



# Cleanroom LED – hygienic and efficient

## Cleanroom LED

Customers operating highly hygienic facilities require special IP65, easy-to-clean, dust-free luminaires that meet all lighting requirements and norms. Moreover, to ensure the integrity of these areas (and stay within budget), they also need to minimize costly downtime and maintenance. With the latest LED engine on board, this LED cleanroom luminaire represents the ideal solution, delivering market-leading energy performance – far beyond fluorescent solutions – over 50,000 hours of maintenance-free operation. This means extremely low operational cost over the total lifetime of the luminaire, and so an excellent financial return on investment.

### Benefits

- Excellent functional cleanroom performance
- Market-leading energy efficiency; extremely low operational cost over total lifetime
- Excellent quality of light with high color rendering

### Features

- Latest LED engine
- IP65
- ISO class 2-9 Fraunhofer-certified
- CRI 90
- Push-in connector: connection without opening the luminaire

### Application

- Hygienic areas in hospitals and laboratories
- Production facilities in the clothing industry
- Graphic design studios

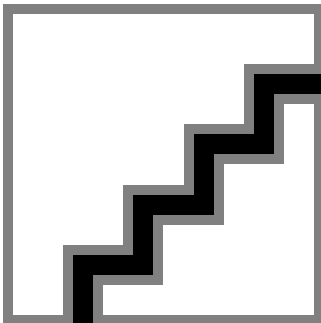
### Specifications

# Cleanroom LED

<b>Type</b>	CR434B (lay-in, 596 x 596 / 1196 x 296 mm version)
<b>Ceiling type</b>	Exposed T-bar ceiling Plaster (board) ceiling
<b>Ceiling grid</b>	Module size in length: 300 and 600 mm
<b>Light source</b>	Replaceable LED module
<b>Power (+/-10%)</b>	LED48: 49 W LED88: 77 W
<b>Luminous flux</b>	Square LED48: 3600 lm (3000 K) or 3900 lm (4000 K) (depending type) Square LED88: 6000 lm (3000 K) or 6300 lm (4000 K) (depending type) Rectangular LED88: 6000 lm (3000 K) or 6300 lm (4000 K) (depending type)
<b>Correlated Colour Temperature</b>	3000 or 4000 K
<b>Colour Rendering Index</b>	> 80
<b>Median useful life</b>	70,000 hours
<b>L70B50</b>	
<b>Median useful life</b>	50,000 hours
<b>L80B50</b>	
<b>Median useful life</b>	25,000 hours
<b>L90B50</b>	

<b>Driver failure rate</b>	1% per 5000 hours
<b>Average ambient temperature</b>	+25 °C
<b>Operating temperature range</b>	-20 to +35°C
<b>Driver</b>	Philips Xitanium
<b>Mains voltage</b>	220-240 V / 50-60 Hz
<b>Dimming</b>	Touch-dim or DALI
<b>Material</b>	Housing: sheet steel, laquered Cover: glass, tempered Internal optic: aluminium Heatsink: aluminium sheet steel
<b>Colour</b>	White RAL 9003
<b>Optical cover</b>	AC-MLO
<b>Connection</b>	Push-in connector
<b>Maintenance</b>	No internal cleaning required
<b>Installation</b>	Lay in: fixation with spring fastener Lay out: fixation with bolt and nuts No through-wiring Installation without removing light source and optical cover (not in case of plaster-ceiling versions)
<b>Accessories</b>	Safety cable

