

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: P860228

Luminaire Tested: **SPHB-60HE-W-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: P860228
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-60HE-W-L850-CD
Description: 60000 Lumen High Efficacy Select Pro High Bay with Wide Lens and, 5000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

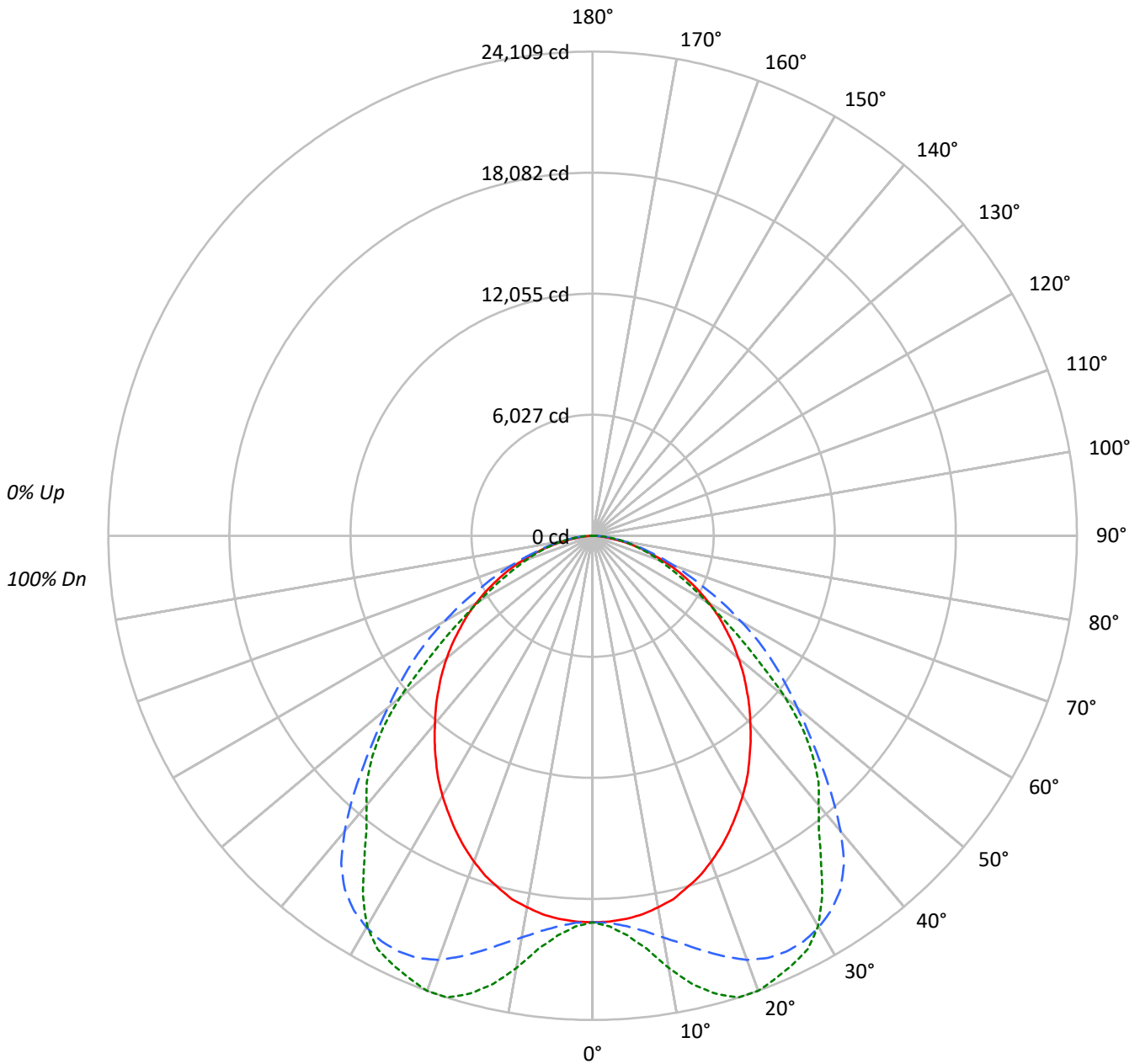
Lumens per Lamp: N/A
Luminaire Lumens: 60556.0 lumens
Efficiency: N/A
Efficacy: 166.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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			100
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85			85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72			72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62			62
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53			53
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46			46
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40			40
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36			36
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32			32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29			29
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26			26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	61289	61289	61289
5°	61223	62378	63857
10°	60739	65670	70648
15°	59790	70560	77819
20°	58496	76171	81706
25°	56807	80280	82777
30°	54958	82792	82553
35°	52896	83624	77031
40°	50765	79848	72757
45°	48844	72377	69805
50°	46940	65810	61883
55°	44794	60804	50358
60°	42578	54208	41474
65°	39646	46580	35961
70°	36068	39770	32525
75°	30975	33375	29819
80°	24210	28628	27656
85°	16373	24295	22797



