

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: P860301

Luminaire Tested: **SPHB-9SE-N-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: P860301
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-L935-CD
Description: 9000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 3500K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

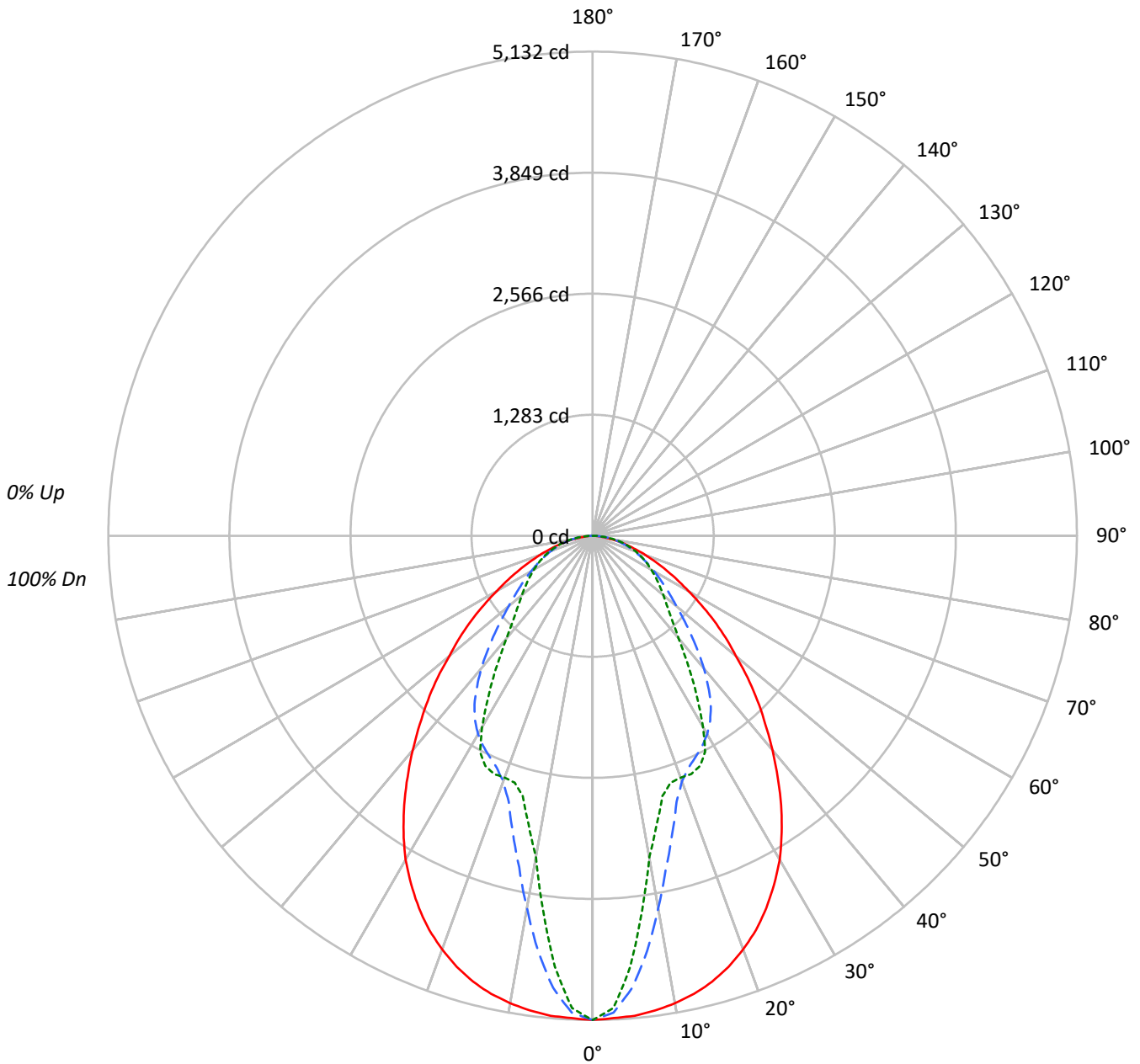
Lumens per Lamp: N/A
Luminaire Lumens: 7522.0 lumens
Efficiency: N/A
Efficacy: 137.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

