

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: P892791

Luminaire Tested: 2MB-5HL-A-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892791
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-8)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-5HL-A-UNV-L840
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTIC, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

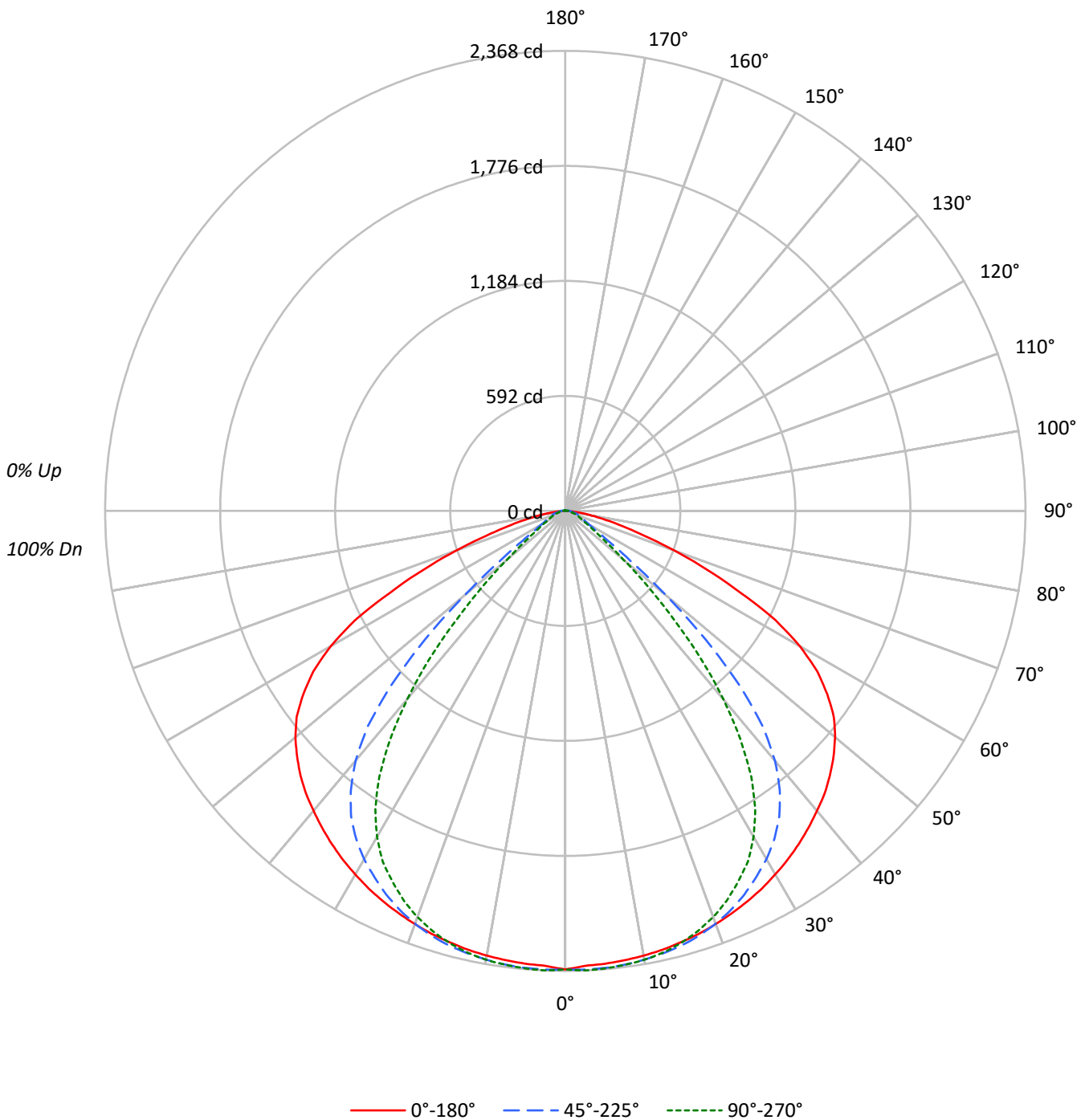
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5019.9 lumens
Efficiency: N/A
Efficacy: 149.0 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.21 / 1.29
Luminous Opening: Rectangular (W 0.27' x L: 1.98' x H: 0')
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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100	
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	88	
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	79	77	
3	95	86	80	74	93	85	78	73	82	77	72	79	75	71	77	73	70	70	68	
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	62	60	
5	82	71	63	57	80	70	62	57	68	61	56	66	60	55	64	59	55	55	53	
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	58	53	49	49	47	
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	48	44	44	43	
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	40	38	
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	37	35	
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	37	33	33	32	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	48333	48333	48333
5°	48096	48536	48593
10°	48324	48769	48787
15°	48734	49090	48812
20°	49323	49282	48491
25°	50110	49247	47563
30°	51095	48960	45811
35°	52344	48012	41703
40°	53856	44867	33787
45°	55782	36603	22874
50°	57745	21573	12433
55°	58758	9610	6751
60°	57146	5873	4808
65°	48112	4918	4109
70°	35856	4742	3736
75°	24249	4937	3173
80°	16473	4505	3620
85°	10055	6555	6343

