

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: P893184

Luminaire Tested: 4MB-10HL-FLTU-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893184
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-6)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-10HL-FLTU-UNV-L950
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 90CRI, 50
Light Source: -
Ballast/Driver: -

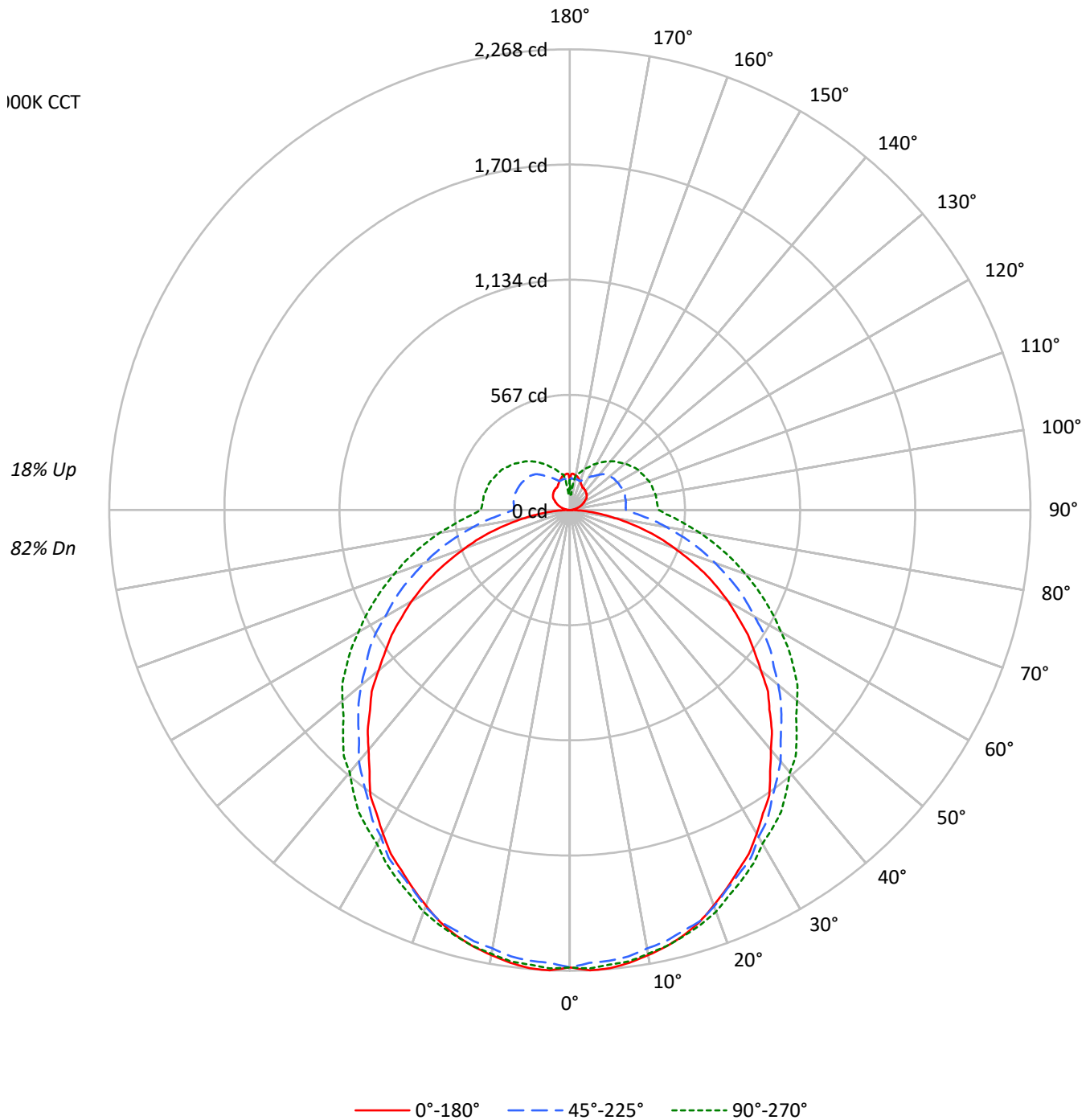
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8465.0 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.98' x H: 0.21')
CIE Type: Semi-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				
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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	86	86	86	82
1	103	98	93	89	99	94	90	86	87	83	80	80	77	74	73	71	69	69	69	69	66
2	93	85	77	71	89	81	75	69	75	70	65	69	65	61	63	60	57	57	57	57	54
3	85	74	66	59	81	71	63	57	66	59	54	60	55	51	56	51	48	48	48	48	45
4	78	65	56	49	74	63	55	48	58	51	46	54	48	43	50	45	41	41	41	41	38
5	71	58	49	42	68	56	48	41	52	45	39	48	42	37	44	39	35	35	35	35	33
6	66	52	43	37	63	50	42	36	47	40	34	43	37	33	40	35	31	31	31	31	28
7	61	47	38	32	58	46	37	32	42	35	30	39	33	29	37	31	27	27	27	27	25
8	56	43	34	29	54	42	34	28	39	32	27	36	30	26	34	28	24	24	24	24	22
9	53	39	31	26	50	38	30	25	36	29	24	33	27	23	31	26	22	22	22	22	20
10	49	36	28	23	47	35	28	23	33	26	22	31	25	21	29	24	20	20	20	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16020	16020	16020
5°	16102	15341	15313
10°	15930	14733	14613
15°	15748	14195	13947
20°	15397	13629	13285
25°	15018	12937	12553
30°	14674	12260	11843
35°	14354	11616	11385
40°	13710	11061	10725
45°	13292	10404	10265
50°	12802	9850	9782
55°	12359	9323	9350
60°	11738	8604	8770
65°	11028	8024	8223
70°	9964	7307	7629
75°	8831	6592	7064
80°	6991	5812	6492
85°	4826	5057	5957

