

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: P892797

Luminaire Tested: 2MB-5HL-ACL-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892797
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-L830
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 80CRI, 3000K (C)
Light Source: -
Ballast/Driver: -

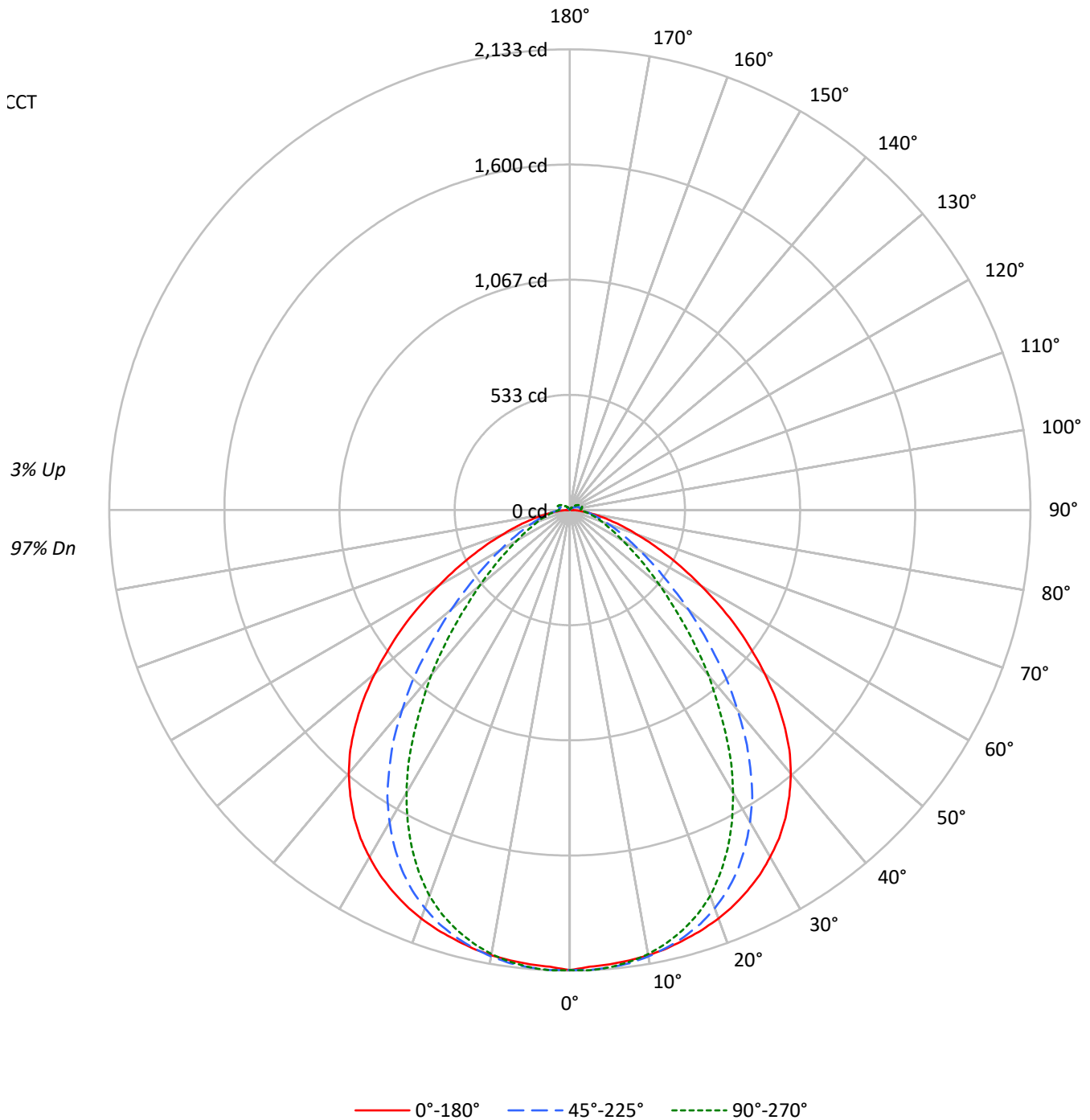
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4551.9 lumens
Efficiency: N/A
Efficacy: 135.1 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				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°	43611	43611	43611
5°	43252	42762	42518
10°	43204	41782	41138
15°	43153	40636	39405
20°	43188	39176	37180
25°	43109	37200	34086
30°	42833	34471	30272
35°	42269	30965	25721
40°	41108	26636	21151
45°	38976	21972	16501
50°	35746	17539	12631
55°	31709	13674	9722
60°	26803	10612	7486
65°	22149	8404	6057
70°	17671	6773	5065
75°	13996	5595	4349
80°	10586	4758	3739
85°	7900	4099	3285

