

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: P226219

Luminaire Tested: **MLA-B2-LED-XX-T3-XX**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P226219
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29662)
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-T3-XX
Description: METROLINE ARCHITECTURAL LED LUMINAIRE
70 CRI, 4000K LEDS AND TYPE III DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9372 lumens
Efficiency: N/A
Efficacy: 132.0 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 3.75' x H: 0.17')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B2 - U1 - G2

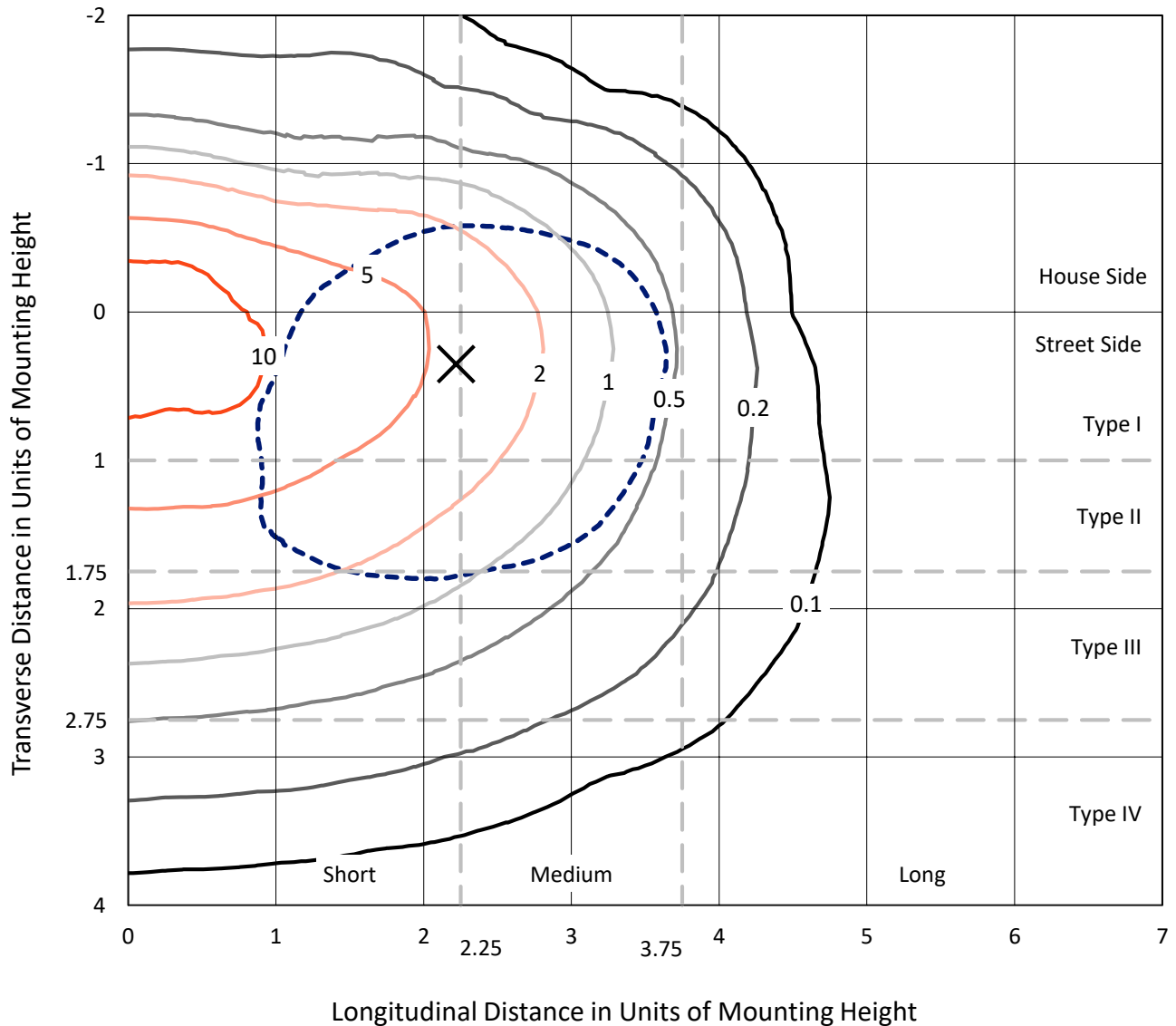
Input Watts (W): 71
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

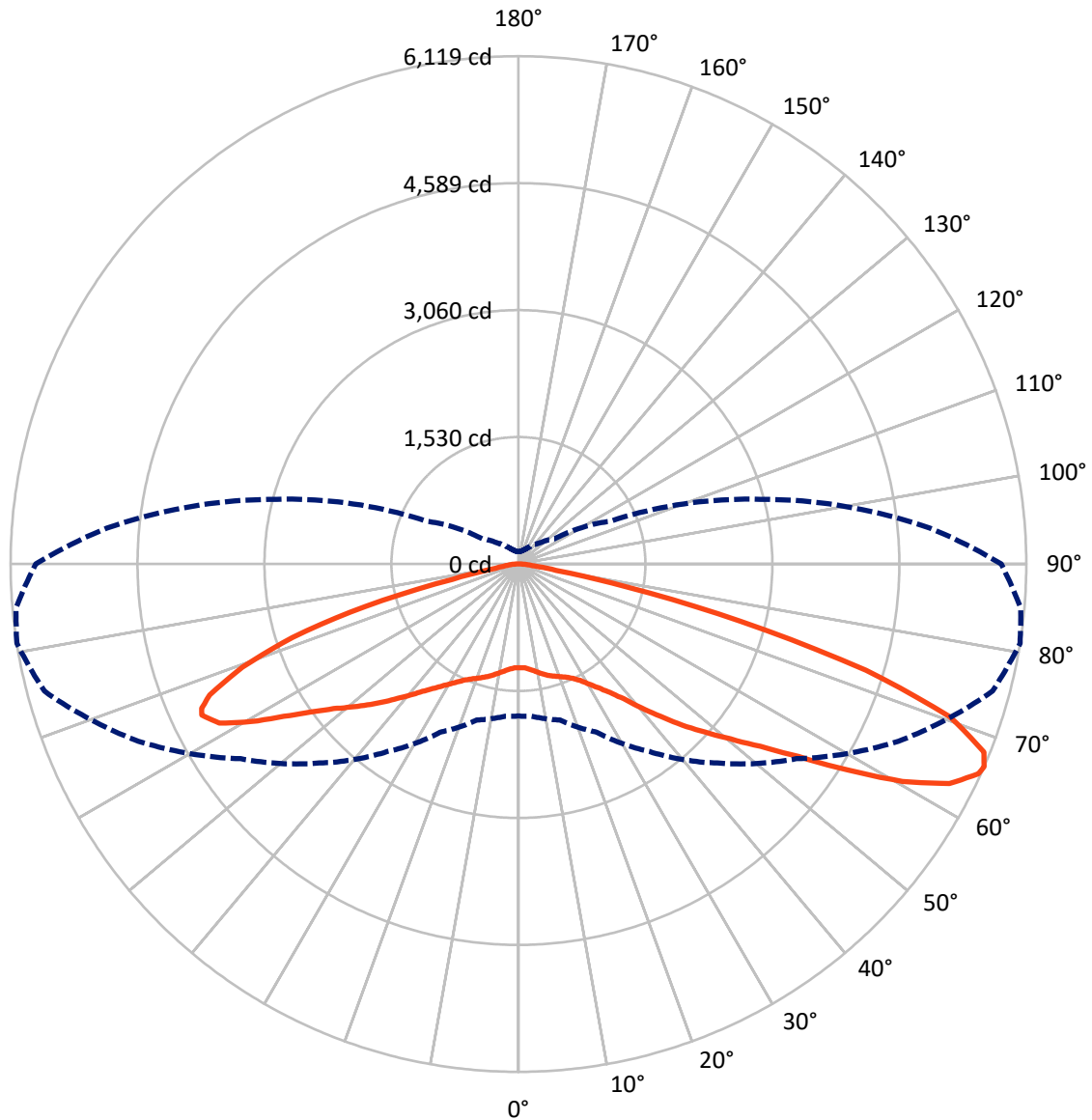
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.2 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 81-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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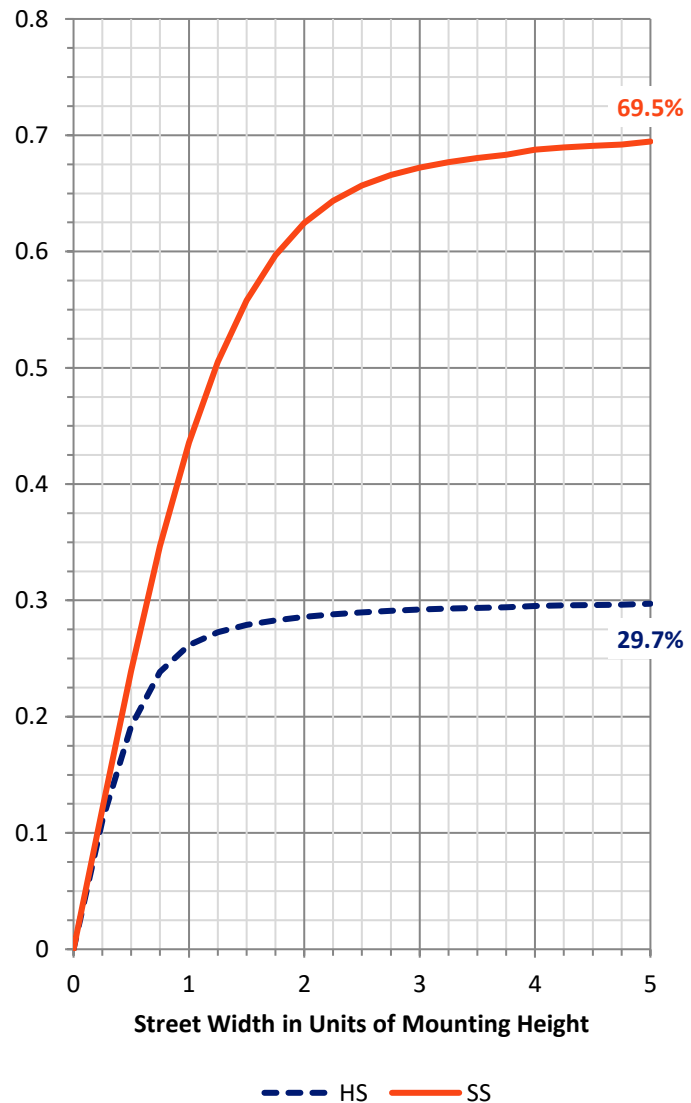
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2818.6	3.3	2821.9
	% Fixture	30.1	0.0	30.1
Street Side	Lumens	6545.1	5.0	6550.1
	% Fixture	69.8	0.1	69.9
Total	Lumens	9363.7	8.3	9372.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.9	1.3
10°-20°	389.6	4.2
20°-30°	665.2	7.1
30°-40°	994.6	10.6
40°-50°	1424.7	15.2
50°-60°	1953.1	20.8
60°-70°	2392.0	25.5
70°-80°	1213.7	13.0
80°-90°	207.8	2.2
