

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: P859857

Luminaire Tested: **SPHB-12SE-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: P859857
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-12SE-M-L835-CD
Description: 12000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens
and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

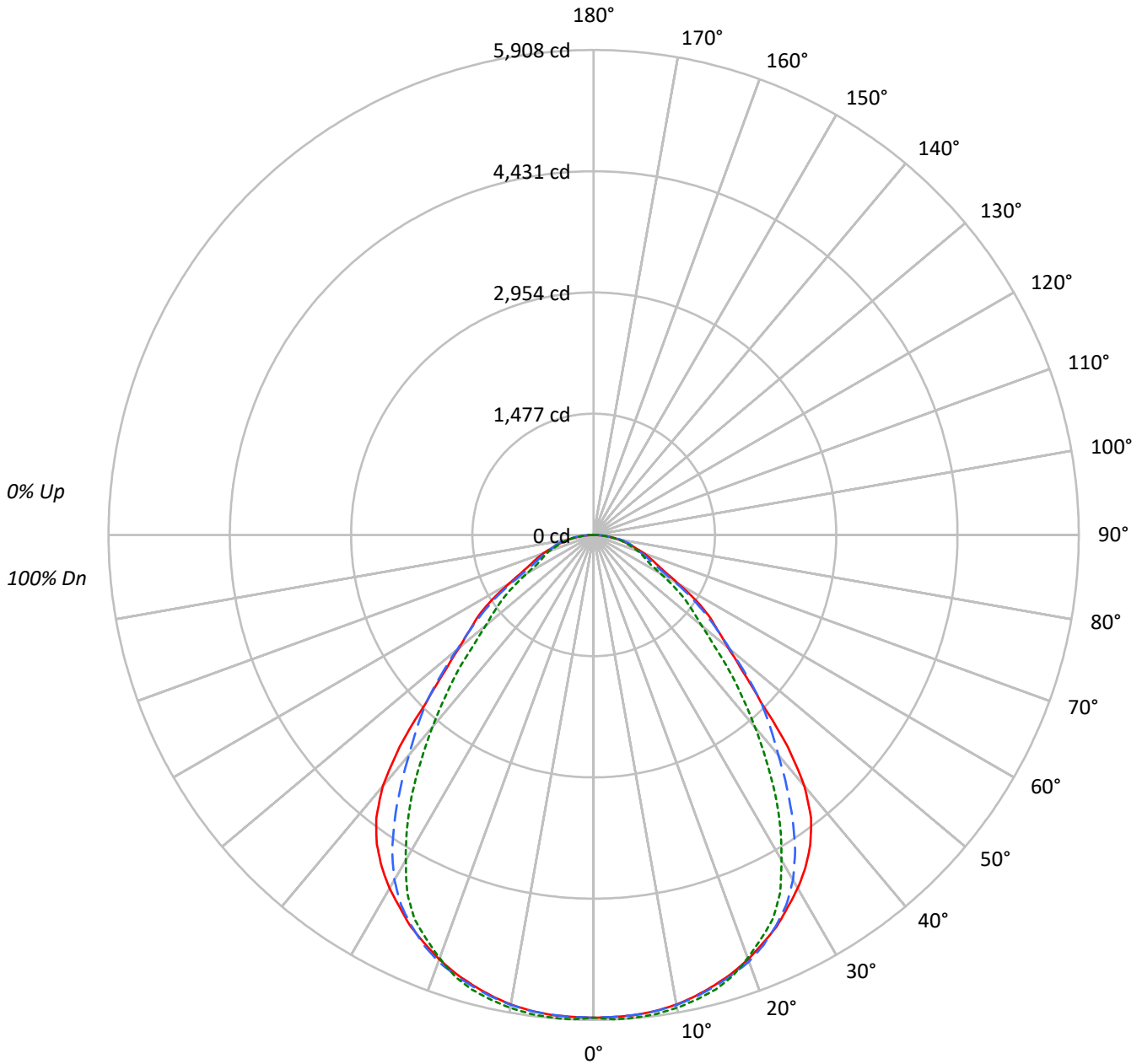
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12207.0 lumens
Efficiency: N/A
Efficacy: 160.0 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): 76.3
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: P859857
CATALOG NUMBER: SPHB-12SE-M-L835-CD

