

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: P892795

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

Issue Date: 11/11/2024

**Test Information**

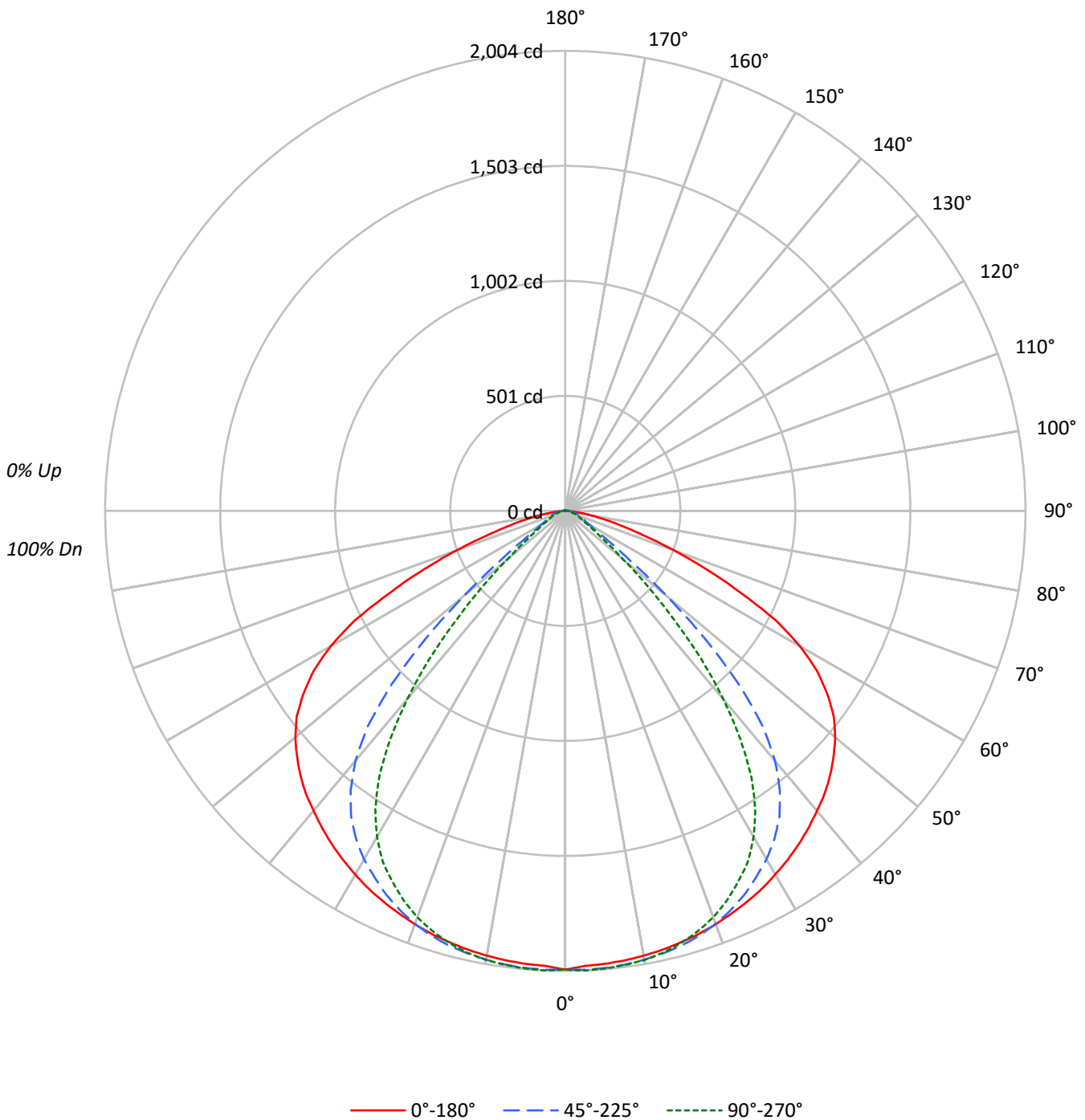
Test Method: LM-79-2019  
Report Number: P892795  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 2MB-5HL-A-UNV-L940  
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 4000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4249.1 lumens  
Efficiency: N/A  
Efficacy: 126.1 lumens/watt  
Spacing Criteria (0/90/45): 1.37 / 1.21 / 1.29  
Luminous Opening: Rectangular (W 0.27' 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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	90	90	88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	79	79	79	77
3	95	86	80	74	93	85	78	73	82	77	72	79	75	71	77	73	70	70	70	70	68
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	62	62	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	55	64	59	55	55	55	55	53
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	58	53	49	49	49	49	47
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	48	44	44	44	44	43
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	40	40	40	38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	37	37	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	37	33	33	33	33	32

