

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: P893546

Luminaire Tested: 4MB-4SL-RFLW-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893546
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-4SL-RFLW-UNV-L835
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 3500K
Light Source: -
Ballast/Driver: -

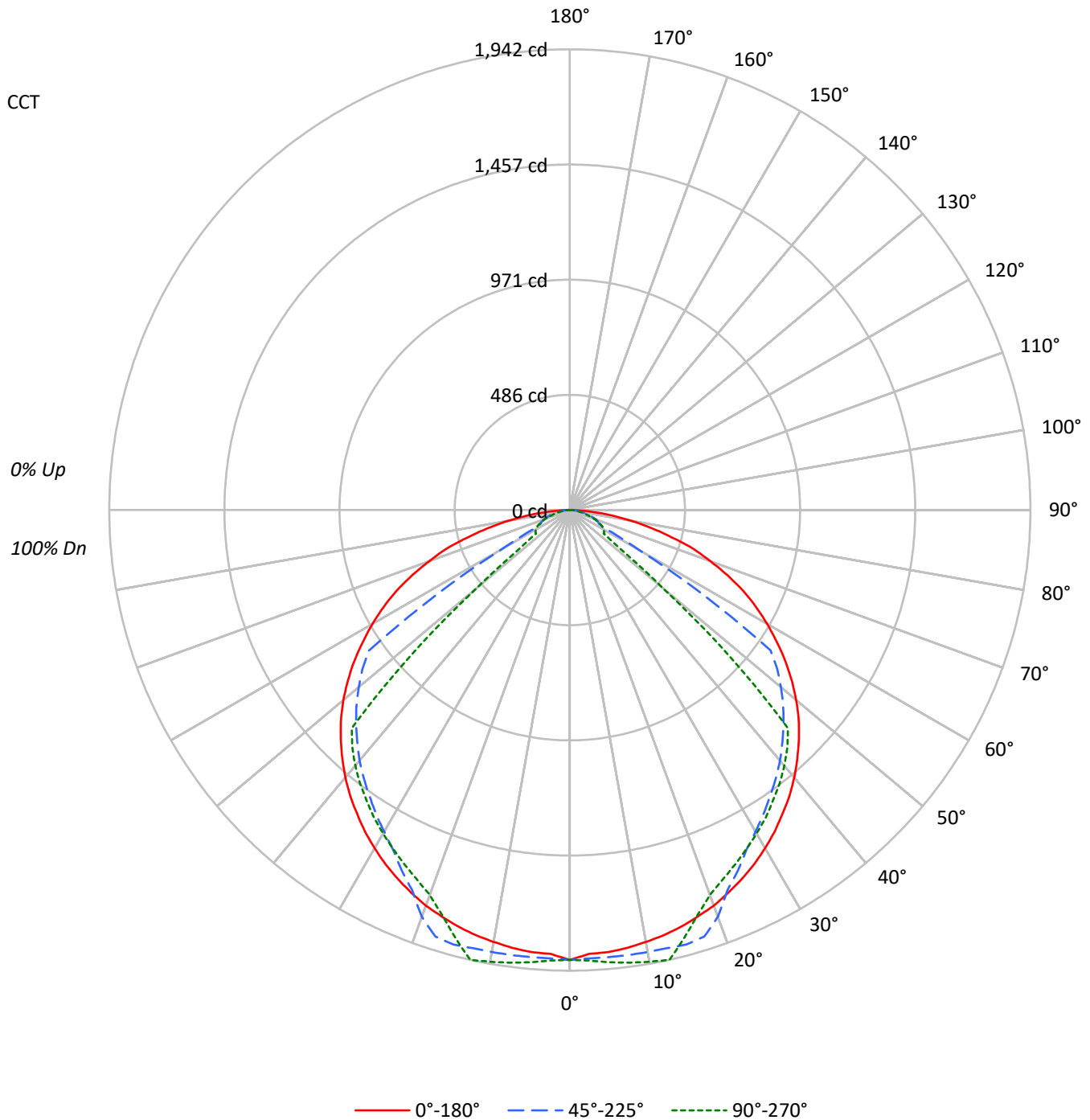
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4625.0 lumens
Efficiency: N/A
Efficacy: 155.2 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): 29.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 5.5
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	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°	24624	24624	24624
5°	24377	24660	24944
10°	24372	24945	25491
15°	24440	25492	25082
20°	24521	25212	23860
25°	24583	24021	23617
30°	24683	23476	23606
35°	24786	23337	23683
40°	24955	23370	23850
45°	25079	23401	23880
50°	25173	23460	10323
55°	25109	23386	3939
60°	24963	8923	4293
65°	24789	4142	4409
70°	23941	4457	4127
75°	22366	4254	3602
80°	19674	3739	3088
85°	15554	3233	2592

