

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: P892870

Luminaire Tested: 2MB-5HL-RND-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892870
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-5HL-RND-UNV-L835
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 80CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

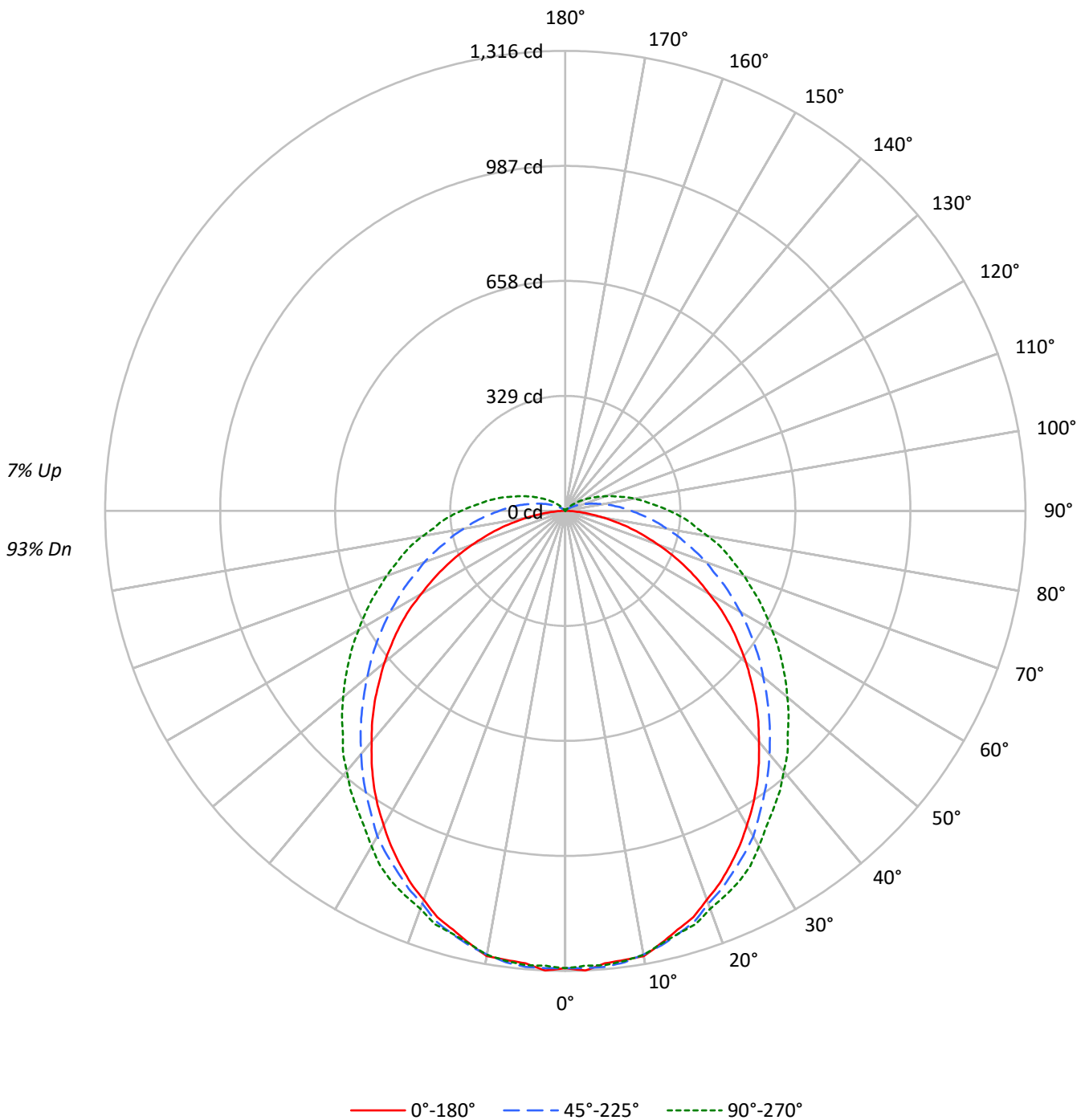
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4264.0 lumens
Efficiency: N/A
Efficacy: 126.5 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): 33.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4.5
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	0
RCR																		
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	93
1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	77	74
2	95	86	79	72	92	84	77	71	79	73	68	74	70	66	70	66	63	60
3	86	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	43
5	73	59	50	43	70	58	49	43	55	47	41	52	45	40	49	44	39	37
6	67	53	44	38	65	52	43	37	49	42	36	47	40	35	45	39	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	31	28
8	58	44	35	29	56	43	35	29	41	34	29	39	33	28	38	32	27	25
9	54	40	32	26	52	40	32	26	38	31	26	36	30	25	35	29	25	23
10	51	37	29	24	49	37	29	24	35	28	23	34	27	23	32	27	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18713	18713	18713
5°	18658	18799	18728
10°	18788	18717	18732
15°	18372	18547	18532
20°	18020	18200	18437
25°	17633	17956	18498
30°	17158	17756	18306
35°	16685	17317	18140
40°	16084	16962	18152
45°	15582	16672	18198
50°	15025	16442	18450
55°	14443	16424	18868
60°	13596	16540	19541
65°	12870	16982	20763
70°	11845	17910	22745
75°	10723	19716	26536
80°	9037	24294	34065
85°	7238	39409	58548

