

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: P892747

Luminaire Tested: 2MB-4HL-LVR-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892747
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-2)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-4HL-LVR-UNV-L940
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

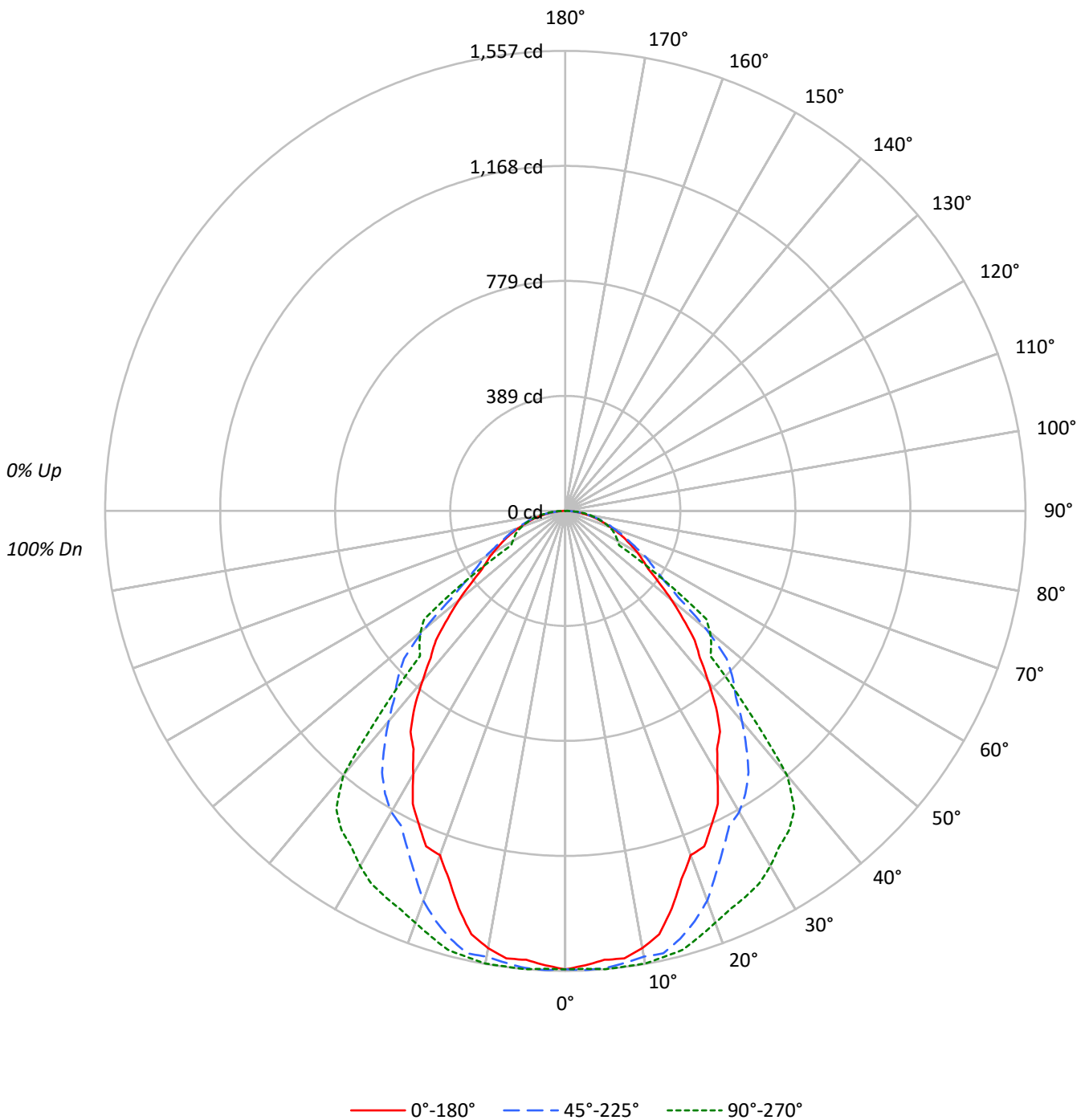
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3162.0 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.32 / 1.24
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	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	89	89	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	77	77	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	68	68	68	66
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	60	60	60	58
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	53	53	53	51
6	75	63	55	49	73	62	54	49	60	53	48	59	52	48	57	52	47	47	47	47	46
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	53	47	43	43	43	43	41
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	39	39	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	40	35	35	35	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	32	32	32	32	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22196	22196	22196
5°	21902	22303	22356
10°	21824	22251	22593
15°	20620	22208	22774
20°	18882	21374	22581
25°	18488	19936	22753
30°	16994	19444	22926
35°	15941	18877	23045
40°	14028	17375	21804
45°	12523	16209	14054
50°	10442	13892	14235
55°	8552	10074	10019
60°	8088	9055	5882
65°	7508	7880	6266
70°	6943	7370	6571
75°	6494	7020	6776
80°	5932	6533	7077
85°	5302	5663	7829

