

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: P893534

Luminaire Tested: 4MB-4SL-LVRA-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893534
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-4SL-LVRA-UNV-L935
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

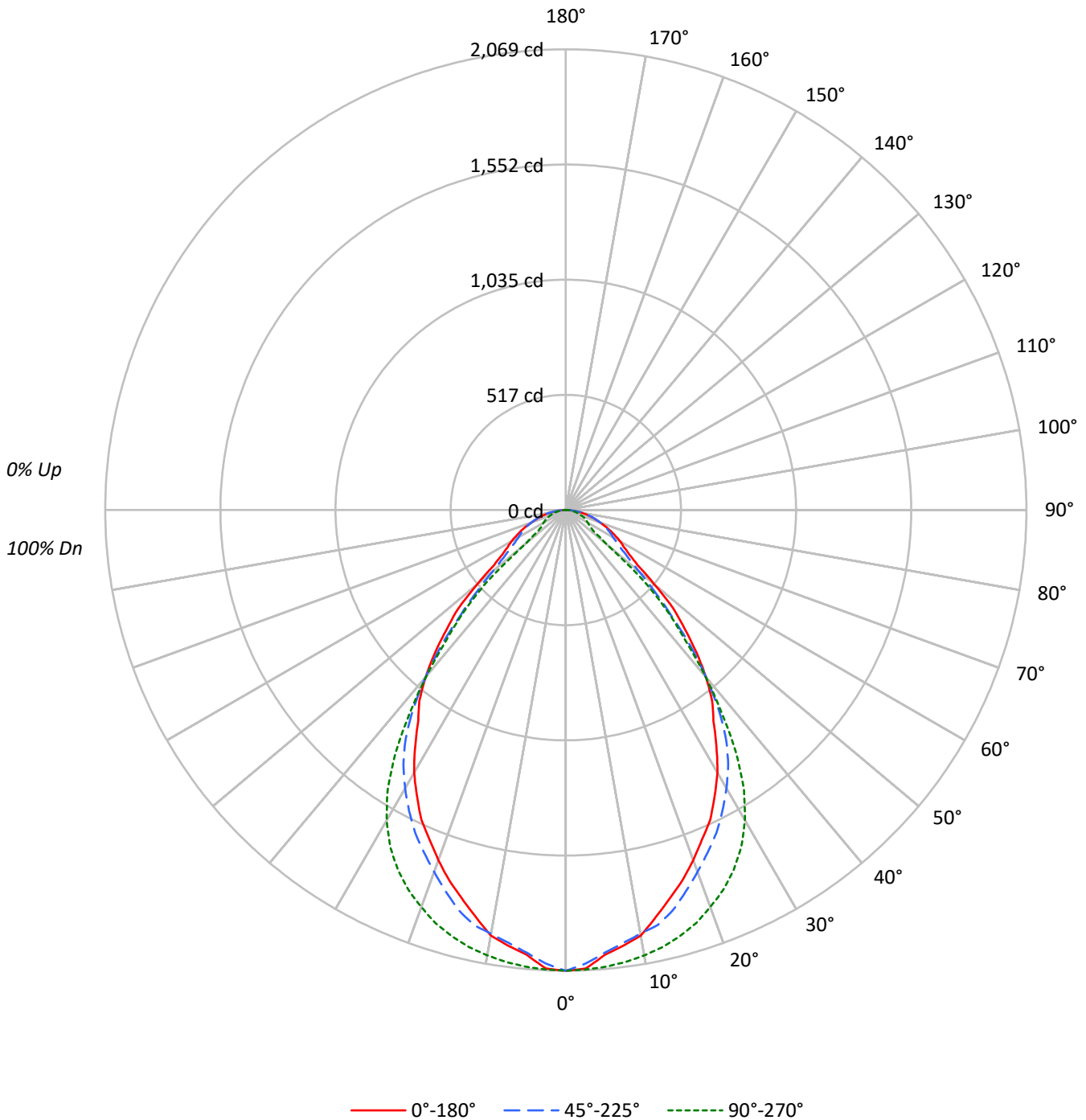
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3358.0 lumens
Efficiency: N/A
Efficacy: 112.7 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): 29.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 5.5
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P893534
CATALOG NUMBER: 4MB-4SL-LVRA-UNV-L935

Luminous Intensity Polar Plot





TEST NUMBER: P893534

CATALOG NUMBER: 4MB-4SL-LVRA-UNV-L935

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°	14722	14722	14722
5°	14324	14259	14705
10°	14020	13958	14671
15°	13296	13705	14588
20°	12666	13094	14366
25°	12048	12563	13999
30°	11194	11859	13218
35°	10037	10899	11594
40°	9094	9113	9064
45°	7603	6734	6568
50°	5744	4740	2685
55°	4319	3791	1693
60°	4014	3491	1632
65°	3734	3483	1635
70°	3416	3416	1608
75°	3241	3329	1553
80°	2995	3147	1594
85°	2612	2743	1739

