

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: P893934

Luminaire Tested: 4MB-8HL-FLTU-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893934
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-L935
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 90CRI, 350
Light Source: -
Ballast/Driver: -

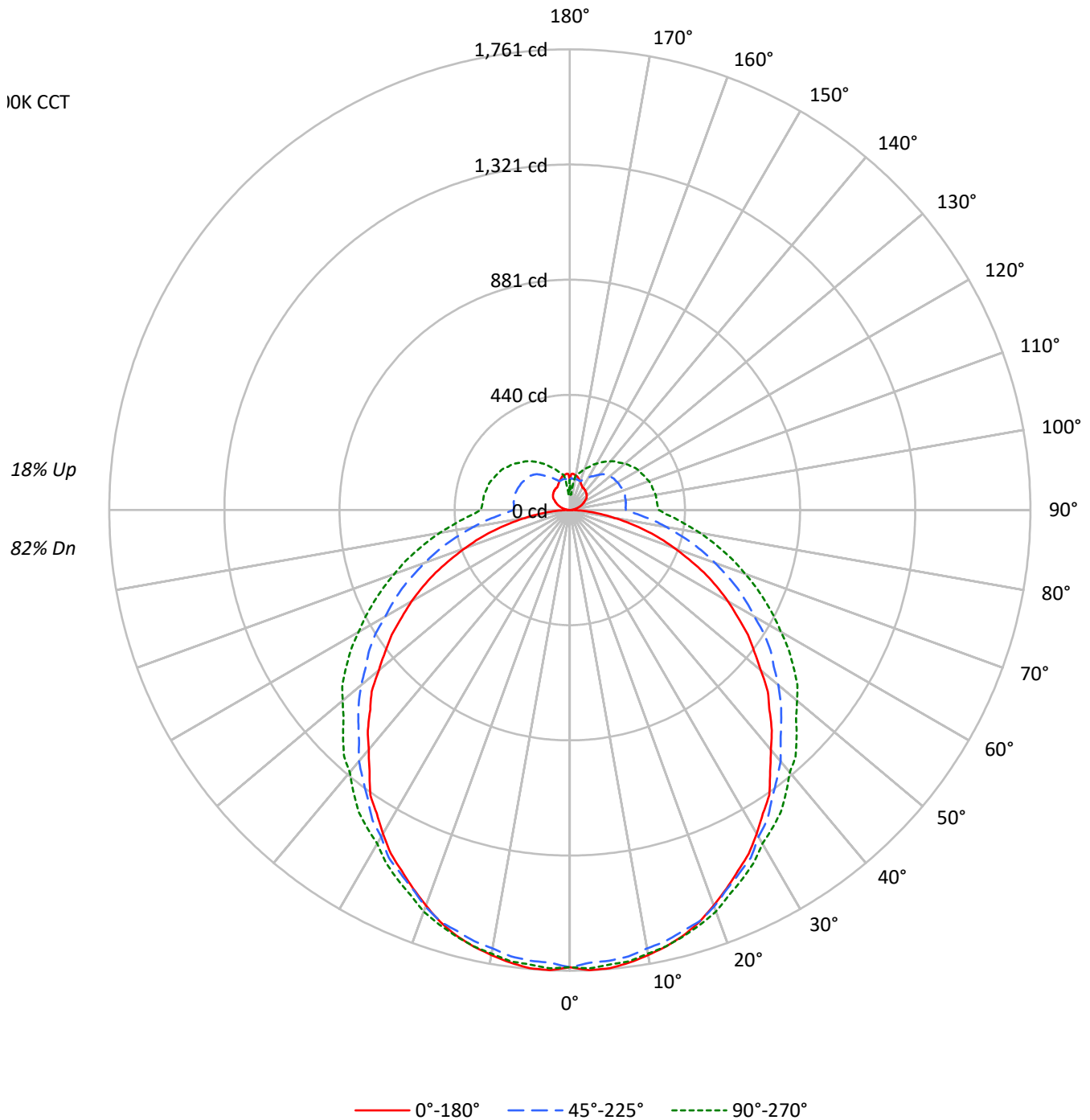
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6571.0 lumens
Efficiency: N/A
Efficacy: 113.5 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): 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°	12436	12436	12436
5°	12499	11909	11887
10°	12366	11436	11344
15°	12224	11019	10827
20°	11951	10580	10312
25°	11658	10042	9744
30°	11391	9517	9193
35°	11143	9016	8838
40°	10643	8587	8325
45°	10319	8075	7969
50°	9938	7646	7594
55°	9593	7237	7258
60°	9112	6680	6807
65°	8561	6228	6383
70°	7735	5673	5922
75°	6855	5118	5484
80°	5428	4512	5040
85°	3749	3926	4624

