

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: P893827

Luminaire Tested: 4MB-7HL-FLT-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893827
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-L840
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

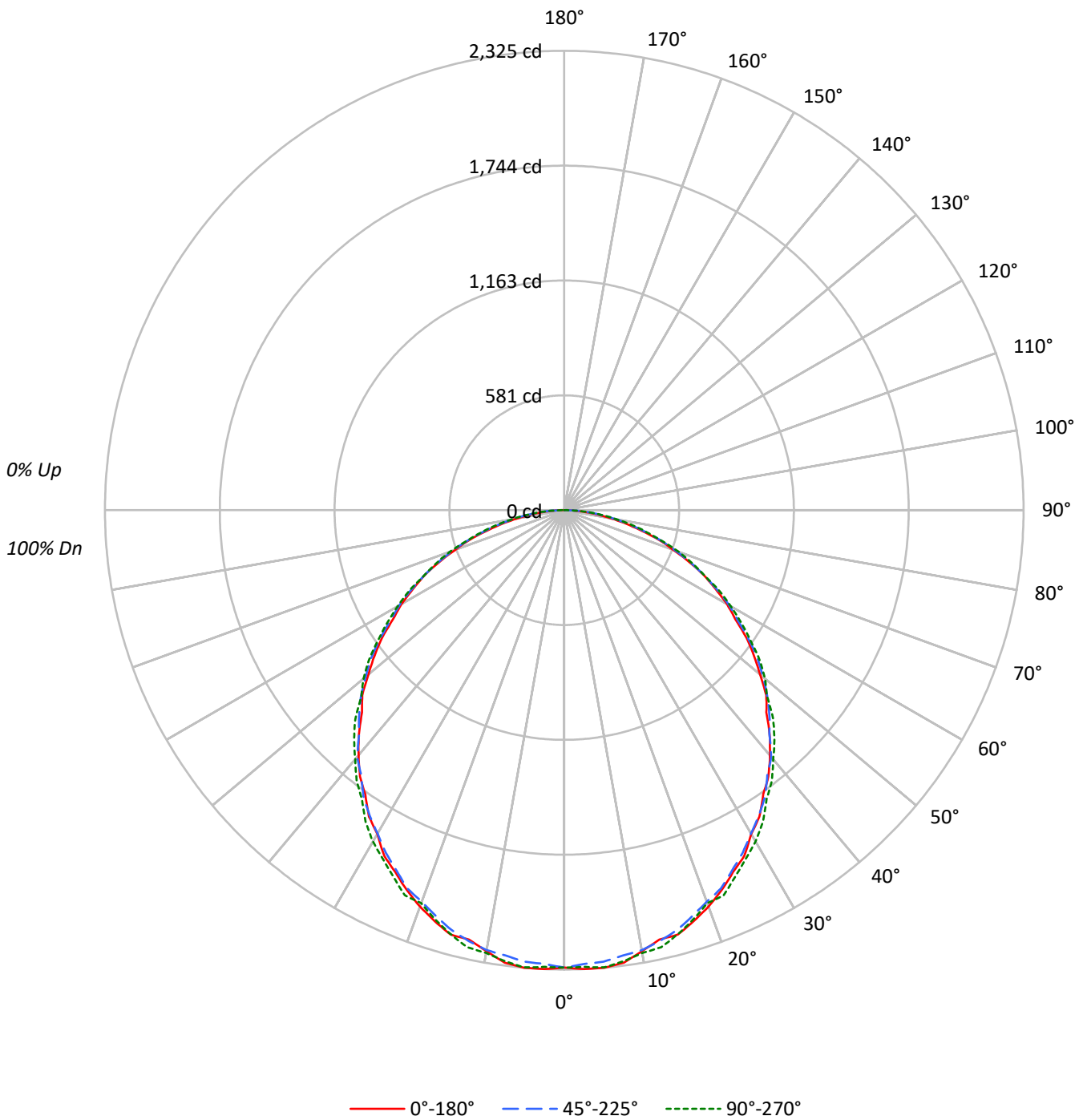
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6414.0 lumens
Efficiency: N/A
Efficacy: 123.8 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 (Ain): 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

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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	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°	16470	16470	16470
5°	16604	16383	16590
10°	16377	16334	16442
15°	16380	16211	16366
20°	16165	15968	16028
25°	15873	15787	16069
30°	15551	15527	15913
35°	15251	15382	15512
40°	15046	15138	15287
45°	14559	14780	15052
50°	14322	14532	14676
55°	13966	14140	14289
60°	13531	13731	13859
65°	13130	13181	13181
70°	12211	12503	12815
75°	11244	11683	11931
80°	9916	10776	11145
85°	8898	9960	10694

