

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: P893536

Luminaire Tested: 4MB-4SL-LVRA-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893536
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-L950
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

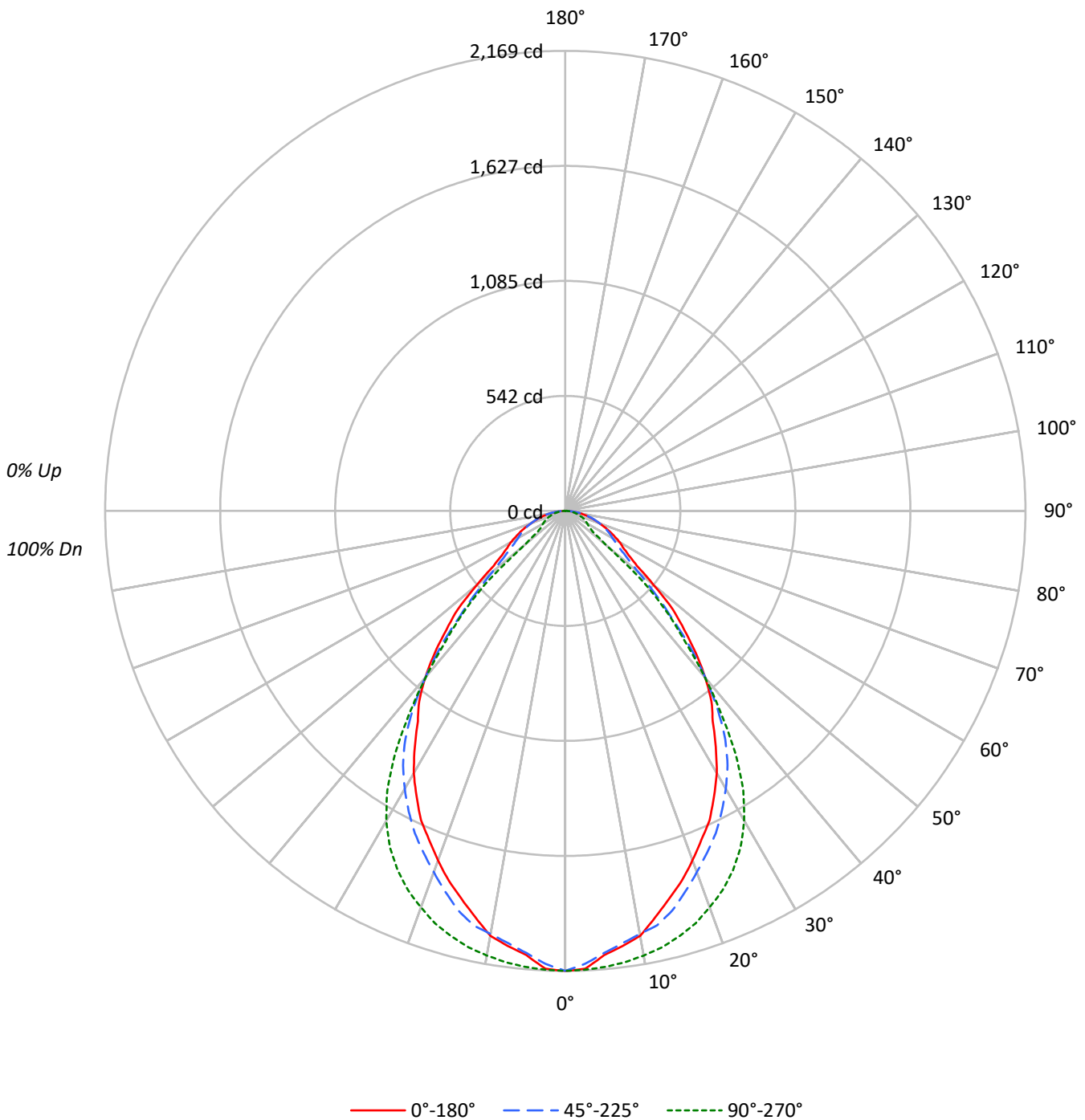
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3520.0 lumens
Efficiency: N/A
Efficacy: 118.1 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°	15432	15432	15432
5°	15016	14948	15415
10°	14697	14632	15379
15°	13938	14366	15293
20°	13277	13726	15059
25°	12630	13169	14675
30°	11734	12432	13856
35°	10521	11424	12152
40°	9532	9553	9501
45°	7970	7059	6885
50°	6020	4969	2815
55°	4528	3973	1775
60°	4208	3659	1710
65°	3914	3652	1712
70°	3582	3582	1687
75°	3395	3489	1630
80°	3139	3298	1672
85°	2735	2874	1829

