

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: P226228

Luminaire Tested: **MLA-B2-LED-XX-T4-XX**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P226228
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29663)
Test Lab: INNOVATION CENTER-P2
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MLA-B2-LED-XX-T4-XX
Description: METROLINE ARCHITECTURAL LED LUMINAIRE
70 CRI, 4000K LEDS AND TYPE IV DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9336 lumens
Efficiency: N/A
Efficacy: 131.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 3.75' x H: 0.17')
IES Classification: Type IV - Short - Cutoff
BUG Rating: B2 - U1 - G2

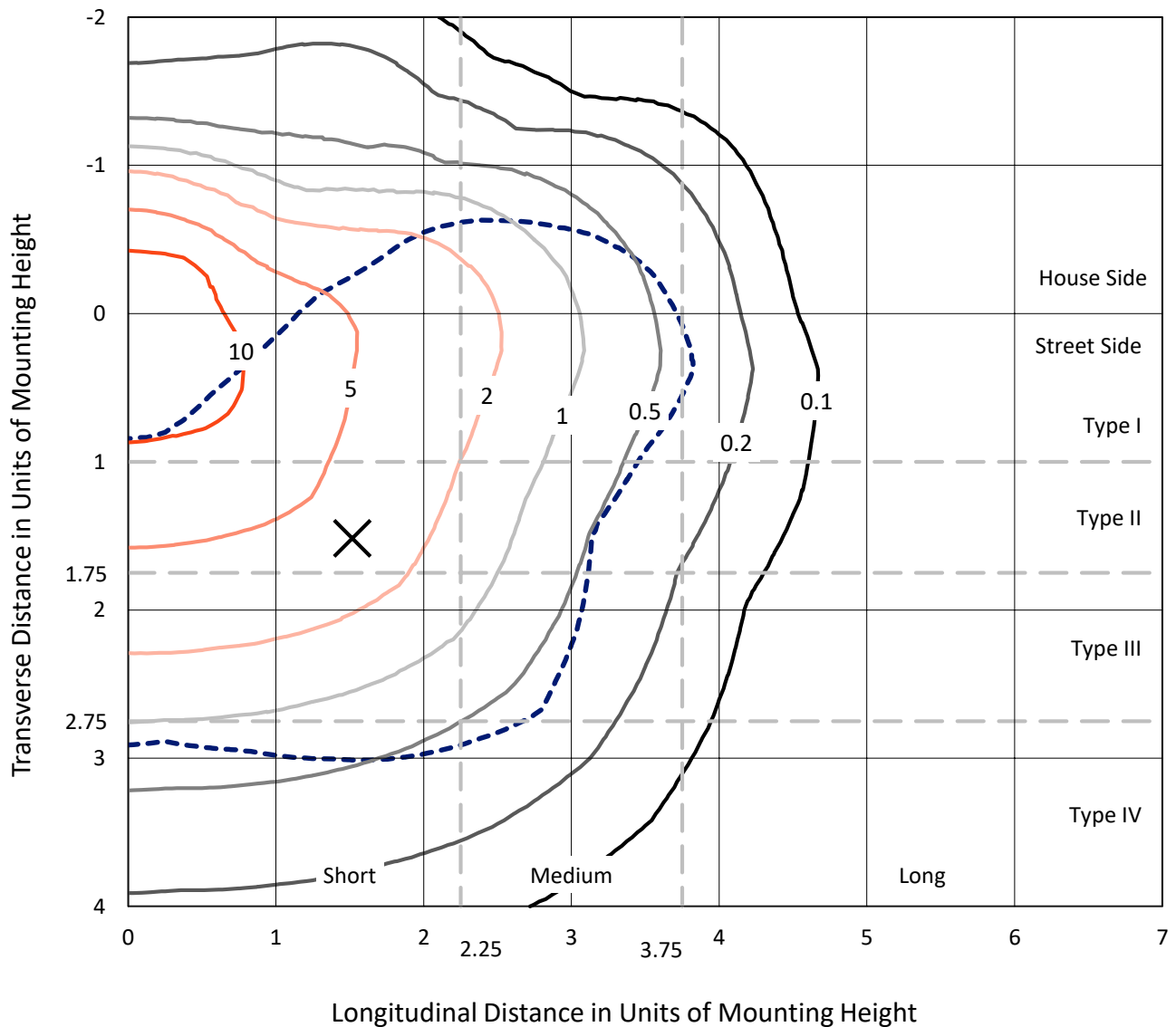
Input Watts (W): 71
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

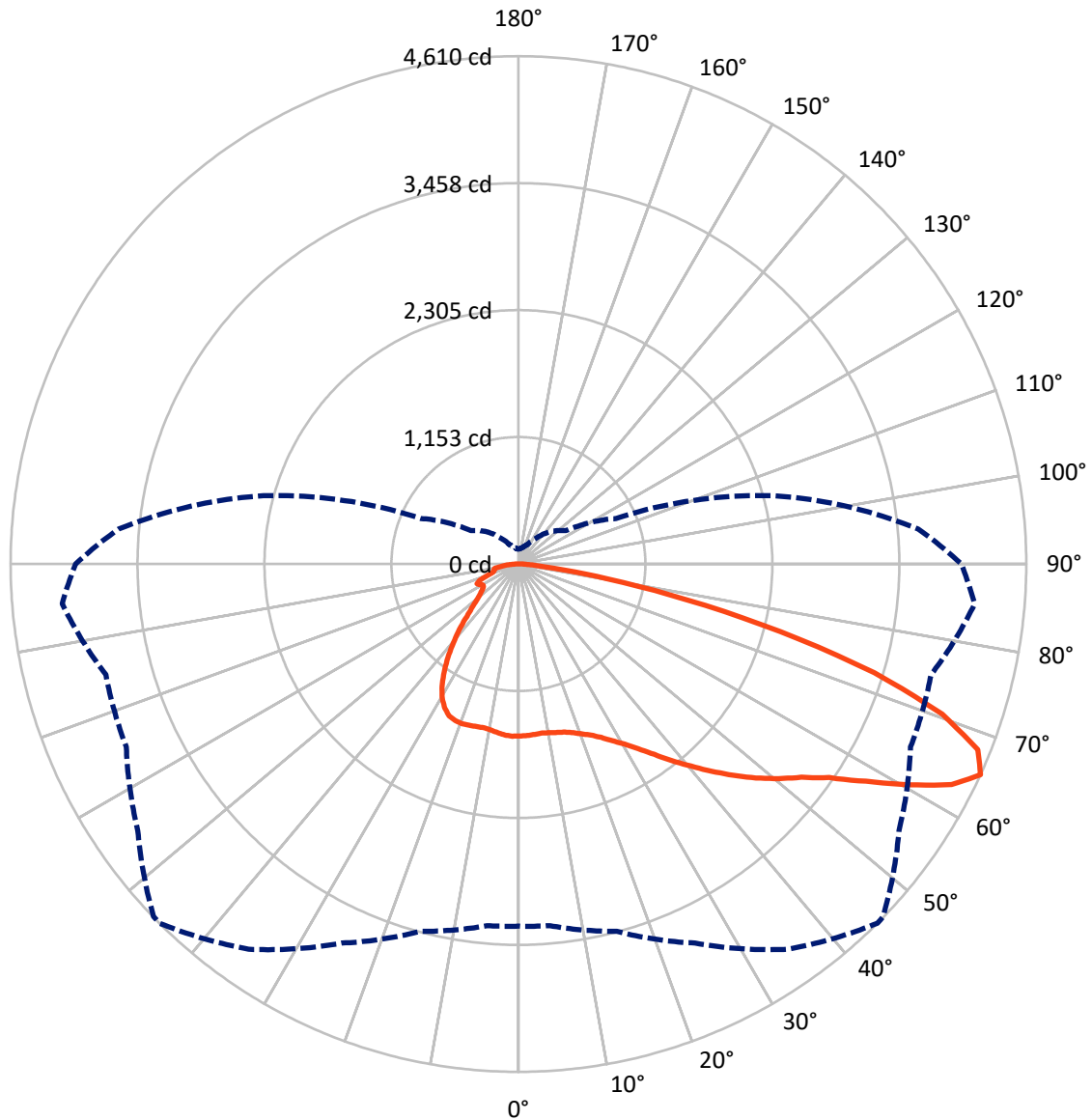
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.6 fc
 Type IV - Short - Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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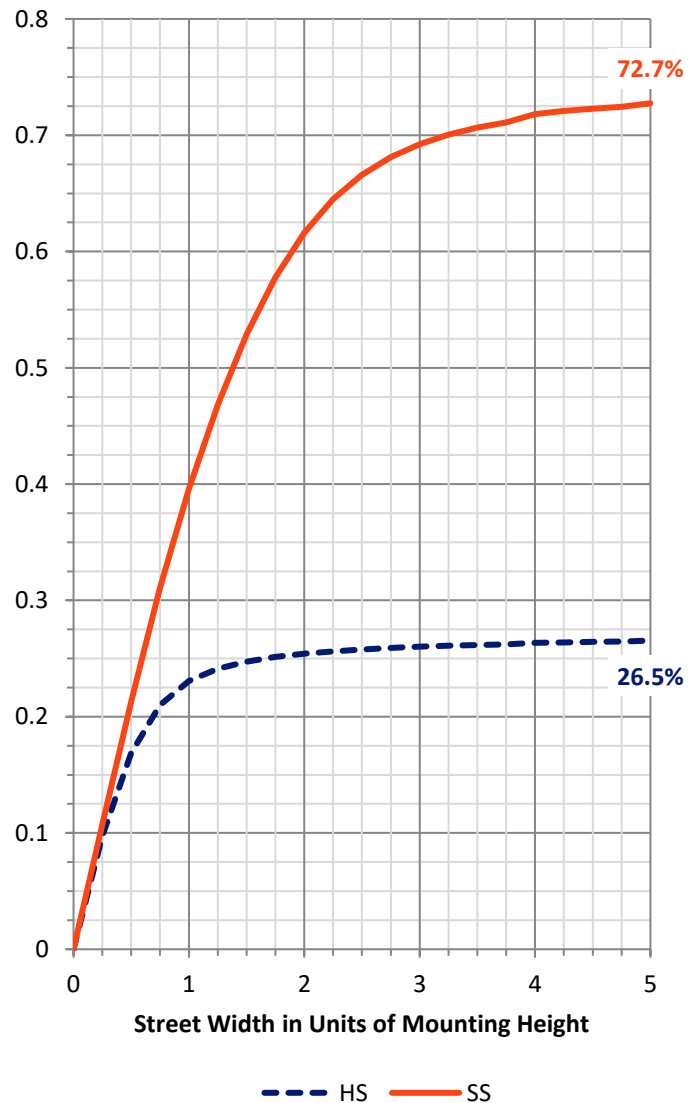
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2512.5	3.8	2516.3
	% Fixture	26.9	0.0	27.0
Street Side	Lumens	6815.2	4.5	6819.7
	% Fixture	73.0	0.0	73.0
Total	Lumens	9327.7	8.4	9336.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.8	1.6
10°-20°	437.5	4.7
20°-30°	729.6	7.8
30°-40°	1030.6	11.0
40°-50°	1340.0	14.4
50°-60°	1801.7	19.3
60°-70°	2341.6	25.1
