

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: P893641

Luminaire Tested: 4MB-5SL-LVRA-UNV-L830

Issue Date: 11/11/2024

**Test Information**

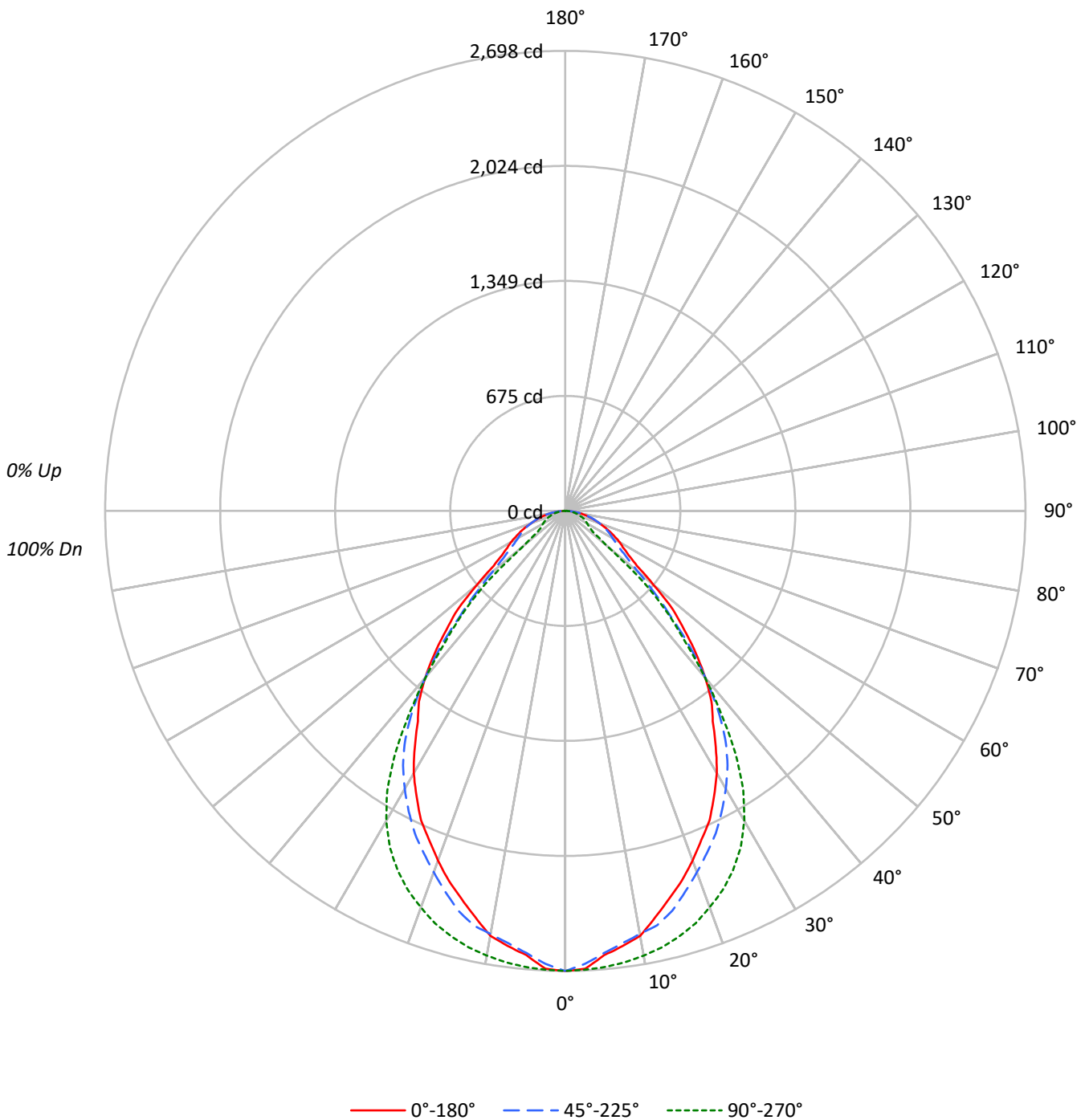
Test Method: LM-79-2019  
Report Number: P893641  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-5SL-LVRA-UNV-L830  
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 3000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4379.0 lumens  
Efficiency: N/A  
Efficacy: 125.1 lumens/watt  
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12  
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 9.55  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER: P893641  
CATALOG NUMBER: 4MB-5SL-LVRA-UNV-L830

### Luminous Intensity Polar Plot





TEST NUMBER: P893641

CATALOG NUMBER: 4MB-5SL-LVRA-UNV-L830

**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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102		100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90		88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80		78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71		69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63		62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57		55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52		50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47		45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43		41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40		38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37		35

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	19198	19198	19198
5°	18680	18595	19176
10°	18283	18202	19132
15°	17339	17872	19024
20°	16517	17076	18734
25°	15712	16383	18256
30°	14597	15465	17237
35°	13089	14213	15119
40°	11859	11884	11820
45°	9915	8781	8565
50°	7489	6181	3502
55°	5633	4943	2208
60°	5235	4552	2127
65°	4871	4542	2131
70°	4456	4456	2097
75°	4225	4341	2026
80°	3905	4101	2081
85°	3404	3576	2269

