

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: P860238

Luminaire Tested: **SPHB-60SE-M-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: P860238  
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-L935-CD  
Description: 60000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens  
and, 3500K 90CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

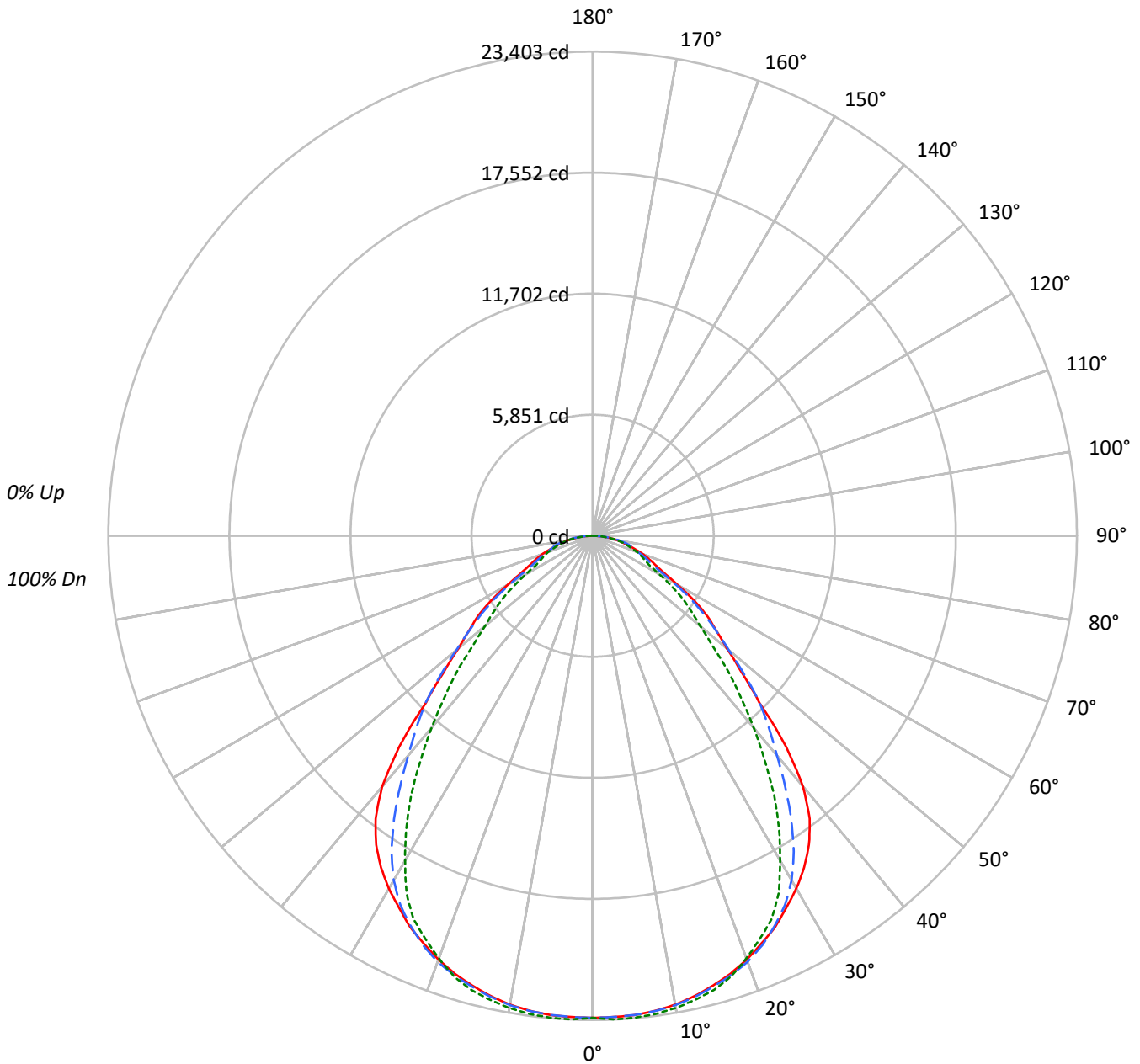
Lumens per Lamp: N/A  
Luminaire Lumens: 48359.0 lumens  
Efficiency: N/A  
Efficacy: 128.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 376  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	74196	74196	74196
5°	74342	74322	74745
10°	74407	74486	74943
15°	74190	74382	74899
20°	73865	74240	73647
25°	73325	73120	71879
30°	72397	70691	66657
35°	70877	65036	59409
40°	65776	57562	50319
45°	51316	51454	41642
50°	41912	42505	33630
55°	37552	36135	29550
60°	30062	28457	23642
65°	25193	23063	20909
70°	23919	21974	21287
75°	21702	23329	20531
80°	21809	23837	21640
85°	18975	22230	18076



