

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: P860235

Luminaire Tested: **SPHB-60SE-M-L835-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: P860235  
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-L835-CD  
Description: 60000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens  
and, 3500K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

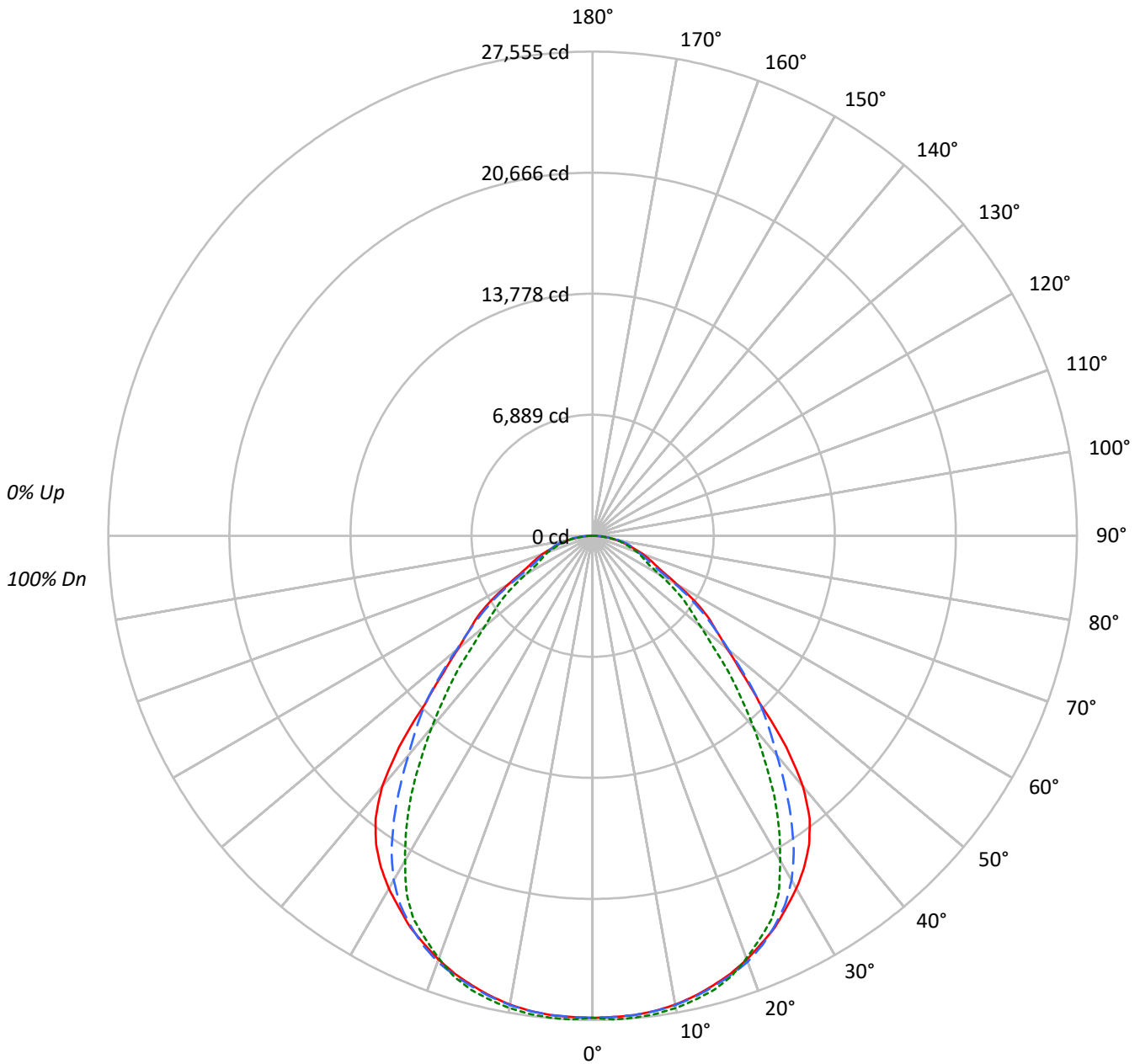
Lumens per Lamp: N/A  
Luminaire Lumens: 56939.0 lumens  
Efficiency: N/A  
Efficacy: 151.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')  
CIE Type: Direct

