

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: P892607

Luminaire Tested: 2MB-3SL-ASMF-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892607
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-L840
Description: 3000 Lumen 2FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

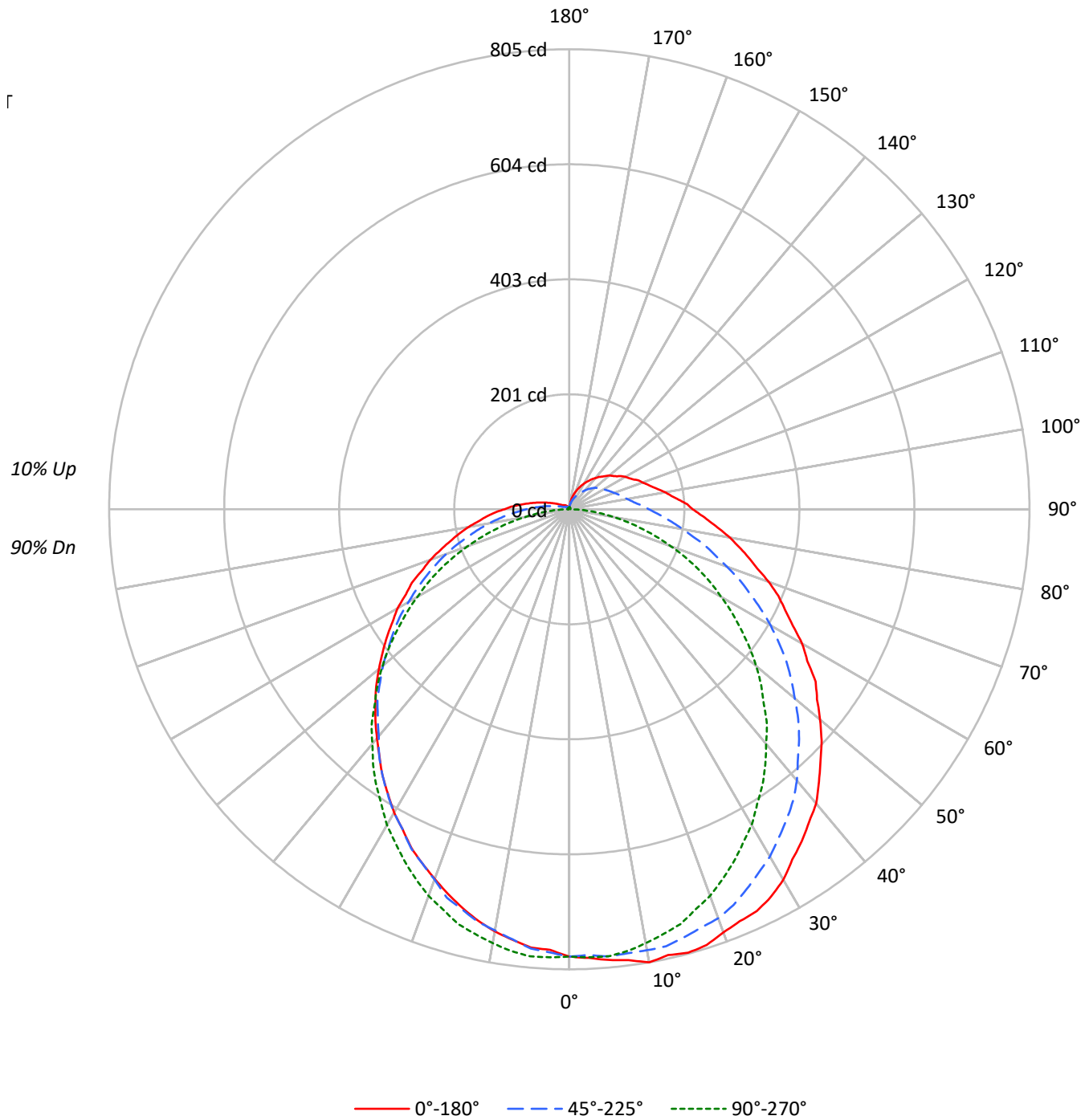
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2691.0 lumens
Efficiency: N/A
Efficacy: 128.1 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	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°	16027	16027	16027	16027	16027
5°	16184	15628	15505	15355	15736
10°	16553	15274	14803	14588	15427
15°	16748	14926	14145	13954	15059
20°	16781	14591	13397	13204	14664
25°	17031	14098	12610	12578	14351
30°	17080	13623	11860	11905	13982
35°	16975	13107	11074	11258	13631
40°	17056	12576	10268	10534	13281
45°	16928	11954	9472	9980	13058
50°	16961	11316	8707	9347	12881
55°	17224	10756	7829	8715	12751
60°	17365	10069	6931	8043	12813
65°	17768	9327	6022	7377	12959
70°	18927	8615	4935	6739	13198
75°	20769	8087	3775	6005	13778
80°	24770	7566	2529	5351	15523
85°	33687	7406	1267	4673	19811

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 69894 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.3	2.8
10°-20°	212.8	7.9
20°-30°	321.0	11.9
30°-40°	385.2	14.3
40°-50°	401.1	14.9
50°-60°	371.8	13.8
60°-70°	306.2	11.4
70°-80°	220.9	8.2
80°-90°	140.2	5.2
90°-100°	86.5	3.2
100°-110°	57.7	2.1
110°-120°	41.0	1.5
120°-130°	30.1	1.1
130°-140°	20.7	0.8
140°-150°	12.6	0.5
150°-160°	6.2	0.2
160°-170°	2.3	0.1
170°-180°	0.4	0.0
0°-30°	608.1	22.6
0°-40°	993.3	36.9
0°-60°	1766.3	65.6
0°-90°	2433.6	90.4
90°-120°	185.2	6.9
90°-150°	248.5	9.2
90°-180°	257.0	9.6
0°-180°	2691.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	783	783	783	783	783	
5°	792	785	785	772	770	76
15°	803	775	751	725	722	227
25°	776	734	681	655	654	357
35°	709	663	589	569	569	444