70°-80°	1330.8	14.3
80°-90°	168.1	1.8
90°-100°	8.2	0.1
100°-110°	0.2	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°	9327.7	99.9
0°-180°	9336.0	100.0



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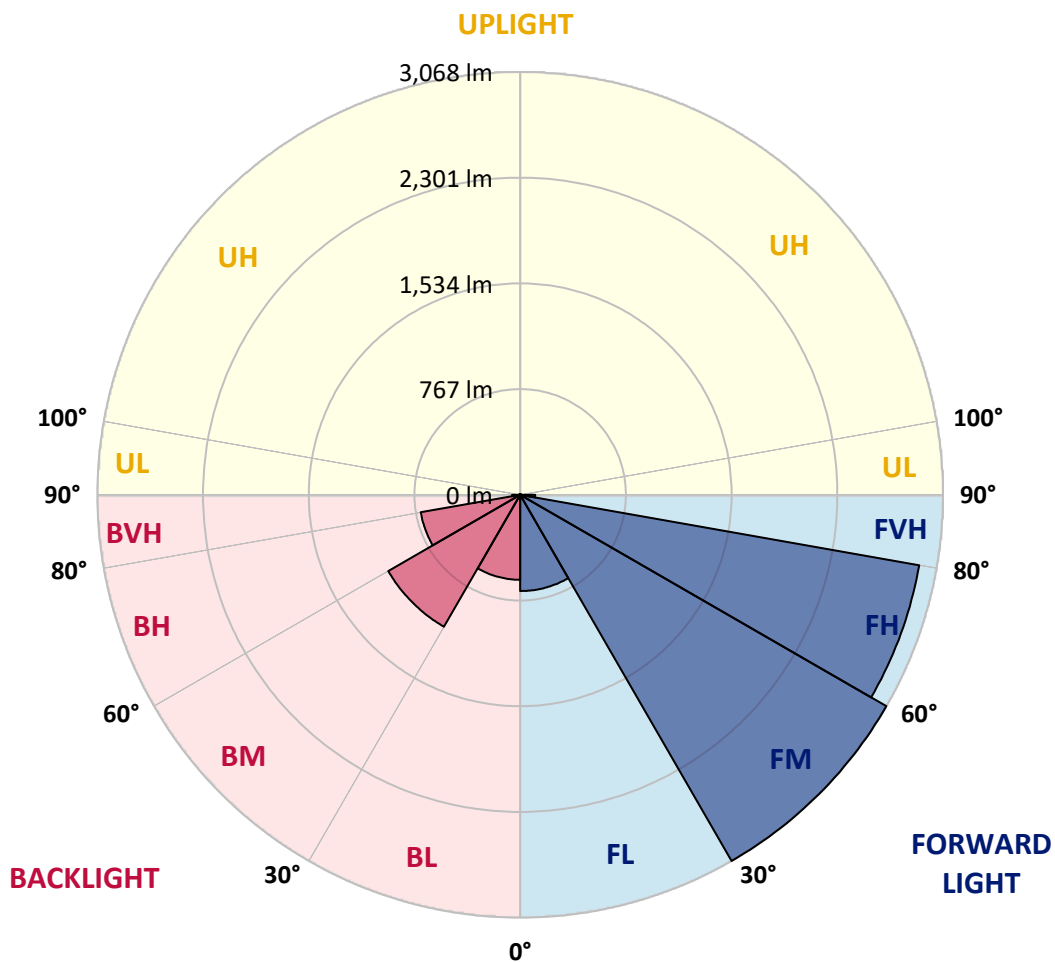
CATALOG NUMBER: MLA-B2-LED-XX-T4-XX

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	698.3	7.5			
FM	(30°-60°)	3067.5	32.9			
FH	(60°-80°)	2939.9	31.5			G2/5000
FVH	(80°-90°)	109.5	1.2			G2/225
BL	(0°-30°)	616.6	6.6	B2/1000		
BM	(30°-60°)	1104.8	11.8	B2/2500		
BH	(60°-80°)	732.6	7.8	B2/1000		G2/1000
BVH	(80°-90°)	58.6	0.6			G1/100
UL	(90°-100°)	8.2	0.1		U1/10	
UH	(100°-180°)	3.8	0.0		U1/10	

BUG Rating: B2-U1-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0
2.5°	1568.8	1565.7	1554.8	1551.7	1548.6	1558.7	1564.1	1562.6	1564.1	1557.1	1553.3
5°	1546.3	1544.7	1533.9	1536.2	1536.2	1553.3	1557.1	1560.2	1566.5	1564.9	1567.2
7.5°	1533.1	1530.0	1521.5	1523.8	1528.5	1549.4	1553.3	1561.8	1571.9	1576.5	1577.3
10°	1533.9	1530.0	1521.5	1525.4	1529.2	1557.1	1559.5	1572.7	1582.7	1584.3	1582.0
12.5°	1549.4	1546.3	1535.4	1538.5	1541.6	1568.8	1572.7	1584.3	1595.1	1593.6	1586.6
15°	1578.1	1575.0	1561.0	1562.6	1561.8	1582.7	1591.3	1594.4	1606.8	1599.0	1582.0
17.5°	1620.7	1620.0	1604.5	1603.7	1596.7	1609.9	1614.5	1606.8	1613.0	1595.9	1569.6
20°	1672.7	1671.9	1654.1	1647.9	1640.1	1645.6	1647.9	1626.2	1615.3	1588.9	1554.8
