

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: P892818

Luminaire Tested: 2MB-5HL-ASMF-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892818
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-5HL-ASMF-UNV-L935
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 90CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

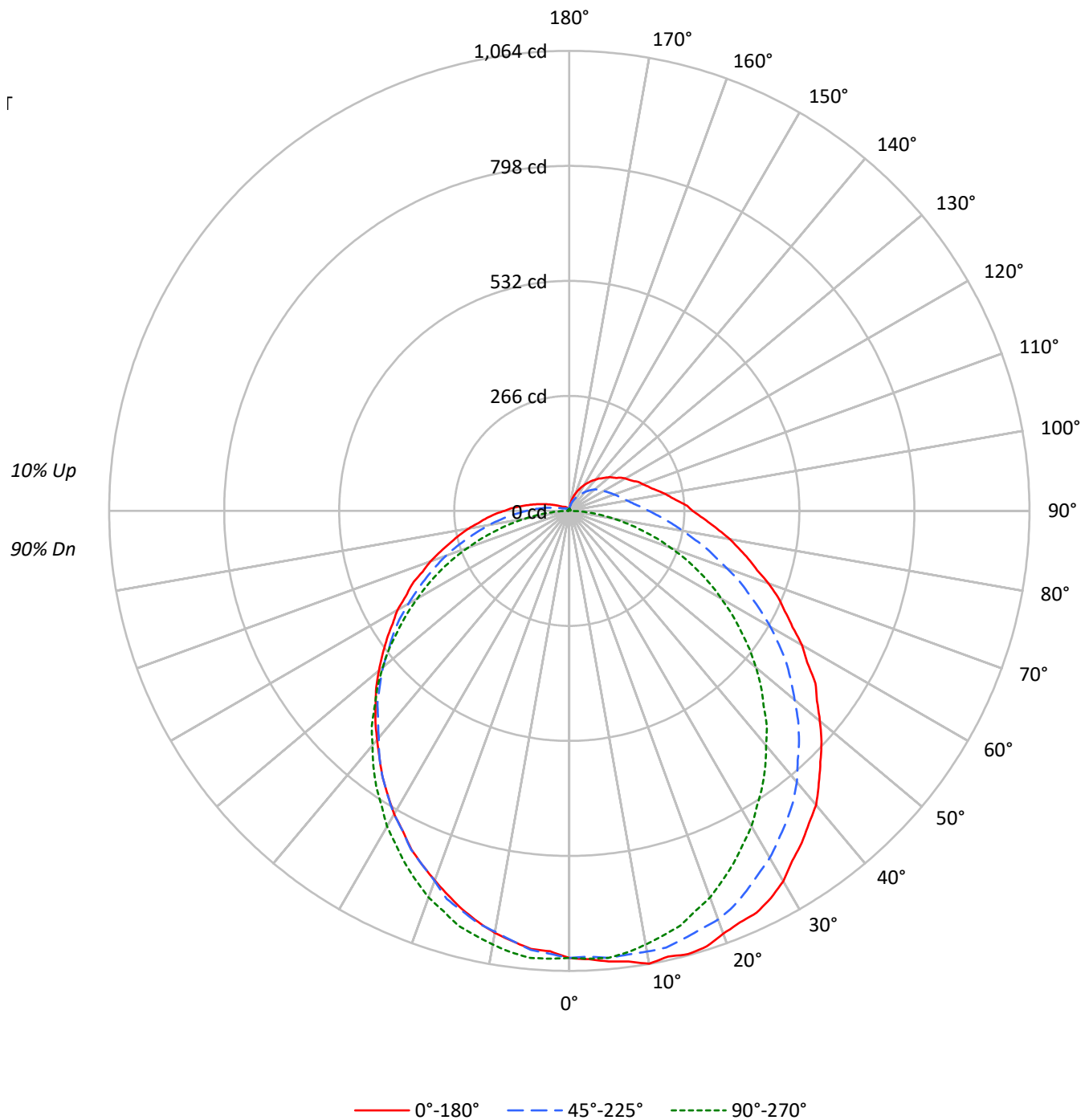
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3555.0 lumens
Efficiency: N/A
Efficacy: 105.5 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): 33.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4.5
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°	21173	21173	21173	21173	21173
5°	21380	20646	20484	20286	20787
10°	21869	20177	19554	19271	20380
15°	22126	19718	18686	18434	19895
20°	22168	19276	17698	17442	19371
25°	22500	18624	16658	16617	18960
30°	22561	17997	15668	15727	18469
35°	22426	17316	14630	14872	18006
40°	22534	16614	13564	13916	17546
45°	22362	15793	12512	13184	17250
50°	22409	14950	11501	12349	17017
55°	22752	14210	10342	11512	16844
60°	22939	13303	9156	10626	16929
65°	23474	12321	7953	9747	17120
70°	25003	11380	6520	8906	17432
75°	27440	10682	4986	7929	18202
80°	32722	9999	3339	7067	20515
85°	44506	9784	1676	6172	26169

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 92360 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.1	2.8
10°-20°	281.2	7.9
20°-30°	424.0	11.9
30°-40°	508.9	14.3
40°-50°	529.9	14.9
50°-60°	491.2	13.8
60°-70°	404.5	11.4
70°-80°	291.8	8.2
80°-90°	185.3	5.2
90°-100°	114.2	3.2
100°-110°	76.2	2.1
110°-120°	54.2	1.5
120°-130°	39.7	1.1
130°-140°	27.3	0.8
140°-150°	16.6	0.5
150°-160°	8.2	0.2
160°-170°	3.0	0.1
170°-180°	0.5	0.0
0°-30°	803.3	22.6
0°-40°	1312.2	36.9
0°-60°	2333.3	65.6
0°-90°	3214.9	90.4
90°-120°	244.6	6.9
90°-150°	328.3	9.2
90°-180°	340.0	9.6
0°-180°	3555.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1034	1034	1034	1034	1034	
5°	1046	1038	1038	1020	1017	100
15°	1061	1024	993	958	954	299
