

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: P860217

Luminaire Tested: **SPHB-60HE-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: P860217
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-L835-CD
Description: 60000 Lumen High Efficacy Select Pro High Bay with Narrow Lens and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

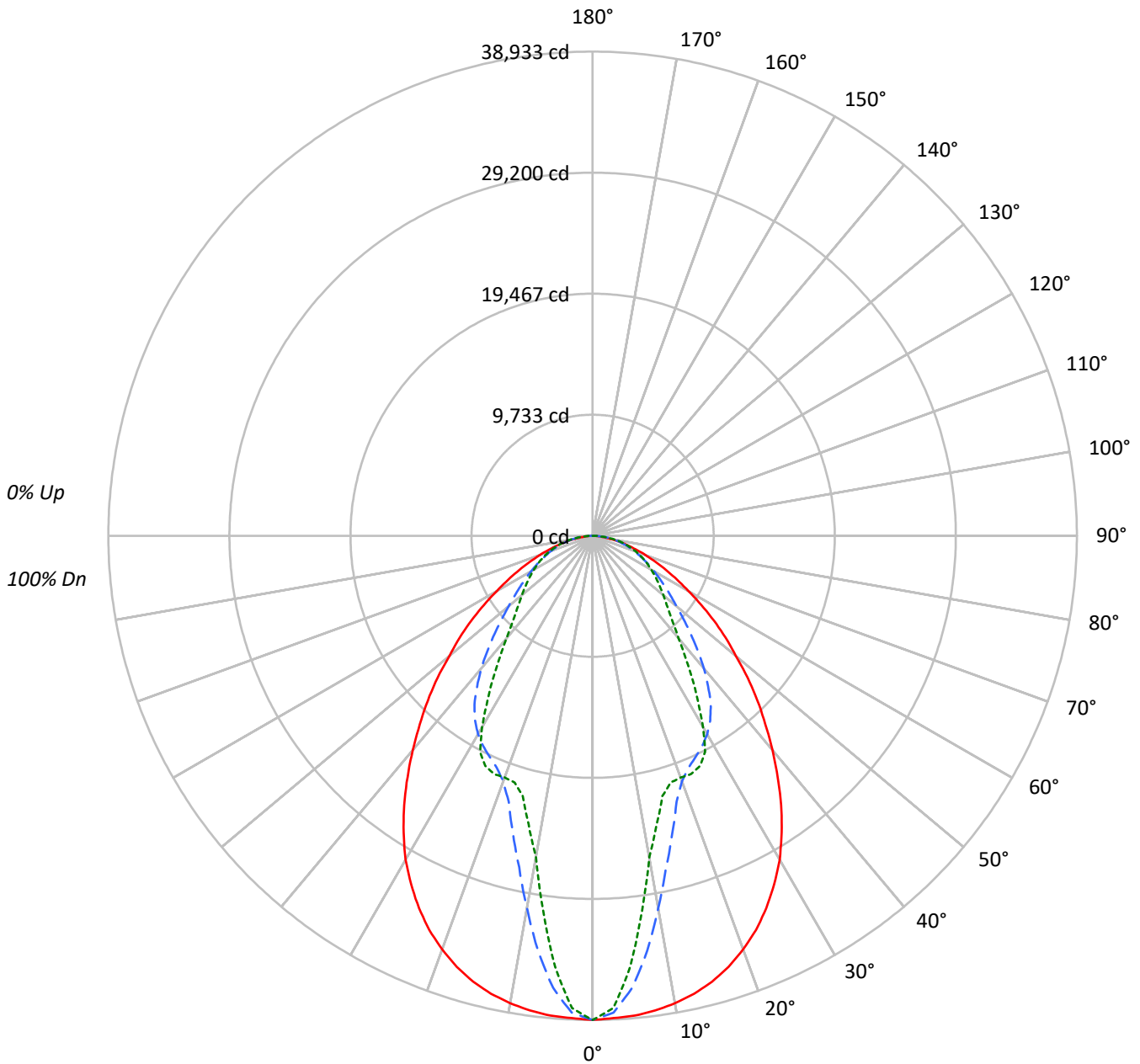
Lumens per Lamp: N/A
Luminaire Lumens: 57060.0 lumens
Efficiency: N/A
Efficacy: 157.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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					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°	123986	123986	123986
5°	123842	116659	111138
10°	123419	98333	84772
15°	122392	81627	71436
20°	119926	71154	70127
25°	116072	68845	71770
30°	110586	67742	65315
35°	102678	64373	54123
40°	93498	57789	44692
45°	84398	50144	39234
50°	74481	43602	36740
55°	66091	39325	35365
60°	56640	36365	34643
65°	49027	34177	34468
70°	41955	32878	34427
75°	35217	31926	34121
80°	26873	30852	33414
85°	17594	27368	25738



