

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: P860237

Luminaire Tested: **SPHB-60SE-M-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: P860237
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-60SE-M-L850-CD
Description: 60000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens and, 5000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

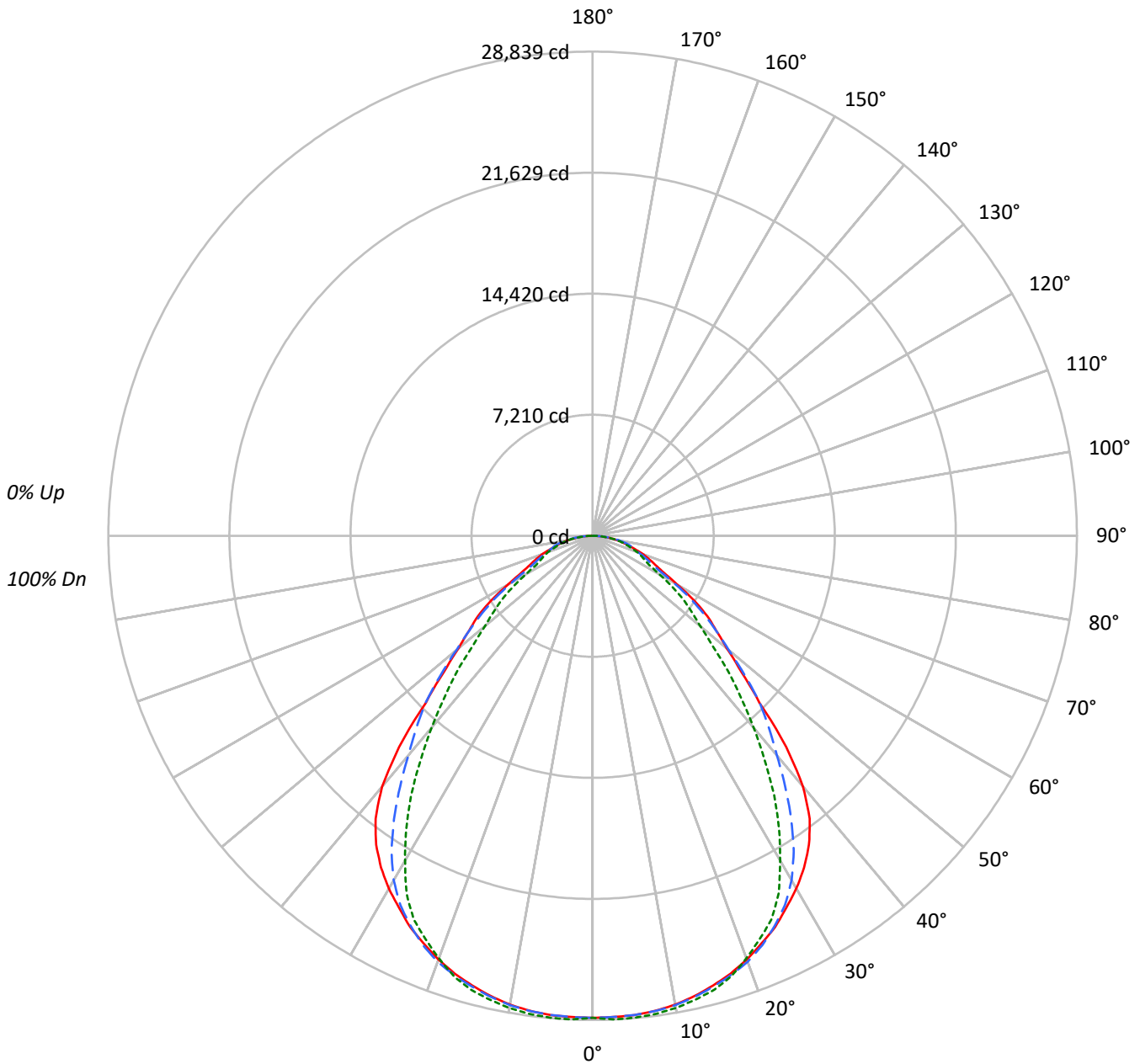
Lumens per Lamp: N/A
Luminaire Lumens: 59591.0 lumens
Efficiency: N/A
Efficacy: 158.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