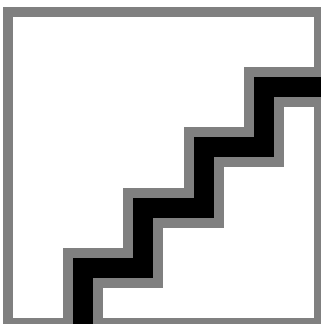
## Versions



Cleanroom LED CR434B recessed luminaire



Cleanroom LED CR434B recessed luminaire



Cleanroom LED CR444B recessed luminaire



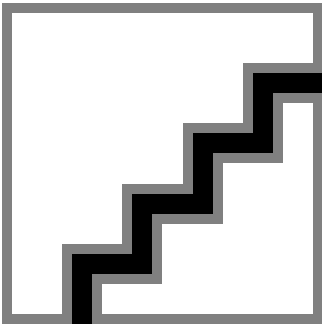
Cleanroom LED CR444B recessed luminaire

# Cleanroom LED

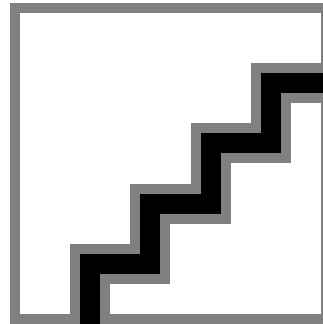
## Versions



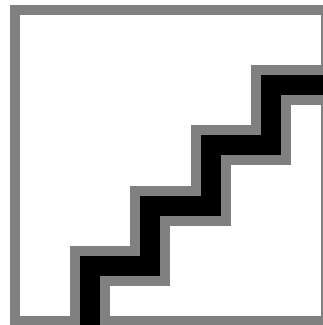
## Product details



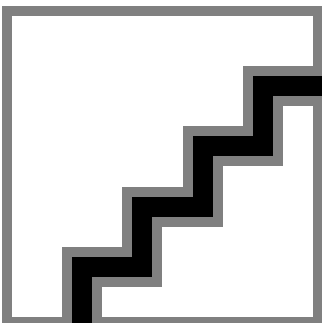
IPDP\_CR434Bi\_0001-Detail photo



IPDP\_CR434Bi\_0005-Detail photo



IPDP\_CR434Bi\_0023-Detail photo

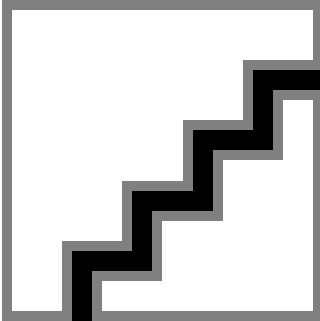


IPDP\_CR434Bi\_0011-Detail photo

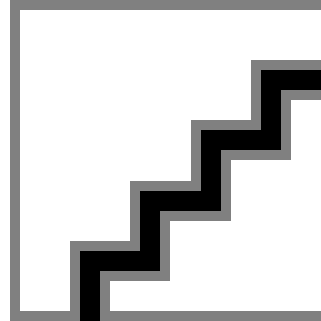


# Cleanroom LED

## Product details



IPDP\_CR434Bi\_0013-Detail photo



IPDP\_CR434Bi\_0017-Detail photo

### Application Conditions

Ambient temperature range	-20 to +40 °C
Maximum dim level	1%
Suitable for random switching	No

### Approval and Application

Mech. impact protection code	IK05
Ingress protection code	IP65

### Controls and Dimming

Dimmable	Yes
----------	-----

### Operating and Electrical

Input Voltage	220 to 240 V
---------------	--------------

### General Information

Cap-Base	-
CE mark	CE mark
Protection class IEC	Safety class I
Optical cover/lens type	AC-MLO
Driver included	Yes
ENEC mark	ENEC plus mark
Flammability mark	F
Glow-wire test	Temperature 850 °C, duration 5 s
Light source replaceable	No
Number of gear units	1 unit
Number of light sources	1
Optic type	No
UL mark	No

### Initial Performance (IEC Compliant)

Luminous flux tolerance	+/-10%
-------------------------	--------

### Mechanical and Housing

Colour	White
--------	-------

### General Information

Order Code	Full Product Name	Lamp family code	Product Family Code
91889800	CR434B LED48/830 PSD W60L60 AC-MLO PI	LED48	CR434B
91890400	CR434B LED48/840 PSD W60L60 AC-MLO PI	LED48	CR434B
91891100	CR434B LED88/830 PSD W60L60 AC-MLO PI	LED88	CR434B
91892800	CR434B LED88/840 PSD W60L60 AC-MLO PI	LED88	CR434B
11133600	CR434B LED48/940 PSD W60L60 AC-MLO PI	LED48	CR434B
11134300	CR434B LED88/940 PSD W60L60 AC-MLO PI	LED88	CR434B
91893500	CR434B LED88/830 PSD W30L120 AC-MLO PI	LED88	CR434B
91894200	CR434B LED88/840 PSD W30L120 AC-MLO PI	LED88	CR434B
11135000	CR434B LED88/940 PSD W30L120 AC-MLO PI	LED88	CR434B
91901700	CR444B LED48/830 PSD W60L60 AC-MLO PI	LED48	CR444B
91902400	CR444B LED48/840 PSD W60L60 AC-MLO PI	LED48	CR444B
91904800	CR444B LED88/840 PSD W60L60 AC-MLO PI	LED88	CR444B
11139800	CR444B LED48/940 PSD W60L60 AC-MLO PI	LED48	CR444B
11140400	CR444B LED88/940 PSD W60L60 AC-MLO PI	LED88	CR444B
91906200	CR444B LED88/840 PSD W30L120 AC-MLO PI	LED88	CR444B
11141100	CR444B LED88/940 PSD W30L120 AC-MLO PI	LED88	CR444B
91910900	CR446B LED88/840 PSD W62L62 AC-MLO PI	LED88	CR446B

