

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: P859886

Luminaire Tested: **SPHB-15HE-M-L850-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: P859886  
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-L850-CD  
Description: 15000 Lumen High Efficacy Select Pro High Bay with Medium Lens and, 5000K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

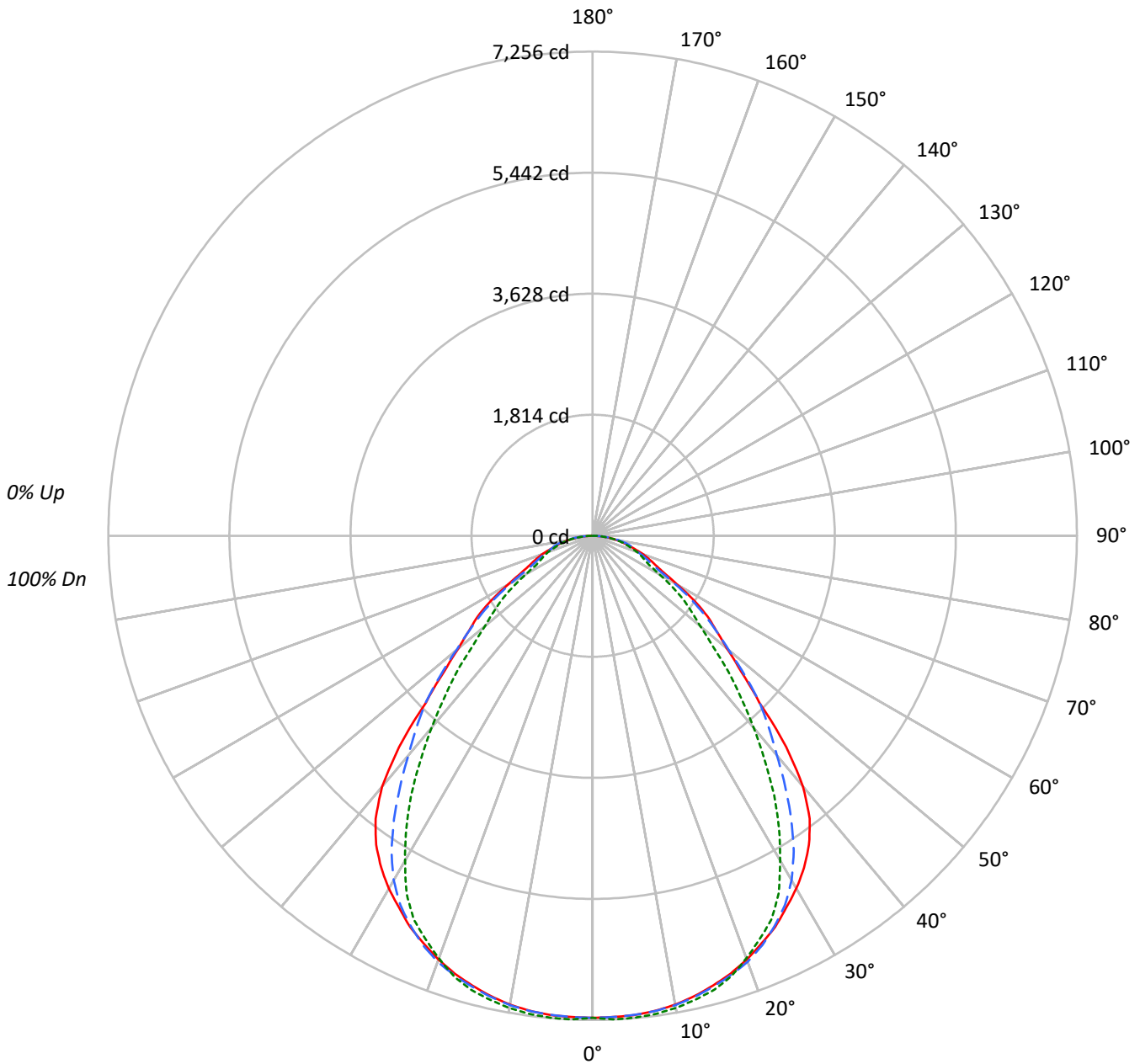
Lumens per Lamp: N/A  
Luminaire Lumens: 14993.0 lumens  
Efficiency: N/A  
Efficacy: 169.8 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

