

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: P892495

Luminaire Tested: 2MB-2SL-ASMF-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892495
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: 2MB-2SL-ASMF-UNV-L840
Description: 2000 Lumen 2FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

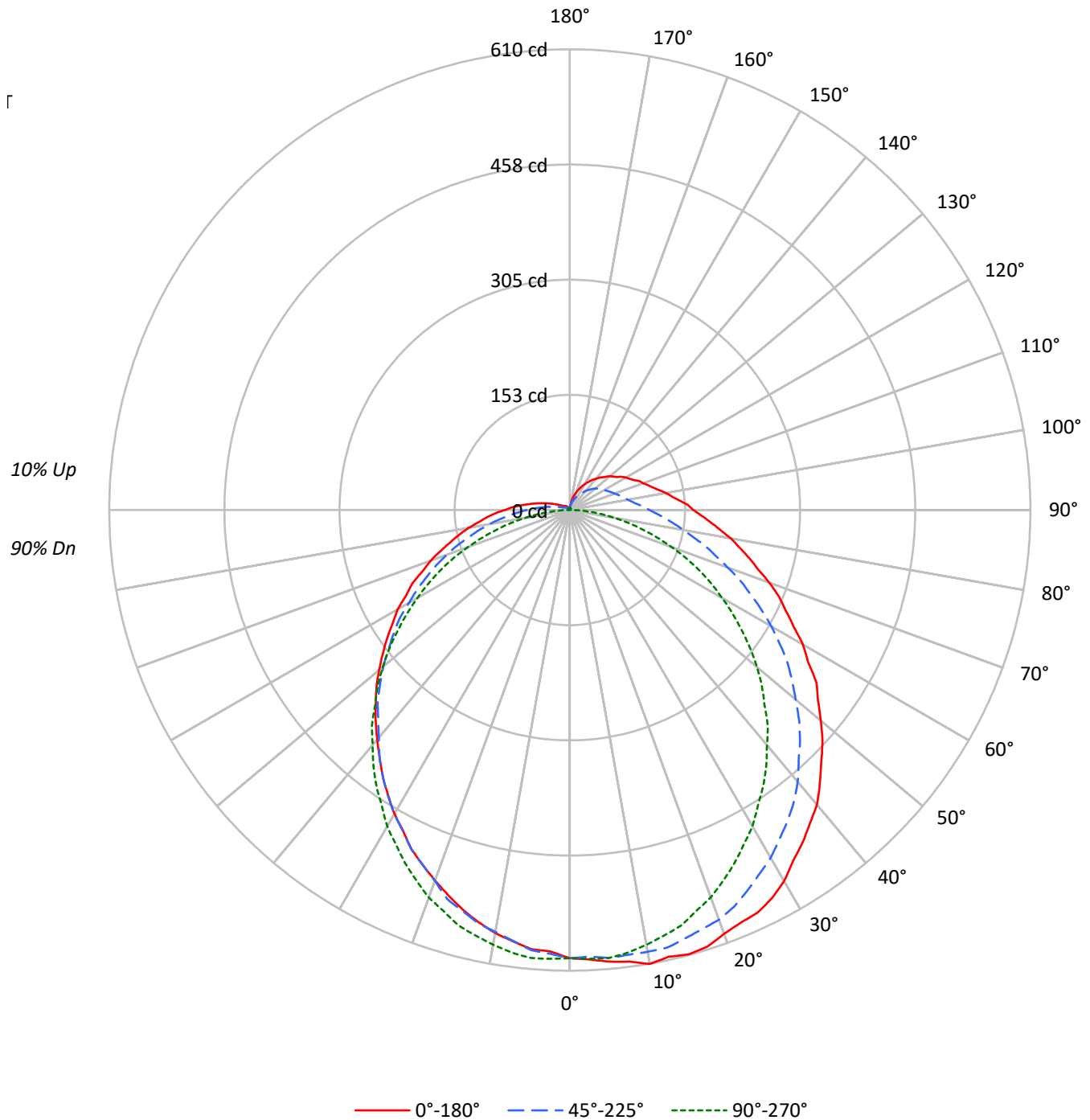
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2040.0 lumens
Efficiency: N/A
Efficacy: 136.9 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.21 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 1.98' x H: 0.12')
CIE Type: Direct

