

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: P860208

Luminaire Tested: **SPHB-60HE-M-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: P860208
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-60HE-M-L835-CD
Description: 60000 Lumen High Efficacy Select Pro High Bay with Medium Lens and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

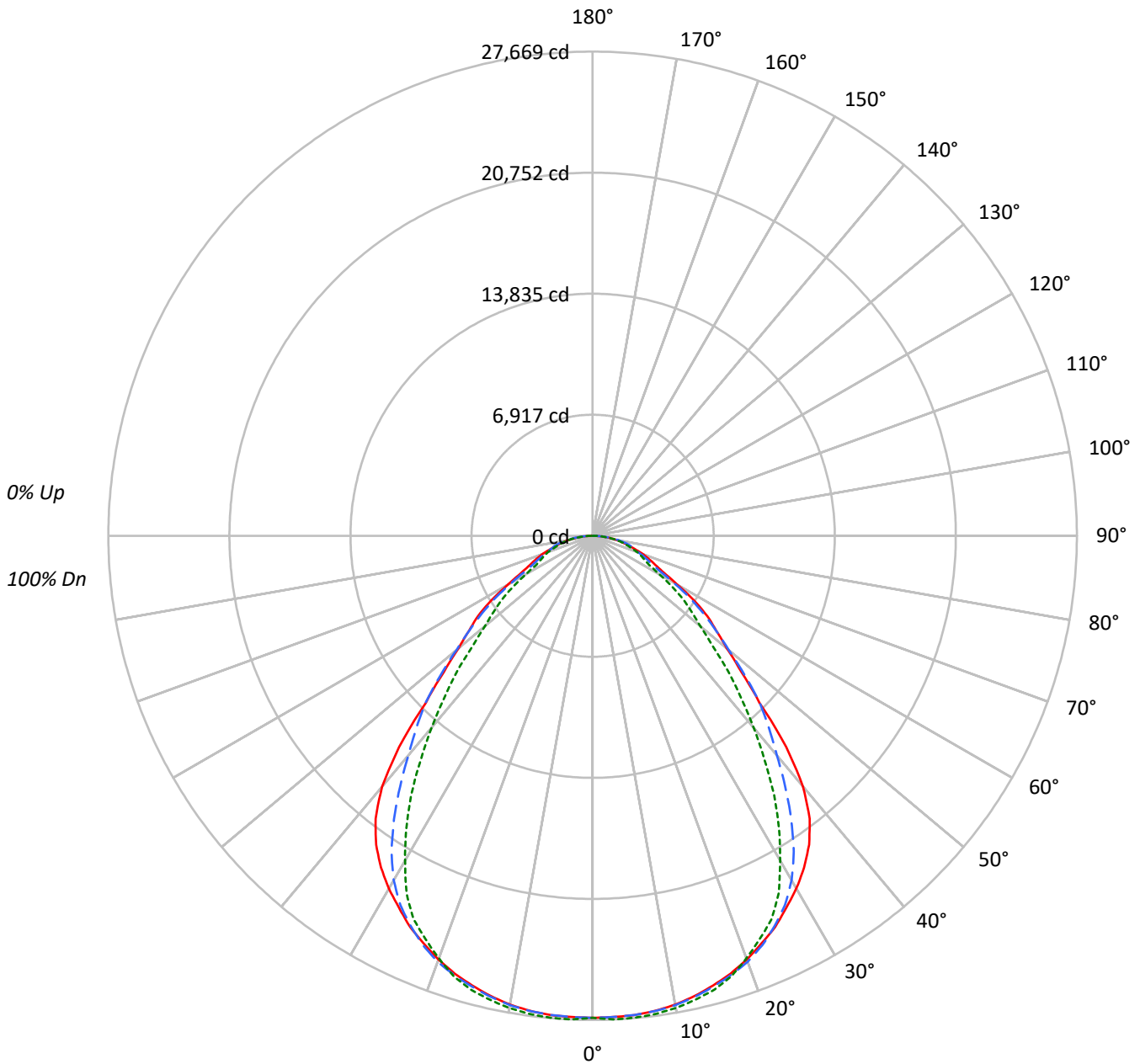
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 57175.0 lumens
Efficiency: N/A
Efficacy: 157.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
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 (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

