

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: P892493

Luminaire Tested: 2MB-2SL-ASMF-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892493
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-L830
Description: 2000 Lumen 2FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

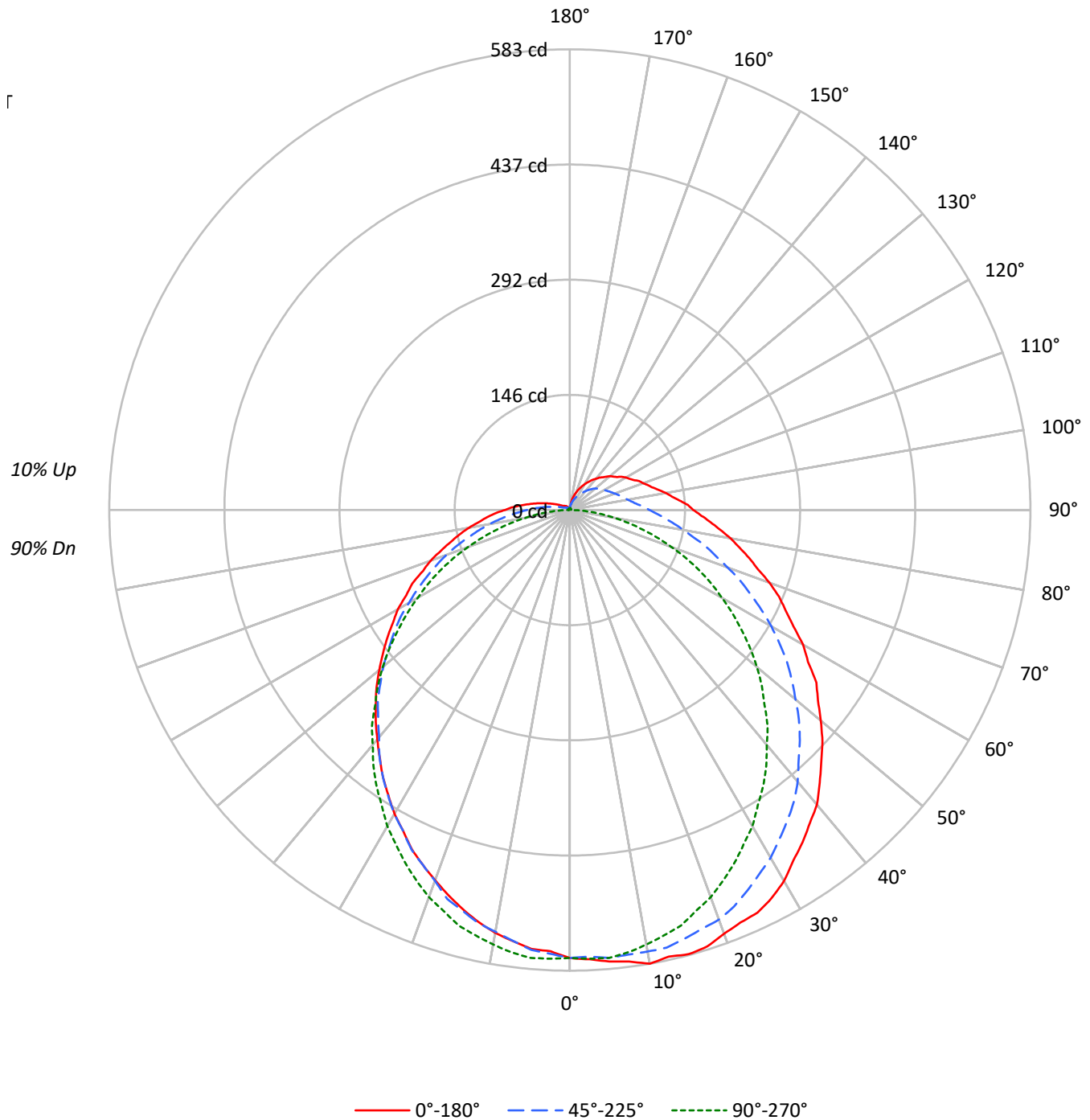
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1949.0 lumens
Efficiency: N/A
Efficacy: 130.8 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	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	60	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°	11608	11608	11608	11608	11608
5°	11721	11320	11231	11121	11396
10°	11988	11061	10721	10564	11174
15°	12130	10810	10245	10105	10907
20°	12154	10568	9702	9562	10621
25°	12336	10211	9132	9110	10394
30°	12369	9866	8590	8624	10126
35°	12295	9493	8021	8154	9872
40°	12355	9109	7435	7629	9621
45°	12260	8657	6859	7228	9457
50°	12286	8196	6307	6770	9329
55°	12473	7792	5671	6312	9234
60°	12577	7293	5020	5827	9280
65°	12870	6756	4360	5342	9383
70°	13708	6240	3575	4882	9560
75°	15045	5857	2733	4349	9981
80°	17937	5482	1832	3875	11243
85°	24409	5363	917	3382	14353

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 50638 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.8	2.8
10°-20°	154.2	7.9
20°-30°	232.5	11.9
30°-40°	279.0	14.3
40°-50°	290.5	14.9
50°-60°	269.3	13.8
60°-70°	221.8	11.4
70°-80°	160.0	8.2
80°-90°	101.6	5.2
90°-100°	62.6	3.2
100°-110°	41.8	2.1
110°-120°	29.7	1.5
120°-130°	21.8	1.1
130°-140°	15.0	0.8
140°-150°	9.1	0.5
150°-160°	4.5	0.2
160°-170°	1.7	0.1
170°-180°	0.3	0.0
0°-30°	440.4	22.6
0°-40°	719.4	36.9
0°-60°	1279.2	65.6
0°-90°	1762.6	90.4
90°-120°	134.1	6.9
90°-150°	180.0	9.2
90°-180°	186.0	9.5
0°-180°	1949.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	567	567	567	567	567	
5°	573	569	569	559	558	55
15°	582	562	544	525	523	164
