

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: P893861

Luminaire Tested: 4MB-7HL-LVRF-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893861
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-L930
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 3000K C
Light Source: -
Ballast/Driver: -

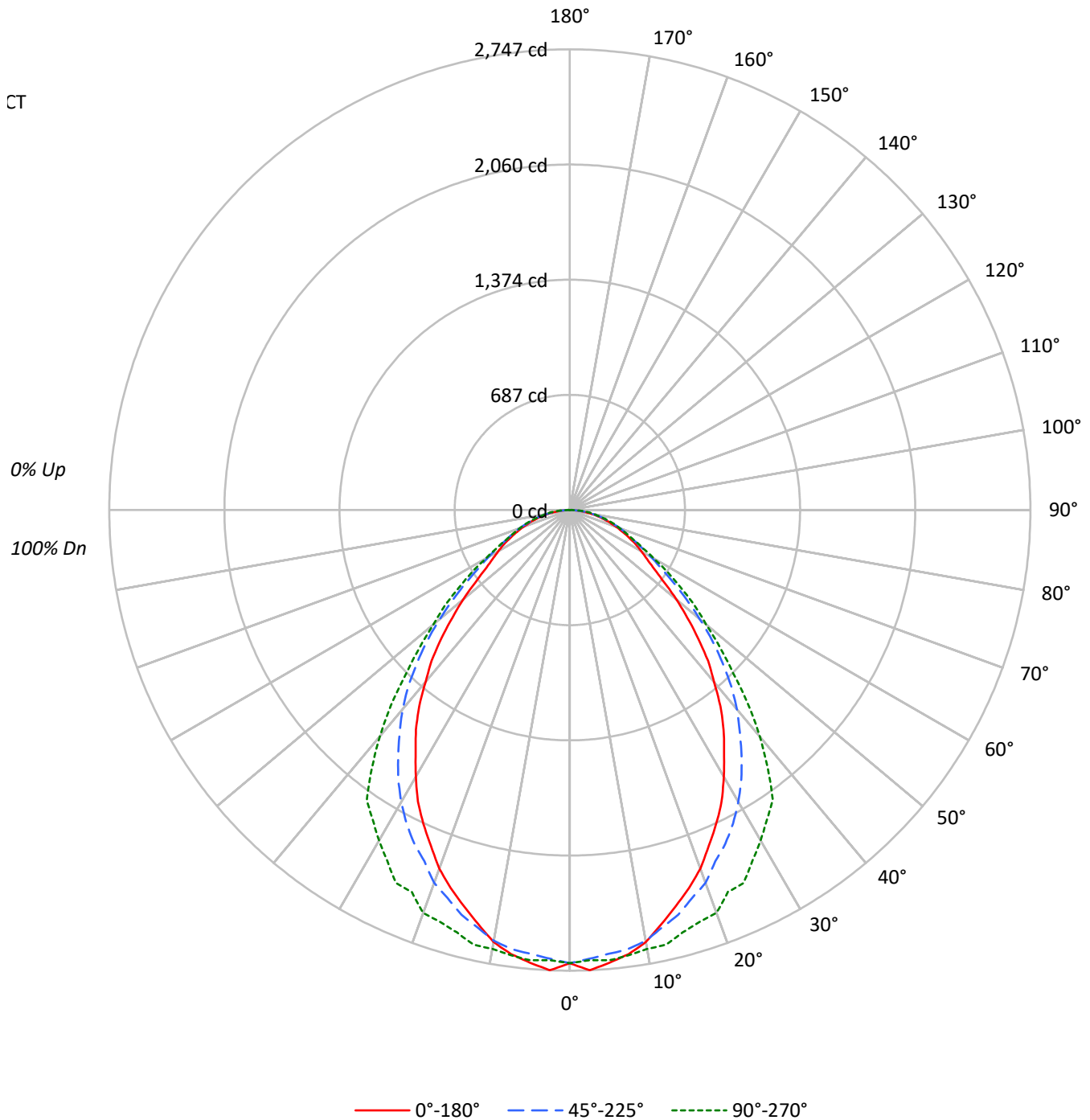
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5479.0 lumens
Efficiency: N/A
Efficacy: 105.8 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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100	
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65	65	
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57	57	
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	50	50	
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45	45	
7	70	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	40	40	
8	65	52	44	39	64	52	44	39	50	44	39	49	43	39	48	43	38	37	37	
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	33	33	
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	30	30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19226	19226	19226
5°	19352	18977	19248
10°	18899	18840	19202
15°	18006	18405	19202
20°	17225	17916	19359
25°	16216	17231	19260
30°	15086	16513	18696
35°	13893	15500	18335
40°	12425	14407	16372
45°	10892	12957	13884
50°	9193	11195	11750
55°	7626	9369	10020
60°	7013	7966	8265
65°	6569	7004	7059
70°	6118	6638	6588
75°	5707	6196	6419
80°	5331	5761	6158
85°	4482	4882	6792