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 38976 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.8	4.4
10°-20°	575.7	12.6
20°-30°	844.4	18.5
30°-40°	920.7	20.2
40°-50°	781.3	17.2
50°-60°	531.9	11.7
60°-70°	310.4	6.8
70°-80°	161.6	3.6
80°-90°	70.4	1.5
90°-100°	44.7	1.0
100°-110°	41.3	0.9
110°-120°	30.7	0.7
120°-130°	18.5	0.4
130°-140°	9.9	0.2
140°-150°	5.0	0.1
150°-160°	2.4	0.1
160°-170°	1.0	0.0
170°-180°	0.2	0.0
0°-30°	1621.9	35.6
0°-40°	2542.7	55.9
0°-60°	3855.8	84.7
0°-90°	4398.3	96.6
90°-120°	116.7	2.6
90°-150°	150.0	3.3
90°-180°	154.0	3.4
0°-180°	4551.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2130	2130	2130	2130	2130	
5°	2112	2122	2126	2128	2125	201
15°	2059	2064	2046	2027	2015	582
25°	1946	1918	1840	1768	1729	897
35°	1741	1652	1457	1311	1255	1086
45°	1403	1228	950	800	748	1077
55°	942	749	521	418	394	839
65°	498	393	267	221	209	499
75°	205	176	137	125	119	223
85°	50	60	68	66	64	53
90°	8	27	47	51	50	8
95°	15	29	49	53	52	11
105°	4	22	45	58	59	5
115°	4	13	35	49	52	3
125°	2	7	20	33	38	2
135°	2	5	12	20	23	1
145°	2	4	8	12	13	1
155°	2	3	5	8	8	1
165°	2	2	4	4	5	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°	2129.8	2129.8	2129.8	2129.8	2129.8
2.5°	2116.4	2126.2	2131.5	2135.1	2133.3
5°	2112.0	2121.8	2126.2	2128.0	2125.3
7.5°	2103.1	2113.7	2116.4	2114.6	2110.2
10°	2093.3	2102.2	2098.6	2094.2	2087.9
12.5°	2079.0	2085.3	2075.5	2065.7	2055.9
15°	2058.6	2063.9	2046.1	2027.4	2015.0
17.5°	2038.1	2036.3	2009.6	1979.4	1964.2
20°	2012.3	2002.5	1962.4	1918.8	1901.0
22.5°	1982.0	1965.1	1906.4	1847.6	1820.9
25°	1945.5	1917.9	1839.6	1767.5	1729.3
27.5°	1904.6	1865.4	1758.6	1668.7	1626.0
30°	1855.6	1802.2	1669.6	1559.3	1512.1
32.5°	1803.1	1734.6	1572.6	1434.7	1391.1
35°	1740.8	1651.8	1456.9	1311.0	1254.9
37.5°	1669.6	1556.6	1338.6	1178.4	1119.6
40°	1592.2	1456.0	1206.8	1046.6	999.5
42.5°	1505.0	1349.2	1084.0	915.8	868.6
45°	1402.6	1228.2	949.6	800.1	748.5
47.5°	1294.9	1108.9	825.9	680.0	637.2
50°	1178.4	983.4	715.6	582.1	544.7
52.5°	1058.2	866.9	609.6	493.1	461.9
55°	941.6	749.4	520.6	418.3	394.3
57.5°	819.7	650.6	442.3	356.0	332.0
60°	702.2	550.9	372.0	300.8	282.1
62.5°	596.3	464.6	316.8	256.3	243.0
65°	498.4	393.4	267.0	220.7	209.1
67.5°	411.2	325.7	228.7	191.3	180.7
70°	329.3	266.1	191.3	164.6	157.5
72.5°	267.0	221.6	162.0	144.2	138.8
75°	204.7	176.2	137.1	124.6	119.3
77.5°	154.0	137.9	116.6	106.8	102.3
80°	111.2	106.8	97.9	92.6	88.1
82.5°	76.5	81.0	81.9	77.4	75.6
85°	49.8	59.6	67.6	65.9	64.1
87.5°	27.6	40.0	55.2	56.1	54.3
90°	8.0	26.7	47.2	50.7	49.8
92.5°	15.1	28.5	48.1	51.6	50.7
95°	15.1	29.4	48.9	53.4	52.5
97.5°	14.2	29.4	49.8	55.2	55.2
100°	7.1	28.5	49.8	57.0	57.0
102.5°	4.4	25.8	48.1	57.8	58.7
105°	4.4	22.2	45.4	57.8	58.7
107.5°	4.4	18.7	43.6	56.1	58.7
110°	3.6	16.0	40.9	53.4	57.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.6	14.2	38.3	51.6	55.2
115°	3.6	13.3	34.7	48.9	52.5
117.5°	2.7	11.6	30.3	45.4	49.8
120°	2.7	9.8	26.7	41.8	46.3
122.5°	1.8	8.9	23.1	37.4	42.7
125°	1.8	7.1	20.5	32.9	38.3
127.5°	1.8	7.1	18.7	29.4	33.8
130°	1.8	6.2	16.0	25.8	29.4
132.5°	1.8	6.2	14.2	22.2	25.8
135°	1.8	5.3	12.5	19.6	23.1
137.5°	1.8	5.3	11.6	16.9	20.5
140°	1.8	4.4	9.8	15.1	17.8
142.5°	1.8	4.4	8.9	13.3	15.1
145°	1.8	3.6	8.0	11.6	13.3
147.5°	1.8	3.6	7.1	9.8	11.6
150°	1.8	3.6	7.1	8.9	9.8
152.5°	1.8	2.7	6.2	8.0	8.9
155°	1.8	2.7	5.3	8.0	8.0
157.5°	1.8	2.7	4.4	7.1	8.0
160°	1.8	2.7	4.4	6.2	7.1
162.5°	1.8	2.7	3.6	4.4	6.2
165°	1.8	1.8	3.6	4.4	5.3
167.5°	1.8	1.8	2.7	3.6	4.4
170°	1.8	1.8	2.7	2.7	2.7
172.5°	1.8	1.8	2.7	2.7	1.8
175°	1.8	1.8	2.7	2.7	1.8
177.5°	1.8	1.8	2.7	2.7	1.8
180°	1.8	1.8	1.8	1.8	1.8