## Initial Performance (IEC Compliant) (1/2)

## Cleanroom LED

Order Code	Full Product Name	Initial chromaticity	Init. Corr. Colour Temperature	Init. Colour Rendering Index	Initial LED luminaire efficacy
91889800	CR434B LED48/830 PSD W60L60 AC-MLO PI	(0.43, 0.40)	3000 K	≥80	113 lm/W
91890400	CR434B LED48/840 PSD W60L60 AC-MLO PI	(0.38, 0.38)	4000 K	≥80	120 lm/W
91891100	CR434B LED88/830 PSD W60L60 AC-MLO PI	(0.43, 0.40)	3000 K	≥80	109 lm/W
91892800	CR434B LED88/840 PSD W60L60 AC-MLO PI	(0.38, 0.38)	4000 K	≥80	115 lm/W
11133600	CR434B LED48/940 PSD W60L60 AC-MLO PI	(0.38, 0.38)	4000 K	≥90	96 lm/W
11134300	CR434B LED88/940 PSD W60L60 AC-MLO PI	(0.38, 0.38)	4000 K	≥90	93 lm/W
91893500	CR434B LED88/830 PSD W30L120 AC-MLO PI	(0.43, 0.40)	3000 K	≥80	109 lm/W
91894200	CR434B LED88/840 PSD W30L120 AC-MLO PI	(0.38, 0.38)	4000 K	≥80	115 lm/W
11135000	CR434B LED88/940 PSD	(0.38, 0.38)	4000 K	≥90	93 lm/W

Order Code	Full Product Name	Initial chromaticity	Init. Corr. Colour Temperature	Init. Colour Rendering Index	Initial LED luminaire efficacy
	W30L120 AC-MLO PI				
91901700	CR444B LED48/830 PSD W60L60 AC-MLO PI	(0.43, 0.40)	3000 K	≥80	113 lm/W
91902400	CR444B LED48/840 PSD W60L60 AC-MLO PI	(0.38, 0.38)	4000 K	≥80	120 lm/W
91904800	CR444B LED88/840 PSD W60L60 AC-MLO PI	(0.38, 0.38)	4000 K	≥80	115 lm/W
11139800	CR444B LED48/940 PSD W60L60 AC-MLO PI	(0.38, 0.38)	4000 K	≥80	96 lm/W
11140400	CR444B LED88/940 PSD W60L60 AC-MLO PI	(0.38, 0.38)	4000 K	≥80	93 lm/W
91906200	CR444B LED88/840 PSD W30L120 AC-MLO PI	(0.38, 0.38)	4000 K	≥80	115 lm/W
11141100	CR444B LED88/940 PSD W30L120 AC-MLO PI	(0.38, 0.38)	4000 K	≥80	93 lm/W
91910900	CR446B LED88/840 PSD W62L62 AC-MLO PI	(0.38, 0.38)	4000 K	≥80	115 lm/W

### Initial Performance (IEC Compliant) (2/2)

Order Code	Full Product Name	Initial luminous flux	Initial input power
91889800	CR434B LED48/830 PSD W60L60 AC-MLO PI	3600 lm	32 W
91890400	CR434B LED48/840 PSD W60L60 AC-MLO PI	3900 lm	32.5 W
91891100	CR434B LED88/830 PSD W60L60 AC-MLO PI	6000 lm	55 W
91892800	CR434B LED88/840 PSD W60L60 AC-MLO PI	6300 lm	55 W
11133600	CR434B LED48/940 PSD W60L60 AC-MLO PI	3900 lm	40.5 W

Order Code	Full Product Name	Initial luminous flux	Initial input power
11134300	CR434B LED88/940 PSD W60L60 AC-MLO PI	6300 lm	68 W
91893500	CR434B LED88/830 PSD W30L120 AC-MLO PI	6000 lm	55 W
91894200	CR434B LED88/840 PSD W30L120 AC-MLO PI	6300 lm	55 W
11135000	CR434B LED88/940 PSD W30L120 AC-MLO PI	6300 lm	68 W
91901700	CR444B LED48/830 PSD W60L60 AC-MLO PI	3600 lm	32 W

