

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: P860282

Luminaire Tested: **SPHB-9HE-W-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: P860282
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-9HE-W-L850-CD
Description: 9000 Lumen High Efficacy Select Pro High Bay with Wide Lens and, 5000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

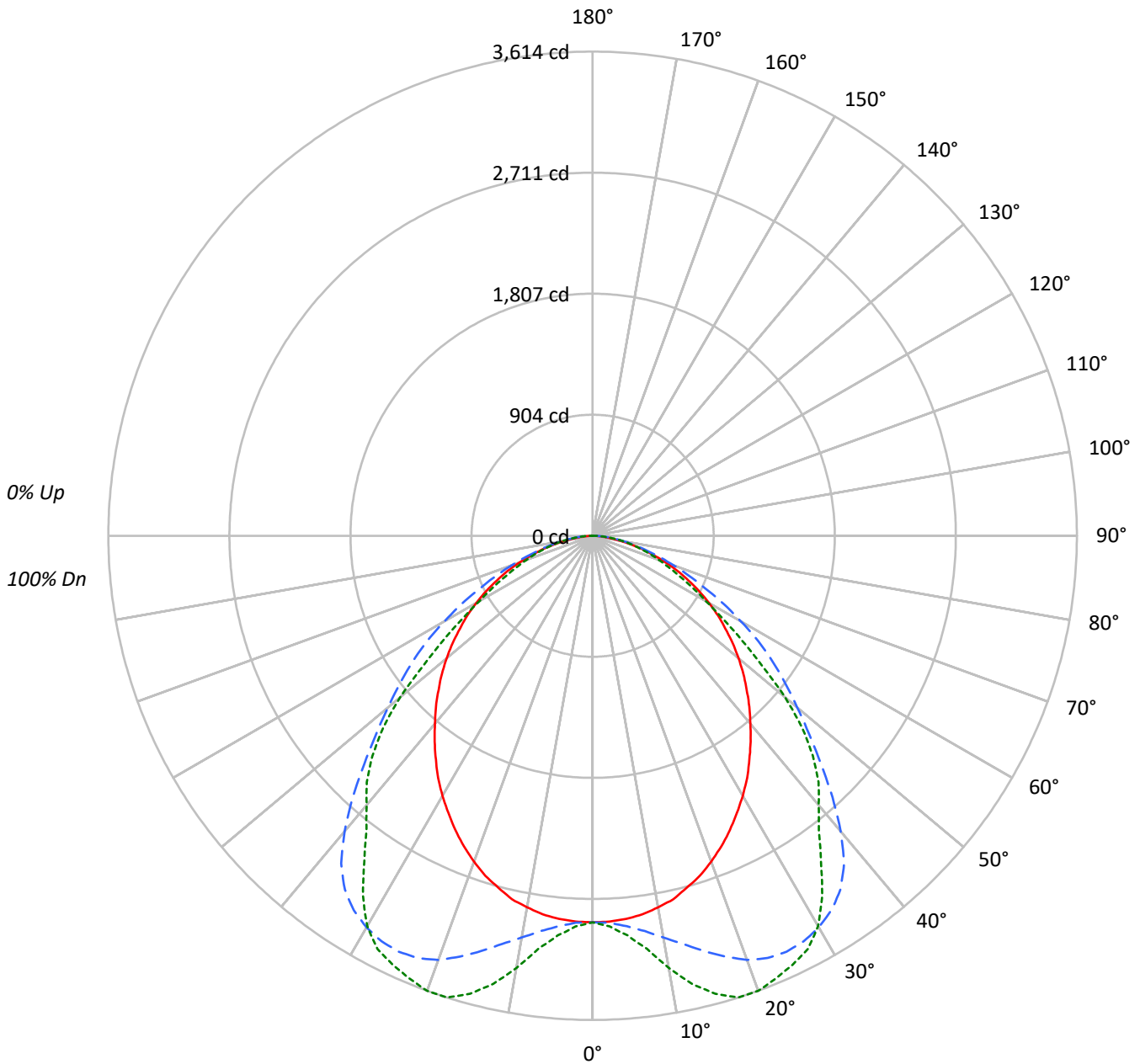
Lumens per Lamp: N/A
Luminaire Lumens: 9078.0 lumens
Efficiency: N/A
Efficacy: 170.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 53.3
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

