

COOPER LIGHTING - METALUX®

DESCRIPTION

The HBO series is an outstanding solution for high mounting height industrial or retail applications. The HBO optic has been optimized to enable excellent ceiling uniformity. HBO'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

SPECIFICATION FEATURES

A ... Construction

Specification grade open body housing, end plates and socket tracks are die formed 20 gauge cold rolled steel. The channel provides strength and numerous KOs for easy installation. Top Ballast Access Plate. Allows for removal or service of ballast from above without removal of lamps. Die formed external reflectors are available in both high reflectance specular material or in painted after fabrication white enamel.

B ... Electrical

Class "P" ballasts are positively secured by mounting bolts. Pressure-lock lampholders. Optional modular power receptacle and cord sets meets UL2459 and NEC 410.73 and are UL/cUL rated for make and break under load from outside the luminaire. Thermally optimized for environments up to 31°F (55°C) when used with high temperature ballasts. UL/CUL listed. Suitable for damp locations.

C ... Finish

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

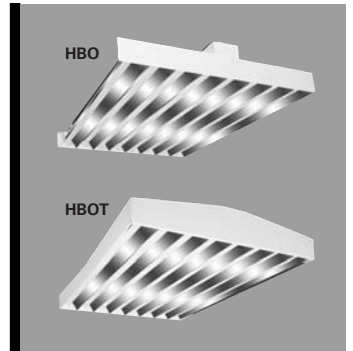
D ... Downlight/Uplight Optics

Die formed reflectors are faceted for 8 lamp configurations with two optical distributions: medium and wide. Medium beam optical modules utilize 95% specular aluminum while the wide distribution utilizes a high performance 95% reflective polyester powder coated finish. Uplight option provided to enable ceiling uniformity.

Mounting

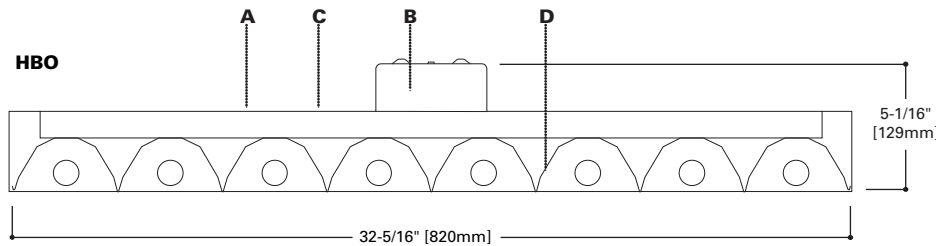
The HBO series is suited for surface or suspension mounting with wire hook and chain set, stem or cable mounting. Optional top connector box mounting is available.

Catalog #		Type
Project		
Comments		Date
Prepared by		

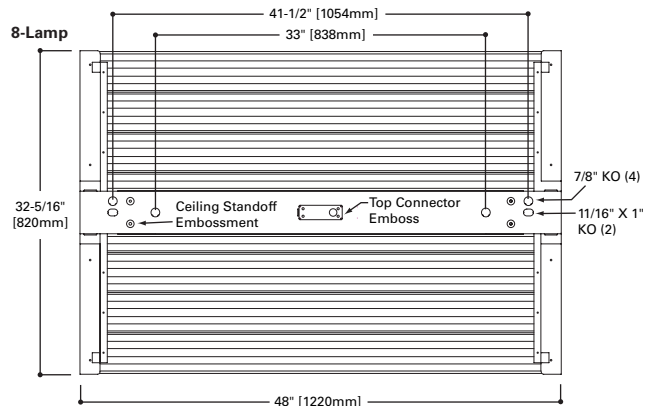


F-BAY HBO/HBOT SERIES T5

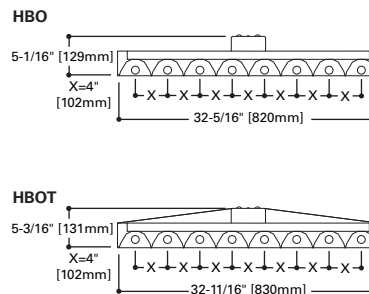
Nominal 3' x 4' High-Bay
(8) T5 Lamps
HIGH-BAY INDUSTRIAL
OPEN LUMINAIRE



DIMENSION TOP VIEW



LAMP CONFIGURATIONS



ENERGY DATA

Input Watts:

ER Ballast

854 = 458

Luminaire Efficacy Rating

LER = 77 (White)

