

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: P892805

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892805
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-6)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-5HL-AOL-UNV-L830
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 8
3000K CCT
Light Source: -
Ballast/Driver: -

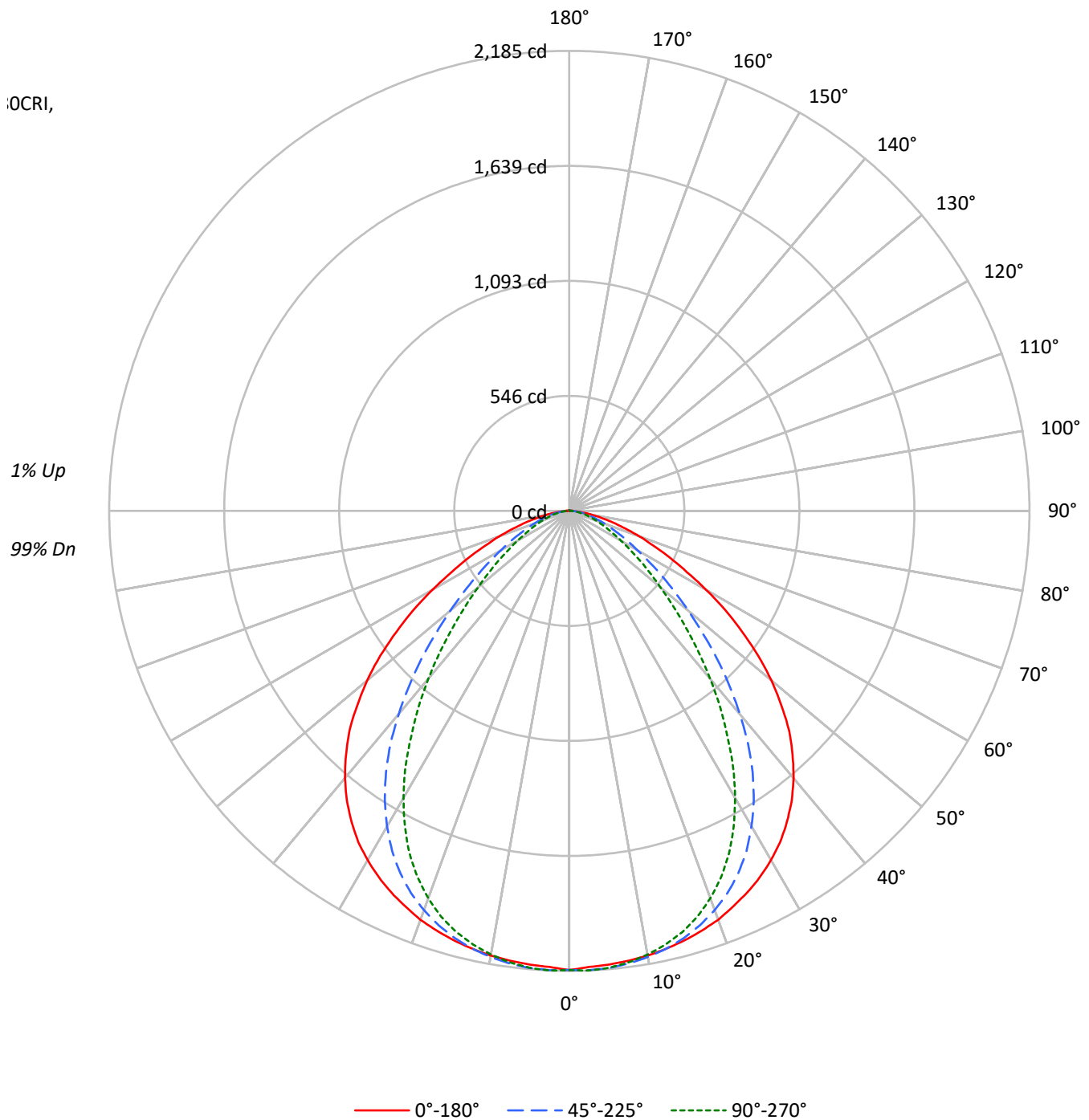
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4520.1 lumens
Efficiency: N/A
Efficacy: 134.1 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.1 / 1.2
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 (Ain): 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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99				99
1	110	106	103	100	108	104	101	98	100	97	95	96	94	92	92	91	89	87				87
2	102	95	89	84	99	93	88	83	89	85	81	86	83	79	83	80	77	75				75
3	94	85	78	72	92	83	77	72	80	75	70	78	73	69	75	71	68	66				66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				51
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	48	46				46
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41				41
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	40	35	34				34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	44651	44651	44651
5°	44456	44785	44766
10°	44600	44729	44487
15°	44772	44528	43905
20°	45033	43967	42668
25°	45184	42891	40560
30°	45286	40909	37228
35°	45052	37933	32749
40°	44297	33664	27810
45°	42760	28686	22628
50°	39922	23503	18005
55°	35778	19031	14519
60°	30764	15345	11663
65°	25616	12680	9705
70°	21260	10818	8262
75°	17113	9296	7184
80°	13537	8290	6297
85°	11912	8152	6273

