

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: P892749

Luminaire Tested: 2MB-4HL-LVRA-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892749
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: 2MB-4HL-LVRA-UNV-L830
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

Summary

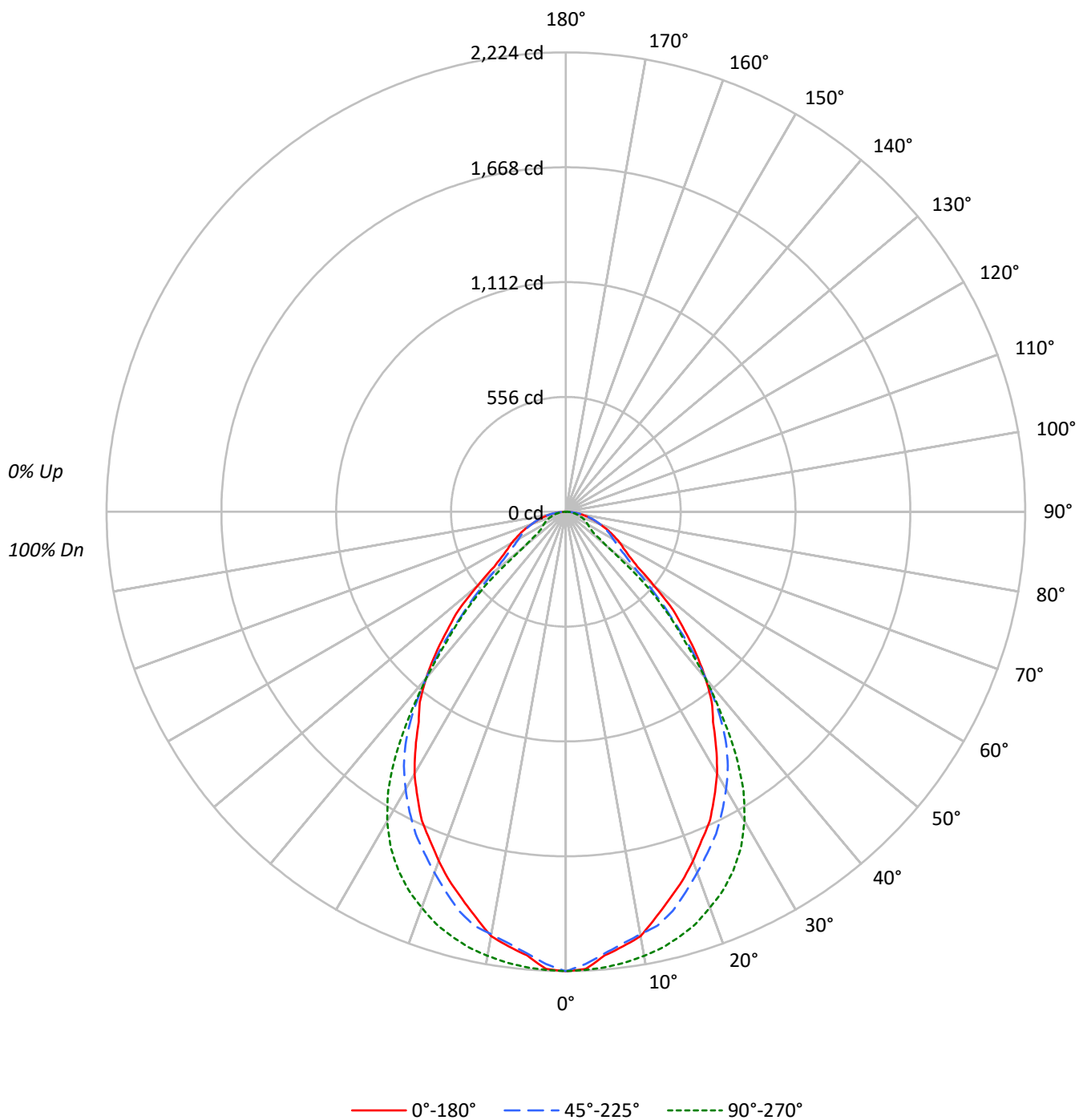
Lumens per Lamp: N/A
Luminaire Lumens: 3610.0 lumens
Efficiency: N/A
Efficacy: 130.8 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12
Luminous Opening: Rectangular (W 0.38' x L: 1.98' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V): 120
Input Current (Ain): 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

TEST NUMBER: P892749

CATALOG NUMBER: 2MB-4HL-LVRA-UNV-L830

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	31820	31820	31820
5°	30962	30823	31785
10°	30305	30171	31712
15°	28741	29623	31534
20°	27378	28302	31052
25°	26043	27155	30260
30°	24195	25635	28571
35°	21695	23557	25059
40°	19655	19698	19591
45°	16434	14556	14196
50°	12414	10244	5804
55°	9338	8193	3661
60°	8678	7545	3528
65°	8073	7528	3531
70°	7387	7387	3476
75°	7003	7191	3361
80°	6467	6805	3444
85°	5646	5925	3759