22.5°	1729.3	1727.0	1709.9	1701.4	1689.0	1686.7	1688.2	1647.9	1621.5	1587.4	1549.4
25°	1803.0	1800.6	1776.6	1767.3	1747.9	1744.0	1746.4	1694.4	1654.1	1609.1	1563.4
27.5°	1866.6	1865.8	1851.1	1837.1	1820.0	1815.4	1817.7	1763.4	1712.2	1661.1	1607.6
30°	1948.8	1942.6	1918.5	1908.4	1903.0	1898.4	1896.0	1854.2	1799.1	1737.8	1678.1
32.5°	2025.5	2020.9	1998.4	1993.7	1996.8	1997.6	1993.7	1955.0	1899.9	1830.1	1758.0
35°	2118.6	2113.2	2089.1	2093.0	2110.8	2122.5	2124.0	2079.0	2010.8	1921.6	1831.7
37.5°	2201.6	2199.2	2191.5	2209.3	2242.7	2265.9	2258.9	2226.4	2132.5	2014.7	1892.2
40°	2290.0	2289.2	2288.4	2331.1	2391.6	2411.7	2408.6	2378.4	2262.1	2125.6	1976.7
42.5°	2383.0	2383.8	2387.7	2455.9	2542.0	2570.7	2566.0	2528.0	2398.5	2263.6	2086.0
45°	2486.9	2495.5	2502.4	2583.9	2693.2	2735.1	2730.4	2680.0	2531.9	2407.8	2205.4
47.5°	2598.6	2610.2	2615.7	2711.0	2839.0	2901.8	2891.0	2826.6	2655.2	2545.9	2330.3
50°	2740.5	2750.6	2753.7	2849.9	2989.4	3061.6	3053.0	2973.2	2778.5	2684.7	2491.6
52.5°	2898.7	2915.0	2920.4	3018.1	3146.9	3215.9	3209.7	3124.4	2920.4	2834.3	2686.2
55°	3085.6	3108.9	3123.6	3230.6	3355.5	3422.9	3412.9	3306.6	3115.8	3012.7	2919.7
57.5°	3277.1	3284.1	3338.4	3481.9	3638.5	3720.7	3700.6	3534.6	3352.4	3225.2	3188.7
60°	3339.2	3340.7	3438.4	3651.7	3916.1	4068.9	4045.6	3801.4	3660.2	3494.3	3520.6
62.5°	3364.8	3374.1	3510.6	3808.3	4182.1	4412.4	4398.5	4068.9	3885.9	3761.8	3891.3
