

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: P859957

Luminaire Tested: **SPHB-18HE-W-L840-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: P859957
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-L840-CD
Description: 18000 Lumen High Efficacy Select Pro High Bay with Wide Lens and, 4000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

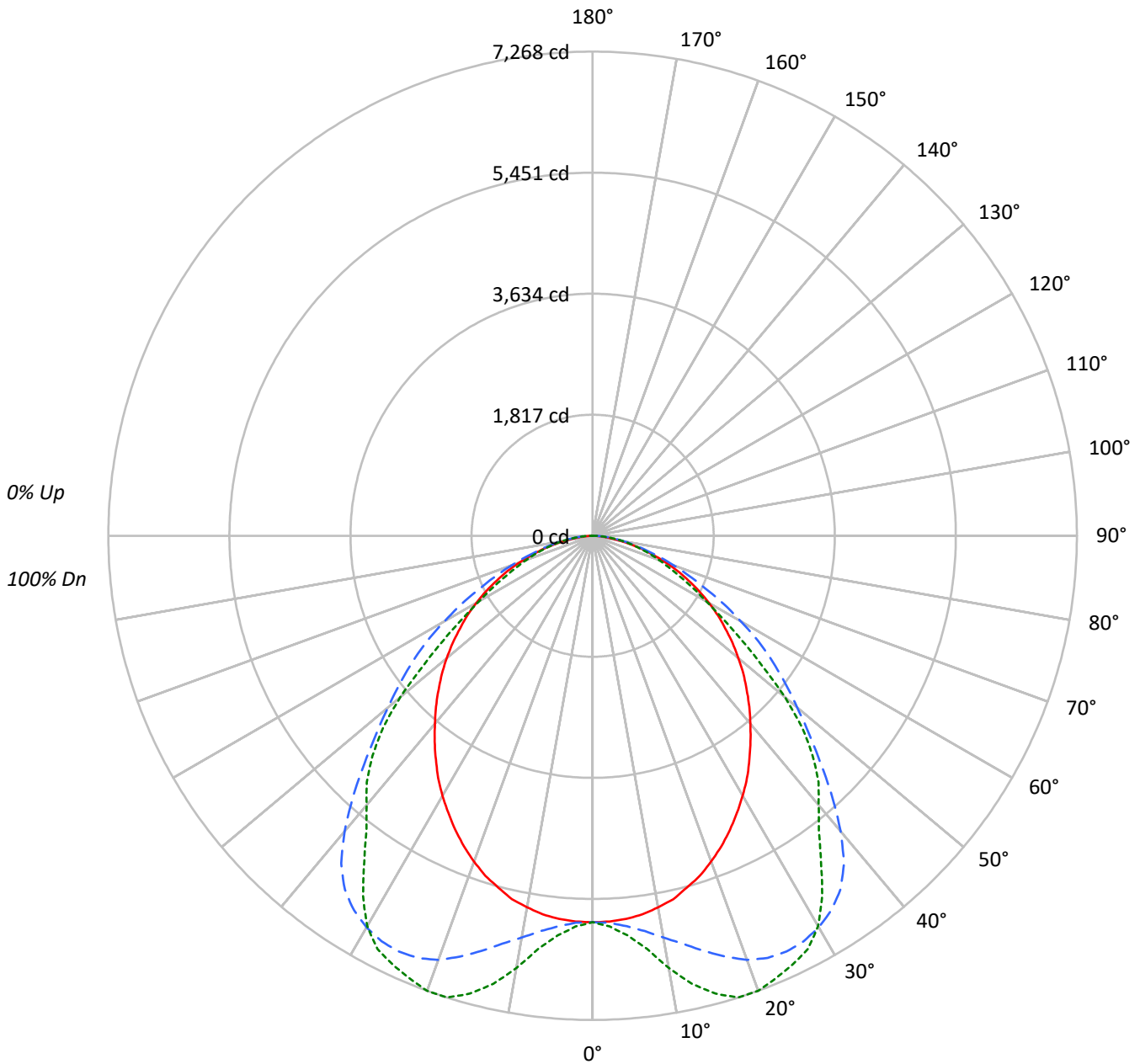
Lumens per Lamp: N/A
Luminaire Lumens: 18254.0 lumens
Efficiency: N/A
Efficacy: 168.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