TEST NUMBER: P860282

CATALOG NUMBER: SPHB-9HE-W-L850-CD

Luminous Intensity Polar Plot





TEST NUMBER: P860282

CATALOG NUMBER: SPHB-9HE-W-L850-CD

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°	22504	22504	22504
5°	22479	22904	23446
10°	22302	24112	25940
15°	21953	25907	28573
20°	21478	27968	30001
25°	20858	29477	30394
30°	20179	30399	30311
35°	19422	30705	28284
40°	18639	29317	26715
45°	17934	26574	25631
50°	17236	24164	22722
55°	16446	22325	18490
60°	15634	19904	15229
65°	14556	17103	13204
70°	13243	14602	11941
75°	11374	12254	10949
80°	8889	10511	10156
85°	6014	8923	8368



TEST NUMBER: P860282

CATALOG NUMBER: SPHB-9HE-W-L850-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.3	3.1
10°-20°	898.2	9.9
20°-30°	1470.0	16.2
30°-40°	1793.3	19.8
40°-50°	1776.0	19.6
50°-60°	1420.2	15.6
60°-70°	886.0	9.8
70°-80°	434.1	4.8
80°-90°	113.9	1.3
90°-100°	3.0	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°	2651.5	29.2
0°-40°	4444.7	49.0
0°-60°	7641.0	84.2
0°-90°	9075.0	100.0
90°-120°	3.0	0.0
90°-150°	3.0	0.0
90°-180°	3.0	0.0
0°-180°	9078.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2885	2885	2885	2885	2885	
5°	2871	2884	2925	2976	2994	272
15°	2719	2877	3208	3464	3538	766
25°	2424	2834	3425	3524	3532	1115
35°	2040	2726	3225	3052	2970	1276
45°	1626	2526	2409	2328	2324	1256
55°	1209	1939	1642	1483	1360	1084
65°	789	1088	927	768	715	782
75°	377	462	407	372	363	401
85°	67	95	100	95	94	83
90°	0	10	18	22	23	4
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: P860282

CATALOG NUMBER: SPHB-9HE-W-L850-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2885.1	2885.1	2885.1	2885.1	2885.1
2.5°	2882.2	2881.2	2891.6	2910.8	2919.4
5°	2871.0	2883.7	2925.2	2976.1	2994.5
7.5°	2850.8	2884.8	2976.5	3070.0	3109.8
10°	2815.8	2885.5	3044.4	3209.4	3275.2
12.5°	2779.7	2883.0	3119.9	3353.5	3425.4
15°	2718.6	2876.8	3208.3	3463.7	3538.4
17.5°	2661.9	2869.6	3293.6	3557.2	3613.9
20°	2587.5	2859.1	3369.4	3585.7	3614.3
22.5°	2509.5	2850.8	3411.3	3566.6	3575.3
25°	2423.6	2833.8	3425.0	3524.3	3531.6
27.5°	2331.9	2818.7	3412.0	3472.0	3478.1
30°	2240.5	2791.2	3375.2	3390.4	3365.4
32.5°	2144.8	2763.8	3315.6	3247.3	3189.2
35°	2039.7	2725.5	3224.6	3052.3	2970.4
37.5°	1936.1	2688.7	3082.7	2834.2	2772.4
40°	1830.6	2643.2	2879.3	2630.5	2623.7
42.5°	1730.9	2594.0	2649.3	2472.0	2495.1
45°	1625.8	2525.8	2409.1	2328.3	2323.6
47.5°	1526.2	2431.5	2190.7	2169.4	2121.3
50°	1420.4	2301.5	1991.3	1971.1	1872.5
52.5°	1316.7	2135.8	1813.3	1737.4	1593.7
55°	1209.4	1939.3	1641.7	1483.2	1359.7
57.5°	1109.8	1723.3	1467.3	1261.8	1150.9
60°	1002.2	1504.5	1275.9	1067.5	976.2
62.5°	896.7	1288.9	1102.6	902.1	841.4
65°	788.7	1088.1	926.7	768.5	715.4
67.5°	685.4	914.4	774.6	647.9	612.5
70°	580.7	741.8	640.3	544.2	523.6
72.5°	472.7	592.6	517.9	459.4	443.8
75°	377.4	462.3	406.6	372.3	363.3
77.5°	281.0	343.8	317.8	297.6	295.0
80°	197.9	248.1	234.0	230.0	226.1
82.5°	126.4	162.2	166.5	164.0	161.1
85°	67.2	95.3	99.7	94.6	93.5
87.5°	27.1	41.5	44.8	49.5	50.9
90°	0.4	9.8	17.7	22.4	23.1
92.5°	0.4	2.2	2.5	2.5	2.2
95°	0.4	1.4	1.4	1.1	0.7
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: P860282

CATALOG NUMBER: SPHB-9HE-W-L850-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)