

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: P860184

Luminaire Tested: **SPHB-48SE-M-L935-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: P860184  
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-L935-CD  
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens  
and, 3500K 90CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

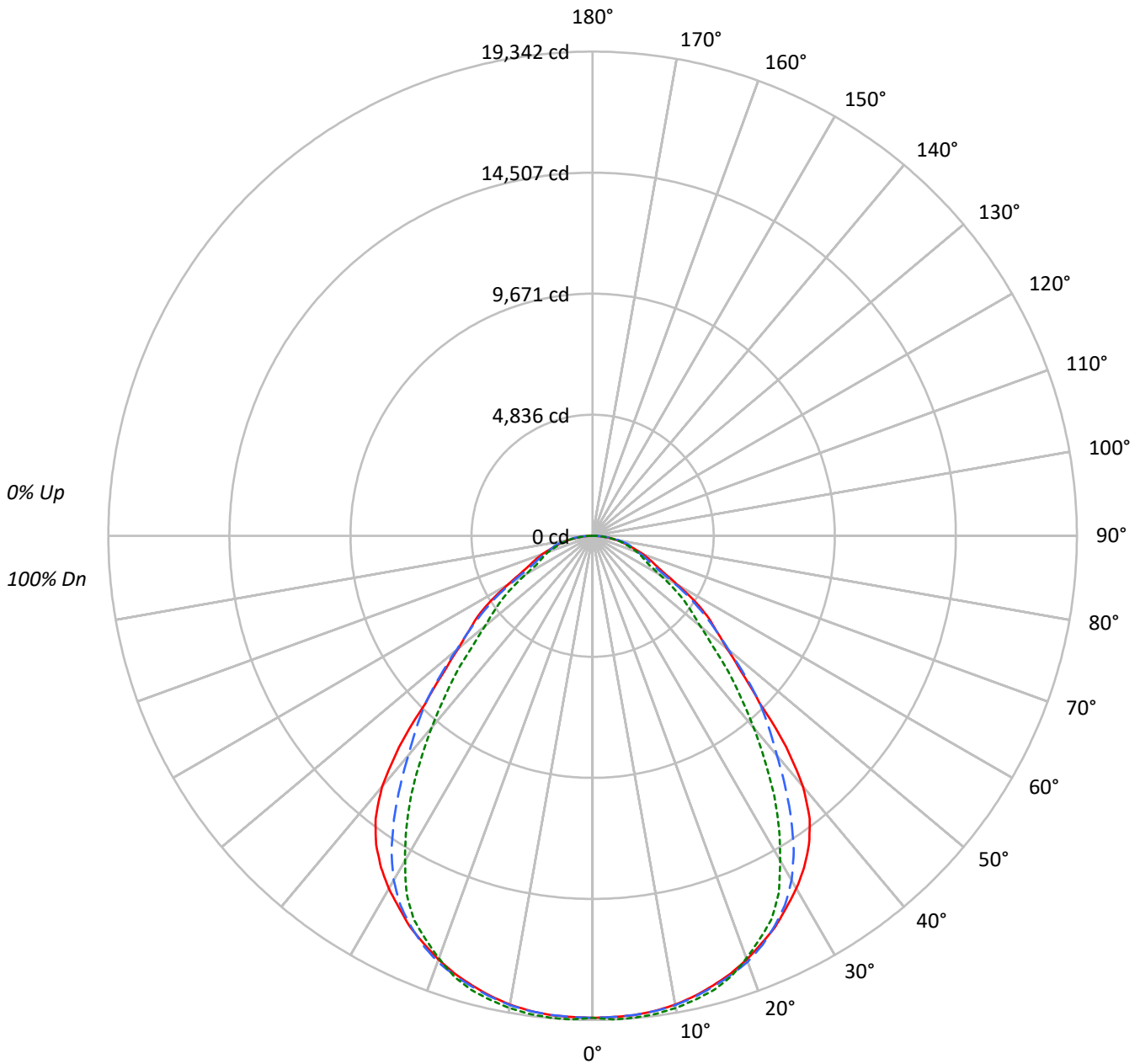
Lumens per Lamp: N/A  
Luminaire Lumens: 39967.0 lumens  
Efficiency: N/A  
Efficacy: 131.1 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 304.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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								
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87								
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75								
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58								
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51								
6	75	63	55	49	73	62	54	49	60	54	48	59	53	48	57	52	48	46								
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41								
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37								
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34								
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31								

