

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: McGRAW-EDISON

Report Number: P228785

Luminaire Tested: **ISC-AF-1200-LED-E1-RW-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228785
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29765)-DOWNLIGHT AND
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISC-AF-1200-LED-E1-RW-ULG
Description: IMPACT ELITE LED CYLINDER LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-RECTANGULAR WIDE TYPE I, WITH UPLIGHT
GLOW
Light Source: (16) 4000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8173.5 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type II - Medium - Non-Cutoff
BUG Rating: B3 - U5 - G3

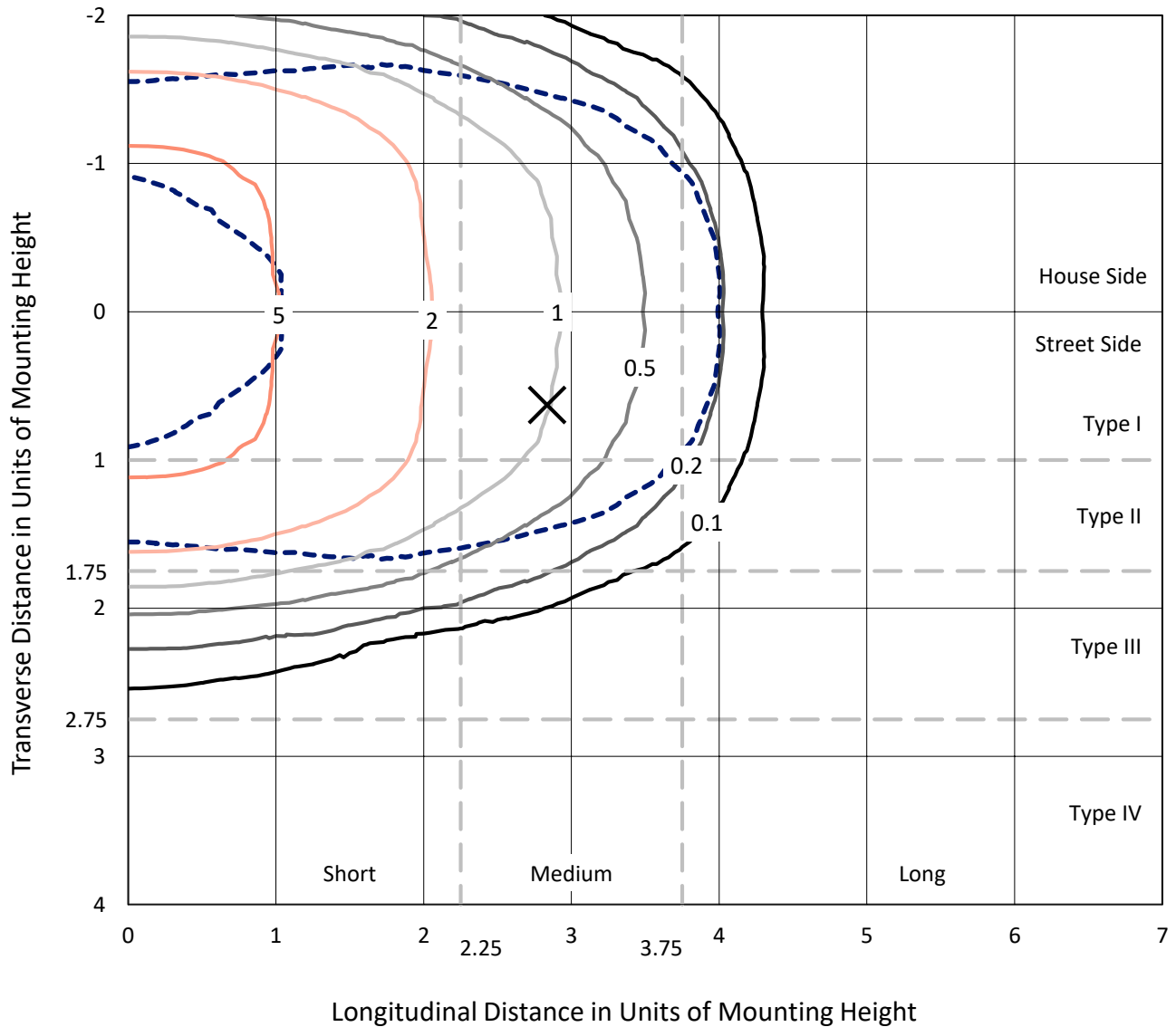
Input Watts (W): 82.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

