

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: P893375

Luminaire Tested: 4MB-3SL-ASMF-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893375
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-3SL-ASMF-UNV-L940
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

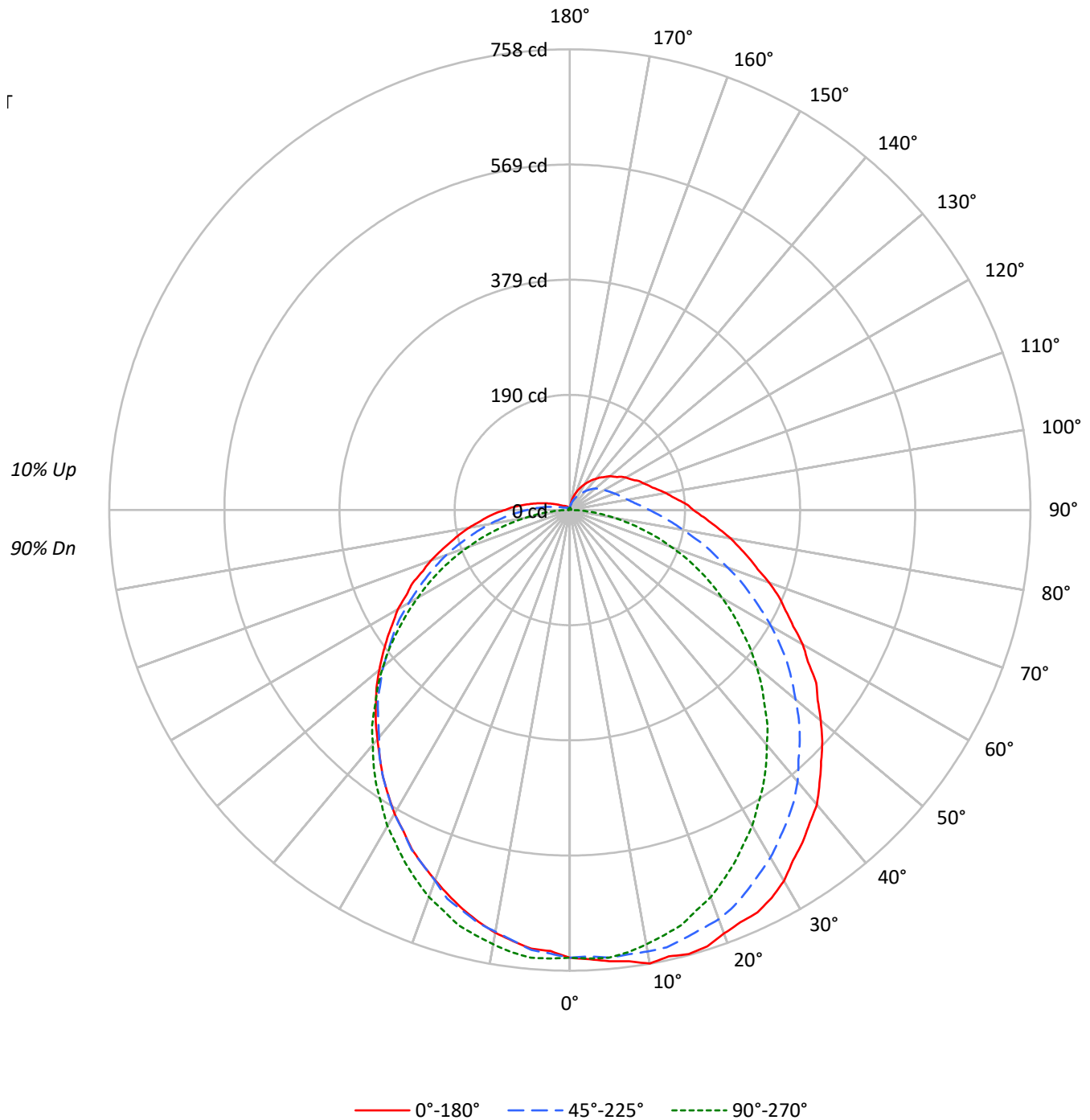
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2533.0 lumens
Efficiency: N/A
Efficacy: 120.0 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): 21.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 5.2
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P893375
CATALOG NUMBER: 4MB-3SL-ASMF-UNV-L940

