

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: P226312

Luminaire Tested: **IST-AF-450-LED-E1-T2-7060-ULG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P226312  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35937)-DOWNLIGHT AND  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: IST-AF-450-LED-E1-T2-7060-ULG  
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT  
LIGHT SQUARE WITH ACCULED OPTICS-TYPE II, 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: 4874 lumens  
Efficiency: N/A  
Efficacy: 116.0 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: B1 - U5 - G1

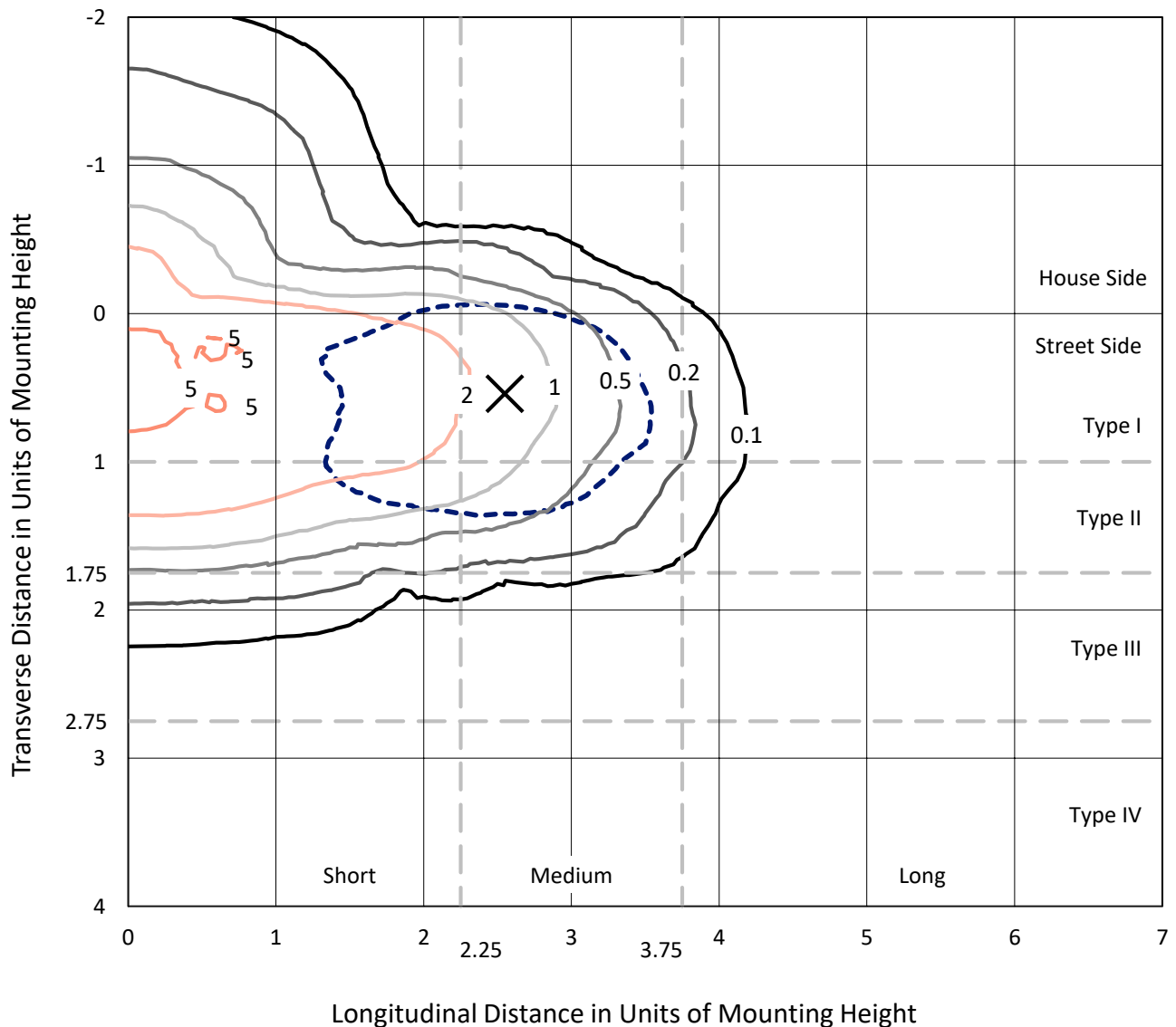
Input Watts (W): 42.01  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

