

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: INVUE

Report Number: P226211

Luminaire Tested: **MLA-B1-LED-XX-T2-XX**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P226211  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29120)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MLA-B1-LED-XX-T2-XX  
Description: METROLINE ARCHITECTURAL LED LUMINAIRE  
70 CRI, 4000K LEDS AND TYPE II DISTRIBUTION  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5139 lumens  
Efficiency: N/A  
Efficacy: 122.1 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 3.75' x H: 0.17')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B1 - U1 - G1

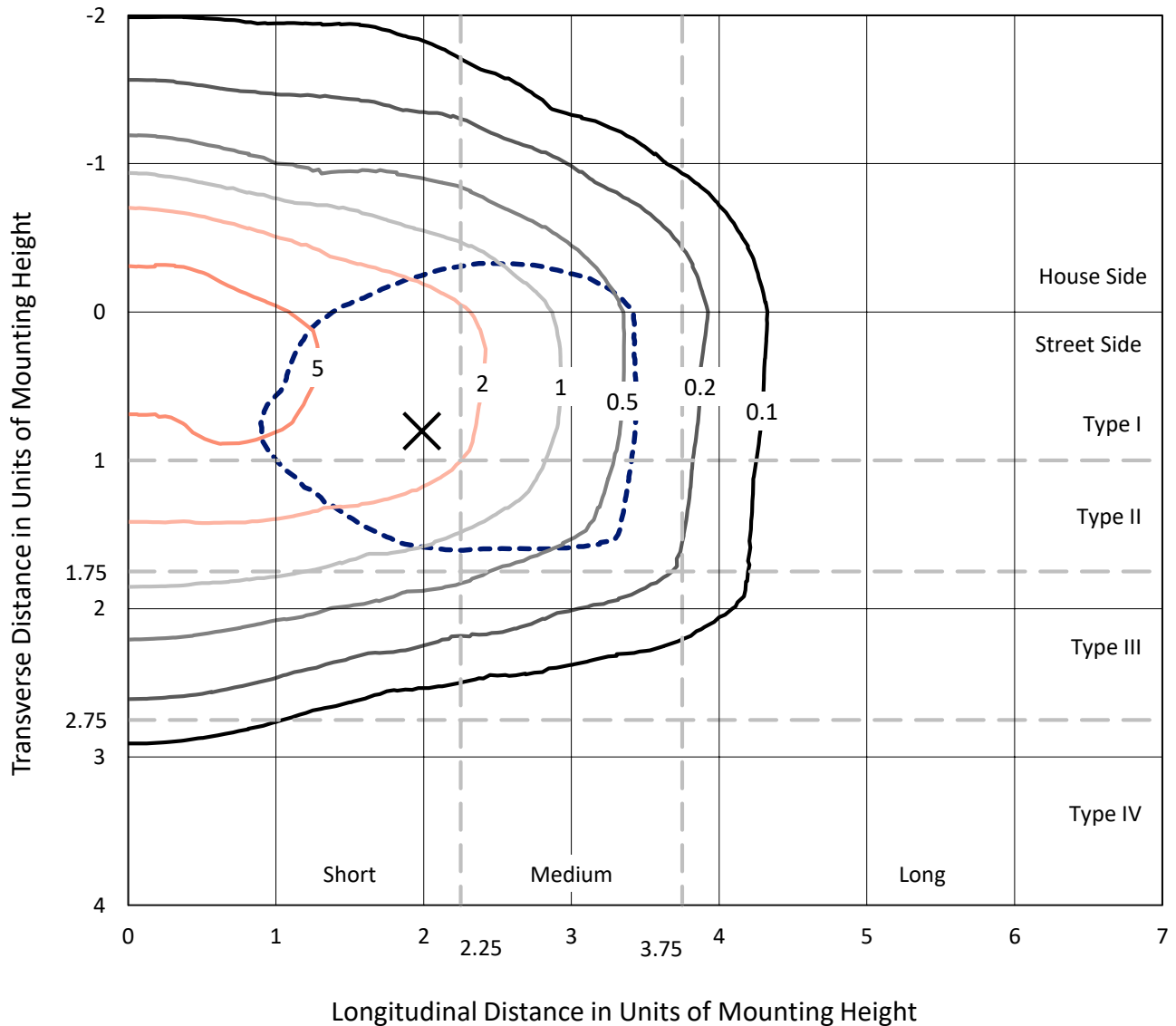
Input Watts (W): 42.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P226211  
 CATALOG NUMBER: MLA-B1-LED-XX-T2-XX

