

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: P893711

Luminaire Tested: 4MB-6SL-ASMF-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893711
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-L940
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

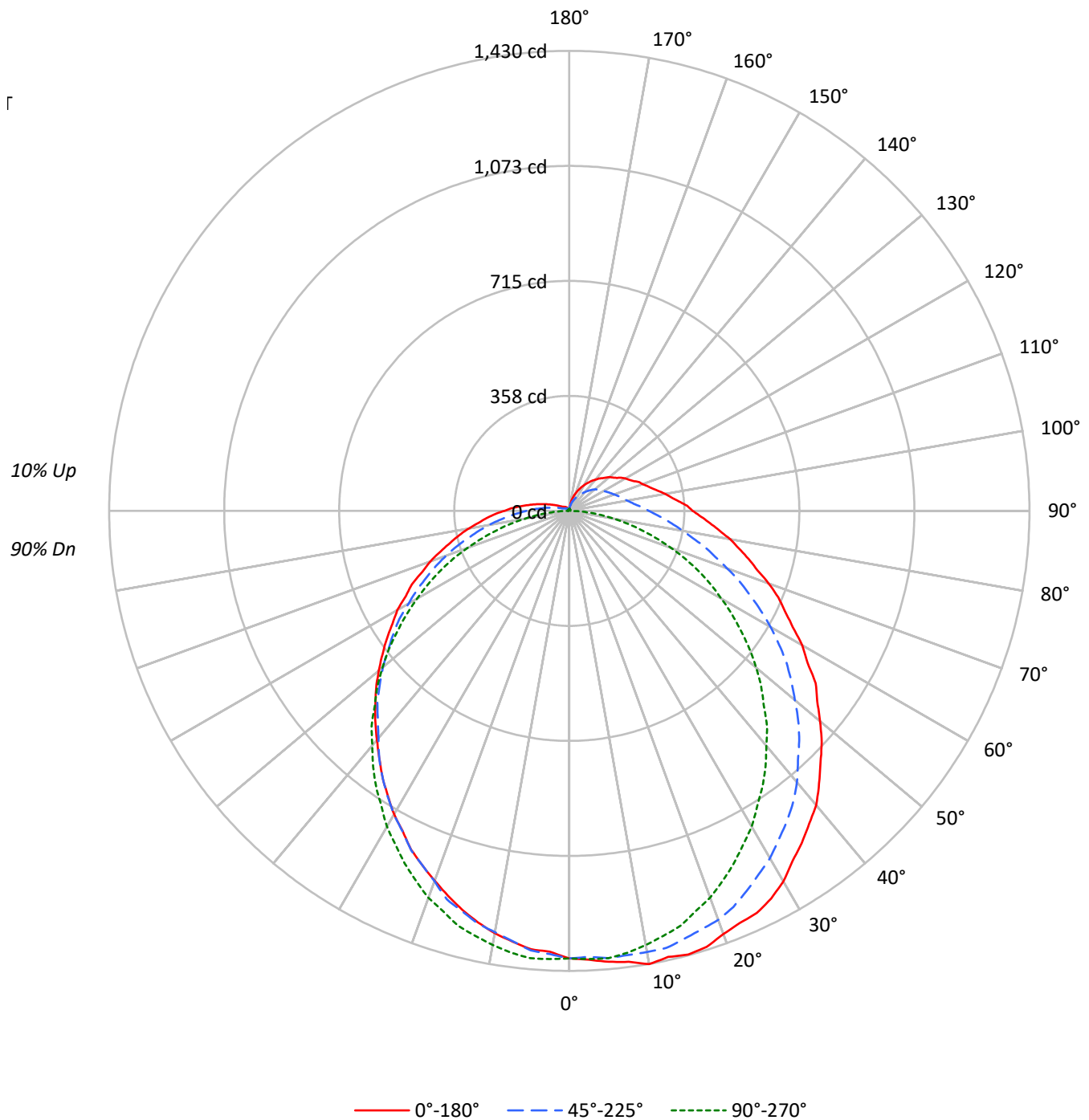
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4782.0 lumens
Efficiency: N/A
Efficacy: 107.7 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

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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	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°	14165	14165	14165	14165	14165
5°	14343	13839	13704	13598	13946
10°	14712	13550	13082	12941	13711
15°	14927	13264	12501	12401	13423
20°	15000	12989	11840	11754	13108
25°	15273	12572	11145	11218	12870
30°	15366	12169	10483	10636	12579
35°	15329	11731	9787	10076	12310
40°	15467	11277	9074	9447	12044
45°	15422	10741	8371	8967	11896
50°	15538	10190	7694	8416	11799
55°	15884	9710	6919	7866	11759
60°	16147	9114	6126	7280	11917
65°	16705	8468	5322	6699	12185
70°	18072	7852	4362	6143	12601
75°	20304	7403	3336	5498	13471
80°	25238	6972	2235	4926	15820
85°	37727	6876	1121	4339	22182

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 124227 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.0	2.8
10°-20°	378.2	7.9
20°-30°	570.3	11.9
30°-40°	684.6	14.3
40°-50°	712.8	14.9
50°-60°	660.8	13.8
60°-70°	544.2	11.4
70°-80°	392.5	8.2
80°-90°	249.2	5.2
90°-100°	153.6	3.2
100°-110°	102.4	2.1
110°-120°	72.9	1.5
120°-130°	53.4	1.1
130°-140°	36.8	0.8
140°-150°	22.4	0.5
150°-160°	11.1	0.2
160°-170°	4.1	0.1
170°-180°	0.7	0.0
0°-30°	1080.6	22.6
0°-40°	1765.1	36.9
0°-60°	3138.7	65.6
0°-90°	4324.6	90.4
90°-120°	329.0	6.9
90°-150°	441.6	9.2
90°-180°	457.0	9.6
0°-180°	4782.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1391	1391	1391	1391	1391	
5°	1407	1396	1396	1371	1368	135
15°	1428	1378	1335	1288	1284	403
