

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: P893310

Luminaire Tested: 4MB-2SL-LVRA-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893310
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-2SL-LVRA-UNV-L935
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

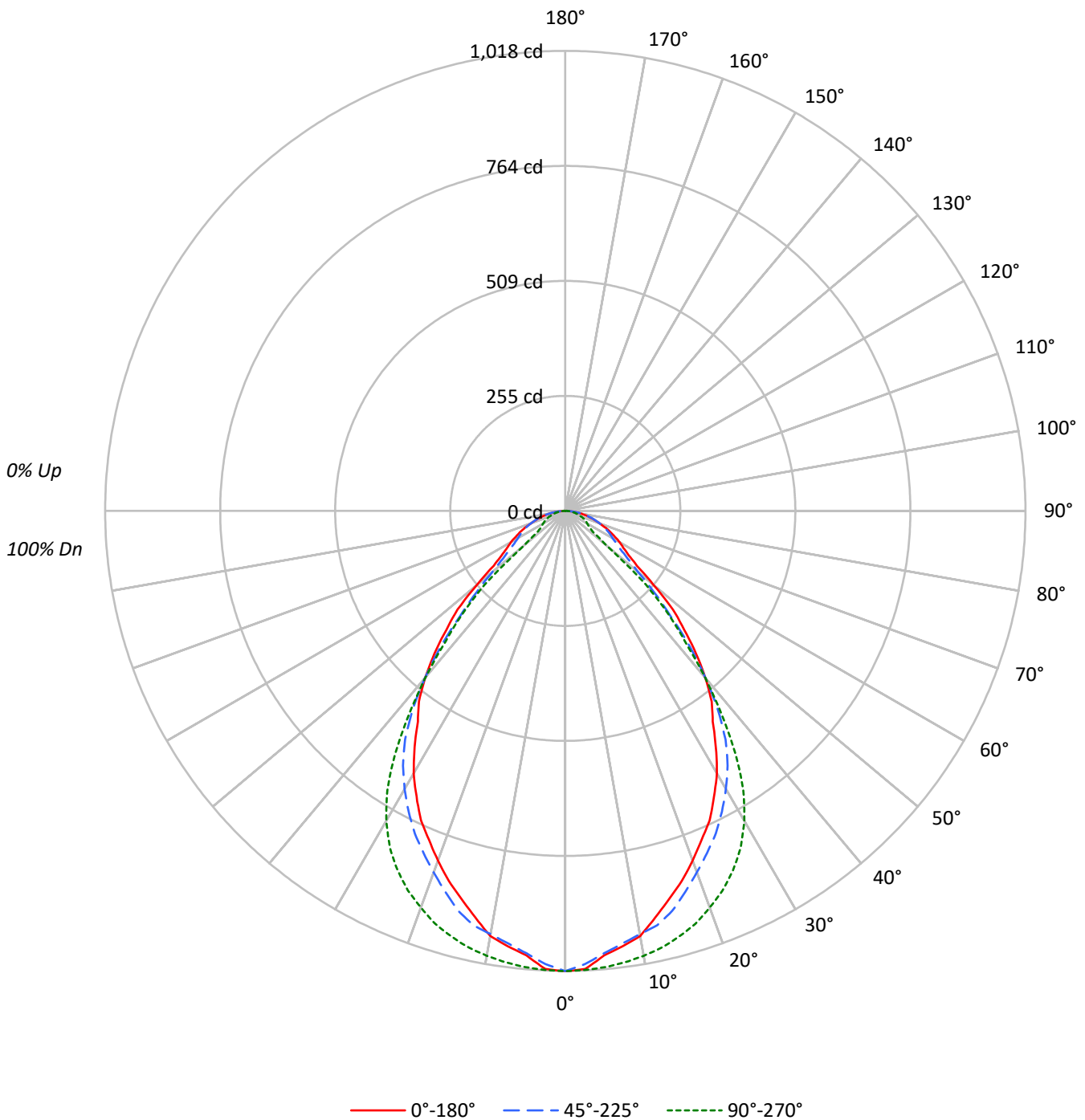
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1653.1 lumens
Efficiency: N/A
Efficacy: 119.8 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): 13.8
Input Voltage (V): 120
Input Current (A_{in}): 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

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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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88	88	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78	78	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69	69	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62	62	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55	55	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50	50	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45	45	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41	41	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38	38	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35	35	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7247	7247	7247
5°	7051	7019	7239
10°	6901	6871	7222
15°	6545	6747	7181
20°	6235	6446	7072
25°	5931	6185	6891
30°	5510	5838	6507
35°	4940	5365	5707
40°	4477	4486	4462
45°	3743	3314	3233
50°	2827	2333	1322
55°	2126	1866	834
60°	1977	1719	803
65°	1838	1716	805
70°	1683	1683	793
75°	1594	1638	764
80°	1475	1549	787
85°	1290	1347	857

