

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: P893706

Luminaire Tested: 4MB-6SL-ASMF-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893706
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-L835
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 80CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

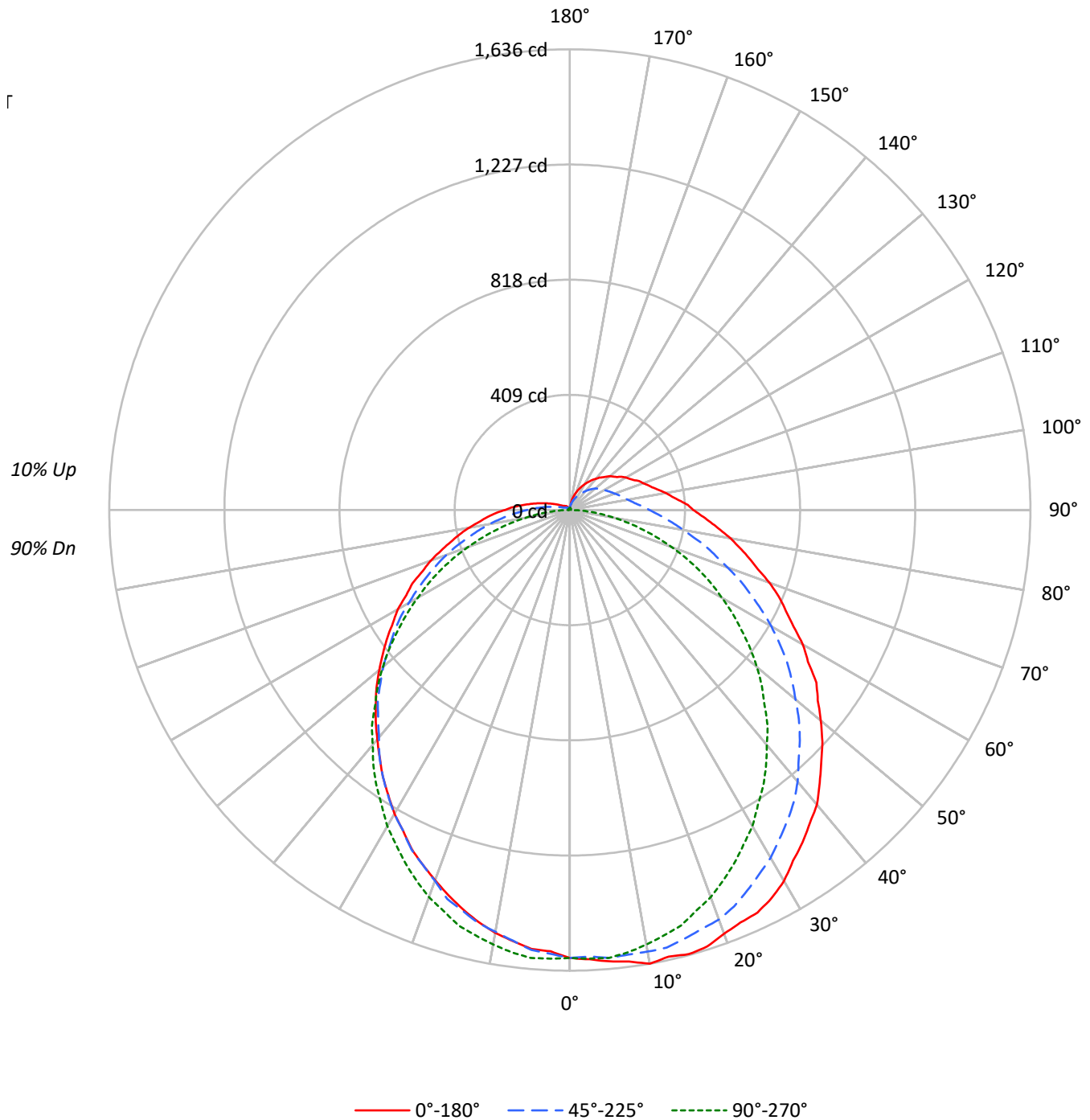
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5469.0 lumens
Efficiency: N/A
Efficacy: 123.2 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°	16200	16200	16200	16200	16200
5°	16404	15828	15674	15551	15950
10°	16825	15497	14961	14800	15681
15°	17073	15169	14298	14182	15351
20°	17155	14855	13541	13443	14991
25°	17467	14378	12745	12829	14718
30°	17574	13918	11988	12163	14386
35°	17532	13416	11193	11523	14077
40°	17689	12897	10377	10803	13774
45°	17636	12283	9573	10255	13605
50°	17771	11654	8800	9625	13494
55°	18164	11105	7913	8996	13448
60°	18467	10424	7006	8326	13628
65°	19107	9686	6086	7661	13934
70°	20668	8980	4989	7026	14410
75°	23220	8468	3815	6286	15405
80°	28862	7973	2556	5635	18095
85°	43152	7865	1282	4961	25372

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 142057 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.9	2.8
10°-20°	432.6	7.9
20°-30°	652.3	11.9
30°-40°	782.9	14.3
40°-50°	815.2	14.9
50°-60°	755.7	13.8
60°-70°	622.4	11.4
70°-80°	448.9	8.2
80°-90°	285.0	5.2
90°-100°	175.7	3.2
100°-110°	117.2	2.1
110°-120°	83.4	1.5
120°-130°	61.1	1.1
130°-140°	42.0	0.8
140°-150°	25.6	0.5
150°-160°	12.7	0.2
160°-170°	4.7	0.1
170°-180°	0.8	0.0
0°-30°	1235.8	22.6
0°-40°	2018.7	36.9
0°-60°	3589.6	65.6
0°-90°	4945.9	90.4
90°-120°	376.3	6.9
90°-150°	505.0	9.2
90°-180°	523.0	9.6
0°-180°	5469.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1591	1591	1591	1591	1591	
5°	1609	1596	1596	1568	1564	154
15°	1633	1576	1527	1473	1468	460
25°	1577	1491	1383	1331	1329	725
35°	1441	1347	1197	1157	1157	903
45°	1263	1156	978	965	974	977
55°	1069	942	745	764	791	950
