

DESCRIPTION

The 2HB series is an outstanding solution for high mounting height industrial or retail applications. The 2HB optic has been optimized to provide maximum performance from either the T5 or T8 lamps. Optional uplight component is provided to enable excellent ceiling uniformity.

APPLICATION

2HB'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 "big box" retail, shopping malls, light industrial, etc.

SPECIFICATION FEATURES

A...Construction

Housing, end plates and socket tracks are die formed code gauge, prime cold rolled steel. The housing features an integral ballast channel that adds strength and provides numerous KO's for easy installation. Die formed internal reflectors are available in both high reflectance specular material or in painted after fabrication white enamel.

B...Electrical

Ballasts are Class "P" and are positively secured by mounting bolts. Pressure-lock lampholders. UL/CUL listed. Suitable for damp locations.

C...Finish

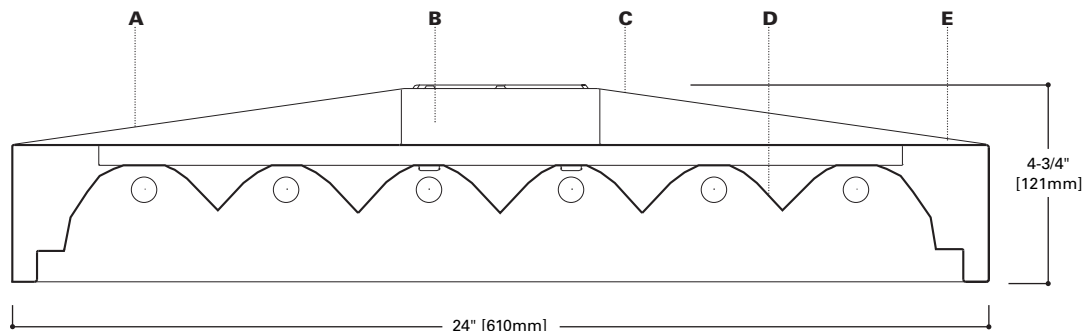
Electrostatically applied baked white enamel finish is preceded by a multistage cleaning cycle, iron phosphate coating with rust inhibitor.

D...Downlight/Uplight Optics

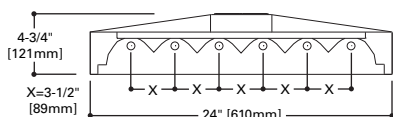
Open downlight design optimizes performance. Gasketed door frame & lens assembly is optional for more demanding environments. Uplight option provided to enable ceiling uniformity.

E...Mounting

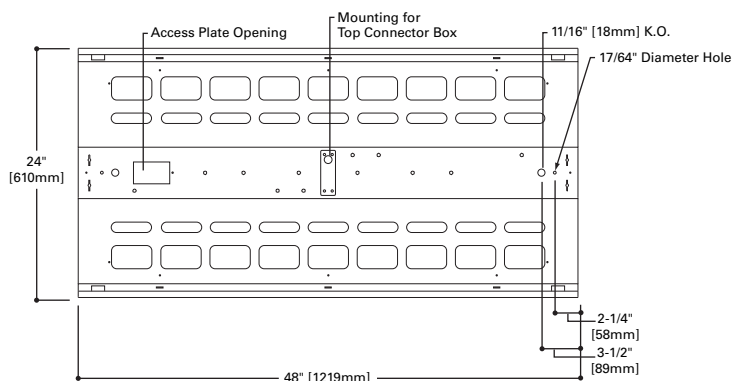
The 2HB series is ideally suited for surface, suspension mounting with optional wire hook and chain set, stem or cable mounting. Top connector box mounting is also available.



LAMP CONFIGURATIONS



DIMENSION TOP VIEW



COOPER LIGHTING

Catalog #		Type
Project		
Comments		Date
Prepared by		



2HB45

2' x 4' High-Bay
6 Lamp

HIGH-BAY INDUSTRIAL
LUMINAIRE



PRODUCT INCLUDES:

- 6-Lamp T8
- 5000K GE Lamps
- Universal Voltage
- GE UltraMax Instant Start Ballasts
- Up-light
- Top Connector Box Plate

ENERGY DATA

Input Watts:
EB Ballast & STD Lamps
632 = 221W

Luminaire Efficacy Rating
LER = 66 (White)
LER = 84 (Specular Inserts)
Catalog Number: 2HB-632-UPL

Yearly Cost of 1000 Lumens,
3000 hrs. at .08 KWH = \$2.84

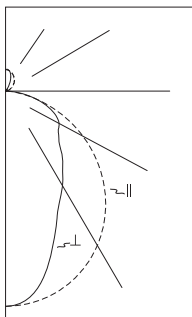
* Reference the lamp/ballast data in the Technical Section for specific lamp/ballast requirements

** Consult Pre Sales Technical Support.

ADF081360



PHOTOMETRICS


2HB-632-UNV
 (2) Electronic Ballasts

 (6) F032/35K 32W
 T8 lamps
 2850 lumens

 Spacing criterion:
 (II) 1.2 x mounting
 height, (⊥) 0.8 x
 mounting height
 Efficiency 95.9%