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

	0°	45°	90°
0°	40910	40910	40910
5°	40709	41083	41130
10°	40901	41279	41294
15°	41249	41550	41317
20°	41749	41714	41043
25°	42412	41682	40257
30°	43248	41441	38774
35°	44305	40638	35299
40°	45586	37976	28599
45°	47216	30982	19361
50°	48876	18260	10522
55°	49733	8136	5712
60°	48370	4972	4067
65°	40723	4162	3474
70°	30354	4011	3161
75°	20522	4177	2682
80°	13950	3809	3066
85°	8528	5568	5380

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 55°  
 Luminance: 49733 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	190.1	4.5
10°-20°	552.1	13.0
20°-30°	847.2	19.9
30°-40°	998.0	23.5
40°-50°	851.1	20.0
50°-60°	465.0	10.9
60°-70°	206.1	4.9
70°-80°	90.5	2.1
80°-90°	32.3	0.8
90°-100°	10.0	0.2
100°-110°	2.5	0.1
110°-120°	0.7	0.0
120°-130°	0.7	0.0
130°-140°	0.6	0.0
140°-150°	0.7	0.0
150°-160°	0.7	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	1589.4	37.4
0°-40°	2587.4	60.9
0°-60°	3903.4	91.9
0°-90°	4232.3	99.6
90°-120°	13.2	0.3
90°-150°	15.3	0.4
90°-180°	17.0	0.4
0°-180°	4249.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1998	1998	1998	1998	1998	
5°	1980	1992	1999	2003	2001	189
15°	1946	1957	1960	1954	1949	550
25°	1877	1877	1845	1807	1782	867
35°	1772	1739	1626	1478	1412	1111
45°	1630	1496	1070	745	669	1258
55°	1393	854	228	167	160	1236
65°	840	181	86	76	72	835
75°	259	92	53	40	34	293
85°	36	33	24	23	23	47
90°	3	13	18	18	15	3
95°	3	6	13	10	10	2
105°	1	1	2	4	5	1
115°	1	1	1	1	1	0
125°	1	1	1	1	1	1
135°	1	1	1	1	1	1
145°	1	1	2	2	2	1
155°	1	2	2	2	2	0
165°	2	2	2	2	2	0
175°	2	2	2	2	2	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1997.9	1997.9	1997.9	1997.9	1997.9
2.5°	1983.7	1993.9	2000.2	2005.0	2004.2
5°	1980.5	1991.6	1998.7	2003.4	2001.0
7.5°	1975.0	1986.8	1993.9	1998.7	1994.7
10°	1967.1	1978.9	1985.3	1988.4	1986.0
12.5°	1958.4	1969.5	1974.2	1975.8	1971.1
15°	1945.8	1956.9	1960.0	1954.5	1949.0
17.5°	1932.4	1941.9	1940.3	1930.1	1919.8
20°	1915.9	1923.8	1914.3	1894.6	1883.5
22.5°	1896.9	1902.5	1882.8	1853.6	1837.8
25°	1877.2	1877.2	1844.9	1807.1	1781.8
27.5°	1855.2	1849.6	1799.2	1748.7	1722.7
30°	1829.1	1816.5	1752.7	1680.9	1639.9
32.5°	1802.3	1781.8	1695.1	1592.6	1539.8
35°	1772.4	1739.3	1625.7	1477.5	1412.1
37.5°	1740.1	1693.5	1535.1	1331.6	1251.2
40°	1705.4	1637.6	1420.7	1159.0	1069.9
42.5°	1671.5	1573.7	1272.5	960.3	878.3
45°	1630.5	1496.4	1069.9	745.1	668.6
47.5°	1584.7	1401.0	826.3	536.9	490.4
50°	1534.3	1270.9	573.2	369.8	330.3
52.5°	1474.4	1094.3	361.1	246.0	227.1
55°	1393.1	853.9	227.9	167.1	160.0
57.5°	1300.9	596.8	155.3	126.9	122.2
60°	1181.1	382.4	121.4	104.1	99.3
62.5°	1032.8	253.9	100.9	88.3	83.6
65°	840.5	181.3	85.9	76.5	71.7
67.5°	666.2	145.1	75.7	67.0	60.7
70°	507.0	121.4	67.0	59.1	52.8
72.5°	361.1	105.6	59.9	50.5	44.2
75°	259.4	91.5	52.8	40.2	33.9
77.5°	179.0	79.6	44.2	30.7	29.2
80°	118.3	69.4	32.3	27.6	26.0
82.5°	71.7	56.0	27.6	23.7	25.2
85°	36.3	33.1	23.7	22.9	22.9
87.5°	14.2	19.7	19.7	22.1	22.1
90°	3.2	13.4	18.1	18.1	15.0
92.5°	3.2	10.2	16.6	12.6	11.0
95°	3.2	5.5	12.6	10.2	10.2
97.5°	2.4	2.4	8.7	8.7	8.7
100°	0.8	1.6	5.5	7.9	7.9
102.5°	0.8	0.8	3.2	5.5	6.3
105°	0.8	0.8	1.6	3.9	4.7
107.5°	0.0	0.0	0.8	2.4	3.2
110°	0.0	0.0	0.8	1.6	1.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.8	0.8	0.8
115°	0.8	0.8	0.8	0.8	0.8
117.5°	0.8	0.8	0.8	0.8	0.8
120°	0.8	0.8	0.8	0.8	0.8
122.5°	0.8	0.8	0.8	0.8	0.8
125°	0.8	0.8	0.8	0.8	0.8
127.5°	0.8	0.8	0.8	0.8	0.8
130°	0.8	0.8	0.8	0.8	0.8
132.5°	0.8	0.8	0.8	0.8	0.8
135°	0.8	0.8	0.8	0.8	0.8
137.5°	0.8	0.8	0.8	0.8	0.8
140°	0.8	0.8	0.8	0.8	0.8
142.5°	0.8	0.8	0.8	1.6	0.8
145°	0.8	0.8	1.6	1.6	1.6
147.5°	0.8	0.8	1.6	1.6	1.6
150°	0.8	0.8	1.6	1.6	1.6
152.5°	0.8	1.6	1.6	1.6	1.6
155°	0.8	1.6	1.6	1.6	1.6
157.5°	0.8	1.6	1.6	2.4	1.6
160°	1.6	1.6	1.6	2.4	1.6
162.5°	1.6	1.6	2.4	2.4	2.4
165°	1.6	1.6	2.4	2.4	2.4
167.5°	1.6	1.6	2.4	2.4	2.4
170°	1.6	1.6	2.4	2.4	2.4
172.5°	1.6	1.6	2.4	2.4	2.4
175°	1.6	1.6	2.4	2.4	2.4
177.5°	1.6	1.6	2.4	3.2	2.4
180°	2.4	2.4	2.4	2.4	2.4



