

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: P892873

Luminaire Tested: 2MB-5HL-RND-UNV-L930

Issue Date: 11/11/2024

**Test Information**

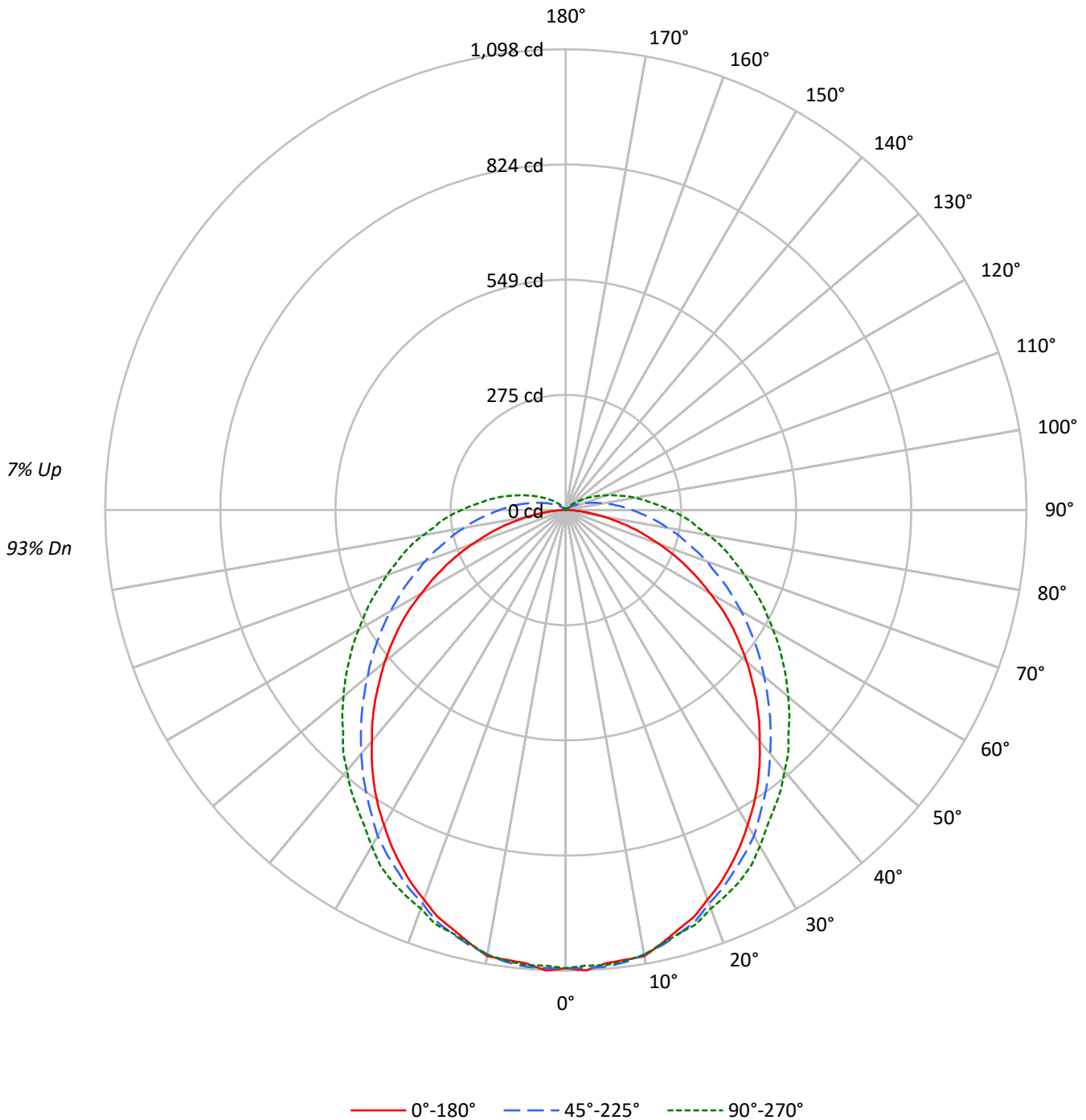
Test Method: LM-79-2019  
Report Number: P892873  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 2MB-5HL-RND-UNV-L930  
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 90CRI, 3000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3559.0 lumens  
Efficiency: N/A  
Efficacy: 105.6 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<sub>in</sub>): 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

