

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: P893427

Luminaire Tested: 4MB-3SL-LVRF-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893427
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-3SL-LVRF-UNV-L840
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 4000K C
Light Source: -
Ballast/Driver: -

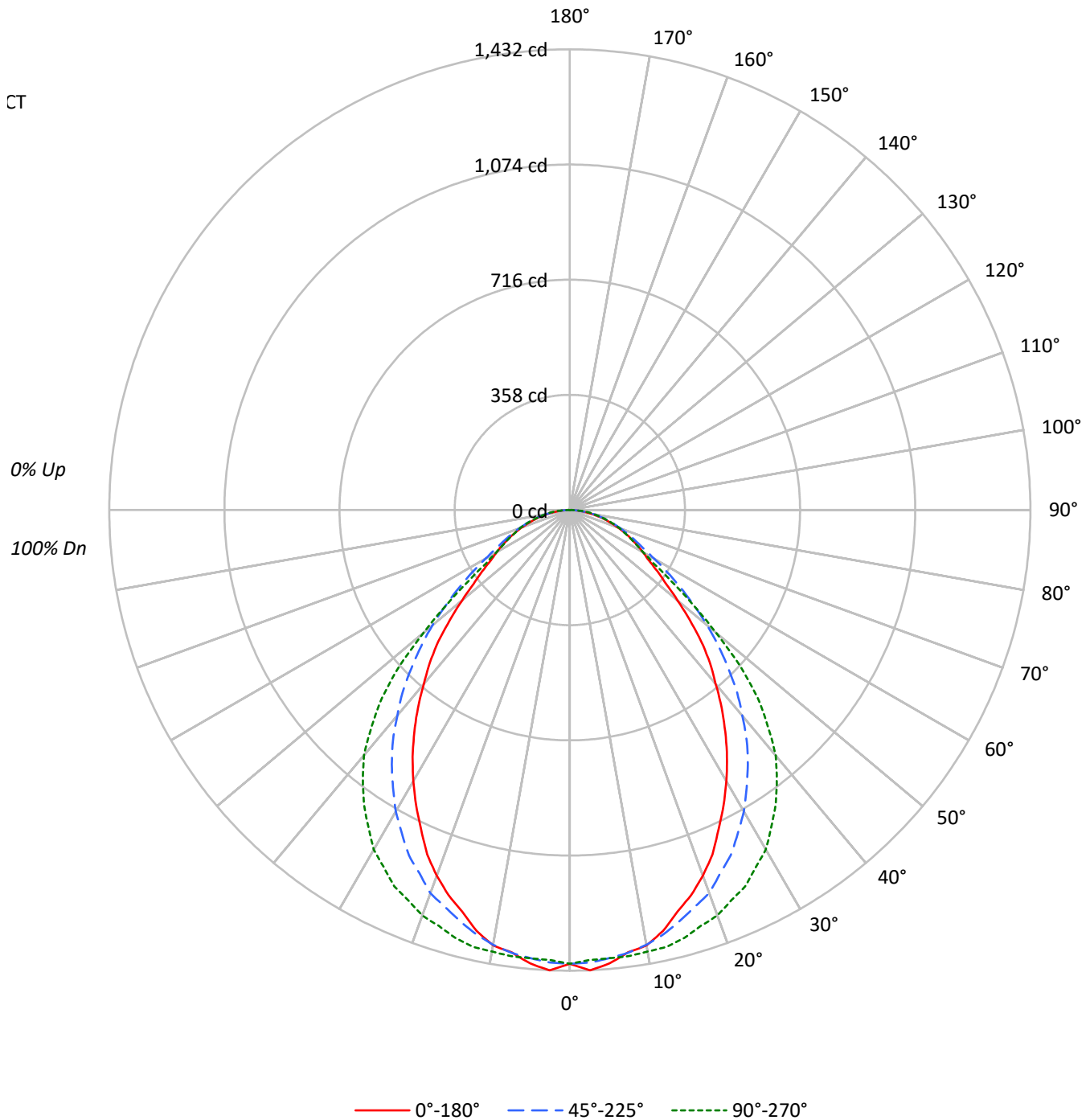
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2931.0 lumens
Efficiency: N/A
Efficacy: 138.9 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.27 / 1.23
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 21.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 5.2
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P893427
CATALOG NUMBER: 4MB-3SL-LVRF-UNV-L840

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	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	70	80	74	69	77	72	68	75	71	67	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	60	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	56	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	44	39	49	43	38	48	42	38	38	38	38	36
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10034	10034	10034
5°	10104	9988	9988
10°	9929	9913	10067
15°	9518	9740	10139
20°	9156	9596	10156
25°	8590	9298	10133
30°	7996	8887	10014
35°	7319	8383	9695
40°	6553	7752	9250
45°	5815	7017	8316
50°	4838	6178	6559
55°	4121	5204	4767
60°	3735	4299	3767
65°	3519	3766	3507
70°	3310	3493	3418
75°	3084	3326	3266
80°	2823	3065	3155
85°	2457	2694	3535

