

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: P893710

Luminaire Tested: 4MB-6SL-ASMF-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893710
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-L935
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 90CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

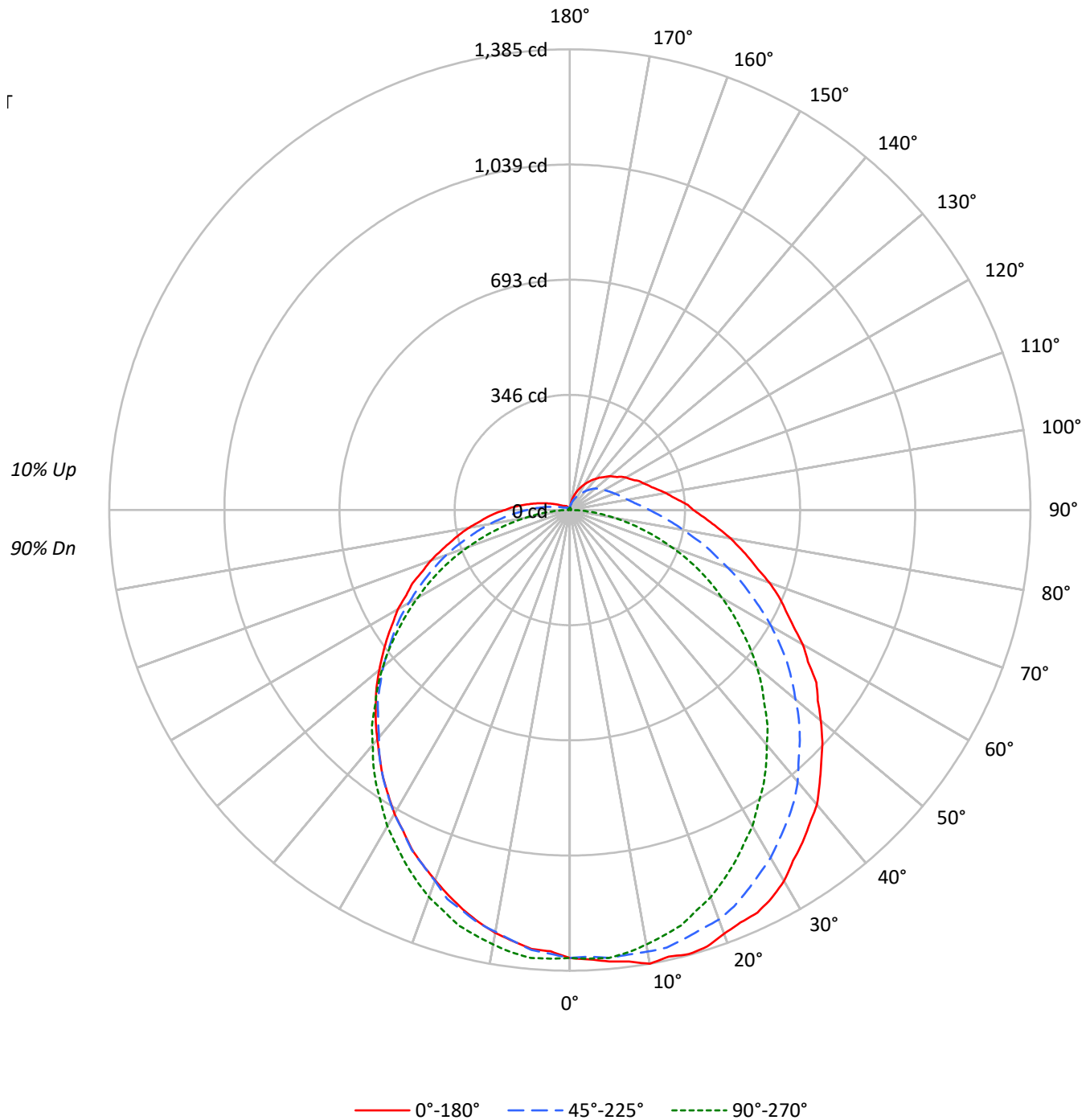
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4630.0 lumens
Efficiency: N/A
Efficacy: 104.3 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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	13715	13715	13715	13715	13715
5°	13888	13399	13269	13165	13502
10°	14245	13119	12667	12529	13275
15°	14454	12842	12104	12006	12996
20°	14524	12576	11463	11380	12691
25°	14787	12172	10790	10861	12460
30°	14878	11783	10149	10297	12179
35°	14843	11358	9477	9755	11918
40°	14975	10919	8786	9145	11660
45°	14932	10400	8104	8682	11517
50°	15044	9866	7450	8149	11425
55°	15379	9401	6699	7616	11385
60°	15634	8824	5932	7050	11536
65°	16174	8200	5153	6485	11796
70°	17496	7602	4223	5948	12201
75°	19660	7168	3229	5322	13042
80°	24437	6750	2163	4771	15317
85°	36532	6659	1086	4201	21477

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 120272 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.8	2.8
10°-20°	366.2	7.9
20°-30°	552.2	11.9
30°-40°	662.8	14.3
40°-50°	690.1	14.9
50°-60°	639.8	13.8
60°-70°	526.9	11.4
70°-80°	380.1	8.2
80°-90°	241.3	5.2
90°-100°	148.8	3.2
100°-110°	99.2	2.1
110°-120°	70.6	1.5
120°-130°	51.7	1.1
130°-140°	35.6	0.8
140°-150°	21.7	0.5
150°-160°	10.7	0.2
160°-170°	3.9	0.1
170°-180°	0.7	0.0
0°-30°	1046.2	22.6
0°-40°	1709.0	36.9
0°-60°	3038.9	65.6
0°-90°	4187.1	90.4
90°-120°	318.6	6.9
90°-150°	427.5	9.2
90°-180°	443.0	9.6
0°-180°	4630.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1347	1347	1347	1347	1347	
5°	1362	1351	1351	1328	1324	131
15°	1382	1334	1293	1247	1243	390
25°	1335	1262	1171	1126	1125	614
35°	1220	1141	1013	980	980	764
