

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: P860294

Luminaire Tested: **SPHB-9SE-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: P860294  
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-9SE-M-L950-CD  
Description: 9000 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**

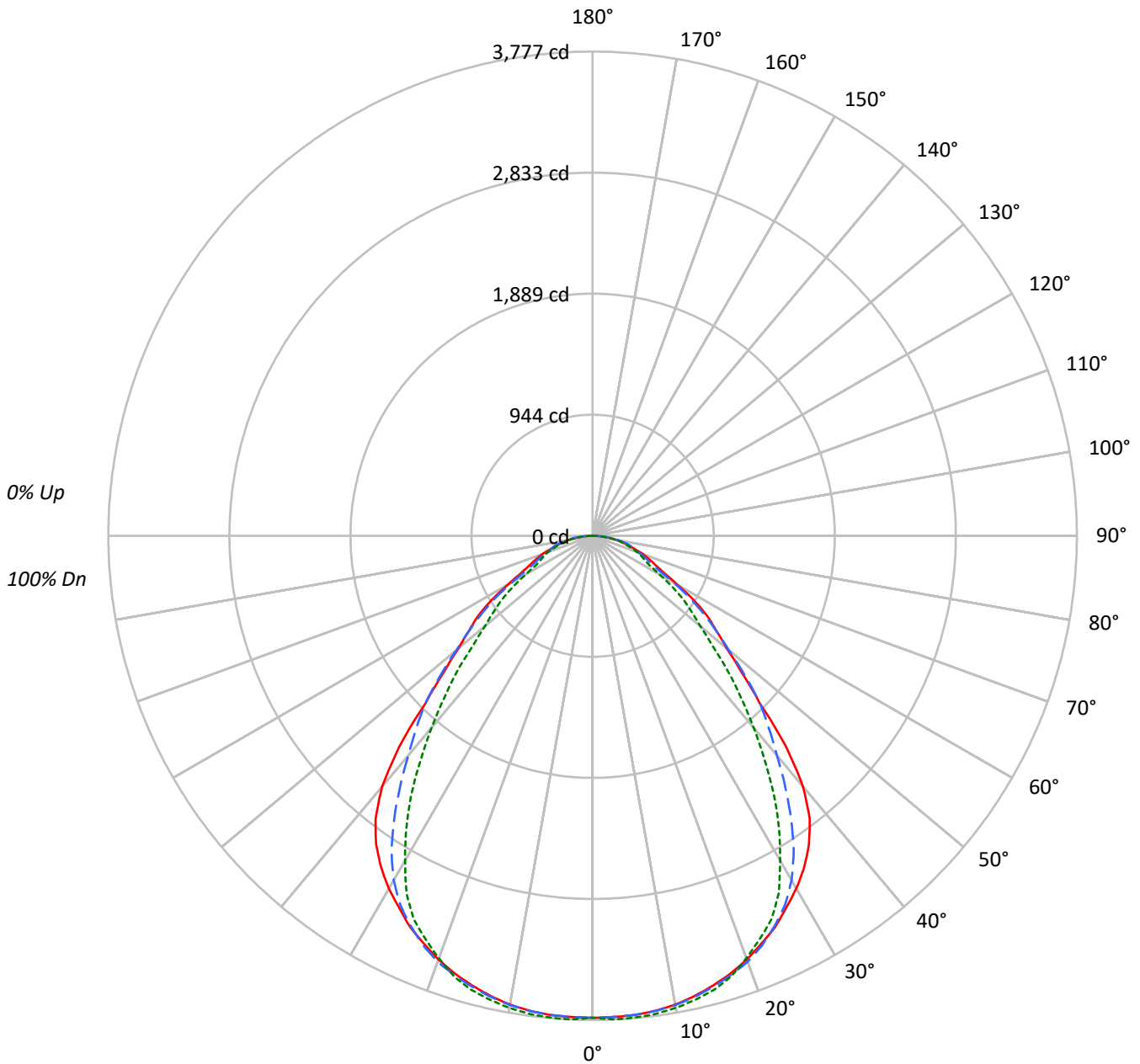
Lumens per Lamp: N/A  
Luminaire Lumens: 7804.0 lumens  
Efficiency: N/A  
Efficacy: 142.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 54.8  
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°	29326	29326	29326
5°	29384	29376	29543
10°	29410	29441	29622
15°	29324	29400	29604
20°	29195	29344	29109
25°	28983	28902	28410
30°	28616	27941	26346
35°	28015	25706	23481
40°	25998	22752	19889
45°	20283	20337	16459
50°	16566	16800	13292
55°	14842	14283	11680
60°	11882	11248	9344
65°	9957	9116	8265
70°	9455	8684	8413
75°	8577	9222	8116
80°	8620	9424	8552
85°	7500	8788	7142