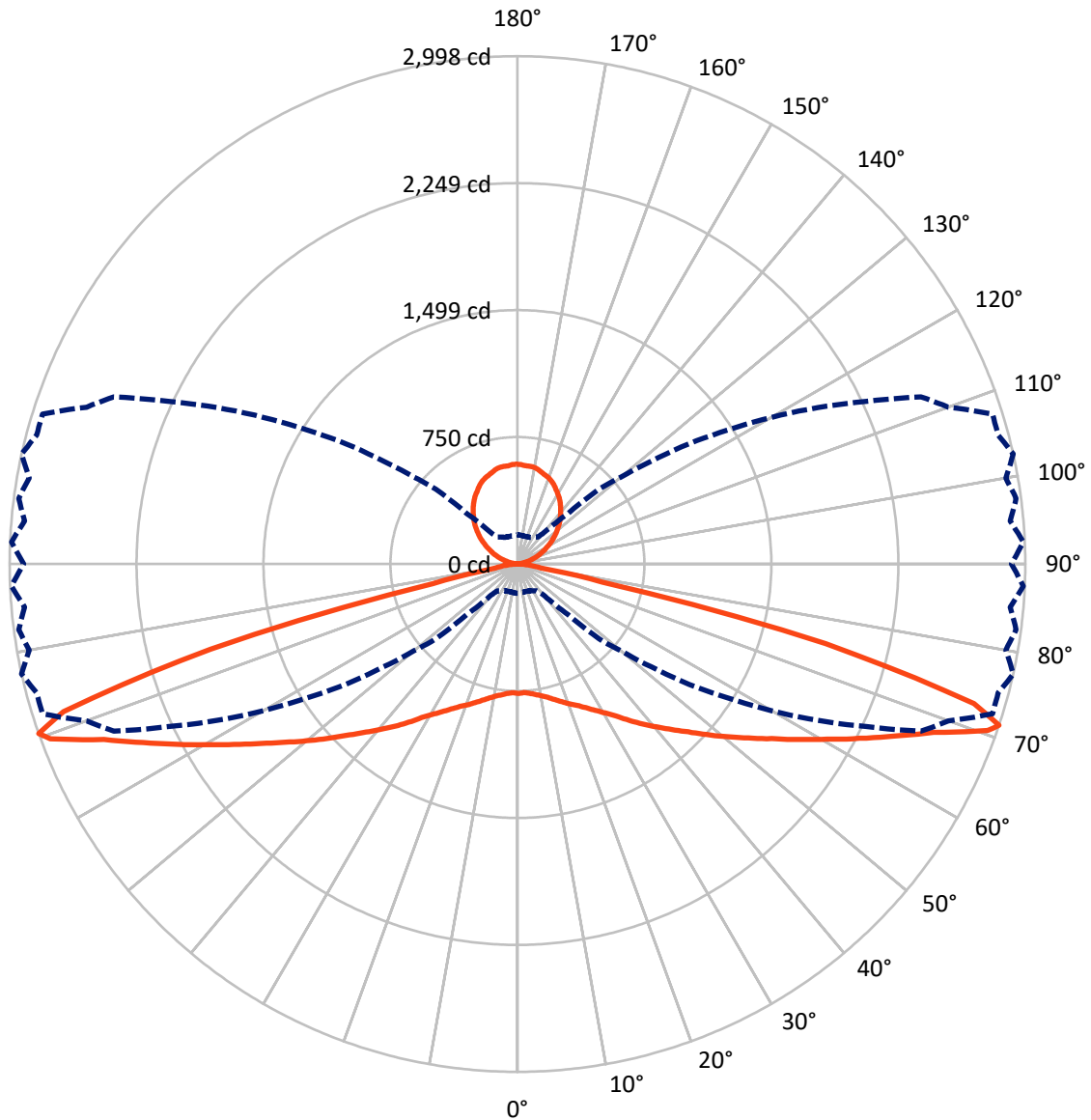
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.8 fc
 Type II - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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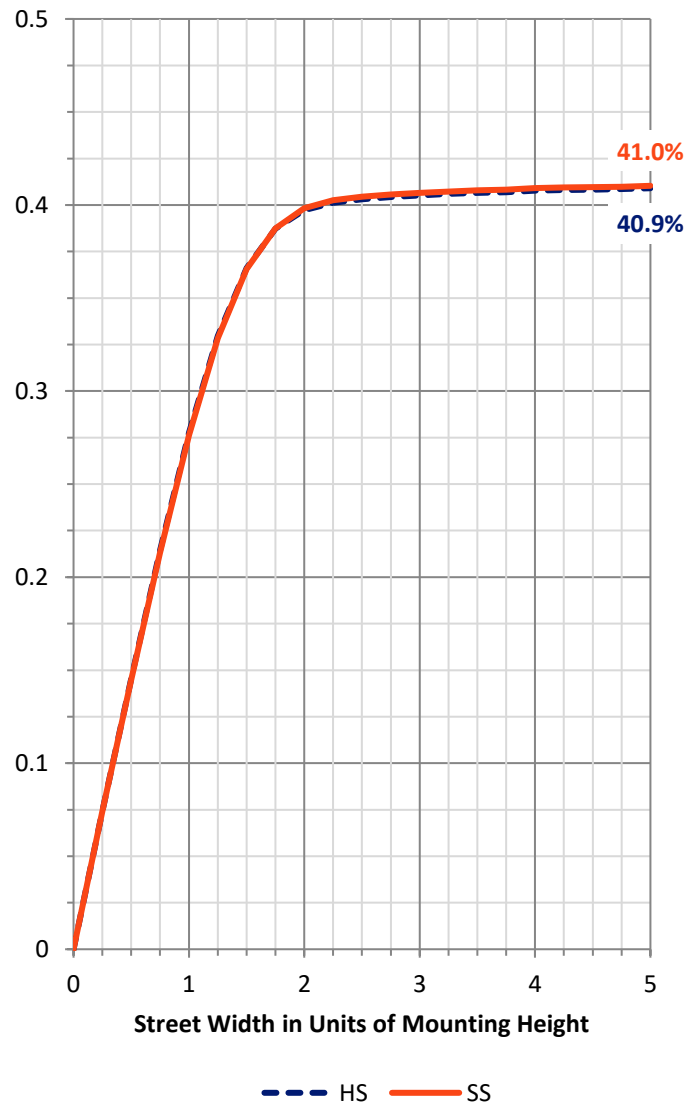
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 3357.3 | 729.4 | 4086.8 |
| | % Fixture | 41.1 | 8.9 | 50.0 |
| Street Side | Lumens | 3357.3 | 729.4 | 4086.8 |
| | % Fixture | 41.1 | 8.9 | 50.0 |
| Total | Lumens | 6714.6 | 1458.9 | 8173.5 |
| | % Fixture | 82.2 | 17.8 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 73.9 | 0.9 |
| 10°-20° | 230.8 | 2.8 |
| 20°-30° | 431.9 | 5.3 |
| 30°-40° | 751.8 | 9.2 |
| 40°-50° | 1226.7 | 15.0 |
| 50°-60° | 1692.8 | 20.7 |
| 60°-70° | 1605.8 | 19.6 |
| 70°-80° | 661.0 | 8.1 |
| 80°-90° | 39.9 | 0.5 |
| 90°-100° | 4.8 | 0.1 |
| 100°-110° | 70.6 | 0.9 |
| 110°-120° | 156.6 | 1.9 |
| 120°-130° | 229.0 | 2.8 |
| 130°-140° | 271.7 | 3.3 |
| 140°-150° | 275.5 | 3.4 |
| 150°-160° | 236.4 | 2.9 |
| 160°-170° | 158.7 | 1.9 |
| 170°-180° | 55.6 | 0.7 |
| 0°-90° | 6714.6 | 82.2 |
| 0°-180° | 8173.5 | 100.0 |



