

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: P860247

Luminaire Tested: **SPHB-60SE-N-L935-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: P860247
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-L935-CD
Description: 60000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 3500K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

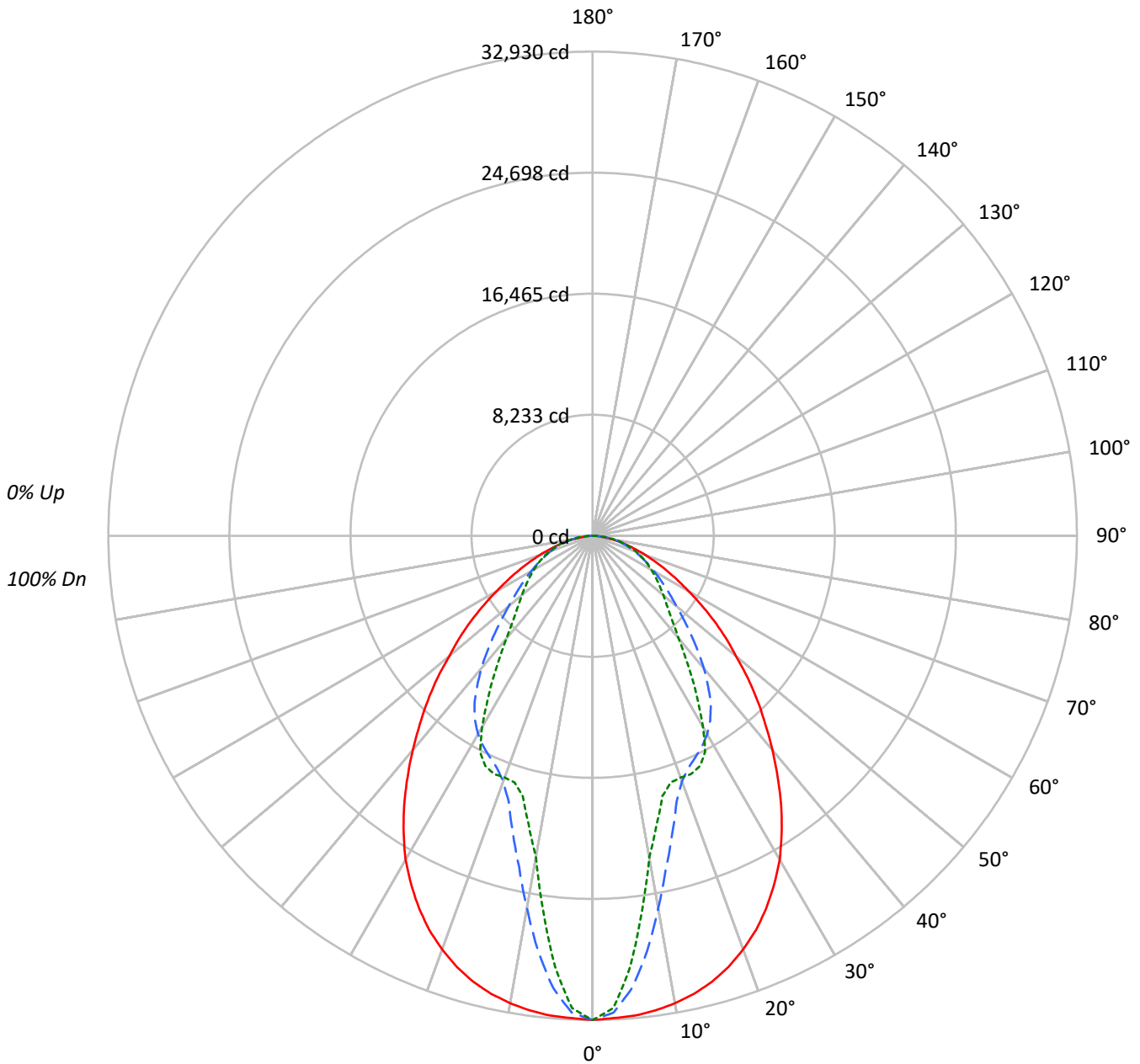
Lumens per Lamp: N/A
Luminaire Lumens: 48262.0 lumens
Efficiency: N/A
Efficacy: 128.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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					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								
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°	104869	104869	104869
5°	104747	98671	94002
10°	104389	83171	71701
15°	103520	69041	60422
20°	101435	60183	59314
25°	98175	58230	60703
30°	93534	57297	55244
35°	86846	54447	45778
40°	79082	48879	37801
45°	71385	42412	33185
50°	62997	36879	31075
55°	55901	33261	29912
60°	47907	30759	29301
65°	41467	28908	29154
70°	35486	27809	29119
75°	29788	27004	28860
80°	22730	26095	28261
85°	14882	23148	21770



