

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: P893277

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893277
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2410-248-1)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-2SL-ASYMR-UNV-L930
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

Summary

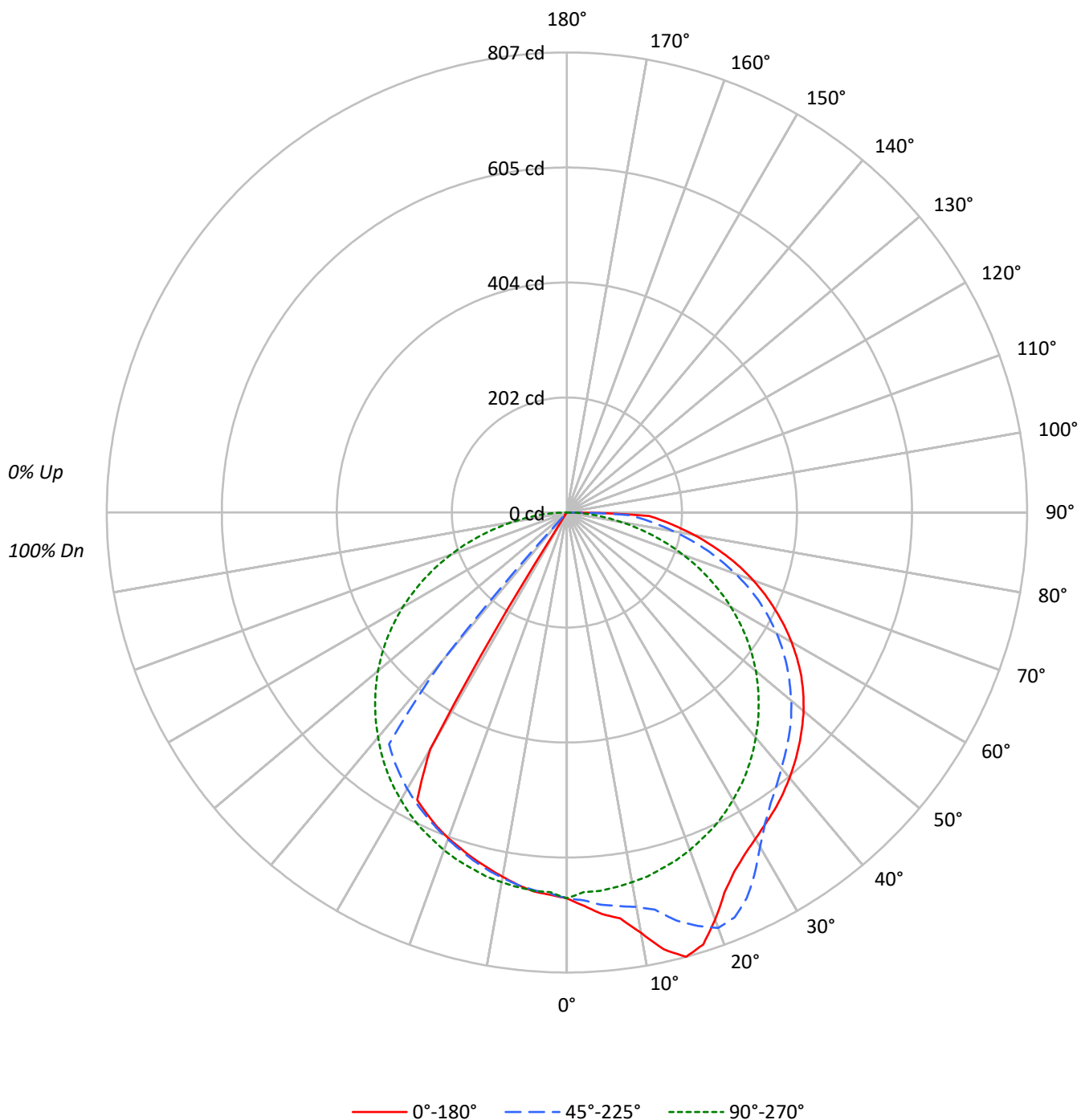
Lumens per Lamp: N/A
Luminaire Lumens: 1831.0 lumens
Efficiency: N/A
Efficacy: 132.7 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.28 / 1.25
Luminous Opening: Rectangular (W 0.21' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 13.8
Input Voltage (V):
Input Current (Ain): 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: P893277

