

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: P893584

Luminaire Tested: 4MB-5SL-ACL-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893584
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-15)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-5SL-ACL-UNV-L950
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 5000K (C)
Light Source: -
Ballast/Driver: -

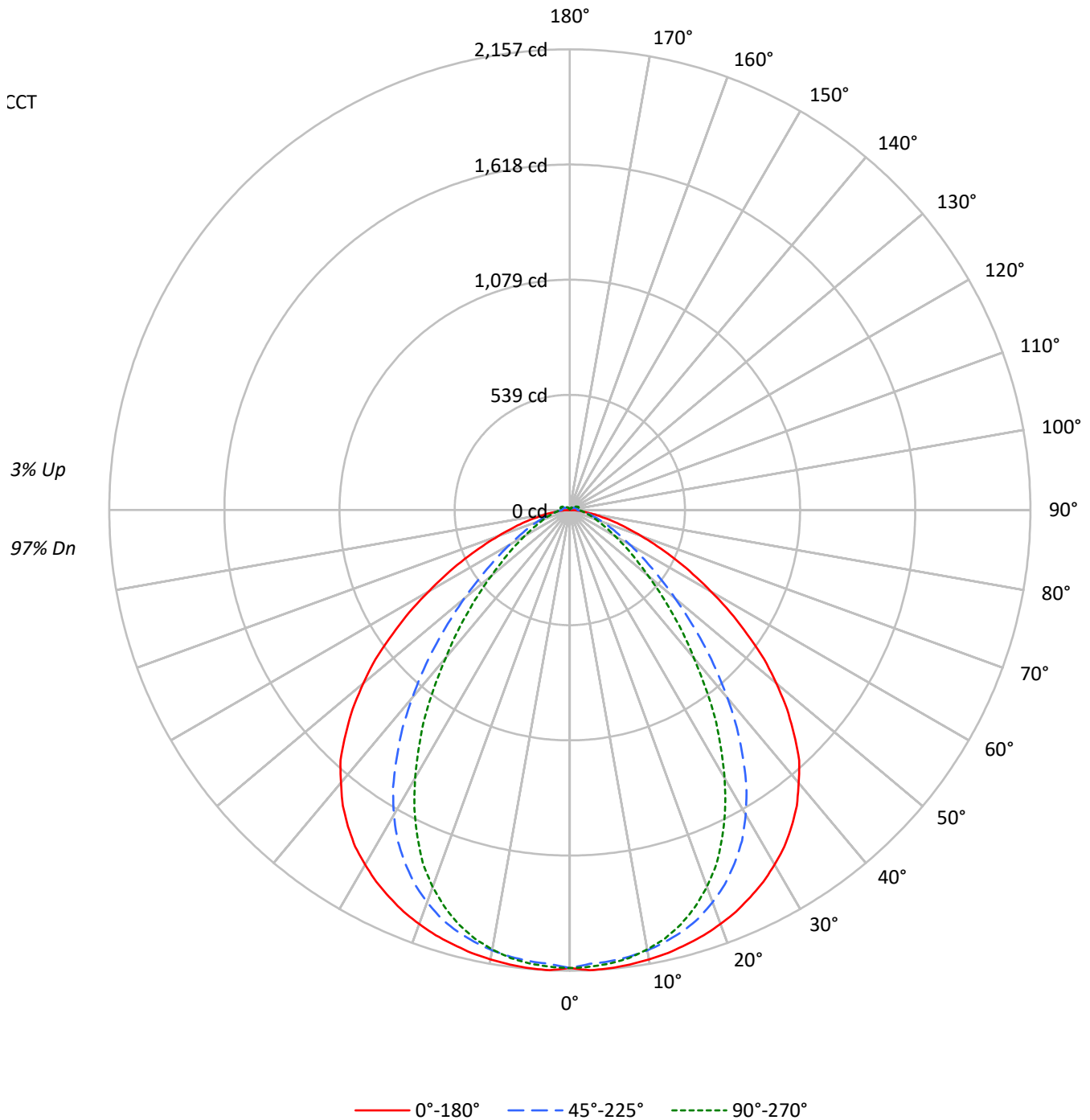
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4399.0 lumens
Efficiency: N/A
Efficacy: 125.7 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.08')
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				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	110	110	110	104	104	104	100	100	100	97				97
1	110	106	102	99	107	103	100	97	99	96	93	94	92	90	90	89	87	85				85
2	101	94	88	84	99	92	87	82	88	84	80	85	81	78	82	79	76	74				74
3	94	85	77	72	91	83	76	71	80	74	69	77	72	68	74	70	66	64				64
4	87	76	68	62	84	75	67	62	72	66	61	69	64	60	67	62	59	57				57
5	80	69	61	55	78	68	60	55	65	59	54	63	58	53	61	56	52	50				50
6	75	63	55	49	73	62	54	49	60	53	48	58	52	47	56	51	47	45				45
7	70	57	50	44	68	57	49	44	55	48	43	53	47	43	52	46	42	40				40
8	65	53	45	40	64	52	45	40	51	44	39	49	43	39	48	42	38	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33				33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21839	21839	21839
5°	21978	21247	21213
10°	22017	20785	20468
15°	22083	20244	19537
20°	22190	19500	18261
25°	22256	18467	16564
30°	22278	17048	14432
35°	22183	15066	12072
40°	21789	12727	9501
45°	20951	10273	7366
50°	19504	7971	5527
55°	17461	6102	4227
60°	15001	4691	3221
65°	12509	3701	2560
70°	10004	2969	2091
75°	7967	2393	1780
80°	5835	1974	1558
85°	4007	1678	1435

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 20951 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.1	4.6
10°-20°	578.6	13.2
20°-30°	843.6	19.2
30°-40°	906.3	20.6
40°-50°	754.3	17.1
50°-60°	504.5	11.5
60°-70°	288.8	6.6
70°-80°	143.6	3.3
80°-90°	58.8	1.3
90°-100°	34.1	0.8
100°-110°	30.1	0.7
110°-120°	22.1	0.5
120°-130°	14.2	0.3
130°-140°	8.5	0.2
140°-150°	4.8	0.1
150°-160°	2.4	0.1
160°-170°	1.0	0.0
170°-180°	0.2	0.0
0°-30°	1625.3	36.9
0°-40°	2531.7	57.6
