

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: P859830

Luminaire Tested: **SPHB-12HE-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: P859830
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-12HE-M-L835-CD
Description: 12000 Lumen High Efficacy Select Pro High Bay with Medium Lens and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

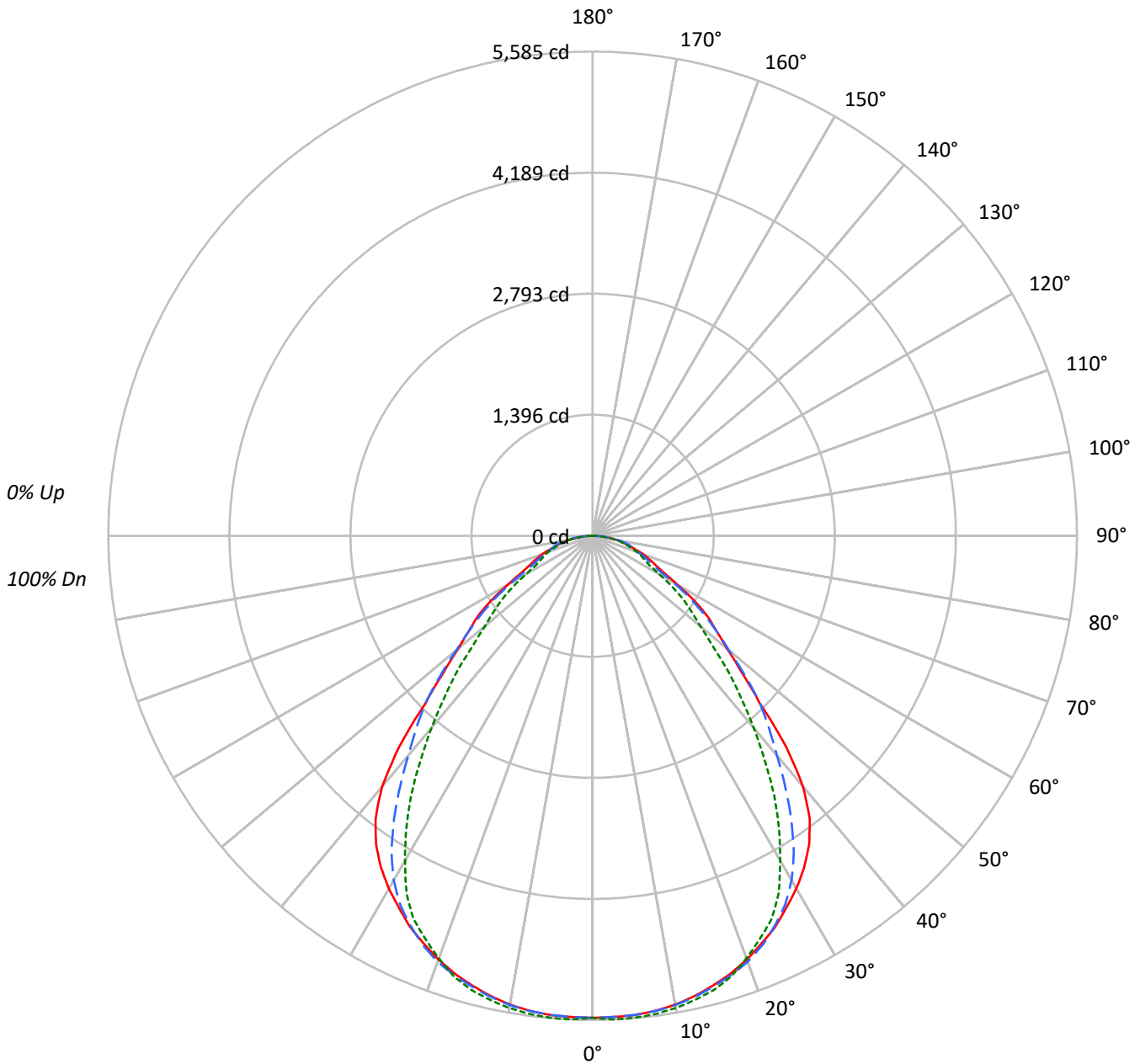
Lumens per Lamp: N/A
Luminaire Lumens: 11541.0 lumens
Efficiency: N/A
Efficacy: 162.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 71.1
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									
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°	43369	43369	43369
5°	43455	43443	43690
10°	43493	43539	43806
15°	43366	43478	43780
20°	43176	43395	43048
25°	42861	42741	42015
30°	42318	41320	38963
35°	41429	38015	34726
40°	38448	33647	29413
45°	29995	30077	24341
50°	24498	24845	19658
55°	21950	21122	17273
60°	17572	16634	13820
65°	14726	13480	12222
70°	13982	12844	12443
75°	12685	13637	12000
80°	12748	13934	12649
85°	11088	12995	10569



