

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: P860264

Luminaire Tested: **SPHB-9HE-M-L850-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: P860264  
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-9HE-M-L850-CD  
Description: 9000 Lumen High Efficacy Select Pro High Bay with Medium Lens and,  
5000K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

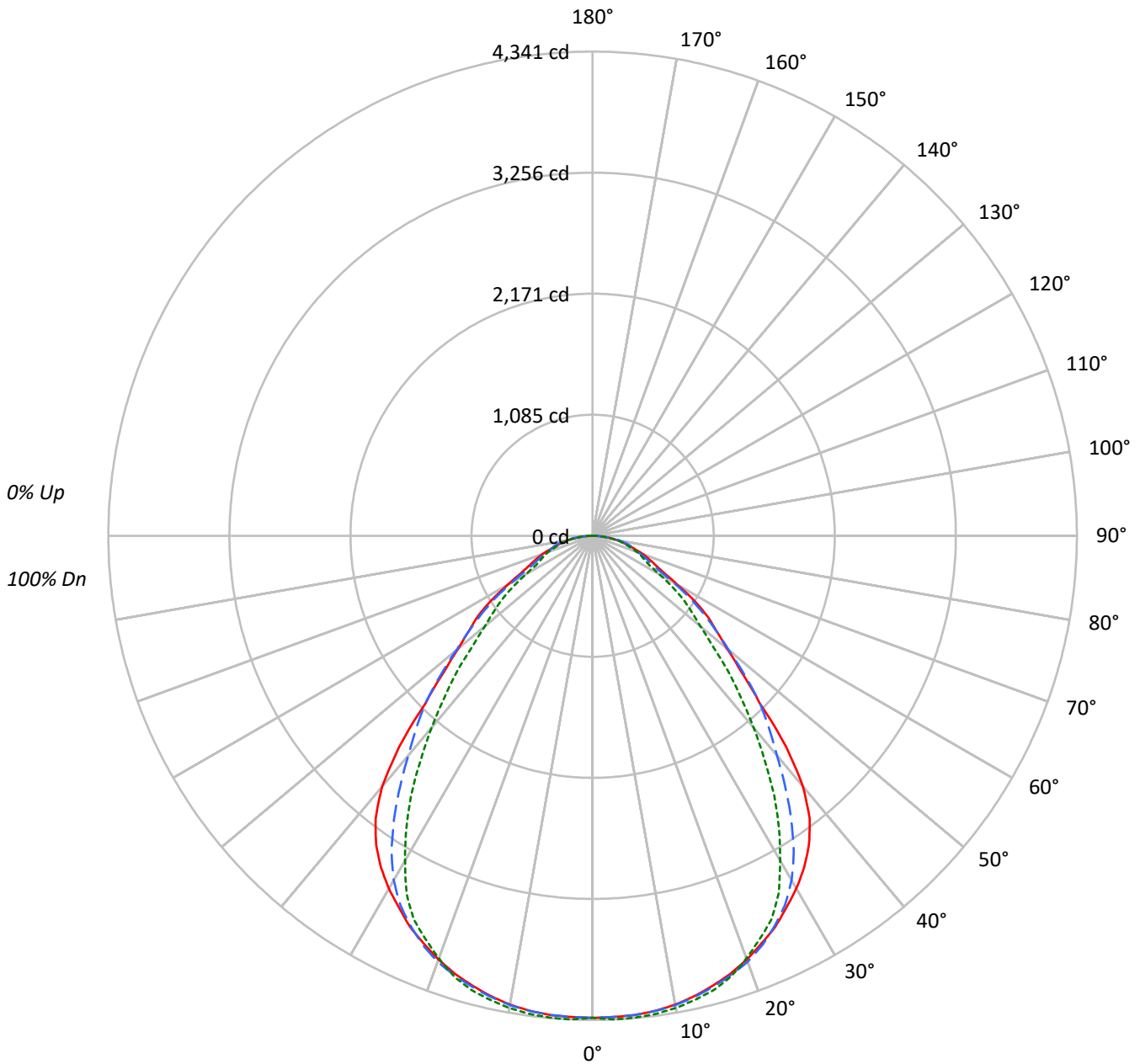
Lumens per Lamp: N/A  
Luminaire Lumens: 8970.0 lumens  
Efficiency: N/A  
Efficacy: 168.3 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 53.3  
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°	33708	33708	33708
5°	33774	33766	33958
10°	33804	33840	34048
15°	33705	33793	34028
20°	33558	33728	33459
25°	33312	33219	32655
30°	32891	32116	30283
35°	32200	29547	26990
40°	29882	26151	22860
45°	23314	23376	18919
50°	19042	19311	15279
55°	17060	16416	13425
60°	13658	12928	10741
65°	11445	10478	9499
70°	10867	9982	9672
75°	9861	10599	9327
80°	9909	10830	9833
85°	8618	10104	8216