### Iso-Footcandle Lines of Horizontal Illumination

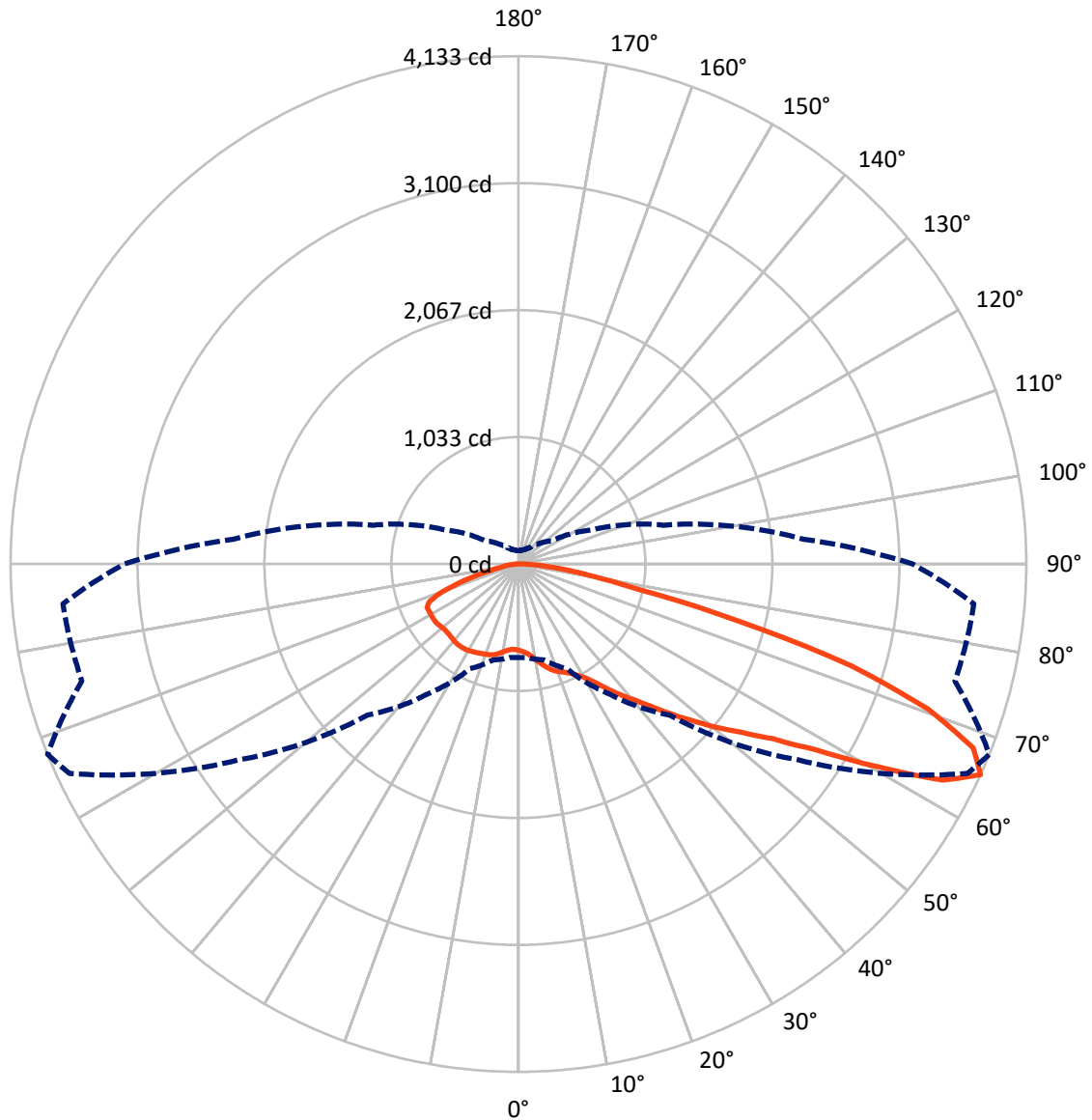
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.5 fc  
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P226211  
CATALOG NUMBER: MLA-B1-LED-XX-T2-XX

### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P226211

CATALOG NUMBER: MLA-B1-LED-XX-T2-XX

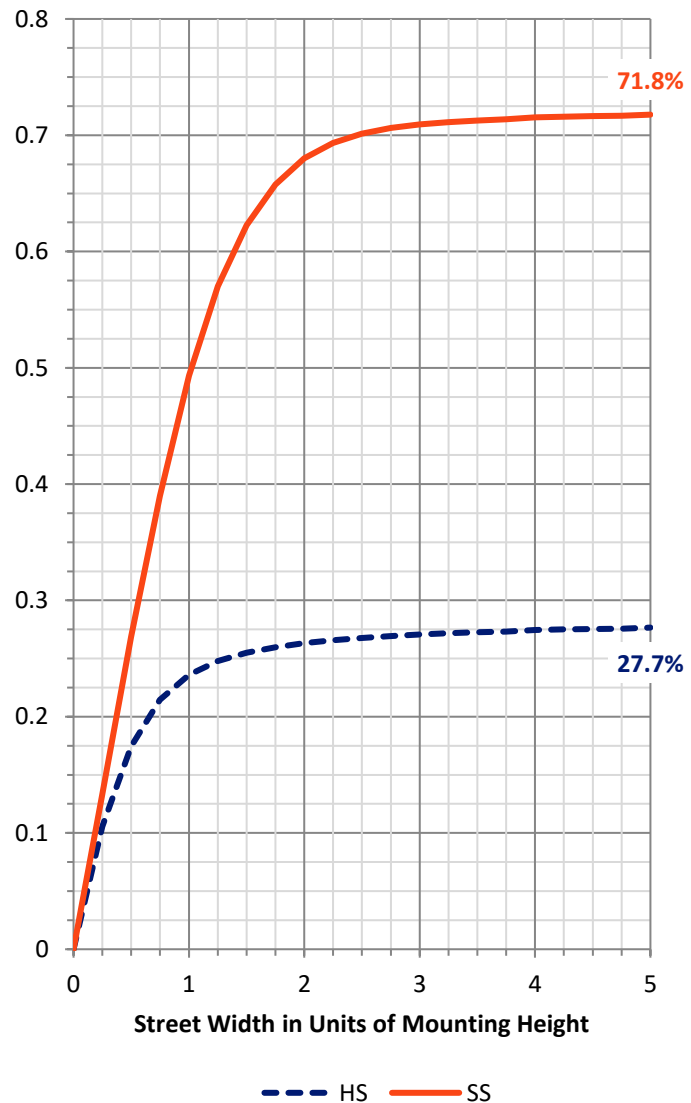
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1439.1	1.4	1440.5
	% Fixture	28.0	0.0	28.0
<b>Street Side</b>	Lumens	3696.9	1.6	3698.5
	% Fixture	71.9	0.0	72.0
<b>Total</b>	Lumens	5136.1	2.9	5139.0
	% Fixture	99.9	0.1	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.4	1.3
10°-20°	224.6	4.4
20°-30°	381.7	7.4
30°-40°	544.4	10.6
40°-50°	799.4	15.6
50°-60°	1096.6	21.3
60°-70°	1327.8	25.8
70°-80°	615.4	12.0
80°-90°	76.8	1.5
90°-100°	2.9	0.1
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°-90°	5136.1	99.9
0°-180°	5139.0	100.0