45°	1069	978	828	817	825	827
55°	905	798	631	646	670	804
65°	716	599	430	474	522	713
75°	558	424	226	314	370	591
85°	425	288	59	182	250	361
90°	371	240	5	129	195	205
95°	331	203	3	87	150	263
105°	259	159	3	36	79	277
115°	213	131	4	17	38	213
125°	173	110	5	14	22	157
135°	139	88	5	10	16	109
145°	106	62	5	7	11	67
155°	73	41	5	5	7	34
165°	42	24	5	3	4	12
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°	1346.7	1346.7	1346.7	1346.7	1346.7	1346.7	1346.7	1346.7	1346.7
2.5°	1352.1	1356.1	1343.3	1351.4	1350.0	1351.4	1335.2	1348.7	1327.8
5°	1362.2	1364.2	1351.4	1356.1	1351.4	1339.9	1327.8	1323.1	1324.4
7.5°	1368.9	1379.7	1348.0	1349.4	1341.3	1329.2	1306.3	1310.3	1307.6
10°	1385.1	1372.9	1348.0	1342.0	1326.5	1313.7	1287.4	1289.4	1290.8
12.5°	1375.0	1372.3	1347.3	1325.1	1309.6	1298.9	1271.9	1265.2	1268.6
15°	1382.4	1370.9	1333.9	1316.4	1292.8	1273.9	1247.0	1242.3	1243.0
17.5°	1375.6	1366.2	1320.4	1296.2	1263.2	1251.7	1226.1	1218.1	1214.0
20°	1355.4	1350.7	1310.3	1268.6	1238.9	1216.7	1185.7	1181.0	1184.4
22.5°	1342.0	1330.5	1290.1	1248.4	1205.3	1185.7	1154.8	1154.1	1154.8
25°	1335.2	1320.4	1262.5	1218.7	1170.9	1153.4	1126.5	1116.4	1125.1
27.5°	1315.0	1301.6	1233.5	1185.7	1132.5	1109.0	1086.8	1084.7	1086.1
30°	1288.1	1261.8	1207.3	1148.7	1097.5	1073.3	1055.1	1041.6	1054.4
32.5°	1249.7	1234.9	1172.9	1109.0	1052.4	1035.6	1017.4	1016.1	1016.1
35°	1220.1	1209.3	1140.6	1074.0	1013.4	990.5	979.7	975.0	979.7
37.5°	1185.7	1169.6	1106.3	1031.5	969.6	950.1	939.3	935.3	938.6
40°	1156.1	1126.5	1065.9	987.8	921.8	904.3	892.8	896.9	900.2
42.5°	1112.3	1095.5	1018.1	943.3	880.7	861.9	852.4	855.8	863.9
45°	1069.3	1053.8	978.4	896.9	827.5	817.4	816.8	814.7	824.8
47.5°	1030.2	1008.0	934.6	851.1	783.1	771.6	773.0	779.7	788.5
50°	985.1	958.8	886.1	801.9	733.9	726.5	731.9	736.6	748.1
52.5°	940.0	919.1	841.7	755.5	684.1	678.7	686.1	701.6	708.3
55°	905.0	867.3	797.9	700.9	630.9	631.6	646.4	655.2	670.0
57.5°	849.1	820.8	748.1	652.5	581.1	585.8	606.0	620.8	630.2