25°	1025	969	899	865	864	471
35°	937	876	778	752	752	587
45°	821	751	635	627	633	635
55°	695	613	484	496	514	617
65°	550	460	330	364	401	548
75°	429	325	174	241	284	454
85°	326	221	46	140	192	277
90°	285	184	4	99	149	157
95°	254	156	3	67	115	202
105°	199	122	3	27	60	213
115°	163	101	3	13	29	164
125°	133	84	4	10	16	121
135°	106	67	4	8	12	83
145°	82	48	4	6	9	52
155°	56	32	4	4	6	26
165°	33	18	4	3	3	9
175°	5	8	5	2	0	1
180°	3	3	3	3	3	



TEST NUMBER: P892818
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1034.0	1034.0	1034.0	1034.0	1034.0	1034.0	1034.0	1034.0	1034.0
2.5°	1038.1	1041.2	1031.4	1037.6	1036.6	1037.6	1025.2	1035.5	1019.5
5°	1045.9	1047.4	1037.6	1041.2	1037.6	1028.8	1019.5	1015.9	1016.9
7.5°	1051.1	1059.3	1035.0	1036.1	1029.9	1020.6	1003.0	1006.1	1004.0
10°	1063.5	1054.2	1035.0	1030.4	1018.5	1008.7	988.5	990.1	991.1
12.5°	1055.7	1053.6	1034.5	1017.5	1005.6	997.3	976.6	971.4	974.0
15°	1061.4	1052.6	1024.2	1010.7	992.6	978.2	957.5	953.9	954.4
17.5°	1056.2	1049.0	1013.8	995.2	969.9	961.1	941.5	935.3	932.1
20°	1040.7	1037.1	1006.1	974.0	951.3	934.2	910.4	906.8	909.4
22.5°	1030.4	1021.6	990.6	958.5	925.4	910.4	886.7	886.1	886.7
25°	1025.2	1013.8	969.4	935.8	899.1	885.6	864.9	857.2	863.9
27.5°	1009.7	999.4	947.1	910.4	869.6	851.5	834.4	832.9	833.9
30°	989.0	968.9	927.0	882.0	842.7	824.1	810.1	799.8	809.6
32.5°	959.6	948.2	900.6	851.5	808.1	795.1	781.2	780.2	780.2
35°	936.8	928.5	875.8	824.6	778.1	760.5	752.2	748.6	752.2
37.5°	910.4	898.0	849.4	792.0	744.5	729.5	721.2	718.1	720.7
40°	887.7	864.9	818.4	758.4	707.8	694.3	685.5	688.6	691.2
42.5°	854.1	841.2	781.7	724.3	676.2	661.8	654.5	657.1	663.3
45°	821.0	809.1	751.2	688.6	635.4	627.6	627.1	625.6	633.3
47.5°	791.0	773.9	717.6	653.5	601.3	592.5	593.5	598.7	605.4
50°	756.4	736.2	680.4	615.7	563.5	557.8	562.0	565.6	574.4
52.5°	721.7	705.7	646.2	580.1	525.3	521.1	526.8	538.7	543.9
55°	694.8	665.9	612.6	538.2	484.4	484.9	496.3	503.0	514.4
