

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: P860186

Luminaire Tested: **SPHB-48SE-M-L950-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: P860186  
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-L950-CD  
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens  
and, 5000K 90CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

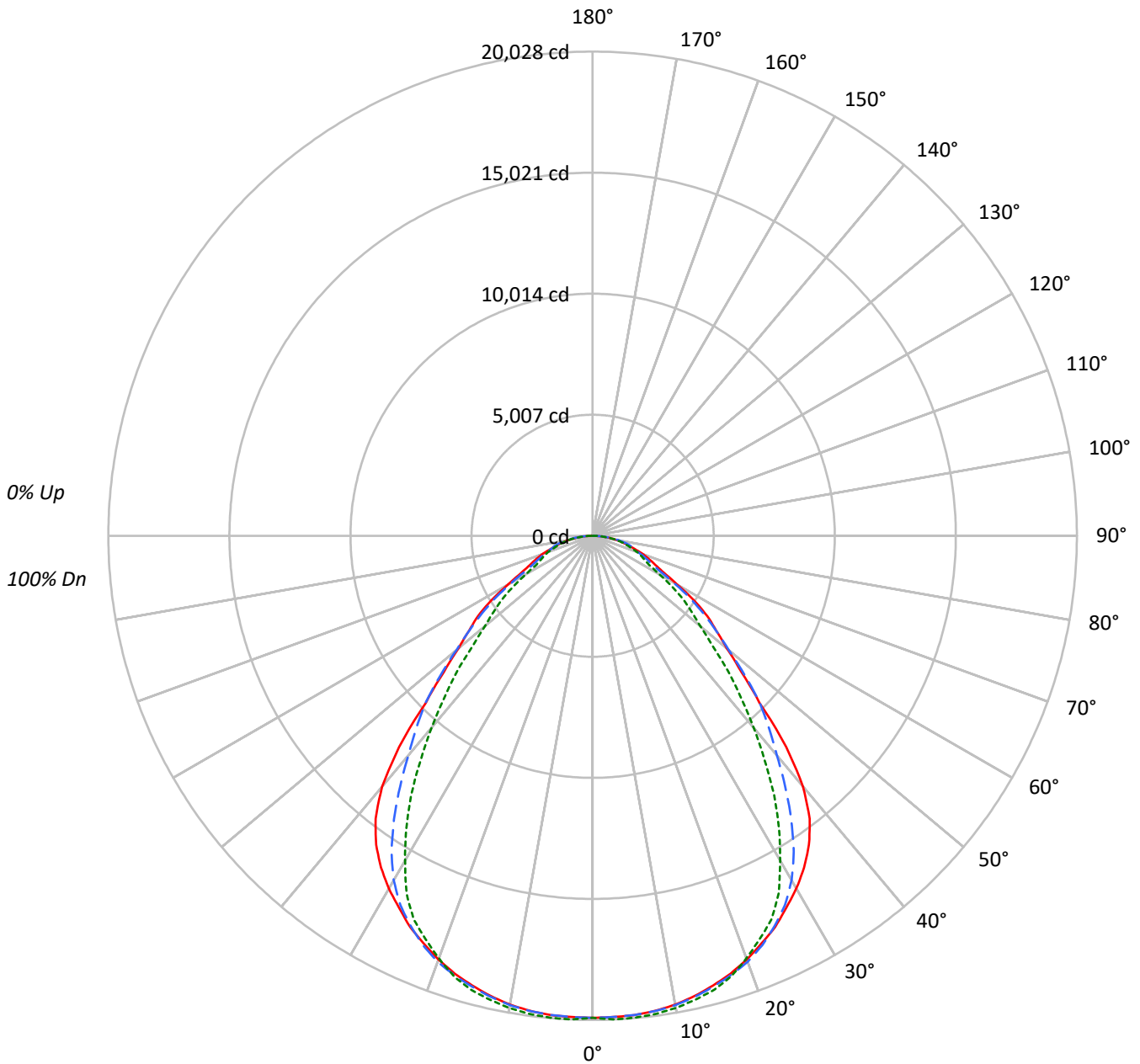
Lumens per Lamp: N/A  
Luminaire Lumens: 41385.0 lumens  
Efficiency: N/A  
Efficacy: 135.7 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 304.9  
Input Voltage (V): NR  
Input Current (A<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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CATALOG NUMBER: SPHB-48SE-M-L950-CD