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 25173 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.1	3.9
10°-20°	525.8	11.4
20°-30°	784.6	17.0
30°-40°	951.0	20.6
40°-50°	973.8	21.1
50°-60°	647.6	14.0
60°-70°	369.1	8.0
70°-80°	155.1	3.4
80°-90°	37.0	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°	1491.5	32.2
0°-40°	2442.5	52.8
0°-60°	4063.9	87.9
0°-90°	4625.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4625.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1896	1896	1896	1896	1896	
5°	1870	1907	1892	1896	1914	178
15°	1818	1868	1896	1890	1866	513
25°	1716	1798	1677	1640	1648	792
35°	1564	1592	1472	1479	1494	979
45°	1366	1283	1274	1290	1300	1054
55°	1109	1016	1033	226	174	990
65°	807	722	135	144	144	794
75°	446	94	85	74	72	473
85°	104	26	22	17	17	125
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1896.3	1896.3	1896.3	1896.3	1896.3
2.5°	1872.4	1911.5	1891.9	1894.1	1900.6
5°	1870.2	1907.2	1891.9	1896.3	1913.7
7.5°	1861.5	1900.6	1891.9	1905.0	1924.6
10°	1848.4	1894.1	1891.9	1913.7	1933.3
12.5°	1835.4	1881.1	1891.9	1924.6	1942.0
15°	1818.0	1868.0	1896.3	1889.8	1865.8
17.5°	1796.3	1855.0	1885.4	1791.9	1789.7
20°	1774.5	1837.6	1824.5	1735.4	1726.7
22.5°	1746.2	1820.2	1735.4	1674.5	1685.3
25°	1715.8	1798.4	1676.6	1639.7	1648.4
27.5°	1683.2	1776.7	1613.6	1600.5	1611.4
30°	1646.2	1746.2	1565.7	1561.4	1574.4
32.5°	1607.1	1687.5	1520.1	1522.2	1537.5
35°	1563.6	1591.8	1472.2	1478.8	1494.0
37.5°	1520.1	1502.7	1426.6	1437.4	1452.7
40°	1472.2	1433.1	1378.7	1389.6	1407.0
42.5°	1420.0	1359.1	1326.5	1341.8	1357.0
45°	1365.7	1283.0	1274.3	1289.6	1300.4
47.5°	1309.1	1217.8	1220.0	1230.8	922.0
50°	1246.1	1152.6	1161.3	804.6	511.0
52.5°	1178.7	1085.1	1102.5	448.0	258.8
55°	1109.1	1015.6	1033.0	226.2	174.0
57.5°	1035.1	946.0	674.1	163.1	171.8
60°	961.2	872.0	343.6	160.9	165.3
62.5°	885.1	798.1	163.1	154.4	156.6
65°	806.8	722.0	134.8	143.5	143.5
67.5°	719.8	641.5	128.3	128.3	126.1
70°	630.6	532.8	117.4	110.9	108.7
72.5°	548.0	204.4	102.2	91.3	89.2
75°	445.8	93.5	84.8	73.9	71.8
77.5°	354.5	78.3	67.4	58.7	56.5
80°	263.1	60.9	50.0	43.5	41.3
82.5°	182.7	41.3	34.8	28.3	28.3
85°	104.4	26.1	21.7	17.4	17.4
87.5°	41.3	13.0	10.9	6.5	6.5
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	24.06	25.58	24.42	25.89	26.21	11.82	13.34	12.19	13.66	13.97
	3H	26.08	27.44	26.45	27.76	28.12	14.14	15.50	14.51	15.82	16.18
	4H	26.54	27.81	26.94	28.16	28.54	14.85	16.12	15.25	16.47	16.85
	6H	26.95	28.12	27.36	28.49	28.88	15.33	16.51	15.75	16.87	17.26
	8H	27.09	28.21	27.52	28.60	29.00	15.47	16.59	15.90	16.98	17.38
	12H	27.19	28.26	27.62	28.64	29.07	15.56	16.63	15.99	17.01	17.44
4H	2H	23.90	25.17	24.30	25.52	25.90	12.62	13.89	13.02	14.24	14.62
	3H	26.10	27.15	26.51	27.55	27.95	15.13	16.18	15.54	16.58	16.98
	4H	26.55	27.49	26.98	27.90	28.34	15.95	16.89	16.38	17.31	17.74
	6H	27.01	27.83	27.47	28.27	28.73	16.54	17.36	17.00	17.80	18.26
	8H	27.21	27.97	27.67	28.41	28.88	16.71	17.47	17.18	17.92	18.39
	12H	27.36	28.04	27.84	28.52	28.99	16.83	17.51	17.31	17.99	18.46
8H	4H	26.47	27.23	26.93	27.67	28.14	16.79	17.55	17.25	17.99	18.46
	6H	26.93	27.56	27.42	28.05	28.52	17.41	18.04	17.91	18.53	19.01
	8H	27.13	27.69	27.64	28.20	28.69	17.61	18.18	18.13	18.69	19.18
	12H	27.31	27.81	27.82	28.30	28.87	17.77	18.27	18.28	18.76	19.33
12H	4H	26.44	27.12	26.92	27.59	28.07	16.86	17.54	17.34	18.02	18.49
	6H	26.88	27.45	27.39	27.96	28.45	17.50	18.07	18.02	18.58	19.07
	8H	27.10	27.60	27.61	28.10	28.66	17.76	18.26	18.27	18.75	19.32