



Technical Data Sheet

## LED Hi-Bay Luminaire

### Preliminary Technical Data Sheet

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## General information

LED CE F  IP65 IP20



- Virtually maintenance free operation, long life, ~5.7 years burning 24/7
- Ideal for Cold Stores down to -30°C, though equally suited in ambient up to +30°C
- Instant white light, overcoming the re-strike issues of HID lamps
- Compact & robust die cast aluminium housing and steel remote gear box
- Racking Isle or open area optic choice to maximise spacing and uniformity
- High mounting height, ideal for warehouse racking and marshalling areas
- Integrated emergency option, a benefit over HID alternatives
- 5000K cool white Multi-die LED chip technology:
  - High luminaire efficiency, 62lm/W from the rack optic variant
  - Compliant with Part L of Building Regulations and proposed efficiency levels for energy saving incentives schemes.
- Output can be controlled via separate switching or dimming of the LED arrays maximising energy efficiency. Select the required gear box for the desired functionality.

This unique luminaire presents the market with a revelation in cold store and high bay lighting. Purpose designed for operation in a wide ambient temperature range, this luminaire blends cutting edge LED technology with innovative and functional styling.

Offered with cool white LED arrays integrated into a white powder coated aluminium housing, the 'HBL' range is a high performance alternative to traditional HID luminaires, boasting significant through life advantages to the customer. Optical performance is enhanced with a choice of racking aisle or open area lens and reflector options. Bespoke optics can be developed to suit specific project requirements.

The light output can be tailored to the application through a combination of LED array switching and dimming options. Five pairs of LED Array can be individually switched to provide a choice of output from 0 to 100% in 20% increments. The dimming gear box allows switching of 4 pairs of LED array and dimming of the fifth pair to give full output options from 0 to 100%.

Excellent thermal management is achieved through the use of liquid filled cooling pipes, these draw heat rapidly from the LED's with the cooling fins then providing the surface area to effectively dissipate the heat. The range is completed with emergency variants providing a comprehensive LED lighting solution.

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## Materials

- Aluminium housing finished in white RAL9016 powder coat paint finish
- Clear polycarbonate optical lens
- Aluminium reflector (where fitted)

## Installation Notes

- 4 x 9mm diameter holes to allow surface mounting or suspension via suitable chain, wire or drop rods
- Fused as standard
- For operation in ambient temperatures of -30°C to +30°C.
- The IP20 remote gear box must be located in an ambient of +5°C to +25°C.
- 1m lead supplied fitted to luminaire head for direct connection into the remote gear box.
- Lens retained with M4 screws
- 100mm length of conduit supplied to protect wiring through mounting surface to remote gear box.
- Installations utilising the 'rack optic' should be installed with the length of the luminaire running parallel with the length of the aisle.

## Options

- Integrated emergency option
- Output selection via switching and dimming of the LED arrays. Select the appropriate Gear Box for the required function.
- Racking aisle or open area optic choices
- Project specific optics can be developed where appropriate

### To specify state:

High performance LED luminaire, Aluminium housing with white RAL9016 powder coat finish, reflector and clear polycarbonate optical lens, suitable for surface or suspended mounting (ideal for coldstores), as Crompton HBL Hi-Bay LED luminaire.

## Catalogue Numbers

Lamp option	Cat No.	Description	Weight (kg)
LED Array	HBL1-WCW-R	LED Hi-Bay IP65 (Rack optic)	6.3
LED Array	HBL1-WCW-M	LED Hi-Bay IP65 (Medium optic)	6.3
LED Array	HBL1-WCW-W	LED Hi-Bay IP65 (Wide optic)	6.3
-	HBL1-GB	Remote gear box (IP20)	3.0
-	EBHBL1-GB	Remote gear box with emergency (IP20)	3.3
-	HBL1-GBD	Remote gear box with Dimming (IP20)	3.0
-	EBHBL1-GBD	Remote gear box with Dimming and Emergency (IP20)	3.3
-	EBHOBL1-GB	Remote gear box with high output emergency (IP20)	3.6

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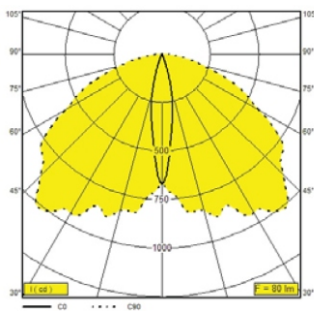
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## Photometric Data

- Photometric data and Idt files available on request
- Rack optic has prismatic lens to elongate the distribution to suit the aisles

