

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: P860240

Luminaire Tested: **SPHB-60SE-M-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: P860240
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-L950-CD
Description: 60000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens
and, 5000K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

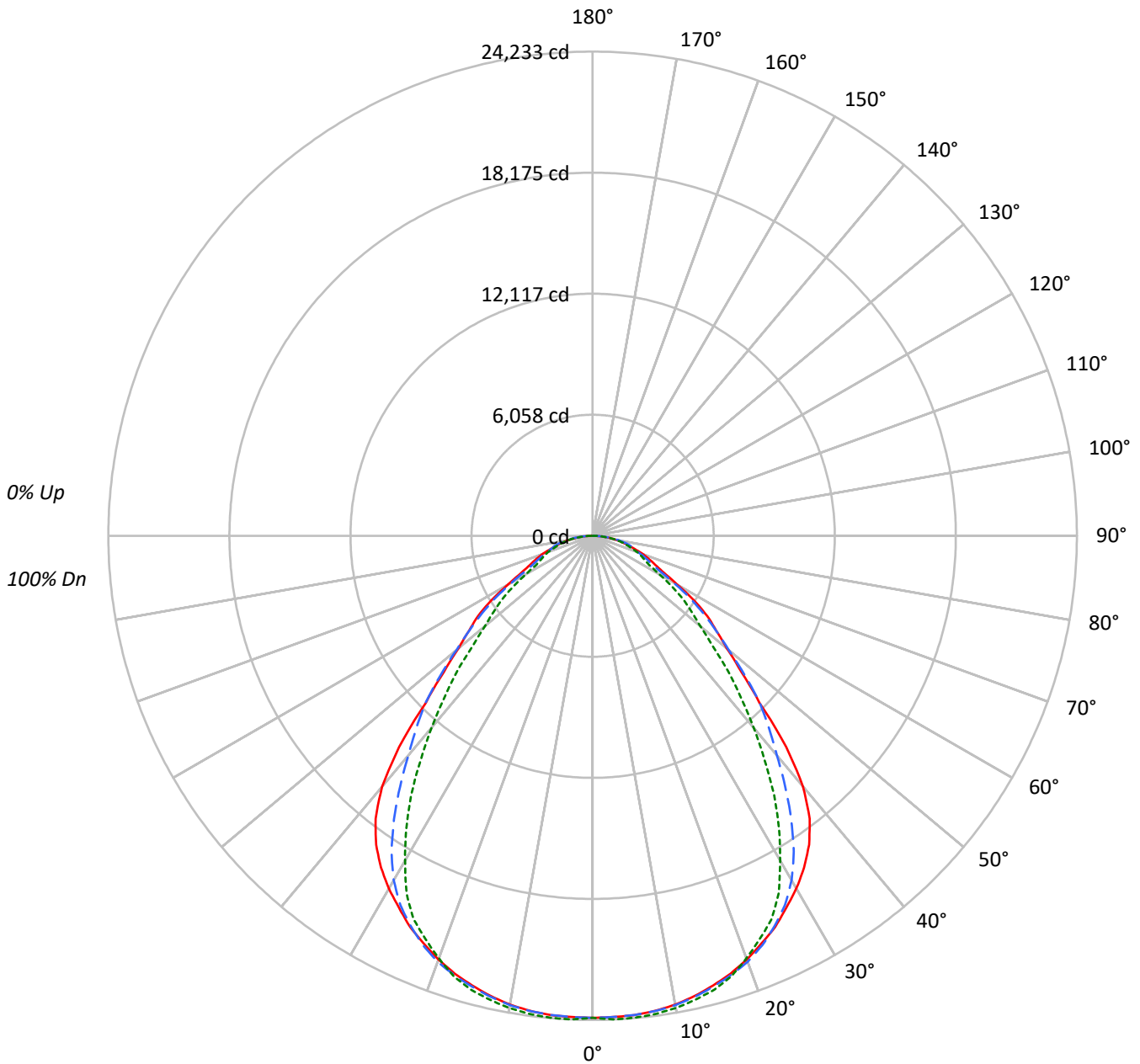
Lumens per Lamp: N/A
Luminaire Lumens: 50075.0 lumens
Efficiency: N/A
Efficacy: 133.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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					
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	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°	76829	76829	76829
5°	76980	76960	77397
10°	77047	77129	77602
15°	76822	77021	77556
20°	76486	76875	76260
25°	75927	75715	74429
30°	74966	73199	69022
35°	73392	67343	61517
40°	68110	59605	52104
45°	53137	53280	43120
50°	43399	44014	34823
55°	38884	37418	30599
60°	31129	29467	24481
65°	26087	23881	21651
70°	24769	22754	22042
75°	22473	24156	21259
80°	22583	24683	22409
85°	19647	23020	18719



