

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: P892611

Luminaire Tested: 2MB-3SL-ASMF-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892611
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-3SL-ASMF-UNV-L940
Description: 3000 Lumen 2FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

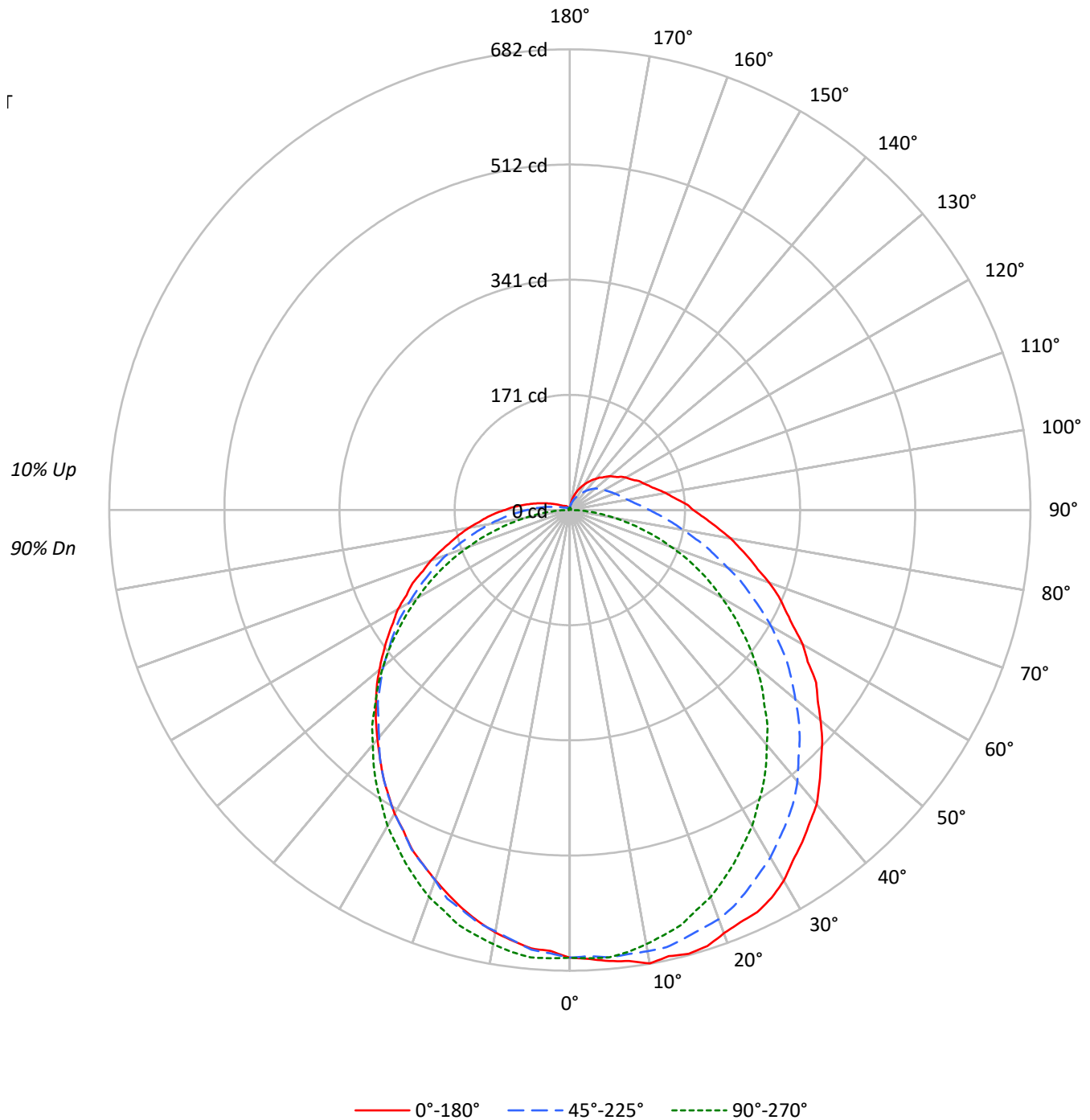
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2278.0 lumens
Efficiency: N/A
Efficacy: 108.5 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): 21
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 8
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°	13568	13568	13568	13568	13568
5°	13700	13230	13126	12999	13320
10°	14014	12929	12529	12348	13060
15°	14177	12635	11975	11811	12749
20°	14206	12352	11341	11177	12412
25°	14417	11935	10674	10647	12150
30°	14458	11532	10040	10078	11835
35°	14370	11096	9375	9530	11538
40°	14439	10646	8691	8918	11243
45°	14330	10121	8018	8449	11053
50°	14360	9580	7370	7912	10905
55°	14578	9107	6627	7376	10793
60°	14699	8524	5869	6810	10849
65°	15042	7894	5098	6245	10971
70°	16024	7292	4178	5705	11172
75°	17581	6845	3195	5082	11665
80°	20967	6406	2141	4528	13144
85°	28516	6269	1075	3953	16768

