

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: P893837

Luminaire Tested: 4MB-7HL-FLTU-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893837
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-7HL-FLTU-UNV-L930
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 90CRI, 300
Light Source: -
Ballast/Driver: -

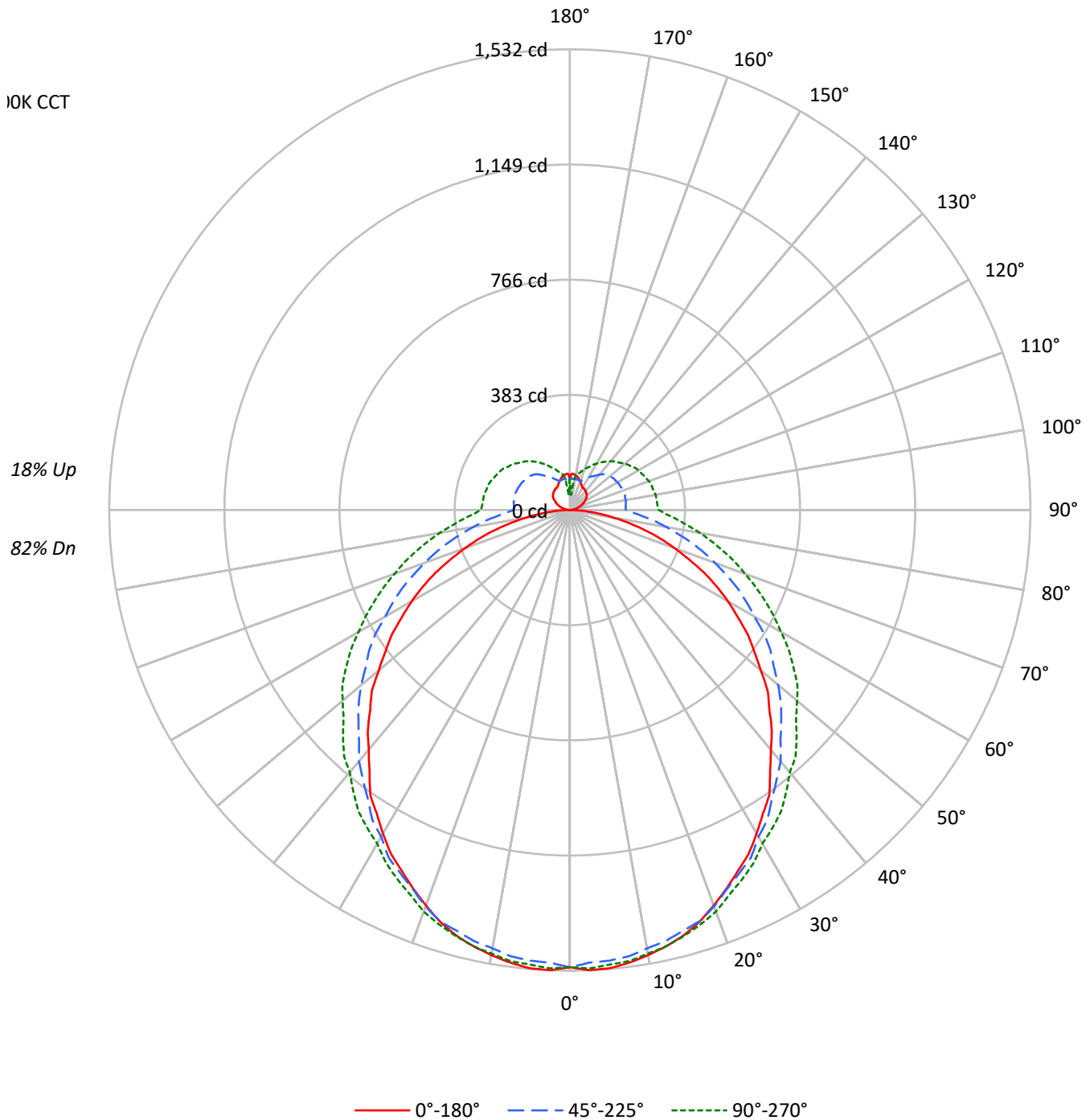
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5716.0 lumens
Efficiency: N/A
Efficacy: 110.3 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): 51.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4
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	0
RCR																		
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	82
1	103	98	93	89	99	94	90	86	87	83	80	80	77	74	73	71	69	66
2	93	85	77	71	89	81	75	69	75	70	65	69	65	61	63	60	57	54
3	85	74	66	59	81	71	63	57	66	59	54	60	55	51	56	51	48	45
4	78	65	56	49	74	63	55	48	58	51	46	54	48	43	50	45	41	38
5	71	58	49	42	68	56	48	41	52	45	39	48	42	37	44	39	35	33
6	66	52	43	37	63	50	42	36	47	40	34	43	37	33	40	35	31	28
7	61	47	38	32	58	46	37	32	42	35	30	39	33	29	37	31	27	25
8	56	43	34	29	54	42	34	28	39	32	27	36	30	26	34	28	24	22
9	53	39	31	26	50	38	30	25	36	29	24	33	27	23	31	26	22	20
10	49	36	28	23	47	35	28	23	33	26	22	31	25	21	29	24	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10818	10818	10818
5°	10873	10359	10340
10°	10757	9948	9868
15°	10634	9585	9418
20°	10396	9203	8970
25°	10141	8736	8476
30°	9908	8279	7997
35°	9693	7843	7688
40°	9257	7469	7243
45°	8975	7025	6932
50°	8645	6651	6605
55°	8345	6295	6313
60°	7926	5810	5922
65°	7447	5418	5553
70°	6729	4934	5151
75°	5963	4452	4770
80°	4723	3925	4384
85°	3258	3415	4023