60°	809.3	773.7	699.6	600.6	528.6	536.0	558.9	581.1	597.2
62.5°	758.2	727.2	649.1	549.4	480.1	490.9	516.4	542.7	554.2
65°	716.4	681.4	599.3	498.3	429.6	442.4	474.0	503.7	522.5
67.5°	680.7	644.4	554.8	451.1	378.4	397.3	434.3	463.3	478.1
70°	638.3	595.9	504.3	398.6	325.2	347.4	394.6	428.2	445.1
72.5°	593.2	558.9	460.6	350.1	276.1	303.0	354.8	389.9	406.0
75°	558.2	519.8	423.5	301.7	226.2	258.6	314.4	354.2	370.3
77.5°	522.5	487.5	381.8	257.2	181.8	218.2	278.8	322.5	339.4
80°	490.9	450.5	346.8	220.9	135.3	178.4	245.1	288.2	307.7
82.5°	455.8	420.8	316.5	182.5	96.3	142.1	212.1	259.2	275.4
85°	424.9	388.5	288.2	152.2	59.3	109.8	181.8	230.3	249.8
87.5°	396.6	366.3	261.9	129.3	29.6	83.5	152.8	202.0	224.2
90°	371.0	336.7	239.7	108.4	5.4	60.6	129.3	177.8	194.6
92.5°	354.8	313.8	221.5	94.9	3.4	43.1	107.7	155.5	175.1
95°	330.6	294.2	202.7	84.8	3.4	29.0	86.9	133.3	150.2
97.5°	309.7	276.1	189.2	78.8	2.7	19.5	71.4	111.8	129.3
100°	293.6	261.9	177.1	73.4	3.4	14.1	56.6	94.9	110.4
102.5°	275.4	246.4	167.7	70.0	3.4	10.1	44.4	80.1	94.3
105°	259.2	233.6	158.9	66.7	3.4	8.8	35.7	66.0	78.8
107.5°	247.1	220.2	151.5	64.6	3.4	8.8	28.3	53.9	64.6
110°	235.0	209.4	144.1	62.6	3.4	8.1	22.2	44.4	53.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	226.9	199.3	137.4	60.6	4.0	8.1	18.2	37.0	44.4
115°	212.8	190.6	131.3	59.9	4.0	7.4	16.8	30.3	37.7
117.5°	202.7	182.5	125.2	57.9	4.0	7.4	16.2	24.9	30.3
120°	195.3	173.0	119.9	55.9	4.0	6.7	14.8	22.2	25.6
122.5°	185.8	164.3	115.1	54.5	4.0	6.7	14.1	20.9	22.9
125°	173.0	156.2	109.8	51.8	4.7	6.7	13.5	19.5	21.5
127.5°	165.0	148.8	105.7	48.5	4.7	6.1	12.8	18.2	20.2
130°	158.2	140.7	101.0	45.1	4.7	6.1	12.1	16.8	18.9
132.5°	148.1	132.6	94.3	42.4	4.7	5.4	10.8	15.5	17.5
135°	138.7	125.9	87.5	39.7	4.7	5.4	10.1	14.8	16.2
137.5°	132.6	119.2	81.5	37.0	4.7	4.7	9.4	13.5	14.8
140°	122.5	111.8	74.7	34.3	4.7	4.7	8.8	12.8	13.5
142.5°	115.1	104.4	68.7	31.6	4.7	4.7	8.1	11.4	12.8
145°	106.4	97.0	61.9	29.0	4.7	4.0	7.4	10.8	11.4
147.5°	98.3	88.2	56.6	26.9	4.7	4.0	6.7	9.4	10.1