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									
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	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°	87360	87360	87360
5°	87532	87509	88006
10°	87608	87702	88240
15°	87353	87579	88187
20°	86971	87412	86713
25°	86335	86094	84631
30°	85242	83233	78483
35°	83453	76574	69949
40°	77446	67775	59246
45°	60421	60583	49030
50°	49348	50047	39597
55°	44214	42547	34793
60°	35395	33506	27837
65°	29662	27155	24619
70°	28163	25873	25064
75°	25554	27467	24173
80°	25679	28067	25479
85°	22344	26177	21284



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2608.3	4.6
10°-20°	7501.5	13.2
20°-30°	11198.5	19.7
30°-40°	12219.4	21.5
40°-50°	9996.0	17.6
50°-60°	6572.4	11.5
60°-70°	3770.7	6.6
70°-80°	2285.0	4.0
80°-90°	767.3	1.3
90°-100°	19.9	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°	21308.2	37.4
0°-40°	33527.7	58.9
0°-60°	50096.1	88.0
0°-90°	56919.1	100.0
90°-120°	19.9	0.0
90°-150°	19.9	0.0
90°-180°	20.0	0.0
0°-180°	56939.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	27432	27432	27432	27432	27432	
5°	27382	27338	27374	27486	27530	###
15°	26495	26491	26564	26734	26748	7479
25°	24570	24628	24502	24205	24085	11303
35°	21466	20981	19697	18354	17993	13304
45°	13416	14418	13452	11874	10887	10649
55°	7963	7746	7663	6585	6266	7013
65°	3936	3879	3604	3506	3267	4024
75°	2077	2247	2232	2142	1965	2248
85°	612	695	716	626	582	663
90°	4	51	101	119	127	29
95°	4	7	11	11	7	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°	27432.1	27432.1	27432.1	27432.1	27432.1
2.5°	27414.0	27374.2	27410.4	27522.6	27555.1
5°	27381.5	27338.1	27374.2	27486.4	27529.8
7.5°	27269.3	27244.0	27280.2	27392.3	27446.6
10°	27092.0	27063.1	27121.0	27218.7	27287.4
12.5°	26827.9	26817.1	26871.3	27012.4	27041.4
15°	26495.1	26491.4	26563.8	26733.8	26748.3
17.5°	26118.8	26115.2	26205.6	26317.8	26278.0
20°	25662.9	25688.2	25793.2	25688.2	25586.9
22.5°	25116.6	25196.2	25221.5	24892.3	24841.6
25°	24570.2	24628.1	24501.5	24204.8	24085.4
27.5°	23864.7	23933.5	23698.3	23275.0	22934.9
30°	23180.9	23115.8	22634.6	21816.9	21342.9
32.5°	22395.8	22164.2	21299.5	20170.7	19740.1
35°	21466.0	20981.1	19696.7	18354.4	17992.6
37.5°	20290.1	19403.7	17999.8	16599.7	16053.3
40°	18629.4	17605.5	16303.0	14855.8	14251.5
42.5°	16303.0	15923.1	14844.9	13216.8	12496.8
45°	13415.8	14418.0	13451.9	11874.5	10886.7
47.5°	11483.7	12876.7	11715.3	10575.6	9215.2
50°	9960.5	10919.3	10101.6	9074.1	7992.3
52.5°	8860.6	9150.1	8820.8	7692.0	7076.9
55°	7963.4	7746.3	7663.1	6584.9	6266.5
57.5°	6849.0	6729.6	6516.1	5741.9	5322.2
60°	5557.3	5810.6	5260.7	5040.0	4370.6
62.5°	4566.0	4815.6	4225.9	4211.4	3654.2
65°	3936.4	3878.6	3603.6	3505.9	3267.1
67.5°	3484.2	3303.3	3209.2	3082.6	2999.4
70°	3024.7	2948.7	2778.7	2804.0	2691.8
72.5°	2521.8	2619.5	2449.4	2496.5	2293.9
75°	2076.8	2246.8	2232.3	2141.9	1964.6
77.5°	1711.3	1892.2	1924.8	1841.6	1696.9
80°	1400.2	1523.2	1530.4	1479.8	1389.3
82.5°	1027.5	1099.9	1154.2	1067.3	1009.4
85°	611.5	694.7	716.4	625.9	582.5
87.5°	199.0	278.6	311.2	322.0	325.6
90°	3.6	50.7	101.3	119.4	126.6
92.5°	3.6	14.5	21.7	32.6	36.2
95°	3.6	7.2	10.9	10.9	7.2
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)