

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: P893708

Luminaire Tested: 4MB-6SL-ASMF-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893708
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-L850
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

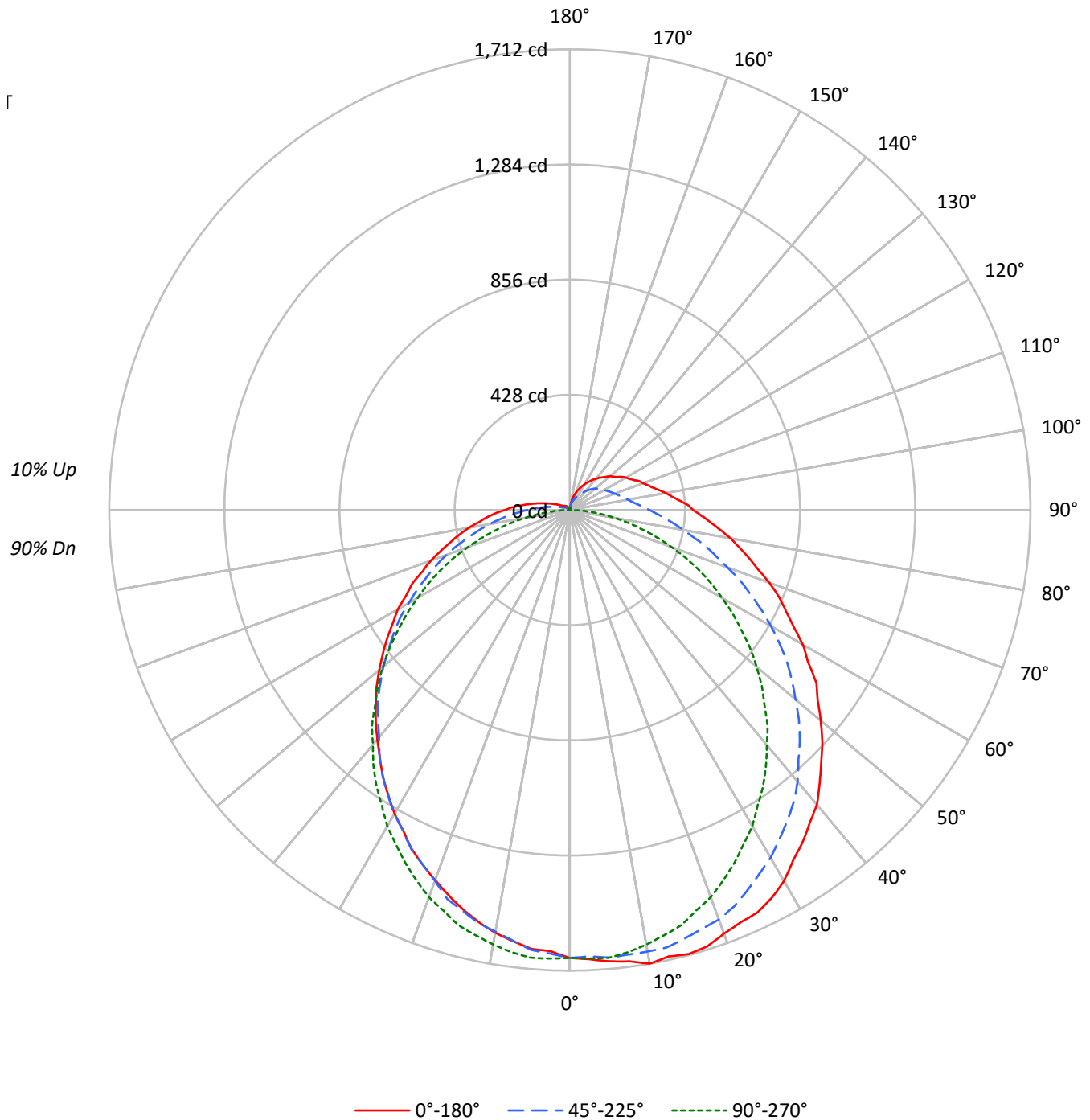
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5722.0 lumens
Efficiency: N/A
Efficacy: 128.9 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					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	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	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	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	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	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	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	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	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	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	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	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	22	22	22	20		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	16950	16950	16950	16950	16950
5°	17162	16559	16398	16271	16687
10°	17604	16214	15654	15485	16406
15°	17862	15871	14959	14837	16061
20°	17949	15543	14167	14065	15684
25°	18275	15043	13335	13422	15400
30°	18387	14561	12543	12726	15051
35°	18342	14037	11712	12057	14729
40°	18507	13494	10858	11303	14412
45°	18452	12852	10016	10729	14235
50°	18592	12193	9207	10071	14119
55°	19005	11619	8280	9413	14070
60°	19321	10906	7330	8712	14258
65°	19990	10133	6368	8015	14578
70°	21624	9396	5219	7350	15076
75°	24294	8859	3992	6577	16120
80°	30196	8342	2674	5896	18931
85°	45147	8230	1341	5192	26541

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 148638 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.9	2.8
10°-20°	452.6	7.9
20°-30°	682.5	11.9
30°-40°	819.1	14.3
40°-50°	852.9	14.9
50°-60°	790.7	13.8
60°-70°	651.1	11.4
70°-80°	469.7	8.2
80°-90°	298.2	5.2
90°-100°	183.8	3.2
100°-110°	122.6	2.1
110°-120°	87.3	1.5
120°-130°	63.9	1.1
130°-140°	44.0	0.8