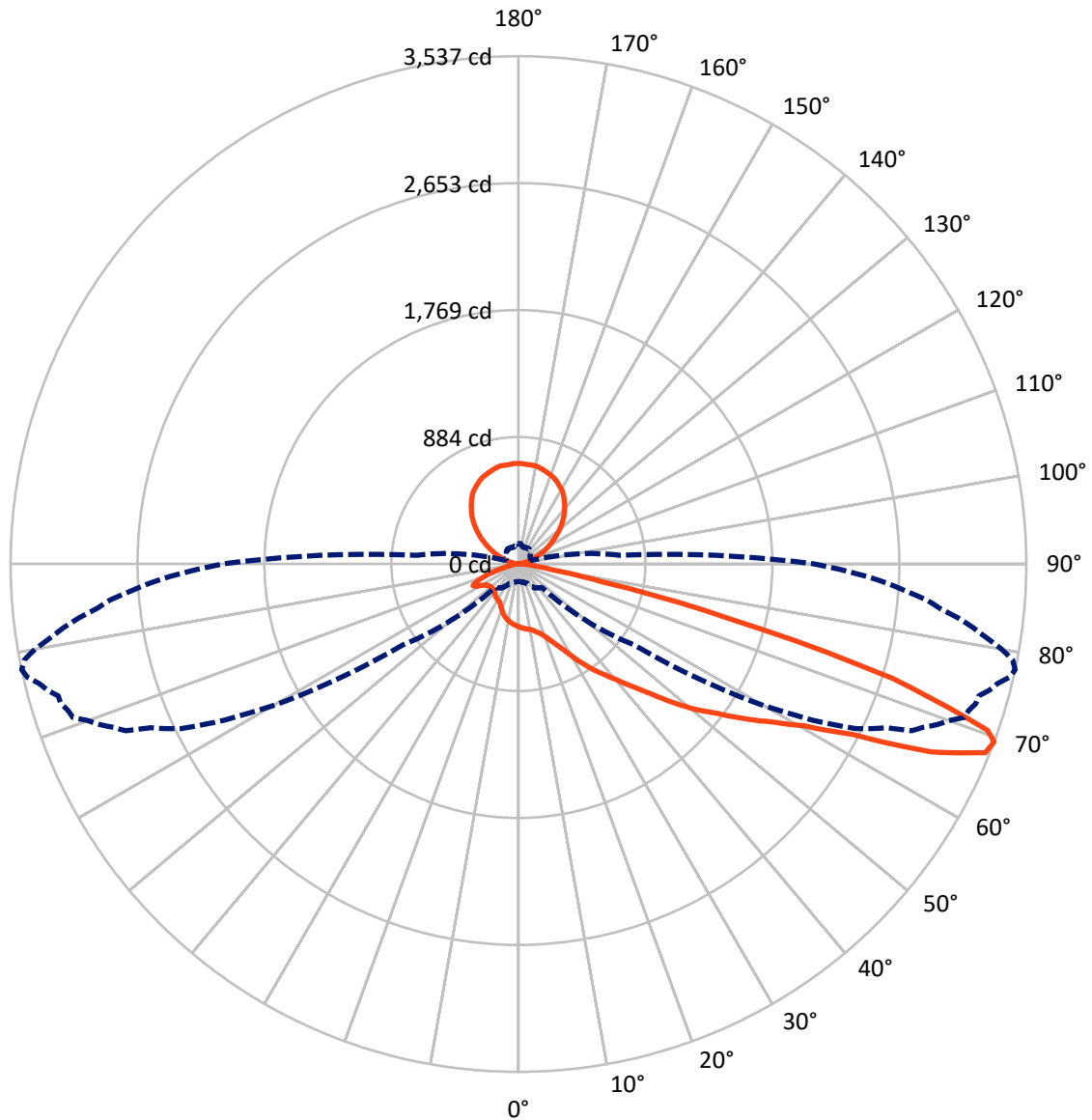
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.6 fc  
 Type II - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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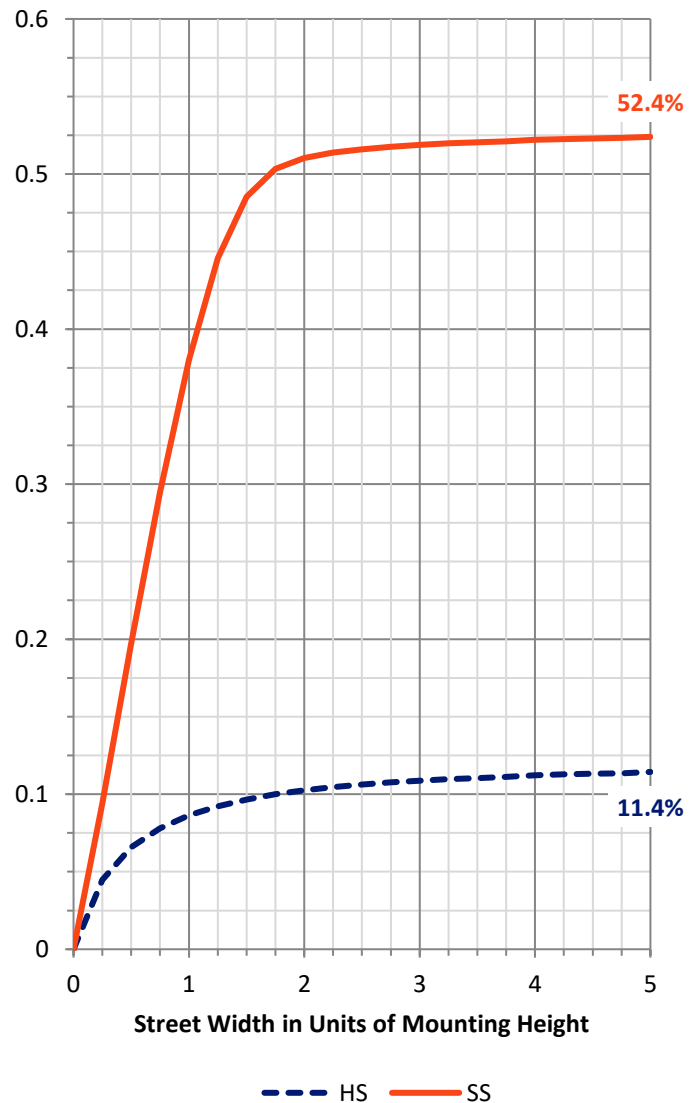
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 574.2    | 868.7  | 1442.9 |
|                    | % Fixture | 11.8     | 17.8   | 29.6   |
| <b>Street Side</b> | Lumens    | 2563.1   | 868.1  | 3431.1 |
|                    | % Fixture | 52.6     | 17.8   | 70.4   |
| <b>Total</b>       | Lumens    | 3137.3   | 1736.7 | 4874.0 |
|                    | % Fixture | 64.4     | 35.6   | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 40.5   | 0.8       |
| 10°-20°   | 122.4  | 2.5       |
| 20°-30°   | 219.4  | 4.5       |
| 30°-40°   | 358.1  | 7.3       |
| 40°-50°   | 529.6  | 10.9      |
| 50°-60°   | 691.6  | 14.2      |
| 60°-70°   | 773.4  | 15.9      |
| 70°-80°   | 347.2  | 7.1       |
| 80°-90°   | 55.2   | 1.1       |
| 90°-100°  | 10.9   | 0.2       |
| 100°-110° | 57.4   | 1.2       |
| 110°-120° | 166.1  | 3.4       |
| 120°-130° | 273.2  | 5.6       |
| 130°-140° | 336.8  | 6.9       |
| 140°-150° | 344.6  | 7.1       |
| 150°-160° | 290.3  | 6.0       |
| 160°-170° | 191.2  | 3.9       |
| 170°-180° | 66.3   | 1.4       |
| 0°-90°    | 3137.3 | 64.4      |
| 0°-180°   | 4874.0 | 100.0     |