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 42760 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.8	4.6
10°-20°	591.0	13.1
20°-30°	871.7	19.3
30°-40°	957.2	21.2
40°-50°	814.7	18.0
50°-60°	552.8	12.2
60°-70°	311.5	6.9
70°-80°	145.2	3.2
80°-90°	42.4	0.9
90°-100°	10.1	0.2
100°-110°	6.5	0.1
110°-120°	4.0	0.1
120°-130°	2.2	0.0
130°-140°	1.3	0.0
140°-150°	1.1	0.0
150°-160°	0.8	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	1669.5	36.9
0°-40°	2626.7	58.1
0°-60°	3994.1	88.4
0°-90°	4493.2	99.4
90°-120°	20.6	0.5
90°-150°	25.2	0.6
90°-180°	27.0	0.6
0°-180°	4520.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2181	2181	2181	2181	2181	
5°	2163	2173	2179	2181	2178	206
15°	2112	2115	2100	2083	2071	597
25°	2000	1975	1898	1827	1795	922
35°	1802	1711	1518	1370	1310	1126
45°	1477	1287	991	827	781	1131
55°	1002	786	533	431	407	896
65°	529	399	262	213	200	529
75°	216	169	118	96	91	234
85°	51	44	35	28	27	55
90°	9	11	10	8	8	8
95°	15	12	9	7	7	11
105°	4	9	6	4	4	5
115°	3	5	4	4	4	3
125°	2	3	3	3	3	2
135°	1	2	2	2	2	1
145°	1	2	2	2	2	1
155°	1	2	2	2	2	1
165°	2	2	2	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°	2180.6	2180.6	2180.6	2180.6	2180.6
2.5°	2168.1	2177.0	2183.2	2186.8	2185.0
5°	2162.8	2173.4	2178.8	2180.6	2177.9
7.5°	2154.8	2165.4	2168.1	2167.2	2162.8
10°	2145.0	2153.0	2151.2	2146.7	2139.6
12.5°	2129.8	2136.1	2129.8	2118.3	2109.4
15°	2112.0	2114.7	2100.5	2082.7	2071.1
17.5°	2090.7	2088.9	2063.1	2037.3	2021.2
20°	2066.6	2056.8	2017.7	1978.5	1958.1
22.5°	2033.7	2018.6	1964.3	1908.2	1883.3
25°	1999.9	1975.0	1898.4	1827.2	1795.2
27.5°	1960.7	1920.7	1821.9	1731.1	1691.0
30°	1915.3	1861.9	1730.2	1622.5	1574.5
32.5°	1864.6	1791.6	1630.5	1500.6	1449.0
35°	1802.3	1710.6	1517.5	1369.7	1310.1
37.5°	1734.7	1618.1	1394.7	1227.3	1177.5
40°	1657.2	1514.8	1259.4	1089.4	1040.4
42.5°	1569.1	1403.6	1125.0	952.3	908.7
45°	1476.6	1287.0	990.6	826.8	781.4
47.5°	1365.3	1157.9	857.1	707.6	667.5
50°	1253.2	1028.9	737.8	601.7	565.2
52.5°	1132.1	906.0	627.5	510.9	480.6
55°	1002.2	785.9	533.1	430.8	406.7
57.5°	879.3	672.9	448.6	360.5	338.2
60°	751.2	567.8	374.7	303.5	284.8
62.5°	630.1	476.2	316.8	252.8	237.6
65°	528.7	398.7	261.7	212.7	200.3
67.5°	430.8	331.1	218.1	177.1	166.4
70°	355.1	267.9	180.7	146.0	138.0
72.5°	276.8	217.2	146.0	119.3	112.1
75°	216.3	169.1	117.5	96.1	90.8
77.5°	160.2	130.8	92.6	75.7	72.1
80°	114.8	97.0	70.3	57.9	53.4
82.5°	80.1	67.6	50.7	41.8	39.2
85°	50.7	44.5	34.7	28.5	26.7
87.5°	26.7	24.9	20.5	16.9	16.0
90°	8.9	10.7	9.8	8.0	8.0
92.5°	15.1	11.6	8.9	8.0	7.1
95°	15.1	11.6	8.9	7.1	7.1
97.5°	14.2	10.7	8.0	7.1	6.2
100°	7.1	10.7	7.1	6.2	5.3
102.5°	4.5	9.8	7.1	5.3	5.3
105°	4.5	8.9	6.2	4.5	4.5
107.5°	3.6	8.0	5.3	4.5	4.5
110°	3.6	7.1	5.3	4.5	3.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.6	6.2	4.5	3.6	3.6
115°	2.7	5.3	3.6	3.6	3.6
117.5°	2.7	4.5	3.6	3.6	3.6
120°	1.8	3.6	2.7	2.7	2.7
122.5°	1.8	2.7	2.7	2.7	2.7
125°	1.8	2.7	2.7	2.7	2.7
127.5°	1.8	1.8	2.7	2.7	2.7
130°	0.9	1.8	1.8	2.7	2.7
132.5°	0.9	1.8	1.8	1.8	1.8
135°	0.9	1.8	1.8	1.8	1.8
137.5°	0.9	1.8	1.8	1.8	1.8
140°	0.9	1.8	1.8	1.8	1.8
142.5°	0.9	1.8	1.8	1.8	1.8
145°	0.9	1.8	1.8	1.8	1.8
147.5°	0.9	1.8	1.8	1.8	1.8
150°	0.9	1.8	1.8	1.8	1.8
152.5°	0.9	1.8	1.8	1.8	1.8
155°	0.9	1.8	1.8	1.8	1.8
157.5°	1.8	1.8	1.8	1.8	2.7
160°	1.8	1.8	1.8	1.8	2.7
162.5°	1.8	1.8	1.8	2.7	2.7
165°	1.8	1.8	1.8	2.7	2.7
167.5°	1.8	1.8	1.8	2.7	2.7
170°	1.8	1.8	1.8	2.7	2.7
172.5°	1.8	1.8	1.8	2.7	2.7
175°	1.8	1.8	2.7	2.7	2.7
177.5°	1.8	1.8	2.7	2.7	2.7
180°	2.7	2.7	2.7	2.7	2.7



