

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: P859885

Luminaire Tested: **SPHB-15HE-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: P859885  
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-15HE-M-L840-CD  
Description: 15000 Lumen High Efficacy Select Pro High Bay with Medium Lens and, 4000K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

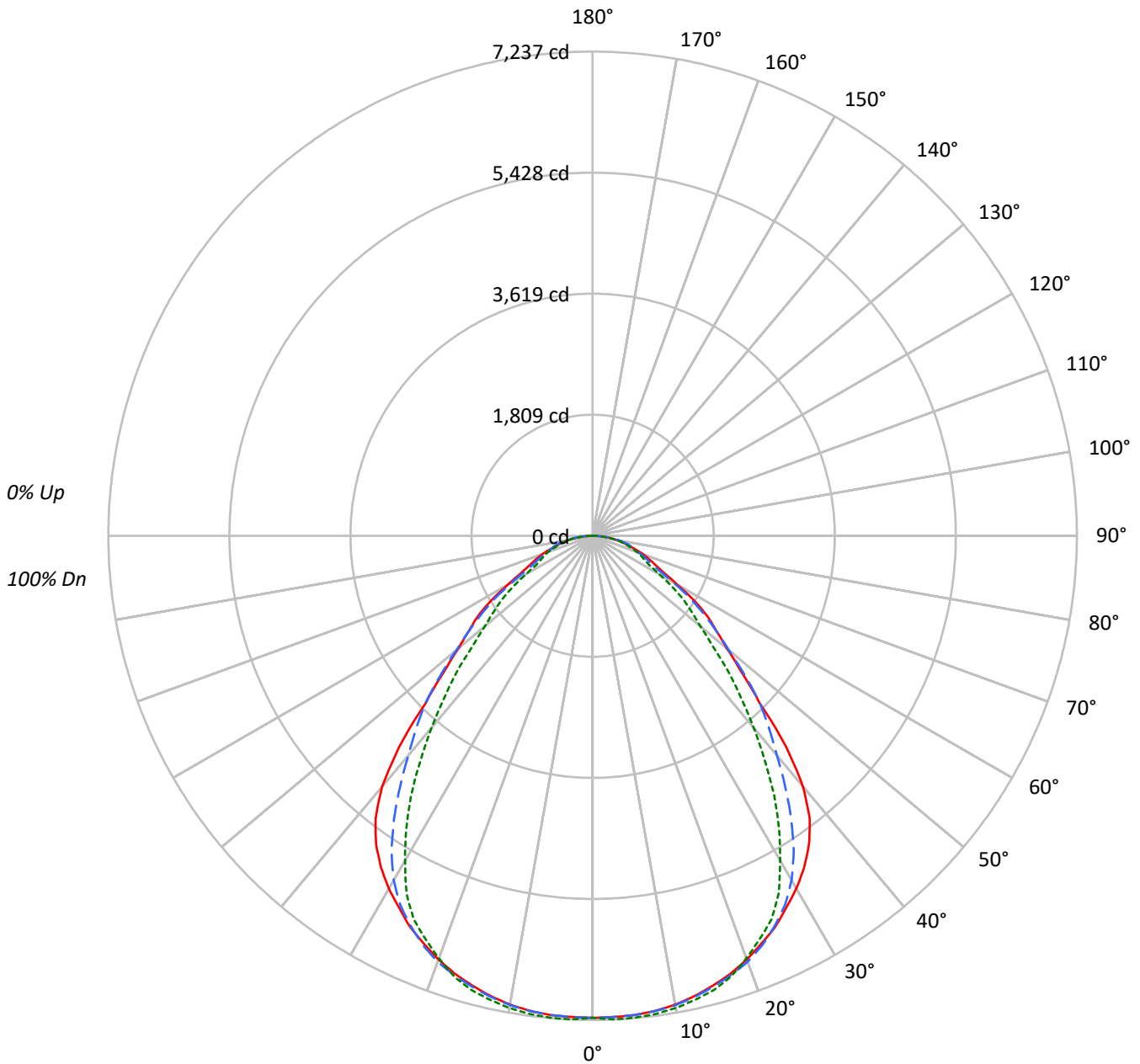
Lumens per Lamp: N/A  
Luminaire Lumens: 14954.0 lumens  
Efficiency: N/A  
Efficacy: 169.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 88.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P859885