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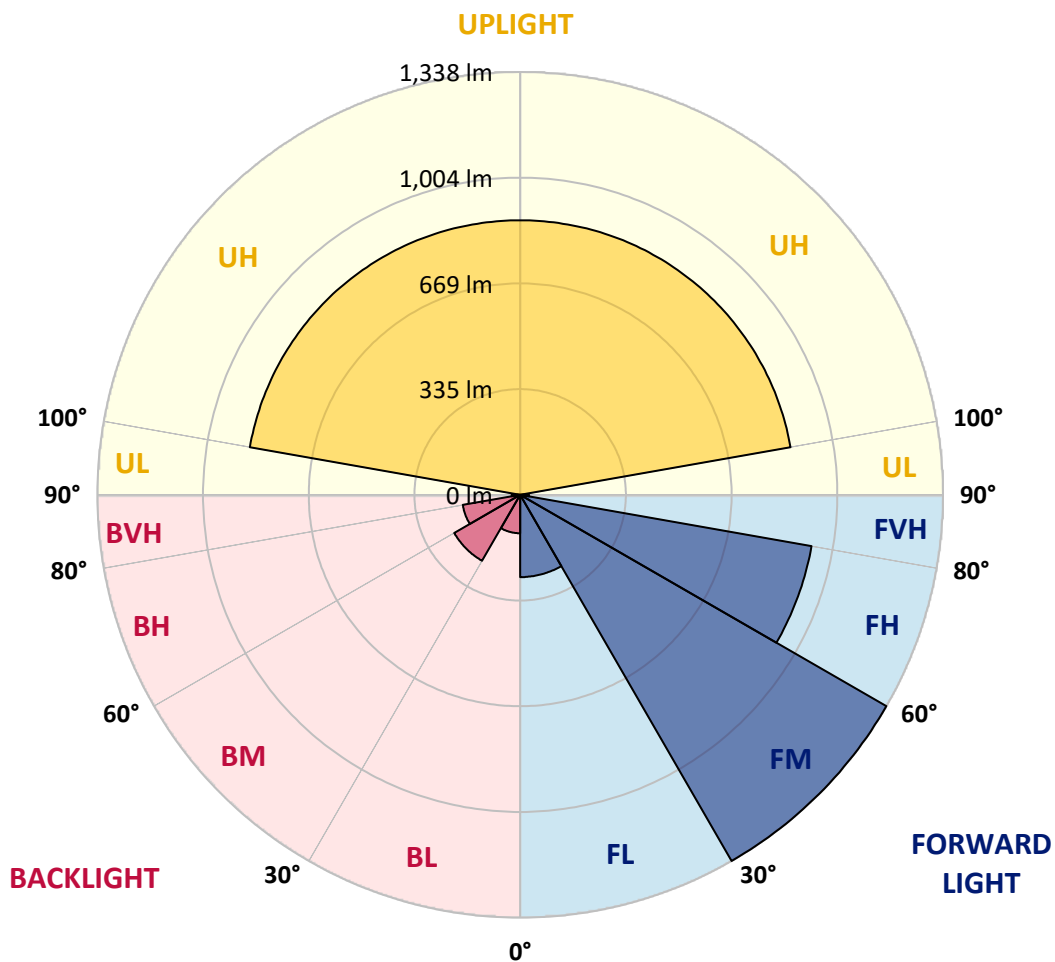
CATALOG NUMBER: IST-AF-450-LED-E1-T2-7060-ULG

