

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: P860263

Luminaire Tested: **SPHB-9HE-M-L840-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: P860263
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-9HE-M-L840-CD
Description: 9000 Lumen High Efficacy Select Pro High Bay with Medium Lens and, 4000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

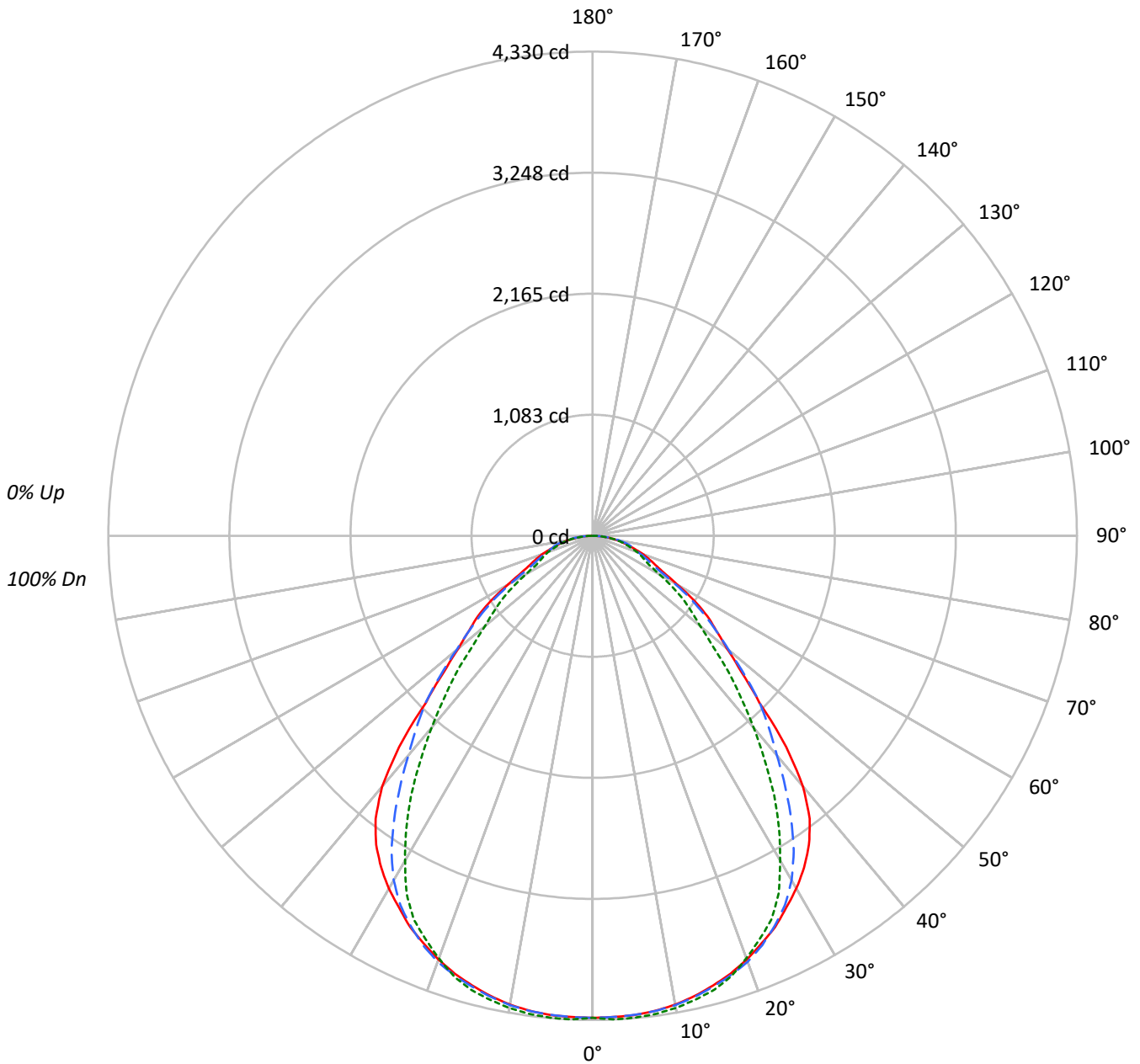
Lumens per Lamp: N/A
Luminaire Lumens: 8947.0 lumens
Efficiency: N/A
Efficacy: 167.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