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2215.3	4.6
10°-20°	6371.1	13.2
20°-30°	9511.0	19.7
30°-40°	10378.1	21.5
40°-50°	8489.8	17.6
50°-60°	5582.0	11.5
60°-70°	3202.5	6.6
70°-80°	1940.7	4.0
80°-90°	651.6	1.3
90°-100°	16.9	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°	18097.3	37.4
0°-40°	28475.5	58.9
0°-60°	42547.2	88.0
0°-90°	48342.1	100.0
90°-120°	16.9	0.0
90°-150°	16.9	0.0
90°-180°	17.0	0.0
0°-180°	48359.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	23298	23298	23298	23298	23298	
5°	23255	23219	23249	23344	23381	###
15°	22503	22500	22561	22705	22718	6352
25°	20868	20917	20809	20558	20456	9600
35°	18231	17820	16729	15589	15281	11299
45°	11394	12245	11425	10085	9246	9044
55°	6763	6579	6508	5593	5322	5957
65°	3343	3294	3061	2978	2775	3418
75°	1764	1908	1896	1819	1669	1909
85°	519	590	608	532	495	563
90°	3	43	86	101	108	24
95°	3	6	9	9	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



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

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	23298.4	23298.4	23298.4	23298.4	23298.4
2.5°	23283.1	23249.3	23280.0	23375.3	23402.9
5°	23255.4	23218.6	23249.3	23344.5	23381.4
7.5°	23160.2	23138.7	23169.4	23264.6	23310.7
10°	23009.6	22985.0	23034.2	23117.2	23175.5
12.5°	22785.3	22776.1	22822.2	22942.0	22966.6
15°	22502.6	22499.5	22561.0	22705.4	22717.7
17.5°	22183.0	22179.9	22256.7	22352.0	22318.2
20°	21795.8	21817.3	21906.4	21817.3	21731.3
22.5°	21331.8	21399.4	21420.9	21141.3	21098.3
25°	20867.8	20917.0	20809.4	20557.5	20456.1
27.5°	20268.6	20327.0	20127.3	19767.7	19478.9
30°	19687.8	19632.5	19223.8	18529.4	18126.8
32.5°	19021.0	18824.4	18089.9	17131.2	16765.5
35°	18231.3	17819.5	16728.7	15588.6	15281.3
37.5°	17232.6	16479.8	15287.5	14098.3	13634.3
40°	15822.2	14952.6	13846.3	12617.2	12104.0
42.5°	13846.3	13523.7	12608.0	11225.2	10613.7
45°	11394.2	12245.4	11424.9	10085.1	9246.2
47.5°	9753.3	10936.3	9949.9	8982.0	7826.6
50°	8459.6	9273.9	8579.4	7706.7	6788.0
52.5°	7525.4	7771.3	7491.6	6532.9	6010.5
55°	6763.4	6579.0	6508.3	5592.6	5322.2
57.5°	5816.9	5715.5	5534.2	4876.6	4520.2
60°	4719.9	4935.0	4467.9	4280.5	3712.0
62.5°	3878.0	4090.0	3589.1	3576.8	3103.6
65°	3343.3	3294.1	3060.6	2977.6	2774.8
67.5°	2959.2	2805.5	2725.6	2618.1	2547.4
70°	2568.9	2504.4	2360.0	2381.5	2286.2
72.5°	2141.8	2224.8	2080.3	2120.3	1948.2
75°	1763.8	1908.2	1896.0	1819.1	1668.6
77.5°	1453.5	1607.1	1634.8	1564.1	1441.2
80°	1189.2	1293.7	1299.8	1256.8	1180.0
82.5°	872.7	934.2	980.2	906.5	857.3
85°	519.3	590.0	608.4	531.6	494.7
87.5°	169.0	236.6	264.3	273.5	276.6
90°	3.1	43.0	86.0	101.4	107.6
92.5°	3.1	12.3	18.4	27.7	30.7
95°	3.1	6.1	9.2	9.2	6.1
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)