



Zweite Philips

LED High Bay



# Brilliant Industrial Lighting Solutions

Widely used in warehouses, factories, big-box retail stores, loading areas, school and university gymnasiums and more !

**What You Don't Know About Trade Secrets Could Hurt Your Business**

Have you ever bought any cheap Industrial lightings?

THEN



After 2 months usage  
Water Ingress



After 3 months usage  
Rusting



After 5 months usage  
Driver or LED module  
Failure



After 1 year usage  
Brightness  
Reduced 50%

# Zweite Philips LED High Bay

VS

## Conventional High Bay



### High Pressure Sodium (HPS) High Bay :

HPS lights are often used in warehouse, industrial, business, and recreational facilities where high bay lighting is appropriate. The downsides of HPS bulbs include the **worst color rendering** on the market and a **long warm up period**.

### Metal Halide High Bay :

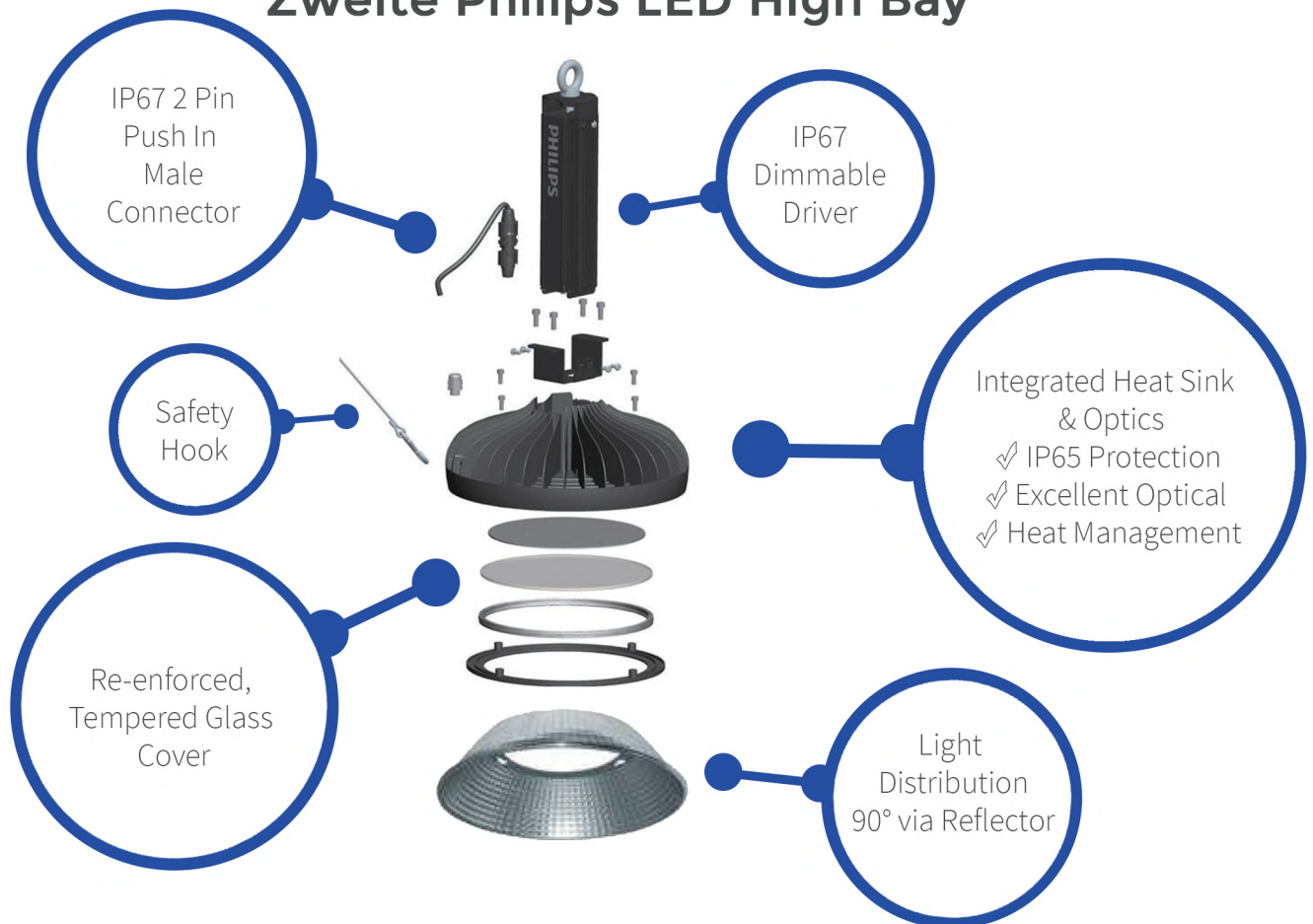
MH lamps are common in sporting and warehouse/industrial uses whereas high spaces need to be illuminated. Some of their major drawbacks include a **long time to warm up** (15-30 minutes), **expensive to maintain**, their failure characteristics include **flickering** on and off, and much of the energy is wasted as **heat**.



