

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P894066

Luminaire Tested: 4MB-9HL-RND-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894066
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-1)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-9HL-RND-UNV-L835
Description: 9000 Lumen 4FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 80CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

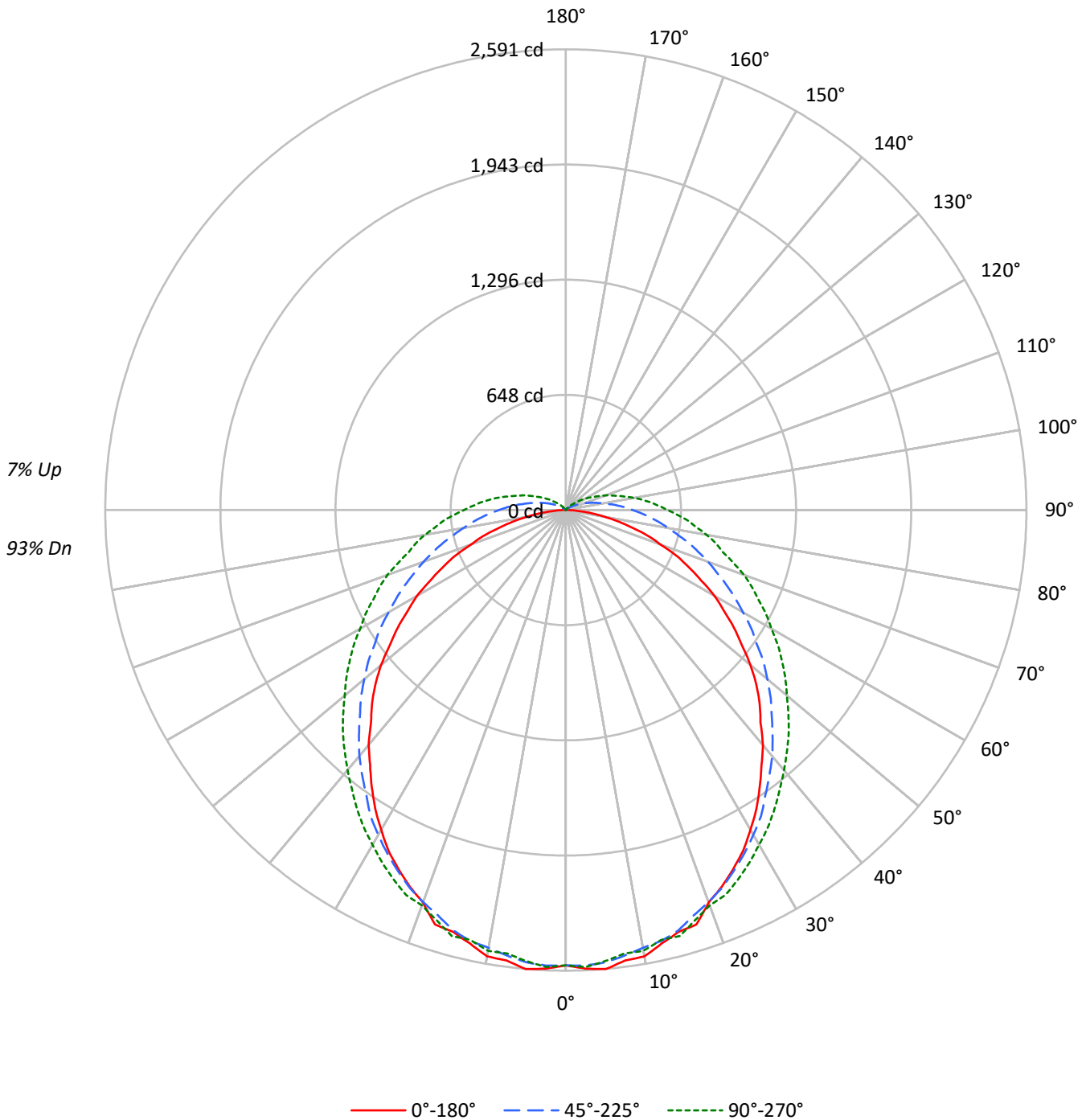
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8435.0 lumens
Efficiency: N/A
Efficacy: 131.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.35
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 64.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 8.94
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.8	2.9
10°-20°	691.2	8.2
20°-30°	1035.7	12.3
30°-40°	1230.8	14.6
40°-50°	1274.2	15.1
50°-60°	1180.9	14.0
60°-70°	983.1	11.7
70°-80°	729.7	8.7
80°-90°	482.6	5.7
90°-100°	293.7	3.5
100°-110°	164.6	2.0
110°-120°	81.1	1.0
120°-130°	33.0	0.4
130°-140°	9.6	0.1
140°-150°	1.4	0.0
150°-160°	0.3	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	1969.7	23.4
0°-40°	3200.5	37.9
0°-60°	5655.6	67.0
0°-90°	7851.0	93.1
90°-120°	539.4	6.4
90°-150°	583.4	6.9
90°-180°	584.0	6.9
0°-180°	8435.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2561	2561	2561	2561	2561	
5°	2591	2563	2554	2567	2547	245
15°	2455	2446	2447	2451	2480	695
25°	2228	2226	2238	2281	2292	1026
35°	1902	1916	1958	2020	2049	1190
45°	1543	1565	1638	1740	1774	1189
55°	1155	1204	1311	1442	1485	1033
65°	764	835	998	1144	1197	759
75°	390	508	715	868	915	417
85°	91	256	476	644	691	103
90°	5	166	376	526	573	7
95°	1	103	292	435	483	1
105°	1	34	158	268	306	1
115°	1	8	74	148	177	1
125°	1	2	27	68	87	1
135°	2	1	7	22	30	1
145°	2	1	0	2	4	1
155°	2	2	0	0	0	1
165°	4	2	0	0	0	1
175°	4	2	0	0	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2560.8	2560.8	2560.8	2560.8	2560.8
