

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: P893863

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893863
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-5)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-LVRF-UNV-L940
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 4000K C
Light Source: -
Ballast/Driver: -

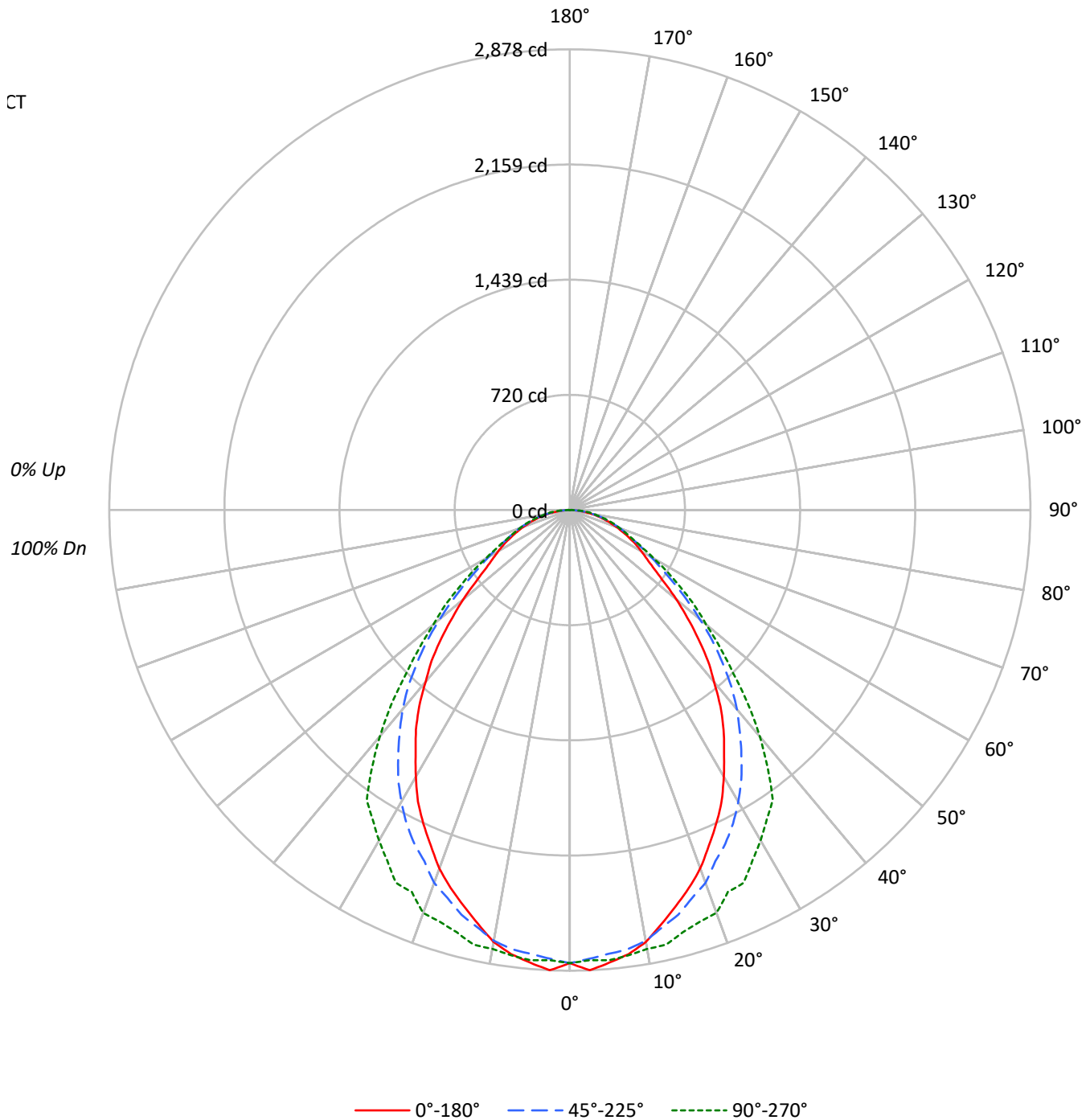
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5740.0 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.25 / 1.21
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

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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	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	78	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	61	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	57	52	52	52	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	47	47	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	64	52	44	39	50	44	39	49	43	39	48	43	38	38	38	38	37
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	35	35	35	33
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20143	20143	20143
5°	20274	19881	20165
10°	19799	19737	20117
15°	18864	19282	20117
20°	18045	18769	20281
25°	16989	18052	20178
30°	15805	17300	19587
35°	14555	16238	19208
40°	13017	15092	17152
45°	11411	13574	14545
50°	9630	11729	12310
55°	7990	9816	10498
60°	7347	8346	8659
65°	6882	7339	7394
70°	6409	6954	6902
75°	5979	6490	6724
80°	5585	6035	6449
85°	4694	5110	7119

