

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: P227997

Luminaire Tested: **ISC-AF-450-LED-E1-T4W-7060-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227997
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29757)-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-450-LED-E1-T4W-7060-ULG
Description: IMPACT ELITE LED CYLINDER LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV WIDE, WITH UPLIGHT GLOW
Light Source: (16) 5700K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4422.2 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U5 - G1

Input Watts (W): 42.01
Input Voltage (V): 120
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

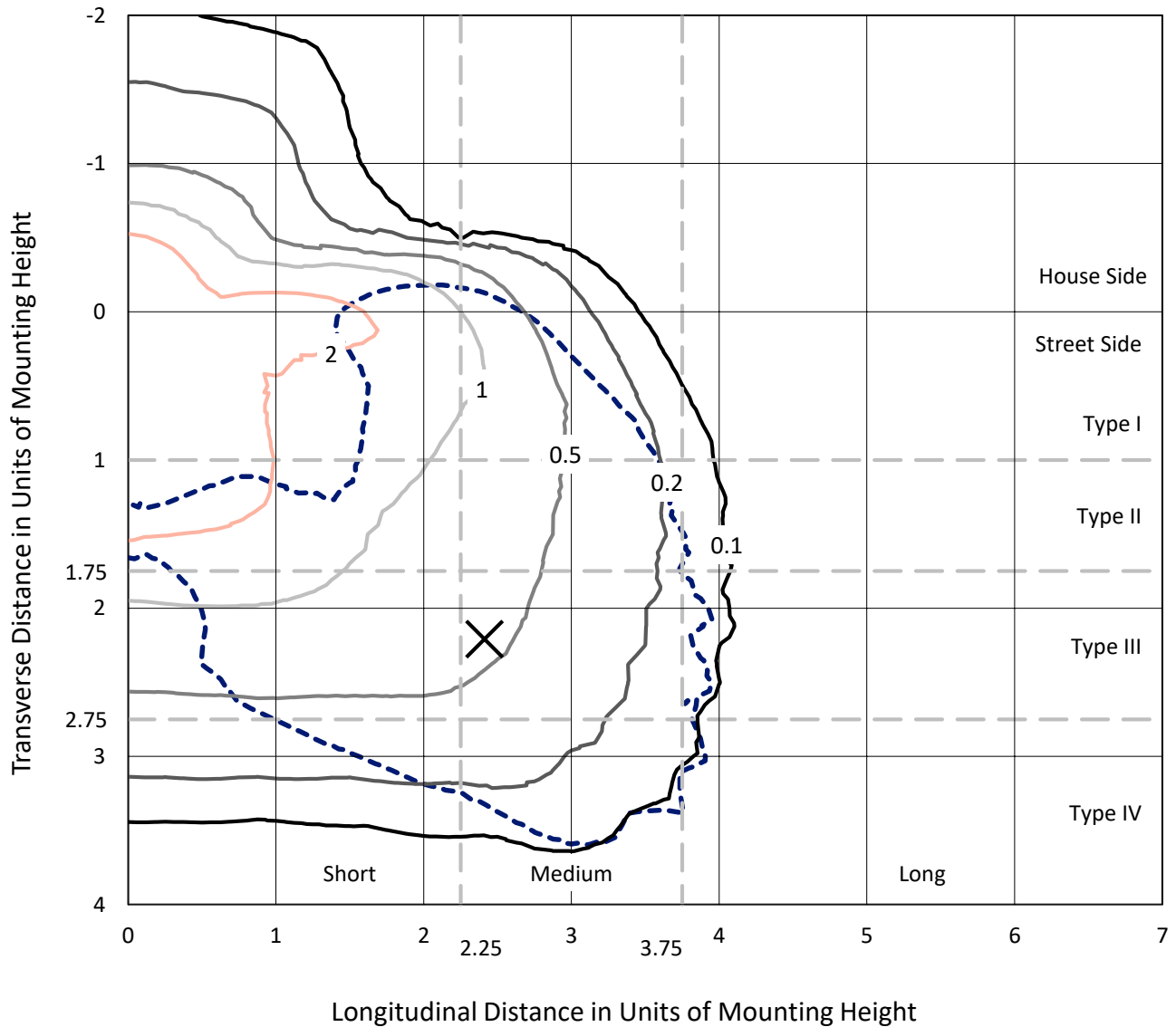


REPORT NUMBER: P227997

CATALOG NUMBER: ISC-AF-450-LED-E1-T4W-7060-ULG

Iso-Footcandle Lines of Horizontal Illumination

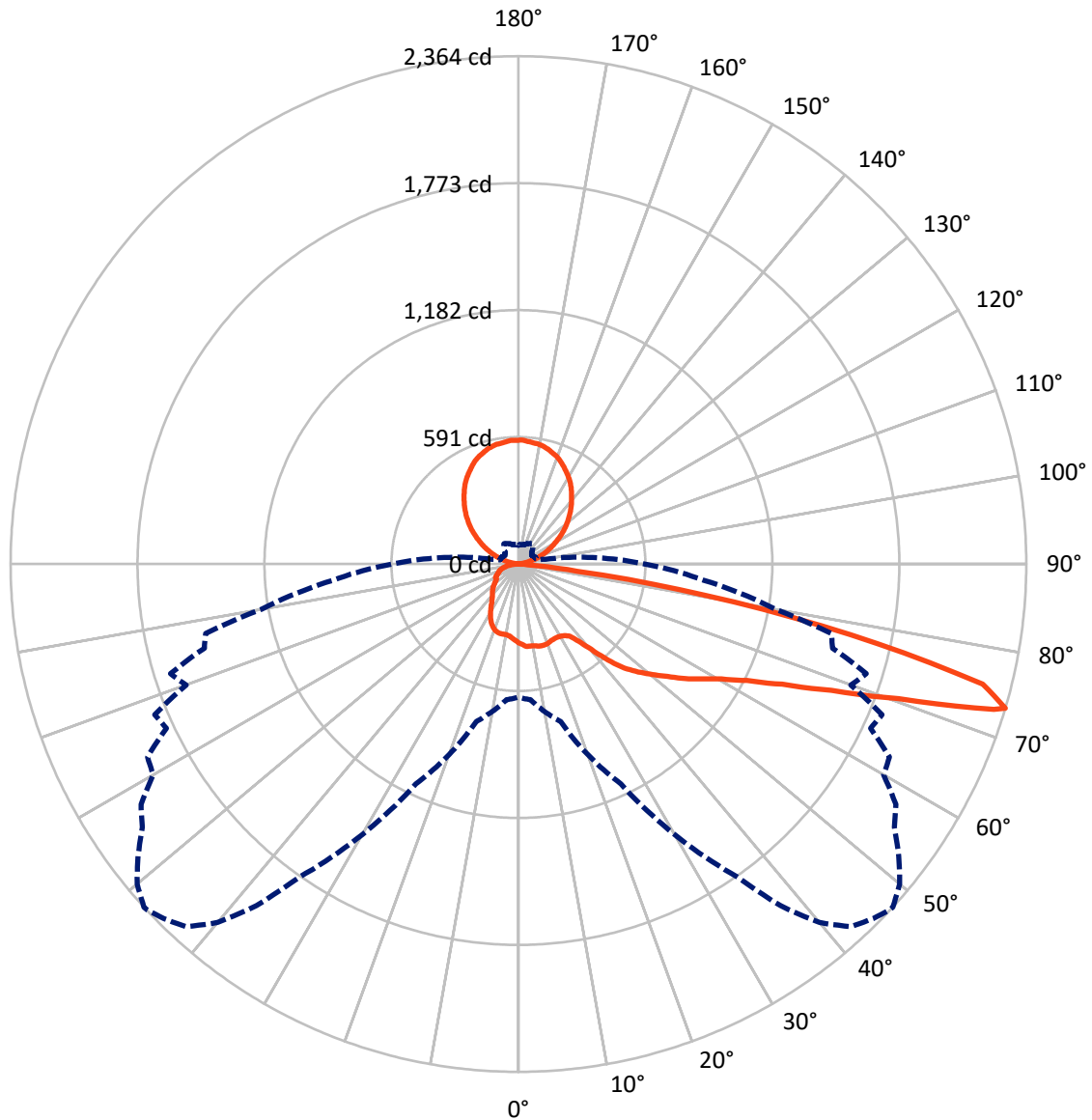
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P227997
CATALOG NUMBER: ISC-AF-450-LED-E1-T4W-7060-ULG

Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

REPORT NUMBER: P227997

CATALOG NUMBER: ISC-AF-450-LED-E1-T4W-7060-ULG

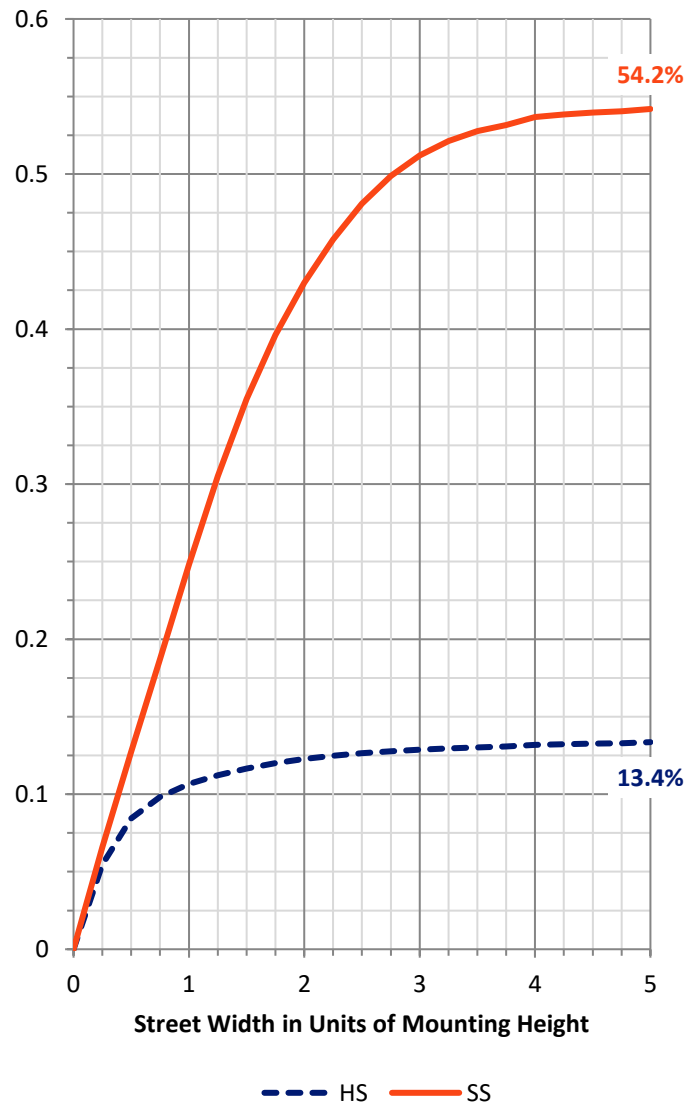
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 598.6 | 713.1 | 1311.7 |
| | % Fixture | 13.5 | 16.1 | 29.7 |
| Street Side | Lumens | 2397.4 | 713.1 | 3110.5 |
| | % Fixture | 54.2 | 16.1 | 70.3 |
| Total | Lumens | 2996.0 | 1426.2 | 4422.2 |
| | % Fixture | 67.7 | 32.3 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 35.0 | 0.8 |
| 10°-20° | 104.2 | 2.4 |
| 20°-30° | 160.2 | 3.6 |
| 30°-40° | 233.8 | 5.3 |
| 40°-50° | 385.4 | 8.7 |
| 50°-60° | 603.5 | 13.6 |
| 60°-70° | 818.6 | 18.5 |
| 70°-80° | 606.2 | 13.7 |
| 80°-90° | 49.0 | 1.1 |
| 90°-100° | 4.7 | 0.1 |
| 100°-110° | 69.0 | 1.6 |
| 110°-120° | 153.0 | 3.5 |
| 120°-130° | 223.9 | 5.1 |
| 130°-140° | 265.6 | 6.0 |
| 140°-150° | 269.3 | 6.1 |
| 150°-160° | 231.1 | 5.2 |
| 160°-170° | 155.1 | 3.5 |
| 170°-180° | 54.3 | 1.2 |
| 0°-90° | 2996.0 | 67.7 |
| 0°-180° | 4422.2 | 100.0 |



REPORT NUMBER: P227997

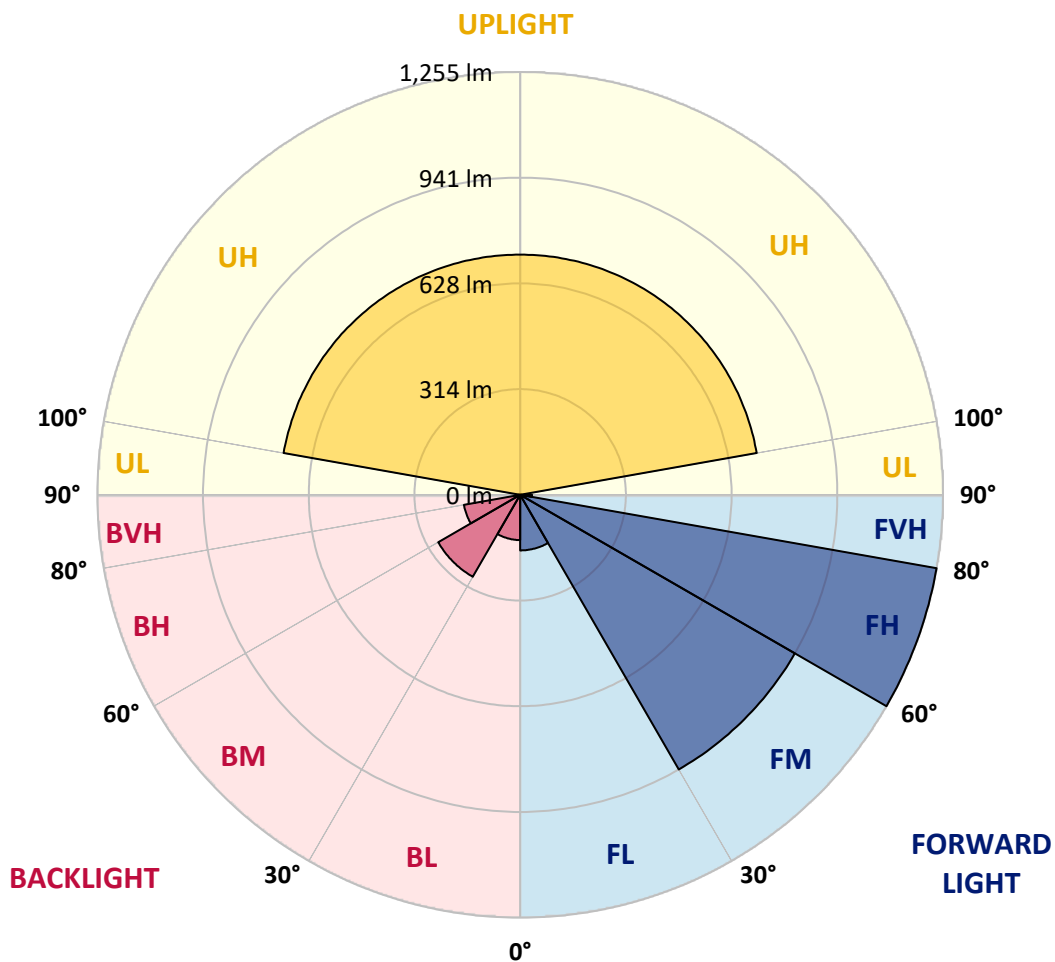
CATALOG NUMBER: ISC-AF-450-LED-E1-T4W-7060-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|---------|---------|
| | | | B | U | G |
| FL (0°-30°) | 165.1 | 3.7 | | | |
| FM (30°-60°) | 941.6 | 21.3 | | | |
| FH (60°-80°) | 1255.3 | 28.4 | | | G1/1800 |
| FVH (80°-90°) | 35.3 | 0.8 | | | G1/100 |
| BL (0°-30°) | 134.4 | 3.0 | B1/500 | | |
| BM (30°-60°) | 281.1 | 6.4 | B1/1000 | | |
| BH (60°-80°) | 169.5 | 3.8 | B1/500 | | G1/500 |
| BVH (80°-90°) | 13.6 | 0.3 | | | G1/100 |
| UL (90°-100°) | 4.7 | 0.1 | | U1/10 | |
| UH (100°-180°) | 713.1 | 16.1 | | U4/1000 | |