2.5°	2581.9	2569.0	2564.3	2558.5	2572.5
5°	2591.3	2563.1	2553.8	2566.7	2546.7
7.5°	2554.9	2547.9	2528.0	2535.0	2516.3
10°	2549.1	2510.4	2499.9	2523.3	2517.5
12.5°	2496.4	2463.6	2482.3	2498.7	2476.5
15°	2455.4	2446.0	2447.2	2450.7	2480.0
17.5°	2444.8	2402.6	2390.9	2420.2	2417.9
20°	2348.8	2340.6	2346.4	2385.1	2366.3
22.5°	2292.5	2266.8	2298.4	2335.9	2344.1
25°	2228.1	2225.8	2237.5	2280.8	2292.5
27.5°	2160.2	2144.9	2176.6	2226.9	2236.3
30°	2077.0	2071.1	2109.8	2153.1	2174.2
32.5°	1995.0	1998.5	2043.0	2079.3	2115.6
35°	1902.4	1916.5	1957.5	2019.6	2048.9
37.5°	1808.7	1826.3	1881.4	1952.8	1977.4
40°	1725.5	1729.1	1806.4	1879.0	1909.5
42.5°	1621.3	1656.4	1722.0	1818.1	1841.5
45°	1542.8	1565.1	1637.7	1739.6	1773.6
47.5°	1453.8	1479.5	1562.7	1662.3	1698.6
50°	1356.5	1380.0	1479.5	1593.2	1622.5
52.5°	1248.8	1296.8	1401.1	1518.2	1556.9
55°	1155.1	1204.3	1310.9	1442.1	1485.4
57.5°	1054.3	1103.5	1237.1	1358.9	1415.1
60°	967.6	1014.5	1150.4	1301.5	1335.5
62.5°	859.8	926.6	1074.2	1223.0	1271.0
65°	763.8	835.2	998.1	1144.5	1197.2
67.5°	675.9	749.7	919.6	1076.6	1134.0
70°	568.2	665.4	852.8	1007.4	1067.2
72.5°	488.5	585.7	781.4	934.8	988.7
75°	390.1	508.4	714.6	868.0	914.9
77.5°	308.1	435.8	645.5	817.7	864.5
80°	224.9	370.2	585.7	750.9	804.8
82.5°	153.5	309.3	530.7	688.8	740.4
85°	91.4	256.5	475.6	644.3	691.2
87.5°	39.8	209.7	425.2	579.9	627.9
90°	4.7	166.3	376.0	526.0	572.8
92.5°	1.2	133.5	332.7	478.0	523.6
95°	1.2	103.1	291.7	434.6	482.6
97.5°	1.2	79.7	250.7	390.1	435.8
100°	1.2	60.9	216.7	343.2	392.4
102.5°	1.2	45.7	183.9	304.6	346.7
105°	1.2	34.0	158.1	268.3	305.7
107.5°	1.2	24.6	132.4	234.3	271.8
110°	1.2	17.6	111.3	202.7	240.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.2	12.9	90.2	174.5	206.2
115°	1.2	8.2	73.8	147.6	176.9
117.5°	1.2	5.9	58.6	124.2	152.3
120°	1.2	4.7	46.9	103.1	127.7
122.5°	1.2	3.5	36.3	84.3	107.8
