

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: P893649

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893649
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-5SL-LVRF-UNV-L830
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 3000K C
Light Source: -
Ballast/Driver: -

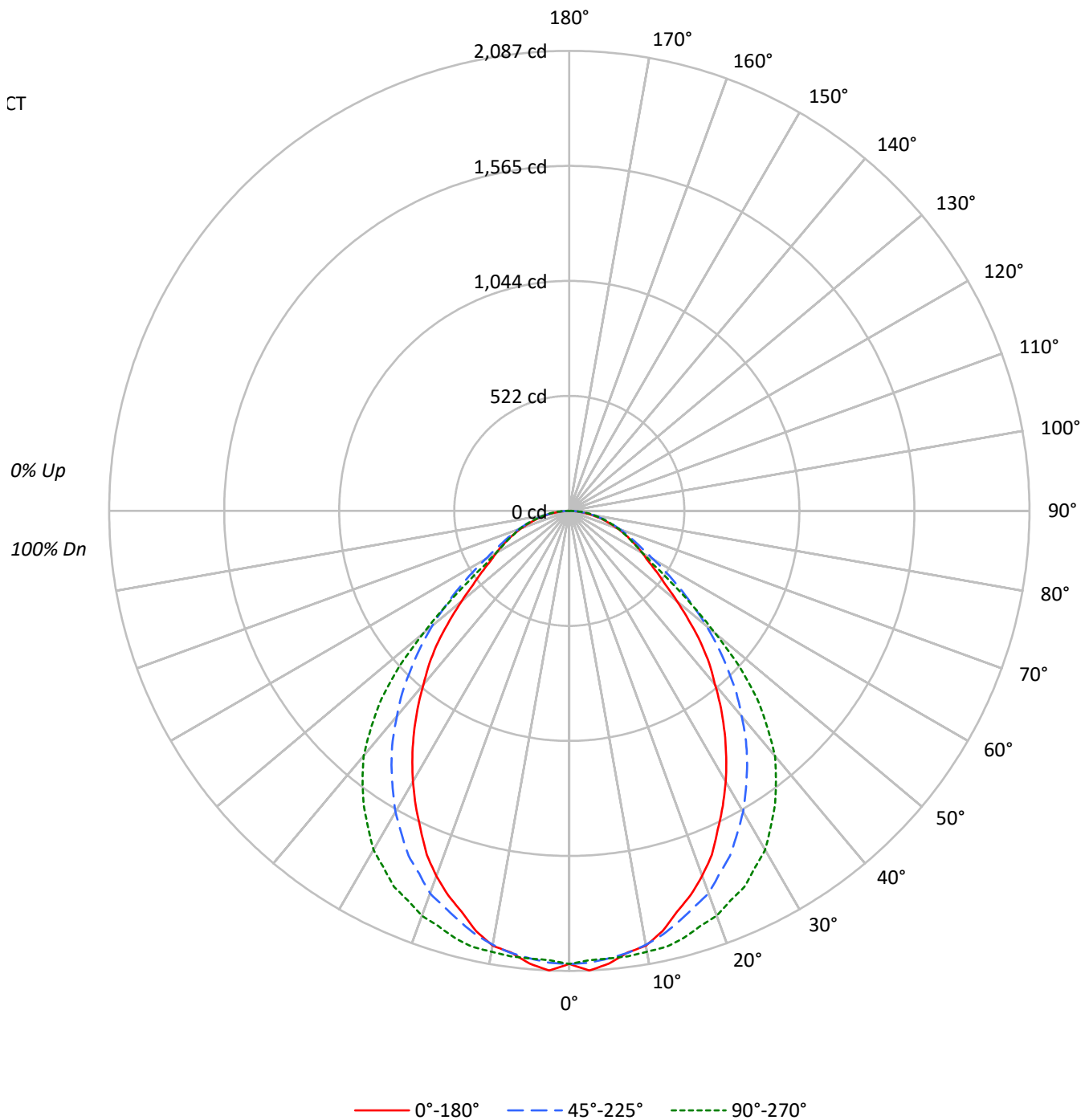
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4271.0 lumens
Efficiency: N/A
Efficacy: 122.0 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.27 / 1.23
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 (Ain): 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	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	71	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	52	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	40
8	65	52	44	39	63	52	44	39	50	44	39	49	43	38	48	42	38	38	38	36
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14621	14621	14621
5°	14723	14555	14555
10°	14468	14445	14669
15°	13870	14193	14775
20°	13343	13982	14799
25°	12517	13549	14765
30°	11651	12950	14592
35°	10665	12215	14127
40°	9548	11295	13479
45°	8473	10226	12119
50°	7050	9001	9558
55°	6005	7583	6947
60°	5444	6265	5490
65°	5128	5487	5110
70°	4824	5090	4980
75°	4495	4847	4759
80°	4118	4466	4597
85°	3576	3927	5151

