

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: P860293

Luminaire Tested: **SPHB-9SE-M-L940-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: P860293
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-L940-CD
Description: 9000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens
and, 4000K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

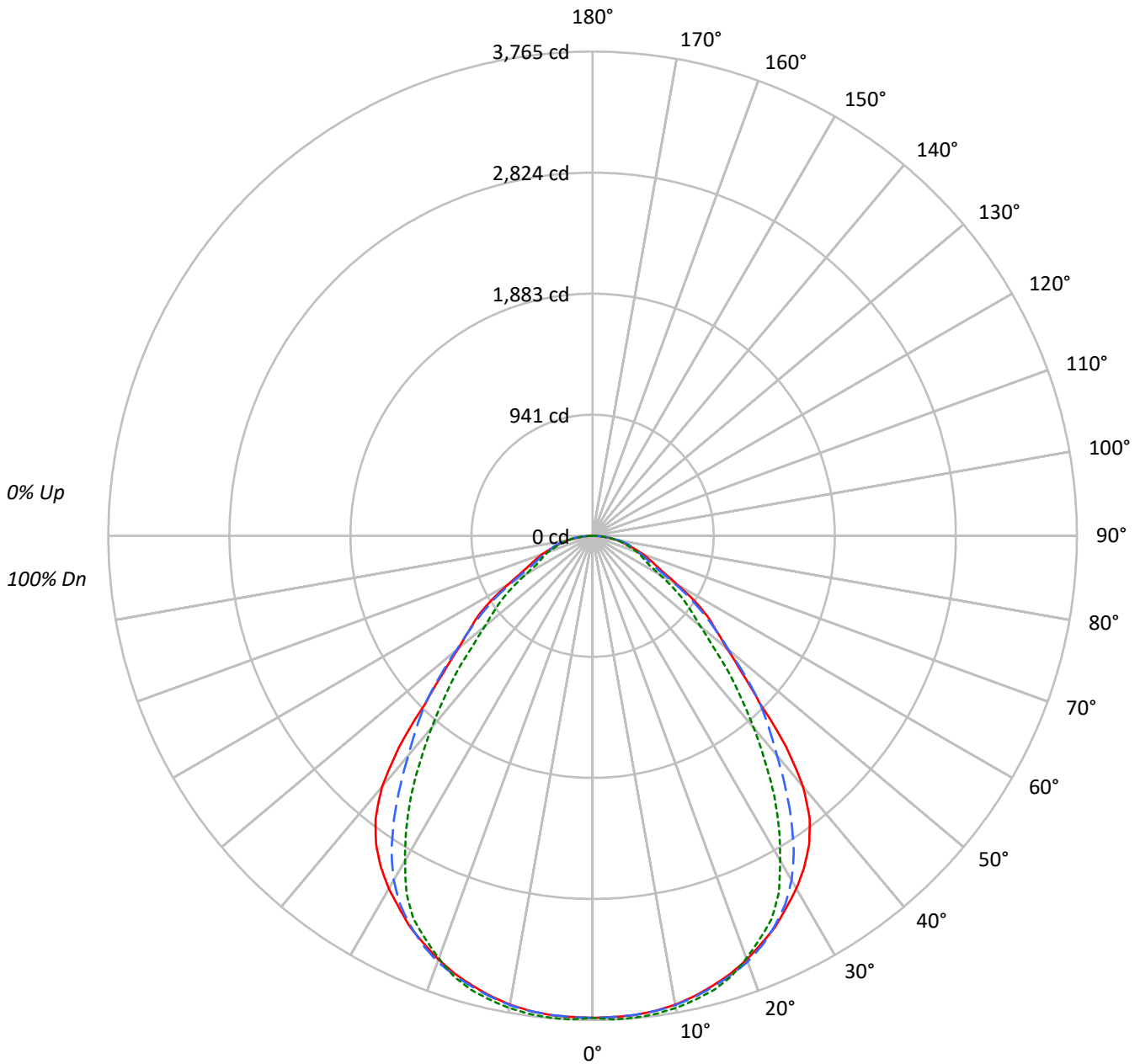
Lumens per Lamp: N/A
Luminaire Lumens: 7780.0 lumens
Efficiency: N/A
Efficacy: 142.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