140°-150°	26.8	0.5
150°-160°	13.3	0.2
160°-170°	4.9	0.1
170°-180°	0.8	0.0
0°-30°	1293.0	22.6
0°-40°	2112.1	36.9
0°-60°	3755.7	65.6
0°-90°	5174.7	90.4
90°-120°	393.7	6.9
90°-150°	528.4	9.2
90°-180°	547.0	9.6
0°-180°	5722.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1664	1664	1664	1664	1664	
5°	1683	1670	1670	1641	1637	161
15°	1708	1648	1598	1541	1536	482
25°	1650	1560	1447	1392	1390	759
35°	1508	1410	1252	1211	1211	945
45°	1321	1209	1023	1009	1019	1022
55°	1118	986	780	799	828	994
65°	885	741	531	586	646	882
75°	690	523	280	389	458	731
85°	525	356	73	225	309	446
90°	458	296	7	160	240	253
95°	409	250	4	107	186	325
105°	320	196	4	44	97	342
115°	263	162	5	21	47	263
125°	214	136	6	17	27	195
135°	171	108	6	12	20	134
145°	132	77	6	9	14	83
155°	90	51	7	6	9	42
165°	52	29	7	4	5	15
175°	8	12	8	3	1	1
180°	5	5	5	5	5	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1664.3	1664.3	1664.3	1664.3	1664.3	1664.3	1664.3	1664.3	1664.3
2.5°	1670.9	1675.9	1660.1	1670.1	1668.4	1670.1	1650.1	1666.8	1641.0
5°	1683.4	1685.9	1670.1	1675.9	1670.1	1656.0	1641.0	1635.2	1636.8
7.5°	1691.7	1705.1	1666.0	1667.6	1657.6	1642.7	1614.4	1619.4	1616.0
10°	1711.7	1696.7	1666.0	1658.5	1639.3	1623.5	1591.1	1593.6	1595.2
12.5°	1699.2	1695.9	1665.1	1637.7	1618.5	1605.2	1571.9	1563.6	1567.8
15°	1708.4	1694.2	1648.5	1626.8	1597.7	1574.4	1541.1	1535.3	1536.1
17.5°	1700.1	1688.4	1631.8	1601.9	1561.1	1547.0	1515.3	1505.3	1500.4
20°	1675.1	1669.3	1619.4	1567.8	1531.1	1503.7	1465.4	1459.6	1463.7
22.5°	1658.5	1644.3	1594.4	1542.8	1489.5	1465.4	1427.1	1426.3	1427.1
25°	1650.1	1631.8	1560.3	1506.2	1447.1	1425.5	1392.2	1379.7	1390.5
27.5°	1625.2	1608.5	1524.5	1465.4	1399.7	1370.5	1343.1	1340.6	1342.2
30°	1591.9	1559.4	1492.0	1419.6	1356.4	1326.4	1304.0	1287.3	1303.1
32.5°	1544.5	1526.2	1449.6	1370.5	1300.6	1279.8	1257.4	1255.7	1255.7
35°	1507.8	1494.5	1409.7	1327.3	1252.4	1224.1	1210.8	1204.9	1210.8
37.5°	1465.4	1445.4	1367.2	1274.8	1198.3	1174.2	1160.8	1155.8	1160.0
40°	1428.8	1392.2	1317.3	1220.8	1139.2	1117.6	1103.4	1108.4	1112.6
42.5°	1374.7	1353.9	1258.2	1165.8	1088.4	1065.1	1053.5	1057.7	1067.6
45°	1321.4	1302.3	1209.1	1108.4	1022.7	1010.2	1009.4	1006.9	1019.4
