

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: P892745

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892745
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-2)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-4HL-LVR-UNV-L930
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

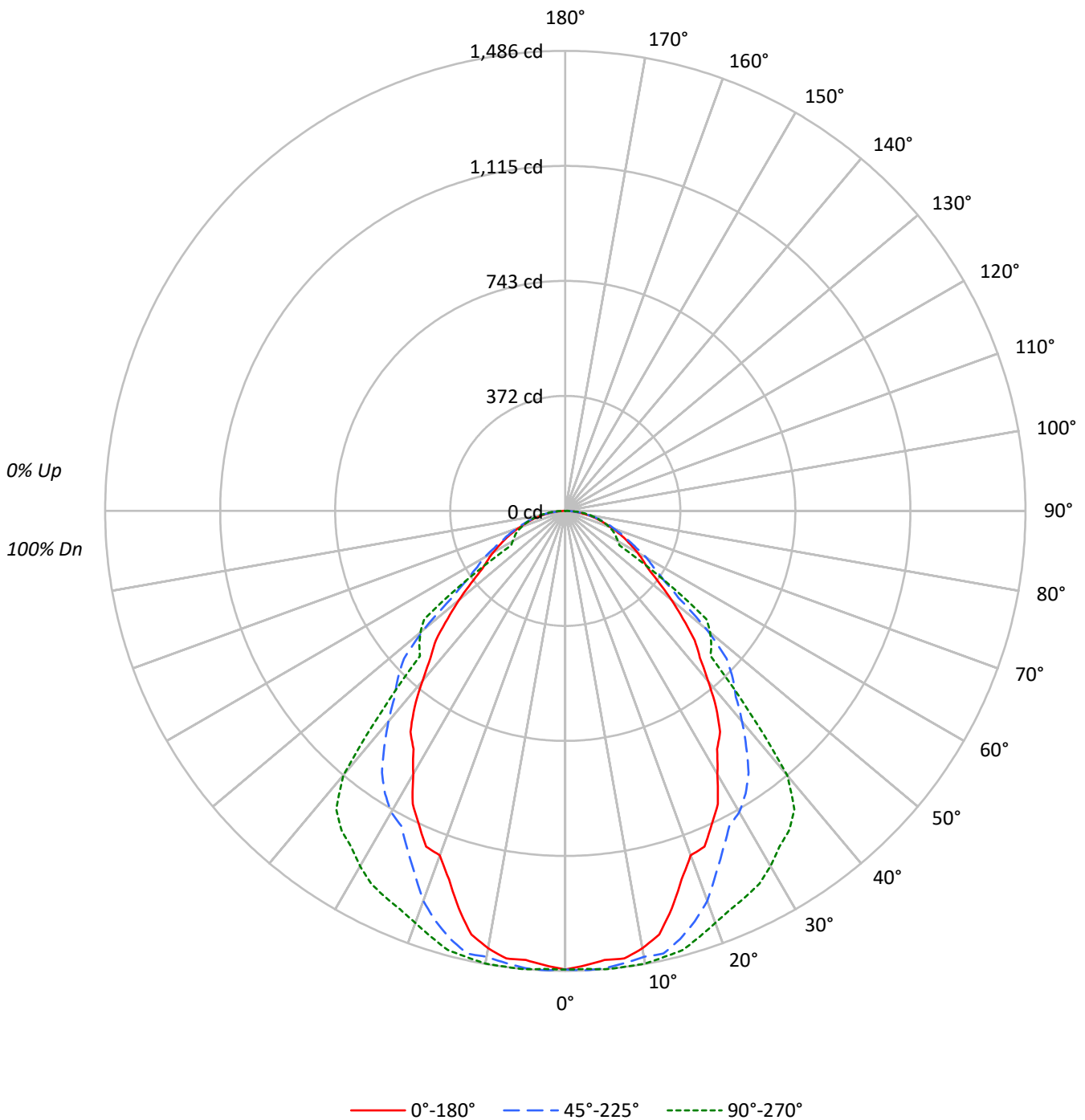
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3019.0 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.32 / 1.24
Luminous Opening: Rectangular (W 0.38' x L: 1.98' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 6.5
Total Harmonic Distortion (THDi): 0.99
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	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	101	98	100	97	94	96	94	92	92	91	89	89	89	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	77	77	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	68	68	68	66
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	60	60	60	58
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	53	53	53	51
6	75	63	55	49	73	62	54	49	60	53	48	59	52	48	57	52	47	47	47	47	46
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	53	47	43	43	43	43	41
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	39	39	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	40	35	35	35	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	32	32	32	32	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21194	21194	21194
5°	20911	21295	21345
10°	20838	21245	21571
15°	19687	21204	21743
20°	18028	20407	21561
25°	17652	19034	21724
30°	16226	18565	21889
35°	15220	18023	22003
40°	13393	16589	20818
45°	11957	15475	13419
50°	9970	13264	13591
55°	8166	9617	9565
60°	7722	8646	5616
65°	7166	7525	5981
70°	6629	7039	6274
75°	6202	6705	6472
80°	5660	6236	6755
85°	5055	5417	7485