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 15052 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.1	3.4
10°-20°	624.4	9.7
20°-30°	936.6	14.6
30°-40°	1112.4	17.3
40°-50°	1138.9	17.8
50°-60°	1020.4	15.9
60°-70°	775.1	12.1
70°-80°	451.5	7.0
80°-90°	135.6	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°	1780.1	27.8
0°-40°	2892.5	45.1
0°-60°	5051.8	78.8
0°-90°	6414.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6414.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2315	2315	2315	2315	2315	
5°	2325	2316	2294	2308	2323	220
15°	2224	2239	2201	2210	2222	624
25°	2022	2040	2011	2037	2047	933
35°	1756	1795	1771	1778	1786	1104
45°	1447	1483	1469	1481	1496	1125
55°	1126	1143	1140	1153	1152	1003
65°	780	780	783	793	783	766
75°	409	416	425	438	434	435
85°	109	111	122	130	131	122
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2314.8	2314.8	2314.8	2314.8	2314.8
2.5°	2324.8	2313.8	2298.8	2303.8	2313.8
5°	2324.8	2315.8	2293.8	2307.8	2322.8
7.5°	2309.8	2321.8	2273.8	2273.8	2301.8
10°	2266.8	2289.8	2260.8	2257.8	2275.8
12.5°	2225.8	2267.8	2233.8	2243.8	2265.8
15°	2223.8	2238.8	2200.8	2209.8	2221.8
17.5°	2180.8	2195.8	2154.8	2171.8	2171.8
20°	2134.9	2137.9	2108.9	2145.9	2116.9
22.5°	2081.9	2112.9	2072.9	2084.9	2109.9
25°	2021.9	2039.9	2010.9	2036.9	2046.9
27.5°	1972.9	1994.9	1954.9	1985.9	1988.9
30°	1892.9	1916.9	1889.9	1909.9	1936.9
32.5°	1838.9	1846.9	1832.9	1862.9	1870.9
35°	1755.9	1794.9	1770.9	1777.9	1785.9
37.5°	1697.9	1709.9	1688.9	1712.9	1725.9
40°	1619.9	1637.9	1629.9	1633.9	1645.9
42.5°	1538.9	1557.9	1536.9	1565.9	1574.9
45°	1446.9	1482.9	1468.9	1480.9	1495.9
47.5°	1386.9	1398.9	1394.9	1401.9	1391.9
50°	1293.9	1305.9	1312.9	1321.9	1325.9
52.5°	1210.9	1219.9	1232.9	1237.9	1246.9
55°	1125.9	1142.9	1139.9	1152.9	1151.9
57.5°	1026.9	1051.9	1043.9	1062.9	1062.9
60°	950.9	954.9	964.9	973.9	973.9
62.5°	862.9	867.9	872.9	880.9	886.9
65°	779.9	779.9	782.9	792.9	782.9
67.5°	684.0	680.0	690.0	702.0	701.0
70°	587.0	592.0	601.0	616.0	616.0
72.5°	504.0	504.0	514.0	522.0	521.0
75°	409.0	416.0	425.0	438.0	434.0
77.5°	324.0	329.0	344.0	356.0	357.0
80°	242.0	247.0	263.0	275.0	272.0
82.5°	169.0	176.0	191.0	200.0	199.0
85°	109.0	111.0	122.0	130.0	131.0
87.5°	50.0	54.0	62.0	65.0	65.0
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	21.26	22.90	21.63	23.22	23.53	21.37	23.01	21.73	23.32	23.63
	3H	23.04	24.53	23.42	24.85	25.21	23.21	24.69	23.58	25.01	25.37
	4H	23.71	25.10	24.10	25.45	25.83	23.90	25.30	24.30	25.65	26.02
	6H	24.18	25.48	24.59	25.84	26.23	24.45	25.75	24.86	26.11	26.50
	8H	24.33	25.57	24.75	25.96	26.36	24.64	25.88	25.07	26.27	26.67
	12H	24.44	25.62	24.87	26.01	26.43	24.79	25.97	25.22	26.35	26.78
4H	2H	21.91	23.30	22.31	23.65	24.03	21.99	23.39	22.39	23.73	24.11
	3H	23.91	25.08	24.32	25.48	25.88	24.05	25.23	24.46	25.62	26.02
	4H	24.70	25.76	25.13	26.18	26.61	24.89	25.95	25.32	26.37	26.80
	6H	25.30	26.23	25.75	26.67	27.13	25.58	26.51	26.03	26.95	27.41
	8H	25.50	26.37	25.96	26.81	27.28	25.83	26.70	26.29	27.14	27.60
	12H	25.65	26.43	26.13	26.91	27.38	26.02	26.81	26.50	27.28	27.75
8H	4H	25.04	25.91	25.50	26.35	26.81	25.21	26.08	25.67	26.52	26.98
	6H	25.76	26.49	26.25	26.97	27.45	26.03	26.75	26.52	27.24	27.72
	8H	26.03	26.68	26.54	27.19	27.68	26.36	27.01	26.87	27.52	28.00
	12H	26.26	26.84	26.77	27.33	27.89	26.65	27.23	27.16	27.72	28.28
12H	4H	25.08	25.86	25.56	26.34	26.81	25.24	26.02	25.72	26.50	26.97
	6H	25.83	26.49	26.34	26.99	27.48	26.09	26.74	26.60	27.25	27.73
	8H	26.17	26.74	26.67	27.23	27.79	26.48	27.06	26.99	27.55	28.11