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

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |         |         |
|----------------|--------|-----------|-------------------------|---------|---------|
|                |        |           | B                       | U       | G       |
| FL (0°-30°)    | 260.5  | 5.3       |                         |         |         |
| FM (30°-60°)   | 1338.2 | 27.5      |                         |         |         |
| FH (60°-80°)   | 936.3  | 19.2      |                         |         | G1/1800 |
| FVH (80°-90°)  | 28.2   | 0.6       |                         |         | G1/100  |
| BL (0°-30°)    | 121.8  | 2.5       | B1/500                  |         |         |
| BM (30°-60°)   | 241.1  | 4.9       | B1/1000                 |         |         |
| BH (60°-80°)   | 184.4  | 3.8       | B1/500                  |         | G1/500  |
| BVH (80°-90°)  | 27.0   | 0.6       |                         |         | G1/100  |
| UL (90°-100°)  | 10.9   | 0.2       |                         | U2/50   |         |
| UH (100°-180°) | 868.7  | 17.8      |                         | U4/1000 |         |

**BUG Rating: B1-U5-G1**

Type II Medium





REPORT NUMBER: P226312

CATALOG NUMBER: IST-AF-450-LED-E1-T2-7060-ULG

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 60°    | 61°    | 62°    | 64°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  |
| 2.5°   | 467.4  | 467.4  | 466.0  | 465.1  | 463.7  | 460.1  | 454.6  | 453.7  | 453.2  | 452.3  | 451.4  |
| 5°     | 501.5  | 497.9  | 498.8  | 496.5  | 491.5  | 485.1  | 475.1  | 470.1  | 467.4  | 466.9  | 465.1  |
| 7.5°   | 529.3  | 529.8  | 528.4  | 523.8  | 517.0  | 509.3  | 495.6  | 487.9  | 485.6  | 484.2  | 481.0  |
| 10°    | 549.4  | 548.0  | 547.1  | 546.2  | 540.7  | 534.3  | 517.0  | 507.5  | 505.6  | 502.0  | 498.3  |
| 12.5°  | 563.9  | 563.9  | 563.9  | 563.0  | 559.8  | 554.8  | 541.2  | 531.6  | 529.3  | 524.3  | 521.1  |
| 15°    | 579.9  | 578.1  | 576.2  | 574.9  | 575.3  | 575.3  | 565.3  | 558.0  | 554.4  | 551.6  | 545.3  |
| 17.5°  | 614.0  | 609.9  | 605.8  | 600.4  | 591.7  | 589.4  | 589.0  | 588.5  | 583.5  | 583.1  | 576.7  |
| 20°    | 643.2  | 639.6  | 635.9  | 630.4  | 618.1  | 604.9  | 611.8  | 618.1  | 617.2  | 617.7  | 614.5  |
| 22.5°  | 679.2  | 676.4  | 669.2  | 662.8  | 646.8  | 630.9  | 631.8  | 645.5  | 647.3  | 649.1  | 650.0  |
| 25°    | 728.4  | 727.0  | 715.2  | 702.9  | 684.6  | 669.6  | 655.5  | 672.3  | 676.0  | 680.1  | 688.3  |
| 27.5°  | 778.0  | 774.8  | 762.1  | 751.2  | 728.4  | 712.4  | 692.8  | 702.0  | 707.4  | 715.2  | 727.9  |
| 30°    | 842.3  | 833.6  | 829.0  | 804.4  | 783.5  | 760.3  | 743.4  | 746.1  | 745.2  | 754.3  | 773.9  |
| 32.5°  | 935.2  | 921.5  | 898.7  | 874.1  | 849.5  | 818.6  | 804.4  | 804.0  | 801.7  | 812.2  | 823.1  |
| 35°    | 985.3  | 982.1  | 968.0  | 943.4  | 916.5  | 887.4  | 878.2  | 869.6  | 871.0  | 876.4  | 880.5  |
| 37.5°  | 1039.5 | 1036.8 | 1025.8 | 1012.2 | 991.7  | 1007.6 | 957.0  | 944.3  | 938.4  | 935.6  | 937.0  |
