

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: P859967

Luminaire Tested: **SPHB-18SE-M-L850-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: P859967  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SPHB-18SE-M-L850-CD  
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens and, 5000K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

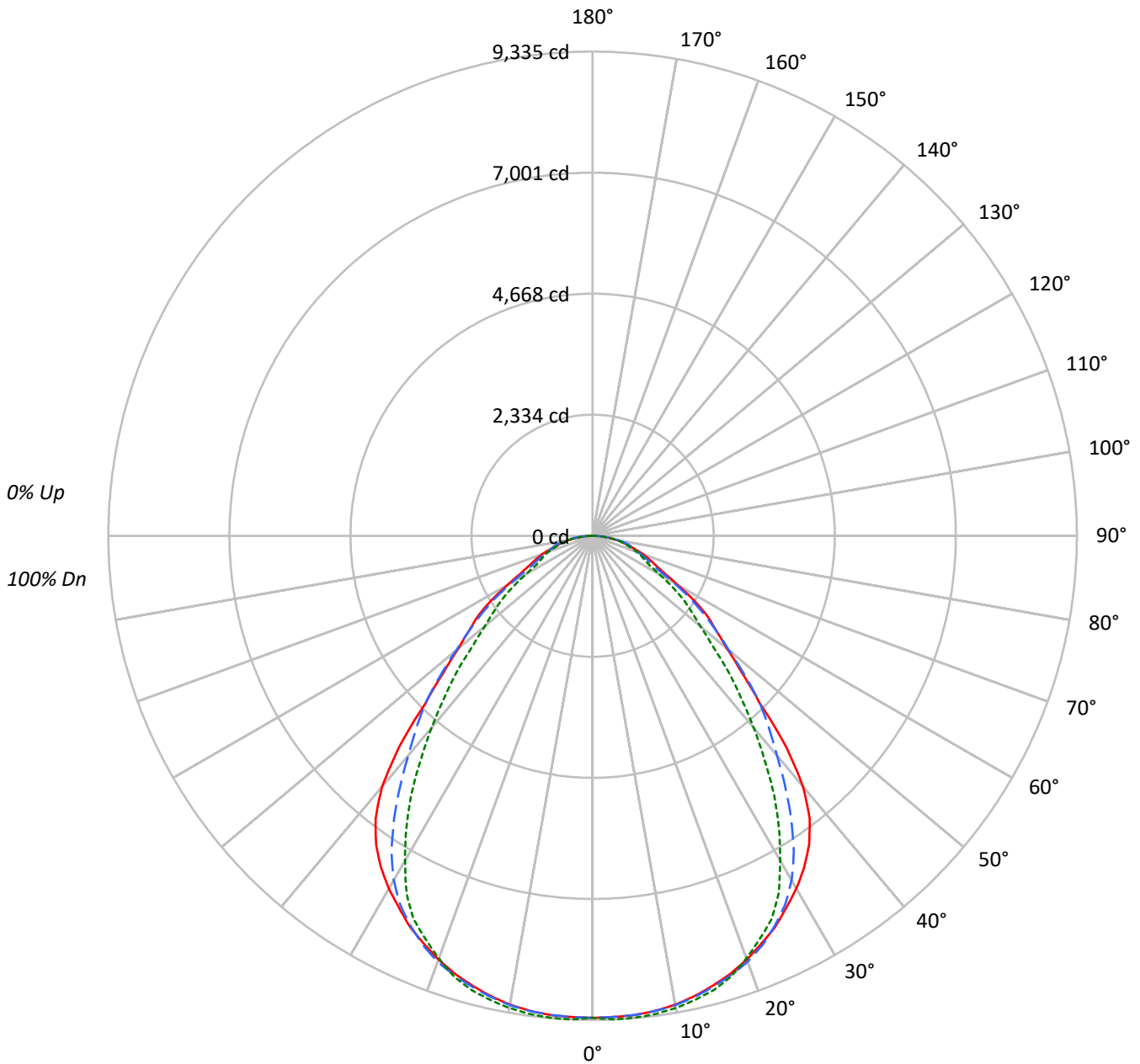
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19290.0 lumens  
Efficiency: N/A  
Efficacy: 164.3 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
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									
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	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87																			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66																			
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58																			
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51																			
6	75	63	55	49	73	62	54	49	60	54	48	59	53	48	57	52	48	46																			
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41																			
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34																			
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	72490	72490	72490
5°	72632	72612	73026
10°	72695	72772	73219
15°	72483	72671	73176
20°	72166	72532	71952
25°	71639	71438	70225
30°	70731	69064	65123
35°	69247	63539	58042
40°	64262	56238	49161
45°	50135	50271	40685
50°	40948	41528	32857
55°	36688	35304	28870
60°	29370	27802	23099
65°	24613	22531	20427
70°	23369	21469	20799
75°	21204	22792	20059
80°	21309	23290	21143
85°	18534	21720	17657