65°	846	708	507	560	617	843
75°	659	500	267	371	437	699
85°	502	340	70	215	295	426
90°	438	283	6	153	230	242
95°	390	239	4	103	177	310
105°	306	188	4	42	93	327
115°	251	155	5	20	44	252
125°	204	130	6	16	26	186
135°	164	103	6	12	19	128
145°	126	73	6	9	14	80
155°	86	48	6	6	9	41
165°	50	28	6	4	5	15
175°	7	12	7	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°	1590.7	1590.7	1590.7	1590.7	1590.7	1590.7	1590.7	1590.7	1590.7
2.5°	1597.1	1601.8	1586.7	1596.3	1594.7	1596.3	1577.2	1593.1	1568.4
5°	1609.0	1611.4	1596.3	1601.8	1596.3	1582.7	1568.4	1562.9	1564.5
7.5°	1616.9	1629.7	1592.3	1593.9	1584.3	1570.0	1543.0	1547.8	1544.6
10°	1636.0	1621.7	1592.3	1585.1	1566.8	1551.7	1520.7	1523.1	1524.7
12.5°	1624.1	1620.9	1591.5	1565.2	1547.0	1534.2	1502.4	1494.5	1498.4
15°	1632.9	1619.3	1575.6	1554.9	1527.1	1504.8	1473.0	1467.4	1468.2
17.5°	1624.9	1613.8	1559.7	1531.0	1492.1	1478.6	1448.3	1438.8	1434.0
20°	1601.0	1595.5	1547.8	1498.4	1463.4	1437.2	1400.6	1395.0	1399.0
22.5°	1585.1	1571.6	1523.9	1474.6	1423.7	1400.6	1364.0	1363.2	1364.0
25°	1577.2	1559.7	1491.3	1439.6	1383.1	1362.4	1330.6	1318.7	1329.0
27.5°	1553.3	1537.4	1457.1	1400.6	1337.8	1309.9	1283.7	1281.3	1282.9
30°	1521.5	1490.5	1426.1	1356.9	1296.4	1267.8	1246.3	1230.4	1245.5
32.5°	1476.2	1458.7	1385.5	1309.9	1243.1	1223.2	1201.8	1200.2	1200.2
35°	1441.2	1428.4	1347.3	1268.6	1197.0	1170.0	1157.2	1151.7	1157.2
37.5°	1400.6	1381.5	1306.8	1218.5	1145.3	1122.2	1109.5	1104.7	1108.7
40°	1365.6	1330.6	1259.0	1166.8	1088.8	1068.2	1054.6	1059.4	1063.4
42.5°	1313.9	1294.0	1202.6	1114.3	1040.3	1018.0	1006.9	1010.9	1020.4
45°	1263.0	1244.7	1155.6	1059.4	977.5	965.6	964.8	962.4	974.3
47.5°	1216.9	1190.6	1103.9	1005.3	925.0	911.5	913.1	921.0	931.4
50°	1163.6	1132.6	1046.7	947.3	866.9	858.2	864.5	870.1	883.6
52.5°	1110.3	1085.7	994.2	892.4	808.1	801.7	810.5	828.8	836.7
55°	1068.9	1024.4	942.5	828.0	745.2	746.0	763.5	773.9	791.4
57.5°	1002.9	969.5	883.6	770.7	686.4	692.0	715.8	733.3	744.4
