

DESCRIPTION

The HBI series is an outstanding solution for high mounting height industrial or retail applications. The HBI optic has been optimized to provide maximum performance from T5 lamps. Optional uplight component is provided to enable excellent ceiling uniformity. HBI's high lumen package allows the benefits of fluorescent to be applied at high mounting heights that were traditionally exclusive to H.I.D. The primary 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. Primary applications include retail, shopping malls, light industrial, gymnasiums and recreational environments.

SPECIFICATION FEATURES

Construction

Full bodied steel housing with integral ballast channel adds strength, rigidity and structural protection for optical assembly.

Electrical

The HBI comes standard with a high ambient Class P electronic ballast and twistlock lampholders. UL/cUL listed for high ambient environments up to 65°C (149°F) for all lamps and ballast combinations when used in open upright configurations. Suitable for damp locations. Optional modular power receptacle meets UL2459 and NEC 410.73 and is UL/cUL rated for make and break under load from outside the luminaire to speed maintenance.

Finish

White enamel finish preceded by a multistage cleaning cycle, iron phosphate coating with rust inhibitor to protect against contaminants and oxidation.

Downlight/Uplight 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. Gasketed door frame & lens assembly is optional for more demanding environments.

Options

Integral Occupancy Sensor available and provides from 600 sq. ft. (MS) up to 1250 sq. ft. (MSO) of coverage at a maximum mounting height of 40' using interchangeable lens caps provided.

Catalog #

Type

Project

Comments

Date

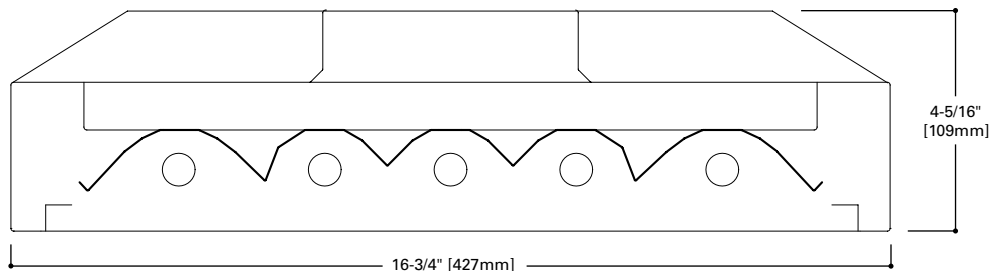
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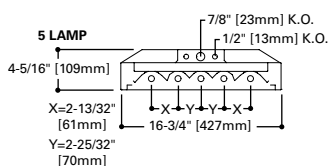
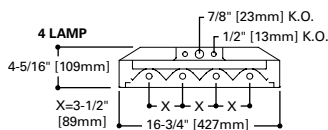
HBI SERIES

4 OR 5 T5HO LAMPS

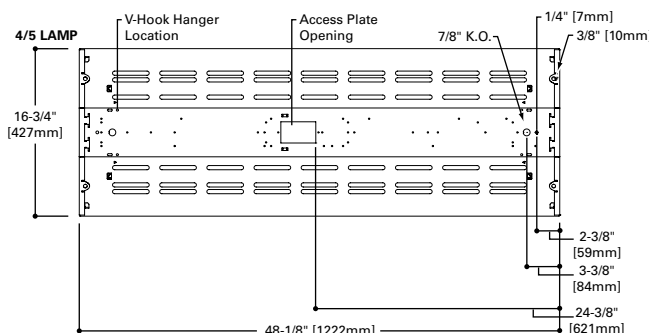
High-Bay Industrial
Fluorescent Luminaire



LAMP CONFIGURATIONS



DIMENSION TOP VIEW



ENERGY DATA

Input Watts:
ER Ballast
454 (226), 554 (300)

Luminaire Efficacy Rating
LER = FL-71 (Narrow Beam)
Catalog Number: HBI-454T5-N-UPL

Yearly Cost of 1000 lumens,
3000 hrs at .08 KWH = \$3.35

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

**Consult Pre Sales Technical Support.

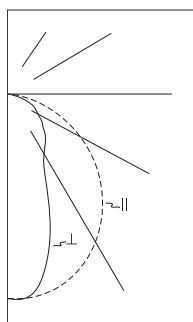
LAMPS CONTAIN MERCURY. DISPOSE ACCORDING TO LOCAL, STATE OR FEDERAL LAWS

LINEAR DISCONNECT

Safe and convenient means of disconnecting power.

