

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: P892799

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892799
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-5HL-ACL-UNV-L840
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 80CRI, 4000K (C)
Light Source: -
Ballast/Driver: -

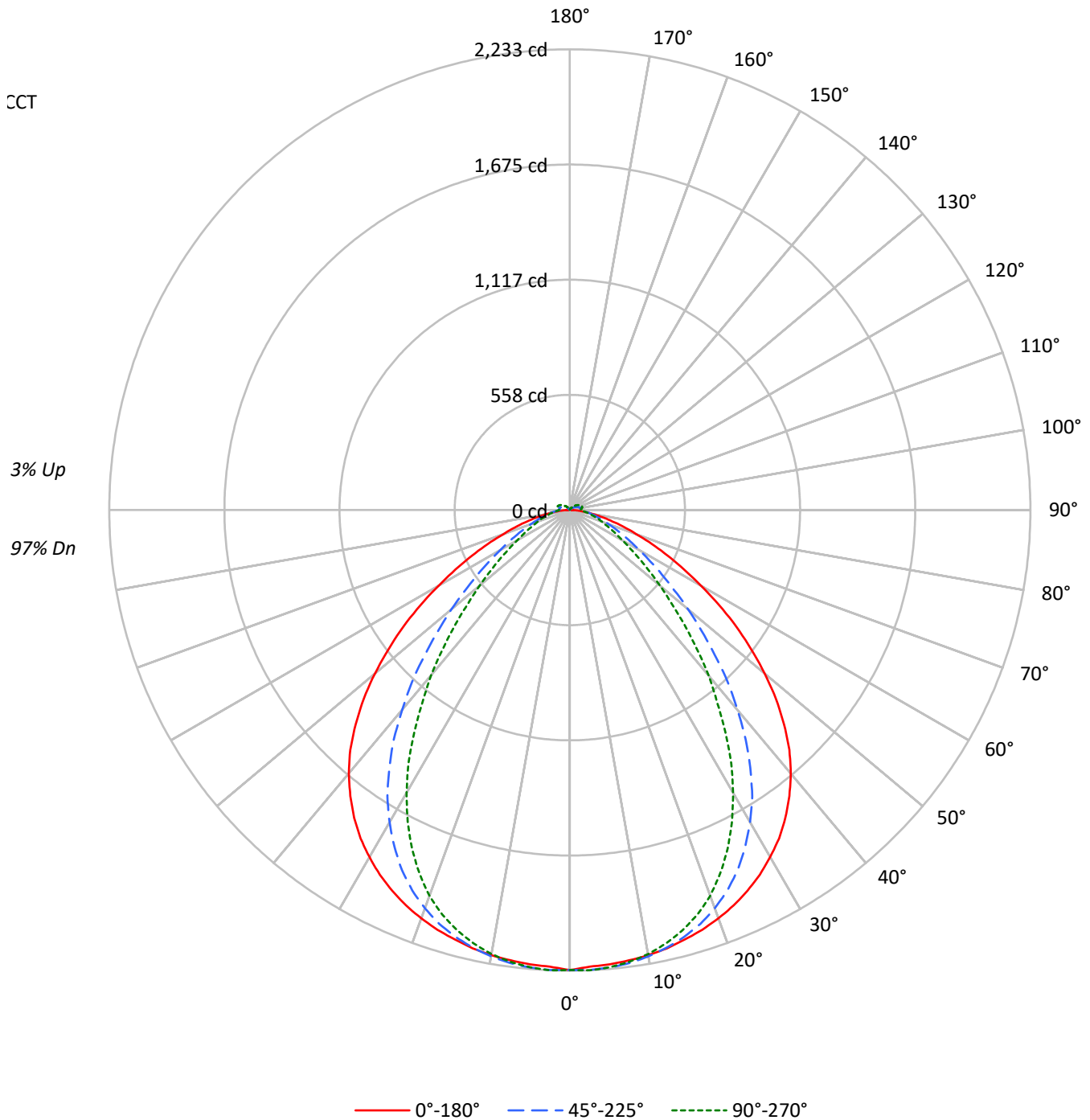
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4765.0 lumens
Efficiency: N/A
Efficacy: 141.4 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.09 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 1.98' x H: 0.08')
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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	99	99	99	97
1	109	105	102	98	106	103	99	96	98	95	93	94	91	89	89	88	86	89	88	86	84
2	101	94	88	83	98	92	86	82	88	83	79	84	80	77	81	77	75	81	77	75	73
3	93	84	77	71	90	82	75	70	79	73	68	76	71	67	73	69	65	73	69	65	63
4	86	75	68	62	84	74	67	61	71	65	60	68	63	59	66	61	58	66	61	58	56
5	80	68	60	54	78	67	59	54	65	58	53	62	57	52	60	55	51	60	55	51	49
6	74	62	54	48	72	61	53	48	59	52	47	57	51	46	55	50	46	55	50	46	44
7	69	57	49	43	67	56	48	43	54	47	42	52	46	42	51	45	41	51	45	41	39
8	65	52	44	39	63	51	44	39	50	43	38	48	42	38	47	42	37	47	42	37	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	35	44	38	34	44	38	34	32
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	35	31	41	35	31	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	45650	45650	45650
5°	45276	44764	44509
10°	45225	43737	43063
15°	45172	42537	41247
20°	45207	41010	38921
25°	45128	38941	35681
30°	44839	36085	31689
35°	44248	32415	26924
40°	43031	27884	22139
45°	40802	23002	17272
50°	37417	18357	13222
55°	33194	14315	10176
60°	28059	11108	7837
65°	23184	8797	6341
70°	18498	7091	5303
75°	14653	5856	4549
80°	11090	4981	3913
85°	8280	4293	3439