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	61320	61320	61320
5°	61441	61425	61774
10°	61494	61560	61938
15°	61315	61474	61901
20°	61047	61357	60866
25°	60601	60431	59405
30°	59834	58423	55090
35°	58577	53750	49099
40°	54361	47573	41586
45°	42411	42525	34416
50°	34639	35129	27794
55°	31035	29865	24422
60°	24845	23519	19540
65°	20821	19061	17281
70°	19768	18160	17593
75°	17936	19280	16968
80°	18024	19702	17885
85°	15683	18372	14941



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1830.8	4.6
10°-20°	5265.5	13.2
20°-30°	7860.5	19.7
30°-40°	8577.1	21.5
40°-50°	7016.5	17.6
50°-60°	4613.3	11.5
60°-70°	2646.8	6.6
70°-80°	1603.9	4.0
80°-90°	538.6	1.3
90°-100°	14.0	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°	14956.8	37.4
0°-40°	23534.0	58.9
0°-60°	35163.8	88.0
0°-90°	39953.0	100.0
90°-120°	14.0	0.0
90°-150°	14.0	0.0
90°-180°	14.0	0.0
0°-180°	39967.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	19255	19255	19255	19255	19255	
5°	19220	19189	19215	19293	19324	###
15°	18598	18595	18646	18765	18775	5249
25°	17246	17287	17198	16990	16906	7934
35°	15068	14727	13826	12884	12630	9339
45°	9417	10120	9442	8335	7642	7475
55°	5590	5437	5379	4622	4399	4923
65°	2763	2722	2530	2461	2293	2825
75°	1458	1577	1567	1504	1379	1578
85°	429	488	503	439	409	465
90°	2	36	71	84	89	20
95°	2	5	8	8	5	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°	19255.3	19255.3	19255.3	19255.3	19255.3
2.5°	19242.6	19214.7	19240.1	19318.8	19341.7
5°	19219.8	19189.3	19214.7	19293.4	19323.9
7.5°	19141.1	19123.3	19148.7	19227.4	19265.5
10°	19016.6	18996.3	19036.9	19105.5	19153.8
12.5°	18831.2	18823.6	18861.7	18960.7	18981.1
15°	18597.6	18595.0	18645.8	18765.2	18775.4
17.5°	18333.5	18330.9	18394.4	18473.1	18445.2
20°	18013.5	18031.3	18104.9	18031.3	17960.1
22.5°	17630.0	17685.9	17703.6	17472.5	17437.0
25°	17246.5	17287.1	17198.3	16990.0	16906.2
27.5°	16751.3	16799.5	16634.5	16337.3	16098.6
30°	16271.3	16225.6	15887.8	15313.9	14981.2
32.5°	15720.2	15557.7	14950.7	14158.3	13856.1
35°	15067.5	14727.2	13825.7	12883.5	12629.5
37.5°	14242.1	13619.9	12634.6	11651.7	11268.3
40°	13076.5	12357.8	11443.5	10427.6	10003.5
42.5°	11443.5	11176.8	10420.0	9277.2	8771.8
45°	9416.9	10120.4	9442.3	8335.0	7641.7
47.5°	8060.7	9038.5	8223.3	7423.3	6468.4
50°	6991.6	7664.6	7090.6	6369.3	5610.0
52.5°	6219.5	6422.7	6191.6	5399.2	4967.5
55°	5589.7	5437.3	5378.9	4622.1	4398.6
57.5°	4807.5	4723.7	4573.8	4030.4	3735.8
60°	3900.8	4078.6	3692.6	3537.7	3067.9
62.5°	3205.0	3380.2	2966.3	2956.1	2565.0
65°	2763.1	2722.5	2529.5	2460.9	2293.3
67.5°	2445.6	2318.7	2252.6	2163.8	2105.3
70°	2123.1	2069.8	1950.4	1968.2	1889.5
72.5°	1770.1	1838.7	1719.3	1752.3	1610.1
75°	1457.7	1577.1	1566.9	1503.5	1379.0
77.5°	1201.2	1328.2	1351.1	1292.7	1191.1
80°	982.8	1069.2	1074.3	1038.7	975.2
82.5°	721.3	772.0	810.1	749.2	708.6
85°	429.2	487.6	502.8	439.4	408.9
87.5°	139.7	195.6	218.4	226.0	228.6
90°	2.5	35.6	71.1	83.8	88.9
92.5°	2.5	10.2	15.2	22.9	25.4
95°	2.5	5.1	7.6	7.6	5.1
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)