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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	21.81	23.20	22.23	23.59	23.99	17.91	19.30	18.33	19.69	20.09
	3H	22.83	24.08	23.27	24.48	24.93	19.11	20.36	19.55	20.76	21.21
	4H	23.13	24.30	23.59	24.72	25.18	19.65	20.82	20.11	21.24	21.70
	6H	23.28	24.36	23.75	24.79	25.27	20.15	21.23	20.62	21.67	22.14
	8H	23.30	24.33	23.79	24.79	25.27	20.40	21.42	20.88	21.88	22.36
	12H	23.30	24.28	23.79	24.73	25.25	20.65	21.63	21.14	22.08	22.59
4H	2H	21.84	23.01	22.30	23.43	23.89	18.41	19.58	18.87	20.00	20.46
	3H	23.03	24.00	23.50	24.47	24.95	19.79	20.76	20.26	21.23	21.71
	4H	23.42	24.30	23.91	24.78	25.30	20.43	21.30	20.92	21.78	22.30
	6H	23.67	24.43	24.18	24.93	25.47	21.07	21.82	21.58	22.33	22.87
	8H	23.72	24.43	24.24	24.93	25.48	21.37	22.08	21.89	22.58	23.13
	12H	23.74	24.38	24.28	24.92	25.47	21.70	22.33	22.24	22.87	23.42
8H	4H	23.45	24.16	23.97	24.66	25.21	20.67	21.38	21.19	21.89	22.44
	6H	23.76	24.34	24.31	24.90	25.45	21.42	22.01	21.97	22.56	23.12
	8H	23.85	24.38	24.42	24.94	25.51	21.81	22.34	22.38	22.90	23.47
	12H	23.92	24.39	24.48	24.94	25.58	22.25	22.72	22.82	23.27	23.91
12H	4H	23.43	24.07	23.97	24.61	25.16	20.69	21.32	21.23	21.86	22.41
	6H	23.75	24.28	24.32	24.85	25.41	21.46	21.99	22.03	22.56	23.13
	8H	23.88	24.35	24.45	24.90	25.54	21.91	22.38	22.47	22.93	23.57