### Zweite Philips LED High Bay :

An integrated module solution with **IP65 protection**, **excellent optical** and **heat management** that offers **high energy efficacy 150lm/W**, **high quality of light CRI 82Ra**, long lifetime at **50,000 hours**, **instant full light**, **flicker free** and **low maintenance** requirements.

## Zweite Philips LED High Bay





## 1. IP65 Integrated Heat Sink & Optics

Streamlined profile for best-in-class thermal performance with integrated heat sink and optics design.

Re-inforced, tempered glass cover with protective film provides extra high light transmission and protect the LED sources under harsh environment conditions.



## 2. IP67 2 Pin Push In Male Connector



The connector is designed to be used for outdoor lighting with IP67 protection level for safe and reliable electric circuit.

Decrease installation and tooling costs with 2 Pin Push In Connector.

## 3. Wide Angle Light Distribution with 90D Reflector

Facet reflector consists of large number of small surfaces with different angles of rotation, with respect to the reflector focus, which ensures better distribution of luminous flux to the desired direction.





## 1. Maximum Flexibility

Philips Xitanium Dimmable (1-10V) LED Outdoor Drivers are specifically designed to deliver reliable performance and protection while meeting the strict performance, approbation and application requirements. It offers maximum flexibility to adjust lumen output through 1-10V dimming interface.



## 2. IP67 Ingress Protection Rating

Consistent waterproof performance throughout the lifecycle 50,000 hours.

## 3. Ultimate Robustness & Reliability

Philips Xitanium Dimmable Drivers are specially designed for maximum reliability and core exibility in low voltage outdoor applications. With superior surge protection, these durable, independently housed drivers deliver consistent, high performance to luminaires even after multiple indirect lightning strikes.



Low maintenance ensures extremely cost effective solutions

## 4. Wide Variety of Protection Features

Automatic recovering from open load protection, short circuit protection, over power protection and over temperature protection driver.

Ultimate protection secure the lowest luminaires maintenance overtime.

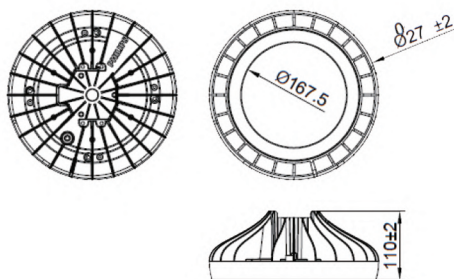
# Product Specifications : Zweite Philips High Bay Module



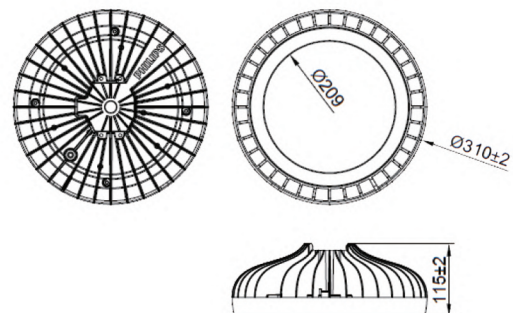
Product type	Module power	Module efficacy typical	Light output	Correlated color temperature	Color rendering index	Tc max	Color consistency	Lifetime 90% survivals
	W	lm/W	lm	K	min. CRI	(°C)	SDCM	Hours
Zweite Philips High Bay Module 15KLM 857	100	150	15000	5700	>80	85	6	50,000
Zweite Philips High Bay Module 24KLM 857	165	146	24000	5700	>80	85	6	50,000

Parameter ( Typical )	15KLM 857	24KLM 857	Unit
Forward Voltage	95.0	157.0	V
Drive currents ( Life )	1050	1050	mA
Ambient temperature	-40 to +50	-40 to +50	°C
IP rating	65	65	-
IK rating	0.7	0.7	-
Luminaire class	IEC Class I	IEC Class I	-
Dimming	Yes	Yes	-
Photobiological safety	RG1	RG1	-
Length	270	310	mm
Width	270	310	mm
Height	110	115	mm
Weight ( Complete set )	2.2	3.5	kg