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 87.5°
 Luminance: 107342 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.9	2.9
10°-20°	352.5	8.3
20°-30°	525.7	12.3
30°-40°	622.4	14.6
40°-50°	641.2	15.0
50°-60°	592.9	13.9
60°-70°	492.8	11.6
70°-80°	368.7	8.6
80°-90°	244.3	5.7
90°-100°	149.5	3.5
100°-110°	84.5	2.0
110°-120°	42.1	1.0
120°-130°	17.4	0.4
130°-140°	5.1	0.1
140°-150°	0.8	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	1002.1	23.5
0°-40°	1624.5	38.1
0°-60°	2858.6	67.0
0°-90°	3964.3	93.0
90°-120°	276.1	6.5
90°-150°	299.4	7.0
90°-180°	300.0	7.0
0°-180°	4264.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1308	1308	1308	1308	1308	
5°	1299	1292	1309	1305	1304	124
15°	1240	1240	1252	1264	1251	350
25°	1117	1121	1138	1159	1172	514
35°	955	965	992	1033	1039	597
45°	770	778	824	882	900	594
55°	579	593	658	730	756	517
65°	380	410	502	580	613	376
75°	194	250	357	444	480	205
85°	44	128	240	322	357	50
90°	4	83	189	266	298	4
95°	1	52	147	220	244	1
105°	1	18	80	136	157	1
115°	1	5	38	76	92	1
125°	1	1	15	36	46	1
135°	1	1	4	12	17	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°	1308.1	1308.1	1308.1	1308.1	1308.1
2.5°	1316.0	1300.3	1309.1	1307.2	1302.3
5°	1299.3	1292.5	1309.1	1305.2	1304.2
7.5°	1295.4	1292.5	1302.3	1298.3	1298.3
10°	1293.4	1273.8	1288.5	1298.3	1289.5
12.5°	1267.0	1262.1	1272.9	1273.8	1268.0
15°	1240.5	1240.5	1252.3	1264.0	1251.3
17.5°	1218.0	1216.0	1230.7	1239.5	1239.5
20°	1183.7	1186.6	1195.5	1212.1	1211.1
22.5°	1153.3	1161.2	1170.0	1189.6	1192.5
25°	1117.1	1121.0	1137.6	1159.2	1171.9
27.5°	1079.8	1085.7	1107.3	1130.8	1145.5
30°	1038.7	1038.7	1074.9	1102.4	1108.2
32.5°	998.5	999.5	1031.8	1062.2	1070.0
35°	955.4	965.2	991.6	1032.8	1038.7
37.5°	909.3	915.2	951.5	988.7	1008.3
40°	861.3	871.1	908.3	960.3	972.0
42.5°	817.2	825.1	866.2	920.1	940.7
45°	770.2	778.0	824.1	881.9	899.5
47.5°	721.2	731.0	781.0	849.6	866.2
50°	675.1	683.0	738.8	808.4	829.0
52.5°	626.1	638.9	699.6	767.2	793.7
55°	579.1	592.8	658.5	730.0	756.5
57.5°	530.1	548.7	618.3	692.8	721.2
60°	475.2	499.7	578.1	657.5	683.0
62.5°	428.2	454.7	538.0	616.3	647.7
65°	380.2	409.6	501.7	580.1	613.4
67.5°	332.2	367.5	460.5	543.8	576.2
70°	283.2	328.3	428.2	511.5	543.8
72.5°	237.1	288.1	392.9	480.1	509.5
75°	194.0	249.9	356.7	443.9	480.1
77.5°	150.9	215.6	328.3	416.4	448.8
80°	109.7	182.3	294.9	383.1	413.5
82.5°	75.5	153.8	268.5	353.7	379.2
85°	44.1	128.4	240.1	322.4	356.7
87.5°	20.6	103.9	212.6	294.0	327.3
90°	3.9	83.3	189.1	266.5	297.9
92.5°	1.0	66.6	168.5	245.0	270.4
95°	1.0	51.9	147.0	220.5	244.0
97.5°	1.0	40.2	128.4	197.9	223.4
100°	1.0	30.4	110.7	177.4	200.9
102.5°	1.0	23.5	94.1	155.8	180.3
105°	1.0	17.6	80.4	136.2	156.8
107.5°	1.0	12.7	67.6	120.5	140.1
110°	1.0	9.8	56.8	105.8	122.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.0	6.9	46.1	90.1	106.8
115°	1.0	4.9	38.2	76.4	92.1
117.5°	1.0	2.9	30.4	64.7	78.4
120°	1.0	2.0	24.5	53.9	66.6
122.5°	1.0	2.0	18.6	44.1	55.9
125°	1.0	1.0	14.7	36.3	46.1
127.5°	1.0	1.0	10.8	28.4	36.3
130°	1.0	1.0	7.8	21.6	28.4
132.5°	1.0	1.0	4.9	16.7	21.6
135°	1.0	1.0	3.9	11.8	16.7
137.5°	1.0	1.0	2.0	7.8	10.8
140°	1.0	1.0	1.0	4.9	6.9
142.5°	1.0	1.0	1.0	2.9	3.9
145°	1.0	1.0	0.0	1.0	2.0
147.5°	1.0	1.0	0.0	1.0	1.0
150°	1.0	1.0	0.0	0.0	0.0
152.5°	1.0	1.0	0.0	0.0	0.0
155°	1.0	1.0	0.0	0.0	0.0
157.5°	1.0	1.0	0.0	0.0	0.0
160°	1.0	1.0	0.0	0.0	0.0
162.5°	1.0	1.0	0.0	0.0	0.0
165°	1.0	1.0	0.0	0.0	0.0
167.5°	1.0	1.0	0.0	0.0	0.0
170°	1.0	1.0	0.0	0.0	0.0
172.5°	2.0	1.0	0.0	0.0	0.0
175°	2.0	1.0	0.0	0.0	0.0
177.5°	2.0	1.0	0.0	0.0	0.0
180°	1.0	1.0	1.0	1.0	1.0