LER = 84 (Specular)

Catalog Number: 3HB-832-UPL

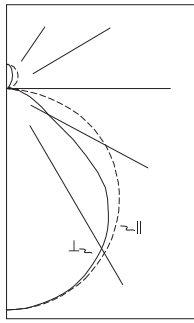
* Reference the lamp/ballast data in the Technical Section for specific lamp/ballast requirements

** 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

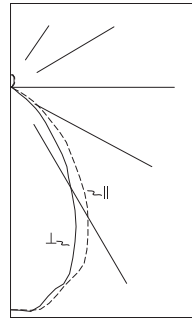




3HBO-654T5-G-UPL
 (2) Electronic Ballasts
 (6) 54WT5 lamps
 4500 lumens
 Spacing criterion:
 (II) 1.3 x mounting
 height, (⊥) 1.4 x
 mounting height
 Efficiency 84.5%
 Test Report: 18450

Candela

Angle	Along II	45°	Across ⊥
0	8100	8100	8100
5	8068	8072	8068
10	7983	7974	7954
15	7836	7799	7799
20	7639	7585	7561
25	7381	7303	7250
30	7066	6943	6870
35	6710	6522	6412
40	6293	6019	5777
45	5843	5450	5120
50	5327	4734	3794
55	4791	3973	2386
60	4195	2747	1630
65	3539	1556	1224
70	2842	1066	910
75	2043	717	656
80	1213	461	464
85	443	255	222
90	40	45	27



3HBO-654T5-UPL
 (2) Electronic Ballasts
 (6) 54WT5 lamps
 4500 lumens
 Spacing criterion:
 (II) 1.3 x mounting
 height, (⊥) 1.1 x
 mounting height
 Efficiency 91.7%
 Test Report: 18451

Candela

Angle	Along II	45°	Across ⊥
0	13864	13864	13864
5	13828	13980	14046
10	13628	13685	13227
15	13309	12830	12699
20	12859	12269	11308
25	12282	11197	9599
30	11599	9618	7544
35	10796	8039	6051
40	9900	6157	4211
45	8911	4862	2972
50	7840	3229	1834
55	6718	2189	602
60	5541	1147	74
65	4317	189	50
70	3123	50	51
75	1994	50	59
80	1020	50	51
85	296	46	46
90	27	21	21

Coefficients of Utilization

rc	Effective floor cavity reflectance																	
	80%				70%				50%				10%				0%	
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	99	99	99	99	96	96	96	96	91	91	91	86	86	86	81	81	81	79
1	91	88	84	81	88	85	82	79	81	78	76	76	74	73	72	71	69	67
2	83	77	72	67	81	75	70	66	71	67	63	67	64	61	64	61	59	57
3	76	68	62	56	74	66	60	55	63	58	54	60	56	52	57	54	51	49
4	70	61	53	48	68	59	52	47	56	51	46	54	49	45	51	47	44	42
5	65	54	47	42	62	53	46	41	51	45	40	48	43	39	46	42	38	36
6	60	49	42	36	58	48	41	36	46	40	35	44	39	35	42	37	34	32
7	55	44	37	32	54	43	37	32	42	36	31	40	35	31	38	34	30	28
8	52	40	34	29	50	40	33	28	38	32	28	37	31	27	35	31	27	25
9	48	37	30	26	47	36	30	26	35	29	25	34	29	25	33	28	24	23
10	45	34	28	23	44	34	27	23	32	27	23	31	26	23	30	26	22	21

Coefficients of Utilization

rc	Effective floor cavity reflectance																	
	80%				70%				50%				10%				0%	
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	108	108	108	108	105	105	105	105	99	99	99	94	94	94	89	89	89	87
1	101	98	95	92	98	95	92	90	91	88	86	86	85	83	82	81	80	78
2	94	88	83	79	91	86	81	78	82	78	75	78	75	73	75	73	71	69
3	87	79	73	68	85	78	72	68	74	70	66	71	67	64	69	65	63	61
4	81	72	65	60	79	70	64	59	68	62	58	65	61	57	63	59	56	54
5	75	65	58	53	73	64	58	53	62	56	52	60	55	51	58	53	50	48
6	70	60	53	48	68	59	52	47	57	51	47	55	50	46	53	49	45	43
7	66	55	48	43	64	54	47	43	52	46	42	51	45	42	49	44	41	39
8	61	51	44	39	60	50	43	39	48	42	38	47	42	38	46	41	37	36
9	58	47	40	36	56	46	40	35	45	39	35	44	38	35	42	38	34	33
10	54	44	37	33	53	43	37	33	42	36	32	41	36	32	40	35	32	30

