

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: P893419

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893419
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-3SL-LVRA-UNV-L840
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

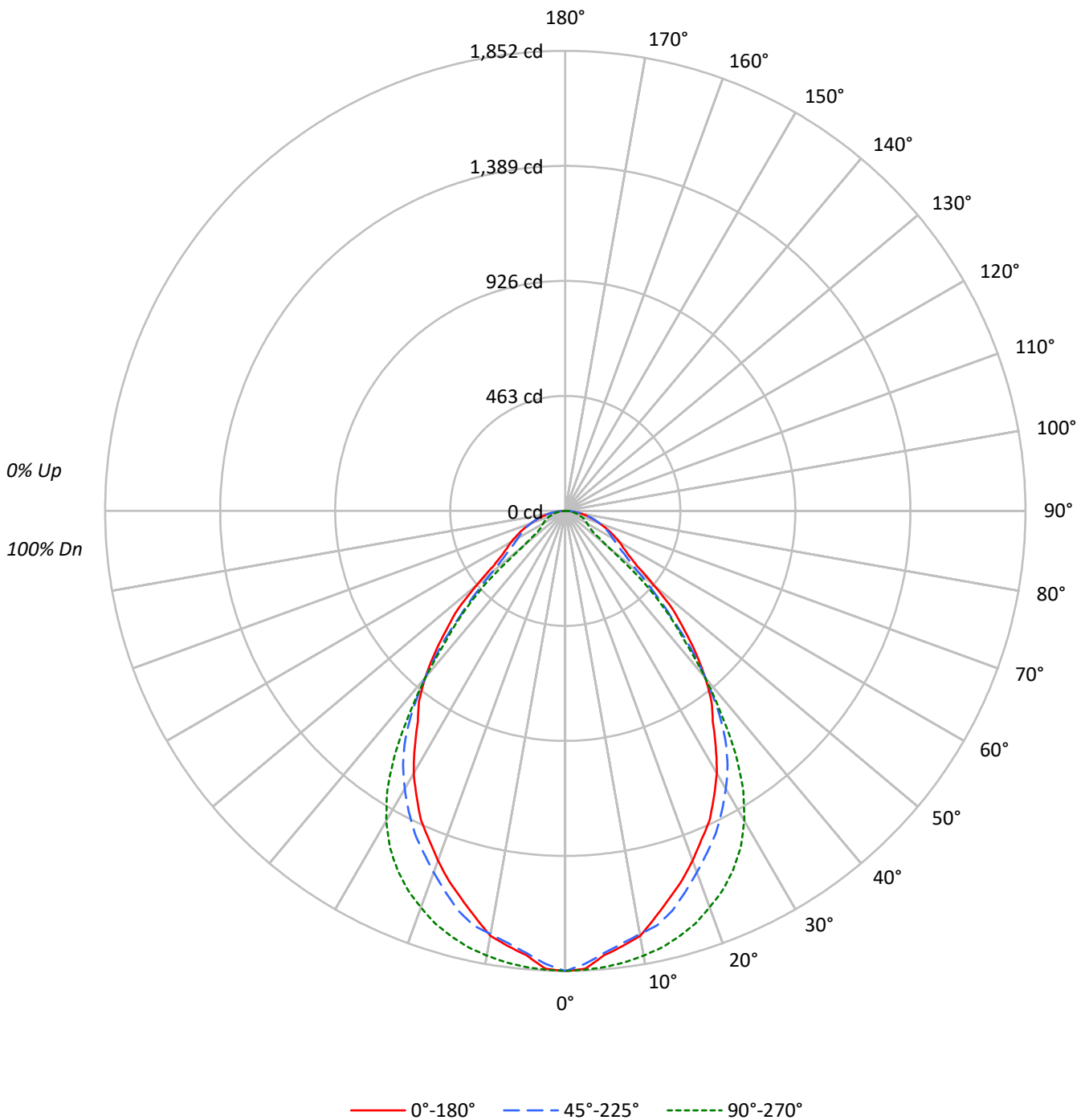
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3006.0 lumens
Efficiency: N/A
Efficacy: 142.5 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): 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: P893419
CATALOG NUMBER: 4MB-3SL-LVRA-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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78		
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69		
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62		
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55		
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50		
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45		
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41		
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38		
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13178	13178	13178
5°	12823	12764	13164
10°	12550	12495	13133
15°	11903	12268	13059
20°	11339	11722	12860
25°	10786	11247	12532
30°	10021	10616	11832
35°	8985	9756	10378
40°	8140	8158	8114
45°	6806	6028	5879
50°	5142	4243	2404
55°	3867	3393	1516
60°	3593	3125	1460
65°	3344	3118	1463
70°	3058	3058	1440
75°	2900	2980	1391
80°	2680	2815	1426
85°	2335	2457	1559

