

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: P893533

Luminaire Tested: 4MB-4SL-LVRA-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893533
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-L930
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

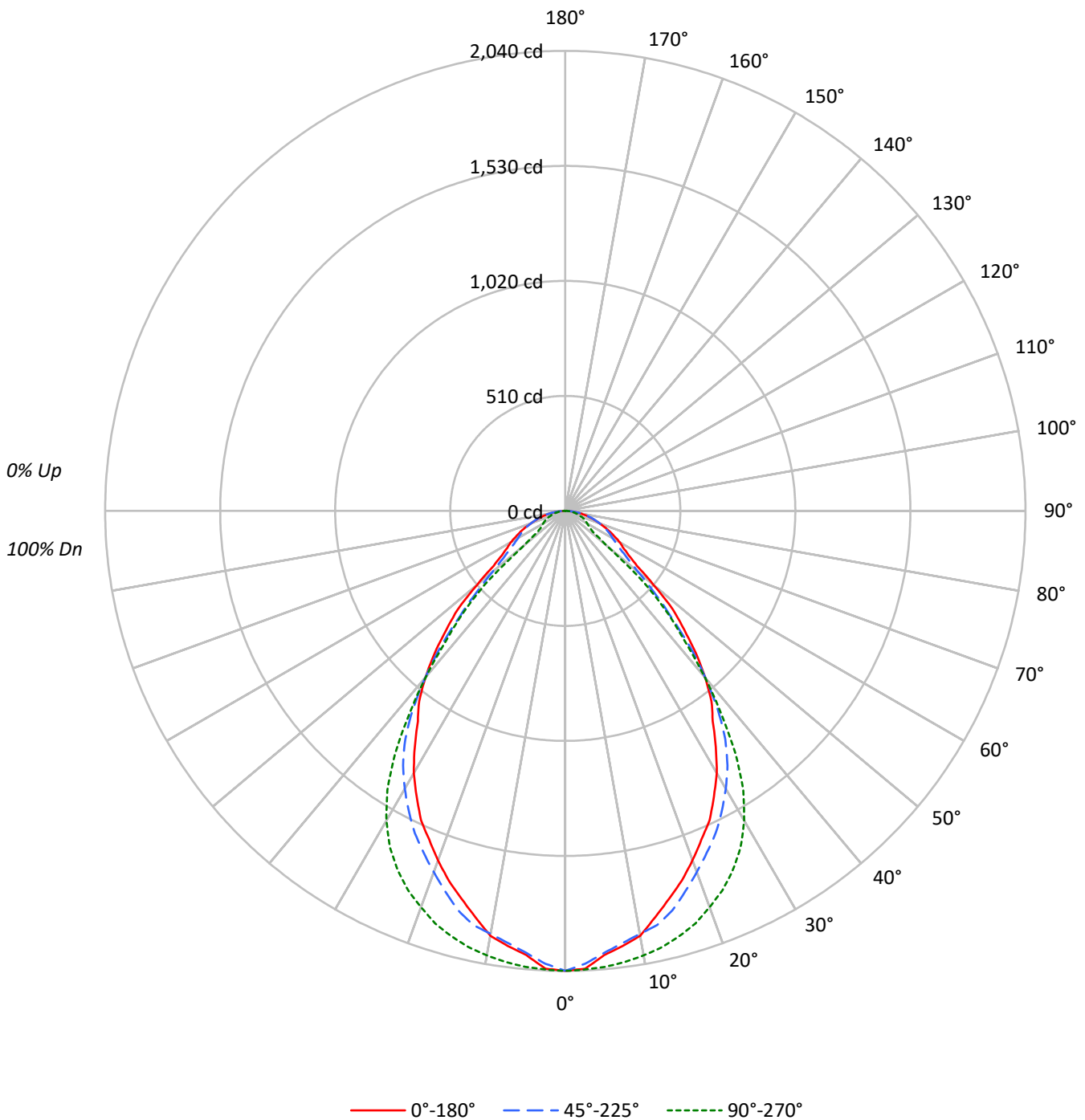
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3310.0 lumens
Efficiency: N/A
Efficacy: 111.1 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	90	90	90	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	80	80	80	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	71	71	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	63	63	63	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	57	57	57	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	52	52	52	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	47	47	47	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	43	43	43	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	40	40	40	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	37	37	37	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14511	14511	14511
5°	14119	14056	14495
10°	13820	13759	14461
15°	13106	13509	14380
20°	12485	12907	14160
25°	11876	12383	13799
30°	11034	11690	13029
35°	9894	10743	11428
40°	8964	8983	8934
45°	7494	6638	6474
50°	5661	4672	2648
55°	4257	3736	1670
60°	3957	3441	1608
65°	3682	3433	1611
70°	3368	3368	1585
75°	3194	3280	1531
80°	2950	3102	1573
85°	2572	2702	1714

