

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: P893301

Luminaire Tested: 4MB-2SL-LVR-UNV-L930

Issue Date: 11/11/2024

**Test Information**

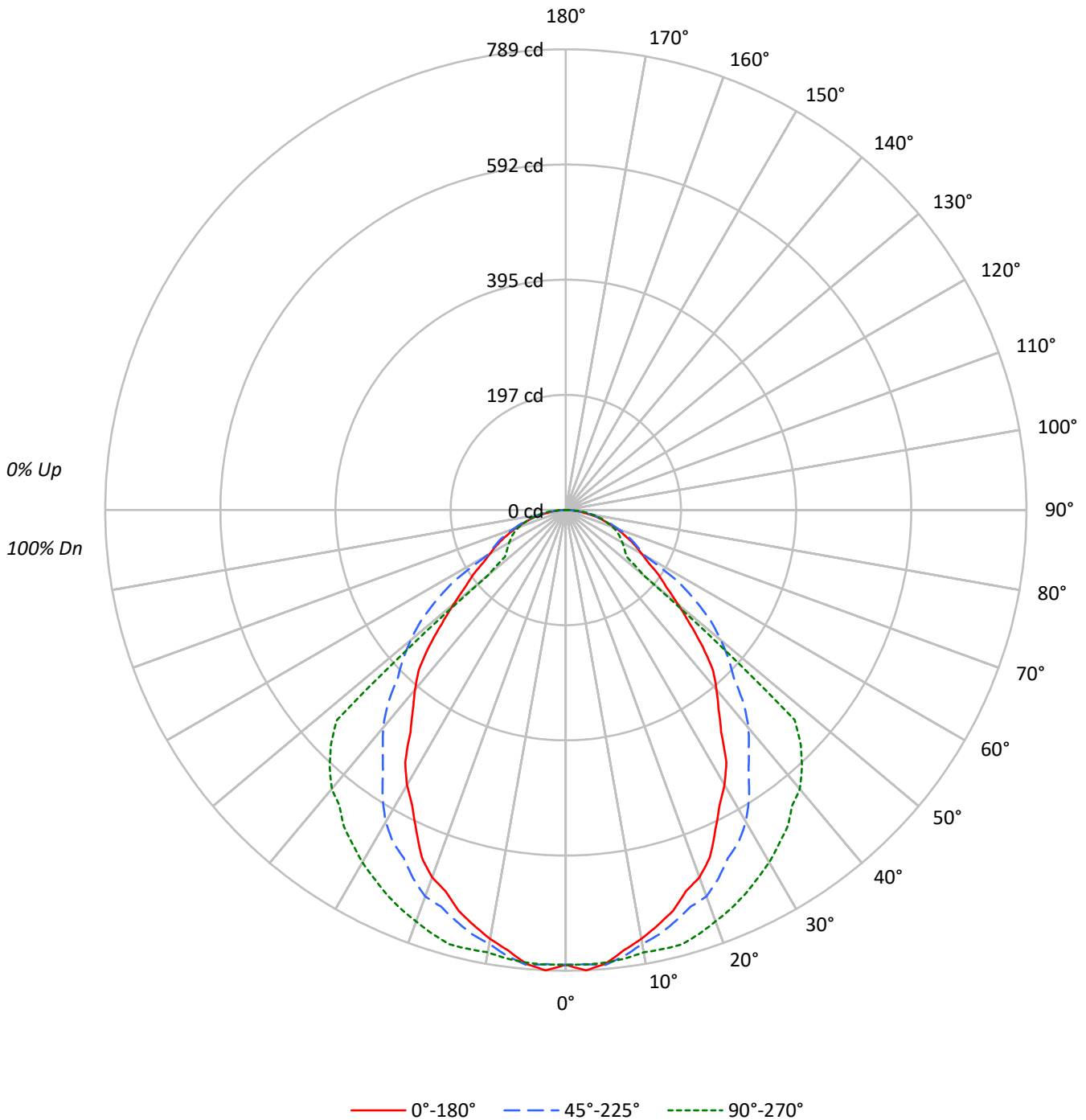
Test Method: LM-79-2019  
Report Number: P893301  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-2SL-LVR-UNV-L930  
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 90CRI, 3000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1662.0 lumens  
Efficiency: N/A  
Efficacy: 120.4 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.33 / 1.27  
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 13.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 5.92  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER: P893301  
CATALOG NUMBER: 4MB-2SL-LVR-UNV-L930

### Luminous Intensity Polar Plot





TEST NUMBER: P893301  
 CATALOG NUMBER: 4MB-2SL-LVR-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	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	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	52	52	52	50
6	75	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	40	35	59	48	40	35	47	40	35	45	39	35	44	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	32	32	32	30

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

	0°	45°	90°
0°	5541	5541	5541
5°	5571	5585	5557
10°	5388	5452	5558
15°	5233	5365	5673
20°	5068	5333	5677
25°	4756	5162	5702
30°	4467	5068	5726
35°	4028	4740	5753
40°	3731	4522	5793
45°	3338	4098	5727
50°	2769	3839	1924
55°	2413	3370	1539
60°	2134	2196	1597
65°	2029	2136	1694
70°	1903	2020	1787
75°	1770	1902	1836
80°	1614	1795	1922
85°	1429	1527	2082

