

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: P860197

Luminaire Tested: **SPHB-48SE-W-L740-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: P860197
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-48SE-W-L740-CD
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens and, 4000K 70CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

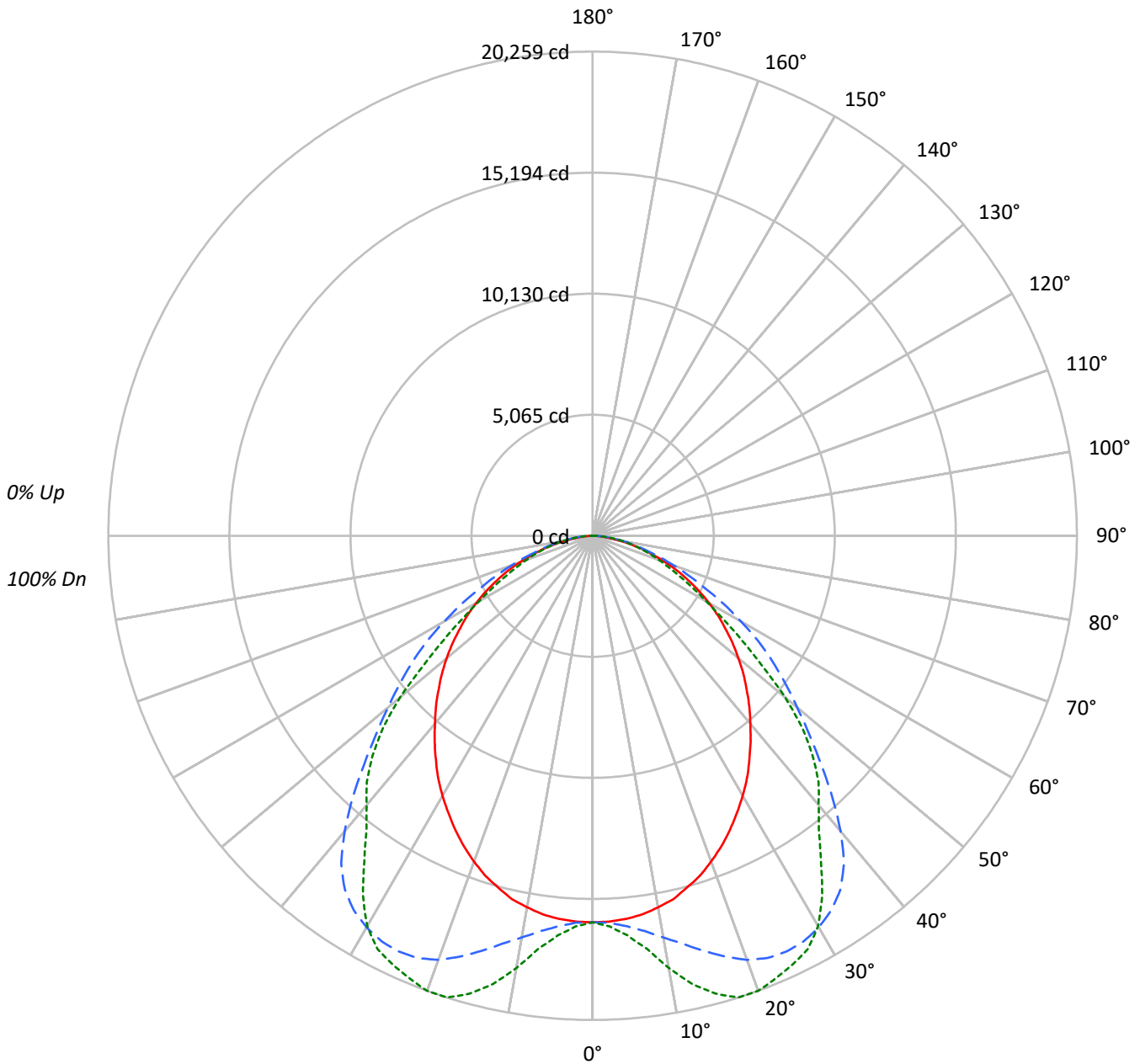
Lumens per Lamp: N/A
Luminaire Lumens: 50885.0 lumens
Efficiency: N/A
Efficacy: 166.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

