

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: P892855

Luminaire Tested: 2MB-5HL-LVRF-UNV-L840

Issue Date: 11/11/2024

**Test Information**

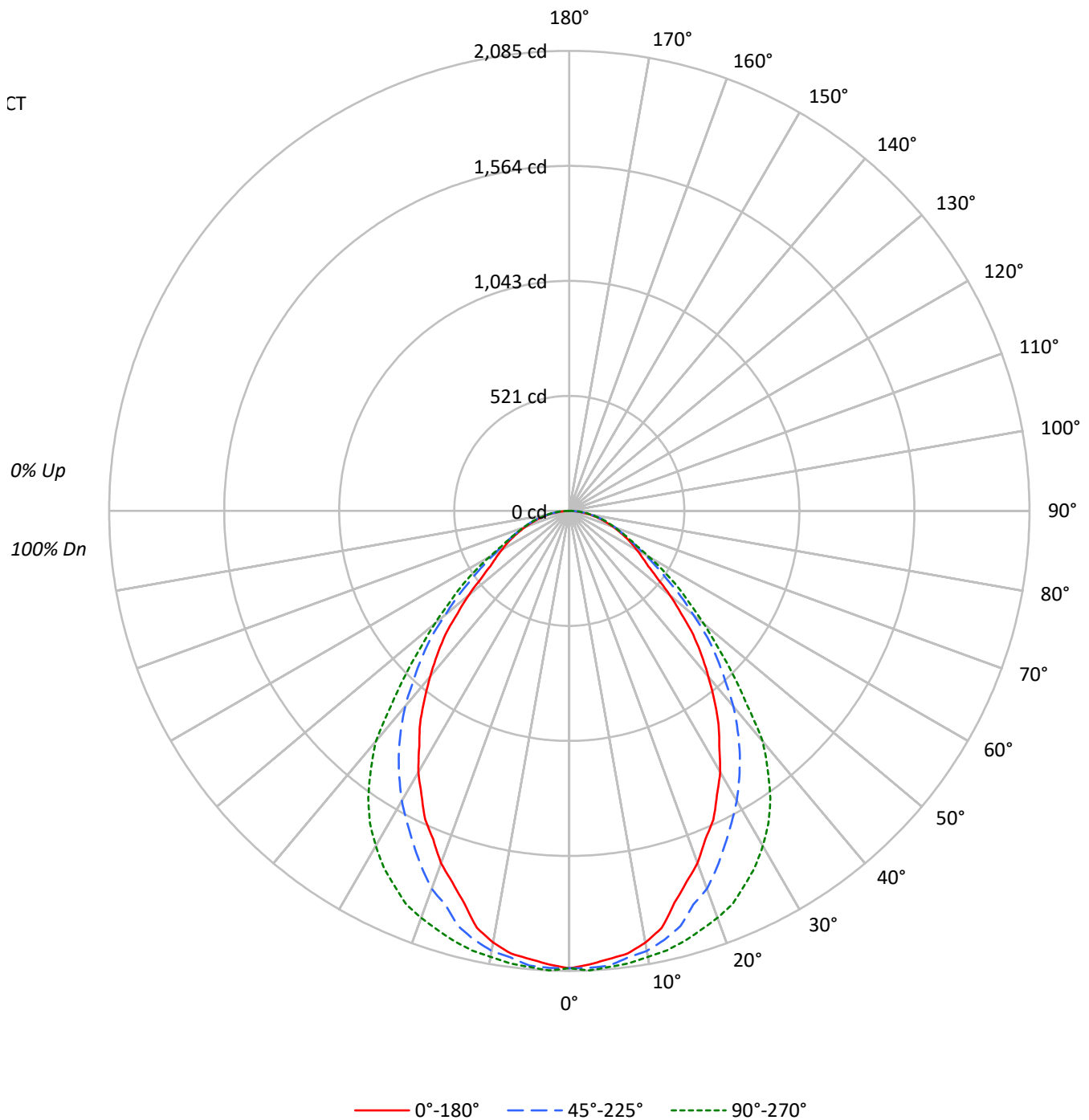
Test Method: LM-79-2019  
Report Number: P892855  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 2MB-5HL-LVRF-UNV-L840  
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 4000K C  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4076.0 lumens  
Efficiency: N/A  
Efficacy: 120.9 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 (Ain): 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°	29652	29652	29652
5°	29280	29708	29794
10°	28852	29416	29821
15°	27251	28841	29888
20°	25859	27753	29875
25°	24377	26341	29593
30°	22586	25067	28964
35°	20593	23531	27736
40°	18305	21612	25459
45°	16065	19185	21218
50°	13244	16344	17718
55°	10872	13500	14917
60°	10108	11218	11902
65°	9464	9972	10036
70°	8825	9323	9281
75°	8197	8855	8910
80°	7538	8197	8362
85°	6533	7189	9471