90°-100°	8.2	0.1
100°-110°	0.1	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°	9363.7	99.9
0°-180°	9372.0	100.0



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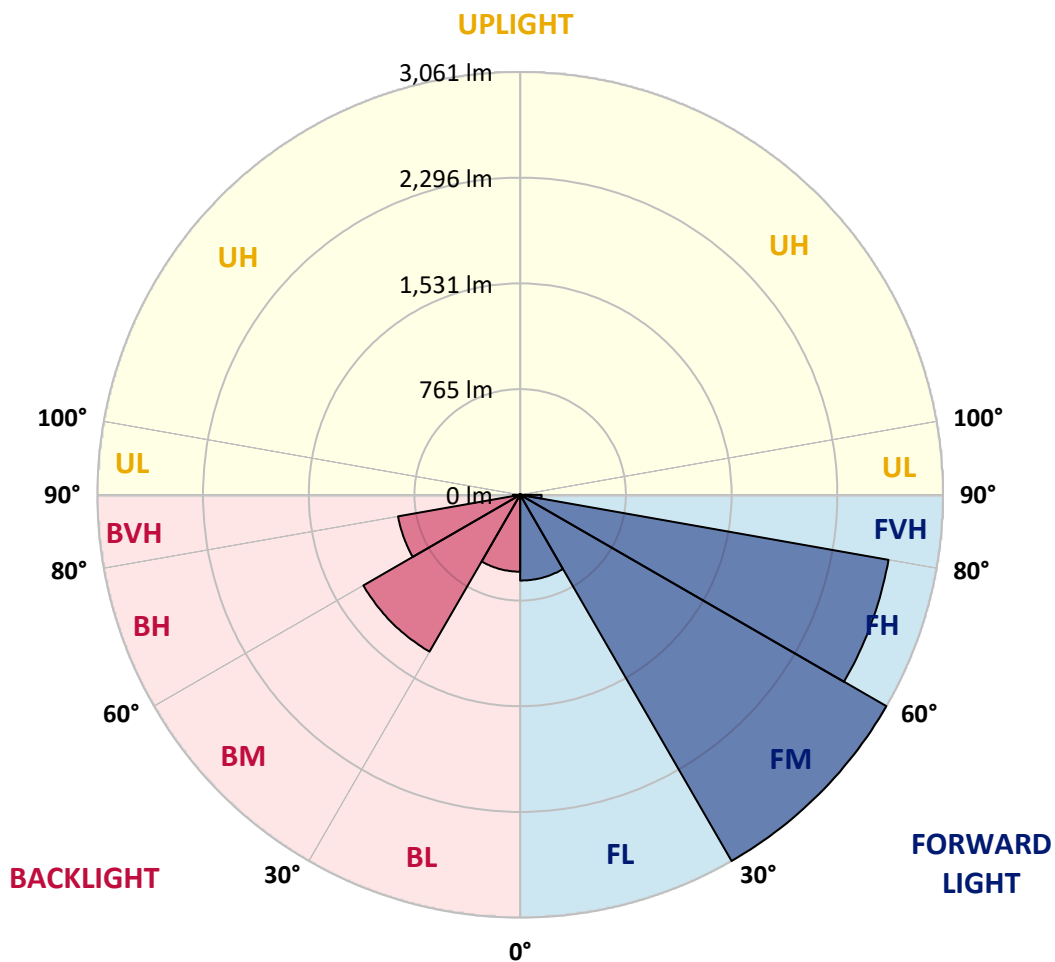
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	620.9	6.6			
FM	(30°-60°)	3061.5	32.7			
FH	(60°-80°)	2707.8	28.9			G2/5000
FVH	(80°-90°)	154.9	1.7			G2/225
BL	(0°-30°)	556.8	5.9	B2/1000		
BM	(30°-60°)	1311.0	14.0	B2/2500		
BH	(60°-80°)	897.9	9.6	B2/1000		G2/1000
BVH	(80°-90°)	52.9	0.6			G1/100
UL	(90°-100°)	8.2	0.1		U1/10	
UH	(100°-180°)	3.3	0.0		U1/10	

BUG Rating: B2-U1-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
0°	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6
2.5°	1272.5	1268.7	1257.0	1254.7	1250.0	1259.3	1260.1	1260.1	1253.1	1250.0	1247.7
5°	1284.9	1281.1	1269.4	1268.7	1262.5	1273.3	1274.1	1272.5	1269.4	1269.4	1269.4
7.5°	1319.8	1315.2	1302.8	1295.8	1286.5	1294.2	1295.0	1295.0	1294.2	1295.8	1296.6
10°	1373.3	1363.3	1349.3	1336.9	1320.6	1324.5	1322.9	1326.0	1325.3	1329.9	1328.4
12.5°	1420.6	1413.7	1396.6	1382.6	1361.7	1360.9	1354.0	1354.0	1357.8	1364.0	1364.0
15°	1461.7	1457.1	1440.0	1427.6	1406.7	1397.4	1384.2	1384.2	1389.6	1395.1	1394.3
17.5°	1496.6	1495.9	1476.5	1467.9	1446.2	1436.2	1413.7	1411.3	1417.5	1420.6	1420.6
20°	1530.0	1527.7	1509.8	1499.7	1482.7	1478.0	1440.8	1434.6	1443.9	1449.3	1448.6
22.5°	1552.5	1547.8	1531.5	1523.0	1514.5	1516.0	1474.2	1460.2	1474.2	1481.9	1480.4