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13884 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.1	4.7
10°-20°	711.5	13.0
20°-30°	1024.6	18.7
30°-40°	1131.2	20.6
40°-50°	970.6	17.7
50°-60°	661.2	12.1
60°-70°	416.0	7.6
70°-80°	236.8	4.3
80°-90°	72.0	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°	1991.1	36.3
0°-40°	3122.3	57.0
0°-60°	4754.2	86.8
0°-90°	5479.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5479.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2702	2702	2702	2702	2702	
5°	2710	2699	2657	2713	2695	256
15°	2444	2470	2499	2612	2607	688
25°	2066	2107	2195	2372	2453	949
35°	1600	1662	1784	1979	2111	995
45°	1082	1154	1288	1365	1380	834
55°	615	653	755	792	808	565
65°	390	397	416	436	419	388
75°	208	209	225	235	234	221
85°	55	56	60	71	83	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2702.2	2702.2	2702.2	2702.2	2702.2
2.5°	2746.7	2718.4	2678.0	2716.8	2686.9
5°	2709.5	2699.0	2657.0	2712.7	2695.0
7.5°	2671.5	2648.9	2641.6	2701.4	2678.0
10°	2615.8	2602.9	2607.7	2684.5	2657.8
12.5°	2527.7	2536.6	2547.9	2645.7	2653.8
15°	2444.5	2470.4	2498.7	2611.7	2606.9
17.5°	2362.9	2398.5	2425.1	2570.5	2574.6
20°	2274.9	2295.1	2366.2	2506.7	2556.8
22.5°	2165.8	2205.4	2266.8	2442.1	2464.7
25°	2065.6	2106.8	2194.9	2371.8	2453.4
27.5°	1960.6	1998.6	2107.7	2288.6	2358.1
30°	1836.2	1887.1	2009.9	2194.1	2275.7
32.5°	1711.8	1786.1	1904.1	2093.1	2187.6
35°	1599.5	1661.7	1784.5	1979.2	2110.9
37.5°	1475.1	1540.6	1665.0	1854.8	1938.8
40°	1337.8	1408.1	1551.1	1704.5	1762.7
42.5°	1219.8	1280.4	1424.2	1532.5	1578.5
45°	1082.5	1154.4	1287.7	1365.3	1379.8
47.5°	950.0	1032.4	1152.0	1188.3	1216.6
50°	830.5	895.1	1011.4	1034.0	1061.5
52.5°	708.5	777.1	878.9	901.5	941.9
55°	614.8	652.7	755.3	791.7	807.8
57.5°	546.1	570.3	643.0	689.1	693.9
60°	492.8	504.9	559.8	594.6	580.8
62.5°	443.5	453.2	480.7	507.3	489.6
65°	390.2	396.6	416.0	436.2	419.3
67.5°	340.1	347.4	365.1	379.7	365.1
70°	294.1	299.7	319.1	325.6	316.7
72.5°	251.2	253.7	269.8	281.1	275.5
75°	207.6	209.2	225.4	235.1	233.5
77.5°	168.0	170.5	184.2	193.1	188.2
80°	130.1	131.7	140.6	153.5	150.3
82.5°	91.3	94.5	100.2	111.5	120.4
85°	54.9	56.5	59.8	71.1	83.2
87.5°	21.0	22.6	24.2	29.9	39.6
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	17.73	19.20	18.09	19.52	19.83	19.09	20.57	19.45	20.88	21.19
	3H	19.30	20.63	19.68	20.96	21.32	20.37	21.70	20.75	22.03	22.39
	4H	19.91	21.15	20.31	21.50	21.88	20.93	22.17	21.33	22.52	22.90
	6H	20.38	21.53	20.79	21.89	22.29	21.38	22.52	21.79	22.89	23.28
	8H	20.54	21.63	20.96	22.02	22.42	21.56	22.66	21.99	23.05	23.45
	12H	20.64	21.68	21.07	22.06	22.49	21.72	22.76	22.15	23.15	23.58
4H	2H	18.34	19.58	18.74	19.93	20.31	19.45	20.70	19.85	21.04	21.42
	3H	20.14	21.17	20.55	21.57	21.97	21.01	22.04	21.42	22.44	22.84
	4H	20.87	21.79	21.30	22.21	22.65	21.71	22.64	22.15	23.06	23.50
	6H	21.46	22.27	21.92	22.71	23.17	22.32	23.13	22.78	23.57	24.03
	8H	21.67	22.42	22.13	22.86	23.33	22.57	23.32	23.03	23.77	24.23
	12H	21.80	22.48	22.29	22.96	23.43	22.78	23.46	23.27	23.93	24.41
8H	4H	21.19	21.95	21.66	22.39	22.86	21.95	22.70	22.41	23.14	23.61
	6H	21.92	22.54	22.41	23.03	23.51	22.69	23.31	23.19	23.81	24.28
	8H	22.19	22.75	22.71	23.26	23.75	23.02	23.58	23.54	24.09	24.58
	12H	22.41	22.90	22.92	23.39	23.96	23.33	23.82	23.84	24.32	24.88
12H	4H	21.23	21.90	21.71	22.38	22.85	21.96	22.63	22.44	23.11	23.58
	6H	21.98	22.55	22.50	23.06	23.54	22.73	23.29	23.24	23.80	24.29
	8H	22.32	22.82	22.83	23.31	23.88	23.12	23.61	23.63	24.11	24.67