25°	562	532	493	474	474	259
35°	514	480	427	412	412	322
45°	450	412	348	344	347	348
55°	381	336	266	272	282	338
65°	302	252	181	200	220	300
75°	235	178	95	132	156	249
85°	179	121	25	76	105	152
90°	156	101	2	54	82	86
95°	139	85	1	37	63	111
105°	109	67	1	15	33	117
115°	90	55	2	7	16	90
125°	73	46	2	6	9	66
135°	58	37	2	4	7	46
145°	45	26	2	3	5	28
155°	31	17	2	2	3	14
165°	18	10	2	1	2	5
175°	3	4	3	1	0	0
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°	566.9	566.9	566.9	566.9	566.9	566.9	566.9	566.9	566.9
2.5°	569.1	570.8	565.5	568.9	568.3	568.9	562.1	567.7	558.9
5°	573.4	574.3	568.9	570.8	568.9	564.0	558.9	557.0	557.5
7.5°	576.2	580.8	567.4	568.0	564.6	559.5	549.9	551.6	550.4
10°	583.0	577.9	567.4	564.9	558.4	553.0	541.9	542.8	543.4
12.5°	578.8	577.7	567.2	557.8	551.3	546.8	535.4	532.6	534.0
15°	581.9	577.1	561.5	554.1	544.2	536.3	524.9	522.9	523.2
17.5°	579.1	575.1	555.8	545.6	531.7	526.9	516.1	512.7	511.0
20°	570.6	568.6	551.6	534.0	521.5	512.2	499.1	497.2	498.6
22.5°	564.9	560.1	543.1	525.5	507.4	499.1	486.1	485.8	486.1
25°	562.1	555.8	531.5	513.0	492.9	485.5	474.2	469.9	473.6
27.5°	553.6	547.9	519.3	499.1	476.7	466.8	457.5	456.6	457.2
30°	542.2	531.2	508.2	483.5	462.0	451.8	444.2	438.5	443.9
32.5°	526.1	519.8	493.8	466.8	443.0	435.9	428.3	427.7	427.7
35°	513.6	509.1	480.1	452.1	426.6	416.9	412.4	410.4	412.4
37.5°	499.1	492.3	465.7	434.2	408.2	399.9	395.4	393.7	395.1
40°	486.7	474.2	448.7	415.8	388.0	380.7	375.8	377.5	379.0
42.5°	468.2	461.2	428.6	397.1	370.7	362.8	358.8	360.3	363.7
45°	450.1	443.6	411.8	377.5	348.3	344.1	343.8	343.0	347.2
47.5°	433.7	424.3	393.4	358.3	329.6	324.8	325.4	328.2	331.9
50°	414.7	403.6	373.0	337.6	309.0	305.8	308.1	310.1	314.9
52.5°	395.7	386.9	354.3	318.0	288.0	285.7	288.8	295.3	298.2
55°	380.9	365.1	335.9	295.1	265.6	265.9	272.1	275.8	282.0
57.5°	357.4	345.5	314.9	274.7	244.6	246.6	255.1	261.3	265.3
60°	340.7	325.7	294.5	252.8	222.5	225.6	235.3	244.6	251.4
