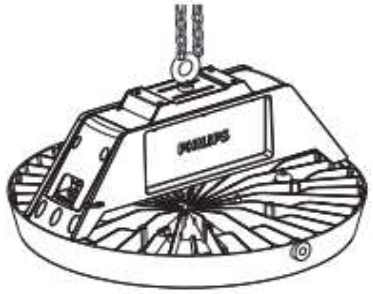
Mounting Instruction- *Eye Bolt Mounting*

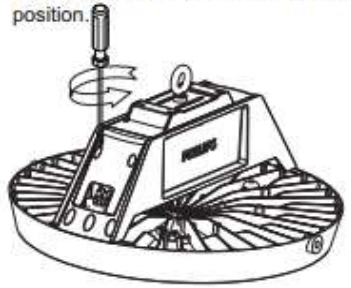
1 Take the luminaire out of Packing Box & lift up to the assembly location.

2 Hang the luminarie by suitable means.



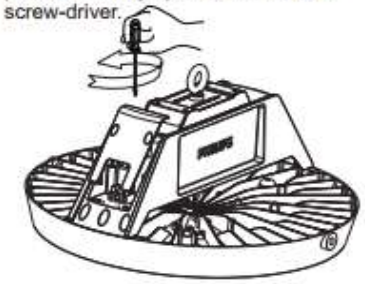
6 After connections, fit plastic cover snaps first and then position it in right manner for assembly.

7 After positioning assemble the plastic cover & rotate the luminaire to its initial position.

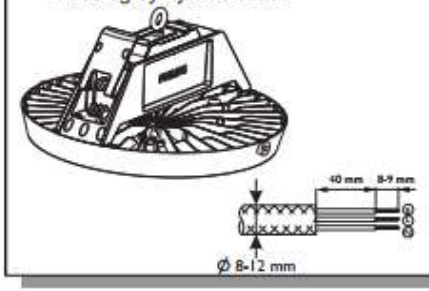


⚠ Notice: Product is ready to lit.

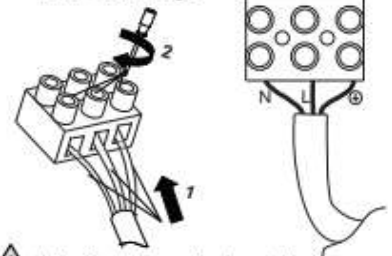
3 Rotate the luminarie so that plastic cover towards the installer for ease of installation/ maintenance. Remove the plastic cover by open 2 screws with screw-driver.



4 Insert the main wire and make connections to Pole connector & put it through wire clamp.
** Plastic cover is connected to driver housing by nylon thread.

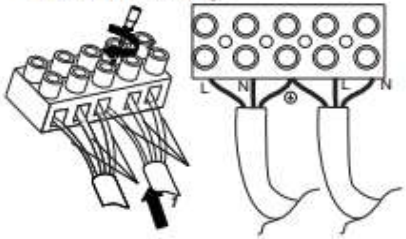


5a For one way connections:
Make the electrical connections in 3 pole connectors as per the L N E marking.



⚠ Notice: Correct connection for polarities

5b For LILO connections:
Make the electrical connections in 5 pole connectors as per the L-N-E-L-N marking.



⚠ Notice: Correct connection for polarities

8

CAUTION

1. Ensure connections in right manner.
2. Ensure 3 core CABLE for Connections(diameter 8-12mm)
3. 3 Core cable should be properly connected with the help of wire clamp.
4. Ensure I bolt mounting properly with specified load(safety issue)
5. Ensure proper positioning of Cover Plastic before assembly.
6. Use 10KV SPD to protect from Surge