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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	23.63	25.07	24.01	25.40	25.73	18.84	20.28	19.21	20.61	20.94
	3H	24.86	26.14	25.24	26.48	26.86	19.85	21.14	20.24	21.48	21.85
	4H	25.26	26.46	25.67	26.82	27.22	20.20	21.40	20.61	21.77	22.16
	6H	25.51	26.62	25.93	27.00	27.41	20.46	21.57	20.88	21.95	22.35
	8H	25.58	26.64	26.02	27.04	27.46	20.54	21.59	20.98	22.00	22.41
	12H	25.63	26.64	26.07	27.04	27.48	20.60	21.61	21.04	22.01	22.45
4H	2H	23.65	24.85	24.06	25.22	25.61	19.46	20.67	19.87	21.03	21.42
	3H	25.05	26.04	25.47	26.45	26.87	20.66	21.65	21.08	22.07	22.48
	4H	25.55	26.44	26.00	26.87	27.33	21.10	21.99	21.54	22.42	22.87
	6H	25.93	26.70	26.40	27.15	27.63	21.45	22.22	21.92	22.68	23.15
	8H	26.04	26.76	26.52	27.22	27.70	21.56	22.28	22.04	22.74	23.22
	12H	26.13	26.78	26.63	27.27	27.75	21.66	22.30	22.15	22.79	23.28
8H	4H	25.55	26.27	26.03	26.73	27.21	21.44	22.16	21.91	22.62	23.10
	6H	25.99	26.59	26.50	27.09	27.58	21.88	22.48	22.39	22.98	23.47
	8H	26.16	26.69	26.69	27.22	27.72	22.05	22.59	22.58	23.11	23.61
	12H	26.32	26.79	26.84	27.29	27.87	22.21	22.69	22.74	23.19	23.77
12H	4H	25.53	26.17	26.02	26.66	27.15	21.49	22.13	21.98	22.62	23.11
	6H	25.97	26.50	26.49	27.02	27.53	21.96	22.49	22.48	23.01	23.52
	8H	26.17	26.65	26.69	27.15	27.73	22.18	22.66	22.70	23.16	23.74