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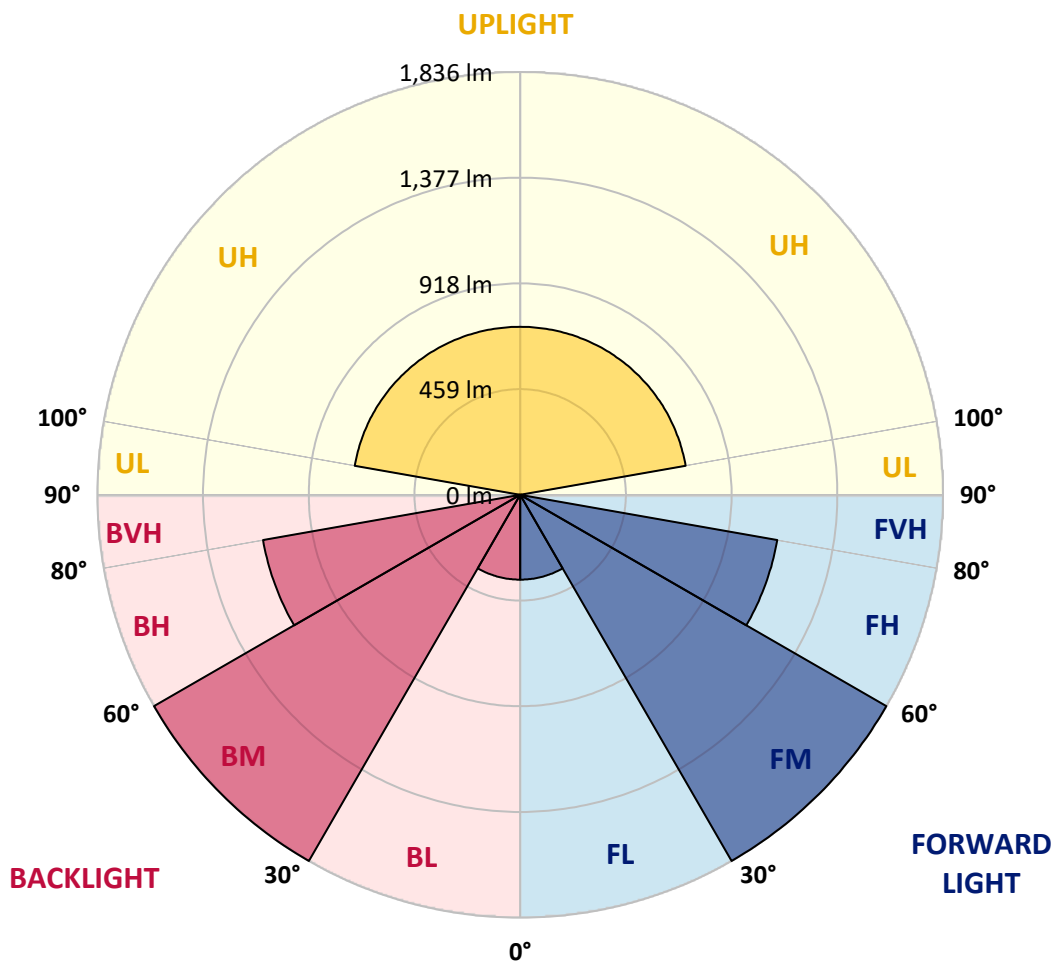
CATALOG NUMBER: ISC-AF-1200-LED-E1-RW-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|---------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 368.3 | 4.5 | | | |
| FM | (30°-60°) | 1835.7 | 22.5 | | | |
| FH | (60°-80°) | 1133.4 | 13.9 | | | G1/1800 |
| FVH | (80°-90°) | 20.0 | 0.2 | | | G1/100 |
| BL | (0°-30°) | 368.3 | 4.5 | B1/500 | | |
| BM | (30°-60°) | 1835.7 | 22.5 | B2/2500 | | |
| BH | (60°-80°) | 1133.4 | 13.9 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 20.0 | 0.2 | | | G1/100 |
| UL | (90°-100°) | 4.8 | 0.1 | | U1/10 | |
| UH | (100°-180°) | 729.4 | 8.9 | | U4/1000 | |

BUG Rating: B3-U5-G3

Type II Medium





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CATALOG NUMBER: ISC-AF-1200-LED-E1-RW-ULG