REPORT NUMBER: P226211

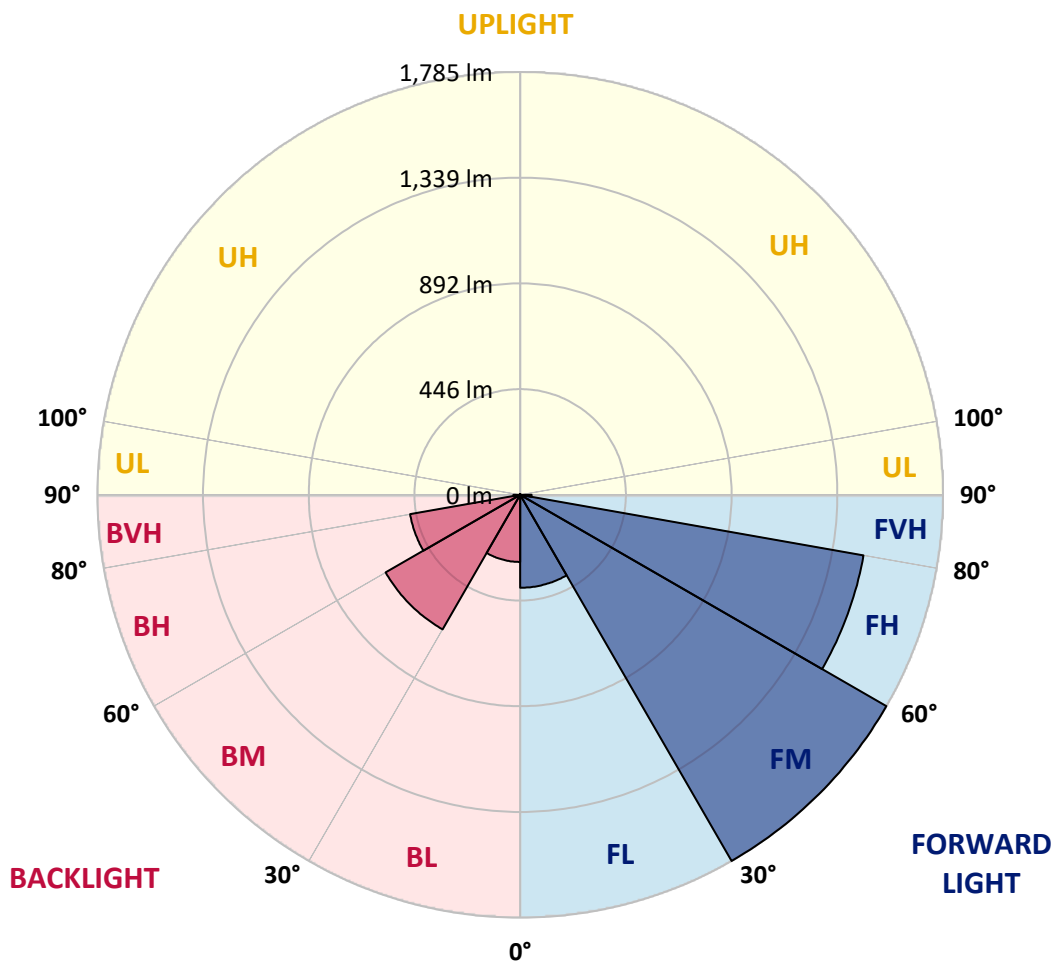
CATALOG NUMBER: MLA-B1-LED-XX-T2-XX

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	392.3	7.6			
FM	(30°-60°)	1784.8	34.7			
FH	(60°-80°)	1471.4	28.6			G1/1800
FVH	(80°-90°)	48.5	0.9			G1/100
BL	(0°-30°)	283.4	5.5	B1/500		
BM	(30°-60°)	655.7	12.8	B1/1000		
BH	(60°-80°)	471.7	9.2	B1/500		G1/500
BVH	(80°-90°)	28.3	0.6			G1/100
UL	(90°-100°)	2.9	0.1		U1/10	
UH	(100°-180°)	1.4	0.0		U1/10	

