

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: P860244

Luminaire Tested: **SPHB-60SE-N-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: P860244  
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-L835-CD  
Description: 60000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens  
and, 3500K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

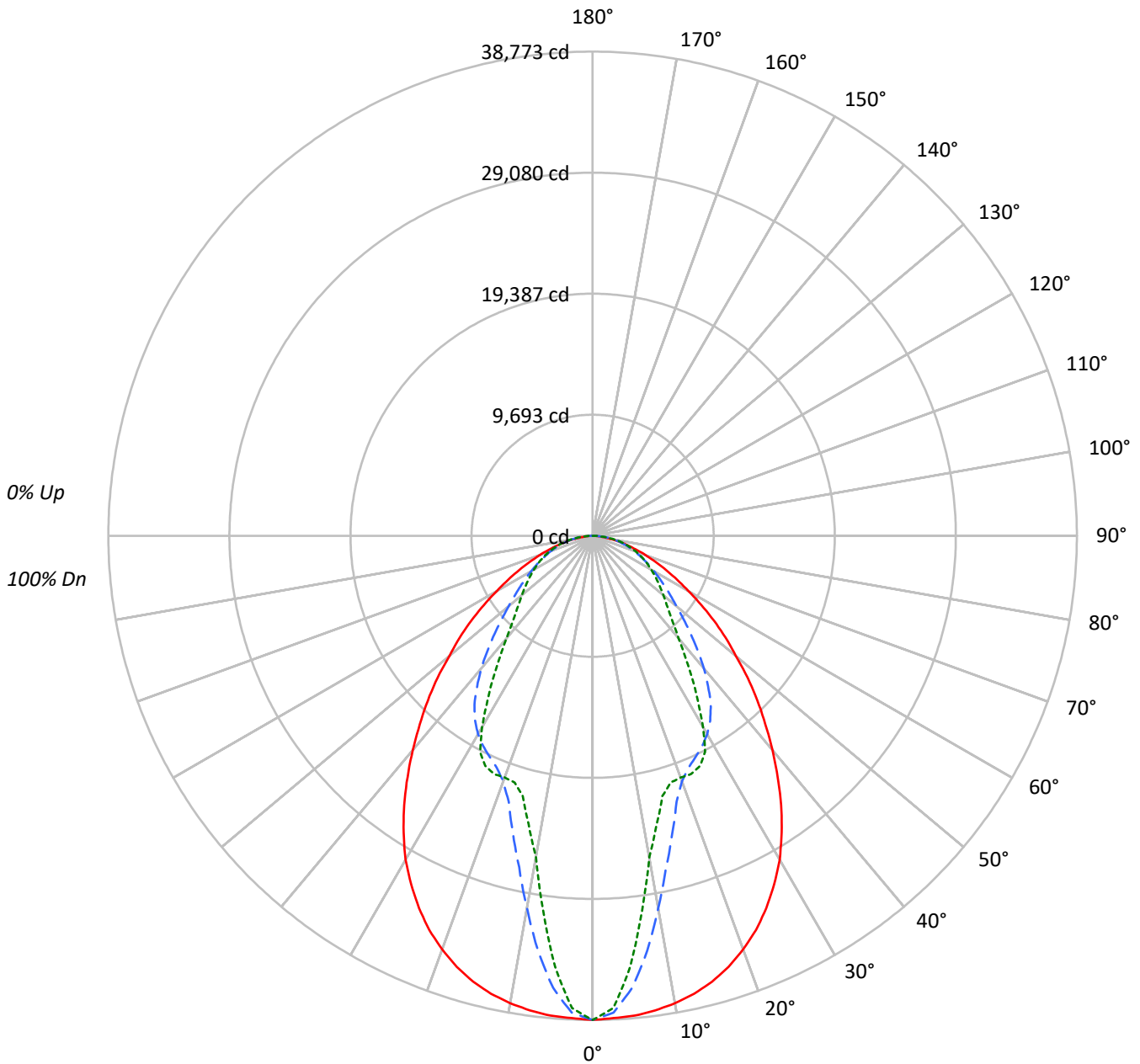
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 56825.0 lumens  
Efficiency: N/A  
Efficacy: 151.1 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 (Ain): 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°	123475	123475	123475
5°	123332	116178	110681
10°	122910	97928	84423
15°	121888	81291	71142
20°	119432	70861	69838
25°	115594	68562	71474
30°	110130	67462	65046
35°	102255	64108	53901
40°	93113	57551	44508
45°	84051	49937	39073
50°	74174	43422	36588
55°	65819	39163	35218
60°	56407	36216	34500
65°	48825	34037	34327
70°	41782	32742	34285
75°	35073	31796	33981
80°	26763	30724	33277
85°	17520	27254	25632



