Metalux

DESCRIPTION

The HBL series is ideal for high mounting height industrial or retail applications. Advanced optical designs provide maximum performance from either T5 or T8 lamps. Optional uplight component produces excellent ceiling uniformity. HBL's high lumen package allows the benefits of fluorescent to be applied at high mounting heights that were traditionally exclusive to H.I.D. Benefits include exceptional color rendering, high system efficacy, 95% lumen maintenance, long lamp life, instant on/instant re-strike, economical dimming, and uniform brightness control. Typical HBL applications include retail, shopping malls, light industrial and recreational environments.

Catalog #		**Type**
Project		
Comments		**Date**
Prepared by		

SPECIFICATION FEATURES

Construction
Channel and end plates are constructed of die formed steel. The channel provides strength, numerous KOs for easy installation, and excellent thermal dissipation without any special or proprietary components. Stiffening brackets add additional strength and rigidity to channel and reflectors.

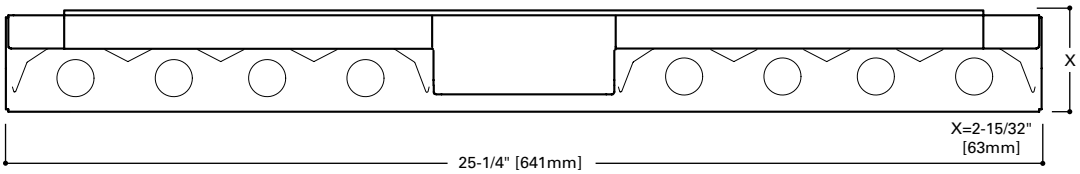
Electrical
The HBL comes with a standard Class "P" electronic ballast and twist-lock lampholders. UL/cUL listed for high ambient environments up to 55°C (131°F) for all lamp and ballast combinations listed. Suitable for damp locations.

Finish
Electrostatically applied baked white enamel finish is preceded by a multistage cleaning cycle, iron phosphate coating with rust inhibitor.

Optics
Die formed, segmented optical design optimizes performance across three distributions. Optical choices include a narrow distribution for aisles, medium distribution for assembly and loading areas, or wide distribution for general, open area lighting. An uplight option is offered to permit ceiling uniformity and allow for ample lamp and luminaire heat dissipation.

High Ambient
To maximize ballast life, the HBL should be ordered with a high-temperature ballast in ambient environments that typically exceed 40°C (102°F).

Compliance
Options to meet Buy American and other domestic preference requirements.





HBL SERIES

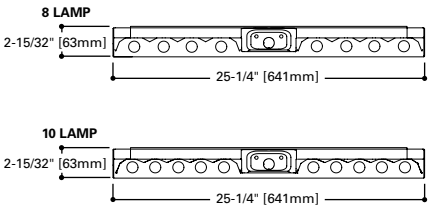
8 OR 10 T8 LAMPS

High-Bay Industrial Open Luminaire

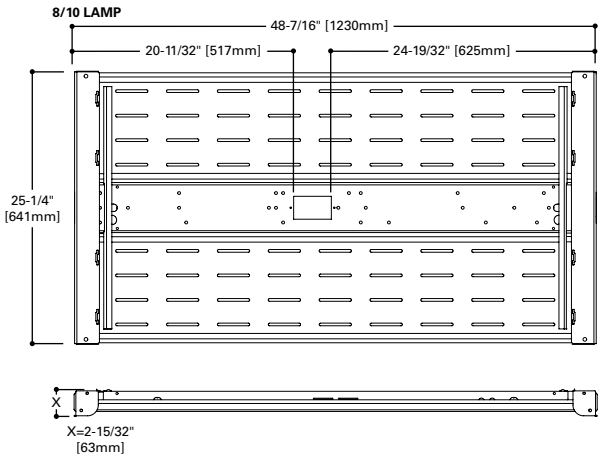
F-BAY™ FLUORESCENT HIGH-BAY

BAA

LAMP CONFIGURATIONS



DIMENSION TOP VIEW



ENERGY DATA

Input Watts:
EB Ballast and STD Lamps
832=218

Luminaire Efficacy Rating
LER = 90 (Specular Inserts)
Catalog Number: HBL-832-UPL

Yearly Cost of 1000 lumens, 3000 hrs at .08 KWH = $2.67

*Reference the lamp/ballast data in the Technical Section for specific lamp/ballast requirements.

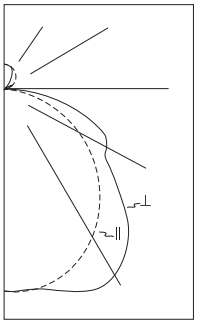
**Consult Pre Sales Technical Support.

