

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: P859921

Luminaire Tested: **SPHB-15SE-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: P859921
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-15SE-N-L840-CD
Description: 15000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 4000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

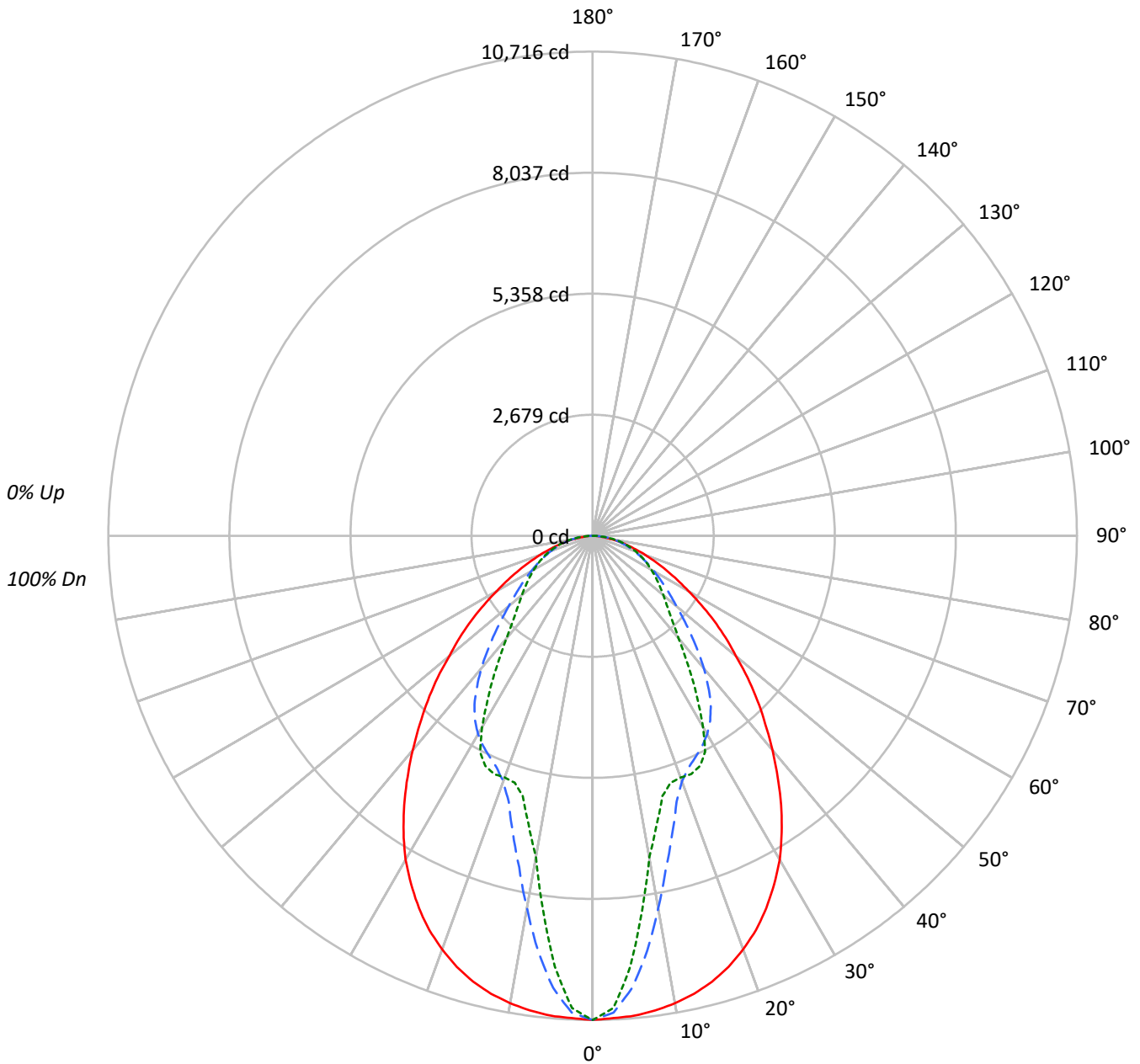
Lumens per Lamp: N/A
Luminaire Lumens: 15706.0 lumens
Efficiency: N/A
Efficacy: 163.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 95.9
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	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°	83588	83588	83588
5°	83491	78648	74927
10°	83206	66293	57151
15°	82513	55031	48161
20°	80851	47970	47277
25°	78253	46414	48385
30°	74554	45670	44033
35°	69223	43398	36488
40°	63034	38960	30130
45°	56899	33806	26451
50°	50213	29395	24769
55°	44556	26512	23841
60°	38185	24517	23355
65°	33053	23041	23238
70°	28286	22165	23209
75°	23742	21524	23003
80°	18115	20802	22526
85°	11858	18454	17353