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	6338	23.5	27.8
0-40	10422	38.6	45.7
0-60	17906	66.3	78.5
0-90	21315	78.9	93.4
0-180	22821	84.5	100.0

Luminaire Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	11108	10361	9732
55	11229	9310	5591
65	11258	4950	3894
75	10611	3726	3407
85	6828	3934	3418

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	10007	37.1	40.4
0-40	15138	56.1	61.1
0-60	21858	81.0	88.3
0-90	23497	87.0	94.9
0-180	24766	91.7	100.0

Luminaire Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	16940	9242	5650
55	15744	5131	1412
65	13730	602	158
75	10356	258	304
85	4571	714	714

ORDERING INFORMATION

SAMPLE NUMBER: 3HBOT-854T5-UNV-EBT2-UPL-U

<p>Width 3=32" wide</p> <p>Series HBO=High Bay Open Body HBOT=High Bay Open Top Version</p> <p>No. of Lamps 8=8 Lamps</p> <p>Lamp Type 54T5=54W T5HO (4') Lamp</p> <p>Distribution Blank=Medium (Specular Aluminum) G=Wide (White Painted)</p>	<p>Voltage⁽²⁾ UNV=Universal 120/277 Voltage UNC=Universal 347/480 Voltage (T5 linear only)⁽⁶⁾ 120V=120 Volt 277V=277 Volt 347V=347 Volt 480V=480 Volt</p> <p>Options 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 Emergency=Emergency Installed⁽²⁾</p>	<p>Ballast Type T5 Systems EBT=T5 Linear Electronic Program Rapid Start⁽³⁾ Total Harmonic Distortion < 10% No. of Ballast 2, 3 or 4 EHT=T5 Electronic Program Start High Ambient⁽⁴⁾ Total Harmonic Distortion < 10% No. of Ballast 2, 3 or 4 DIM=Consult Factory⁽⁷⁾</p>	<p>Options MWS=Modular Wiring System MS=Aisle Coverage Motion Sensor⁽⁴⁾ MSO=360° Coverage Motion Sensor⁽⁴⁾ MP=Modular Power Receptacle⁽¹⁾⁽²⁾ PC3=3' Power Cord & Plug (Specify Voltage)⁽²⁾ PC6=6' Power Cord & Plug (Specify Voltage)⁽²⁾ TCBP=Top Connector Box Plate⁽⁵⁾</p> <p>Accessories (order separately) Mounting AYC-CHAIN/SET/U=(2) Hooks, 36" Chain Sets w/S-Hooks⁽⁸⁾ TCB=Top Connector Box RH-1=Retrofit Hanger FH-1=Fixture Hook FL-1=Fixture Loop MPC6=6' Modular Power Cord & Plug (Specify Voltage) MC6=6' Modular Power Cord MMS-CPD1200H=Aisle Motion Sensor, Box, Modular Power Receptacle (120-277V) MMS-CPD500H=360° Motion Sensor, Box, Modular Power Receptacle (120/277V)</p>	<p>Packaging U=Unit Pack PAL=Palletized Out of Carton PALC=Palletized In Carton</p>
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NOTES: ⁽¹⁾Requires use of MC_ or MPC_cord accessories, specify voltage for plugs. ⁽²⁾Voltage must be specified when ordered with plugs, motion or emergency ballasts. ⁽³⁾EBT ballast systems suitable for operation in ambient environments up to 104°F (40°C). ⁽⁴⁾Specify voltage on ballast. ⁽⁵⁾For use with Top Connector Box options. See accessories. ⁽⁶⁾2 lamp ballast configurations only in EHT-UNC versions. ⁽⁷⁾Dimming ballast must be specified at time of order.

SHIPPING INFORMATION

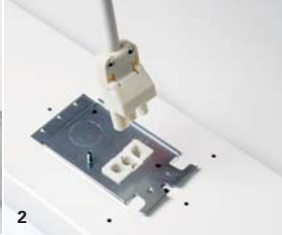
Catalog No.	Wt.
3HBO-854T5-120V-UPL	27 lbs.

Modular F-Bay Power Supply

Cooper Lighting's F-Bay Modular Power Supply option 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 fixtures 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 dustcap