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°	45251	45251	45251
5°	45202	46054	47146
10°	44845	48485	52160
15°	44143	52095	57454
20°	43188	56238	60324
25°	41941	59271	61115
30°	40577	61126	60949
35°	39053	61740	56873
40°	37480	58952	53717
45°	36062	53436	51538
50°	34656	48588	45689
55°	33072	44892	37179
60°	31435	40023	30619
65°	29272	34391	26549
70°	26630	29362	24014
75°	22871	24643	22015
80°	17873	21138	20420
85°	12091	17935	16834



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	569.6	3.1
10°-20°	1806.1	9.9
20°-30°	2955.8	16.2
30°-40°	3605.9	19.8
40°-50°	3571.3	19.6
50°-60°	2855.8	15.6
60°-70°	1781.6	9.8
70°-80°	872.9	4.8
80°-90°	228.9	1.3
90°-100°	6.0	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°	5331.6	29.2
0°-40°	8937.5	49.0
0°-60°	15364.6	84.2
0°-90°	18248.0	100.0
90°-120°	6.0	0.0
90°-150°	6.0	0.0
90°-180°	6.0	0.0
0°-180°	18254.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5801	5801	5801	5801	5801	
5°	5773	5798	5882	5984	6021	548
15°	5467	5785	6451	6965	7115	1541
25°	4873	5698	6887	7087	7101	2243
35°	4101	5480	6484	6138	5973	2565
45°	3269	5079	4844	4682	4672	2525
55°	2432	3900	3301	2982	2734	2179
65°	1586	2188	1863	1545	1438	1573
75°	759	930	818	749	730	806
85°	135	192	200	190	188	167
90°	1	20	36	45	46	8
95°	1	3	3	2	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°	5801.4	5801.4	5801.4	5801.4	5801.4
2.5°	5795.6	5793.4	5814.5	5853.0	5870.4
5°	5773.1	5798.5	5882.0	5984.4	6021.4
7.5°	5732.4	5800.7	5985.1	6173.2	6253.1
10°	5662.0	5802.1	6121.6	6453.5	6585.7
12.5°	5589.4	5797.0	6273.4	6743.2	6887.7
15°	5466.6	5784.7	6451.3	6964.7	7115.0
17.5°	5352.6	5770.2	6622.7	7152.8	7266.8
20°	5203.0	5749.1	6775.2	7210.2	7267.5
22.5°	5046.2	5732.4	6859.4	7171.7	7189.1
25°	4873.3	5698.3	6887.0	7086.7	7101.2
27.5°	4688.9	5667.8	6860.9	6981.4	6993.8
30°	4505.2	5612.6	6786.8	6817.3	6767.2
32.5°	4312.7	5557.4	6667.0	6529.7	6412.8
35°	4101.4	5480.4	6484.0	6137.6	5972.8
37.5°	3893.0	5406.4	6198.6	5699.0	5574.8
40°	3681.0	5314.9	5789.8	5289.4	5275.6
42.5°	3480.5	5216.1	5327.2	4970.7	5017.1
45°	3269.2	5078.9	4844.3	4681.6	4672.2
47.5°	3068.8	4889.3	4405.0	4362.1	4265.5
50°	2856.0	4627.9	4004.1	3963.5	3765.2
52.5°	2647.6	4294.6	3646.1	3493.6	3204.6
55°	2432.0	3899.5	3301.2	2982.4	2734.0
57.5°	2231.5	3465.3	2950.4	2537.2	2314.3
60°	2015.1	3025.2	2565.6	2146.6	1962.8
62.5°	1803.1	2591.7	2217.0	1814.0	1692.0
65°	1586.0	2188.0	1863.4	1545.3	1438.5
67.5°	1378.3	1838.7	1557.6	1302.8	1231.6
70°	1167.7	1491.6	1287.5	1094.3	1053.0
72.5°	950.6	1191.6	1041.3	923.7	892.5
75°	758.9	929.5	817.7	748.7	730.5
77.5°	565.0	691.3	639.0	598.4	593.3
80°	397.9	498.9	470.6	462.6	454.6
82.5°	254.2	326.1	334.8	329.7	323.9
85°	135.1	191.7	200.4	190.3	188.1
87.5°	54.5	83.5	90.0	99.5	102.4
90°	0.7	19.6	35.6	45.0	46.5
92.5°	0.7	4.4	5.1	5.1	4.4
95°	0.7	2.9	2.9	2.2	1.5
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)