

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: P892780

Luminaire Tested: 2MB-4HL-RND-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892780
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-4HL-RND-UNV-L950
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 90CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

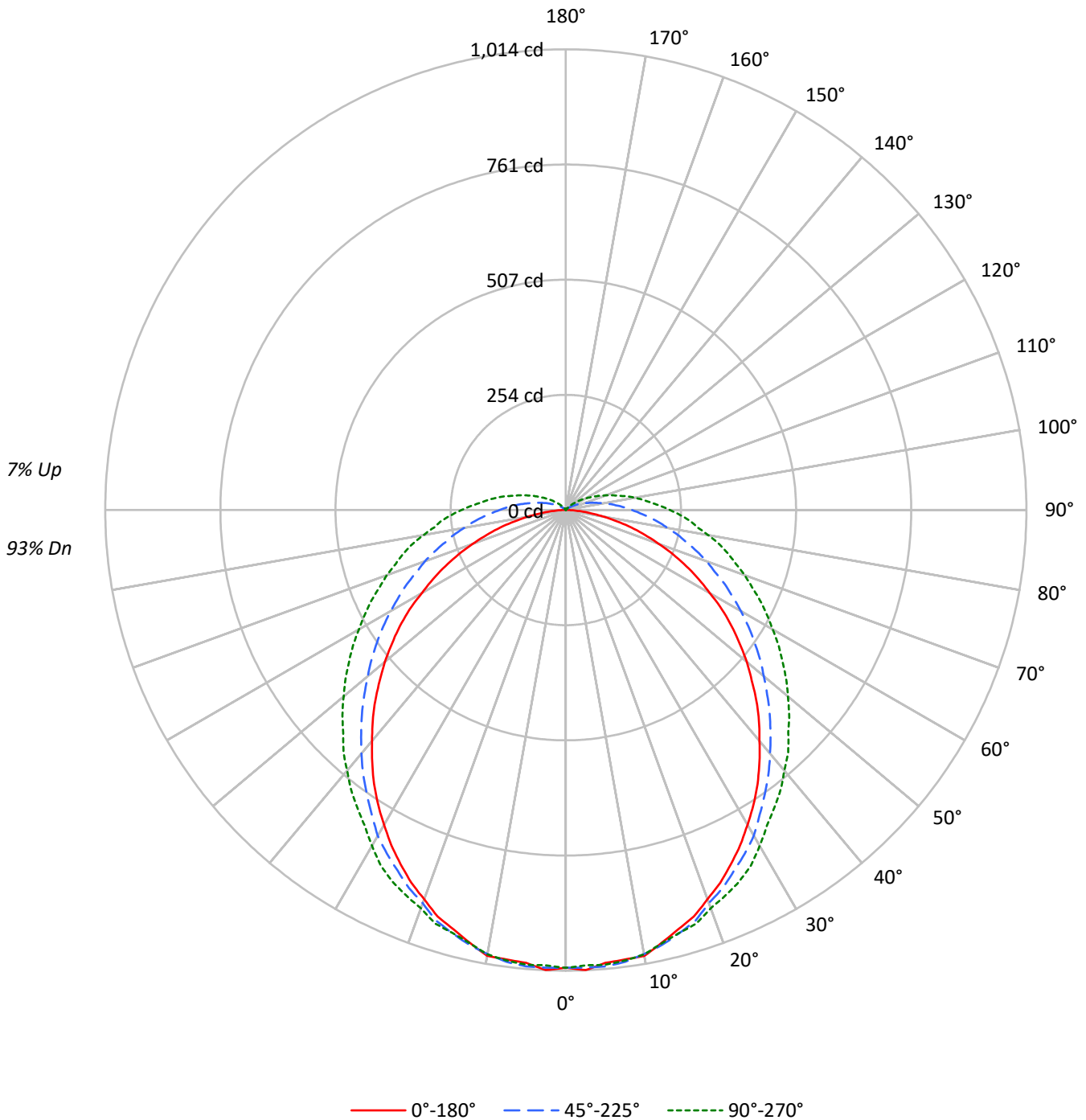
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3284.1 lumens
Efficiency: N/A
Efficacy: 119.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.34
Luminous Opening: Rectangular (W 0.38' x L: 1.98' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 6.5
Total Harmonic Distortion (THDi): 0.99
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				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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	96	96	96	93
1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	77	77	77	77	74
2	95	86	79	72	92	84	77	71	79	73	68	74	70	66	70	66	63	63	63	63	60
3	86	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	45	45	45	43
5	73	59	50	43	70	58	49	43	55	47	41	52	45	40	49	44	39	39	39	39	37
6	67	53	44	38	65	52	43	37	49	42	36	47	40	35	45	39	34	34	34	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	31	31	31	31	28
8	58	44	35	29	56	43	35	29	41	34	29	39	33	28	38	32	27	27	27	27	25
9	54	40	32	26	52	40	32	26	38	31	26	36	30	25	35	29	25	25	25	25	23
10	51	37	29	24	49	37	29	24	35	28	23	34	27	23	32	27	22	22	22	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14413	14413	14413
5°	14370	14478	14425
10°	14471	14416	14426
15°	14150	14284	14273
20°	13878	14016	14201
25°	13579	13830	14247
30°	13215	13676	14099
35°	12850	13337	13971
40°	12389	13065	13980
45°	12001	12841	14016
50°	11573	12663	14210
55°	11124	12648	14531
60°	10472	12740	15049
65°	9911	13080	15991
70°	9122	13794	17517
75°	8258	15183	20440
80°	6961	18717	26239
85°	5581	30349	45088