57.5°	651.9	630.2	574.4	501.0	446.2	449.8	465.3	476.7	483.9
60°	621.4	594.0	537.2	461.2	405.8	411.5	429.1	446.2	458.6
62.5°	582.1	558.4	498.4	421.9	368.6	376.9	396.5	416.7	425.5
65°	550.1	523.2	460.1	382.6	329.8	339.7	364.0	386.7	401.2
67.5°	522.7	494.8	426.0	346.4	290.6	305.0	333.5	355.7	367.1
70°	490.1	457.5	387.2	306.1	249.7	266.8	303.0	328.8	341.7
72.5°	455.5	429.1	353.6	268.8	212.0	232.6	272.5	299.3	311.8
75°	428.6	399.1	325.2	231.6	173.7	198.5	241.4	271.9	284.3
77.5°	401.2	374.3	293.1	197.5	139.6	167.5	214.0	247.6	260.6
80°	376.9	345.9	266.3	169.6	103.9	137.0	188.2	221.3	236.3
82.5°	350.0	323.1	243.0	140.1	73.9	109.1	162.9	199.0	211.5
85°	326.2	298.3	221.3	116.8	45.5	84.3	139.6	176.8	191.8
87.5°	304.5	281.2	201.1	99.3	22.7	64.1	117.4	155.1	172.2
90°	284.9	258.5	184.1	83.2	4.1	46.5	99.3	136.5	149.4
92.5°	272.5	240.9	170.1	72.9	2.6	33.1	82.7	119.4	134.4
95°	253.8	225.9	155.6	65.1	2.6	22.2	66.7	102.4	115.3
97.5°	237.8	212.0	145.3	60.5	2.1	15.0	54.8	85.8	99.3
100°	225.4	201.1	136.0	56.4	2.6	10.9	43.4	72.9	84.8
102.5°	211.5	189.2	128.7	53.8	2.6	7.8	34.1	61.5	72.4
105°	199.0	179.4	122.0	51.2	2.6	6.7	27.4	50.7	60.5
107.5°	189.7	169.1	116.3	49.6	2.6	6.7	21.7	41.4	49.6
110°	180.4	160.8	110.6	48.1	2.6	6.2	17.1	34.1	41.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	174.2	153.0	105.5	46.5	3.1	6.2	14.0	28.4	34.1
115°	163.4	146.3	100.8	46.0	3.1	5.7	12.9	23.3	29.0
117.5°	155.6	140.1	96.2	44.5	3.1	5.7	12.4	19.1	23.3
120°	149.9	132.9	92.0	42.9	3.1	5.2	11.4	17.1	19.6
122.5°	142.7	126.1	88.4	41.9	3.1	5.2	10.9	16.0	17.6
125°	132.9	119.9	84.3	39.8	3.6	5.2	10.3	15.0	16.5
127.5°	126.7	114.3	81.2	37.2	3.6	4.7	9.8	14.0	15.5
130°	121.5	108.1	77.5	34.6	3.6	4.7	9.3	12.9	14.5
132.5°	113.7	101.8	72.4	32.6	3.6	4.1	8.3	11.9	13.4
135°	106.5	96.7	67.2	30.5	3.6	4.1	7.8	11.4	12.4
137.5°	101.8	91.5	62.6	28.4	3.6	3.6	7.2	10.3	11.4
140°	94.1	85.8	57.4	26.4	3.6	3.6	6.7	9.8	10.3
142.5°	88.4	80.1	52.7	24.3	3.6	3.6	6.2	8.8	9.8
145°	81.7	74.4	47.6	22.2	3.6	3.1	5.7	8.3	8.8
