

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: P859956

Luminaire Tested: **SPHB-18HE-W-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: P859956
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-18HE-W-L835-CD
Description: 18000 Lumen High Efficacy Select Pro High Bay with Wide Lens and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

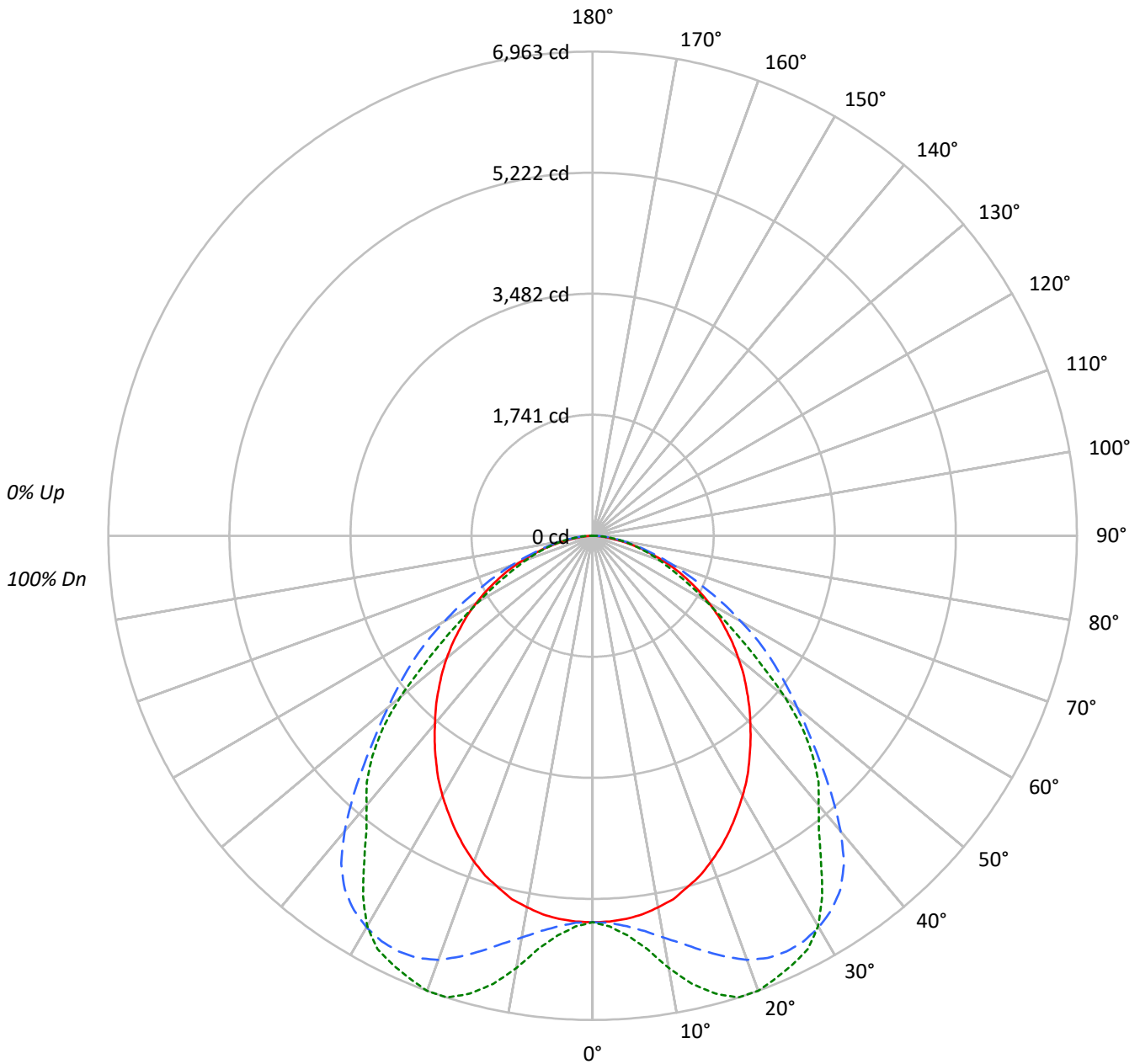
Lumens per Lamp: N/A
Luminaire Lumens: 17488.0 lumens
Efficiency: N/A
Efficacy: 161.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