 Test Report:
 09306

LER =84

 Yearly Cost of 1000
 lumens, 3000 hrs
 at .08 KWH = \$2.84

Candela

Angle	Along II	45°	Across ⊥
0	7471	7471	7471
5	7431	7377	7326
10	7335	7100	6834
15	7171	6590	5978
20	6937	5851	5097
25	6641	5104	4372
30	6286	4365	3919
35	5864	3816	3455
40	5389	3367	3079
45	4865	2897	2652
50	4303	2499	2408
55	3694	2070	2246
60	3070	1808	2131
65	2422	1628	1887
70	1767	1395	1544
75	1134	1068	1110
80	571	650	712
85	144	246	199
90	9	13	15

Coefficients of Utilization

rc rw RCR	Effective floor cavity reflectance												20%											
	80%				70%				50%				30%				10%				0%			
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	113	113	113	113	109	109	109	109	103	103	103	98	98	98	92	92	92	90						
1	104	100	96	93	101	97	94	91	92	89	87	87	85	83	83	81	80	77						
2	95	88	82	77	92	86	81	76	82	77	73	78	74	71	74	71	68	66						
3	88	79	71	66	85	77	70	65	73	68	63	70	65	61	67	63	59	57						
4	81	70	62	57	78	69	61	56	66	59	54	63	57	53	60	56	52	50						
5	74	63	55	49	72	61	54	48	59	52	47	56	50	46	54	49	45	43						
6	69	57	48	43	66	55	48	42	53	46	41	51	45	41	49	44	40	38						
7	64	51	43	38	62	50	43	37	48	41	37	46	40	36	45	39	35	33						
8	59	46	38	33	57	45	38	33	44	37	32	42	36	32	40	35	31	29						
9	54	42	34	29	53	41	34	29	40	33	28	38	32	28	37	31	27	26						
10	51	38	31	26	49	38	30	26	36	30	25	35	29	25	34	28	25	23						

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	5000	29.2	30.5
0-40	7643	44.7	46.6
0-60	12290	71.9	74.9
0-90	15393	90.0	93.9
0-180	16401	95.9	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	9819	5847	5353
55	9191	5150	5588
65	8179	5498	6372
75	6253	5889	6121
85	2358	4028	3259

ORDERING INFORMATION

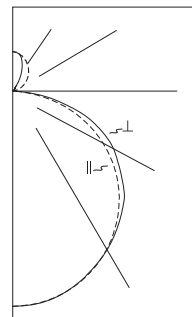
SAMPLE NUMBER: 2HB-632-UNV-LGSP50M/OC8-GE-GE432MAXHULTRA/GE232MAXHULTRA-UPL-TCBP-U

Width 2=24"	Series HB=High Bay	No. of Lamps 6=6 Lamps	Lamp Type 32=32W T8 GE Lamps (48"), 5000K	Voltage UNV=Universal 120/277V Voltage	Ballast=GE 4 Lamp and 2 Lamp UltraMax High Ballast Factor Instant Start Electronic Ballasts	Additional Items UPL=Uplight Apertures TCBP=Top Connector Box Plate	Packaging U=Unit Pack
----------------	-----------------------	---------------------------	---	--	---	---	--------------------------

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

SHIPPING INFORMATION

Catalog No.	Wt.
2HB45	27 lbs.


2HB-632-G-UNV
 (2) Electronic Ballasts

 (6) F032/35K 32W
 T8 lamps
 2850 lumens

 Spacing criterion:
 (II) 1.3 x mounting
 height, (⊥) 1.3 x
 mounting height
 Efficiency 92.1%

 Test Report:
 09308

LER =82

 Yearly Cost of 1000
 lumens, 3000 hrs
 at .08 KWH = \$2.94

Candela

Angle	Along II	45°	Across ⊥
0	4632	4632	4632
5	4614	4621	4616
10	4559	4576	4570
15	4465	4487	4474
20	4347	4358	4331
25	4187	4184	4176
30	3997	3987	4007
35	3778	3770	3819
40	3529	3535	3607
45	3259	3273	3391
50	2951	2990	3111
55	2619	2699	2807
60	2262	2338	2531
65	1881	2000	2177
70	1481	1663	1776
75	1056	1242	1267
80	606	756	803
85	184	292	258
90	15	17	15

Coefficients of Utilization

rc rw RCR	Effective floor cavity reflectance												20%											
	80%				70%				50%				30%				10%				0%			
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	108	108	108	108	105	105	105	105	98	98	98	93	93	93	87	87	87	85						
1	99	94	91	87	95	92	88	85	86	84	81	82	79	77	77	75	74	71						
2	90	82	76	71	87	80	74	70	76	71	67	72	68	64	68	65	62	60						
3	82	73	65	59	79	71	64	58	67	61	56	63	59	55	60	56	53	50						
4	75	64	56	50	72	62	55	49	59	53	48	56	51	47	53	49	45	43						
5	68	56	48	42	66	55	47	42	52	46	40	50	44	39	47	42	38	36						
6	63	50	42	36	60	49	41	36	47	40	35	44	39	34	42	37	33	31						
7	58	45	37	31	56	44	36	31	42	35	30	40	34	29	38	33	29	27						
8	53	40	32	27	51	39	32	27	38	31	26	36	30	25	34	29	25	23						
9	49	36	28	23	47	35	28	23	34	27	22	32	26	22	31	25	21	20						
10	45	33	25	20	44	32	25	20	31	24	20	29	24	19	28	23	19	17						

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	3639	21.3	23.1
0-40	6011	35.1	38.2
0-60	10954	64.1	69.6
0-90	14505	84.8	92.1
0-180	15743	92.1	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	6578	6606	6844
55	6516	6716	6984
65	6352	6754	7352
75	5823	6848	6986
85	3013	4781	4225