| 40°    | 1063.2 | 1065.5 | 1071.4 | 1073.7 | 1061.8 | 1138.3 | 1038.6 | 996.7  | 994.9  | 990.8  | 986.7  |
| 42.5°  | 1068.2 | 1074.1 | 1086.0 | 1111.9 | 1123.3 | 1290.0 | 1106.0 | 1055.4 | 1048.2 | 1045.0 | 1045.4 |
| 45°    | 1086.4 | 1095.5 | 1097.8 | 1121.5 | 1175.2 | 1297.8 | 1182.1 | 1107.4 | 1101.9 | 1101.4 | 1098.7 |
| 47.5°  | 1130.6 | 1142.9 | 1142.9 | 1153.4 | 1204.4 | 1312.8 | 1208.0 | 1159.3 | 1155.7 | 1153.8 | 1161.1 |
| 50°    | 1137.0 | 1153.4 | 1186.2 | 1219.9 | 1256.8 | 1325.1 | 1237.6 | 1215.8 | 1217.2 | 1221.3 | 1242.7 |
| 52.5°  | 1029.0 | 1045.4 | 1132.0 | 1231.3 | 1351.5 | 1358.8 | 1282.3 | 1290.9 | 1300.1 | 1320.1 | 1359.3 |
| 55°    | 882.3  | 894.2  | 996.7  | 1155.7 | 1355.2 | 1486.8 | 1394.3 | 1418.5 | 1437.6 | 1443.5 | 1505.0 |
| 57.5°  | 694.7  | 711.1  | 815.4  | 1021.7 | 1265.4 | 1523.3 | 1652.2 | 1663.1 | 1641.7 | 1661.3 | 1683.6 |
| 60°    | 376.3  | 374.4  | 519.7  | 738.9  | 1076.9 | 1455.8 | 1900.9 | 2088.6 | 2093.1 | 2123.2 | 2087.2 |
| 62.5°  | 210.5  | 210.5  | 252.4  | 379.4  | 692.8  | 1231.7 | 2020.2 | 2456.6 | 2513.6 | 2561.4 | 2666.6 |
| 65°    | 159.0  | 160.3  | 175.4  | 228.7  | 389.0  | 777.6  | 1932.8 | 2582.3 | 2691.7 | 2801.5 | 2985.9 |
| 67.5°  | 132.1  | 132.1  | 143.0  | 170.4  | 243.2  | 353.0  | 1423.0 | 2330.0 | 2466.6 | 2597.8 | 2852.9 |
| 69°    | 122.5  | 123.0  | 131.2  | 149.9  | 203.6  | 229.6  | 983.0  | 1975.6 | 2131.8 | 2313.6 | 2614.2 |
| 70°    | 118.0  | 116.6  | 124.4  | 139.8  | 184.5  | 181.3  | 720.2  | 1717.8 | 1838.9 | 2002.0 | 2347.8 |
| 72.5°  | 104.8  | 103.4  | 107.5  | 119.3  | 145.3  | 129.4  | 293.8  | 924.3  | 1106.9 | 1289.6 | 1565.2 |
| 75°    | 93.4   | 92.0   | 95.2   | 100.7  | 113.0  | 98.8   | 147.6  | 387.2  | 468.7  | 605.8  | 835.9  |
| 77.5°  | 82.4   | 79.7   | 82.4   | 86.1   | 88.8   | 73.8   | 100.2  | 179.0  | 219.6  | 269.7  | 380.8  |
| 80°    | 74.7   | 72.0   | 75.2   | 73.3   | 69.7   | 56.9   | 66.5   | 104.3  | 115.7  | 138.5  | 181.3  |
| 82.5°  | 53.3   | 52.8   | 71.5   | 73.8   | 55.6   | 41.5   | 47.4   | 67.0   | 74.7   | 78.8   | 95.7   |
| 85°    | 32.8   | 31.4   | 41.5   | 52.8   | 56.5   | 26.0   | 30.5   | 39.6   | 41.5   | 45.1   | 53.3   |
| 87.5°  | 16.9   | 17.3   | 22.3   | 27.3   | 36.9   | 15.5   | 18.2   | 23.2   | 23.2   | 23.2   | 26.4   |
| 90°    | 9.1    | 10.0   | 13.8   | 17.6   | 15.7   | 11.1   | 13.8   | 13.5   | 14.6   | 13.9   | 15.2   |
| 92.5°  | 4.0    | 4.0    | 5.0    | 6.0    | 6.0    | 6.0    | 7.0    | 7.0    | 7.0    | 7.0    | 7.0    |
| 95°    | 5.0    | 5.0    | 6.0    | 7.0    | 7.0    | 7.0    | 7.0    | 7.5    | 7.6    | 7.7    | 7.9    |
| 97.5°  | 7.0    | 7.0    | 8.0    | 8.0    | 9.0    | 9.0    | 12.0   | 11.0   | 10.8   | 10.6   | 10.2   |
| 100°   | 8.0    | 8.0    | 9.0    | 10.0   | 12.0   | 21.0   | 29.0   | 27.5   | 27.2   | 26.9   | 26.3   |
| 102.5° | 11.0   | 11.0   | 13.0   | 18.0   | 27.0   | 40.0   | 50.0   | 48.5   | 48.2   | 47.9   | 47.3   |
| 105°   | 21.0   | 22.0   | 27.0   | 36.0   | 48.0   | 63.0   | 72.0   | 71.0   | 70.8   | 70.6   | 70.2   |