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 15475 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.8	4.7
10°-20°	396.4	13.1
20°-30°	571.7	18.9
30°-40°	648.5	21.5
40°-50°	540.0	17.9
50°-60°	349.1	11.6
60°-70°	206.9	6.9
70°-80°	126.2	4.2
80°-90°	39.4	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°	1108.9	36.7
0°-40°	1757.4	58.2
0°-60°	2646.5	87.7
0°-90°	3019.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3019.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1482	1482	1482	1482	1482	
5°	1456	1474	1483	1491	1486	139
15°	1329	1373	1432	1455	1468	371
25°	1118	1158	1206	1367	1376	511
35°	872	902	1032	1171	1260	536
45°	591	632	765	703	663	449
55°	327	359	386	463	384	305
65°	212	217	222	198	177	210
75°	112	115	121	128	117	119
85°	31	31	33	38	46	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1481.5	1481.5	1481.5	1481.5	1481.5
2.5°	1469.5	1482.9	1485.0	1496.9	1480.8
5°	1456.2	1473.8	1482.9	1491.3	1486.4
7.5°	1458.3	1468.1	1473.1	1487.8	1485.0
10°	1434.5	1454.1	1462.5	1480.1	1485.0
12.5°	1401.5	1426.8	1464.6	1461.1	1475.9
15°	1329.3	1372.8	1431.7	1454.8	1468.1
17.5°	1248.0	1296.4	1390.3	1445.0	1442.2
20°	1184.2	1220.7	1340.5	1417.7	1416.3
22.5°	1173.7	1182.1	1269.7	1398.7	1393.1
25°	1118.3	1157.6	1205.9	1367.2	1376.3
27.5°	1067.1	1102.2	1147.0	1327.2	1357.4
30°	982.3	1042.6	1123.9	1284.5	1325.1
32.5°	912.2	970.4	1083.2	1231.9	1286.6
35°	871.5	901.6	1032.0	1170.9	1259.9
37.5°	800.0	856.1	959.8	1099.4	1215.0
40°	717.2	781.7	888.3	1036.3	1114.8
42.5°	643.6	695.5	815.4	917.1	875.0
45°	591.0	632.4	764.9	703.2	663.3
47.5°	515.3	567.9	706.7	577.7	639.4
50°	448.0	493.6	596.0	546.2	610.7
52.5°	382.8	426.3	461.3	515.3	574.2
55°	327.4	359.0	385.6	463.4	383.5
57.5°	297.3	307.1	337.2	330.9	206.8
60°	269.9	274.1	302.2	223.7	196.3
62.5°	239.1	246.8	258.0	209.6	185.8
65°	211.7	217.3	222.3	197.7	176.7
67.5°	185.1	190.7	195.6	183.7	165.5
70°	158.5	162.0	168.3	165.5	150.0
72.5°	134.6	137.4	145.1	147.2	135.3
75°	112.2	115.0	121.3	127.6	117.1
77.5°	90.4	92.5	99.6	104.5	101.0
80°	68.7	72.2	75.7	82.0	82.0
82.5°	50.5	51.2	54.7	61.0	63.8
85°	30.8	30.8	33.0	37.9	45.6
87.5°	13.3	13.3	14.7	16.1	23.1
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	17.96	19.42	18.33	19.74	20.05	17.93	19.39	18.30	19.71	20.02
	3H	19.56	20.87	19.94	21.20	21.56	19.41	20.72	19.79	21.04	21.41
	4H	20.17	21.39	20.57	21.74	22.12	20.11	21.34	20.51	21.69	22.07
	6H	20.63	21.76	21.04	22.12	22.52	20.73	21.86	21.14	22.23	22.62
	8H	20.78	21.86	21.21	22.25	22.65	20.97	22.05	21.40	22.44	22.84
	12H	20.89	21.92	21.32	22.30	22.73	21.18	22.21	21.61	22.59	23.02
4H	2H	18.56	19.78	18.96	20.13	20.51	18.53	19.76	18.94	20.11	20.49
	3H	20.38	21.39	20.79	21.79	22.19	20.29	21.30	20.70	21.71	22.11
	4H	21.11	22.02	21.54	22.44	22.88	21.16	22.07	21.59	22.49	22.93
	6H	21.70	22.50	22.16	22.94	23.40	21.92	22.71	22.37	23.15	23.61
	8H	21.91	22.65	22.37	23.09	23.56	22.21	22.96	22.68	23.40	23.87
	12H	22.05	22.71	22.54	23.19	23.66	22.47	23.13	22.95	23.61	24.08
8H	4H	21.43	22.17	21.89	22.61	23.08	21.47	22.21	21.93	22.66	23.12
	6H	22.15	22.76	22.65	23.26	23.73	22.37	22.98	22.87	23.48	23.96
	8H	22.43	22.98	22.95	23.49	23.98	22.76	23.31	23.28	23.83	24.31
	12H	22.65	23.14	23.16	23.63	24.20	23.11	23.60	23.63	24.10	24.66
12H	4H	21.46	22.13	21.95	22.61	23.08	21.49	22.16	21.98	22.64	23.11
	6H	22.22	22.77	22.73	23.28	23.77	22.42	22.98	22.94	23.49	23.98
	8H	22.56	23.05	23.07	23.54	24.10	22.88	23.37	23.39	23.86	24.42