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5727 cd/sqm



TEST NUMBER: P893301  
 CATALOG NUMBER: 4MB-2SL-LVR-UNV-L930

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.9	4.4
10°-20°	207.8	12.5
20°-30°	305.7	18.4
30°-40°	349.6	21.0
40°-50°	331.0	19.9
50°-60°	182.4	11.0
60°-70°	117.1	7.0
70°-80°	72.3	4.3
80°-90°	22.2	1.3
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°	587.4	35.3
0°-40°	937.0	56.4
0°-60°	1450.4	87.3
0°-90°	1662.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1662.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	779	779	779	779	779	
5°	780	786	782	782	778	73
15°	710	719	728	766	770	199
25°	606	633	658	700	726	279
35°	464	504	546	625	662	293
45°	332	363	407	523	569	254
55°	194	204	272	140	124	174
65°	120	124	127	113	101	119
75°	64	66	69	73	67	69
85°	18	18	19	22	26	20
90°	0	0	0	0	0	



TEST NUMBER: P893301  
 CATALOG NUMBER: 4MB-2SL-LVR-UNV-L930

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	778.8	778.8	778.8	778.8	778.8
2.5°	789.2	791.1	778.4	778.0	779.2
5°	780.0	786.4	782.0	782.0	778.0
7.5°	760.5	771.3	770.1	779.2	774.8
10°	745.8	754.6	754.6	778.4	769.3
12.5°	728.3	738.2	743.8	768.9	770.1
15°	710.4	719.2	728.3	766.5	770.1
17.5°	684.5	700.5	712.0	749.4	760.9
20°	669.4	679.0	704.4	734.7	749.8
22.5°	644.4	658.3	683.0	716.8	739.0
25°	605.8	632.8	657.5	700.5	726.3
27.5°	570.0	590.3	641.2	686.5	711.2
30°	543.7	559.6	616.9	666.2	696.9
32.5°	511.9	537.8	584.3	646.4	679.0
35°	463.8	503.6	545.7	624.9	662.3
37.5°	430.0	457.4	514.7	602.6	637.2
40°	401.7	426.8	486.9	574.8	623.7
42.5°	373.5	393.8	451.9	554.1	598.6
45°	331.7	363.2	407.3	522.7	569.2
47.5°	288.0	321.4	378.3	496.0	531.8
50°	250.2	276.8	346.8	443.1	173.8
52.5°	217.2	241.8	313.4	160.3	131.3
55°	194.5	204.1	271.7	140.0	124.1
57.5°	167.5	183.0	227.9	133.2	117.7
60°	150.0	156.7	154.3	126.5	112.2
62.5°	136.0	140.8	140.0	119.7	105.8
65°	120.5	124.5	126.9	113.0	100.6
67.5°	105.0	108.6	112.2	104.6	93.5
70°	91.5	93.9	97.1	94.7	85.9
72.5°	77.6	80.3	82.3	84.3	76.0
75°	64.4	65.6	69.2	72.8	66.8
77.5°	52.5	53.7	56.1	60.1	56.9
80°	39.4	40.6	43.8	46.9	46.9
82.5°	27.8	28.6	30.6	35.0	37.0
85°	17.5	17.5	18.7	21.5	25.5
87.5°	6.8	6.8	8.0	9.5	12.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P893301  
 CATALOG NUMBER: 4MB-2SL-LVR-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	13.90	15.38	14.27	15.70	16.01	11.70	13.18	12.06	13.49	13.81
	3H	15.43	16.75	15.80	17.08	17.44	14.03	15.36	14.41	15.69	16.05
	4H	16.02	17.26	16.42	17.61	17.99	14.98	16.22	15.38	16.57	16.95
	6H	16.47	17.62	16.89	17.99	18.38	15.77	16.91	16.18	17.28	17.67
	8H	16.62	17.71	17.05	18.10	18.50	16.08	17.17	16.50	17.56	17.96
	12H	16.72	17.76	17.15	18.14	18.57	16.33	17.37	16.76	17.75	18.18
4H	2H	14.45	15.69	14.85	16.04	16.42	12.80	14.05	13.20	14.40	14.78
	3H	16.22	17.25	16.63	17.65	18.05	15.25	16.28	15.66	16.68	17.08
	4H	16.94	17.87	17.37	18.28	18.72	16.32	17.24	16.75	17.66	18.10
	6H	17.53	18.33	17.99	18.78	19.24	17.21	18.01	17.66	18.45	18.91
	8H	17.72	18.47	18.18	18.91	19.38	17.56	18.31	18.02	18.75	19.22
	12H	17.85	18.53	18.34	19.00	19.48	17.85	18.52	18.33	19.00	19.47
8H	4H	17.25	18.00	17.71	18.45	18.91	16.70	17.46	17.17	17.90	18.37
	6H	17.96	18.58	18.46	19.08	19.55	17.74	18.36	18.24	18.86	19.33
	8H	18.22	18.78	18.74	19.29	19.78	18.18	18.75	18.70	19.26	19.75
	12H	18.43	18.93	18.94	19.42	19.99	18.57	19.07	19.08	19.56	20.13
12H	4H	17.28	17.96	17.77	18.44	18.91	16.74	17.41	17.22	17.89	18.36
	6H	18.02	18.59	18.54	19.10	19.59	17.80	18.37	18.32	18.88	19.37
	8H	18.34	18.84	18.85	19.34	19.90	18.31	18.81	18.82	19.30	19.87