

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: P860311

Luminaire Tested: **SPHB-9SE-W-L940-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: P860311
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-L940-CD
Description: 9000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens and, 4000K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

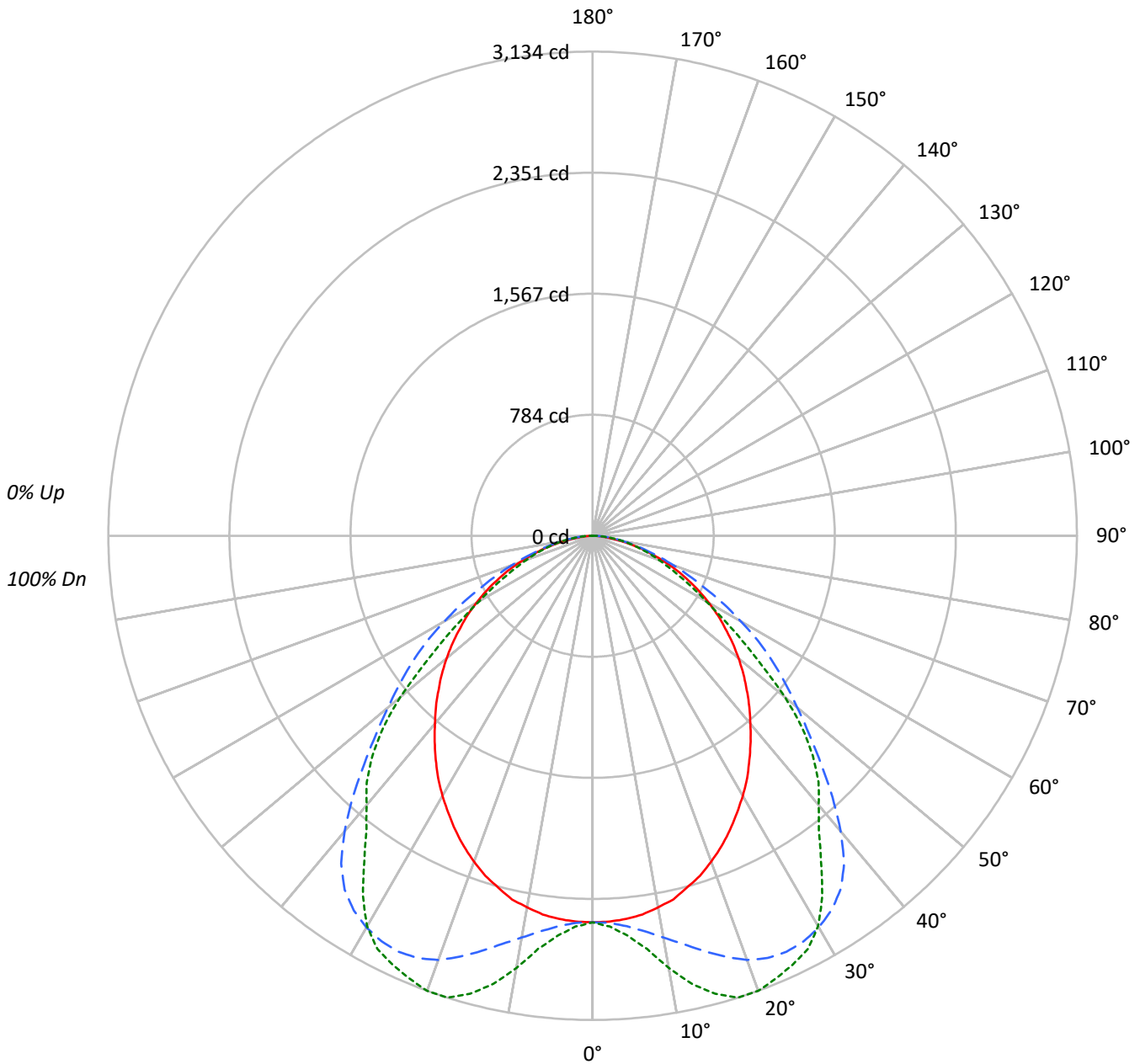
Lumens per Lamp: N/A
Luminaire Lumens: 7873.0 lumens
Efficiency: N/A
Efficacy: 143.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 54.8
Input Voltage (V): NR
Input Current (Ain): 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

