

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: P893859

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893859
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-L840
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 4000K C
Light Source: -
Ballast/Driver: -

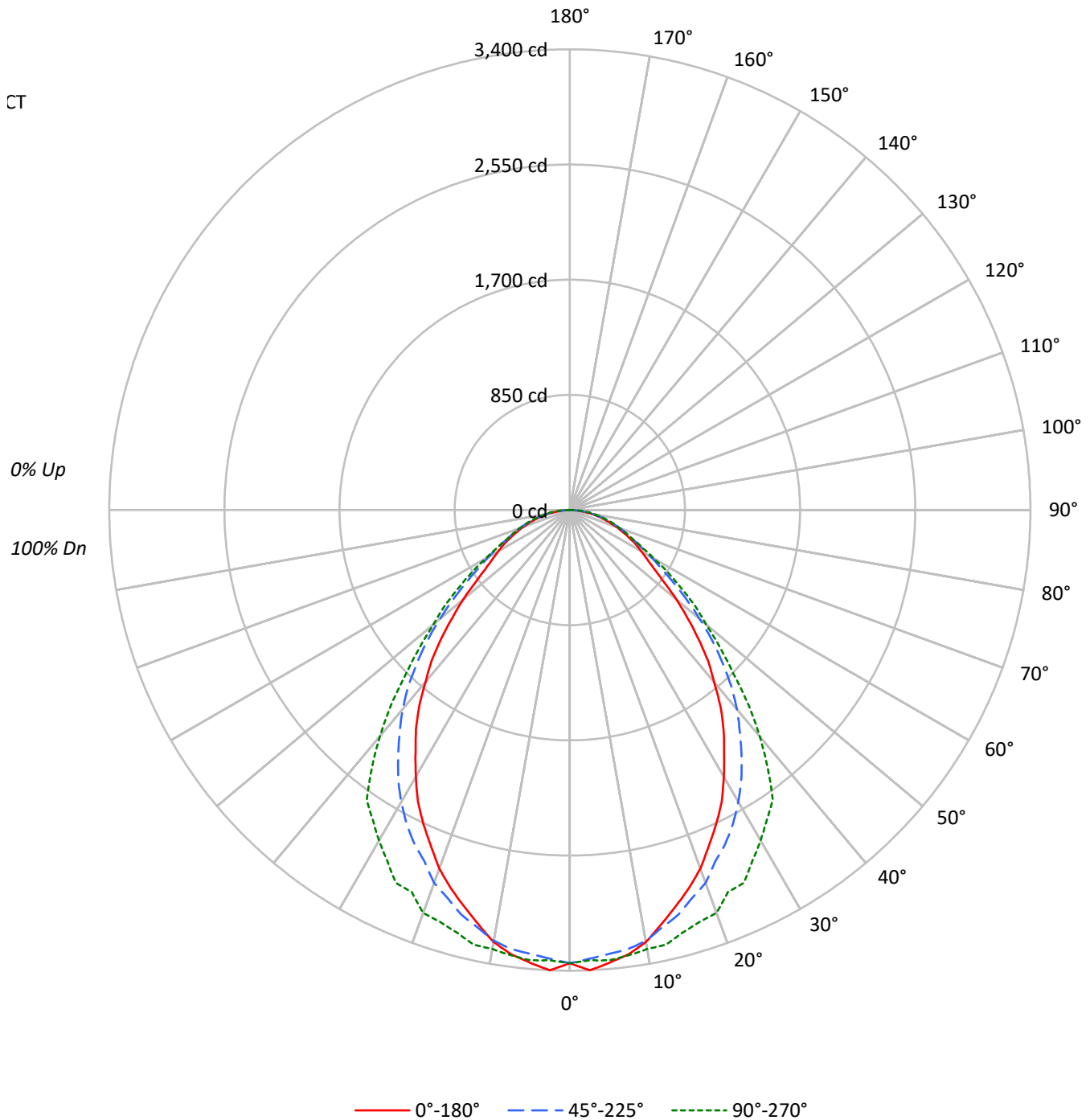
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6782.1 lumens
Efficiency: N/A
Efficacy: 130.9 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°	23799	23799	23799
5°	23954	23490	23826
10°	23393	23321	23769
15°	22289	22782	23769
20°	21321	22177	23963
25°	20073	21329	23841
30°	18673	20440	23143
35°	17197	19186	22695
40°	15380	17832	20265
45°	13482	16038	17185
50°	11379	13857	14544
55°	9440	11598	12405
60°	8680	9861	10231
65°	8132	8670	8738
70°	7572	8217	8155
75°	7065	7670	7945
80°	6597	7129	7621
85°	5551	6041	8408

