

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: P894023

Luminaire Tested: 4MB-9HL-FLT-UNV-L940

Issue Date: 11/11/2024

**Test Information**

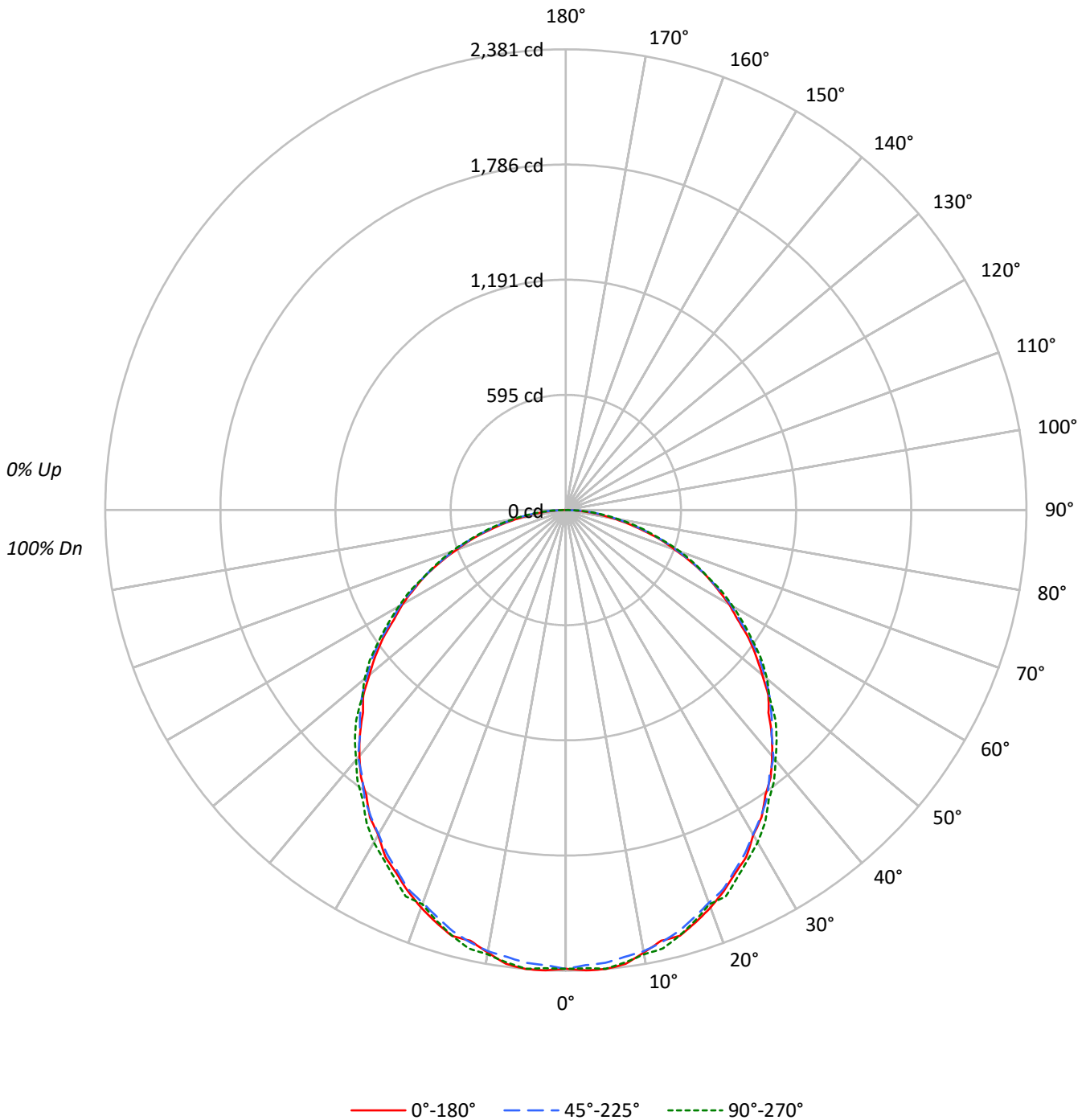
Test Method: LM-79-2019  
Report Number: P894023  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-9HL-FLT-UNV-L940  
Description: 9000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 90CRI, 4000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6570.0 lumens  
Efficiency: N/A  
Efficacy: 102.0 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.34  
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 64.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 8.94  
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				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	109	104	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	86	86	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	69	65	61	61	61	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	52	52	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	45	45	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	40	40	40	38
7	65	51	43	36	63	51	42	36	49	41	36	48	41	36	46	40	35	35	35	35	33
8	60	47	38	33	59	46	38	32	45	37	32	44	37	32	42	36	32	32	32	32	30
9	57	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	29	29	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	26	26	26	24

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

	0°	45°	90°
0°	16870	16870	16870
5°	17008	16781	16993
10°	16776	16731	16842
15°	16779	16606	16764
20°	16558	16355	16418
25°	16258	16171	16459
30°	15929	15904	16300
35°	15622	15755	15889
40°	15412	15506	15659
45°	14913	15139	15418
50°	14671	14886	15034
55°	14306	14484	14636
60°	13861	14065	14196
65°	13450	13502	13502
70°	12507	12806	13125
75°	11516	11966	12219
80°	10157	11038	11415
85°	9111	10204	10955