25°	1570.3	1567.2	1546.3	1543.2	1543.9	1558.7	1516.0	1504.4	1519.9	1526.1	1524.6
27.5°	1592.0	1588.1	1568.8	1562.6	1579.6	1610.6	1581.2	1564.9	1581.9	1590.5	1591.2
30°	1639.3	1636.2	1610.6	1601.3	1631.6	1689.7	1668.8	1652.5	1654.8	1678.9	1682.0
32.5°	1748.7	1744.0	1716.9	1699.8	1733.2	1807.6	1796.0	1774.3	1757.2	1780.5	1786.7
35°	1861.9	1857.2	1840.9	1832.4	1883.6	1979.0	1968.1	1938.7	1885.1	1901.4	1905.3
37.5°	1929.3	1934.8	1939.4	1964.2	2049.5	2175.9	2180.6	2141.8	2055.7	2059.6	2054.2
40°	1988.3	1994.5	2017.7	2085.2	2218.6	2366.7	2428.7	2374.5	2284.5	2276.0	2254.3
42.5°	2036.4	2049.5	2091.4	2200.0	2372.9	2547.4	2655.2	2605.5	2537.3	2508.6	2479.9
45°	2093.7	2103.1	2162.8	2309.3	2508.6	2717.2	2856.8	2831.2	2791.7	2769.9	2704.0
47.5°	2138.7	2155.0	2219.4	2394.6	2628.8	2872.3	3049.1	3067.7	3069.3	3024.3	2950.6
50°	2198.4	2218.6	2275.2	2469.1	2710.2	2994.8	3229.0	3305.8	3357.7	3312.8	3201.9
52.5°	2263.6	2289.2	2348.9	2567.6	2790.1	3089.4	3390.3	3549.3	3674.9	3647.8	3529.1
55°	2348.9	2371.4	2438.8	2686.2	2902.6	3201.1	3567.1	3846.3	4106.8	4095.2	3978.9
57.5°	2438.8	2451.2	2527.2	2796.3	3057.6	3388.8	3780.4	4253.4	4670.6	4683.0	4558.2
60°	2371.4	2382.2	2471.4	2788.6	3138.3	3569.4	4006.8	4721.0	5287.9	5318.1	5211.9
62.5°	2181.4	2191.5	2295.4	2641.2	3072.4	3604.3	4158.8	5035.8	5741.5	5826.0	5697.3
65°	1939.4	1950.3	2057.3	2362.1	2880.1	3484.1	4152.6	5110.3	5923.7	6092.8	6023.0