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 21218 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	195.5	4.8
10°-20°	545.2	13.4
20°-30°	779.3	19.1
30°-40°	850.3	20.9
40°-50°	716.1	17.6
50°-60°	477.0	11.7
60°-70°	294.3	7.2
70°-80°	166.8	4.1
80°-90°	51.5	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°	1520.0	37.3
0°-40°	2370.3	58.2
0°-60°	3563.4	87.4
0°-90°	4076.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4076.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2073	2073	2073	2073	2073	
5°	2039	2050	2069	2069	2075	193
15°	1840	1877	1947	2005	2018	519
25°	1544	1576	1669	1827	1875	706
35°	1179	1231	1347	1506	1588	733
45°	794	838	948	1011	1049	607
55°	436	467	541	578	598	403
65°	280	283	295	306	296	278
75°	148	150	160	166	161	157
85°	40	42	44	51	58	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2072.8	2072.8	2072.8	2072.8	2072.8
2.5°	2057.9	2058.9	2072.8	2080.8	2084.8
5°	2039.0	2049.9	2068.8	2068.8	2074.8
7.5°	2024.0	2026.0	2041.0	2062.9	2067.8
10°	1986.2	1996.2	2025.0	2049.9	2052.9
12.5°	1935.5	1941.5	1991.2	2039.0	2040.0
15°	1840.0	1876.8	1947.4	2005.1	2018.1
17.5°	1764.3	1802.1	1869.8	1973.3	1990.2
20°	1698.6	1719.5	1823.0	1935.5	1962.4
22.5°	1611.1	1649.9	1748.4	1890.7	1930.5
25°	1544.4	1576.3	1668.8	1827.0	1874.8
27.5°	1449.9	1497.6	1592.2	1759.4	1821.0
30°	1367.3	1419.0	1517.5	1687.7	1753.4
32.5°	1264.8	1319.5	1433.0	1601.1	1679.7
35°	1179.2	1230.9	1347.4	1505.6	1588.2
37.5°	1077.7	1136.4	1252.8	1401.1	1476.7
40°	980.2	1029.9	1157.3	1284.7	1363.3
42.5°	886.6	932.4	1045.9	1152.3	1191.1
45°	794.1	837.9	948.3	1011.0	1048.8
47.5°	686.6	741.4	848.8	879.7	908.5
50°	595.1	640.8	734.4	762.3	796.1
52.5°	504.5	551.3	636.9	659.8	686.6
55°	435.9	466.7	541.3	578.2	598.1
57.5°	392.1	402.0	463.7	497.6	506.5
60°	353.3	359.2	392.1	422.9	416.0
62.5°	317.4	320.4	337.3	360.2	346.3
65°	279.6	282.6	294.6	306.5	296.5
67.5°	244.8	246.8	256.7	265.7	256.7
70°	211.0	212.0	222.9	228.9	221.9
72.5°	178.1	179.1	190.1	197.0	189.1
75°	148.3	150.3	160.2	166.2	161.2
77.5°	119.4	122.4	129.4	135.3	127.4
80°	91.5	93.5	99.5	106.5	101.5
82.5°	66.7	67.7	71.6	78.6	80.6
85°	39.8	41.8	43.8	50.8	57.7
87.5°	15.9	17.9	18.9	21.9	30.8
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	18.80	20.26	19.16	20.57	20.89	20.31	21.77	20.67	22.08	22.40
	3H	20.40	21.71	20.78	22.04	22.40	21.52	22.83	21.90	23.16	23.52
	4H	21.01	22.24	21.41	22.58	22.96	22.04	23.27	22.44	23.62	24.00
	6H	21.48	22.61	21.89	22.98	23.37	22.45	23.58	22.86	23.95	24.34
	8H	21.64	22.71	22.07	23.10	23.51	22.62	23.70	23.05	24.09	24.49
	12H	21.74	22.77	22.17	23.15	23.58	22.76	23.79	23.19	24.18	24.61
4H	2H	19.41	20.63	19.81	20.98	21.36	20.65	21.87	21.05	22.22	22.60
	3H	21.22	22.24	21.64	22.64	23.04	22.13	23.15	22.54	23.55	23.95
	4H	21.96	22.87	22.39	23.29	23.73	22.81	23.72	23.24	24.14	24.58
	6H	22.56	23.35	23.01	23.79	24.25	23.37	24.17	23.83	24.61	25.07
	8H	22.76	23.50	23.23	23.95	24.42	23.60	24.34	24.07	24.79	25.26
	12H	22.91	23.57	23.39	24.05	24.52	23.80	24.47	24.29	24.94	25.42
8H	4H	22.28	23.02	22.74	23.46	23.93	23.03	23.78	23.50	24.22	24.69
	6H	23.00	23.62	23.50	24.11	24.59	23.74	24.35	24.23	24.84	25.32
	8H	23.29	23.84	23.80	24.35	24.84	24.05	24.60	24.57	25.11	25.60
	12H	23.51	24.00	24.02	24.49	25.06	24.35	24.84	24.86	25.33	25.89
12H	4H	22.31	22.98	22.80	23.45	23.93	23.05	23.71	23.53	24.19	24.66
	6H	23.07	23.62	23.58	24.13	24.62	23.77	24.33	24.29	24.84	25.33
	8H	23.41	23.90	23.92	24.39	24.96	24.15	24.63	24.66	25.13	25.69