

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: P893923

Luminaire Tested: 4MB-8HL-FLT-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893923
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-8HL-FLT-UNV-L840
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

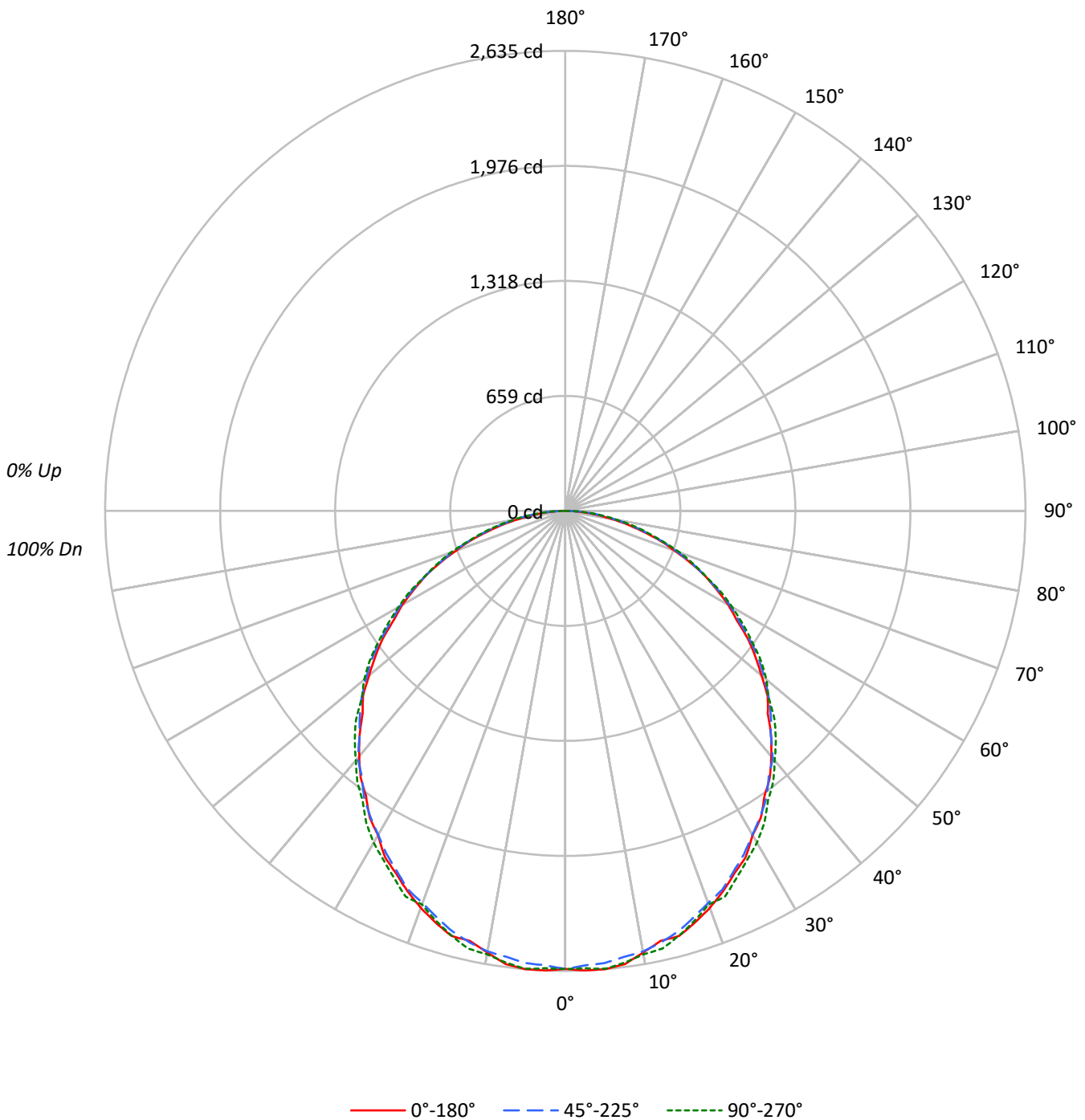
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7269.0 lumens
Efficiency: N/A
Efficacy: 125.5 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): 57.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 4.23
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P893923
CATALOG NUMBER: 4MB-8HL-FLT-UNV-L840

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°	18665	18665	18665
5°	18817	18567	18802
10°	18560	18511	18634
15°	18564	18372	18548
20°	18319	18096	18164
25°	17989	17891	18211
30°	17624	17596	18034
35°	17284	17432	17579
40°	17051	17157	17325
45°	16500	16750	17058
50°	16232	16470	16633
55°	15828	16026	16194
60°	15336	15562	15707
65°	14881	14938	14938
70°	13838	14169	14522
75°	12742	13239	13520
80°	11235	12210	12628
85°	10082	11290	12123

