

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: P893183

Luminaire Tested: 4MB-10HL-FLTU-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893183
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-L940
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 90CRI, 40
Light Source: -
Ballast/Driver: -

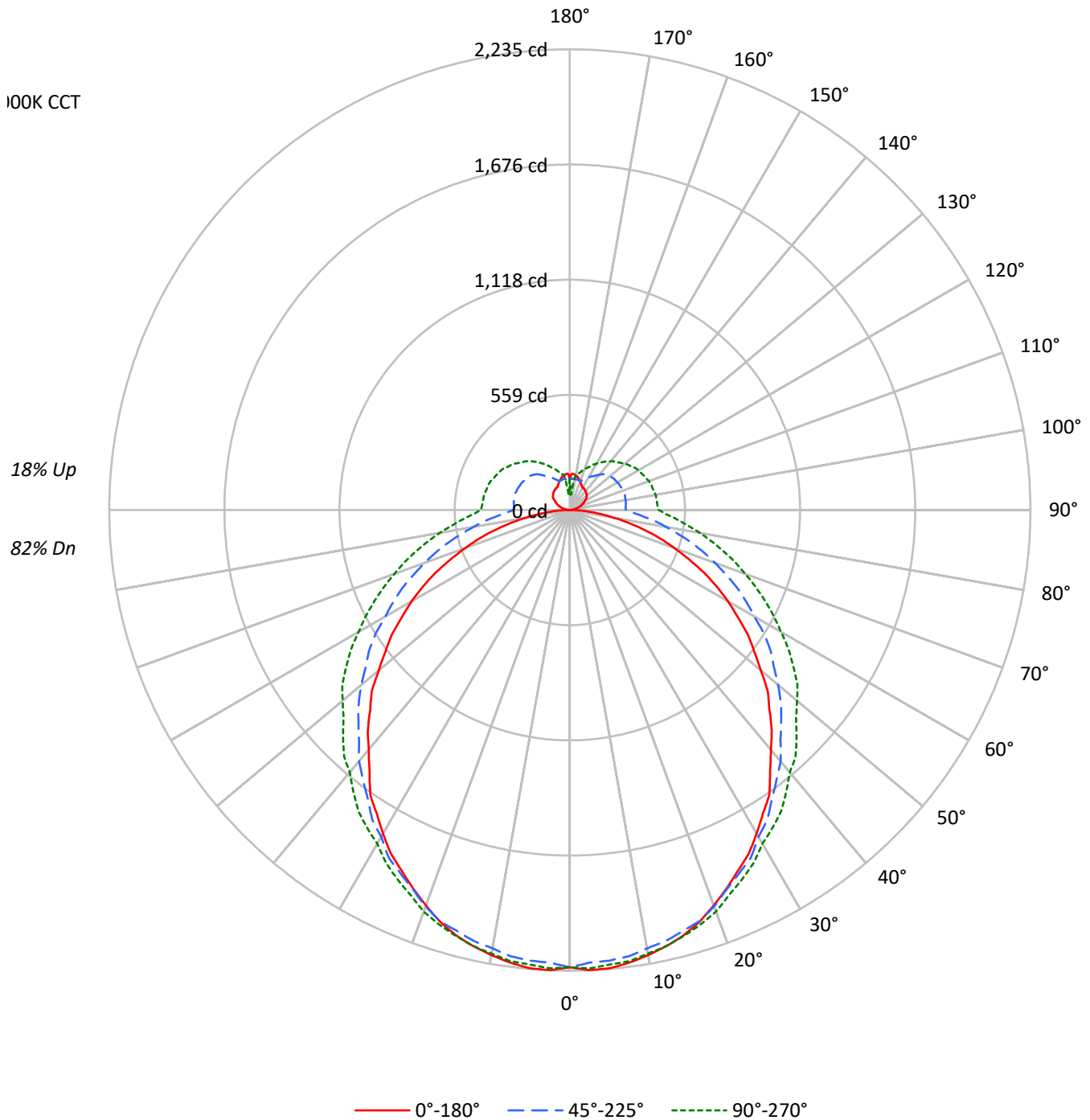
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8339.0 lumens
Efficiency: N/A
Efficacy: 110.5 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°	15782	15782	15782
5°	15862	15112	15085
10°	15693	14513	14396
15°	15513	13984	13739
20°	15167	13426	13087
25°	14794	12744	12366
30°	14456	12077	11666
35°	14141	11443	11216
40°	13506	10897	10566
45°	13094	10248	10113
50°	12611	9703	9637
55°	12174	9184	9211
60°	11563	8476	8639
65°	10865	7904	8101
70°	9817	7199	7516
75°	8700	6495	6959
80°	6887	5725	6396
85°	4755	4982	5868