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 6965 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.1	5.7
10°-20°	471.4	15.7
20°-30°	668.5	22.2
30°-40°	688.7	22.9
40°-50°	481.0	16.0
50°-60°	230.8	7.7
60°-70°	161.9	5.4
70°-80°	101.2	3.4
80°-90°	31.3	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°	1311.0	43.6
0°-40°	1999.7	66.5
0°-60°	2711.5	90.2
0°-90°	3006.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3006.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1852	1852	1852	1852	1852	
5°	1795	1793	1787	1834	1843	170
15°	1616	1628	1666	1713	1773	455
25°	1374	1388	1433	1530	1596	628
35°	1034	1063	1123	1147	1195	652
45°	676	692	599	568	584	521
55°	312	296	274	175	122	292
65°	199	186	185	141	87	197
75°	106	104	108	94	51	111
85°	29	29	30	30	19	32
90°	0	0	0	0	0	



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CATALOG NUMBER: 4MB-3SL-LVRA-UNV-L840

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1852.2	1852.2	1852.2	1852.2	1852.2
2.5°	1845.0	1839.3	1825.4	1850.7	1848.8
5°	1795.4	1793.0	1787.2	1834.0	1843.1
7.5°	1767.2	1762.4	1755.7	1807.3	1832.6
10°	1737.1	1742.9	1729.5	1776.7	1817.8
12.5°	1675.1	1690.3	1708.5	1745.2	1799.7
15°	1615.9	1627.8	1665.5	1713.3	1772.9
17.5°	1560.5	1574.3	1606.8	1678.4	1741.9
20°	1497.5	1516.6	1548.1	1639.7	1698.5
22.5°	1432.6	1450.2	1489.9	1588.2	1653.6
25°	1373.9	1387.7	1432.6	1529.5	1596.3
27.5°	1296.0	1321.8	1364.3	1457.9	1528.0
30°	1219.7	1241.6	1292.2	1371.0	1440.2
32.5°	1127.5	1159.5	1215.4	1275.5	1333.3
35°	1034.4	1062.6	1123.2	1146.6	1194.8
37.5°	966.7	974.3	1008.7	1005.8	1033.0
40°	876.4	891.7	878.3	842.5	873.6
42.5°	779.1	797.2	743.3	701.7	712.7
45°	676.4	692.2	599.1	568.5	584.3
47.5°	587.6	586.2	483.1	462.6	440.6
50°	464.5	479.8	383.3	345.1	217.2
52.5°	362.8	368.5	316.0	220.5	142.7
55°	311.7	296.4	273.5	175.2	122.2
57.5°	276.9	257.8	242.5	162.8	111.7
60°	252.5	231.0	219.6	154.7	102.6
62.5°	224.8	208.1	203.8	147.5	94.5
65°	198.6	185.7	185.2	140.8	86.9
67.5°	172.3	165.2	167.1	132.7	78.3
70°	147.0	145.6	147.0	122.2	69.2
72.5°	125.5	124.1	127.9	108.8	59.2
75°	105.5	104.1	108.4	93.6	50.6
77.5°	84.0	85.0	87.8	77.8	42.5
80°	65.4	65.4	68.7	61.1	34.8
82.5°	46.8	47.3	49.2	44.9	27.2
85°	28.6	28.6	30.1	29.6	19.1
87.5°	9.5	11.0	12.9	13.8	9.5
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	14.61	15.96	14.97	16.27	16.59	10.94	12.29	11.30	12.60	12.92
	3H	16.34	17.55	16.72	17.88	18.25	12.91	14.12	13.29	14.45	14.81
	4H	17.02	18.14	17.42	18.49	18.88	13.62	14.75	14.02	15.10	15.48
	6H	17.52	18.56	17.94	18.93	19.32	14.14	15.18	14.56	15.55	15.94
	8H	17.69	18.68	18.12	19.07	19.47	14.33	15.31	14.76	15.70	16.11
	12H	17.80	18.75	18.24	19.13	19.56	14.47	15.41	14.90	15.79	16.22
4H	2H	15.14	16.26	15.54	16.61	17.00	12.56	13.69	12.96	14.04	14.42
	3H	17.11	18.04	17.53	18.45	18.85	14.74	15.67	15.15	16.07	16.47
	4H	17.92	18.75	18.35	19.17	19.61	15.62	16.45	16.05	16.87	17.31
	6H	18.56	19.28	19.02	19.73	20.19	16.26	16.98	16.72	17.43	17.89
	8H	18.78	19.46	19.25	19.90	20.37	16.47	17.15	16.94	17.59	18.06
	12H	18.93	19.53	19.42	20.01	20.49	16.63	17.23	17.11	17.71	18.18
8H	4H	18.20	18.88	18.67	19.32	19.79	16.27	16.94	16.73	17.39	17.86
	6H	18.98	19.54	19.48	20.03	20.51	17.13	17.68	17.63	18.18	18.66
	8H	19.29	19.78	19.80	20.30	20.79	17.46	17.95	17.98	18.47	18.96
	12H	19.52	19.96	20.03	20.45	21.02	17.72	18.16	18.23	18.65	19.22
12H	4H	18.22	18.82	18.70	19.30	19.77	16.34	16.94	16.82	17.42	17.89
	6H	19.04	19.53	19.55	20.05	20.54	17.26	17.76	17.78	18.28	18.77
	8H	19.40	19.84	19.91	20.33	20.90	17.68	18.12	18.19	18.61	19.18