BUG Rating: B1-U5-G1

Type IV Medium





REPORT NUMBER: P227997

CATALOG NUMBER: ISC-AF-450-LED-E1-T4W-7060-ULG

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 37.5° | 40° | 42.5° | 45° | 47° | 47.5° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 |
| 2.5° | 389.7 | 388.7 | 385.7 | 384.7 | 381.8 | 379.8 | 378.8 | 377.8 | 380.8 | 378.8 | 375.8 |
| 5° | 414.4 | 412.4 | 408.5 | 402.5 | 396.6 | 392.6 | 391.6 | 389.7 | 389.7 | 387.7 | 385.7 |
| 7.5° | 432.2 | 431.2 | 425.3 | 416.4 | 406.5 | 399.6 | 395.6 | 392.6 | 393.6 | 391.6 | 385.7 |
| 10° | 449.0 | 447.0 | 437.1 | 426.3 | 411.4 | 403.5 | 398.6 | 393.6 | 397.6 | 394.6 | 386.7 |
| 12.5° | 461.9 | 459.9 | 446.0 | 432.2 | 415.4 | 406.5 | 401.5 | 398.6 | 402.5 | 400.5 | 391.6 |
| 15° | 468.8 | 466.8 | 453.0 | 436.2 | 418.3 | 408.5 | 406.5 | 404.5 | 407.5 | 403.5 | 395.6 |
| 17.5° | 464.8 | 464.8 | 452.0 | 434.2 | 419.3 | 409.4 | 406.5 | 404.5 | 408.5 | 404.5 | 395.6 |
| 20° | 450.0 | 452.0 | 443.1 | 424.3 | 413.4 | 406.5 | 403.5 | 399.6 | 403.5 | 399.6 | 393.6 |
| 22.5° | 431.2 | 433.2 | 428.2 | 411.4 | 403.5 | 398.6 | 397.6 | 393.6 | 396.6 | 393.6 | 387.7 |
| 25° | 414.4 | 414.4 | 412.4 | 397.6 | 396.6 | 392.6 | 393.6 | 391.6 | 393.6 | 389.7 | 385.7 |
| 27.5° | 415.4 | 415.4 | 407.5 | 392.6 | 391.6 | 391.6 | 391.6 | 391.6 | 392.6 | 389.7 | 385.7 |
| 30° | 473.7 | 475.7 | 453.0 | 411.4 | 396.6 | 394.6 | 395.6 | 394.6 | 395.6 | 394.6 | 389.7 |
| 32.5° | 561.8 | 561.8 | 540.0 | 475.7 | 423.3 | 410.4 | 405.5 | 404.5 | 401.5 | 400.5 | 396.6 |
| 35° | 648.8 | 647.8 | 626.0 | 554.8 | 488.6 | 463.8 | 448.0 | 433.2 | 426.3 | 419.3 | 412.4 |
| 37.5° | 722.0 | 719.0 | 716.0 | 634.9 | 565.7 | 537.0 | 518.2 | 496.5 | 482.6 | 470.8 | 454.9 |
| 40° | 790.2 | 795.2 | 806.0 | 709.1 | 642.9 | 616.1 | 597.4 | 569.7 | 555.8 | 541.0 | 522.2 |
| 42.5° | 884.2 | 891.1 | 892.1 | 789.2 | 713.1 | 695.3 | 680.4 | 659.7 | 644.8 | 627.0 | 610.2 |
| 45° | 975.2 | 976.1 | 979.1 | 875.3 | 799.1 | 776.4 | 765.5 | 745.7 | 726.9 | 704.2 | 690.3 |
| 47.5° | 1037.5 | 1034.5 | 1047.4 | 974.2 | 900.0 | 874.3 | 858.5 | 828.8 | 800.1 | 771.4 | 750.7 |
| 50° | 1113.6 | 1110.7 | 1110.7 | 1086.9 | 1016.7 | 987.0 | 959.3 | 903.9 | 873.3 | 837.7 | 808.0 |
| 52.5° | 1180.9 | 1170.0 | 1176.9 | 1190.8 | 1139.3 | 1101.7 | 1053.3 | 991.0 | 950.4 | 906.9 | 869.3 |
| 55° | 1272.8 | 1216.5 | 1232.3 | 1280.8 | 1261.0 | 1202.6 | 1138.3 | 1072.1 | 1025.6 | 976.1 | 941.5 |
| 57.5° | 1241.2 | 1202.6 | 1249.1 | 1334.2 | 1333.2 | 1278.8 | 1224.4 | 1143.3 | 1096.8 | 1050.3 | 1007.8 |
| 60° | 1127.5 | 1147.2 | 1248.1 | 1370.8 | 1375.7 | 1333.2 | 1288.7 | 1213.5 | 1176.9 | 1128.5 | 1085.9 |
| 62.5° | 1039.4 | 1068.1 | 1206.6 | 1367.8 | 1424.2 | 1384.6 | 1348.0 | 1303.5 | 1277.8 | 1237.2 | 1193.7 |
| 65° | 1034.5 | 1051.3 | 1185.8 | 1364.8 | 1492.4 | 1471.6 | 1454.8 | 1434.1 | 1429.1 | 1399.4 | 1349.0 |
| 67.5° | 1082.0 | 1097.8 | 1221.4 | 1441.0 | 1593.3 | 1584.4 | 1609.1 | 1605.2 | 1626.9 | 1612.1 | 1570.5 |
| 70° | 989.0 | 997.9 | 1150.2 | 1467.7 | 1823.7 | 1863.3 | 1918.7 | 1915.7 | 1962.2 | 1926.6 | 1878.1 |
| 72.5° | 694.3 | 712.1 | 846.6 | 1212.5 | 1828.7 | 2040.3 | 2168.9 | 2277.7 | 2328.1 | 2337.0 | 2314.3 |
| 73° | 620.1 | 634.0 | 758.6 | 1129.4 | 1779.2 | 2004.7 | 2177.8 | 2289.5 | 2334.0 | 2361.7 | 2363.7 |
| 75° | 215.6 | 222.5 | 331.3 | 684.4 | 1422.2 | 1749.5 | 1972.1 | 2073.0 | 2062.1 | 2143.2 | 2232.2 |
| 77.5° | 69.2 | 70.2 | 86.0 | 177.0 | 686.4 | 1085.9 | 1334.2 | 1427.1 | 1373.7 | 1461.7 | 1580.4 |
| 80° | 42.5 | 44.5 | 56.4 | 80.1 | 180.0 | 329.3 | 557.8 | 698.2 | 669.6 | 751.6 | 878.2 |
| 82.5° | 25.7 | 26.7 | 34.6 | 49.5 | 72.2 | 80.1 | 104.8 | 142.4 | 175.1 | 210.7 | 275.9 |
| 85° | 11.9 | 12.9 | 16.8 | 22.7 | 29.7 | 30.7 | 29.7 | 27.7 | 31.6 | 36.6 | 42.5 |
| 87.5° | 0.0 | 0.0 | 1.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| 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 | 3.0 | 4.0 | 5.2 | 6.5 | 7.8 | 9.0 | 9.8 | 10.0 |
| 100° | 8.0 | 8.0 | 10.0 | 14.0 | 22.0 | 24.0 | 26.0 | 28.0 | 30.0 | 30.4 | 30.5 |
| 102.5° | 28.0 | 28.0 | 32.0 | 38.0 | 45.0 | 46.2 | 47.5 | 48.8 | 50.0 | 50.2 | 50.2 |
| 105° | 54.0 | 54.0 | 56.0 | 61.0 | 66.0 | 67.0 | 68.0 | 69.0 | 70.0 | 70.2 | 70.2 |
| 107.5° | 78.0 | 77.0 | 80.0 | 84.0 | 88.0 | 88.8 | 89.5 | 90.2 | 91.0 | 91.4 | 91.5 |



REPORT NUMBER: P227997

CATALOG NUMBER: ISC-AF-450-LED-E1-T4W-7060-ULG

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 15° | 25° | 35° | 37.5° | 40° | 42.5° | 45° | 47° | 47.5° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 110° | 101.0 | 102.0 | 103.0 | 106.0 | 110.0 | 110.5 | 111.0 | 111.5 | 112.0 | 112.4 | 112.5 |
| 112.5° | 124.0 | 124.0 | 126.0 | 129.0 | 132.0 | 132.5 | 133.0 | 133.5 | 134.0 | 134.4 | 134.5 |
| 115° | 146.0 | 147.0 | 149.0 | 151.0 | 154.0 | 154.5 | 155.0 | 155.5 | 156.0 | 156.4 | 156.5 |
| 117.5° | 169.0 | 170.0 | 172.0 | 174.0 | 177.0 | 177.5 | 178.0 | 178.5 | 179.0 | 179.2 | 179.2 |
| 120° | 193.0 | 195.0 | 196.0 | 198.0 | 201.0 | 201.2 | 201.5 | 201.8 | 202.0 | 202.4 | 202.5 |
| 122.5° | 219.0 | 220.0 | 221.0 | 223.0 | 226.0 | 226.2 | 226.5 | 226.8 | 227.0 | 227.2 | 227.2 |
| 125° | 244.0 | 246.0 | 247.0 | 248.0 | 251.0 | 251.2 | 251.5 | 251.8 | 252.0 | 252.2 | 252.2 |
| 127.5° | 267.0 | 269.0 | 270.0 | 272.0 | 274.0 | 274.5 | 275.0 | 275.5 | 276.0 | 276.4 | 276.5 |
| 130° | 290.0 | 292.0 | 293.0 | 294.0 | 298.0 | 298.2 | 298.5 | 298.8 | 299.0 | 299.4 | 299.5 |
| 132.5° | 313.0 | 314.0 | 317.0 | 318.0 | 321.0 | 321.2 | 321.5 | 321.8 | 322.0 | 322.6 | 322.8 |
| 135° | 336.0 | 337.0 | 339.0 | 341.0 | 345.0 | 345.0 | 345.0 | 345.0 | 345.0 | 345.6 | 345.8 |
| 137.5° | 359.0 | 360.0 | 363.0 | 364.0 | 367.0 | 367.0 | 367.0 | 367.0 | 367.0 | 367.4 | 367.5 |
| 140° | 382.0 | 383.0 | 385.0 | 386.0 | 388.0 | 388.2 | 388.5 | 388.8 | 389.0 | 389.2 | 389.2 |
| 142.5° | 404.0 | 406.0 | 408.0 | 407.0 | 410.0 | 410.0 | 410.0 | 410.0 | 410.0 | 410.4 | 410.5 |
| 145° | 425.0 | 426.0 | 428.0 | 428.0 | 431.0 | 431.2 | 431.5 | 431.8 | 432.0 | 432.4 | 432.5 |
| 147.5° | 444.0 | 444.0 | 447.0 | 448.0 | 452.0 | 452.2 | 452.5 | 452.8 | 453.0 | 453.2 | 453.2 |
| 150° | 461.0 | 462.0 | 464.0 | 465.0 | 469.0 | 469.2 | 469.5 | 469.8 | 470.0 | 470.2 | 470.2 |
| 152.5° | 479.0 | 480.0 | 483.0 | 482.0 | 485.0 | 485.2 | 485.5 | 485.8 | 486.0 | 486.2 | 486.2 |
| 155° | 499.0 | 500.0 | 502.0 | 501.0 | 503.0 | 503.0 | 503.0 | 503.0 | 503.0 | 503.2 | 503.2 |
| 157.5° | 513.0 | 515.0 | 517.0 | 516.0 | 519.0 | 519.0 | 519.0 | 519.0 | 519.0 | 519.0 | 519.0 |
| 160° | 525.0 | 527.0 | 529.0 | 529.0 | 532.0 | 532.0 | 532.0 | 532.0 | 532.0 | 532.0 | 532.0 |
| 162.5° | 535.0 | 536.0 | 539.0 | 538.0 | 541.0 | 541.0 | 541.0 | 541.0 | 541.0 | 541.2 | 541.2 |
| 165° | 546.0 | 547.0 | 549.0 | 548.0 | 552.0 | 552.0 | 552.0 | 552.0 | 552.0 | 552.2 | 552.2 |
| 167.5° | 555.0 | 556.0 | 559.0 | 558.0 | 561.0 | 560.8 | 560.5 | 560.2 | 560.0 | 560.0 | 560.0 |
| 170° | 562.0 | 563.0 | 566.0 | 565.0 | 567.0 | 566.8 | 566.5 | 566.2 | 566.0 | 565.8 | 565.8 |
| 172.5° | 565.0 | 566.0 | 569.0 | 567.0 | 569.0 | 568.8 | 568.5 | 568.2 | 568.0 | 568.2 | 568.2 |
| 175° | 567.0 | 569.0 | 570.0 | 569.0 | 572.0 | 572.0 | 572.0 | 572.0 | 572.0 | 572.2 | 572.2 |
| 177.5° | 572.0 | 573.0 | 575.0 | 574.0 | 578.0 | 577.8 | 577.5 | 577.2 | 577.0 | 577.0 | 577.0 |
| 180° | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 |