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 17058 cd/sqm



TEST NUMBER: P893923
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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.3	3.4
10°-20°	707.7	9.7
20°-30°	1061.4	14.6
30°-40°	1260.6	17.3
40°-50°	1290.7	17.8
50°-60°	1156.4	15.9
60°-70°	878.5	12.1
70°-80°	511.7	7.0
80°-90°	153.7	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°	2017.4	27.8
0°-40°	3278.1	45.1
0°-60°	5725.2	78.8
0°-90°	7269.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7269.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2623	2623	2623	2623	2623	
5°	2635	2624	2600	2616	2632	249
15°	2520	2537	2494	2504	2518	707
25°	2291	2312	2279	2308	2320	1057
35°	1990	2034	2007	2015	2024	1251
45°	1640	1681	1665	1678	1695	1275
55°	1276	1295	1292	1307	1306	1137
65°	884	884	887	899	887	868
75°	464	471	482	496	492	493
85°	124	126	138	147	148	138
90°	0	0	0	0	0	



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CATALOG NUMBER: 4MB-8HL-FLT-UNV-L840

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2623.4	2623.4	2623.4	2623.4	2623.4
2.5°	2634.7	2622.3	2605.3	2610.9	2622.3
5°	2634.7	2624.5	2599.6	2615.5	2632.5
7.5°	2617.7	2631.3	2576.9	2576.9	2608.7
10°	2569.0	2595.1	2562.2	2558.8	2579.2
12.5°	2522.6	2570.1	2531.6	2543.0	2567.9
15°	2520.3	2537.3	2494.2	2504.4	2518.0
17.5°	2471.6	2488.6	2442.1	2461.4	2461.4
20°	2419.4	2422.8	2390.0	2431.9	2399.0
22.5°	2359.4	2394.5	2349.2	2362.8	2391.1
25°	2291.4	2311.8	2278.9	2308.4	2319.7
27.5°	2235.8	2260.8	2215.5	2250.6	2254.0
30°	2145.2	2172.4	2141.8	2164.5	2195.1
32.5°	2084.0	2093.1	2077.2	2111.2	2120.3
35°	1989.9	2034.1	2006.9	2014.9	2023.9
37.5°	1924.2	1937.8	1914.0	1941.2	1955.9
40°	1835.8	1856.2	1847.2	1851.7	1865.3
42.5°	1744.0	1765.6	1741.8	1774.6	1784.8
45°	1639.8	1680.6	1664.7	1678.3	1695.3
47.5°	1571.8	1585.4	1580.8	1588.8	1577.4
50°	1466.4	1480.0	1487.9	1498.1	1502.7
52.5°	1372.3	1382.5	1397.3	1402.9	1413.1
55°	1276.0	1295.3	1291.9	1306.6	1305.5
57.5°	1163.8	1192.2	1183.1	1204.6	1204.6
60°	1077.7	1082.2	1093.6	1103.8	1103.8
62.5°	978.0	983.6	989.3	998.4	1005.2
65°	883.9	883.9	887.3	898.6	887.3
67.5°	775.1	770.6	781.9	795.5	794.4
70°	665.2	670.9	681.1	698.1	698.1
72.5°	571.1	571.1	582.5	591.5	590.4
75°	463.5	471.4	481.6	496.4	491.8
77.5°	367.2	372.8	389.8	403.4	404.6
80°	274.2	279.9	298.0	311.6	308.2
82.5°	191.5	199.4	216.4	226.6	225.5
85°	123.5	125.8	138.3	147.3	148.5
87.5°	56.7	61.2	70.3	73.7	73.7
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	21.70	23.34	22.06	23.65	23.96	21.80	23.44	22.17	23.75	24.07
	3H	23.48	24.96	23.85	25.29	25.65	23.64	25.12	24.02	25.45	25.81
	4H	24.14	25.54	24.54	25.89	26.26	24.34	25.73	24.74	26.08	26.46
	6H	24.62	25.91	25.03	26.28	26.67	24.89	26.18	25.30	26.55	26.94
	8H	24.77	26.00	25.19	26.39	26.79	25.08	26.32	25.50	26.70	27.10
	12H	24.87	26.06	25.30	26.44	26.87	25.22	26.41	25.65	26.79	27.22
4H	2H	22.34	23.74	22.74	24.09	24.46	22.42	23.82	22.82	24.17	24.55
	3H	24.34	25.52	24.75	25.92	26.31	24.49	25.66	24.90	26.06	26.46
	4H	25.14	26.20	25.57	26.61	27.05	25.33	26.39	25.76	26.80	27.24
	6H	25.74	26.67	26.19	27.11	27.56	26.02	26.95	26.47	27.39	27.84
	8H	25.93	26.80	26.39	27.25	27.71	26.26	27.13	26.72	27.57	28.04
	12H	26.08	26.87	26.56	27.34	27.81	26.46	27.24	26.94	27.72	28.19
8H	4H	25.47	26.34	25.93	26.78	27.25	25.64	26.51	26.10	26.95	27.42
	6H	26.20	26.92	26.69	27.41	27.88	26.46	27.19	26.96	27.68	28.15
	8H	26.47	27.12	26.98	27.62	28.11	26.80	27.45	27.30	27.95	28.44
	12H	26.70	27.27	27.20	27.76	28.32	27.08	27.66	27.59	28.15	28.71
12H	4H	25.52	26.30	26.00	26.77	27.24	25.67	26.46	26.15	26.93	27.40
	6H	26.27	26.92	26.78	27.43	27.91	26.52	27.17	27.03	27.68	28.16
	8H	26.60	27.18	27.11	27.67	28.23	26.92	27.49	27.42	27.98	28.54