

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: P860163

Luminaire Tested: **SPHB-48HE-N-L835-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: P860163
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-48HE-N-L835-CD
Description: 48000 Lumen High Efficacy Select Pro High Bay with Narrow Lens and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

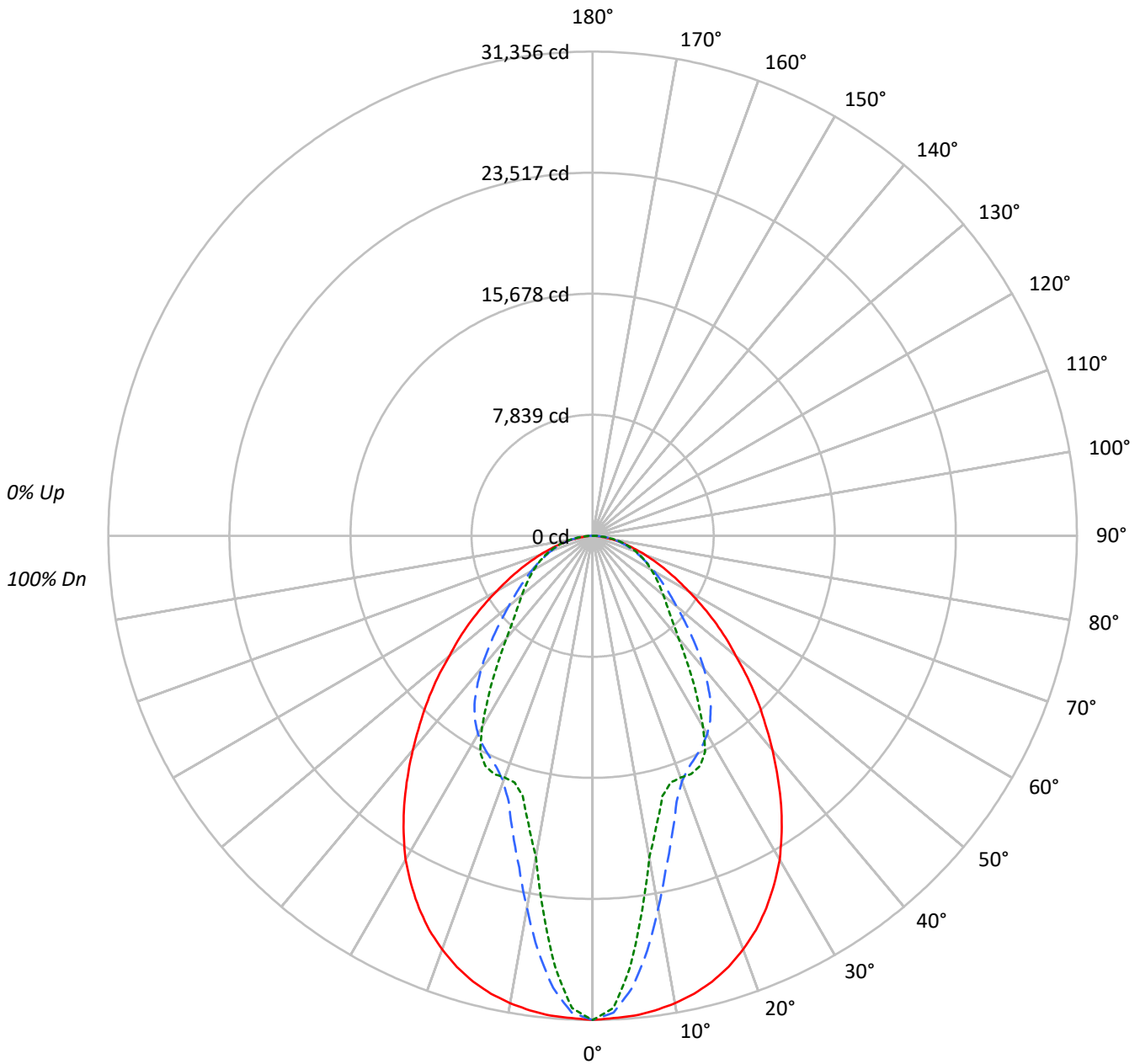
Lumens per Lamp: N/A
Luminaire Lumens: 45955.0 lumens
Efficiency: N/A
Efficacy: 159.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	94	88	83	99	92	86	82	88	84	80	85	81	78	82	79	76	74																			
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64																			
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50																			
6	74	62	54	48	73	61	54	48	60	53	47	58	52	47	56	51	47	45																			
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	46	42	40																			
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37																			
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34																			
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	99856	99856	99856
5°	99740	93955	89508
10°	99399	79196	68273
15°	98572	65741	57533
20°	96586	57306	56479
25°	93482	55447	57802
30°	89063	54557	52603
35°	82695	51844	43590
40°	75302	46542	35994
45°	67973	40385	31598
50°	59985	35116	29589
55°	53229	31671	28481
60°	45617	29288	27901
65°	39485	27526	27760
70°	33789	26479	27727
75°	28364	25714	27480
80°	21642	24848	26911
85°	14170	22040	20729



