

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: P893847

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893847
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-6)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-LVR-UNV-L940
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

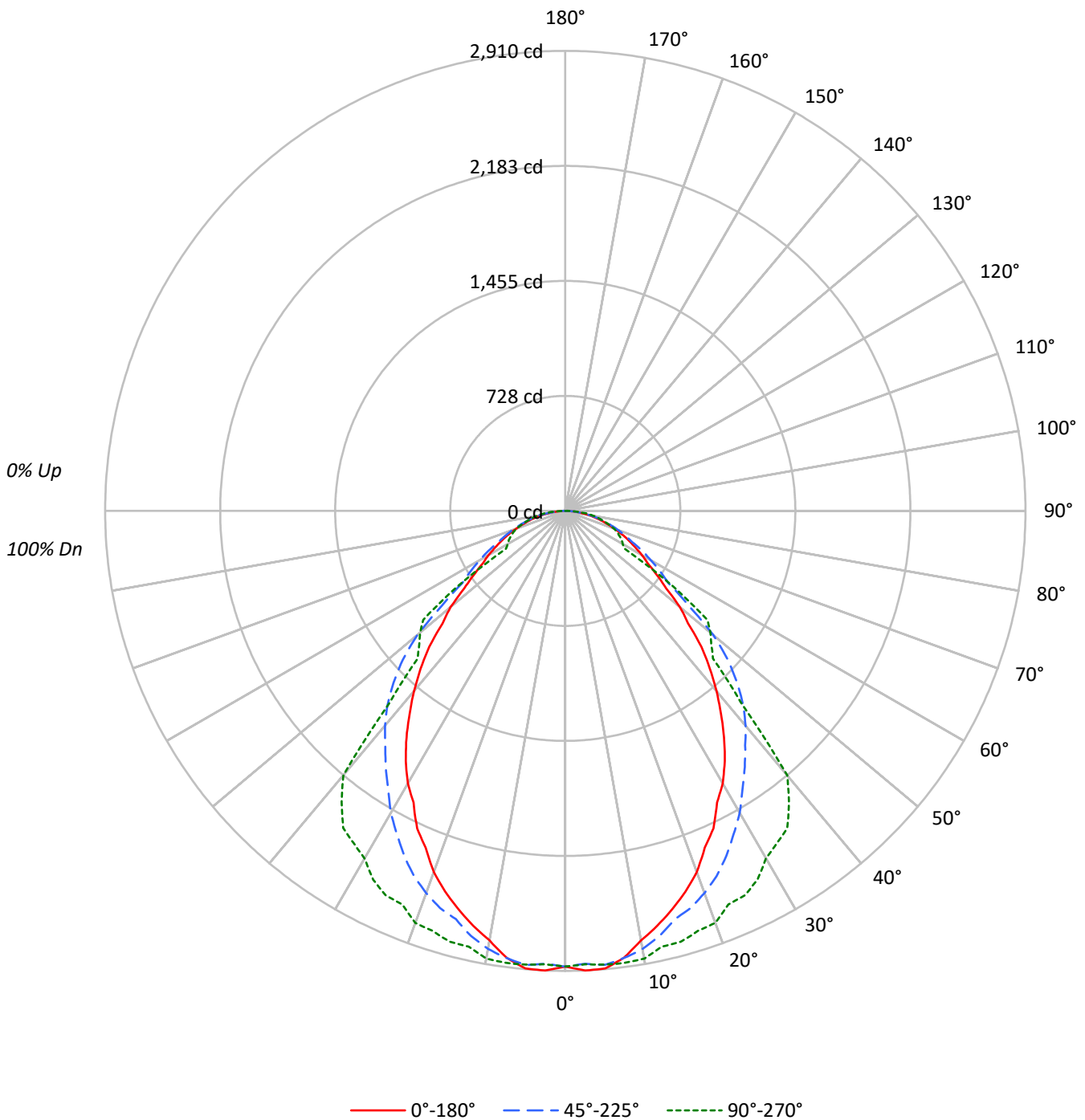
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6033.0 lumens
Efficiency: N/A
Efficacy: 116.5 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.32 / 1.26
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	101	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	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52	52	52	52	50
6	74	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	38	38	38	36
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20507	20507	20507
5°	20754	20591	20579
10°	19936	20328	20774
15°	19222	19696	20788
20°	18413	19477	20996
25°	17397	18905	21072
30°	16349	18116	20856
35°	15205	17182	21262
40°	13813	16470	20276
45°	12239	15458	13295
50°	10475	13511	13267
55°	8778	9859	10322
60°	7986	8901	5974
65°	7482	7881	6384
70°	6886	7466	6832
75°	6468	7005	6958
80°	6035	6625	7457
85°	5184	5527	7943