Input Watts (W): 304.9
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				20				
RC	80				70				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			100
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85			85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72			72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62			62
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53			53
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46			46
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40			40
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36			36
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32			32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29			29
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26			26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	51501	51501	51501
5°	51446	52416	53659
10°	51039	55182	59365
15°	50241	59291	65391
20°	49154	64006	68657
25°	47735	67459	69558
30°	46181	69570	69369
35°	44448	70269	64728
40°	42657	67095	61137
45°	41043	60818	58657
50°	39444	55300	52000
55°	37640	51093	42315
60°	35778	45551	34850
65°	33314	39141	30218
70°	30309	33419	27330
75°	26029	28045	25057
80°	20344	24056	23240
85°	13757	20414	19157



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1587.8	3.1
10°-20°	5034.8	9.9
20°-30°	8239.7	16.2
30°-40°	10051.9	19.8
40°-50°	9955.3	19.6
50°-60°	7961.0	15.6
60°-70°	4966.4	9.8
70°-80°	2433.3	4.8
80°-90°	638.2	1.3
90°-100°	16.8	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°	14862.3	29.2
0°-40°	24914.2	49.0
0°-60°	42830.4	84.2
0°-90°	50868.2	100.0
90°-120°	16.8	0.0
90°-150°	16.8	0.0
90°-180°	17.0	0.0
0°-180°	50885.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	16172	16172	16172	16172	16172	
5°	16093	16164	16397	16682	16785	###
15°	15239	16126	17984	19415	19834	4296
25°	13585	15885	19198	19755	19796	6251
35°	11433	15277	18075	17109	16650	7152
45°	9113	14158	13504	13051	13024	7039
55°	6779	10870	9202	8314	7621	6074
65°	4421	6099	5194	4308	4010	4384
75°	2115	2591	2279	2087	2036	2246
85°	376	534	559	530	524	466
90°	2	55	99	126	130	22
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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CATALOG NUMBER: SPHB-48SE-W-L740-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	16172.0	16172.0	16172.0	16172.0	16172.0
2.5°	16155.8	16149.7	16208.4	16315.7	16364.3
5°	16093.1	16163.9	16396.7	16682.1	16785.4
7.5°	15979.7	16170.0	16684.2	17208.4	17431.1
10°	15783.3	16174.0	17064.7	17989.8	18358.2
12.5°	15580.9	16159.9	17487.8	18797.5	19200.3
15°	15238.8	16125.5	17983.7	19414.9	19833.9
17.5°	14921.0	16085.0	18461.5	19939.2	20257.0
20°	14504.0	16026.3	18886.6	20099.1	20259.0
22.5°	14066.8	15979.7	19121.4	19991.8	20040.4
25°	13585.0	15884.6	19198.3	19755.0	19795.5
27.5°	13070.8	15799.5	19125.4	19461.5	19495.9
30°	12558.7	15645.7	18919.0	19004.0	18864.3
32.5°	12022.2	15491.9	18585.0	18202.4	17876.5
35°	11433.2	15277.3	18074.8	17109.3	16649.7
37.5°	10852.2	15070.8	17279.3	15886.6	15540.4
40°	10261.1	14815.7	16139.6	14744.9	14706.4
42.5°	9702.4	14540.4	14850.2	13856.2	13985.8
45°	9113.3	14157.8	13504.0	13050.6	13024.2
47.5°	8554.6	13629.5	12279.3	12159.9	11890.6
50°	7961.5	12900.8	11161.9	11048.5	10495.9
52.5°	7380.5	11971.6	10163.9	9738.8	8933.2
55°	6779.3	10870.4	9202.4	8313.7	7621.4
57.5°	6220.6	9659.9	8224.7	7072.9	6451.4
60°	5617.4	8433.2	7151.8	5983.8	5471.6
62.5°	5026.3	7224.7	6180.1	5056.7	4716.6
65°	4421.0	6099.2	5194.3	4307.7	4010.1
67.5°	3842.1	5125.5	4342.1	3631.6	3433.2
70°	3255.1	4157.9	3589.1	3050.6	2935.2
72.5°	2649.8	3321.9	2902.8	2574.9	2487.8
75°	2115.4	2591.1	2279.3	2087.0	2036.4
77.5°	1574.9	1927.1	1781.4	1668.0	1653.8
80°	1109.3	1390.7	1311.7	1289.5	1267.2
82.5°	708.5	908.9	933.2	919.0	902.8
85°	376.5	534.4	558.7	530.4	524.3
87.5°	151.8	232.8	251.0	277.3	285.4
90°	2.0	54.7	99.2	125.5	129.6
92.5°	2.0	12.1	14.2	14.2	12.1
95°	2.0	8.1	8.1	6.1	4.0
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)