| 107.5° | 41.0   | 42.0   | 49.0   | 58.0   | 73.0   | 88.0   | 95.0   | 94.5   | 94.4   | 94.3   | 94.1   |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 15°   | 25°   | 35°   | 45°   | 55°   | 60°   | 61°   | 62°   | 64°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 110°   | 66.0  | 68.0  | 74.0  | 87.0  | 102.0 | 114.0 | 120.0 | 120.5 | 120.6 | 120.7 | 120.9 |
| 112.5° | 99.0  | 99.0  | 106.0 | 121.0 | 134.0 | 143.0 | 148.0 | 149.0 | 149.2 | 149.4 | 149.8 |
| 115°   | 140.0 | 139.0 | 147.0 | 159.0 | 168.0 | 174.0 | 179.0 | 180.5 | 180.8 | 181.1 | 181.7 |
| 117.5° | 184.0 | 184.0 | 189.0 | 197.0 | 202.0 | 205.0 | 211.0 | 213.0 | 213.4 | 213.8 | 214.6 |
| 120°   | 225.0 | 223.0 | 226.0 | 233.0 | 237.0 | 243.0 | 246.0 | 248.0 | 248.4 | 248.8 | 249.6 |
| 122.5° | 263.0 | 260.0 | 261.0 | 267.0 | 271.0 | 277.0 | 279.0 | 281.0 | 281.4 | 281.8 | 282.6 |
| 125°   | 298.0 | 294.0 | 296.0 | 299.0 | 305.0 | 310.0 | 313.0 | 314.0 | 314.2 | 314.4 | 314.8 |
| 127.5° | 330.0 | 329.0 | 329.0 | 333.0 | 339.0 | 340.0 | 345.0 | 345.5 | 345.6 | 345.7 | 345.9 |
| 130°   | 363.0 | 361.0 | 362.0 | 366.0 | 370.0 | 372.0 | 377.0 | 379.0 | 379.4 | 379.8 | 380.6 |
| 132.5° | 396.0 | 394.0 | 393.0 | 401.0 | 404.0 | 405.0 | 411.0 | 413.5 | 414.0 | 414.5 | 415.5 |
| 135°   | 429.0 | 426.0 | 426.0 | 432.0 | 435.0 | 437.0 | 443.0 | 445.5 | 446.0 | 446.5 | 447.5 |
| 137.5° | 460.0 | 457.0 | 459.0 | 460.0 | 464.0 | 468.0 | 473.0 | 474.0 | 474.2 | 474.4 | 474.8 |
| 140°   | 488.0 | 485.0 | 487.0 | 489.0 | 491.0 | 497.0 | 500.0 | 501.0 | 501.2 | 501.4 | 501.8 |
| 142.5° | 518.0 | 515.0 | 517.0 | 518.0 | 521.0 | 525.0 | 527.0 | 530.0 | 530.6 | 531.2 | 532.4 |
| 145°   | 550.0 | 546.0 | 544.0 | 547.0 | 550.0 | 551.0 | 556.0 | 559.0 | 559.6 | 560.2 | 561.4 |
| 147.5° | 575.0 | 572.0 | 571.0 | 574.0 | 574.0 | 575.0 | 580.0 | 582.5 | 583.0 | 583.5 | 584.5 |
| 150°   | 595.0 | 592.0 | 593.0 | 593.0 | 593.0 | 593.0 | 597.0 | 598.5 | 598.8 | 599.1 | 599.7 |
| 152.5° | 611.0 | 608.0 | 608.0 | 609.0 | 610.0 | 610.0 | 611.0 | 612.5 | 612.8 | 613.1 | 613.7 |
| 155°   | 629.0 | 625.0 | 625.0 | 627.0 | 630.0 | 628.0 | 626.0 | 628.5 | 629.0 | 629.5 | 630.5 |
| 157.5° | 646.0 | 643.0 | 643.0 | 644.0 | 646.0 | 645.0 | 644.0 | 646.0 | 646.4 | 646.8 | 647.6 |
| 160°   | 663.0 | 660.0 | 659.0 | 656.0 | 655.0 | 655.0 | 658.0 | 661.0 | 661.6 | 662.2 | 663.4 |
| 162.5° | 673.0 | 669.0 | 669.0 | 665.0 | 661.0 | 663.0 | 667.0 | 669.0 | 669.4 | 669.8 | 670.6 |
| 165°   | 681.0 | 678.0 | 676.0 | 676.0 | 673.0 | 673.0 | 672.0 | 674.5 | 675.0 | 675.5 | 676.5 |
| 167.5° | 690.0 | 687.0 | 684.0 | 686.0 | 688.0 | 685.0 | 678.0 | 681.0 | 681.6 | 682.2 | 683.4 |
| 170°   | 698.0 | 695.0 | 692.0 | 692.0 | 693.0 | 691.0 | 686.0 | 687.5 | 687.8 | 688.1 | 688.7 |
| 172.5° | 699.0 | 697.0 | 695.0 | 693.0 | 690.0 | 690.0 | 689.0 | 690.5 | 690.8 | 691.1 | 691.7 |
| 175°   | 700.0 | 698.0 | 697.0 | 695.0 | 691.0 | 690.0 | 690.0 | 692.5 | 693.0 | 693.5 | 694.5 |
| 177.5° | 707.0 | 705.0 | 700.0 | 699.0 | 697.0 | 695.0 | 694.0 | 696.5 | 697.0 | 697.5 | 698.5 |
| 180°   | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 |





