

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: P892859

Luminaire Tested: 2MB-5HL-LVRF-UNV-L940

Issue Date: 11/11/2024

**Test Information**

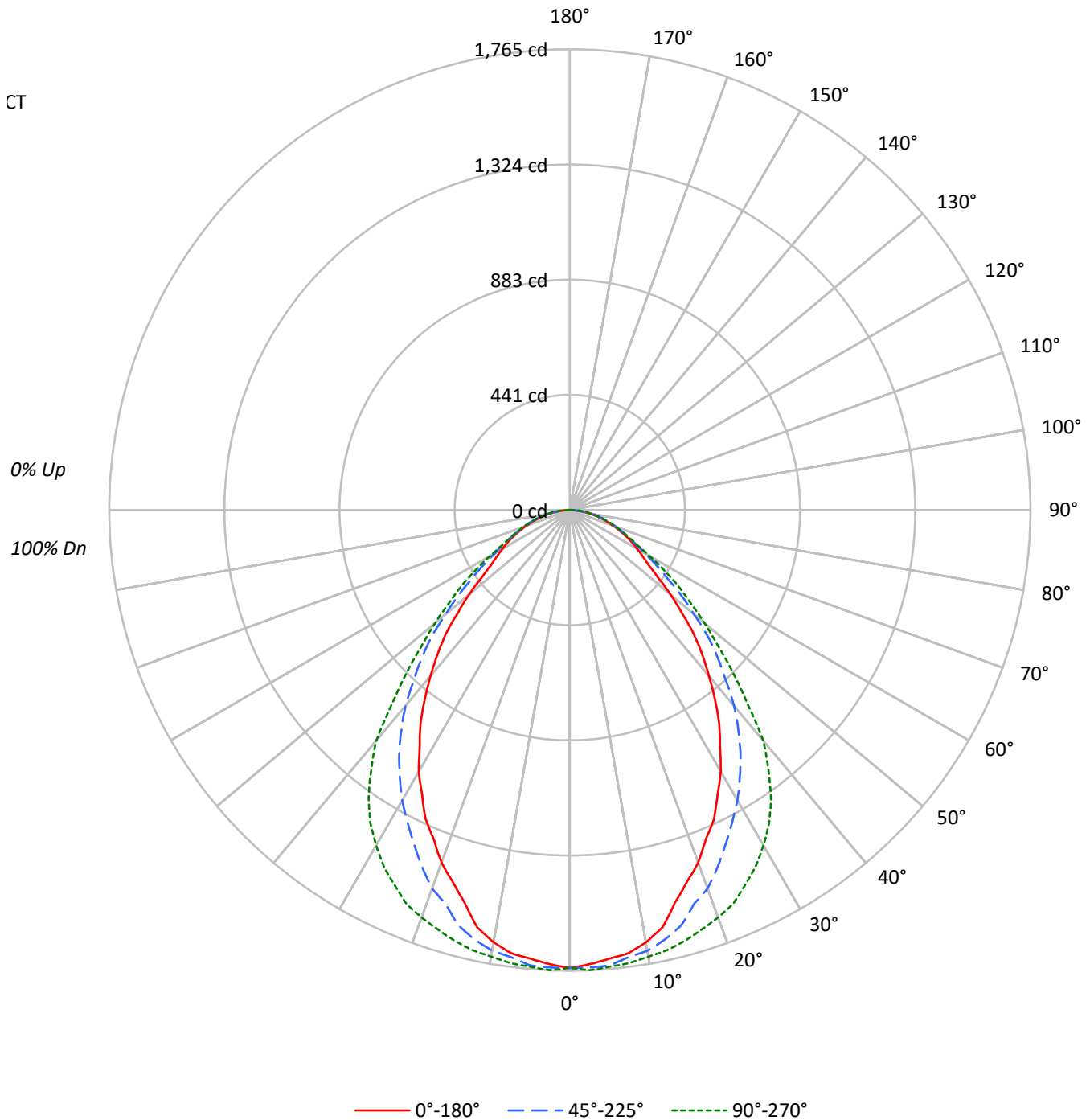
Test Method: LM-79-2019  
Report Number: P892859  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 2MB-5HL-LVRF-UNV-L940  
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 4000K C  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3450.0 lumens  
Efficiency: N/A  
Efficacy: 102.4 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): 33.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 4.5  
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	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°	25099	25099	25099
5°	24783	25146	25218
10°	24421	24898	25241
15°	23065	24412	25297
20°	21888	23492	25286
25°	20633	22295	25048
30°	19117	21218	24515
35°	17431	19916	23477
40°	15492	18294	21548
45°	13597	16239	17961
50°	11210	13834	14996
55°	9201	11428	12625
60°	8555	9496	10074
65°	8012	8439	8496
70°	7470	7893	7855
75°	6937	7495	7539
80°	6385	6937	7077
85°	5531	6089	8026