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°	40032	40032	40032
5°	39986	37666	35884
10°	39849	31750	27371
15°	39518	26355	23065
20°	38722	22974	22642
25°	37477	22228	23173
30°	35706	21873	21089
35°	33153	20785	17476
40°	30189	18659	14430
45°	27250	16190	12668
50°	24048	14079	11863
55°	21339	12697	11419
60°	18288	11742	11185
65°	15830	11035	11129
70°	13546	10616	11115
75°	11371	10310	11018
80°	8678	9963	10789
85°	5683	8833	8314



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	437.6	5.8
10°-20°	1004.7	13.4
20°-30°	1357.9	18.1
30°-40°	1429.1	19.0
40°-50°	1212.6	16.1
50°-60°	939.3	12.5
60°-70°	654.2	8.7
70°-80°	374.6	5.0
80°-90°	109.0	1.4
90°-100°	2.9	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°	2800.2	37.2
0°-40°	4229.3	56.2
0°-60°	6381.2	84.8
0°-90°	7519.1	100.0
90°-120°	2.9	0.0
90°-150°	2.9	0.0
90°-180°	3.0	0.0
0°-180°	7522.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5132	5132	5132	5132	5132	
5°	5107	5013	4811	4626	4583	485
15°	4894	4154	3264	2938	2856	1377
25°	4355	3076	2583	2658	2693	1999
35°	3482	2366	2183	1972	1835	2170
45°	2470	1776	1468	1206	1148	1903
55°	1569	1197	934	849	840	1403
65°	858	702	598	598	603	857
75°	377	335	342	364	366	402
85°	64	82	99	93	93	81
90°	0	7	14	18	19	3
95°	0	1	2	2	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°	5132.4	5132.4	5132.4	5132.4	5132.4
2.5°	5117.5	5100.7	5059.5	5032.9	5012.1
5°	5106.9	5013.3	4810.7	4626.2	4583.1
7.5°	5075.2	4869.5	4436.5	4095.3	4009.1
10°	5031.3	4663.0	4008.7	3581.2	3455.8
12.5°	4972.9	4442.4	3598.8	3196.0	3134.5
15°	4893.8	4153.6	3263.8	2937.8	2856.3
17.5°	4791.1	3855.1	2954.7	2766.2	2743.5
20°	4665.0	3581.2	2767.8	2703.5	2727.8
22.5°	4523.1	3315.2	2659.3	2686.3	2731.7
25°	4354.6	3076.1	2582.8	2657.7	2692.6
27.5°	4165.4	2860.3	2512.7	2581.3	2581.3
30°	3964.4	2680.4	2428.5	2422.2	2341.5
32.5°	3729.7	2527.6	2318.4	2194.2	2074.3
35°	3481.7	2365.8	2182.8	1971.6	1835.3
37.5°	3221.5	2215.3	2011.2	1732.6	1605.7
40°	2964.9	2066.8	1832.5	1517.9	1417.2
42.5°	2709.4	1915.6	1646.4	1343.9	1264.4
45°	2470.4	1776.5	1467.7	1206.0	1148.4
47.5°	2227.5	1628.8	1302.8	1095.1	1055.2
50°	1981.8	1479.1	1160.2	1007.0	977.6
52.5°	1774.9	1339.6	1039.1	923.5	905.9
55°	1569.2	1196.6	933.7	848.7	839.7
57.5°	1365.1	1063.4	837.3	780.1	778.1
60°	1172.3	938.8	752.7	721.3	717.0
62.5°	1008.1	815.0	672.4	657.5	659.4
65°	857.7	702.1	597.9	597.9	603.0
67.5°	718.2	598.3	529.7	538.7	545.8
70°	594.0	504.3	465.5	481.1	487.4
72.5°	476.4	416.9	404.0	421.2	426.3
75°	377.3	335.4	342.1	363.6	365.6
77.5°	279.8	264.1	281.3	304.8	309.1
80°	193.2	194.7	221.8	238.2	240.2
82.5°	124.6	136.0	166.1	174.7	171.6
85°	63.5	82.3	98.7	92.9	92.9
87.5°	24.3	35.7	41.9	49.4	52.1
90°	0.4	7.4	14.5	18.4	19.2
92.5°	0.4	2.0	3.1	3.5	3.1
95°	0.4	1.2	2.4	2.4	2.0
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)