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2673.4	5.8
10°-20°	6138.4	13.4
20°-30°	8295.7	18.1
30°-40°	8730.8	19.0
40°-50°	7408.4	16.1
50°-60°	5738.9	12.5
60°-70°	3996.9	8.7
70°-80°	2288.7	5.0
80°-90°	666.0	1.4
90°-100°	17.8	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°	17107.5	37.2
0°-40°	25838.3	56.2
0°-60°	38985.5	84.8
0°-90°	45937.2	100.0
90°-120°	17.8	0.0
90°-150°	17.8	0.0
90°-180°	18.0	0.0
0°-180°	45955.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	31356	31356	31356	31356	31356	
5°	31200	30628	29391	28263	28000	###
15°	29898	25376	19940	17948	17450	8413
25°	26604	18793	15780	16237	16450	12213
35°	21271	14454	13336	12045	11212	13259
45°	15093	10853	8967	7368	7016	11624
55°	9587	7310	5704	5185	5130	8571
65°	5240	4290	3653	3653	3684	5234
75°	2305	2049	2090	2221	2233	2458
85°	388	503	603	567	567	493
90°	2	46	89	112	117	21
95°	2	7	14	14	12	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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CATALOG NUMBER: SPHB-48HE-N-L835-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	31355.9	31355.9	31355.9	31355.9	31355.9
2.5°	31264.9	31162.0	30910.7	30747.9	30621.0
5°	31200.3	30628.2	29390.6	28263.2	27999.8
7.5°	31006.4	29749.7	27104.6	25019.6	24493.0
10°	30738.3	28488.2	24490.6	21879.0	21113.0
12.5°	30381.6	27140.5	21986.7	19525.9	19150.1
15°	29898.1	25376.3	19940.0	17948.4	17450.5
17.5°	29270.9	23552.2	18051.4	16900.0	16761.1
20°	28500.1	21879.0	16909.5	16517.0	16665.4
22.5°	27633.6	20253.6	16246.5	16411.6	16689.3
25°	26604.3	18793.4	15779.7	16236.9	16449.9
27.5°	25448.1	17474.5	15351.2	15770.1	15770.1
30°	24220.1	16375.7	14836.5	14798.2	14305.1
32.5°	22786.2	15442.2	14163.9	13405.1	12672.6
35°	21271.0	14453.5	13335.6	12045.4	11212.4
37.5°	19681.5	13534.3	12287.2	10585.2	9809.6
40°	18113.6	12627.1	11195.6	9273.4	8658.2
42.5°	16552.9	11703.1	10058.6	8210.6	7724.7
45°	15092.7	10853.3	8967.0	7368.0	7016.1
47.5°	13608.5	9950.9	7959.3	6690.6	6446.4
50°	12107.6	9036.5	7087.9	6152.0	5972.4
52.5°	10843.7	8184.3	6348.3	5642.1	5534.4
55°	9587.0	7310.5	5704.3	5184.9	5129.8
57.5°	8339.9	6496.7	5115.5	4766.0	4754.0
60°	7162.1	5735.5	4598.4	4406.9	4380.6
62.5°	6159.2	4979.0	4107.7	4016.7	4028.7
65°	5239.9	4289.6	3652.9	3652.9	3684.0
67.5°	4387.8	3655.3	3236.4	3291.4	3334.5
70°	3628.9	3080.8	2843.8	2939.5	2977.8
72.5°	2910.8	2547.0	2468.0	2573.3	2604.4
75°	2305.2	2049.1	2089.8	2221.4	2233.4
77.5°	1709.1	1613.4	1718.7	1862.3	1888.7
80°	1180.1	1189.7	1354.9	1455.4	1467.4
82.5°	761.2	830.6	1015.0	1067.6	1048.5
85°	387.8	502.7	603.2	567.3	567.3
87.5°	148.4	217.8	256.1	301.6	318.4
90°	2.4	45.5	88.6	112.5	117.3
92.5°	2.4	12.0	19.2	21.5	19.2
95°	2.4	7.2	14.4	14.4	12.0
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)