25°	1379	1304	1209	1164	1162	634
35°	1260	1178	1047	1012	1012	790
45°	1104	1010	855	844	852	855
55°	935	824	652	668	692	830
65°	740	619	444	490	540	737
75°	576	437	234	325	382	611
85°	439	298	61	188	258	372
90°	383	248	6	134	201	211
95°	342	209	4	90	155	271
105°	268	164	4	37	81	286
115°	220	136	4	17	39	220
125°	179	113	5	14	22	163
135°	143	90	5	10	17	112
145°	110	64	5	8	12	70
155°	75	42	6	5	8	35
165°	44	24	6	4	4	13
175°	6	10	6	3	1	1
180°	4	4	4	4	4	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1390.9	1390.9	1390.9	1390.9	1390.9	1390.9	1390.9	1390.9	1390.9
2.5°	1396.4	1400.6	1387.4	1395.7	1394.4	1395.7	1379.1	1393.0	1371.4
5°	1406.9	1409.0	1395.7	1400.6	1395.7	1383.9	1371.4	1366.5	1367.9
7.5°	1413.8	1425.0	1392.3	1393.7	1385.3	1372.8	1349.2	1353.3	1350.5
10°	1430.5	1418.0	1392.3	1386.0	1370.0	1356.8	1329.7	1331.8	1333.2
12.5°	1420.1	1417.3	1391.6	1368.6	1352.6	1341.5	1313.7	1306.7	1310.2
15°	1427.7	1415.9	1377.7	1359.6	1335.2	1315.8	1288.0	1283.1	1283.8
17.5°	1420.8	1411.0	1363.8	1338.7	1304.6	1292.8	1266.4	1258.1	1253.9
20°	1399.9	1395.1	1353.3	1310.2	1279.6	1256.7	1224.7	1219.8	1223.3
22.5°	1386.0	1374.2	1332.5	1289.3	1244.8	1224.7	1192.7	1192.0	1192.7
25°	1379.1	1363.8	1304.0	1258.7	1209.4	1191.3	1163.5	1153.0	1162.1
27.5°	1358.2	1344.3	1274.0	1224.7	1169.7	1145.4	1122.4	1120.4	1121.7
30°	1330.4	1303.3	1246.9	1186.4	1133.6	1108.5	1089.8	1075.8	1089.1
32.5°	1290.7	1275.4	1211.5	1145.4	1087.0	1069.6	1050.8	1049.4	1049.4
35°	1260.1	1249.0	1178.1	1109.2	1046.6	1023.0	1011.9	1007.0	1011.9
37.5°	1224.7	1208.0	1142.6	1065.4	1001.4	981.3	970.1	966.0	969.4
40°	1194.1	1163.5	1100.9	1020.2	952.1	934.0	922.2	926.3	929.8
42.5°	1148.9	1131.5	1051.5	974.3	909.6	890.2	880.4	883.9	892.2
45°	1104.4	1088.4	1010.5	926.3	854.7	844.3	843.6	841.5	851.9
47.5°	1064.0	1041.1	965.3	879.0	808.8	797.0	798.4	805.3	814.4
50°	1017.4	990.3	915.2	828.3	758.0	750.4	755.9	760.8	772.6
52.5°	970.8	949.3	869.3	780.3	706.6	701.0	708.7	724.6	731.6
