

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: P860310

Luminaire Tested: **SPHB-9SE-W-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: P860310
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-9SE-W-L935-CD
Description: 9000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens and,
3500K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

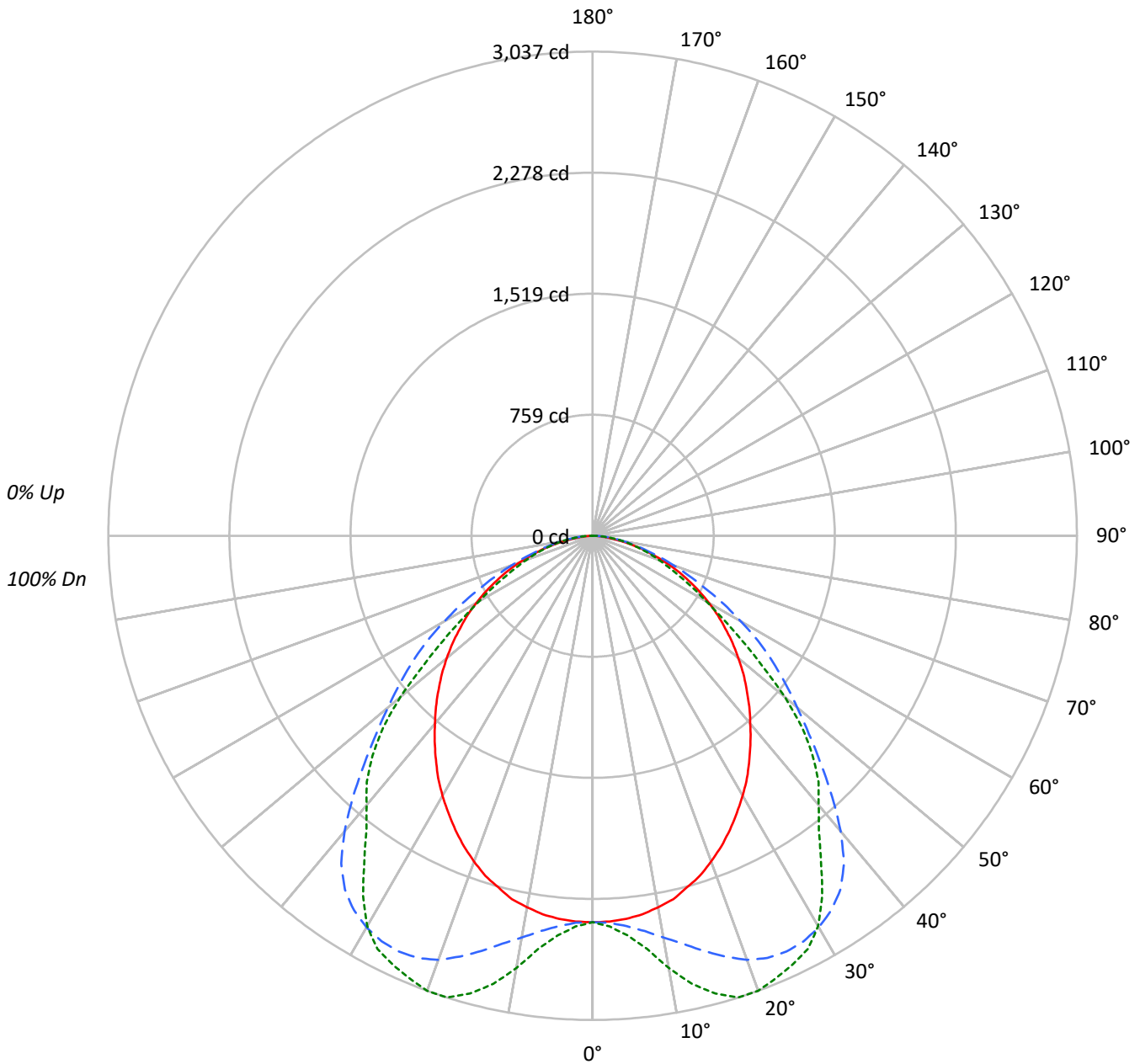
Lumens per Lamp: N/A
Luminaire Lumens: 7627.0 lumens
Efficiency: N/A
Efficacy: 139.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

