

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: P860246

Luminaire Tested: **SPHB-60SE-N-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: P860246
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-60SE-N-L850-CD
Description: 60000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 5000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

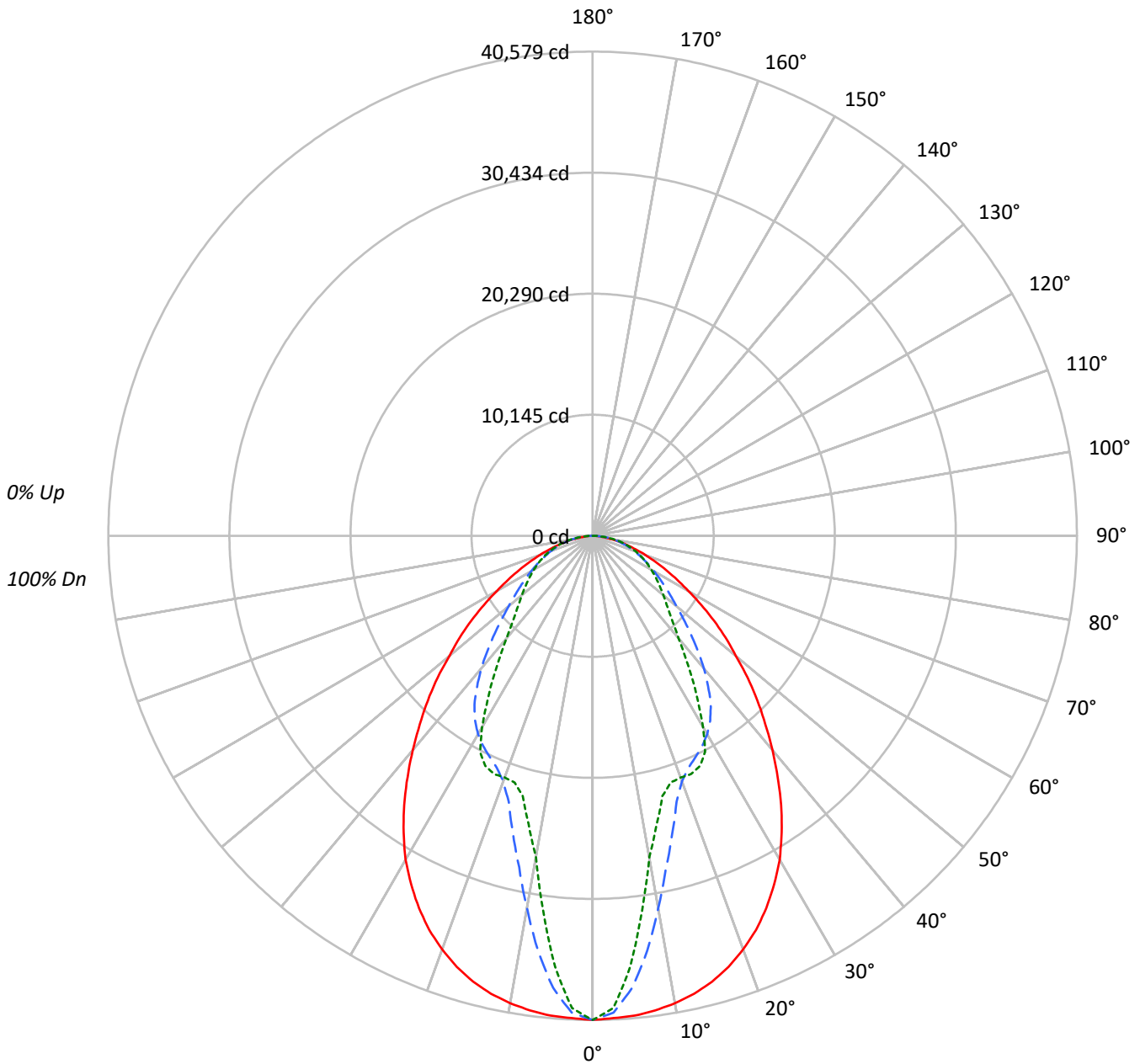
Lumens per Lamp: N/A
Luminaire Lumens: 59472.0 lumens
Efficiency: N/A
Efficacy: 158.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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									
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	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	94	88	83	99	92	86	82	88	84	80	85	81	78	82	79	76	74																			
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64																			
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50																			
6	74	62	54	48	73	61	54	48	60	53	47	58	52	47	56	51	47	45																			
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	46	42	40																			
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37																			
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34																			
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	129227	129227	129227
5°	129077	121590	115836
10°	128636	102490	88355
15°	127565	85078	74456
20°	124995	74162	73091
25°	120979	71755	74803
30°	115260	70605	68076
35°	107018	67094	56411
40°	97451	60232	46581
45°	87966	52264	40893
50°	77629	45445	38293
55°	68885	40987	36859
60°	59035	37903	36108
65°	51099	35622	35926
70°	43728	34267	35882
75°	36706	33276	35563
80°	28008	32156	34826
85°	18339	28526	26827