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 87.5°
 Luminance: 82679 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.4	2.9
10°-20°	271.5	8.3
20°-30°	404.9	12.3
30°-40°	479.4	14.6
40°-50°	493.8	15.0
50°-60°	456.6	13.9
60°-70°	379.5	11.6
70°-80°	283.9	8.6
80°-90°	188.2	5.7
90°-100°	115.1	3.5
100°-110°	65.1	2.0
110°-120°	32.4	1.0
120°-130°	13.4	0.4
130°-140°	4.0	0.1
140°-150°	0.6	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	771.8	23.5
0°-40°	1251.2	38.1
0°-60°	2201.6	67.0
0°-90°	3053.2	93.0
90°-120°	212.6	6.5
90°-150°	230.6	7.0
90°-180°	231.0	7.0
0°-180°	3284.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1008	1008	1008	1008	1008	
5°	1001	995	1008	1005	1004	95
15°	955	955	964	974	964	270
25°	860	863	876	893	903	396
35°	736	743	764	795	800	460
45°	593	599	635	679	693	457
55°	446	457	507	562	583	398
65°	293	316	386	447	472	290
75°	149	192	275	342	370	158
85°	34	99	185	248	275	39
90°	3	64	146	205	229	3
95°	1	40	113	170	188	1
105°	1	14	62	105	121	1
115°	1	4	29	59	71	1
125°	1	1	11	28	36	1
135°	1	1	3	9	13	1
145°	1	1	0	1	2	1
155°	1	1	0	0	0	0
165°	1	1	0	0	0	0
175°	2	1	0	0	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1007.5	1007.5	1007.5	1007.5	1007.5
2.5°	1013.5	1001.5	1008.2	1006.7	1003.0
5°	1000.7	995.4	1008.2	1005.2	1004.5
7.5°	997.7	995.4	1003.0	999.9	999.9
10°	996.2	981.1	992.4	999.9	993.1
12.5°	975.8	972.0	980.3	981.1	976.5
15°	955.4	955.4	964.5	973.5	963.7
17.5°	938.1	936.5	947.9	954.7	954.7
20°	911.6	913.9	920.7	933.5	932.8
22.5°	888.2	894.3	901.1	916.2	918.4
25°	860.3	863.3	876.2	892.8	902.6
27.5°	831.6	836.2	852.8	870.9	882.2
30°	800.0	800.0	827.9	849.0	853.5
32.5°	769.0	769.8	794.7	818.1	824.1
35°	735.8	743.4	763.7	795.4	800.0
37.5°	700.3	704.9	732.8	761.5	776.6
40°	663.4	670.9	699.6	739.6	748.6
42.5°	629.4	635.4	667.1	708.6	724.5
45°	593.2	599.2	634.7	679.2	692.8
47.5°	555.4	563.0	601.5	654.3	667.1
50°	520.0	526.0	569.0	622.6	638.5
52.5°	482.2	492.0	538.8	590.9	611.3
55°	446.0	456.6	507.1	562.2	582.6
57.5°	408.3	422.6	476.2	533.6	555.4
60°	366.0	384.9	445.3	506.4	526.0
62.5°	329.8	350.2	414.3	474.7	498.8
65°	292.8	315.5	386.4	446.8	472.4
67.5°	255.8	283.0	354.7	418.8	443.7
70°	218.1	252.8	329.8	393.9	418.8
72.5°	182.6	221.9	302.6	369.8	392.4
75°	149.4	192.4	274.7	341.9	369.8
77.5°	116.2	166.0	252.8	320.7	345.6
80°	84.5	140.4	227.2	295.1	318.5
82.5°	58.1	118.5	206.8	272.4	292.1
85°	34.0	98.9	184.9	248.3	274.7
87.5°	15.8	80.0	163.8	226.4	252.1
90°	3.0	64.1	145.7	205.3	229.4
92.5°	0.8	51.3	129.8	188.7	208.3
95°	0.8	40.0	113.2	169.8	187.9
97.5°	0.8	30.9	98.9	152.4	172.1
100°	0.8	23.4	85.3	136.6	154.7
102.5°	0.8	18.1	72.4	120.0	138.9
105°	0.8	13.6	61.9	104.9	120.7
107.5°	0.8	9.8	52.1	92.8	107.9
110°	0.8	7.5	43.8	81.5	94.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.8	5.3	35.5	69.4	82.3
115°	0.8	3.8	29.4	58.9	70.9
117.5°	0.8	2.3	23.4	49.8	60.4
120°	0.8	1.5	18.9	41.5	51.3
122.5°	0.8	1.5	14.3	34.0	43.0
125°	0.8	0.8	11.3	27.9	35.5
127.5°	0.8	0.8	8.3	21.9	27.9
130°	0.8	0.8	6.0	16.6	21.9
132.5°	0.8	0.8	3.8	12.8	16.6
135°	0.8	0.8	3.0	9.1	12.8
137.5°	0.8	0.8	1.5	6.0	8.3
140°	0.8	0.8	0.8	3.8	5.3
142.5°	0.8	0.8	0.8	2.3	3.0
145°	0.8	0.8	0.0	0.8	1.5
147.5°	0.8	0.8	0.0	0.8	0.8
150°	0.8	0.8	0.0	0.0	0.0
152.5°	0.8	0.8	0.0	0.0	0.0
155°	0.8	0.8	0.0	0.0	0.0
157.5°	0.8	0.8	0.0	0.0	0.0
160°	0.8	0.8	0.0	0.0	0.0
162.5°	0.8	0.8	0.0	0.0	0.0
165°	0.8	0.8	0.0	0.0	0.0
167.5°	0.8	0.8	0.0	0.0	0.0
170°	0.8	0.8	0.0	0.0	0.0
172.5°	1.5	0.8	0.0	0.0	0.0
175°	1.5	0.8	0.0	0.0	0.0
177.5°	1.5	0.8	0.0	0.0	0.0
180°	0.8	0.8	0.8	0.8	0.8