55°	934.7	895.7	824.1	724.0	651.6	652.3	667.6	676.7	692.0
57.5°	877.0	847.7	772.6	673.9	600.2	605.0	625.9	641.2	650.9
60°	835.9	799.1	722.6	620.3	545.9	553.6	577.2	600.2	616.9
62.5°	783.1	751.1	670.4	567.5	495.8	507.0	533.4	560.5	572.3
65°	739.9	703.8	618.9	514.6	443.7	456.9	489.6	520.2	539.7
67.5°	703.1	665.5	573.0	465.9	390.8	410.3	448.6	478.5	493.8
70°	659.3	615.5	520.9	411.7	335.9	358.8	407.5	442.3	459.7
72.5°	612.7	577.2	475.7	361.6	285.1	312.9	366.5	402.7	419.4
75°	576.5	536.9	437.4	311.6	233.7	267.0	324.8	365.8	382.5
77.5°	539.7	503.5	394.3	265.7	187.8	225.3	287.9	333.1	350.5
80°	507.0	465.2	358.2	228.1	139.8	184.3	253.1	297.6	317.8
82.5°	470.8	434.7	326.9	188.5	99.4	146.7	219.1	267.7	284.4
85°	438.8	401.3	297.6	157.2	61.2	113.4	187.8	237.8	258.0
87.5°	409.6	378.3	270.5	133.5	30.6	86.2	157.9	208.6	231.6
90°	383.2	347.7	247.6	112.0	5.6	62.6	133.5	183.6	201.0
92.5°	366.5	324.1	228.8	98.1	3.5	44.5	111.3	160.6	180.8
95°	341.5	303.9	209.3	87.6	3.5	29.9	89.7	137.7	155.1
97.5°	319.9	285.1	195.4	81.4	2.8	20.2	73.7	115.4	133.5
100°	303.2	270.5	182.9	75.8	3.5	14.6	58.4	98.1	114.1
102.5°	284.4	254.5	173.2	72.3	3.5	10.4	45.9	82.8	97.4
105°	267.7	241.3	164.1	68.8	3.5	9.0	36.9	68.2	81.4
107.5°	255.2	227.4	156.5	66.8	3.5	9.0	29.2	55.6	66.8
110°	242.7	216.3	148.8	64.7	3.5	8.3	22.9	45.9	55.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	234.4	205.9	141.9	62.6	4.2	8.3	18.8	38.2	45.9
115°	219.8	196.8	135.6	61.9	4.2	7.6	17.4	31.3	38.9
117.5°	209.3	188.5	129.4	59.8	4.2	7.6	16.7	25.7	31.3
120°	201.7	178.7	123.8	57.7	4.2	7.0	15.3	22.9	26.4
122.5°	191.9	169.7	118.9	56.3	4.2	7.0	14.6	21.6	23.6
125°	178.7	161.3	113.4	53.5	4.9	7.0	13.9	20.2	22.3
127.5°	170.4	153.7	109.2	50.1	4.9	6.3	13.2	18.8	20.9
130°	163.4	145.3	104.3	46.6	4.9	6.3	12.5	17.4	19.5
132.5°	153.0	137.0	97.4	43.8	4.9	5.6	11.1	16.0	18.1
135°	143.3	130.0	90.4	41.0	4.9	5.6	10.4	15.3	16.7
137.5°	137.0	123.1	84.1	38.2	4.9	4.9	9.7	13.9	15.3
140°	126.6	115.4	77.2	35.5	4.9	4.9	9.0	13.2	13.9