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 37.5° | 40° | 42.5° | 45° | 47.5° | 50° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 764.6 | 764.6 | 764.6 | 764.6 | 764.6 | 764.6 | 764.6 | 764.6 | 764.6 | 764.6 | 764.6 |
| 2.5° | 762.4 | 760.2 | 762.4 | 762.4 | 764.6 | 764.6 | 764.6 | 764.6 | 762.4 | 766.8 | 766.8 |
| 5° | 762.4 | 762.4 | 764.6 | 764.6 | 769.1 | 773.5 | 766.8 | 769.1 | 771.2 | 769.1 | 773.5 |
| 7.5° | 762.4 | 762.4 | 762.4 | 766.8 | 773.5 | 778.0 | 773.5 | 775.7 | 780.1 | 780.1 | 784.6 |
| 10° | 755.7 | 753.5 | 757.9 | 766.8 | 778.0 | 784.6 | 782.4 | 791.3 | 789.0 | 791.3 | 795.7 |
| 12.5° | 744.6 | 744.6 | 753.5 | 766.8 | 786.9 | 791.3 | 793.5 | 797.9 | 804.6 | 802.4 | 809.1 |
| 15° | 746.8 | 749.0 | 757.9 | 775.7 | 800.2 | 804.6 | 806.8 | 806.8 | 818.0 | 813.5 | 826.9 |
| 17.5° | 762.4 | 764.6 | 773.5 | 791.3 | 820.1 | 820.1 | 822.4 | 826.9 | 842.4 | 833.5 | 851.3 |
| 20° | 786.9 | 789.0 | 797.9 | 818.0 | 844.5 | 842.4 | 846.8 | 851.3 | 871.2 | 862.3 | 880.1 |
| 22.5° | 815.7 | 820.1 | 831.2 | 853.4 | 882.4 | 869.0 | 877.9 | 886.8 | 906.8 | 891.3 | 915.7 |
| 25° | 855.7 | 862.3 | 873.5 | 897.9 | 929.0 | 913.5 | 922.4 | 929.0 | 951.2 | 929.0 | 953.5 |
| 27.5° | 913.5 | 917.9 | 926.8 | 953.5 | 980.2 | 969.0 | 973.5 | 977.9 | 1004.6 | 980.2 | 1006.9 |
| 30° | 982.4 | 989.1 | 998.0 | 1022.4 | 1049.0 | 1031.3 | 1040.1 | 1044.6 | 1066.8 | 1042.4 | 1064.6 |
| 32.5° | 1069.1 | 1075.7 | 1086.9 | 1109.1 | 1131.3 | 1104.7 | 1106.8 | 1113.6 | 1135.8 | 1111.3 | 1135.8 |
| 35° | 1171.3 | 1175.8 | 1191.3 | 1218.0 | 1233.6 | 1191.3 | 1193.6 | 1193.6 | 1222.4 | 1189.1 | 1215.8 |
| 37.5° | 1278.0 | 1282.5 | 1300.3 | 1326.9 | 1344.7 | 1298.0 | 1298.0 | 1300.3 | 1326.9 | 1289.1 | 1313.6 |
| 40° | 1389.2 | 1402.5 | 1422.5 | 1449.1 | 1462.5 | 1409.1 | 1413.6 | 1411.4 | 1442.5 | 1398.1 | 1422.5 |
| 42.5° | 1500.3 | 1511.4 | 1540.3 | 1571.4 | 1586.9 | 1533.6 | 1535.9 | 1529.2 | 1560.3 | 1513.6 | 1533.6 |
| 45° | 1595.8 | 1604.7 | 1640.3 | 1684.7 | 1709.1 | 1653.6 | 1653.6 | 1653.6 | 1684.7 | 1627.0 | 1651.5 |
| 47.5° | 1673.6 | 1680.3 | 1718.0 | 1782.5 | 1822.6 | 1766.9 | 1771.4 | 1762.5 | 1809.2 | 1738.1 | 1771.4 |
| 50° | 1729.2 | 1731.4 | 1780.3 | 1853.7 | 1922.5 | 1871.5 | 1878.1 | 1882.5 | 1927.0 | 1864.7 | 1893.7 |
| 52.5° | 1747.0 | 1751.4 | 1806.9 | 1895.9 | 1995.9 | 1962.5 | 1987.0 | 1995.9 | 2035.9 | 1969.3 | 2009.3 |
| 55° | 1684.7 | 1695.8 | 1780.3 | 1911.5 | 2047.0 | 2035.9 | 2064.8 | 2082.6 | 2133.7 | 2078.1 | 2120.4 |
| 57.5° | 1475.8 | 1489.1 | 1607.0 | 1822.6 | 2058.2 | 2076.0 | 2116.0 | 2144.8 | 2218.2 | 2184.8 | 2231.5 |
| 60° | 1178.0 | 1189.1 | 1309.2 | 1569.2 | 1918.1 | 2027.1 | 2118.1 | 2200.4 | 2276.0 | 2282.6 | 2342.7 |
| 62.5° | 809.1 | 824.6 | 940.2 | 1189.1 | 1613.6 | 1758.0 | 1889.2 | 2024.8 | 2151.5 | 2304.8 | 2382.7 |
| 65° | 395.7 | 404.5 | 502.3 | 742.4 | 1184.7 | 1369.1 | 1522.5 | 1713.6 | 1831.4 | 2051.5 | 2178.2 |
| 67.5° | 217.8 | 217.8 | 233.3 | 308.9 | 633.4 | 815.7 | 980.2 | 1220.2 | 1340.3 | 1611.4 | 1773.7 |
| 70° | 182.3 | 182.3 | 177.8 | 188.9 | 240.1 | 284.5 | 369.0 | 506.8 | 673.4 | 946.8 | 1093.5 |
| 71° | 173.4 | 171.1 | 168.9 | 173.4 | 193.3 | 202.2 | 237.8 | 311.2 | 422.3 | 653.5 | 797.9 |
| 72.5° | 162.2 | 157.8 | 151.1 | 153.3 | 164.5 | 164.5 | 171.1 | 182.3 | 224.4 | 306.7 | 411.2 |
| 75° | 140.0 | 135.5 | 128.9 | 128.9 | 131.1 | 133.4 | 135.5 | 140.0 | 142.3 | 146.7 | 164.5 |
| 77.5° | 115.6 | 111.1 | 104.4 | 104.4 | 102.2 | 104.4 | 108.9 | 111.1 | 106.7 | 115.6 | 117.8 |
| 80° | 88.9 | 82.2 | 80.0 | 80.0 | 77.7 | 75.6 | 75.6 | 75.6 | 77.7 | 82.2 | 84.5 |
| 82.5° | 55.5 | 51.1 | 53.3 | 51.1 | 48.9 | 48.9 | 48.9 | 48.9 | 51.1 | 51.1 | 55.5 |
| 85° | 26.7 | 26.7 | 28.8 | 26.7 | 22.2 | 22.2 | 20.0 | 17.8 | 20.0 | 17.8 | 22.2 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 95° | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 97.5° | 2.0 | 2.0 | 2.0 | 3.1 | 4.1 | 5.3 | 6.6 | 8.0 | 9.2 | 10.2 | 11.3 |
| 100° | 8.2 | 8.2 | 10.2 | 14.3 | 22.5 | 24.6 | 26.6 | 28.6 | 30.7 | 31.2 | 31.7 |
| 102.5° | 28.6 | 28.6 | 32.7 | 38.9 | 46.0 | 47.3 | 48.6 | 49.9 | 51.1 | 51.4 | 51.7 |
| 105° | 55.2 | 55.2 | 57.3 | 62.4 | 67.5 | 68.5 | 69.6 | 70.6 | 71.6 | 71.8 | 72.1 |
| 107.5° | 79.8 | 78.8 | 81.8 | 85.9 | 90.0 | 90.8 | 91.6 | 92.3 | 93.1 | 93.6 | 94.1 |



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CATALOG NUMBER: ISC-AF-1200-LED-E1-RW-ULG