45°	622	569	481	475	479	481
55°	526	464	367	376	389	467
65°	416	348	250	276	304	415
75°	324	246	132	183	215	344
85°	247	168	34	106	145	210
90°	216	139	3	75	113	119
95°	192	118	2	50	87	153
105°	151	92	2	21	46	161
115°	124	76	2	10	22	124
125°	101	64	3	8	12	92
135°	81	51	3	6	9	63
145°	62	36	3	4	7	39
155°	42	24	3	3	4	20
165°	25	14	3	2	2	7
175°	4	6	4	2	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°	782.7	782.7	782.7	782.7	782.7	782.7	782.7	782.7	782.7
2.5°	785.8	788.2	780.7	785.4	784.7	785.4	776.0	783.9	771.7
5°	791.7	792.9	785.4	788.2	785.4	778.8	771.7	769.0	769.8
7.5°	795.6	801.9	783.5	784.3	779.6	772.5	759.2	761.6	760.0
10°	805.0	798.0	783.5	780.0	771.0	763.5	748.3	749.4	750.2
12.5°	799.1	797.6	783.1	770.2	761.2	754.9	739.3	735.3	737.3
15°	803.4	796.8	775.3	765.1	751.4	740.4	724.8	722.0	722.4
17.5°	799.5	794.0	767.4	753.3	734.2	727.5	712.6	707.9	705.6
20°	787.8	785.0	761.6	737.3	720.1	707.2	689.2	686.4	688.4
22.5°	780.0	773.3	749.8	725.6	700.5	689.2	671.2	670.8	671.2
25°	776.0	767.4	733.8	708.3	680.6	670.4	654.7	648.9	653.9
27.5°	764.3	756.5	717.0	689.2	658.2	644.6	631.6	630.5	631.2
30°	748.7	733.4	701.7	667.6	637.9	623.8	613.2	605.4	612.9
32.5°	726.3	717.7	681.7	644.6	611.7	601.9	591.3	590.5	590.5
35°	709.1	702.9	662.9	624.2	589.0	575.7	569.4	566.7	569.4
37.5°	689.2	679.8	643.0	599.5	563.5	552.2	545.9	543.6	545.5
40°	671.9	654.7	619.5	574.1	535.8	525.6	518.9	521.3	523.2
42.5°	646.5	636.7	591.7	548.3	511.9	500.9	495.4	497.4	502.1
45°	621.5	612.5	568.6	521.3	481.0	475.1	474.7	473.5	479.4
47.5°	598.8	585.8	543.2	494.7	455.1	448.5	449.3	453.2	458.3
50°	572.5	557.3	515.0	466.1	426.6	422.3	425.4	428.1	434.8
52.5°	546.3	534.2	489.2	439.1	397.6	394.5	398.8	407.8	411.7
55°	526.0	504.1	463.7	407.4	366.7	367.1	375.7	380.8	389.4
57.5°	493.5	477.1	434.8	379.2	337.7	340.5	352.2	360.8	366.3
60°	470.4	449.7	406.6	349.1	307.2	311.5	324.8	337.7	347.1
