

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: P892753

Luminaire Tested: 2MB-4HL-LVRA-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892753
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: 2MB-4HL-LVRA-UNV-L930
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

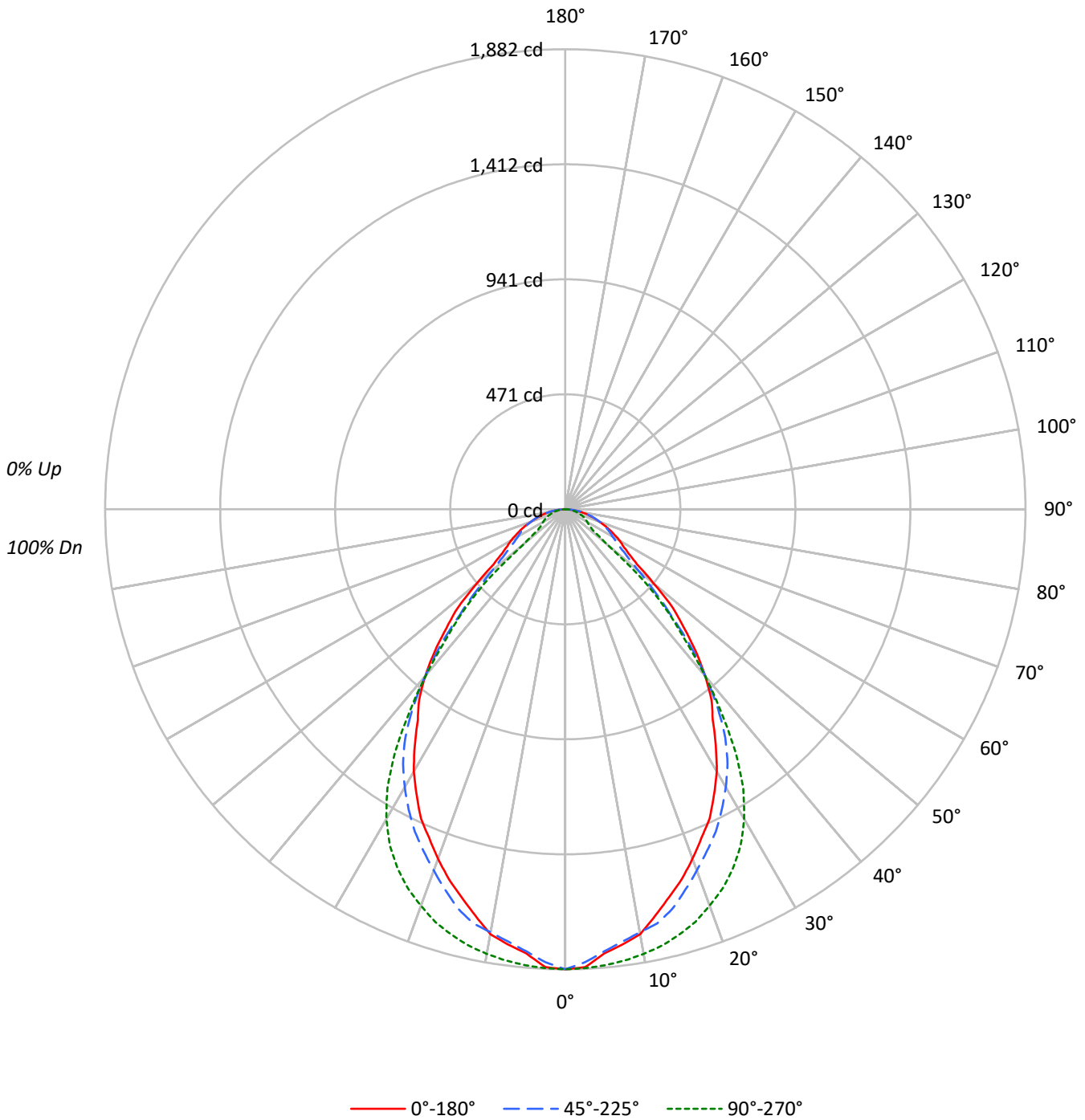
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3054.0 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12
Luminous Opening: Rectangular (W 0.38' x L: 1.98' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 6.5
Total Harmonic Distortion (THDi): 0.99
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°	26919	26919	26919
5°	26193	26075	26889
10°	25637	25524	26827
15°	24314	25060	26676
20°	23161	23944	26270
25°	22032	22973	25599
30°	20468	21687	24170
35°	18354	19930	21199
40°	16628	16665	16574
45°	13903	12315	12009
50°	10502	8666	4912
55°	7899	6931	3098
60°	7342	6383	2984
65°	6831	6371	2989
70°	6249	6249	2940
75°	5925	6085	2841
80°	5470	5750	2916
85°	4776	5023	3184

