

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: P860298

Luminaire Tested: **SPHB-9SE-N-L835-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: P860298
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-9SE-N-L835-CD
Description: 9000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

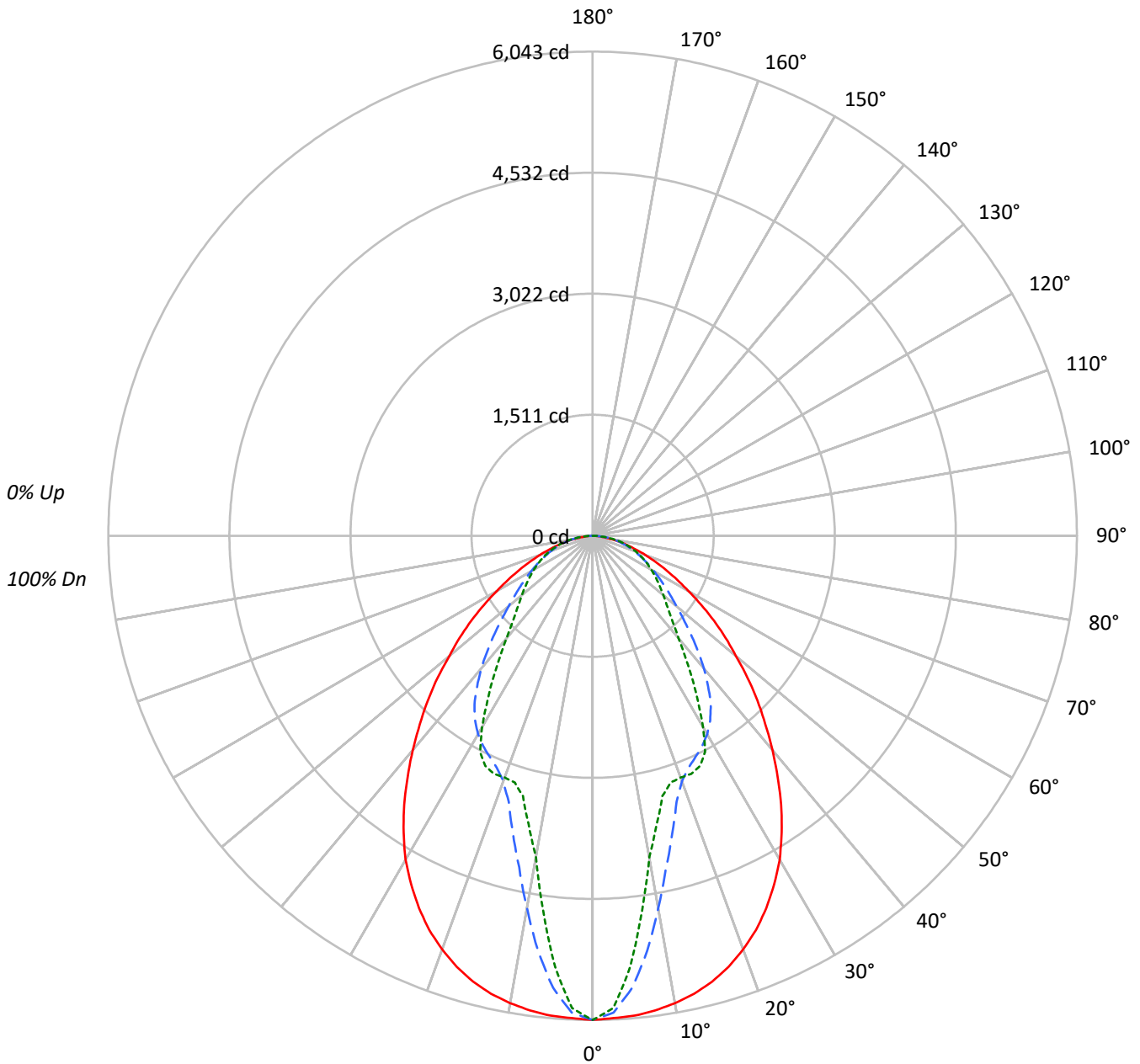
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8856.0 lumens
Efficiency: N/A
Efficacy: 161.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
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_{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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86								
2	101	94	88	83	99	92	86	82	88	84	80	85	81	78	82	79	76	74								
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64								
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56								
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50								
6	74	62	54	48	73	61	54	48	60	53	47	58	52	47	56	51	47	45								
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	46	42	40								
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37								
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34								
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	47132	47132	47132
5°	47077	44347	42248
10°	46916	37380	32225
15°	46526	31030	27156
20°	45589	27048	26658
25°	44124	26171	27283
30°	42038	25752	24828
35°	39031	24471	20574
40°	35543	21968	16989
45°	32083	19061	14915
50°	28314	16575	13966
55°	25124	14949	13444
60°	21531	13825	13169
65°	18637	12991	13102
70°	15948	12497	13088
75°	13387	12136	12971
80°	10214	11728	12703
85°	6685	10399	9782