Luminous Intensity Polar Plot





TEST NUMBER: P893375
 CATALOG NUMBER: 4MB-3SL-ASMF-UNV-L940

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°	7503	7503	7503	7503	7503
5°	7597	7330	7259	7202	7387
10°	7792	7177	6930	6854	7263
15°	7907	7025	6622	6568	7110
20°	7945	6880	6272	6226	6944
25°	8090	6659	5903	5942	6817
30°	8139	6446	5552	5633	6663
35°	8120	6214	5184	5337	6520
40°	8193	5973	4806	5004	6379
45°	8169	5689	4434	4749	6302
50°	8230	5398	4076	4458	6251
55°	8413	5143	3666	4166	6228
60°	8554	4827	3245	3856	6311
65°	8848	4486	2819	3548	6455
70°	9572	4159	2310	3255	6675
75°	10756	3922	1767	2911	7135
80°	13366	3692	1183	2610	8378
85°	19981	3644	594	2299	11753

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 65809 cd/sqm



TEST NUMBER: P893375
 CATALOG NUMBER: 4MB-3SL-ASMF-UNV-L940

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.9	2.8
10°-20°	200.3	7.9
20°-30°	302.1	11.9
30°-40°	362.6	14.3
40°-50°	377.6	14.9
50°-60°	350.0	13.8
60°-70°	288.2	11.4
70°-80°	207.9	8.2
80°-90°	132.0	5.2
90°-100°	81.4	3.2
100°-110°	54.3	2.1
110°-120°	38.6	1.5
120°-130°	28.3	1.1
130°-140°	19.5	0.8
140°-150°	11.9	0.5
150°-160°	5.9	0.2
160°-170°	2.1	0.1
170°-180°	0.4	0.0
0°-30°	572.4	22.6
0°-40°	935.0	36.9
0°-60°	1662.6	65.6
0°-90°	2290.7	90.4
90°-120°	174.3	6.9
90°-150°	233.9	9.2
90°-180°	242.0	9.6
0°-180°	2533.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	737	737	737	737	737	
5°	745	739	739	726	725	71
15°	756	730	707	682	680	213
25°	730	691	641	616	616	336
35°	668	624	554	536	536	418
45°	585	535	453	447	451	453
55°	495	436	345	354	366	440
65°	392	328	235	259	286	390
75°	305	232	124	172	203	324
85°	232	158	32	100	137	197
90°	203	131	3	71	106	112
95°	181	111	2	48	82	144
105°	142	87	2	20	43	151
115°	116	72	2	9	21	117
125°	95	60	3	7	12	86
135°	76	48	3	6	9	59
145°	58	34	3	4	6	37
155°	40	22	3	3	4	19
165°	23	13	3	2	2	7
175°	3	6	3	2	0	1
180°	2	2	2	2	2	