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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	19.35	20.89	19.83	21.34	21.83	21.09	22.62	21.56	23.08	23.57
	3H	21.09	22.49	21.57	22.95	23.48	23.66	25.06	24.14	25.53	26.05
	4H	21.74	23.06	22.24	23.55	24.09	24.96	26.29	25.47	26.77	27.31
	6H	22.21	23.44	22.72	23.94	24.49	26.36	27.60	26.88	28.09	28.65
	8H	22.35	23.54	22.88	24.06	24.62	27.09	28.27	27.62	28.80	29.36
	12H	22.45	23.59	22.98	24.10	24.69	27.93	29.07	28.47	29.59	30.18
4H	2H	20.33	21.66	20.83	22.14	22.68	21.64	22.97	22.15	23.45	23.99
	3H	22.34	23.47	22.85	24.00	24.56	24.50	25.64	25.02	26.16	26.73
	4H	23.14	24.17	23.67	24.71	25.31	26.02	27.06	26.56	27.60	28.19
	6H	23.78	24.69	24.33	25.26	25.86	27.66	28.57	28.21	29.14	29.74
	8H	24.00	24.86	24.56	25.43	26.05	28.51	29.38	29.08	29.94	30.56
	12H	24.17	24.95	24.75	25.54	26.17	29.51	30.29	30.09	30.88	31.51
8H	4H	24.01	24.88	24.57	25.44	26.06	26.38	27.24	26.94	27.81	28.43
	6H	24.93	25.66	25.52	26.27	26.89	28.27	29.01	28.87	29.61	30.24
	8H	25.31	25.97	25.91	26.59	27.22	29.34	30.00	29.94	30.62	31.26
	12H	25.63	26.22	26.23	26.82	27.53	30.59	31.18	31.20	31.79	32.49
12H	4H	24.29	25.07	24.87	25.66	26.29	26.42	27.21	27.00	27.80	28.42
	6H	25.37	26.03	25.97	26.65	27.29	28.38	29.04	28.98	29.66	30.30
	8H	25.91	26.50	26.51	27.10	27.81	29.56	30.15	30.17	30.76	31.46