

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: P859972

Luminaire Tested: **SPHB-18SE-N-L740-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: P859972  
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-18SE-N-L740-CD  
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens  
and, 4000K 70CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

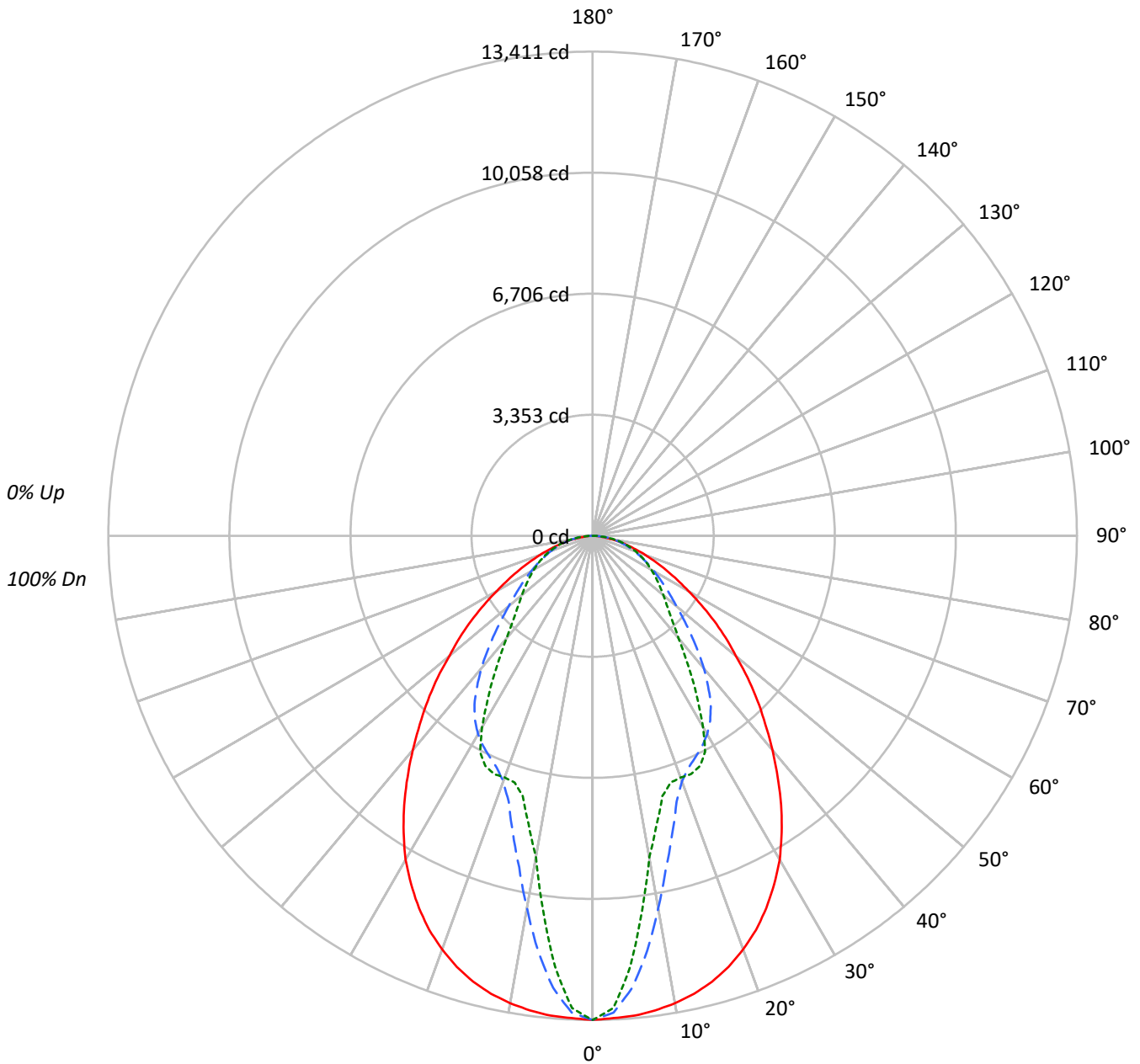
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19655.0 lumens  
Efficiency: N/A  
Efficacy: 167.4 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): 117.4  
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				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°	104604	104604	104604
5°	104483	98423	93766
10°	104126	82962	71520
15°	103259	68868	60269
20°	101179	60031	59164
25°	97928	58084	60551
30°	93299	57152	55105
35°	86627	54310	45663
40°	78883	48756	37705
45°	71206	42305	33101
50°	62839	36786	30996
55°	55760	33178	29836
60°	47787	30680	29228
65°	41362	28834	29081
70°	35396	27738	29045
75°	29712	26936	28787
80°	22670	26030	28191
85°	14847	23090	21711



