

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: P859938

Luminaire Tested: **SPHB-18HE-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: P859938
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-18HE-M-L835-CD
Description: 18000 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

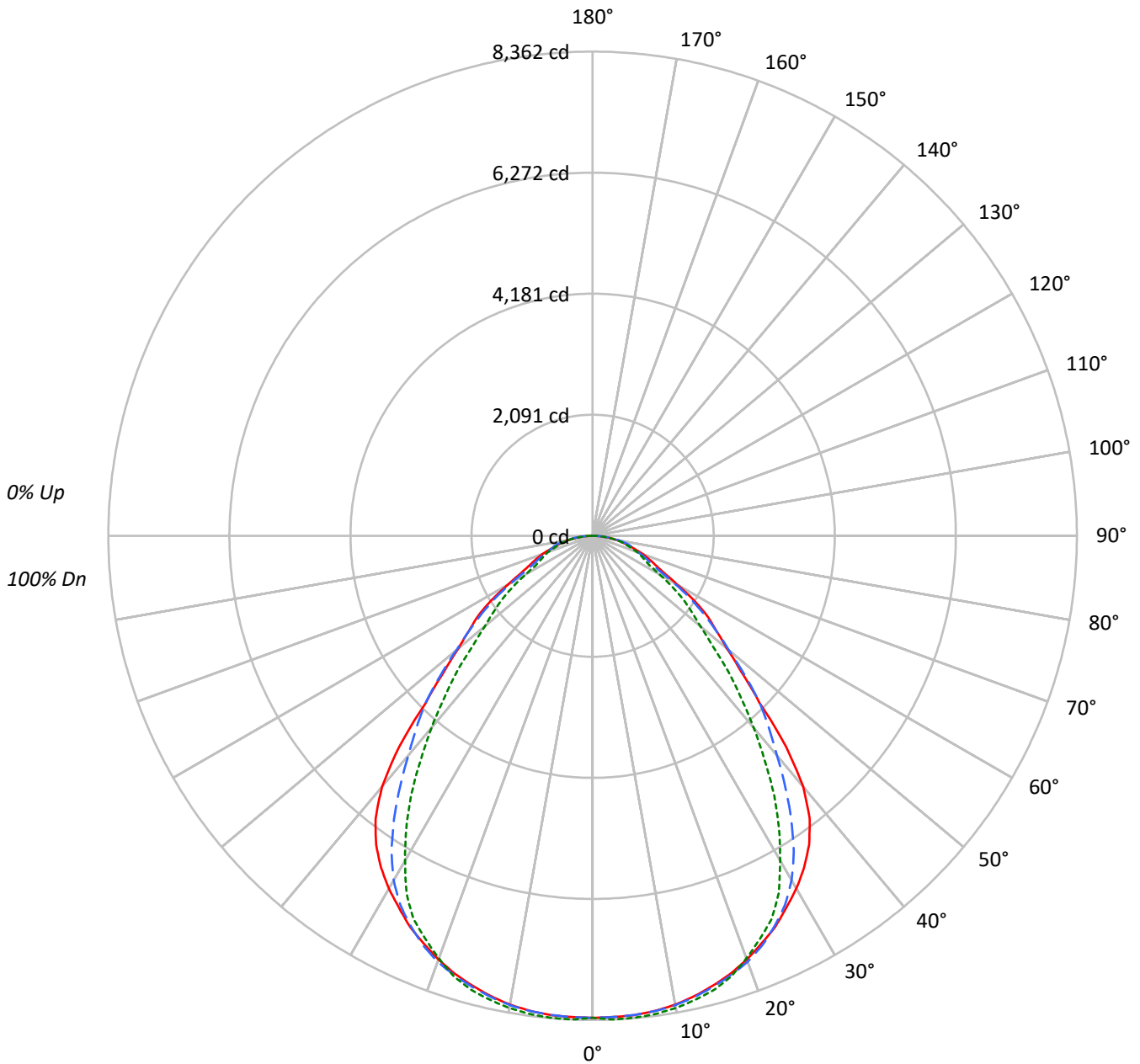
Lumens per Lamp: N/A
Luminaire Lumens: 17280.0 lumens
Efficiency: N/A
Efficacy: 159.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 108.1
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									
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°	64936	64936	64936
5°	65064	65046	65416
10°	65120	65189	65590
15°	64930	65099	65551
20°	64646	64975	64455
25°	64174	63995	62908
30°	63361	61868	58338
35°	62031	56919	51994
40°	57567	50378	44039
45°	44912	45032	36445
50°	36680	37201	29432
55°	32864	31625	25862
60°	26311	24905	20692
65°	22048	20184	18299
70°	20933	19232	18630
75°	18995	20418	17967
80°	19086	20864	18937
85°	16610	19456	15823



