

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: P859947

Luminaire Tested: **SPHB-18HE-N-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: P859947
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-18HE-N-L835-CD
Description: 18000 Lumen High Efficacy Select Pro High Bay with Narrow Lens and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

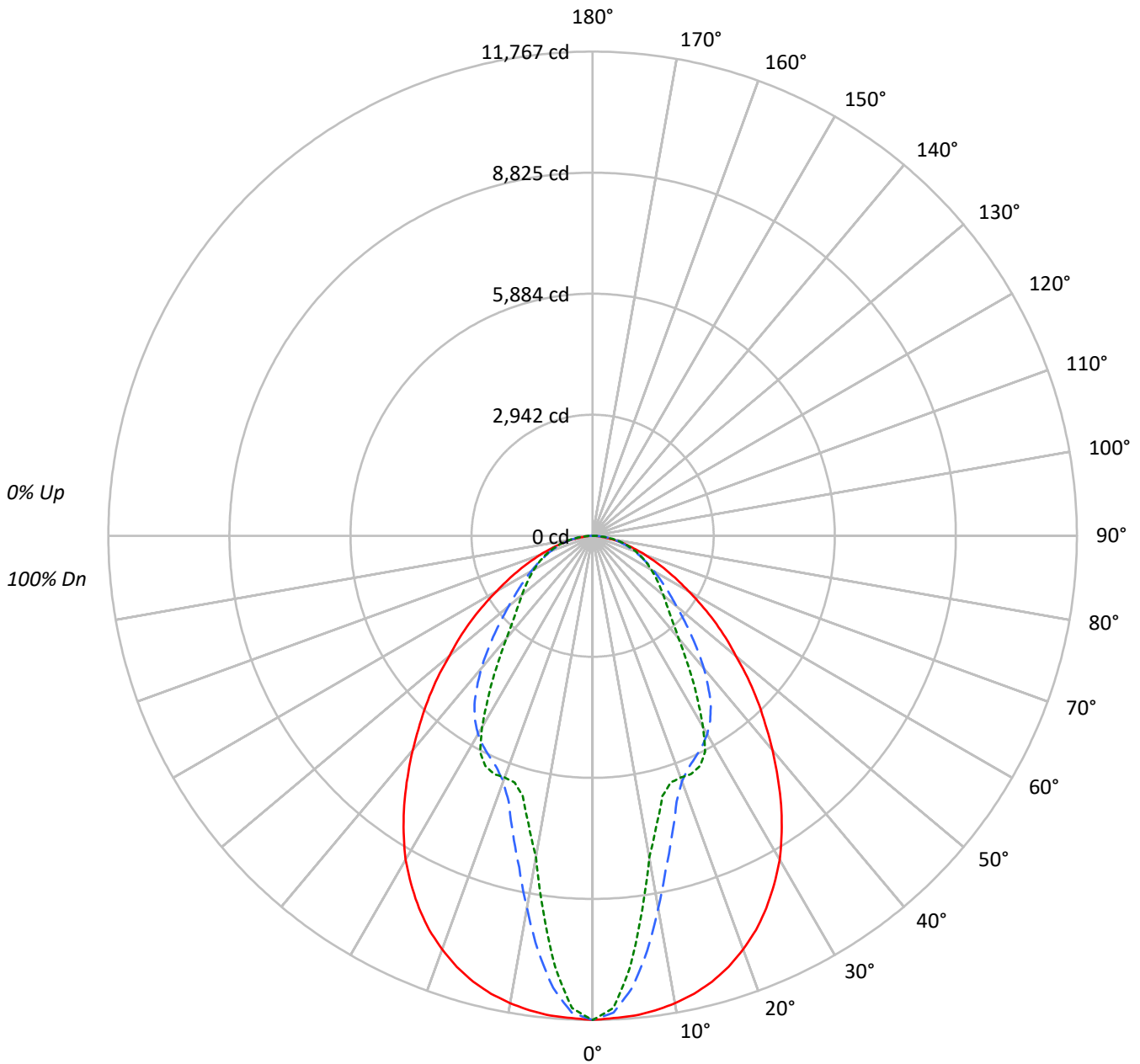
Lumens per Lamp: N/A
Luminaire Lumens: 17246.0 lumens
Efficiency: N/A
Efficacy: 159.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 108.1
Input Voltage (V): NR
Input Current (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									
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	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	94	88	83	99	92	86	82	88	84	80	85	81	78	82	79	76	74																			
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64																			
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50																			
6	74	62	54	48	73	61	54	48	60	53	47	58	52	47	56	51	47	45																			
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	46	42	40																			
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37																			
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34																			
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	91783	91783	91783
5°	91678	86360	82273
10°	91364	72794	62755
15°	90604	60427	52882
20°	88778	52673	51913
25°	85926	50965	53129
30°	81864	50148	48351
35°	76010	47654	40067
40°	69215	42780	33085
45°	62478	37120	29044
50°	55137	32278	27197
55°	48926	29111	26179
60°	41929	26921	25645
65°	36292	25302	25516
70°	31059	24338	25485
75°	26071	23633	25258
80°	19894	22841	24736
85°	13021	20261	19053



