

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: P860289

Luminaire Tested: **SPHB-9SE-M-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: P860289
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-9SE-M-L835-CD
Description: 9000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens
and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

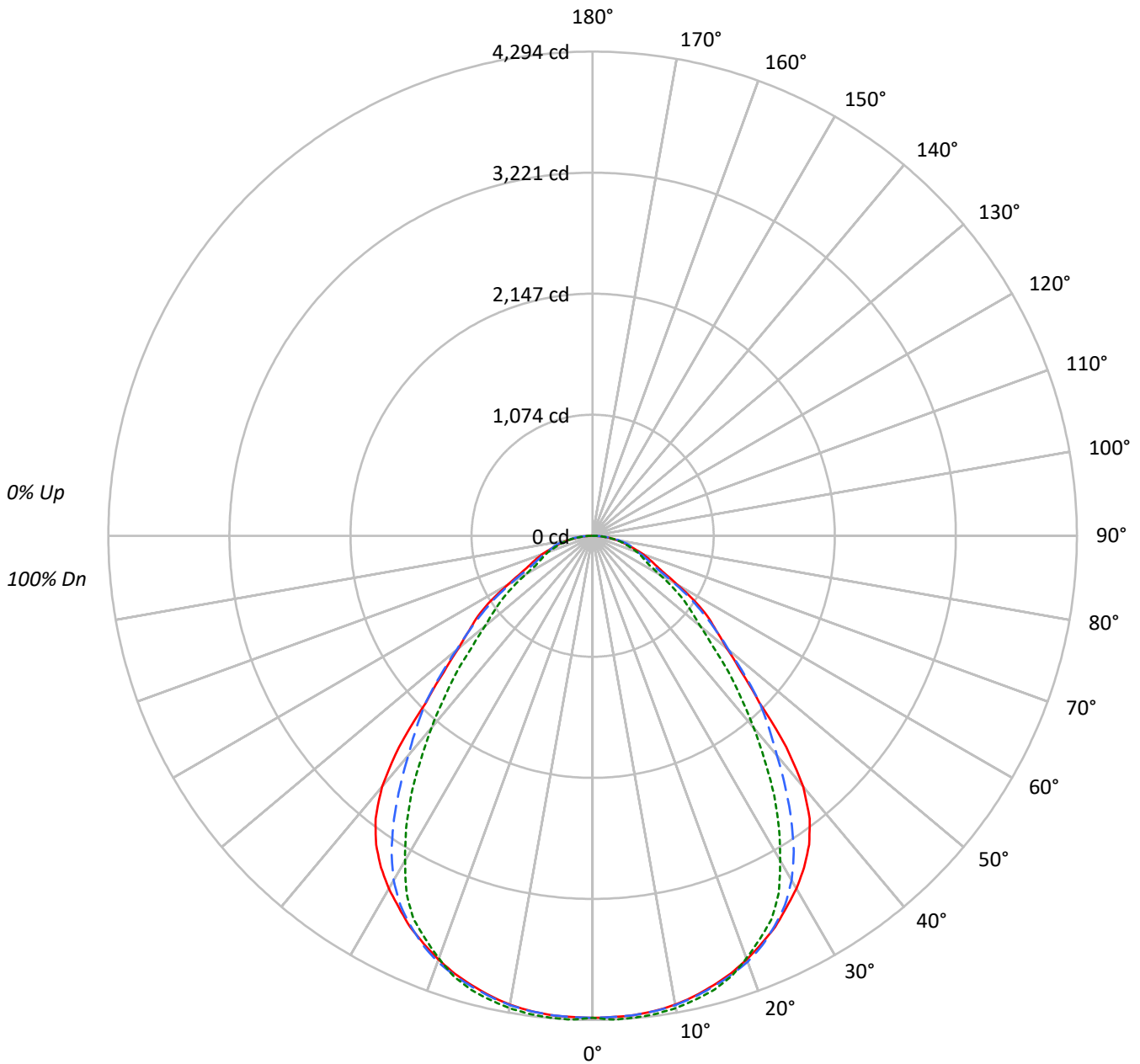
Lumens per Lamp: N/A
Luminaire Lumens: 8874.0 lumens
Efficiency: N/A
Efficacy: 161.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 54.8
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	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°	33347	33347	33347
5°	33413	33404	33593
10°	33442	33477	33683
15°	33344	33431	33663
20°	33199	33367	33100
25°	32956	32864	32305
30°	32539	31772	29959
35°	31856	29231	26701
40°	29563	25871	22615
45°	23064	23126	18716
50°	18838	19103	15115
55°	16877	16241	13281
60°	13511	12790	10627
65°	11323	10365	9398
70°	10751	9877	9567
75°	9755	10485	9228
80°	9801	10713	9725
85°	8529	9988	8126