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	791.6	4.6
10°-20°	2276.6	13.2
20°-30°	3398.5	19.7
30°-40°	3708.4	21.5
40°-50°	3033.6	17.6
50°-60°	1994.6	11.5
60°-70°	1144.4	6.6
70°-80°	693.5	4.0
80°-90°	232.8	1.3
90°-100°	6.1	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°	6466.7	37.4
0°-40°	10175.1	58.9
0°-60°	15203.3	88.0
0°-90°	17274.0	100.0
90°-120°	6.1	0.0
90°-150°	6.1	0.0
90°-180°	6.0	0.0
0°-180°	17280.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8325	8325	8325	8325	8325	
5°	8310	8297	8308	8342	8355	790
15°	8041	8040	8062	8113	8118	2270
25°	7457	7474	7436	7346	7310	3430
35°	6514	6367	5978	5570	5460	4038
45°	4072	4376	4082	3604	3304	3232
55°	2417	2351	2326	1998	1902	2128
65°	1195	1177	1094	1064	992	1221
75°	630	682	678	650	596	682
85°	186	211	217	190	177	201
90°	1	15	31	36	38	9
95°	1	2	3	3	2	0
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°	8325.2	8325.2	8325.2	8325.2	8325.2
2.5°	8319.7	8307.6	8318.6	8352.6	8362.5
5°	8309.8	8296.6	8307.6	8341.6	8354.8
7.5°	8275.8	8268.1	8279.1	8313.1	8329.6
10°	8222.0	8213.2	8230.7	8260.4	8281.3
12.5°	8141.8	8138.5	8155.0	8197.8	8206.6
15°	8040.8	8039.7	8061.7	8113.3	8117.7
17.5°	7926.6	7925.5	7952.9	7987.0	7974.9
20°	7788.2	7795.9	7827.8	7795.9	7765.2
22.5°	7622.4	7646.6	7654.3	7554.4	7539.0
25°	7456.6	7474.2	7435.8	7345.7	7309.5
27.5°	7242.5	7263.4	7192.0	7063.6	6960.3
30°	7035.0	7015.2	6869.2	6621.1	6477.2
32.5°	6796.7	6726.5	6464.0	6121.5	5990.8
35°	6514.5	6367.4	5977.6	5570.2	5460.4
37.5°	6157.7	5888.7	5462.6	5037.7	4871.9
40°	5653.7	5343.0	4947.7	4508.5	4325.1
42.5°	4947.7	4832.4	4505.2	4011.1	3792.6
45°	4071.5	4375.6	4082.4	3603.7	3303.9
47.5°	3485.1	3907.8	3555.4	3209.5	2796.7
50°	3022.8	3313.8	3065.7	2753.8	2425.5
52.5°	2689.0	2776.9	2677.0	2334.4	2147.7
55°	2416.7	2350.9	2325.6	1998.4	1901.8
57.5°	2078.5	2042.3	1977.5	1742.6	1615.2
60°	1686.6	1763.4	1596.5	1529.5	1326.4
62.5°	1385.7	1461.5	1282.5	1278.1	1109.0
65°	1194.6	1177.1	1093.6	1064.0	991.5
67.5°	1057.4	1002.5	973.9	935.5	910.3
70°	917.9	894.9	843.3	851.0	816.9
72.5°	765.3	795.0	743.4	757.6	696.1
75°	630.3	681.9	677.5	650.0	596.2
77.5°	519.4	574.3	584.1	558.9	515.0
80°	424.9	462.3	464.5	449.1	421.6
82.5°	311.8	333.8	350.3	323.9	306.3
85°	185.6	210.8	217.4	190.0	176.8
87.5°	60.4	84.5	94.4	97.7	98.8
90°	1.1	15.4	30.7	36.2	38.4
92.5°	1.1	4.4	6.6	9.9	11.0
95°	1.1	2.2	3.3	3.3	2.2
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)