

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: P859983

Luminaire Tested: **SPHB-18SE-W-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: P859983  
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-L835-CD  
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens  
and, 3500K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

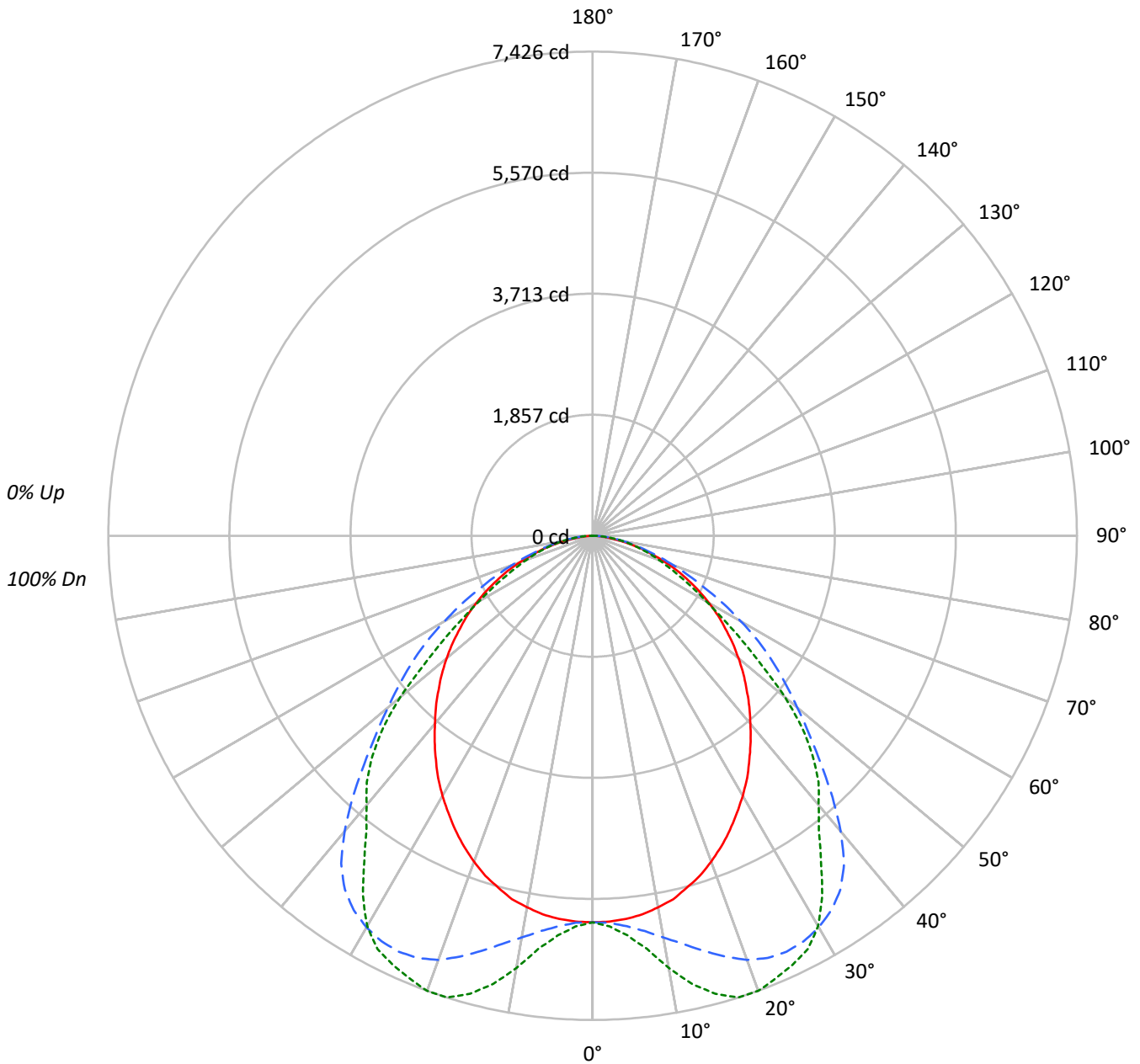
Lumens per Lamp: N/A  
Luminaire Lumens: 18653.0 lumens  
Efficiency: N/A  
Efficacy: 158.9 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 117.4  
Input Voltage (V): NR  
Input Current (A<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				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°	46240	46240	46240
5°	46190	47061	48176
10°	45824	49544	53300
15°	45108	53233	58711
20°	44132	57467	61643
25°	42858	60568	62451
30°	41464	62463	62281
35°	39908	63090	58115
40°	38299	60240	54892
45°	36851	54605	52664
50°	35415	49650	46688
55°	33794	45873	37992
60°	32123	40897	31289
65°	29910	35143	27131
70°	27212	30003	24539
75°	23368	25179	22497
80°	18264	21597	20864
85°	12350	18328	17201