66°	1830.9	1840.9	1945.6	2235.7	2759.1	3391.1	4088.2	5051.4	5914.4	6119.2	6075.7
67.5°	1664.1	1638.5	1732.4	2038.7	2546.6	3202.7	3911.4	4911.8	5798.1	6048.6	6033.1
70°	1273.3	1251.6	1351.6	1620.7	2096.1	2756.8	3476.4	4438.7	5297.9	5517.4	5548.4
72.5°	876.3	860.8	953.0	1182.6	1571.1	2153.5	2821.1	3655.5	4285.2	4378.3	4496.1
75°	618.0	608.7	663.8	788.6	1053.9	1483.5	2079.8	2600.9	2804.8	2767.6	2884.7
77.5°	361.4	369.9	444.3	545.9	730.5	934.4	1415.2	1600.6	1490.4	1327.6	1253.9
80°	179.1	180.7	246.6	326.5	520.3	705.7	920.5	1037.6	939.1	459.8	339.7
82.5°	83.0	90.7	121.7	150.4	231.9	510.3	778.6	991.8	842.9	188.4	150.4
85°	35.7	47.3	78.3	93.1	97.7	203.9	635.9	894.1	536.6	114.0	91.5
87.5°	10.9	25.6	53.5	65.1	58.9	74.4	238.1	407.9	194.6	56.6	51.2
90°	0.0	15.5	33.3	37.2	32.6	30.2	69.0	125.6	50.4	20.2	18.6
92.5°	0.0	7.0	18.6	17.8	13.2	8.5	10.1	10.1	3.1	2.3	2.3
95°	0.0	1.6	7.0	4.7	3.1	1.6	0.8	0.8	0.8	0.8	0.8
97.5°	0.0	0.0	0.8	1.6	1.6	0.8	0.8	0.8	0.8	0.8	0.8
100°	0.0	0.0	0.8	1.6	1.6	0.8	0.8	0.8	0.8	0.8	0.8
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



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6	1251.6
2.5°	1251.6	1250.0	1253.1	1257.0	1258.6	1260.1	1247.7	1247.7	1251.6	1266.3	1267.1
5°	1272.5	1269.4	1267.9	1269.4	1271.8	1274.1	1260.9	1260.1	1264.0	1278.0	1280.3
7.5°	1298.1	1295.8	1293.5	1291.1	1291.1	1292.7	1277.2	1274.9	1279.5	1293.5	1295.0
10°	1330.7	1327.6	1322.9	1319.8	1318.3	1316.0	1291.9	1283.4	1284.2	1297.3	1299.7
