

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: P860241

Luminaire Tested: **SPHB-60SE-N-L735-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: P860241
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-L735-CD
Description: 60000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 3500K 70CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

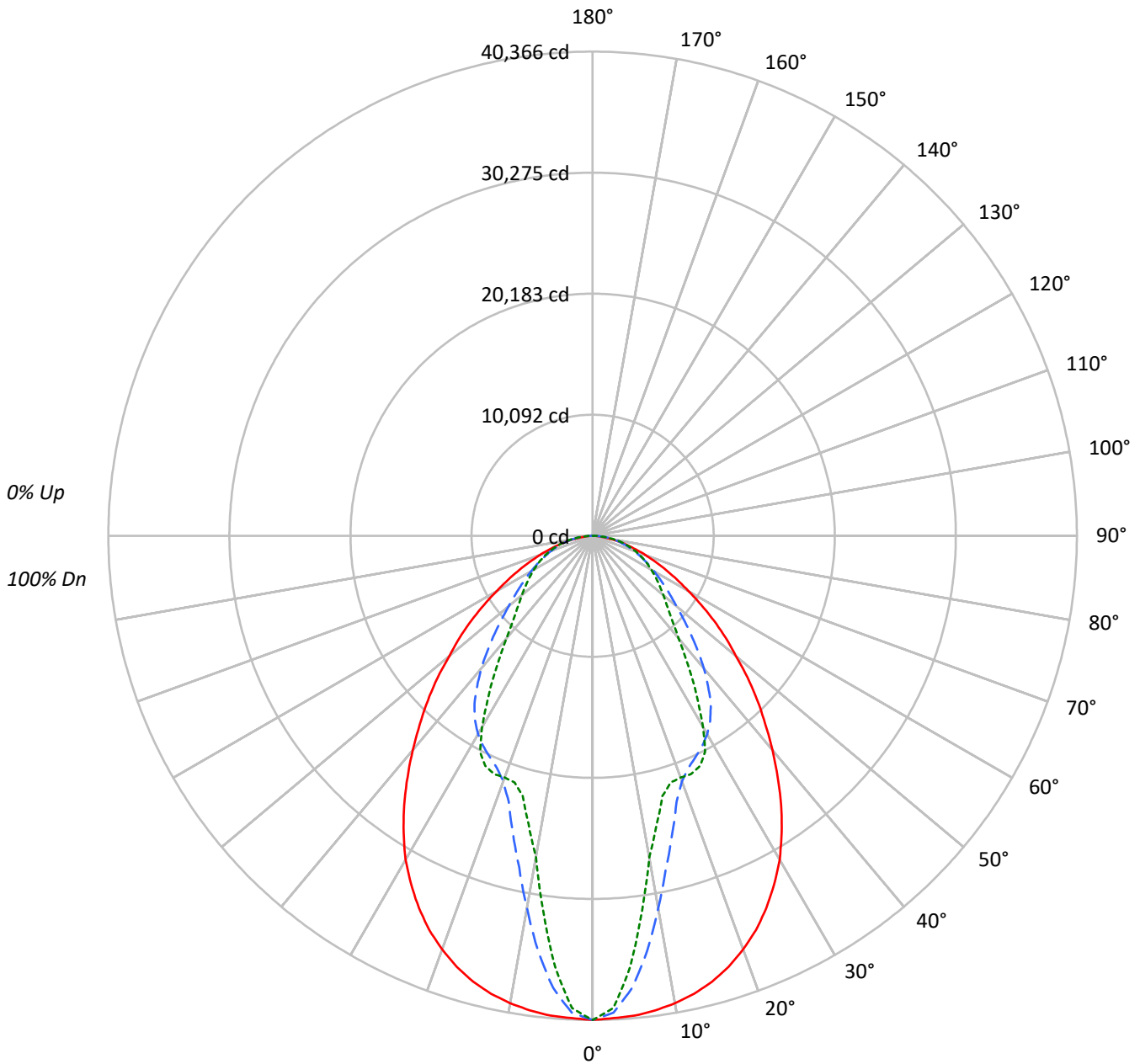
Lumens per Lamp: N/A
Luminaire Lumens: 59160.0 lumens
Efficiency: N/A
Efficacy: 157.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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	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°	128549	128549	128549
5°	128400	120952	115229
10°	127961	101952	87891
15°	126896	84631	74065
20°	124340	73772	72707
25°	120344	71379	74411
30°	114655	70235	67719
35°	106456	66742	56115
40°	96939	59916	46337
45°	87504	51989	40678
50°	77222	45206	38092
55°	68524	40772	36666
60°	58725	37704	35918
65°	50831	35435	35737
70°	43499	34087	35694
75°	36514	33101	35376
80°	27861	31987	34643
85°	18240	28376	26684



