

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: P859968

Luminaire Tested: **SPHB-18SE-M-L935-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: P859968  
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-L935-CD  
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens  
and, 3500K 90CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

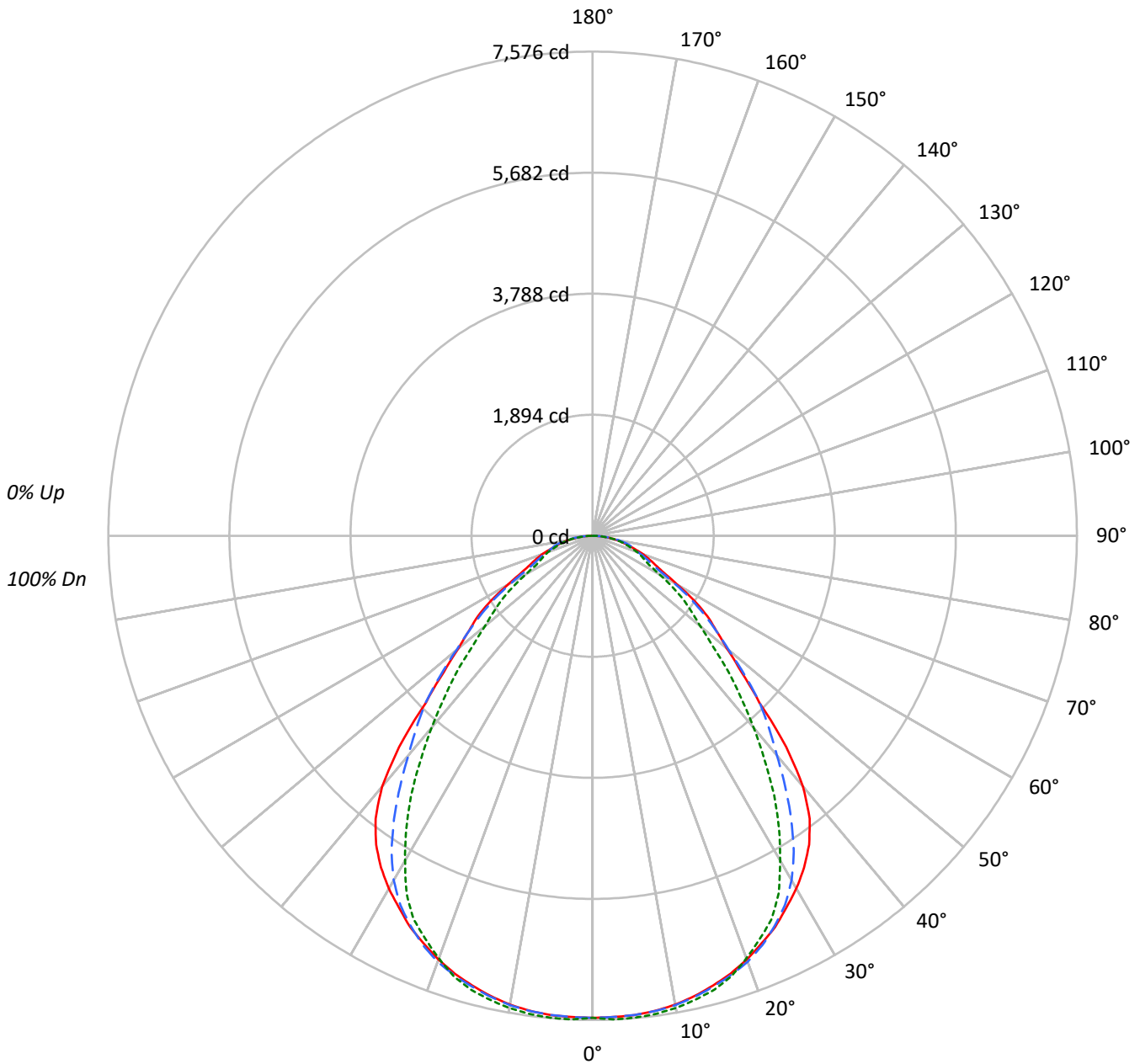
Lumens per Lamp: N/A  
Luminaire Lumens: 15655.0 lumens  
Efficiency: N/A  
Efficacy: 133.3 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