TEST NUMBER: P860311

CATALOG NUMBER: SPHB-9SE-W-L940-CD

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				100				
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85				85				
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72				72				
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62				62				
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53				53				
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46				46				
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40				40				
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36				36				
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32				32				
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29				29				
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26				26				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19517	19517	19517
5°	19495	19863	20335
10°	19341	20912	22497
15°	19039	22469	24780
20°	18627	24256	26018
25°	18090	25564	26359
30°	17501	26364	26288
35°	16844	26629	24530
40°	16165	25426	23168
45°	15553	23048	22228
50°	14947	20956	19705
55°	14264	19362	16036
60°	13558	17261	13207
65°	12624	14833	11450
70°	11485	12664	10356
75°	9864	10629	9496
80°	7708	9118	8808
85°	5218	7732	7258



TEST NUMBER: P860311

CATALOG NUMBER: SPHB-9SE-W-L940-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.7	3.1
10°-20°	779.0	9.9
20°-30°	1274.9	16.2
30°-40°	1555.2	19.8
40°-50°	1540.3	19.6
50°-60°	1231.7	15.6
60°-70°	768.4	9.8
70°-80°	376.5	4.8
80°-90°	98.7	1.3
90°-100°	2.6	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°	2299.5	29.2
0°-40°	3854.8	49.0
0°-60°	6626.8	84.2
0°-90°	7870.4	100.0
90°-120°	2.6	0.0
90°-150°	2.6	0.0
90°-180°	3.0	0.0
0°-180°	7873.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2502	2502	2502	2502	2502	
5°	2490	2501	2537	2581	2597	236
15°	2358	2495	2782	3004	3069	665
25°	2102	2458	2970	3056	3063	967
35°	1769	2364	2797	2647	2576	1107
45°	1410	2190	2089	2019	2015	1089
55°	1049	1682	1424	1286	1179	940
65°	684	944	804	666	620	678
75°	327	401	353	323	315	347
85°	58	83	86	82	81	72
90°	0	8	15	19	20	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



TEST NUMBER: P860311

CATALOG NUMBER: SPHB-9SE-W-L940-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2502.2	2502.2	2502.2	2502.2	2502.2
2.5°	2499.7	2498.7	2507.8	2524.4	2531.9
5°	2489.9	2500.9	2536.9	2581.1	2597.1
7.5°	2472.4	2501.8	2581.4	2662.5	2697.0
10°	2442.0	2502.5	2640.3	2783.4	2840.4
12.5°	2410.7	2500.3	2705.7	2908.4	2970.7
15°	2357.8	2495.0	2782.5	3003.9	3068.7
17.5°	2308.6	2488.7	2856.4	3085.0	3134.2
20°	2244.1	2479.6	2922.2	3109.8	3134.5
22.5°	2176.4	2472.4	2958.5	3093.2	3100.7
25°	2101.9	2457.7	2970.4	3056.5	3062.8
27.5°	2022.3	2444.5	2959.1	3011.1	3016.4
30°	1943.1	2420.7	2927.2	2940.3	2918.7
32.5°	1860.1	2396.9	2875.5	2816.3	2765.9
35°	1769.0	2363.7	2796.6	2647.2	2576.1
37.5°	1679.1	2331.8	2673.5	2458.0	2404.4
40°	1587.6	2292.3	2497.1	2281.4	2275.4
42.5°	1501.2	2249.7	2297.6	2143.9	2163.9
45°	1410.0	2190.5	2089.4	2019.2	2015.1
47.5°	1323.6	2108.8	1899.9	1881.4	1839.7
50°	1231.8	1996.0	1727.0	1709.4	1623.9
52.5°	1141.9	1852.3	1572.6	1506.8	1382.2
55°	1048.9	1681.9	1423.8	1286.3	1179.2
57.5°	962.5	1494.6	1272.5	1094.3	998.2
60°	869.1	1304.8	1106.5	925.8	846.6
62.5°	777.7	1117.8	956.2	782.4	729.8
65°	684.0	943.7	803.7	666.5	620.4
67.5°	594.5	793.0	671.8	561.9	531.2
70°	503.6	643.3	555.3	472.0	454.1
72.5°	410.0	514.0	449.1	398.4	384.9
75°	327.3	400.9	352.7	322.9	315.1
77.5°	243.7	298.2	275.6	258.1	255.9
80°	171.6	215.2	203.0	199.5	196.1
82.5°	109.6	140.6	144.4	142.2	139.7
85°	58.3	82.7	86.4	82.1	81.1
87.5°	23.5	36.0	38.8	42.9	44.2
90°	0.3	8.5	15.3	19.4	20.0
92.5°	0.3	1.9	2.2	2.2	1.9
95°	0.3	1.3	1.3	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



TEST NUMBER: P860311

CATALOG NUMBER: SPHB-9SE-W-L940-CD

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)