

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P860174

Luminaire Tested: **SPHB-48HE-W-L850-CD**

Issue Date: 7/11/2024

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P860174
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-48HE-W-L850-CD
Description: 48000 Lumen High Efficacy Select Pro High Bay with Wide Lens and, 5000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

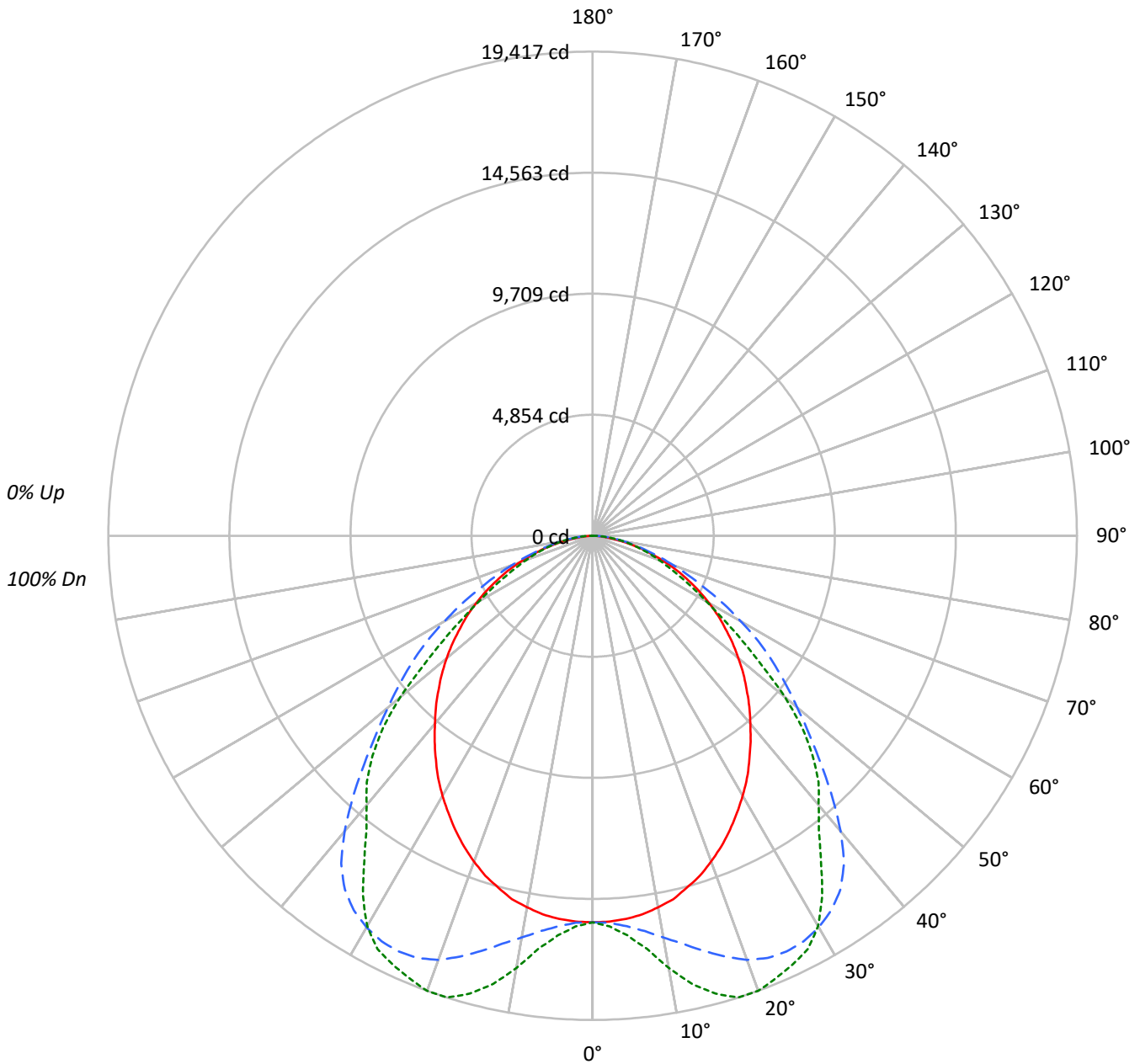
Lumens per Lamp: N/A
Luminaire Lumens: 48770.0 lumens
Efficiency: N/A
Efficacy: 169.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

