

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: P859980

Luminaire Tested: **SPHB-18SE-W-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: P859980
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-18SE-W-L735-CD
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens and, 3500K 70CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

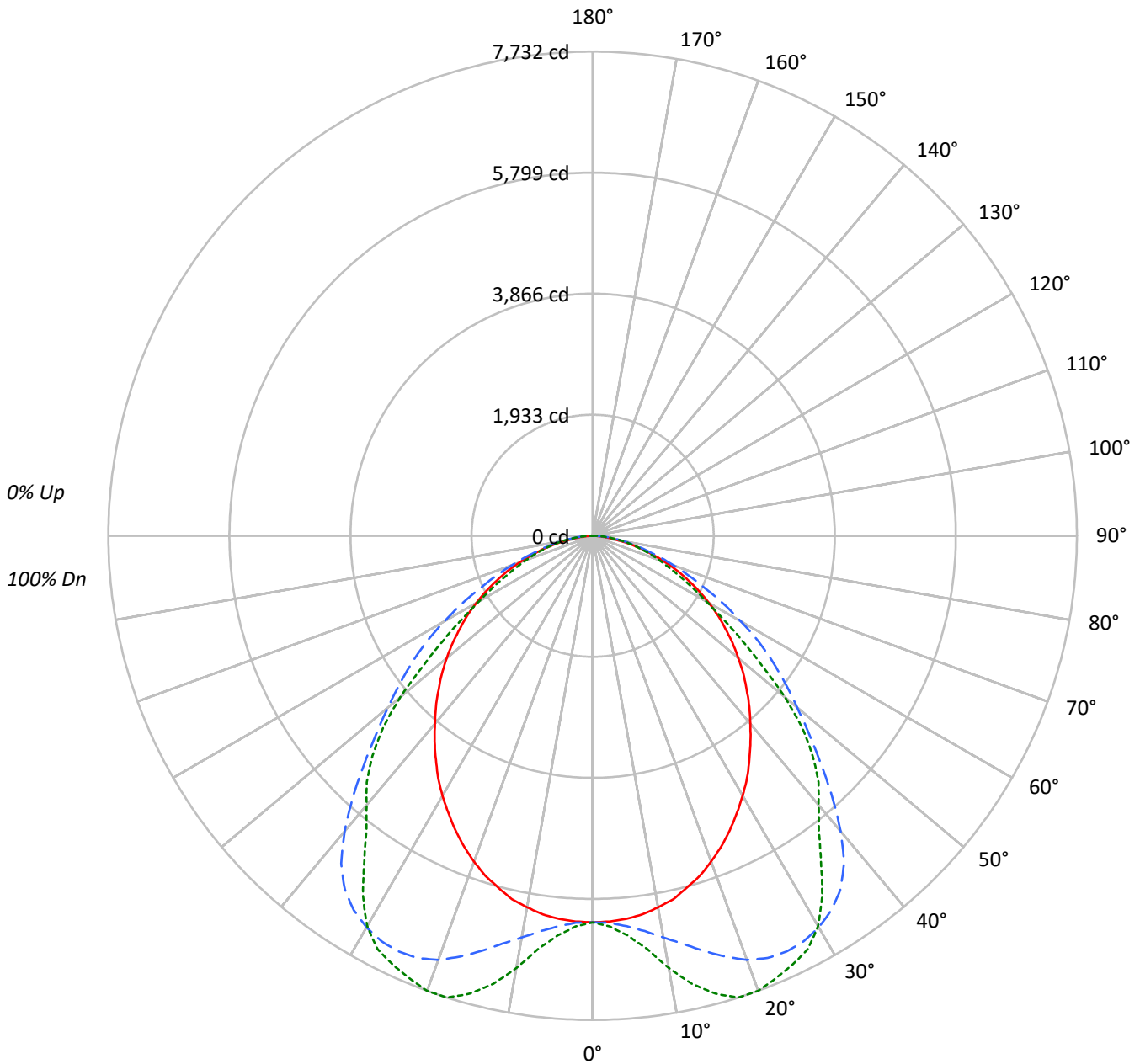
Lumens per Lamp: N/A
Luminaire Lumens: 19420.0 lumens
Efficiency: N/A
Efficacy: 165.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P859980