62.5°	440.7	422.7	377.3	319.3	279.0	285.3	300.2	315.4	322.1
65°	416.4	396.0	348.3	289.6	249.7	257.1	275.5	292.7	303.7
67.5°	395.7	374.5	322.5	262.2	219.9	230.9	252.4	269.2	277.9
70°	371.0	346.3	293.1	231.7	189.0	201.9	229.3	248.9	258.7
72.5°	344.8	324.8	267.7	203.5	160.5	176.1	206.2	226.6	236.0
75°	324.4	302.1	246.2	175.3	131.5	150.3	182.8	205.8	215.2
77.5°	303.7	283.3	221.9	149.5	105.7	126.8	162.0	187.5	197.2
80°	285.3	261.8	201.5	128.4	78.7	103.7	142.5	167.5	178.8
82.5°	264.9	244.6	183.9	106.1	56.0	82.6	123.3	150.7	160.1
85°	246.9	225.8	167.5	88.4	34.4	63.8	105.7	133.8	145.2
87.5°	230.5	212.9	152.2	75.1	17.2	48.5	88.8	117.4	130.3
90°	215.6	195.7	139.3	63.0	3.1	35.2	75.1	103.3	113.1
92.5°	206.2	182.4	128.8	55.2	2.0	25.0	62.6	90.4	101.8
95°	192.2	171.0	117.8	49.3	2.0	16.8	50.5	77.5	87.3
97.5°	180.0	160.5	110.0	45.8	1.6	11.3	41.5	65.0	75.1
100°	170.6	152.2	102.9	42.7	2.0	8.2	32.9	55.2	64.2
102.5°	160.1	143.2	97.4	40.7	2.0	5.9	25.8	46.6	54.8
105°	150.7	135.8	92.4	38.7	2.0	5.1	20.7	38.4	45.8
107.5°	143.6	128.0	88.1	37.6	2.0	5.1	16.4	31.3	37.6
110°	136.6	121.7	83.7	36.4	2.0	4.7	12.9	25.8	31.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	131.9	115.8	79.8	35.2	2.3	4.7	10.6	21.5	25.8
115°	123.7	110.8	76.3	34.8	2.3	4.3	9.8	17.6	21.9
117.5°	117.8	106.1	72.8	33.7	2.3	4.3	9.4	14.5	17.6
120°	113.5	100.6	69.7	32.5	2.3	3.9	8.6	12.9	14.9
122.5°	108.0	95.5	66.9	31.7	2.3	3.9	8.2	12.1	13.3
125°	100.6	90.8	63.8	30.1	2.7	3.9	7.8	11.3	12.5
127.5°	95.9	86.5	61.4	28.2	2.7	3.5	7.4	10.6	11.7
130°	92.0	81.8	58.7	26.2	2.7	3.5	7.0	9.8	11.0
132.5°	86.1	77.1	54.8	24.7	2.7	3.1	6.3	9.0	10.2
135°	80.6	73.2	50.9	23.1	2.7	3.1	5.9	8.6	9.4
137.5°	77.1	69.3	47.4	21.5	2.7	2.7	5.5	7.8	8.6
140°	71.2	65.0	43.4	20.0	2.7	2.7	5.1	7.4	7.8
142.5°	66.9	60.7	39.9	18.4	2.7	2.7	4.7	6.7	7.4
145°	61.8	56.4	36.0	16.8	2.7	2.3	4.3	6.3	6.7
147.5°	57.1	51.3	32.9	15.7	2.7	2.3	3.9	5.5	5.9
150°	52.4	46.2	29.7	14.5	2.7	2.3	3.5	4.7	5.5
