

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: P893935

Luminaire Tested: 4MB-8HL-FLTU-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893935
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-8HL-FLTU-UNV-L940
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 90CRI, 400
Light Source: -
Ballast/Driver: -

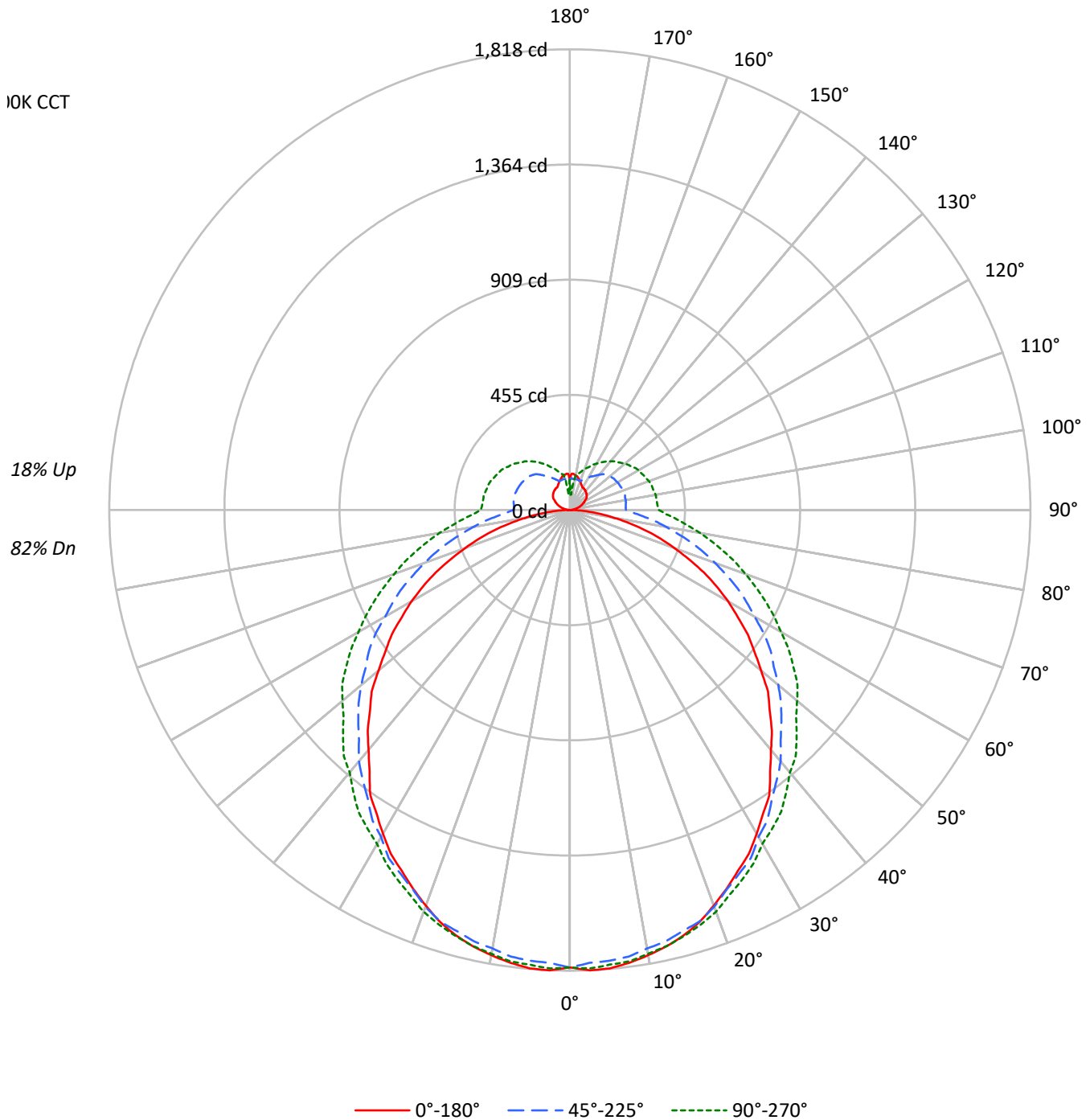
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6786.0 lumens
Efficiency: N/A
Efficacy: 117.2 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): 57.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 4.23
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°	12843	12843	12843
5°	12908	12298	12276
10°	12770	11811	11715
15°	12624	11380	11181
20°	12343	10926	10649
25°	12039	10371	10063
30°	11763	9829	9494
35°	11507	9312	9127
40°	10991	8868	8598
45°	10656	8339	8229
50°	10263	7896	7842
55°	9907	7473	7496
60°	9409	6898	7030
65°	8841	6433	6592
70°	7989	5858	6116
75°	7081	5285	5662
80°	5605	4660	5204
85°	3871	4054	4776