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 10146 cd/sqm



TEST NUMBER: P893641

CATALOG NUMBER: 4MB-5SL-LVRA-UNV-L830

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	249.2	5.7
10°-20°	686.7	15.7
20°-30°	973.8	22.2
30°-40°	1003.2	22.9
40°-50°	700.7	16.0
50°-60°	336.2	7.7
60°-70°	235.9	5.4
70°-80°	147.5	3.4
80°-90°	45.6	1.0
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°	1909.8	43.6
0°-40°	2913.0	66.5
0°-60°	3950.0	90.2
0°-90°	4379.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4379.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2698	2698	2698	2698	2698	
5°	2615	2612	2604	2672	2685	248
15°	2354	2371	2426	2496	2583	663
25°	2001	2022	2087	2228	2325	915
35°	1507	1548	1636	1670	1741	950
45°	985	1008	873	828	851	759
55°	454	432	398	255	178	426
65°	289	270	270	205	127	287
75°	154	152	158	136	74	162
85°	42	42	44	43	28	47
90°	0	0	0	0	0	



TEST NUMBER: P893641

CATALOG NUMBER: 4MB-5SL-LVRA-UNV-L830

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2698.2	2698.2	2698.2	2698.2	2698.2
2.5°	2687.7	2679.4	2659.2	2696.1	2693.3
5°	2615.4	2611.9	2603.6	2671.7	2684.9
7.5°	2574.4	2567.4	2557.7	2632.8	2669.6
10°	2530.6	2538.9	2519.4	2588.3	2648.1
12.5°	2440.2	2462.4	2488.8	2542.4	2621.7
15°	2353.9	2371.3	2426.3	2495.8	2582.7
17.5°	2273.3	2293.4	2340.7	2445.0	2537.5
20°	2181.5	2209.3	2255.2	2388.7	2474.2
22.5°	2086.9	2112.6	2170.3	2313.6	2408.9
25°	2001.4	2021.5	2086.9	2228.1	2325.4
27.5°	1888.0	1925.6	1987.5	2123.8	2226.0
30°	1776.7	1808.7	1882.4	1997.2	2098.0
32.5°	1642.5	1689.1	1770.5	1858.1	1942.3
35°	1506.9	1548.0	1636.3	1670.4	1740.6
37.5°	1408.2	1419.3	1469.4	1465.2	1504.8
40°	1276.8	1299.0	1279.5	1227.4	1272.6
42.5°	1134.9	1161.3	1082.7	1022.2	1038.2
45°	985.4	1008.3	872.7	828.2	851.2
47.5°	856.0	854.0	703.7	673.8	641.9
50°	676.6	698.9	558.4	502.8	316.4
52.5°	528.5	536.8	460.4	321.3	207.9
55°	454.1	431.8	398.5	255.2	178.0
57.5°	403.3	375.5	353.3	237.1	162.7
60°	367.9	336.6	319.9	225.3	149.5
62.5°	327.5	303.2	296.9	214.9	137.7
65°	289.3	270.5	269.8	205.1	126.6
67.5°	251.0	240.6	243.4	193.3	114.0
70°	214.2	212.1	214.2	178.0	100.8
72.5°	182.9	180.8	186.4	158.6	86.2
75°	153.7	151.6	157.9	136.3	73.7
77.5°	122.4	123.8	128.0	113.4	61.9
80°	95.3	95.3	100.1	89.0	50.8
82.5°	68.1	68.8	71.6	65.4	39.6
85°	41.7	41.7	43.8	43.1	27.8
87.5°	13.9	16.0	18.8	20.2	13.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P893641  
 CATALOG NUMBER: 4MB-5SL-LVRA-UNV-L830

**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	15.91	17.27	16.28	17.58	17.89	12.24	13.60	12.61	13.91	14.23
	3H	17.65	18.86	18.03	19.19	19.55	14.22	15.43	14.60	15.76	16.12
	4H	18.32	19.45	18.72	19.80	20.18	14.92	16.05	15.33	16.40	16.78
	6H	18.83	19.87	19.24	20.24	20.63	15.45	16.49	15.86	16.86	17.25
	8H	19.00	19.99	19.43	20.38	20.78	15.63	16.62	16.06	17.01	17.41
	12H	19.11	20.05	19.54	20.44	20.87	15.77	16.71	16.20	17.10	17.53
4H	2H	16.44	17.57	16.84	17.92	18.30	13.87	14.99	14.27	15.34	15.73
	3H	18.42	19.35	18.83	19.75	20.16	16.04	16.97	16.46	17.38	17.78
	4H	19.22	20.06	19.66	20.48	20.92	16.92	17.76	17.36	18.18	18.62
	6H	19.87	20.59	20.33	21.04	21.50	17.57	18.29	18.03	18.74	19.20
	8H	20.09	20.76	20.55	21.21	21.68	17.78	18.45	18.24	18.90	19.37
	12H	20.24	20.84	20.72	21.32	21.79	17.93	18.53	18.42	19.02	19.49
8H	4H	19.51	20.18	19.97	20.63	21.10	17.57	18.25	18.04	18.70	19.17
	6H	20.29	20.85	20.79	21.34	21.82	18.44	18.99	18.94	19.49	19.97
	8H	20.59	21.09	21.11	21.60	22.10	18.76	19.26	19.28	19.78	20.27
	12H	20.83	21.27	21.34	21.76	22.33	19.03	19.47	19.54	19.96	20.53
12H	4H	19.52	20.12	20.01	20.61	21.08	17.65	18.25	18.13	18.73	19.20
	6H	20.34	20.84	20.86	21.36	21.85	18.57	19.07	19.09	19.59	20.08
	8H	20.71	21.15	21.22	21.64	22.21	18.99	19.43	19.50	19.92	20.49