

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: P859966

Luminaire Tested: **SPHB-18SE-M-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: P859966
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-18SE-M-L840-CD
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens and, 4000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

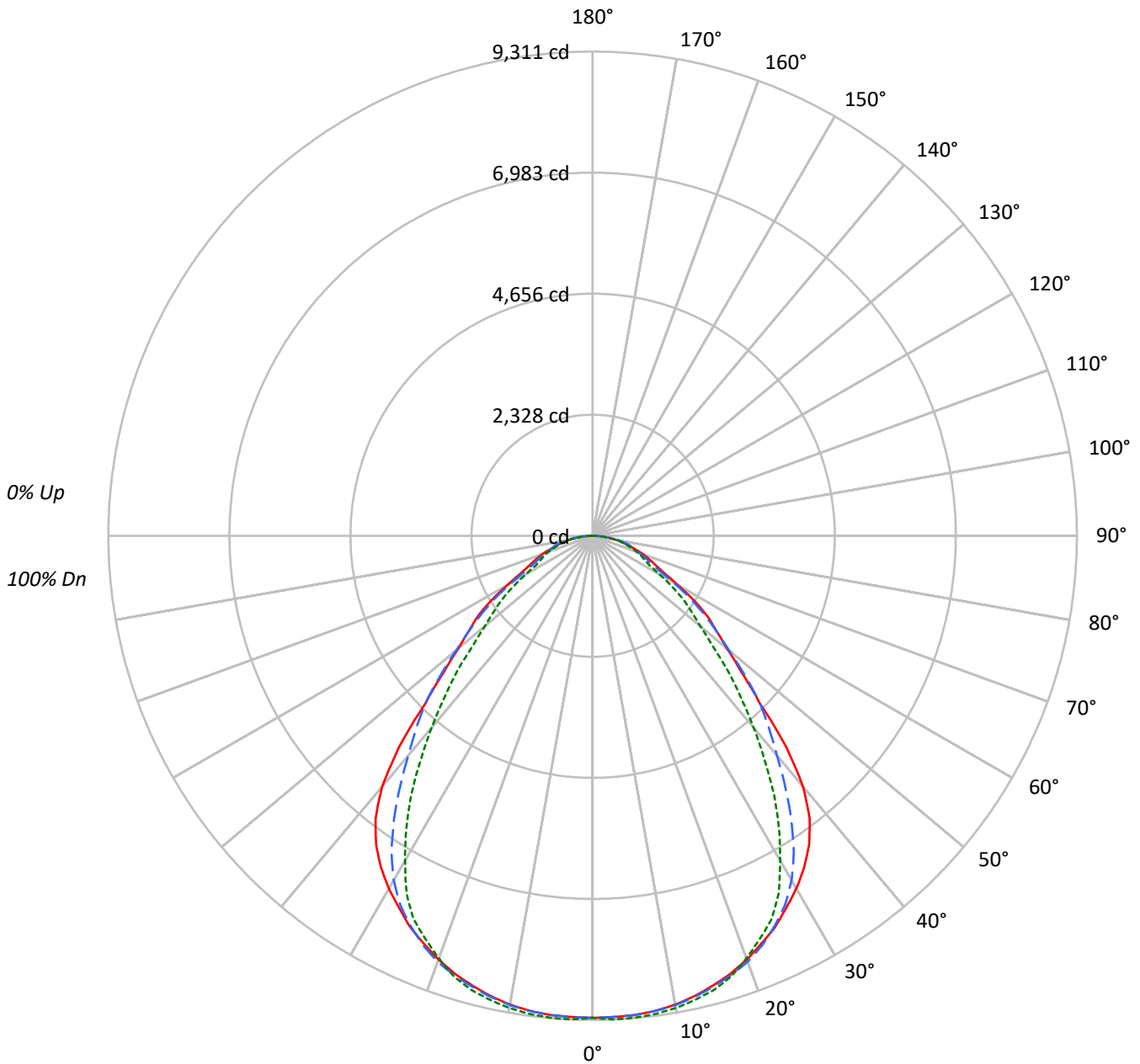
Lumens per Lamp: N/A
Luminaire Lumens: 19240.0 lumens
Efficiency: N/A
Efficacy: 163.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 117.4
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: P859966