47.5°	1273.2	1245.7	1155.0	1051.8	967.8	953.6	955.3	963.6	974.4
50°	1217.4	1185.0	1095.1	991.1	907.0	897.9	904.5	910.4	924.5
52.5°	1161.7	1135.9	1040.2	933.7	845.5	838.8	848.0	867.1	875.4
55°	1118.4	1071.8	986.1	866.3	779.7	780.6	798.9	809.7	828.0
57.5°	1049.3	1014.4	924.5	806.3	718.1	724.0	748.9	767.2	778.9
60°	1000.2	956.1	864.6	742.3	653.2	662.4	690.7	718.1	738.1
62.5°	937.0	898.7	802.2	679.0	593.3	606.6	638.3	670.7	684.9
65°	885.4	842.1	740.6	615.8	530.9	546.7	585.8	622.4	645.7
67.5°	841.3	796.4	685.7	557.5	467.7	491.0	536.7	572.5	590.8
70°	788.9	736.4	623.3	492.6	401.9	429.4	487.6	529.2	550.0
72.5°	733.1	690.7	569.2	432.7	341.2	374.5	438.5	481.8	501.8
75°	689.8	642.4	523.4	372.8	279.6	319.5	388.6	437.7	457.7
77.5°	645.7	602.5	471.8	317.9	224.7	269.6	344.5	398.6	419.4
80°	606.6	556.7	428.6	272.9	167.3	220.5	302.9	356.2	380.3
82.5°	563.4	520.1	391.1	225.5	119.0	175.6	262.1	320.4	340.3
85°	525.1	480.1	356.2	188.1	73.2	135.6	224.7	284.6	308.7
87.5°	490.1	452.7	323.7	159.8	36.6	103.2	188.9	249.6	277.1
90°	458.5	416.1	296.2	134.0	6.7	74.9	159.8	219.7	240.5
92.5°	438.5	387.8	273.8	117.3	4.2	53.3	133.1	192.2	216.4
95°	408.6	363.6	250.5	104.9	4.2	35.8	107.3	164.8	185.6
97.5°	382.8	341.2	233.8	97.4	3.3	24.1	88.2	138.1	159.8
100°	362.8	323.7	218.9	90.7	4.2	17.5	69.9	117.3	136.5
102.5°	340.3	304.6	207.2	86.5	4.2	12.5	54.9	99.0	116.5
105°	320.4	288.8	196.4	82.4	4.2	10.8	44.1	81.6	97.4
107.5°	305.4	272.1	187.2	79.9	4.2	10.8	35.0	66.6	79.9
110°	290.4	258.8	178.1	77.4	4.2	10.0	27.5	54.9	66.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	280.4	246.3	169.8	74.9	5.0	10.0	22.5	45.8	54.9
115°	263.0	235.5	162.3	74.1	5.0	9.2	20.8	37.4	46.6
117.5°	250.5	225.5	154.8	71.6	5.0	9.2	20.0	30.8	37.4
120°	241.3	213.9	148.1	69.1	5.0	8.3	18.3	27.5	31.6
122.5°	229.7	203.0	142.3	67.4	5.0	8.3	17.5	25.8	28.3
125°	213.9	193.1	135.6	64.1	5.8	8.3	16.6	24.1	26.6
127.5°	203.9	183.9	130.6	59.9	5.8	7.5	15.8	22.5	25.0
130°	195.6	173.9	124.8	55.8	5.8	7.5	15.0	20.8	23.3
132.5°	183.1	163.9	116.5	52.4	5.8	6.7	13.3	19.1	21.6
135°	171.4	155.6	108.2	49.1	5.8	6.7	12.5	18.3	20.0
137.5°	163.9	147.3	100.7	45.8	5.8	5.8	11.7	16.6	18.3
