

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: P892755

Luminaire Tested: 2MB-4HL-LVRA-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892755
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-L940
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

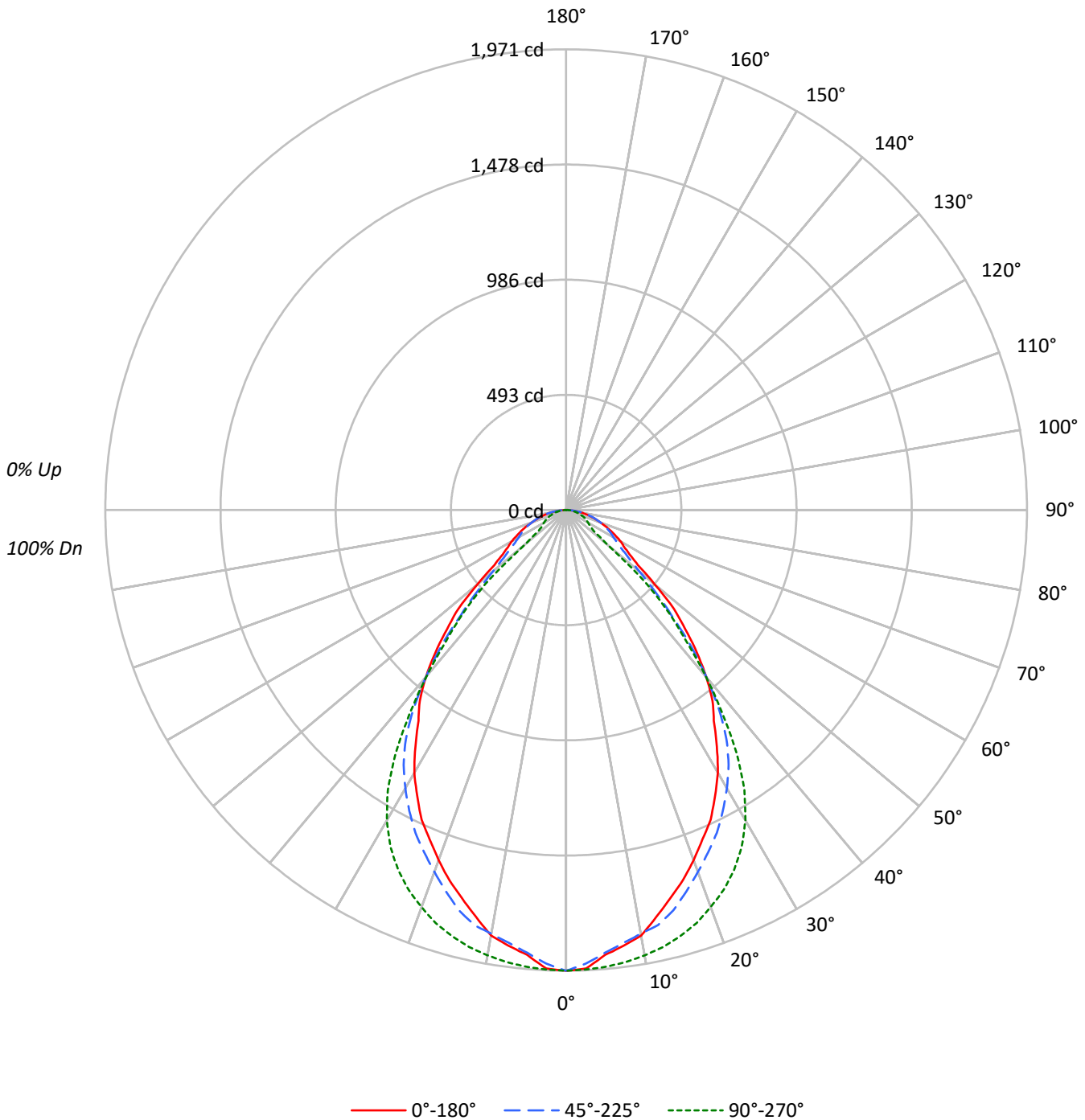
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3199.0 lumens
Efficiency: N/A
Efficacy: 115.9 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 (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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100	
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	88	
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	80	78	
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	71	69	
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	63	62	
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	57	55	
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	52	50	
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	47	45	
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	43	41	
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	40	38	
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	37	35	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	28198	28198	28198
5°	27436	27313	28166
10°	26855	26735	28101
15°	25468	26251	27944
20°	24260	25081	27517
25°	23078	24063	26814
30°	21441	22716	25318
35°	19226	20876	22207
40°	17418	17455	17362
45°	14564	12899	12580
50°	11001	9078	5143
55°	8273	7260	3245
60°	7688	6686	3124
65°	7152	6672	3131
70°	6546	6546	3083
75°	6207	6373	2974
80°	5734	6030	3056
85°	5006	5252	3332