TEST NUMBER: P892873  
CATALOG NUMBER: 2MB-5HL-RND-UNV-L930

### Luminous Intensity Polar Plot





TEST NUMBER: P892873  
 CATALOG NUMBER: 2MB-5HL-RND-UNV-L930

**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	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°	15620	15620	15620
5°	15574	15691	15632
10°	15682	15623	15635
15°	15334	15480	15468
20°	15041	15190	15390
25°	14717	14987	15440
30°	14320	14820	15280
35°	13926	14455	15139
40°	13425	14159	15151
45°	13005	13915	15189
50°	12541	13725	15399
55°	12056	13708	15748
60°	11350	13805	16311
65°	10741	14173	17331
70°	9888	14949	18985
75°	8949	16455	22153
80°	7546	20282	28430
85°	6040	32893	48864

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 87.5°  
 Luminance: 89599 cd/sqm



TEST NUMBER: P892873  
 CATALOG NUMBER: 2MB-5HL-RND-UNV-L930

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.4	2.9
10°-20°	294.2	8.3
20°-30°	438.8	12.3
30°-40°	519.5	14.6
40°-50°	535.2	15.0
50°-60°	494.9	13.9
60°-70°	411.3	11.6
70°-80°	307.7	8.6
80°-90°	203.9	5.7
90°-100°	124.8	3.5
100°-110°	70.5	2.0
110°-120°	35.1	1.0
120°-130°	14.5	0.4
130°-140°	4.3	0.1
140°-150°	0.7	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	836.4	23.5
0°-40°	1355.9	38.1
0°-60°	2386.0	67.0
0°-90°	3308.9	93.0
90°-120°	230.4	6.5
90°-150°	249.8	7.0
90°-180°	250.0	7.0
0°-180°	3559.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1092	1092	1092	1092	1092	
5°	1084	1079	1093	1089	1089	103
15°	1035	1035	1045	1055	1044	292
25°	932	936	950	968	978	429
35°	797	806	828	862	867	498
45°	643	649	688	736	751	496
55°	483	495	550	609	631	431
65°	317	342	419	484	512	314
75°	162	209	298	370	401	171
85°	37	107	200	269	298	42
90°	3	70	158	222	249	3
95°	1	43	123	184	204	1
105°	1	15	67	114	131	1
115°	1	4	32	64	77	1
125°	1	1	12	30	38	1
135°	1	1	3	10	14	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	



TEST NUMBER: P892873

CATALOG NUMBER: 2MB-5HL-RND-UNV-L930

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1091.9	1091.9	1091.9	1091.9	1091.9
2.5°	1098.4	1085.3	1092.7	1091.0	1086.9
5°	1084.5	1078.8	1092.7	1089.4	1088.6
7.5°	1081.2	1078.8	1086.9	1083.7	1083.7
10°	1079.6	1063.2	1075.5	1083.7	1076.3
12.5°	1057.5	1053.4	1062.4	1063.2	1058.3
15°	1035.4	1035.4	1045.2	1055.1	1044.4
17.5°	1016.6	1015.0	1027.2	1034.6	1034.6
20°	988.0	990.4	997.8	1011.7	1010.9
22.5°	962.6	969.2	976.5	992.9	995.3
25°	932.4	935.6	949.5	967.5	978.2
27.5°	901.3	906.2	924.2	943.8	956.1
30°	866.9	866.9	897.2	920.1	925.0
32.5°	833.4	834.2	861.2	886.6	893.1
35°	797.4	805.6	827.7	862.0	866.9
37.5°	759.0	763.9	794.2	825.2	841.6
40°	718.9	727.1	758.2	801.5	811.3
42.5°	682.1	688.6	723.0	768.0	785.2
45°	642.8	649.4	687.8	736.1	750.8
47.5°	602.0	610.1	651.8	709.1	723.0
50°	563.5	570.1	616.7	674.7	691.9
52.5°	522.6	533.3	584.0	640.4	662.5
55°	483.4	494.8	549.6	609.3	631.4
57.5°	442.5	458.0	516.1	578.2	602.0
60°	396.7	417.1	482.5	548.8	570.1
62.5°	357.4	379.5	449.0	514.4	540.6
65°	317.3	341.9	418.7	484.2	512.0
67.5°	277.3	306.7	384.4	453.9	480.9
70°	236.4	274.0	357.4	426.9	453.9
72.5°	197.9	240.5	328.0	400.8	425.3
75°	161.9	208.6	297.7	370.5	400.8
77.5°	126.0	179.9	274.0	347.6	374.6
80°	91.6	152.1	246.2	319.8	345.1
82.5°	63.0	128.4	224.1	295.3	316.5
85°	36.8	107.1	200.4	269.1	297.7
87.5°	17.2	86.7	177.5	245.4	273.2
90°	3.3	69.5	157.8	222.5	248.6
92.5°	0.8	55.6	140.7	204.5	225.7
95°	0.8	43.3	122.7	184.0	203.6
97.5°	0.8	33.5	107.1	165.2	186.5
100°	0.8	25.4	92.4	148.0	167.7
102.5°	0.8	19.6	78.5	130.0	150.5
105°	0.8	14.7	67.1	113.7	130.9
107.5°	0.8	10.6	56.4	100.6	117.0
110°	0.8	8.2	47.4	88.3	102.2