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3319.4	5.8
10°-20°	7621.7	13.4
20°-30°	10300.4	18.1
30°-40°	10840.6	19.0
40°-50°	9198.6	16.1
50°-60°	7125.6	12.5
60°-70°	4962.8	8.7
70°-80°	2841.8	5.0
80°-90°	827.0	1.4
90°-100°	22.1	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°	21241.5	37.2
0°-40°	32082.1	56.2
0°-60°	48406.3	84.8
0°-90°	57037.9	100.0
90°-120°	22.1	0.0
90°-150°	22.1	0.0
90°-180°	22.0	0.0
0°-180°	57060.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	38933	38933	38933	38933	38933	
5°	38740	38030	36493	35093	34766	###
15°	37123	31508	24758	22286	21667	10446
25°	33033	23335	19593	20160	20425	15164
35°	26411	17946	16558	14956	13922	16463
45°	18740	13476	11134	9148	8712	14433
55°	11904	9077	7083	6438	6370	10643
65°	6506	5326	4536	4536	4574	6499
75°	2862	2544	2595	2758	2773	3052
85°	482	624	749	704	704	612
90°	3	56	110	140	146	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



TEST NUMBER: P860217

CATALOG NUMBER: SPHB-60HE-N-L835-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	38933.0	38933.0	38933.0	38933.0	38933.0
2.5°	38820.1	38692.3	38380.2	38178.1	38020.6
5°	38739.8	38029.5	36492.8	35092.9	34766.0
7.5°	38499.1	36938.7	33654.4	31065.6	30411.7
10°	38166.2	35372.3	30408.7	27166.0	26214.9
12.5°	37723.3	33699.0	27299.8	24244.3	23777.7
15°	37122.9	31508.4	24758.5	22285.7	21667.4
17.5°	36344.2	29243.6	22413.5	20983.8	20811.4
20°	35387.2	27166.0	20995.7	20508.3	20692.6
22.5°	34311.2	25147.9	20172.4	20377.5	20722.3
25°	33033.2	23334.8	19592.8	20160.5	20425.1
27.5°	31597.6	21697.2	19060.8	19580.9	19580.9
30°	30072.9	20332.9	18421.8	18374.2	17761.9
32.5°	28292.5	19173.7	17586.6	16644.4	15734.9
35°	26411.1	17946.2	16558.2	14956.2	13921.8
37.5°	24437.5	16804.9	15256.4	13143.1	12180.1
40°	22490.7	15678.4	13901.0	11514.4	10750.5
42.5°	20552.9	14531.2	12489.2	10194.7	9591.3
45°	18739.8	13476.0	11133.9	9148.5	8711.6
47.5°	16897.0	12355.5	9882.6	8307.3	8004.2
50°	15033.5	11220.1	8800.7	7638.6	7415.7
52.5°	13464.1	10162.0	7882.3	7005.5	6871.8
55°	11903.7	9077.1	7082.8	6437.8	6369.5
57.5°	10355.2	8066.6	6351.6	5917.7	5902.8
60°	8892.9	7121.4	5709.6	5471.8	5439.2
62.5°	7647.5	6182.2	5100.3	4987.4	5002.2
65°	6506.2	5326.2	4535.6	4535.6	4574.2
67.5°	5448.1	4538.6	4018.4	4086.8	4140.3
70°	4505.9	3825.2	3531.0	3649.9	3697.4
72.5°	3614.2	3162.4	3064.4	3195.1	3233.8
75°	2862.2	2544.2	2594.7	2758.2	2773.1
77.5°	2122.2	2003.3	2134.0	2312.4	2345.1
80°	1465.3	1477.2	1682.3	1807.1	1822.0
82.5°	945.2	1031.4	1260.2	1325.6	1301.8
85°	481.5	624.2	749.0	704.4	704.4
87.5°	184.3	270.5	318.0	374.5	395.3
90°	3.0	56.5	110.0	139.7	145.6
92.5°	3.0	14.9	23.8	26.7	23.8
95°	3.0	8.9	17.8	17.8	14.9
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)