

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: P860196

Luminaire Tested: **SPHB-48SE-W-L735-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: P860196
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-L735-CD
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens
and, 3500K 70CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

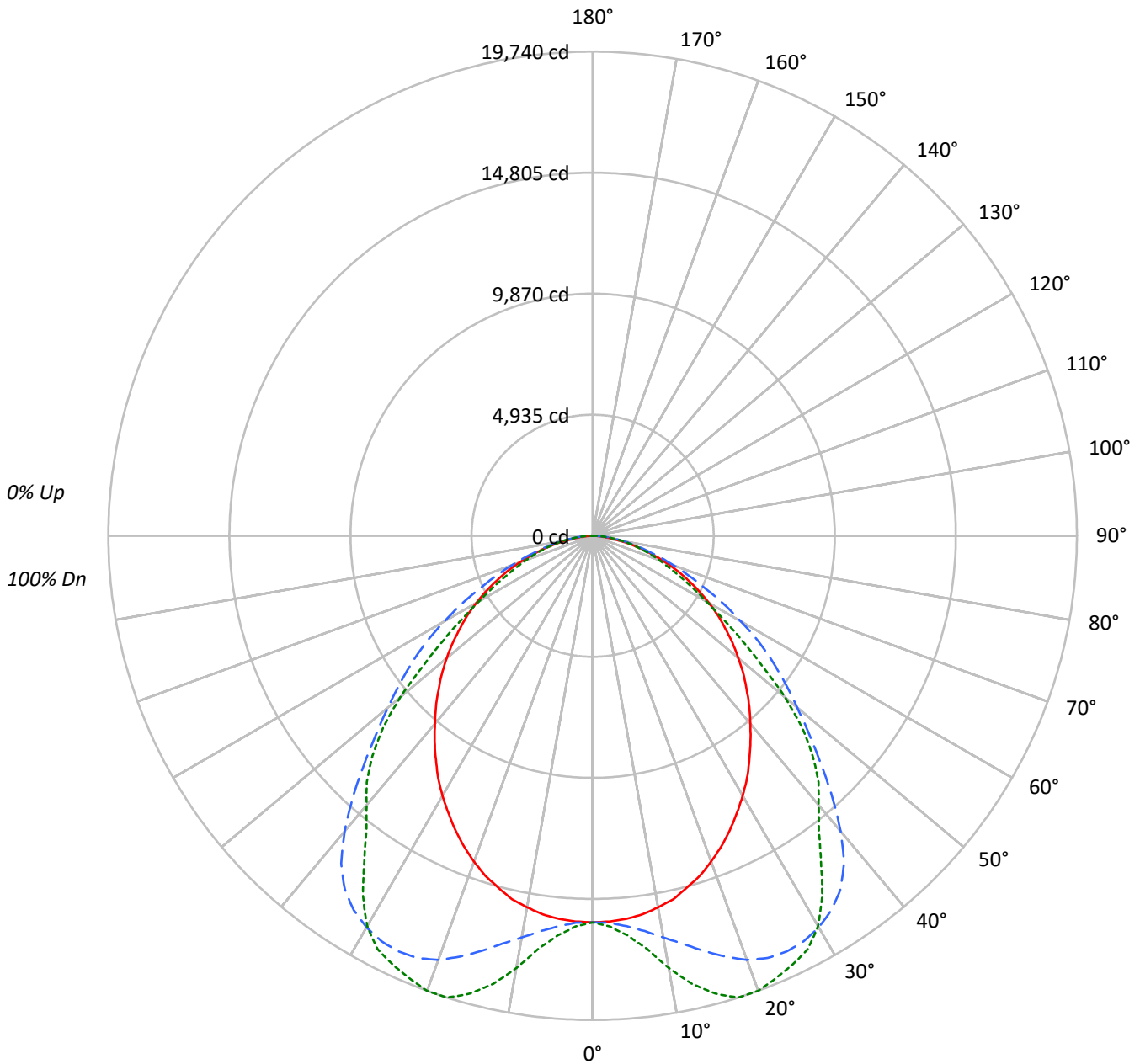
Lumens per Lamp: N/A
Luminaire Lumens: 49580.0 lumens
Efficiency: N/A
Efficacy: 162.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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									
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°	50181	50181	50181
5°	50126	51072	52283
10°	49730	53767	57843
15°	48953	57770	63714
20°	47893	62365	66897
25°	46511	65729	67774
30°	44997	67786	67590
35°	43308	68467	63068
40°	41563	65375	59570
45°	39991	59258	57153
50°	38432	53881	50667
55°	36675	49783	41230
60°	34860	44383	33956
65°	32460	38137	29443
70°	29531	32561	26629
75°	25360	27327	24414
80°	19823	23439	22644
85°	13406	19892	18664



