

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: P893646

Luminaire Tested: 4MB-5SL-LVRA-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893646
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-5SL-LVRA-UNV-L935
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

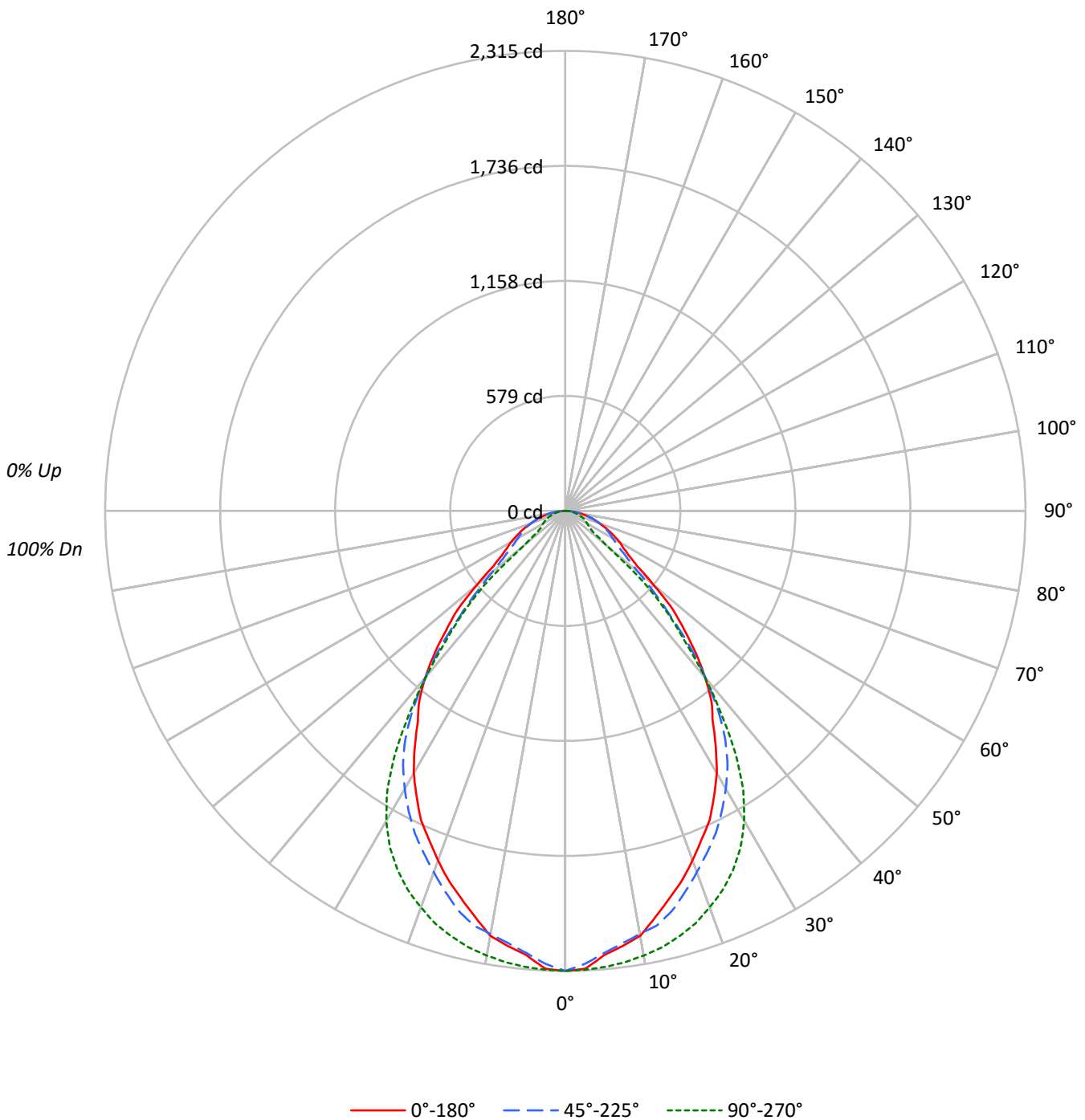
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3757.0 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12
Luminous Opening: Rectangular (W 0.38' 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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78		
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69		
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62		
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55		
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50		
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45		
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41		
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38		
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16471	16471	16471
5°	16026	15954	16453
10°	15686	15617	16414
15°	14876	15333	16322
20°	14171	14650	16073
25°	13480	14056	15663
30°	12524	13269	14788
35°	11230	12194	12971
40°	10174	10196	10141
45°	8507	7535	7348
50°	6426	5303	3005
55°	4833	4241	1894
60°	4491	3905	1826
65°	4179	3897	1828
70°	3824	3824	1799
75°	3626	3722	1737
80°	3348	3520	1786
85°	2923	3069	1951

