

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: P893535

Luminaire Tested: 4MB-4SL-LVRA-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893535
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-4SL-LVRA-UNV-L940
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

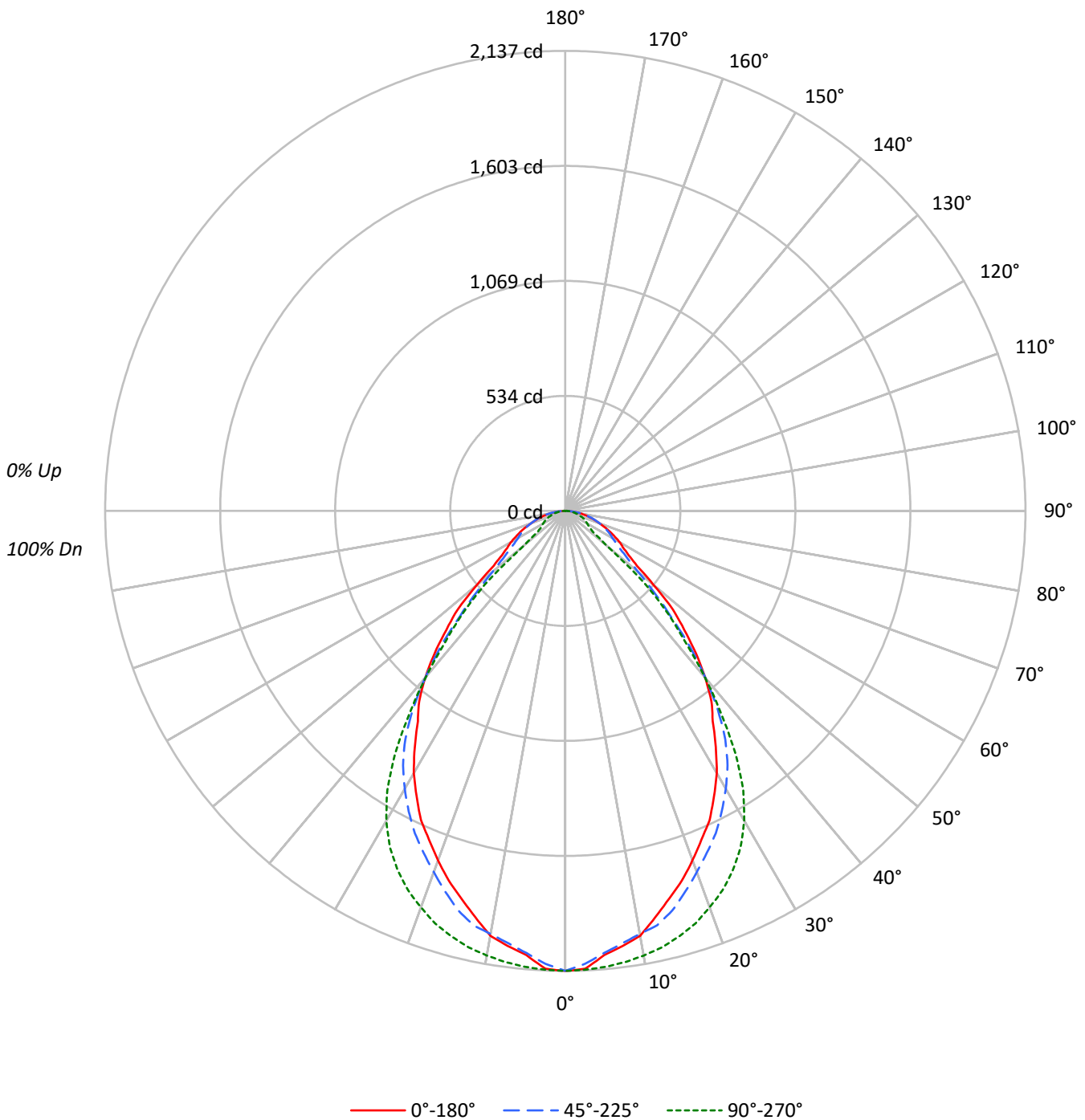
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3468.0 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 29.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 5.5
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				
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	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	93	92	90	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	85	82	80	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	71	67	63	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	66	61	57	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	61	56	52	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	56	51	47	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	52	47	43	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	49	44	40	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	46	40	37	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15203	15203	15203
5°	14794	14726	15187
10°	14479	14416	15152
15°	13732	14154	15066
20°	13081	13523	14837
25°	12443	12975	14458
30°	11560	12248	13651
35°	10366	11256	11973
40°	9391	9411	9360
45°	7852	6955	6783
50°	5932	4895	2774
55°	4461	3915	1749
60°	4145	3604	1685
65°	3857	3598	1687
70°	3528	3528	1662
75°	3346	3436	1605
80°	3094	3249	1647
85°	2694	2833	1796