Input Watts (W): 288.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85																			
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72																			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62																			
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53																			
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46																			
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40																			
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36																			
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32																			
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29																			
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	49361	49361	49361
5°	49307	50238	51428
10°	48917	52889	56898
15°	48153	56827	62673
20°	47111	61346	65804
25°	45751	64655	66666
30°	44262	66678	66485
35°	42601	67348	62038
40°	40884	64307	58596
45°	39337	58290	56219
50°	37805	53002	49839
55°	36076	48970	40557
60°	34291	43658	33401
65°	31930	37514	28961
70°	29049	32029	26194
75°	24947	26880	24016
80°	19498	23056	22273
85°	13187	19567	18361



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1521.8	3.1
10°-20°	4825.5	9.9
20°-30°	7897.2	16.2
30°-40°	9634.0	19.8
40°-50°	9541.5	19.6
50°-60°	7630.1	15.6
60°-70°	4759.9	9.8
70°-80°	2332.1	4.8
80°-90°	611.7	1.3
90°-100°	16.1	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	14244.6	29.2
0°-40°	23878.6	49.0
0°-60°	41050.2	84.2
0°-90°	48753.9	100.0
90°-120°	16.1	0.0
90°-150°	16.1	0.0
90°-180°	16.0	0.0
0°-180°	48770.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	15500	15500	15500	15500	15500	
5°	15424	15492	15715	15989	16088	###
15°	14605	15455	17236	18608	19010	4117
25°	13020	15224	18400	18934	18973	5992
35°	10958	14642	17324	16398	15958	6854
45°	8734	13569	12943	12508	12483	6746
55°	6498	10419	8820	7968	7305	5822
65°	4237	5846	4978	4129	3843	4202
75°	2028	2483	2185	2000	1952	2152
85°	361	512	536	508	502	447
90°	2	52	95	120	124	21
95°	2	8	8	6	4	1
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	15499.8	15499.8	15499.8	15499.8	15499.8
2.5°	15484.3	15478.5	15534.8	15637.6	15684.1
5°	15424.2	15492.1	15715.2	15988.7	16087.7
7.5°	15315.5	15497.9	15990.7	16493.2	16706.6
10°	15127.3	15501.8	16355.4	17242.1	17595.2
12.5°	14933.3	15488.2	16760.9	18016.2	18402.3
15°	14605.4	15455.2	17236.3	18607.9	19009.6
17.5°	14300.8	15416.4	17694.1	19110.4	19415.0
20°	13901.2	15360.1	18101.6	19263.7	19417.0
22.5°	13482.1	15315.5	18326.6	19160.9	19207.5
25°	13020.3	15224.3	18400.4	18933.9	18972.7
27.5°	12527.5	15142.8	18330.5	18652.6	18685.6
30°	12036.7	14995.4	18132.6	18214.1	18080.2
32.5°	11522.5	14847.9	17812.5	17445.8	17133.4
35°	10957.9	14642.3	17323.6	16398.1	15957.7
37.5°	10401.1	14444.4	16561.1	15226.3	14894.5
40°	9834.6	14199.9	15468.8	14132.0	14095.2
42.5°	9299.1	13936.1	14232.9	13280.3	13404.5
45°	8734.5	13569.4	12942.7	12508.1	12482.9
47.5°	8199.1	13063.0	11768.9	11654.5	11396.4
50°	7630.6	12364.6	10698.0	10589.3	10059.7
52.5°	7073.8	11474.0	9741.5	9334.0	8561.9
55°	6497.6	10418.6	8819.9	7968.2	7304.7
57.5°	5962.1	9258.4	7882.8	6778.9	6183.2
60°	5383.9	8082.7	6854.5	5735.1	5244.2
62.5°	4817.4	6924.4	5923.3	4846.5	4520.5
65°	4237.3	5845.7	4978.4	4128.6	3843.4
67.5°	3682.4	4912.5	4161.6	3480.6	3290.5
70°	3119.8	3985.1	3439.9	2923.8	2813.2
72.5°	2539.7	3183.8	2782.2	2467.9	2384.4
75°	2027.5	2483.4	2184.6	2000.3	1951.8
77.5°	1509.4	1847.0	1707.3	1598.7	1585.1
80°	1063.2	1332.9	1257.2	1235.9	1214.5
82.5°	679.1	871.1	894.4	880.8	865.3
85°	360.9	512.2	535.5	508.3	502.5
87.5°	145.5	223.1	240.6	265.8	273.6
90°	1.9	52.4	95.1	120.3	124.2
92.5°	1.9	11.6	13.6	13.6	11.6
95°	1.9	7.8	7.8	5.8	3.9
97.5°	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)