

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: P860280

Luminaire Tested: **SPHB-9HE-W-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: P860280
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-L835-CD
Description: 9000 Lumen High Efficacy Select Pro High Bay with Wide Lens and,
3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

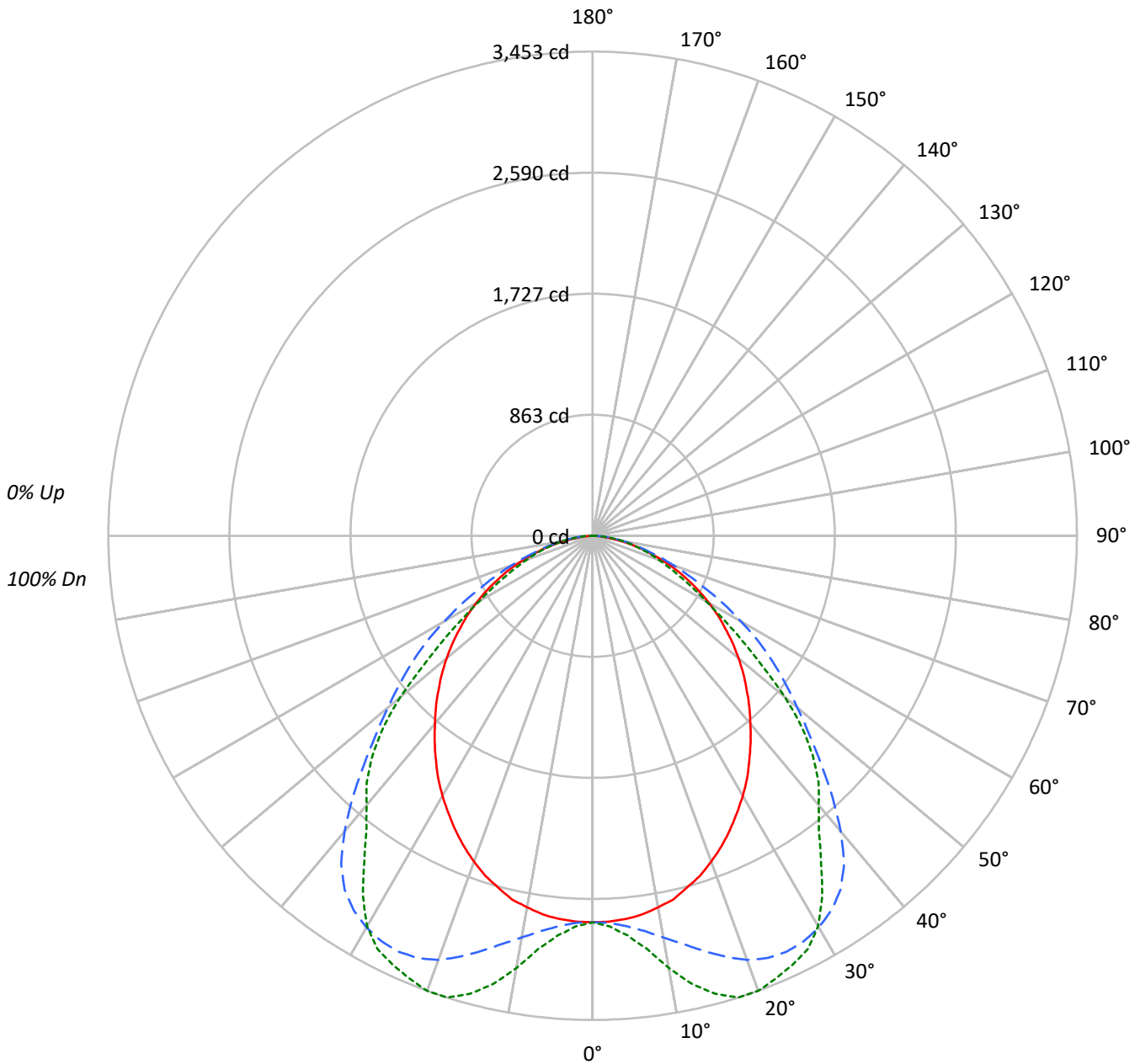
Lumens per Lamp: N/A
Luminaire Lumens: 8674.0 lumens
Efficiency: N/A
Efficacy: 162.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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°	21502	21502	21502
5°	21479	21884	22403
10°	21309	23039	24786
15°	20977	24755	27301
20°	20522	26724	28665
25°	19930	28165	29041
30°	19281	29046	28963
35°	18557	29338	27025
40°	17810	28013	25525
45°	17136	25392	24489
50°	16468	23088	21711
55°	15715	21332	17668
60°	14938	19018	14550
65°	13909	16341	12617
70°	12655	13952	11410
75°	10867	11708	10460
80°	8494	10044	9702
85°	5746	8520	8001