65°	3287.2	3295.8	3451.6	3796.7	4269.0	4610.2	4604.0	4217.8	3927.8	3878.1	4157.3
67.5°	2979.4	3027.4	3211.2	3581.9	4095.3	4496.2	4496.2	4121.6	3766.5	3843.2	4197.6
70°	2543.5	2518.0	2732.0	3116.6	3656.3	4080.5	4092.9	3775.8	3396.6	3525.3	3904.5
72.5°	1947.2	1936.4	2139.5	2479.2	2941.4	3378.7	3400.4	3146.9	2759.9	2911.1	3367.9
75°	1471.1	1447.8	1597.5	1837.1	2140.3	2455.9	2485.4	2265.9	1933.3	2148.1	2519.5
77.5°	867.0	891.8	1012.0	1184.9	1447.8	1559.5	1584.3	1393.5	1108.9	1268.7	1281.1
80°	389.3	390.8	507.2	616.5	760.0	815.0	797.2	706.5	532.0	574.6	340.4
82.5°	133.4	153.5	240.4	287.7	345.1	325.7	317.9	307.1	288.5	313.3	155.9
85°	42.7	65.9	127.2	152.0	162.8	141.1	138.8	152.0	197.0	234.2	104.7
87.5°	7.8	25.6	72.9	86.1	87.6	65.9	63.6	79.9	124.1	148.1	59.7
90°	0.0	14.7	38.0	41.9	38.8	27.9	26.4	33.3	54.3	55.8	19.4
92.5°	0.0	5.4	17.1	17.8	13.2	7.8	7.0	7.0	7.8	5.4	4.7
95°	0.0	0.8	5.4	3.9	3.1	2.3	2.3	2.3	2.3	2.3	2.3
97.5°	0.0	0.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.3	2.3
100°	0.0	0.8	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.3	2.3
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



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0
2.5°	1554.8	1554.0	1556.4	1563.4	1563.4	1564.1	1550.2	1549.4	1553.3	1568.8	1568.8
5°	1570.3	1568.8	1564.1	1563.4	1561.8	1557.1	1542.4	1537.8	1540.9	1554.0	1554.0
7.5°	1578.1	1573.4	1564.9	1556.4	1549.4	1542.4	1523.0	1517.6	1520.7	1533.9	1533.1