CATALOG NUMBER: SPHB-15HE-M-L840-CD

### 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								
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°	56195	56195	56195
5°	56306	56291	56611
10°	56354	56414	56761
15°	56190	56336	56728
20°	55945	56229	55779
25°	55535	55381	54440
30°	54832	53541	50485
35°	53681	49257	44995
40°	49818	43597	38111
45°	38866	38971	31539
50°	31744	32193	25470
55°	28440	27369	22381
60°	22768	21553	17907
65°	19080	17467	15835
70°	18117	16643	16123
75°	16437	17669	15551
80°	16516	18053	16391
85°	14373	16834	13693



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	685.0	4.6
10°-20°	1970.1	13.2
20°-30°	2941.1	19.7
30°-40°	3209.2	21.5
40°-50°	2625.3	17.6
50°-60°	1726.1	11.5
60°-70°	990.3	6.6
70°-80°	600.1	4.0
80°-90°	201.5	1.3
90°-100°	5.3	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°	5596.2	37.4
0°-40°	8805.4	58.9
0°-60°	13156.8	88.0
0°-90°	14948.8	100.0
90°-120°	5.3	0.0
90°-150°	5.3	0.0
90°-180°	5.0	0.0
0°-180°	14954.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7205	7205	7205	7205	7205	
5°	7191	7180	7189	7219	7230	684
15°	6958	6958	6976	7021	7025	1964
25°	6453	6468	6435	6357	6326	2969
35°	5638	5510	5173	4820	4725	3494
45°	3523	3787	3533	3119	2859	2797
55°	2091	2034	2013	1729	1646	1842
65°	1034	1019	946	921	858	1057
75°	545	590	586	562	516	590
85°	161	182	188	164	153	174
90°	1	13	27	31	33	8
95°	1	2	3	3	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: P859885

CATALOG NUMBER: SPHB-15HE-M-L840-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7204.6	7204.6	7204.6	7204.6	7204.6
2.5°	7199.8	7189.4	7198.9	7228.3	7236.9
5°	7191.3	7179.8	7189.4	7218.8	7230.2
7.5°	7161.8	7155.1	7164.6	7194.1	7208.4
10°	7115.2	7107.6	7122.8	7148.5	7166.5
12.5°	7045.9	7043.0	7057.3	7094.3	7101.9
15°	6958.4	6957.5	6976.5	7021.2	7025.0
17.5°	6859.6	6858.7	6882.4	6911.9	6901.4
20°	6739.9	6746.5	6774.1	6746.5	6719.9
22.5°	6596.4	6617.3	6624.0	6537.5	6524.2
25°	6452.9	6468.1	6434.9	6357.0	6325.6
27.5°	6267.6	6285.7	6223.9	6112.8	6023.4
30°	6088.0	6070.9	5944.6	5729.8	5605.3
32.5°	5881.9	5821.0	5593.9	5297.5	5184.4
35°	5637.6	5510.3	5173.0	4820.5	4725.4
37.5°	5328.8	5096.0	4727.3	4359.6	4216.1
40°	4892.7	4623.8	4281.7	3901.6	3742.9
42.5°	4281.7	4181.9	3898.7	3471.1	3282.1
45°	3523.4	3786.6	3532.9	3118.6	2859.2
47.5°	3016.0	3381.8	3076.8	2777.5	2420.2
50°	2616.0	2867.8	2653.0	2383.1	2099.0
52.5°	2327.1	2403.1	2316.6	2020.2	1858.6
55°	2091.4	2034.4	2012.6	1729.4	1645.8
57.5°	1798.8	1767.4	1711.3	1508.0	1397.8
60°	1459.5	1526.1	1381.6	1323.7	1147.9
62.5°	1199.2	1264.7	1109.9	1106.1	959.7
65°	1033.8	1018.6	946.4	920.8	858.0
67.5°	915.1	867.5	842.8	809.6	787.7
70°	794.4	774.4	729.8	736.4	707.0
72.5°	662.3	688.0	643.3	655.7	602.4
75°	545.4	590.1	586.3	562.5	516.0
77.5°	449.5	497.0	505.5	483.7	445.7
80°	367.7	400.0	401.9	388.6	364.9
82.5°	269.9	288.9	303.1	280.3	265.1
85°	160.6	182.4	188.1	164.4	153.0
87.5°	52.3	73.2	81.7	84.6	85.5
90°	1.0	13.3	26.6	31.4	33.3
92.5°	1.0	3.8	5.7	8.6	9.5
95°	1.0	1.9	2.9	2.9	1.9
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: P859885

CATALOG NUMBER: SPHB-15HE-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)