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 14226 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.8	5.7
10°-20°	478.9	15.7
20°-30°	679.2	22.2
30°-40°	699.7	22.9
40°-50°	488.7	16.0
50°-60°	234.5	7.7
60°-70°	164.5	5.4
70°-80°	102.9	3.4
80°-90°	31.8	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°	1331.9	43.6
0°-40°	2031.6	66.5
0°-60°	2754.8	90.2
0°-90°	3054.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3054.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1882	1882	1882	1882	1882	
5°	1824	1822	1816	1863	1872	173
15°	1642	1654	1692	1741	1801	462
25°	1396	1410	1455	1554	1622	638
35°	1051	1080	1141	1165	1214	662
45°	687	703	609	578	594	529
55°	317	301	278	178	124	297
65°	202	189	188	143	88	200
75°	107	106	110	95	51	113
85°	29	29	31	30	19	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1881.7	1881.7	1881.7	1881.7	1881.7
2.5°	1874.5	1868.7	1854.6	1880.3	1878.4
5°	1824.0	1821.6	1815.8	1863.3	1872.5
7.5°	1795.4	1790.6	1783.8	1836.2	1861.9
10°	1764.9	1770.7	1757.1	1805.1	1846.8
12.5°	1701.8	1717.3	1735.8	1773.1	1828.4
15°	1641.7	1653.8	1692.1	1740.6	1801.2
17.5°	1585.4	1599.5	1632.5	1705.2	1769.7
20°	1521.4	1540.8	1572.8	1665.9	1725.6
22.5°	1455.4	1473.4	1513.6	1613.5	1680.0
25°	1395.8	1409.9	1455.4	1553.9	1621.8
27.5°	1316.7	1342.9	1386.1	1481.1	1552.4
30°	1239.1	1261.4	1312.9	1392.9	1463.2
32.5°	1145.5	1178.0	1234.8	1295.9	1354.6
35°	1051.0	1079.6	1141.2	1164.9	1213.9
37.5°	982.1	989.9	1024.8	1021.9	1049.5
40°	890.4	906.0	892.4	856.0	887.5
42.5°	791.5	809.9	755.1	712.9	724.1
45°	687.2	703.2	608.7	577.6	593.6
47.5°	597.0	595.6	490.8	470.0	447.6
50°	471.9	487.4	389.4	350.6	220.7
52.5°	368.6	374.4	321.1	224.1	145.0
55°	316.7	301.2	277.9	178.0	124.2
57.5°	281.3	261.9	246.4	165.4	113.5
60°	256.6	234.7	223.1	157.1	104.3
62.5°	228.4	211.5	207.1	149.9	96.0
65°	201.8	188.7	188.2	143.1	88.3
67.5°	175.1	167.8	169.7	134.8	79.5
70°	149.4	147.9	149.4	124.2	70.3
72.5°	127.6	126.1	130.0	110.6	60.1
75°	107.2	105.7	110.1	95.1	51.4
77.5°	85.4	86.3	89.2	79.1	43.2
80°	66.4	66.4	69.8	62.1	35.4
82.5°	47.5	48.0	50.0	45.6	27.6
85°	29.1	29.1	30.6	30.1	19.4
87.5°	9.7	11.2	13.1	14.1	9.7
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	17.09	18.44	17.45	18.75	19.07	13.42	14.77	13.79	15.09	15.40
	3H	18.83	20.03	19.21	20.36	20.73	15.40	16.60	15.77	16.93	17.30
	4H	19.50	20.62	19.90	20.98	21.36	16.10	17.23	16.50	17.58	17.96
	6H	20.00	21.04	20.42	21.41	21.81	16.62	17.66	17.04	18.03	18.42
	8H	20.18	21.16	20.60	21.55	21.96	16.81	17.79	17.24	18.18	18.59
	12H	20.28	21.23	20.72	21.61	22.04	16.95	17.89	17.38	18.27	18.70
4H	2H	17.62	18.75	18.02	19.10	19.48	15.04	16.17	15.44	16.52	16.90
	3H	19.59	20.53	20.01	20.93	21.33	17.22	18.15	17.63	18.55	18.96
	4H	20.40	21.23	20.83	21.65	22.09	18.10	18.94	18.53	19.35	19.80
	6H	21.04	21.76	21.50	22.21	22.67	18.74	19.47	19.21	19.91	20.38
	8H	21.26	21.94	21.73	22.38	22.85	18.95	19.63	19.42	20.08	20.55
	12H	21.41	22.01	21.90	22.50	22.97	19.11	19.71	19.60	20.19	20.67
8H	4H	20.68	21.36	21.15	21.80	22.27	18.75	19.43	19.22	19.87	20.34
	6H	21.46	22.02	21.96	22.51	22.99	19.61	20.17	20.11	20.66	21.14
	8H	21.77	22.26	22.29	22.78	23.27	19.94	20.44	20.46	20.95	21.44
	12H	22.00	22.44	22.51	22.94	23.50	20.20	20.64	20.72	21.14	21.71
12H	4H	20.70	21.30	21.18	21.78	22.25	18.82	19.42	19.31	19.90	20.38
	6H	21.52	22.02	22.04	22.53	23.02	19.75	20.25	20.27	20.76	21.25
	8H	21.88	22.32	22.39	22.82	23.38	20.16	20.60	20.67	21.10	21.67