

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: P860249

Luminaire Tested: **SPHB-60SE-N-L950-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: P860249
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-L950-CD
Description: 60000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 5000K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

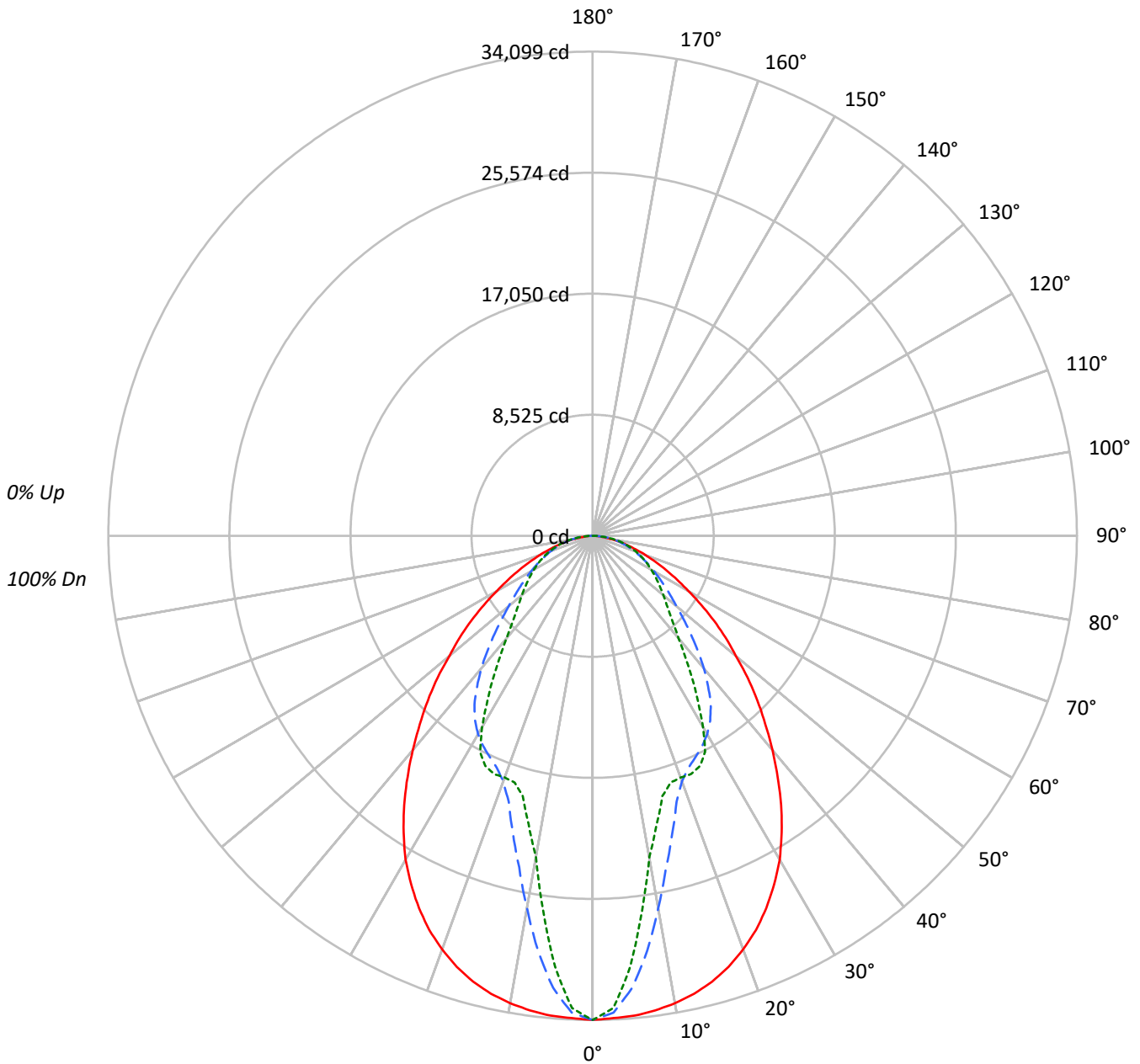
Lumens per Lamp: N/A
Luminaire Lumens: 49975.0 lumens
Efficiency: N/A
Efficacy: 132.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	108591	108591	108591
5°	108465	102173	97339
10°	108094	86123	74246
15°	107195	71492	62566
20°	105035	62319	61419
25°	101660	60297	62858
30°	96854	59330	57205
35°	89928	56380	47403
40°	81889	50614	39142
45°	73919	43917	34363
50°	65233	38188	32178
55°	57885	34442	30973
60°	49608	31850	30342
65°	42939	29934	30189
70°	36745	28796	30152
75°	30844	27963	29883
80°	23537	27021	29264
85°	15409	23970	22541