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	410.9	4.6
10°-20°	1181.8	13.2
20°-30°	1764.2	19.7
30°-40°	1925.0	21.5
40°-50°	1574.7	17.6
50°-60°	1035.4	11.5
60°-70°	594.0	6.6
70°-80°	360.0	4.0
80°-90°	120.9	1.3
90°-100°	3.1	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°	3356.8	37.4
0°-40°	5281.9	58.9
0°-60°	7892.0	88.0
0°-90°	8966.9	100.0
90°-120°	3.1	0.0
90°-150°	3.1	0.0
90°-180°	3.0	0.0
0°-180°	8970.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4322	4322	4322	4322	4322	
5°	4314	4307	4312	4330	4337	410
15°	4174	4173	4185	4212	4214	1178
25°	3871	3880	3860	3813	3794	1781
35°	3382	3305	3103	2892	2834	2096
45°	2114	2271	2119	1871	1715	1678
55°	1254	1220	1207	1037	987	1105
65°	620	611	568	552	515	634
75°	327	354	352	337	310	354
85°	96	109	113	99	92	104
90°	1	8	16	19	20	5
95°	1	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	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4321.6	4321.6	4321.6	4321.6	4321.6
2.5°	4318.7	4312.5	4318.2	4335.8	4341.0
5°	4313.6	4306.8	4312.5	4330.1	4337.0
7.5°	4295.9	4291.9	4297.6	4315.3	4323.9
10°	4268.0	4263.4	4272.6	4287.9	4298.8
12.5°	4226.4	4224.7	4233.2	4255.5	4260.0
15°	4174.0	4173.4	4184.8	4211.6	4213.9
17.5°	4114.7	4114.1	4128.4	4146.0	4139.8
20°	4042.9	4046.8	4063.4	4046.8	4030.9
22.5°	3956.8	3969.3	3973.3	3921.5	3913.5
25°	3870.7	3879.8	3859.9	3813.2	3794.3
27.5°	3759.6	3770.4	3733.4	3666.7	3613.1
30°	3651.9	3641.6	3565.8	3437.0	3362.3
32.5°	3528.2	3491.7	3355.5	3177.6	3109.8
35°	3381.7	3305.3	3103.0	2891.5	2834.5
37.5°	3196.4	3056.8	2835.6	2615.1	2529.0
40°	2934.8	2773.5	2568.3	2340.3	2245.1
42.5°	2568.3	2508.5	2338.6	2082.1	1968.7
45°	2113.5	2271.4	2119.2	1870.7	1715.1
47.5°	1809.1	2028.6	1845.6	1666.0	1451.7
50°	1569.2	1720.2	1591.4	1429.5	1259.1
52.5°	1395.9	1441.5	1389.6	1211.8	1114.9
55°	1254.5	1220.3	1207.2	1037.4	987.2
57.5°	1079.0	1060.2	1026.5	904.6	838.4
60°	875.5	915.4	828.7	794.0	688.5
62.5°	719.3	758.6	665.7	663.5	575.7
65°	620.1	611.0	567.7	552.3	514.7
67.5°	548.9	520.4	505.6	485.6	472.5
70°	476.5	464.5	437.7	441.7	424.1
72.5°	397.3	412.7	385.9	393.3	361.4
75°	327.2	354.0	351.7	337.4	309.5
77.5°	269.6	298.1	303.2	290.1	267.3
80°	220.6	240.0	241.1	233.1	218.9
82.5°	161.9	173.3	181.8	168.1	159.0
85°	96.3	109.4	112.9	98.6	91.8
87.5°	31.3	43.9	49.0	50.7	51.3
90°	0.6	8.0	16.0	18.8	19.9
92.5°	0.6	2.3	3.4	5.1	5.7
95°	0.6	1.1	1.7	1.7	1.1
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)