

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: P893174

Luminaire Tested: 4MB-10HL-FLT-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893174
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-10HL-FLT-UNV-L935
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 90CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

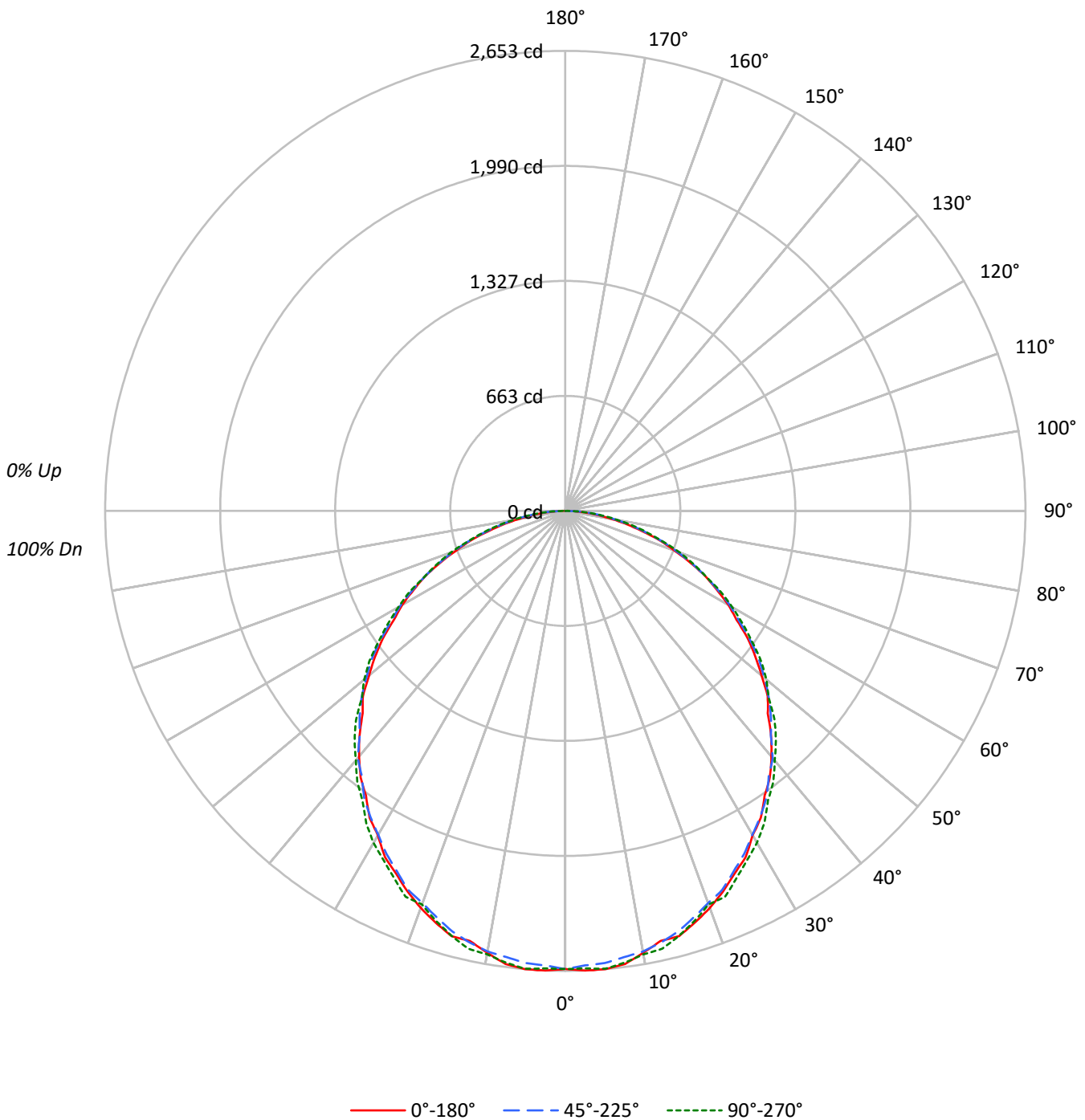
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7320.0 lumens
Efficiency: N/A
Efficacy: 97.0 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): 75.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 7.45
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°	18796	18796	18796
5°	18950	18697	18933
10°	18690	18641	18765
15°	18695	18501	18678
20°	18447	18223	18292
25°	18115	18016	18339
30°	17748	17720	18161
35°	17405	17554	17703
40°	17171	17277	17447
45°	16616	16868	17178
50°	16346	16586	16750
55°	15940	16137	16307
60°	15444	15670	15817
65°	14985	15043	15043
70°	13936	14267	14624
75°	12830	13333	13616
80°	11317	12296	12718
85°	10155	11364	12204