0°-60°	3790.5	86.2
0°-90°	4281.7	97.3
90°-120°	86.3	2.0
90°-150°	113.7	2.6
90°-180°	117.0	2.7
0°-180°	4399.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2144	2144	2144	2144	2144	
5°	2154	2147	2121	2139	2132	205
15°	2106	2092	2042	2027	2009	595
25°	2000	1952	1825	1733	1690	922
35°	1810	1679	1412	1239	1184	1131
45°	1485	1234	882	714	672	1142
55°	1013	731	460	363	345	907
65°	542	368	232	188	178	542
75°	218	159	114	101	98	234
85°	42	48	53	56	56	50
90°	6	20	36	43	44	6
95°	9	20	36	43	44	7
105°	6	16	32	42	44	7
115°	3	9	25	34	38	3
125°	2	6	17	25	28	2
135°	1	5	11	17	19	1
145°	1	4	8	11	13	1
155°	1	3	5	7	9	1
165°	2	2	4	4	6	1
175°	2	2	2	2	2	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2144.4	2144.4	2144.4	2144.4	2144.4
2.5°	2156.9	2151.3	2126.9	2146.3	2140.6
5°	2153.8	2146.9	2121.3	2138.8	2131.9
7.5°	2146.9	2139.4	2110.0	2123.8	2116.3
10°	2136.9	2127.5	2093.7	2100.6	2088.7
12.5°	2124.4	2112.5	2070.6	2068.7	2055.6
15°	2106.2	2091.9	2041.8	2026.8	2008.7
17.5°	2087.5	2066.2	2004.9	1974.3	1949.2
20°	2063.1	2034.9	1954.2	1908.6	1877.3
22.5°	2034.9	1996.8	1897.3	1827.2	1794.7
25°	1999.9	1952.4	1824.7	1732.8	1689.6
27.5°	1962.4	1899.2	1745.9	1625.2	1575.8
30°	1917.3	1839.1	1647.7	1502.6	1449.4
32.5°	1869.8	1762.8	1540.1	1373.7	1315.5
35°	1810.4	1679.0	1412.5	1238.6	1184.2
37.5°	1745.9	1578.9	1286.1	1100.4	1039.0
40°	1667.7	1473.2	1147.3	963.4	902.7
42.5°	1590.2	1358.1	1014.0	839.5	786.9
45°	1485.1	1234.2	882.0	713.8	671.8
47.5°	1379.3	1101.6	755.7	611.8	570.5
50°	1261.7	971.5	644.9	513.6	479.2
52.5°	1147.3	850.1	544.2	434.1	404.7
55°	1012.8	730.6	459.8	363.4	344.7
57.5°	891.4	619.9	387.8	307.8	290.3
60°	763.2	525.5	324.7	260.2	244.0
62.5°	650.6	441.6	273.4	220.8	209.6
65°	542.4	367.8	231.5	187.7	177.7
67.5°	442.9	307.1	195.2	160.1	152.0
70°	355.3	249.0	164.5	136.4	130.7
72.5°	279.6	200.2	137.0	117.6	112.6
75°	218.3	158.9	114.5	101.3	98.2
77.5°	157.6	123.9	95.7	87.0	85.1
80°	111.3	93.8	78.8	75.1	73.8
82.5°	73.8	68.2	65.1	65.1	64.4
85°	42.5	47.5	53.2	55.7	56.3
87.5°	21.9	31.9	42.5	47.5	48.2
90°	6.3	20.0	36.3	43.2	44.4
92.5°	9.4	20.0	35.7	43.2	44.4
95°	9.4	20.0	35.7	43.2	44.4
97.5°	8.8	19.4	35.7	43.2	44.4
100°	8.1	18.1	35.0	43.2	44.4
