

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: P892767

Luminaire Tested: 2MB-4HL-RFLW-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892767
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-5)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-4HL-RFLW-UNV-L840
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 4000K
Light Source: -
Ballast/Driver: -

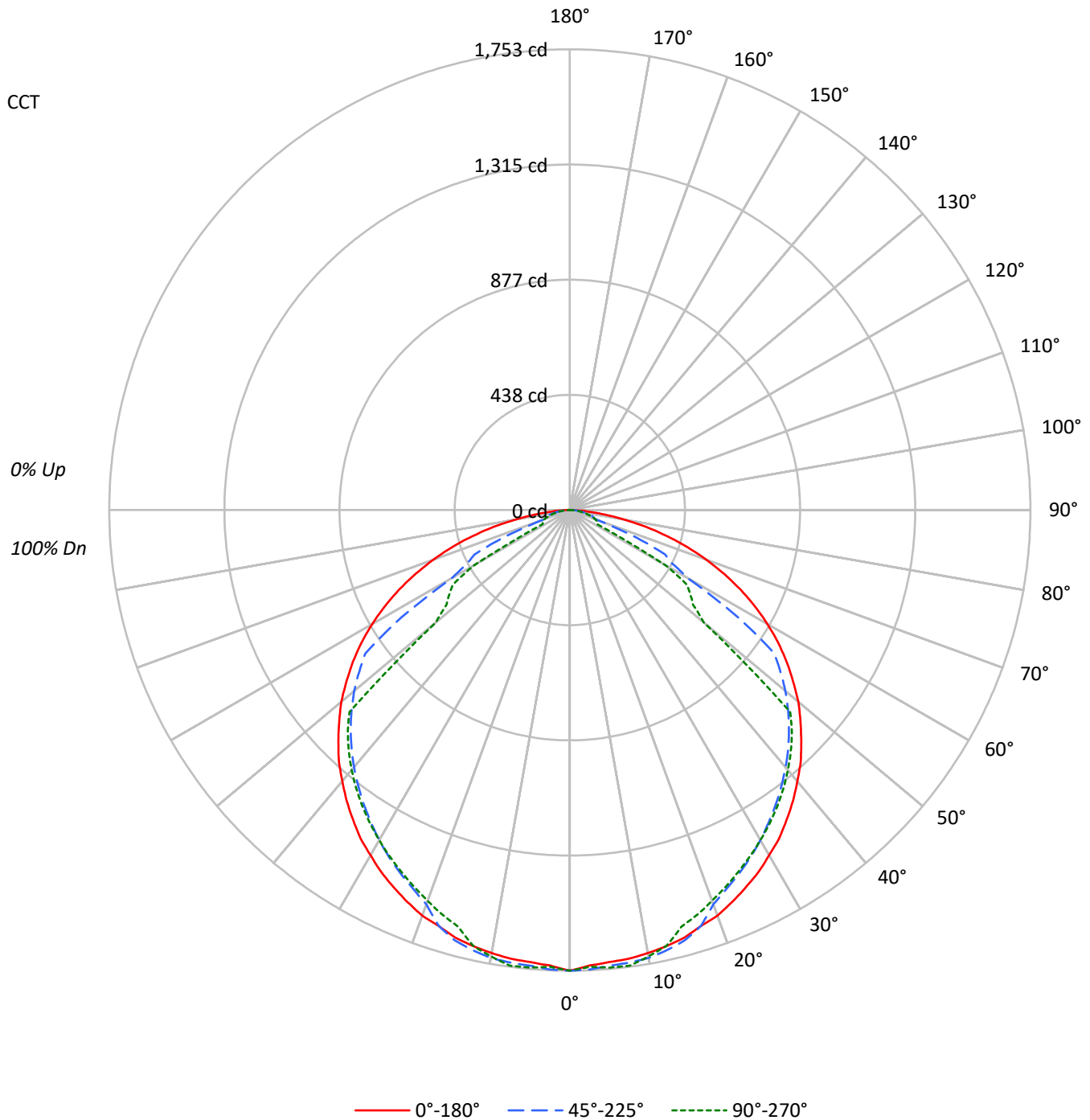
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4461.0 lumens
Efficiency: N/A
Efficacy: 161.6 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.24 / 1.38
Luminous Opening: Rectangular (W 0.21' x L: 1.98' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 6.5
Total Harmonic Distortion (THDi): 0.99
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P892767
CATALOG NUMBER: 2MB-4HL-RFLW-UNV-L840

Luminous Intensity Polar Plot





TEST NUMBER: P892767

CATALOG NUMBER: 2MB-4HL-RFLW-UNV-L840

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	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	75	75	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	65	65	65	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	60	56	56	56	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	49	49	49	47
6	72	60	51	45	70	59	51	45	57	50	44	55	49	44	54	48	43	43	43	43	42
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	39	39	39	37
8	63	49	41	35	61	49	41	35	47	40	35	46	40	35	45	39	35	35	35	35	33
9	58	45	37	32	57	45	37	32	44	37	32	43	36	32	42	36	31	31	31	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	29	29	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	45759	45759	45759
5°	45255	45620	45803
10°	45384	45885	45726
15°	45519	45814	44365
20°	45632	44362	43976
25°	45650	43933	43735
30°	45739	43731	43731
35°	45854	43575	43859
40°	45918	43546	44020
45°	46001	43546	44133
50°	46124	43505	27039
55°	45859	43237	25508
60°	45344	26980	22051
65°	44257	24735	6999
70°	42244	7885	7885
75°	38483	8816	7818
80°	31513	8961	7172
85°	22317	8927	6560

