

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: P892847

Luminaire Tested: 2MB-5HL-LVRA-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892847
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-5HL-LVRA-UNV-L840
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

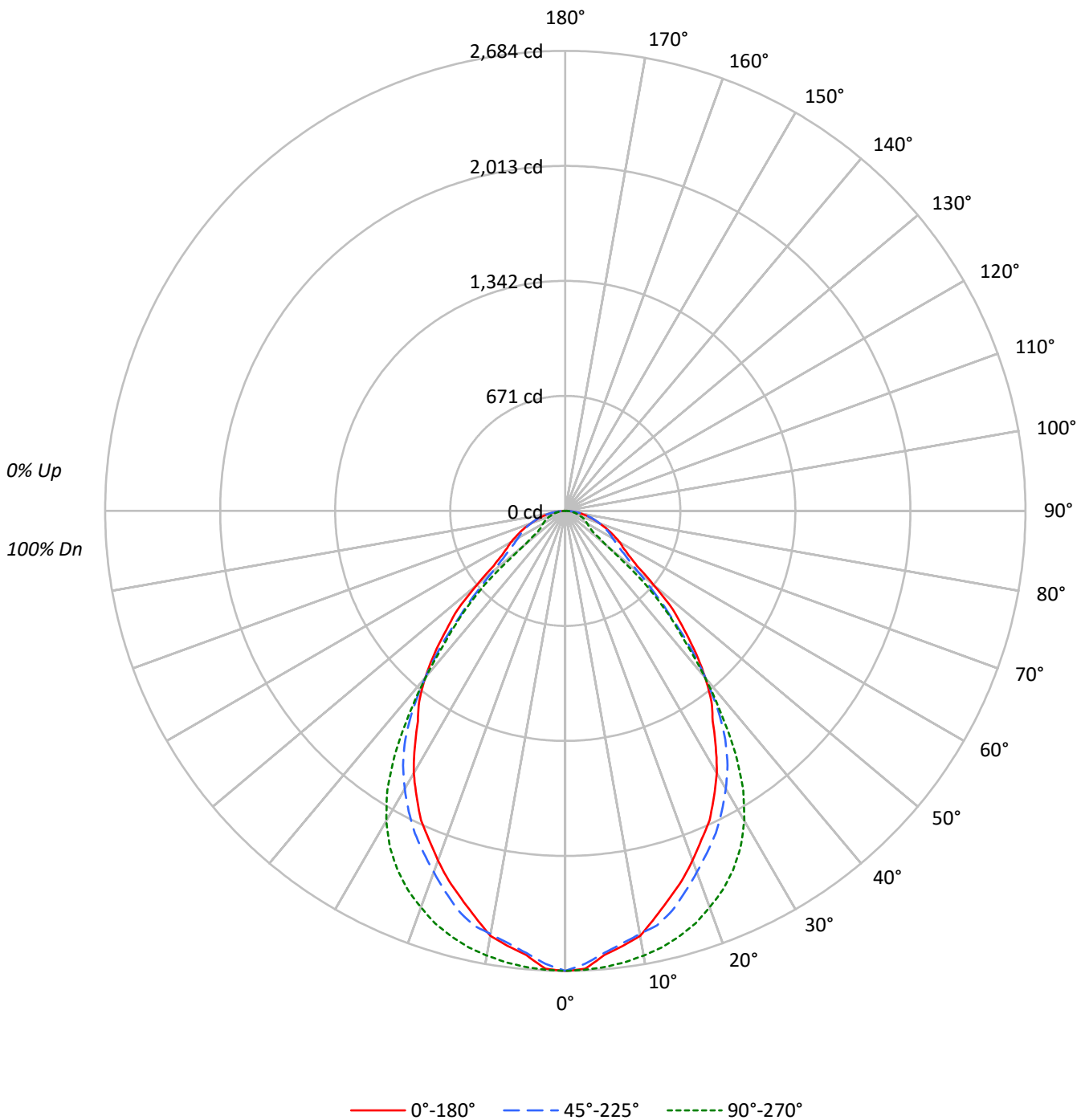
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4356.0 lumens
Efficiency: N/A
Efficacy: 129.3 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): 33.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4.5
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P892847
CATALOG NUMBER: 2MB-5HL-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	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°	38396	38396	38396
5°	37361	37191	38353
10°	36567	36406	38265
15°	34679	35744	38050
20°	33035	34151	37468
25°	31425	32767	36512
30°	29195	30933	34474
35°	26178	28426	30237
40°	23717	23769	23640
45°	19830	17563	17130
50°	14980	12363	7004
55°	11266	9887	4417
60°	10469	9104	4254
65°	9742	9085	4262
70°	8913	8913	4195
75°	8451	8678	4051
80°	7810	8205	4160
85°	6812	7156	4547

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 20292 cd/sqm



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 CATALOG NUMBER: 2MB-5HL-LVRA-UNV-L840

