

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: P859903

Luminaire Tested: **SPHB-15HE-W-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: P859903  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SPHB-15HE-W-L840-CD  
Description: 15000 Lumen High Efficacy Select Pro High Bay with Wide Lens and, 4000K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

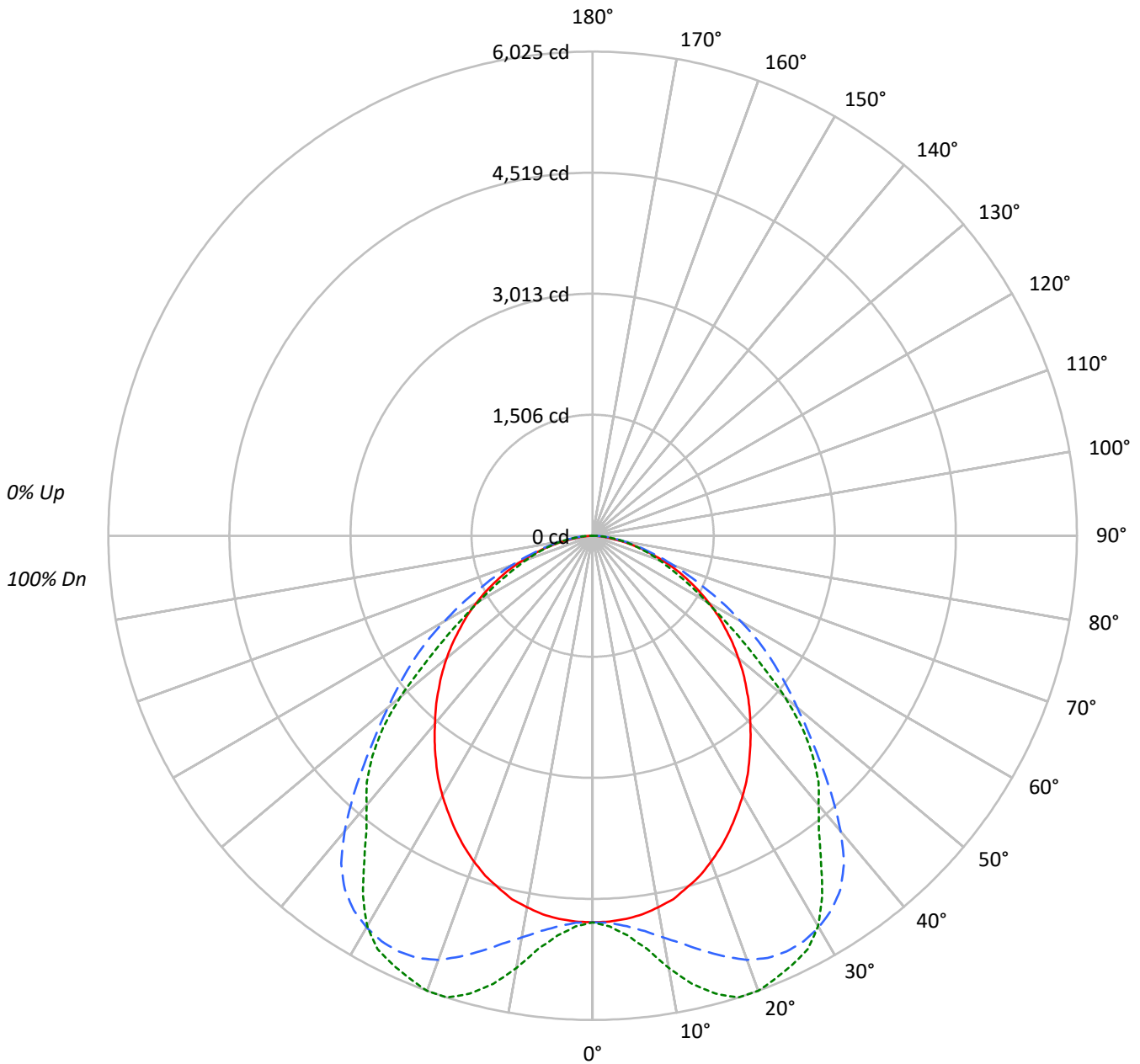
Lumens per Lamp: N/A  
Luminaire Lumens: 15133.0 lumens  
Efficiency: N/A  
Efficacy: 171.4 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