REPORT NUMBER: P227997

CATALOG NUMBER: ISC-AF-450-LED-E1-T4W-7060-ULG

CANDELA DISTRIBUTION (continued):

| | 50° | 52.5° | 55° | 57.5° | 60° | 62.5° | 65° | 67.5° | 70° | 72.5° | 75° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 |
| 2.5° | 378.8 | 375.8 | 375.8 | 371.9 | 373.8 | 369.9 | 371.9 | 367.9 | 369.9 | 364.9 | 367.9 |
| 5° | 384.7 | 379.8 | 379.8 | 373.8 | 374.8 | 367.9 | 370.9 | 363.0 | 366.9 | 358.0 | 364.0 |
| 7.5° | 387.7 | 378.8 | 382.7 | 371.9 | 376.8 | 364.9 | 370.9 | 358.0 | 365.9 | 352.1 | 362.0 |
| 10° | 391.6 | 378.8 | 385.7 | 373.8 | 379.8 | 365.9 | 373.8 | 358.0 | 367.9 | 351.1 | 360.0 |
| 12.5° | 397.6 | 383.7 | 389.7 | 375.8 | 383.7 | 367.9 | 375.8 | 360.0 | 369.9 | 351.1 | 362.0 |
| 15° | 401.5 | 387.7 | 393.6 | 379.8 | 385.7 | 367.9 | 377.8 | 359.0 | 369.9 | 350.1 | 362.0 |
| 17.5° | 400.5 | 387.7 | 393.6 | 377.8 | 384.7 | 366.9 | 376.8 | 358.0 | 367.9 | 347.1 | 360.0 |
| 20° | 396.6 | 385.7 | 389.7 | 375.8 | 381.8 | 364.0 | 372.9 | 354.1 | 364.9 | 344.2 | 357.0 |
| 22.5° | 391.6 | 380.8 | 385.7 | 372.9 | 378.8 | 361.0 | 368.9 | 352.1 | 363.0 | 342.2 | 354.1 |
| 25° | 388.7 | 379.8 | 382.7 | 369.9 | 377.8 | 362.0 | 369.9 | 351.1 | 363.0 | 342.2 | 356.0 |
| 27.5° | 387.7 | 379.8 | 385.7 | 373.8 | 380.8 | 366.9 | 374.8 | 358.0 | 367.9 | 346.2 | 360.0 |
| 30° | 393.6 | 386.7 | 391.6 | 381.8 | 387.7 | 373.8 | 381.8 | 365.9 | 375.8 | 355.1 | 370.9 |
| 32.5° | 400.5 | 393.6 | 398.6 | 389.7 | 398.6 | 384.7 | 394.6 | 378.8 | 390.7 | 369.9 | 384.7 |
| 35° | 415.4 | 407.5 | 414.4 | 404.5 | 414.4 | 403.5 | 414.4 | 397.6 | 412.4 | 391.6 | 407.5 |
| 37.5° | 454.0 | 432.2 | 439.1 | 428.2 | 438.1 | 424.3 | 443.1 | 426.3 | 443.1 | 423.3 | 445.1 |
| 40° | 515.3 | 476.7 | 483.6 | 460.9 | 475.7 | 454.9 | 477.7 | 464.8 | 487.6 | 462.9 | 490.5 |
| 42.5° | 595.4 | 558.8 | 551.9 | 517.2 | 530.1 | 505.4 | 528.1 | 505.4 | 536.0 | 512.3 | 546.9 |
| 45° | 668.6 | 630.0 | 619.1 | 585.5 | 594.4 | 561.8 | 590.4 | 558.8 | 599.3 | 571.6 | 615.2 |
| 47.5° | 728.9 | 683.4 | 674.5 | 635.9 | 651.8 | 621.1 | 656.7 | 623.1 | 672.5 | 644.8 | 695.3 |
| 50° | 784.3 | 727.9 | 725.9 | 684.4 | 711.1 | 680.4 | 730.9 | 708.1 | 756.6 | 728.9 | 788.2 |
| 52.5° | 847.6 | 776.4 | 786.3 | 748.7 | 791.2 | 765.5 | 823.8 | 791.2 | 854.5 | 824.8 | 890.1 |
| 55° | 914.8 | 839.7 | 865.4 | 842.6 | 893.1 | 876.3 | 925.7 | 896.0 | 958.3 | 928.7 | 997.9 |
| 57.5° | 989.0 | 924.7 | 970.2 | 959.3 | 1003.8 | 983.1 | 1038.5 | 1011.8 | 1074.1 | 1049.3 | 1118.6 |
| 60° | 1085.9 | 1043.4 | 1087.9 | 1086.9 | 1125.5 | 1124.5 | 1160.1 | 1144.3 | 1203.6 | 1192.7 | 1256.0 |
| 62.5° | 1211.5 | 1177.9 | 1225.4 | 1212.5 | 1259.0 | 1251.1 | 1294.6 | 1294.6 | 1337.1 | 1352.0 | 1415.3 |
| 65° | 1380.6 | 1336.1 | 1392.5 | 1372.7 | 1419.2 | 1421.2 | 1448.9 | 1453.8 | 1505.3 | 1522.1 | 1576.5 |
| 67.5° | 1610.1 | 1558.7 | 1603.2 | 1565.6 | 1619.0 | 1616.0 | 1639.8 | 1649.7 | 1656.6 | 1697.1 | 1703.1 |
| 70° | 1940.4 | 1863.3 | 1903.8 | 1852.4 | 1862.3 | 1869.2 | 1824.7 | 1857.3 | 1778.2 | 1842.5 | 1755.5 |
| 72.5° | 2297.5 | 2209.4 | 2139.2 | 2087.8 | 1985.9 | 1971.1 | 1841.5 | 1869.2 | 1701.1 | 1756.5 | 1580.4 |
| 73° | 2316.2 | 2231.2 | 2136.2 | 2082.8 | 1962.2 | 1946.4 | 1807.9 | 1831.6 | 1645.7 | 1698.1 | 1513.2 |
| 75° | 2105.6 | 2128.3 | 1899.9 | 1921.6 | 1712.0 | 1736.7 | 1520.1 | 1547.8 | 1319.3 | 1358.9 | 1120.5 |
| 77.5° | 1419.2 | 1495.4 | 1239.2 | 1335.2 | 1075.0 | 1171.0 | 877.2 | 886.1 | 646.8 | 604.3 | 410.4 |
| 80° | 703.2 | 768.5 | 544.9 | 595.4 | 399.6 | 392.6 | 239.3 | 198.8 | 169.1 | 173.1 | 178.0 |
| 82.5° | 202.7 | 228.5 | 141.4 | 140.4 | 99.9 | 94.9 | 94.9 | 100.9 | 102.9 | 114.7 | 111.8 |
| 85° | 38.6 | 46.5 | 40.5 | 54.4 | 48.5 | 53.4 | 49.5 | 57.4 | 53.4 | 66.3 | 57.4 |
| 87.5° | 1.0 | 0.0 | 1.0 | 3.0 | 3.0 | 6.9 | 4.9 | 7.9 | 7.9 | 13.8 | 12.9 |
| 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° | 11.0 | 12.0 | 13.0 | 11.5 | 10.0 | 8.5 | 7.0 | 6.5 | 6.0 | 5.5 | 5.0 |
| 100° | 31.0 | 31.5 | 32.0 | 31.5 | 31.0 | 30.5 | 30.0 | 29.2 | 28.5 | 27.8 | 27.0 |
| 102.5° | 50.5 | 50.8 | 51.0 | 50.8 | 50.5 | 50.2 | 50.0 | 49.5 | 49.0 | 48.5 | 48.0 |
| 105° | 70.5 | 70.8 | 71.0 | 71.0 | 71.0 | 71.0 | 71.0 | 70.5 | 70.0 | 69.5 | 69.0 |
| 107.5° | 92.0 | 92.5 | 93.0 | 92.8 | 92.5 | 92.2 | 92.0 | 91.8 | 91.5 | 91.2 | 91.0 |