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 55°
 Luminance: 58758 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.6	4.5
10°-20°	652.3	13.0
20°-30°	1000.9	19.9
30°-40°	1179.1	23.5
40°-50°	1005.5	20.0
50°-60°	549.3	10.9
60°-70°	243.5	4.9
70°-80°	106.9	2.1
80°-90°	38.2	0.8
90°-100°	11.8	0.2
100°-110°	3.0	0.1
110°-120°	0.8	0.0
120°-130°	0.8	0.0
130°-140°	0.7	0.0
140°-150°	0.8	0.0
150°-160°	0.8	0.0
160°-170°	0.7	0.0
170°-180°	0.2	0.0
0°-30°	1877.8	37.4
0°-40°	3056.9	60.9
0°-60°	4611.7	91.9
0°-90°	5000.3	99.6
90°-120°	15.5	0.3
90°-150°	17.9	0.4
90°-180°	20.0	0.4
0°-180°	5019.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2360	2360	2360	2360	2360	
5°	2340	2353	2361	2367	2364	223
15°	2299	2312	2316	2309	2303	650
25°	2218	2218	2180	2135	2105	1024
35°	2094	2055	1921	1746	1668	1312
45°	1926	1768	1264	880	790	1486
55°	1646	1009	269	198	189	1461
65°	993	214	102	90	85	987
75°	306	108	62	48	40	346
85°	43	39	28	27	27	56
90°	4	16	21	21	18	4
95°	4	6	15	12	12	2
105°	1	1	2	5	6	1
115°	1	1	1	1	1	1
125°	1	1	1	1	1	1
135°	1	1	1	1	1	1
145°	1	1	2	2	2	1
155°	1	2	2	2	2	0
165°	2	2	3	3	3	1
175°	2	2	3	3	3	0
180°	3	3	3	3	3	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2360.4	2360.4	2360.4	2360.4	2360.4
2.5°	2343.6	2355.7	2363.2	2368.8	2367.8
5°	2339.9	2352.9	2361.3	2366.9	2364.1
7.5°	2333.4	2347.3	2355.7	2361.3	2356.7
10°	2324.1	2338.0	2345.5	2349.2	2346.4
12.5°	2313.8	2326.9	2332.4	2334.3	2328.7
15°	2298.9	2311.9	2315.7	2309.2	2302.6
17.5°	2283.1	2294.3	2292.4	2280.3	2268.2
20°	2263.5	2272.8	2261.6	2238.4	2225.3
22.5°	2241.2	2247.7	2224.4	2189.9	2171.3
25°	2217.9	2217.9	2179.7	2135.0	2105.2
27.5°	2191.8	2185.3	2125.7	2066.0	2035.3
30°	2161.0	2146.1	2070.7	1985.9	1937.5
32.5°	2129.4	2105.2	2002.7	1881.6	1819.2
35°	2094.0	2054.9	1920.7	1745.6	1668.3
37.5°	2055.8	2000.8	1813.6	1573.3	1478.3
40°	2014.8	1934.7	1678.5	1369.3	1264.0
42.5°	1974.8	1859.2	1503.4	1134.6	1037.7
45°	1926.3	1768.0	1264.0	880.3	789.9
47.5°	1872.3	1655.3	976.2	634.3	579.4
50°	1812.7	1501.6	677.2	436.9	390.3
52.5°	1741.9	1292.9	426.6	290.6	268.3
55°	1645.9	1008.8	269.2	197.5	189.1
57.5°	1537.0	705.1	183.5	150.0	144.4
60°	1395.4	451.8	143.4	123.0	117.4
62.5°	1220.2	299.9	119.2	104.3	98.7
65°	993.0	214.2	101.5	90.4	84.8
67.5°	787.1	171.4	89.4	79.2	71.7
70°	598.9	143.4	79.2	69.9	62.4
72.5°	426.6	124.8	70.8	59.6	52.2
75°	306.5	108.1	62.4	47.5	40.1
77.5°	211.4	94.1	52.2	36.3	34.5
80°	139.7	82.0	38.2	32.6	30.7
82.5°	84.8	66.1	32.6	27.9	29.8
85°	42.8	39.1	27.9	27.0	27.0
87.5°	16.8	23.3	23.3	26.1	26.1
90°	3.7	15.8	21.4	21.4	17.7
92.5°	3.7	12.1	19.6	14.9	13.0
95°	3.7	6.5	14.9	12.1	12.1
97.5°	2.8	2.8	10.2	10.2	10.2
100°	0.9	1.9	6.5	9.3	9.3
102.5°	0.9	0.9	3.7	6.5	7.5
105°	0.9	0.9	1.9	4.7	5.6
107.5°	0.0	0.0	0.9	2.8	3.7
110°	0.0	0.0	0.9	1.9	1.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.9	0.9	0.9
115°	0.9	0.9	0.9	0.9	0.9
117.5°	0.9	0.9	0.9	0.9	0.9
120°	0.9	0.9	0.9	0.9	0.9
122.5°	0.9	0.9	0.9	0.9	0.9
125°	0.9	0.9	0.9	0.9	0.9
127.5°	0.9	0.9	0.9	0.9	0.9
130°	0.9	0.9	0.9	0.9	0.9
132.5°	0.9	0.9	0.9	0.9	0.9
135°	0.9	0.9	0.9	0.9	0.9
137.5°	0.9	0.9	0.9	0.9	0.9
140°	0.9	0.9	0.9	0.9	0.9
142.5°	0.9	0.9	0.9	1.9	0.9
145°	0.9	0.9	1.9	1.9	1.9
147.5°	0.9	0.9	1.9	1.9	1.9
150°	0.9	0.9	1.9	1.9	1.9
152.5°	0.9	1.9	1.9	1.9	1.9
155°	0.9	1.9	1.9	1.9	1.9
157.5°	0.9	1.9	1.9	2.8	1.9
160°	1.9	1.9	1.9	2.8	1.9
162.5°	1.9	1.9	2.8	2.8	2.8
165°	1.9	1.9	2.8	2.8	2.8
167.5°	1.9	1.9	2.8	2.8	2.8
170°	1.9	1.9	2.8	2.8	2.8
172.5°	1.9	1.9	2.8	2.8	2.8
175°	1.9	1.9	2.8	2.8	2.8
177.5°	1.9	1.9	2.8	3.7	2.8
180°	2.8	2.8	2.8	2.8	2.8