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 46124 cd/sqm



TEST NUMBER: P892767
 CATALOG NUMBER: 2MB-4HL-RFLW-UNV-L840

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.8	3.7
10°-20°	473.3	10.6
20°-30°	713.5	16.0
30°-40°	867.0	19.4
40°-50°	913.3	20.5
50°-60°	717.2	16.1
60°-70°	403.6	9.0
70°-80°	168.0	3.8
80°-90°	39.3	0.9
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°	1352.6	30.3
0°-40°	2219.7	49.8
0°-60°	3850.1	86.3
0°-90°	4461.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4461.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1753	1753	1753	1753	1753	
5°	1727	1747	1741	1740	1748	165
15°	1684	1704	1695	1644	1641	475
25°	1585	1597	1525	1516	1518	731
35°	1439	1390	1367	1371	1376	901
45°	1246	1176	1179	1193	1195	962
55°	1008	935	950	556	560	900
65°	716	659	400	108	113	707
75°	382	228	87	80	78	403
85°	74	33	30	25	22	95
90°	0	0	0	0	0	



TEST NUMBER: P892767

CATALOG NUMBER: 2MB-4HL-RFLW-UNV-L840

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1752.7	1752.7	1752.7	1752.7	1752.7
2.5°	1734.8	1759.6	1749.7	1739.7	1739.7
5°	1726.8	1746.7	1740.7	1739.7	1747.7
7.5°	1721.9	1738.7	1736.8	1738.7	1748.7
10°	1711.9	1730.8	1730.8	1723.8	1724.8
12.5°	1700.0	1718.9	1714.9	1703.0	1699.0
15°	1684.1	1704.0	1695.0	1644.4	1641.4
17.5°	1659.3	1683.1	1659.3	1611.6	1614.5
20°	1642.4	1660.3	1596.7	1580.8	1582.8
22.5°	1614.5	1630.4	1559.9	1549.0	1551.0
25°	1584.7	1596.7	1525.1	1516.2	1518.2
27.5°	1553.9	1556.9	1489.4	1483.4	1485.4
30°	1517.2	1504.3	1450.6	1446.6	1450.6
32.5°	1482.4	1452.6	1408.9	1409.9	1414.8
35°	1438.7	1390.0	1367.2	1371.1	1376.1
37.5°	1395.0	1336.4	1323.4	1331.4	1335.4
40°	1347.3	1284.7	1277.7	1285.7	1291.6
42.5°	1300.6	1232.0	1230.0	1242.0	1244.9
45°	1245.9	1176.4	1179.4	1193.3	1195.3
47.5°	1190.3	1119.8	1126.7	1139.6	1137.6
50°	1135.6	1060.1	1071.1	1052.2	665.7
52.5°	1071.1	998.5	1010.5	626.9	591.2
55°	1007.5	934.9	949.9	556.4	560.4
57.5°	940.9	868.4	759.1	523.6	527.6
60°	868.4	800.8	516.7	489.8	422.3
62.5°	793.9	730.3	438.2	275.2	116.2
65°	716.4	658.7	400.4	108.3	113.3
67.5°	634.9	586.2	274.2	105.3	110.3
70°	553.4	455.1	103.3	101.3	103.3
72.5°	469.0	355.7	96.4	92.4	91.4
75°	381.5	228.5	87.4	80.5	77.5
77.5°	298.1	132.1	74.5	66.6	62.6
80°	209.6	67.6	59.6	50.7	47.7
82.5°	136.1	49.7	43.7	37.8	35.8
85°	74.5	32.8	29.8	24.8	21.9
87.5°	32.8	19.9	16.9	12.9	9.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P892767
 CATALOG NUMBER: 2MB-4HL-RFLW-UNV-L840

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	25.95	27.51	26.31	27.82	28.14	22.33	23.89	22.70	24.21	24.52
	3H	27.86	29.26	28.24	29.59	29.95	22.47	23.87	22.85	24.20	24.56
	4H	28.46	29.77	28.86	30.12	30.50	22.59	23.90	22.99	24.25	24.62
	6H	28.83	30.04	29.24	30.41	30.80	22.69	23.90	23.10	24.26	24.65
	8H	28.93	30.08	29.36	30.47	30.87	22.72	23.87	23.15	24.26	24.66
	12H	28.99	30.09	29.42	30.47	30.90	22.74	23.84	23.17	24.22	24.65
4H	2H	26.09	27.40	26.49	27.75	28.13	23.01	24.32	23.41	24.67	25.05
	3H	28.11	29.19	28.52	29.59	29.99	23.21	24.29	23.62	24.69	25.09
	4H	28.77	29.74	29.20	30.16	30.59	23.37	24.34	23.80	24.76	25.19
	6H	29.19	30.03	29.65	30.48	30.93	23.53	24.37	23.99	24.82	25.27
	8H	29.32	30.10	29.78	30.55	31.02	23.58	24.37	24.04	24.81	25.28
	12H	29.41	30.11	29.89	30.59	31.06	23.62	24.33	24.11	24.81	25.28
8H	4H	28.71	29.50	29.17	29.94	30.41	23.59	24.38	24.06	24.83	25.29
	6H	29.13	29.79	29.63	30.28	30.75	23.80	24.45	24.30	24.95	25.42
	8H	29.27	29.86	29.79	30.37	30.86	23.89	24.47	24.40	24.98	25.47
	12H	29.40	29.92	29.91	30.41	30.97	23.97	24.49	24.48	24.98	25.55
12H	4H	28.68	29.39	29.17	29.87	30.34	23.61	24.31	24.09	24.79	25.26
	6H	29.09	29.68	29.61	30.19	30.68	23.82	24.41	24.34	24.92	25.41
	8H	29.26	29.78	29.77	30.27	30.84	23.95	24.47	24.46	24.96	25.53