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 16818 cd/sqm

TEST NUMBER: P892749

CATALOG NUMBER: 2MB-4HL-LVRA-UNV-L830

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.5	5.7
10°-20°	566.1	15.7
20°-30°	802.8	22.2
30°-40°	827.1	22.9
40°-50°	577.7	16.0
50°-60°	277.2	7.7
60°-70°	194.5	5.4
70°-80°	121.6	3.4
80°-90°	37.6	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°	1574.4	43.6
0°-40°	2401.5	66.5
0°-60°	3256.3	90.2
0°-90°	3610.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3610.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2224	2224	2224	2224	2224	
5°	2156	2153	2146	2202	2213	204
15°	1941	1955	2000	2058	2129	546
25°	1650	1666	1720	1837	1917	754
35°	1242	1276	1349	1377	1435	783
45°	812	831	720	683	702	626
55°	374	356	328	210	147	351
65°	238	223	222	169	104	236
75°	127	125	130	112	61	133
85°	34	34	36	36	23	38
90°	0	0	0	0	0	

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CATALOG NUMBER: 2MB-4HL-LVRA-UNV-L830

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2224.3	2224.3	2224.3	2224.3	2224.3
2.5°	2215.7	2208.8	2192.2	2222.6	2220.3
5°	2156.1	2153.2	2146.4	2202.5	2213.4
7.5°	2122.3	2116.6	2108.5	2170.4	2200.8
10°	2086.2	2093.0	2077.0	2133.8	2183.1
12.5°	2011.6	2030.0	2051.8	2095.9	2161.3
15°	1940.6	1954.9	2000.2	2057.5	2129.2
17.5°	1874.1	1890.7	1929.7	2015.7	2091.9
20°	1798.4	1821.3	1859.1	1969.2	2039.7
22.5°	1720.4	1741.6	1789.2	1907.3	1985.8
25°	1649.9	1666.5	1720.4	1836.8	1917.1
27.5°	1556.5	1587.4	1638.4	1750.8	1835.1
30°	1464.7	1491.1	1551.9	1646.5	1729.6
32.5°	1354.1	1392.5	1459.6	1531.8	1601.2
35°	1242.3	1276.1	1348.9	1377.0	1434.9
37.5°	1160.9	1170.1	1211.3	1207.9	1240.6
40°	1052.5	1070.9	1054.8	1011.8	1049.1
42.5°	935.6	957.4	892.6	842.7	855.9
45°	812.3	831.3	719.5	682.8	701.7
47.5°	705.7	704.0	580.2	555.5	529.1
50°	557.8	576.1	460.3	414.5	260.8
52.5°	435.7	442.6	379.5	264.9	171.4
55°	374.4	356.0	328.5	210.4	146.8
57.5°	332.5	309.6	291.2	195.5	134.1
60°	303.3	277.5	263.7	185.7	123.3
62.5°	270.0	250.0	244.8	177.1	113.5
65°	238.5	223.0	222.4	169.1	104.3
67.5°	207.0	198.4	200.6	159.4	94.0
70°	176.6	174.9	176.6	146.8	83.1
72.5°	150.8	149.1	153.6	130.7	71.1
75°	126.7	125.0	130.1	112.4	60.8
77.5°	100.9	102.0	105.5	93.4	51.0
80°	78.5	78.5	82.6	73.4	41.8
82.5°	56.2	56.8	59.0	53.9	32.7
85°	34.4	34.4	36.1	35.5	22.9
87.5°	11.5	13.2	15.5	16.6	11.5
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	17.67	19.02	18.03	19.34	19.65	14.00	15.35	14.37	15.67	15.98
	3H	19.41	20.61	19.79	20.94	21.31	15.98	17.18	16.36	17.51	17.88
	4H	20.08	21.21	20.48	21.56	21.94	16.68	17.81	17.08	18.16	18.54
	6H	20.59	21.62	21.00	21.99	22.39	17.20	18.24	17.62	18.61	19.01
	8H	20.76	21.74	21.19	22.13	22.54	17.39	18.37	17.82	18.77	19.17
	12H	20.87	21.81	21.30	22.19	22.62	17.53	18.47	17.96	18.85	19.28
4H	2H	18.20	19.33	18.60	19.68	20.06	15.62	16.75	16.02	17.10	17.48
	3H	20.18	21.11	20.59	21.51	21.91	17.80	18.73	18.21	19.13	19.54
	4H	20.98	21.81	21.41	22.23	22.67	18.68	19.52	19.12	19.93	20.38
	6H	21.62	22.35	22.08	22.79	23.26	19.32	20.05	19.78	20.49	20.96
	8H	21.84	22.52	22.31	22.96	23.43	19.53	20.21	20.00	20.66	21.13
	12H	22.00	22.60	22.48	23.08	23.55	19.69	20.29	20.18	20.77	21.25
8H	4H	21.26	21.94	21.73	22.39	22.86	19.33	20.01	19.80	20.45	20.92
	6H	22.05	22.60	22.55	23.10	23.58	20.19	20.75	20.69	21.24	21.72
	8H	22.35	22.85	22.87	23.36	23.85	20.52	21.02	21.04	21.53	22.02
	12H	22.58	23.02	23.10	23.52	24.09	20.78	21.22	21.30	21.72	22.29
12H	4H	21.28	21.88	21.77	22.36	22.84	19.40	20.00	19.89	20.48	20.96
	6H	22.10	22.60	22.62	23.11	23.60	20.33	20.83	20.85	21.34	21.83
	8H	22.46	22.90	22.98	23.40	23.97	20.74	21.18	21.25	21.68	22.25