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 15418 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	224.4	3.4
10°-20°	639.6	9.7
20°-30°	959.4	14.6
30°-40°	1139.4	17.3
40°-50°	1166.6	17.8
50°-60°	1045.2	15.9
60°-70°	794.0	12.1
70°-80°	462.5	7.0
80°-90°	138.9	2.1
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°	1823.4	27.8
0°-40°	2962.8	45.1
0°-60°	5174.6	78.8
0°-90°	6570.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6570.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2371	2371	2371	2371	2371	
5°	2381	2372	2350	2364	2379	225
15°	2278	2293	2254	2264	2276	639
25°	2071	2090	2060	2086	2097	956
35°	1799	1838	1814	1821	1829	1131
45°	1482	1519	1505	1517	1532	1153
55°	1153	1171	1168	1181	1180	1028
65°	799	799	802	812	802	785
75°	419	426	435	449	444	446
85°	112	114	125	133	134	125
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2371.1	2371.1	2371.1	2371.1	2371.1
2.5°	2381.4	2370.1	2354.8	2359.9	2370.1
5°	2381.4	2372.2	2349.6	2364.0	2379.3
7.5°	2366.0	2378.3	2329.1	2329.1	2357.8
10°	2322.0	2345.5	2315.8	2312.8	2331.2
12.5°	2280.0	2323.0	2288.2	2298.4	2321.0
15°	2277.9	2293.3	2254.4	2263.6	2275.9
17.5°	2233.9	2249.3	2207.3	2224.7	2224.7
20°	2186.8	2189.8	2160.1	2198.0	2168.3
22.5°	2132.5	2164.2	2123.3	2135.6	2161.2
25°	2071.0	2089.5	2059.8	2086.4	2096.6
27.5°	2020.8	2043.4	2002.4	2034.2	2037.2
30°	1938.9	1963.5	1935.8	1956.3	1984.0
32.5°	1883.6	1891.8	1877.5	1908.2	1916.4
35°	1798.6	1838.5	1813.9	1821.1	1829.3
37.5°	1739.2	1751.5	1730.0	1754.5	1767.9
40°	1659.3	1677.7	1669.5	1673.6	1685.9
42.5°	1576.3	1595.8	1574.3	1604.0	1613.2
45°	1482.1	1519.0	1504.6	1516.9	1532.3
47.5°	1420.6	1432.9	1428.8	1436.0	1425.8
50°	1325.4	1337.7	1344.8	1354.1	1358.2
52.5°	1240.4	1249.6	1262.9	1268.0	1277.2
55°	1153.3	1170.7	1167.6	1181.0	1179.9
57.5°	1051.9	1077.5	1069.3	1088.8	1088.8
60°	974.1	978.2	988.4	997.6	997.6
62.5°	883.9	889.0	894.2	902.4	908.5
65°	798.9	798.9	802.0	812.2	802.0
67.5°	700.6	696.5	706.7	719.0	718.0
70°	601.2	606.4	615.6	630.9	630.9
72.5°	516.2	516.2	526.5	534.7	533.6
75°	418.9	426.1	435.3	448.6	444.5
77.5°	331.9	337.0	352.3	364.6	365.7
80°	247.9	253.0	269.4	281.7	278.6
82.5°	173.1	180.3	195.6	204.9	203.8
85°	111.6	113.7	125.0	133.2	134.2
87.5°	51.2	55.3	63.5	66.6	66.6
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	21.35	22.98	21.71	23.30	23.61	21.45	23.09	21.82	23.40	23.72
	3H	23.13	24.61	23.50	24.94	25.30	23.29	24.77	23.67	25.10	25.46
	4H	23.79	25.19	24.19	25.53	25.91	23.99	25.38	24.38	25.73	26.11
	6H	24.26	25.56	24.68	25.92	26.32	24.54	25.83	24.95	26.20	26.59
	8H	24.41	25.65	24.84	26.04	26.44	24.73	25.96	25.15	26.35	26.75
	12H	24.52	25.71	24.95	26.09	26.52	24.87	26.06	25.30	26.44	26.87
4H	2H	21.99	23.39	22.39	23.74	24.11	22.07	23.47	22.47	23.82	24.19
	3H	23.99	25.17	24.40	25.56	25.96	24.14	25.31	24.55	25.71	26.11
	4H	24.79	25.85	25.22	26.26	26.70	24.97	26.04	25.41	26.45	26.89
	6H	25.38	26.31	25.84	26.75	27.21	25.66	26.59	26.12	27.03	27.49
	8H	25.58	26.45	26.04	26.89	27.36	25.91	26.78	26.37	27.22	27.69
	12H	25.73	26.52	26.21	26.99	27.46	26.11	26.89	26.59	27.37	27.83
8H	4H	25.12	25.99	25.58	26.43	26.90	25.29	26.16	25.75	26.60	27.07
	6H	25.84	26.57	26.34	27.06	27.53	26.11	26.84	26.60	27.32	27.80
	8H	26.12	26.77	26.62	27.27	27.76	26.44	27.10	26.95	27.60	28.09
	12H	26.34	26.92	26.85	27.41	27.97	26.73	27.31	27.24	27.80	28.36
12H	4H	25.16	25.95	25.64	26.42	26.89	25.32	26.11	25.80	26.58	27.05
	6H	25.92	26.57	26.42	27.07	27.56	26.17	26.82	26.68	27.33	27.81
	8H	26.25	26.83	26.76	27.32	27.88	26.57	27.14	27.07	27.63	28.19