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	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87																			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66																			
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58																			
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51																			
6	75	63	55	49	73	62	54	49	60	54	48	59	53	48	57	52	48	46																			
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41																			
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34																			
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33622	33622	33622
5°	33687	33679	33870
10°	33717	33753	33961
15°	33618	33706	33940
20°	33472	33642	33373
25°	33227	33134	32571
30°	32807	32033	30205
35°	32118	29470	26921
40°	29806	26083	22802
45°	23254	23316	18870
50°	18992	19261	15240
55°	17016	16374	13391
60°	13622	12895	10714
65°	11415	10450	9475
70°	10839	9957	9647
75°	9834	10572	9303
80°	9882	10803	9806
85°	8600	10077	8189



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	409.9	4.6
10°-20°	1178.7	13.2
20°-30°	1759.6	19.7
30°-40°	1920.1	21.5
40°-50°	1570.7	17.6
50°-60°	1032.7	11.5
60°-70°	592.5	6.6
70°-80°	359.0	4.0
80°-90°	120.6	1.3
90°-100°	3.1	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°	3348.2	37.4
0°-40°	5268.3	58.9
0°-60°	7871.8	88.0
0°-90°	8943.9	100.0
90°-120°	3.1	0.0
90°-150°	3.1	0.0
90°-180°	3.0	0.0
0°-180°	8947.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4310	4310	4310	4310	4310	
5°	4302	4296	4301	4319	4326	409
15°	4163	4163	4174	4201	4203	1175
25°	3861	3870	3850	3803	3785	1776
35°	3373	3297	3095	2884	2827	2091
45°	2108	2266	2114	1866	1711	1673
55°	1251	1217	1204	1035	985	1102
65°	618	610	566	551	513	632
75°	326	353	351	337	309	353
85°	96	109	113	98	92	104
90°	1	8	16	19	20	5
95°	1	1	2	2	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°	4310.5	4310.5	4310.5	4310.5	4310.5
2.5°	4307.7	4301.4	4307.1	4324.7	4329.8
5°	4302.5	4295.7	4301.4	4319.0	4325.8
7.5°	4284.9	4280.9	4286.6	4304.2	4312.8
10°	4257.1	4252.5	4261.6	4277.0	4287.8
12.5°	4215.6	4213.8	4222.4	4244.5	4249.1
15°	4163.2	4162.7	4174.1	4200.8	4203.0
17.5°	4104.1	4103.6	4117.8	4135.4	4129.1
20°	4032.5	4036.5	4053.0	4036.5	4020.6
22.5°	3946.6	3959.2	3963.1	3911.4	3903.4
25°	3860.8	3869.9	3850.0	3803.4	3784.6
27.5°	3749.9	3760.7	3723.8	3657.3	3603.8
30°	3642.5	3632.3	3556.6	3428.2	3353.7
32.5°	3519.1	3482.7	3346.9	3169.5	3101.8
35°	3373.0	3296.8	3095.0	2884.1	2827.2
37.5°	3188.2	3049.0	2828.4	2608.4	2522.5
40°	2927.3	2766.4	2561.7	2334.3	2239.4
42.5°	2561.7	2502.0	2332.6	2076.8	1963.7
45°	2108.1	2265.5	2113.7	1865.9	1710.7
47.5°	1804.5	2023.4	1840.9	1661.8	1448.0
50°	1565.1	1715.8	1587.3	1425.8	1255.9
52.5°	1392.3	1437.8	1386.0	1208.7	1112.0
55°	1251.3	1217.2	1204.1	1034.7	984.7
57.5°	1076.2	1057.4	1023.9	902.2	836.3
60°	873.2	913.0	826.6	791.9	686.8
62.5°	717.5	756.7	664.0	661.8	574.2
65°	618.5	609.5	566.2	550.9	513.4
67.5°	547.5	519.1	504.3	484.4	471.3
70°	475.3	463.3	436.6	440.6	423.0
72.5°	396.3	411.6	384.9	392.3	360.4
75°	326.3	353.0	350.8	336.6	308.7
77.5°	268.9	297.3	302.5	289.4	266.6
80°	220.0	239.3	240.5	232.5	218.3
82.5°	161.5	172.8	181.4	167.7	158.6
85°	96.1	109.2	112.6	98.4	91.5
87.5°	31.3	43.8	48.9	50.6	51.2
90°	0.6	8.0	15.9	18.8	19.9
92.5°	0.6	2.3	3.4	5.1	5.7
95°	0.6	1.1	1.7	1.7	1.1
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)