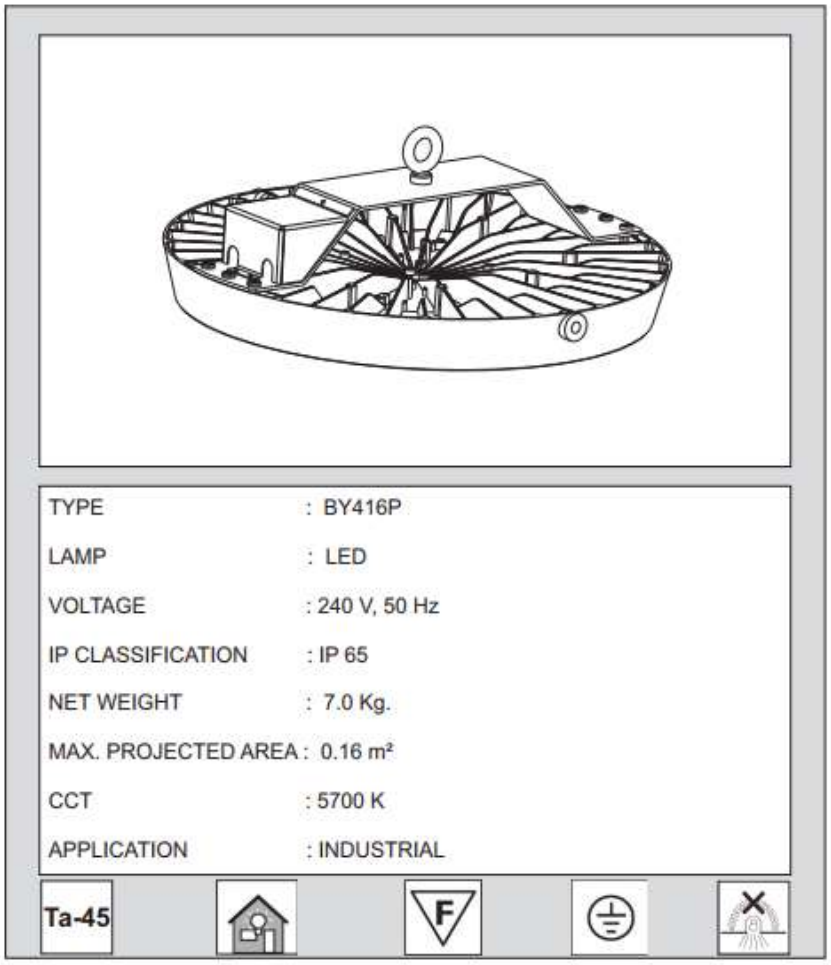
FAILURE OF PRODUCT DUE TO NON COMPLIANCE TO ANY OF THE ABOVE, VOIDS WARRANTY OF PRODUCT

Mounting Instruction- *Eye Bolt Mounting (NI version)*

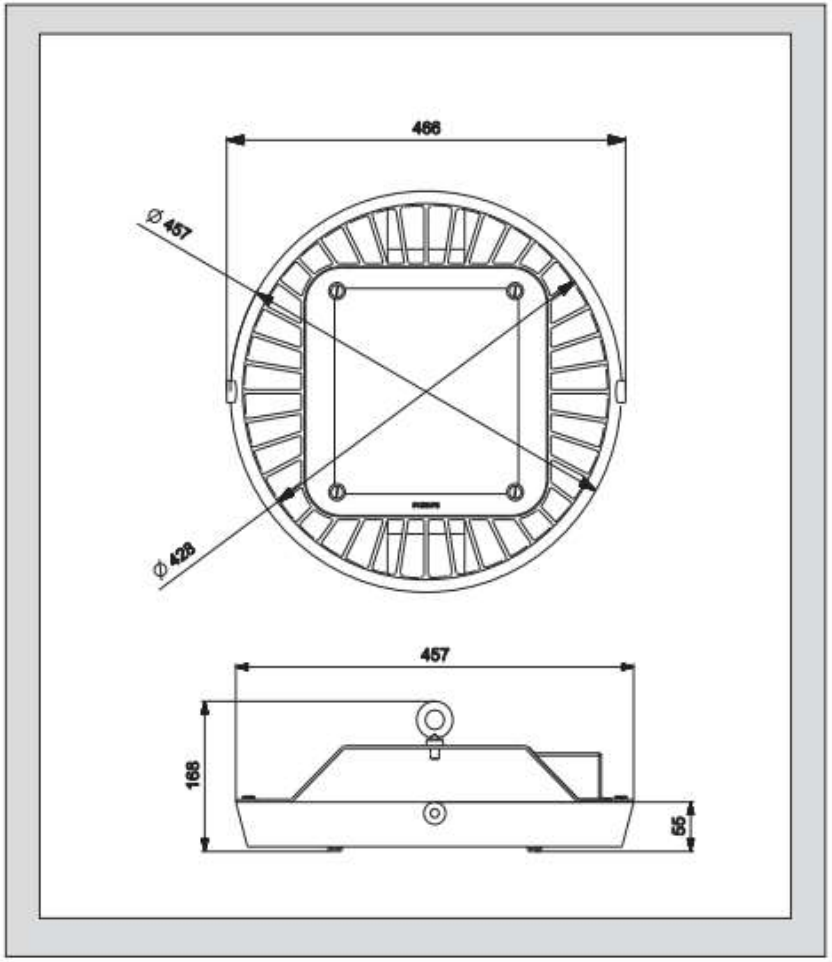
LED HIGHBAY

Installation Instruction

I Bolt Mounting



Dimensions **Indoor Luminaire**



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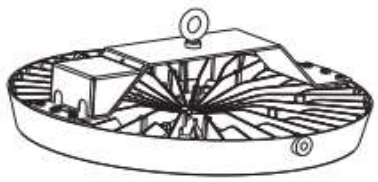
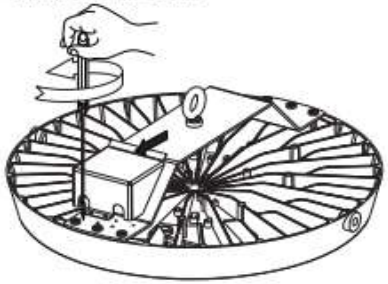
Mounting Instruction- *Eye Bolt Mounting (NI version)*

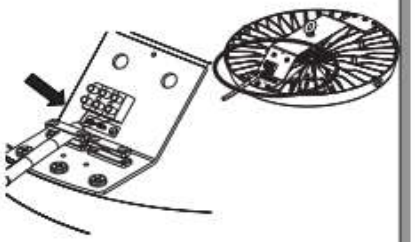
1 Take the Heat Sink Assembly out of the Packing box.