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				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°	43351	43351	43351
5°	43305	44122	45167
10°	42963	46451	49971
15°	42291	49909	55044
20°	41376	53878	57793
25°	40181	56784	58551
30°	38873	58561	58392
35°	37415	59150	54486
40°	35907	56478	51463
45°	34548	51194	49375
50°	33203	46549	43772
55°	31684	43009	35619
60°	30117	38343	29336
65°	28042	32948	25436
70°	25513	28131	23006
75°	21909	23609	21093
80°	17123	20249	19562
85°	11581	17183	16127



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	545.7	3.1
10°-20°	1730.3	9.9
20°-30°	2831.8	16.2
30°-40°	3454.6	19.8
40°-50°	3421.4	19.6
50°-60°	2736.0	15.6
60°-70°	1706.8	9.8
70°-80°	836.3	4.8
80°-90°	219.3	1.3
90°-100°	5.8	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°	5107.8	29.2
0°-40°	8562.4	49.0
0°-60°	14719.8	84.2
0°-90°	17482.2	100.0
90°-120°	5.8	0.0
90°-150°	5.8	0.0
90°-180°	6.0	0.0
0°-180°	17488.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5558	5558	5558	5558	5558	
5°	5531	5555	5635	5733	5769	525
15°	5237	5542	6181	6672	6816	1476
25°	4669	5459	6598	6789	6803	2148
35°	3929	5250	6212	5880	5722	2458
45°	3132	4866	4641	4485	4476	2419
55°	2330	3736	3163	2857	2619	2087
65°	1519	2096	1785	1480	1378	1507
75°	727	890	783	717	700	772
85°	129	184	192	182	180	160
90°	1	19	34	43	44	7
95°	1	3	3	2	1	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°	5557.9	5557.9	5557.9	5557.9	5557.9
2.5°	5552.4	5550.3	5570.5	5607.3	5624.0
5°	5530.8	5555.2	5635.2	5733.3	5768.7
7.5°	5491.9	5557.3	5734.0	5914.1	5990.7
10°	5424.4	5558.6	5864.8	6182.7	6309.3
12.5°	5354.8	5553.8	6010.2	6460.3	6598.7
15°	5237.2	5541.9	6180.6	6672.5	6816.5
17.5°	5128.0	5528.0	6344.8	6852.6	6961.9
20°	4984.7	5507.9	6490.9	6907.6	6962.6
22.5°	4834.4	5491.9	6571.6	6870.7	6887.4
25°	4668.8	5459.2	6598.0	6789.3	6803.3
27.5°	4492.1	5429.9	6573.0	6688.5	6700.3
30°	4316.1	5377.1	6502.0	6531.2	6483.2
32.5°	4131.8	5324.2	6387.2	6255.7	6143.7
35°	3929.3	5250.4	6211.9	5880.1	5722.1
37.5°	3729.6	5179.5	5938.5	5459.9	5340.9
40°	3526.5	5091.8	5546.8	5067.5	5054.3
42.5°	3334.5	4997.2	5103.7	4762.1	4806.6
45°	3132.0	4865.7	4641.0	4485.2	4476.1
47.5°	2940.0	4684.1	4220.1	4179.1	4086.5
50°	2736.2	4433.7	3836.1	3797.1	3607.2
52.5°	2536.5	4114.4	3493.1	3347.0	3070.1
55°	2329.9	3735.9	3162.7	2857.2	2619.3
57.5°	2137.9	3319.9	2826.6	2430.8	2217.2
60°	1930.6	2898.3	2457.9	2056.5	1880.5
62.5°	1727.4	2483.0	2124.0	1737.9	1621.0
65°	1519.4	2096.1	1785.2	1480.4	1378.2
67.5°	1320.4	1761.5	1492.3	1248.1	1179.9
70°	1118.7	1429.0	1233.5	1048.4	1008.8
72.5°	910.7	1141.6	997.6	884.9	855.0
75°	727.0	890.5	783.4	717.3	699.9
77.5°	541.3	662.3	612.2	573.3	568.4
80°	381.2	477.9	450.8	443.2	435.5
82.5°	243.5	312.4	320.7	315.8	310.3
85°	129.4	183.7	192.0	182.3	180.2
87.5°	52.2	80.0	86.3	95.3	98.1
90°	0.7	18.8	34.1	43.1	44.5
92.5°	0.7	4.2	4.9	4.9	4.2
95°	0.7	2.8	2.8	2.1	1.4
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)