Operating at 700mA at +25°C ambient  
Luminaire lumens per circuit watt = 62

Polar curve for Rack Optic Cat. No. HBL1-WCW-RA

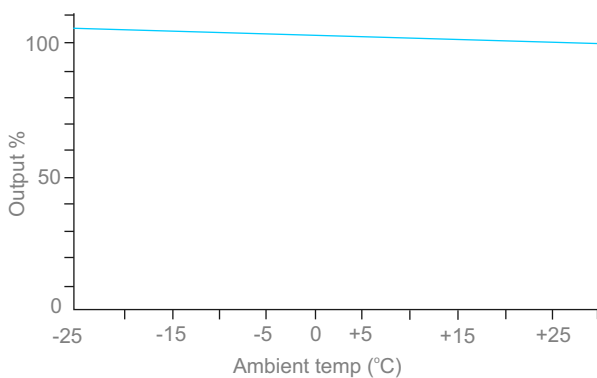


Reflectances			Room Index								
C	W	F	0.75	1	1.25	1.5	2	2.5	3	4	5
70	50	20	48	56	61	66	71	75	78	81	83
	30		42	50	56	60	67	71	74	78	81
	10		37	45	51	56	63	68	71	76	79
50	50	20	46	54	59	63	69	72	75	78	80
	30		41	49	55	59	65	69	72	76	78
	10		37	45	51	55	62	66	69	73	76
30	50	20	45	53	58	61	67	70	72	75	77
	30		40	48	54	58	63	67	70	73	75
	10		37	44	50	54	61	65	67	71	74
0	0	0	35	42	48	52	58	62	64	68	70
BZ-class			4	4	4	4	4	4	4	4	4

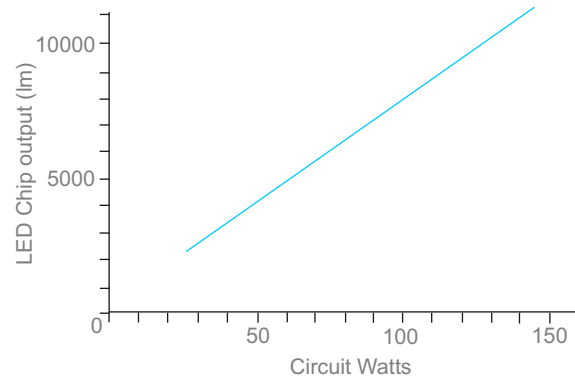
LED Chip performance at +25°C ambient

Circuit Watts (W)	Chip Lumens (lm)
28.4	2200
56.8	4400
85.2	6600
113.6	8800
142.0	11000

Indication of increased output at lower ambient



LED Chip Performance at +25°C ambient

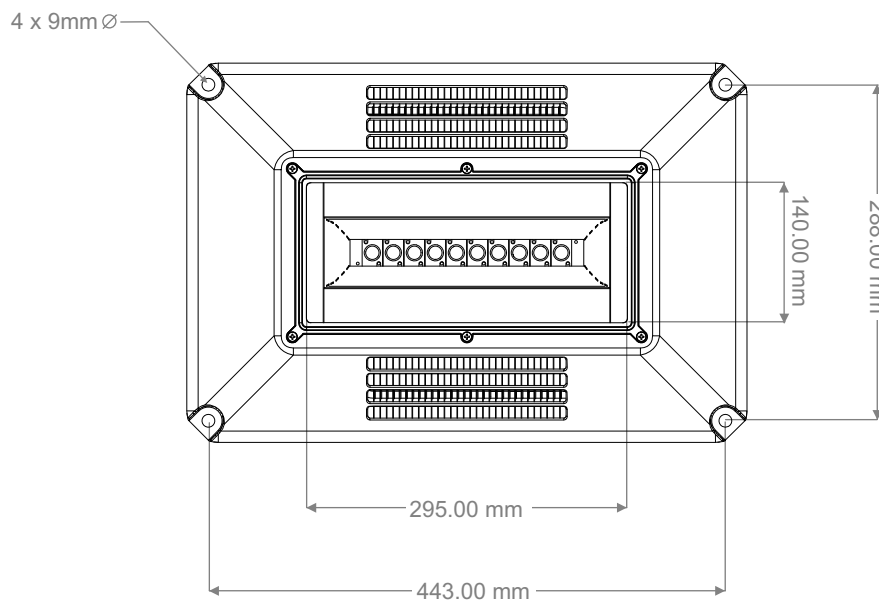
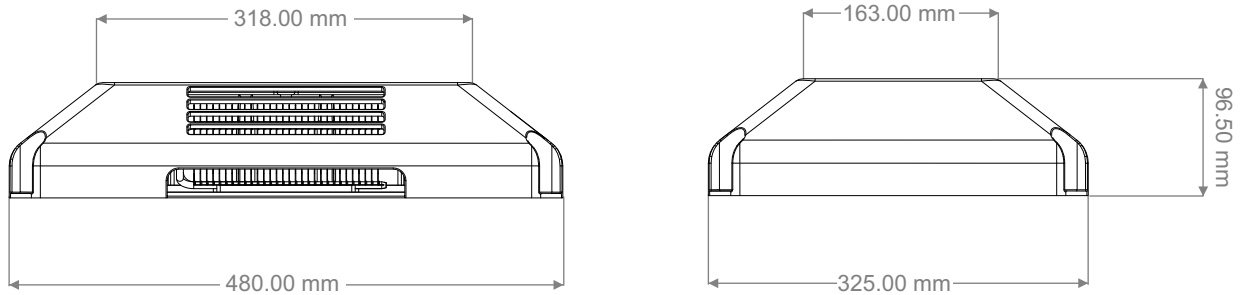


Exact specification is subject to development as LED technology advances, please contact our technical department for the latest information.