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	247.9	5.7
10°-20°	683.1	15.7
20°-30°	968.7	22.2
30°-40°	998.0	22.9
40°-50°	697.0	16.0
50°-60°	334.5	7.7
60°-70°	234.7	5.4
70°-80°	146.7	3.4
80°-90°	45.4	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°	1899.8	43.6
0°-40°	2897.7	66.5
0°-60°	3929.2	90.2
0°-90°	4356.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4356.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2684	2684	2684	2684	2684	
5°	2602	2598	2590	2658	2671	246
15°	2342	2359	2414	2483	2569	659
25°	1991	2011	2076	2216	2313	910
35°	1499	1540	1628	1662	1731	945
45°	980	1003	868	824	847	755
55°	452	430	396	254	177	423
65°	288	269	268	204	126	285
75°	153	151	157	136	73	161
85°	42	42	44	43	28	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2684.0	2684.0	2684.0	2684.0	2684.0
2.5°	2673.6	2665.3	2645.2	2681.9	2679.1
5°	2601.7	2598.2	2589.9	2657.7	2670.8
7.5°	2560.9	2553.9	2544.2	2619.0	2655.6
10°	2517.3	2525.6	2506.2	2574.7	2634.2
12.5°	2427.3	2449.5	2475.8	2529.0	2607.9
15°	2341.6	2358.9	2413.5	2482.7	2569.2
17.5°	2261.3	2281.4	2328.4	2432.2	2524.2
20°	2170.0	2197.7	2243.3	2376.2	2461.2
22.5°	2075.9	2101.5	2158.9	2301.4	2396.2
25°	1990.9	2010.9	2075.9	2216.4	2313.2
27.5°	1878.1	1915.5	1977.0	2112.6	2214.3
30°	1767.4	1799.2	1872.6	1986.7	2087.0
32.5°	1633.9	1680.3	1761.2	1848.4	1932.1
35°	1499.0	1539.8	1627.7	1661.6	1731.4
37.5°	1400.8	1411.9	1461.7	1457.5	1496.9
40°	1270.0	1292.2	1272.8	1220.9	1265.9
42.5°	1128.9	1155.2	1077.1	1016.9	1032.8
45°	980.2	1003.0	868.1	823.9	846.7
47.5°	851.5	849.5	700.0	670.3	638.5
50°	673.1	695.2	555.5	500.1	314.7
52.5°	525.7	534.0	457.9	319.6	206.8
55°	451.7	429.6	396.4	253.9	177.1
57.5°	401.2	373.5	351.4	235.9	161.9
60°	365.9	334.8	318.2	224.1	148.7
62.5°	325.8	301.6	295.4	213.8	137.0
65°	287.8	269.1	268.4	204.1	125.9
67.5°	249.7	239.3	242.1	192.3	113.4
70°	213.1	211.0	213.1	177.1	100.3
72.5°	181.9	179.9	185.4	157.7	85.8
75°	152.9	150.8	157.0	135.6	73.3
77.5°	121.7	123.1	127.3	112.8	61.6
80°	94.8	94.8	99.6	88.5	50.5
82.5°	67.8	68.5	71.3	65.0	39.4
85°	41.5	41.5	43.6	42.9	27.7
87.5°	13.8	15.9	18.7	20.1	13.8
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	18.32	19.67	18.69	19.99	20.30	14.65	16.01	15.02	16.32	16.63
	3H	20.06	21.27	20.44	21.60	21.96	16.63	17.84	17.01	18.17	18.53
	4H	20.73	21.86	21.13	22.21	22.59	17.33	18.46	17.74	18.81	19.19
	6H	21.24	22.28	21.65	22.65	23.04	17.86	18.90	18.27	19.26	19.66
	8H	21.41	22.39	21.84	22.78	23.19	18.04	19.03	18.47	19.42	19.82
	12H	21.52	22.46	21.95	22.84	23.27	18.18	19.12	18.61	19.51	19.94
4H	2H	18.85	19.98	19.25	20.33	20.71	16.28	17.40	16.68	17.75	18.14
	3H	20.83	21.76	21.24	22.16	22.56	18.45	19.38	18.87	19.79	20.19
	4H	21.63	22.47	22.07	22.88	23.33	19.33	20.17	19.77	20.59	21.03
	6H	22.27	23.00	22.74	23.44	23.91	19.98	20.70	20.44	21.15	21.61
	8H	22.49	23.17	22.96	23.62	24.09	20.18	20.86	20.65	21.31	21.78
	12H	22.65	23.25	23.13	23.73	24.20	20.34	20.94	20.83	21.42	21.90
8H	4H	21.91	22.59	22.38	23.04	23.51	19.98	20.66	20.45	21.11	21.58
	6H	22.70	23.25	23.20	23.75	24.23	20.84	21.40	21.34	21.89	22.37
	8H	23.00	23.50	23.52	24.01	24.50	21.17	21.67	21.69	22.18	22.67
	12H	23.24	23.68	23.75	24.17	24.74	21.43	21.88	21.95	22.37	22.94
12H	4H	21.93	22.53	22.42	23.01	23.49	20.05	20.65	20.54	21.14	21.61
	6H	22.75	23.25	23.27	23.76	24.25	20.98	21.48	21.50	21.99	22.49
	8H	23.12	23.56	23.63	24.05	24.62	21.39	21.83	21.91	22.33	22.90