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 16209 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.5	4.7
10°-20°	415.1	13.1
20°-30°	598.8	18.9
30°-40°	679.2	21.5
40°-50°	565.6	17.9
50°-60°	365.6	11.6
60°-70°	216.7	6.9
70°-80°	132.1	4.2
80°-90°	41.2	1.3
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°	1161.4	36.7
0°-40°	1840.6	58.2
0°-60°	2771.9	87.7
0°-90°	3162.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3162.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1552	1552	1552	1552	1552	
5°	1525	1544	1553	1562	1557	145
15°	1392	1438	1500	1524	1538	388
25°	1171	1212	1263	1432	1442	535
35°	913	944	1081	1226	1320	562
45°	619	662	801	736	695	470
55°	343	376	404	485	402	319
65°	222	228	233	207	185	220
75°	118	120	127	134	123	125
85°	32	32	34	40	48	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1551.6	1551.6	1551.6	1551.6	1551.6
2.5°	1539.2	1553.1	1555.3	1567.8	1550.9
5°	1525.2	1543.6	1553.1	1561.9	1556.8
7.5°	1527.4	1537.7	1542.8	1558.2	1555.3
10°	1502.4	1523.0	1531.8	1550.2	1555.3
12.5°	1467.9	1494.4	1534.0	1530.3	1545.8
15°	1392.3	1437.8	1499.5	1523.7	1537.7
17.5°	1307.1	1357.8	1456.2	1513.5	1510.5
20°	1240.3	1278.5	1404.0	1484.8	1483.3
22.5°	1229.3	1238.1	1329.9	1465.0	1459.1
25°	1171.3	1212.4	1263.0	1431.9	1441.5
27.5°	1117.7	1154.4	1201.4	1390.1	1421.7
30°	1028.8	1091.9	1177.1	1345.3	1387.9
32.5°	955.4	1016.3	1134.5	1290.2	1347.5
35°	912.8	944.3	1080.9	1226.3	1319.6
37.5°	837.9	896.6	1005.3	1151.4	1272.6
40°	751.2	818.8	930.4	1085.3	1167.6
42.5°	674.1	728.5	854.0	960.5	916.4
45°	619.0	662.4	801.2	736.5	694.7
47.5°	539.7	594.8	740.2	605.1	669.7
50°	469.2	517.0	624.2	572.0	639.6
52.5°	400.9	446.5	483.2	539.7	601.4
55°	342.9	376.0	403.9	485.4	401.7
57.5°	311.4	321.6	353.2	346.6	216.6
60°	282.7	287.1	316.5	234.3	205.6
62.5°	250.4	258.5	270.2	219.6	194.6
65°	221.8	227.6	232.8	207.1	185.1
67.5°	193.9	199.7	204.9	192.4	173.3
70°	166.0	169.6	176.2	173.3	157.1
72.5°	141.0	143.9	152.0	154.2	141.7
75°	117.5	120.4	127.0	133.6	122.6
77.5°	94.7	96.9	104.3	109.4	105.7
80°	72.0	75.6	79.3	85.9	85.9
82.5°	52.9	53.6	57.3	63.9	66.8
85°	32.3	32.3	34.5	39.7	47.7
87.5°	14.0	14.0	15.4	16.9	24.2
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	18.12	19.58	18.49	19.90	20.21	18.09	19.56	18.46	19.87	20.18
	3H	19.72	21.03	20.10	21.36	21.72	19.57	20.88	19.95	21.21	21.57
	4H	20.33	21.55	20.73	21.90	22.28	20.27	21.50	20.67	21.85	22.23
	6H	20.79	21.92	21.20	22.29	22.68	20.89	22.02	21.30	22.39	22.78
	8H	20.94	22.02	21.37	22.41	22.81	21.13	22.21	21.56	22.60	23.00
	12H	21.05	22.08	21.48	22.46	22.89	21.34	22.37	21.77	22.75	23.18
4H	2H	18.72	19.94	19.12	20.29	20.67	18.70	19.92	19.10	20.27	20.65
	3H	20.54	21.55	20.95	21.95	22.35	20.45	21.46	20.86	21.87	22.27
	4H	21.27	22.18	21.70	22.60	23.04	21.32	22.23	21.75	22.65	23.09
	6H	21.86	22.66	22.32	23.10	23.56	22.08	22.87	22.53	23.31	23.77
	8H	22.07	22.81	22.53	23.25	23.72	22.37	23.12	22.84	23.56	24.03
	12H	22.21	22.87	22.70	23.35	23.83	22.63	23.29	23.11	23.77	24.24
8H	4H	21.59	22.33	22.05	22.77	23.24	21.63	22.37	22.09	22.82	23.28
	6H	22.31	22.92	22.81	23.42	23.89	22.53	23.14	23.03	23.64	24.12
	8H	22.59	23.14	23.11	23.65	24.14	22.92	23.47	23.44	23.99	24.47
	12H	22.81	23.30	23.32	23.79	24.36	23.27	23.76	23.79	24.26	24.82
12H	4H	21.62	22.29	22.11	22.77	23.24	21.65	22.32	22.14	22.80	23.27
	6H	22.38	22.93	22.89	23.44	23.93	22.58	23.14	23.10	23.65	24.14
	8H	22.72	23.21	23.23	23.70	24.26	23.04	23.53	23.55	24.02	24.59