## 15KLM 857

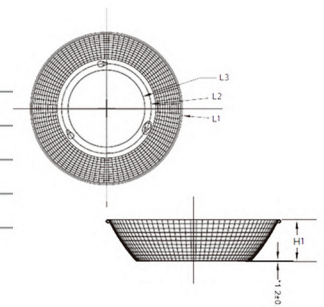


## 24KLM 857



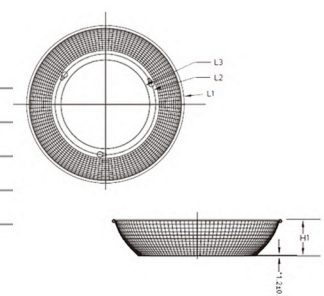
### Reflector High Bay 270MM 90D ( 15KLM 857 )

Parameter	Typical	Unit
Length (L1)	337	mm
Length (L2)	198	mm
Length (L3)	170	mm
Width	337	mm
Height (H1)	80	mm



### Reflector High Bay 310MM 90D ( 24KLM 857 )

Parameter	Typical	Unit
Length (L1)	373	mm
Length (L2)	238	mm
Length (L3)	210	mm
Width	373	mm
Height (H1)	80	mm



# Product Specifications : Zweite Philips IP67 Dim Driver



## Electrical Input data

Specification Item	Value ( 15KLM 857 )	Value ( 24KLM 857 )	Unit	Condition
Nominal input voltage	220...240	220...240	V <sub>ac</sub>	
Nominal input frequency	50...60	50...60	Hz	
Nominal input current	0.76	1.06	A	@230V @ full load
Max. input current	0.83	1.22	A	@ minimum input voltage AC
Input voltage	230	230	V <sub>ac</sub>	
Nominal input power	169	244	W	@230V @ full load
Power factor	≥ 0.98	≥ 0.98		@ full load. See graph.
Total harmonic distortion	< 10	< 10	%	@ full load. See graph.
Efficiency	91	91	%	@230V @ full load
Input voltage AC	85...305	85...305	V <sub>ac</sub>	Safety operational range
Input frequency AC	45...66	45...66	Hz	Operational range
Isolation Input to Output	Basic	Basic		

## Electrical output data

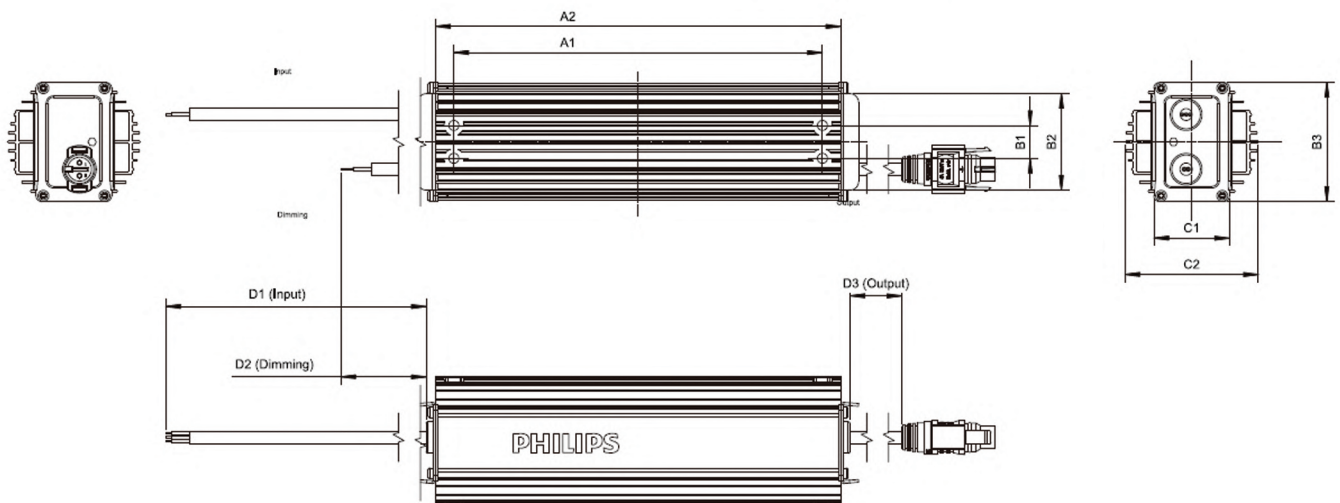
Specification Item	Value ( 15KLM 857 )	Value ( 24KLM 857 )	Unit	Condition
Regulation method	Constant Current	Constant Current		
Output voltage	71...142	100...210	V <sub>dc</sub>	
Output voltage max	220	270	V <sub>dc</sub>	Peak voltage at open load
Output current	1.05	1.05	A	Full output current setting
Output current min dimming	105	105	mA	
Output current tolerance	± 5	± 5	%	
Output current ripple LF	< 5	< 5	%	Ripple = peak/average @ 1KHz
Output current ripple HF	< 15	< 15	%	
Output power	150	220	W	Full output