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	883.7	4.6
10°-20°	2541.4	13.2
20°-30°	3793.9	19.7
30°-40°	4139.7	21.5
40°-50°	3386.5	17.6
50°-60°	2226.6	11.5
60°-70°	1277.5	6.6
70°-80°	774.1	4.0
80°-90°	259.9	1.3
90°-100°	6.8	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°	7218.9	37.4
0°-40°	11358.6	58.9
0°-60°	16971.7	88.0
0°-90°	19283.2	100.0
90°-120°	6.8	0.0
90°-150°	6.8	0.0
90°-180°	7.0	0.0
0°-180°	19290.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9294	9294	9294	9294	9294	
5°	9276	9262	9274	9312	9327	882
15°	8976	8975	8999	9057	9062	2534
25°	8324	8344	8301	8200	8160	3829
35°	7272	7108	6673	6218	6096	4507
45°	4545	4885	4557	4023	3688	3608
55°	2698	2624	2596	2231	2123	2376
65°	1334	1314	1221	1188	1107	1363
75°	704	761	756	726	666	761
85°	207	235	243	212	197	225
90°	1	17	34	40	43	10
95°	1	2	4	4	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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CATALOG NUMBER: SPHB-18SE-M-L850-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9293.6	9293.6	9293.6	9293.6	9293.6
2.5°	9287.4	9273.9	9286.2	9324.2	9335.2
5°	9276.4	9261.7	9273.9	9311.9	9326.7
7.5°	9238.4	9229.8	9242.1	9280.1	9298.5
10°	9178.3	9168.5	9188.1	9221.2	9244.5
12.5°	9088.9	9085.2	9103.6	9151.4	9161.2
15°	8976.1	8974.9	8999.4	9057.0	9061.9
17.5°	8848.6	8847.4	8878.0	8916.0	8902.5
20°	8694.2	8702.8	8738.3	8702.8	8668.4
22.5°	8509.1	8536.0	8544.6	8433.1	8415.9
25°	8324.0	8343.6	8300.7	8200.2	8159.7
27.5°	8085.0	8108.3	8028.6	7885.2	7770.0
30°	7853.3	7831.2	7668.2	7391.2	7230.6
32.5°	7587.3	7508.9	7215.9	6833.5	6687.6
35°	7272.3	7108.1	6672.9	6218.2	6095.6
37.5°	6873.9	6573.6	6098.1	5623.7	5438.6
40°	6311.3	5964.4	5523.2	5032.9	4828.2
42.5°	5523.2	5394.5	5029.2	4477.6	4233.7
45°	4545.0	4884.6	4557.3	4022.9	3688.3
47.5°	3890.5	4362.4	3968.9	3582.8	3122.0
50°	3374.5	3699.3	3422.3	3074.2	2707.7
52.5°	3001.8	3099.9	2988.4	2605.9	2397.5
55°	2697.9	2624.3	2596.1	2230.8	2123.0
57.5°	2320.3	2279.9	2207.6	1945.2	1803.1
60°	1882.7	1968.5	1782.2	1707.5	1480.7
62.5°	1546.9	1631.5	1431.7	1426.8	1238.0
65°	1333.6	1314.0	1220.8	1187.7	1106.8
67.5°	1180.4	1119.1	1087.2	1044.3	1016.1
70°	1024.7	999.0	941.4	949.9	912.0
72.5°	854.3	887.4	829.8	845.8	777.1
75°	703.6	761.2	756.3	725.6	665.6
77.5°	579.8	641.1	652.1	623.9	574.9
80°	474.4	516.0	518.5	501.3	470.7
82.5°	348.1	372.6	391.0	361.6	342.0
85°	207.1	235.3	242.7	212.1	197.3
87.5°	67.4	94.4	105.4	109.1	110.3
90°	1.2	17.2	34.3	40.4	42.9
92.5°	1.2	4.9	7.4	11.0	12.3
95°	1.2	2.5	3.7	3.7	2.5
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)