

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: P892763

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

Issue Date: 11/11/2024

**Test Information**

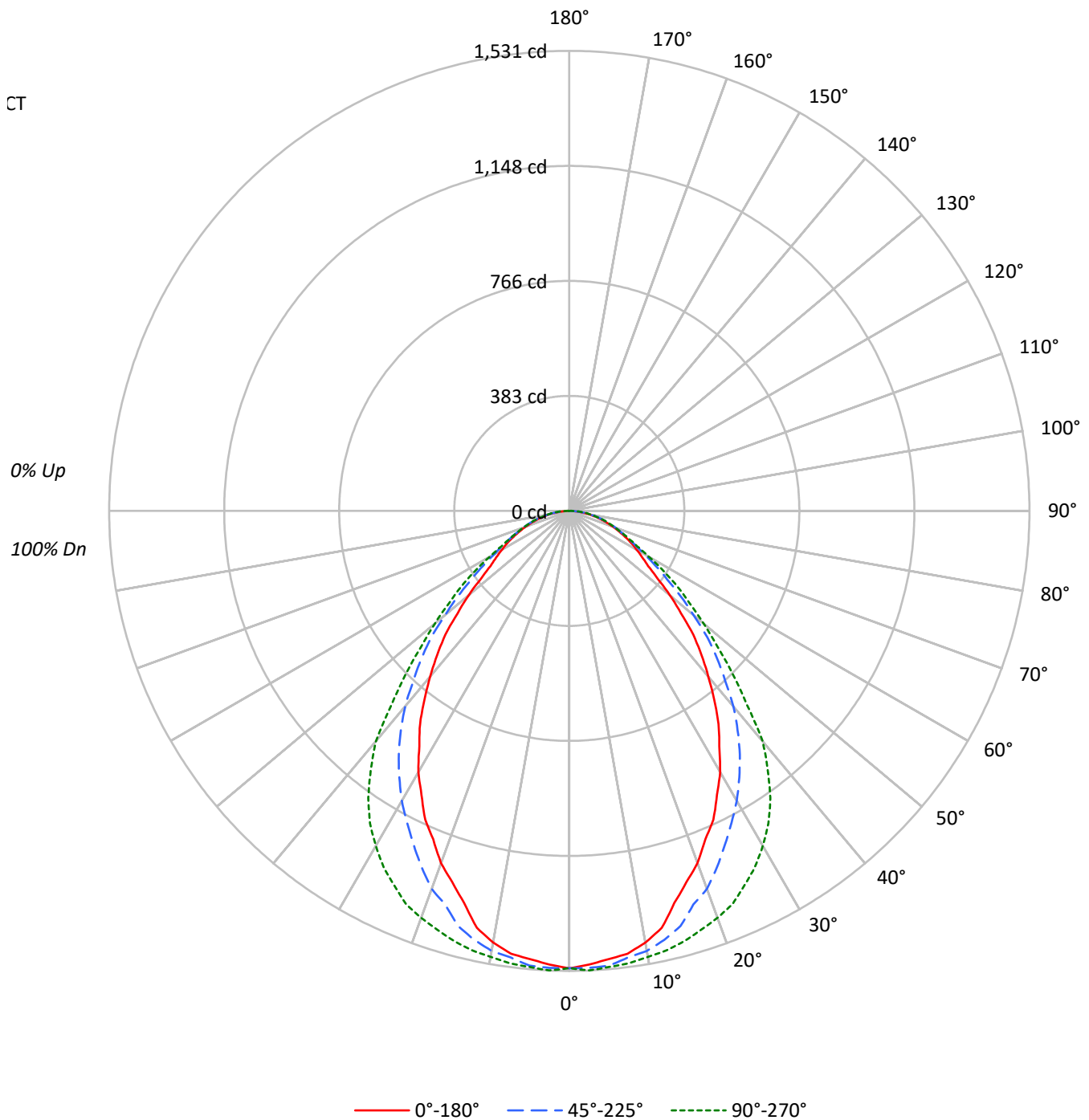
Test Method: LM-79-2019  
Report Number: P892763  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 2MB-4HL-LVRF-UNV-L940  
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 4000K C  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2993.0 lumens  
Efficiency: N/A  
Efficacy: 108.4 lumens/watt  
Spacing Criteria (0/90/45): 1.02 / 1.25 / 1.19  
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<sub>in</sub>): 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	73	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	54	62	57	53	53	53	53	51
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	48	48	48	48	46
7	70	58	50	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	40	51	44	39	50	44	39	49	43	39	39	39	39	37
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	36	36	36	34
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	33	33	33	31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	21774	21774	21774
5°	21500	21814	21878
10°	21186	21600	21897
15°	20010	21178	21947
20°	18988	20380	21937
25°	17901	19342	21729
30°	16585	18407	21268
35°	15122	17279	20366
40°	13440	15870	18695
45°	11797	14089	15582
50°	9726	12002	13011
55°	7981	9914	10954
60°	7422	8237	8738
65°	6949	7322	7372
70°	6479	6847	6814
75°	6019	6500	6544
80°	5536	6022	6137
85°	4793	5285	6959