2 Open Cover Connection box with the help of screw driver.



3 Insert a 3 core cable as per Led (+ve), Led (-ve), Earth marking label and grip it with wire clamp.



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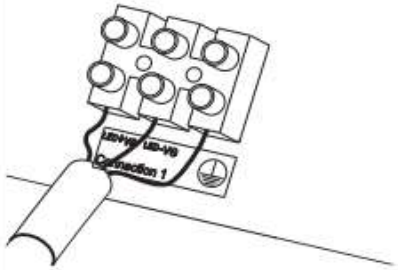
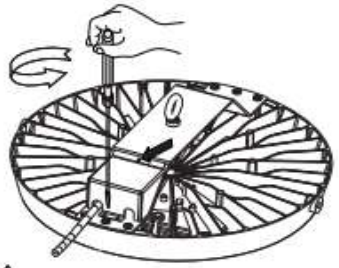
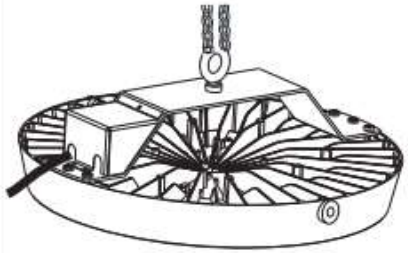


5 Close cover connection box with the help of screw driver.



Notice: Recommended cable lengths 5~20 m.

6 Hang luminaire by suitable means.



7 **CAUTION**

1. Ensure connection are done in the right manner.
2. For connections between driver output and LED engine, recommended conductor dia for each core is 1.0 sq. mm.
3. Use three core cable for connection.
4. All cables must be properly anchored with the help of wire grips.
6. For loop in loop out versions maximum four luminaries can be put in series.
7. Ensure all connections as per circuit label diagram of External Driver Box .
8. Use Surge protection (up to 10kV) to protect against surges/Use Type B+C surge type SPD in distribution box to arrest switching and lighting surges.

FAILURE OF PRODUCT DUE TO NON COMPLIANCE TO ANY OF THE ABOVE, VOIDS WARRANTY OF PRODUCT

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Order Information

LUMINAIRE

S. No.	12 NC	Description	Lumen	Spare Driver 12NC
1	9195 158 13040	BY416P LED260S CW SK60 FG PSU GR	26000	9290 021 94206
2	9195 158 13041	BY416P LED260S CW SY20 FG PSU GR	26000	9290 021 94206
3	9195 158 13042	BY416P LED230S CW SK60 FG PSU GR	23000	9290 021 94206
4	9195 158 13043	BY416P LED230S CW SY20 FG PSU GR	23000	9290 021 94206
5	9195 158 13185	BY416P LED280S CW GR SY20 FG NI	28500	9290 021 94206
6	9195 158 13186	BY416P LED280S CW GR SK60 FG NI	28500	9290 021 94206
7	9195 158 13261	BY415P LED275S CW PSU GR FG NB XTFCL V1	28000	9290 021 94206
8	9195 158 13262	BY415P LED275S CW PSU GR FG WB XTFCL V1	28000	9290 021 94206
9	9195 158 13263	BY415P LED240S CW PSU GR FG NB XTFCL V1	24500	9290 021 94206
10	9195 158 13264	BY415P LED240S CW PSU GR FG WB XTFCL V1	24500	9290 021 94206

GEAR BOX-IP65

S. No.	12NC	Description	Spare Driver 12NC
1	9195 158 13172	ZVX431 1X220W PSU LED DRIVER	9290 021 94206

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A lighting service

that fits your business needs

Advisory services

Clear insight into your current lighting system, how it can be improved, and the benefits you would gain

Project services

Design, control and coordination activities necessary to take a lighting solution from the drawing board to reality

Lifecycle services

Variety of project after-care contracts that cover all aspects necessary to guarantee long-lasting, hassle-free performance

Lighting capital

This enables you to acquire a state-of-the-art, business enhancing solution immediately – with little to no upfront capital investment required

signify

We listen to

and understand your needs

Global presence
and local experience delivering multi-tiered support

One-stop shop: solutions and services across the lighting value chain

World-class innovation capabilities and deep application and system expertise

Proven record of
quality and reliability – no unpleasant surprises

signify


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