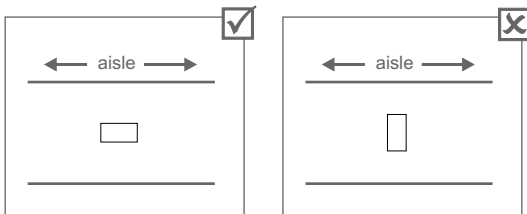
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## Dimensional Drawings - LED Hi-Bay



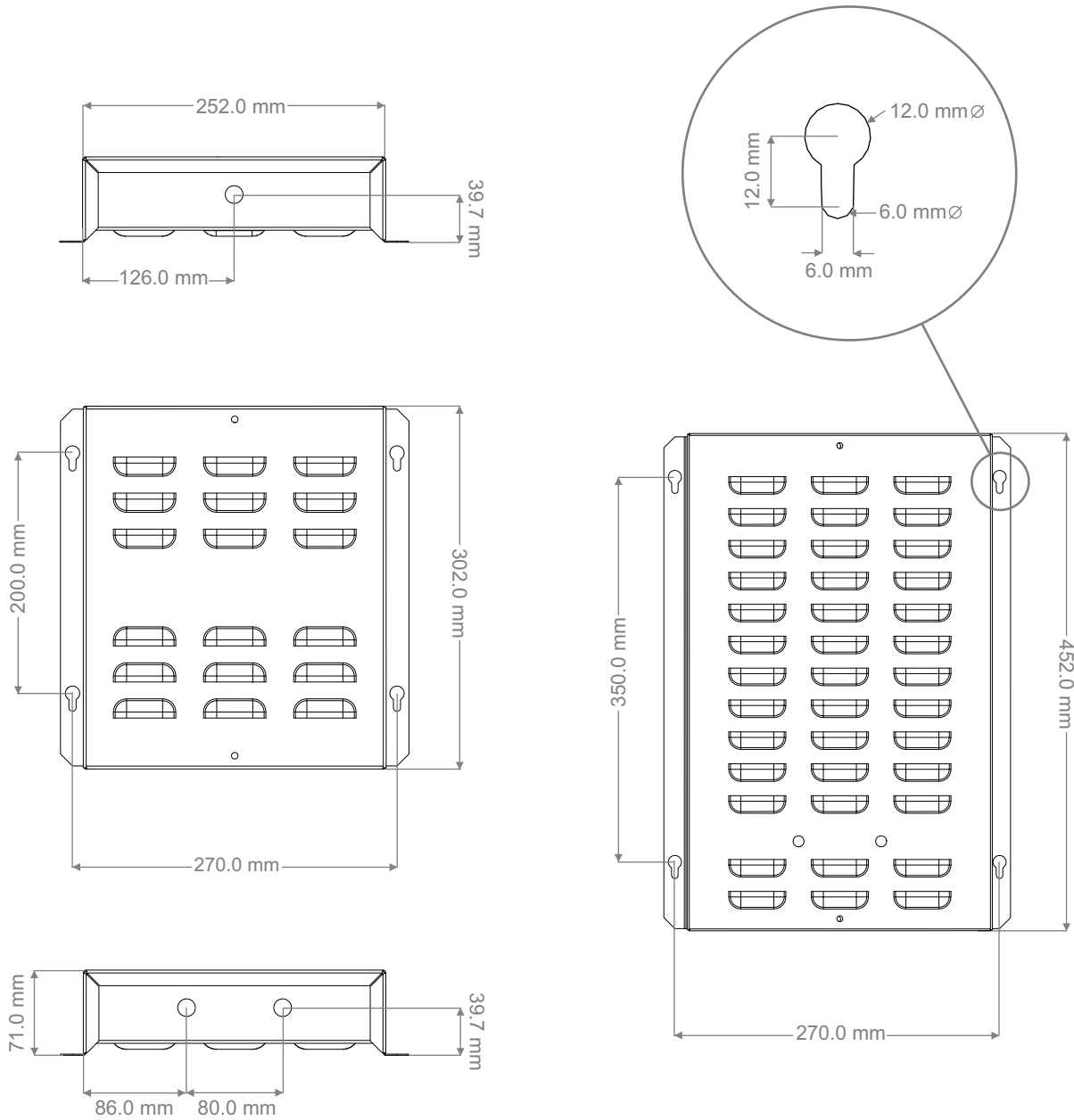
Installations utilising the 'rack optic' should be installed with the length of the luminaire running parallel with the length of the aisle.



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## Dimensional Drawings - Gear Box



*Remote Gear Box*

*Remote Gear Box with Emergency*

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