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 15° | 25° | 35° | 37.5° | 40° | 42.5° | 45° | 47.5° | 50° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 110° | 103.3 | 104.3 | 105.4 | 108.4 | 112.5 | 113.0 | 113.5 | 114.1 | 114.6 | 115.1 | 115.6 |
| 112.5° | 126.8 | 126.8 | 128.9 | 132.0 | 135.0 | 135.5 | 136.1 | 136.6 | 137.1 | 137.6 | 138.1 |
| 115° | 149.4 | 150.4 | 152.4 | 154.5 | 157.5 | 158.0 | 158.6 | 159.1 | 159.6 | 160.1 | 160.6 |
| 117.5° | 172.9 | 173.9 | 175.9 | 178.0 | 181.1 | 181.6 | 182.1 | 182.6 | 183.1 | 183.3 | 183.6 |
| 120° | 197.4 | 199.5 | 200.5 | 202.5 | 205.6 | 205.8 | 206.1 | 206.4 | 206.6 | 207.1 | 207.7 |
| 122.5° | 224.0 | 225.0 | 226.1 | 228.1 | 231.2 | 231.4 | 231.7 | 232.0 | 232.2 | 232.4 | 232.7 |
| 125° | 249.6 | 251.6 | 252.7 | 253.7 | 256.8 | 257.0 | 257.3 | 257.6 | 257.8 | 258.0 | 258.3 |
| 127.5° | 273.1 | 275.2 | 276.2 | 278.2 | 280.3 | 280.8 | 281.3 | 281.8 | 282.3 | 282.8 | 283.4 |
| 130° | 296.7 | 298.7 | 299.7 | 300.7 | 304.8 | 305.0 | 305.4 | 305.7 | 305.9 | 306.4 | 306.9 |
| 132.5° | 320.2 | 321.2 | 324.3 | 325.3 | 328.4 | 328.6 | 328.9 | 329.2 | 329.4 | 330.2 | 330.9 |
| 135° | 343.7 | 344.7 | 346.8 | 348.8 | 352.9 | 352.9 | 352.9 | 352.9 | 352.9 | 353.7 | 354.5 |
| 137.5° | 367.2 | 368.3 | 371.3 | 372.4 | 375.4 | 375.4 | 375.4 | 375.4 | 375.4 | 375.9 | 376.4 |
| 140° | 390.8 | 391.8 | 393.8 | 394.9 | 396.9 | 397.1 | 397.4 | 397.7 | 397.9 | 398.1 | 398.4 |
| 142.5° | 413.3 | 415.3 | 417.4 | 416.3 | 419.4 | 419.4 | 419.4 | 419.4 | 419.4 | 419.9 | 420.4 |
| 145° | 434.8 | 435.8 | 437.8 | 437.8 | 440.9 | 441.1 | 441.4 | 441.7 | 441.9 | 442.4 | 442.9 |
| 147.5° | 454.2 | 454.2 | 457.3 | 458.3 | 462.4 | 462.6 | 462.9 | 463.2 | 463.4 | 463.6 | 463.9 |
| 150° | 471.6 | 472.6 | 474.6 | 475.7 | 479.8 | 480.0 | 480.3 | 480.6 | 480.8 | 481.0 | 481.3 |
| 152.5° | 490.0 | 491.0 | 494.1 | 493.1 | 496.1 | 496.3 | 496.6 | 496.9 | 497.2 | 497.4 | 497.7 |
| 155° | 510.5 | 511.5 | 513.5 | 512.5 | 514.5 | 514.5 | 514.5 | 514.5 | 514.5 | 514.7 | 515.1 |
| 157.5° | 524.8 | 526.8 | 528.9 | 527.8 | 530.9 | 530.9 | 530.9 | 530.9 | 530.9 | 530.9 | 530.9 |
| 160° | 537.0 | 539.1 | 541.1 | 541.1 | 544.2 | 544.2 | 544.2 | 544.2 | 544.2 | 544.2 | 544.2 |
| 162.5° | 547.3 | 548.3 | 551.4 | 550.3 | 553.4 | 553.4 | 553.4 | 553.4 | 553.4 | 553.6 | 553.9 |
| 165° | 558.5 | 559.6 | 561.6 | 560.6 | 564.7 | 564.7 | 564.7 | 564.7 | 564.7 | 564.9 | 565.2 |
| 167.5° | 567.7 | 568.8 | 571.8 | 570.8 | 573.9 | 573.7 | 573.4 | 573.1 | 572.9 | 572.9 | 572.9 |
| 170° | 574.9 | 575.9 | 579.0 | 578.0 | 580.0 | 579.8 | 579.5 | 579.2 | 579.0 | 578.8 | 578.5 |
| 172.5° | 578.0 | 579.0 | 582.1 | 580.0 | 582.1 | 581.9 | 581.5 | 581.2 | 581.0 | 581.2 | 581.5 |
| 175° | 580.0 | 582.1 | 583.1 | 582.1 | 585.1 | 585.1 | 585.1 | 585.1 | 585.1 | 585.3 | 585.6 |
| 177.5° | 585.1 | 586.2 | 588.2 | 587.2 | 591.3 | 591.1 | 590.8 | 590.4 | 590.2 | 590.2 | 590.2 |
| 180° | 589.2 | 589.2 | 589.2 | 589.2 | 589.2 | 589.2 | 589.2 | 589.2 | 589.2 | 589.2 | 589.2 |



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CATALOG NUMBER: ISC-AF-1200-LED-E1-RW-ULG

CANDELA DISTRIBUTION (continued):