CATALOG NUMBER: 4MB-2SL-ASYMR-UNV-L930

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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83		
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69		
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59		
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	50		
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44		
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39		
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	35		
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31		
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28		
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	26		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	8787	8787	8787	8787	8787
5°	9216	9003	8685	8669	8699
10°	9873	9260	8683	8581	8555
15°	10849	9963	8686	8499	8457
20°	10503	10718	8708	8431	8403
25°	9952	10695	8730	8402	8341
30°	9909	10152	8729	8392	7184
35°	10077	9874	8742	8394	98
40°	10296	9921	8731	5789	66
45°	10577	10122	8734	107	42
50°	10947	10375	8739	79	16
55°	11362	10670	8714	52	9
60°	11816	11032	8638	21	10
65°	12373	11470	8480	25	25
70°	13201	11948	8212	30	30
75°	14449	12718	7857	80	40
80°	16952	14230	7276	120	60
85°	25238	19979	6809	179	119

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 87.5°

Luminance: 43254 cd/sqm

TEST NUMBER: P893277

CATALOG NUMBER: 4MB-2SL-ASYMR-UNV-L930

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.8	3.5
10°-20°	193.6	10.6
20°-30°	297.6	16.3
30°-40°	319.0	17.4
40°-50°	289.7	15.8
50°-60°	264.2	14.4
60°-70°	196.6	10.7
70°-80°	138.4	7.6
80°-90°	67.0	3.7
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°	556.1	30.4
0°-40°	875.1	47.8
0°-60°	1429.0	78.0
0°-90°	1831.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1831.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	677	677	677	677	677	
5°	707	691	666	665	667	68
15°	807	741	646	632	629	223
25°	695	746	609	586	582	323
35°	636	623	552	530	6	398
45°	576	551	476	6	2	445
55°	502	471	385	2	0	448
65°	403	373	276	1	1	399
75°	288	254	157	2	1	304
85°	169	134	46	1	1	170
90°	0	0	0	0	0	

