

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: P893831

Luminaire Tested: 4MB-7HL-FLT-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893831
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-4)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-FLT-UNV-L940
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

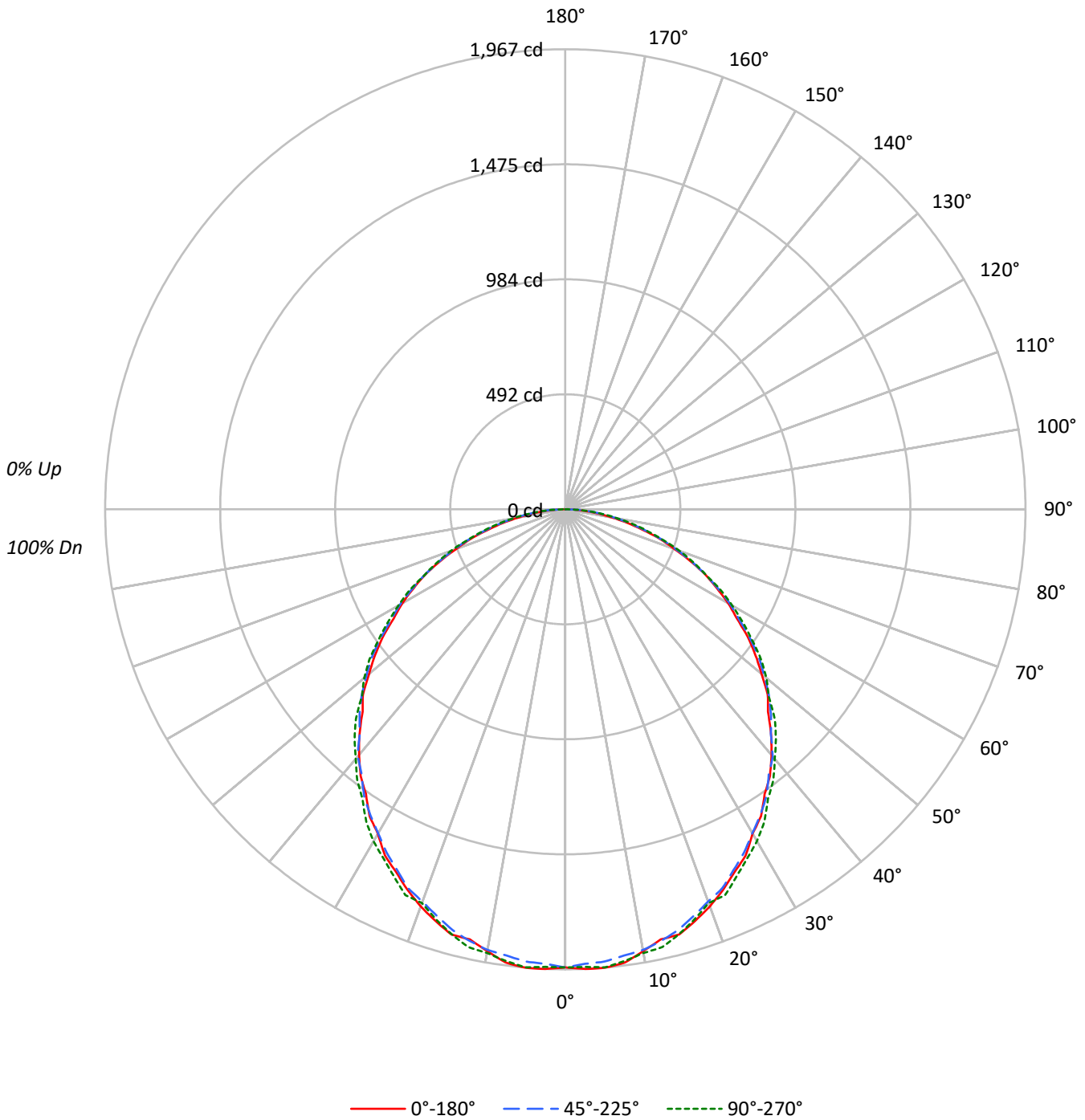
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5428.0 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.34
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 51.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P893831
CATALOG NUMBER: 4MB-7HL-FLT-UNV-L940

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	109	104	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	86	86	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	69	65	61	61	61	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	52	52	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	45	45	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	40	40	40	38
7	65	51	43	36	63	51	42	36	49	41	36	48	41	36	46	40	35	35	35	35	33
8	60	47	38	33	59	46	38	32	45	37	32	44	37	32	42	36	32	32	32	32	30
9	57	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	29	29	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13938	13938	13938
5°	14052	13864	14040
10°	13860	13823	13915
15°	13863	13719	13850
20°	13680	13513	13564
25°	13432	13359	13599
30°	13161	13139	13466
35°	12907	13017	13127
40°	12733	12811	12937
45°	12321	12508	12738
50°	12121	12299	12420
55°	11819	11967	12092
60°	11452	11620	11728
65°	11111	11155	11155
70°	10333	10580	10845
75°	9514	9885	10097
80°	8391	9121	9432
85°	7527	8425	9053

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12738 cd/sqm



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 CATALOG NUMBER: 4MB-7HL-FLT-UNV-L940