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10656 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.0	2.5
10°-20°	488.2	7.2
20°-30°	733.4	10.8
30°-40°	879.0	13.0
40°-50°	921.6	13.6
50°-60°	864.5	12.7
60°-70°	718.1	10.6
70°-80°	513.4	7.6
80°-90°	304.5	4.5
90°-100°	223.4	3.3
100°-110°	220.1	3.2
110°-120°	205.3	3.0
120°-130°	180.1	2.7
130°-140°	145.1	2.1
140°-150°	104.1	1.5
150°-160°	66.2	1.0
160°-170°	36.7	0.5
170°-180°	11.5	0.2
0°-30°	1392.6	20.5
0°-40°	2271.6	33.5
0°-60°	4057.7	59.8
0°-90°	5593.6	82.4
90°-120°	648.7	9.6
90°-150°	1078.0	15.9
90°-180°	1192.0	17.6
0°-180°	6786.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1805	1805	1805	1805	1805	
5°	1816	1812	1786	1794	1801	172
15°	1738	1727	1721	1733	1741	489
25°	1571	1585	1582	1601	1609	725
35°	1373	1378	1391	1431	1454	852
45°	1114	1146	1181	1258	1266	862
55°	858	886	968	1046	1077	764
65°	584	628	730	828	852	576
75°	308	379	497	599	627	325
85°	76	166	291	388	425	83
90°	3	101	222	316	351	6
95°	9	106	222	313	345	9
105°	31	116	225	309	338	32
115°	56	126	221	294	322	55
125°	80	130	214	272	297	70
135°	92	125	198	246	267	71
145°	100	115	163	217	232	63
155°	109	115	133	168	190	51
165°	130	127	123	122	152	37
175°	144	138	124	103	62	13
180°	119	119	119	119	119	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1805.0	1805.0	1805.0	1805.0	1805.0
2.5°	1818.4	1804.1	1788.7	1811.7	1810.8
5°	1815.6	1811.7	1785.8	1794.5	1801.2
7.5°	1802.1	1792.5	1777.2	1798.3	1796.4
10°	1783.9	1772.4	1757.1	1769.5	1778.2
12.5°	1763.8	1754.2	1743.6	1757.1	1762.8
15°	1737.9	1727.3	1720.6	1733.1	1740.8
17.5°	1704.3	1701.4	1702.4	1703.4	1715.8
20°	1661.2	1663.1	1665.9	1683.2	1687.0
22.5°	1617.0	1627.6	1619.9	1646.8	1644.8
25°	1571.0	1585.4	1582.5	1600.7	1609.4
27.5°	1529.8	1530.7	1548.0	1573.9	1571.0
30°	1475.1	1491.4	1489.5	1521.1	1521.1
32.5°	1419.5	1443.4	1451.1	1478.9	1488.5
35°	1373.4	1378.2	1390.7	1431.0	1454.0
37.5°	1298.6	1321.6	1341.8	1394.5	1403.2
40°	1235.3	1258.3	1294.8	1356.2	1351.4
42.5°	1180.6	1204.6	1231.5	1302.5	1319.7
45°	1114.5	1146.1	1180.6	1258.3	1266.0
47.5°	1060.8	1085.7	1130.8	1201.7	1211.3
50°	985.0	1025.3	1074.2	1156.7	1171.1
52.5°	917.9	952.4	1014.7	1100.1	1132.7
55°	858.4	886.2	967.7	1046.4	1077.1
57.5°	785.5	823.9	909.2	996.5	1024.3
60°	721.2	758.6	841.1	940.9	962.9
62.5°	653.1	697.3	786.5	883.3	908.3
65°	584.1	628.2	729.9	827.7	851.7
67.5°	509.3	563.9	667.5	769.2	794.1
70°	439.3	498.7	610.0	711.6	736.6
72.5°	376.0	440.2	553.4	657.9	684.8
75°	307.9	378.8	496.8	599.4	627.2
77.5°	241.7	318.4	438.3	541.9	574.5
80°	177.4	261.8	387.5	487.2	521.7
82.5°	124.7	211.0	340.5	438.3	470.0
85°	75.8	165.9	290.6	388.4	424.9
87.5°	33.6	128.5	251.3	348.2	380.8
90°	2.9	100.7	221.6	316.5	351.0
92.5°	5.8	102.6	220.6	312.7	347.2
95°	8.6	105.5	221.6	312.7	345.3
97.5°	12.5	109.3	223.5	312.7	344.3
100°	18.2	111.3	224.4	312.7	344.3
102.5°	24.0	114.1	223.5	307.9	340.5
105°	30.7	116.1	225.4	308.8	337.6
107.5°	37.4	118.0	225.4	304.0	336.6
110°	44.1	120.8	223.5	301.2	332.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	49.9	123.7	222.5	295.4	326.1
115°	55.6	125.6	220.6	293.5	322.3
117.5°	61.4	126.6	219.6	288.7	316.5
120°	66.2	128.5	217.7	282.9	313.6
122.5°	71.9	129.5	214.8	277.2	307.9
125°	79.6	129.5	213.9	272.4	297.3
127.5°	83.4	130.4	210.0	266.6	292.5
130°	87.3	127.6	208.1	259.9	284.9
132.5°	90.2	126.6	203.3	253.2	275.3
135°	92.1	124.7	198.5	246.5	266.6
137.5°	95.0	121.8	191.8	241.7	260.9
140°	96.9	119.9	182.2	232.1	251.3
142.5°	98.8	117.0	172.6	223.5	241.7
145°	99.7	115.1	163.0	216.8	232.1
147.5°	102.6	112.2	157.3	208.1	221.6
150°	101.7	110.3	148.7	197.6	211.0
152.5°	104.5	113.2	141.0	183.2	202.4
155°	109.3	115.1	133.3	167.8	189.9
157.5°	114.1	118.9	127.6	154.4	180.3
160°	120.8	120.8	120.8	143.9	172.6
162.5°	124.7	124.7	121.8	131.4	162.1
165°	130.4	126.6	122.8	121.8	152.5
167.5°	136.2	128.5	124.7	118.0	145.8
170°	137.2	131.4	123.7	111.3	141.0
172.5°	141.0	134.3	122.8	105.5	109.3
175°	143.9	138.1	123.7	102.6	62.3
177.5°	142.9	138.1	126.6	102.6	60.4
180°	118.9	118.9	118.9	118.9	118.9