60°	956.0	913.9	826.4	709.5	624.3	633.1	660.1	686.4	705.5
62.5°	895.6	859.0	766.7	649.0	567.1	579.8	610.0	641.1	654.6
65°	846.3	804.9	707.9	588.6	507.4	522.5	559.9	594.9	617.2
67.5°	804.1	761.1	655.4	532.9	447.0	469.3	513.0	547.2	564.7
70°	754.0	703.9	595.7	470.8	384.2	410.4	466.1	505.8	525.7
72.5°	700.7	660.1	544.0	413.6	326.1	357.9	419.1	460.5	479.6
75°	659.3	614.0	500.3	356.3	267.2	305.4	371.4	418.4	437.4
77.5°	617.2	575.8	451.0	303.8	214.7	257.7	329.3	381.0	400.9
80°	579.8	532.1	409.6	260.9	159.9	210.8	289.5	340.4	363.5
82.5°	538.5	497.1	373.8	215.5	113.7	167.8	250.5	306.2	325.3
85°	501.9	458.9	340.4	179.7	70.0	129.6	214.7	272.0	295.1
87.5°	468.5	432.7	309.4	152.7	35.0	98.6	180.5	238.6	264.9
90°	438.2	397.7	283.1	128.1	6.4	71.6	152.7	210.0	229.9
92.5°	419.1	370.6	261.7	112.1	4.0	50.9	127.3	183.7	206.8
95°	390.5	347.6	239.4	100.2	4.0	34.2	102.6	157.5	177.4
97.5°	365.9	326.1	223.5	93.1	3.2	23.1	84.3	132.0	152.7
100°	346.8	309.4	209.2	86.7	4.0	16.7	66.8	112.1	130.4
102.5°	325.3	291.1	198.0	82.7	4.0	11.9	52.5	94.6	111.3
105°	306.2	276.0	187.7	78.7	4.0	10.3	42.2	77.9	93.1
107.5°	291.9	260.1	179.0	76.4	4.0	10.3	33.4	63.6	76.4
110°	277.6	247.4	170.2	74.0	4.0	9.5	26.2	52.5	63.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	268.0	235.4	162.3	71.6	4.8	9.5	21.5	43.7	52.5
115°	251.3	225.1	155.1	70.8	4.8	8.7	19.9	35.8	44.5
117.5°	239.4	215.5	147.9	68.4	4.8	8.7	19.1	29.4	35.8
120°	230.7	204.4	141.6	66.0	4.8	8.0	17.5	26.2	30.2
122.5°	219.5	194.1	136.0	64.4	4.8	8.0	16.7	24.7	27.0
125°	204.4	184.5	129.6	61.2	5.6	8.0	15.9	23.1	25.5
127.5°	194.9	175.8	124.9	57.3	5.6	7.2	15.1	21.5	23.9
130°	186.9	166.2	119.3	53.3	5.6	7.2	14.3	19.9	22.3
132.5°	175.0	156.7	111.3	50.1	5.6	6.4	12.7	18.3	20.7
135°	163.8	148.7	103.4	46.9	5.6	6.4	11.9	17.5	19.1
137.5°	156.7	140.8	96.2	43.7	5.6	5.6	11.1	15.9	17.5
140°	144.8	132.0	88.3	40.6	5.6	5.6	10.3	15.1	15.9
142.5°	136.0	123.3	81.1	37.4	5.6	5.6	9.5	13.5	15.1
145°	125.7	114.5	73.2	34.2	5.6	4.8	8.7	12.7	13.5