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8975 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.0	2.5
10°-20°	411.3	7.2
20°-30°	617.8	10.8
30°-40°	740.4	13.0
40°-50°	776.2	13.6
50°-60°	728.2	12.7
60°-70°	604.8	10.6
70°-80°	432.4	7.6
80°-90°	256.5	4.5
90°-100°	188.1	3.3
100°-110°	185.4	3.2
110°-120°	172.9	3.0
120°-130°	151.7	2.7
130°-140°	122.2	2.1
140°-150°	87.7	1.5
150°-160°	55.7	1.0
160°-170°	30.9	0.5
170°-180°	9.7	0.2
0°-30°	1173.0	20.5
0°-40°	1913.4	33.5
0°-60°	3417.9	59.8
0°-90°	4711.6	82.4
90°-120°	546.4	9.6
90°-150°	908.0	15.9
90°-180°	1004.0	17.6
0°-180°	5716.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1520	1520	1520	1520	1520	
5°	1529	1526	1504	1512	1517	145
15°	1464	1455	1449	1460	1466	412
25°	1323	1335	1333	1348	1356	611
35°	1157	1161	1171	1205	1225	718
45°	939	965	994	1060	1066	726
55°	723	746	815	881	907	643
65°	492	529	615	697	717	485
75°	259	319	418	505	528	274
85°	64	140	245	327	358	70
90°	2	85	187	267	296	5
95°	7	89	187	263	291	8
105°	26	98	190	260	284	27
115°	47	106	186	247	271	46
125°	67	109	180	229	250	59
135°	78	105	167	208	225	60
145°	84	97	137	183	196	53
155°	92	97	112	141	160	43
165°	110	107	103	103	128	31
175°	121	116	104	86	52	11
180°	100	100	100	100	100	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1520.4	1520.4	1520.4	1520.4	1520.4
2.5°	1531.7	1519.6	1506.7	1526.1	1525.3
5°	1529.3	1526.1	1504.2	1511.5	1517.2
7.5°	1518.0	1509.9	1497.0	1514.8	1513.1
10°	1502.6	1492.9	1480.0	1490.5	1497.8
12.5°	1485.7	1477.6	1468.7	1480.0	1484.9
15°	1463.9	1455.0	1449.3	1459.8	1466.3
17.5°	1435.6	1433.2	1434.0	1434.8	1445.3
20°	1399.2	1400.8	1403.3	1417.8	1421.0
22.5°	1362.1	1371.0	1364.5	1387.1	1385.5
25°	1323.3	1335.4	1333.0	1348.3	1355.6
27.5°	1288.5	1289.4	1303.9	1325.7	1323.3
30°	1242.5	1256.2	1254.6	1281.3	1281.3
32.5°	1195.6	1215.8	1222.3	1245.7	1253.8
35°	1156.9	1160.9	1171.4	1205.3	1224.7
37.5°	1093.9	1113.2	1130.2	1174.6	1181.9
40°	1040.5	1059.9	1090.6	1142.3	1138.3
42.5°	994.5	1014.7	1037.3	1097.1	1111.6
45°	938.7	965.4	994.5	1059.9	1066.4
47.5°	893.5	914.5	952.5	1012.3	1020.3
50°	829.7	863.6	904.8	974.3	986.4
52.5°	773.1	802.2	854.7	926.6	954.1
55°	723.0	746.5	815.1	881.4	907.2
57.5°	661.6	694.0	765.9	839.4	862.8
60°	607.5	639.0	708.5	792.5	811.1
62.5°	550.2	587.3	662.5	744.0	765.1
65°	492.0	529.2	614.8	697.2	717.4
67.5°	429.0	475.0	562.3	647.9	668.9
70°	370.0	420.1	513.8	599.4	620.4
72.5°	316.7	370.8	466.1	554.2	576.8
75°	259.3	319.1	418.5	504.9	528.3
77.5°	203.6	268.2	369.2	456.4	483.9
80°	149.5	220.5	326.4	410.4	439.5
82.5°	105.0	177.7	286.8	369.2	395.9
85°	63.8	139.8	244.8	327.2	357.9
87.5°	28.3	108.3	211.7	293.3	320.7
90°	2.4	84.8	186.6	266.6	295.7
92.5°	4.8	86.4	185.8	263.4	292.4
95°	7.3	88.9	186.6	263.4	290.8
97.5°	10.5	92.1	188.2	263.4	290.0
100°	15.3	93.7	189.0	263.4	290.0
102.5°	20.2	96.1	188.2	259.3	286.8
105°	25.9	97.8	189.8	260.1	284.4
107.5°	31.5	99.4	189.8	256.1	283.6
110°	37.2	101.8	188.2	253.7	280.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	42.0	104.2	187.4	248.8	274.7
115°	46.9	105.8	185.8	247.2	271.4
117.5°	51.7	106.6	185.0	243.2	266.6
120°	55.7	108.3	183.4	238.3	264.2
122.5°	60.6	109.1	181.0	233.5	259.3
125°	67.1	109.1	180.2	229.4	250.4
127.5°	70.3	109.9	176.9	224.6	246.4
130°	73.5	107.4	175.3	218.9	239.9
132.5°	75.9	106.6	171.3	213.3	231.9
135°	77.6	105.0	167.2	207.6	224.6
137.5°	80.0	102.6	161.6	203.6	219.7
140°	81.6	101.0	153.5	195.5	211.7
142.5°	83.2	98.6	145.4	188.2	203.6
145°	84.0	96.9	137.3	182.6	195.5
147.5°	86.4	94.5	132.5	175.3	186.6
150°	85.6	92.9	125.2	166.4	177.7
152.5°	88.1	95.3	118.8	154.3	170.5
155°	92.1	96.9	112.3	141.4	160.0
157.5°	96.1	100.2	107.4	130.1	151.9
160°	101.8	101.8	101.8	121.2	145.4
162.5°	105.0	105.0	102.6	110.7	136.5
165°	109.9	106.6	103.4	102.6	128.5
167.5°	114.7	108.3	105.0	99.4	122.8
170°	115.5	110.7	104.2	93.7	118.8
172.5°	118.8	113.1	103.4	88.9	92.1
175°	121.2	116.3	104.2	86.4	52.5
177.5°	120.4	116.3	106.6	86.4	50.9
180°	100.2	100.2	100.2	100.2	100.2



