

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: P859971

Luminaire Tested: **SPHB-18SE-N-L735-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: P859971
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-L735-CD
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 3500K 70CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

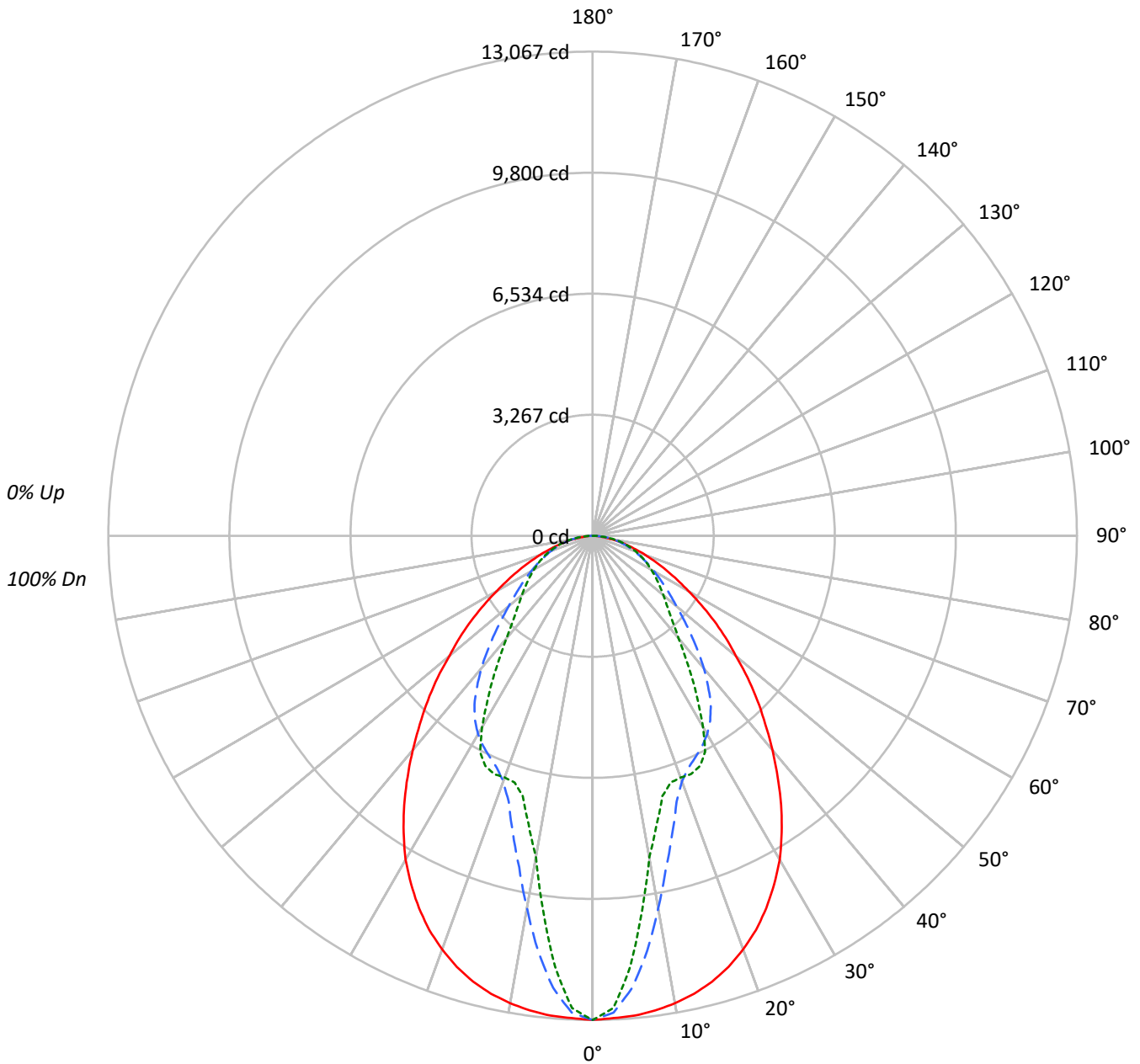
Lumens per Lamp: N/A
Luminaire Lumens: 19151.0 lumens
Efficiency: N/A
Efficacy: 163.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 117.4
Input Voltage (V): NR
Input Current (A_{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