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	406.5	4.6
10°-20°	1169.1	13.2
20°-30°	1745.3	19.7
30°-40°	1904.4	21.5
40°-50°	1557.9	17.6
50°-60°	1024.3	11.5
60°-70°	587.7	6.6
70°-80°	356.1	4.0
80°-90°	119.6	1.3
90°-100°	3.1	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°	3320.9	37.4
0°-40°	5225.3	58.9
0°-60°	7807.5	88.0
0°-90°	8870.9	100.0
90°-120°	3.1	0.0
90°-150°	3.1	0.0
90°-180°	3.0	0.0
0°-180°	8874.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4275	4275	4275	4275	4275	
5°	4267	4261	4266	4284	4290	406
15°	4129	4129	4140	4166	4169	1166
25°	3829	3838	3819	3772	3754	1762
35°	3346	3270	3070	2861	2804	2073
45°	2091	2247	2096	1851	1697	1660
55°	1241	1207	1194	1026	977	1093
65°	614	604	562	546	509	627
75°	324	350	348	334	306	350
85°	95	108	112	98	91	103
90°	1	8	16	19	20	4
95°	1	1	2	2	1	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°	4275.3	4275.3	4275.3	4275.3	4275.3
2.5°	4272.5	4266.3	4271.9	4289.4	4294.5
5°	4267.4	4260.7	4266.3	4283.8	4290.5
7.5°	4250.0	4246.0	4251.6	4269.1	4277.6
10°	4222.3	4217.8	4226.8	4242.1	4252.8
12.5°	4181.2	4179.5	4187.9	4209.9	4214.4
15°	4129.3	4128.7	4140.0	4166.5	4168.8
17.5°	4070.6	4070.1	4084.2	4101.7	4095.4
20°	3999.6	4003.5	4019.9	4003.5	3987.7
22.5°	3914.4	3926.8	3930.8	3879.5	3871.6
25°	3829.3	3838.3	3818.6	3772.3	3753.7
27.5°	3719.3	3730.1	3693.4	3627.4	3574.4
30°	3612.8	3602.6	3527.6	3400.2	3326.3
32.5°	3490.4	3454.3	3319.6	3143.6	3076.5
35°	3345.5	3269.9	3069.8	2860.6	2804.2
37.5°	3162.2	3024.1	2805.3	2587.1	2501.9
40°	2903.4	2743.8	2540.8	2315.3	2221.1
42.5°	2540.8	2481.6	2313.6	2059.8	1947.6
45°	2090.9	2247.1	2096.5	1850.6	1696.7
47.5°	1789.7	2006.8	1825.8	1648.2	1436.2
50°	1552.4	1701.8	1574.3	1414.2	1245.6
52.5°	1380.9	1426.0	1374.7	1198.8	1102.9
55°	1241.1	1207.3	1194.3	1026.3	976.6
57.5°	1067.4	1048.8	1015.5	894.9	829.5
60°	866.1	905.6	819.9	785.5	681.2
62.5°	711.6	750.5	658.6	656.4	569.5
65°	613.5	604.5	561.6	546.4	509.2
67.5°	543.0	514.8	500.2	480.4	467.5
70°	471.4	459.6	433.1	437.0	419.5
72.5°	393.0	408.2	381.7	389.1	357.5
75°	323.7	350.2	347.9	333.8	306.2
77.5°	266.7	294.9	300.0	287.0	264.5
80°	218.2	237.4	238.5	230.6	216.5
82.5°	160.1	171.4	179.9	166.3	157.3
85°	95.3	108.3	111.6	97.6	90.8
87.5°	31.0	43.4	48.5	50.2	50.7
90°	0.6	7.9	15.8	18.6	19.7
92.5°	0.6	2.3	3.4	5.1	5.6
95°	0.6	1.1	1.7	1.7	1.1
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)