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	913.7	5.8
10°-20°	2097.9	13.4
20°-30°	2835.2	18.1
30°-40°	2983.9	19.0
40°-50°	2532.0	16.1
50°-60°	1961.4	12.5
60°-70°	1366.0	8.7
70°-80°	782.2	5.0
80°-90°	227.6	1.4
90°-100°	6.1	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°	5846.8	37.2
0°-40°	8830.7	56.2
0°-60°	13324.1	84.8
0°-90°	15699.9	100.0
90°-120°	6.1	0.0
90°-150°	6.1	0.0
90°-180°	6.0	0.0
0°-180°	15706.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10716	10716	10716	10716	10716	
5°	10663	10468	10045	9660	9570	###
15°	10218	8673	6815	6134	5964	2875
25°	9092	6423	5393	5549	5622	4174
35°	7270	4940	4558	4117	3832	4532
45°	5158	3709	3065	2518	2398	3973
55°	3276	2498	1950	1772	1753	2929
65°	1791	1466	1248	1248	1259	1789
75°	788	700	714	759	763	840
85°	132	172	206	194	194	168
90°	1	16	30	38	40	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	10716.5	10716.5	10716.5	10716.5	10716.5
2.5°	10685.4	10650.2	10564.3	10508.7	10465.3
5°	10663.3	10467.8	10044.8	9659.5	9569.5
7.5°	10597.0	10167.5	9263.5	8550.9	8370.9
10°	10505.4	9736.4	8370.1	7477.6	7215.8
12.5°	10383.5	9275.8	7514.4	6673.4	6544.9
15°	10218.2	8672.8	6814.9	6134.2	5964.1
17.5°	10003.9	8049.4	6169.4	5775.9	5728.4
20°	9740.5	7477.6	5779.2	5645.0	5695.7
22.5°	9444.3	6922.1	5552.5	5609.0	5703.9
25°	9092.5	6423.0	5393.0	5549.3	5622.1
27.5°	8697.4	5972.2	5246.6	5389.7	5389.7
30°	8277.7	5596.7	5070.7	5057.6	4889.0
32.5°	7787.6	5277.7	4840.8	4581.4	4331.1
35°	7269.8	4939.8	4557.7	4116.7	3832.0
37.5°	6726.5	4625.6	4199.4	3617.7	3352.6
40°	6190.7	4315.6	3826.3	3169.4	2959.1
42.5°	5657.3	3999.8	3437.7	2806.1	2640.1
45°	5158.2	3709.3	3064.7	2518.2	2397.9
47.5°	4651.0	3400.9	2720.2	2286.6	2203.2
50°	4138.0	3088.4	2422.4	2102.6	2041.2
52.5°	3706.1	2797.1	2169.6	1928.3	1891.5
55°	3276.5	2498.5	1949.6	1772.0	1753.2
57.5°	2850.3	2220.4	1748.3	1628.9	1624.8
60°	2447.8	1960.2	1571.6	1506.1	1497.1
62.5°	2105.0	1701.7	1403.9	1372.8	1376.9
65°	1790.9	1466.1	1248.4	1248.4	1259.1
67.5°	1499.6	1249.3	1106.1	1124.9	1139.6
70°	1240.3	1052.9	971.9	1004.6	1017.7
72.5°	994.8	870.5	843.5	879.5	890.1
75°	787.8	700.3	714.2	759.2	763.3
77.5°	584.1	551.4	587.4	636.5	645.5
80°	403.3	406.6	463.1	497.4	501.5
82.5°	260.2	283.9	346.9	364.9	358.3
85°	132.5	171.8	206.2	193.9	193.9
87.5°	50.7	74.4	87.5	103.1	108.8
90°	0.8	15.5	30.3	38.5	40.1
92.5°	0.8	4.1	6.5	7.4	6.5
95°	0.8	2.5	4.9	4.9	4.1
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)