

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: P860219

Luminaire Tested: **SPHB-60HE-N-L850-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: P860219
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-60HE-N-L850-CD
Description: 60000 Lumen High Efficacy Select Pro High Bay with Narrow Lens and, 5000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

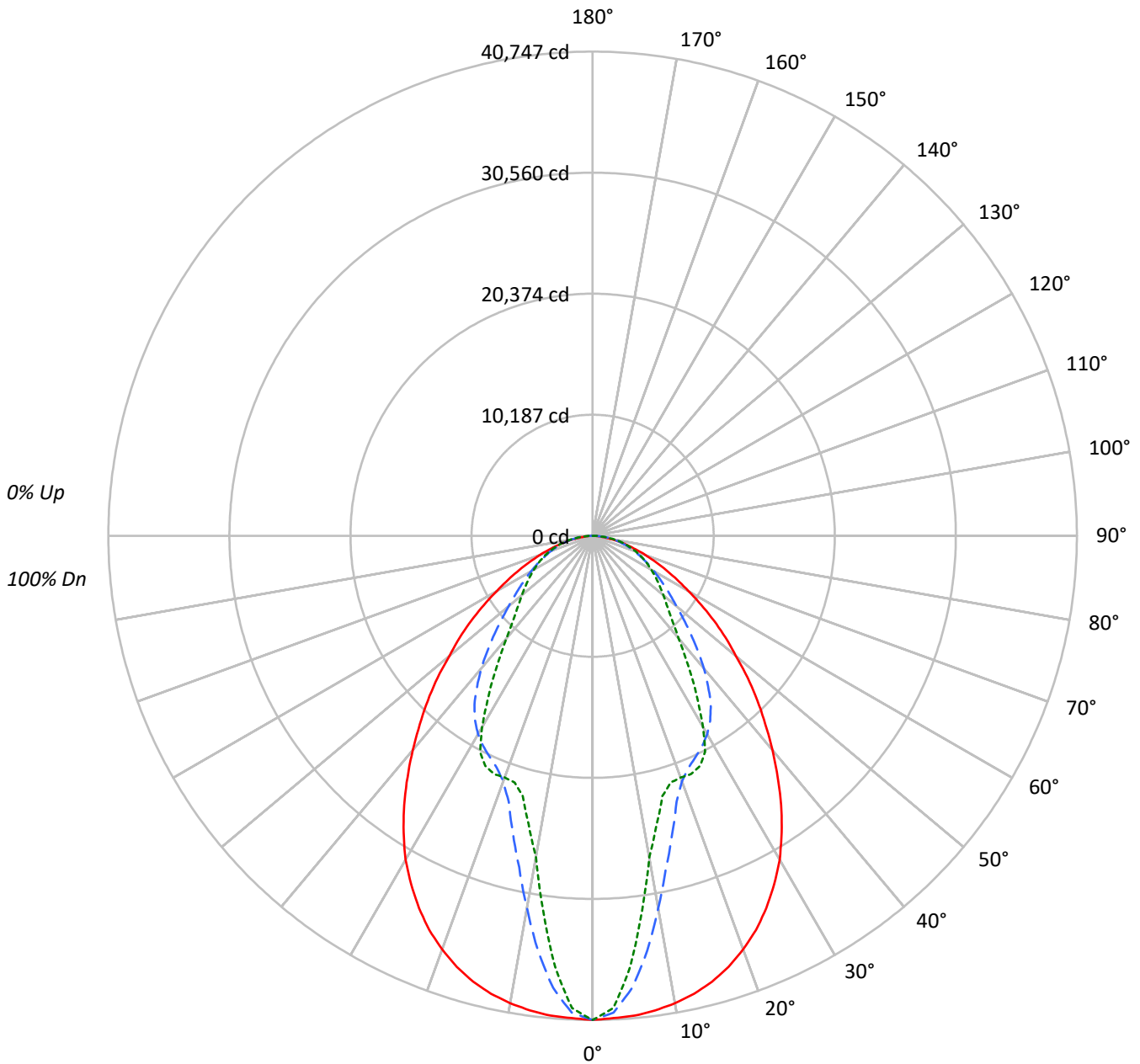
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 59718.0 lumens
Efficiency: N/A
Efficacy: 164.5 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): 363
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									
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	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°	129761	129761	129761
5°	129611	122093	116316
10°	129168	102914	88721
15°	128093	85430	74764
20°	125513	74469	73393
25°	121479	72052	75113
30°	115737	70897	68357
35°	107461	67371	56645
40°	97854	60481	46774
45°	88330	52480	41062
50°	77951	45633	38451
55°	69170	41157	37012
60°	59279	38060	36257
65°	51310	35770	36074
70°	43909	34409	36031
75°	36859	33414	35711
80°	28125	32288	34969
85°	18412	28643	26937