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13292 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.3	2.5
10°-20°	609.0	7.2
20°-30°	914.9	10.8
30°-40°	1096.5	13.0
40°-50°	1149.6	13.6
50°-60°	1078.4	12.7
60°-70°	895.7	10.6
70°-80°	640.4	7.6
80°-90°	379.8	4.5
90°-100°	278.6	3.3
100°-110°	274.5	3.2
110°-120°	256.1	3.0
120°-130°	224.7	2.7
130°-140°	180.9	2.1
140°-150°	129.9	1.5
150°-160°	82.5	1.0
160°-170°	45.7	0.5
170°-180°	14.4	0.2
0°-30°	1737.2	20.5
0°-40°	2833.7	33.5
0°-60°	5061.6	59.8
0°-90°	6977.6	82.4
90°-120°	809.2	9.6
90°-150°	1344.7	15.9
90°-180°	1487.0	17.6
0°-180°	8465.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2252	2252	2252	2252	2252	
5°	2265	2260	2228	2238	2247	215
15°	2168	2155	2146	2162	2172	610
25°	1960	1978	1974	1997	2008	904
35°	1713	1719	1735	1785	1814	1063
45°	1390	1430	1473	1570	1579	1075
55°	1071	1106	1207	1305	1344	953
65°	729	784	910	1032	1062	718
75°	384	473	620	748	782	406
85°	94	207	362	484	530	104
90°	4	126	276	395	438	8
95°	11	132	276	390	431	11
105°	38	145	281	385	421	41
115°	69	157	275	366	402	69
125°	99	162	267	340	371	87
135°	115	156	248	308	333	89
145°	124	144	203	270	290	78
155°	136	144	166	209	237	63
165°	163	158	153	152	190	46
175°	180	172	154	128	78	17
180°	148	148	148	148	148	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2251.6	2251.6	2251.6	2251.6	2251.6
2.5°	2268.4	2250.4	2231.3	2260.0	2258.8
5°	2264.8	2260.0	2227.7	2238.5	2246.8
7.5°	2248.0	2236.1	2216.9	2243.2	2240.8
10°	2225.3	2210.9	2191.8	2207.3	2218.1
12.5°	2200.2	2188.2	2175.0	2191.8	2199.0
15°	2167.9	2154.7	2146.3	2161.9	2171.5
17.5°	2126.0	2122.4	2123.6	2124.8	2140.4
20°	2072.2	2074.5	2078.1	2099.7	2104.5
22.5°	2017.1	2030.3	2020.7	2054.2	2051.8
25°	1959.7	1977.6	1974.1	1996.8	2007.6
27.5°	1908.3	1909.4	1931.0	1963.3	1959.7
30°	1840.1	1860.4	1858.0	1897.5	1897.5
32.5°	1770.7	1800.6	1810.1	1844.8	1856.8
35°	1713.2	1719.2	1734.8	1785.0	1813.7
37.5°	1619.9	1648.6	1673.8	1739.6	1750.3
40°	1541.0	1569.7	1615.1	1691.7	1685.7
42.5°	1472.8	1502.7	1536.2	1624.7	1646.2
45°	1390.2	1429.7	1472.8	1569.7	1579.2
47.5°	1323.2	1354.3	1410.5	1499.1	1511.0
50°	1228.7	1278.9	1340.0	1442.9	1460.8
52.5°	1145.0	1188.0	1265.8	1372.3	1412.9
55°	1070.8	1105.5	1207.2	1305.3	1343.6
57.5°	979.8	1027.7	1134.2	1243.1	1277.7
60°	899.7	946.3	1049.2	1173.7	1201.2
62.5°	814.7	869.8	981.0	1101.9	1133.0
65°	728.6	783.6	910.5	1032.5	1062.4
67.5°	635.3	703.5	832.7	959.5	990.6
70°	547.9	622.1	760.9	887.7	918.8
72.5°	469.0	549.1	690.3	820.7	854.2
75°	384.0	472.6	619.7	747.7	782.4
77.5°	301.5	397.2	546.8	676.0	716.6
80°	221.3	326.6	483.3	607.8	650.8
82.5°	155.5	263.2	424.7	546.8	586.2
85°	94.5	207.0	362.5	484.5	530.0
87.5°	41.9	160.3	313.5	434.3	475.0
90°	3.6	125.6	276.4	394.8	437.9
92.5°	7.2	128.0	275.2	390.0	433.1
95°	10.8	131.6	276.4	390.0	430.7
97.5°	15.6	136.4	278.8	390.0	429.5
100°	22.7	138.8	280.0	390.0	429.5
102.5°	29.9	142.4	278.8	384.0	424.7
105°	38.3	144.8	281.2	385.2	421.1
107.5°	46.7	147.2	281.2	379.3	419.9
110°	55.0	150.7	278.8	375.7	415.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	62.2	154.3	277.6	368.5	406.8
115°	69.4	156.7	275.2	366.1	402.0
117.5°	76.6	157.9	274.0	360.1	394.8
120°	82.6	160.3	271.6	352.9	391.2
122.5°	89.7	161.5	268.0	345.8	384.0
125°	99.3	161.5	266.8	339.8	370.9
127.5°	104.1	162.7	262.0	332.6	364.9
130°	108.9	159.1	259.6	324.2	355.3
132.5°	112.5	157.9	253.6	315.8	343.4
135°	114.9	155.5	247.7	307.5	332.6
137.5°	118.4	151.9	239.3	301.5	325.4
140°	120.8	149.5	227.3	289.5	313.5
142.5°	123.2	146.0	215.4	278.8	301.5
145°	124.4	143.6	203.4	270.4	289.5
147.5°	128.0	140.0	196.2	259.6	276.4
150°	126.8	137.6	185.4	246.5	263.2
152.5°	130.4	141.2	175.9	228.5	252.4
155°	136.4	143.6	166.3	209.4	236.9
157.5°	142.4	148.4	159.1	192.6	224.9
160°	150.7	150.7	150.7	179.5	215.4
162.5°	155.5	155.5	151.9	163.9	202.2
165°	162.7	157.9	153.1	151.9	190.2
167.5°	169.9	160.3	155.5	147.2	181.9
170°	171.1	163.9	154.3	138.8	175.9
172.5°	175.9	167.5	153.1	131.6	136.4
175°	179.5	172.3	154.3	128.0	77.8
177.5°	178.3	172.3	157.9	128.0	75.4
180°	148.4	148.4	148.4	148.4	148.4