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 8705 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.8	5.7
10°-20°	589.2	15.7
20°-30°	835.5	22.2
30°-40°	860.7	22.9
40°-50°	601.2	16.0
50°-60°	288.5	7.7
60°-70°	202.4	5.4
70°-80°	126.5	3.4
80°-90°	39.1	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1638.5	43.6
0°-40°	2499.3	66.5
0°-60°	3388.9	90.2
0°-90°	3757.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3757.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2315	2315	2315	2315	2315	
5°	2244	2241	2234	2292	2304	212
15°	2020	2034	2082	2141	2216	569
25°	1717	1734	1790	1912	1995	785
35°	1293	1328	1404	1433	1493	815
45°	845	865	749	711	730	651
55°	390	370	342	219	153	365
65°	248	232	232	176	109	246
75°	132	130	135	117	63	139
85°	36	36	38	37	24	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2314.9	2314.9	2314.9	2314.9	2314.9
2.5°	2306.0	2298.8	2281.5	2313.1	2310.7
5°	2243.9	2240.9	2233.8	2292.2	2303.6
7.5°	2208.7	2202.7	2194.4	2258.8	2290.4
10°	2171.1	2178.3	2161.6	2220.6	2271.9
12.5°	2093.6	2112.6	2135.3	2181.3	2249.3
15°	2019.6	2034.5	2081.6	2141.3	2215.9
17.5°	1950.4	1967.7	2008.2	2097.7	2177.1
20°	1871.6	1895.5	1934.9	2049.4	2122.8
22.5°	1790.5	1812.5	1862.1	1985.0	2066.7
25°	1717.1	1734.4	1790.5	1911.6	1995.1
27.5°	1619.8	1652.1	1705.2	1822.1	1909.8
30°	1524.4	1551.8	1615.1	1713.5	1800.0
32.5°	1409.2	1449.2	1519.0	1594.2	1666.4
35°	1292.9	1328.1	1403.9	1433.1	1493.4
37.5°	1208.2	1217.7	1260.7	1257.1	1291.1
40°	1095.4	1114.5	1097.8	1053.0	1091.8
42.5°	973.7	996.4	928.9	877.0	890.8
45°	845.4	865.1	748.8	710.6	730.3
47.5°	734.4	732.7	603.8	578.1	550.7
50°	580.5	599.6	479.1	431.4	271.5
52.5°	453.4	460.6	395.0	275.6	178.4
55°	389.6	370.5	341.9	219.0	152.7
57.5°	346.0	322.2	303.1	203.4	139.6
60°	315.6	288.8	274.4	193.3	128.3
62.5°	281.0	260.1	254.8	184.4	118.1
65°	248.2	232.1	231.5	176.0	108.6
67.5°	215.4	206.4	208.8	165.9	97.8
70°	183.8	182.0	183.8	152.7	86.5
72.5°	156.9	155.1	159.9	136.0	74.0
75°	131.9	130.1	135.4	116.9	63.2
77.5°	105.0	106.2	109.8	97.2	53.1
80°	81.7	81.7	85.9	76.4	43.6
82.5°	58.5	59.1	61.5	56.1	34.0
85°	35.8	35.8	37.6	37.0	23.9
87.5°	11.9	13.7	16.1	17.3	11.9
90°	0.0	0.0	0.0	0.0	0.0



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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	15.38	16.73	15.75	17.05	17.36	11.71	13.06	12.08	13.38	13.69
	3H	17.12	18.33	17.50	18.66	19.02	13.69	14.89	14.07	15.22	15.59
	4H	17.79	18.92	18.19	19.27	19.65	14.39	15.52	14.79	15.87	16.25
	6H	18.30	19.34	18.71	19.71	20.10	14.92	15.95	15.33	16.32	16.72
	8H	18.47	19.45	18.90	19.84	20.25	15.10	16.09	15.53	16.48	16.88
	12H	18.58	19.52	19.01	19.90	20.33	15.24	16.18	15.67	16.57	17.00
4H	2H	15.91	17.04	16.31	17.39	17.77	13.33	14.46	13.74	14.81	15.19
	3H	17.89	18.82	18.30	19.22	19.62	15.51	16.44	15.92	16.85	17.25
	4H	18.69	19.53	19.13	19.94	20.39	16.39	17.23	16.83	17.65	18.09
	6H	19.33	20.06	19.80	20.50	20.97	17.03	17.76	17.50	18.20	18.67
	8H	19.55	20.23	20.02	20.68	21.15	17.24	17.92	17.71	18.37	18.84
	12H	19.71	20.31	20.19	20.79	21.26	17.40	18.00	17.89	18.48	18.96
8H	4H	18.97	19.65	19.44	20.10	20.57	17.04	17.72	17.51	18.16	18.63
	6H	19.76	20.31	20.26	20.81	21.29	17.90	18.46	18.40	18.95	19.43
	8H	20.06	20.56	20.58	21.07	21.56	18.23	18.73	18.75	19.24	19.73
	12H	20.29	20.74	20.81	21.23	21.80	18.49	18.93	19.01	19.43	20.00
12H	4H	18.99	19.59	19.48	20.07	20.55	17.11	17.71	17.60	18.20	18.67
	6H	19.81	20.31	20.33	20.82	21.31	18.04	18.54	18.56	19.05	19.54
	8H	20.17	20.62	20.69	21.11	21.68	18.45	18.89	18.97	19.39	19.96