62.5°	319.2	306.1	273.2	231.3	202.1	206.6	217.4	228.5	233.3
65°	301.6	286.8	252.3	209.7	180.8	186.2	199.5	212.0	219.9
67.5°	286.6	271.3	233.6	189.9	159.3	167.2	182.8	195.0	201.2
70°	268.7	250.8	212.3	167.8	136.9	146.3	166.1	180.3	187.4
72.5°	249.7	235.3	193.9	147.4	116.2	127.5	149.4	164.1	170.9
75°	235.0	218.8	178.3	127.0	95.2	108.8	132.4	149.1	155.9
77.5°	219.9	205.2	160.7	108.3	76.5	91.8	117.3	135.8	142.9
80°	206.6	189.6	146.0	93.0	57.0	75.1	103.2	121.3	129.5
82.5°	191.9	177.2	133.2	76.8	40.5	59.8	89.3	109.1	115.9
85°	178.9	163.5	121.3	64.1	24.9	46.2	76.5	96.9	105.2
87.5°	166.9	154.2	110.3	54.4	12.5	35.1	64.3	85.0	94.4
90°	156.2	141.7	100.9	45.6	2.3	25.5	54.4	74.8	81.9
92.5°	149.4	132.1	93.3	40.0	1.4	18.1	45.4	65.5	73.7
95°	139.2	123.9	85.3	35.7	1.4	12.2	36.6	56.1	63.2
97.5°	130.4	116.2	79.6	33.2	1.1	8.2	30.0	47.1	54.4
100°	123.6	110.3	74.5	30.9	1.4	6.0	23.8	40.0	46.5
102.5°	115.9	103.7	70.6	29.5	1.4	4.3	18.7	33.7	39.7
105°	109.1	98.4	66.9	28.1	1.4	3.7	15.0	27.8	33.2
107.5°	104.0	92.7	63.8	27.2	1.4	3.7	11.9	22.7	27.2
110°	98.9	88.2	60.7	26.4	1.4	3.4	9.4	18.7	22.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	95.5	83.9	57.8	25.5	1.7	3.4	7.7	15.6	18.7
115°	89.6	80.2	55.3	25.2	1.7	3.1	7.1	12.8	15.9
117.5°	85.3	76.8	52.7	24.4	1.7	3.1	6.8	10.5	12.8
120°	82.2	72.8	50.5	23.5	1.7	2.8	6.2	9.4	10.8
122.5°	78.2	69.2	48.5	23.0	1.7	2.8	6.0	8.8	9.6
125°	72.8	65.8	46.2	21.8	2.0	2.8	5.7	8.2	9.1
127.5°	69.4	62.6	44.5	20.4	2.0	2.6	5.4	7.7	8.5
130°	66.6	59.2	42.5	19.0	2.0	2.6	5.1	7.1	7.9
132.5°	62.4	55.8	39.7	17.9	2.0	2.3	4.5	6.5	7.4
135°	58.4	53.0	36.8	16.7	2.0	2.3	4.3	6.2	6.8
137.5°	55.8	50.2	34.3	15.6	2.0	2.0	4.0	5.7	6.2
140°	51.6	47.1	31.5	14.5	2.0	2.0	3.7	5.4	5.7
142.5°	48.5	43.9	28.9	13.3	2.0	2.0	3.4	4.8	5.4
145°	44.8	40.8	26.1	12.2	2.0	1.7	3.1	4.5	4.8
147.5°	41.4	37.1	23.8	11.3	2.0	1.7	2.8	4.0	4.3
150°	38.0	33.4	21.5	10.5	2.0	1.7	2.6	3.4	4.0