**BUG Rating: B1-U1-G1**

Type II Short





REPORT NUMBER: P226211

CATALOG NUMBER: MLA-B1-LED-XX-T2-XX

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
2.5°	742.3	736.7	729.8	728.9	721.0	721.9	719.2	715.0	713.6	708.5	701.1
5°	777.9	770.5	761.7	758.9	749.2	749.2	741.4	733.0	730.3	723.8	714.5
7.5°	820.0	813.5	803.3	798.7	785.8	783.5	771.4	760.8	756.6	749.2	737.7
10°	865.3	860.2	848.2	844.0	827.9	824.6	809.8	797.3	793.2	783.0	767.7
12.5°	906.5	900.9	891.2	885.7	872.3	868.6	852.4	838.5	833.4	821.8	804.3
15°	939.3	932.8	925.0	922.7	912.0	912.5	895.8	880.1	874.6	861.2	839.0
17.5°	960.6	955.0	949.0	949.0	944.4	949.9	935.6	914.3	908.8	891.2	865.8
20°	967.1	963.8	961.5	968.0	968.4	981.4	969.4	942.5	933.8	913.4	888.4
22.5°	963.8	962.0	963.8	973.1	983.7	1012.4	1000.8	967.1	956.4	933.8	913.9
25°	953.6	952.3	956.0	970.8	992.5	1038.3	1035.5	997.6	985.6	961.0	942.5
27.5°	936.1	937.5	945.3	961.0	998.5	1064.6	1075.7	1039.2	1024.4	995.3	976.3
30°	917.1	919.4	935.1	958.7	1007.8	1097.9	1130.8	1092.4	1075.3	1042.9	1017.0
32.5°	895.8	899.5	924.5	960.6	1030.0	1143.7	1202.0	1167.8	1151.1	1110.0	1072.0
35°	878.3	882.4	917.1	974.0	1066.0	1202.0	1297.7	1267.2	1246.9	1200.6	1138.6
37.5°	889.4	894.4	933.8	1011.0	1124.8	1273.7	1387.9	1370.8	1349.5	1301.9	1221.0
40°	939.8	946.7	994.8	1094.2	1227.0	1375.4	1486.0	1471.6	1454.1	1420.8	1327.8
42.5°	992.5	999.4	1060.5	1196.0	1374.5	1529.4	1610.8	1592.3	1584.0	1564.6	1465.6
45°	1024.4	1036.0	1104.0	1276.0	1512.3	1706.6	1776.4	1730.2	1739.9	1745.0	1631.7
47.5°	1046.1	1057.2	1127.5	1334.3	1615.9	1856.9	1969.3	1880.9	1905.4	1923.0	1795.4
50°	1059.6	1070.7	1142.8	1369.4	1677.4	1953.1	2154.3	2057.1	2088.6	2091.8	1954.5
52.5°	1060.5	1071.1	1139.6	1370.3	1689.5	2009.0	2294.9	2258.3	2276.8	2262.9	2135.8
55°	1034.6	1044.3	1111.8	1327.8	1643.2	2022.5	2424.8	2504.8	2507.1	2488.6	2390.1
57.5°	996.2	1003.6	1066.5	1266.8	1576.6	2006.3	2558.5	2862.8	2849.4	2832.7	2791.6
60°	971.7	976.3	1031.8	1217.3	1529.0	1952.2	2717.1	3357.7	3344.2	3255.9	3311.9
62.5°	909.2	912.5	969.4	1143.7	1485.5	1867.5	2804.1	3856.2	3872.9	3569.5	3640.2
65°	761.7	763.1	808.4	941.2	1290.8	1737.6	2780.5	4032.9	4133.2	3678.2	3721.2
67.5°	554.5	553.1	577.6	660.0	925.9	1495.2	2617.7	3780.4	3990.3	3751.7	3646.7
70°	359.8	360.3	374.2	411.2	552.7	1050.3	2112.6	3322.0	3533.9	3631.4	3317.4
72.5°	188.2	194.2	189.6	207.7	312.2	600.8	1375.9	2738.8	2834.1	2932.6	2582.5
75°	94.3	98.0	103.6	111.5	158.2	352.9	804.7	1919.3	1837.0	1615.0	1477.6
77.5°	69.8	72.6	78.6	83.2	99.0	202.1	559.1	1082.2	993.9	783.0	704.4
80°	49.5	52.7	62.9	67.5	73.5	97.6	362.6	621.1	627.6	474.5	234.0
82.5°	27.7	33.8	45.8	52.3	53.2	61.5	147.1	389.0	404.2	260.8	84.6
85°	13.9	20.8	32.8	39.3	35.6	38.4	72.6	186.8	199.8	146.6	46.2
87.5°	0.9	12.5	22.7	26.8	24.5	24.5	34.2	84.6	87.4	76.8	26.4
90°	0.0	7.4	13.9	16.2	13.9	12.0	13.9	27.3	29.6	22.7	5.5
92.5°	0.0	2.8	6.5	6.0	4.6	2.8	2.3	1.4	0.9	0.5	0.5
95°	0.0	0.5	1.4	0.9	0.9	0.5	0.5	0.5	0.5	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.0	0.5
100°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.0	0.0	0.5
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P226211