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 40802 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.3	4.4
10°-20°	602.7	12.6
20°-30°	883.9	18.5
30°-40°	963.8	20.2
40°-50°	817.9	17.2
50°-60°	556.8	11.7
60°-70°	324.9	6.8
70°-80°	169.2	3.6
80°-90°	73.7	1.5
90°-100°	46.8	1.0
100°-110°	43.3	0.9
110°-120°	32.1	0.7
120°-130°	19.4	0.4
130°-140°	10.3	0.2
140°-150°	5.2	0.1
150°-160°	2.6	0.1
160°-170°	1.0	0.0
170°-180°	0.2	0.0
0°-30°	1697.8	35.6
0°-40°	2661.7	55.9
0°-60°	4036.3	84.7
0°-90°	4604.1	96.6
90°-120°	122.2	2.6
90°-150°	157.1	3.3
90°-180°	161.0	3.4
0°-180°	4765.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2229	2229	2229	2229	2229	
5°	2211	2221	2226	2228	2225	210
15°	2155	2160	2142	2122	2109	609
25°	2037	2008	1926	1850	1810	939
35°	1822	1729	1525	1372	1314	1137
45°	1468	1286	994	838	784	1128
55°	986	784	545	438	413	878
65°	522	412	280	231	219	523
75°	214	184	144	130	125	233
85°	52	62	71	69	67	56
90°	8	28	49	53	52	8
95°	16	31	51	56	55	12
105°	5	23	48	61	62	5
115°	4	14	36	51	55	3
125°	2	8	21	34	40	2
135°	2	6	13	20	24	1
145°	2	4	8	12	14	1
155°	2	3	6	8	8	1
165°	2	2	4	5	6	1
175°	2	2	3	3	2	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2229.4	2229.4	2229.4	2229.4	2229.4
2.5°	2215.4	2225.7	2231.3	2235.0	2233.1
5°	2210.8	2221.0	2225.7	2227.6	2224.8
7.5°	2201.5	2212.7	2215.4	2213.6	2208.9
10°	2191.2	2200.5	2196.8	2192.2	2185.6
12.5°	2176.3	2182.8	2172.6	2162.3	2152.1
15°	2154.9	2160.5	2141.8	2122.3	2109.2
17.5°	2133.5	2131.6	2103.7	2072.0	2056.1
20°	2106.4	2096.2	2054.3	2008.6	1990.0
22.5°	2074.8	2057.1	1995.6	1934.1	1906.1
25°	2036.6	2007.7	1925.7	1850.2	1810.2
27.5°	1993.7	1952.7	1840.9	1746.8	1702.1
30°	1942.5	1886.6	1747.8	1632.2	1582.9
32.5°	1887.5	1815.8	1646.2	1501.8	1456.2
35°	1822.3	1729.1	1525.1	1372.3	1313.6
37.5°	1747.8	1629.4	1401.2	1233.5	1172.0
40°	1666.7	1524.2	1263.3	1095.6	1046.2
42.5°	1575.4	1412.4	1134.7	958.7	909.3
45°	1468.3	1285.7	994.1	837.5	783.5
47.5°	1355.5	1160.8	864.6	711.8	667.1
50°	1233.5	1029.5	749.0	609.3	570.2
52.5°	1107.7	907.4	638.2	516.1	483.5
55°	985.7	784.4	545.0	437.9	412.7
57.5°	858.0	681.0	463.0	372.7	347.5
60°	735.1	576.7	389.4	314.9	295.3
62.5°	624.2	486.3	331.7	268.3	254.3
65°	521.7	411.8	279.5	231.0	218.9
67.5°	430.4	341.0	239.4	200.3	189.1
70°	344.7	278.6	200.3	172.4	164.9
72.5°	279.5	232.0	169.6	150.9	145.3
75°	214.3	184.5	143.5	130.4	124.8
77.5°	161.2	144.4	122.0	111.8	107.1
80°	116.5	111.8	102.5	96.9	92.2
82.5°	80.1	84.8	85.7	81.1	79.2
85°	52.2	62.4	70.8	68.9	67.1
87.5°	28.9	41.9	57.8	58.7	56.8
90°	8.4	27.9	49.4	53.1	52.2
92.5°	15.8	29.8	50.3	54.0	53.1
95°	15.8	30.7	51.2	55.9	55.0
97.5°	14.9	30.7	52.2	57.8	57.8
100°	7.5	29.8	52.2	59.6	59.6
102.5°	4.7	27.0	50.3	60.6	61.5
105°	4.7	23.3	47.5	60.6	61.5
107.5°	4.7	19.6	45.7	58.7	61.5
110°	3.7	16.8	42.9	55.9	59.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.7	14.9	40.1	54.0	57.8
115°	3.7	14.0	36.3	51.2	55.0
117.5°	2.8	12.1	31.7	47.5	52.2
120°	2.8	10.2	27.9	43.8	48.4
122.5°	1.9	9.3	24.2	39.1	44.7
125°	1.9	7.5	21.4	34.5	40.1
127.5°	1.9	7.5	19.6	30.7	35.4
130°	1.9	6.5	16.8	27.0	30.7
132.5°	1.9	6.5	14.9	23.3	27.0
135°	1.9	5.6	13.0	20.5	24.2
137.5°	1.9	5.6	12.1	17.7	21.4
140°	1.9	4.7	10.2	15.8	18.6
142.5°	1.9	4.7	9.3	14.0	15.8
145°	1.9	3.7	8.4	12.1	14.0
147.5°	1.9	3.7	7.5	10.2	12.1
150°	1.9	3.7	7.5	9.3	10.2
152.5°	1.9	2.8	6.5	8.4	9.3
155°	1.9	2.8	5.6	8.4	8.4
157.5°	1.9	2.8	4.7	7.5	8.4
160°	1.9	2.8	4.7	6.5	7.5
162.5°	1.9	2.8	3.7	4.7	6.5
165°	1.9	1.9	3.7	4.7	5.6
167.5°	1.9	1.9	2.8	3.7	4.7
170°	1.9	1.9	2.8	2.8	2.8
172.5°	1.9	1.9	2.8	2.8	1.9
175°	1.9	1.9	2.8	2.8	1.9
177.5°	1.9	1.9	2.8	2.8	1.9
180°	1.9	1.9	1.9	1.9	1.9



