

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: P860290

Luminaire Tested: **SPHB-9SE-M-L840-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: P860290
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-L840-CD
Description: 9000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens
and, 4000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

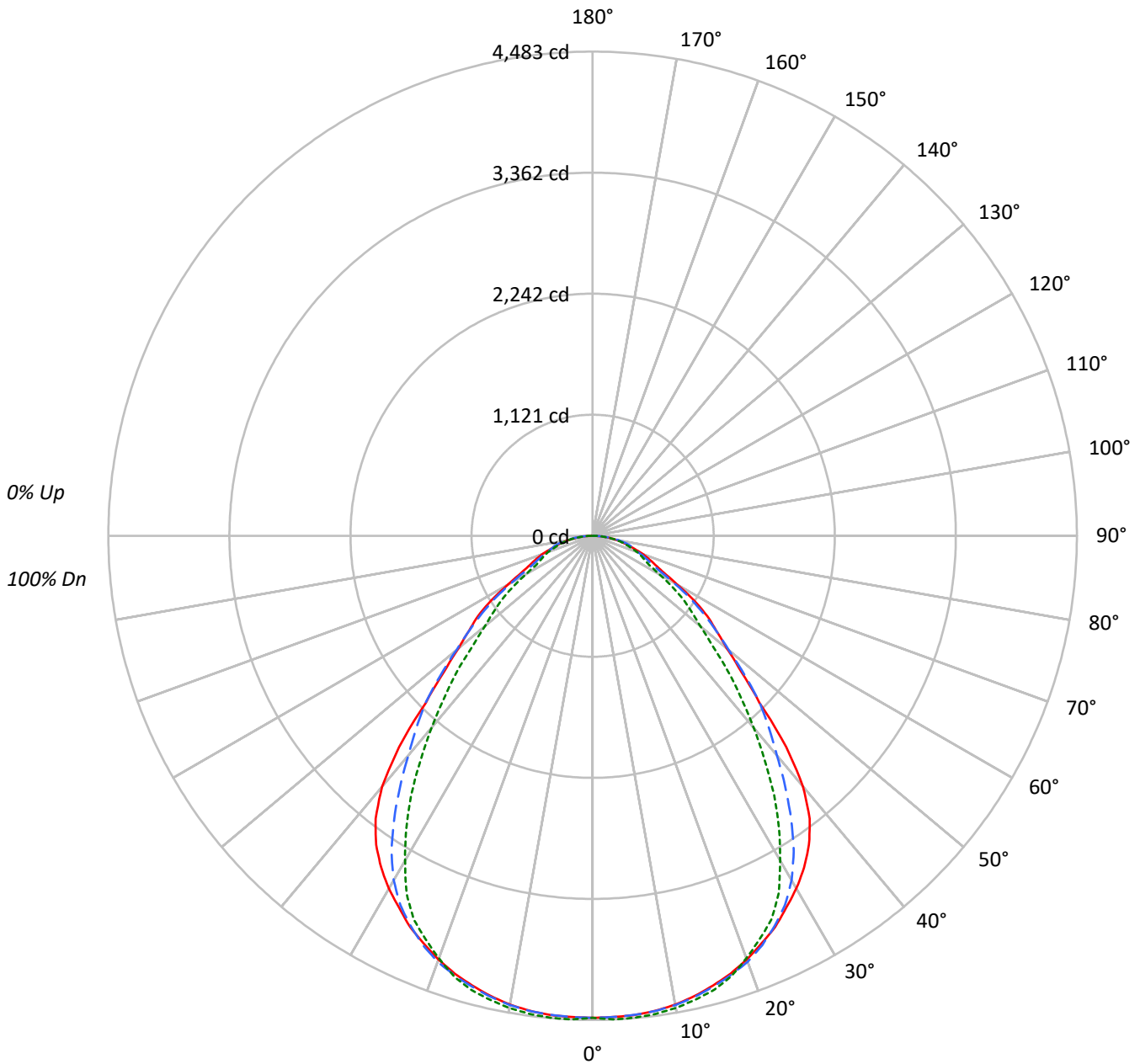
Lumens per Lamp: N/A
Luminaire Lumens: 9263.0 lumens
Efficiency: N/A
Efficacy: 169.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