CATALOG NUMBER: MLA-B1-LED-XX-T2-XX

**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





REPORT NUMBER: P226211

CATALOG NUMBER: MLA-B1-LED-XX-T2-XX

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
2.5°	700.7	699.3	697.0	694.7	693.3	691.0	684.0	681.2	683.1	691.0	692.3
5°	713.2	710.4	701.6	694.2	688.6	683.1	672.0	666.9	665.5	672.0	674.3
7.5°	733.5	729.8	715.9	702.5	690.5	679.4	662.3	652.6	648.9	653.5	655.3
10°	763.6	756.2	736.7	715.9	697.0	678.5	654.0	638.2	630.8	633.6	634.5
12.5°	796.9	788.1	762.2	733.5	706.2	679.4	645.6	623.4	612.8	613.3	613.7
15°	830.2	818.1	786.2	750.6	715.0	680.3	638.2	609.6	593.4	592.4	592.4
17.5°	854.7	841.3	802.4	760.8	720.6	679.4	629.9	594.8	576.3	572.1	572.1
20°	877.3	861.6	813.5	765.4	719.6	675.7	619.3	579.0	555.4	549.4	550.4
22.5°	901.4	881.5	824.2	770.0	716.9	669.2	607.2	558.2	530.0	523.1	523.5
25°	927.7	903.2	836.2	776.5	716.4	659.0	585.5	529.1	499.9	493.0	493.5
27.5°	958.7	925.4	847.3	783.0	712.2	639.6	552.7	497.2	467.6	461.1	461.1
30°	995.7	950.9	862.1	788.1	698.8	608.6	519.4	465.3	435.2	427.8	426.4
32.5°	1039.7	983.7	883.3	788.5	674.8	570.2	486.1	434.3	404.2	395.0	394.5
35°	1096.6	1026.3	909.7	781.1	643.3	535.1	458.3	403.8	373.2	364.9	364.4
37.5°	1165.5	1085.9	940.7	767.7	611.9	505.0	426.9	372.8	339.5	329.3	328.8
40°	1261.7	1163.2	967.1	751.1	583.7	477.3	394.5	336.2	302.5	292.8	291.4
42.5°	1375.9	1247.8	983.7	734.9	562.4	444.9	355.2	297.4	266.9	261.3	259.9
45°	1498.0	1332.9	993.9	722.9	543.4	406.1	310.8	263.2	238.6	233.1	231.7
47.5°	1619.2	1408.3	1002.2	717.8	519.4	358.0	273.8	236.8	215.5	210.4	209.0
50°	1745.0	1474.9	1012.8	716.9	484.7	311.3	243.7	214.1	194.2	187.8	185.9
52.5°	1890.6	1550.3	1031.8	719.6	435.2	278.4	222.9	191.5	171.6	164.2	162.3
55°	2085.4	1652.9	1054.9	721.9	379.7	258.5	205.3	169.3	149.4	142.0	140.1
57.5°	2379.0	1800.5	1080.4	712.7	339.9	247.0	187.3	148.9	132.3	126.3	125.8
60°	2765.7	1997.0	1115.5	696.5	320.0	238.6	172.0	135.5	123.5	117.5	116.5
62.5°	3064.9	2185.3	1165.0	675.2	317.3	232.6	163.3	130.9	118.9	111.5	111.0
65°	3207.3	2326.8	1221.0	654.0	327.4	232.2	163.3	131.3	117.5	109.1	107.8
67.5°	3194.9	2351.3	1202.5	612.3	326.5	234.0	168.8	133.2	118.9	108.7	107.3
70°	2968.2	2215.8	1080.4	514.3	293.7	218.3	167.0	134.1	119.8	107.3	105.0
72.5°	2443.8	1899.4	879.6	375.5	243.3	186.4	153.5	130.9	116.1	103.6	101.3
75°	1570.1	1346.8	629.4	253.4	190.1	154.9	135.0	121.6	106.4	95.7	94.3
77.5°	689.6	599.4	333.0	181.3	150.3	124.4	111.5	103.6	93.9	80.5	76.8
80°	186.8	157.2	139.2	148.5	116.5	98.0	89.3	85.1	78.6	61.0	56.9
82.5°	74.9	72.6	88.8	114.2	83.2	68.9	68.0	65.2	63.4	44.4	40.2
85°	42.5	43.5	55.5	71.2	49.0	41.6	43.9	46.2	47.2	30.5	28.2
87.5°	21.7	23.1	35.1	34.2	28.2	21.3	24.5	28.2	29.1	16.2	11.6
90°	2.8	4.2	13.9	14.8	11.6	8.3	11.1	12.9	14.8	7.9	1.4
92.5°	0.5	0.5	0.9	2.8	3.2	2.3	3.2	4.6	5.5	2.8	0.0
95°	0.5	0.5	0.5	0.5	0.9	0.9	0.9	1.4	1.8	0.5	0.0
97.5°	0.5	0.5	0.9	0.9	0.9	0.5	0.0	0.0	0.0	0.0	0.0
100°	0.5	0.5	0.9	0.9	0.9	0.5	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P226211

CATALOG NUMBER: MLA-B1-LED-XX-T2-XX

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)