

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: P893657

Luminaire Tested: 4MB-5SL-RFLW-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893657
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-3)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-5SL-RFLW-UNV-L830
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 3000K
Light Source: -
Ballast/Driver: -

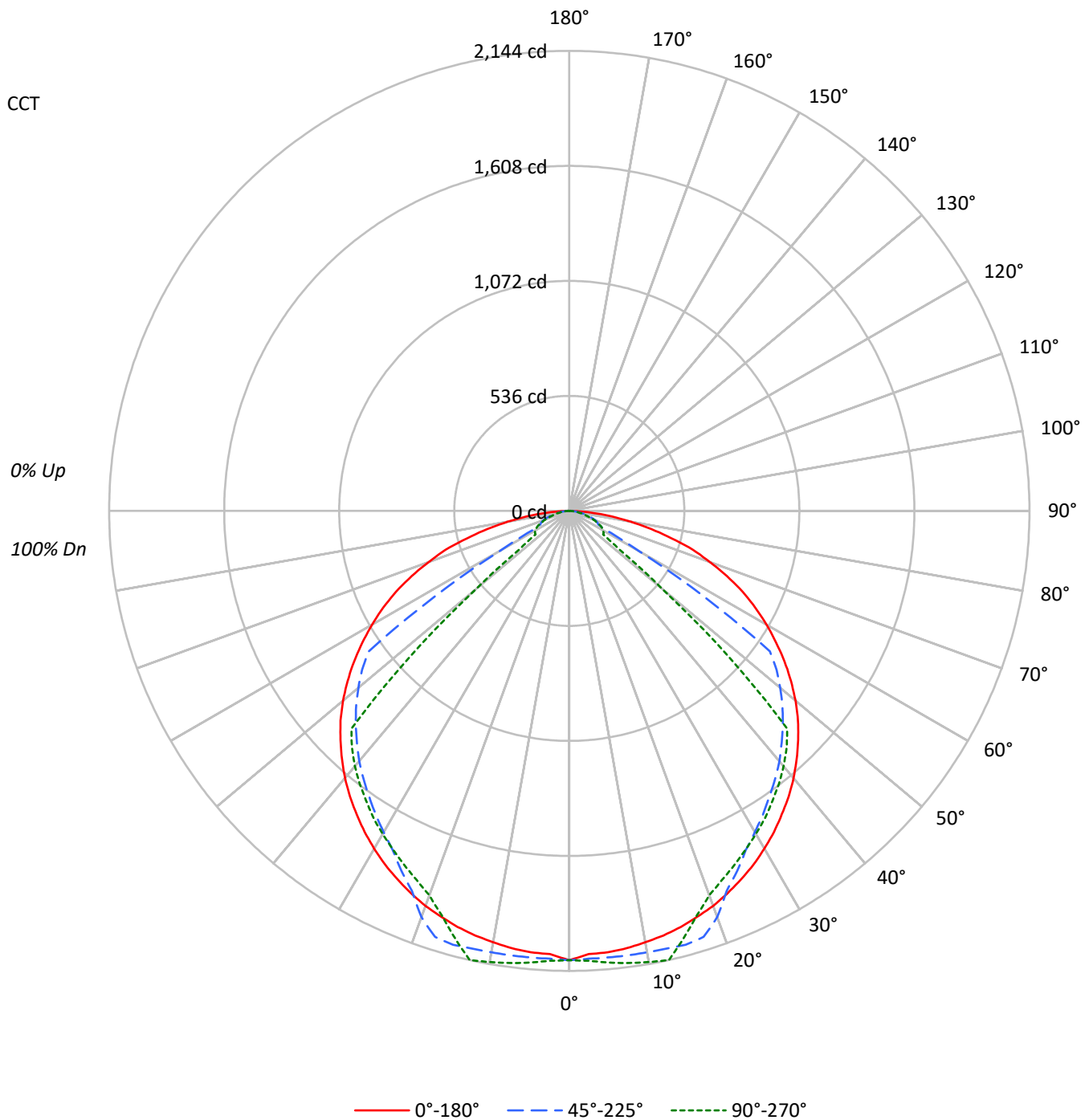
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5107.0 lumens
Efficiency: N/A
Efficacy: 145.9 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.24 / 1.38
Luminous Opening: Rectangular (W 0.21' 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	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	89	89	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	77	77	77	75
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	66	66	66	64
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	58	58	58	56
5	79	67	59	53	77	66	58	53	64	57	52	62	56	51	61	55	51	51	51	51	49
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	45	45	45	43
7	68	55	47	41	67	55	47	41	53	46	41	52	45	41	50	45	40	40	40	40	38
8	64	51	43	37	62	50	42	37	49	42	37	48	41	37	46	41	36	36	36	36	35
9	60	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	33	33	33	31
10	56	43	35	30	55	43	35	30	42	35	30	41	34	30	40	34	30	30	30	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27189	27189	27189
5°	26918	27231	27544
10°	26913	27546	28147
15°	26987	28149	27697
20°	27076	27840	26346
25°	27145	26526	26079
30°	27256	25923	26067
35°	27368	25770	26151
40°	27557	25806	26335
45°	27692	25840	26370
50°	27795	25904	11400
55°	27723	25822	4349
60°	27565	9853	4740
65°	27373	4575	4870
70°	26439	4924	4560
75°	24699	4696	3974
80°	21731	4128	3410
85°	17178	3576	2861