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 14545 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.2	4.7
10°-20°	745.4	13.0
20°-30°	1073.4	18.7
30°-40°	1185.1	20.6
40°-50°	1016.9	17.7
50°-60°	692.7	12.1
60°-70°	435.8	7.6
70°-80°	248.1	4.3
80°-90°	75.4	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°	2086.0	36.3
0°-40°	3271.1	57.0
0°-60°	4980.7	86.8
0°-90°	5740.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5740.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2831	2831	2831	2831	2831	
5°	2839	2828	2784	2842	2823	268
15°	2561	2588	2618	2736	2731	721
25°	2164	2207	2300	2485	2570	994
35°	1676	1741	1870	2074	2211	1042
45°	1134	1209	1349	1430	1446	874
55°	644	684	791	829	846	592
65°	409	416	436	457	439	406
75°	218	219	236	246	245	232
85°	58	59	63	74	87	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2831.0	2831.0	2831.0	2831.0	2831.0
2.5°	2877.5	2847.9	2805.6	2846.2	2814.9
5°	2838.6	2827.6	2783.6	2842.0	2823.3
7.5°	2798.8	2775.1	2767.5	2830.1	2805.6
10°	2740.4	2726.9	2731.9	2812.3	2784.4
12.5°	2648.1	2657.5	2669.3	2771.7	2780.2
15°	2561.0	2588.1	2617.7	2736.2	2731.1
17.5°	2475.5	2512.7	2540.7	2693.0	2697.2
20°	2383.2	2404.4	2478.9	2626.1	2678.6
22.5°	2269.0	2310.5	2374.8	2558.4	2582.1
25°	2164.0	2207.2	2299.5	2484.8	2570.3
27.5°	2054.0	2093.8	2208.1	2397.6	2470.4
30°	1923.7	1977.0	2105.7	2298.6	2384.1
32.5°	1793.4	1871.2	1994.8	2192.8	2291.8
35°	1675.7	1740.9	1869.5	2073.5	2211.4
37.5°	1545.4	1613.9	1744.3	1943.2	2031.2
40°	1401.5	1475.1	1624.9	1785.7	1846.7
42.5°	1277.9	1341.4	1492.1	1605.5	1653.7
45°	1134.1	1209.4	1349.0	1430.3	1445.5
47.5°	995.3	1081.6	1206.9	1244.9	1274.6
50°	870.0	937.7	1059.6	1083.3	1112.1
52.5°	742.2	814.2	920.8	944.5	986.8
55°	644.1	683.8	791.3	829.4	846.3
57.5°	572.1	597.5	673.7	721.9	727.0
60°	516.3	529.0	586.5	622.9	608.5
62.5°	464.6	474.8	503.6	531.5	512.9
65°	408.8	415.5	435.9	457.0	439.2
67.5°	356.3	363.9	382.5	397.8	382.5
70°	308.1	314.0	334.3	341.1	331.8
72.5°	263.2	265.7	282.7	294.5	288.6
75°	217.5	219.2	236.1	246.3	244.6
77.5°	176.0	178.6	193.0	202.3	197.2
80°	136.3	138.0	147.3	160.8	157.4
82.5°	95.6	99.0	104.9	116.8	126.1
85°	57.5	59.2	62.6	74.5	87.2
87.5°	22.0	23.7	25.4	31.3	41.5
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	17.89	19.37	18.25	19.68	19.99	19.25	20.73	19.61	21.04	21.36
	3H	19.47	20.79	19.84	21.12	21.48	20.53	21.86	20.91	22.19	22.55
	4H	20.07	21.31	20.47	21.66	22.04	21.09	22.33	21.49	22.68	23.06
	6H	20.54	21.69	20.96	22.06	22.45	21.54	22.69	21.95	23.05	23.45
	8H	20.70	21.79	21.13	22.18	22.58	21.73	22.82	22.15	23.21	23.61
	12H	20.80	21.84	21.23	22.22	22.65	21.88	22.93	22.31	23.31	23.74
4H	2H	18.50	19.74	18.90	20.09	20.47	19.62	20.86	20.02	21.21	21.59
	3H	20.31	21.33	20.72	21.73	22.14	21.17	22.20	21.58	22.60	23.00
	4H	21.03	21.95	21.46	22.37	22.81	21.88	22.80	22.31	23.22	23.66
	6H	21.63	22.43	22.08	22.87	23.34	22.48	23.29	22.94	23.73	24.19
	8H	21.83	22.58	22.29	23.02	23.49	22.73	23.48	23.19	23.93	24.40
	12H	21.97	22.64	22.45	23.12	23.59	22.95	23.62	23.43	24.10	24.57
8H	4H	21.35	22.11	21.82	22.55	23.02	22.11	22.86	22.57	23.31	23.77
	6H	22.08	22.70	22.58	23.19	23.67	22.85	23.48	23.35	23.97	24.45
	8H	22.36	22.92	22.87	23.43	23.91	23.18	23.74	23.70	24.25	24.74
	12H	22.57	23.06	23.08	23.56	24.12	23.49	23.99	24.00	24.48	25.04
12H	4H	21.39	22.07	21.88	22.54	23.02	22.12	22.79	22.61	23.27	23.75
	6H	22.15	22.71	22.66	23.22	23.71	22.89	23.45	23.41	23.96	24.45
	8H	22.48	22.98	22.99	23.47	24.04	23.28	23.77	23.79	24.27	24.83