

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: P859894

Luminaire Tested: **SPHB-15HE-N-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: P859894  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SPHB-15HE-N-L840-CD  
Description: 15000 Lumen High Efficacy Select Pro High Bay with Narrow Lens and, 4000K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

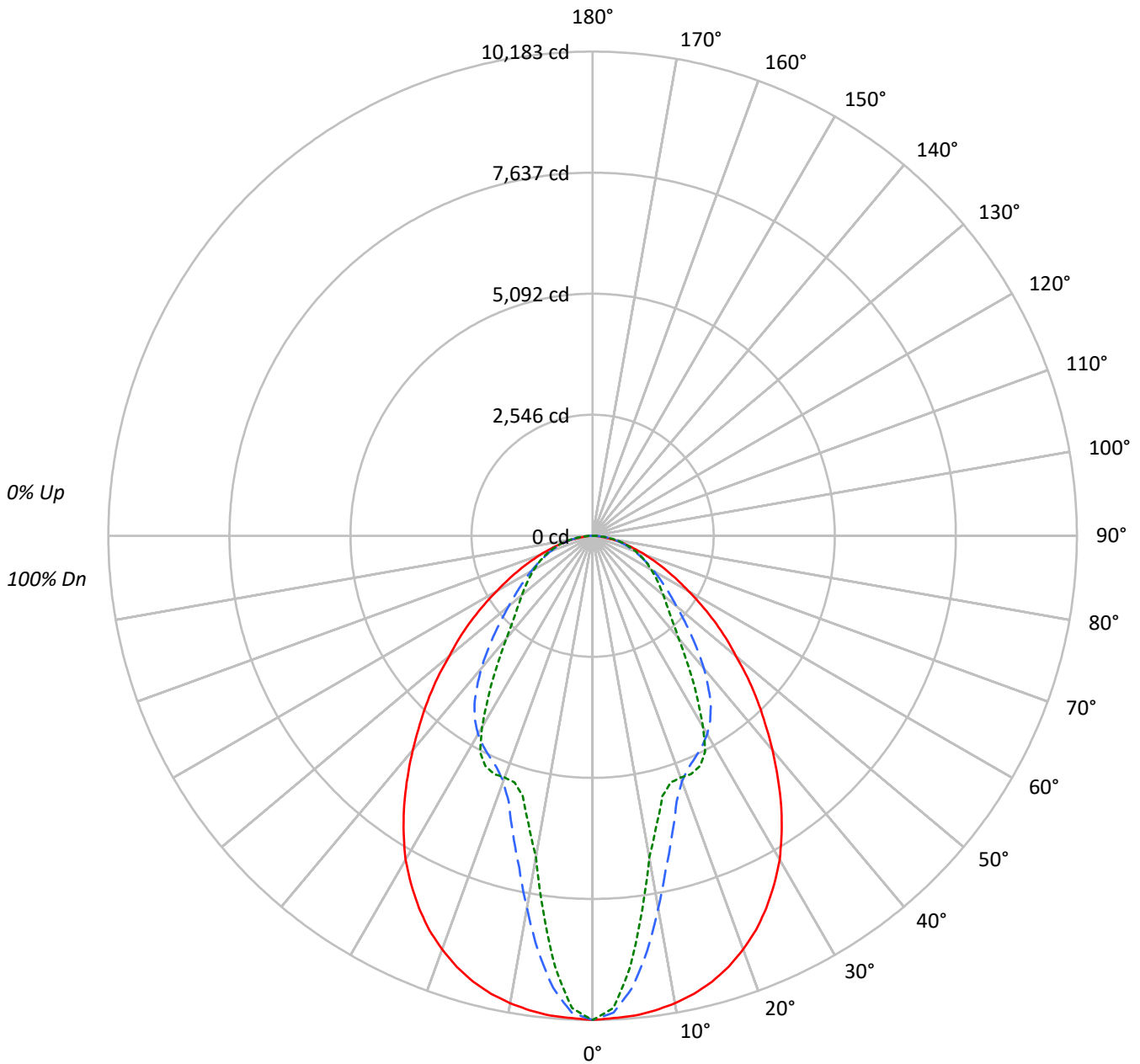
Lumens per Lamp: N/A  
Luminaire Lumens: 14924.0 lumens  
Efficiency: N/A  
Efficacy: 169.0 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

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: P859894

CATALOG NUMBER: SPHB-15HE-N-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	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86								
2	101	94	88	83	99	92	86	82	88	84	80	85	81	78	82	79	76	74								
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64								
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56								
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50								
6	74	62	54	48	73	61	54	48	60	53	47	58	52	47	56	51	47	45								
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	46	42	40								
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37								
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34								
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31								