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 17178 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.0	3.4
10°-20°	712.6	9.7
20°-30°	1068.9	14.6
30°-40°	1269.5	17.3
40°-50°	1299.8	17.8
50°-60°	1164.5	15.9
60°-70°	884.6	12.1
70°-80°	515.3	7.0
80°-90°	154.8	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°	2031.6	27.8
0°-40°	3301.0	45.1
0°-60°	5765.4	78.8
0°-90°	7320.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7320.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2642	2642	2642	2642	2642	
5°	2653	2643	2618	2634	2651	251
15°	2538	2555	2512	2522	2536	712
25°	2308	2328	2295	2325	2336	1065
35°	2004	2048	2021	2029	2038	1260
45°	1651	1692	1676	1690	1707	1284
55°	1285	1304	1301	1316	1315	1145
65°	890	890	894	905	894	874
75°	467	475	485	500	495	497
85°	124	127	139	148	150	139
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2641.8	2641.8	2641.8	2641.8	2641.8
2.5°	2653.2	2640.7	2623.6	2629.3	2640.7
5°	2653.2	2643.0	2617.9	2633.8	2650.9
7.5°	2636.1	2649.8	2595.0	2595.0	2627.0
10°	2587.0	2613.3	2580.2	2576.8	2597.3
12.5°	2540.3	2588.2	2549.4	2560.8	2585.9
15°	2538.0	2555.1	2511.7	2522.0	2535.7
17.5°	2488.9	2506.0	2459.2	2478.6	2478.6
20°	2436.4	2439.8	2406.7	2449.0	2415.9
22.5°	2375.9	2411.3	2365.7	2379.3	2407.9
25°	2307.5	2328.0	2294.9	2324.6	2336.0
27.5°	2251.5	2276.6	2231.0	2266.4	2269.8
30°	2160.2	2187.6	2156.8	2179.6	2210.5
32.5°	2098.6	2107.7	2091.8	2126.0	2135.1
35°	2003.9	2048.4	2021.0	2029.0	2038.1
37.5°	1937.7	1951.4	1927.4	1954.8	1969.7
40°	1848.7	1869.2	1860.1	1864.7	1878.4
42.5°	1756.3	1777.9	1754.0	1787.1	1797.3
45°	1651.3	1692.4	1676.4	1690.1	1707.2
47.5°	1582.8	1596.5	1591.9	1599.9	1588.5
50°	1476.7	1490.4	1498.4	1508.6	1513.2
52.5°	1382.0	1392.2	1407.1	1412.8	1423.0
55°	1285.0	1304.4	1300.9	1315.8	1314.6
57.5°	1172.0	1200.5	1191.4	1213.1	1213.1
60°	1085.3	1089.8	1101.2	1111.5	1111.5
62.5°	984.8	990.5	996.2	1005.4	1012.2
65°	890.1	890.1	893.5	905.0	893.5
67.5°	780.6	776.0	787.4	801.1	800.0
70°	669.9	675.6	685.8	703.0	703.0
72.5°	575.2	575.2	586.6	595.7	594.6
75°	466.7	474.7	485.0	499.8	495.3
77.5°	369.7	375.4	392.6	406.3	407.4
80°	276.2	281.9	300.1	313.8	310.4
82.5°	192.9	200.8	218.0	228.2	227.1
85°	124.4	126.7	139.2	148.4	149.5
87.5°	57.1	61.6	70.8	74.2	74.2
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	21.72	23.36	22.09	23.67	23.99	21.83	23.47	22.19	23.78	24.09
	3H	23.50	24.98	23.88	25.31	25.67	23.66	25.15	24.04	25.47	25.83
	4H	24.17	25.56	24.56	25.91	26.29	24.36	25.76	24.76	26.11	26.48
	6H	24.64	25.94	25.05	26.30	26.69	24.91	26.21	25.32	26.57	26.96
	8H	24.79	26.03	25.21	26.42	26.82	25.10	26.34	25.53	26.73	27.13
	12H	24.90	26.08	25.33	26.46	26.89	25.25	26.43	25.67	26.81	27.24
4H	2H	22.37	23.76	22.76	24.11	24.49	22.45	23.85	22.85	24.19	24.57
	3H	24.37	25.54	24.78	25.94	26.34	24.51	25.69	24.92	26.08	26.48
	4H	25.16	26.22	25.59	26.64	27.07	25.35	26.41	25.78	26.83	27.26
	6H	25.76	26.69	26.21	27.13	27.58	26.04	26.97	26.49	27.41	27.86
	8H	25.96	26.83	26.42	27.27	27.73	26.29	27.16	26.74	27.60	28.06
	12H	26.11	26.89	26.59	27.37	27.84	26.48	27.27	26.96	27.74	28.21
8H	4H	25.50	26.37	25.96	26.81	27.27	25.66	26.53	26.12	26.98	27.44
	6H	26.22	26.95	26.71	27.43	27.91	26.49	27.21	26.98	27.70	28.17
	8H	26.49	27.14	27.00	27.65	28.13	26.82	27.47	27.33	27.98	28.46
	12H	26.72	27.30	27.23	27.79	28.35	27.11	27.69	27.62	28.18	28.74
12H	4H	25.54	26.32	26.02	26.80	27.27	25.70	26.48	26.18	26.96	27.42
	6H	26.29	26.94	26.80	27.45	27.94	26.55	27.20	27.05	27.70	28.19
	8H	26.63	27.20	27.13	27.69	28.25	26.94	27.52	27.45	28.01	28.57