

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: P893647

Luminaire Tested: 4MB-5SL-LVRA-UNV-L940

Issue Date: 11/11/2024

**Test Information**

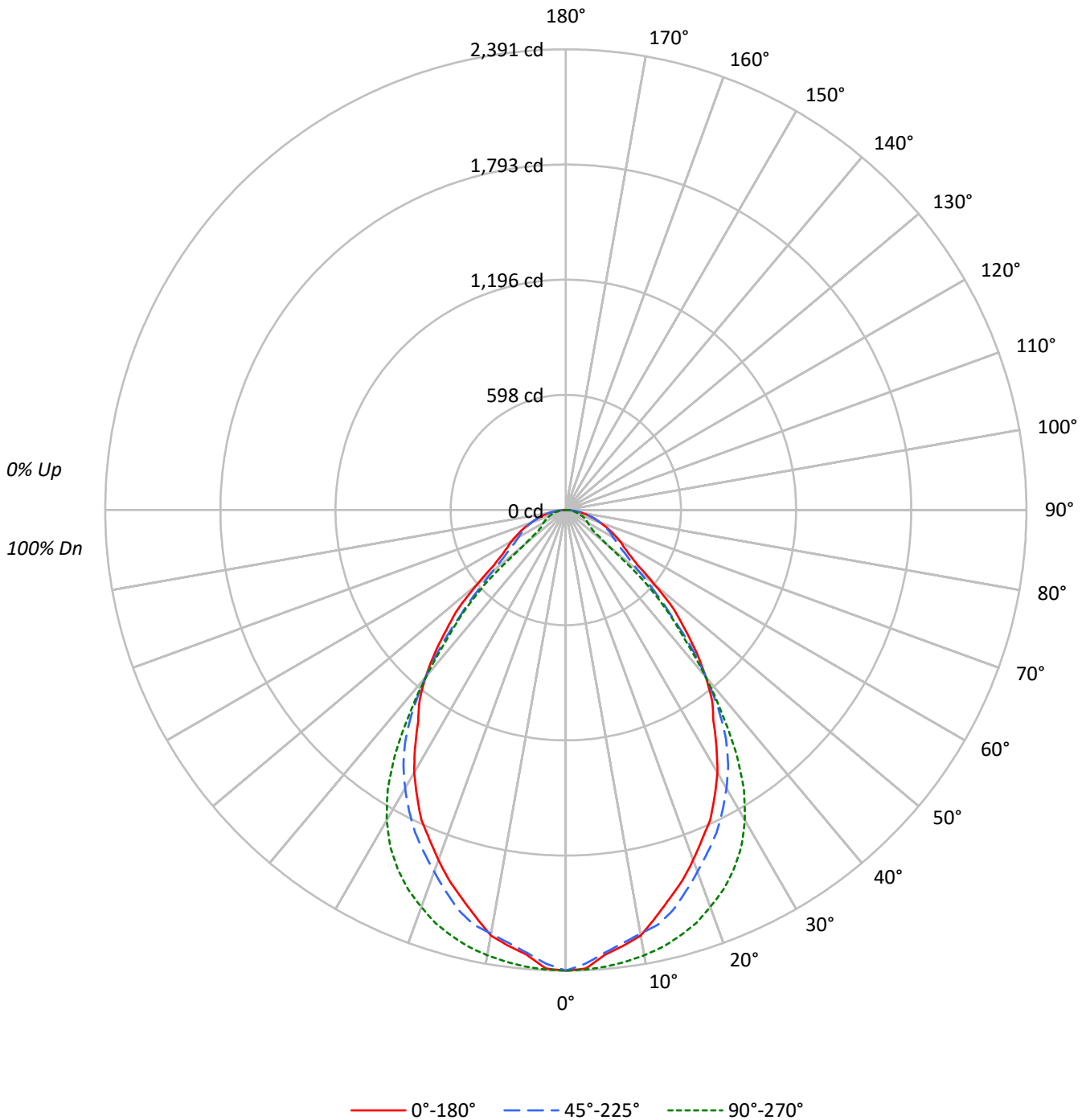
Test Method: LM-79-2019  
Report Number: P893647  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-5SL-LVRA-UNV-L940  
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 4000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3880.0 lumens  
Efficiency: N/A  
Efficacy: 110.9 lumens/watt  
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12  
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 9.55  
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	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	80	80	80	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	71	71	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	63	63	63	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	57	57	57	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	52	52	52	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	47	47	47	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	43	43	43	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	40	40	40	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	37	37	37	35

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

	0°	45°	90°
0°	17010	17010	17010
5°	16551	16476	16991
10°	16199	16128	16951
15°	15363	15835	16856
20°	14635	15130	16599
25°	13921	14516	16175
30°	12934	13703	15272
35°	11597	12593	13395
40°	10507	10530	10473
45°	8785	7781	7589
50°	6636	5477	3104
55°	4992	4380	1956
60°	4638	4033	1885
65°	4315	4025	1887
70°	3948	3948	1858
75°	3744	3846	1795
80°	3458	3634	1844
85°	3021	3167	2008

