

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: P892789

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892789
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-L830
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTIC, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

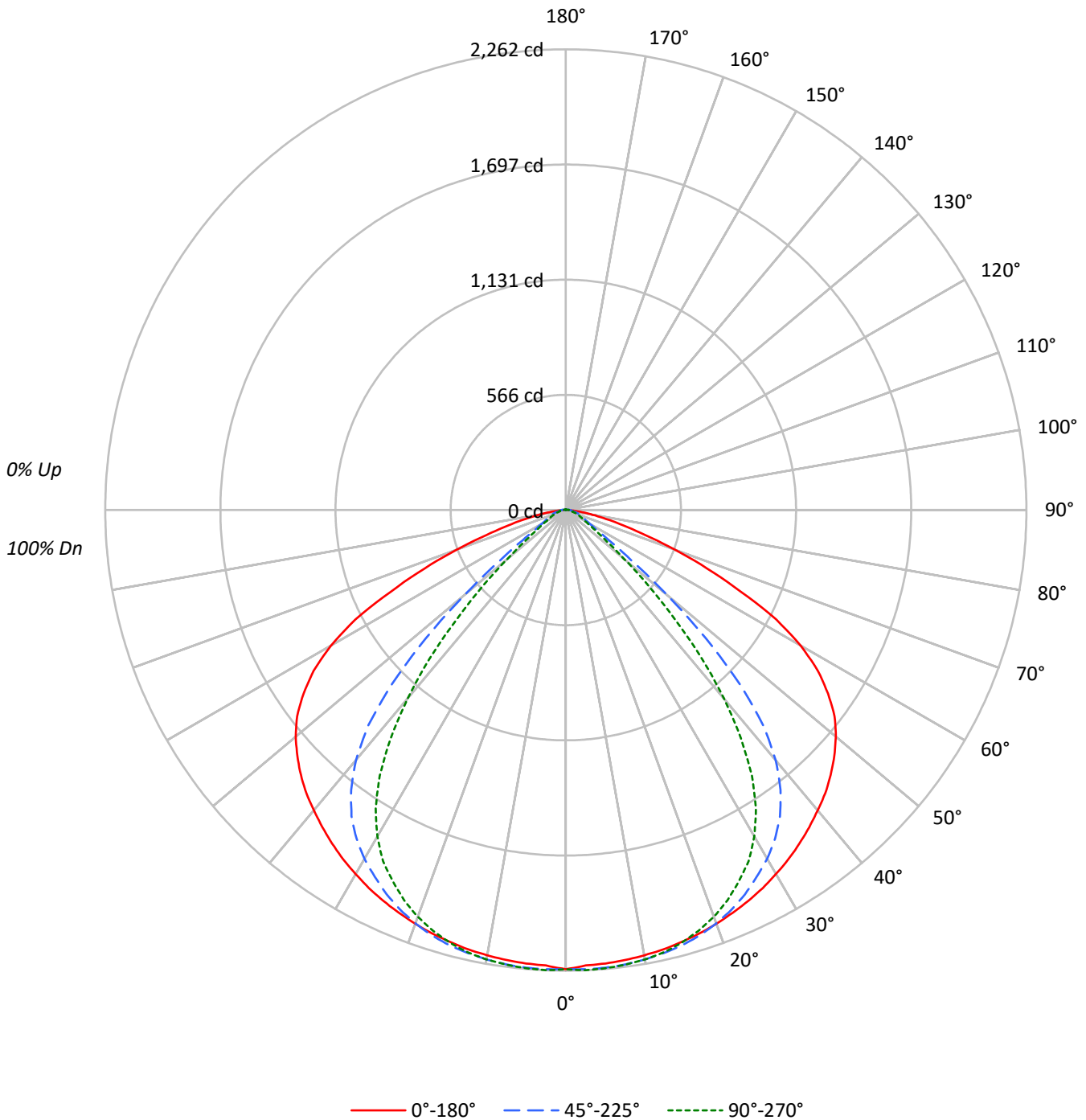
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4795.1 lumens
Efficiency: N/A
Efficacy: 142.3 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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	90	90	88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	79	79	79	77
3	95	86	80	74	93	85	78	73	82	77	72	79	75	71	77	73	70	70	70	70	68
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	62	62	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	55	64	59	55	55	55	55	53
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	58	53	49	49	49	49	47
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	48	44	44	44	44	43
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	40	40	40	38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	37	37	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	37	33	33	33	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	46166	46166	46166
5°	45940	46361	46417
10°	46157	46583	46600
15°	46550	46890	46625
20°	47114	47074	46318
25°	47864	47039	45431
30°	48806	46766	43758
35°	49997	45860	39833
40°	51442	42856	32274
45°	53283	34964	21849
50°	55155	20604	11876
55°	56127	9178	6447
60°	54582	5611	4591
65°	45956	4700	3925
70°	34251	4526	3568
75°	23157	4715	3030
80°	15742	4304	3467
85°	9609	6273	6061