REPORT NUMBER: P227997

CATALOG NUMBER: ISC-AF-450-LED-E1-T4W-7060-ULG

CANDELA DISTRIBUTION (continued):

| | 50° | 52.5° | 55° | 57.5° | 60° | 62.5° | 65° | 67.5° | 70° | 72.5° | 75° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 110° | 113.0 | 113.5 | 114.0 | 114.0 | 114.0 | 114.0 | 114.0 | 113.8 | 113.5 | 113.2 | 113.0 |
| 112.5° | 135.0 | 135.5 | 136.0 | 136.0 | 136.0 | 136.0 | 136.0 | 135.8 | 135.5 | 135.2 | 135.0 |
| 115° | 157.0 | 157.5 | 158.0 | 158.0 | 158.0 | 158.0 | 158.0 | 158.0 | 158.0 | 158.0 | 158.0 |
| 117.5° | 179.5 | 179.8 | 180.0 | 180.2 | 180.5 | 180.8 | 181.0 | 180.8 | 180.5 | 180.2 | 180.0 |
| 120° | 203.0 | 203.5 | 204.0 | 204.0 | 204.0 | 204.0 | 204.0 | 204.0 | 204.0 | 204.0 | 204.0 |
| 122.5° | 227.5 | 227.8 | 228.0 | 228.0 | 228.0 | 228.0 | 228.0 | 228.2 | 228.5 | 228.8 | 229.0 |
| 125° | 252.5 | 252.8 | 253.0 | 253.2 | 253.5 | 253.8 | 254.0 | 254.0 | 254.0 | 254.0 | 254.0 |
| 127.5° | 277.0 | 277.5 | 278.0 | 277.8 | 277.5 | 277.2 | 277.0 | 277.2 | 277.5 | 277.8 | 278.0 |
| 130° | 300.0 | 300.5 | 301.0 | 301.0 | 301.0 | 301.0 | 301.0 | 301.2 | 301.5 | 301.8 | 302.0 |
| 132.5° | 323.5 | 324.2 | 325.0 | 325.0 | 325.0 | 325.0 | 325.0 | 325.2 | 325.5 | 325.8 | 326.0 |
| 135° | 346.5 | 347.2 | 348.0 | 348.0 | 348.0 | 348.0 | 348.0 | 348.2 | 348.5 | 348.8 | 349.0 |
| 137.5° | 368.0 | 368.5 | 369.0 | 369.0 | 369.0 | 369.0 | 369.0 | 369.2 | 369.5 | 369.8 | 370.0 |
| 140° | 389.5 | 389.8 | 390.0 | 390.0 | 390.0 | 390.0 | 390.0 | 390.5 | 391.0 | 391.5 | 392.0 |
| 142.5° | 411.0 | 411.5 | 412.0 | 412.0 | 412.0 | 412.0 | 412.0 | 412.2 | 412.5 | 412.8 | 413.0 |
| 145° | 433.0 | 433.5 | 434.0 | 433.8 | 433.5 | 433.2 | 433.0 | 433.2 | 433.5 | 433.8 | 434.0 |
| 147.5° | 453.5 | 453.8 | 454.0 | 453.5 | 453.0 | 452.5 | 452.0 | 452.2 | 452.5 | 452.8 | 453.0 |
| 150° | 470.5 | 470.8 | 471.0 | 470.5 | 470.0 | 469.5 | 469.0 | 469.0 | 469.0 | 469.0 | 469.0 |
| 152.5° | 486.5 | 486.8 | 487.0 | 486.8 | 486.5 | 486.2 | 486.0 | 486.0 | 486.0 | 486.0 | 486.0 |
| 155° | 503.5 | 503.8 | 504.0 | 503.8 | 503.5 | 503.2 | 503.0 | 503.2 | 503.5 | 503.8 | 504.0 |
| 157.5° | 519.0 | 519.0 | 519.0 | 518.5 | 518.0 | 517.5 | 517.0 | 517.2 | 517.5 | 517.8 | 518.0 |
| 160° | 532.0 | 532.0 | 532.0 | 531.5 | 531.0 | 530.5 | 530.0 | 530.0 | 530.0 | 530.0 | 530.0 |
| 162.5° | 541.5 | 541.8 | 542.0 | 541.5 | 541.0 | 540.5 | 540.0 | 539.5 | 539.0 | 538.5 | 538.0 |
| 165° | 552.5 | 552.8 | 553.0 | 552.2 | 551.5 | 550.8 | 550.0 | 549.5 | 549.0 | 548.5 | 548.0 |
| 167.5° | 560.0 | 560.0 | 560.0 | 559.5 | 559.0 | 558.5 | 558.0 | 558.2 | 558.5 | 558.8 | 559.0 |
| 170° | 565.5 | 565.2 | 565.0 | 564.8 | 564.5 | 564.2 | 564.0 | 564.5 | 565.0 | 565.5 | 566.0 |
| 172.5° | 568.5 | 568.8 | 569.0 | 568.5 | 568.0 | 567.5 | 567.0 | 567.2 | 567.5 | 567.8 | 568.0 |
| 175° | 572.5 | 572.8 | 573.0 | 572.2 | 571.5 | 570.8 | 570.0 | 569.5 | 569.0 | 568.5 | 568.0 |
| 177.5° | 577.0 | 577.0 | 577.0 | 576.2 | 575.5 | 574.8 | 574.0 | 574.0 | 574.0 | 574.0 | 574.0 |
| 180° | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 |



REPORT NUMBER: P227997

CATALOG NUMBER: ISC-AF-450-LED-E1-T4W-7060-ULG

CANDELA DISTRIBUTION (continued):