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 59164 cd/sqm



TEST NUMBER: P892611
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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.9	2.8
10°-20°	180.2	7.9
20°-30°	271.7	11.9
30°-40°	326.1	14.3
40°-50°	339.6	14.9
50°-60°	314.8	13.8
60°-70°	259.2	11.4
70°-80°	187.0	8.2
80°-90°	118.7	5.2
90°-100°	73.2	3.2
100°-110°	48.8	2.1
110°-120°	34.8	1.5
120°-130°	25.5	1.1
130°-140°	17.5	0.8
140°-150°	10.7	0.5
150°-160°	5.3	0.2
160°-170°	1.9	0.1
170°-180°	0.3	0.0
0°-30°	514.7	22.6
0°-40°	840.8	36.9
0°-60°	1495.2	65.6
0°-90°	2060.1	90.4
90°-120°	156.7	6.9
90°-150°	210.4	9.2
90°-180°	218.0	9.6
0°-180°	2278.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	663	663	663	663	663	
5°	670	665	665	653	652	64
15°	680	656	636	614	612	192
25°	657	621	576	554	554	302
35°	600	561	499	482	482	376
45°	526	481	407	402	406	407
55°	445	393	310	318	330	396
65°	352	295	211	233	257	351
75°	275	208	111	155	182	291
85°	209	142	29	89	123	177
90°	182	118	3	64	96	101
95°	163	100	2	43	74	129
105°	128	78	2	18	39	136
115°	105	65	2	8	19	105
125°	85	54	2	7	11	77
135°	68	43	2	5	8	54
145°	52	30	2	4	6	33
155°	36	20	3	2	4	17
165°	21	12	3	2	2	6
175°	3	5	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°	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6	662.6
2.5°	665.2	667.2	660.9	664.9	664.2	664.9	656.9	663.6	653.3
5°	670.2	671.2	664.9	667.2	664.9	659.3	653.3	651.0	651.6
7.5°	673.5	678.8	663.2	663.9	659.9	654.0	642.7	644.7	643.4
10°	681.5	675.5	663.2	660.3	652.6	646.3	633.4	634.4	635.1
12.5°	676.5	675.2	662.9	652.0	644.4	639.1	625.8	622.5	624.1
15°	680.1	674.5	656.3	647.7	636.1	626.8	613.5	611.2	611.6
17.5°	676.8	672.2	649.7	637.7	621.5	615.9	603.3	599.3	597.3
20°	666.9	664.6	644.7	624.1	609.6	598.6	583.4	581.1	582.7
22.5°	660.3	654.6	634.7	614.2	593.0	583.4	568.2	567.8	568.2
25°	656.9	649.7	621.2	599.6	576.1	567.5	554.2	549.3	553.6
27.5°	647.0	640.4	606.9	583.4	557.2	545.6	534.7	533.7	534.4