TEST NUMBER: P892873

CATALOG NUMBER: 2MB-5HL-RND-UNV-L930

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.8	5.7	38.4	75.2	89.1
115°	0.8	4.1	31.9	63.8	76.9
117.5°	0.8	2.5	25.4	54.0	65.4
120°	0.8	1.6	20.4	45.0	55.6
122.5°	0.8	1.6	15.5	36.8	46.6
125°	0.8	0.8	12.3	30.3	38.4
127.5°	0.8	0.8	9.0	23.7	30.3
130°	0.8	0.8	6.5	18.0	23.7
132.5°	0.8	0.8	4.1	13.9	18.0
135°	0.8	0.8	3.3	9.8	13.9
137.5°	0.8	0.8	1.6	6.5	9.0
140°	0.8	0.8	0.8	4.1	5.7
142.5°	0.8	0.8	0.8	2.5	3.3
145°	0.8	0.8	0.0	0.8	1.6
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°	1.6	0.8	0.0	0.0	0.0
175°	1.6	0.8	0.0	0.0	0.0
177.5°	1.6	0.8	0.0	0.0	0.0
180°	0.8	0.8	0.8	0.8	0.8



TEST NUMBER: P892873  
 CATALOG NUMBER: 2MB-5HL-RND-UNV-L930

**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	19.63	21.17	20.10	21.62	22.11	21.37	22.90	21.84	23.36	23.85
	3H	21.37	22.77	21.85	23.23	23.76	23.94	25.34	24.42	25.81	26.33
	4H	22.02	23.34	22.52	23.83	24.37	25.24	26.57	25.74	27.05	27.59
	6H	22.49	23.72	23.00	24.22	24.78	26.64	27.88	27.16	28.37	28.93
	8H	22.63	23.82	23.16	24.34	24.90	27.37	28.55	27.90	29.07	29.64
	12H	22.73	23.87	23.26	24.38	24.97	28.21	29.35	28.75	29.87	30.46
4H	2H	20.61	21.94	21.11	22.42	22.96	21.92	23.25	22.43	23.73	24.27
	3H	22.62	23.75	23.13	24.28	24.84	24.78	25.92	25.30	26.44	27.01
	4H	23.42	24.45	23.95	24.99	25.59	26.30	27.34	26.84	27.88	28.47
	6H	24.06	24.97	24.61	25.54	26.14	27.93	28.85	28.49	29.42	30.02
	8H	24.28	25.14	24.84	25.71	26.33	28.79	29.66	29.36	30.22	30.84
	12H	24.45	25.23	25.03	25.82	26.45	29.79	30.57	30.37	31.16	31.79
8H	4H	24.29	25.16	24.85	25.72	26.34	26.66	27.52	27.22	28.09	28.71
	6H	25.21	25.94	25.80	26.55	27.17	28.55	29.29	29.15	29.89	30.52
	8H	25.59	26.25	26.19	26.87	27.50	29.62	30.28	30.22	30.90	31.54
	12H	25.91	26.50	26.51	27.10	27.81	30.87	31.46	31.48	32.07	32.77
12H	4H	24.57	25.35	25.15	25.94	26.57	26.70	27.49	27.28	28.08	28.70
	6H	25.65	26.31	26.25	26.93	27.57	28.66	29.32	29.26	29.94	30.58
	8H	26.19	26.78	26.79	27.38	28.09	29.84	30.43	30.44	31.03	31.74