

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: P860271

Luminaire Tested: **SPHB-9HE-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: P860271  
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-9HE-N-L835-CD  
Description: 9000 Lumen High Efficacy Select Pro High Bay with Narrow Lens and, 3500K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

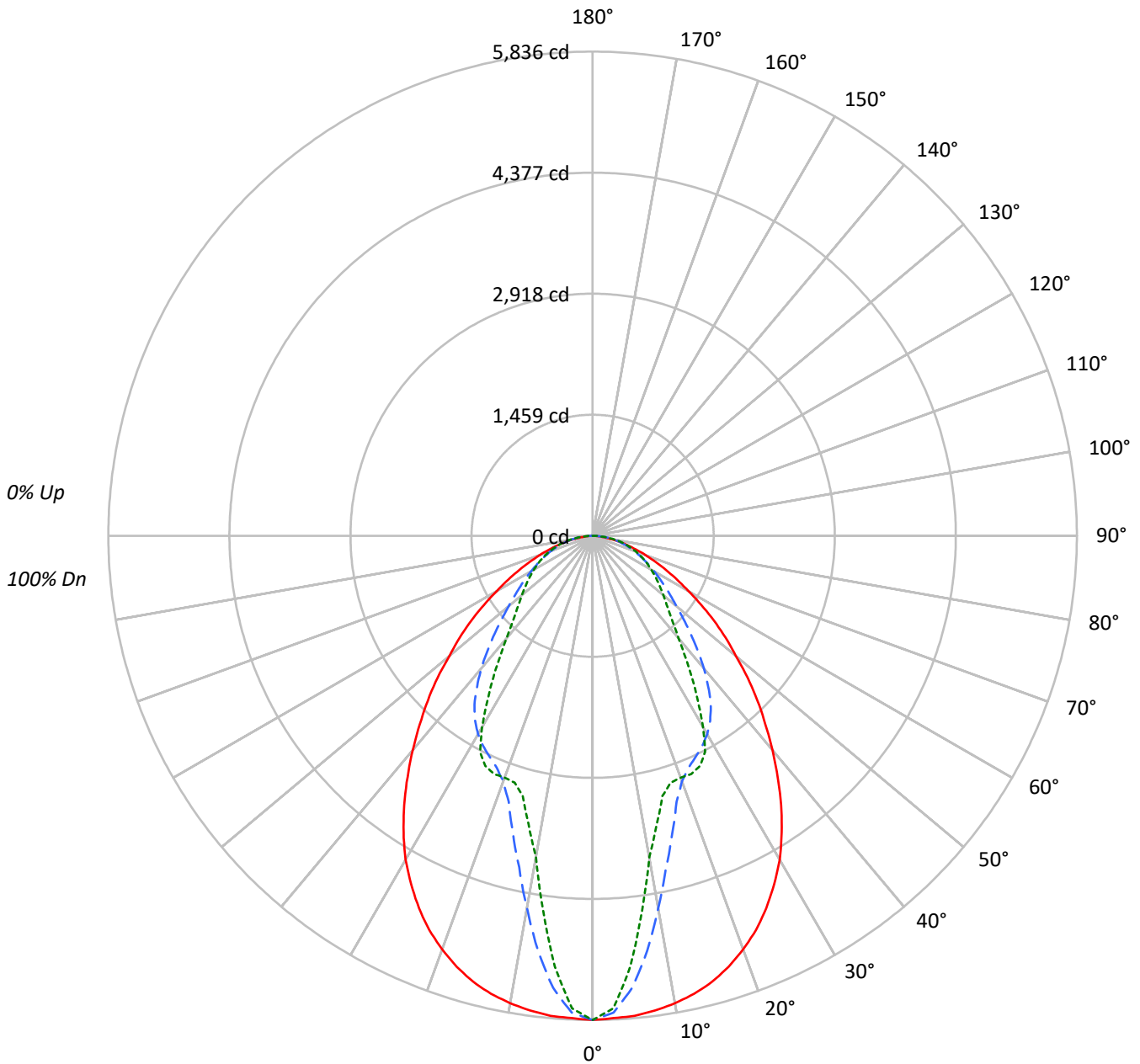
Lumens per Lamp: N/A  
Luminaire Lumens: 8554.0 lumens  
Efficiency: N/A  
Efficacy: 160.5 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 53.3  
Input Voltage (V): NR  
Input Current (Ain): 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				
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			
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°	45524	45524	45524
5°	45472	42834	40808
10°	45317	36105	31126
15°	44939	29972	26230
20°	44034	26126	25749
25°	42619	25278	26352
30°	40604	24874	23982
35°	37700	23636	19873
40°	34330	21218	16409
45°	30989	18411	14406
50°	27348	16009	13490
55°	24267	14439	12985
60°	20798	13352	12720
65°	18002	12548	12655
70°	15405	12071	12641
75°	12932	11723	12528
80°	9868	11328	12267
85°	6461	10050	9451