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2807.6	5.8
10°-20°	6446.5	13.4
20°-30°	8712.2	18.1
30°-40°	9169.1	19.0
40°-50°	7780.3	16.1
50°-60°	6026.9	12.5
60°-70°	4197.6	8.7
70°-80°	2403.6	5.0
80°-90°	699.5	1.4
90°-100°	18.7	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°	17966.3	37.2
0°-40°	27135.4	56.2
0°-60°	40942.6	84.8
0°-90°	48243.3	100.0
90°-120°	18.7	0.0
90°-150°	18.7	0.0
90°-180°	19.0	0.0
0°-180°	48262.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	32930	32930	32930	32930	32930	
5°	32767	32166	30866	29682	29406	###
15°	31399	26650	20941	18850	18327	8835
25°	27940	19737	16572	17052	17276	12826
35°	22339	15179	14005	12650	11775	13925
45°	15850	11398	9417	7738	7368	12208
55°	10068	7678	5991	5445	5387	9002
65°	5503	4505	3836	3836	3869	5497
75°	2421	2152	2195	2333	2346	2581
85°	407	528	634	596	596	518
90°	2	48	93	118	123	22
95°	2	8	15	15	13	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



TEST NUMBER: P860247

CATALOG NUMBER: SPHB-60SE-N-L935-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	32930.0	32930.0	32930.0	32930.0	32930.0
2.5°	32834.5	32726.4	32462.4	32291.5	32158.2
5°	32766.6	32165.8	30866.1	29682.0	29405.5
7.5°	32563.0	31243.1	28465.3	26275.6	25722.6
10°	32281.4	29918.3	25720.0	22977.3	22172.9
12.5°	31906.8	28503.0	23090.5	20506.1	20111.5
15°	31399.0	26650.2	20941.1	18849.5	18326.6
17.5°	30740.4	24734.6	18957.6	17748.4	17602.6
20°	29930.9	22977.3	17758.4	17346.1	17502.0
22.5°	29020.8	21270.4	17062.1	17235.5	17527.1
25°	27939.8	19736.9	16571.8	17052.0	17275.7
27.5°	26725.6	18351.7	16121.8	16561.8	16561.8
30°	25436.0	17197.8	15581.4	15541.1	15023.3
32.5°	23930.1	16217.4	14874.9	14078.0	13308.8
35°	22338.8	15179.1	14005.1	12650.1	11775.3
37.5°	20669.6	14213.8	12904.0	11116.6	10302.1
40°	19022.9	13261.0	11757.7	9739.0	9092.9
42.5°	17383.8	12290.6	10563.5	8622.8	8112.5
45°	15850.3	11398.2	9417.2	7737.9	7368.3
47.5°	14291.7	10450.4	8358.8	7026.4	6770.0
50°	12715.5	9490.1	7443.8	6460.8	6272.3
52.5°	11388.1	8595.1	6666.9	5925.3	5812.2
55°	10068.3	7677.5	5990.7	5445.2	5387.4
57.5°	8758.5	6822.8	5372.3	5005.2	4992.7
60°	7521.7	6023.4	4829.3	4628.1	4600.5
62.5°	6468.3	5229.0	4313.9	4218.4	4230.9
65°	5503.0	4505.0	3836.3	3836.3	3868.9
67.5°	4608.0	3838.8	3398.8	3456.7	3501.9
70°	3811.1	3235.4	2986.6	3087.1	3127.3
72.5°	3056.9	2674.8	2591.9	2702.5	2735.2
75°	2420.9	2151.9	2194.7	2332.9	2345.5
77.5°	1794.9	1694.4	1805.0	1955.8	1983.5
80°	1239.4	1249.4	1422.9	1528.5	1541.0
82.5°	799.4	872.3	1065.9	1121.2	1101.1
85°	407.3	527.9	633.5	595.8	595.8
87.5°	155.9	228.8	269.0	316.8	334.4
90°	2.5	47.8	93.0	118.2	123.2
92.5°	2.5	12.6	20.1	22.6	20.1
95°	2.5	7.5	15.1	15.1	12.6
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)