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1143.4	5.8
10°-20°	2625.4	13.4
20°-30°	3548.1	18.1
30°-40°	3734.2	19.0
40°-50°	3168.6	16.1
50°-60°	2454.5	12.5
60°-70°	1709.5	8.7
70°-80°	978.9	5.0
80°-90°	284.9	1.4
90°-100°	7.6	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°	7316.9	37.2
0°-40°	11051.0	56.2
0°-60°	16674.2	84.8
0°-90°	19647.4	100.0
90°-120°	7.6	0.0
90°-150°	7.6	0.0
90°-180°	8.0	0.0
0°-180°	19655.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	13411	13411	13411	13411	13411	
5°	13344	13100	12570	12088	11976	###
15°	12787	10854	8528	7677	7464	3598
25°	11379	8038	6749	6944	7036	5223
35°	9098	6182	5704	5152	4796	5671
45°	6455	4642	3835	3151	3001	4972
55°	4100	3127	2440	2218	2194	3666
65°	2241	1835	1562	1562	1576	2239
75°	986	876	894	950	955	1051
85°	166	215	258	243	243	211
90°	1	20	38	48	50	9
95°	1	3	6	6	5	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: P859972

CATALOG NUMBER: SPHB-18SE-N-L740-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	13410.9	13410.9	13410.9	13410.9	13410.9
2.5°	13372.0	13328.0	13220.5	13150.9	13096.6
5°	13344.4	13099.7	12570.4	12088.2	11975.6
7.5°	13261.5	12724.0	11592.7	10700.9	10475.7
10°	13146.8	12184.4	10474.6	9357.7	9030.0
12.5°	12994.3	11608.0	9403.7	8351.3	8190.5
15°	12787.4	10853.5	8528.4	7676.6	7463.6
17.5°	12519.2	10073.3	7720.6	7228.1	7168.7
20°	12189.5	9357.7	7232.2	7064.3	7127.8
22.5°	11818.9	8662.5	6948.6	7019.3	7138.0
25°	11378.7	8038.0	6749.0	6944.5	7035.7
27.5°	10884.2	7473.8	6565.7	6744.9	6744.9
30°	10359.0	7003.9	6345.6	6329.2	6118.3
32.5°	9745.7	6604.6	6057.9	5733.4	5420.1
35°	9097.6	6181.8	5703.7	5151.8	4795.5
37.5°	8417.8	5788.6	5255.2	4527.3	4195.6
40°	7747.2	5400.6	4788.4	3966.3	3703.1
42.5°	7079.7	5005.4	4302.1	3511.7	3303.8
45°	6455.2	4642.0	3835.2	3151.3	3000.8
47.5°	5820.4	4256.0	3404.2	2861.6	2757.1
50°	5178.5	3864.9	3031.5	2631.2	2554.4
52.5°	4637.9	3500.4	2715.2	2413.1	2367.1
55°	4100.4	3126.7	2439.8	2217.6	2194.0
57.5°	3567.0	2778.6	2187.9	2038.4	2033.3
60°	3063.3	2453.1	1966.7	1884.8	1873.6
62.5°	2634.3	2129.5	1756.9	1718.0	1723.1
65°	2241.1	1834.7	1562.3	1562.3	1575.7
67.5°	1876.7	1563.4	1384.2	1407.7	1426.2
70°	1552.1	1317.6	1216.3	1257.2	1273.6
72.5°	1245.0	1089.3	1055.6	1100.6	1113.9
75°	985.9	876.4	893.8	950.1	955.2
77.5°	731.0	690.1	735.1	796.5	807.8
80°	504.7	508.8	579.5	622.5	627.6
82.5°	325.6	355.3	434.1	456.6	448.4
85°	165.9	215.0	258.0	242.6	242.6
87.5°	63.5	93.2	109.5	129.0	136.2
90°	1.0	19.5	37.9	48.1	50.2
92.5°	1.0	5.1	8.2	9.2	8.2
95°	1.0	3.1	6.1	6.1	5.1
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)