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 55°
 Luminance: 56127 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.5	4.5
10°-20°	623.0	13.0
20°-30°	956.0	19.9
30°-40°	1126.3	23.5
40°-50°	960.4	20.0
50°-60°	524.7	10.9
60°-70°	232.6	4.9
70°-80°	102.1	2.1
80°-90°	36.5	0.8
90°-100°	11.3	0.2
100°-110°	2.9	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°	1793.6	37.4
0°-40°	2919.9	60.9
0°-60°	4405.0	91.9
0°-90°	4776.1	99.6
90°-120°	14.9	0.3
90°-150°	17.2	0.4
90°-180°	19.0	0.4
0°-180°	4795.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2255	2255	2255	2255	2255	
5°	2235	2248	2256	2261	2258	213
15°	2196	2208	2212	2206	2199	621
25°	2118	2118	2082	2039	2011	978
35°	2000	1963	1835	1667	1594	1253
45°	1840	1689	1207	841	754	1420
55°	1572	964	257	189	181	1395
65°	948	205	97	86	81	943
75°	293	103	60	45	38	330
85°	41	37	27	26	26	53
90°	4	15	20	20	17	4
95°	4	6	14	12	12	2
105°	1	1	2	4	5	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°	2254.6	2254.6	2254.6	2254.6	2254.6
2.5°	2238.6	2250.1	2257.3	2262.6	2261.7
5°	2235.0	2247.5	2255.5	2260.8	2258.2
7.5°	2228.8	2242.1	2250.1	2255.5	2251.0
10°	2219.9	2233.2	2240.4	2243.9	2241.2
12.5°	2210.1	2222.6	2227.9	2229.7	2224.3
15°	2195.9	2208.3	2211.9	2205.7	2199.4
17.5°	2180.7	2191.4	2189.6	2178.1	2166.5
20°	2162.1	2171.0	2160.3	2138.0	2125.6
22.5°	2140.7	2146.9	2124.7	2091.8	2074.0
25°	2118.5	2118.5	2082.0	2039.3	2010.8
27.5°	2093.5	2087.3	2030.4	1973.4	1944.1
30°	2064.2	2050.0	1977.9	1896.9	1850.7
32.5°	2033.9	2010.8	1912.9	1797.3	1737.7
35°	2000.1	1962.8	1834.6	1667.4	1593.5
37.5°	1963.6	1911.2	1732.3	1502.8	1412.0
40°	1924.5	1848.0	1603.3	1307.9	1207.4
42.5°	1886.2	1775.9	1436.0	1083.7	991.2
45°	1840.0	1688.7	1207.4	840.8	754.5
47.5°	1788.4	1581.1	932.4	605.9	553.4
50°	1731.4	1434.3	646.8	417.3	372.8
52.5°	1663.8	1235.0	407.5	277.6	256.2
55°	1572.2	963.6	257.1	188.6	180.6
57.5°	1468.1	673.5	175.3	143.2	137.9
60°	1332.8	431.5	137.0	117.4	112.1
62.5°	1165.6	286.5	113.9	99.7	94.3
65°	948.5	204.6	97.0	86.3	81.0
67.5°	751.8	163.7	85.4	75.6	68.5
70°	572.1	137.0	75.6	66.7	59.6
72.5°	407.5	119.2	67.6	56.9	49.8
75°	292.7	103.2	59.6	45.4	38.3
77.5°	202.0	89.9	49.8	34.7	32.9
80°	133.5	78.3	36.5	31.1	29.4
82.5°	81.0	63.2	31.1	26.7	28.5
85°	40.9	37.4	26.7	25.8	25.8
87.5°	16.0	22.2	22.2	24.9	24.9
90°	3.6	15.1	20.5	20.5	16.9
92.5°	3.6	11.6	18.7	14.2	12.5
95°	3.6	6.2	14.2	11.6	11.6
97.5°	2.7	2.7	9.8	9.8	9.8
100°	0.9	1.8	6.2	8.9	8.9
102.5°	0.9	0.9	3.6	6.2	7.1
105°	0.9	0.9	1.8	4.4	5.3
107.5°	0.0	0.0	0.9	2.7	3.6
110°	0.0	0.0	0.9	1.8	1.8