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				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	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°	34809	34809	34809
5°	34878	34868	35066
10°	34908	34945	35160
15°	34806	34897	35139
20°	34654	34830	34552
25°	34401	34305	33722
30°	33965	33165	31272
35°	33252	30511	27872
40°	30859	27005	23607
45°	24075	24140	19537
50°	19663	19942	15777
55°	17617	16952	13863
60°	14104	13350	11092
65°	11819	10819	9809
70°	11223	10308	9987
75°	10183	10946	9632
80°	10232	11185	10151
85°	8905	10426	8484



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	424.3	4.6
10°-20°	1220.4	13.2
20°-30°	1821.8	19.7
30°-40°	1987.9	21.5
40°-50°	1626.2	17.6
50°-60°	1069.2	11.5
60°-70°	613.4	6.6
70°-80°	371.7	4.0
80°-90°	124.8	1.3
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°	3466.5	37.4
0°-40°	5454.4	58.9
0°-60°	8149.8	88.0
0°-90°	9259.7	100.0
90°-120°	3.3	0.0
90°-150°	3.3	0.0
90°-180°	3.0	0.0
0°-180°	9263.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4463	4463	4463	4463	4463	
5°	4454	4447	4453	4472	4479	424
15°	4310	4310	4322	4349	4352	1217
25°	3997	4007	3986	3938	3918	1839
35°	3492	3413	3204	2986	2927	2164
45°	2182	2346	2188	1932	1771	1732
55°	1296	1260	1247	1071	1019	1141
65°	640	631	586	570	532	655
75°	338	366	363	348	320	366
85°	100	113	116	102	95	108
90°	1	8	16	19	21	5
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°	4462.7	4462.7	4462.7	4462.7	4462.7
2.5°	4459.8	4453.3	4459.2	4477.5	4482.8
5°	4454.5	4447.4	4453.3	4471.6	4478.6
7.5°	4436.3	4432.1	4438.0	4456.3	4465.1
10°	4407.4	4402.7	4412.1	4428.0	4439.2
12.5°	4364.4	4362.7	4371.5	4394.5	4399.2
15°	4310.3	4309.7	4321.5	4349.1	4351.5
17.5°	4249.1	4248.5	4263.2	4281.5	4275.0
20°	4174.9	4179.0	4196.1	4179.0	4162.6
22.5°	4086.0	4099.0	4103.1	4049.5	4041.3
25°	3997.2	4006.6	3986.0	3937.7	3918.3
27.5°	3882.4	3893.6	3855.3	3786.4	3731.1
30°	3771.1	3760.5	3682.3	3549.2	3472.1
32.5°	3643.4	3605.7	3465.1	3281.4	3211.4
35°	3492.1	3413.3	3204.3	2985.9	2927.1
37.5°	3300.8	3156.6	2928.3	2700.5	2611.6
40°	3030.7	2864.1	2652.2	2416.8	2318.5
42.5°	2652.2	2590.4	2415.0	2150.1	2033.0
45°	2182.5	2345.6	2188.4	1931.8	1771.1
47.5°	1868.2	2094.8	1905.9	1720.5	1499.2
50°	1620.4	1776.4	1643.4	1476.2	1300.2
52.5°	1441.5	1488.6	1435.0	1251.4	1151.3
55°	1295.5	1260.2	1246.6	1071.2	1019.4
57.5°	1114.2	1094.8	1060.1	934.1	865.8
60°	904.1	945.3	855.8	819.9	711.0
62.5°	742.8	783.4	687.5	685.1	594.5
65°	640.4	631.0	586.2	570.3	531.5
67.5°	566.8	537.4	522.1	501.5	487.9
70°	492.1	479.7	452.0	456.2	437.9
72.5°	410.3	426.1	398.5	406.1	373.2
75°	337.9	365.5	363.2	348.4	319.6
77.5°	278.4	307.8	313.1	299.6	276.1
80°	227.8	247.8	249.0	240.7	226.0
82.5°	167.2	178.9	187.8	173.6	164.2
85°	99.5	113.0	116.5	101.8	94.8
87.5°	32.4	45.3	50.6	52.4	53.0
90°	0.6	8.2	16.5	19.4	20.6
92.5°	0.6	2.4	3.5	5.3	5.9
95°	0.6	1.2	1.8	1.8	1.2
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)