30°	633.8	620.8	594.0	565.2	540.0	528.1	519.1	512.5	518.8
32.5°	614.9	607.6	577.1	545.6	517.8	509.5	500.6	499.9	499.9
35°	600.3	595.0	561.2	528.4	498.6	487.3	482.0	479.7	482.0
37.5°	583.4	575.4	544.3	507.5	477.1	467.4	462.1	460.2	461.8
40°	568.8	554.2	524.4	486.0	453.5	444.9	439.3	441.3	442.9
42.5°	547.3	539.0	500.9	464.1	433.3	424.0	419.4	421.1	425.0
45°	526.1	518.5	481.4	441.3	407.2	402.2	401.9	400.9	405.8
47.5°	506.9	495.9	459.8	418.7	385.3	379.7	380.3	383.6	387.9
50°	484.7	471.8	436.0	394.6	361.1	357.5	360.1	362.4	368.1
52.5°	462.5	452.2	414.1	371.7	336.6	333.9	337.6	345.2	348.5
55°	445.2	426.7	392.6	344.9	310.4	310.7	318.0	322.3	329.6
57.5°	417.8	403.8	368.1	321.0	285.9	288.2	298.2	305.4	310.1
60°	398.2	380.6	344.2	295.5	260.1	263.7	275.0	285.9	293.9
62.5°	373.0	357.8	319.4	270.3	236.2	241.5	254.1	267.0	272.6
65°	352.5	335.3	294.8	245.2	211.4	217.7	233.2	247.8	257.1
67.5°	334.9	317.0	273.0	222.0	186.2	195.5	213.7	227.9	235.2
70°	314.1	293.2	248.1	196.1	160.0	170.9	194.1	210.7	219.0
72.5°	291.9	275.0	226.6	172.3	135.8	149.1	174.6	191.8	199.8
75°	274.6	255.8	208.4	148.4	111.3	127.2	154.7	174.3	182.2
77.5°	257.1	239.9	187.8	126.6	89.4	107.3	137.2	158.7	167.0
80°	241.5	221.6	170.6	108.7	66.6	87.8	120.6	141.8	151.4
82.5°	224.3	207.1	155.7	89.8	47.4	69.9	104.4	127.5	135.5
85°	209.0	191.2	141.8	74.9	29.2	54.0	89.4	113.3	122.9
87.5°	195.1	180.2	128.9	63.6	14.6	41.1	75.2	99.4	110.3
90°	182.5	165.6	117.9	53.3	2.7	29.8	63.6	87.5	95.7
92.5°	174.6	154.4	109.0	46.7	1.7	21.2	53.0	76.5	86.1
95°	162.7	144.8	99.7	41.7	1.7	14.2	42.7	65.6	73.9
97.5°	152.4	135.8	93.1	38.8	1.3	9.6	35.1	55.0	63.6
100°	144.4	128.9	87.1	36.1	1.7	7.0	27.8	46.7	54.3
102.5°	135.5	121.3	82.5	34.5	1.7	5.0	21.9	39.4	46.4
105°	127.5	115.0	78.2	32.8	1.7	4.3	17.6	32.5	38.8
107.5°	121.6	108.3	74.5	31.8	1.7	4.3	13.9	26.5	31.8
110°	115.6	103.0	70.9	30.8	1.7	4.0	10.9	21.9	26.5



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CATALOG NUMBER: 2MB-3SL-ASMF-UNV-L940