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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	16.59	17.92	17.20	18.55	19.26	19.11	20.43	19.72	21.06	21.77
	3H	18.03	19.23	18.65	19.87	20.62	21.47	22.68	22.10	23.31	24.06
	4H	18.49	19.63	19.13	20.28	21.05	22.59	23.73	23.23	24.38	25.14
	6H	18.76	19.82	19.41	20.48	21.26	23.70	24.76	24.36	25.42	26.20
	8H	18.81	19.83	19.48	20.51	21.29	24.25	25.27	24.92	25.95	26.73
	12H	18.83	19.80	19.50	20.47	21.29	24.83	25.80	25.51	26.48	27.29
4H	2H	17.47	18.61	18.11	19.26	20.02	19.45	20.59	20.10	21.24	22.01
	3H	19.12	20.09	19.78	20.78	21.56	22.03	23.00	22.69	23.69	24.47
	4H	19.70	20.59	20.38	21.28	22.09	23.31	24.19	23.98	24.89	25.70
	6H	20.08	20.86	20.77	21.58	22.40	24.59	25.37	25.29	26.09	26.91
	8H	20.17	20.90	20.87	21.62	22.45	25.24	25.97	25.94	26.69	27.52
	12H	20.21	20.88	20.93	21.62	22.46	25.93	26.60	26.65	27.33	28.17
8H	4H	20.33	21.06	21.03	21.78	22.61	23.46	24.19	24.16	24.91	25.74
	6H	20.86	21.48	21.59	22.24	23.07	24.89	25.51	25.62	26.27	27.11
	8H	21.03	21.59	21.77	22.35	23.20	25.66	26.22	26.40	26.98	27.83
	12H	21.14	21.63	21.88	22.38	23.29	26.51	27.01	27.26	27.76	28.67
12H	4H	20.48	21.15	21.20	21.89	22.73	23.45	24.12	24.17	24.86	25.70
	6H	21.11	21.67	21.85	22.42	23.27	24.91	25.47	25.65	26.23	27.08
	8H	21.35	21.85	22.10	22.60	23.51	25.73	26.23	26.48	26.98	27.89