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°	29237	29237	29237
5°	29293	29286	29452
10°	29319	29350	29531
15°	29233	29309	29513
20°	29106	29254	29019
25°	28893	28812	28323
30°	28527	27855	26265
35°	27929	25626	23410
40°	25919	22682	19828
45°	20221	20275	16408
50°	16515	16749	13251
55°	14797	14239	11643
60°	11845	11213	9316
65°	9928	9088	8239
70°	9426	8659	8388
75°	8553	9192	8089
80°	8593	9392	8525
85°	7473	8761	7124



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	356.4	4.6
10°-20°	1025.0	13.2
20°-30°	1530.1	19.7
30°-40°	1669.6	21.5
40°-50°	1365.8	17.6
50°-60°	898.0	11.5
60°-70°	515.2	6.6
70°-80°	312.2	4.0
80°-90°	104.8	1.3
90°-100°	2.7	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°	2911.5	37.4
0°-40°	4581.1	58.9
0°-60°	6845.0	88.0
0°-90°	7777.3	100.0
90°-120°	2.7	0.0
90°-150°	2.7	0.0
90°-180°	3.0	0.0
0°-180°	7780.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3748	3748	3748	3748	3748	
5°	3741	3735	3740	3756	3762	356
15°	3620	3620	3630	3653	3655	1022
25°	3357	3365	3348	3307	3291	1544
35°	2933	2867	2691	2508	2458	1818
45°	1833	1970	1838	1622	1488	1455
55°	1088	1058	1047	900	856	958
65°	538	530	492	479	446	550
75°	284	307	305	293	268	307
85°	84	95	98	86	80	91
90°	0	7	14	16	17	4
95°	0	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°	3748.3	3748.3	3748.3	3748.3	3748.3
2.5°	3745.8	3740.3	3745.3	3760.6	3765.1
5°	3741.3	3735.4	3740.3	3755.7	3761.6
7.5°	3726.0	3722.5	3727.5	3742.8	3750.2
10°	3701.8	3697.8	3705.7	3719.1	3728.5
12.5°	3665.7	3664.2	3671.6	3690.9	3694.9
15°	3620.2	3619.7	3629.6	3652.8	3654.8
17.5°	3568.8	3568.3	3580.7	3596.0	3590.6
20°	3506.5	3510.0	3524.3	3510.0	3496.1
22.5°	3431.9	3442.7	3446.2	3401.2	3394.3
25°	3357.2	3365.1	3347.8	3307.3	3291.0
27.5°	3260.8	3270.2	3238.1	3180.2	3133.8
30°	3167.4	3158.5	3092.7	2981.0	2916.2
32.5°	3060.1	3028.5	2910.3	2756.1	2697.2
35°	2933.1	2866.8	2691.3	2507.9	2458.5
37.5°	2772.4	2651.3	2459.5	2268.1	2193.5
40°	2545.5	2405.6	2227.6	2029.9	1947.3
42.5°	2227.6	2175.7	2028.4	1805.9	1707.5
45°	1833.1	1970.0	1838.0	1622.5	1487.5
47.5°	1569.1	1759.4	1600.7	1445.0	1259.1
50°	1361.0	1492.0	1380.3	1239.9	1092.0
52.5°	1210.7	1250.2	1205.3	1051.0	967.0
55°	1088.1	1058.4	1047.1	899.7	856.2
57.5°	935.8	919.5	890.3	784.6	727.2
60°	759.3	793.9	718.8	688.6	597.2
62.5°	623.9	658.0	577.4	575.4	499.3
65°	537.9	530.0	492.4	479.0	446.4
67.5°	476.1	451.4	438.5	421.2	409.8
70°	413.3	402.9	379.7	383.1	367.8
72.5°	344.6	357.9	334.7	341.1	313.4
75°	283.8	307.0	305.0	292.7	268.4
77.5°	233.8	258.6	263.0	251.6	231.9
80°	191.3	208.1	209.1	202.2	189.8
82.5°	140.4	150.3	157.7	145.8	137.9
85°	83.5	94.9	97.9	85.5	79.6
87.5°	27.2	38.1	42.5	44.0	44.5
90°	0.5	6.9	13.8	16.3	17.3
92.5°	0.5	2.0	3.0	4.4	4.9
95°	0.5	1.0	1.5	1.5	1.0
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)