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12119 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.6	4.6
10°-20°	547.5	12.8
20°-30°	795.0	18.6
30°-40°	885.3	20.7
40°-50°	782.2	18.3
50°-60°	513.2	12.0
60°-70°	314.3	7.4
70°-80°	182.9	4.3
80°-90°	56.0	1.3
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°	1537.1	36.0
0°-40°	2422.4	56.7
0°-60°	3717.8	87.0
0°-90°	4271.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4271.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2055	2055	2055	2055	2055	
5°	2061	2062	2038	2058	2038	194
15°	1883	1904	1927	2003	2006	531
25°	1594	1633	1726	1836	1881	734
35°	1228	1294	1406	1555	1626	766
45°	842	893	1016	1153	1204	644
55°	484	518	611	606	560	439
65°	305	310	326	316	304	303
75°	164	166	176	180	173	173
85°	44	46	48	54	63	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2055.0	2055.0	2055.0	2055.0	2055.0
2.5°	2087.1	2061.4	2051.8	2061.4	2040.0
5°	2061.4	2062.5	2037.9	2058.2	2037.9
7.5°	2020.8	2034.7	2023.0	2053.9	2037.9
10°	2002.6	2003.7	1999.4	2031.5	2030.4
12.5°	1952.4	1955.6	1967.4	2015.5	2026.2
15°	1883.0	1904.3	1926.8	2002.6	2005.9
17.5°	1828.5	1854.1	1884.0	1965.2	1974.9
20°	1762.2	1772.9	1846.6	1918.2	1954.6
22.5°	1688.5	1708.8	1780.4	1876.5	1912.9
25°	1594.4	1632.9	1725.9	1835.9	1880.8
27.5°	1507.9	1552.7	1648.9	1771.8	1824.2
30°	1418.1	1469.4	1576.3	1697.0	1776.1
32.5°	1325.1	1389.2	1490.8	1629.7	1699.1
35°	1227.9	1294.1	1406.3	1554.9	1626.5
37.5°	1130.6	1194.7	1316.6	1475.8	1539.9
40°	1028.0	1091.1	1216.1	1377.5	1451.2
42.5°	939.3	993.8	1122.1	1259.9	1328.3
45°	842.1	893.4	1016.3	1153.1	1204.4
47.5°	735.2	795.1	914.8	1027.0	1047.3
50°	636.9	698.9	813.2	878.4	863.5
52.5°	550.4	602.7	707.4	735.2	700.0
55°	484.1	518.3	611.3	605.9	560.0
57.5°	423.2	444.6	523.6	493.7	449.9
60°	382.6	392.2	440.3	412.5	385.8
62.5°	344.1	348.4	374.0	359.1	338.8
65°	304.6	309.9	325.9	316.3	303.5
67.5°	268.2	270.4	285.3	283.2	267.2
70°	231.9	235.1	244.7	249.0	239.4
72.5°	196.6	199.8	209.5	213.7	205.2
75°	163.5	165.6	176.3	179.5	173.1
77.5°	131.4	135.7	142.1	147.5	140.0
80°	100.5	102.6	109.0	115.4	112.2
82.5°	70.5	73.7	78.0	86.6	88.7
85°	43.8	46.0	48.1	54.5	63.1
87.5°	17.1	18.2	21.4	23.5	31.0
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	16.85	18.33	17.21	18.64	18.96	17.50	18.98	17.87	19.30	19.61
	3H	18.45	19.78	18.83	20.10	20.47	18.94	20.26	19.32	20.59	20.95
	4H	19.07	20.31	19.47	20.66	21.04	19.54	20.78	19.94	21.13	21.51
	6H	19.54	20.68	19.95	21.05	21.44	20.03	21.18	20.44	21.54	21.94
	8H	19.69	20.78	20.12	21.17	21.57	20.23	21.32	20.65	21.71	22.11
	12H	19.79	20.83	20.22	21.22	21.65	20.39	21.44	20.82	21.82	22.25
4H	2H	17.47	18.71	17.87	19.06	19.44	17.99	19.24	18.40	19.59	19.97
	3H	19.29	20.32	19.70	20.72	21.12	19.69	20.72	20.10	21.12	21.52
	4H	20.03	20.96	20.46	21.37	21.81	20.45	21.37	20.88	21.79	22.23
	6H	20.63	21.43	21.09	21.88	22.34	21.08	21.89	21.54	22.33	22.79
	8H	20.82	21.58	21.29	22.02	22.49	21.34	22.09	21.80	22.53	23.00
	12H	20.97	21.64	21.45	22.12	22.59	21.56	22.23	22.04	22.71	23.18
8H	4H	20.35	21.10	20.81	21.55	22.01	20.72	21.47	21.18	21.91	22.38
	6H	21.07	21.70	21.57	22.19	22.67	21.49	22.11	21.99	22.61	23.08
	8H	21.35	21.91	21.86	22.42	22.90	21.84	22.40	22.35	22.91	23.40
	12H	21.56	22.06	22.07	22.55	23.12	22.15	22.65	22.66	23.14	23.71
12H	4H	20.38	21.06	20.87	21.53	22.01	20.74	21.41	21.22	21.89	22.36
	6H	21.14	21.70	21.65	22.21	22.70	21.54	22.10	22.05	22.61	23.10
	8H	21.47	21.97	21.98	22.46	23.02	21.94	22.44	22.45	22.93	23.50