CATALOG NUMBER: SPHB-18SE-M-L840-CD

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°	72302	72302	72302
5°	72444	72424	72836
10°	72506	72584	73030
15°	72295	72483	72986
20°	71979	72344	71766
25°	71453	71253	70043
30°	70549	68885	64955
35°	69068	63374	57892
40°	64096	56092	49034
45°	50006	50140	40579
50°	40841	41420	32771
55°	36593	35213	28795
60°	29295	27730	23039
65°	24549	22474	20376
70°	23309	21412	20744
75°	21150	22732	20008
80°	21251	23227	21089
85°	18490	21667	17612



TEST NUMBER: P859966

CATALOG NUMBER: SPHB-18SE-M-L840-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	881.4	4.6
10°-20°	2534.8	13.2
20°-30°	3784.0	19.7
30°-40°	4129.0	21.5
40°-50°	3377.7	17.6
50°-60°	2220.9	11.5
60°-70°	1274.2	6.6
70°-80°	772.1	4.0
80°-90°	259.3	1.3
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°	7200.2	37.4
0°-40°	11329.2	58.9
0°-60°	16927.7	88.0
0°-90°	19233.3	100.0
90°-120°	6.7	0.0
90°-150°	6.7	0.0
90°-180°	7.0	0.0
0°-180°	19240.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9270	9270	9270	9270	9270	
5°	9252	9238	9250	9288	9302	880
15°	8953	8952	8976	9034	9038	2527
25°	8302	8322	8279	8179	8139	3819
35°	7254	7090	6656	6202	6080	4496
45°	4533	4872	4546	4012	3679	3598
55°	2691	2618	2589	2225	2118	2370
65°	1330	1311	1218	1185	1104	1360
75°	702	759	754	724	664	760
85°	207	235	242	212	197	224
90°	1	17	34	40	43	10
95°	1	2	4	4	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



TEST NUMBER: P859966

CATALOG NUMBER: SPHB-18SE-M-L840-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9269.5	9269.5	9269.5	9269.5	9269.5
2.5°	9263.4	9249.9	9262.1	9300.0	9311.0
5°	9252.4	9237.7	9249.9	9287.8	9302.5
7.5°	9214.5	9205.9	9218.1	9256.0	9274.4
10°	9154.5	9144.8	9164.3	9197.3	9220.6
12.5°	9065.3	9061.6	9080.0	9127.7	9137.4
15°	8952.8	8951.6	8976.1	9033.5	9038.4
17.5°	8825.7	8824.5	8855.0	8892.9	8879.5
20°	8671.6	8680.2	8715.6	8680.2	8646.0
22.5°	8487.0	8513.9	8522.5	8411.2	8394.1
25°	8302.4	8322.0	8279.2	8178.9	8138.6
27.5°	8064.0	8087.2	8007.8	7864.7	7749.8
30°	7833.0	7811.0	7648.3	7372.1	7211.9
32.5°	7567.7	7489.4	7197.2	6815.8	6670.3
35°	7253.5	7089.6	6655.6	6202.1	6079.8
37.5°	6856.1	6556.6	6082.2	5609.1	5424.5
40°	6295.0	5949.0	5508.9	5019.8	4815.7
42.5°	5508.9	5380.5	5016.2	4466.0	4222.7
45°	4533.3	4871.9	4545.5	4012.4	3678.7
47.5°	3880.4	4351.1	3958.7	3573.5	3113.9
50°	3365.7	3689.7	3413.4	3066.2	2700.6
52.5°	2994.1	3091.9	2980.6	2599.2	2391.3
55°	2690.9	2617.5	2589.4	2225.1	2117.5
57.5°	2314.3	2274.0	2201.8	1940.2	1798.4
60°	1877.9	1963.4	1777.6	1703.0	1476.9
62.5°	1542.9	1627.2	1428.0	1423.1	1234.8
65°	1330.1	1310.6	1217.7	1184.7	1104.0
67.5°	1177.3	1116.2	1084.4	1041.6	1013.5
70°	1022.1	996.4	938.9	947.5	909.6
72.5°	852.1	885.1	827.7	843.6	775.1
75°	701.8	759.2	754.3	723.8	663.9
77.5°	578.3	639.4	650.4	622.3	573.4
80°	473.1	514.7	517.1	500.0	469.5
82.5°	347.2	371.7	390.0	360.7	341.1
85°	206.6	234.7	242.1	211.5	196.8
87.5°	67.2	94.1	105.1	108.8	110.0
90°	1.2	17.1	34.2	40.3	42.8
92.5°	1.2	4.9	7.3	11.0	12.2
95°	1.2	2.4	3.7	3.7	2.4
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



TEST NUMBER: P859966

CATALOG NUMBER: SPHB-18SE-M-L840-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)