

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: P893969

Luminaire Tested: 4MB-8HL-RND-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893969
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-8HL-RND-UNV-L830
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

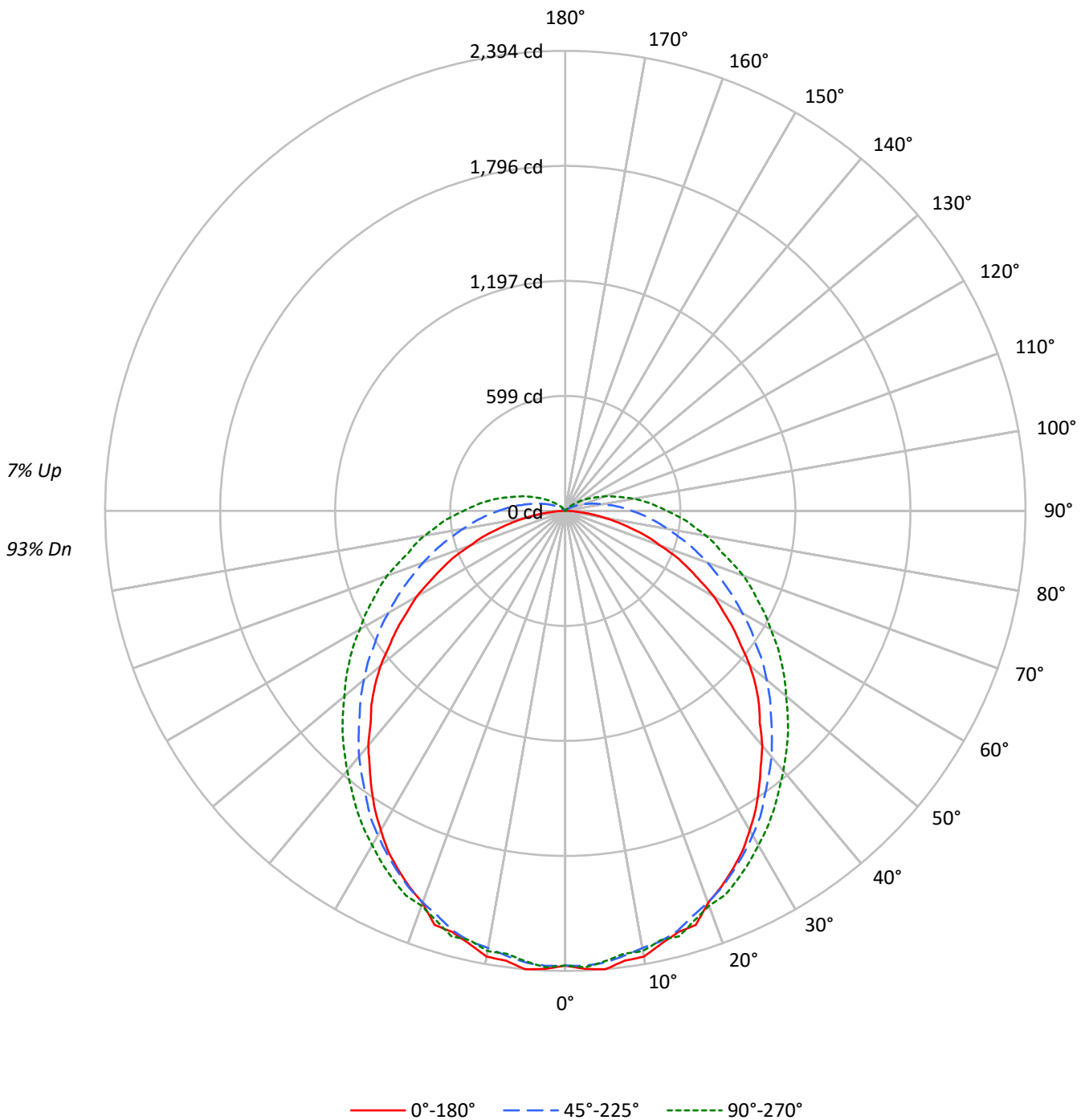
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7794.0 lumens
Efficiency: N/A
Efficacy: 134.6 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): 57.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 4.23
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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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	96	96	96	93
1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	77	77	77	77	74
2	95	86	79	72	92	84	77	71	79	73	68	74	70	66	70	67	63	63	63	63	60
3	86	75	66	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	45	45	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	39	39	39	37
6	67	53	44	37	65	52	43	37	49	42	36	47	40	35	45	39	34	34	34	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	30	30	30	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	33	28	38	32	27	27	27	27	25
9	54	40	32	26	52	39	32	26	38	31	26	36	30	25	35	29	25	25	25	25	23
10	51	37	29	24	49	36	29	24	35	28	23	34	27	23	32	27	22	22	22	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16836	16836	16836
5°	17101	16853	16807
10°	17017	16688	16806
15°	16712	16656	16879
20°	16433	16416	16555
25°	16163	16230	16630
30°	15767	16016	16505
35°	15269	15710	16444
40°	14809	15503	16388
45°	14345	15226	16490
50°	13875	15132	16595
55°	13239	15024	17025
60°	12723	15125	17560
65°	11881	15526	18623
70°	10922	16393	20514
75°	9907	18152	23240
80°	8514	22175	30468
85°	6890	35879	52132