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 8036 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.4	5.7
10°-20°	543.9	15.7
20°-30°	771.2	22.2
30°-40°	794.5	22.9
40°-50°	555.0	16.0
50°-60°	266.3	7.7
60°-70°	186.8	5.4
70°-80°	116.8	3.4
80°-90°	36.1	1.0
90°-100°	0.0	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°	1512.5	43.6
0°-40°	2307.0	66.5
0°-60°	3128.2	90.2
0°-90°	3468.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3468.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2137	2137	2137	2137	2137	
5°	2071	2068	2062	2116	2126	196
15°	1864	1878	1922	1977	2045	525
25°	1585	1601	1653	1764	1842	725
35°	1193	1226	1296	1323	1378	752
45°	780	799	691	656	674	601
55°	360	342	316	202	141	337
65°	229	214	214	162	100	227
75°	122	120	125	108	58	128
85°	33	33	35	34	22	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2136.8	2136.8	2136.8	2136.8	2136.8
2.5°	2128.6	2122.0	2106.0	2135.2	2133.0
5°	2071.3	2068.5	2061.9	2115.9	2126.4
7.5°	2038.8	2033.3	2025.6	2085.1	2114.3
10°	2004.1	2010.7	1995.3	2049.8	2097.2
12.5°	1932.5	1950.1	1971.1	2013.5	2076.3
15°	1864.2	1878.0	1921.5	1976.6	2045.4
17.5°	1800.3	1816.3	1853.8	1936.4	2009.6
20°	1727.6	1749.7	1786.0	1891.8	1959.5
22.5°	1652.7	1673.1	1718.8	1832.3	1907.7
25°	1585.0	1601.0	1652.7	1764.5	1841.6
27.5°	1495.2	1525.0	1574.0	1681.9	1762.9
30°	1407.1	1432.4	1490.8	1581.7	1661.6
32.5°	1300.8	1337.7	1402.2	1471.6	1538.2
35°	1193.4	1225.9	1295.9	1322.9	1378.5
37.5°	1115.2	1124.0	1163.7	1160.4	1191.8
40°	1011.1	1028.8	1013.3	972.0	1007.8
42.5°	898.8	919.7	857.5	809.6	822.2
45°	780.4	798.6	691.2	655.9	674.1
47.5°	677.9	676.3	557.3	533.7	508.3
50°	535.9	553.5	442.2	398.2	250.6
52.5°	418.6	425.2	364.6	254.4	164.7
55°	359.6	342.0	315.6	202.1	141.0
57.5°	319.4	297.4	279.8	187.8	128.9
60°	291.3	266.6	253.3	178.4	118.4
62.5°	259.4	240.1	235.2	170.2	109.0
65°	229.1	214.2	213.7	162.5	100.2
67.5°	198.8	190.6	192.8	153.1	90.3
70°	169.6	168.0	169.6	141.0	79.9
72.5°	144.8	143.2	147.6	125.6	68.3
75°	121.7	120.1	125.0	107.9	58.4
77.5°	96.9	98.0	101.3	89.8	49.0
80°	75.5	75.5	79.3	70.5	40.2
82.5°	54.0	54.5	56.7	51.8	31.4
85°	33.0	33.0	34.7	34.1	22.0
87.5°	11.0	12.7	14.9	16.0	11.0
90°	0.0	0.0	0.0	0.0	0.0



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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	15.10	16.46	15.47	16.77	17.08	11.43	12.79	11.80	13.10	13.42
	3H	16.84	18.05	17.22	18.38	18.74	13.41	14.62	13.79	14.95	15.31
	4H	17.51	18.64	17.91	18.99	19.37	14.12	15.24	14.52	15.59	15.98
	6H	18.02	19.06	18.43	19.43	19.82	14.64	15.68	15.05	16.05	16.44
	8H	18.19	19.18	18.62	19.57	19.97	14.82	15.81	15.25	16.20	16.60
	12H	18.30	19.24	18.73	19.63	20.06	14.96	15.91	15.39	16.29	16.72
4H	2H	15.63	16.76	16.03	17.11	17.49	13.06	14.18	13.46	14.53	14.92
	3H	17.61	18.54	18.02	18.94	19.35	15.24	16.17	15.65	16.57	16.97
	4H	18.41	19.25	18.85	19.67	20.11	16.11	16.95	16.55	17.37	17.81
	6H	19.06	19.78	19.52	20.23	20.69	16.76	17.48	17.22	17.93	18.39
	8H	19.28	19.95	19.74	20.40	20.87	16.97	17.64	17.43	18.09	18.56
	12H	19.43	20.03	19.91	20.51	20.98	17.12	17.72	17.61	18.21	18.68
8H	4H	18.70	19.37	19.16	19.82	20.29	16.76	17.44	17.23	17.89	18.36
	6H	19.48	20.04	19.98	20.53	21.01	17.62	18.18	18.13	18.68	19.16
	8H	19.78	20.28	20.30	20.79	21.29	17.95	18.45	18.47	18.97	19.46
	12H	20.02	20.46	20.53	20.95	21.52	18.22	18.66	18.73	19.15	19.72
12H	4H	18.71	19.31	19.20	19.80	20.27	16.84	17.44	17.32	17.92	18.39
	6H	19.53	20.03	20.05	20.55	21.04	17.76	18.26	18.28	18.78	19.27
	8H	19.90	20.34	20.41	20.83	21.40	18.18	18.62	18.69	19.11	19.68