147.5°	75.5	67.7	43.4	20.7	3.6	3.1	5.2	7.2	7.8
150°	69.3	61.0	39.3	19.1	3.6	3.1	4.7	6.2	7.2
152.5°	62.6	52.7	35.2	17.6	3.6	3.1	4.1	5.7	6.2
155°	55.8	46.0	31.5	16.0	4.1	3.1	3.6	4.7	5.7
157.5°	50.1	39.8	27.9	14.5	4.1	2.6	3.6	4.1	4.7
160°	43.4	34.1	24.8	12.9	4.1	2.6	3.1	3.6	4.1
162.5°	38.3	28.4	21.7	11.9	4.1	2.6	3.1	3.1	3.6
165°	32.6	23.8	18.1	10.9	4.1	2.6	2.6	2.6	3.1
167.5°	26.4	18.6	15.0	9.8	4.1	2.6	2.6	2.1	2.6
170°	19.6	14.0	12.4	8.8	4.1	2.6	2.1	1.6	2.1
172.5°	8.8	10.9	9.8	7.8	4.7	2.6	2.1	1.6	1.0
175°	4.7	7.8	7.8	6.7	4.7	2.6	2.1	1.6	0.5
177.5°	3.6	4.7	5.7	5.7	4.7	3.1	2.1	1.0	0.5
180°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1



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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	20.94	22.42	21.44	22.92	23.46	19.81	21.29	20.32	21.79	22.34
	3H	23.03	24.38	23.55	24.89	25.47	21.65	23.00	22.17	23.51	24.09
	4H	23.97	25.25	24.51	25.78	26.37	22.37	23.65	22.91	24.18	24.77
	6H	24.89	26.08	25.45	26.62	27.24	22.97	24.16	23.53	24.70	25.32
	8H	25.33	26.46	25.89	27.03	27.64	23.21	24.35	23.77	24.91	25.53
	12H	25.75	26.84	26.32	27.40	28.04	23.41	24.50	23.98	25.06	25.71
4H	2H	21.42	22.70	21.96	23.22	23.82	20.39	21.66	20.93	22.19	22.79
	3H	23.74	24.82	24.29	25.39	26.01	22.41	23.50	22.97	24.07	24.69
	4H	24.85	25.85	25.42	26.42	27.07	23.24	24.24	23.81	24.82	25.47
	6H	25.96	26.84	26.55	27.44	28.10	23.97	24.84	24.56	25.45	26.11
	8H	26.49	27.31	27.08	27.92	28.59	24.26	25.08	24.85	25.69	26.36
	12H	27.02	27.77	27.64	28.40	29.08	24.52	25.27	25.14	25.90	26.58
8H	4H	25.10	25.93	25.70	26.53	27.20	23.59	24.41	24.18	25.02	25.69
	6H	26.38	27.08	27.01	27.73	28.41	24.44	25.14	25.07	25.78	26.46
	8H	27.05	27.68	27.69	28.34	29.03	24.82	25.45	25.46	26.10	26.79
	12H	27.76	28.32	28.40	28.96	29.72	25.17	25.74	25.82	26.38	27.14
12H	4H	25.11	25.87	25.73	26.50	27.18	23.65	24.40	24.27	25.03	25.71
	6H	26.43	27.07	27.08	27.72	28.41	24.55	25.18	25.19	25.84	26.53
	8H	27.18	27.74	27.82	28.38	29.14	24.99	25.56	25.64	26.20	26.96