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2293.9	4.6
10°-20°	6597.2	13.2
20°-30°	9848.5	19.7
30°-40°	10746.4	21.5
40°-50°	8791.0	17.6
50°-60°	5780.1	11.5
60°-70°	3316.2	6.6
70°-80°	2009.5	4.0
80°-90°	674.8	1.3
90°-100°	17.5	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°	18739.5	37.4
0°-40°	29485.9	58.9
0°-60°	44057.0	88.0
0°-90°	50057.5	100.0
90°-120°	17.5	0.0
90°-150°	17.5	0.0
90°-180°	18.0	0.0
0°-180°	50075.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	24125	24125	24125	24125	24125	
5°	24081	24042	24074	24173	24211	###
15°	23301	23298	23362	23511	23524	6577
25°	21608	21659	21548	21287	21182	9941
35°	18878	18452	17322	16142	15824	11700
45°	11798	12680	11830	10443	9574	9365
55°	7003	6812	6739	5791	5511	6168
65°	3462	3411	3169	3083	2873	3539
75°	1826	1976	1963	1884	1728	1977
85°	538	611	630	550	512	583
90°	3	44	89	105	111	25
95°	3	6	10	10	6	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: P860240

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	24125.2	24125.2	24125.2	24125.2	24125.2
2.5°	24109.3	24074.3	24106.1	24204.7	24233.4
5°	24080.6	24042.5	24074.3	24172.9	24211.1
7.5°	23982.0	23959.7	23991.5	24090.2	24137.9
10°	23826.1	23800.6	23851.5	23937.5	23997.9
12.5°	23593.8	23584.3	23632.0	23756.1	23781.5
15°	23301.1	23297.9	23361.5	23511.1	23523.8
17.5°	22970.2	22967.0	23046.5	23145.2	23110.2
20°	22569.2	22591.5	22683.8	22591.5	22502.4
22.5°	22088.8	22158.8	22181.0	21891.5	21846.9
25°	21608.3	21659.2	21547.8	21286.9	21181.9
27.5°	20987.8	21048.3	20841.5	20469.2	20170.1
30°	20386.5	20329.2	19906.0	19186.9	18770.0
32.5°	19696.0	19492.3	18731.9	17739.1	17360.5
35°	18878.2	18451.9	17322.3	16141.8	15823.6
37.5°	17844.1	17064.5	15830.0	14598.6	14118.1
40°	16383.6	15483.1	14337.7	13064.9	12533.5
42.5°	14337.7	14003.6	13055.3	11623.5	10990.3
45°	11798.5	12679.9	11830.3	10443.0	9574.3
47.5°	10099.4	11324.4	10303.0	9300.7	8104.3
50°	8759.8	9603.0	8883.9	7980.2	7028.8
52.5°	7792.5	8047.0	7757.5	6764.7	6223.8
55°	7003.4	6812.5	6739.3	5791.1	5511.1
57.5°	6023.3	5918.3	5730.6	5049.7	4680.6
60°	4887.4	5110.1	4626.5	4432.4	3843.7
62.5°	4015.6	4235.1	3716.5	3703.7	3213.7
65°	3461.9	3411.0	3169.2	3083.3	2873.3
67.5°	3064.2	2905.1	2822.3	2711.0	2637.8
70°	2660.1	2593.3	2443.7	2466.0	2367.3
72.5°	2217.8	2303.7	2154.1	2195.5	2017.3
75°	1826.4	1976.0	1963.2	1883.7	1727.8
77.5°	1505.0	1664.1	1692.8	1619.6	1492.3
80°	1231.4	1339.6	1345.9	1301.4	1221.9
82.5°	903.7	967.3	1015.0	938.7	887.8
85°	537.7	610.9	630.0	550.5	512.3
87.5°	175.0	245.0	273.6	283.2	286.4
90°	3.2	44.5	89.1	105.0	111.4
92.5°	3.2	12.7	19.1	28.6	31.8
95°	3.2	6.4	9.5	9.5	6.4
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)