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 3830 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.1	5.7
10°-20°	259.2	15.7
20°-30°	367.6	22.2
30°-40°	378.7	22.9
40°-50°	264.5	16.0
50°-60°	126.9	7.7
60°-70°	89.1	5.4
70°-80°	55.7	3.4
80°-90°	17.2	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°	720.9	43.6
0°-40°	1099.6	66.5
0°-60°	1491.1	90.2
0°-90°	1653.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1653.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1018	1018	1018	1018	1018	
5°	987	986	983	1008	1014	93
15°	889	895	916	942	975	250
25°	756	763	788	841	878	345
35°	569	584	618	630	657	358
45°	372	381	329	313	321	287
55°	171	163	150	96	67	161
65°	109	102	102	77	48	108
75°	58	57	60	52	28	61
85°	16	16	16	16	10	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1018.5	1018.5	1018.5	1018.5	1018.5
2.5°	1014.6	1011.4	1003.8	1017.7	1016.7
5°	987.3	986.0	982.8	1008.5	1013.5
7.5°	971.8	969.2	965.5	993.8	1007.7
10°	955.2	958.4	951.0	977.0	999.6
12.5°	921.1	929.5	939.5	959.7	989.6
15°	888.6	895.1	915.9	942.1	974.9
17.5°	858.1	865.7	883.6	923.0	957.9
20°	823.5	834.0	851.3	901.7	934.0
22.5°	787.8	797.5	819.3	873.3	909.3
25°	755.5	763.1	787.8	841.1	877.8
27.5°	712.7	726.9	750.2	801.7	840.3
30°	670.7	682.8	710.6	753.9	792.0
32.5°	620.0	637.6	668.3	701.4	733.2
35°	568.8	584.3	617.7	630.5	657.0
37.5°	531.6	535.8	554.7	553.1	568.1
40°	482.0	490.4	483.0	463.3	480.4
42.5°	428.4	438.4	408.7	385.9	391.9
45°	372.0	380.6	329.4	312.6	321.3
47.5°	323.1	322.4	265.7	254.4	242.3
50°	255.4	263.8	210.8	189.8	119.4
52.5°	199.5	202.7	173.8	121.3	78.5
55°	171.4	163.0	150.4	96.3	67.2
57.5°	152.3	141.8	133.4	89.5	61.4
60°	138.9	127.1	120.8	85.1	56.4
62.5°	123.6	114.5	112.1	81.1	52.0
65°	109.2	102.1	101.9	77.4	47.8
67.5°	94.8	90.8	91.9	73.0	43.1
70°	80.9	80.1	80.9	67.2	38.1
72.5°	69.0	68.3	70.4	59.9	32.6
75°	58.0	57.2	59.6	51.5	27.8
77.5°	46.2	46.7	48.3	42.8	23.4
80°	36.0	36.0	37.8	33.6	19.2
82.5°	25.7	26.0	27.0	24.7	15.0
85°	15.8	15.8	16.5	16.3	10.5
87.5°	5.3	6.0	7.1	7.6	5.3
90°	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	12.53	13.88	12.90	14.20	14.51	8.86	10.21	9.22	10.53	10.84
	3H	14.27	15.48	14.65	15.80	16.17	10.84	12.04	11.22	12.37	12.74
	4H	14.94	16.07	15.34	16.42	16.80	11.54	12.67	11.94	13.02	13.40
	6H	15.45	16.48	15.86	16.85	17.25	12.07	13.10	12.48	13.47	13.87
	8H	15.62	16.60	16.05	16.99	17.40	12.25	13.24	12.68	13.63	14.03
	12H	15.73	16.67	16.16	17.05	17.48	12.39	13.33	12.82	13.72	14.15
4H	2H	13.06	14.19	13.46	14.54	14.92	10.48	11.61	10.88	11.96	12.34
	3H	15.04	15.97	15.45	16.37	16.77	12.66	13.59	13.07	14.00	14.40
	4H	15.84	16.67	16.27	17.09	17.53	13.54	14.38	13.98	14.80	15.24
	6H	16.48	17.21	16.94	17.65	18.12	14.19	14.91	14.65	15.36	15.82
	8H	16.70	17.38	17.17	17.83	18.30	14.40	15.07	14.86	15.52	15.99
	12H	16.86	17.46	17.34	17.94	18.41	14.55	15.15	15.04	15.64	16.11
8H	4H	16.12	16.80	16.59	17.25	17.72	14.19	14.87	14.66	15.31	15.78
	6H	16.91	17.46	17.41	17.96	18.44	15.05	15.61	15.55	16.10	16.58
	8H	17.21	17.71	17.73	18.22	18.71	15.38	15.88	15.90	16.39	16.88
	12H	17.44	17.88	17.96	18.38	18.95	15.64	16.09	16.16	16.58	17.15
12H	4H	16.14	16.74	16.63	17.22	17.70	14.26	14.86	14.75	15.35	15.82
	6H	16.96	17.46	17.48	17.97	18.46	15.19	15.69	15.71	16.20	16.69
	8H	17.32	17.76	17.84	18.26	18.83	15.60	16.04	16.12	16.54	17.11