

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: P893857

Luminaire Tested: 4MB-7HL-LVRF-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893857
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-L830
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 3000K C
Light Source: -
Ballast/Driver: -

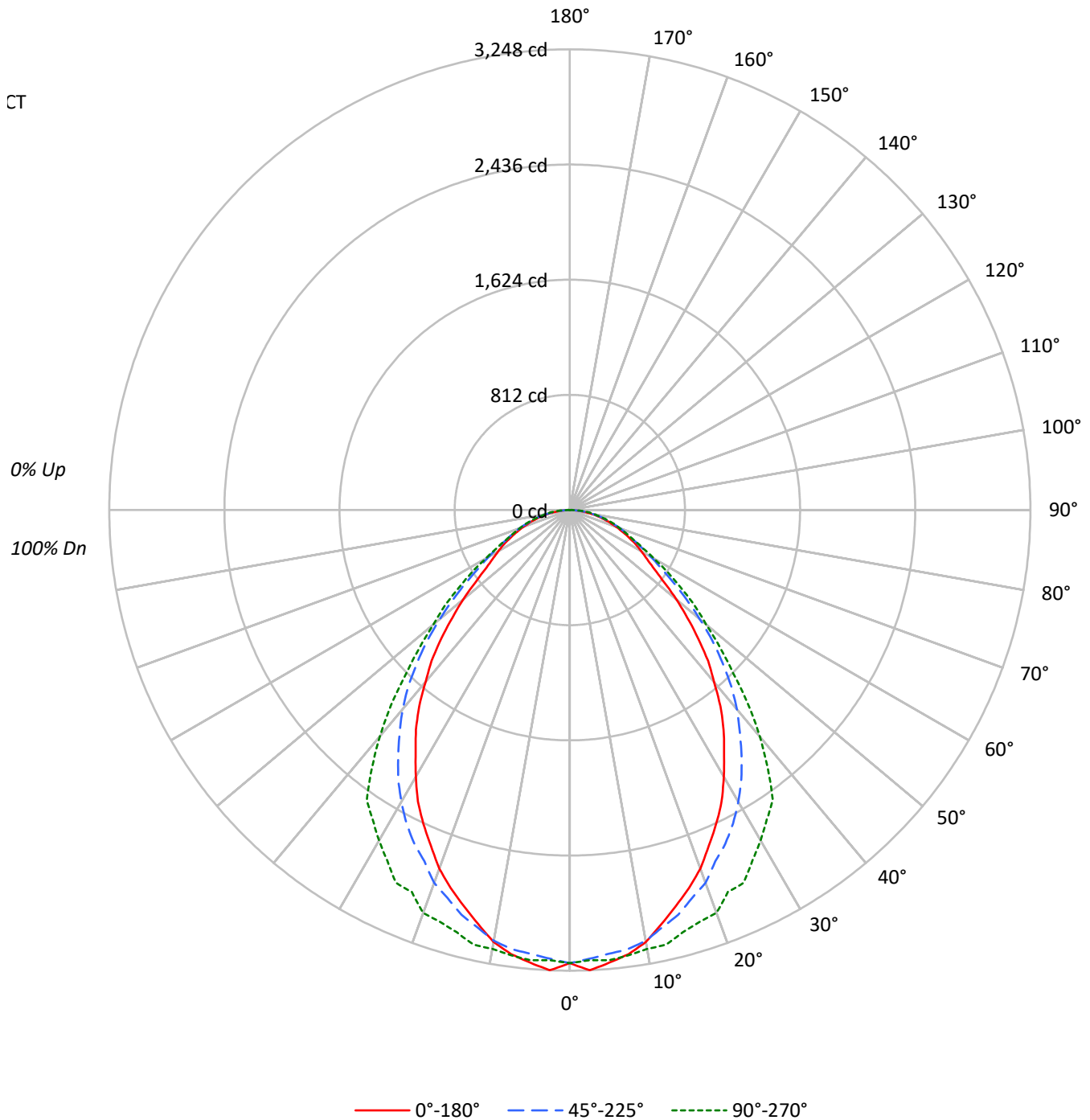
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6478.0 lumens
Efficiency: N/A
Efficacy: 125.1 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°	22732	22732	22732
5°	22880	22436	22757
10°	22344	22275	22703
15°	21289	21761	22703
20°	20365	21182	22889
25°	19173	20373	22772
30°	17836	19524	22105
35°	16427	18326	21678
40°	14691	17033	19357
45°	12879	15320	16415
50°	10869	13236	13892
55°	9017	11079	11848
60°	8290	9419	9772
65°	7766	8281	8345
70°	7233	7849	7789
75°	6749	7326	7587
80°	6302	6810	7281
85°	5298	5772	8033