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

	0°	45°	90°
0°	79426	79426	79426
5°	79334	74732	71196
10°	79062	62993	54305
15°	78405	52291	45762
20°	76825	45581	44923
25°	74357	44103	45976
30°	70841	43396	41841
35°	65776	41238	34671
40°	59895	37020	28630
45°	54066	32123	25134
50°	47713	27931	23536
55°	42338	25192	22654
60°	36284	23295	22192
65°	31407	21895	22081
70°	26876	21061	22055
75°	22560	20454	21858
80°	17213	19764	21403
85°	11267	17532	16485



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	868.2	5.8
10°-20°	1993.5	13.4
20°-30°	2694.1	18.1
30°-40°	2835.4	19.0
40°-50°	2405.9	16.1
50°-60°	1863.7	12.5
60°-70°	1298.0	8.7
70°-80°	743.3	5.0
80°-90°	216.3	1.4
90°-100°	5.8	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°	5555.7	37.2
0°-40°	8391.0	56.2
0°-60°	12660.7	84.8
0°-90°	14918.2	100.0
90°-120°	5.8	0.0
90°-150°	5.8	0.0
90°-180°	6.0	0.0
0°-180°	14924.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	10183	10183	10183	10183	10183	
5°	10132	9947	9545	9178	9093	962
15°	9710	8241	6476	5829	5667	2732
25°	8640	6103	5124	5273	5342	3966
35°	6908	4694	4331	3912	3641	4306
45°	4901	3525	2912	2393	2278	3775
55°	3113	2374	1852	1684	1666	2784
65°	1702	1393	1186	1186	1196	1700
75°	749	665	679	721	725	798
85°	126	163	196	184	184	160
90°	1	15	29	36	38	7
95°	1	2	5	5	4	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: P859894

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

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	10182.9	10182.9	10182.9	10182.9	10182.9
2.5°	10153.4	10119.9	10038.3	9985.4	9944.2
5°	10132.4	9946.6	9544.7	9178.5	9093.0
7.5°	10069.4	9661.3	8802.3	8125.2	7954.2
10°	9982.3	9251.6	7953.4	7105.3	6856.5
12.5°	9866.5	8813.9	7140.2	6341.1	6219.0
15°	9709.5	8241.0	6475.6	5828.8	5667.1
17.5°	9505.8	7648.6	5862.2	5488.3	5443.2
20°	9255.5	7105.3	5491.4	5363.9	5412.1
22.5°	8974.1	6577.4	5276.1	5329.7	5419.9
25°	8639.8	6103.2	5124.5	5273.0	5342.2
27.5°	8264.3	5674.9	4985.3	5121.4	5121.4
30°	7865.5	5318.1	4818.2	4805.8	4645.6
32.5°	7399.9	5014.9	4599.8	4353.3	4115.5
35°	6907.8	4693.8	4330.8	3911.8	3641.2
37.5°	6391.6	4395.3	3990.3	3437.6	3185.7
40°	5882.4	4100.7	3635.8	3011.6	2811.8
42.5°	5375.6	3800.6	3266.6	2666.4	2508.6
45°	4901.4	3524.6	2912.1	2392.8	2278.5
47.5°	4419.4	3231.6	2584.8	2172.8	2093.5
50°	3932.0	2934.6	2301.8	1997.9	1939.6
52.5°	3521.5	2657.9	2061.6	1832.3	1797.3
55°	3113.4	2374.1	1852.5	1683.8	1665.9
57.5°	2708.4	2109.8	1661.3	1547.8	1543.9
60°	2325.9	1862.6	1493.3	1431.2	1422.6
62.5°	2000.2	1617.0	1334.0	1304.4	1308.3
65°	1701.7	1393.1	1186.3	1186.3	1196.4
67.5°	1424.9	1187.1	1051.0	1068.9	1082.9
70°	1178.5	1000.5	923.5	954.6	967.1
72.5°	945.3	827.1	801.5	835.7	845.8
75°	748.6	665.4	678.7	721.4	725.3
77.5°	555.0	524.0	558.2	604.8	613.4
80°	383.2	386.4	440.0	472.6	476.5
82.5°	247.2	269.8	329.6	346.7	340.5
85°	125.9	163.2	195.9	184.2	184.2
87.5°	48.2	70.7	83.2	97.9	103.4
90°	0.8	14.8	28.8	36.5	38.1
92.5°	0.8	3.9	6.2	7.0	6.2
95°	0.8	2.3	4.7	4.7	3.9
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: P859894

CATALOG NUMBER: SPHB-15HE-N-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)