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8316 cd/sqm



TEST NUMBER: P893427
 CATALOG NUMBER: 4MB-3SL-LVRF-UNV-L840

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.5	4.6
10°-20°	375.7	12.8
20°-30°	545.6	18.6
30°-40°	607.6	20.7
40°-50°	536.8	18.3
50°-60°	352.2	12.0
60°-70°	215.7	7.4
70°-80°	125.5	4.3
80°-90°	38.4	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°	1054.8	36.0
0°-40°	1662.4	56.7
0°-60°	2551.4	87.0
0°-90°	2931.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2931.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1410	1410	1410	1410	1410	
5°	1415	1415	1398	1412	1398	133
15°	1292	1307	1322	1374	1376	365
25°	1094	1121	1184	1260	1291	503
35°	843	888	965	1067	1116	526
45°	578	613	697	791	826	442
55°	332	356	420	416	384	301
65°	209	213	224	217	208	208
75°	112	114	121	123	119	119
85°	30	32	33	37	43	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1410.3	1410.3	1410.3	1410.3	1410.3
2.5°	1432.3	1414.7	1408.1	1414.7	1400.0
5°	1414.7	1415.4	1398.5	1412.5	1398.5
7.5°	1386.8	1396.3	1388.3	1409.5	1398.5
10°	1374.3	1375.1	1372.1	1394.1	1393.4
12.5°	1339.9	1342.1	1350.1	1383.1	1390.5
15°	1292.2	1306.9	1322.3	1374.3	1376.5
17.5°	1254.8	1272.4	1292.9	1348.7	1355.3
20°	1209.3	1216.7	1267.3	1316.4	1341.3
22.5°	1158.7	1172.7	1221.8	1287.8	1312.7
25°	1094.2	1120.6	1184.4	1259.9	1290.7
27.5°	1034.8	1065.6	1131.6	1215.9	1251.9
30°	973.2	1008.4	1081.7	1164.6	1218.9
32.5°	909.4	953.4	1023.0	1118.4	1166.1
35°	842.6	888.1	965.1	1067.0	1116.2
37.5°	775.9	819.9	903.5	1012.8	1056.8
40°	705.5	748.8	834.6	945.3	995.9
42.5°	644.6	682.0	770.0	864.6	911.6
45°	577.9	613.1	697.4	791.3	826.5
47.5°	504.6	545.6	627.8	704.8	718.7
50°	437.1	479.6	558.1	602.8	592.6
52.5°	377.7	413.6	485.5	504.6	480.4
55°	332.2	355.7	419.5	415.8	384.3
57.5°	290.4	305.1	359.3	338.8	308.7
60°	262.5	269.1	302.1	283.1	264.7
62.5°	236.1	239.1	256.7	246.4	232.5
65°	209.0	212.7	223.7	217.1	208.3
67.5°	184.1	185.5	195.8	194.3	183.3
70°	159.1	161.3	167.9	170.9	164.3
72.5°	134.9	137.1	143.7	146.7	140.8
75°	112.2	113.7	121.0	123.2	118.8
77.5°	90.2	93.1	97.5	101.2	96.1
80°	68.9	70.4	74.8	79.2	77.0
82.5°	48.4	50.6	53.5	59.4	60.9
85°	30.1	31.5	33.0	37.4	43.3
87.5°	11.7	12.5	14.7	16.1	21.3
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	15.54	17.02	15.91	17.34	17.65	16.19	17.67	16.56	17.99	18.30
	3H	17.14	18.47	17.52	18.80	19.16	17.63	18.95	18.01	19.28	19.65
	4H	17.76	19.00	18.16	19.35	19.73	18.23	19.48	18.63	19.83	20.20
	6H	18.23	19.38	18.64	19.74	20.14	18.72	19.87	19.13	20.23	20.63
	8H	18.38	19.47	18.81	19.86	20.26	18.92	20.01	19.35	20.40	20.80
	12H	18.48	19.53	18.91	19.91	20.34	19.09	20.13	19.52	20.51	20.94
4H	2H	16.16	17.41	16.56	17.76	18.13	16.69	17.93	17.09	18.28	18.66
	3H	17.98	19.01	18.39	19.41	19.81	18.38	19.41	18.80	19.81	20.21
	4H	18.72	19.65	19.16	20.06	20.50	19.14	20.06	19.57	20.48	20.92
	6H	19.32	20.12	19.78	20.57	21.03	19.77	20.58	20.23	21.02	21.48
	8H	19.52	20.27	19.98	20.71	21.18	20.03	20.78	20.49	21.23	21.69
	12H	19.66	20.33	20.14	20.81	21.28	20.25	20.92	20.74	21.40	21.87
8H	4H	19.04	19.79	19.50	20.24	20.71	19.41	20.16	19.87	20.60	21.07
	6H	19.76	20.39	20.26	20.88	21.36	20.18	20.81	20.68	21.30	21.78
	8H	20.04	20.60	20.55	21.11	21.60	20.53	21.09	21.04	21.60	22.09
	12H	20.25	20.75	20.77	21.24	21.81	20.85	21.34	21.36	21.83	22.40
12H	4H	19.08	19.75	19.56	20.23	20.70	19.43	20.10	19.91	20.58	21.05
	6H	19.83	20.39	20.34	20.90	21.39	20.23	20.79	20.74	21.30	21.79
	8H	20.16	20.66	20.67	21.15	21.72	20.63	21.13	21.14	21.62	22.19