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10319 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.6	2.5
10°-20°	472.8	7.2
20°-30°	710.2	10.8
30°-40°	851.2	13.0
40°-50°	892.4	13.6
50°-60°	837.1	12.7
60°-70°	695.3	10.6
70°-80°	497.1	7.6
80°-90°	294.8	4.5
90°-100°	216.3	3.3
100°-110°	213.1	3.2
110°-120°	198.8	3.0
120°-130°	174.4	2.7
130°-140°	140.5	2.1
140°-150°	100.8	1.5
150°-160°	64.1	1.0
160°-170°	35.5	0.5
170°-180°	11.2	0.2
0°-30°	1348.5	20.5
0°-40°	2199.7	33.5
0°-60°	3929.1	59.8
0°-90°	5416.4	82.4
90°-120°	628.2	9.6
90°-150°	1043.8	15.9
90°-180°	1155.0	17.6
0°-180°	6571.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1748	1748	1748	1748	1748	
5°	1758	1754	1729	1738	1744	167
15°	1683	1673	1666	1678	1686	474
25°	1521	1535	1532	1550	1558	702
35°	1330	1335	1347	1386	1408	825
45°	1079	1110	1143	1218	1226	835
55°	831	858	937	1013	1043	739
65°	566	608	707	802	825	557
75°	298	367	481	580	607	315
85°	73	161	281	376	411	81
90°	3	98	214	306	340	6
95°	8	102	214	303	334	9
105°	30	112	218	299	327	31
115°	54	122	214	284	312	53
125°	77	125	207	264	288	68
135°	89	121	192	239	258	69
145°	97	111	158	210	225	61
155°	106	111	129	162	184	49
165°	126	123	119	118	148	35
175°	139	134	120	99	60	13
180°	115	115	115	115	115	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1747.8	1747.8	1747.8	1747.8	1747.8
2.5°	1760.8	1746.9	1732.0	1754.3	1753.4
5°	1758.0	1754.3	1729.3	1737.6	1744.1
7.5°	1745.0	1735.8	1720.9	1741.3	1739.5
10°	1727.4	1716.3	1701.4	1713.5	1721.8
12.5°	1707.9	1698.6	1688.4	1701.4	1707.0
15°	1682.8	1672.6	1666.1	1678.2	1685.6
17.5°	1650.3	1647.5	1648.5	1649.4	1661.5
20°	1608.5	1610.4	1613.2	1629.9	1633.6
22.5°	1565.8	1576.0	1568.6	1594.6	1592.7
25°	1521.2	1535.2	1532.4	1550.0	1558.4
27.5°	1481.3	1482.2	1498.9	1524.0	1521.2
30°	1428.4	1444.1	1442.3	1472.9	1472.9
32.5°	1374.5	1397.7	1405.1	1432.1	1441.4
35°	1329.9	1334.6	1346.6	1385.6	1407.9
37.5°	1257.5	1279.8	1299.3	1350.3	1358.7
40°	1196.2	1218.5	1253.8	1313.2	1308.5
42.5°	1143.2	1166.5	1192.5	1261.2	1277.9
45°	1079.2	1109.8	1143.2	1218.5	1225.9
47.5°	1027.2	1051.3	1094.9	1163.7	1173.0
50°	953.8	992.8	1040.2	1120.0	1134.0
52.5°	888.8	922.2	982.6	1065.2	1096.8
55°	831.2	858.1	937.1	1013.2	1042.9
57.5°	760.6	797.8	880.4	964.9	991.9
60°	698.4	734.6	814.5	911.1	932.4
62.5°	632.5	675.2	761.5	855.3	879.5
65°	565.6	608.3	706.7	801.5	824.7
67.5°	493.1	546.1	646.4	744.8	769.0
70°	425.3	482.9	590.7	689.1	713.2
72.5°	364.1	426.3	535.9	637.1	663.1
75°	298.1	366.8	481.1	580.4	607.4
77.5°	234.0	308.3	424.4	524.7	556.3
80°	171.8	253.5	375.2	471.8	505.2
82.5°	120.7	204.3	329.7	424.4	455.1
85°	73.4	160.7	281.4	376.1	411.4
87.5°	32.5	124.4	243.3	337.1	368.7
90°	2.8	97.5	214.5	306.5	339.9
92.5°	5.6	99.4	213.6	302.8	336.2
95°	8.4	102.2	214.5	302.8	334.3
97.5°	12.1	105.9	216.4	302.8	333.4
100°	17.6	107.7	217.3	302.8	333.4
102.5°	23.2	110.5	216.4	298.1	329.7
105°	29.7	112.4	218.2	299.0	326.9
107.5°	36.2	114.2	218.2	294.4	326.0
110°	42.7	117.0	216.4	291.6	322.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	48.3	119.8	215.5	286.0	315.8
115°	53.9	121.7	213.6	284.2	312.0
117.5°	59.4	122.6	212.7	279.5	306.5
120°	64.1	124.4	210.8	274.0	303.7
122.5°	69.7	125.4	208.0	268.4	298.1
125°	77.1	125.4	207.1	263.8	287.9
127.5°	80.8	126.3	203.4	258.2	283.3
130°	84.5	123.5	201.5	251.7	275.8
132.5°	87.3	122.6	196.9	245.2	266.5
135°	89.2	120.7	192.2	238.7	258.2
137.5°	91.9	117.9	185.7	234.0	252.6
140°	93.8	116.1	176.5	224.7	243.3
142.5°	95.7	113.3	167.2	216.4	234.0
145°	96.6	111.4	157.9	209.9	224.7
147.5°	99.4	108.7	152.3	201.5	214.5
150°	98.4	106.8	143.9	191.3	204.3
152.5°	101.2	109.6	136.5	177.4	196.0
155°	105.9	111.4	129.1	162.5	183.9
157.5°	110.5	115.2	123.5	149.5	174.6
160°	117.0	117.0	117.0	139.3	167.2
162.5°	120.7	120.7	117.9	127.2	157.0
165°	126.3	122.6	118.9	117.9	147.7
167.5°	131.9	124.4	120.7	114.2	141.2
170°	132.8	127.2	119.8	107.7	136.5
172.5°	136.5	130.0	118.9	102.2	105.9
175°	139.3	133.7	119.8	99.4	60.4
177.5°	138.4	133.7	122.6	99.4	58.5
180°	115.2	115.2	115.2	115.2	115.2