147.5°	116.1	104.2	66.8	31.8	5.6	4.8	8.0	11.1	11.9
150°	106.6	93.9	60.4	29.4	5.6	4.8	7.2	9.5	11.1
152.5°	96.2	81.1	54.1	27.0	5.6	4.8	6.4	8.7	9.5
155°	85.9	70.8	48.5	24.7	6.4	4.8	5.6	7.2	8.7
157.5°	77.1	61.2	42.9	22.3	6.4	4.0	5.6	6.4	7.2
160°	66.8	52.5	38.2	19.9	6.4	4.0	4.8	5.6	6.4
162.5°	58.9	43.7	33.4	18.3	6.4	4.0	4.8	4.8	5.6
165°	50.1	36.6	27.8	16.7	6.4	4.0	4.0	4.0	4.8
167.5°	40.6	28.6	23.1	15.1	6.4	4.0	4.0	3.2	4.0
170°	30.2	21.5	19.1	13.5	6.4	4.0	3.2	2.4	3.2
172.5°	13.5	16.7	15.1	11.9	7.2	4.0	3.2	2.4	1.6
175°	7.2	11.9	11.9	10.3	7.2	4.0	3.2	2.4	0.8
177.5°	5.6	7.2	8.7	8.7	7.2	4.8	3.2	1.6	0.8
180°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8



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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	20.04	21.52	20.55	22.02	22.56	19.01	20.49	19.52	20.99	21.53
	3H	22.13	23.47	22.65	23.99	24.57	20.88	22.23	21.40	22.74	23.32
	4H	23.07	24.35	23.61	24.87	25.47	21.63	22.91	22.17	23.43	24.03
	6H	23.99	25.18	24.54	25.72	26.33	22.26	23.45	22.81	23.99	24.60
	8H	24.42	25.56	24.98	26.12	26.74	22.52	23.66	23.08	24.22	24.84
	12H	24.84	25.93	25.41	26.49	27.14	22.75	23.84	23.32	24.40	25.04
4H	2H	20.53	21.81	21.07	22.34	22.93	19.57	20.85	20.12	21.38	21.98
	3H	22.85	23.93	23.40	24.50	25.12	21.63	22.72	22.19	23.29	23.91
	4H	23.96	24.96	24.53	25.53	26.18	22.49	23.48	23.06	24.06	24.71
	6H	25.07	25.94	25.66	26.55	27.21	23.24	24.12	23.83	24.73	25.39
	8H	25.59	26.42	26.19	27.02	27.70	23.56	24.38	24.15	24.99	25.66
	12H	26.12	26.87	26.74	27.50	28.18	23.85	24.60	24.47	25.23	25.91
8H	4H	24.22	25.04	24.81	25.65	26.32	22.83	23.65	23.42	24.25	24.93
	6H	25.50	26.20	26.13	26.84	27.52	23.71	24.41	24.34	25.06	25.74
	8H	26.17	26.80	26.81	27.45	28.15	24.11	24.74	24.75	25.39	26.09
	12H	26.87	27.44	27.51	28.08	28.84	24.50	25.06	25.14	25.70	26.46
12H	4H	24.23	24.98	24.85	25.62	26.30	22.89	23.64	23.51	24.27	24.95
	6H	25.55	26.19	26.20	26.84	27.53	23.82	24.45	24.46	25.10	25.80
	8H	26.30	26.86	26.94	27.50	28.26	24.28	24.85	24.92	25.49	26.25