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°	58829	58829	58829
5°	58945	58930	59264
10°	58996	59059	59422
15°	58824	58976	59387
20°	58567	58865	58394
25°	58139	57976	56992
30°	57403	56050	52852
35°	56198	51566	47104
40°	52153	45640	39898
45°	40688	40797	33017
50°	33232	33702	26664
55°	29775	28651	23429
60°	23837	22564	18746
65°	19975	18286	16579
70°	18965	17423	16878
75°	17208	18498	16280
80°	17293	18902	17159
85°	15044	17630	14337



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	717.1	4.6
10°-20°	2062.5	13.2
20°-30°	3078.9	19.7
30°-40°	3359.6	21.5
40°-50°	2748.3	17.6
50°-60°	1807.1	11.5
60°-70°	1036.7	6.6
70°-80°	628.2	4.0
80°-90°	211.0	1.3
90°-100°	5.5	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°	5858.6	37.4
0°-40°	9218.2	58.9
0°-60°	13773.6	88.0
0°-90°	15649.5	100.0
90°-120°	5.5	0.0
90°-150°	5.5	0.0
90°-180°	5.0	0.0
0°-180°	15655.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7542	7542	7542	7542	7542	
5°	7528	7516	7526	7557	7569	716
15°	7285	7284	7304	7350	7354	2056
25°	6755	6771	6736	6655	6622	3108
35°	5902	5769	5416	5046	4947	3658
45°	3689	3964	3698	3265	2993	2928
55°	2190	2130	2107	1810	1723	1928
65°	1082	1066	991	964	898	1106
75°	571	618	614	589	540	618
85°	168	191	197	172	160	182
90°	1	14	28	33	35	8
95°	1	2	3	3	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°	7542.3	7542.3	7542.3	7542.3	7542.3
2.5°	7537.3	7526.4	7536.3	7567.2	7576.1
5°	7528.4	7516.4	7526.4	7557.2	7569.1
7.5°	7497.5	7490.6	7500.5	7531.3	7546.3
10°	7448.8	7440.8	7456.7	7483.6	7502.5
12.5°	7376.2	7373.2	7388.1	7426.9	7434.8
15°	7284.6	7283.6	7303.5	7350.3	7354.3
17.5°	7181.2	7180.2	7205.1	7235.9	7225.0
20°	7055.8	7062.8	7091.7	7062.8	7035.0
22.5°	6905.6	6927.5	6934.5	6844.0	6830.0
25°	6755.4	6771.3	6736.5	6655.0	6622.1
27.5°	6561.4	6580.3	6515.7	6399.3	6305.8
30°	6373.4	6355.5	6223.2	5998.4	5868.1
32.5°	6157.6	6093.9	5856.2	5545.8	5427.4
35°	5901.9	5768.6	5415.5	5046.4	4946.9
37.5°	5578.6	5334.9	4948.9	4564.0	4413.8
40°	5122.0	4840.5	4482.4	4084.5	3918.4
42.5°	4482.4	4377.9	4081.5	3633.9	3435.9
45°	3688.6	3964.1	3698.5	3264.8	2993.2
47.5°	3157.4	3540.4	3221.0	2907.7	2533.7
50°	2738.6	3002.2	2777.4	2494.9	2197.4
52.5°	2436.2	2515.8	2425.2	2114.9	1945.8
55°	2189.5	2129.8	2106.9	1810.5	1722.9
57.5°	1883.1	1850.3	1791.6	1578.7	1463.3
60°	1528.0	1597.6	1446.4	1385.7	1201.7
62.5°	1255.4	1324.0	1161.9	1157.9	1004.7
65°	1082.3	1066.4	990.8	963.9	898.3
67.5°	958.0	908.2	882.4	847.5	824.7
70°	831.6	810.7	764.0	770.9	740.1
72.5°	693.3	720.2	673.5	686.4	630.7
75°	571.0	617.7	613.8	588.9	540.2
77.5°	470.5	520.3	529.2	506.3	466.5
80°	385.0	418.8	420.8	406.9	382.0
82.5°	282.5	302.4	317.3	293.5	277.5
85°	168.1	191.0	197.0	172.1	160.2
87.5°	54.7	76.6	85.5	88.5	89.5
90°	1.0	13.9	27.9	32.8	34.8
92.5°	1.0	4.0	6.0	9.0	9.9
95°	1.0	2.0	3.0	3.0	2.0
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



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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)