152.5°	47.4	39.9	26.6	13.3	2.7	2.3	3.1	4.3	4.7
155°	42.3	34.8	23.9	12.1	3.1	2.3	2.7	3.5	4.3
157.5°	38.0	30.1	21.1	11.0	3.1	2.0	2.7	3.1	3.5
160°	32.9	25.8	18.8	9.8	3.1	2.0	2.3	2.7	3.1
162.5°	29.0	21.5	16.4	9.0	3.1	2.0	2.3	2.3	2.7
165°	24.7	18.0	13.7	8.2	3.1	2.0	2.0	2.0	2.3
167.5°	20.0	14.1	11.3	7.4	3.1	2.0	2.0	1.6	2.0
170°	14.9	10.6	9.4	6.7	3.1	2.0	1.6	1.2	1.6
172.5°	6.7	8.2	7.4	5.9	3.5	2.0	1.6	1.2	0.8
175°	3.5	5.9	5.9	5.1	3.5	2.0	1.6	1.2	0.4
177.5°	2.7	3.5	4.3	4.3	3.5	2.3	1.6	0.8	0.4
180°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3



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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	19.97	21.45	20.48	21.95	22.49	18.85	20.32	19.35	20.83	21.37
	3H	22.06	23.41	22.58	23.92	24.50	20.68	22.03	21.20	22.54	23.13
	4H	23.01	24.28	23.54	24.81	25.41	21.41	22.68	21.95	23.21	23.81
	6H	23.93	25.12	24.48	25.66	26.27	22.01	23.20	22.56	23.74	24.35
	8H	24.36	25.50	24.92	26.06	26.68	22.24	23.38	22.81	23.94	24.56
	12H	24.78	25.87	25.35	26.43	27.08	22.44	23.54	23.02	24.09	24.74
4H	2H	20.45	21.73	20.99	22.26	22.85	19.42	20.69	19.96	21.22	21.82
	3H	22.77	23.86	23.32	24.43	25.04	21.44	22.53	22.00	23.10	23.72
	4H	23.88	24.88	24.46	25.46	26.11	22.27	23.27	22.85	23.85	24.50
	6H	24.99	25.87	25.58	26.47	27.14	23.00	23.88	23.59	24.48	25.14
	8H	25.52	26.35	26.12	26.95	27.62	23.29	24.12	23.89	24.72	25.40
	12H	26.05	26.80	26.67	27.43	28.11	23.55	24.31	24.17	24.94	25.62
8H	4H	24.13	24.96	24.73	25.56	26.24	22.62	23.45	23.22	24.05	24.72
	6H	25.42	26.12	26.04	26.76	27.44	23.47	24.17	24.10	24.82	25.50
	8H	26.09	26.72	26.73	27.37	28.06	23.85	24.48	24.49	25.13	25.83
	12H	26.79	27.35	27.43	28.00	28.75	24.21	24.77	24.85	25.41	26.17
12H	4H	24.15	24.90	24.77	25.53	26.21	22.69	23.44	23.30	24.07	24.75
	6H	25.47	26.10	26.11	26.75	27.45	23.58	24.22	24.22	24.87	25.56
	8H	26.21	26.77	26.85	27.42	28.17	24.03	24.59	24.67	25.23	25.99