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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	20.26	21.80	20.73	22.25	22.74	22.00	23.53	22.47	23.99	24.47
	3H	22.00	23.40	22.48	23.86	24.39	24.57	25.97	25.05	26.43	26.96
	4H	22.64	23.97	23.15	24.45	24.99	25.87	27.20	26.37	27.68	28.22
	6H	23.11	24.35	23.63	24.85	25.40	27.27	28.50	27.78	29.00	29.56
	8H	23.26	24.44	23.79	24.97	25.53	28.00	29.18	28.52	29.70	30.26
	12H	23.36	24.49	23.89	25.01	25.60	28.84	29.98	29.38	30.49	31.09
4H	2H	21.24	22.56	21.74	23.05	23.59	22.55	23.88	23.05	24.36	24.90
	3H	23.25	24.38	23.76	24.91	25.47	25.41	26.55	25.93	27.07	27.63
	4H	24.04	25.08	24.58	25.62	26.21	26.93	27.97	27.46	28.50	29.10
	6H	24.68	25.60	25.24	26.16	26.77	28.56	29.48	29.12	30.04	30.65
	8H	24.91	25.77	25.47	26.34	26.96	29.42	30.29	29.98	30.85	31.47
	12H	25.07	25.86	25.66	26.45	27.08	30.41	31.20	31.00	31.79	32.42
8H	4H	24.92	25.78	25.48	26.35	26.97	27.29	28.15	27.85	28.71	29.34
	6H	25.83	26.57	26.43	27.17	27.80	29.18	29.91	29.77	30.52	31.15
	8H	26.21	26.88	26.82	27.49	28.13	30.25	30.91	30.85	31.52	32.16
	12H	26.53	27.13	27.14	27.73	28.44	31.50	32.09	32.10	32.69	33.40
12H	4H	25.19	25.98	25.78	26.57	27.20	27.33	28.11	27.91	28.70	29.33
	6H	26.27	26.94	26.88	27.55	28.19	29.29	29.95	29.89	30.57	31.21
	8H	26.81	27.41	27.42	28.01	28.72	30.47	31.06	31.07	31.66	32.37