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	111.6	98.1	67.6	29.8	2.0	4.0	8.9	18.2	21.9
115°	104.7	93.8	64.6	29.5	2.0	3.6	8.3	14.9	18.6
117.5°	99.7	89.8	61.6	28.5	2.0	3.6	8.0	12.3	14.9
120°	96.1	85.1	59.0	27.5	2.0	3.3	7.3	10.9	12.6
122.5°	91.4	80.8	56.7	26.8	2.0	3.3	7.0	10.3	11.3
125°	85.1	76.9	54.0	25.5	2.3	3.3	6.6	9.6	10.6
127.5°	81.2	73.2	52.0	23.9	2.3	3.0	6.3	8.9	9.9
130°	77.9	69.2	49.7	22.2	2.3	3.0	6.0	8.3	9.3
132.5°	72.9	65.3	46.4	20.9	2.3	2.7	5.3	7.6	8.6
135°	68.2	62.0	43.1	19.5	2.3	2.7	5.0	7.3	8.0
137.5°	65.3	58.6	40.1	18.2	2.3	2.3	4.6	6.6	7.3
140°	60.3	55.0	36.8	16.9	2.3	2.3	4.3	6.3	6.6
142.5°	56.7	51.3	33.8	15.6	2.3	2.3	4.0	5.6	6.3
145°	52.3	47.7	30.5	14.2	2.3	2.0	3.6	5.3	5.6
147.5°	48.4	43.4	27.8	13.3	2.3	2.0	3.3	4.6	5.0
150°	44.4	39.1	25.2	12.3	2.3	2.0	3.0	4.0	4.6
152.5°	40.1	33.8	22.5	11.3	2.3	2.0	2.7	3.6	4.0
155°	35.8	29.5	20.2	10.3	2.7	2.0	2.3	3.0	3.6
157.5°	32.1	25.5	17.9	9.3	2.7	1.7	2.3	2.7	3.0
160°	27.8	21.9	15.9	8.3	2.7	1.7	2.0	2.3	2.7
162.5°	24.5	18.2	13.9	7.6	2.7	1.7	2.0	2.0	2.3
165°	20.9	15.2	11.6	7.0	2.7	1.7	1.7	1.7	2.0
167.5°	16.9	11.9	9.6	6.3	2.7	1.7	1.7	1.3	1.7
170°	12.6	8.9	8.0	5.6	2.7	1.7	1.3	1.0	1.3
172.5°	5.6	7.0	6.3	5.0	3.0	1.7	1.3	1.0	0.7
175°	3.0	5.0	5.0	4.3	3.0	1.7	1.3	1.0	0.3
177.5°	2.3	3.0	3.6	3.6	3.0	2.0	1.3	0.7	0.3
180°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0



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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	19.39	20.87	19.90	21.37	21.92	18.27	19.75	18.77	20.25	20.79
	3H	21.48	22.83	22.00	23.34	23.92	20.11	21.45	20.62	21.96	22.55
	4H	22.43	23.70	22.97	24.23	24.83	20.83	22.10	21.37	22.63	23.23
	6H	23.35	24.54	23.90	25.08	25.69	21.43	22.62	21.98	23.16	23.77
	8H	23.78	24.92	24.34	25.48	26.10	21.66	22.80	22.23	23.36	23.98
	12H	24.20	25.29	24.77	25.85	26.50	21.87	22.96	22.44	23.51	24.16
4H	2H	19.87	21.15	20.41	21.68	22.27	18.84	20.12	19.38	20.64	21.24
	3H	22.19	23.28	22.74	23.85	24.46	20.87	21.95	21.42	22.52	23.14
	4H	23.30	24.30	23.88	24.88	25.53	21.70	22.69	22.27	23.27	23.92
	6H	24.41	25.29	25.00	25.89	26.56	22.42	23.30	23.01	23.90	24.56
	8H	24.94	25.77	25.54	26.37	27.05	22.71	23.54	23.31	24.14	24.82
	12H	25.47	26.22	26.09	26.85	27.53	22.98	23.73	23.59	24.36	25.04
8H	4H	23.55	24.38	24.15	24.98	25.66	22.04	22.87	22.64	23.47	24.15
	6H	24.84	25.54	25.46	26.18	26.86	22.89	23.59	23.52	24.24	24.92
	8H	25.51	26.14	26.15	26.79	27.48	23.27	23.90	23.91	24.56	25.25
	12H	26.21	26.78	26.85	27.42	28.18	23.63	24.19	24.27	24.83	25.59
12H	4H	23.57	24.32	24.19	24.95	25.63	22.11	22.86	22.73	23.49	24.17
	6H	24.89	25.52	25.53	26.17	26.87	23.00	23.64	23.65	24.29	24.98
	8H	25.63	26.20	26.27	26.84	27.59	23.45	24.01	24.09	24.65	25.41