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**CANDELA DISTRIBUTION (continued):**

|        | 65°    | 66°    | 67°    | 68°    | 69°    | 70°    | 71°    | 72°    | 73°    | 74°    | 75°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  |
| 2.5°   | 451.9  | 450.5  | 448.7  | 449.1  | 448.2  | 446.9  | 447.3  | 446.9  | 447.3  | 446.4  | 445.5  |
| 5°     | 465.1  | 464.2  | 461.4  | 461.0  | 460.1  | 459.2  | 457.8  | 456.4  | 456.0  | 455.1  | 453.2  |
| 7.5°   | 480.1  | 477.4  | 476.0  | 474.2  | 471.9  | 468.3  | 467.8  | 466.0  | 464.6  | 463.7  | 461.4  |
| 10°    | 495.6  | 492.4  | 490.6  | 488.3  | 486.0  | 483.8  | 481.5  | 478.3  | 475.1  | 474.2  | 471.5  |
| 12.5°  | 518.8  | 514.7  | 511.1  | 507.5  | 505.2  | 501.1  | 497.9  | 493.8  | 490.6  | 489.2  | 484.7  |
| 15°    | 544.3  | 538.9  | 535.2  | 532.5  | 528.9  | 525.2  | 521.1  | 517.5  | 512.5  | 508.4  | 504.3  |
| 17.5°  | 574.4  | 569.4  | 566.7  | 561.7  | 557.1  | 553.0  | 549.8  | 545.3  | 541.2  | 533.9  | 530.2  |
| 20°    | 614.0  | 609.9  | 606.8  | 601.3  | 596.3  | 592.2  | 589.4  | 579.9  | 574.4  | 568.0  | 562.1  |
| 22.5°  | 650.9  | 651.4  | 648.2  | 644.6  | 641.4  | 635.9  | 631.4  | 624.5  | 617.7  | 609.9  | 601.7  |
| 25°    | 691.0  | 694.7  | 695.1  | 694.2  | 692.4  | 686.0  | 683.7  | 676.9  | 671.4  | 658.7  | 655.0  |
| 27.5°  | 735.7  | 739.8  | 744.8  | 751.2  | 752.5  | 745.7  | 748.9  | 742.0  | 732.5  | 727.0  | 715.2  |
| 30°    | 778.9  | 790.3  | 800.8  | 808.1  | 812.6  | 815.8  | 813.6  | 811.3  | 804.9  | 795.8  | 785.3  |
| 32.5°  | 834.5  | 846.4  | 856.8  | 872.8  | 881.0  | 891.0  | 889.2  | 890.1  | 887.8  | 878.7  | 866.4  |
| 35°    | 890.5  | 901.0  | 914.7  | 925.2  | 945.2  | 956.1  | 965.2  | 964.8  | 964.8  | 959.3  | 947.5  |
| 37.5°  | 940.2  | 946.1  | 957.5  | 974.8  | 988.0  | 1005.3 | 1019.9 | 1025.8 | 1035.4 | 1035.9 | 1023.1 |
| 40°    | 992.1  | 998.0  | 1006.7 | 1019.5 | 1034.0 | 1054.5 | 1074.1 | 1093.2 | 1102.4 | 1111.9 | 1106.9 |
| 42.5°  | 1048.2 | 1054.5 | 1060.9 | 1069.1 | 1090.1 | 1106.0 | 1132.4 | 1158.4 | 1177.1 | 1196.7 | 1194.4 |
| 45°    | 1103.7 | 1111.0 | 1120.1 | 1132.4 | 1151.1 | 1177.1 | 1202.6 | 1231.7 | 1274.5 | 1297.8 | 1313.7 |
| 47.5°  | 1166.6 | 1178.4 | 1195.3 | 1214.9 | 1229.9 | 1256.8 | 1289.1 | 1334.2 | 1377.5 | 1417.6 | 1442.6 |
| 50°    | 1261.3 | 1265.9 | 1293.2 | 1312.4 | 1341.1 | 1368.4 | 1400.7 | 1440.4 | 1496.4 | 1537.4 | 1577.5 |
| 52.5°  | 1372.9 | 1390.2 | 1417.6 | 1439.4 | 1462.2 | 1489.6 | 1522.8 | 1558.3 | 1613.9 | 1659.9 | 1711.8 |
| 55°    | 1516.9 | 1541.5 | 1565.2 | 1577.0 | 1608.9 | 1633.5 | 1660.4 | 1695.4 | 1755.1 | 1805.2 | 1866.3 |