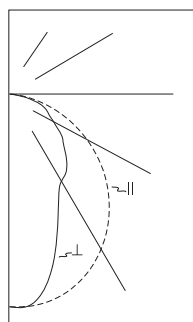


PHOTOMETRICS



HBI-454T5-N-UNV-EHT1
 (2) Electronic Ballasts
 (4) F54T5HO 54W Lamps, 4400 lumens
 Spacing criterion:
 (II) 1.3 x mounting height, (⊥) 0.7 x mounting height
 Efficiency 91.8%
 Test Report:
 HBI454T5.IES
 LER =FL-71
 Yearly Cost of 1000 lumens, 3000 hrs at .08 KWH = \$3.35

Candela			
Angle	Along II	45°	Across ⊥
0	9854	9854	9854
5	9873	9899	9866
10	9789	9594	9157
15	9594	8756	7659
20	9280	7524	5812
25	8859	6094	4197
30	8348	4597	3442
35	7748	3513	3101
40	7087	2941	2822
45	6368	2584	2456
50	5607	2274	2168
55	4789	1899	1808
60	3944	1596	1576
65	3089	1254	1337
70	2251	1028	954
75	1454	688	498
80	736	247	104
85	176	40	48
90	0	0	0



HBI-554T5-N-UNV-EHT2
 (2) Electronic Ballasts
 (5) F54T5HO 54W Lamps, 4400 lumens
 Spacing criterion:
 (II) 1.3 x mounting height, (⊥) 0.8 x mounting height
 Efficiency 94.8%
 Test Report:
 HBI554T5.IES
 LER =FL-70
 Yearly Cost of 1000 lumens, 3000 hrs at .08 KWH = \$3.45

Candela			
Angle	Along II	45°	Across ⊥
0	10551	10551	10551
5	10571	10598	10559
10	10491	10271	9854
15	10290	9481	8511
20	9965	8349	6977
25	9535	7065	5764
30	8998	5881	5079
35	8381	4939	4843
40	7684	4368	4417
45	6931	4052	3865
50	6128	3565	3443
55	5260	3003	2859
60	4367	2562	2386
65	3465	1976	2087
70	2554	1544	1757
75	1674	1223	1215
80	866	705	509
85	221	94	62
90	0	0	0

Coefficients of Utilization

rc	Effective floor cavity reflectance 20%																	
	80%			70%			50%			30%			10%			0%		
rw	70	50	30	70	50	30	70	50	30	70	50	30	70	50	30	0		
RCR																		
0	109	109	109	109	107	107	107	107	102	102	102	98	98	98	94	94	94	92
1	101	98	94	91	99	95	92	90	92	89	87	88	86	84	85	83	82	80
2	93	87	81	77	91	85	80	76	82	78	74	79	75	72	76	73	71	69
3	86	77	71	65	84	76	70	65	73	68	64	71	66	63	69	65	62	60
4	80	70	62	57	78	69	62	57	66	60	56	64	59	55	62	58	54	53
5	74	63	56	50	72	62	55	50	60	54	49	59	53	49	57	52	48	47
6	69	58	50	45	67	57	50	45	55	49	44	54	48	44	52	47	44	42
7	64	53	46	40	63	52	45	40	51	45	40	50	44	40	48	43	39	38
8	60	49	42	37	59	48	41	37	47	41	36	46	40	36	45	40	36	34
9	57	45	38	34	55	45	38	34	44	38	33	43	37	33	42	37	33	32
10	53	42	35	31	52	42	35	31	41	35	31	40	35	31	39	34	31	29