152.5°	34.3	28.9	19.3	9.6	2.0	1.7	2.3	3.1	3.4
155°	30.6	25.2	17.3	8.8	2.3	1.7	2.0	2.6	3.1
157.5°	27.5	21.8	15.3	7.9	2.3	1.4	2.0	2.3	2.6
160°	23.8	18.7	13.6	7.1	2.3	1.4	1.7	2.0	2.3
162.5°	21.0	15.6	11.9	6.5	2.3	1.4	1.7	1.7	2.0
165°	17.9	13.0	9.9	6.0	2.3	1.4	1.4	1.4	1.7
167.5°	14.5	10.2	8.2	5.4	2.3	1.4	1.4	1.1	1.4
170°	10.8	7.7	6.8	4.8	2.3	1.4	1.1	0.9	1.1
172.5°	4.8	6.0	5.4	4.3	2.6	1.4	1.1	0.9	0.6
175°	2.6	4.3	4.3	3.7	2.6	1.4	1.1	0.9	0.3
177.5°	2.0	2.6	3.1	3.1	2.6	1.7	1.1	0.6	0.3
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



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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	18.85	20.33	19.36	20.83	21.37	17.73	19.20	18.23	19.71	20.25
	3H	20.94	22.29	21.46	22.80	23.38	19.56	20.91	20.08	21.42	22.01
	4H	21.89	23.16	22.42	23.69	24.29	20.29	21.56	20.82	22.09	22.69
	6H	22.81	23.99	23.36	24.53	25.15	20.89	22.07	21.44	22.61	23.23
	8H	23.24	24.38	23.80	24.94	25.56	21.12	22.26	21.68	22.82	23.44
	12H	23.66	24.75	24.23	25.31	25.96	21.32	22.41	21.89	22.97	23.62
4H	2H	19.33	20.61	19.87	21.14	21.73	18.30	19.57	18.84	20.10	20.70
	3H	21.65	22.74	22.20	23.30	23.92	20.32	21.41	20.88	21.98	22.60
	4H	22.76	23.76	23.33	24.34	24.99	21.15	22.15	21.73	22.73	23.38
	6H	23.87	24.75	24.46	25.35	26.01	21.88	22.75	22.47	23.36	24.02
	8H	24.40	25.23	25.00	25.83	26.50	22.17	23.00	22.77	23.60	24.27
	12H	24.93	25.68	25.55	26.31	26.99	22.43	23.18	23.05	23.81	24.49
8H	4H	23.01	23.84	23.61	24.44	25.12	21.50	22.32	22.10	22.93	23.60
	6H	24.29	24.99	24.92	25.64	26.32	22.35	23.05	22.98	23.70	24.38
	8H	24.96	25.60	25.61	26.25	26.94	22.73	23.36	23.37	24.01	24.71
	12H	25.67	26.23	26.31	26.88	27.63	23.09	23.65	23.73	24.29	25.05
12H	4H	23.03	23.78	23.65	24.41	25.09	21.56	22.31	22.18	22.95	23.63
	6H	24.35	24.98	24.99	25.63	26.33	22.46	23.10	23.10	23.75	24.44
	8H	25.09	25.65	25.73	26.30	27.05	22.90	23.47	23.55	24.11	24.87