102.5°	6.9	17.5	33.8	42.5	44.4
105°	6.3	16.3	31.9	41.9	43.8
107.5°	5.6	13.8	30.0	40.0	42.5
110°	4.4	11.9	28.8	38.2	41.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.8	10.6	26.9	36.3	39.4
115°	3.1	9.4	25.0	34.4	37.5
117.5°	2.5	8.8	22.5	31.9	35.0
120°	1.9	8.1	20.6	30.0	32.5
122.5°	1.9	7.5	18.1	27.5	30.0
125°	1.9	6.3	16.9	25.0	27.5
127.5°	1.3	5.6	15.0	22.5	25.0
130°	1.3	5.6	13.8	20.6	22.5
132.5°	1.3	5.0	12.5	18.8	20.6
135°	1.3	5.0	11.3	16.9	18.8
137.5°	1.3	4.4	10.0	15.6	17.5
140°	1.3	4.4	9.4	13.8	15.6
142.5°	1.3	3.8	8.1	13.1	14.4
145°	1.3	3.8	7.5	11.3	13.1
147.5°	1.3	3.8	6.9	10.6	11.9
150°	1.3	3.1	6.3	8.8	10.6
152.5°	1.3	3.1	5.6	8.1	10.0
155°	1.3	3.1	5.0	6.9	8.8
157.5°	1.3	3.1	5.0	6.3	7.5
160°	1.9	2.5	4.4	5.6	6.9
162.5°	1.9	2.5	3.8	5.0	6.3
165°	1.9	2.5	3.8	4.4	5.6
167.5°	1.9	2.5	3.1	3.8	4.4
170°	1.9	1.9	3.1	3.1	3.1
172.5°	1.9	1.9	2.5	3.1	2.5
175°	1.9	1.9	2.5	2.5	2.5
177.5°	1.9	1.9	2.5	2.5	2.5
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	19.45	20.84	19.86	21.21	21.59	14.74	16.14	15.15	16.51	16.89
	3H	20.54	21.78	20.97	22.17	22.60	15.88	17.13	16.31	17.51	17.94
	4H	20.85	22.01	21.29	22.42	22.86	16.38	17.55	16.83	17.95	18.40
	6H	20.99	22.07	21.45	22.49	22.95	16.89	17.96	17.34	18.38	18.84
	8H	21.01	22.03	21.49	22.48	22.94	17.14	18.16	17.62	18.61	19.08
	12H	21.01	21.98	21.48	22.42	22.91	17.44	18.41	17.92	18.85	19.35
4H	2H	19.43	20.59	19.88	21.00	21.45	15.24	16.40	15.69	16.81	17.26
	3H	20.67	21.63	21.12	22.08	22.55	16.55	17.52	17.01	17.97	18.44
	4H	21.05	21.92	21.53	22.38	22.89	17.15	18.01	17.63	18.48	18.98
	6H	21.28	22.03	21.79	22.53	23.05	17.77	18.52	18.27	19.01	19.54
	8H	21.32	22.03	21.83	22.52	23.05	18.09	18.79	18.60	19.29	19.82
	12H	21.34	21.96	21.86	22.49	23.02	18.46	19.09	18.99	19.62	20.15
8H	4H	21.04	21.74	21.55	22.23	22.77	17.39	18.09	17.90	18.58	19.12
	6H	21.32	21.90	21.86	22.44	22.98	18.11	18.69	18.65	19.23	19.77
	8H	21.39	21.91	21.95	22.47	23.02	18.52	19.04	19.08	19.60	20.15
	12H	21.43	21.90	21.99	22.44	23.06	19.01	19.47	19.56	20.01	20.64
12H	4H	21.02	21.64	21.54	22.17	22.70	17.40	18.03	17.93	18.56	19.09
	6H	21.30	21.82	21.85	22.37	22.93	18.15	18.67	18.71	19.23	19.78
	8H	21.40	21.86	21.96	22.40	23.03	18.61	19.07	19.16	19.61	20.24