TEST NUMBER: P893375

CATALOG NUMBER: 4MB-3SL-ASMF-UNV-L940

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7
2.5°	739.7	741.9	734.9	739.3	738.6	739.3	730.5	737.8	726.4
5°	745.2	746.3	739.3	741.9	739.3	733.1	726.4	723.8	724.6
7.5°	748.9	754.8	737.5	738.2	733.8	727.2	714.6	716.8	715.4
10°	757.7	751.1	737.5	734.2	725.7	718.7	704.3	705.4	706.2
12.5°	752.2	750.7	737.1	725.0	716.5	710.6	695.9	692.2	694.0
15°	756.3	750.0	729.7	720.2	707.3	697.0	682.2	679.6	680.0
17.5°	752.6	747.4	722.4	709.1	691.1	684.8	670.8	666.4	664.2
20°	741.5	739.0	716.8	694.0	677.8	665.6	648.7	646.1	648.0
22.5°	734.2	727.9	705.8	683.0	659.4	648.7	631.8	631.4	631.8
25°	730.5	722.4	690.7	666.8	640.6	631.0	616.3	610.8	615.5
27.5°	719.4	712.1	674.9	648.7	619.6	606.7	594.6	593.4	594.2
30°	704.7	690.3	660.5	628.4	600.4	587.2	577.2	569.9	576.9
32.5°	683.7	675.6	641.7	606.7	575.8	566.6	556.6	555.9	555.9
35°	667.5	661.6	624.0	587.6	554.4	541.9	536.0	533.4	536.0
37.5°	648.7	639.9	605.2	564.3	530.5	519.8	513.9	511.7	513.5
40°	632.5	616.3	583.1	540.4	504.3	494.7	488.5	490.7	492.5
42.5°	608.5	599.3	557.0	516.1	481.8	471.5	466.4	468.2	472.6
45°	585.0	576.5	535.2	490.7	452.7	447.2	446.8	445.7	451.3
47.5°	563.6	551.5	511.3	465.6	428.4	422.2	422.9	426.6	431.4
50°	538.9	524.6	484.8	438.7	401.5	397.5	400.4	403.0	409.3
52.5°	514.2	502.8	460.5	413.3	374.3	371.3	375.4	383.8	387.5
55°	495.1	474.5	436.5	383.5	345.2	345.5	353.6	358.4	366.5
57.5°	464.5	449.0	409.3	357.0	317.9	320.5	331.5	339.6	344.8
60°	442.8	423.3	382.7	328.6	289.2	293.2	305.7	317.9	326.7
62.5°	414.8	397.8	355.1	300.6	262.6	268.5	282.5	296.9	303.2
65°	391.9	372.8	327.9	272.6	235.0	242.0	259.3	275.5	285.9
67.5°	372.4	352.5	303.5	246.8	207.0	217.3	237.6	253.4	261.5
70°	349.2	326.0	275.9	218.1	177.9	190.1	215.9	234.3	243.5
72.5°	324.5	305.7	252.0	191.6	151.0	165.8	194.1	213.3	222.1
75°	305.4	284.4	231.7	165.0	123.8	141.5	172.0	193.8	202.6
77.5°	285.9	266.7	208.9	140.7	99.5	119.4	152.5	176.4	185.7
80°	268.5	246.4	189.7	120.8	74.0	97.6	134.1	157.7	168.3
82.5°	249.4	230.2	173.1	99.8	52.7	77.7	116.0	141.8	150.7
85°	232.4	212.6	157.7	83.3	32.4	60.0	99.5	126.0	136.7
87.5°	217.0	200.4	143.3	70.7	16.2	45.7	83.6	110.5	122.7
90°	203.0	184.2	131.1	59.3	2.9	33.2	70.7	97.2	106.5
92.5°	194.1	171.7	121.2	51.9	1.8	23.6	58.9	85.1	95.8
95°	180.9	161.0	110.9	46.4	1.8	15.8	47.5	72.9	82.1
97.5°	169.5	151.0	103.5	43.1	1.5	10.7	39.0	61.1	70.7
100°	160.6	143.3	96.9	40.2	1.8	7.7	30.9	51.9	60.4
102.5°	150.7	134.8	91.7	38.3	1.8	5.5	24.3	43.8	51.6
105°	141.8	127.8	86.9	36.5	1.8	4.8	19.5	36.1	43.1
107.5°	135.2	120.5	82.9	35.4	1.8	4.8	15.5	29.5	35.4
110°	128.6	114.6	78.8	34.3	1.8	4.4	12.2	24.3	29.5