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 15458 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.9	4.5
10°-20°	766.3	12.7
20°-30°	1116.8	18.5
30°-40°	1277.6	21.2
40°-50°	1093.0	18.1
50°-60°	720.8	11.9
60°-70°	435.7	7.2
70°-80°	266.6	4.4
80°-90°	82.3	1.4
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°	2157.0	35.8
0°-40°	3434.6	56.9
0°-60°	5248.4	87.0
0°-90°	6033.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6033.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2882	2882	2882	2882	2882	
5°	2906	2903	2883	2877	2881	272
15°	2610	2640	2674	2845	2822	734
25°	2216	2250	2408	2614	2684	1014
35°	1750	1838	1978	2289	2448	1090
45°	1216	1310	1536	1436	1321	931
55°	708	747	795	942	832	644
65°	444	455	468	418	379	439
75°	235	241	255	267	253	248
85°	64	63	68	80	97	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2882.2	2882.2	2882.2	2882.2	2882.2
2.5°	2910.1	2901.6	2866.9	2899.9	2870.3
5°	2905.9	2903.3	2883.0	2877.1	2881.3
7.5°	2850.0	2855.9	2852.5	2916.0	2883.9
10°	2759.4	2771.3	2813.6	2902.5	2875.4
12.5°	2688.3	2697.6	2754.3	2886.4	2822.9
15°	2609.6	2640.1	2673.9	2844.9	2822.1
17.5°	2525.0	2553.7	2634.1	2789.0	2786.5
20°	2431.8	2485.2	2572.4	2716.3	2773.0
22.5°	2305.7	2377.7	2500.4	2683.2	2694.2
25°	2216.0	2249.9	2408.1	2613.8	2684.1
27.5°	2079.7	2144.1	2305.7	2514.0	2629.9
30°	1990.0	2043.3	2205.0	2455.5	2538.5
32.5°	1877.4	1940.9	2085.7	2392.1	2491.9
35°	1750.5	1838.5	1978.2	2288.8	2447.9
37.5°	1616.7	1703.9	1869.0	2203.3	2323.5
40°	1487.2	1561.7	1773.3	2100.9	2183.0
42.5°	1354.3	1434.7	1664.1	1898.6	1642.1
45°	1216.3	1310.3	1536.3	1435.6	1321.3
47.5°	1053.0	1168.1	1394.9	1153.7	1251.9
50°	946.3	1009.0	1220.6	1087.7	1198.6
52.5°	805.0	889.6	980.2	1015.7	1132.5
55°	707.6	747.4	794.8	942.1	832.1
57.5°	617.9	653.5	708.5	664.5	443.5
60°	561.2	577.3	625.5	474.9	419.8
62.5°	496.9	512.9	548.5	443.5	402.9
65°	444.4	455.4	468.1	418.1	379.2
67.5°	388.5	394.4	408.0	386.0	356.4
70°	331.0	339.4	358.9	353.0	328.4
72.5°	280.2	287.8	304.7	313.2	290.3
75°	235.3	241.2	254.8	266.6	253.1
77.5°	187.1	193.0	210.8	223.5	217.5
80°	147.3	148.1	161.7	174.4	182.0
82.5°	103.3	105.0	115.1	128.7	143.9
85°	63.5	62.6	67.7	80.4	97.3
87.5°	24.5	23.7	27.9	33.9	49.9
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	18.32	19.80	18.69	20.11	20.43	18.00	19.48	18.36	19.79	20.11
	3H	19.88	21.21	20.26	21.53	21.90	19.62	20.94	19.99	21.27	21.63
	4H	20.48	21.72	20.88	22.07	22.45	20.36	21.61	20.76	21.95	22.33
	6H	20.94	22.08	21.35	22.45	22.84	21.03	22.18	21.45	22.55	22.94
	8H	21.09	22.18	21.52	22.57	22.97	21.31	22.40	21.74	22.79	23.19
	12H	21.19	22.23	21.62	22.62	23.04	21.53	22.57	21.96	22.96	23.39
4H	2H	18.91	20.16	19.31	20.50	20.88	18.66	19.90	19.06	20.25	20.63
	3H	20.70	21.73	21.11	22.13	22.53	20.54	21.57	20.96	21.97	22.37
	4H	21.43	22.36	21.86	22.77	23.21	21.44	22.37	21.87	22.78	23.22
	6H	22.01	22.82	22.47	23.26	23.72	22.25	23.05	22.70	23.49	23.96
	8H	22.21	22.96	22.67	23.41	23.88	22.58	23.33	23.04	23.77	24.24
	12H	22.35	23.02	22.83	23.50	23.97	22.85	23.52	23.33	24.00	24.47
8H	4H	21.75	22.50	22.22	22.95	23.42	21.76	22.51	22.23	22.96	23.43
	6H	22.46	23.09	22.96	23.58	24.06	22.71	23.33	23.21	23.83	24.30
	8H	22.73	23.29	23.25	23.80	24.29	23.13	23.69	23.64	24.20	24.69
	12H	22.94	23.44	23.45	23.93	24.50	23.50	23.99	24.01	24.49	25.05
12H	4H	21.79	22.46	22.27	22.94	23.41	21.79	22.46	22.27	22.94	23.41
	6H	22.53	23.09	23.05	23.60	24.09	22.76	23.33	23.28	23.84	24.32
	8H	22.86	23.36	23.37	23.85	24.42	23.24	23.74	23.75	24.23	24.80