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2907.2	5.8
10°-20°	6675.3	13.4
20°-30°	9021.4	18.1
30°-40°	9494.5	19.0
40°-50°	8056.5	16.1
50°-60°	6240.9	12.5
60°-70°	4346.6	8.7
70°-80°	2488.9	5.0
80°-90°	724.3	1.4
90°-100°	19.3	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°	18604.0	37.2
0°-40°	28098.5	56.2
0°-60°	42395.9	84.8
0°-90°	49955.7	100.0
90°-120°	19.3	0.0
90°-150°	19.3	0.0
90°-180°	19.0	0.0
0°-180°	49975.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	34099	34099	34099	34099	34099	
5°	33930	33307	31962	30736	30449	###
15°	32514	27596	21684	19518	18977	9149
25°	28932	20437	17160	17657	17889	13281
35°	23132	15718	14502	13099	12193	14419
45°	16413	11803	9751	8012	7630	12641
55°	10426	7950	6203	5638	5579	9321
65°	5698	4665	3972	3972	4006	5692
75°	2507	2228	2273	2416	2429	2673
85°	422	547	656	617	617	536
90°	3	50	96	122	128	23
95°	3	8	16	16	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: P860249

CATALOG NUMBER: SPHB-60SE-N-L950-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	34098.8	34098.8	34098.8	34098.8	34098.8
2.5°	33999.9	33888.0	33614.6	33437.6	33299.6
5°	33929.6	33307.4	31961.6	30735.5	30449.2
7.5°	33718.7	32352.1	29475.6	27208.2	26635.5
10°	33427.2	30980.2	26632.9	23792.9	22959.9
12.5°	33039.3	29514.6	23910.0	21234.0	20825.3
15°	32513.5	27596.1	21684.3	19518.5	18977.0
17.5°	31831.5	25612.5	19630.4	18378.3	18227.3
20°	30993.2	23792.9	18388.7	17961.8	18123.2
22.5°	30050.9	22025.3	17667.7	17847.3	18149.2
25°	28931.5	20437.4	17160.0	17657.2	17888.9
27.5°	27674.2	19003.1	16694.1	17149.6	17149.6
30°	26338.8	17808.2	16134.4	16092.7	15556.5
32.5°	24779.5	16793.0	15402.9	14577.7	13781.1
35°	23131.7	15717.9	14502.2	13099.1	12193.2
37.5°	21403.2	14718.3	13362.0	11511.2	10667.8
40°	19698.1	13731.7	12175.0	10084.6	9415.6
42.5°	18000.9	12726.9	10938.5	8928.8	8400.4
45°	16412.9	11802.7	9751.4	8012.5	7629.9
47.5°	14799.0	10821.3	8655.5	7275.8	7010.3
50°	13166.8	9826.9	7708.0	6690.1	6494.9
52.5°	11792.3	8900.2	6903.6	6135.7	6018.5
55°	10425.7	7950.1	6203.3	5638.4	5578.6
57.5°	9069.4	7065.0	5563.0	5182.9	5169.9
60°	7788.7	6237.2	5000.7	4792.4	4763.8
62.5°	6697.9	5414.6	4467.0	4368.1	4381.1
65°	5698.3	4664.9	3972.4	3972.4	4006.3
67.5°	4771.6	3975.0	3519.5	3579.3	3626.2
70°	3946.4	3350.3	3092.6	3196.7	3238.3
72.5°	3165.4	2769.8	2683.9	2798.4	2832.2
75°	2506.8	2228.3	2272.6	2415.7	2428.7
77.5°	1858.7	1754.5	1869.1	2025.3	2053.9
80°	1283.4	1293.8	1473.4	1582.7	1595.7
82.5°	827.8	903.3	1103.7	1161.0	1140.2
85°	421.7	546.7	656.0	616.9	616.9
87.5°	161.4	236.9	278.5	328.0	346.2
90°	2.6	49.5	96.3	122.3	127.6
92.5°	2.6	13.0	20.8	23.4	20.8
95°	2.6	7.8	15.6	15.6	13.0
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)