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	528.7	4.6
10°-20°	1520.5	13.2
20°-30°	2269.8	19.7
30°-40°	2476.8	21.5
40°-50°	2026.1	17.6
50°-60°	1332.2	11.5
60°-70°	764.3	6.6
70°-80°	463.1	4.0
80°-90°	155.5	1.3
90°-100°	4.0	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°	4319.0	37.4
0°-40°	6795.7	58.9
0°-60°	10154.0	88.0
0°-90°	11536.9	100.0
90°-120°	4.0	0.0
90°-150°	4.0	0.0
90°-180°	4.0	0.0
0°-180°	11541.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5560	5560	5560	5560	5560	
5°	5550	5541	5548	5571	5580	528
15°	5370	5370	5384	5419	5422	1516
25°	4980	4992	4966	4906	4882	2291
35°	4351	4253	3992	3720	3647	2697
45°	2719	2922	2727	2407	2207	2158
55°	1614	1570	1553	1335	1270	1422
65°	798	786	730	711	662	816
75°	421	455	452	434	398	456
85°	124	141	145	127	118	134
90°	1	10	20	24	26	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5560.2	5560.2	5560.2	5560.2	5560.2
2.5°	5556.6	5548.5	5555.8	5578.6	5585.2
5°	5550.0	5541.2	5548.5	5571.2	5580.0
7.5°	5527.2	5522.1	5529.4	5552.2	5563.2
10°	5491.3	5485.4	5497.2	5517.0	5530.9
12.5°	5437.8	5435.6	5446.6	5475.2	5481.0
15°	5370.3	5369.6	5384.2	5418.7	5421.6
17.5°	5294.0	5293.3	5311.6	5334.4	5326.3
20°	5201.6	5206.8	5228.0	5206.8	5186.2
22.5°	5090.9	5107.0	5112.2	5045.4	5035.2
25°	4980.2	4991.9	4966.2	4906.1	4881.9
27.5°	4837.2	4851.1	4803.4	4717.6	4648.7
30°	4698.6	4685.4	4587.8	4422.1	4326.0
32.5°	4539.4	4492.5	4317.2	4088.4	4001.1
35°	4350.9	4252.7	3992.3	3720.3	3646.9
37.5°	4112.6	3932.9	3648.4	3364.6	3253.9
40°	3776.0	3568.5	3304.5	3011.1	2888.7
42.5°	3304.5	3227.5	3008.9	2678.9	2533.0
45°	2719.2	2922.4	2726.6	2406.8	2206.6
47.5°	2327.6	2610.0	2374.6	2143.6	1867.8
50°	2018.9	2213.2	2047.5	1839.2	1620.0
52.5°	1796.0	1854.6	1787.9	1559.1	1434.4
55°	1614.1	1570.1	1553.2	1334.7	1270.2
57.5°	1388.2	1364.0	1320.8	1163.8	1078.8
60°	1126.4	1177.8	1066.3	1021.6	885.9
62.5°	925.5	976.1	856.5	853.6	740.7
65°	797.9	786.1	730.4	710.6	662.2
67.5°	706.2	669.5	650.5	624.8	607.9
70°	613.1	597.7	563.2	568.3	545.6
72.5°	511.1	530.9	496.5	506.0	464.9
75°	420.9	455.4	452.5	434.1	398.2
77.5°	346.9	383.5	390.1	373.3	343.9
80°	283.8	308.7	310.2	299.9	281.6
82.5°	208.3	222.9	233.9	216.3	204.6
85°	123.9	140.8	145.2	126.9	118.1
87.5°	40.3	56.5	63.1	65.3	66.0
90°	0.7	10.3	20.5	24.2	25.7
92.5°	0.7	2.9	4.4	6.6	7.3
95°	0.7	1.5	2.2	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)