

PROJECT NAME		DATE	
CAT. NUMBER			
NOTES			

SPEC SHEET

High Bay Retrofit (HBR)

HIGH BAY RETROFIT KIT

*U.S. PATENT NO. 9,752,735⁴

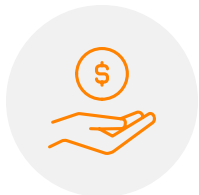


*Optional adapter plate shown



KEY FEATURES

- 10,000 to 24,000 lumens
- Up to 141 LPW
- Up to 55°C ambient
- Optically engineered parabolic shape
- FCC CFR 47 Part 15



Reduce Operating Costs

When existing high bay fixtures are in good shape but the fluorescent tubes are costing too much to maintain, retrofitting may be the best option.



Quick & Easy Retrofit

Replaces fluorescent tubes, reflectors, and ballasts with Linmore LED's patented ParaBar™ Light Bars, LED drivers, and an adapter plate.



Quality Components

Comprised of the highest efficacy LEDs mechanically bonded to an extruded aluminum light bar with parabolic, ultra-reflective sides.



TECHNICAL SPECS

# OF BARS	LUMEN OUTPUT	EFFICACY	WATTS	PART NUMBER
2	10,171	138	74	LL-HBR-2-50K-72W
2	12,072	135	90	LL-HBR-2-50K-88W
3	15,100	137	110	LL-HBR-3-50K-108W
3	17,820	135	132	LL-HBR-3-50K-132W
4	23,760	135	176	LL-HBR-4-50K-176W

Typical lumen output ($\pm 10\%$) at 120V (LV) under 25°C ambient temperature at 5000K.

ORDERING

MODEL	# OF BARS	CCT	WATTAGE		OPTIONS
LL-HBR	2	50K 5000K *Other CCT available upon request (extended lead time)	72W	132W	DF Diffuser: 94% Transmission, Glare Reduction SSP 20kA Surge Suppressor, 120-277V SSPH 20kA Surge Suppressor, 480V QBM Linmore LED UltraLink BBU-25W 25W Battery Backup LEDD Enocean Wireless Module
	3		88W	176W	
	4		108W		

ORDERING EXAMPLES

Standard: LL-HBR-4-50K-144W

With Options: LL-HBR-4-50K-144W-**DF**

FEATURES & SPECIFICATIONS

CONSTRUCTION

- **Heat Sinks:** Made of 6063 T5 extruded aluminum with multiple fins and large surface area for superior heat dissipation.
- **Light Engine:** ParaBars™ Light Bars U.S. Patent No. 9,752,735. Known for their high performance and superior heat dissipation. 120 surface mount light emitting diodes per ParaBar™.
- **LED Boards:** Made of aluminum core and mechanically bonded to the aluminum extrusion heat sink.
- **LEDs:** Only high quality LEDs are used to deliver maximum light output and longevity.
- **Adaptive Design:** Add or remove ParaBars™ as area needs change over time.
- **Assembled in the USA.**

ELECTRICAL

- **Power Input:** 120-277V standard. 347-480V optional.
- **Power Factor:** >0.9 (0.99 typical).
- **Total Harmonic Distortion:** <9%.
- **Emergency Battery Backup (BBU):** 25 Watt BBU optional.

OPERATION

- **Environment:** Dry/Damp, for interior applications.
- **Ambient Range Operation:** -40°C up to 55°C (-40°F up to 135°F).
- **CCT:** 5000K standard, other CCT available (extended lead time).
- **CRI:** >80 standard.
- **Lenses:** Parabolic shape with clear polycarbonate end caps for maximum light output.

MOUNTING

- **Mounting:** Retrofit kit for existing fluorescent high bay fixtures. Kit includes ParaBar™ Light Bars and LED drivers. Optional adapter plate available.

CONTROLS

- **Dimming:** 0-10V standard. Dim to OFF.
- **Sensors:** Compatible with Enocean switches.
- **Networked Control Options^{2,5}:** Compatible with Avi-on networked controls and UltraLink SIG Bluetooth® with Mesh Networked Controls³.

WARRANTY

- **Standard:** 14-year warranty on the light bar. 5-year warranty on the LED driver.

LISTINGS & CERTIFICATIONS

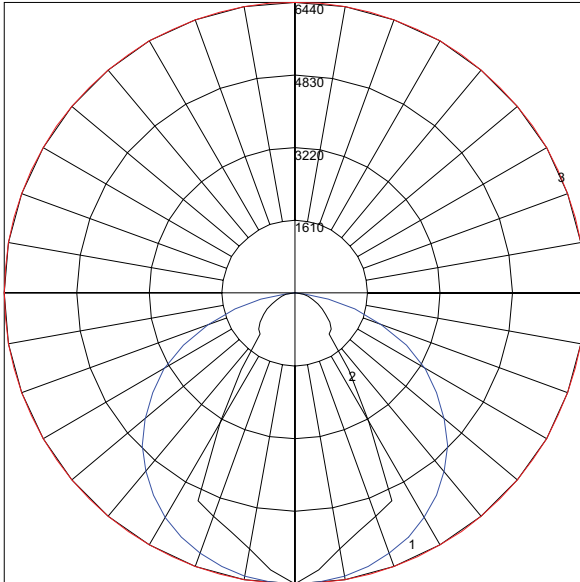
- UL 1598.
- RoHS compliant.
- DesignLights™ Consortium Premium.¹
- FCC CFR 47 Part 15.
- cUL.