| | 77.5° | 80° | 85° | 90° | 95° | 100° | 102.5° | 105° | 107.5° | 110° | 112.5° |
|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|-------|--------|
| 0° | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 |
| 2.5° | 364.0 | 368.9 | 366.9 | 364.9 | 363.0 | 362.0 | 358.0 | 360.0 | 355.1 | 359.0 | 355.1 |
| 5° | 356.0 | 362.0 | 359.0 | 355.1 | 353.1 | 351.1 | 344.2 | 349.1 | 341.2 | 348.1 | 342.2 |
| 7.5° | 347.1 | 357.0 | 354.1 | 350.1 | 346.2 | 344.2 | 330.3 | 341.2 | 329.3 | 339.2 | 329.3 |
| 10° | 344.2 | 355.1 | 351.1 | 346.2 | 342.2 | 340.2 | 323.4 | 336.3 | 323.4 | 334.3 | 321.4 |
| 12.5° | 342.2 | 355.1 | 349.1 | 344.2 | 340.2 | 337.3 | 318.5 | 334.3 | 317.5 | 333.3 | 318.5 |
| 15° | 340.2 | 355.1 | 347.1 | 341.2 | 337.3 | 334.3 | 314.5 | 332.3 | 313.5 | 331.3 | 314.5 |
| 17.5° | 338.2 | 352.1 | 345.2 | 338.2 | 334.3 | 332.3 | 310.5 | 329.3 | 309.6 | 329.3 | 312.5 |
| 20° | 335.3 | 349.1 | 341.2 | 334.3 | 330.3 | 327.4 | 305.6 | 325.4 | 304.6 | 324.4 | 305.6 |
| 22.5° | 331.3 | 346.2 | 339.2 | 332.3 | 328.3 | 323.4 | 299.7 | 320.4 | 298.7 | 318.5 | 300.7 |
| 25° | 332.3 | 348.1 | 339.2 | 332.3 | 326.4 | 321.4 | 295.7 | 318.5 | 293.7 | 313.5 | 293.7 |
| 27.5° | 337.3 | 351.1 | 342.2 | 336.3 | 328.3 | 322.4 | 295.7 | 316.5 | 291.8 | 308.6 | 287.8 |
| 30° | 347.1 | 361.0 | 353.1 | 344.2 | 337.3 | 329.3 | 300.7 | 317.5 | 291.8 | 302.6 | 281.9 |
| 32.5° | 364.0 | 376.8 | 368.9 | 362.0 | 354.1 | 342.2 | 310.5 | 322.4 | 293.7 | 298.7 | 276.9 |
| 35° | 385.7 | 401.5 | 397.6 | 392.6 | 382.7 | 362.0 | 327.4 | 329.3 | 297.7 | 294.7 | 270.0 |
| 37.5° | 421.3 | 443.1 | 442.1 | 441.1 | 430.2 | 392.6 | 346.2 | 343.2 | 301.6 | 291.8 | 261.1 |
| 40° | 467.8 | 493.5 | 500.4 | 507.4 | 484.6 | 429.2 | 367.9 | 357.0 | 303.6 | 285.8 | 247.3 |
| 42.5° | 522.2 | 556.8 | 577.6 | 590.4 | 548.9 | 469.8 | 392.6 | 372.9 | 303.6 | 276.9 | 231.4 |
| 45° | 589.4 | 630.0 | 669.6 | 683.4 | 620.1 | 513.3 | 418.3 | 385.7 | 299.7 | 263.1 | 210.7 |
| 47.5° | 671.5 | 719.0 | 773.4 | 780.3 | 697.2 | 559.8 | 436.2 | 394.6 | 286.8 | 244.3 | 191.9 |
| 50° | 762.5 | 819.9 | 900.0 | 895.0 | 779.3 | 608.2 | 448.0 | 400.5 | 264.1 | 222.5 | 169.1 |
| 52.5° | 864.4 | 936.6 | 1050.3 | 1027.6 | 879.2 | 668.6 | 458.9 | 408.5 | 236.4 | 196.8 | 146.4 |
| 55° | 992.0 | 1078.0 | 1220.4 | 1172.0 | 990.0 | 734.8 | 474.7 | 409.4 | 199.8 | 166.2 | 129.6 |
| 57.5° | 1129.4 | 1221.4 | 1403.4 | 1315.4 | 1093.8 | 786.3 | 467.8 | 377.8 | 163.2 | 140.4 | 116.7 |
| 60° | 1294.6 | 1406.4 | 1586.4 | 1448.9 | 1180.9 | 804.1 | 419.3 | 311.5 | 139.4 | 126.6 | 110.8 |
| 62.5° | 1479.5 | 1590.3 | 1736.7 | 1541.9 | 1230.3 | 774.4 | 311.5 | 215.6 | 119.7 | 112.7 | 101.9 |
| 65° | 1676.4 | 1781.2 | 1808.9 | 1549.8 | 1197.7 | 643.8 | 192.9 | 141.4 | 103.8 | 100.9 | 94.0 |
| 67.5° | 1857.3 | 1867.2 | 1740.6 | 1421.2 | 1039.4 | 449.0 | 131.5 | 112.7 | 95.9 | 94.9 | 91.0 |
| 70° | 1903.8 | 1732.7 | 1446.9 | 1106.7 | 750.7 | 267.0 | 106.8 | 97.9 | 92.0 | 92.0 | 89.0 |
| 72.5° | 1590.3 | 1319.3 | 967.2 | 670.5 | 409.4 | 142.4 | 91.0 | 89.0 | 87.0 | 87.0 | 85.1 |
| 73° | 1491.4 | 1215.5 | 866.4 | 585.5 | 346.2 | 127.6 | 89.0 | 87.0 | 86.0 | 85.1 | 84.1 |
| 75° | 991.0 | 763.5 | 491.5 | 296.7 | 161.2 | 92.0 | 79.1 | 79.1 | 78.1 | 79.1 | 78.1 |
| 77.5° | 381.8 | 287.8 | 189.9 | 127.6 | 92.0 | 72.2 | 67.3 | 68.2 | 67.3 | 69.2 | 68.2 |
| 80° | 168.1 | 166.2 | 125.6 | 90.0 | 67.3 | 54.4 | 54.4 | 54.4 | 55.4 | 56.4 | 56.4 |
| 82.5° | 114.7 | 96.9 | 74.2 | 55.4 | 40.5 | 39.6 | 40.5 | 40.5 | 41.5 | 42.5 | 41.5 |
| 85° | 63.3 | 53.4 | 39.6 | 24.7 | 21.8 | 26.7 | 26.7 | 26.7 | 25.7 | 25.7 | 24.7 |
| 87.5° | 19.8 | 14.8 | 10.9 | 3.0 | 4.9 | 4.9 | 6.9 | 5.9 | 5.9 | 6.9 | 6.9 |
| 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° | 4.8 | 4.5 | 4.0 | 4.0 | 4.0 | 4.5 | 4.8 | 5.0 | 5.5 | 6.0 | 6.5 |
| 100° | 26.8 | 26.5 | 26.0 | 25.0 | 26.0 | 26.5 | 26.8 | 27.0 | 27.8 | 28.5 | 29.2 |
| 102.5° | 48.2 | 48.5 | 49.0 | 48.0 | 49.0 | 48.5 | 48.2 | 48.0 | 48.5 | 49.0 | 49.5 |
| 105° | 69.5 | 70.0 | 71.0 | 69.0 | 71.0 | 70.0 | 69.5 | 69.0 | 69.5 | 70.0 | 70.5 |
| 107.5° | 91.2 | 91.5 | 92.0 | 91.0 | 92.0 | 91.5 | 91.2 | 91.0 | 91.2 | 91.5 | 91.8 |



REPORT NUMBER: P227997
 CATALOG NUMBER: ISC-AF-450-LED-E1-T4W-7060-ULG

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

| | 77.5° | 80° | 85° | 90° | 95° | 100° | 102.5° | 105° | 107.5° | 110° | 112.5° | |
|--------|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|--------|
| 110° | 113.2 | 113.5 | 114.0 | 113.0 | 114.0 | 113.5 | 113.2 | 113.0 | 113.2 | 113.5 | 113.8 | 0° |
| 112.5° | 135.5 | 136.0 | 137.0 | 135.0 | 137.0 | 136.0 | 135.5 | 135.0 | 135.2 | 135.5 | 135.8 | 2.5° |
| 115° | 158.5 | 159.0 | 160.0 | 159.0 | 160.0 | 159.0 | 158.5 | 158.0 | 158.0 | 158.0 | 158.0 | 5° |
| 117.5° | 180.5 | 181.0 | 182.0 | 180.0 | 182.0 | 181.0 | 180.5 | 180.0 | 180.2 | 180.5 | 180.8 | 7.5° |
| 120° | 204.5 | 205.0 | 206.0 | 204.0 | 206.0 | 205.0 | 204.5 | 204.0 | 204.0 | 204.0 | 204.0 | 10° |
| 122.5° | 230.0 | 231.0 | 233.0 | 232.0 | 233.0 | 231.0 | 230.0 | 229.0 | 228.8 | 228.5 | 228.2 | 12.5° |
| 125° | 254.8 | 255.5 | 257.0 | 256.0 | 257.0 | 255.5 | 254.8 | 254.0 | 254.0 | 254.0 | 254.0 | 15° |
| 127.5° | 278.8 | 279.5 | 281.0 | 278.0 | 281.0 | 279.5 | 278.8 | 278.0 | 277.8 | 277.5 | 277.2 | 17.5° |
| 130° | 302.8 | 303.5 | 305.0 | 303.0 | 305.0 | 303.5 | 302.8 | 302.0 | 301.8 | 301.5 | 301.2 | 20° |
| 132.5° | 326.8 | 327.5 | 329.0 | 327.0 | 329.0 | 327.5 | 326.8 | 326.0 | 325.8 | 325.5 | 325.2 | 22.5° |
| 135° | 349.5 | 350.0 | 351.0 | 350.0 | 351.0 | 350.0 | 349.5 | 349.0 | 348.8 | 348.5 | 348.2 | 25° |
| 137.5° | 371.0 | 372.0 | 374.0 | 372.0 | 374.0 | 372.0 | 371.0 | 370.0 | 369.8 | 369.5 | 369.2 | 27.5° |
| 140° | 393.0 | 394.0 | 396.0 | 394.0 | 396.0 | 394.0 | 393.0 | 392.0 | 391.5 | 391.0 | 390.5 | 30° |
| 142.5° | 413.8 | 414.5 | 416.0 | 415.0 | 416.0 | 414.5 | 413.8 | 413.0 | 412.8 | 412.5 | 412.2 | 32.5° |
| 145° | 434.8 | 435.5 | 437.0 | 435.0 | 437.0 | 435.5 | 434.8 | 434.0 | 433.8 | 433.5 | 433.2 | 35° |
| 147.5° | 453.8 | 454.5 | 456.0 | 453.0 | 456.0 | 454.5 | 453.8 | 453.0 | 452.8 | 452.5 | 452.2 | 37.5° |
| 150° | 470.0 | 471.0 | 473.0 | 470.0 | 473.0 | 471.0 | 470.0 | 469.0 | 469.0 | 469.0 | 469.0 | 40° |
| 152.5° | 486.8 | 487.5 | 489.0 | 486.0 | 489.0 | 487.5 | 486.8 | 486.0 | 486.0 | 486.0 | 486.0 | 42.5° |
| 155° | 504.8 | 505.5 | 507.0 | 505.0 | 507.0 | 505.5 | 504.8 | 504.0 | 503.8 | 503.5 | 503.2 | 45° |
| 157.5° | 519.2 | 520.5 | 523.0 | 520.0 | 523.0 | 520.5 | 519.2 | 518.0 | 517.8 | 517.5 | 517.2 | 47.5° |
| 160° | 530.8 | 531.5 | 533.0 | 531.0 | 533.0 | 531.5 | 530.8 | 530.0 | 530.0 | 530.0 | 530.0 | 50° |
| 162.5° | 538.5 | 539.0 | 540.0 | 537.0 | 540.0 | 539.0 | 538.5 | 538.0 | 538.5 | 539.0 | 539.5 | 52.5° |
| 165° | 548.5 | 549.0 | 550.0 | 548.0 | 550.0 | 549.0 | 548.5 | 548.0 | 548.5 | 549.0 | 549.5 | 55° |
| 167.5° | 560.0 | 561.0 | 563.0 | 561.0 | 563.0 | 561.0 | 560.0 | 559.0 | 558.8 | 558.5 | 558.2 | 57.5° |
| 170° | 567.2 | 568.5 | 571.0 | 569.0 | 571.0 | 568.5 | 567.2 | 566.0 | 565.5 | 565.0 | 564.5 | 60° |
| 172.5° | 568.8 | 569.5 | 571.0 | 568.0 | 571.0 | 569.5 | 568.8 | 568.0 | 567.8 | 567.5 | 567.2 | 62.5° |
| 175° | 568.8 | 569.5 | 571.0 | 568.0 | 571.0 | 569.5 | 568.8 | 568.0 | 568.5 | 569.0 | 569.5 | 65° |
| 177.5° | 574.8 | 575.5 | 577.0 | 574.0 | 577.0 | 575.5 | 574.8 | 574.0 | 574.0 | 574.0 | 574.0 | 67.5° |
| 180° | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 70° |
| | | | | | | | | | | | | 72.5° |
| | | | | | | | | | | | | 73° |
| | | | | | | | | | | | | 75° |
| | | | | | | | | | | | | 77.5° |
| | | | | | | | | | | | | 80° |
| | | | | | | | | | | | | 82.5° |
| | | | | | | | | | | | | 85° |
| | | | | | | | | | | | | 87.5° |
| | | | | | | | | | | | | 90° |
| | | | | | | | | | | | | 92.5° |
| | | | | | | | | | | | | 95° |
| | | | | | | | | | | | | 97.5° |
| | | | | | | | | | | | | 100° |
| | | | | | | | | | | | | 102.5° |
| | | | | | | | | | | | | 105° |
| | | | | | | | | | | | | 107.5° |