TEST NUMBER: P893277

CATALOG NUMBER: 4MB-2SL-ASYMR-UNV-L930

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	676.7	676.7	676.7	676.7	676.7	676.7	676.7	676.7	676.7
2.5°	690.7	682.9	681.0	686.4	666.7	679.8	669.0	671.3	671.3
5°	707.0	696.1	690.7	689.1	666.3	675.2	665.1	665.1	667.4
7.5°	718.2	706.2	696.5	692.6	662.8	670.5	658.9	658.9	658.9
10°	748.8	726.4	702.3	695.3	658.5	664.3	650.8	651.5	648.8
12.5°	784.9	764.7	713.6	694.2	653.9	656.6	642.2	641.9	638.8
15°	807.0	791.9	741.1	692.6	646.1	648.4	632.2	631.0	629.1
17.5°	794.6	792.2	760.1	691.5	639.1	637.2	620.9	619.8	618.2
20°	760.1	765.9	775.6	689.1	630.2	626.4	610.1	609.3	608.1
22.5°	721.7	727.5	768.6	693.0	619.4	614.7	598.4	597.7	596.1
25°	694.6	694.6	746.5	702.3	609.3	600.8	586.4	585.3	582.2
27.5°	675.6	672.1	713.6	712.8	596.5	586.8	573.6	572.5	568.6
30°	660.9	655.0	677.1	717.8	582.2	571.7	559.7	558.5	479.1
32.5°	647.7	641.5	646.5	722.1	567.8	555.4	545.0	388.8	17.1
35°	635.7	628.7	622.9	719.0	551.5	539.1	529.5	11.2	6.2
37.5°	622.1	616.7	603.5	702.7	534.1	521.7	512.4	6.2	5.4
40°	607.4	602.3	585.3	678.7	515.1	504.6	341.5	5.4	3.9
42.5°	592.2	588.4	568.2	643.8	496.1	485.7	10.9	4.3	3.1
45°	576.0	572.5	551.2	601.5	475.6	465.9	5.8	3.1	2.3
47.5°	559.3	554.3	533.3	556.2	454.6	445.0	5.0	2.3	1.6
50°	541.9	536.4	513.6	516.3	432.6	422.9	3.9	1.6	0.8
52.5°	522.5	515.9	492.6	480.2	409.3	400.4	3.1	0.8	0.4
55°	501.9	494.6	471.3	448.8	384.9	374.8	2.3	0.8	0.4
57.5°	479.1	470.9	448.8	419.0	358.9	253.5	1.6	0.8	0.4
60°	455.0	446.9	424.8	391.1	332.6	17.4	0.8	0.8	0.4
62.5°	429.5	420.9	399.6	362.8	304.3	14.3	0.8	0.8	0.8
65°	402.7	392.6	373.3	333.7	276.0	12.0	0.8	0.8	0.8
67.5°	376.0	363.2	345.0	303.9	246.9	10.1	0.8	0.8	0.8
70°	347.7	333.7	314.7	273.6	216.3	8.1	0.8	0.8	0.8
72.5°	318.6	305.0	284.5	243.0	187.6	6.2	0.8	0.8	0.8
75°	288.0	275.6	253.5	212.4	156.6	4.7	1.6	0.8	0.8
77.5°	256.2	246.5	221.7	181.0	126.4	3.1	1.6	0.8	0.8
80°	226.7	215.9	190.3	149.2	97.3	2.3	1.6	1.2	0.8
82.5°	196.5	186.8	161.2	120.2	69.8	1.9	1.6	1.2	0.8
85°	169.4	160.1	134.1	93.8	45.7	1.6	1.2	1.2	0.8
87.5°	145.3	136.8	111.2	68.6	26.0	1.2	1.2	1.2	0.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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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	22.08	23.70	22.45	24.01	24.32	17.52	19.13	17.88	19.44	19.76
	3H	24.53	25.99	24.91	26.32	26.68	18.16	19.62	18.53	19.95	20.31
	4H	25.65	27.04	26.05	27.38	27.76	18.30	19.68	18.70	20.03	20.41
	6H	26.75	28.03	27.16	28.40	28.79	18.34	19.63	18.75	19.99	20.38
	8H	27.28	28.50	27.70	28.89	29.29	18.33	19.56	18.76	19.95	20.35
	12H	27.84	29.02	28.27	29.40	29.83	18.31	19.49	18.74	19.87	20.30
4H	2H	22.74	24.12	23.14	24.47	24.85	18.64	20.02	19.04	20.37	20.75
	3H	25.43	26.60	25.84	26.99	27.39	19.98	21.15	20.39	21.55	21.95
	4H	26.72	27.79	27.16	28.20	28.63	20.52	21.58	20.95	22.00	22.43
	6H	28.01	28.94	28.46	29.38	29.83	20.80	21.73	21.25	22.17	22.62
	8H	28.63	29.51	29.09	29.95	30.42	20.83	21.71	21.29	22.15	22.62
	12H	29.32	30.11	29.80	30.59	31.05	20.84	21.64	21.32	22.11	22.58
8H	4H	27.09	27.96	27.55	28.41	28.87	21.47	22.34	21.93	22.79	23.25
	6H	28.57	29.31	29.06	29.79	30.27	22.06	22.79	22.55	23.28	23.76
	8H	29.35	30.02	29.86	30.52	31.01	22.24	22.90	22.74	23.40	23.89
	12H	30.24	30.84	30.75	31.33	31.88	22.34	22.93	22.84	23.42	23.98
12H	4H	27.13	27.92	27.61	28.39	28.86	21.68	22.48	22.16	22.95	23.42
	6H	28.66	29.32	29.17	29.83	30.31	22.41	23.07	22.91	23.58	24.06
	8H	29.54	30.13	30.04	30.62	31.18	22.72	23.31	23.22	23.80	24.36