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 14902 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.1	5.7
10°-20°	501.7	15.7
20°-30°	711.4	22.2
30°-40°	732.9	22.9
40°-50°	511.9	16.0
50°-60°	245.6	7.7
60°-70°	172.3	5.4
70°-80°	107.7	3.4
80°-90°	33.3	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°	1395.2	43.6
0°-40°	2128.1	66.5
0°-60°	2885.6	90.2
0°-90°	3199.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3199.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1971	1971	1971	1971	1971	
5°	1911	1908	1902	1952	1961	181
15°	1720	1732	1772	1823	1887	484
25°	1462	1477	1524	1628	1699	669
35°	1101	1131	1195	1220	1272	694
45°	720	737	638	605	622	555
55°	332	316	291	186	130	311
65°	211	198	197	150	92	209
75°	112	111	115	100	54	118
85°	30	30	32	32	20	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1971.1	1971.1	1971.1	1971.1	1971.1
2.5°	1963.5	1957.4	1942.6	1969.6	1967.5
5°	1910.6	1908.1	1902.0	1951.8	1961.4
7.5°	1880.7	1875.6	1868.5	1923.3	1950.3
10°	1848.7	1854.8	1840.5	1890.8	1934.5
12.5°	1782.6	1798.9	1818.2	1857.3	1915.2
15°	1719.6	1732.3	1772.5	1823.3	1886.8
17.5°	1660.7	1675.4	1710.0	1786.2	1853.7
20°	1593.6	1614.0	1647.5	1745.0	1807.5
22.5°	1524.5	1543.3	1585.5	1690.2	1759.8
25°	1462.1	1476.8	1524.5	1627.7	1698.8
27.5°	1379.3	1406.7	1451.9	1551.5	1626.1
30°	1298.0	1321.3	1375.2	1459.0	1532.7
32.5°	1199.9	1234.0	1293.4	1357.4	1418.9
35°	1100.9	1130.8	1195.4	1220.2	1271.6
37.5°	1028.7	1036.9	1073.4	1070.4	1099.3
40°	932.7	949.0	934.7	896.6	929.7
42.5°	829.1	848.4	791.0	746.8	758.5
45°	719.9	736.6	637.6	605.0	621.8
47.5°	625.4	623.8	514.1	492.3	468.9
50°	494.3	510.6	407.9	367.3	231.1
52.5°	386.1	392.2	336.3	234.7	151.9
55°	331.7	315.5	291.1	186.4	130.1
57.5°	294.6	274.3	258.1	173.2	118.9
60°	268.7	245.9	233.7	164.6	109.2
62.5°	239.3	221.5	216.9	157.0	100.6
65°	211.3	197.6	197.1	149.9	92.5
67.5°	183.4	175.8	177.8	141.2	83.3
70°	156.5	154.9	156.5	130.1	73.7
72.5°	133.6	132.1	136.1	115.8	63.0
75°	112.3	110.7	115.3	99.6	53.8
77.5°	89.4	90.4	93.5	82.8	45.2
80°	69.6	69.6	73.2	65.0	37.1
82.5°	49.8	50.3	52.3	47.8	29.0
85°	30.5	30.5	32.0	31.5	20.3
87.5°	10.2	11.7	13.7	14.7	10.2
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	17.25	18.60	17.61	18.91	19.23	13.58	14.93	13.94	15.25	15.56
	3H	18.99	20.19	19.37	20.52	20.89	15.56	16.76	15.94	17.09	17.46
	4H	19.66	20.79	20.06	21.14	21.52	16.26	17.39	16.66	17.74	18.12
	6H	20.16	21.20	20.58	21.57	21.97	16.78	17.82	17.20	18.19	18.59
	8H	20.34	21.32	20.77	21.71	22.12	16.97	17.95	17.40	18.35	18.75
	12H	20.45	21.39	20.88	21.77	22.20	17.11	18.05	17.54	18.43	18.86
4H	2H	17.78	18.91	18.18	19.26	19.64	15.20	16.33	15.60	16.68	17.06
	3H	19.76	20.69	20.17	21.09	21.49	17.38	18.31	17.79	18.71	19.12
	4H	20.56	21.39	20.99	21.81	22.25	18.26	19.10	18.70	19.51	19.96
	6H	21.20	21.93	21.66	22.37	22.84	18.90	19.63	19.36	20.07	20.54
	8H	21.42	22.10	21.89	22.54	23.01	19.11	19.79	19.58	20.24	20.71
	12H	21.58	22.18	22.06	22.66	23.13	19.27	19.87	19.76	20.35	20.83
8H	4H	20.84	21.52	21.31	21.96	22.43	18.91	19.59	19.38	20.03	20.50
	6H	21.63	22.18	22.13	22.68	23.16	19.77	20.33	20.27	20.82	21.30
	8H	21.93	22.43	22.45	22.94	23.43	20.10	20.60	20.62	21.11	21.60
	12H	22.16	22.60	22.68	23.10	23.67	20.36	20.80	20.88	21.30	21.87
12H	4H	20.86	21.46	21.34	21.94	22.41	18.98	19.58	19.47	20.06	20.54
	6H	21.68	22.18	22.20	22.69	23.18	19.91	20.41	20.43	20.92	21.41
	8H	22.04	22.48	22.56	22.98	23.55	20.32	20.76	20.84	21.26	21.83