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 87.5°
 Luminance: 94640 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.3	2.9
10°-20°	638.6	8.2
20°-30°	957.0	12.3
30°-40°	1137.3	14.6
40°-50°	1177.4	15.1
50°-60°	1091.1	14.0
60°-70°	908.4	11.7
70°-80°	674.2	8.7
80°-90°	445.9	5.7
90°-100°	271.4	3.5
100°-110°	152.1	2.0
110°-120°	74.9	1.0
120°-130°	30.5	0.4
130°-140°	8.8	0.1
140°-150°	1.3	0.0
150°-160°	0.3	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	1820.0	23.4
0°-40°	2957.3	37.9
0°-60°	5225.8	67.0
0°-90°	7254.3	93.1
90°-120°	498.4	6.4
90°-150°	539.0	6.9
90°-180°	540.0	6.9
0°-180°	7794.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2366	2366	2366	2366	2366	
5°	2394	2368	2360	2372	2353	226
15°	2269	2260	2261	2264	2292	643
25°	2059	2057	2067	2108	2118	948
35°	1758	1771	1809	1866	1893	1100
45°	1426	1446	1513	1607	1639	1098
55°	1067	1113	1211	1332	1372	954
65°	706	772	922	1058	1106	701
75°	360	470	660	802	845	386
85°	84	237	440	595	639	95
90°	4	154	348	486	529	6
95°	1	95	270	402	446	1
105°	1	31	146	248	282	1
115°	1	8	68	136	163	1
125°	1	2	25	63	80	1
135°	2	1	6	21	28	1
145°	2	1	0	2	3	1
155°	2	2	0	0	0	1
165°	3	2	0	0	0	1
175°	3	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°	2366.2	2366.2	2366.2	2366.2	2366.2
2.5°	2385.7	2373.8	2369.4	2364.0	2377.0
5°	2394.3	2368.4	2359.7	2371.6	2353.2
7.5°	2360.8	2354.3	2335.9	2342.4	2325.1
10°	2355.4	2319.6	2309.9	2331.6	2326.1
12.5°	2306.7	2276.4	2293.7	2308.8	2288.3
15°	2268.8	2260.1	2261.2	2264.4	2291.5
17.5°	2259.0	2220.1	2209.2	2236.3	2234.1
20°	2170.3	2162.7	2168.1	2203.8	2186.5
22.5°	2118.3	2094.5	2123.7	2158.4	2165.9
25°	2058.8	2056.6	2067.4	2107.5	2118.3
27.5°	1996.0	1981.9	2011.2	2057.7	2066.4
30°	1919.1	1913.7	1949.5	1989.5	2009.0
32.5°	1843.4	1846.6	1887.8	1921.3	1954.9
35°	1757.9	1770.9	1808.7	1866.1	1893.2
37.5°	1671.3	1687.5	1738.4	1804.4	1827.1
40°	1594.4	1597.7	1669.1	1736.2	1764.4
42.5°	1498.1	1530.6	1591.2	1679.9	1701.6
45°	1425.6	1446.1	1513.2	1607.4	1638.8
47.5°	1343.3	1367.1	1444.0	1536.0	1569.5
50°	1253.5	1275.1	1367.1	1472.1	1499.2
52.5°	1153.9	1198.3	1294.6	1402.8	1438.6
55°	1067.3	1112.7	1211.2	1332.5	1372.5
57.5°	974.2	1019.6	1143.0	1255.6	1307.6
60°	894.1	937.4	1062.9	1202.6	1234.0
62.5°	794.5	856.2	992.6	1130.1	1174.4
65°	705.7	771.8	922.2	1057.5	1106.2
67.5°	624.6	692.8	849.7	994.8	1047.8
70°	525.0	614.8	788.0	930.9	986.1
72.5°	451.4	541.2	722.0	863.8	913.6
75°	360.4	469.8	660.3	802.1	845.4
77.5°	284.7	402.7	596.4	755.5	798.8
80°	207.8	342.0	541.2	693.8	743.6
82.5°	141.8	285.8	490.3	636.5	684.1
85°	84.4	237.1	439.5	595.3	638.6
87.5°	36.8	193.8	392.9	535.8	580.2
90°	4.3	153.7	347.5	486.0	529.3
92.5°	1.1	123.4	307.4	441.6	483.8
95°	1.1	95.3	269.5	401.6	446.0
97.5°	1.1	73.6	231.6	360.4	402.7
100°	1.1	56.3	200.2	317.2	362.6
102.5°	1.1	42.2	169.9	281.4	320.4
105°	1.1	31.4	146.1	247.9	282.5
107.5°	1.1	22.7	122.3	216.5	251.1
110°	1.1	16.2	102.8	187.3	221.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.1	11.9	83.3	161.3	190.5
115°	1.1	7.6	68.2	136.4	163.4
117.5°	1.1	5.4	54.1	114.7	140.7
120°	1.1	4.3	43.3	95.3	118.0
122.5°	1.1	3.2	33.6	77.9	99.6
125°	1.1	2.2	24.9	62.8	80.1
127.5°	1.1	2.2	18.4	49.8	64.9
130°	1.1	1.1	13.0	37.9	50.9
132.5°	1.1	1.1	8.7	28.1	37.9
135°	2.2	1.1	6.5	20.6	28.1
137.5°	2.2	1.1	4.3	14.1	19.5
140°	2.2	1.1	2.2	8.7	11.9
142.5°	2.2	1.1	1.1	4.3	6.5
145°	2.2	1.1	0.0	2.2	3.2
147.5°	2.2	1.1	0.0	1.1	1.1
150°	2.2	1.1	0.0	0.0	0.0
152.5°	2.2	1.1	0.0	0.0	0.0
155°	2.2	2.2	0.0	0.0	0.0
157.5°	2.2	2.2	0.0	0.0	0.0
160°	2.2	2.2	0.0	0.0	0.0
162.5°	2.2	2.2	0.0	0.0	0.0
165°	3.2	2.2	0.0	0.0	0.0
167.5°	3.2	2.2	0.0	0.0	0.0
170°	3.2	2.2	0.0	0.0	0.0
172.5°	3.2	2.2	0.0	0.0	0.0
175°	3.2	2.2	0.0	0.0	0.0
177.5°	3.2	2.2	0.0	0.0	0.0
180°	1.1	1.1	1.1	1.1	1.1