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 27795 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	200.0	3.9
10°-20°	580.6	11.4
20°-30°	866.4	17.0
30°-40°	1050.1	20.6
40°-50°	1075.3	21.1
50°-60°	715.1	14.0
60°-70°	407.6	8.0
70°-80°	171.2	3.4
80°-90°	40.8	0.8
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°	1647.0	32.2
0°-40°	2697.1	52.8
0°-60°	4487.4	87.9
0°-90°	5107.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5107.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2094	2094	2094	2094	2094	
5°	2065	2106	2089	2094	2113	196
15°	2008	2063	2094	2087	2060	567
25°	1895	1986	1851	1811	1820	874
35°	1726	1758	1626	1633	1650	1081
45°	1508	1417	1407	1424	1436	1163
55°	1225	1121	1141	250	192	1094
65°	891	797	149	158	158	877
75°	492	103	94	82	79	523
85°	115	29	24	19	19	138
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2093.9	2093.9	2093.9	2093.9	2093.9
2.5°	2067.5	2110.7	2089.1	2091.5	2098.7
5°	2065.1	2105.9	2089.1	2093.9	2113.1
7.5°	2055.5	2098.7	2089.1	2103.5	2125.1
10°	2041.1	2091.5	2089.1	2113.1	2134.7
12.5°	2026.7	2077.1	2089.1	2125.1	2144.3
15°	2007.5	2062.7	2093.9	2086.7	2060.3
17.5°	1983.5	2048.3	2081.9	1978.6	1976.2
20°	1959.4	2029.1	2014.7	1916.2	1906.6
22.5°	1928.2	2009.9	1916.2	1849.0	1861.0
25°	1894.6	1985.9	1851.4	1810.6	1820.2
27.5°	1858.6	1961.8	1781.7	1767.3	1779.3
30°	1817.8	1928.2	1728.9	1724.1	1738.5
32.5°	1774.5	1863.4	1678.5	1680.9	1697.7
35°	1726.5	1757.7	1625.7	1632.9	1649.7
37.5°	1678.5	1659.3	1575.2	1587.2	1604.0
40°	1625.7	1582.4	1522.4	1534.4	1553.6
42.5°	1568.0	1500.8	1464.8	1481.6	1498.4
45°	1508.0	1416.8	1407.1	1424.0	1436.0
47.5°	1445.6	1344.7	1347.1	1359.1	1018.1
50°	1375.9	1272.7	1282.3	888.5	564.3
52.5°	1301.5	1198.2	1217.4	494.7	285.8
55°	1224.6	1121.4	1140.6	249.7	192.1
57.5°	1143.0	1044.6	744.4	180.1	189.7
60°	1061.4	962.9	379.4	177.7	182.5
62.5°	977.3	881.3	180.1	170.5	172.9
65°	890.9	797.2	148.9	158.5	158.5
67.5°	794.8	708.4	141.7	141.7	139.3
70°	696.4	588.3	129.7	122.5	120.1
72.5°	605.1	225.7	112.9	100.9	98.5
75°	492.3	103.3	93.6	81.6	79.2
77.5°	391.4	86.4	74.4	64.8	62.4
80°	290.6	67.2	55.2	48.0	45.6
82.5°	201.7	45.6	38.4	31.2	31.2
85°	115.3	28.8	24.0	19.2	19.2
87.5°	45.6	14.4	12.0	7.2	7.2
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	24.40	25.92	24.77	26.24	26.55	12.17	13.69	12.53	14.00	14.32
	3H	26.42	27.78	26.80	28.11	28.47	14.48	15.84	14.86	16.17	16.53
	4H	26.88	28.16	27.28	28.50	28.88	15.19	16.47	15.59	16.82	17.19
	6H	27.29	28.46	27.70	28.83	29.22	15.68	16.85	16.09	17.22	17.61
	8H	27.44	28.56	27.87	28.94	29.35	15.82	16.93	16.24	17.32	17.72
	12H	27.54	28.61	27.97	28.99	29.42	15.90	16.97	16.33	17.35	17.78
4H	2H	24.24	25.51	24.64	25.86	26.24	12.97	14.24	13.37	14.59	14.96
	3H	26.45	27.49	26.86	27.89	28.29	15.48	16.52	15.89	16.92	17.33
	4H	26.89	27.83	27.33	28.25	28.69	16.30	17.24	16.73	17.65	18.09
	6H	27.36	28.17	27.82	28.62	29.08	16.89	17.70	17.35	18.15	18.61
	8H	27.55	28.31	28.01	28.76	29.22	17.06	17.82	17.52	18.26	18.73
	12H	27.70	28.38	28.19	28.86	29.33	17.17	17.85	17.66	18.33	18.80
8H	4H	26.81	27.57	27.28	28.02	28.49	17.13	17.90	17.60	18.34	18.81
	6H	27.27	27.90	27.77	28.39	28.87	17.76	18.39	18.25	18.88	19.35
	8H	27.47	28.04	27.99	28.55	29.04	17.96	18.52	18.47	19.03	19.52
	12H	27.66	28.16	28.17	28.65	29.21	18.11	18.61	18.62	19.11	19.67
12H	4H	26.78	27.46	27.26	27.94	28.41	17.21	17.88	17.69	18.36	18.83
	6H	27.22	27.79	27.74	28.30	28.79	17.85	18.41	18.36	18.93	19.41
	8H	27.45	27.95	27.96	28.44	29.01	18.10	18.60	18.61	19.10	19.66