10°	1579.6	1571.1	1557.1	1543.2	1533.9	1526.1	1499.8	1495.1	1497.4	1511.4	1512.2
12.5°	1578.1	1565.7	1546.3	1533.9	1526.1	1519.1	1488.1	1475.7	1469.5	1481.9	1481.2
15°	1569.6	1555.6	1537.8	1534.7	1532.3	1523.0	1480.4	1451.7	1435.4	1443.2	1442.4
17.5°	1555.6	1544.0	1533.1	1544.7	1550.2	1531.6	1471.1	1424.5	1400.5	1402.1	1399.0
20°	1540.1	1526.1	1527.7	1555.6	1565.7	1536.2	1458.7	1392.7	1359.4	1353.2	1348.5
22.5°	1528.5	1514.5	1526.9	1568.0	1574.2	1532.3	1434.6	1350.9	1305.1	1295.8	1295.0
25°	1535.4	1521.5	1543.2	1578.1	1573.4	1514.5	1396.6	1307.4	1249.3	1237.7	1236.1
27.5°	1567.2	1547.8	1569.6	1584.3	1556.4	1469.5	1346.2	1249.3	1188.0	1171.7	1170.2
30°	1621.5	1588.2	1589.7	1575.8	1515.3	1404.4	1278.0	1172.5	1111.3	1091.1	1094.2
32.5°	1685.1	1633.9	1597.5	1537.8	1439.3	1309.8	1180.3	1074.8	1023.6	1006.6	1007.3
35°	1745.6	1680.4	1594.4	1477.3	1337.7	1189.6	1063.2	975.5	925.9	912.0	915.1
37.5°	1803.7	1727.8	1578.9	1391.2	1212.8	1063.9	943.7	857.7	815.0	801.1	802.6
40°	1882.8	1789.0	1556.4	1293.5	1084.9	926.7	813.5	734.4	700.3	687.8	691.7
42.5°	1981.3	1865.0	1535.4	1197.3	966.2	799.5	684.0	618.8	587.0	577.7	580.8
45°	2084.5	1953.4	1519.1	1108.9	856.9	666.9	577.7	516.5	483.1	473.0	474.6
47.5°	2204.7	2051.1	1530.0	1045.3	757.6	566.9	486.2	425.0	389.3	376.1	376.9
50°	2352.0	2187.6	1571.1	1011.2	656.0	492.4	414.9	349.7	308.6	291.6	286.9
52.5°	2548.2	2348.9	1636.2	1004.2	580.8	438.9	352.8	287.7	246.6	228.0	225.7