Input Watts (W): 14.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.92
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	60	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°	12149	12149	12149	12149	12149
5°	12269	11847	11754	11640	11930
10°	12550	11578	11220	11058	11694
15°	12697	11314	10723	10577	11417
20°	12721	11060	10156	10009	11117
25°	12911	10688	9558	9535	10879
30°	12946	10326	8991	9026	10599
35°	12869	9937	8395	8536	10334
40°	12931	9533	7782	7986	10070
45°	12832	9063	7180	7566	9898
50°	12858	8578	6600	7086	9765
55°	13056	8156	5935	6606	9667
60°	13164	7632	5255	6097	9716
65°	13471	7069	4565	5594	9823
70°	14346	6531	3742	5111	10004
75°	15743	6129	2862	4549	10449
80°	18779	5737	1916	4055	11773
85°	25541	5615	961	3541	15022

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 53004 cd/sqm



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 CATALOG NUMBER: 2MB-2SL-ASMF-UNV-L840

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.3	2.8
10°-20°	161.4	7.9
20°-30°	243.3	11.9
30°-40°	292.0	14.3
40°-50°	304.1	14.9
50°-60°	281.9	13.8
60°-70°	232.1	11.4
70°-80°	167.4	8.2
80°-90°	106.3	5.2
90°-100°	65.5	3.2
100°-110°	43.7	2.1
110°-120°	31.1	1.5
120°-130°	22.8	1.1
130°-140°	15.7	0.8
140°-150°	9.5	0.5
150°-160°	4.7	0.2
160°-170°	1.7	0.1
170°-180°	0.3	0.0
0°-30°	461.0	22.6
0°-40°	753.0	36.9
0°-60°	1339.0	65.6
0°-90°	1844.8	90.4
90°-120°	140.4	6.9
90°-150°	188.4	9.2
90°-180°	195.0	9.6
0°-180°	2040.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	593	593	593	593	593	
5°	600	595	595	585	584	58
15°	609	588	570	549	548	172
25°	588	556	516	496	496	271
35°	538	503	446	432	432	337
45°	471	431	365	360	363	365
55°	399	352	278	285	295	354
65°	316	264	189	209	230	314
75°	246	187	100	138	163	261
85°	187	127	26	80	110	159
90°	164	106	2	57	86	90
95°	146	89	2	38	66	116
105°	114	70	2	16	35	122
115°	94	58	2	7	17	94
125°	76	48	2	6	10	69
135°	61	39	2	4	7	48
145°	47	27	2	3	5	30
155°	32	18	2	2	3	15
165°	19	10	2	2	2	5
175°	3	4	3	1	0	1
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	593.3	593.3	593.3	593.3	593.3	593.3	593.3	593.3	593.3
2.5°	595.7	597.5	591.9	595.4	594.8	595.4	588.3	594.2	585.0
5°	600.2	601.1	595.4	597.5	595.4	590.4	585.0	583.0	583.6
7.5°	603.1	607.9	593.9	594.5	591.0	585.6	575.5	577.3	576.1
10°	610.3	604.9	593.9	591.3	584.4	578.8	567.2	568.1	568.7
12.5°	605.8	604.6	593.6	583.9	577.0	572.3	560.4	557.5	558.9
15°	609.1	604.0	587.7	580.0	569.6	561.3	549.4	547.4	547.7
17.5°	606.1	602.0	581.8	571.1	556.6	551.5	540.2	536.7	534.9
20°	597.2	595.1	577.3	558.9	545.9	536.1	522.4	520.4	521.9
22.5°	591.3	586.2	568.4	550.0	531.0	522.4	508.8	508.5	508.8
25°	588.3	581.8	556.3	537.0	515.9	508.2	496.3	491.9	495.7
27.5°	579.4	573.5	543.5	522.4	499.0	488.6	478.8	477.9	478.5
30°	567.5	556.0	531.9	506.1	483.6	472.9	464.9	459.0	464.6
32.5°	550.6	544.1	516.8	488.6	463.7	456.3	448.3	447.7	447.7
35°	537.6	532.8	502.6	473.2	446.5	436.4	431.7	429.6	431.7
37.5°	522.4	515.3	487.4	454.5	427.2	418.6	413.9	412.1	413.6
