

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: P859974

Luminaire Tested: **SPHB-18SE-N-L835-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: P859974
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-L835-CD
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

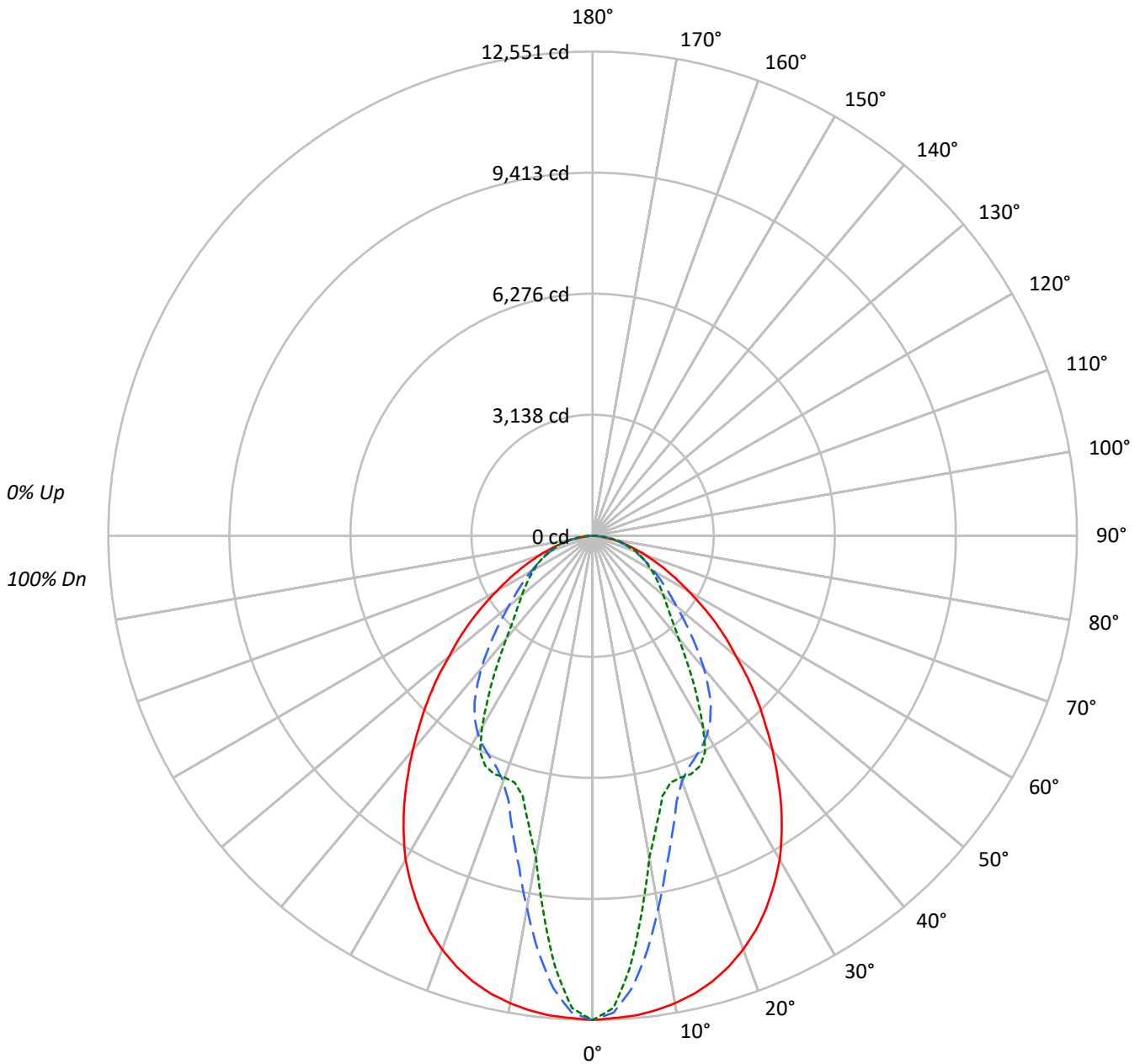
Lumens per Lamp: N/A
Luminaire Lumens: 18395.0 lumens
Efficiency: N/A
Efficacy: 156.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