Coefficients of Utilization

rc	Effective floor cavity reflectance 20%																	
	80%			70%			50%			30%			10%			0%		
rw	70	50	30	70	50	30	70	50	30	70	50	30	70	50	30	0		
RCR																		
0	113	113	113	113	110	110	110	110	105	105	105	101	101	101	97	97	97	95
1	104	100	96	93	101	98	94	91	94	91	88	90	88	85	86	85	83	81
2	95	88	82	77	93	86	80	76	83	78	74	80	76	72	77	74	71	69
3	87	78	70	65	85	76	70	64	74	68	63	71	66	62	69	64	61	59
4	80	70	62	56	78	68	61	55	66	60	54	64	58	54	62	57	53	51
5	74	63	55	49	72	62	54	48	60	53	48	58	52	47	56	51	47	45
6	69	57	49	43	67	56	48	43	54	48	42	53	47	42	51	46	42	40
7	64	52	44	38	63	51	44	38	50	43	38	48	42	38	47	42	38	36
8	60	48	40	35	59	47	40	35	46	39	34	45	39	34	44	38	34	32
9	56	44	37	32	55	44	36	32	42	36	31	41	35	31	41	35	31	29
10	53	41	34	29	52	40	34	29	40	33	29	39	33	29	38	32	29	27

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	6296	35.8	39.0
0-40	9157	52.0	56.7
0-60	13793	78.4	85.3
0-90	16163	91.8	94.2
0-180	16163	91.8	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	20128	8168	7763
55	18661	7400	7045
65	16336	6632	7071
75	12556	5941	4300
85	4513	1026	1231

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	7063	32.1	33.9
0-40	10703	48.6	51.3
0-60	17136	77.9	82.2
0-90	20859	94.8	100.0
0-180	20859	94.8	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	21908	12808	12217
55	20497	11702	11141
65	18325	10450	11037
75	14456	10561	10492
85	5667	2411	1590

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

ORDERING INFORMATION

SAMPLE NUMBER: HBI-554T5-N-UNV-EHT2-MP-UPL-U Includes V Hangers for rapid installation⁽⁶⁾

<p>Domestic Preferences ⁽¹²⁾ [Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act</p>	<p>Voltage ⁽²⁾ UNV=Universal 120/277 Voltage UNC=Universal 347/480 Voltage ⁽⁴⁾ 120V=120 Volt 277V=277 Volt 347V=347 Volt 480V=480 Volt</p>	<p>Ballast Type EHT =T5HO Linear Electronic Program Start High Ambient ^{(4) (8) (9)} Total Harmonic Distortion < 10% No. of Ballast 2 or 3 EBT =T5 Linear Electronic Program Start (28T5 only) Total Harmonic Distortion < 10% No. of Ballast 2 or 3 DIM=Consult Factory ⁽⁷⁾</p>	<p>Options MP=Modular Power Receptacle (Used for all Cord or Cord and Plug options) ^{(11), (11)} NUA=No uplight apertures in housing. (Cannot be combined w/UPL) UPL=Uplight Apertures MWS=Modular Wiring System ⁽¹⁰⁾ MS=360° or 180° Motion Sensor, 120 through 347, or 480V ⁽³⁾ G2=Gasketed Door (Requires Selection of Lensed Doorframe) SDF=Slotted Doorframe (Requires Selection of Lensed Doorframe)</p>	<p>Packaging U=Unit Pack PALC=Palletized In Carton PAL=Job Pack Out of Carton</p>
<p>Series HBI=HB Industrial</p>	<p>Options Lamps Installed L5830=T5 Lamp, 85CRI 3000K L5835=T5 Lamp, 85CRI 3500K L5841=T5 Lamp, 85CRI 4100K L5850=T5 Lamp, 85CRI 5000K GL=Single Element Fuse GM=Double Element Fuse EL=Emergency Installed ⁽²⁾</p>	<p>Accessories (order separately) ⁽¹³⁾ HB-SPM=Single Monopoint Hanger w/Hub FH-1=Fixture Hook FL-1=Fixture Loop Y-TOGGLE=Y Mounting Toggle, #2 Cable ⁽⁹⁾ (Specify 10' or 30', requires 2 per fixture) HBAYC-CHAIN/SET/U=(2) V-Hook Hangers, 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) ⁽¹⁾ MDS6=6' Modular Power Cord with MWS 27DS18/2G06MP Connector ⁽¹¹⁾ SWG=Heavy Duty Wireguard for Field Installation</p>		
<p>No. of Lamps 4=4 Lamps 5=5 Lamps</p>	<p>Lamp Type 28T5=28W T5 Lamps (48") 49T5=49W T5HO Lamps (48") ⁽⁸⁾ 51T5=51W T5HO Lamps (48") ⁽⁸⁾ 54T5=54W T5HO Lamps (48") ⁽⁸⁾</p>	<p>Distribution N=Narrow Beam (Standard) M=Medium Beam W=Wide Beam</p>	<p>Shielding Blank=None A=Prismatic Acrylic Lens & Doorframe WG=Wireguard & Doorframe A/WG=Acrylic Lens, Wireguard & Doorframe CL=Clear Acrylic Lens & Doorframe CL/WG=Clear Lens, Wireguard & Doorframe</p>	