LIGHT DISTRIBUTION

2-BAR MODEL

Polar Graph
LL-HBR-2-50K-88W-XX



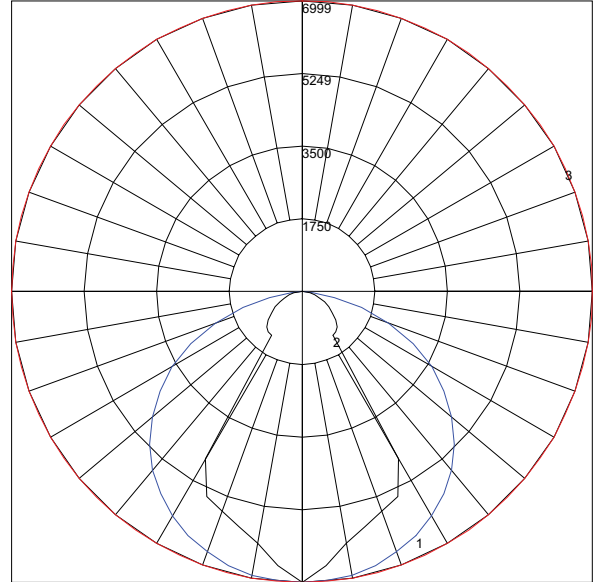
Maximum Candela: 6440

Located at horizontal angle: 0, Vertical angle : 0

- #1: Vertical plane through horizontal angles (0-180)(through max Cd.)
- #2: Vertical plane through horizontal angles (90-270)
- #3: Horizontal cone through vertical angle (0)(through max Cd.)

3-BAR MODEL

Polar Graph
LL-HBR-3-50K-88W-XX



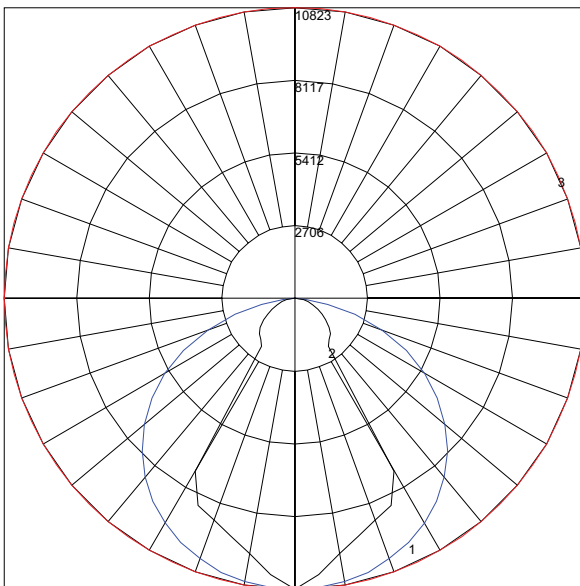
Maximum Candela: 6999

Located at horizontal angle: 0, Vertical angle : 0

- #1: Vertical plane through horizontal angles (0-180)(through max Cd.)
- #2: Vertical plane through horizontal angles (90-270)
- #3: Horizontal cone through vertical angle (0)(through max Cd.)

4-BAR MODEL

Polar Graph
LL-HBR-4-50K-144W-XX



Maximum Candela: 10823

Located at horizontal angle: 0, Vertical angle : 0

- #1: Vertical plane through horizontal angles (0-180)(through max Cd.)
- #2: Vertical plane through horizontal angles (90-270)
- #3: Horizontal cone through vertical angle (0)(through max Cd.)

ACCESSORIES

Must be ordered separately. Packaged separately.

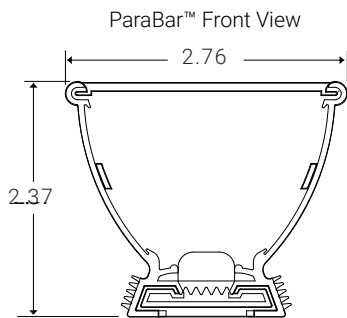
FIXTURE ACCESSORIES

Part Number	Description
LL-HBR-HBA46	High Bay Adapter Plate. Can be used on any fixture. Necessary for Orion fixtures. Dimensions: 11.5"W x 46.15"L.

SWITCHES

EO-ESRPB	Enocean switch. Single rocker with Bluetooth®.
EO-EDRPB	Enocean switch. Double rocker with Bluetooth®.
EO-ESRP	Enocean switch. Single rocker.
EO-EDRP	Enocean switch. Double rocker.

DIMENSIONS & DRAWINGS



PARABAR™ DIMENSIONS

Width (in)	Height (in)	Length (in)
2.76	2.37	45.25

FOOTNOTES

1. Check QPL for up-to-date listings.
2. Synapse, Daintree and Enlighted are available with extended lead time. Electrical changes and additional components required to make fixture compatible.
3. Requires Enocan switch, McWong sensor or a gateway for complete functionality.
4. Patent is on internal ParaBar™ only.
5. Contact factory.

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Updated: 2021.11.08