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 17185 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	315.7	4.7
10°-20°	880.7	13.0
20°-30°	1268.3	18.7
30°-40°	1400.2	20.6
40°-50°	1201.5	17.7
50°-60°	818.5	12.1
60°-70°	514.9	7.6
70°-80°	293.2	4.3
80°-90°	89.1	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°	2464.7	36.3
0°-40°	3864.9	57.0
0°-60°	5884.9	86.8
0°-90°	6782.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6782.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3345	3345	3345	3345	3345	
5°	3354	3341	3289	3358	3336	317
15°	3026	3058	3093	3233	3227	852
25°	2557	2608	2717	2936	3037	1174
35°	1980	2057	2209	2450	2613	1232
45°	1340	1429	1594	1690	1708	1032
55°	761	808	935	980	1000	699
65°	483	491	515	540	519	480
75°	257	259	279	291	289	274
85°	68	70	74	88	103	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3344.9	3344.9	3344.9	3344.9	3344.9
2.5°	3399.9	3364.9	3314.9	3362.9	3325.9
5°	3353.9	3340.9	3288.9	3357.9	3335.9
7.5°	3306.9	3278.9	3269.9	3343.9	3314.9
10°	3237.9	3221.9	3227.9	3322.9	3289.9
12.5°	3128.9	3139.9	3153.9	3274.9	3284.9
15°	3025.9	3057.9	3092.9	3232.9	3226.9
17.5°	2924.9	2968.9	3001.9	3181.9	3186.9
20°	2815.9	2840.9	2928.9	3102.9	3164.9
22.5°	2680.9	2729.9	2805.9	3022.9	3050.9
25°	2556.9	2607.9	2716.9	2935.9	3036.9
27.5°	2426.9	2473.9	2608.9	2832.9	2918.9
30°	2272.9	2335.9	2487.9	2715.9	2816.9
32.5°	2118.9	2210.9	2356.9	2590.9	2707.9
35°	1979.9	2056.9	2208.9	2449.9	2612.9
37.5°	1825.9	1906.9	2060.9	2295.9	2399.9
40°	1655.9	1742.9	1919.9	2109.9	2181.9
42.5°	1509.9	1584.9	1762.9	1896.9	1953.9
45°	1339.9	1428.9	1593.9	1689.9	1707.9
47.5°	1176.0	1277.9	1425.9	1470.9	1505.9
50°	1028.0	1108.0	1251.9	1279.9	1313.9
52.5°	877.0	962.0	1088.0	1116.0	1166.0
55°	761.0	808.0	935.0	980.0	1000.0
57.5°	676.0	706.0	796.0	853.0	859.0
60°	610.0	625.0	693.0	736.0	719.0
62.5°	549.0	561.0	595.0	628.0	606.0
65°	483.0	491.0	515.0	540.0	519.0
67.5°	421.0	430.0	452.0	470.0	452.0
70°	364.0	371.0	395.0	403.0	392.0
72.5°	311.0	314.0	334.0	348.0	341.0
75°	257.0	259.0	279.0	291.0	289.0
77.5°	208.0	211.0	228.0	239.0	233.0
80°	161.0	163.0	174.0	190.0	186.0
82.5°	113.0	117.0	124.0	138.0	149.0
85°	68.0	70.0	74.0	88.0	103.0
87.5°	26.0	28.0	30.0	37.0	49.0
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	18.47	19.95	18.83	20.26	20.57	19.83	21.31	20.19	21.62	21.94
	3H	20.05	21.37	20.42	21.70	22.06	21.11	22.44	21.49	22.77	23.13
	4H	20.65	21.89	21.05	22.24	22.62	21.67	22.91	22.07	23.26	23.64
	6H	21.12	22.27	21.54	22.64	23.03	22.12	23.27	22.53	23.63	24.03
	8H	21.28	22.37	21.71	22.76	23.16	22.31	23.40	22.73	23.79	24.19
	12H	21.38	22.42	21.81	22.80	23.23	22.46	23.51	22.89	23.89	24.32
4H	2H	19.08	20.32	19.48	20.67	21.05	20.20	21.44	20.60	21.79	22.17
	3H	20.89	21.91	21.30	22.31	22.72	21.75	22.78	22.16	23.18	23.58
	4H	21.61	22.53	22.04	22.95	23.39	22.46	23.38	22.89	23.80	24.24
	6H	22.21	23.01	22.66	23.45	23.91	23.06	23.87	23.52	24.31	24.77
	8H	22.41	23.16	22.87	23.60	24.07	23.31	24.06	23.77	24.51	24.98
	12H	22.55	23.22	23.03	23.70	24.17	23.52	24.20	24.01	24.68	25.15
8H	4H	21.93	22.69	22.40	23.13	23.60	22.69	23.44	23.15	23.88	24.35
	6H	22.66	23.28	23.16	23.77	24.25	23.43	24.05	23.93	24.55	25.03
	8H	22.94	23.49	23.45	24.01	24.49	23.76	24.32	24.28	24.83	25.32
	12H	23.15	23.64	23.66	24.14	24.70	24.07	24.57	24.58	25.06	25.62
12H	4H	21.97	22.64	22.46	23.12	23.60	22.70	23.37	23.18	23.85	24.32
	6H	22.73	23.29	23.24	23.80	24.29	23.47	24.03	23.98	24.54	25.03
	8H	23.06	23.56	23.57	24.05	24.62	23.86	24.35	24.37	24.85	25.41