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	357.5	4.6
10°-20°	1028.1	13.2
20°-30°	1534.9	19.7
30°-40°	1674.8	21.5
40°-50°	1370.0	17.6
50°-60°	900.8	11.5
60°-70°	516.8	6.6
70°-80°	313.2	4.0
80°-90°	105.2	1.3
90°-100°	2.7	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°	2920.5	37.4
0°-40°	4595.3	58.9
0°-60°	6866.1	88.0
0°-90°	7801.3	100.0
90°-120°	2.7	0.0
90°-150°	2.7	0.0
90°-180°	3.0	0.0
0°-180°	7804.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3760	3760	3760	3760	3760	
5°	3753	3747	3752	3767	3773	357
15°	3631	3631	3641	3664	3666	1025
25°	3368	3376	3358	3318	3301	1549
35°	2942	2876	2700	2516	2466	1823
45°	1839	1976	1844	1628	1492	1460
55°	1091	1062	1050	902	859	961
65°	540	532	494	480	448	552
75°	285	308	306	294	269	308
85°	84	95	98	86	80	91
90°	0	7	14	16	17	4
95°	0	1	2	2	1	0
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	



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CATALOG NUMBER: SPHB-9SE-M-L950-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3759.8	3759.8	3759.8	3759.8	3759.8
2.5°	3757.3	3751.9	3756.8	3772.2	3776.7
5°	3752.9	3746.9	3751.9	3767.3	3773.2
7.5°	3737.5	3734.0	3739.0	3754.4	3761.8
10°	3713.2	3709.2	3717.2	3730.6	3740.0
12.5°	3677.0	3675.5	3683.0	3702.3	3706.3
15°	3631.4	3630.9	3640.8	3664.1	3666.1
17.5°	3579.8	3579.3	3591.7	3607.1	3601.6
20°	3517.3	3520.8	3535.2	3520.8	3506.9
22.5°	3442.5	3453.4	3456.8	3411.7	3404.8
25°	3367.6	3375.5	3358.2	3317.5	3301.1
27.5°	3270.9	3280.3	3248.1	3190.0	3143.4
30°	3177.2	3168.2	3102.3	2990.2	2925.2
32.5°	3069.5	3037.8	2919.3	2764.6	2705.6
35°	2942.1	2875.7	2699.6	2515.6	2466.0
37.5°	2780.9	2659.4	2467.0	2275.1	2200.3
40°	2553.3	2413.0	2234.5	2036.1	1953.3
42.5°	2234.5	2182.4	2034.6	1811.5	1712.8
45°	1838.8	1976.1	1843.7	1627.5	1492.1
47.5°	1573.9	1764.9	1605.7	1449.5	1263.0
50°	1365.2	1496.6	1384.5	1243.7	1095.4
52.5°	1214.4	1254.1	1209.0	1054.3	970.0
55°	1091.4	1061.7	1050.3	902.5	858.9
57.5°	938.7	922.4	893.1	787.0	729.5
60°	761.7	796.4	721.0	690.8	599.0
62.5°	625.8	660.0	579.2	577.2	500.8
65°	539.5	531.6	493.9	480.5	447.8
67.5°	477.5	452.7	439.9	422.5	411.1
70°	414.6	404.1	380.8	384.3	368.9
72.5°	345.6	359.0	335.7	342.2	314.4
75°	284.6	307.9	306.0	293.6	269.3
77.5°	234.6	259.3	263.8	252.4	232.6
80°	191.9	208.8	209.8	202.8	190.4
82.5°	140.8	150.7	158.2	146.3	138.4
85°	83.8	95.2	98.2	85.8	79.8
87.5°	27.3	38.2	42.6	44.1	44.6
90°	0.5	6.9	13.9	16.4	17.4
92.5°	0.5	2.0	3.0	4.5	5.0
95°	0.5	1.0	1.5	1.5	1.0
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)