12.5°	1361.7	1360.9	1357.8	1358.6	1354.0	1342.3	1302.8	1281.8	1274.1	1283.4	1286.5
15°	1392.0	1392.0	1397.4	1402.8	1391.2	1363.3	1309.0	1271.8	1251.6	1258.6	1260.1
17.5°	1419.1	1422.2	1433.8	1440.8	1421.4	1382.6	1308.2	1252.4	1219.0	1219.8	1219.8
20°	1450.1	1453.2	1468.7	1471.0	1443.9	1393.5	1297.3	1219.8	1177.1	1172.5	1168.6
22.5°	1480.4	1485.8	1500.5	1496.6	1457.9	1392.7	1274.9	1183.4	1131.4	1122.9	1119.0
25°	1520.7	1530.0	1539.3	1521.5	1466.4	1378.8	1240.7	1142.3	1077.9	1062.4	1057.7
27.5°	1581.9	1591.2	1586.6	1546.3	1467.9	1349.3	1205.8	1091.8	1010.4	987.2	984.8
30°	1668.8	1669.6	1639.3	1570.3	1461.7	1319.8	1155.4	1024.4	932.1	906.5	905.0
32.5°	1771.9	1755.6	1695.9	1588.1	1445.5	1274.1	1083.3	943.0	853.8	828.2	823.5
35°	1884.4	1861.1	1757.2	1607.5	1415.2	1202.7	996.5	860.0	777.8	753.7	749.9
37.5°	2020.1	1983.6	1826.2	1620.7	1364.8	1111.2	905.7	777.8	697.1	673.1	667.7
40°	2194.6	2138.7	1905.3	1621.5	1288.0	1002.7	813.5	690.2	612.6	587.8	585.5
42.5°	2403.9	2307.8	1985.2	1607.5	1198.9	910.4	722.7	597.1	523.4	495.5	496.3
45°	2625.7	2504.7	2071.3	1580.4	1115.1	805.7	615.7	502.5	436.6	415.6	414.9
47.5°	2852.9	2705.6	2162.8	1550.1	1022.1	705.7	520.3	414.1	362.9	352.1	345.9
50°	3089.4	2919.6	2253.5	1519.1	918.1	607.2	428.8	342.0	300.1	289.2	285.4
52.5°	3385.7	3153.0	2341.1	1493.5	817.3	511.0	353.6	286.1	248.1	236.5	233.4
55°	3809.8	3482.6	2447.4	1461.0	730.5	426.5	300.9	241.2	210.9	200.1	197.0