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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	23.98	25.38	24.35	25.70	26.03	11.88	13.28	12.25	13.61	13.93
	3H	25.27	26.52	25.66	26.86	27.23	13.05	14.29	13.43	14.63	15.00
	4H	25.67	26.83	26.08	27.19	27.58	13.48	14.64	13.89	15.00	15.39
	6H	25.90	26.97	26.32	27.35	27.75	13.86	14.92	14.28	15.30	15.70
	8H	25.96	26.97	26.39	27.37	27.78	14.10	15.12	14.54	15.52	15.93
	12H	25.97	26.94	26.41	27.33	27.77	14.44	15.41	14.88	15.80	16.24
4H	2H	23.80	24.96	24.21	25.32	25.71	12.40	13.56	12.81	13.92	14.31
	3H	25.13	26.08	25.55	26.49	26.90	13.86	14.81	14.28	15.22	15.63
	4H	25.56	26.41	26.00	26.83	27.29	14.41	15.26	14.86	15.69	16.14
	6H	25.89	26.62	26.35	27.07	27.55	14.92	15.65	15.39	16.11	16.58
	8H	25.98	26.66	26.45	27.12	27.60	15.24	15.92	15.71	16.38	16.86
	12H	26.03	26.64	26.52	27.12	27.61	15.68	16.29	16.17	16.78	17.26
8H	4H	25.46	26.15	25.94	26.60	27.08	14.99	15.68	15.47	16.13	16.61
	6H	25.81	26.38	26.32	26.88	27.37	15.62	16.19	16.13	16.69	17.18
	8H	25.94	26.45	26.47	26.97	27.47	16.03	16.54	16.55	17.06	17.56
	12H	26.04	26.49	26.55	26.99	27.57	16.62	17.07	17.14	17.57	18.15
12H	4H	25.42	26.03	25.91	26.52	27.00	15.19	15.80	15.69	16.29	16.78
	6H	25.76	26.27	26.28	26.79	27.29	15.86	16.37	16.39	16.89	17.39
	8H	25.92	26.37	26.44	26.87	27.45	16.34	16.80	16.86	17.30	17.87