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3441.5	5.8
10°-20°	7902.2	13.4
20°-30°	10679.5	18.1
30°-40°	11239.6	19.0
40°-50°	9537.2	16.1
50°-60°	7387.9	12.5
60°-70°	5145.4	8.7
70°-80°	2946.4	5.0
80°-90°	857.4	1.4
90°-100°	22.9	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°	22023.2	37.2
0°-40°	33262.8	56.2
0°-60°	50187.9	84.8
0°-90°	59137.1	100.0
90°-120°	22.9	0.0
90°-150°	22.9	0.0
90°-180°	23.0	0.0
0°-180°	59160.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	40366	40366	40366	40366	40366	
5°	40166	39429	37836	36384	36046	###
15°	38489	32668	25670	23106	22465	10830
25°	34249	24194	20314	20902	21177	15722
35°	27383	18607	17168	15507	14434	17069
45°	19430	13972	11544	9485	9032	14965
55°	12342	9411	7344	6675	6604	11034
65°	6746	5522	4702	4702	4743	6738
75°	2968	2638	2690	2860	2875	3164
85°	499	647	777	730	730	635
90°	3	59	114	145	151	27
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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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	40365.9	40365.9	40365.9	40365.9	40365.9
2.5°	40248.8	40116.3	39792.7	39583.2	39419.8
5°	40165.6	39429.1	37835.9	36384.5	36045.5
7.5°	39916.0	38298.1	34893.0	32208.9	31530.9
10°	39570.8	36674.1	31527.9	28165.8	27179.7
12.5°	39111.7	34939.2	28304.5	25136.6	24652.8
15°	38489.2	32668.1	25669.7	23105.8	22464.9
17.5°	37681.8	30319.9	23238.4	21756.1	21577.4
20°	36689.5	28165.8	21768.4	21263.0	21454.1
22.5°	35574.0	26073.4	20914.8	21127.5	21484.9
25°	34248.9	24193.6	20313.9	20902.5	21176.8
27.5°	32760.5	22495.7	19762.3	20301.6	20301.6
30°	31179.6	21081.2	19099.8	19050.5	18415.6
32.5°	29333.8	19879.4	18233.8	17257.0	16314.0
35°	27383.1	18606.7	17167.6	15506.6	14434.2
37.5°	25336.9	17423.4	15817.9	13626.8	12628.4
40°	23318.5	16255.4	14412.6	11938.1	11146.2
42.5°	21309.3	15065.9	12948.9	10569.9	9944.3
45°	19429.5	13972.0	11543.7	9485.2	9032.2
47.5°	17518.9	12810.2	10246.3	8613.1	8298.8
50°	15586.7	11633.0	9124.6	7919.7	7688.6
52.5°	13959.7	10536.0	8172.4	7263.3	7124.7
55°	12341.8	9411.2	7343.5	6674.7	6603.9
57.5°	10736.3	8363.5	6585.4	6135.5	6120.1
60°	9220.2	7383.5	5919.8	5673.2	5639.3
62.5°	7929.0	6409.7	5288.0	5170.9	5186.3
65°	6745.6	5522.2	4702.5	4702.5	4742.6
67.5°	5648.6	4705.6	4166.3	4237.2	4292.7
70°	4671.7	3966.0	3660.9	3784.2	3833.5
72.5°	3747.2	3278.8	3177.1	3312.7	3352.8
75°	2967.6	2637.9	2690.2	2859.7	2875.1
77.5°	2200.3	2077.0	2212.6	2397.5	2431.4
80°	1519.2	1531.6	1744.2	1873.6	1889.0
82.5°	979.9	1069.3	1306.6	1374.4	1349.7
85°	499.2	647.1	776.6	730.3	730.3
87.5°	191.1	280.4	329.7	388.3	409.9
90°	3.1	58.6	114.0	144.8	151.0
92.5°	3.1	15.4	24.7	27.7	24.7
95°	3.1	9.2	18.5	18.5	15.4
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)