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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	16.00	17.32	16.61	17.95	18.66	18.51	19.83	19.12	20.46	21.18
	3H	17.43	18.63	18.05	19.27	20.02	20.87	22.08	21.50	22.72	23.47
	4H	17.90	19.04	18.54	19.69	20.45	21.99	23.13	22.63	23.78	24.54
	6H	18.16	19.22	18.82	19.88	20.66	23.10	24.17	23.76	24.83	25.60
	8H	18.21	19.23	18.88	19.91	20.69	23.65	24.67	24.32	25.35	26.13
	12H	18.23	19.20	18.91	19.88	20.69	24.24	25.21	24.91	25.88	26.70
4H	2H	16.87	18.01	17.52	18.66	19.42	18.86	20.00	19.50	20.65	21.41
	3H	18.52	19.49	19.18	20.18	20.96	21.43	22.40	22.09	23.09	23.87
	4H	19.11	19.99	19.78	20.69	21.50	22.71	23.60	23.39	24.29	25.10
	6H	19.48	20.26	20.18	20.98	21.80	24.00	24.78	24.69	25.50	26.32
	8H	19.57	20.31	20.27	21.02	21.86	24.64	25.38	25.34	26.09	26.92
	12H	19.61	20.28	20.34	21.02	21.86	25.33	26.00	26.05	26.74	27.58
8H	4H	19.73	20.46	20.43	21.18	22.01	22.86	23.60	23.56	24.31	25.15
	6H	20.26	20.88	20.99	21.64	22.48	24.30	24.92	25.03	25.67	26.51
	8H	20.43	20.99	21.18	21.75	22.60	25.07	25.62	25.81	26.38	27.23
	12H	20.54	21.04	21.28	21.78	22.69	25.92	26.41	26.66	27.16	28.07
12H	4H	19.89	20.55	20.61	21.29	22.13	22.86	23.52	23.58	24.26	25.10
	6H	20.51	21.07	21.25	21.83	22.68	24.32	24.88	25.06	25.63	26.48
	8H	20.76	21.25	21.50	22.00	22.91	25.14	25.63	25.88	26.38	27.29