## Cleanroom LED

Order Code	Full Product Name	Initial luminous flux	Initial input power
91902400	CR444B LED48/840 PSD W60L60 AC-MLO PI	3900 lm	32.5 W
91904800	CR444B LED88/840 PSD W60L60 AC-MLO PI	6300 lm	55 W
11139800	CR444B LED48/940 PSD W60L60 AC-MLO PI	3900 lm	40.5 W
11140400	CR444B LED88/940 PSD W60L60 AC-MLO PI	6300 lm	68 W

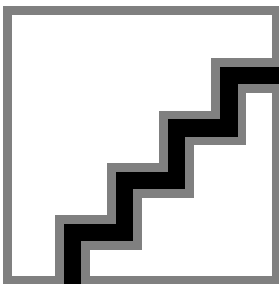
Order Code	Full Product Name	Initial luminous flux	Initial input power
91906200	CR444B LED88/840 PSD W30L120 AC-MLO PI	6300 lm	55 W
11141100	CR444B LED88/940 PSD W30L120 AC-MLO PI	6300 lm	68 W
91910900	CR446B LED88/840 PSD W62L62 AC-MLO PI	6300 lm	55 W

### Mechanical and Housing

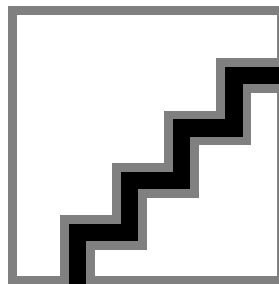
Order Code	Full Product Name	Geometry
91889800	CR434B LED48/830 PSD W60L60 AC-MLO PI	Width 0.60 m, length 0.60 m
91890400	CR434B LED48/840 PSD W60L60 AC-MLO PI	Width 0.60 m, length 0.60 m
91891100	CR434B LED88/830 PSD W60L60 AC-MLO PI	Width 0.60 m, length 0.60 m
91892800	CR434B LED88/840 PSD W60L60 AC-MLO PI	Width 0.60 m, length 0.60 m
11133600	CR434B LED48/940 PSD W60L60 AC-MLO PI	Width 0.60 m, length 0.60 m
11134300	CR434B LED88/940 PSD W60L60 AC-MLO PI	Width 0.60 m, length 0.60 m
91893500	CR434B LED88/830 PSD W30L120 AC-MLO PI	Width 0.30 m, length 1.20 m
91894200	CR434B LED88/840 PSD W30L120 AC-MLO PI	Width 0.30 m, length 1.20 m
11135000	CR434B LED88/940 PSD W30L120 AC-MLO PI	Width 0.30 m, length 1.20 m

Order Code	Full Product Name	Geometry
91901700	CR444B LED48/830 PSD W60L60 AC-MLO PI	Width 0.60 m, length 0.60 m
91902400	CR444B LED48/840 PSD W60L60 AC-MLO PI	Width 0.60 m, length 0.60 m
91904800	CR444B LED88/840 PSD W60L60 AC-MLO PI	Width 0.60 m, length 0.60 m
11139800	CR444B LED48/940 PSD W60L60 AC-MLO PI	Width 0.60 m, length 0.60 m
11140400	CR444B LED88/940 PSD W60L60 AC-MLO PI	Width 0.60 m, length 0.60 m
91906200	CR444B LED88/840 PSD W30L120 AC-MLO PI	Width 0.30 m, length 1.20 m
11141100	CR444B LED88/940 PSD W30L120 AC-MLO PI	Width 0.30 m, length 1.20 m
91910900	CR446B LED88/840 PSD W62L62 AC-MLO PI	Width 0.62 m, length 0.62 m

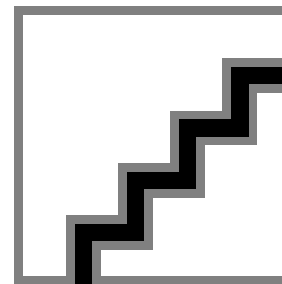
### Polar Wide Diagrams



IFPS\_CR434B W60L60 1xLED88/830 AC-MLO-Polar Normal (separate)



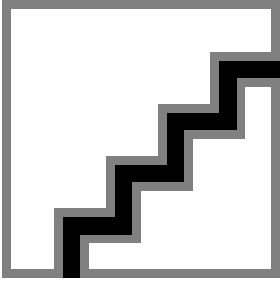
IFPS\_CR434B W60L60 1xLED48/940 AC-MLO-Polar Normal (separate)