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13094 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.1	2.5
10°-20°	600.0	7.2
20°-30°	901.2	10.8
30°-40°	1080.2	13.0
40°-50°	1132.5	13.6
50°-60°	1062.3	12.7
60°-70°	882.4	10.6
70°-80°	630.9	7.6
80°-90°	374.2	4.5
90°-100°	274.5	3.3
100°-110°	270.4	3.2
110°-120°	252.3	3.0
120°-130°	221.3	2.7
130°-140°	178.3	2.1
140°-150°	127.9	1.5
150°-160°	81.3	1.0
160°-170°	45.1	0.5
170°-180°	14.2	0.2
0°-30°	1711.3	20.5
0°-40°	2791.5	33.5
0°-60°	4986.3	59.8
0°-90°	6873.7	82.4
90°-120°	797.2	9.6
90°-150°	1324.7	15.9
90°-180°	1465.0	17.6
0°-180°	8339.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2218	2218	2218	2218	2218	
5°	2231	2226	2194	2205	2213	212
15°	2136	2123	2114	2130	2139	601
25°	1930	1948	1945	1967	1978	891
35°	1688	1694	1709	1758	1787	1048
45°	1370	1408	1451	1546	1556	1059
55°	1055	1089	1189	1286	1324	938
65°	718	772	897	1017	1047	707
75°	378	466	610	737	771	400
85°	93	204	357	477	522	102
90°	4	124	272	389	431	8
95°	11	130	272	384	424	11
105°	38	143	277	380	415	40
115°	68	154	271	361	396	68
125°	98	159	263	335	365	86
135°	113	153	244	303	328	88
145°	123	141	200	266	285	77
155°	134	141	164	206	233	62
165°	160	156	151	150	187	45
175°	177	170	152	126	77	16
180°	146	146	146	146	146	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2218.1	2218.1	2218.1	2218.1	2218.1
2.5°	2234.6	2216.9	2198.1	2226.4	2225.2
5°	2231.1	2226.4	2194.5	2205.1	2213.4
7.5°	2214.6	2202.8	2183.9	2209.9	2207.5
10°	2192.2	2178.0	2159.2	2174.5	2185.1
12.5°	2167.4	2155.6	2142.7	2159.2	2166.2
15°	2135.6	2122.6	2114.4	2129.7	2139.1
17.5°	2094.3	2090.8	2092.0	2093.2	2108.5
20°	2041.3	2043.7	2047.2	2068.4	2073.1
22.5°	1987.1	2000.1	1990.6	2023.6	2021.3
25°	1930.5	1948.2	1944.7	1967.1	1977.7
27.5°	1879.8	1881.0	1902.2	1934.1	1930.5
30°	1812.7	1832.7	1830.3	1869.2	1869.2
32.5°	1744.3	1773.8	1783.2	1817.4	1829.2
35°	1687.7	1693.6	1709.0	1758.5	1786.7
37.5°	1595.8	1624.1	1648.8	1713.7	1724.3
40°	1518.0	1546.3	1591.1	1666.5	1660.6
42.5°	1450.8	1480.3	1513.3	1600.5	1621.7
45°	1369.5	1408.4	1450.8	1546.3	1555.7
47.5°	1303.5	1334.2	1389.6	1476.8	1488.6
50°	1210.4	1259.9	1320.0	1421.4	1439.1
52.5°	1127.9	1170.3	1246.9	1351.8	1391.9
55°	1054.8	1089.0	1189.2	1285.8	1323.6
57.5°	965.3	1012.4	1117.3	1224.6	1258.7
60°	886.3	932.3	1033.6	1156.2	1183.3
62.5°	802.6	856.8	966.4	1085.5	1116.1
65°	717.8	772.0	896.9	1017.1	1046.6
67.5°	625.8	693.0	820.3	945.2	975.9
70°	539.8	612.9	749.6	874.5	905.2
72.5°	462.0	541.0	680.0	808.5	841.5
75°	378.3	465.5	610.5	736.6	770.8
77.5°	297.0	391.3	538.6	665.9	706.0
80°	218.0	321.8	476.1	598.7	641.2
82.5°	153.2	259.3	418.4	538.6	577.5
85°	93.1	203.9	357.1	477.3	522.1
87.5°	41.3	157.9	308.8	427.8	467.9
90°	3.5	123.8	272.3	388.9	431.4
92.5°	7.1	126.1	271.1	384.2	426.6
95°	10.6	129.6	272.3	384.2	424.3
97.5°	15.3	134.4	274.6	384.2	423.1
100°	22.4	136.7	275.8	384.2	423.1
102.5°	29.5	140.3	274.6	378.3	418.4
105°	37.7	142.6	277.0	379.5	414.9
107.5°	46.0	145.0	277.0	373.6	413.7
110°	54.2	148.5	274.6	370.1	409.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	61.3	152.0	273.4	363.0	400.7
115°	68.4	154.4	271.1	360.6	396.0
117.5°	75.4	155.6	269.9	354.8	388.9
120°	81.3	157.9	267.5	347.7	385.4
122.5°	88.4	159.1	264.0	340.6	378.3
125°	97.8	159.1	262.8	334.7	365.4
127.5°	102.5	160.3	258.1	327.6	359.5
130°	107.3	156.8	255.8	319.4	350.0
132.5°	110.8	155.6	249.9	311.1	338.3
135°	113.1	153.2	244.0	302.9	327.6
137.5°	116.7	149.7	235.7	297.0	320.6
140°	119.0	147.3	223.9	285.2	308.8
142.5°	121.4	143.8	212.1	274.6	297.0
145°	122.6	141.4	200.4	266.4	285.2
147.5°	126.1	137.9	193.3	255.8	272.3
150°	124.9	135.5	182.7	242.8	259.3
152.5°	128.5	139.1	173.3	225.1	248.7
155°	134.4	141.4	163.8	206.3	233.4
157.5°	140.3	146.1	156.8	189.8	221.6
160°	148.5	148.5	148.5	176.8	212.1
162.5°	153.2	153.2	149.7	161.5	199.2
165°	160.3	155.6	150.9	149.7	187.4
167.5°	167.4	157.9	153.2	145.0	179.1
170°	168.5	161.5	152.0	136.7	173.3
172.5°	173.3	165.0	150.9	129.6	134.4
175°	176.8	169.7	152.0	126.1	76.6
177.5°	175.6	169.7	155.6	126.1	74.3
180°	146.1	146.1	146.1	146.1	146.1