40°	509.4	496.3	469.6	435.2	406.1	398.4	393.4	395.2	396.7
42.5°	490.1	482.7	448.6	415.6	388.1	379.7	375.6	377.1	380.6
45°	471.1	464.3	431.1	395.2	364.6	360.2	359.9	359.0	363.4
47.5°	453.9	444.1	411.8	375.0	345.0	340.0	340.6	343.5	347.4
50°	434.0	422.5	390.4	353.3	323.4	320.1	322.5	324.6	329.6
52.5°	414.2	405.0	370.8	332.9	301.4	299.0	302.3	309.1	312.1
55°	398.7	382.1	351.6	308.8	278.0	278.3	284.8	288.7	295.2
57.5°	374.1	361.6	329.6	287.5	256.0	258.1	267.0	273.5	277.7
60°	356.6	340.9	308.2	264.6	232.9	236.2	246.2	256.0	263.2
62.5°	334.1	320.4	286.0	242.1	211.5	216.3	227.5	239.1	244.2
65°	315.7	300.2	264.0	219.5	189.3	194.9	208.9	221.9	230.2
67.5°	299.9	283.9	244.5	198.8	166.7	175.0	191.4	204.1	210.6
70°	281.2	262.6	222.2	175.6	143.3	153.1	173.9	188.7	196.1
72.5°	261.4	246.2	202.9	154.3	121.6	133.5	156.3	171.8	178.9
75°	245.9	229.0	186.6	132.9	99.7	113.9	138.5	156.1	163.2
77.5°	230.2	214.8	168.2	113.3	80.1	96.1	122.8	142.1	149.5
80°	216.3	198.5	152.8	97.3	59.6	78.6	108.0	127.0	135.6
82.5°	200.8	185.4	139.4	80.4	42.4	62.6	93.5	114.2	121.3
85°	187.2	171.2	127.0	67.0	26.1	48.4	80.1	101.5	110.1
87.5°	174.7	161.4	115.4	57.0	13.1	36.8	67.3	89.0	98.8
90°	163.5	148.3	105.6	47.8	2.4	26.7	57.0	78.3	85.7
92.5°	156.3	138.3	97.6	41.8	1.5	19.0	47.5	68.5	77.1
95°	145.7	129.6	89.3	37.4	1.5	12.8	38.3	58.7	66.2
97.5°	136.5	121.6	83.4	34.7	1.2	8.6	31.4	49.2	57.0
100°	129.4	115.4	78.0	32.3	1.5	6.2	24.9	41.8	48.7
102.5°	121.3	108.6	73.9	30.9	1.5	4.5	19.6	35.3	41.5
105°	114.2	102.9	70.0	29.4	1.5	3.9	15.7	29.1	34.7
107.5°	108.9	97.0	66.8	28.5	1.5	3.9	12.5	23.7	28.5
110°	103.5	92.3	63.5	27.6	1.5	3.6	9.8	19.6	23.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	100.0	87.8	60.5	26.7	1.8	3.6	8.0	16.3	19.6
115°	93.7	84.0	57.9	26.4	1.8	3.3	7.4	13.4	16.6
117.5°	89.3	80.4	55.2	25.5	1.8	3.3	7.1	11.0	13.4
120°	86.0	76.2	52.8	24.6	1.8	3.0	6.5	9.8	11.3
122.5°	81.9	72.4	50.7	24.0	1.8	3.0	6.2	9.2	10.1
125°	76.2	68.8	48.4	22.8	2.1	3.0	5.9	8.6	9.5
127.5°	72.7	65.6	46.6	21.4	2.1	2.7	5.6	8.0	8.9
130°	69.7	62.0	44.5	19.9	2.1	2.7	5.3	7.4	8.3
132.5°	65.3	58.4	41.5	18.7	2.1	2.4	4.7	6.8	7.7
135°	61.1	55.5	38.6	17.5	2.1	2.4	4.5	6.5	7.1
137.5°	58.4	52.5	35.9	16.3	2.1	2.1	4.2	5.9	6.5
140°	54.0	49.2	32.9	15.1	2.1	2.1	3.9	5.6	5.9
142.5°	50.7	46.0	30.3	13.9	2.1	2.1	3.6	5.0	5.6
145°	46.9	42.7	27.3	12.8	2.1	1.8	3.3	4.7	5.0
147.5°	43.3	38.9	24.9	11.9	2.1	1.8	3.0	4.2	4.5
150°	39.8	35.0	22.5	11.0	2.1	1.8	2.7	3.6	4.2
152.5°	35.9	30.3	20.2	10.1	2.1	1.8	2.4	3.3	3.6
155°	32.0	26.4	18.1	9.2	2.4	1.8	2.1	2.7	3.3
157.5°	28.8	22.8	16.0	8.3	2.4	1.5	2.1	2.4	2.7
160°	24.9	19.6	14.2	7.4	2.4	1.5	1.8	2.1	2.4
162.5°	22.0	16.3	12.5	6.8	2.4	1.5	1.8	1.8	2.1
165°	18.7	13.6	10.4	6.2	2.4	1.5	1.5	1.5	1.8
167.5°	15.1	10.7	8.6	5.6	2.4	1.5	1.5	1.2	1.5
170°	11.3	8.0	7.1	5.0	2.4	1.5	1.2	0.9	1.2
172.5°	5.0	6.2	5.6	4.5	2.7	1.5	1.2	0.9	0.6
175°	2.7	4.5	4.5	3.9	2.7	1.5	1.2	0.9	0.3
177.5°	2.1	2.7	3.3	3.3	2.7	1.8	1.2	0.6	0.3
180°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8