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									
RC	80									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	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85																			
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72																			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62																			
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53																			
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46																			
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40																			
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36																			
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32																			
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29																			
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18907	18907	18907
5°	18886	19243	19699
10°	18737	20258	21794
15°	18444	21766	24006
20°	18045	23498	25205
25°	17524	24765	25536
30°	16954	25540	25466
35°	16318	25797	23763
40°	15660	24632	22444
45°	15068	22327	21534
50°	14480	20301	19090
55°	13818	18757	15535
60°	13135	16723	12793
65°	12231	14370	11094
70°	11127	12269	10034
75°	9556	10295	9198
80°	7470	8831	8530
85°	5047	7491	7034



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.0	3.1
10°-20°	754.6	9.9
20°-30°	1235.0	16.2
30°-40°	1506.6	19.8
40°-50°	1492.2	19.6
50°-60°	1193.2	15.6
60°-70°	744.4	9.8
70°-80°	364.7	4.8
80°-90°	95.7	1.3
90°-100°	2.5	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°	2227.7	29.2
0°-40°	3734.3	49.0
0°-60°	6419.7	84.2
0°-90°	7624.5	100.0
90°-120°	2.5	0.0
90°-150°	2.5	0.0
90°-180°	3.0	0.0
0°-180°	7627.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2424	2424	2424	2424	2424	
5°	2412	2423	2458	2500	2516	229
15°	2284	2417	2696	2910	2973	644
25°	2036	2381	2878	2961	2967	937
35°	1714	2290	2709	2564	2496	1072
45°	1366	2122	2024	1956	1952	1055
55°	1016	1629	1379	1246	1142	910
65°	663	914	779	646	601	657
75°	317	388	342	313	305	337
85°	56	80	84	80	79	70
90°	0	8	15	19	19	3
95°	0	1	1	1	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°	2424.0	2424.0	2424.0	2424.0	2424.0
2.5°	2421.5	2420.6	2429.4	2445.5	2452.8
5°	2412.1	2422.8	2457.7	2500.4	2515.9
7.5°	2395.1	2423.7	2500.7	2579.3	2612.7
10°	2365.7	2424.3	2557.8	2696.4	2751.7
12.5°	2335.4	2422.2	2621.2	2817.5	2877.9
15°	2284.1	2417.0	2695.5	2910.0	2972.9
17.5°	2236.5	2410.9	2767.1	2988.6	3036.3
20°	2174.0	2402.1	2830.9	3012.6	3036.6
22.5°	2108.4	2395.1	2866.0	2996.5	3003.8
25°	2036.2	2380.9	2877.6	2961.0	2967.1
27.5°	1959.1	2368.1	2866.7	2917.0	2922.2
30°	1882.4	2345.1	2835.7	2848.5	2827.5
32.5°	1802.0	2322.0	2785.6	2728.3	2679.4
35°	1713.7	2289.9	2709.2	2564.5	2495.6
37.5°	1626.6	2258.9	2589.9	2381.2	2329.3
40°	1538.0	2220.7	2419.1	2210.1	2204.3
42.5°	1454.3	2179.4	2225.8	2076.9	2096.3
45°	1366.0	2122.1	2024.1	1956.1	1952.2
47.5°	1282.2	2042.9	1840.5	1822.6	1782.3
50°	1193.3	1933.7	1673.0	1656.0	1573.2
52.5°	1106.2	1794.4	1523.4	1459.7	1339.0
55°	1016.1	1629.3	1379.3	1246.1	1142.4
57.5°	932.4	1447.9	1232.8	1060.1	967.0
60°	842.0	1264.0	1072.0	896.9	820.1
62.5°	753.4	1082.9	926.3	757.9	707.0
65°	662.7	914.2	778.6	645.7	601.1
67.5°	575.9	768.2	650.8	544.3	514.6
70°	487.9	623.2	538.0	457.2	440.0
72.5°	397.2	497.9	435.1	385.9	372.9
75°	317.1	388.4	341.6	312.8	305.2
77.5°	236.1	288.9	267.0	250.0	247.9
80°	166.3	208.4	196.6	193.3	189.9
82.5°	106.2	136.2	139.9	137.7	135.3
85°	56.4	80.1	83.7	79.5	78.6
87.5°	22.8	34.9	37.6	41.6	42.8
90°	0.3	8.2	14.9	18.8	19.4
92.5°	0.3	1.8	2.1	2.1	1.8
95°	0.3	1.2	1.2	0.9	0.6
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)