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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	17.31	18.63	17.92	19.26	19.98	19.82	21.15	20.43	21.77	22.49
	3H	18.74	19.95	19.37	20.58	21.33	22.19	23.39	22.81	24.03	24.78
	4H	19.21	20.35	19.85	21.00	21.76	23.30	24.44	23.95	25.09	25.86
	6H	19.47	20.53	20.13	21.20	21.97	24.42	25.48	25.07	26.14	26.92
	8H	19.53	20.54	20.19	21.22	22.01	24.97	25.98	25.63	26.66	27.45
	12H	19.54	20.51	20.22	21.19	22.00	25.55	26.52	26.22	27.20	28.01
4H	2H	18.18	19.32	18.83	19.97	20.74	20.17	21.31	20.81	21.96	22.72
	3H	19.84	20.81	20.49	21.49	22.28	22.75	23.72	23.40	24.40	25.19
	4H	20.42	21.31	21.09	22.00	22.81	24.02	24.91	24.70	25.60	26.41
	6H	20.79	21.57	21.49	22.29	23.11	25.31	26.09	26.00	26.81	27.63
	8H	20.88	21.62	21.58	22.33	23.17	25.95	26.69	26.65	27.40	28.24
	12H	20.93	21.59	21.65	22.33	23.17	26.65	27.31	27.37	28.05	28.89
8H	4H	21.04	21.78	21.74	22.49	23.33	24.18	24.91	24.88	25.63	26.46
	6H	21.58	22.20	22.31	22.95	23.79	25.61	26.23	26.34	26.99	27.82
	8H	21.75	22.30	22.49	23.06	23.91	26.38	26.94	27.12	27.69	28.54
	12H	21.85	22.35	22.60	23.10	24.01	27.23	27.72	27.97	28.47	29.38
12H	4H	21.20	21.87	21.92	22.60	23.44	24.17	24.83	24.89	25.57	26.41
	6H	21.82	22.38	22.56	23.14	23.99	25.63	26.19	26.37	26.95	27.80
	8H	22.07	22.57	22.81	23.31	24.23	26.45	26.95	27.19	27.69	28.60