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.7	3.1
10°-20°	858.2	9.9
20°-30°	1404.6	16.2
30°-40°	1713.5	19.8
40°-50°	1697.0	19.6
50°-60°	1357.1	15.6
60°-70°	846.6	9.8
70°-80°	414.8	4.8
80°-90°	108.8	1.3
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°	2533.5	29.2
0°-40°	4246.9	49.0
0°-60°	7301.0	84.2
0°-90°	8671.2	100.0
90°-120°	2.9	0.0
90°-150°	2.9	0.0
90°-180°	3.0	0.0
0°-180°	8674.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2757	2757	2757	2757	2757	
5°	2743	2755	2795	2844	2861	260
15°	2598	2749	3066	3310	3381	732
25°	2316	2708	3273	3368	3374	1066
35°	1949	2604	3081	2916	2838	1219
45°	1554	2413	2302	2225	2220	1200
55°	1156	1853	1569	1417	1299	1035
65°	754	1040	885	734	684	747
75°	361	442	388	356	347	383
85°	64	91	95	90	89	80
90°	0	9	17	21	22	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2756.7	2756.7	2756.7	2756.7	2756.7
2.5°	2754.0	2752.9	2762.9	2781.2	2789.5
5°	2743.3	2755.3	2795.0	2843.7	2861.3
7.5°	2723.9	2756.4	2844.0	2933.4	2971.4
10°	2690.5	2757.1	2908.9	3066.6	3129.4
12.5°	2656.0	2754.7	2981.0	3204.3	3272.9
15°	2597.7	2748.8	3065.6	3309.5	3380.9
17.5°	2543.5	2741.9	3147.0	3398.9	3453.1
20°	2472.4	2731.9	3219.5	3426.2	3453.4
22.5°	2397.9	2723.9	3259.5	3407.9	3416.1
25°	2315.7	2707.7	3272.6	3367.5	3374.4
27.5°	2228.1	2693.2	3260.2	3317.5	3323.3
30°	2140.8	2667.0	3225.0	3239.5	3215.7
32.5°	2049.3	2640.8	3168.0	3102.8	3047.3
35°	1948.9	2604.2	3081.1	2916.5	2838.2
37.5°	1849.9	2569.0	2945.5	2708.1	2649.1
40°	1749.1	2525.5	2751.2	2513.5	2506.9
42.5°	1653.9	2478.6	2531.4	2362.0	2384.1
45°	1553.5	2413.4	2301.9	2224.6	2220.1
47.5°	1458.2	2323.3	2093.2	2072.8	2026.9
50°	1357.1	2199.1	1902.7	1883.4	1789.2
52.5°	1258.1	2040.7	1732.6	1660.1	1522.8
55°	1155.6	1853.0	1568.7	1417.2	1299.2
57.5°	1060.4	1646.7	1402.0	1205.7	1099.7
60°	957.6	1437.5	1219.1	1020.0	932.7
62.5°	856.8	1231.5	1053.5	862.0	804.0
65°	753.6	1039.7	885.4	734.3	683.6
67.5°	654.9	873.7	740.2	619.0	585.2
70°	554.9	708.8	611.8	520.0	500.3
72.5°	451.7	566.3	494.8	438.9	424.1
75°	360.6	441.7	388.5	355.8	347.1
77.5°	268.5	328.5	303.7	284.3	281.9
80°	189.1	237.1	223.6	219.8	216.0
82.5°	120.8	154.9	159.1	156.7	153.9
85°	64.2	91.1	95.2	90.4	89.4
87.5°	25.9	39.7	42.8	47.3	48.7
90°	0.3	9.3	16.9	21.4	22.1
92.5°	0.3	2.1	2.4	2.4	2.1
95°	0.3	1.4	1.4	1.0	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



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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)