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 17961 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	165.5	4.8
10°-20°	461.5	13.4
20°-30°	659.7	19.1
30°-40°	719.7	20.9
40°-50°	606.2	17.6
50°-60°	403.7	11.7
60°-70°	249.1	7.2
70°-80°	141.2	4.1
80°-90°	43.6	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°	1286.6	37.3
0°-40°	2006.3	58.2
0°-60°	3016.1	87.4
0°-90°	3450.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3450.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1754	1754	1754	1754	1754	
5°	1726	1735	1751	1751	1756	164
15°	1557	1588	1648	1697	1708	439
25°	1307	1334	1412	1546	1587	597
35°	998	1042	1140	1274	1344	620
45°	672	709	803	856	888	514
55°	369	395	458	489	506	341
65°	237	239	249	259	251	235
75°	126	127	136	141	136	133
85°	34	35	37	43	49	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1754.5	1754.5	1754.5	1754.5	1754.5
2.5°	1741.8	1742.7	1754.5	1761.2	1764.6
5°	1725.8	1735.1	1751.1	1751.1	1756.1
7.5°	1713.2	1714.9	1727.5	1746.0	1750.3
10°	1681.2	1689.6	1714.0	1735.1	1737.6
12.5°	1638.2	1643.3	1685.4	1725.8	1726.7
15°	1557.4	1588.5	1648.3	1697.2	1708.1
17.5°	1493.4	1525.4	1582.6	1670.2	1684.6
20°	1437.8	1455.5	1543.1	1638.2	1661.0
22.5°	1363.6	1396.5	1479.9	1600.3	1634.0
25°	1307.2	1334.2	1412.5	1546.4	1586.9
27.5°	1227.2	1267.6	1347.6	1489.1	1541.4
30°	1157.3	1201.1	1284.5	1428.5	1484.1
32.5°	1070.5	1116.9	1212.9	1355.2	1421.8
35°	998.1	1041.9	1140.4	1274.4	1344.3
37.5°	912.2	961.9	1060.4	1185.9	1249.9
40°	829.6	871.8	979.6	1087.4	1153.9
42.5°	750.5	789.2	885.2	975.4	1008.2
45°	672.1	709.2	802.7	855.8	887.8
47.5°	581.2	627.5	718.5	744.6	769.0
50°	503.7	542.4	621.6	645.2	673.8
52.5°	427.0	466.6	539.1	558.4	581.2
55°	368.9	395.0	458.2	489.4	506.2
57.5°	331.9	340.3	392.5	421.1	428.7
60°	299.0	304.1	331.9	358.0	352.1
62.5°	268.7	271.2	285.5	304.9	293.1
65°	236.7	239.2	249.3	259.4	251.0
67.5°	207.2	208.9	217.3	224.9	217.3
70°	178.6	179.4	188.7	193.7	187.8
72.5°	150.8	151.6	160.9	166.8	160.0
75°	125.5	127.2	135.6	140.7	136.4
77.5°	101.1	103.6	109.5	114.5	107.8
80°	77.5	79.2	84.2	90.1	85.9
82.5°	56.4	57.3	60.6	66.5	68.2
85°	33.7	35.4	37.1	43.0	48.9
87.5°	13.5	15.2	16.0	18.5	26.1
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	18.22	19.68	18.58	19.99	20.31	19.72	21.19	20.09	21.50	21.82
	3H	19.82	21.13	20.20	21.46	21.82	20.94	22.25	21.32	22.58	22.94
	4H	20.43	21.66	20.83	22.01	22.39	21.46	22.69	21.86	23.04	23.42
	6H	20.90	22.03	21.31	22.40	22.79	21.87	23.00	22.28	23.37	23.76
	8H	21.06	22.14	21.49	22.53	22.93	22.04	23.11	22.47	23.50	23.91
	12H	21.16	22.19	21.59	22.58	23.00	22.18	23.21	22.61	23.60	24.02
4H	2H	18.83	20.05	19.23	20.40	20.78	20.07	21.29	20.47	21.64	22.02
	3H	20.64	21.66	21.06	22.06	22.46	21.55	22.57	21.96	22.97	23.37
	4H	21.38	22.29	21.81	22.71	23.15	22.23	23.14	22.66	23.56	24.00
	6H	21.98	22.77	22.44	23.21	23.68	22.79	23.59	23.25	24.03	24.49
	8H	22.18	22.92	22.65	23.37	23.84	23.02	23.76	23.48	24.21	24.68
	12H	22.33	22.99	22.81	23.47	23.94	23.22	23.89	23.71	24.36	24.84
8H	4H	21.70	22.44	22.16	22.89	23.35	22.45	23.20	22.92	23.64	24.11
	6H	22.42	23.04	22.92	23.53	24.01	23.16	23.77	23.65	24.26	24.74
	8H	22.71	23.26	23.22	23.77	24.26	23.47	24.02	23.99	24.53	25.02
	12H	22.93	23.42	23.44	23.91	24.48	23.77	24.25	24.28	24.75	25.31
12H	4H	21.73	22.40	22.22	22.88	23.35	22.47	23.13	22.95	23.61	24.08
	6H	22.49	23.04	23.01	23.55	24.04	23.19	23.75	23.71	24.26	24.75
	8H	22.83	23.32	23.34	23.81	24.38	23.57	24.05	24.08	24.55	25.11