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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	24.56	25.96	24.93	26.28	26.61	12.46	13.87	12.84	14.19	14.51
	3H	25.85	27.10	26.24	27.44	27.81	13.63	14.87	14.02	15.21	15.58
	4H	26.25	27.41	26.66	27.77	28.16	14.06	15.22	14.47	15.58	15.97
	6H	26.48	27.55	26.90	27.93	28.33	14.44	15.51	14.86	15.88	16.29
	8H	26.54	27.55	26.97	27.95	28.36	14.69	15.70	15.12	16.10	16.51
	12H	26.55	27.52	26.99	27.91	28.35	15.02	15.99	15.46	16.38	16.82
4H	2H	24.38	25.54	24.79	25.90	26.29	12.98	14.14	13.39	14.50	14.89
	3H	25.71	26.66	26.13	27.07	27.48	14.44	15.39	14.86	15.80	16.21
	4H	26.14	26.99	26.58	27.41	27.87	15.00	15.84	15.44	16.27	16.72
	6H	26.47	27.20	26.93	27.65	28.13	15.50	16.24	15.97	16.69	17.16
	8H	26.56	27.24	27.03	27.70	28.18	15.82	16.50	16.29	16.96	17.44
	12H	26.61	27.22	27.10	27.70	28.19	16.26	16.87	16.75	17.36	17.84
8H	4H	26.04	26.73	26.52	27.18	27.66	15.57	16.26	16.05	16.71	17.19
	6H	26.39	26.95	26.90	27.46	27.95	16.20	16.77	16.71	17.27	17.76
	8H	26.52	27.03	27.05	27.55	28.05	16.61	17.12	17.13	17.64	18.14
	12H	26.61	27.07	27.13	27.57	28.15	17.20	17.65	17.72	18.15	18.73
12H	4H	26.00	26.61	26.49	27.10	27.58	15.78	16.39	16.27	16.87	17.36
	6H	26.34	26.85	26.86	27.37	27.87	16.44	16.95	16.97	17.47	17.97
	8H	26.50	26.95	27.02	27.45	28.03	16.92	17.38	17.44	17.88	18.45