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	497.6	5.8
10°-20°	1142.6	13.4
20°-30°	1544.2	18.1
30°-40°	1625.1	19.0
40°-50°	1379.0	16.1
50°-60°	1068.2	12.5
60°-70°	744.0	8.7
70°-80°	426.0	5.0
80°-90°	124.0	1.4
90°-100°	3.3	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°	3184.4	37.2
0°-40°	4809.5	56.2
0°-60°	7256.7	84.8
0°-90°	8550.7	100.0
90°-120°	3.3	0.0
90°-150°	3.3	0.0
90°-180°	3.0	0.0
0°-180°	8554.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5836	5836	5836	5836	5836	
5°	5808	5701	5471	5261	5212	552
15°	5565	4724	3712	3341	3248	1566
25°	4952	3498	2937	3022	3062	2273
35°	3959	2690	2482	2242	2087	2468
45°	2809	2020	1669	1372	1306	2164
55°	1784	1361	1062	965	955	1595
65°	975	798	680	680	686	974
75°	429	381	389	414	416	458
85°	72	94	112	106	106	92
90°	0	8	16	21	22	4
95°	0	1	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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CATALOG NUMBER: SPHB-9HE-N-L835-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5836.5	5836.5	5836.5	5836.5	5836.5
2.5°	5819.6	5800.5	5753.7	5723.4	5699.8
5°	5807.6	5701.1	5470.7	5260.9	5211.9
7.5°	5771.5	5537.6	5045.2	4657.1	4559.1
10°	5721.6	5302.7	4558.6	4072.5	3929.9
12.5°	5655.2	5051.9	4092.6	3634.5	3564.6
15°	5565.2	4723.5	3711.6	3340.9	3248.2
17.5°	5448.4	4384.0	3360.1	3145.7	3119.9
20°	5305.0	4072.5	3147.5	3074.4	3102.1
22.5°	5143.7	3770.0	3024.1	3054.8	3106.5
25°	4952.1	3498.2	2937.2	3022.3	3062.0
27.5°	4736.9	3252.7	2857.5	2935.4	2935.4
30°	4508.3	3048.2	2761.7	2754.5	2662.7
32.5°	4241.4	2874.4	2636.4	2495.2	2358.9
35°	3959.3	2690.4	2482.3	2242.1	2087.1
37.5°	3663.5	2519.3	2287.1	1970.3	1826.0
40°	3371.6	2350.4	2083.9	1726.1	1611.6
42.5°	3081.1	2178.4	1872.3	1528.3	1437.9
45°	2809.3	2020.2	1669.1	1371.5	1306.0
47.5°	2533.1	1852.2	1481.5	1245.4	1199.9
50°	2253.7	1682.0	1319.3	1145.1	1111.7
52.5°	2018.4	1523.4	1181.7	1050.2	1030.2
55°	1784.5	1360.8	1061.8	965.1	954.9
57.5°	1552.4	1209.3	952.2	887.1	884.9
60°	1333.2	1067.6	855.9	820.3	815.4
62.5°	1146.5	926.8	764.6	747.7	749.9
65°	975.4	798.5	679.9	679.9	685.7
67.5°	816.7	680.4	602.4	612.7	620.7
70°	675.5	573.5	529.3	547.2	554.3
72.5°	541.8	474.1	459.4	479.0	484.8
75°	429.1	381.4	389.0	413.5	415.7
77.5°	318.1	300.3	319.9	346.7	351.6
80°	219.7	221.4	252.2	270.9	273.1
82.5°	141.7	154.6	188.9	198.7	195.2
85°	72.2	93.6	112.3	105.6	105.6
87.5°	27.6	40.5	47.7	56.1	59.3
90°	0.4	8.5	16.5	20.9	21.8
92.5°	0.4	2.2	3.6	4.0	3.6
95°	0.4	1.3	2.7	2.7	2.2
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)