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	3305.7	5.8
10°-20°	7590.3	13.4
20°-30°	10258.0	18.1
30°-40°	10795.9	19.0
40°-50°	9160.8	16.1
50°-60°	7096.3	12.5
60°-70°	4942.3	8.7
70°-80°	2830.1	5.0
80°-90°	823.6	1.4
90°-100°	22.0	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°	21154.0	37.2
0°-40°	31949.9	56.2
0°-60°	48207.0	84.8
0°-90°	56803.0	100.0
90°-120°	22.0	0.0
90°-150°	22.0	0.0
90°-180°	22.0	0.0
0°-180°	56825.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	38773	38773	38773	38773	38773	
5°	38580	37873	36342	34948	34623	###
15°	36970	31379	24657	22194	21578	10403
25°	32897	23239	19512	20078	20341	15102
35°	26302	17872	16490	14895	13864	16395
45°	18663	13420	11088	9111	8676	14374
55°	11855	9040	7054	6411	6343	10599
65°	6479	5304	4517	4517	4555	6472
75°	2850	2534	2584	2747	2762	3039
85°	480	622	746	702	702	609
90°	3	56	110	139	145	26
95°	3	9	18	18	15	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-N-L835-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	38772.7	38772.7	38772.7	38772.7	38772.7
2.5°	38660.2	38532.9	38222.1	38020.8	37864.0
5°	38580.3	37872.8	36342.5	34948.4	34622.8
7.5°	38340.5	36786.5	33515.8	30937.6	30286.4
10°	38009.0	35226.6	30283.5	27054.1	26107.0
12.5°	37568.0	33560.2	27187.3	24144.5	23679.8
15°	36970.1	31378.7	24656.6	22193.9	21578.2
17.5°	36194.5	29123.2	22321.2	20897.4	20725.7
20°	35241.4	27054.1	20909.2	20423.8	20607.3
22.5°	34169.9	25044.3	20089.3	20293.6	20636.9
25°	32897.1	23238.7	19512.1	20077.5	20340.9
27.5°	31467.5	21607.8	18982.3	19500.3	19500.3
30°	29949.0	20249.2	18345.9	18298.6	17688.8
32.5°	28176.0	19094.8	17514.2	16575.8	15670.1
35°	26302.3	17872.3	16490.0	14894.6	13864.5
37.5°	24336.9	16735.7	15193.5	13089.0	12130.0
40°	22398.1	15613.9	13843.8	11466.9	10706.2
42.5°	20468.2	14471.3	12437.8	10152.7	9551.8
45°	18662.6	13420.5	11088.1	9110.8	8675.7
47.5°	16827.4	12304.6	9841.9	8273.1	7971.2
50°	14971.5	11173.9	8764.5	7607.1	7385.1
52.5°	13408.7	10120.1	7849.8	6976.7	6843.5
55°	11854.7	9039.8	7053.6	6411.3	6343.2
57.5°	10312.5	8033.4	6325.5	5893.3	5878.5
60°	8856.2	7092.1	5686.1	5449.3	5416.7
62.5°	7616.0	6156.7	5079.3	4966.8	4981.6
65°	6479.4	5304.3	4516.9	4516.9	4555.4
67.5°	5425.6	4519.9	4001.9	4070.0	4123.2
70°	4487.3	3809.5	3516.4	3634.8	3682.2
72.5°	3599.3	3149.4	3051.7	3182.0	3220.5
75°	2850.5	2533.7	2584.1	2746.9	2761.7
77.5°	2113.4	1995.0	2125.3	2302.9	2335.4
80°	1459.3	1471.1	1675.3	1799.7	1814.5
82.5°	941.3	1027.1	1255.0	1320.1	1296.5
85°	479.5	621.6	745.9	701.5	701.5
87.5°	183.5	269.4	316.7	373.0	393.7
90°	3.0	56.2	109.5	139.1	145.0
92.5°	3.0	14.8	23.7	26.6	23.7
95°	3.0	8.9	17.8	17.8	14.8
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)