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1547.1	3.1
10°-20°	4905.7	9.9
20°-30°	8028.4	16.2
30°-40°	9794.1	19.8
40°-50°	9700.0	19.6
50°-60°	7756.8	15.6
60°-70°	4839.0	9.8
70°-80°	2370.9	4.8
80°-90°	621.8	1.3
90°-100°	16.4	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°	14481.1	29.2
0°-40°	24275.2	49.0
0°-60°	41732.0	84.2
0°-90°	49563.6	100.0
90°-120°	16.4	0.0
90°-150°	16.4	0.0
90°-180°	16.0	0.0
0°-180°	49580.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	15757	15757	15757	15757	15757	
5°	15680	15749	15976	16254	16355	###
15°	14848	15712	17522	18917	19325	4186
25°	13237	15477	18706	19248	19288	6091
35°	11140	14886	17611	16670	16223	6968
45°	8880	13795	13158	12716	12690	6858
55°	6606	10592	8966	8100	7426	5918
65°	4308	5943	5061	4197	3907	4271
75°	2061	2525	2221	2034	1984	2188
85°	367	521	544	517	511	454
90°	2	53	97	122	126	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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CATALOG NUMBER: SPHB-48SE-W-L735-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	15757.3	15757.3	15757.3	15757.3	15757.3
2.5°	15741.5	15735.6	15792.8	15897.3	15944.6
5°	15680.3	15749.4	15976.2	16254.3	16354.9
7.5°	15569.9	15755.3	16256.3	16767.1	16984.1
10°	15378.6	15759.2	16627.1	17528.5	17887.4
12.5°	15181.3	15745.4	17039.3	18315.4	18707.9
15°	14848.0	15711.9	17522.5	18917.0	19325.3
17.5°	14538.3	15672.5	17988.0	19427.8	19737.5
20°	14132.0	15615.3	18402.2	19583.7	19739.5
22.5°	13706.0	15569.9	18631.0	19479.1	19526.5
25°	13236.6	15477.2	18706.0	19248.4	19287.8
27.5°	12735.6	15394.3	18635.0	18962.4	18995.9
30°	12236.6	15244.4	18433.8	18516.6	18380.5
32.5°	11713.9	15094.5	18108.3	17735.6	17418.0
35°	11139.9	14885.5	17611.3	16670.5	16222.7
37.5°	10573.9	14684.3	16836.1	15479.2	15141.9
40°	9997.9	14435.8	15725.7	14366.7	14329.3
42.5°	9453.6	14167.5	14469.3	13500.9	13627.1
45°	8879.6	13794.8	13157.7	12715.9	12690.2
47.5°	8335.2	13280.0	11964.4	11848.0	11585.7
50°	7757.3	12569.9	10875.6	10765.2	10226.7
52.5°	7191.3	11664.6	9903.3	9489.1	8704.1
55°	6605.5	10591.6	8966.4	8100.5	7426.0
57.5°	6061.1	9412.1	8013.7	6891.5	6285.9
60°	5473.3	8216.9	6968.4	5830.3	5331.3
62.5°	4897.4	7039.4	6021.6	4927.0	4595.6
65°	4307.7	5942.8	5061.1	4197.2	3907.3
67.5°	3743.6	4994.0	4230.7	3538.4	3345.1
70°	3171.6	4051.2	3497.0	2972.4	2859.9
72.5°	2581.8	3236.7	2828.4	2508.9	2424.0
75°	2061.1	2524.6	2220.9	2033.5	1984.2
77.5°	1534.5	1877.7	1735.7	1625.2	1611.4
80°	1080.9	1355.0	1278.1	1256.4	1234.7
82.5°	690.3	885.6	909.3	895.5	879.7
85°	366.9	520.7	544.4	516.8	510.8
87.5°	147.9	226.8	244.6	270.2	278.1
90°	2.0	53.3	96.6	122.3	126.2
92.5°	2.0	11.8	13.8	13.8	11.8
95°	2.0	7.9	7.9	5.9	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)