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 7780 cd/sqm



TEST NUMBER: P893534
 CATALOG NUMBER: 4MB-4SL-LVRA-UNV-L935

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.1	5.7
10°-20°	526.6	15.7
20°-30°	746.8	22.2
30°-40°	769.3	22.9
40°-50°	537.3	16.0
50°-60°	257.8	7.7
60°-70°	180.9	5.4
70°-80°	113.1	3.4
80°-90°	35.0	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°	1464.5	43.6
0°-40°	2233.8	66.5
0°-60°	3029.0	90.2
0°-90°	3358.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3358.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2069	2069	2069	2069	2069	
5°	2006	2003	1996	2049	2059	190
15°	1805	1818	1861	1914	1980	508
25°	1535	1550	1600	1709	1783	702
35°	1156	1187	1255	1281	1335	728
45°	756	773	669	635	653	582
55°	348	331	306	196	136	326
65°	222	207	207	157	97	220
75°	118	116	121	104	56	124
85°	32	32	34	33	21	36
90°	0	0	0	0	0	



TEST NUMBER: P893534

CATALOG NUMBER: 4MB-4SL-LVRA-UNV-L935

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2069.1	2069.1	2069.1	2069.1	2069.1
2.5°	2061.1	2054.7	2039.2	2067.5	2065.3
5°	2005.6	2002.9	1996.5	2048.8	2058.9
7.5°	1974.1	1968.8	1961.3	2018.9	2047.2
10°	1940.5	1946.9	1932.0	1984.8	2030.7
12.5°	1871.2	1888.3	1908.5	1949.6	2010.4
15°	1805.1	1818.4	1860.6	1913.9	1980.5
17.5°	1743.2	1758.7	1795.0	1874.9	1945.9
20°	1672.8	1694.2	1729.4	1831.8	1897.3
22.5°	1600.3	1620.1	1664.3	1774.2	1847.2
25°	1534.7	1550.2	1600.3	1708.6	1783.2
27.5°	1447.8	1476.6	1524.1	1628.6	1707.0
30°	1362.5	1387.0	1443.5	1531.5	1608.9
32.5°	1259.6	1295.3	1357.7	1424.9	1489.4
35°	1155.6	1187.0	1254.8	1280.9	1334.8
37.5°	1079.9	1088.4	1126.8	1123.6	1154.0
40°	979.1	996.1	981.2	941.2	975.9
42.5°	870.3	890.5	830.3	783.9	796.2
45°	755.6	773.2	669.2	635.1	652.7
47.5°	656.4	654.8	539.7	516.7	492.2
50°	518.9	535.9	428.2	385.5	242.6
52.5°	405.3	411.7	353.0	246.4	159.4
55°	348.2	331.2	305.6	195.7	136.5
57.5°	309.3	288.0	270.9	181.8	124.8
60°	282.1	258.1	245.3	172.8	114.7
62.5°	251.2	232.5	227.7	164.8	105.6
65°	221.8	207.4	206.9	157.3	97.1
67.5°	192.5	184.5	186.6	148.2	87.5
70°	164.2	162.6	164.2	136.5	77.3
72.5°	140.2	138.6	142.9	121.6	66.1
75°	117.9	116.3	121.1	104.5	56.5
77.5°	93.9	94.9	98.1	86.9	47.5
80°	73.1	73.1	76.8	68.3	38.9
82.5°	52.3	52.8	54.9	50.1	30.4
85°	32.0	32.0	33.6	33.1	21.3
87.5°	10.7	12.3	14.4	15.5	10.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P893534
 CATALOG NUMBER: 4MB-4SL-LVRA-UNV-L935

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	14.99	16.34	15.36	16.66	16.97	11.32	12.67	11.69	12.99	13.30
	3H	16.73	17.94	17.11	18.27	18.63	13.30	14.50	13.68	14.83	15.20
	4H	17.40	18.53	17.80	18.88	19.26	14.00	15.13	14.40	15.48	15.86
	6H	17.91	18.95	18.32	19.32	19.71	14.53	15.56	14.94	15.93	16.33
	8H	18.08	19.06	18.51	19.46	19.86	14.71	15.70	15.14	16.09	16.49
	12H	18.19	19.13	18.62	19.51	19.94	14.85	15.79	15.28	16.17	16.61
4H	2H	15.52	16.65	15.92	17.00	17.38	12.94	14.07	13.35	14.42	14.80
	3H	17.50	18.43	17.91	18.83	19.23	15.12	16.05	15.53	16.46	16.86
	4H	18.30	19.14	18.73	19.55	20.00	16.00	16.84	16.44	17.26	17.70
	6H	18.94	19.67	19.41	20.11	20.58	16.65	17.37	17.11	17.81	18.28
	8H	19.16	19.84	19.63	20.29	20.76	16.85	17.53	17.32	17.98	18.45
	12H	19.32	19.92	19.80	20.40	20.87	17.01	17.61	17.50	18.09	18.57
8H	4H	18.58	19.26	19.05	19.71	20.18	16.65	17.33	17.12	17.77	18.24
	6H	19.37	19.92	19.87	20.42	20.90	17.51	18.07	18.01	18.56	19.04
	8H	19.67	20.17	20.19	20.68	21.17	17.84	18.34	18.36	18.85	19.34
	12H	19.91	20.35	20.42	20.84	21.41	18.10	18.54	18.62	19.04	19.61
12H	4H	18.60	19.20	19.09	19.68	20.16	16.72	17.32	17.21	17.81	18.28
	6H	19.42	19.92	19.94	20.43	20.92	17.65	18.15	18.17	18.66	19.15
	8H	19.79	20.23	20.30	20.72	21.29	18.06	18.50	18.58	19.00	19.57