TEST NUMBER: P893375

CATALOG NUMBER: 4MB-3SL-ASMF-UNV-L940

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	124.1	109.0	75.1	33.2	2.2	4.4	9.9	20.3	24.3
115°	116.4	104.2	71.8	32.8	2.2	4.1	9.2	16.6	20.6
117.5°	110.9	99.8	68.5	31.7	2.2	4.1	8.8	13.6	16.6
120°	106.8	94.7	65.6	30.6	2.2	3.7	8.1	12.2	14.0
122.5°	101.7	89.9	63.0	29.8	2.2	3.7	7.7	11.4	12.5
125°	94.7	85.5	60.0	28.4	2.6	3.7	7.4	10.7	11.8
127.5°	90.3	81.4	57.8	26.5	2.6	3.3	7.0	9.9	11.1
130°	86.6	77.0	55.3	24.7	2.6	3.3	6.6	9.2	10.3
132.5°	81.0	72.6	51.6	23.2	2.6	2.9	5.9	8.5	9.6
135°	75.9	68.9	47.9	21.7	2.6	2.9	5.5	8.1	8.8
137.5°	72.6	65.2	44.6	20.3	2.6	2.6	5.2	7.4	8.1
140°	67.0	61.1	40.9	18.8	2.6	2.6	4.8	7.0	7.4
142.5°	63.0	57.1	37.6	17.3	2.6	2.6	4.4	6.3	7.0
145°	58.2	53.0	33.9	15.8	2.6	2.2	4.1	5.9	6.3
147.5°	53.8	48.3	30.9	14.7	2.6	2.2	3.7	5.2	5.5
150°	49.4	43.5	28.0	13.6	2.6	2.2	3.3	4.4	5.2
152.5°	44.6	37.6	25.0	12.5	2.6	2.2	2.9	4.1	4.4
155°	39.8	32.8	22.5	11.4	2.9	2.2	2.6	3.3	4.1
157.5°	35.7	28.4	19.9	10.3	2.9	1.8	2.6	2.9	3.3
160°	30.9	24.3	17.7	9.2	2.9	1.8	2.2	2.6	2.9
162.5°	27.3	20.3	15.5	8.5	2.9	1.8	2.2	2.2	2.6
165°	23.2	16.9	12.9	7.7	2.9	1.8	1.8	1.8	2.2
167.5°	18.8	13.3	10.7	7.0	2.9	1.8	1.8	1.5	1.8
170°	14.0	9.9	8.8	6.3	2.9	1.8	1.5	1.1	1.5
172.5°	6.3	7.7	7.0	5.5	3.3	1.8	1.5	1.1	0.7
175°	3.3	5.5	5.5	4.8	3.3	1.8	1.5	1.1	0.4
177.5°	2.6	3.3	4.1	4.1	3.3	2.2	1.5	0.7	0.4
180°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2



TEST NUMBER: P893375
 CATALOG NUMBER: 4MB-3SL-ASMF-UNV-L940

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	17.37	18.84	17.87	19.35	19.89	16.34	17.81	16.84	18.32	18.86
	3H	19.45	20.80	19.97	21.31	21.89	18.21	19.56	18.73	20.07	20.65
	4H	20.40	21.67	20.93	22.20	22.80	18.95	20.23	19.49	20.76	21.36
	6H	21.31	22.50	21.87	23.04	23.66	19.59	20.78	20.14	21.32	21.93
	8H	21.74	22.88	22.31	23.45	24.06	19.84	20.98	20.41	21.55	22.16
	12H	22.16	23.26	22.74	23.81	24.46	20.07	21.17	20.64	21.72	22.37
4H	2H	17.86	19.14	18.40	19.66	20.26	16.90	18.18	17.44	18.70	19.30
	3H	20.17	21.26	20.73	21.83	22.45	18.96	20.05	19.51	20.62	21.23
	4H	21.29	22.28	21.86	22.86	23.51	19.81	20.81	20.38	21.39	22.04
	6H	22.39	23.27	22.98	23.87	24.54	20.57	21.45	21.16	22.05	22.71
	8H	22.92	23.74	23.51	24.35	25.02	20.88	21.71	21.48	22.31	22.99
	12H	23.45	24.20	24.06	24.83	25.51	21.18	21.93	21.79	22.56	23.24
8H	4H	21.54	22.37	22.14	22.97	23.65	20.15	20.98	20.75	21.58	22.26
	6H	22.82	23.53	23.45	24.17	24.85	21.04	21.74	21.66	22.38	23.06
	8H	23.49	24.13	24.13	24.78	25.47	21.43	22.07	22.08	22.72	23.41
	12H	24.20	24.76	24.84	25.40	26.16	21.82	22.39	22.47	23.03	23.79
12H	4H	21.56	22.31	22.18	22.94	23.62	20.22	20.97	20.83	21.60	22.28
	6H	22.88	23.51	23.52	24.17	24.86	21.14	21.78	21.78	22.43	23.12
	8H	23.62	24.19	24.27	24.83	25.59	21.61	22.17	22.25	22.81	23.57