

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: P860178

Luminaire Tested: **SPHB-48SE-M-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: P860178
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-48SE-M-L735-CD
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens
and, 3500K 70CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

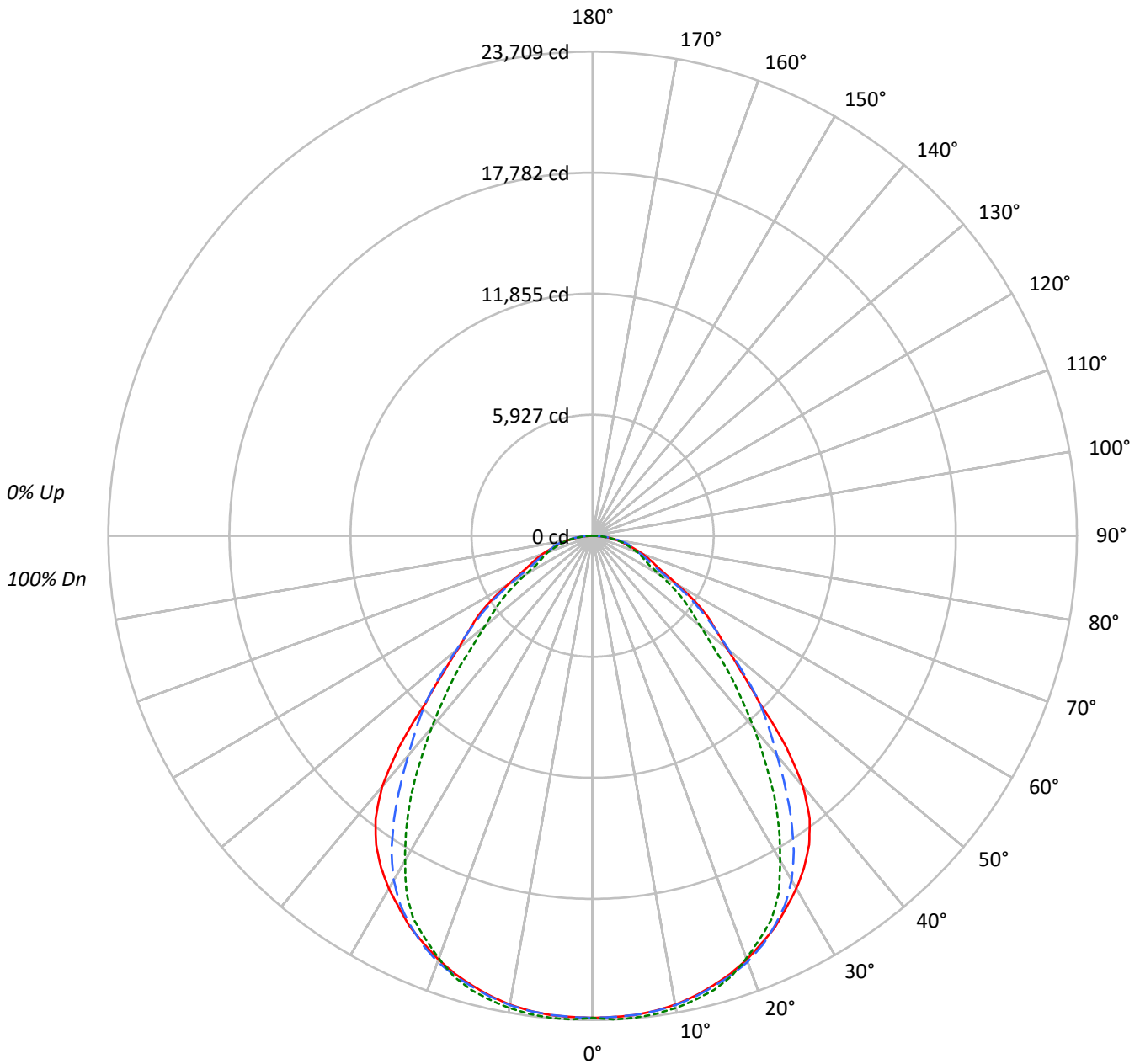
Lumens per Lamp: N/A
Luminaire Lumens: 48992.0 lumens
Efficiency: N/A
Efficacy: 160.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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	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	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87					87			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75					75			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66					66			
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58					58			
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51					51			
6	75	63	55	49	73	62	54	49	60	54	48	59	53	48	57	52	48	46					46			
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41					41			
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37					37			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34					34			
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31					31			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	75167	75167	75167
5°	75315	75295	75723
10°	75381	75461	75924
15°	75160	75356	75879
20°	74832	75212	74611
25°	74285	74077	72819
30°	73345	71616	67529
35°	71805	65887	60187
40°	66637	58315	50977
45°	51987	52128	42187
50°	42460	43062	34070
55°	38043	36608	29937
60°	30456	28829	23952
65°	25522	23364	21183
70°	24232	22261	21565
75°	21987	23634	20799
80°	22095	24149	21923
85°	19223	22523	18313



