

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: P893575

Luminaire Tested: 4MB-5SL-A-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893575
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-16)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-5SL-A-UNV-L940
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

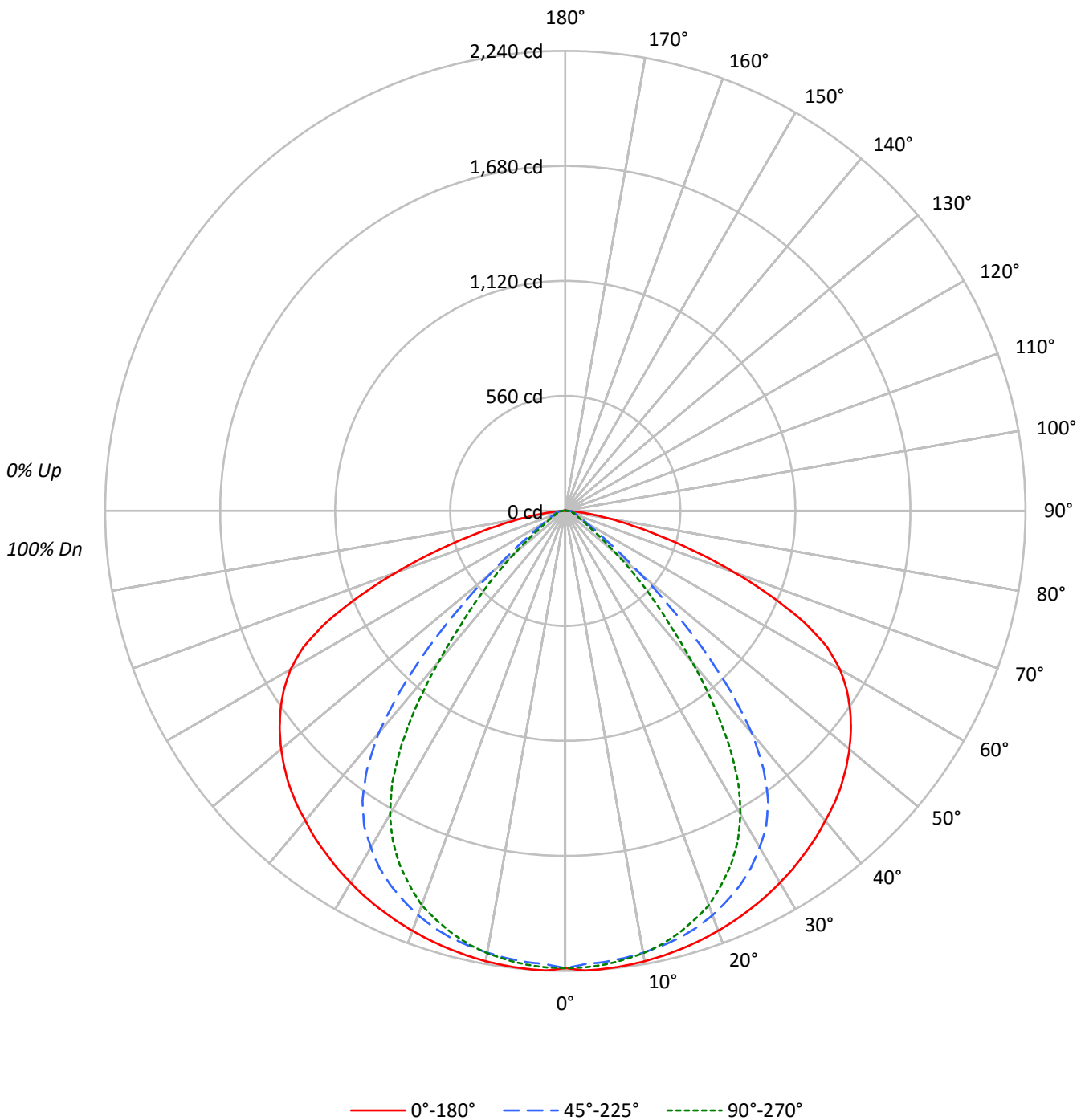
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4564.9 lumens
Efficiency: N/A
Efficacy: 130.4 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.15 / 1.23
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 9.55
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	103	100	108	105	102	99	100	98	96	97	95	93	93	91	90	93	91	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	84	81	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	77	73	69	67
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	70	65	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	64	59	55	53
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	59	53	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	54	49	45	43
8	66	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	50	44	40	39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	46	41	37	46	41	37	35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22679	22679	22679
5°	22879	22539	22671
10°	23023	22590	22622
15°	23252	22686	22452
20°	23580	22705	22151
25°	24019	22607	21402
30°	24579	22253	20057
35°	25281	21397	17244
40°	26181	18792	12747
45°	27333	13560	8572
50°	28604	7577	5116
55°	30066	3917	2800
60°	31453	2548	1984
65°	30915	2094	1574
70°	26072	1927	1468
75°	19179	1964	1578
80°	12791	2311	1988
85°	6988	3739	3026