55°	2767.7	2527.3	1719.2	1001.9	530.4	401.7	306.3	239.6	201.6	183.0	180.7
57.5°	3015.8	2737.4	1813.8	987.2	504.1	377.7	276.1	210.9	179.1	161.3	158.2
60°	3353.1	3022.8	1985.2	986.4	501.0	373.8	266.8	203.9	169.8	149.7	147.3
62.5°	3756.4	3384.9	2235.7	1000.4	524.2	396.3	279.9	202.4	163.6	143.5	141.1
65°	4020.8	3642.4	2394.7	978.6	527.3	416.4	292.4	195.4	156.6	138.0	135.7
67.5°	4030.1	3638.5	2318.7	849.9	453.7	381.5	277.6	184.6	149.7	132.6	131.1
70°	3732.3	3356.2	2050.3	657.6	363.7	304.0	239.6	168.3	140.4	124.9	123.3
72.5°	3184.1	2850.6	1678.9	493.2	290.8	247.4	209.4	156.6	130.3	115.5	114.8
75°	2275.2	2032.5	1220.6	386.2	252.0	226.4	193.1	155.1	123.3	108.6	106.2
77.5°	1012.0	863.1	677.8	339.7	241.9	226.4	185.3	151.2	116.3	96.2	93.8
80°	260.6	273.0	349.7	320.3	235.0	217.9	172.9	138.0	107.0	81.4	79.1
82.5°	145.8	148.1	217.1	252.8	196.2	167.5	147.3	113.2	91.5	68.2	65.1
85°	101.6	96.9	130.3	139.6	113.2	114.0	106.2	83.8	69.8	48.9	43.4
87.5°	55.1	58.2	69.0	60.5	55.1	55.1	69.8	58.2	50.4	27.9	19.4
90°	16.3	21.7	34.9	30.2	27.1	23.3	35.7	33.3	31.0	14.7	0.0
92.5°	4.7	3.9	6.2	7.0	7.8	7.8	13.2	14.7	15.5	4.7	0.0
95°	2.3	1.6	1.6	0.8	2.3	3.1	4.7	5.4	6.2	1.6	0.0
97.5°	2.3	2.3	1.6	1.6	0.8	0.8	1.6	1.6	1.6	0.0	0.0
100°	2.3	2.3	1.6	1.6	1.6	0.8	0.8	0.8	0.8	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: P226228

CATALOG NUMBER: MLA-B2-LED-XX-T4-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)