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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	16.48	17.81	17.09	18.43	19.15	18.99	20.32	19.60	20.95	21.66
	3H	17.91	19.12	18.54	19.76	20.51	21.36	22.56	21.98	23.20	23.95
	4H	18.38	19.52	19.02	20.17	20.93	22.47	23.62	23.12	24.27	25.03
	6H	18.65	19.71	19.30	20.37	21.15	23.59	24.65	24.25	25.31	26.09
	8H	18.70	19.71	19.37	20.40	21.18	24.14	25.15	24.81	25.84	26.62
	12H	18.71	19.69	19.39	20.36	21.17	24.72	25.69	25.40	26.37	27.18
4H	2H	17.35	18.50	18.00	19.15	19.91	19.34	20.48	19.99	21.13	21.89
	3H	19.01	19.98	19.67	20.67	21.45	21.92	22.89	22.58	23.58	24.36
	4H	19.59	20.48	20.27	21.17	21.98	23.19	24.08	23.87	24.78	25.59
	6H	19.97	20.75	20.66	21.46	22.28	24.48	25.26	25.18	25.98	26.80
	8H	20.06	20.79	20.76	21.51	22.34	25.13	25.86	25.83	26.58	27.41
	12H	20.10	20.76	20.82	21.50	22.34	25.82	26.48	26.54	27.22	28.06
8H	4H	20.21	20.95	20.91	21.66	22.50	23.35	24.08	24.05	24.80	25.63
	6H	20.75	21.37	21.48	22.12	22.96	24.78	25.40	25.51	26.16	26.99
	8H	20.92	21.48	21.66	22.23	23.09	25.55	26.11	26.29	26.87	27.72
	12H	21.02	21.52	21.77	22.27	23.18	26.40	26.90	27.14	27.64	28.56
12H	4H	20.37	21.04	21.09	21.78	22.62	23.34	24.01	24.06	24.74	25.58
	6H	21.00	21.55	21.74	22.31	23.16	24.80	25.36	25.54	26.12	26.97
	8H	21.24	21.74	21.99	22.49	23.40	25.62	26.12	26.37	26.87	27.78