

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: P893655

Luminaire Tested: 4MB-5SL-LVRF-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893655
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-L940
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 4000K C
Light Source: -
Ballast/Driver: -

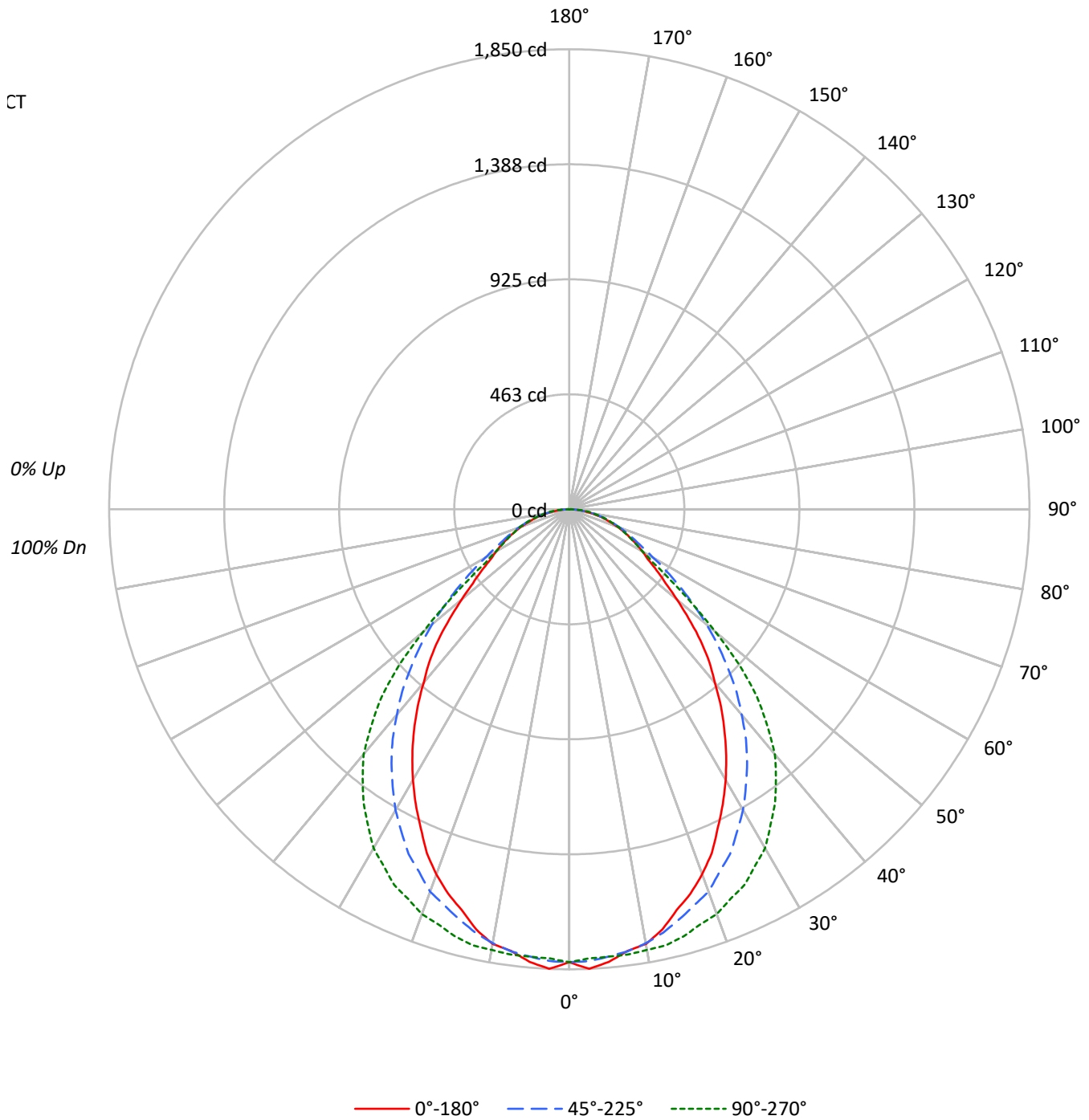
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3785.0 lumens
Efficiency: N/A
Efficacy: 108.1 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

TEST NUMBER: P893655
CATALOG NUMBER: 4MB-5SL-LVRF-UNV-L940

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	100	97	100	97	94	96	93	91	92	90	89	89	89	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	71	67	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	52	52	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	63	52	44	39	50	44	39	49	43	38	48	42	38	38	38	38	36
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12958	12958	12958
5°	13048	12899	12899
10°	12822	12802	13000
15°	12292	12577	13094
20°	11825	12391	13115
25°	11093	12007	13085
30°	10325	11476	12931
35°	9452	10825	12520
40°	8462	10010	11945
45°	7509	9062	10739
50°	6247	7977	8470
55°	5322	6720	6156
60°	4824	5553	4865
65°	4544	4862	4529
70°	4275	4512	4412
75°	3983	4297	4217
80°	3647	3958	4073
85°	3167	3478	4563