LINEAR DISCONNECT
Designed to provide safe and convenient means of disconnecting power

COOPER Lighting Solutions

ISO 9001 SYSTEMS CERTIFIED

PHOTOMETRICS



HBL-832-M-UPL
(2) Electronic Ballasts
(8) F32T8 32W lamps
3100 lumens
Spacing criterion: (II) 1.3 x mounting height, (⊥) 1.5 x mounting height
Efficiency 96.5%
Test Report: HBL832MUPL.IES
LER =92
Yearly Cost of 1000 lumens, 3000 hrs at .08 KWH = $2.61

Candela

Angle	Along II	45°	Across ⊥
0	6347	6347	6347
5	6385	6359	6350
10	6348	6321	6379
15	6228	6306	6551
20	6043	6336	6767
25	5786	6363	6926
30	5468	6344	6844
35	5100	6220	6536
40	4681	5905	6090
45	4227	5460	5387
50	3749	4921	4602
55	3247	4177	3952
60	2720	3414	3723
65	2177	2799	3528
70	1631	2566	2933
75	1109	2104	2229
80	629	1406	1489
85	242	716	798
90	9	123	182

Coefficients of Utilization

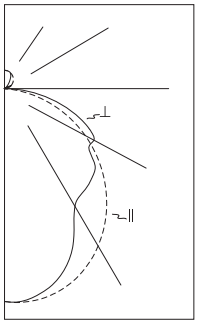
	Effective floor cavity reflectance																		
rc	80%				70%				50%			30%			10%			0%	
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																			
0	113	113	113	113	110	110	110	110	104	104	104	98	98	98	92	92	92	90	
1	103	98	93	89	99	95	91	87	89	86	83	84	82	79	80	78	76	73	
2	93	84	77	71	89	82	75	70	77	72	67	73	69	65	69	66	62	60	
3	84	73	65	59	81	71	64	58	68	61	56	64	59	54	61	56	52	50	
4	77	65	56	49	74	63	55	49	60	53	47	57	51	46	54	49	44	42	
5	70	58	49	42	68	56	48	41	53	46	40	51	44	39	48	43	38	36	
6	65	52	43	36	62	50	42	36	48	41	35	46	39	34	43	38	33	31	
7	60	47	38	32	58	45	37	32	43	36	31	41	35	30	40	34	29	27	
8	56	42	34	28	54	41	33	28	40	32	27	38	31	27	36	30	26	24	
9	52	39	31	25	50	38	30	25	36	29	25	35	29	24	33	28	24	22	
10	49	36	28	23	47	35	28	23	33	27	22	32	26	22	31	25	21	20	

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	5330	21.5	22.3
0-40	9071	36.6	37.9
0-60	16597	66.9	69.3
0-90	22265	89.8	93.0
0-180	23941	95.5	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	8316	10742	10599
55	7876	10131	9585
65	7166	9214	11614
75	5961	11309	11981
85	3863	11429	12738



HBL-832-N-UPL
(2) Electronic Ballasts
(8) F32T8 32W lamps
3100 lumens
Spacing criterion: (II) 1.3 x mounting height, (⊥) 1.0 x mounting height
Efficiency 96.0%
Test Report: HBL832NUPL.IES
LER =90
Yearly Cost of 1000 lumens, 3000 hrs at .08 KWH = $2.67

Candela

Angle	Along II	45°	Across ⊥
0	8029	8029	8029
5	8085	8040	8032
10	8046	7921	7836
15	7910	7669	7512
20	7686	7305	6985
25	7364	6806	6183
30	6970	6140	5277
35	6506	5276	4935
40	5984	4505	4838
45	5411	4136	4691
50	4805	3909	4451
55	4168	3657	3881
60	3511	3295	3891
65	2825	2811	3505
70	2135	2657	2870
75	1457	2065	2174
80	810	1374	1455
85	262	702	781
90	12	123	177

Coefficients of Utilization

	Effective floor cavity reflectance																		
rc	80%				70%				50%			30%			10%			0%	
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																			
0	112	112	112	112	108	108	108	108	102	102	102	97	97	97	91	91	91	89	
1	101	96	92	88	98	93	90	86	88	85	82	84	81	79	79	77	75	73	
2	92	83	77	71	88	81	75	70	77	71	67	73	68	65	69	65	62	60	
3	83	73	65	59	80	71	64	58	67	61	56	64	59	54	61	56	52	50	
4	76	65	56	50	74	63	55	49	60	53	48	57	51	46	54	49	45	43	
5	70	58	49	43	68	56	48	42	54	46	41	51	45	40	49	43	39	37	
6	65	52	43	37	62	51	43	37	48	41	36	46	40	35	44	39	34	32	
7	60	47	39	33	58	46	38	33	44	37	32	42	36	31	40	35	31	29	
8	56	43	35	29	54	42	34	29	40	33	29	39	33	28	37	32	27	26	
9	52	40	32	26	51	39	31	26	37	30	26	36	30	25	34	29	25	23	
10	49	37	29	24	48	36	29	24	34	28	23	33	27	23	32	27	23	21	

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	6045	24.4	25.7
0-40	9501	38.3	40.3
0-60	16429	66.2	69.7
0-90	22053	89.9	93.6
0-180	23561	95.0	100.0

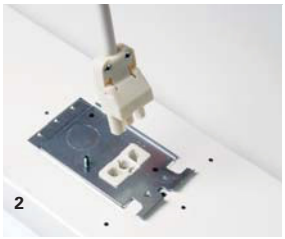
Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	10646	8137	9229
55	10109	8870	9413
65	9299	9253	11538
75	7832	11100	11686
85	4182	11205	12466