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 8155 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	200.3	5.7
10°-20°	552.0	15.7
20°-30°	782.8	22.2
30°-40°	806.4	22.9
40°-50°	563.3	16.0
50°-60°	270.3	7.7
60°-70°	189.6	5.4
70°-80°	118.6	3.4
80°-90°	36.7	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°	1535.2	43.6
0°-40°	2341.6	66.5
0°-60°	3175.1	90.2
0°-90°	3520.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3520.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2169	2169	2169	2169	2169	
5°	2102	2100	2093	2148	2158	199
15°	1892	1906	1950	2006	2076	533
25°	1609	1625	1678	1791	1869	736
35°	1211	1244	1315	1343	1399	763
45°	792	810	702	666	684	610
55°	365	347	320	205	143	342
65°	232	217	217	165	102	230
75°	124	122	127	110	59	130
85°	34	34	35	35	22	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2168.9	2168.9	2168.9	2168.9	2168.9
2.5°	2160.5	2153.8	2137.6	2167.2	2165.0
5°	2102.4	2099.6	2092.9	2147.6	2158.3
7.5°	2069.4	2063.8	2056.0	2116.3	2146.0
10°	2034.2	2040.9	2025.2	2080.6	2128.6
12.5°	1961.5	1979.4	2000.6	2043.7	2107.4
15°	1892.2	1906.1	1950.3	2006.2	2076.1
17.5°	1827.3	1843.5	1881.6	1965.4	2039.7
20°	1753.5	1775.9	1812.8	1920.1	1988.9
22.5°	1677.5	1698.2	1744.6	1859.8	1936.3
25°	1608.8	1625.0	1677.5	1791.0	1869.3
27.5°	1517.7	1547.8	1597.6	1707.2	1789.3
30°	1428.2	1453.9	1513.2	1605.4	1686.5
32.5°	1320.3	1357.8	1423.2	1493.6	1561.3
35°	1211.3	1244.3	1315.3	1342.7	1399.1
37.5°	1132.0	1140.9	1181.1	1177.8	1209.7
40°	1026.3	1044.2	1028.5	986.6	1022.9
42.5°	912.3	933.5	870.3	821.7	834.6
45°	792.1	810.5	701.5	665.8	684.2
47.5°	688.1	686.4	565.7	541.7	515.9
50°	543.9	561.8	448.9	404.1	254.3
52.5°	424.8	431.5	370.1	258.3	167.1
55°	365.0	347.1	320.3	205.1	143.1
57.5°	324.2	301.9	284.0	190.6	130.8
60°	295.7	270.6	257.1	181.1	120.2
62.5°	263.3	243.7	238.7	172.7	110.7
65°	232.5	217.4	216.9	164.9	101.7
67.5°	201.8	193.4	195.6	155.4	91.7
70°	172.2	170.5	172.2	143.1	81.1
72.5°	147.0	145.3	149.8	127.4	69.3
75°	123.5	121.9	126.9	109.6	59.3
77.5°	98.4	99.5	102.9	91.1	49.7
80°	76.6	76.6	80.5	71.6	40.8
82.5°	54.8	55.3	57.6	52.5	31.9
85°	33.5	33.5	35.2	34.7	22.4
87.5°	11.2	12.9	15.1	16.2	11.2
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	15.16	16.51	15.52	16.82	17.14	11.49	12.84	11.85	13.15	13.47
	3H	16.89	18.10	17.27	18.43	18.79	13.46	14.67	13.84	15.00	15.36
	4H	17.56	18.69	17.97	19.04	19.42	14.17	15.29	14.57	15.65	16.03
	6H	18.07	19.11	18.49	19.48	19.87	14.69	15.73	15.10	16.10	16.49
	8H	18.24	19.23	18.67	19.62	20.02	14.88	15.86	15.30	16.25	16.66
	12H	18.35	19.29	18.78	19.68	20.11	15.01	15.96	15.45	16.34	16.77
4H	2H	15.68	16.81	16.09	17.16	17.55	13.11	14.24	13.51	14.59	14.97
	3H	17.66	18.59	18.07	19.00	19.40	15.29	16.22	15.70	16.62	17.02
	4H	18.46	19.30	18.90	19.72	20.16	16.17	17.00	16.60	17.42	17.86
	6H	19.11	19.83	19.57	20.28	20.74	16.81	17.53	17.27	17.98	18.44
	8H	19.33	20.00	19.80	20.45	20.92	17.02	17.70	17.49	18.14	18.61
	12H	19.48	20.08	19.97	20.56	21.04	17.18	17.78	17.66	18.26	18.73
8H	4H	18.75	19.43	19.22	19.87	20.34	16.82	17.49	17.28	17.94	18.41
	6H	19.53	20.09	20.03	20.58	21.06	17.68	18.23	18.18	18.73	19.21
	8H	19.83	20.33	20.35	20.85	21.34	18.00	18.50	18.52	19.02	19.51
	12H	20.07	20.51	20.58	21.00	21.57	18.27	18.71	18.78	19.20	19.77
12H	4H	18.77	19.37	19.25	19.85	20.32	16.89	17.49	17.37	17.97	18.44
	6H	19.58	20.08	20.10	20.60	21.09	17.81	18.31	18.33	18.83	19.32
	8H	19.95	20.39	20.46	20.88	21.45	18.23	18.67	18.74	19.16	19.73