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3474.0	5.8
10°-20°	7976.8	13.4
20°-30°	10780.2	18.1
30°-40°	11345.6	19.0
40°-50°	9627.1	16.1
50°-60°	7457.6	12.5
60°-70°	5194.0	8.7
70°-80°	2974.2	5.0
80°-90°	865.5	1.4
90°-100°	23.1	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°	22231.0	37.2
0°-40°	33576.5	56.2
0°-60°	50661.3	84.8
0°-90°	59694.9	100.0
90°-120°	23.1	0.0
90°-150°	23.1	0.0
90°-180°	23.0	0.0
0°-180°	59718.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	40747	40747	40747	40747	40747	
5°	40544	39801	38193	36728	36386	###
15°	38852	32976	25912	23324	22677	10933
25°	34572	24422	20506	21100	21376	15870
35°	27641	18782	17330	15653	14570	17230
45°	19613	14104	11653	9575	9117	15106
55°	12458	9500	7413	6738	6666	11138
65°	6809	5574	4747	4747	4787	6802
75°	2996	2663	2716	2887	2902	3194
85°	504	653	784	737	737	641
90°	3	59	115	146	152	28
95°	3	9	19	19	16	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°	40746.6	40746.6	40746.6	40746.6	40746.6
2.5°	40628.4	40494.7	40168.0	39956.5	39791.6
5°	40544.4	39801.0	38192.8	36727.6	36385.5
7.5°	40292.5	38659.4	35222.1	32512.7	31828.3
10°	39944.1	37020.0	31825.2	28431.5	27436.1
12.5°	39480.6	35268.7	28571.5	25373.7	24885.3
15°	38852.2	32976.2	25911.9	23323.8	22676.8
17.5°	38037.2	30605.9	23457.5	21961.3	21780.9
20°	37035.6	28431.5	21973.8	21463.6	21656.5
22.5°	35909.5	26319.4	21112.1	21326.7	21687.6
25°	34572.0	24421.8	20505.5	21099.7	21376.5
27.5°	33069.5	22707.9	19948.7	20493.1	20493.1
30°	31473.7	21280.1	19279.9	19230.1	18589.3
32.5°	29610.4	20066.9	18405.8	17419.7	16467.9
35°	27641.4	18782.2	17329.5	15652.9	14570.4
37.5°	25575.9	17587.7	15967.1	13755.4	12747.5
40°	23538.4	16408.8	14548.6	12050.7	11251.3
42.5°	21510.3	15208.0	13071.0	10669.6	10038.1
45°	19612.8	14103.8	11652.6	9574.6	9117.4
47.5°	17684.1	12931.0	10343.0	8694.3	8377.0
50°	15733.8	11742.8	9210.7	7994.4	7761.1
52.5°	14091.3	10635.4	8249.5	7331.8	7191.9
55°	12458.2	9500.0	7412.7	6737.7	6666.2
57.5°	10837.6	8442.3	6647.5	6193.3	6177.8
60°	9307.1	7453.2	5975.6	5726.7	5692.5
62.5°	8003.7	6470.2	5337.9	5219.7	5235.3
65°	6809.2	5574.3	4746.9	4746.9	4787.3
67.5°	5701.9	4750.0	4205.6	4277.2	4333.2
70°	4715.8	4003.4	3695.5	3819.9	3869.7
72.5°	3782.6	3309.7	3207.1	3344.0	3384.4
75°	2995.6	2662.7	2715.6	2886.7	2902.3
77.5°	2221.0	2096.6	2233.5	2420.1	2454.3
80°	1533.6	1546.0	1760.6	1891.3	1906.8
82.5°	989.2	1079.4	1318.9	1387.4	1362.5
85°	503.9	653.2	783.9	737.2	737.2
87.5°	192.9	283.1	332.8	391.9	413.7
90°	3.1	59.1	115.1	146.2	152.4
92.5°	3.1	15.6	24.9	28.0	24.9
95°	3.1	9.3	18.7	18.7	15.6
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)