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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	1.8	0.9
145°	0.9	0.9	1.8	1.8	1.8
147.5°	0.9	0.9	1.8	1.8	1.8
150°	0.9	0.9	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°	0.9	1.8	1.8	2.7	1.8
160°	1.8	1.8	1.8	2.7	1.8
162.5°	1.8	1.8	2.7	2.7	2.7
165°	1.8	1.8	2.7	2.7	2.7
167.5°	1.8	1.8	2.7	2.7	2.7
170°	1.8	1.8	2.7	2.7	2.7
172.5°	1.8	1.8	2.7	2.7	2.7
175°	1.8	1.8	2.7	2.7	2.7
177.5°	1.8	1.8	2.7	3.6	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	24.40	25.80	24.77	26.12	26.45	12.30	13.70	12.67	14.02	14.35
	3H	25.69	26.94	26.08	27.28	27.65	13.47	14.71	13.85	15.05	15.42
	4H	26.09	27.25	26.50	27.61	28.00	13.90	15.06	14.31	15.42	15.81
	6H	26.32	27.39	26.74	27.77	28.17	14.28	15.34	14.70	15.72	16.12
	8H	26.38	27.39	26.81	27.79	28.20	14.53	15.54	14.96	15.94	16.35
	12H	26.39	27.36	26.83	27.75	28.19	14.86	15.83	15.30	16.22	16.66
4H	2H	24.22	25.38	24.63	25.74	26.13	12.82	13.98	13.23	14.34	14.73
	3H	25.55	26.50	25.97	26.91	27.32	14.28	15.23	14.70	15.64	16.05
	4H	25.98	26.83	26.42	27.25	27.71	14.83	15.68	15.28	16.11	16.56
	6H	26.31	27.04	26.77	27.49	27.97	15.34	16.08	15.81	16.53	17.00
	8H	26.40	27.08	26.87	27.54	28.02	15.66	16.34	16.13	16.80	17.28
	12H	26.45	27.06	26.94	27.54	28.03	16.10	16.71	16.59	17.20	17.68
8H	4H	25.88	26.57	26.36	27.02	27.50	15.41	16.10	15.89	16.55	17.03
	6H	26.23	26.80	26.74	27.30	27.79	16.04	16.61	16.55	17.11	17.60
	8H	26.36	26.87	26.89	27.39	27.89	16.45	16.96	16.97	17.48	17.98
	12H	26.46	26.91	26.98	27.41	27.99	17.04	17.49	17.56	17.99	18.57
12H	4H	25.84	26.45	26.33	26.94	27.42	15.62	16.22	16.11	16.71	17.20
	6H	26.18	26.69	26.70	27.21	27.71	16.28	16.79	16.81	17.31	17.81
	8H	26.34	26.79	26.86	27.29	27.87	16.76	17.22	17.28	17.72	18.29