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	515.2	5.8
10°-20°	1182.9	13.4
20°-30°	1598.7	18.1
30°-40°	1682.5	19.0
40°-50°	1427.7	16.1
50°-60°	1105.9	12.5
60°-70°	770.3	8.7
70°-80°	441.1	5.0
80°-90°	128.4	1.4
90°-100°	3.4	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°	3296.8	37.2
0°-40°	4979.3	56.2
0°-60°	7512.9	84.8
0°-90°	8852.6	100.0
90°-120°	3.4	0.0
90°-150°	3.4	0.0
90°-180°	3.0	0.0
0°-180°	8856.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6043	6043	6043	6043	6043	
5°	6013	5902	5664	5447	5396	571
15°	5762	4890	3843	3459	3363	1621
25°	5127	3622	3041	3129	3170	2354
35°	4099	2785	2570	2321	2161	2555
45°	2908	2092	1728	1420	1352	2240
55°	1848	1409	1099	999	989	1652
65°	1010	827	704	704	710	1009
75°	444	395	403	428	430	474
85°	75	97	116	109	109	95
90°	0	9	17	22	23	4
95°	0	1	3	3	2	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°	6042.6	6042.6	6042.6	6042.6	6042.6
2.5°	6025.1	6005.2	5956.8	5925.4	5901.0
5°	6012.6	5902.4	5663.9	5446.6	5395.9
7.5°	5975.3	5733.1	5223.3	4821.5	4720.0
10°	5923.6	5490.0	4719.6	4216.3	4068.7
12.5°	5854.9	5230.2	4237.1	3762.8	3690.4
15°	5761.7	4890.3	3842.7	3458.8	3362.9
17.5°	5640.8	4538.8	3478.7	3256.8	3230.0
20°	5492.3	4216.3	3258.6	3183.0	3211.6
22.5°	5325.3	3903.1	3130.9	3162.7	3216.2
25°	5126.9	3621.7	3040.9	3129.0	3170.1
27.5°	4904.1	3367.5	2958.3	3039.1	3039.1
30°	4667.5	3155.8	2859.2	2851.8	2756.7
32.5°	4391.1	2975.9	2729.5	2583.3	2442.1
35°	4099.1	2785.3	2569.9	2321.3	2160.7
37.5°	3792.8	2608.2	2367.9	2039.9	1890.4
40°	3490.7	2433.4	2157.5	1787.1	1668.5
42.5°	3189.9	2255.3	1938.4	1582.3	1488.6
45°	2908.5	2091.5	1728.0	1419.9	1352.1
47.5°	2622.5	1917.6	1533.8	1289.3	1242.3
50°	2333.3	1741.4	1365.9	1185.5	1150.9
52.5°	2089.7	1577.2	1223.4	1087.3	1066.5
55°	1847.5	1408.8	1099.3	999.2	988.6
57.5°	1607.2	1252.0	985.8	918.5	916.1
60°	1380.2	1105.3	886.2	849.3	844.2
62.5°	1186.9	959.5	791.6	774.1	776.4
65°	1009.8	826.7	703.9	703.9	709.9
67.5°	845.6	704.4	623.7	634.3	642.6
70°	699.3	593.7	548.0	566.5	573.9
72.5°	560.9	490.8	475.6	495.9	501.9
75°	444.2	394.9	402.7	428.1	430.4
77.5°	329.4	310.9	331.2	358.9	364.0
80°	227.4	229.3	261.1	280.5	282.8
82.5°	146.7	160.1	195.6	205.7	202.1
85°	74.7	96.9	116.2	109.3	109.3
87.5°	28.6	42.0	49.4	58.1	61.4
90°	0.5	8.8	17.1	21.7	22.6
92.5°	0.5	2.3	3.7	4.2	3.7
95°	0.5	1.4	2.8	2.8	2.3
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)