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

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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°	97899	97899	97899
5°	97785	92114	87755
10°	97451	77644	66936
15°	96640	64453	56405
20°	94693	56183	55372
25°	91650	54360	56669
30°	87318	53488	51573
35°	81074	50828	42736
40°	73826	45630	35288
45°	66640	39593	30979
50°	58810	34428	29010
55°	52185	31050	27924
60°	44723	28715	27354
65°	38712	26987	27216
70°	33127	25959	27184
75°	27807	25209	26942
80°	21219	24359	26385
85°	13890	21613	20324



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1070.1	5.8
10°-20°	2457.1	13.4
20°-30°	3320.6	18.1
30°-40°	3494.8	19.0
40°-50°	2965.5	16.1
50°-60°	2297.2	12.5
60°-70°	1599.9	8.7
70°-80°	916.1	5.0
80°-90°	266.6	1.4
90°-100°	7.1	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°	6847.8	37.2
0°-40°	10342.6	56.2
0°-60°	15605.2	84.8
0°-90°	18387.9	100.0
90°-120°	7.1	0.0
90°-150°	7.1	0.0
90°-180°	7.0	0.0
0°-180°	18395.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	12551	12551	12551	12551	12551	
5°	12489	12260	11765	11313	11208	###
15°	11968	10158	7982	7184	6985	3368
25°	10649	7523	6316	6499	6585	4889
35°	8514	5786	5338	4822	4488	5307
45°	6041	4344	3589	2949	2808	4653
55°	3838	2926	2283	2075	2053	3431
65°	2098	1717	1462	1462	1475	2095
75°	923	820	836	889	894	984
85°	155	201	242	227	227	197
90°	1	18	36	45	47	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	12551.2	12551.2	12551.2	12551.2	12551.2
2.5°	12514.8	12473.6	12373.0	12307.8	12257.1
5°	12488.9	12259.9	11764.6	11313.3	11207.9
7.5°	12411.3	11908.3	10849.5	10014.9	9804.1
10°	12304.0	11403.3	9803.2	8757.8	8451.2
12.5°	12161.2	10863.9	8800.9	7815.9	7665.5
15°	11967.7	10157.7	7981.7	7184.4	6985.1
17.5°	11716.7	9427.6	7225.7	6764.8	6709.2
20°	11408.1	8757.8	6768.6	6611.5	6670.9
22.5°	11061.3	8107.2	6503.2	6569.3	6680.4
25°	10649.2	7522.7	6316.3	6499.3	6584.6
27.5°	10186.4	6994.7	6144.8	6312.5	6312.5
30°	9694.9	6554.9	5938.8	5923.5	5726.1
32.5°	9120.9	6181.2	5669.6	5365.8	5072.6
35°	8514.4	5785.5	5338.0	4821.6	4488.1
37.5°	7878.2	5417.6	4918.3	4237.1	3926.6
40°	7250.6	5054.4	4481.4	3712.0	3465.7
42.5°	6625.8	4684.6	4026.3	3286.6	3092.1
45°	6041.3	4344.4	3589.3	2949.3	2808.4
47.5°	5447.3	3983.2	3186.0	2678.1	2580.4
50°	4846.5	3617.1	2837.2	2462.5	2390.7
52.5°	4340.6	3276.0	2541.1	2258.4	2215.3
55°	3837.5	2926.3	2283.3	2075.4	2053.4
57.5°	3338.3	2600.5	2047.6	1907.7	1902.9
60°	2866.9	2295.8	1840.7	1764.0	1753.5
62.5°	2465.4	1993.0	1644.2	1607.8	1612.6
65°	2097.5	1717.1	1462.2	1462.2	1474.6
67.5°	1756.3	1463.1	1295.5	1317.5	1334.7
70°	1452.6	1233.2	1138.3	1176.6	1192.0
72.5°	1165.1	1019.5	987.9	1030.0	1042.5
75°	922.7	820.2	836.5	889.2	894.0
77.5°	684.1	645.8	688.0	745.5	756.0
80°	472.4	476.2	542.3	582.6	587.4
82.5°	304.7	332.5	406.3	427.3	419.7
85°	155.2	201.2	241.5	227.1	227.1
87.5°	59.4	87.2	102.5	120.7	127.4
90°	1.0	18.2	35.5	45.0	47.0
92.5°	1.0	4.8	7.7	8.6	7.7
95°	1.0	2.9	5.7	5.7	4.8
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)