NUMBER: P227997
 NUMBER: ISC-AF-450-LED-E1-T4W-7060-ULG

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBUTION

| 115° | 117.5° | 120° | 122.5° | 125° | 127.5° | 130° | 135° | 145° | 155° | 165° | 110° | 115° |
|-------|--------|-------|--------|-------|--------|-------|-------|-------|-------|-------|--------|-------|
| 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 367.9 | 110° | 114.0 |
| 359.0 | 356.0 | 359.0 | 354.1 | 358.0 | 354.1 | 357.0 | 357.0 | 356.0 | 356.0 | 356.0 | 112.5° | 136.0 |
| 347.1 | 342.2 | 347.1 | 344.2 | 347.1 | 343.2 | 346.2 | 347.1 | 348.1 | 351.1 | 350.1 | 115° | 158.0 |
| 338.2 | 328.3 | 339.2 | 329.3 | 338.2 | 329.3 | 337.3 | 338.2 | 341.2 | 345.2 | 348.1 | 117.5° | 181.0 |
| 334.3 | 321.4 | 334.3 | 322.4 | 333.3 | 323.4 | 333.3 | 334.3 | 337.3 | 342.2 | 347.1 | 120° | 204.0 |
| 332.3 | 318.5 | 332.3 | 320.4 | 332.3 | 322.4 | 332.3 | 335.3 | 337.3 | 341.2 | 347.1 | 122.5° | 228.0 |
| 330.3 | 316.5 | 332.3 | 319.4 | 332.3 | 322.4 | 333.3 | 335.3 | 338.2 | 342.2 | 347.1 | 125° | 254.0 |
| 329.3 | 313.5 | 330.3 | 318.5 | 330.3 | 320.4 | 332.3 | 332.3 | 336.3 | 341.2 | 344.2 | 127.5° | 277.0 |
| 325.4 | 310.5 | 325.4 | 313.5 | 325.4 | 316.5 | 326.4 | 326.4 | 330.3 | 332.3 | 337.3 | 130° | 301.0 |
| 319.4 | 303.6 | 317.5 | 306.6 | 317.5 | 308.6 | 316.5 | 316.5 | 319.4 | 322.4 | 325.4 | 132.5° | 325.0 |
| 310.5 | 295.7 | 307.6 | 297.7 | 305.6 | 297.7 | 303.6 | 302.6 | 304.6 | 306.6 | 308.6 | 135° | 348.0 |
| 300.7 | 285.8 | 295.7 | 284.8 | 289.8 | 281.9 | 285.8 | 283.8 | 284.8 | 285.8 | 286.8 | 137.5° | 369.0 |
| 289.8 | 274.9 | 279.9 | 270.0 | 271.0 | 263.1 | 265.1 | 262.1 | 261.1 | 260.1 | 258.1 | 140° | 390.0 |
| 277.9 | 262.1 | 262.1 | 252.2 | 250.2 | 243.3 | 243.3 | 239.3 | 236.4 | 232.4 | 228.5 | 142.5° | 412.0 |
| 263.1 | 249.2 | 242.3 | 234.4 | 230.4 | 223.5 | 222.5 | 217.6 | 210.7 | 203.7 | 199.8 | 145° | 433.0 |
| 248.2 | 232.4 | 222.5 | 214.6 | 210.7 | 205.7 | 204.7 | 200.8 | 192.9 | 184.9 | 179.0 | 147.5° | 452.0 |
| 228.5 | 212.6 | 201.8 | 198.8 | 195.8 | 191.9 | 192.9 | 187.9 | 180.0 | 171.1 | 166.2 | 150° | 469.0 |
| 208.7 | 194.8 | 185.9 | 184.9 | 183.0 | 182.0 | 183.0 | 179.0 | 170.1 | 162.2 | 156.3 | 152.5° | 486.0 |
| 191.9 | 178.0 | 169.1 | 168.1 | 167.1 | 171.1 | 172.1 | 171.1 | 161.2 | 153.3 | 145.4 | 155° | 503.0 |
| 175.1 | 158.2 | 152.3 | 150.3 | 151.3 | 157.3 | 159.2 | 162.2 | 153.3 | 144.4 | 133.5 | 157.5° | 517.0 |
| 155.3 | 139.4 | 137.5 | 135.5 | 136.5 | 141.4 | 146.4 | 152.3 | 144.4 | 131.5 | 116.7 | 160° | 530.0 |
| 137.5 | 123.6 | 124.6 | 122.6 | 124.6 | 128.6 | 132.5 | 142.4 | 132.5 | 119.7 | 112.7 | 162.5° | 540.0 |
| 123.6 | 112.7 | 114.7 | 112.7 | 114.7 | 119.7 | 122.6 | 130.5 | 130.5 | 127.6 | 121.6 | 165° | 550.0 |
| 113.7 | 105.8 | 107.8 | 105.8 | 108.8 | 112.7 | 115.7 | 132.5 | 142.4 | 134.5 | 122.6 | 167.5° | 558.0 |
| 107.8 | 100.9 | 101.9 | 99.9 | 101.9 | 107.8 | 113.7 | 133.5 | 149.3 | 133.5 | 124.6 | 170° | 564.0 |
| 98.9 | 93.0 | 92.0 | 92.0 | 94.0 | 103.8 | 106.8 | 124.6 | 147.4 | 132.5 | 125.6 | 172.5° | 567.0 |
| 93.0 | 88.0 | 87.0 | 86.0 | 88.0 | 94.9 | 97.9 | 115.7 | 142.4 | 125.6 | 113.7 | 175° | 570.0 |
| 90.0 | 86.0 | 84.1 | 82.1 | 84.1 | 90.0 | 93.0 | 108.8 | 134.5 | 119.7 | 106.8 | 177.5° | 574.0 |
| 87.0 | 83.1 | 82.1 | 80.1 | 81.1 | 85.1 | 89.0 | 99.9 | 127.6 | 112.7 | 99.9 | 180° | 576.0 |
| 83.1 | 79.1 | 78.1 | 75.2 | 76.2 | 80.1 | 82.1 | 94.0 | 118.7 | 105.8 | 93.0 | | |
| 82.1 | 78.1 | 77.1 | 74.2 | 75.2 | 78.1 | 80.1 | 92.0 | 116.7 | 104.8 | 92.0 | | |
| 77.1 | 73.2 | 72.2 | 70.2 | 71.2 | 71.2 | 73.2 | 84.1 | 110.8 | 98.9 | 86.0 | | |
| 68.2 | 65.3 | 64.3 | 62.3 | 61.3 | 60.3 | 63.3 | 74.2 | 100.9 | 89.0 | 69.2 | | |
| 56.4 | 53.4 | 52.4 | 48.5 | 48.5 | 48.5 | 52.4 | 63.3 | 75.2 | 64.3 | 53.4 | | |
| 41.5 | 39.6 | 39.6 | 36.6 | 35.6 | 34.6 | 37.6 | 43.5 | 59.3 | 50.4 | 41.5 | | |
| 24.7 | 23.7 | 24.7 | 21.8 | 22.7 | 21.8 | 24.7 | 30.7 | 32.6 | 25.7 | 19.8 | | |
| 5.9 | 6.9 | 6.9 | 6.9 | 5.9 | 5.9 | 4.9 | 4.0 | 0.0 | 0.0 | 0.0 | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | |
| 7.0 | 8.5 | 10.0 | 11.5 | 13.0 | 12.0 | 11.0 | 9.0 | 4.0 | 3.0 | 2.0 | | |
| 30.0 | 30.5 | 31.0 | 31.5 | 32.0 | 31.5 | 31.0 | 30.0 | 22.0 | 14.0 | 10.0 | | |
| 50.0 | 50.2 | 50.5 | 50.8 | 51.0 | 50.8 | 50.5 | 50.0 | 45.0 | 38.0 | 32.0 | | |
| 71.0 | 71.0 | 71.0 | 71.0 | 71.0 | 70.8 | 70.5 | 70.0 | 66.0 | 61.0 | 56.0 | | |
| 92.0 | 92.2 | 92.5 | 92.8 | 93.0 | 92.5 | 92.0 | 91.0 | 88.0 | 84.0 | 80.0 | | |