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2244.3	4.6
10°-20°	6454.5	13.2
20°-30°	9635.5	19.7
30°-40°	10514.0	21.5
40°-50°	8600.9	17.6
50°-60°	5655.1	11.5
60°-70°	3244.4	6.6
70°-80°	1966.0	4.0
80°-90°	660.2	1.3
90°-100°	17.2	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°	18334.2	37.4
0°-40°	28848.2	58.9
0°-60°	43104.1	88.0
0°-90°	48974.8	100.0
90°-120°	17.2	0.0
90°-150°	17.2	0.0
90°-180°	17.0	0.0
0°-180°	48992.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	23603	23603	23603	23603	23603	
5°	23560	23522	23554	23650	23688	###
15°	22797	22794	22856	23003	23015	6435
25°	21141	21191	21082	20826	20724	9726
35°	18470	18053	16948	15793	15481	11447
45°	11543	12406	11574	10217	9367	9163
55°	6852	6665	6594	5666	5392	6035
65°	3387	3337	3101	3017	2811	3463
75°	1787	1933	1921	1843	1690	1934
85°	526	598	616	539	501	571
90°	3	44	87	103	109	25
95°	3	6	9	9	6	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°	23603.4	23603.4	23603.4	23603.4	23603.4
2.5°	23587.9	23553.6	23584.7	23681.2	23709.3
5°	23559.8	23522.5	23553.6	23650.1	23687.5
7.5°	23463.3	23441.5	23472.7	23569.2	23615.9
10°	23310.8	23285.9	23335.7	23419.7	23478.9
12.5°	23083.5	23074.2	23120.9	23242.3	23267.2
15°	22797.1	22794.0	22856.3	23002.6	23015.0
17.5°	22473.4	22470.3	22548.1	22644.6	22610.3
20°	22081.1	22102.9	22193.2	22102.9	22015.7
22.5°	21611.0	21679.5	21701.3	21418.0	21374.4
25°	21141.0	21190.8	21081.8	20826.5	20723.8
27.5°	20533.9	20593.1	20390.7	20026.5	19733.9
30°	19945.5	19889.5	19475.5	18771.9	18364.1
32.5°	19270.0	19070.8	18326.7	17355.5	16985.0
35°	18469.9	18052.8	16947.6	15792.7	15481.4
37.5°	17458.2	16695.5	15487.6	14282.8	13812.8
40°	16029.3	15148.3	14027.6	12782.3	12262.4
42.5°	14027.6	13700.7	12773.0	11372.1	10752.6
45°	11543.3	12405.6	11574.5	10217.1	9367.3
47.5°	9880.9	11079.5	10080.2	9099.6	7929.0
50°	8570.3	9395.3	8691.7	7807.6	6876.8
52.5°	7623.9	7873.0	7589.7	6618.4	6089.2
55°	6851.9	6665.1	6593.5	5665.8	5391.9
57.5°	5893.1	5790.3	5606.7	4940.5	4579.3
60°	4781.7	4999.6	4526.4	4336.5	3760.6
62.5°	3928.7	4143.5	3636.1	3623.6	3144.2
65°	3387.0	3337.2	3100.6	3016.6	2811.1
67.5°	2997.9	2842.2	2761.3	2652.3	2580.7
70°	2602.5	2537.2	2390.8	2412.6	2316.1
72.5°	2169.8	2253.9	2107.6	2148.0	1973.7
75°	1786.9	1933.2	1920.8	1842.9	1690.4
77.5°	1472.5	1628.1	1656.2	1584.6	1460.0
80°	1204.8	1310.6	1316.8	1273.3	1195.4
82.5°	884.1	946.4	993.1	918.4	868.6
85°	526.1	597.7	616.4	538.6	501.2
87.5°	171.2	239.7	267.7	277.1	280.2
90°	3.1	43.6	87.2	102.7	109.0
92.5°	3.1	12.5	18.7	28.0	31.1
95°	3.1	6.2	9.3	9.3	6.2
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)