57.5°	4362.0	3891.3	2587.7	1416.8	652.2	370.7	261.3	212.5	192.3	181.5	179.1
60°	4979.2	4370.5	2797.1	1373.3	588.6	341.2	240.4	201.6	182.2	171.4	169.8
62.5°	5527.5	4783.0	3030.5	1333.8	555.2	335.0	239.6	197.7	173.7	162.1	160.5
65°	5804.3	4994.0	3077.0	1269.4	538.9	351.3	255.1	197.0	166.7	153.5	152.0
66°	5817.5	4976.9	3015.8	1222.1	526.5	356.7	261.3	196.2	163.6	150.4	148.9
67.5°	5708.9	4837.3	2845.9	1103.5	494.7	354.4	267.5	194.6	159.0	145.0	144.2
70°	5169.2	4315.4	2398.5	857.7	418.7	321.8	255.1	186.9	150.4	136.5	134.2
72.5°	4148.7	3535.3	1856.5	614.2	345.1	279.9	232.6	176.0	142.7	128.0	125.6
75°	2666.0	2352.0	1266.3	441.2	292.3	245.0	204.7	167.5	134.2	118.6	117.1
77.5°	937.5	915.8	664.6	340.4	253.6	211.7	176.8	150.4	121.7	96.9	92.3
80°	243.5	255.9	307.1	292.3	214.0	176.8	146.6	128.0	104.7	76.8	75.2
82.5°	131.8	141.1	190.0	231.9	172.2	140.4	116.3	97.7	83.0	62.0	57.4
85°	83.7	88.4	123.3	141.1	112.4	103.9	86.1	70.6	61.3	39.5	35.7
87.5°	52.7	61.3	78.3	76.0	58.2	44.2	57.4	47.3	42.7	24.0	17.8
90°	15.5	20.9	31.0	31.8	24.0	17.8	27.9	27.9	27.1	13.2	0.0
92.5°	1.6	1.6	2.3	5.4	6.2	7.0	11.6	14.7	14.7	3.1	0.0
95°	0.8	0.8	0.8	1.6	2.3	3.1	3.9	6.2	6.2	0.8	0.0
97.5°	0.8	0.8	1.6	1.6	1.6	1.6	0.8	1.6	0.8	0.0	0.0
100°	0.8	1.6	1.6	1.6	1.6	1.6	1.6	0.8	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



REPORT NUMBER: P226219

CATALOG NUMBER: MLA-B2-LED-XX-T3-XX

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)