NOTES: ⁽¹⁾Requires use of MC_ or MPC_cord accessories, specify voltage for plugs. ⁽²⁾Voltage must be specified when ordered with plugs or emergency ballasts. ⁽³⁾When ordering MS option, specify voltage as UNV (for 120 or 277V), 347 or 480V. ⁽⁴⁾2 lamp ballast configurations only for T5 UNC versions. ⁽⁵⁾EHT/HT5/HCT5 ballast systems suitable for ambient environments not to exceed 149°F (65°C) in open upright configurations and less lens option. ⁽⁶⁾Can be used in high abuse applications such as gymnasiums. ⁽⁷⁾Dimming ballast must be specified at time of order. ⁽⁸⁾EHT standard with T5HO lamps. ⁽⁹⁾Two required. ⁽¹⁰⁾Cannot be combined with Modular Power Receptacle (MP). ⁽¹¹⁾For MWS with MP, choose MP in fixture logic and then choose MWS accessory such as MDS6. ⁽¹²⁾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. ⁽¹³⁾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.



Quick Ship Ordering Information Sample Number: HBI654HT5-L4 Includes V Hangers for rapid installation⁽⁶⁾
 Quick Ship orders ship in 5 days in order quantities not to exceed 200 pieces.
 NOTE: Orders received after noon are entered on the following day.

<p>Family HBI</p>	<p>Distribution Blank=Narrow Beam W=Wide Beam</p>	<p>Power Receptacle Blank=Standard Wiring to Access Plate MP=Modular Power Receptacle ⁽¹⁰⁾</p>	<p>Lamping Blank=No Lamps L4=Lamps Installed 85+CRI 4100K ⁽¹¹⁾ L5=Lamps Installed 85+CRI 5000K ⁽¹¹⁾ L5ES=Energy Saving Lamps Installed 85+CRI 5000K</p>
<p>No. of Lamps 4=4 Lamps</p>	<p>Ballast Type T5HO Systems HT5=(1) or (2) 120/277V T5 High Ambient Electronic Program Rapid Start ⁽⁹⁾</p>	<p>Uplight Blank=No Uplight UPL=Uplight</p>	
<p>Lamp Type 51=51W T5HO Lamps (48") 54=54W T5HO Lamps (48")</p>			

NOTES: ⁽¹⁰⁾Requires use of Modular cord and plug accessories. ⁽¹¹⁾For Quick Ship, lamping option only available w/54W lamp type.

SHIPPING DATA	
Catalog No.	Wt.
HBI-454T5-UPL	16 lbs.
HBI-554T5-UPL	16 lbs.