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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	17.36	18.69	17.97	19.31	20.03	19.87	21.20	20.49	21.83	22.54
	3H	18.79	20.00	19.42	20.64	21.39	22.24	23.44	22.86	24.08	24.83
	4H	19.26	20.40	19.90	21.05	21.81	23.35	24.50	24.00	25.15	25.91
	6H	19.53	20.59	20.18	21.25	22.03	24.47	25.53	25.13	26.19	26.97
	8H	19.58	20.59	20.25	21.28	22.06	25.02	26.03	25.69	26.72	27.50
	12H	19.59	20.57	20.27	21.24	22.05	25.60	26.57	26.28	27.25	28.06
4H	2H	18.23	19.38	18.88	20.03	20.79	20.22	21.36	20.87	22.01	22.77
	3H	19.89	20.86	20.55	21.55	22.33	22.80	23.77	23.46	24.46	25.24
	4H	20.47	21.36	21.15	22.05	22.86	24.07	24.96	24.75	25.65	26.47
	6H	20.85	21.63	21.54	22.34	23.16	25.36	26.14	26.06	26.86	27.68
	8H	20.94	21.67	21.64	22.39	23.22	26.01	26.74	26.71	27.46	28.29
	12H	20.98	21.64	21.70	22.38	23.22	26.70	27.36	27.42	28.10	28.94
8H	4H	21.09	21.83	21.79	22.54	23.38	24.23	24.96	24.93	25.68	26.51
	6H	21.63	22.25	22.36	23.00	23.84	25.66	26.28	26.39	27.04	27.87
	8H	21.80	22.36	22.54	23.11	23.97	26.43	26.99	27.17	27.75	28.60
	12H	21.90	22.40	22.65	23.15	24.06	27.28	27.78	28.02	28.52	29.44
12H	4H	21.25	21.92	21.97	22.66	23.50	24.22	24.89	24.94	25.62	26.46
	6H	21.88	22.43	22.62	23.19	24.04	25.68	26.24	26.42	27.00	27.85
	8H	22.12	22.62	22.87	23.37	24.28	26.50	27.00	27.25	27.75	28.66