

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: P893712

Luminaire Tested: 4MB-6SL-ASMF-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893712
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-185-1)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-6SL-ASMF-UNV-L950
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 90CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

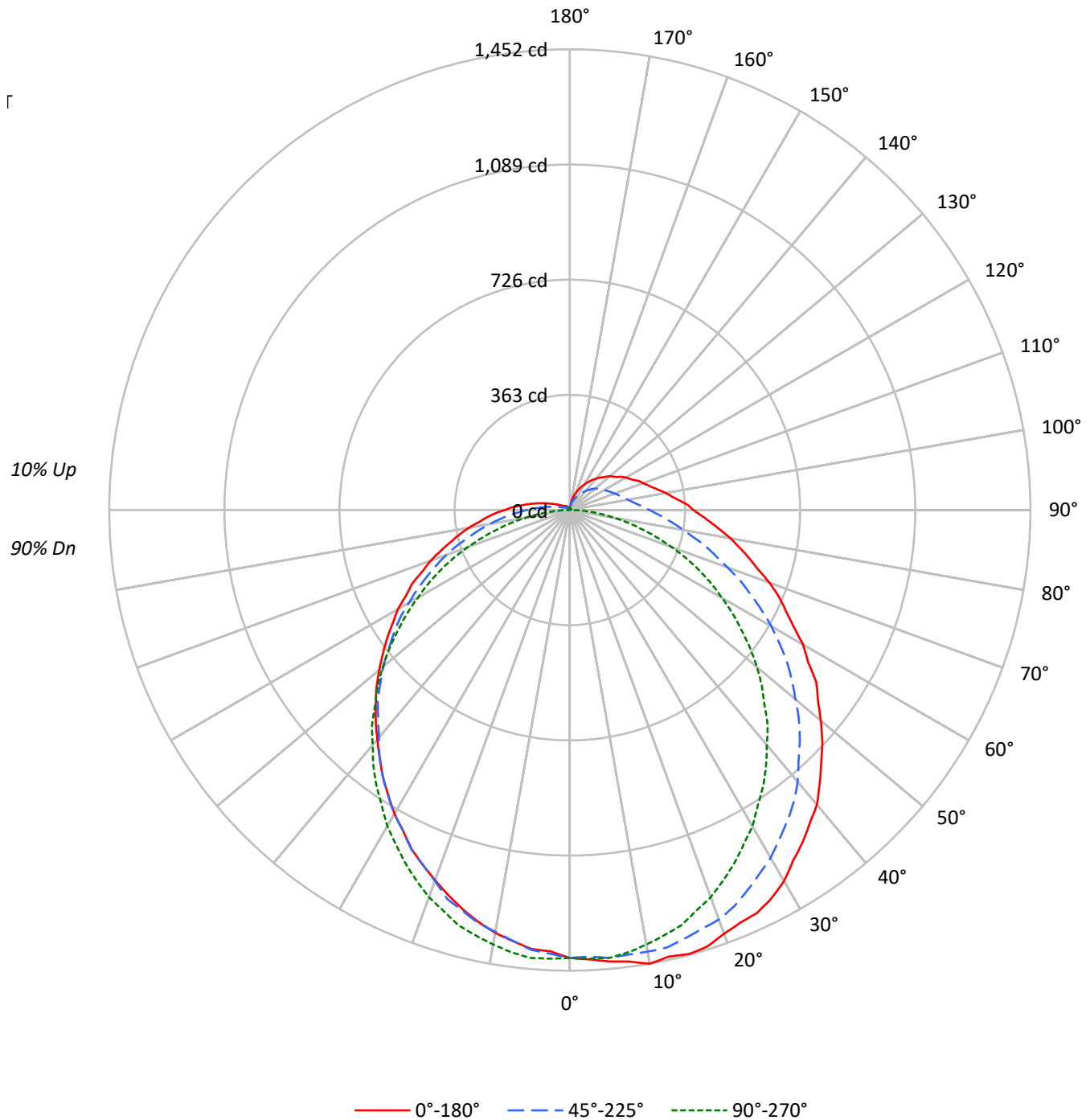
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4854.0 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.21 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.12')
CIE Type: Direct