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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	20.04	21.58	20.51	22.03	22.51	21.61	23.15	22.08	23.60	24.09
	3H	21.80	23.21	22.28	23.67	24.19	24.20	25.60	24.68	26.07	26.59
	4H	22.46	23.79	22.96	24.27	24.81	25.46	26.79	25.96	27.27	27.81
	6H	22.94	24.18	23.45	24.67	25.23	26.84	28.08	27.35	28.57	29.13
	8H	23.09	24.27	23.61	24.79	25.35	27.57	28.76	28.10	29.28	29.84
	12H	23.18	24.33	23.72	24.84	25.43	28.41	29.55	28.94	30.06	30.65
4H	2H	20.99	22.33	21.50	22.81	23.34	22.18	23.52	22.69	24.00	24.53
	3H	23.03	24.17	23.55	24.70	25.26	25.05	26.19	25.57	26.71	27.27
	4H	23.85	24.89	24.38	25.42	26.02	26.53	27.57	27.07	28.11	28.70
	6H	24.50	25.42	25.05	25.98	26.59	28.15	29.07	28.70	29.63	30.24
	8H	24.72	25.59	25.28	26.15	26.77	29.01	29.87	29.57	30.43	31.05
	12H	24.89	25.68	25.48	26.27	26.89	30.00	30.79	30.58	31.38	32.00
8H	4H	24.70	25.56	25.26	26.12	26.74	26.90	27.77	27.46	28.33	28.95
	6H	25.62	26.36	26.21	26.96	27.58	28.78	29.52	29.37	30.12	30.74
	8H	26.00	26.67	26.61	27.28	27.92	29.84	30.51	30.44	31.12	31.76
	12H	26.32	26.92	26.93	27.52	28.22	31.10	31.69	31.70	32.29	33.00
12H	4H	24.96	25.75	25.54	26.34	26.96	26.94	27.73	27.53	28.32	28.95
	6H	26.04	26.71	26.65	27.32	27.96	28.89	29.56	29.49	30.17	30.81
	8H	26.58	27.18	27.19	27.78	28.48	30.06	30.66	30.67	31.26	31.97