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3459.7	5.8
10°-20°	7943.9	13.4
20°-30°	10735.8	18.1
30°-40°	11298.8	19.0
40°-50°	9587.5	16.1
50°-60°	7426.8	12.5
60°-70°	5172.6	8.7
70°-80°	2961.9	5.0
80°-90°	861.9	1.4
90°-100°	23.0	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°	22139.4	37.2
0°-40°	33438.2	56.2
0°-60°	50452.6	84.8
0°-90°	59449.0	100.0
90°-120°	23.0	0.0
90°-150°	23.0	0.0
90°-180°	23.0	0.0
0°-180°	59472.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	40579	40579	40579	40579	40579	
5°	40377	39637	38035	36576	36236	###
15°	38692	32840	25805	23228	22583	10888
25°	34430	24321	20421	21013	21288	15805
35°	27528	18705	17258	15588	14510	17159
45°	19532	14046	11605	9535	9080	15043
55°	12407	9461	7382	6710	6639	11093
65°	6781	5551	4727	4727	4768	6774
75°	2983	2652	2704	2875	2890	3181
85°	502	650	781	734	734	638
90°	3	59	115	146	152	28
95°	3	9	19	19	16	1
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°	40578.8	40578.8	40578.8	40578.8	40578.8
2.5°	40461.1	40327.8	40002.6	39791.9	39627.7
5°	40377.4	39637.0	38035.4	36576.3	36235.6
7.5°	40126.5	38500.1	35077.0	32378.8	31697.2
10°	39779.5	36867.5	31694.1	28314.4	27323.1
12.5°	39317.9	35123.5	28453.8	25269.2	24782.8
15°	38692.2	32840.3	25805.1	23227.7	22583.3
17.5°	37880.5	30479.8	23360.9	21870.8	21691.2
20°	36883.0	28314.4	21883.2	21375.2	21567.3
22.5°	35761.6	26210.9	21025.1	21238.9	21598.2
25°	34429.5	24321.2	20421.0	21012.7	21288.4
27.5°	32933.3	22614.3	19866.5	20408.7	20408.7
30°	31344.1	21192.4	19200.5	19150.9	18512.8
32.5°	29488.5	19984.2	18330.0	17348.0	16400.0
35°	27527.5	18704.8	17258.1	15588.4	14510.3
37.5°	25470.5	17515.3	15901.3	13698.7	12695.0
40°	23441.5	16341.2	14488.7	12001.1	11204.9
42.5°	21421.7	15145.4	13017.2	10625.6	9996.8
45°	19532.0	14045.7	11604.6	9535.2	9079.8
47.5°	17611.3	12877.8	10300.4	8658.5	8342.5
50°	15668.9	11694.4	9172.7	7961.5	7729.1
52.5°	14033.3	10591.6	8215.5	7301.6	7162.2
55°	12406.9	9460.8	7382.2	6709.9	6638.7
57.5°	10792.9	8407.6	6620.1	6167.8	6152.3
60°	9268.8	7422.5	5951.0	5703.1	5669.1
62.5°	7970.8	6443.5	5315.9	5198.2	5213.7
65°	6781.2	5551.4	4727.3	4727.3	4767.6
67.5°	5678.4	4730.4	4188.3	4259.5	4315.3
70°	4696.3	3986.9	3680.2	3804.2	3853.7
72.5°	3767.0	3296.1	3193.9	3330.2	3370.5
75°	2983.2	2651.8	2704.4	2874.8	2890.3
77.5°	2211.9	2088.0	2224.3	2410.1	2444.2
80°	1527.2	1539.6	1753.4	1883.5	1899.0
82.5°	985.1	1075.0	1313.5	1381.6	1356.9
85°	501.9	650.5	780.7	734.2	734.2
87.5°	192.1	281.9	331.5	390.3	412.0
90°	3.1	58.9	114.6	145.6	151.8
92.5°	3.1	15.5	24.8	27.9	24.8
95°	3.1	9.3	18.6	18.6	15.5
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)