'227997
 ISC-AF-450-LED-E1-T4W-7060-ULG

REPORT NUMBER: P227997
 CATALOG NUMBER: ISC-AF-45

TION (continued):

CANDELA DISTRIBUTION (con

| 117.5° | 120° | 122.5° | 125° | 127.5° | 130° | 135° | 145° | 155° | 165° | | 175° | 180° |
|--------|-------|--------|-------|--------|-------|-------|-------|-------|-------|--------|-------|-------|
| 114.0 | 114.0 | 114.0 | 114.0 | 113.5 | 113.0 | 112.0 | 110.0 | 106.0 | 103.0 | 0° | 367.9 | 367.9 |
| 136.0 | 136.0 | 136.0 | 136.0 | 135.5 | 135.0 | 134.0 | 132.0 | 129.0 | 126.0 | 2.5° | 355.1 | 354.1 |
| 158.0 | 158.0 | 158.0 | 158.0 | 157.5 | 157.0 | 156.0 | 154.0 | 151.0 | 149.0 | 5° | 350.1 | 350.1 |
| 180.8 | 180.5 | 180.2 | 180.0 | 179.8 | 179.5 | 179.0 | 177.0 | 174.0 | 172.0 | 7.5° | 348.1 | 348.1 |
| 204.0 | 204.0 | 204.0 | 204.0 | 203.5 | 203.0 | 202.0 | 201.0 | 198.0 | 196.0 | 10° | 349.1 | 349.1 |
| 228.0 | 228.0 | 228.0 | 228.0 | 227.8 | 227.5 | 227.0 | 226.0 | 223.0 | 221.0 | 12.5° | 349.1 | 351.1 |
| 253.8 | 253.5 | 253.2 | 253.0 | 252.8 | 252.5 | 252.0 | 251.0 | 248.0 | 247.0 | 15° | 352.1 | 351.1 |
| 277.2 | 277.5 | 277.8 | 278.0 | 277.5 | 277.0 | 276.0 | 274.0 | 272.0 | 270.0 | 17.5° | 349.1 | 349.1 |
| 301.0 | 301.0 | 301.0 | 301.0 | 300.5 | 300.0 | 299.0 | 298.0 | 294.0 | 293.0 | 20° | 341.2 | 343.2 |
| 325.0 | 325.0 | 325.0 | 325.0 | 324.2 | 323.5 | 322.0 | 321.0 | 318.0 | 317.0 | 22.5° | 330.3 | 330.3 |
| 348.0 | 348.0 | 348.0 | 348.0 | 347.2 | 346.5 | 345.0 | 345.0 | 341.0 | 339.0 | 25° | 312.5 | 313.5 |
| 369.0 | 369.0 | 369.0 | 369.0 | 368.5 | 368.0 | 367.0 | 367.0 | 364.0 | 363.0 | 27.5° | 288.8 | 290.8 |
| 390.0 | 390.0 | 390.0 | 390.0 | 389.8 | 389.5 | 389.0 | 388.0 | 386.0 | 385.0 | 30° | 259.1 | 261.1 |
| 412.0 | 412.0 | 412.0 | 412.0 | 411.5 | 411.0 | 410.0 | 410.0 | 407.0 | 408.0 | 32.5° | 225.5 | 227.5 |
| 433.2 | 433.5 | 433.8 | 434.0 | 433.5 | 433.0 | 432.0 | 431.0 | 428.0 | 428.0 | 35° | 198.8 | 199.8 |
| 452.5 | 453.0 | 453.5 | 454.0 | 453.8 | 453.5 | 453.0 | 452.0 | 448.0 | 447.0 | 37.5° | 181.0 | 181.0 |
| 469.5 | 470.0 | 470.5 | 471.0 | 470.8 | 470.5 | 470.0 | 469.0 | 465.0 | 464.0 | 40° | 166.2 | 166.2 |
| 486.2 | 486.5 | 486.8 | 487.0 | 486.8 | 486.5 | 486.0 | 485.0 | 482.0 | 483.0 | 42.5° | 152.3 | 151.3 |
| 503.2 | 503.5 | 503.8 | 504.0 | 503.8 | 503.5 | 503.0 | 503.0 | 501.0 | 502.0 | 45° | 138.5 | 136.5 |
| 517.5 | 518.0 | 518.5 | 519.0 | 519.0 | 519.0 | 519.0 | 519.0 | 516.0 | 517.0 | 47.5° | 124.6 | 123.6 |
| 530.5 | 531.0 | 531.5 | 532.0 | 532.0 | 532.0 | 532.0 | 532.0 | 529.0 | 529.0 | 50° | 112.7 | 112.7 |
| 540.5 | 541.0 | 541.5 | 542.0 | 541.8 | 541.5 | 541.0 | 541.0 | 538.0 | 539.0 | 52.5° | 114.7 | 114.7 |
| 550.8 | 551.5 | 552.2 | 553.0 | 552.8 | 552.5 | 552.0 | 552.0 | 548.0 | 549.0 | 55° | 123.6 | 123.6 |
| 558.5 | 559.0 | 559.5 | 560.0 | 560.0 | 560.0 | 560.0 | 561.0 | 558.0 | 559.0 | 57.5° | 124.6 | 123.6 |
| 564.2 | 564.5 | 564.8 | 565.0 | 565.2 | 565.5 | 566.0 | 567.0 | 565.0 | 566.0 | 60° | 135.5 | 134.5 |
| 567.5 | 568.0 | 568.5 | 569.0 | 568.8 | 568.5 | 568.0 | 569.0 | 567.0 | 569.0 | 62.5° | 141.4 | 144.4 |
| 570.8 | 571.5 | 572.2 | 573.0 | 572.8 | 572.5 | 572.0 | 572.0 | 569.0 | 570.0 | 65° | 123.6 | 119.7 |
| 574.8 | 575.5 | 576.2 | 577.0 | 577.0 | 577.0 | 577.0 | 578.0 | 574.0 | 575.0 | 67.5° | 117.7 | 111.8 |
| 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 576.0 | 70° | 105.8 | 96.9 |
| | | | | | | | | | | 72.5° | 94.0 | 89.0 |
| | | | | | | | | | | 73° | 91.0 | 87.0 |
| | | | | | | | | | | 75° | 81.1 | 79.1 |
| | | | | | | | | | | 77.5° | 61.3 | 60.3 |
| | | | | | | | | | | 80° | 51.4 | 50.4 |
| | | | | | | | | | | 82.5° | 34.6 | 32.6 |
| | | | | | | | | | | 85° | 14.8 | 13.8 |
| | | | | | | | | | | 87.5° | 0.0 | 0.0 |
| | | | | | | | | | | 90° | 0.0 | 0.0 |
| | | | | | | | | | | 92.5° | 0.0 | 0.0 |
| | | | | | | | | | | 95° | 1.0 | 1.0 |
| | | | | | | | | | | 97.5° | 2.0 | 2.0 |
| | | | | | | | | | | 100° | 8.0 | 8.0 |
| | | | | | | | | | | 102.5° | 28.0 | 28.0 |
| | | | | | | | | | | 105° | 54.0 | 54.0 |
| | | | | | | | | | | 107.5° | 77.0 | 78.0 |



REPORT NUMBER: P227997

CATALOG NUMBER: ISC-AF-450-LED-E1-1

CANDELA DISTRIBUTION (continued):

| | 175° | 180° |
|--------|-------|-------|
| 110° | 102.0 | 101.0 |
| 112.5° | 124.0 | 124.0 |
| 115° | 147.0 | 146.0 |
| 117.5° | 170.0 | 169.0 |
| 120° | 195.0 | 193.0 |
| 122.5° | 220.0 | 219.0 |
| 125° | 246.0 | 244.0 |
| 127.5° | 269.0 | 267.0 |
| 130° | 292.0 | 290.0 |
| 132.5° | 314.0 | 313.0 |
| 135° | 337.0 | 336.0 |
| 137.5° | 360.0 | 359.0 |
| 140° | 383.0 | 382.0 |
| 142.5° | 406.0 | 404.0 |
| 145° | 426.0 | 425.0 |
| 147.5° | 444.0 | 444.0 |
| 150° | 462.0 | 461.0 |
| 152.5° | 480.0 | 479.0 |
| 155° | 500.0 | 499.0 |
| 157.5° | 515.0 | 513.0 |
| 160° | 527.0 | 525.0 |
| 162.5° | 536.0 | 535.0 |
| 165° | 547.0 | 546.0 |
| 167.5° | 556.0 | 555.0 |
| 170° | 563.0 | 562.0 |
| 172.5° | 566.0 | 565.0 |
| 175° | 569.0 | 567.0 |
| 177.5° | 573.0 | 572.0 |
| 180° | 576.0 | 576.0 |

(END OF REPORT)

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