TEST NUMBER: P859971

CATALOG NUMBER: SPHB-18SE-N-L735-CD

Luminous Intensity Polar Plot





TEST NUMBER: P859971

CATALOG NUMBER: SPHB-18SE-N-L735-CD

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°	101923	101923	101923
5°	101804	95899	91361
10°	101456	80835	69686
15°	100612	67102	58724
20°	98585	58492	57647
25°	95417	56594	58998
30°	90906	55687	53692
35°	84406	52917	44492
40°	76860	47506	36739
45°	69379	41221	32253
50°	61227	35843	30202
55°	54330	32327	29071
60°	46561	29894	28478
65°	40303	28096	28334
70°	34489	27027	28302
75°	28952	26246	28048
80°	22091	25361	27467
85°	14462	22499	21156



TEST NUMBER: P859971

CATALOG NUMBER: SPHB-18SE-N-L735-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1114.1	5.8
10°-20°	2558.1	13.4
20°-30°	3457.1	18.1
30°-40°	3638.4	19.0
40°-50°	3087.3	16.1
50°-60°	2391.6	12.5
60°-70°	1665.7	8.7
70°-80°	953.8	5.0
80°-90°	277.6	1.4
90°-100°	7.4	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°	7129.3	37.2
0°-40°	10767.7	56.2
0°-60°	16246.6	84.8
0°-90°	19143.6	100.0
90°-120°	7.4	0.0
90°-150°	7.4	0.0
90°-180°	7.0	0.0
0°-180°	19151.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	13067	13067	13067	13067	13067	
5°	13002	12764	12248	11778	11668	###
15°	12460	10575	8310	7480	7272	3506
25°	11087	7832	6576	6766	6855	5090
35°	8864	6023	5557	5020	4673	5526
45°	6290	4523	3737	3070	2924	4844
55°	3995	3047	2377	2161	2138	3572
65°	2184	1788	1522	1522	1535	2181
75°	961	854	871	926	931	1024
85°	162	210	251	236	236	205
90°	1	19	37	47	49	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: P859971

CATALOG NUMBER: SPHB-18SE-N-L735-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	13067.1	13067.1	13067.1	13067.1	13067.1
2.5°	13029.2	12986.3	12881.5	12813.7	12760.8
5°	13002.2	12763.8	12248.1	11778.2	11668.5
7.5°	12921.4	12397.7	11295.4	10426.5	10207.0
10°	12809.7	11872.0	10206.1	9117.7	8798.5
12.5°	12661.1	11310.4	9162.6	8137.1	7980.5
15°	12459.5	10575.1	8309.7	7479.7	7272.2
17.5°	12198.2	9815.0	7522.6	7042.8	6984.9
20°	11877.0	9117.7	7046.8	6883.2	6945.0
22.5°	11515.9	8440.4	6770.5	6839.3	6955.0
25°	11086.9	7831.9	6575.9	6766.5	6855.2
27.5°	10605.1	7282.2	6397.4	6571.9	6571.9
30°	10093.3	6824.3	6182.9	6166.9	5961.4
32.5°	9495.8	6435.3	5902.6	5586.3	5281.1
35°	8864.3	6023.3	5557.4	5019.7	4672.6
37.5°	8202.0	5640.2	5120.5	4411.2	4088.0
40°	7548.5	5262.1	4665.6	3864.6	3608.2
42.5°	6898.1	4877.1	4191.8	3421.6	3219.1
45°	6289.6	4522.9	3736.9	3070.5	2923.9
47.5°	5671.1	4146.9	3316.9	2788.2	2686.4
50°	5045.7	3765.8	2953.8	2563.7	2488.9
52.5°	4519.0	3410.7	2645.5	2351.3	2306.4
55°	3995.2	3046.6	2377.2	2160.7	2137.8
57.5°	3475.5	2707.4	2131.8	1986.1	1981.2
60°	2984.7	2390.2	1916.3	1836.5	1825.5
62.5°	2566.7	2074.9	1711.8	1673.9	1678.9
65°	2183.7	1787.6	1522.3	1522.3	1535.2
67.5°	1828.5	1523.3	1348.7	1371.6	1389.6
70°	1512.3	1283.9	1185.1	1225.0	1241.0
72.5°	1213.0	1061.4	1028.5	1072.4	1085.3
75°	960.7	853.9	870.9	925.7	930.7
77.5°	712.3	672.4	716.2	776.1	787.1
80°	491.8	495.8	564.6	606.5	611.5
82.5°	317.2	346.2	423.0	444.9	436.9
85°	161.6	209.5	251.4	236.4	236.4
87.5°	61.8	90.8	106.7	125.7	132.7
90°	1.0	19.0	36.9	46.9	48.9
92.5°	1.0	5.0	8.0	9.0	8.0
95°	1.0	3.0	6.0	6.0	5.0
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: P859971

CATALOG NUMBER: SPHB-18SE-N-L735-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)