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	582.0	3.1
10°-20°	1845.6	9.9
20°-30°	3020.4	16.2
30°-40°	3684.7	19.8
40°-50°	3649.3	19.6
50°-60°	2918.3	15.6
60°-70°	1820.5	9.8
70°-80°	892.0	4.8
80°-90°	233.9	1.3
90°-100°	6.2	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°	5448.1	29.2
0°-40°	9132.8	49.0
0°-60°	15700.4	84.2
0°-90°	18646.8	100.0
90°-120°	6.2	0.0
90°-150°	6.2	0.0
90°-180°	6.0	0.0
0°-180°	18653.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5928	5928	5928	5928	5928	
5°	5899	5925	6011	6115	6153	560
15°	5586	5911	6592	7117	7271	1575
25°	4980	5823	7038	7242	7256	2292
35°	4191	5600	6626	6272	6103	2622
45°	3341	5190	4950	4784	4774	2580
55°	2485	3985	3373	3048	2794	2227
65°	1621	2236	1904	1579	1470	1607
75°	775	950	836	765	746	823
85°	138	196	205	194	192	171
90°	1	20	36	46	48	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



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5928.2	5928.2	5928.2	5928.2	5928.2
2.5°	5922.3	5920.0	5941.6	5980.9	5998.7
5°	5899.3	5925.2	6010.6	6115.2	6153.0
7.5°	5857.7	5927.5	6115.9	6308.1	6389.8
10°	5785.7	5928.9	6255.4	6594.6	6729.6
12.5°	5711.5	5923.7	6410.5	6890.6	7038.3
15°	5586.1	5911.1	6592.3	7117.0	7270.6
17.5°	5469.6	5896.3	6767.5	7309.1	7425.6
20°	5316.8	5874.8	6923.3	7367.8	7426.4
22.5°	5156.5	5857.7	7009.4	7328.4	7346.3
25°	4979.9	5822.8	7037.6	7241.6	7256.5
27.5°	4791.4	5791.7	7010.8	7134.0	7146.6
30°	4603.7	5735.3	6935.2	6966.3	6915.1
32.5°	4407.0	5678.9	6812.7	6672.5	6553.0
35°	4191.1	5600.2	6625.7	6271.8	6103.3
37.5°	3978.1	5524.5	6334.1	5823.6	5696.7
40°	3761.4	5431.0	5916.3	5405.1	5391.0
42.5°	3556.6	5330.1	5443.6	5079.3	5126.8
45°	3340.7	5189.9	4950.2	4784.0	4774.3
47.5°	3135.9	4996.2	4501.2	4457.5	4358.8
50°	2918.5	4729.1	4091.6	4050.1	3847.5
52.5°	2705.5	4388.5	3725.8	3570.0	3274.6
55°	2485.1	3984.8	3373.3	3047.6	2793.8
57.5°	2280.3	3541.0	3014.9	2592.7	2364.9
60°	2059.2	3091.4	2621.6	2193.5	2005.7
62.5°	1842.5	2648.4	2265.5	1853.6	1729.0
65°	1620.6	2235.8	1904.1	1579.1	1470.0
67.5°	1408.4	1878.9	1591.7	1331.2	1258.5
70°	1193.2	1524.2	1315.6	1118.3	1076.0
72.5°	971.3	1217.7	1064.1	943.9	912.0
75°	775.4	949.8	835.5	765.0	746.5
77.5°	577.3	706.4	653.0	611.4	606.3
80°	406.6	509.8	480.8	472.7	464.5
82.5°	259.7	333.2	342.1	336.9	331.0
85°	138.0	195.9	204.8	194.4	192.2
87.5°	55.7	85.3	92.0	101.7	104.6
90°	0.7	20.0	36.4	46.0	47.5
92.5°	0.7	4.5	5.2	5.2	4.5
95°	0.7	3.0	3.0	2.2	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



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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)