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 31721 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.4	4.6
10°-20°	611.0	13.4
20°-30°	929.5	20.4
30°-40°	1061.6	23.3
40°-50°	856.4	18.8
50°-60°	468.8	10.3
60°-70°	247.2	5.4
70°-80°	121.2	2.7
80°-90°	42.7	0.9
90°-100°	9.2	0.2
100°-110°	1.3	0.0
110°-120°	0.7	0.0
120°-130°	0.7	0.0
130°-140°	0.7	0.0
140°-150°	0.9	0.0
150°-160°	0.8	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	1752.0	38.4
0°-40°	2813.6	61.6
0°-60°	4138.7	90.7
0°-90°	4549.8	99.7
90°-120°	11.2	0.2
90°-150°	13.4	0.3
90°-180°	15.0	0.3
0°-180°	4564.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2227	2227	2227	2227	2227	
5°	2238	2231	2205	2224	2218	213
15°	2205	2192	2152	2148	2130	624
25°	2138	2107	2012	1943	1905	988
35°	2033	1948	1721	1487	1387	1276
45°	1898	1630	942	643	595	1465
55°	1693	697	221	171	158	1511
65°	1283	161	87	70	65	1241
75°	487	91	50	42	40	538
85°	60	47	32	29	26	82
90°	2	25	20	17	16	4
95°	2	3	7	10	10	1
105°	1	0	1	1	1	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	1	2	1	1
155°	1	1	2	2	2	1
165°	1	2	2	2	2	0
175°	2	2	2	3	2	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2226.9	2226.9	2226.9	2226.9	2226.9
2.5°	2240.4	2234.3	2209.0	2230.6	2224.4
5°	2238.0	2231.2	2204.7	2224.4	2217.6
7.5°	2233.7	2225.0	2196.1	2214.0	2203.5
10°	2226.3	2217.6	2184.4	2198.5	2187.5
12.5°	2217.6	2205.9	2169.0	2176.4	2162.2
15°	2205.3	2191.8	2151.7	2148.0	2129.5
17.5°	2191.8	2175.1	2126.5	2110.4	2088.3
20°	2175.7	2155.4	2095.0	2063.6	2043.9
22.5°	2157.9	2131.4	2055.6	2007.5	1976.7
25°	2137.5	2106.7	2011.8	1943.4	1904.6
27.5°	2116.0	2074.1	1958.9	1868.9	1816.5
30°	2090.1	2039.6	1892.3	1770.9	1705.6
32.5°	2064.2	1996.4	1820.8	1644.6	1567.0
35°	2033.4	1947.8	1721.0	1486.9	1387.0
37.5°	2004.4	1889.2	1586.1	1289.1	1181.8
40°	1969.3	1820.2	1413.5	1061.7	958.8
42.5°	1936.1	1740.1	1189.9	842.3	753.0
45°	1897.8	1630.4	941.5	643.3	595.2
47.5°	1853.5	1480.7	684.6	478.8	448.6
50°	1805.4	1274.9	478.2	347.5	322.9
52.5°	1752.4	997.0	322.3	241.5	228.0
55°	1693.3	696.9	220.6	170.7	157.7
57.5°	1624.9	453.5	160.2	128.8	120.2
60°	1544.2	289.6	125.1	102.3	97.4
62.5°	1438.2	203.3	102.9	84.4	80.1
65°	1282.9	160.8	86.9	70.2	65.3
67.5°	1086.3	136.2	74.6	59.2	56.1
70°	875.6	118.3	64.7	51.1	49.3
72.5°	672.9	103.5	56.1	45.6	44.4
75°	487.4	90.6	49.9	41.9	40.1
77.5°	337.7	78.3	44.4	37.6	36.4
80°	218.1	67.8	39.4	34.5	33.9
82.5°	125.1	56.7	35.7	33.3	32.7
85°	59.8	47.4	32.0	29.0	25.9
87.5°	19.1	35.1	25.3	22.2	19.7
90°	2.5	24.6	19.7	17.3	16.0
92.5°	2.5	13.6	14.2	14.2	13.6
95°	1.8	3.1	6.8	10.5	9.9
97.5°	1.8	1.2	4.3	7.4	7.4
100°	1.2	0.6	1.8	4.9	4.9
102.5°	1.2	0.6	0.6	3.1	3.1
105°	0.6	0.0	0.6	1.2	1.2
107.5°	0.6	0.6	0.6	1.2	0.6
110°	0.6	0.6	0.6	1.2	0.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.6	0.6	0.6	1.2	0.6
115°	0.6	0.6	0.6	1.2	0.6
117.5°	0.6	0.6	0.6	1.2	0.6
120°	0.6	0.6	0.6	1.2	0.6
122.5°	0.6	0.6	0.6	1.2	0.6
125°	0.6	0.6	0.6	1.2	0.6
127.5°	0.6	0.6	0.6	1.2	0.6
130°	0.6	0.6	1.2	1.2	0.6
132.5°	0.6	0.6	1.2	1.2	0.6
135°	0.6	0.6	1.2	1.2	0.6
137.5°	0.6	0.6	1.2	1.2	1.2
140°	1.2	0.6	1.2	1.2	1.2
142.5°	1.2	1.2	1.2	1.8	1.2
145°	1.2	1.2	1.2	1.8	1.2
147.5°	1.2	1.2	1.8	1.8	1.2
150°	1.2	1.2	1.8	1.8	1.2
152.5°	1.2	1.2	1.8	1.8	1.8
155°	1.2	1.2	1.8	2.5	1.8
157.5°	1.2	1.2	1.8	2.5	1.8
160°	1.2	1.8	2.5	2.5	1.8
162.5°	1.2	1.8	2.5	2.5	2.5
165°	1.2	1.8	2.5	2.5	2.5
167.5°	1.8	1.8	2.5	3.1	2.5
170°	1.8	1.8	2.5	3.1	2.5
172.5°	1.8	1.8	2.5	3.1	2.5
175°	1.8	1.8	2.5	3.1	2.5
177.5°	1.8	1.8	2.5	3.1	3.1
180°	2.5	2.5	2.5	2.5	2.5