Luminous Intensity Polar Plot





TEST NUMBER: P859857

CATALOG NUMBER: SPHB-12SE-M-L835-CD

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°	45872	45872	45872
5°	45962	45950	46211
10°	46002	46052	46334
15°	45868	45987	46307
20°	45668	45899	45533
25°	45334	45207	44439
30°	44760	43705	41211
35°	43820	40208	36730
40°	40666	35588	31109
45°	31727	31812	25746
50°	25912	26280	20791
55°	23216	22341	18270
60°	18586	17594	14617
65°	15575	14259	12927
70°	14789	13585	13161
75°	13417	14423	12694
80°	13484	14738	13381
85°	11733	13746	11178



TEST NUMBER: P859857

CATALOG NUMBER: SPHB-12SE-M-L835-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	559.2	4.6
10°-20°	1608.2	13.2
20°-30°	2400.8	19.7
30°-40°	2619.7	21.5
40°-50°	2143.0	17.6
50°-60°	1409.0	11.5
60°-70°	808.4	6.6
70°-80°	489.9	4.0
80°-90°	164.5	1.3
90°-100°	4.3	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°	4568.2	37.4
0°-40°	7187.9	58.9
0°-60°	10740.0	88.0
0°-90°	12202.7	100.0
90°-120°	4.3	0.0
90°-150°	4.3	0.0
90°-180°	4.0	0.0
0°-180°	12207.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5881	5881	5881	5881	5881	
5°	5870	5861	5869	5893	5902	558
15°	5680	5679	5695	5731	5734	1603
25°	5268	5280	5253	5189	5164	2423
35°	4602	4498	4223	3935	3857	2852
45°	2876	3091	2884	2546	2334	2283
55°	1707	1661	1643	1412	1344	1504
65°	844	832	773	752	700	863
75°	445	482	479	459	421	482
85°	131	149	154	134	125	142
90°	1	11	22	26	27	6
95°	1	2	2	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



TEST NUMBER: P859857

CATALOG NUMBER: SPHB-12SE-M-L835-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5881.1	5881.1	5881.1	5881.1	5881.1
2.5°	5877.2	5868.7	5876.4	5900.5	5907.5
5°	5870.2	5860.9	5868.7	5892.7	5902.0
7.5°	5846.2	5840.8	5848.5	5872.6	5884.2
10°	5808.2	5802.0	5814.4	5835.3	5850.1
12.5°	5751.6	5749.2	5760.9	5791.1	5797.3
15°	5680.2	5679.4	5694.9	5731.4	5734.5
17.5°	5599.5	5598.8	5618.2	5642.2	5633.7
20°	5501.8	5507.2	5529.7	5507.2	5485.5
22.5°	5384.7	5401.7	5407.2	5336.6	5325.7
25°	5267.5	5280.0	5252.8	5189.2	5163.6
27.5°	5116.3	5131.0	5080.6	4989.9	4916.9
30°	4969.7	4955.7	4852.6	4677.3	4575.7
32.5°	4801.4	4751.7	4566.3	4324.3	4232.0
35°	4602.0	4498.1	4222.7	3935.0	3857.4
37.5°	4349.9	4159.9	3858.9	3558.8	3441.6
40°	3993.9	3774.4	3495.2	3184.9	3055.3
42.5°	3495.2	3413.7	3182.6	2833.5	2679.2
45°	2876.2	3091.0	2883.9	2545.7	2334.0
47.5°	2462.0	2760.6	2511.6	2267.3	1975.6
50°	2135.4	2341.0	2165.7	1945.4	1713.4
52.5°	1899.6	1961.7	1891.1	1649.1	1517.2
55°	1707.2	1660.7	1642.9	1411.7	1343.5
57.5°	1468.3	1442.7	1397.0	1231.0	1141.0
60°	1191.4	1245.7	1127.8	1080.5	937.0
62.5°	978.9	1032.4	906.0	902.9	783.4
65°	843.9	831.5	772.6	751.6	700.4
67.5°	747.0	708.2	688.0	660.9	643.0
70°	648.5	632.2	595.7	601.1	577.1
72.5°	540.6	561.6	525.1	535.2	491.8
75°	445.2	481.7	478.6	459.2	421.2
77.5°	366.9	405.7	412.7	394.8	363.8
80°	300.2	326.6	328.1	317.2	297.9
82.5°	220.3	235.8	247.4	228.8	216.4
85°	131.1	148.9	153.6	134.2	124.9
87.5°	42.7	59.7	66.7	69.0	69.8
90°	0.8	10.9	21.7	25.6	27.1
92.5°	0.8	3.1	4.7	7.0	7.8
95°	0.8	1.6	2.3	2.3	1.6
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: P859857

CATALOG NUMBER: SPHB-12SE-M-L835-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)