| | 52.5° | 55° | 57.5° | 60° | 62.5° | 65° | 67.5° | 70° | 72.5° | 75° | 77.5° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 764.6 | 764.6 | 764.6 | 764.6 | 764.6 | 764.6 | 764.6 | 764.6 | 764.6 | 764.6 | 764.6 |
| 2.5° | 760.2 | 764.6 | 762.4 | 764.6 | 760.2 | 764.6 | 757.9 | 764.6 | 762.4 | 764.6 | 760.2 |
| 5° | 766.8 | 773.5 | 766.8 | 775.7 | 766.8 | 775.7 | 766.8 | 775.7 | 769.1 | 775.7 | 766.8 |
| 7.5° | 773.5 | 786.9 | 778.0 | 789.0 | 778.0 | 791.3 | 778.0 | 791.3 | 782.4 | 793.5 | 778.0 |
| 10° | 786.9 | 802.4 | 789.0 | 802.4 | 789.0 | 804.6 | 789.0 | 806.8 | 793.5 | 811.3 | 791.3 |
| 12.5° | 797.9 | 815.7 | 802.4 | 820.1 | 800.2 | 824.6 | 804.6 | 831.2 | 809.1 | 835.8 | 809.1 |
| 15° | 813.5 | 835.8 | 822.4 | 842.4 | 822.4 | 849.0 | 824.6 | 855.7 | 831.2 | 860.2 | 831.2 |
| 17.5° | 835.8 | 860.2 | 842.4 | 866.8 | 844.5 | 873.5 | 846.8 | 880.1 | 855.7 | 884.6 | 855.7 |
| 20° | 866.8 | 886.8 | 869.0 | 895.7 | 871.2 | 897.9 | 875.7 | 902.3 | 882.4 | 909.1 | 882.4 |
| 22.5° | 902.3 | 920.1 | 906.8 | 922.4 | 900.2 | 922.4 | 900.2 | 922.4 | 906.8 | 929.0 | 906.8 |
| 25° | 942.3 | 955.7 | 940.2 | 955.7 | 935.7 | 953.5 | 933.5 | 951.2 | 935.7 | 955.7 | 940.2 |
| 27.5° | 995.7 | 1002.4 | 984.6 | 998.0 | 973.5 | 991.2 | 969.0 | 986.8 | 971.3 | 989.1 | 977.9 |
| 30° | 1053.5 | 1060.2 | 1042.4 | 1051.3 | 1024.6 | 1035.7 | 1011.3 | 1026.8 | 1013.5 | 1026.8 | 1020.2 |
| 32.5° | 1118.0 | 1126.9 | 1106.8 | 1111.3 | 1089.0 | 1091.3 | 1071.3 | 1078.0 | 1066.8 | 1071.3 | 1069.1 |
| 35° | 1191.3 | 1202.5 | 1180.2 | 1186.9 | 1162.5 | 1162.5 | 1144.7 | 1142.4 | 1138.0 | 1133.5 | 1133.5 |
| 37.5° | 1284.7 | 1289.1 | 1271.3 | 1271.3 | 1242.5 | 1242.5 | 1220.2 | 1220.2 | 1211.4 | 1202.5 | 1198.0 |
| 40° | 1386.9 | 1389.2 | 1360.2 | 1358.1 | 1329.1 | 1329.1 | 1304.7 | 1298.0 | 1282.5 | 1271.3 | 1264.7 |
| 42.5° | 1495.9 | 1493.6 | 1451.4 | 1455.9 | 1413.6 | 1415.8 | 1384.7 | 1378.0 | 1362.5 | 1349.2 | 1335.8 |
| 45° | 1607.0 | 1598.1 | 1555.8 | 1553.7 | 1504.8 | 1506.9 | 1469.2 | 1464.7 | 1442.5 | 1429.2 | 1413.6 |
| 47.5° | 1720.3 | 1715.9 | 1669.1 | 1658.1 | 1607.0 | 1604.7 | 1555.8 | 1555.8 | 1533.6 | 1520.3 | 1504.8 |
| 50° | 1838.1 | 1835.9 | 1782.5 | 1775.8 | 1722.5 | 1713.6 | 1655.9 | 1655.9 | 1629.2 | 1624.8 | 1602.6 |
| 52.5° | 1967.0 | 1958.1 | 1900.3 | 1898.1 | 1847.0 | 1840.3 | 1778.1 | 1773.7 | 1733.6 | 1731.4 | 1707.0 |
| 55° | 2093.7 | 2078.1 | 2040.4 | 2022.6 | 1971.4 | 1969.3 | 1913.6 | 1902.6 | 1851.4 | 1851.4 | 1820.3 |
| 57.5° | 2209.3 | 2196.0 | 2164.9 | 2149.3 | 2100.4 | 2093.7 | 2033.7 | 2033.7 | 1989.2 | 1987.0 | 1953.7 |
| 60° | 2329.3 | 2333.8 | 2300.4 | 2293.8 | 2247.1 | 2244.9 | 2184.8 | 2184.8 | 2140.4 | 2138.2 | 2100.4 |
| 62.5° | 2431.6 | 2476.0 | 2462.7 | 2467.2 | 2427.1 | 2420.4 | 2360.5 | 2356.0 | 2304.8 | 2298.2 | 2267.1 |
| 65° | 2331.5 | 2487.1 | 2587.1 | 2653.8 | 2649.3 | 2647.2 | 2589.4 | 2580.5 | 2516.0 | 2498.3 | 2447.1 |
| 67.5° | 1958.1 | 2160.4 | 2342.7 | 2542.6 | 2689.3 | 2800.5 | 2833.9 | 2820.5 | 2764.9 | 2713.8 | 2651.6 |
| 70° | 1311.3 | 1544.8 | 1775.8 | 2024.8 | 2276.0 | 2520.4 | 2771.6 | 2880.5 | 2996.1 | 2956.1 | 2945.0 |
| 71° | 998.0 | 1238.0 | 1469.2 | 1731.4 | 1998.1 | 2269.3 | 2578.2 | 2707.1 | 2940.6 | 2938.3 | 2998.3 |
| 72.5° | 562.3 | 775.7 | 1022.4 | 1251.4 | 1502.5 | 1782.5 | 2100.4 | 2242.6 | 2578.2 | 2644.9 | 2818.3 |
| 75° | 180.0 | 246.7 | 326.7 | 515.7 | 671.3 | 926.8 | 1162.5 | 1304.7 | 1527.0 | 1638.1 | 1880.4 |
| 77.5° | 120.0 | 133.4 | 137.8 | 160.0 | 180.0 | 255.6 | 346.7 | 424.5 | 466.8 | 489.0 | 513.4 |
| 80° | 86.6 | 93.4 | 97.8 | 108.9 | 111.1 | 124.5 | 124.5 | 137.8 | 135.5 | 144.4 | 137.8 |
| 82.5° | 55.5 | 62.2 | 64.4 | 68.9 | 71.1 | 80.0 | 84.5 | 93.4 | 93.4 | 97.8 | 95.5 |
| 85° | 26.7 | 31.1 | 31.1 | 35.6 | 35.6 | 42.2 | 42.2 | 48.9 | 48.9 | 55.5 | 53.3 |
| 87.5° | 2.3 | 2.3 | 2.3 | 4.4 | 4.4 | 4.4 | 6.6 | 8.9 | 8.9 | 8.9 | 8.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 95° | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 97.5° | 12.3 | 13.3 | 11.8 | 10.2 | 8.7 | 7.2 | 6.6 | 6.1 | 5.6 | 5.1 | 4.9 |
| 100° | 32.2 | 32.7 | 32.2 | 31.7 | 31.2 | 30.7 | 29.9 | 29.2 | 28.4 | 27.6 | 27.4 |
| 102.5° | 52.0 | 52.2 | 52.0 | 51.7 | 51.4 | 51.1 | 50.6 | 50.1 | 49.6 | 49.1 | 49.3 |
| 105° | 72.4 | 72.6 | 72.6 | 72.6 | 72.6 | 72.6 | 72.1 | 71.6 | 71.1 | 70.6 | 71.1 |
| 107.5° | 94.6 | 95.1 | 94.9 | 94.6 | 94.3 | 94.1 | 93.9 | 93.6 | 93.3 | 93.1 | 93.3 |