150°	90.2	79.5	51.2	24.9	4.7	4.0	6.1	8.1	9.4
152.5°	81.5	68.7	45.8	22.9	4.7	4.0	5.4	7.4	8.1
155°	72.7	59.9	41.1	20.9	5.4	4.0	4.7	6.1	7.4
157.5°	65.3	51.8	36.4	18.9	5.4	3.4	4.7	5.4	6.1
160°	56.6	44.4	32.3	16.8	5.4	3.4	4.0	4.7	5.4
162.5°	49.8	37.0	28.3	15.5	5.4	3.4	4.0	4.0	4.7
165°	42.4	31.0	23.6	14.1	5.4	3.4	3.4	3.4	4.0
167.5°	34.3	24.2	19.5	12.8	5.4	3.4	3.4	2.7	3.4
170°	25.6	18.2	16.2	11.4	5.4	3.4	2.7	2.0	2.7
172.5°	11.4	14.1	12.8	10.1	6.1	3.4	2.7	2.0	1.3
175°	6.1	10.1	10.1	8.8	6.1	3.4	2.7	2.0	0.7
177.5°	4.7	6.1	7.4	7.4	6.1	4.0	2.7	1.3	0.7
180°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0



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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	19.46	20.94	19.97	21.44	21.98	18.43	19.91	18.94	20.41	20.96
	3H	21.55	22.90	22.07	23.41	23.99	20.30	21.65	20.82	22.16	22.75
	4H	22.49	23.77	23.03	24.30	24.89	21.05	22.33	21.59	22.85	23.45
	6H	23.41	24.60	23.96	25.14	25.75	21.68	22.87	22.24	23.41	24.02
	8H	23.84	24.98	24.40	25.54	26.16	21.94	23.08	22.50	23.64	24.26
	12H	24.26	25.35	24.83	25.91	26.56	22.17	23.26	22.74	23.82	24.47
4H	2H	19.95	21.23	20.49	21.76	22.36	19.00	20.27	19.54	20.80	21.40
	3H	22.27	23.36	22.82	23.93	24.54	21.06	22.14	21.61	22.71	23.33
	4H	23.38	24.38	23.95	24.96	25.60	21.91	22.90	22.48	23.48	24.13
	6H	24.49	25.37	25.08	25.97	26.63	22.66	23.54	23.26	24.15	24.81
	8H	25.01	25.84	25.61	26.44	27.12	22.98	23.81	23.58	24.41	25.08
	12H	25.54	26.29	26.16	26.92	27.60	23.27	24.02	23.89	24.65	25.33
8H	4H	23.64	24.46	24.23	25.07	25.74	22.25	23.07	22.84	23.68	24.35
	6H	24.92	25.62	25.55	26.27	26.95	23.13	23.83	23.76	24.48	25.16
	8H	25.59	26.22	26.23	26.87	27.57	23.53	24.16	24.17	24.82	25.51
	12H	26.29	26.86	26.94	27.50	28.26	23.92	24.48	24.56	25.12	25.88
12H	4H	23.66	24.41	24.27	25.04	25.72	22.31	23.06	22.93	23.69	24.37
	6H	24.98	25.61	25.62	26.26	26.96	23.24	23.87	23.88	24.53	25.22
	8H	25.72	26.28	26.36	26.92	27.68	23.70	24.27	24.35	24.91	25.67