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 8990 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	220.8	5.7
10°-20°	608.5	15.7
20°-30°	862.8	22.2
30°-40°	888.9	22.9
40°-50°	620.9	16.0
50°-60°	297.9	7.7
60°-70°	209.0	5.4
70°-80°	130.7	3.4
80°-90°	40.4	1.0
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°	1692.2	43.6
0°-40°	2581.1	66.5
0°-60°	3499.9	90.2
0°-90°	3880.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3880.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2391	2391	2391	2391	2391	
5°	2317	2314	2307	2367	2379	219
15°	2086	2101	2150	2211	2288	587
25°	1773	1791	1849	1974	2060	811
35°	1335	1372	1450	1480	1542	841
45°	873	893	773	734	754	673
55°	402	383	353	226	158	377
65°	256	240	239	182	112	254
75°	136	134	140	121	65	143
85°	37	37	39	38	25	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2390.7	2390.7	2390.7	2390.7	2390.7
2.5°	2381.4	2374.1	2356.2	2388.8	2386.4
5°	2317.4	2314.3	2306.9	2367.3	2379.0
7.5°	2281.0	2274.9	2266.2	2332.8	2365.4
10°	2242.2	2249.6	2232.3	2293.3	2346.3
12.5°	2162.1	2181.8	2205.2	2252.7	2322.9
15°	2085.7	2101.1	2149.8	2211.4	2288.4
17.5°	2014.2	2032.1	2074.0	2166.4	2248.4
20°	1932.9	1957.5	1998.2	2116.5	2192.3
22.5°	1849.1	1871.9	1923.0	2050.0	2134.4
25°	1773.3	1791.2	1849.1	1974.2	2060.4
27.5°	1672.9	1706.1	1761.0	1881.7	1972.3
30°	1574.3	1602.6	1667.9	1769.6	1858.9
32.5°	1455.4	1496.6	1568.7	1646.4	1720.9
35°	1335.2	1371.6	1449.8	1480.0	1542.2
37.5°	1247.7	1257.6	1301.9	1298.2	1333.4
40°	1131.3	1151.0	1133.7	1087.5	1127.6
42.5°	1005.6	1029.0	959.4	905.8	919.9
45°	873.1	893.4	773.3	733.8	754.2
47.5°	758.5	756.6	623.6	597.1	568.7
50°	599.5	619.2	494.8	445.5	280.4
52.5°	468.3	475.7	407.9	284.7	184.2
55°	402.4	382.6	353.1	226.1	157.7
57.5°	357.4	332.7	313.0	210.1	144.2
60°	325.9	298.2	283.4	199.6	132.5
62.5°	290.2	268.6	263.1	190.4	122.0
65°	256.3	239.7	239.1	181.8	112.1
67.5°	222.4	213.2	215.7	171.3	101.0
70°	189.8	187.9	189.8	157.7	89.3
72.5°	162.0	160.2	165.1	140.5	76.4
75°	136.2	134.3	139.9	120.8	65.3
77.5°	108.4	109.7	113.4	100.4	54.8
80°	84.4	84.4	88.7	78.9	45.0
82.5°	60.4	61.0	63.5	57.9	35.1
85°	37.0	37.0	38.8	38.2	24.6
87.5°	12.3	14.2	16.6	17.9	12.3
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	15.49	16.85	15.86	17.16	17.47	11.82	13.18	12.19	13.49	13.81
	3H	17.23	18.44	17.61	18.77	19.13	13.80	15.01	14.18	15.34	15.70
	4H	17.90	19.03	18.30	19.38	19.76	14.50	15.63	14.91	15.98	16.36
	6H	18.41	19.45	18.82	19.82	20.21	15.03	16.07	15.44	16.44	16.83
	8H	18.58	19.57	19.01	19.96	20.36	15.21	16.20	15.64	16.59	16.99
	12H	18.69	19.63	19.12	20.02	20.45	15.35	16.29	15.78	16.68	17.11
4H	2H	16.02	17.15	16.42	17.50	17.88	13.45	14.57	13.85	14.92	15.31
	3H	18.00	18.93	18.41	19.33	19.74	15.62	16.55	16.04	16.96	17.36
	4H	18.80	19.64	19.24	20.06	20.50	16.50	17.34	16.94	17.76	18.20
	6H	19.45	20.17	19.91	20.61	21.08	17.15	17.87	17.61	18.32	18.78
	8H	19.66	20.34	20.13	20.79	21.26	17.36	18.03	17.82	18.48	18.95
	12H	19.82	20.42	20.30	20.90	21.37	17.51	18.11	18.00	18.60	19.07
8H	4H	19.09	19.76	19.55	20.21	20.68	17.15	17.83	17.62	18.28	18.75
	6H	19.87	20.42	20.37	20.92	21.40	18.01	18.57	18.52	19.07	19.55
	8H	20.17	20.67	20.69	21.18	21.68	18.34	18.84	18.86	19.36	19.85
	12H	20.41	20.85	20.92	21.34	21.91	18.61	19.05	19.12	19.54	20.11
12H	4H	19.10	19.70	19.59	20.18	20.66	17.23	17.83	17.71	18.31	18.78
	6H	19.92	20.42	20.44	20.93	21.43	18.15	18.65	18.67	19.17	19.66
	8H	20.29	20.73	20.80	21.22	21.79	18.57	19.01	19.08	19.50	20.07