REPORT NUMBER: P228785

CATALOG NUMBER: ISC-AF-1200-LED-E1-RW-ULG

CANDELA DISTRIBUTION (continued):

| | 52.5° | 55° | 57.5° | 60° | 62.5° | 65° | 67.5° | 70° | 72.5° | 75° | 77.5° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 110° | 116.1 | 116.6 | 116.6 | 116.6 | 116.6 | 116.6 | 116.4 | 116.1 | 115.8 | 115.6 | 115.8 |
| 112.5° | 138.6 | 139.1 | 139.1 | 139.1 | 139.1 | 139.1 | 138.9 | 138.6 | 138.3 | 138.1 | 138.6 |
| 115° | 161.1 | 161.6 | 161.6 | 161.6 | 161.6 | 161.6 | 161.6 | 161.6 | 161.6 | 161.6 | 162.1 |
| 117.5° | 183.9 | 184.1 | 184.3 | 184.6 | 184.9 | 185.2 | 184.9 | 184.6 | 184.3 | 184.1 | 184.6 |
| 120° | 208.2 | 208.7 | 208.7 | 208.7 | 208.7 | 208.7 | 208.7 | 208.7 | 208.7 | 208.7 | 209.2 |
| 122.5° | 233.0 | 233.2 | 233.2 | 233.2 | 233.2 | 233.2 | 233.4 | 233.7 | 234.1 | 234.3 | 235.3 |
| 125° | 258.6 | 258.8 | 259.0 | 259.3 | 259.6 | 259.8 | 259.8 | 259.8 | 259.8 | 259.8 | 260.6 |
| 127.5° | 283.9 | 284.4 | 284.2 | 283.9 | 283.6 | 283.4 | 283.6 | 283.9 | 284.2 | 284.4 | 285.2 |
| 130° | 307.4 | 307.9 | 307.9 | 307.9 | 307.9 | 307.9 | 308.1 | 308.4 | 308.7 | 308.9 | 309.7 |
| 132.5° | 331.6 | 332.5 | 332.5 | 332.5 | 332.5 | 332.5 | 332.7 | 333.0 | 333.3 | 333.5 | 334.3 |
| 135° | 355.2 | 356.0 | 356.0 | 356.0 | 356.0 | 356.0 | 356.2 | 356.5 | 356.8 | 357.0 | 357.5 |
| 137.5° | 377.0 | 377.5 | 377.5 | 377.5 | 377.5 | 377.5 | 377.7 | 378.0 | 378.3 | 378.5 | 379.5 |
| 140° | 398.7 | 399.0 | 399.0 | 399.0 | 399.0 | 399.0 | 399.5 | 400.0 | 400.5 | 401.0 | 402.0 |
| 142.5° | 420.9 | 421.5 | 421.5 | 421.5 | 421.5 | 421.5 | 421.7 | 422.0 | 422.3 | 422.5 | 423.3 |
| 145° | 443.4 | 444.0 | 443.8 | 443.4 | 443.1 | 442.9 | 443.1 | 443.4 | 443.8 | 444.0 | 444.8 |
| 147.5° | 464.2 | 464.4 | 463.9 | 463.4 | 462.9 | 462.4 | 462.6 | 462.9 | 463.2 | 463.4 | 464.2 |
| 150° | 481.6 | 481.8 | 481.3 | 480.8 | 480.3 | 479.8 | 479.8 | 479.8 | 479.8 | 479.8 | 480.8 |
| 152.5° | 498.0 | 498.2 | 498.0 | 497.7 | 497.4 | 497.2 | 497.2 | 497.2 | 497.2 | 497.2 | 498.0 |
| 155° | 515.4 | 515.6 | 515.4 | 515.1 | 514.7 | 514.5 | 514.7 | 515.1 | 515.4 | 515.6 | 516.4 |
| 157.5° | 530.9 | 530.9 | 530.4 | 529.9 | 529.4 | 528.9 | 529.1 | 529.4 | 529.7 | 529.9 | 531.1 |
| 160° | 544.2 | 544.2 | 543.7 | 543.2 | 542.7 | 542.2 | 542.2 | 542.2 | 542.2 | 542.2 | 543.0 |
| 162.5° | 554.2 | 554.4 | 553.9 | 553.4 | 552.9 | 552.4 | 551.9 | 551.4 | 550.9 | 550.3 | 550.9 |
| 165° | 565.5 | 565.7 | 564.9 | 564.2 | 563.4 | 562.6 | 562.1 | 561.6 | 561.1 | 560.6 | 561.1 |
| 167.5° | 572.9 | 572.9 | 572.3 | 571.8 | 571.3 | 570.8 | 571.0 | 571.3 | 571.6 | 571.8 | 572.9 |
| 170° | 578.2 | 578.0 | 577.8 | 577.5 | 577.1 | 576.9 | 577.5 | 578.0 | 578.5 | 579.0 | 580.2 |
| 172.5° | 581.9 | 582.1 | 581.5 | 581.0 | 580.5 | 580.0 | 580.2 | 580.5 | 580.8 | 581.0 | 581.9 |
| 175° | 585.9 | 586.2 | 585.3 | 584.6 | 583.9 | 583.1 | 582.6 | 582.1 | 581.5 | 581.0 | 581.9 |
| 177.5° | 590.2 | 590.2 | 589.4 | 588.7 | 588.0 | 587.2 | 587.2 | 587.2 | 587.2 | 587.2 | 588.0 |
| 180° | 589.2 | 589.2 | 589.2 | 589.2 | 589.2 | 589.2 | 589.2 | 589.2 | 589.2 | 589.2 | 589.2 |



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CATALOG NUMBER: ISC-AF-1200-LED-E1-RW-ULG