Input Watts (W): 44.4
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

TEST NUMBER: P893712
CATALOG NUMBER: 4MB-6SL-ASMF-UNV-L950

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	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	93	93	93	90
1	105	99	95	90	101	96	92	88	90	87	83	85	82	79	79	77	75	75	75	75	72
2	95	86	79	72	91	83	76	71	78	72	68	73	69	65	69	65	62	62	62	62	59
3	86	75	66	60	83	73	65	58	68	62	56	64	59	54	60	56	52	52	52	52	49
4	79	66	57	50	76	64	56	49	61	53	48	57	51	46	54	49	44	44	44	44	42
5	72	59	50	43	69	57	49	42	54	47	41	51	45	40	48	43	38	38	38	38	36
6	67	53	44	37	64	52	43	37	49	41	36	46	40	35	44	38	34	34	34	34	31
7	62	48	39	33	59	47	38	32	44	37	32	42	36	31	40	34	30	30	30	30	28
8	57	44	35	29	55	43	35	29	41	33	28	39	32	27	37	31	27	27	27	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	24	24	24	22
10	50	37	29	24	49	36	29	23	34	28	23	33	27	22	31	26	22	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	14378	14378	14378	14378	14378
5°	14560	14048	13911	13803	14156
10°	14934	13754	13279	13136	13917
15°	15152	13463	12689	12586	13625
20°	15226	13184	12019	11931	13305
25°	15503	12761	11312	11386	13064
30°	15597	12353	10640	10796	12769
35°	15560	11907	9935	10227	12495
40°	15699	11447	9211	9588	12225
45°	15654	10903	8497	9102	12075
50°	15771	10343	7810	8543	11978
55°	16121	9856	7023	7985	11936
60°	16391	9251	6218	7390	12095
65°	16958	8597	5402	6800	12368
70°	18343	7970	4428	6236	12790
75°	20610	7515	3386	5580	13676
80°	25617	7075	2268	5002	16059
85°	38295	6980	1138	4404	22518

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 126107 cd/sqm



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 CATALOG NUMBER: 4MB-6SL-ASMF-UNV-L950

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.0	2.8
10°-20°	383.9	7.9
20°-30°	578.9	11.9
30°-40°	694.9	14.3
40°-50°	723.5	14.9
50°-60°	670.7	13.8
60°-70°	552.4	11.4
70°-80°	398.4	8.2
80°-90°	252.9	5.2
90°-100°	155.9	3.2
100°-110°	104.0	2.1
110°-120°	74.0	1.5
120°-130°	54.2	1.1
130°-140°	37.3	0.8
140°-150°	22.7	0.5
150°-160°	11.3	0.2
160°-170°	4.1	0.1
170°-180°	0.7	0.0
0°-30°	1096.8	22.6
0°-40°	1791.7	36.9
0°-60°	3185.9	65.6
0°-90°	4389.7	90.4
90°-120°	334.0	6.9
90°-150°	448.2	9.2
90°-180°	464.0	9.6
0°-180°	4854.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1412	1412	1412	1412	1412	
5°	1428	1417	1417	1392	1388	137
15°	1449	1398	1355	1307	1303	409
25°	1400	1324	1228	1181	1180	644
35°	1279	1196	1062	1027	1027	801
45°	1121	1026	868	856	865	867
55°	949	836	661	678	702	843
65°	751	628	450	497	548	748
75°	585	444	237	330	388	620
85°	445	302	62	191	262	378
90°	389	251	6	136	204	215
95°	347	212	4	91	157	275
105°	272	167	4	37	83	290
115°	223	138	4	18	40	223
125°	181	115	5	14	23	165
135°	145	92	5	11	17	114
145°	112	65	5	8	12	71
155°	76	43	6	5	8	36
165°	44	25	6	4	4	13
175°	6	11	6	3	1	1
180°	4	4	4	4	4	



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CATALOG NUMBER: 4MB-6SL-ASMF-UNV-L950