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1003.3	5.8
10°-20°	2303.6	13.4
20°-30°	3113.2	18.1
30°-40°	3276.5	19.0
40°-50°	2780.2	16.1
50°-60°	2153.7	12.5
60°-70°	1500.0	8.7
70°-80°	858.9	5.0
80°-90°	250.0	1.4
90°-100°	6.7	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°	6420.1	37.2
0°-40°	9696.6	56.2
0°-60°	14630.5	84.8
0°-90°	17239.3	100.0
90°-120°	6.7	0.0
90°-150°	6.7	0.0
90°-180°	7.0	0.0
0°-180°	17246.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11767	11767	11767	11767	11767	
5°	11709	11494	11030	10607	10508	###
15°	11220	9523	7483	6736	6549	3157
25°	9984	7053	5922	6093	6173	4583
35°	7983	5424	5005	4520	4208	4976
45°	5664	4073	3365	2765	2633	4362
55°	3598	2744	2141	1946	1925	3217
65°	1966	1610	1371	1371	1382	1964
75°	865	769	784	834	838	922
85°	146	189	226	213	213	185
90°	1	17	33	42	44	8
95°	1	3	5	5	4	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°	11767.2	11767.2	11767.2	11767.2	11767.2
2.5°	11733.1	11694.5	11600.2	11539.1	11491.5
5°	11708.9	11494.2	11029.7	10606.6	10507.8
7.5°	11636.1	11164.5	10171.8	9389.4	9191.7
10°	11535.5	10691.0	9190.8	8210.7	7923.3
12.5°	11401.6	10185.3	8251.2	7327.7	7186.7
15°	11220.2	9523.2	7483.1	6735.7	6548.8
17.5°	10984.8	8838.7	6774.3	6342.2	6290.1
20°	10695.5	8210.7	6345.8	6198.5	6254.2
22.5°	10370.3	7600.8	6097.0	6159.0	6263.2
25°	9984.1	7052.8	5921.8	6093.4	6173.3
27.5°	9550.2	6557.8	5761.0	5918.2	5918.2
30°	9089.3	6145.5	5567.9	5553.5	5368.4
32.5°	8551.2	5795.1	5315.4	5030.7	4755.8
35°	7982.6	5424.1	5004.6	4520.4	4207.8
37.5°	7386.1	5079.2	4611.1	3972.4	3681.4
40°	6797.7	4738.7	4201.5	3480.1	3249.3
42.5°	6212.0	4391.9	3774.8	3081.3	2898.9
45°	5664.0	4073.0	3365.1	2765.1	2633.0
47.5°	5107.0	3734.4	2987.0	2510.8	2419.2
50°	4543.8	3391.2	2660.0	2308.7	2241.3
52.5°	4069.4	3071.4	2382.4	2117.4	2076.9
55°	3597.8	2743.5	2140.7	1945.8	1925.1
57.5°	3129.8	2438.1	1919.7	1788.6	1784.1
60°	2687.8	2152.4	1725.7	1653.8	1643.9
62.5°	2311.4	1868.5	1541.5	1507.4	1511.9
65°	1966.4	1609.8	1370.9	1370.9	1382.5
67.5°	1646.6	1371.8	1214.5	1235.2	1251.4
70°	1361.9	1156.2	1067.2	1103.2	1117.5
72.5°	1092.4	955.8	926.2	965.7	977.4
75°	865.1	769.0	784.2	833.7	838.1
77.5°	641.4	605.5	645.0	698.9	708.8
80°	442.9	446.5	508.5	546.2	550.7
82.5°	285.7	311.7	380.9	400.7	393.5
85°	145.5	188.6	226.4	212.9	212.9
87.5°	55.7	81.7	96.1	113.2	119.5
90°	0.9	17.1	33.2	42.2	44.0
92.5°	0.9	4.5	7.2	8.1	7.2
95°	0.9	2.7	5.4	5.4	4.5
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)