### 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°	63496	63496	63496
5°	63621	63604	63965
10°	63676	63744	64135
15°	63490	63655	64097
20°	63213	63534	63026
25°	62751	62575	61513
30°	61956	60496	57044
35°	60656	55657	50841
40°	56290	49261	43062
45°	43915	44034	35637
50°	35867	36376	28780
55°	32136	30924	25288
60°	25726	24353	20233
65°	21559	19737	17894
70°	20470	18805	18217
75°	18573	19964	17569
80°	18664	20401	18519
85°	16238	19026	15471



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1895.8	4.6
10°-20°	5452.3	13.2
20°-30°	8139.4	19.7
30°-40°	8881.4	21.5
40°-50°	7265.4	17.6
50°-60°	4777.0	11.5
60°-70°	2740.7	6.6
70°-80°	1660.8	4.0
80°-90°	557.7	1.3
90°-100°	14.5	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°	15487.5	37.4
0°-40°	24368.9	58.9
0°-60°	36411.4	88.0
0°-90°	41370.5	100.0
90°-120°	14.5	0.0
90°-150°	14.5	0.0
90°-180°	14.0	0.0
0°-180°	41385.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	19938	19938	19938	19938	19938	
5°	19902	19870	19896	19978	20010	###
15°	19257	19255	19307	19431	19442	5436
25°	17858	17900	17808	17593	17506	8216
35°	15602	15250	14316	13341	13078	9670
45°	9751	10479	9777	8631	7913	7740
55°	5788	5630	5570	4786	4555	5098
65°	2861	2819	2619	2548	2375	2925
75°	1510	1633	1622	1557	1428	1634
85°	444	505	521	455	423	482
90°	3	37	74	87	92	21
95°	3	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



TEST NUMBER: P860186

CATALOG NUMBER: SPHB-48SE-M-L950-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	19938.5	19938.5	19938.5	19938.5	19938.5
2.5°	19925.4	19896.4	19922.7	20004.3	20027.9
5°	19901.7	19870.1	19896.4	19978.0	20009.5
7.5°	19820.2	19801.8	19828.1	19909.6	19949.0
10°	19691.3	19670.3	19712.4	19783.4	19833.3
12.5°	19499.3	19491.5	19530.9	19633.5	19654.5
15°	19257.4	19254.8	19307.4	19431.0	19441.5
17.5°	18983.9	18981.3	19047.0	19128.6	19099.6
20°	18652.6	18671.0	18747.2	18671.0	18597.4
22.5°	18255.5	18313.3	18331.8	18092.4	18055.6
25°	17858.4	17900.5	17808.4	17592.8	17506.0
27.5°	17345.6	17395.6	17224.6	16917.0	16669.8
30°	16848.6	16801.3	16451.5	15857.2	15512.7
32.5°	16277.9	16109.6	15481.1	14660.7	14347.7
35°	15602.1	15249.7	14316.2	13340.6	13077.6
37.5°	14747.4	14103.2	13082.8	12065.1	11668.1
40°	13540.4	12796.2	11849.5	10797.6	10358.5
42.5°	11849.5	11573.4	10789.7	9606.4	9083.0
45°	9751.0	10479.4	9777.3	8630.7	7912.8
47.5°	8346.7	9359.2	8515.0	7686.7	6697.9
50°	7239.6	7936.5	7342.2	6595.3	5809.0
52.5°	6440.2	6650.6	6411.2	5590.8	5143.7
55°	5788.0	5630.2	5569.7	4786.1	4554.7
57.5°	4978.1	4891.3	4736.1	4173.4	3868.3
60°	4039.2	4223.3	3823.6	3663.2	3176.7
62.5°	3318.7	3500.2	3071.5	3061.0	2656.0
65°	2861.1	2819.1	2619.2	2548.2	2374.6
67.5°	2532.4	2400.9	2332.6	2240.5	2180.0
70°	2198.4	2143.2	2019.6	2038.0	1956.5
72.5°	1832.9	1903.9	1780.3	1814.5	1667.2
75°	1509.5	1633.1	1622.5	1556.8	1427.9
77.5°	1243.9	1375.3	1399.0	1338.5	1233.3
80°	1017.7	1107.1	1112.4	1075.6	1009.8
82.5°	746.8	799.4	838.9	775.8	733.7
85°	444.4	504.9	520.7	454.9	423.4
87.5°	144.6	202.5	226.2	234.0	236.7
90°	2.6	36.8	73.6	86.8	92.0
92.5°	2.6	10.5	15.8	23.7	26.3
95°	2.6	5.3	7.9	7.9	5.3
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)