140°	151.5	138.1	92.4	42.4	5.8	5.8	10.8	15.8	16.6
142.5°	142.3	129.0	84.9	39.1	5.8	5.8	10.0	14.1	15.8
145°	131.5	119.8	76.6	35.8	5.8	5.0	9.2	13.3	14.1
147.5°	121.5	109.0	69.9	33.3	5.8	5.0	8.3	11.7	12.5
150°	111.5	98.2	63.2	30.8	5.8	5.0	7.5	10.0	11.7
152.5°	100.7	84.9	56.6	28.3	5.8	5.0	6.7	9.2	10.0
155°	89.9	74.1	50.8	25.8	6.7	5.0	5.8	7.5	9.2
157.5°	80.7	64.1	44.9	23.3	6.7	4.2	5.8	6.7	7.5
160°	69.9	54.9	39.9	20.8	6.7	4.2	5.0	5.8	6.7
162.5°	61.6	45.8	35.0	19.1	6.7	4.2	5.0	5.0	5.8
165°	52.4	38.3	29.1	17.5	6.7	4.2	4.2	4.2	5.0
167.5°	42.4	30.0	24.1	15.8	6.7	4.2	4.2	3.3	4.2
170°	31.6	22.5	20.0	14.1	6.7	4.2	3.3	2.5	3.3
172.5°	14.1	17.5	15.8	12.5	7.5	4.2	3.3	2.5	1.7
175°	7.5	12.5	12.5	10.8	7.5	4.2	3.3	2.5	0.8
177.5°	5.8	7.5	9.2	9.2	7.5	5.0	3.3	1.7	0.8
180°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0



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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	20.20	21.68	20.70	22.18	22.72	19.17	20.65	19.67	21.15	21.69
	3H	22.28	23.63	22.80	24.14	24.73	21.04	22.39	21.56	22.90	23.48
	4H	23.23	24.50	23.77	25.03	25.63	21.79	23.06	22.32	23.59	24.19
	6H	24.15	25.33	24.70	25.87	26.49	22.42	23.61	22.97	24.15	24.76
	8H	24.57	25.71	25.14	26.28	26.89	22.67	23.81	23.24	24.38	24.99
	12H	25.00	26.09	25.57	26.64	27.29	22.90	24.00	23.48	24.55	25.20
4H	2H	20.69	21.97	21.23	22.49	23.09	19.73	21.01	20.27	21.54	22.13
	3H	23.00	24.09	23.56	24.66	25.28	21.79	22.88	22.34	23.45	24.07
	4H	24.12	25.11	24.69	25.69	26.34	22.64	23.64	23.22	24.22	24.87
	6H	25.22	26.10	25.81	26.70	27.37	23.40	24.28	23.99	24.88	25.54
	8H	25.75	26.58	26.35	27.18	27.85	23.71	24.54	24.31	25.14	25.82
	12H	26.28	27.03	26.90	27.66	28.34	24.01	24.76	24.63	25.39	26.07
8H	4H	24.37	25.20	24.97	25.80	26.48	22.98	23.81	23.58	24.41	25.09
	6H	25.66	26.36	26.28	27.00	27.68	23.87	24.57	24.50	25.21	25.89
	8H	26.33	26.96	26.97	27.61	28.30	24.27	24.90	24.91	25.55	26.24
	12H	27.03	27.59	27.67	28.23	28.99	24.65	25.22	25.30	25.86	26.62
12H	4H	24.39	25.14	25.01	25.77	26.45	23.05	23.80	23.67	24.43	25.11
	6H	25.71	26.34	26.35	27.00	27.69	23.98	24.61	24.62	25.26	25.95
	8H	26.45	27.02	27.10	27.66	28.42	24.44	25.00	25.08	25.65	26.40