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 15582 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.5	4.8
10°-20°	400.3	13.4
20°-30°	572.3	19.1
30°-40°	624.4	20.9
40°-50°	525.9	17.6
50°-60°	350.3	11.7
60°-70°	216.1	7.2
70°-80°	122.5	4.1
80°-90°	37.8	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°	1116.2	37.3
0°-40°	1740.5	58.2
0°-60°	2616.6	87.4
0°-90°	2993.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2993.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1522	1522	1522	1522	1522	
5°	1497	1505	1519	1519	1524	142
15°	1351	1378	1430	1472	1482	381
25°	1134	1157	1225	1342	1377	518
35°	866	904	989	1106	1166	538
45°	583	615	696	742	770	446
55°	320	343	398	424	439	296
65°	205	208	216	225	218	204
75°	109	110	118	122	118	116
85°	29	31	32	37	42	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1522.1	1522.1	1522.1	1522.1	1522.1
2.5°	1511.1	1511.8	1522.1	1527.9	1530.8
5°	1497.2	1505.3	1519.1	1519.1	1523.5
7.5°	1486.3	1487.7	1498.7	1514.8	1518.4
10°	1458.5	1465.8	1487.0	1505.3	1507.4
12.5°	1421.2	1425.6	1462.1	1497.2	1497.9
15°	1351.1	1378.1	1430.0	1472.4	1481.9
17.5°	1295.5	1323.3	1373.0	1449.0	1461.4
20°	1247.3	1262.7	1338.7	1421.2	1441.0
22.5°	1183.0	1211.5	1283.9	1388.3	1417.6
25°	1134.1	1157.4	1225.4	1341.6	1376.6
27.5°	1064.6	1099.7	1169.1	1291.9	1337.2
30°	1004.0	1042.0	1114.3	1239.3	1287.5
32.5°	928.7	968.9	1052.2	1175.7	1233.4
35°	865.9	903.9	989.4	1105.6	1166.2
37.5°	791.4	834.5	920.0	1028.8	1084.4
40°	719.7	756.3	849.8	943.3	1001.1
42.5°	651.1	684.7	768.0	846.2	874.7
45°	583.1	615.3	696.4	742.4	770.2
47.5°	504.2	544.4	623.3	645.9	667.1
50°	437.0	470.6	539.3	559.7	584.6
52.5°	370.5	404.8	467.7	484.5	504.2
55°	320.0	342.7	397.5	424.5	439.2
57.5°	287.9	295.2	340.5	365.4	371.9
60°	259.4	263.8	287.9	310.6	305.4
62.5°	233.1	235.3	247.7	264.5	254.3
65°	205.3	207.5	216.3	225.1	217.8
67.5°	179.8	181.2	188.5	195.1	188.5
70°	154.9	155.6	163.7	168.1	162.9
72.5°	130.8	131.5	139.6	144.7	138.8
75°	108.9	110.3	117.6	122.0	118.4
77.5°	87.7	89.9	95.0	99.4	93.5
80°	67.2	68.7	73.1	78.2	74.5
82.5°	49.0	49.7	52.6	57.7	59.2
85°	29.2	30.7	32.2	37.3	42.4
87.5°	11.7	13.2	13.9	16.1	22.7
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	17.72	19.19	18.09	19.50	19.81	19.23	20.70	19.60	21.01	21.32
	3H	19.33	20.63	19.70	20.96	21.33	20.45	21.76	20.83	22.09	22.45
	4H	19.94	21.16	20.34	21.51	21.89	20.97	22.19	21.37	22.54	22.92
	6H	20.40	21.54	20.82	21.90	22.30	21.38	22.51	21.79	22.88	23.27
	8H	20.57	21.64	20.99	22.03	22.43	21.55	22.62	21.97	23.01	23.41
	12H	20.67	21.70	21.10	22.08	22.51	21.69	22.72	22.12	23.10	23.53
4H	2H	18.33	19.56	18.73	19.91	20.29	19.57	20.80	19.98	21.15	21.53
	3H	20.15	21.17	20.56	21.57	21.97	21.06	22.07	21.47	22.48	22.88
	4H	20.89	21.80	21.32	22.21	22.65	21.73	22.65	22.17	23.06	23.50
	6H	21.48	22.28	21.94	22.72	23.18	22.30	23.09	22.76	23.54	24.00
	8H	21.69	22.43	22.15	22.88	23.34	22.53	23.27	22.99	23.71	24.18
	12H	21.84	22.50	22.32	22.98	23.45	22.73	23.39	23.21	23.87	24.34
8H	4H	21.20	21.95	21.67	22.39	22.86	21.96	22.70	22.43	23.15	23.62
	6H	21.93	22.54	22.43	23.04	23.51	22.66	23.28	23.16	23.77	24.25
	8H	22.21	22.76	22.73	23.28	23.76	22.98	23.53	23.49	24.04	24.53
	12H	22.44	22.92	22.95	23.42	23.98	23.27	23.76	23.78	24.25	24.82
12H	4H	21.24	21.90	21.72	22.38	22.85	21.97	22.64	22.46	23.12	23.59
	6H	22.00	22.55	22.51	23.06	23.55	22.70	23.25	23.22	23.76	24.25
	8H	22.34	22.83	22.85	23.32	23.89	23.07	23.56	23.58	24.05	24.62