TEST NUMBER: P860208
CATALOG NUMBER: SPHB-60HE-M-L835-CD

Luminous Intensity Polar Plot





TEST NUMBER: P860208

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

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	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87																			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66																			
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58																			
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51																			
6	75	63	55	49	73	62	54	49	60	54	48	59	53	48	57	52	48	46																			
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41																			
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34																			
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	87722	87722	87722
5°	87895	87871	88371
10°	87971	88065	88605
15°	87715	87942	88553
20°	87331	87775	87073
25°	86693	86451	84982
30°	85595	83578	78809
35°	83798	76892	70239
40°	77767	68056	59492
45°	60671	60835	49234
50°	49552	50254	39761
55°	44397	42723	34937
60°	35543	33645	27952
65°	29786	27267	24721
70°	28280	25980	25168
75°	25659	27581	24273
80°	25785	28184	25585
85°	22435	26283	21372



TEST NUMBER: P860208

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2619.1	4.6
10°-20°	7532.6	13.2
20°-30°	11244.9	19.7
30°-40°	12270.1	21.5
40°-50°	10037.5	17.6
50°-60°	6599.6	11.5
60°-70°	3786.4	6.6
70°-80°	2294.4	4.0
80°-90°	770.4	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°	21396.6	37.4
0°-40°	33666.6	58.9
0°-60°	50303.7	88.0
0°-90°	57155.0	100.0
90°-120°	20.0	0.0
90°-150°	20.0	0.0
90°-180°	20.0	0.0
0°-180°	57175.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	27546	27546	27546	27546	27546	
5°	27495	27451	27488	27600	27644	###
15°	26605	26601	26674	26845	26859	7509
25°	24672	24730	24603	24305	24185	11350
35°	21555	21068	19778	18430	18067	13359
45°	13471	14478	13508	11924	10932	10693
55°	7996	7778	7695	6612	6292	7043
65°	3953	3895	3618	3520	3281	4041
75°	2085	2256	2242	2151	1973	2257
85°	614	698	719	628	585	666
90°	4	51	102	120	127	29
95°	4	7	11	11	7	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: P860208

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	27545.8	27545.8	27545.8	27545.8	27545.8
2.5°	27527.7	27487.7	27524.0	27636.7	27669.4
5°	27495.0	27451.4	27487.7	27600.3	27643.9
7.5°	27382.3	27356.9	27393.2	27505.9	27560.4
10°	27204.3	27175.3	27233.4	27331.5	27400.5
12.5°	26939.1	26928.2	26982.7	27124.4	27153.5
15°	26604.9	26601.2	26673.9	26844.7	26859.2
17.5°	26227.0	26223.4	26314.2	26426.9	26386.9
20°	25769.3	25794.7	25900.1	25794.7	25693.0
22.5°	25220.7	25300.6	25326.0	24995.4	24944.6
25°	24672.1	24730.2	24603.1	24305.1	24185.3
27.5°	23963.6	24032.7	23796.5	23371.5	23029.9
30°	23277.0	23211.6	22728.4	21907.3	21431.4
32.5°	22488.6	22256.1	21387.8	20254.3	19822.0
35°	21554.9	21068.1	19778.4	18430.5	18067.2
37.5°	20374.2	19484.1	18074.5	16668.5	16119.9
40°	18706.6	17678.5	16370.6	14917.3	14310.6
42.5°	16370.6	15989.1	14906.4	13271.6	12548.6
45°	13471.4	14477.7	13507.7	11923.7	10931.9
47.5°	11531.3	12930.0	11763.8	10619.4	9253.4
50°	10001.8	10964.6	10143.5	9111.7	8025.4
52.5°	8897.4	9188.0	8857.4	7723.9	7106.3
55°	7996.4	7778.4	7694.8	6612.2	6292.5
57.5°	6877.4	6757.5	6543.1	5765.7	5344.2
60°	5580.4	5834.7	5282.5	5060.8	4388.7
62.5°	4584.9	4835.6	4243.4	4228.9	3669.4
65°	3952.8	3894.6	3618.5	3520.4	3280.6
67.5°	3498.6	3317.0	3222.5	3095.4	3011.8
70°	3037.2	2960.9	2790.2	2815.6	2703.0
72.5°	2532.2	2630.3	2459.6	2506.8	2303.4
75°	2085.4	2256.1	2241.6	2150.8	1972.7
77.5°	1718.4	1900.1	1932.8	1849.2	1703.9
80°	1406.0	1529.5	1536.8	1485.9	1395.1
82.5°	1031.8	1104.4	1158.9	1071.8	1013.6
85°	614.0	697.5	719.3	628.5	584.9
87.5°	199.8	279.7	312.4	323.3	327.0
90°	3.6	50.9	101.7	119.9	127.2
92.5°	3.6	14.5	21.8	32.7	36.3
95°	3.6	7.3	10.9	10.9	7.3
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



TEST NUMBER: P860208

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

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)