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 7669 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.4	5.7
10°-20°	519.1	15.7
20°-30°	736.1	22.2
30°-40°	758.3	22.9
40°-50°	529.7	16.0
50°-60°	254.1	7.7
60°-70°	178.3	5.4
70°-80°	111.5	3.4
80°-90°	34.5	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°	1443.6	43.6
0°-40°	2201.9	66.5
0°-60°	2985.7	90.2
0°-90°	3310.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3310.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2040	2040	2040	2040	2040	
5°	1977	1974	1968	2020	2030	187
15°	1779	1792	1834	1886	1952	501
25°	1513	1528	1577	1684	1758	692
35°	1139	1170	1237	1263	1316	718
45°	745	762	660	626	643	574
55°	343	326	301	193	135	322
65°	219	204	204	155	96	217
75°	116	115	119	103	56	122
85°	32	32	33	33	21	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2039.5	2039.5	2039.5	2039.5	2039.5
2.5°	2031.6	2025.3	2010.0	2037.9	2035.8
5°	1976.9	1974.3	1968.0	2019.5	2029.5
7.5°	1945.9	1940.7	1933.3	1990.1	2017.9
10°	1912.8	1919.1	1904.4	1956.4	2001.6
12.5°	1844.5	1861.3	1881.3	1921.7	1981.7
15°	1779.3	1792.4	1834.0	1886.5	1952.2
17.5°	1718.3	1733.6	1769.3	1848.1	1918.1
20°	1648.9	1670.0	1704.6	1805.6	1870.2
22.5°	1577.4	1596.9	1640.5	1748.8	1820.8
25°	1512.8	1528.0	1577.4	1684.1	1757.7
27.5°	1427.1	1455.5	1502.3	1605.3	1682.6
30°	1343.0	1367.2	1422.9	1509.6	1585.9
32.5°	1241.6	1276.8	1338.3	1404.5	1468.1
35°	1139.1	1170.1	1236.8	1262.6	1315.7
37.5°	1064.4	1072.8	1110.7	1107.5	1137.5
40°	965.1	981.9	967.2	927.8	961.9
42.5°	857.8	877.8	818.4	772.7	784.8
45°	744.8	762.2	659.7	626.0	643.4
47.5°	647.1	645.5	531.9	509.3	485.2
50°	511.4	528.3	422.1	380.0	239.2
52.5°	399.5	405.8	348.0	242.8	157.2
55°	343.2	326.4	301.2	192.9	134.6
57.5°	304.9	283.8	267.0	179.2	123.0
60°	278.1	254.4	241.8	170.3	113.0
62.5°	247.6	229.2	224.4	162.4	104.1
65°	218.7	204.5	203.9	155.1	95.7
67.5°	189.8	181.9	184.0	146.1	86.2
70°	161.9	160.3	161.9	134.6	76.2
72.5°	138.2	136.7	140.9	119.8	65.2
75°	116.2	114.6	119.3	103.0	55.7
77.5°	92.5	93.6	96.7	85.7	46.8
80°	72.0	72.0	75.7	67.3	38.4
82.5°	51.5	52.0	54.1	49.4	30.0
85°	31.5	31.5	33.1	32.6	21.0
87.5°	10.5	12.1	14.2	15.2	10.5
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	14.94	16.29	15.30	16.61	16.92	11.27	12.62	11.64	12.94	13.25
	3H	16.68	17.89	17.06	18.22	18.58	13.25	14.45	13.63	14.78	15.15
	4H	17.35	18.48	17.75	18.83	19.21	13.95	15.08	14.35	15.43	15.81
	6H	17.86	18.90	18.27	19.26	19.66	14.48	15.51	14.89	15.88	16.28
	8H	18.03	19.01	18.46	19.40	19.81	14.66	15.65	15.09	16.04	16.44
	12H	18.14	19.08	18.57	19.46	19.89	14.80	15.74	15.23	16.13	16.56
4H	2H	15.47	16.60	15.87	16.95	17.33	12.89	14.02	13.30	14.37	14.75
	3H	17.45	18.38	17.86	18.78	19.18	15.07	16.00	15.48	16.41	16.81
	4H	18.25	19.09	18.68	19.50	19.95	15.95	16.79	16.39	17.21	17.65
	6H	18.89	19.62	19.35	20.06	20.53	16.60	17.32	17.06	17.76	18.23
	8H	19.11	19.79	19.58	20.24	20.71	16.80	17.48	17.27	17.93	18.40
	12H	19.27	19.87	19.75	20.35	20.82	16.96	17.56	17.45	18.04	18.52
8H	4H	18.53	19.21	19.00	19.66	20.13	16.60	17.28	17.07	17.72	18.19
	6H	19.32	19.87	19.82	20.37	20.85	17.46	18.02	17.96	18.51	18.99
	8H	19.62	20.12	20.14	20.63	21.12	17.79	18.29	18.31	18.80	19.29
	12H	19.85	20.29	20.37	20.79	21.36	18.05	18.49	18.57	18.99	19.56
12H	4H	18.55	19.15	19.04	19.63	20.11	16.67	17.27	17.16	17.76	18.23
	6H	19.37	19.87	19.89	20.38	20.87	17.60	18.10	18.12	18.61	19.10
	8H	19.73	20.17	20.25	20.67	21.24	18.01	18.45	18.53	18.95	19.52