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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	21.97	23.36	22.39	23.75	24.15	18.07	19.46	18.49	19.85	20.25
	3H	22.99	24.24	23.43	24.64	25.09	19.27	20.52	19.71	20.92	21.36
	4H	23.29	24.46	23.74	24.87	25.34	19.81	20.98	20.26	21.39	21.86
	6H	23.44	24.52	23.91	24.95	25.43	20.31	21.39	20.78	21.83	22.30
	8H	23.46	24.49	23.94	24.94	25.43	20.56	21.58	21.04	22.04	22.52
	12H	23.46	24.44	23.95	24.89	25.40	20.81	21.79	21.30	22.24	22.75
4H	2H	22.00	23.17	22.46	23.59	24.05	18.57	19.74	19.03	20.16	20.62
	3H	23.19	24.16	23.66	24.63	25.11	19.95	20.92	20.42	21.39	21.87
	4H	23.58	24.45	24.07	24.93	25.45	20.59	21.46	21.08	21.94	22.46
	6H	23.83	24.58	24.34	25.09	25.63	21.22	21.98	21.74	22.49	23.03
	8H	23.88	24.59	24.40	25.09	25.64	21.53	22.24	22.05	22.74	23.29
	12H	23.90	24.54	24.44	25.08	25.63	21.86	22.49	22.39	23.03	23.58
8H	4H	23.61	24.31	24.13	24.82	25.37	20.83	21.54	21.35	22.05	22.59
	6H	23.91	24.50	24.47	25.06	25.61	21.58	22.17	22.13	22.72	23.27
	8H	24.01	24.54	24.58	25.10	25.67	21.97	22.50	22.54	23.06	23.63
	12H	24.08	24.54	24.64	25.10	25.74	22.41	22.88	22.97	23.43	24.07
12H	4H	23.59	24.22	24.13	24.76	25.32	20.85	21.48	21.39	22.02	22.57
	6H	23.91	24.44	24.48	25.01	25.57	21.62	22.15	22.19	22.72	23.28
	8H	24.04	24.51	24.61	25.06	25.70	22.07	22.54	22.63	23.09	23.73