125°	1.2	2.3	26.9	67.9	86.7
127.5°	1.2	2.3	19.9	53.9	70.3
130°	1.2	1.2	14.1	41.0	55.1
132.5°	1.2	1.2	9.4	30.5	41.0
135°	2.3	1.2	7.0	22.3	30.5
137.5°	2.3	1.2	4.7	15.2	21.1
140°	2.3	1.2	2.3	9.4	12.9
142.5°	2.3	1.2	1.2	4.7	7.0
145°	2.3	1.2	0.0	2.3	3.5
147.5°	2.3	1.2	0.0	1.2	1.2
150°	2.3	1.2	0.0	0.0	0.0
152.5°	2.3	1.2	0.0	0.0	0.0
155°	2.3	2.3	0.0	0.0	0.0
157.5°	2.3	2.3	0.0	0.0	0.0
160°	2.3	2.3	0.0	0.0	0.0
162.5°	2.3	2.3	0.0	0.0	0.0
165°	3.5	2.3	0.0	0.0	0.0
167.5°	3.5	2.3	0.0	0.0	0.0
170°	3.5	2.3	0.0	0.0	0.0
172.5°	3.5	2.3	0.0	0.0	0.0
175°	3.5	2.3	0.0	0.0	0.0
177.5°	3.5	2.3	0.0	0.0	0.0
180°	1.2	1.2	1.2	1.2	1.2



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	20.31	21.85	20.78	22.31	22.79	21.89	23.42	22.36	23.88	24.36
	3H	22.08	23.48	22.56	23.95	24.47	24.47	25.88	24.95	26.34	26.86
	4H	22.73	24.06	23.24	24.55	25.08	25.73	27.06	26.23	27.54	28.08
	6H	23.21	24.45	23.73	24.95	25.50	27.11	28.35	27.63	28.85	29.40
	8H	23.36	24.55	23.89	25.07	25.63	27.84	29.03	28.37	29.55	30.11
	12H	23.46	24.60	23.99	25.11	25.70	28.69	29.83	29.22	30.34	30.93
4H	2H	21.27	22.60	21.77	23.08	23.62	22.46	23.79	22.96	24.27	24.81
	3H	23.31	24.45	23.82	24.97	25.53	25.33	26.46	25.84	26.99	27.55
	4H	24.12	25.16	24.66	25.70	26.29	26.81	27.85	27.34	28.38	28.97
	6H	24.77	25.69	25.33	26.25	26.86	28.42	29.35	28.98	29.91	30.51
	8H	25.00	25.87	25.56	26.43	27.05	29.28	30.15	29.84	30.71	31.33
	12H	25.17	25.96	25.75	26.55	27.17	30.27	31.06	30.85	31.65	32.27
8H	4H	24.97	25.84	25.53	26.40	27.02	27.18	28.04	27.74	28.60	29.22
	6H	25.89	26.63	26.49	27.23	27.86	29.05	29.79	29.65	30.39	31.02
	8H	26.28	26.94	26.88	27.56	28.19	30.11	30.78	30.72	31.39	32.03
	12H	26.60	27.19	27.20	27.80	28.50	31.37	31.97	31.98	32.57	33.27
12H	4H	25.23	26.02	25.81	26.61	27.23	27.22	28.01	27.80	28.60	29.22
	6H	26.32	26.98	26.92	27.60	28.24	29.16	29.83	29.77	30.45	31.08
	8H	26.86	27.45	27.46	28.06	28.76	30.34	30.93	30.94	31.54	32.24