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 16415 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.6	4.7
10°-20°	841.2	13.0
20°-30°	1211.4	18.7
30°-40°	1337.4	20.6
40°-50°	1147.6	17.7
50°-60°	781.8	12.1
60°-70°	491.8	7.6
70°-80°	280.0	4.3
80°-90°	85.1	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°	2354.2	36.3
0°-40°	3691.6	57.0
0°-60°	5621.0	86.8
0°-90°	6478.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6478.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3195	3195	3195	3195	3195	
5°	3204	3191	3141	3207	3186	302
15°	2890	2921	2954	3088	3082	814
25°	2442	2491	2595	2804	2901	1122
35°	1891	1965	2110	2340	2496	1176
45°	1280	1365	1522	1614	1631	986
55°	727	772	893	936	955	668
65°	461	469	492	516	496	458
75°	246	247	266	278	276	262
85°	65	67	71	84	98	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3194.9	3194.9	3194.9	3194.9	3194.9
2.5°	3247.5	3214.0	3166.3	3212.1	3176.8
5°	3203.5	3191.1	3141.4	3207.3	3186.3
7.5°	3158.6	3131.9	3123.3	3194.0	3166.3
10°	3092.7	3077.4	3083.2	3173.9	3142.4
12.5°	2988.6	2999.1	3012.5	3128.1	3137.6
15°	2890.2	2920.8	2954.2	3088.0	3082.2
17.5°	2793.8	2835.8	2867.3	3039.2	3044.0
20°	2689.7	2713.5	2797.6	2963.8	3023.0
22.5°	2560.7	2607.5	2680.1	2887.4	2914.1
25°	2442.3	2491.0	2595.1	2804.3	2900.7
27.5°	2318.1	2363.0	2491.9	2705.9	2788.0
30°	2171.0	2231.2	2376.4	2594.1	2690.6
32.5°	2023.9	2111.8	2251.3	2474.8	2586.5
35°	1891.2	1964.7	2109.9	2340.1	2495.8
37.5°	1744.1	1821.4	1968.5	2193.0	2292.3
40°	1581.7	1664.8	1833.9	2015.3	2084.1
42.5°	1442.3	1513.9	1683.9	1811.9	1866.3
45°	1279.9	1364.9	1522.5	1614.2	1631.4
47.5°	1123.2	1220.7	1362.0	1405.0	1438.4
50°	981.9	1058.3	1195.8	1222.6	1255.0
52.5°	837.7	918.8	1039.2	1065.9	1113.7
55°	726.9	771.7	893.1	936.0	955.1
57.5°	645.7	674.3	760.3	814.7	820.5
60°	582.6	597.0	661.9	703.0	686.7
62.5°	524.4	535.8	568.3	599.8	578.8
65°	461.3	469.0	491.9	515.8	495.7
67.5°	402.1	410.7	431.7	448.9	431.7
70°	347.7	354.4	377.3	384.9	374.4
72.5°	297.0	299.9	319.0	332.4	325.7
75°	245.5	247.4	266.5	277.9	276.0
77.5°	198.7	201.5	217.8	228.3	222.5
80°	153.8	155.7	166.2	181.5	177.7
82.5°	107.9	111.8	118.4	131.8	142.3
85°	64.9	66.9	70.7	84.1	98.4
87.5°	24.8	26.7	28.7	35.3	46.8
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	18.31	19.79	18.67	20.10	20.41	19.67	21.15	20.03	21.46	21.78
	3H	19.89	21.21	20.26	21.54	21.90	20.95	22.28	21.33	22.61	22.97
	4H	20.49	21.73	20.89	22.08	22.46	21.51	22.75	21.91	23.10	23.48
	6H	20.96	22.11	21.38	22.48	22.87	21.96	23.11	22.37	23.47	23.87
	8H	21.12	22.21	21.55	22.60	23.00	22.15	23.24	22.57	23.63	24.03
	12H	21.22	22.26	21.65	22.64	23.07	22.30	23.35	22.73	23.73	24.16
4H	2H	18.92	20.16	19.32	20.51	20.89	20.04	21.28	20.44	21.63	22.01
	3H	20.73	21.75	21.14	22.16	22.56	21.59	22.62	22.00	23.02	23.42
	4H	21.45	22.37	21.88	22.79	23.23	22.30	23.22	22.73	23.64	24.08
	6H	22.05	22.85	22.50	23.29	23.76	22.90	23.71	23.36	24.15	24.61
	8H	22.25	23.00	22.71	23.45	23.91	23.15	23.90	23.61	24.35	24.82
	12H	22.39	23.06	22.87	23.54	24.01	23.36	24.04	23.85	24.52	24.99
8H	4H	21.77	22.53	22.24	22.97	23.44	22.53	23.28	22.99	23.73	24.19
	6H	22.50	23.12	23.00	23.61	24.09	23.27	23.90	23.77	24.39	24.87
	8H	22.78	23.34	23.29	23.85	24.33	23.60	24.16	24.12	24.67	25.16
	12H	22.99	23.48	23.50	23.98	24.54	23.91	24.41	24.42	24.90	25.46
12H	4H	21.81	22.49	22.30	22.96	23.44	22.54	23.21	23.03	23.69	24.16
	6H	22.57	23.13	23.08	23.64	24.13	23.31	23.87	23.82	24.38	24.87
	8H	22.90	23.40	23.41	23.89	24.46	23.70	24.19	24.21	24.69	25.25