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1889.6	3.1
10°-20°	5991.7	9.9
20°-30°	9805.7	16.2
30°-40°	11962.3	19.8
40°-50°	11847.4	19.6
50°-60°	9474.0	15.6
60°-70°	5910.2	9.8
70°-80°	2895.7	4.8
80°-90°	759.5	1.3
90°-100°	20.0	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°	17687.0	29.2
0°-40°	29649.2	49.0
0°-60°	50970.6	84.2
0°-90°	60536.0	100.0
90°-120°	20.0	0.0
90°-150°	20.0	0.0
90°-180°	20.0	0.0
0°-180°	60556.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	19246	19246	19246	19246	19246	
5°	19152	19236	19513	19853	19976	###
15°	18135	19190	21402	23105	23604	5112
25°	16167	18904	22847	23510	23558	7440
35°	13606	18181	21510	20361	19814	8511
45°	10845	16849	16070	15531	15500	8377
55°	8068	12936	10951	9894	9070	7228
65°	5261	7258	6182	5126	4772	5217
75°	2517	3084	2712	2484	2424	2672
85°	448	636	665	631	624	555
90°	2	65	118	149	154	26
95°	2	10	10	7	5	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°	19245.6	19245.6	19245.6	19245.6	19245.6
2.5°	19226.3	19219.1	19289.0	19416.6	19474.5
5°	19151.6	19236.0	19513.0	19852.7	19975.5
7.5°	19016.7	19243.2	19855.1	20479.0	20744.0
10°	18783.1	19248.0	20308.0	21408.9	21847.3
12.5°	18542.2	19231.1	20811.5	22370.1	22849.5
15°	18135.0	19190.2	21401.7	23104.8	23603.5
17.5°	17756.8	19142.0	21970.2	23728.8	24107.0
20°	17260.6	19072.2	22476.1	23919.1	24109.4
22.5°	16740.2	19016.7	22755.5	23791.4	23849.2
25°	16166.9	18903.5	22847.1	23509.6	23557.7
27.5°	15555.0	18802.3	22760.3	23160.2	23201.2
30°	14945.5	18619.3	22514.6	22615.8	22449.6
32.5°	14307.1	18436.2	22117.1	21661.8	21274.0
35°	13606.1	18180.8	21510.1	20361.0	19814.1
37.5°	12914.7	17935.1	20563.3	18905.9	18494.0
40°	12211.3	17631.6	19207.1	17547.2	17501.5
42.5°	11546.4	17303.9	17672.5	16489.7	16643.9
45°	10845.4	16848.6	16070.5	15530.9	15499.6
47.5°	10180.5	16219.9	14613.1	14470.9	14150.5
50°	9474.6	15352.6	13283.3	13148.4	12490.7
52.5°	8783.3	14246.9	12095.7	11589.8	10631.0
55°	8067.8	12936.4	10951.4	9893.8	9069.9
57.5°	7402.9	11495.8	9787.8	8417.1	7677.5
60°	6685.0	10035.9	8511.0	7121.0	6511.6
62.5°	5981.6	8597.8	7354.7	6017.7	5613.0
65°	5261.3	7258.4	6181.5	5126.4	4772.3
67.5°	4572.3	6099.6	5167.3	4321.8	4085.7
70°	3873.7	4948.1	4271.2	3630.4	3493.1
72.5°	3153.4	3953.2	3454.5	3064.3	2960.7
75°	2517.4	3083.5	2712.5	2483.7	2423.5
77.5°	1874.2	2293.4	2119.9	1985.0	1968.2
80°	1320.1	1655.0	1561.0	1534.5	1508.0
82.5°	843.2	1081.6	1110.6	1093.7	1074.4
85°	448.1	636.0	664.9	631.2	623.9
87.5°	180.7	277.0	298.7	330.0	339.7
90°	2.4	65.0	118.0	149.4	154.2
92.5°	2.4	14.5	16.9	16.9	14.5
95°	2.4	9.6	9.6	7.2	4.8
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)