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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	20.75	22.15	21.12	22.47	22.79	9.27	10.67	9.64	10.99	11.31
	3H	23.66	24.91	24.05	25.24	25.62	10.20	11.45	10.59	11.78	12.16
	4H	24.55	25.72	24.96	26.07	26.46	10.72	11.88	11.13	12.24	12.63
	6H	25.05	26.12	25.47	26.50	26.90	11.36	12.43	11.78	12.80	13.20
	8H	25.16	26.18	25.60	26.58	26.99	11.77	12.79	12.21	13.19	13.60
	12H	25.21	26.18	25.65	26.57	27.01	12.22	13.19	12.66	13.58	14.02
4H	2H	20.57	21.73	20.97	22.09	22.47	9.79	10.95	10.19	11.30	11.69
	3H	23.50	24.45	23.91	24.86	25.27	10.98	11.93	11.40	12.34	12.75
	4H	24.40	25.25	24.84	25.68	26.13	11.65	12.50	12.09	12.92	13.37
	6H	24.99	25.73	25.46	26.18	26.65	12.47	13.21	12.94	13.66	14.13
	8H	25.15	25.84	25.63	26.30	26.77	13.00	13.69	13.47	14.15	14.62
	12H	25.24	25.86	25.73	26.35	26.83	13.58	14.20	14.07	14.68	15.16
8H	4H	24.29	24.98	24.76	25.43	25.91	12.24	12.93	12.71	13.38	13.86
	6H	24.89	25.46	25.39	25.96	26.45	13.24	13.81	13.75	14.31	14.80
	8H	25.08	25.59	25.60	26.11	26.61	13.92	14.43	14.44	14.95	15.45
	12H	25.22	25.68	25.74	26.18	26.75	14.68	15.14	15.20	15.64	16.21
12H	4H	24.25	24.86	24.74	25.35	25.83	12.50	13.11	12.99	13.60	14.08
	6H	24.84	25.35	25.36	25.87	26.37	13.55	14.06	14.07	14.58	15.08
	8H	25.05	25.51	25.57	26.01	26.58	14.31	14.77	14.83	15.27	15.85