Input Watts (W): 376
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				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	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87				87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66				66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				51
6	75	63	55	49	73	62	54	49	60	54	48	59	53	48	57	52	48	46				46
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41				41
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37				37
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34				34
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	91429	91429	91429
5°	91609	91584	92105
10°	91689	91786	92350
15°	91421	91658	92295
20°	91022	91484	90752
25°	90356	90103	88573
30°	89212	87110	82139
35°	87340	80141	73207
40°	81053	70931	62006
45°	63235	63405	51314
50°	51646	52378	41441
55°	46273	44528	36413
60°	37044	35067	29134
65°	31044	28419	25766
70°	29475	27078	26231
75°	26743	28747	25299
80°	26874	29374	26665
85°	23381	27393	22274



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2729.8	4.6
10°-20°	7850.9	13.2
20°-30°	11720.0	19.7
30°-40°	12788.6	21.5
40°-50°	10461.6	17.6
50°-60°	6878.5	11.5
60°-70°	3946.4	6.6
70°-80°	2391.4	4.0
80°-90°	803.0	1.3
90°-100°	20.9	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°	22300.7	37.4
0°-40°	35089.3	58.9
0°-60°	52429.4	88.0
0°-90°	59570.1	100.0
90°-120°	20.9	0.0
90°-150°	20.9	0.0
90°-180°	21.0	0.0
0°-180°	59591.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	28710	28710	28710	28710	28710	
5°	28657	28611	28649	28767	28812	###
15°	27729	27725	27801	27979	27994	7827
25°	25715	25775	25643	25332	25207	11830
35°	22466	21958	20614	19209	18831	13924
45°	14041	15090	14078	12428	11394	11145
55°	8334	8107	8020	6892	6558	7340
65°	4120	4059	3771	3669	3419	4212
75°	2174	2352	2336	2242	2056	2352
85°	640	727	750	655	610	694
90°	4	53	106	125	132	30
95°	4	8	11	11	8	2
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°	28709.8	28709.8	28709.8	28709.8	28709.8
2.5°	28690.9	28649.2	28687.1	28804.5	28838.6
5°	28656.8	28611.4	28649.2	28766.6	28812.1
7.5°	28539.4	28512.9	28550.8	28668.2	28725.0
10°	28353.9	28323.6	28384.2	28486.4	28558.4
12.5°	28077.5	28066.1	28122.9	28270.6	28300.9
15°	27729.1	27725.3	27801.0	27979.0	27994.2
17.5°	27335.3	27331.5	27426.2	27543.5	27501.9
20°	26858.2	26884.7	26994.5	26884.7	26778.7
22.5°	26286.4	26369.7	26396.2	26051.6	25998.6
25°	25714.6	25775.2	25642.7	25332.2	25207.2
27.5°	24976.3	25048.2	24802.1	24359.0	24003.1
30°	24260.6	24192.4	23688.8	22833.0	22337.0
32.5°	23438.9	23196.6	22291.6	21110.2	20659.6
35°	22465.8	21958.4	20614.1	19209.3	18830.6
37.5°	21235.1	20307.4	18838.2	17372.8	16801.0
40°	19497.1	18425.5	17062.3	15547.7	14915.3
42.5°	17062.3	16664.7	15536.3	13832.4	13078.8
45°	14040.6	15089.5	14078.5	12427.5	11393.8
47.5°	12018.6	13476.4	12260.9	11068.2	9644.4
50°	10424.4	11427.9	10572.1	9496.7	8364.5
52.5°	9273.3	9576.2	9231.7	8050.3	7406.5
55°	8334.3	8107.1	8020.0	6891.6	6558.3
57.5°	7168.0	7043.0	6819.6	6009.3	5570.1
60°	5816.2	6081.2	5505.7	5274.7	4574.2
62.5°	4778.7	5039.9	4422.7	4407.6	3824.4
65°	4119.8	4059.2	3771.4	3669.2	3419.3
67.5°	3646.5	3457.1	3358.7	3226.2	3139.1
70°	3165.6	3086.1	2908.1	2934.6	2817.2
72.5°	2639.2	2741.5	2563.5	2612.7	2400.7
75°	2173.5	2351.5	2336.3	2241.7	2056.1
77.5°	1791.1	1980.4	2014.5	1927.4	1775.9
80°	1465.4	1594.1	1601.7	1548.7	1454.0
82.5°	1075.4	1151.1	1207.9	1117.0	1056.5
85°	639.9	727.0	749.7	655.1	609.6
87.5°	208.3	291.6	325.6	337.0	340.8
90°	3.8	53.0	106.0	125.0	132.5
92.5°	3.8	15.1	22.7	34.1	37.9
95°	3.8	7.6	11.4	11.4	7.6
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



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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)