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	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85																			
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72																			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62																			
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53																			
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46																			
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40																			
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36																			
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32																			
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29																			
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	37514	37514	37514
5°	37473	38180	39085
10°	37177	40195	43242
15°	36596	43188	47631
20°	35803	46622	50011
25°	34770	49138	50666
30°	33639	50675	50529
35°	32377	51184	47149
40°	31072	48873	44532
45°	29897	44300	42727
50°	28731	40281	37877
55°	27416	37217	30823
60°	26061	33179	25384
65°	24266	28511	22011
70°	22076	24343	19907
75°	18959	20430	18251
80°	14818	17523	16930
85°	10023	14874	13952



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	472.2	3.1
10°-20°	1497.3	9.9
20°-30°	2450.5	16.2
30°-40°	2989.4	19.8
40°-50°	2960.7	19.6
50°-60°	2367.6	15.6
60°-70°	1477.0	9.8
70°-80°	723.6	4.8
80°-90°	189.8	1.3
90°-100°	5.0	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°	4420.0	29.2
0°-40°	7409.4	49.0
0°-60°	12737.6	84.2
0°-90°	15128.0	100.0
90°-120°	5.0	0.0
90°-150°	5.0	0.0
90°-180°	5.0	0.0
0°-180°	15133.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4810	4810	4810	4810	4810	
5°	4786	4807	4876	4961	4992	454
15°	4532	4796	5348	5774	5898	1278
25°	4040	4724	5710	5875	5887	1859
35°	3400	4543	5375	5088	4952	2127
45°	2710	4210	4016	3881	3873	2093
55°	2016	3233	2737	2472	2267	1806
65°	1315	1814	1545	1281	1193	1304
75°	629	771	678	621	606	668
85°	112	159	166	158	156	139
90°	1	16	30	37	38	6
95°	1	2	2	2	1	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°	4809.5	4809.5	4809.5	4809.5	4809.5
2.5°	4804.7	4802.9	4820.3	4852.2	4866.7
5°	4786.0	4807.1	4876.3	4961.2	4991.9
7.5°	4752.3	4808.9	4961.8	5117.7	5183.9
10°	4693.9	4810.1	5075.0	5350.1	5459.7
12.5°	4633.7	4805.9	5200.8	5590.3	5710.1
15°	4532.0	4795.6	5348.3	5773.9	5898.5
17.5°	4437.4	4783.6	5490.4	5929.8	6024.4
20°	4313.4	4766.1	5616.8	5977.4	6025.0
22.5°	4183.4	4752.3	5686.6	5945.5	5959.9
25°	4040.1	4724.0	5709.5	5875.1	5887.1
27.5°	3887.2	4698.7	5687.8	5787.8	5798.0
30°	3734.9	4653.0	5626.4	5651.7	5610.2
32.5°	3575.4	4607.2	5527.1	5413.3	5316.4
35°	3400.2	4543.4	5375.4	5088.2	4951.6
37.5°	3227.4	4482.0	5138.8	4724.6	4621.7
40°	3051.6	4406.1	4799.9	4385.1	4373.6
42.5°	2885.5	4324.3	4416.4	4120.8	4159.3
45°	2710.3	4210.5	4016.0	3881.2	3873.4
47.5°	2544.1	4053.4	3651.8	3616.3	3536.2
50°	2367.7	3836.6	3319.5	3285.8	3121.4
52.5°	2194.9	3560.3	3022.7	2896.3	2656.7
55°	2016.1	3232.8	2736.8	2472.5	2266.6
57.5°	1850.0	2872.8	2446.0	2103.4	1918.6
60°	1670.6	2508.0	2126.9	1779.6	1627.2
62.5°	1494.8	2148.6	1837.9	1503.8	1402.7
65°	1314.8	1813.9	1544.8	1281.1	1192.6
67.5°	1142.6	1524.3	1291.3	1080.0	1021.0
70°	968.0	1236.5	1067.4	907.2	872.9
72.5°	788.0	987.9	863.3	765.8	739.9
75°	629.1	770.6	677.9	620.7	605.6
77.5°	468.4	573.1	529.8	496.1	491.8
80°	329.9	413.6	390.1	383.5	376.9
82.5°	210.7	270.3	277.5	273.3	268.5
85°	112.0	158.9	166.2	157.7	155.9
87.5°	45.2	69.2	74.6	82.5	84.9
90°	0.6	16.3	29.5	37.3	38.5
92.5°	0.6	3.6	4.2	4.2	3.6
95°	0.6	2.4	2.4	1.8	1.2
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)