CANDELA DISTRIBUTION (continued):

| | 80° | 82.5° | 85° | 87.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 764.6 | 764.6 | 764.6 | 764.6 | 764.6 |
| 2.5° | 766.8 | 764.6 | 766.8 | 762.4 | 766.8 |
| 5° | 778.0 | 769.1 | 780.1 | 769.1 | 780.1 |
| 7.5° | 795.7 | 784.6 | 797.9 | 780.1 | 795.7 |
| 10° | 811.3 | 795.7 | 813.5 | 795.7 | 811.3 |
| 12.5° | 837.9 | 813.5 | 842.4 | 813.5 | 842.4 |
| 15° | 864.6 | 835.8 | 871.2 | 840.1 | 869.0 |
| 17.5° | 889.0 | 862.3 | 895.7 | 864.6 | 893.4 |
| 20° | 911.2 | 886.8 | 915.7 | 884.6 | 915.7 |
| 22.5° | 933.5 | 917.9 | 940.2 | 917.9 | 940.2 |
| 25° | 962.4 | 951.2 | 966.8 | 951.2 | 966.8 |
| 27.5° | 995.7 | 991.2 | 1000.1 | 989.1 | 1002.4 |
| 30° | 1033.5 | 1035.7 | 1038.0 | 1035.7 | 1040.1 |
| 32.5° | 1080.2 | 1091.3 | 1086.9 | 1086.9 | 1086.9 |
| 35° | 1144.7 | 1164.6 | 1151.3 | 1155.7 | 1153.6 |
| 37.5° | 1204.6 | 1233.6 | 1215.8 | 1222.4 | 1218.0 |
| 40° | 1271.3 | 1291.4 | 1286.9 | 1286.9 | 1282.5 |
| 42.5° | 1344.7 | 1369.1 | 1362.5 | 1364.7 | 1360.2 |
| 45° | 1424.7 | 1447.0 | 1438.1 | 1435.8 | 1438.1 |
| 47.5° | 1515.8 | 1540.3 | 1529.2 | 1527.0 | 1529.2 |
| 50° | 1611.4 | 1640.3 | 1631.4 | 1627.0 | 1631.4 |
| 52.5° | 1715.9 | 1751.4 | 1747.0 | 1742.5 | 1749.2 |
| 55° | 1838.1 | 1871.5 | 1867.0 | 1871.5 | 1873.6 |
| 57.5° | 1960.4 | 1998.1 | 1989.2 | 2000.4 | 2004.8 |
| 60° | 2113.7 | 2135.9 | 2138.2 | 2140.4 | 2142.6 |
| 62.5° | 2269.3 | 2278.2 | 2284.9 | 2291.5 | 2293.8 |
| 65° | 2449.4 | 2451.5 | 2456.0 | 2449.4 | 2456.0 |
| 67.5° | 2622.7 | 2607.1 | 2604.9 | 2611.6 | 2616.0 |
| 70° | 2891.7 | 2891.7 | 2869.4 | 2900.5 | 2873.9 |
| 71° | 2927.2 | 2969.4 | 2920.5 | 2989.5 | 2916.1 |
| 72.5° | 2753.8 | 2831.6 | 2776.1 | 2838.3 | 2764.9 |
| 75° | 1915.9 | 2095.9 | 2093.7 | 2182.6 | 2111.5 |
| 77.5° | 531.2 | 497.9 | 531.2 | 457.9 | 437.8 |
| 80° | 144.4 | 131.1 | 142.3 | 120.0 | 135.5 |
| 82.5° | 95.5 | 82.2 | 80.0 | 64.4 | 68.9 |
| 85° | 55.5 | 42.2 | 42.2 | 33.3 | 35.6 |
| 87.5° | 8.9 | 2.3 | 8.9 | 4.4 | 6.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 95° | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 97.5° | 4.6 | 4.3 | 4.1 | 4.1 | 4.1 |
| 100° | 27.1 | 26.8 | 26.6 | 26.1 | 25.6 |
| 102.5° | 49.6 | 49.9 | 50.1 | 49.6 | 49.1 |
| 105° | 71.6 | 72.1 | 72.6 | 71.6 | 70.6 |
| 107.5° | 93.6 | 93.9 | 94.1 | 93.6 | 93.1 |



REPORT NUMBER: P228785

CATALOG NUMBER: ISC-AF-1200-LED-E1-RW-ULG

CANDELA DISTRIBUTION (continued):

| | 80° | 82.5° | 85° | 87.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 110° | 116.1 | 116.4 | 116.6 | 116.1 | 115.6 |
| 112.5° | 139.1 | 139.6 | 140.1 | 139.1 | 138.1 |
| 115° | 162.6 | 163.2 | 163.7 | 163.2 | 162.6 |
| 117.5° | 185.2 | 185.7 | 186.2 | 185.2 | 184.1 |
| 120° | 209.7 | 210.2 | 210.7 | 209.7 | 208.7 |
| 122.5° | 236.3 | 237.3 | 238.3 | 237.8 | 237.3 |
| 125° | 261.4 | 262.1 | 262.9 | 262.4 | 261.9 |
| 127.5° | 285.9 | 286.6 | 287.4 | 285.9 | 284.4 |
| 130° | 310.5 | 311.2 | 312.0 | 311.0 | 310.0 |
| 132.5° | 335.0 | 335.7 | 336.6 | 335.5 | 334.5 |
| 135° | 358.0 | 358.5 | 359.1 | 358.5 | 358.0 |
| 137.5° | 380.5 | 381.6 | 382.6 | 381.6 | 380.5 |
| 140° | 403.0 | 404.1 | 405.1 | 404.1 | 403.0 |
| 142.5° | 424.0 | 424.7 | 425.5 | 425.0 | 424.5 |
| 145° | 445.5 | 446.2 | 447.0 | 446.0 | 445.0 |
| 147.5° | 464.9 | 465.6 | 466.5 | 464.9 | 463.4 |
| 150° | 481.8 | 482.8 | 483.9 | 482.3 | 480.8 |
| 152.5° | 498.7 | 499.4 | 500.2 | 498.7 | 497.2 |
| 155° | 517.1 | 517.8 | 518.6 | 517.6 | 516.6 |
| 157.5° | 532.4 | 533.8 | 535.0 | 533.5 | 531.9 |
| 160° | 543.7 | 544.4 | 545.2 | 544.2 | 543.2 |
| 162.5° | 551.4 | 551.9 | 552.4 | 550.9 | 549.3 |
| 165° | 561.6 | 562.1 | 562.6 | 561.6 | 560.6 |
| 167.5° | 573.9 | 574.9 | 575.9 | 574.9 | 573.9 |
| 170° | 581.5 | 582.9 | 584.1 | 583.1 | 582.1 |
| 172.5° | 582.6 | 583.3 | 584.1 | 582.6 | 581.0 |
| 175° | 582.6 | 583.3 | 584.1 | 582.6 | 581.0 |
| 177.5° | 588.7 | 589.4 | 590.2 | 588.7 | 587.2 |
| 180° | 589.2 | 589.2 | 589.2 | 589.2 | 589.2 |

(END OF REPORT)