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1411.8	1411.8	1411.8	1411.8	1411.8	1411.8	1411.8	1411.8	1411.8
2.5°	1417.5	1421.7	1408.3	1416.8	1415.4	1416.8	1399.8	1413.9	1392.1
5°	1428.1	1430.2	1416.8	1421.7	1416.8	1404.8	1392.1	1387.1	1388.5
7.5°	1435.1	1446.4	1413.2	1414.6	1406.2	1393.5	1369.5	1373.7	1370.9
10°	1452.1	1439.4	1413.2	1406.9	1390.6	1377.2	1349.7	1351.8	1353.2
12.5°	1441.5	1438.6	1412.5	1389.2	1373.0	1361.7	1333.5	1326.4	1329.9
15°	1449.2	1437.2	1398.4	1380.1	1355.3	1335.6	1307.3	1302.4	1303.1
17.5°	1442.2	1432.3	1384.3	1358.9	1324.3	1312.3	1285.5	1277.0	1272.8
20°	1421.0	1416.1	1373.7	1329.9	1298.9	1275.6	1243.1	1238.2	1241.7
22.5°	1406.9	1394.9	1352.5	1308.8	1263.6	1243.1	1210.6	1209.9	1210.6
25°	1399.8	1384.3	1323.6	1277.7	1227.6	1209.2	1181.0	1170.4	1179.6
27.5°	1378.6	1364.5	1293.2	1243.1	1187.3	1162.6	1139.3	1137.2	1138.6
30°	1350.4	1322.9	1265.7	1204.3	1150.6	1125.2	1106.2	1092.0	1105.5
32.5°	1310.2	1294.6	1229.7	1162.6	1103.3	1085.7	1066.6	1065.2	1065.2
35°	1279.1	1267.8	1195.8	1125.9	1062.4	1038.4	1027.1	1022.2	1027.1
37.5°	1243.1	1226.2	1159.8	1081.5	1016.5	996.0	984.7	980.5	984.0
40°	1212.0	1181.0	1117.5	1035.6	966.4	948.0	936.0	940.3	943.8
42.5°	1166.2	1148.5	1067.3	989.0	923.3	903.6	893.7	897.2	905.7
45°	1121.0	1104.8	1025.7	940.3	867.6	857.0	856.3	854.2	864.7
47.5°	1080.0	1056.7	979.8	892.3	821.0	809.0	810.4	817.4	826.6
50°	1032.7	1005.2	929.0	840.7	769.4	761.7	767.3	772.3	784.3
52.5°	985.5	963.6	882.4	792.0	717.2	711.6	719.3	735.6	742.6
55°	948.7	909.2	836.5	734.9	661.4	662.1	677.7	686.9	702.4
57.5°	890.2	860.5	784.3	684.0	609.2	614.1	635.3	650.8	660.7
60°	848.5	811.1	733.4	629.7	554.1	561.9	585.9	609.2	626.1
62.5°	794.9	762.4	680.5	576.0	503.3	514.6	541.4	569.0	581.0
65°	751.1	714.4	628.3	522.4	450.4	463.8	497.0	528.0	547.8
67.5°	713.7	675.6	581.7	473.0	396.7	416.5	455.3	485.7	501.2
70°	669.2	624.7	528.7	417.9	341.0	364.3	413.7	449.0	466.6
72.5°	621.9	585.9	482.8	367.1	289.4	317.7	372.0	408.7	425.7
75°	585.2	545.0	444.0	316.2	237.2	271.1	329.7	371.3	388.3
77.5°	547.8	511.1	400.3	269.7	190.6	228.7	292.2	338.1	355.8
80°	514.6	472.3	363.5	231.5	141.9	187.1	257.0	302.1	322.6
82.5°	477.9	441.2	331.8	191.3	100.9	148.9	222.4	271.8	288.7
85°	445.4	407.3	302.1	159.5	62.1	115.1	190.6	241.4	261.9
87.5°	415.8	384.0	274.6	135.5	31.1	87.5	160.2	211.8	235.1
90°	389.0	353.0	251.3	113.7	5.6	63.5	135.5	186.4	204.0
92.5°	372.0	329.0	232.2	99.5	3.5	45.2	112.9	163.1	183.5
95°	346.6	308.5	212.5	88.9	3.5	30.4	91.1	139.8	157.4
97.5°	324.7	289.4	198.4	82.6	2.8	20.5	74.8	117.2	135.5
100°	307.8	274.6	185.7	76.9	3.5	14.8	59.3	99.5	115.8
102.5°	288.7	258.4	175.8	73.4	3.5	10.6	46.6	84.0	98.8
105°	271.8	245.0	166.6	69.9	3.5	9.2	37.4	69.2	82.6
107.5°	259.1	230.8	158.8	67.8	3.5	9.2	29.6	56.5	67.8
110°	246.4	219.5	151.1	65.6	3.5	8.5	23.3	46.6	56.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	237.9	208.9	144.0	63.5	4.2	8.5	19.1	38.8	46.6
115°	223.1	199.8	137.7	62.8	4.2	7.8	17.6	31.8	39.5
117.5°	212.5	191.3	131.3	60.7	4.2	7.8	16.9	26.1	31.8
120°	204.7	181.4	125.7	58.6	4.2	7.1	15.5	23.3	26.8
122.5°	194.8	172.2	120.7	57.2	4.2	7.1	14.8	21.9	24.0
125°	181.4	163.8	115.1	54.4	4.9	7.1	14.1	20.5	22.6
127.5°	172.9	156.0	110.8	50.8	4.9	6.4	13.4	19.1	21.2
130°	165.9	147.5	105.9	47.3	4.9	6.4	12.7	17.6	19.8
132.5°	155.3	139.1	98.8	44.5	4.9	5.6	11.3	16.2	18.4
135°	145.4	132.0	91.8	41.6	4.9	5.6	10.6	15.5	16.9
137.5°	139.1	124.9	85.4	38.8	4.9	4.9	9.9	14.1	15.5
140°	128.5	117.2	78.4	36.0	4.9	4.9	9.2	13.4	14.1
142.5°	120.7	109.4	72.0	33.2	4.9	4.9	8.5	12.0	13.4
145°	111.5	101.7	64.9	30.4	4.9	4.2	7.8	11.3	12.0
147.5°	103.1	92.5	59.3	28.2	4.9	4.2	7.1	9.9	10.6
150°	94.6	83.3	53.6	26.1	4.9	4.2	6.4	8.5	9.9
152.5°	85.4	72.0	48.0	24.0	4.9	4.2	5.6	7.8	8.5
155°	76.2	62.8	43.1	21.9	5.6	4.2	4.9	6.4	7.8
157.5°	68.5	54.4	38.1	19.8	5.6	3.5	4.9	5.6	6.4
160°	59.3	46.6	33.9	17.6	5.6	3.5	4.2	4.9	5.6
162.5°	52.2	38.8	29.6	16.2	5.6	3.5	4.2	4.2	4.9
165°	44.5	32.5	24.7	14.8	5.6	3.5	3.5	3.5	4.2
167.5°	36.0	25.4	20.5	13.4	5.6	3.5	3.5	2.8	3.5
170°	26.8	19.1	16.9	12.0	5.6	3.5	2.8	2.1	2.8
172.5°	12.0	14.8	13.4	10.6	6.4	3.5	2.8	2.1	1.4
175°	6.4	10.6	10.6	9.2	6.4	3.5	2.8	2.1	0.7
177.5°	4.9	6.4	7.8	7.8	6.4	4.2	2.8	1.4	0.7
180°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2