## Electrical data controls input

Specification Item	Value ( 15KLM 857 )	Value ( 24KLM 857 )	Unit	Condition
Control method	1-10V	1-10V		Output current amplitude dimming, 1-10V acc. IEC60929
Galvanic Isolation	Basic	Basic		

## Dimensions and weight

Specification Item	Value ( 15KLM 857 )	Value ( 24KLM 857 )	Unit	Condition
Length (A3)	167	244	mm	
Width (B3)	65	65	mm	
Width (B1)	18	18	mm	
Height (C2)	73	73	mm	
Fixing hole distance (A1)	125	202	mm	
Weight	2.2	3.5	kg	



# Product Specifications : Zweite Philips IP67 Dim Driver



## Operational temperatures and humidity

Specification Item	Value	Value	Unit	Condition
Ambient Temperature	-40 ... +65	-40 ... +65	°C	Higher ambient temperature allowed as long as T <sub>case-max</sub> is not exceeded
Starting Ambient temperature	-40 ... +65	-40 ... +65	°C	
T <sub>case-max</sub>	85	85	°C	Maximum temperature measured at T <sub>case-point</sub>
Maximum housing temperature	90	90	°C	In case of a failure
Relative humidity	10...90	10...90	%	Non-condensing

## Storage temperature and humidity

Specification Item	Value	Value	Unit	Condition
Ambient temperature	-40...+85	-40...+85	°C	
Relative humidity	5 ... 95	5 ... 95	%	Non-condensing

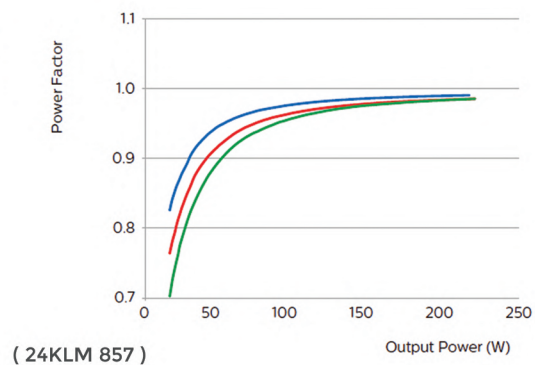
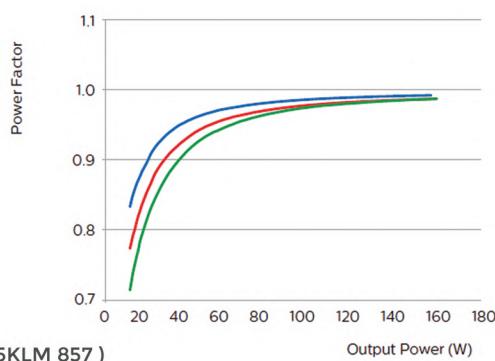
## Lifetime

Specification Item	Value	Value	Unit	Condition
Driver lifetime	50,000	50,000	hours	Measured temperature at T <sub>case-point</sub> is T <sub>case-max</sub> . Maximum failures = 10%

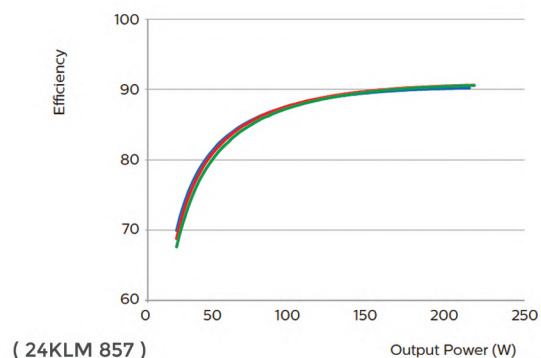
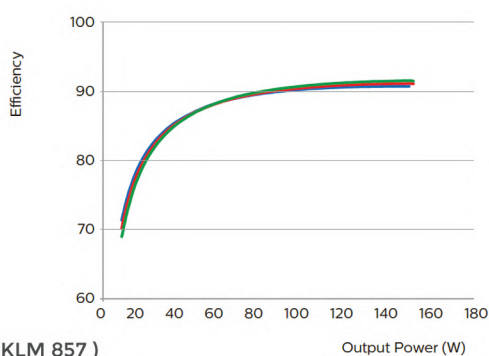
## Features

Specification Item	Value	Value	Remark	Condition
Open load protection	Yes	Yes		Automatic recovering
Short circuit protection	Yes	Yes		Automatic recovering
Over power protection	Yes	Yes		Automatic recovering
Hot wiring	No	No		
Suitable for fixtures with protection class I	I	I		per IEC60598
Over temperature protection driver	Yes	Yes		Automatic recover
Ingress Protection Rating	IP 67	IP 67		

## Power factor versus output power



## Efficiency versus output power





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