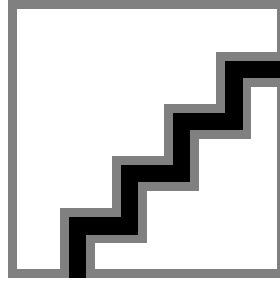
IFPS\_CR434B W60L60 1xLED88/940 AC-MLO-Polar Normal (separate)

# Cleanroom LED

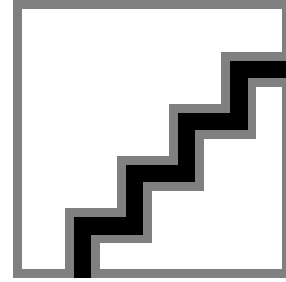
## Polar Wide Diagrams



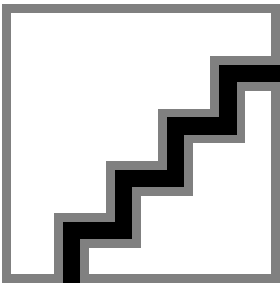
IFPS\_CR434B W30L120 1xLED88/840 AC-MLO-Polar Normal (separate)



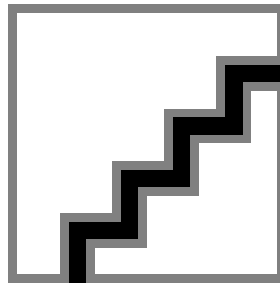
IFPS\_CR434B W30L120 1xLED88/940 AC-MLO-Polar Normal (separate)



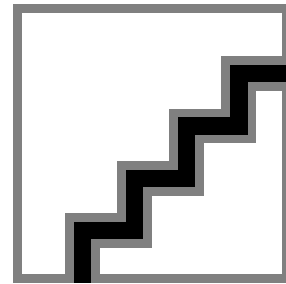
IFPS\_CR444B W60L60 1xLED48/840 AC-MLO-Polar Normal (separate)



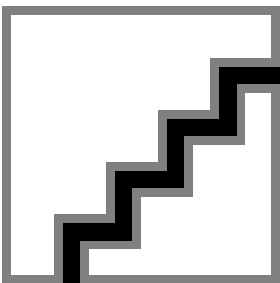
IFPS\_CR444B W60L60 1xLED88/830 AC-MLO-Polar Normal (separate)



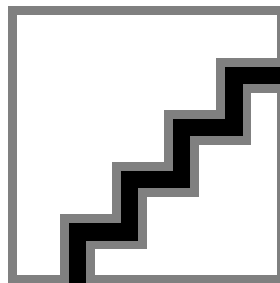
IFPS\_CR444B W60L60 1xLED48/940 AC-MLO-Polar Normal (separate)



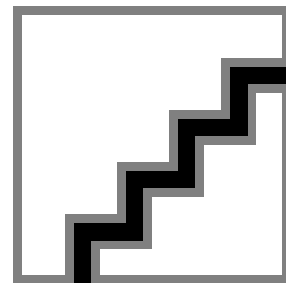
IFPS\_CR444B W60L60 1xLED88/940 AC-MLO-Polar Normal (separate)



IFPS\_CR444B W30L120 1xLED88/830 AC-MLO-Polar Normal (separate)



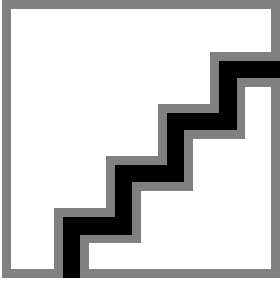
IFPS\_CR444B W30L120 1xLED88/840 AC-MLO-Polar Normal (separate)



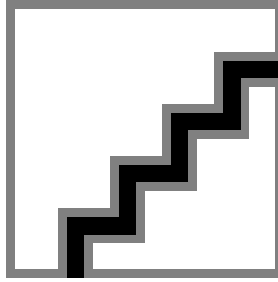
IFPS\_CR446B W62L62 1xLED48/830 AC-MLO-Polar Normal (separate)

## Cleanroom LED

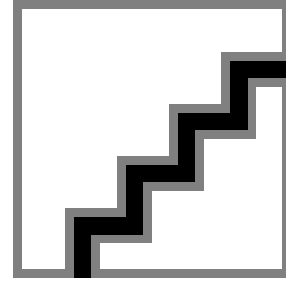
### Polar Wide Diagrams



IFPS\_CR446B W62L62 1xLED48/840 AC-MLO-  
Polar Normal (separate)



IFPS\_CR446B W62L62 1xLED88/830 AC-MLO-  
Polar Normal (separate)



IFPS\_CR446B W62L62 1xLED88/840 AC-MLO-  
Polar Normal (separate)