142.5°	118.9	107.8	70.9	32.7	4.9	4.9	8.3	11.8	13.2
145°	109.9	100.1	64.0	29.9	4.9	4.2	7.6	11.1	11.8
147.5°	101.5	91.1	58.4	27.8	4.9	4.2	7.0	9.7	10.4
150°	93.2	82.1	52.9	25.7	4.9	4.2	6.3	8.3	9.7
152.5°	84.1	70.9	47.3	23.6	4.9	4.2	5.6	7.6	8.3
155°	75.1	61.9	42.4	21.6	5.6	4.2	4.9	6.3	7.6
157.5°	67.5	53.5	37.6	19.5	5.6	3.5	4.9	5.6	6.3
160°	58.4	45.9	33.4	17.4	5.6	3.5	4.2	4.9	5.6
162.5°	51.5	38.2	29.2	16.0	5.6	3.5	4.2	4.2	4.9
165°	43.8	32.0	24.3	14.6	5.6	3.5	3.5	3.5	4.2
167.5°	35.5	25.0	20.2	13.2	5.6	3.5	3.5	2.8	3.5
170°	26.4	18.8	16.7	11.8	5.6	3.5	2.8	2.1	2.8
172.5°	11.8	14.6	13.2	10.4	6.3	3.5	2.8	2.1	1.4
175°	6.3	10.4	10.4	9.0	6.3	3.5	2.8	2.1	0.7
177.5°	4.9	6.3	7.6	7.6	6.3	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	19.57	21.05	20.08	21.55	22.10	18.54	20.02	19.05	20.52	21.07
	3H	21.66	23.01	22.18	23.52	24.10	20.42	21.76	20.93	22.27	22.86
	4H	22.60	23.88	23.14	24.41	25.00	21.16	22.44	21.70	22.97	23.56
	6H	23.52	24.71	24.07	25.25	25.86	21.80	22.98	22.35	23.52	24.14
	8H	23.95	25.09	24.52	25.65	26.27	22.05	23.19	22.61	23.75	24.37
	12H	24.37	25.46	24.94	26.02	26.67	22.28	23.37	22.85	23.93	24.58
4H	2H	20.07	21.34	20.61	21.87	22.47	19.11	20.39	19.65	20.91	21.51
	3H	22.38	23.47	22.93	24.04	24.66	21.17	22.25	21.72	22.82	23.44
	4H	23.49	24.49	24.07	25.07	25.72	22.02	23.02	22.59	23.59	24.24
	6H	24.60	25.48	25.19	26.08	26.74	22.78	23.65	23.37	24.26	24.92
	8H	25.13	25.95	25.72	26.56	27.23	23.09	23.92	23.69	24.52	25.20
	12H	25.65	26.40	26.27	27.03	27.72	23.38	24.13	24.00	24.77	25.45
8H	4H	23.75	24.58	24.35	25.18	25.85	22.36	23.19	22.96	23.79	24.46
	6H	25.03	25.73	25.66	26.38	27.06	23.24	23.94	23.87	24.59	25.27
	8H	25.70	26.33	26.34	26.99	27.68	23.64	24.27	24.28	24.93	25.62
	12H	26.41	26.97	27.05	27.61	28.37	24.03	24.59	24.67	25.24	25.99
12H	4H	23.77	24.52	24.39	25.15	25.83	22.42	23.17	23.04	23.80	24.48
	6H	25.09	25.72	25.73	26.37	27.07	23.35	23.98	23.99	24.64	25.33
	8H	25.83	26.39	26.47	27.04	27.79	23.82	24.38	24.46	25.02	25.78