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

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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°	56341	56341	56341
5°	56452	56437	56759
10°	56502	56562	56909
15°	56337	56483	56875
20°	56091	56375	55925
25°	55681	55525	54582
30°	54975	53680	50617
35°	53821	49386	45113
40°	49947	43710	38210
45°	38967	39072	31622
50°	31826	32277	25537
55°	28515	27440	22439
60°	22827	21609	17954
65°	19130	17513	15878
70°	18165	16687	16165
75°	16479	17714	15590
80°	16561	18102	16431
85°	14409	16879	13728



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	686.8	4.6
10°-20°	1975.3	13.2
20°-30°	2948.7	19.7
30°-40°	3217.6	21.5
40°-50°	2632.1	17.6
50°-60°	1730.6	11.5
60°-70°	992.9	6.6
70°-80°	601.7	4.0
80°-90°	202.0	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°	5610.8	37.4
0°-40°	8828.4	58.9
0°-60°	13191.1	88.0
0°-90°	14987.7	100.0
90°-120°	5.3	0.0
90°-150°	5.3	0.0
90°-180°	5.0	0.0
0°-180°	14993.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7223	7223	7223	7223	7223	
5°	7210	7199	7208	7238	7249	686
15°	6977	6976	6995	7040	7043	1969
25°	6470	6485	6452	6374	6342	2976
35°	5652	5525	5186	4833	4738	3503
45°	3533	3796	3542	3127	2867	2804
55°	2097	2040	2018	1734	1650	1847
65°	1036	1021	949	923	860	1060
75°	547	592	588	564	517	592
85°	161	183	189	165	153	175
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



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7223.3	7223.3	7223.3	7223.3	7223.3
2.5°	7218.6	7208.1	7217.6	7247.2	7255.7
5°	7210.0	7198.6	7208.1	7237.6	7249.1
7.5°	7180.5	7173.8	7183.3	7212.9	7227.2
10°	7133.8	7126.2	7141.4	7167.1	7185.2
12.5°	7064.2	7061.4	7075.7	7112.8	7120.5
15°	6976.6	6975.6	6994.7	7039.5	7043.3
17.5°	6877.5	6876.6	6900.4	6929.9	6919.4
20°	6757.5	6764.1	6791.8	6764.1	6737.5
22.5°	6613.6	6634.6	6641.2	6554.6	6541.2
25°	6469.8	6485.0	6451.7	6373.5	6342.1
27.5°	6284.0	6302.1	6240.2	6128.7	6039.1
30°	6103.9	6086.8	5960.1	5744.8	5620.0
32.5°	5897.2	5836.2	5608.5	5311.3	5197.9
35°	5652.3	5524.7	5186.5	4833.0	4737.8
37.5°	5342.7	5109.3	4739.7	4371.0	4227.1
40°	4905.4	4635.8	4292.8	3911.8	3752.7
42.5°	4292.8	4192.8	3908.9	3480.2	3290.6
45°	3532.6	3796.5	3542.1	3126.7	2866.7
47.5°	3023.9	3390.6	3084.8	2784.7	2426.5
50°	2622.8	2875.2	2659.9	2389.4	2104.5
52.5°	2333.2	2409.4	2322.7	2025.4	1863.5
55°	2096.9	2039.7	2017.8	1733.9	1650.1
57.5°	1803.5	1772.0	1715.8	1511.9	1401.4
60°	1463.3	1530.0	1385.2	1327.1	1150.9
62.5°	1202.3	1268.0	1112.7	1108.9	962.2
65°	1036.5	1021.3	948.9	923.2	860.3
67.5°	917.4	869.8	845.0	811.7	789.8
70°	796.5	776.4	731.7	738.3	708.8
72.5°	664.0	689.8	645.0	657.4	604.0
75°	546.8	591.6	587.8	564.0	517.3
77.5°	450.6	498.3	506.8	484.9	446.8
80°	368.7	401.1	403.0	389.7	365.8
82.5°	270.6	289.6	303.9	281.0	265.8
85°	161.0	182.9	188.6	164.8	153.4
87.5°	52.4	73.4	81.9	84.8	85.7
90°	1.0	13.3	26.7	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



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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)