Modular F-Bay Power Supply Option

Cooper Lighting's F-Bay Modular Power Supply option is available for use with all F-Bay products. The modular power supply allows external fixture access for safe and easy servicing. There is no need to remove lamps or reflectors to disconnect fixture power with F-Bay Modular Power Supply. Access to the individual fixture's power supply allows servicing without turning off all the fixtures, disrupting occupants. F-Bay Modular Power Supply is a time-saver in installation – ***simply plug & power.***





1. Modular Power Supply Receptacle supplied mounted into fixture Access Plate
2. Modular Power Cord & Plugs in 120, 277, 347, & 480V configurations for easy plug & power into existing supply



No internal fixture access required for installation or disconnecting power



Modular Motion Sensor Option supplied with Mounting Box and Modular Power Supply Receptacle

Code Compliance

- UL/cUL Certified for Make/Break under load (UL2549)
- Meets NEC requirements for ballast disconnect (NEC 410.73G)
- Allows for addition of Occupancy Sensor without hard connections
- Receptacles complete with insulating/dust cap

Cooper Lighting Solutions
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.cooperlighting.com

© 2023 Cooper Lighting Solutions
All Rights Reserved.

Specifications and dimensions subject to change without notice.

ORDERING INFORMATION

SAMPLE NUMBER: HBL-832-N-UNV-EB82-UPL-U **Includes V Hangers for rapid installation[6]**

Domestic Preferences [9]
[Blank]=Standard
BAA=Buy American Act
TAA=Trade Agreements Act

Width
Blank=26" wide 8 & 10 Lamp (nominal)

Series
HBL=Linear High Bay

No. of Lamps
8=8 Lamps
10=10 Lamps

Lamp Type
32=32W T8 Lamp (48" Long)

Distribution
N=Narrow Beam (Standard)
M=Medium Beam
W=Wide Beam

Voltage [1]
UNV=Universal 120/277 Voltage
UNC=Universal 347/480 Voltage[7]
120V=120 Volt
277V=277 Volt
347V=347 Volt

Options
GL=Single Element Fuse
GM=Double Element Fuse
EL=Emergency Installed

Ballast Type [4]
T8 Systems
EB8__=T8 Electronic Instant Start. Total Harmonic Distortion < 10%
No. of Ballast 1, 2 or 3
EB8__/PLUS=T8 Electronic Instant Start. [7] High Ballast Factor >1.15. Total Harmonic Distortion < 10%
No. of Ballast 1, 2 or 3
ER8__=T8 Electronic Program Rapid Start.[5] Total Harmonic Distortion < 10%
No. of Ballast 1, 2 or 3
ER8__/PLUS=T8 Electronic Program Start.[5] High Ballast Factor >1.15. Total Harmonic Distortion < 10%
No. of Ballast 1, 2 or 3

Options
UPL=Uplight Apertures on Reflector
MP=Modular Power Receptacle (Used for all Cord or Cord and Plug options) [2], [8]
MWS=Modular Wiring System [3]
MS=360° or 180° Motion Sensor installed (120V through 347V, or 480V)[1]

Packaging
U=Unit Pack
PALC=Palletized In Carton

Accessories (order separately) [10]
HBL-SPM=Single Monopoint Hanger w/Hub
FH-1=Fixture Hook
FL-1=Fixture Loop
Y-TOGGLE-__-2PK=(2) Y-Toggle Cable Kits (Specify 10 or 30 for length in feet)
HBAYC-CHAIN/SET/U=(2) V-Hook Hanger, 36" Chain Sets w/S-Hooks
MC3=3' Modular Power Cord
MPC3=3' Modular Power Cord & Plug (Specify Voltage)
MC6=6' Modular Power Cord
MPC6=6' Modular Power Cord & Plug (Specify Voltage)
MMS=360° or 180° Aisle Motion Sensor with Modular Power Receptacle (120-277V) [2]
MDS6=6' Modular Power Cord with MWS 27DS18/2G06MP Connector [8]
WG/HBL8-4FT-B=8 Lamp Wireguard w/Clips

NOTES: [1]Voltage must be specified when ordered with plugs or emergency ballasts. For MS option, indicate UNV (for 120V or 277V), 347V or 480V. [2]Requires use of MC_ or MPC_ cord accessories, specify voltage for plugs. [3]Cannot be combined with Modular Power Receptacle (MP). [4]T8 ballast systems suitable for operation in ambient environments up 131°F (55°C) in uplight configuration. [5]Recommended when using motion sensor options. [6]Can be used in high abuse applications such as gymnasiums. [7]2/3 lamp ballast configuration in EB8/PLUS only for UNC version. [8]For MWS with MP, choose MP in fixture logic and then choose MWS accessory such as MDS6.
[9] Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
[10] Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Solutions Representative for availability and ordering information.

SHIPPING DATA

Catalog No.	Wt.
HBL-832-UNV-UPL	20.5 lbs.

Cooper Lighting Solutions
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.cooperlighting.com

© 2023 Cooper Lighting Solutions
All Rights Reserved.

Specifications and dimensions subject to change without notice.