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10739 cd/sqm



TEST NUMBER: P893655
 CATALOG NUMBER: 4MB-5SL-LVRF-UNV-L940

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.4	4.6
10°-20°	485.2	12.8
20°-30°	704.6	18.6
30°-40°	784.6	20.7
40°-50°	693.2	18.3
50°-60°	454.8	12.0
60°-70°	278.5	7.4
70°-80°	162.1	4.3
80°-90°	49.6	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°	1362.2	36.0
0°-40°	2146.8	56.7
0°-60°	3294.8	87.0
0°-90°	3785.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3785.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1821	1821	1821	1821	1821	
5°	1827	1828	1806	1824	1806	172
15°	1669	1688	1708	1775	1778	471
25°	1413	1447	1530	1627	1667	650
35°	1088	1147	1246	1378	1441	679
45°	746	792	901	1022	1067	571
55°	429	459	542	537	496	389
65°	270	275	289	280	269	268
75°	145	147	156	159	153	154
85°	39	41	43	48	56	44
90°	0	0	0	0	0	



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CATALOG NUMBER: 4MB-5SL-LVRF-UNV-L940

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1821.2	1821.2	1821.2	1821.2	1821.2
2.5°	1849.6	1826.9	1818.3	1826.9	1807.9
5°	1826.9	1827.8	1806.0	1824.0	1806.0
7.5°	1790.9	1803.2	1792.8	1820.2	1806.0
10°	1774.8	1775.7	1771.9	1800.3	1799.4
12.5°	1730.3	1733.1	1743.5	1786.1	1795.6
15°	1668.7	1687.6	1707.5	1774.8	1777.6
17.5°	1620.4	1643.1	1669.6	1741.6	1750.1
20°	1561.7	1571.1	1636.5	1699.9	1732.1
22.5°	1496.3	1514.3	1577.8	1663.0	1695.2
25°	1413.0	1447.1	1529.5	1627.0	1666.8
27.5°	1336.3	1376.1	1461.3	1570.2	1616.6
30°	1256.7	1302.2	1396.9	1503.9	1574.0
32.5°	1174.3	1231.2	1321.1	1444.2	1505.8
35°	1088.2	1146.9	1246.3	1378.0	1441.4
37.5°	1002.0	1058.8	1166.8	1307.9	1364.7
40°	911.1	966.9	1077.7	1220.7	1286.1
42.5°	832.5	880.8	994.4	1116.6	1177.2
45°	746.3	791.7	900.6	1021.9	1067.3
47.5°	651.6	704.6	810.7	910.1	928.1
50°	564.4	619.4	720.7	778.5	765.2
52.5°	487.7	534.1	626.9	651.6	620.3
55°	429.0	459.3	541.7	537.0	496.3
57.5°	375.0	394.0	464.1	437.5	398.7
60°	339.0	347.6	390.2	365.6	341.9
62.5°	304.9	308.7	331.5	318.2	300.2
65°	269.9	274.6	288.8	280.3	269.0
67.5°	237.7	239.6	252.9	251.0	236.8
70°	205.5	208.4	216.9	220.7	212.1
72.5°	174.3	177.1	185.6	189.4	181.8
75°	144.9	146.8	156.3	159.1	153.4
77.5°	116.5	120.3	126.0	130.7	124.1
80°	89.0	90.9	96.6	102.3	99.4
82.5°	62.5	65.3	69.1	76.7	78.6
85°	38.8	40.7	42.6	48.3	55.9
87.5°	15.2	16.1	18.9	20.8	27.5
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	16.43	17.91	16.79	18.22	18.54	17.08	18.56	17.45	18.88	19.19
	3H	18.03	19.36	18.41	19.69	20.05	18.52	19.84	18.90	20.17	20.53
	4H	18.65	19.89	19.05	20.24	20.62	19.12	20.36	19.52	20.71	21.09
	6H	19.12	20.27	19.53	20.63	21.03	19.61	20.76	20.02	21.12	21.52
	8H	19.27	20.36	19.70	20.75	21.15	19.81	20.90	20.23	21.29	21.69
	12H	19.37	20.41	19.80	20.80	21.23	19.97	21.02	20.40	21.40	21.83
4H	2H	17.05	18.29	17.45	18.64	19.02	17.57	18.82	17.98	19.17	19.55
	3H	18.87	19.90	19.28	20.30	20.70	19.27	20.30	19.68	20.70	21.10
	4H	19.61	20.54	20.04	20.95	21.39	20.03	20.95	20.46	21.37	21.81
	6H	20.21	21.01	20.67	21.46	21.92	20.66	21.47	21.12	21.91	22.37
	8H	20.41	21.16	20.87	21.60	22.07	20.92	21.67	21.38	22.11	22.58
	12H	20.55	21.22	21.03	21.70	22.17	21.14	21.81	21.62	22.29	22.76
8H	4H	19.93	20.68	20.39	21.13	21.59	20.30	21.05	20.76	21.49	21.96
	6H	20.65	21.28	21.15	21.77	22.25	21.07	21.69	21.57	22.19	22.66
	8H	20.93	21.49	21.44	22.00	22.49	21.42	21.98	21.93	22.49	22.98
	12H	21.14	21.64	21.65	22.13	22.70	21.73	22.23	22.24	22.72	23.29
12H	4H	19.96	20.64	20.45	21.12	21.59	20.32	20.99	20.80	21.47	21.94
	6H	20.72	21.28	21.23	21.79	22.28	21.12	21.68	21.63	22.19	22.68
	8H	21.05	21.55	21.56	22.04	22.61	21.52	22.02	22.03	22.51	23.08