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.4	3.4
10°-20°	528.4	9.7
20°-30°	792.6	14.6
30°-40°	941.4	17.3
40°-50°	963.8	17.8
50°-60°	863.5	15.9
60°-70°	656.0	12.1
70°-80°	382.1	7.0
80°-90°	114.7	2.1
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°	1506.5	27.8
0°-40°	2447.8	45.1
0°-60°	4275.2	78.8
0°-90°	5428.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5428.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1959	1959	1959	1959	1959	
5°	1967	1960	1941	1953	1966	186
15°	1882	1895	1862	1870	1880	528
25°	1711	1726	1702	1724	1732	790
35°	1486	1519	1499	1505	1511	934
45°	1224	1255	1243	1253	1266	952
55°	953	967	965	976	975	849
65°	660	660	663	671	663	648
75°	346	352	360	371	367	368
85°	92	94	103	110	111	103
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1959.0	1959.0	1959.0	1959.0	1959.0
2.5°	1967.4	1958.1	1945.4	1949.7	1958.1
5°	1967.4	1959.8	1941.2	1953.1	1965.8
7.5°	1954.8	1964.9	1924.3	1924.3	1948.0
10°	1918.4	1937.8	1913.3	1910.8	1926.0
12.5°	1883.7	1919.2	1890.4	1898.9	1917.5
15°	1882.0	1894.7	1862.5	1870.1	1880.3
17.5°	1845.6	1858.3	1823.6	1838.0	1838.0
20°	1806.7	1809.2	1784.7	1816.0	1791.4
22.5°	1761.8	1788.1	1754.2	1764.4	1785.5
25°	1711.0	1726.3	1701.7	1723.7	1732.2
27.5°	1669.6	1688.2	1654.3	1680.6	1683.1
30°	1601.9	1622.2	1599.3	1616.3	1639.1
32.5°	1556.2	1563.0	1551.1	1576.5	1583.3
35°	1486.0	1519.0	1498.6	1504.6	1511.3
37.5°	1436.9	1447.0	1429.3	1449.6	1460.6
40°	1370.9	1386.1	1379.3	1382.7	1392.9
42.5°	1302.3	1318.4	1300.6	1325.2	1332.8
45°	1224.5	1254.9	1243.1	1253.2	1265.9
47.5°	1173.7	1183.9	1180.5	1186.4	1177.9
50°	1095.0	1105.2	1111.1	1118.7	1122.1
52.5°	1024.8	1032.4	1043.4	1047.6	1055.2
55°	952.8	967.2	964.7	975.7	974.8
57.5°	869.1	890.2	883.4	899.5	899.5
60°	804.8	808.1	816.6	824.2	824.2
62.5°	730.3	734.5	738.7	745.5	750.6
65°	660.0	660.0	662.6	671.0	662.6
67.5°	578.8	575.4	583.9	594.0	593.2
70°	496.7	501.0	508.6	521.3	521.3
72.5°	426.5	426.5	435.0	441.7	440.9
75°	346.1	352.0	359.6	370.6	367.3
77.5°	274.2	278.4	291.1	301.3	302.1
80°	204.8	209.0	222.6	232.7	230.2
82.5°	143.0	148.9	161.6	169.2	168.4
85°	92.2	93.9	103.2	110.0	110.9
87.5°	42.3	45.7	52.5	55.0	55.0
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	20.68	22.32	21.05	22.64	22.95	20.79	22.43	21.15	22.74	23.05
	3H	22.46	23.95	22.84	24.27	24.63	22.63	24.11	23.00	24.43	24.79
	4H	23.13	24.52	23.52	24.87	25.25	23.32	24.72	23.72	25.07	25.44
	6H	23.60	24.90	24.01	25.26	25.65	23.87	25.17	24.28	25.53	25.92
	8H	23.75	24.99	24.17	25.38	25.78	24.06	25.30	24.49	25.69	26.09
	12H	23.86	25.04	24.29	25.43	25.85	24.21	25.39	24.64	25.77	26.20
4H	2H	21.33	22.72	21.73	23.07	23.45	21.41	22.81	21.81	23.15	23.53
	3H	23.33	24.50	23.74	24.90	25.30	23.47	24.65	23.88	25.04	25.44
	4H	24.12	25.18	24.55	25.60	26.03	24.31	25.37	24.74	25.79	26.22
	6H	24.72	25.65	25.17	26.09	26.55	25.00	25.93	25.45	26.37	26.83
	8H	24.92	25.79	25.38	26.23	26.70	25.25	26.12	25.71	26.56	27.02
	12H	25.07	25.85	25.55	26.33	26.80	25.44	26.23	25.92	26.70	27.17
8H	4H	24.46	25.33	24.92	25.77	26.23	24.63	25.50	25.08	25.94	26.40
	6H	25.18	25.91	25.67	26.39	26.87	25.45	26.17	25.94	26.66	27.14
	8H	25.45	26.10	25.96	26.61	27.09	25.78	26.43	26.29	26.94	27.42
	12H	25.68	26.26	26.19	26.75	27.31	26.07	26.65	26.58	27.14	27.70
12H	4H	24.50	25.28	24.98	25.76	26.23	24.66	25.44	25.14	25.92	26.39
	6H	25.25	25.91	25.76	26.41	26.90	25.51	26.16	26.02	26.67	27.15
	8H	25.59	26.16	26.09	26.65	27.21	25.90	26.48	26.41	26.97	27.53