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

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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				100
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85				85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72				72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62				62
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53				53
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46				46
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40				40
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36				36
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32				32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29				29
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26				26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	48141	48141	48141
5°	48089	48996	50158
10°	47709	51582	55492
15°	46963	55423	61124
20°	45947	59830	64178
25°	44620	63057	65019
30°	43168	65030	64843
35°	41548	65684	60505
40°	39874	62718	57148
45°	38366	56849	54830
50°	36871	51692	48607
55°	35184	47759	39555
60°	33443	42578	32576
65°	31141	36588	28245
70°	28331	31237	25547
75°	24329	26216	23422
80°	19018	22486	21722
85°	12860	19080	17908



TEST NUMBER: P859980

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	606.0	3.1
10°-20°	1921.5	9.9
20°-30°	3144.6	16.2
30°-40°	3836.2	19.8
40°-50°	3799.4	19.6
50°-60°	3038.2	15.6
60°-70°	1895.4	9.8
70°-80°	928.6	4.8
80°-90°	243.5	1.3
90°-100°	6.4	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°	5672.1	29.2
0°-40°	9508.4	49.0
0°-60°	16346.0	84.2
0°-90°	19413.6	100.0
90°-120°	6.4	0.0
90°-150°	6.4	0.0
90°-180°	6.0	0.0
0°-180°	19420.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6172	6172	6172	6172	6172	
5°	6142	6169	6258	6367	6406	583
15°	5816	6154	6863	7410	7570	1640
25°	5185	6062	7327	7539	7555	2386
35°	4363	5830	6898	6530	6354	2729
45°	3478	5403	5154	4981	4971	2686
55°	2587	4149	3512	3173	2909	2318
65°	1687	2328	1982	1644	1530	1673
75°	807	989	870	796	777	857
85°	144	204	213	202	200	178
90°	1	21	38	48	49	8
95°	1	3	3	2	2	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: P859980

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6172.0	6172.0	6172.0	6172.0	6172.0
2.5°	6165.8	6163.5	6185.9	6226.8	6245.4
5°	6141.8	6168.9	6257.7	6366.7	6406.1
7.5°	6098.6	6171.2	6367.4	6567.5	6652.5
10°	6023.6	6172.7	6512.7	6865.7	7006.3
12.5°	5946.4	6167.3	6674.1	7174.0	7327.7
15°	5815.8	6154.2	6863.4	7409.6	7569.5
17.5°	5694.5	6138.7	7045.7	7609.7	7731.0
20°	5535.4	6116.3	7208.0	7670.7	7731.8
22.5°	5368.5	6098.6	7297.6	7629.8	7648.3
25°	5184.6	6062.3	7326.9	7539.4	7554.8
27.5°	4988.4	6029.8	7299.1	7427.4	7440.5
30°	4792.9	5971.1	7220.3	7252.8	7199.5
32.5°	4588.2	5912.4	7092.9	6946.8	6822.5
35°	4363.4	5830.5	6898.2	6529.7	6354.3
37.5°	4141.7	5751.7	6594.6	6063.0	5930.9
40°	3916.1	5654.4	6159.6	5627.3	5612.6
42.5°	3702.9	5549.3	5667.5	5288.2	5337.6
45°	3478.1	5403.3	5153.7	4980.7	4970.6
47.5°	3264.8	5201.6	4686.3	4640.8	4538.0
50°	3038.5	4923.5	4259.9	4216.6	4005.7
52.5°	2816.7	4568.9	3879.0	3716.8	3409.3
55°	2587.3	4148.6	3512.0	3172.9	2908.7
57.5°	2374.1	3686.6	3138.9	2699.3	2462.1
60°	2143.8	3218.5	2729.4	2283.7	2088.2
62.5°	1918.3	2757.3	2358.6	1929.8	1800.1
65°	1687.3	2327.7	1982.4	1644.0	1530.4
67.5°	1466.3	1956.1	1657.1	1386.0	1310.3
70°	1242.3	1586.8	1369.7	1164.2	1120.2
72.5°	1011.3	1267.8	1107.8	982.7	949.5
75°	807.3	988.9	869.9	796.5	777.2
77.5°	601.1	735.5	679.9	636.6	631.2
80°	423.4	530.7	500.6	492.1	483.6
82.5°	270.4	346.9	356.1	350.7	344.6
85°	143.7	204.0	213.2	202.4	200.1
87.5°	57.9	88.8	95.8	105.8	108.9
90°	0.8	20.9	37.9	47.9	49.4
92.5°	0.8	4.6	5.4	5.4	4.6
95°	0.8	3.1	3.1	2.3	1.5
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: P859980

CATALOG NUMBER: SPHB-18SE-W-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)