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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	19.63	21.10	20.13	21.61	22.15	18.60	20.07	19.10	20.58	21.12
	3H	21.71	23.06	22.23	23.57	24.15	20.47	21.82	20.99	22.33	22.91
	4H	22.66	23.93	23.19	24.46	25.06	21.21	22.49	21.75	23.02	23.62
	6H	23.57	24.76	24.13	25.30	25.92	21.85	23.04	22.40	23.58	24.19
	8H	24.00	25.14	24.57	25.71	26.32	22.10	23.24	22.67	23.80	24.42
	12H	24.42	25.52	25.00	26.07	26.72	22.33	23.43	22.90	23.98	24.63
4H	2H	20.12	21.40	20.66	21.92	22.52	19.16	20.44	19.70	20.96	21.56
	3H	22.43	23.52	22.99	24.09	24.71	21.22	22.31	21.77	22.88	23.49
	4H	23.55	24.54	24.12	25.12	25.77	22.07	23.07	22.64	23.65	24.30
	6H	24.65	25.53	25.24	26.13	26.80	22.83	23.71	23.42	24.31	24.97
	8H	25.18	26.00	25.77	26.61	27.28	23.14	23.97	23.74	24.57	25.25
	12H	25.71	26.46	26.32	27.09	27.77	23.44	24.19	24.06	24.82	25.50
8H	4H	23.80	24.63	24.40	25.23	25.91	22.41	23.24	23.01	23.84	24.52
	6H	25.08	25.79	25.71	26.43	27.11	23.30	24.00	23.92	24.64	25.32
	8H	25.75	26.39	26.39	27.04	27.73	23.69	24.33	24.33	24.98	25.67
	12H	26.46	27.02	27.10	27.66	28.42	24.08	24.65	24.73	25.29	26.05
12H	4H	23.82	24.57	24.44	25.20	25.88	22.48	23.23	23.09	23.86	24.54
	6H	25.14	25.77	25.78	26.43	27.12	23.40	24.04	24.04	24.69	25.38
	8H	25.88	26.45	26.53	27.09	27.85	23.87	24.43	24.51	25.07	25.83