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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	19.01	20.49	19.51	20.99	21.53	17.88	19.36	18.39	19.86	20.41
	3H	21.10	22.45	21.62	22.96	23.54	19.72	21.07	20.24	21.58	22.16
	4H	22.04	23.32	22.58	23.85	24.44	20.44	21.72	20.98	22.25	22.84
	6H	22.96	24.15	23.52	24.69	25.31	21.04	22.23	21.60	22.77	23.39
	8H	23.40	24.53	23.96	25.10	25.71	21.28	22.42	21.84	22.98	23.60
	12H	23.82	24.91	24.39	25.47	26.11	21.48	22.57	22.05	23.13	23.78
4H	2H	19.49	20.77	20.03	21.29	21.89	18.45	19.73	19.00	20.26	20.86
	3H	21.81	22.89	22.36	23.46	24.08	20.48	21.57	21.03	22.14	22.76
	4H	22.92	23.92	23.49	24.49	25.14	21.31	22.31	21.88	22.89	23.54
	6H	24.03	24.91	24.62	25.51	26.17	22.03	22.91	22.63	23.52	24.18
	8H	24.56	25.38	25.15	25.99	26.66	22.33	23.15	22.92	23.76	24.43
	12H	25.09	25.84	25.71	26.47	27.15	22.59	23.34	23.21	23.97	24.65
8H	4H	23.17	24.00	23.77	24.60	25.27	21.66	22.48	22.25	23.09	23.76
	6H	24.45	25.15	25.08	25.80	26.48	22.51	23.21	23.14	23.85	24.53
	8H	25.12	25.75	25.76	26.41	27.10	22.89	23.52	23.53	24.17	24.86
	12H	25.83	26.39	26.47	27.03	27.79	23.24	23.81	23.89	24.45	25.21
12H	4H	23.18	23.94	23.80	24.57	25.25	21.72	22.47	22.34	23.10	23.78
	6H	24.50	25.14	25.15	25.79	26.48	22.62	23.25	23.26	23.91	24.60
	8H	25.25	25.81	25.89	26.45	27.21	23.06	23.63	23.71	24.27	25.03