| 57.5°  | 1688.6 | 1713.2 | 1724.6 | 1741.9 | 1755.6 | 1782.9 | 1819.3 | 1843.0 | 1895.9 | 1947.8 | 2012.5 |
| 60°    | 2041.2 | 2025.7 | 2039.4 | 2012.5 | 2008.4 | 2010.7 | 2018.4 | 2036.6 | 2066.2 | 2114.5 | 2182.9 |
| 62.5°  | 2677.6 | 2655.2 | 2596.0 | 2574.6 | 2533.2 | 2477.1 | 2424.3 | 2417.0 | 2401.5 | 2437.9 | 2480.8 |
| 65°    | 3049.3 | 3130.3 | 3139.0 | 3161.8 | 3145.4 | 3101.6 | 3039.7 | 3019.6 | 2969.5 | 2934.5 | 2932.2 |
| 67.5°  | 2960.0 | 3081.6 | 3157.7 | 3253.8 | 3307.1 | 3359.0 | 3372.7 | 3390.4 | 3358.1 | 3342.2 | 3346.7 |
| 69°    | 2711.7 | 2801.9 | 2972.3 | 3037.9 | 3122.1 | 3191.4 | 3282.5 | 3298.4 | 3329.9 | 3334.4 | 3395.0 |
| 70°    | 2465.7 | 2598.3 | 2695.8 | 2794.2 | 2910.8 | 2986.8 | 3027.8 | 3095.3 | 3173.2 | 3211.4 | 3277.0 |
| 72.5°  | 1772.9 | 1816.2 | 1885.4 | 2012.9 | 2045.3 | 2124.1 | 2204.7 | 2262.1 | 2353.7 | 2418.4 | 2572.8 |
| 75°    | 956.6  | 982.6  | 1091.4 | 1163.9 | 1183.0 | 1209.0 | 1268.2 | 1282.3 | 1316.5 | 1337.4 | 1485.9 |
| 77.5°  | 436.8  | 476.5  | 490.6  | 530.2  | 507.9  | 518.8  | 533.0  | 529.8  | 539.3  | 584.9  | 636.8  |
| 80°    | 201.3  | 209.1  | 214.6  | 230.9  | 231.9  | 228.2  | 229.6  | 227.3  | 225.5  | 232.8  | 238.2  |
| 82.5°  | 97.9   | 109.8  | 109.8  | 119.8  | 124.8  | 123.4  | 126.2  | 125.3  | 127.1  | 125.3  | 131.2  |
| 85°    | 57.4   | 57.4   | 62.0   | 67.4   | 66.5   | 68.3   | 68.3   | 72.0   | 72.4   | 73.3   | 73.3   |
| 87.5°  | 26.9   | 29.6   | 31.0   | 33.3   | 34.2   | 35.5   | 36.4   | 36.4   | 36.9   | 36.0   | 36.9   |
| 90°    | 15.8   | 15.8   | 20.4   | 20.4   | 21.3   | 22.7   | 20.8   | 21.8   | 24.9   | 20.8   | 24.0   |
| 92.5°  | 7.0    | 6.9    | 6.8    | 6.7    | 6.6    | 6.5    | 6.4    | 6.3    | 6.2    | 6.1    | 6.0    |
| 95°    | 8.0    | 7.9    | 7.8    | 7.7    | 7.6    | 7.5    | 7.4    | 7.3    | 7.2    | 7.1    | 7.0    |
| 97.5°  | 10.0   | 9.9    | 9.8    | 9.7    | 9.6    | 9.5    | 9.4    | 9.3    | 9.2    | 9.1    | 9.0    |
| 100°   | 26.0   | 25.7   | 25.4   | 25.1   | 24.8   | 24.5   | 24.2   | 23.9   | 23.6   | 23.3   | 23.0   |
| 102.5° | 47.0   | 46.5   | 46.0   | 45.5   | 45.0   | 44.5   | 44.0   | 43.5   | 43.0   | 42.5   | 42.0   |
| 105°   | 70.0   | 69.5   | 69.0   | 68.5   | 68.0   | 67.5   | 67.0   | 66.5   | 66.0   | 65.5   | 65.0   |
| 107.5° | 94.0   | 93.6   | 93.2   | 92.8   | 92.4   | 92.0   | 91.6   | 91.2   | 90.8   | 90.4   | 90.0   |



REPORT NUMBER: P226312

CATALOG NUMBER: IST-AF-450-LED-E1-T2-7060-ULG

**CANDELA DISTRIBUTION (continued):**

|        | 65°   | 66°   | 67°   | 68°   | 69°   | 70°   | 71°   | 72°   | 73°   | 74°   | 75°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 110°   | 121.0 | 120.8 | 120.6 | 120.4 | 120.2 | 120.0 | 119.8 | 119.6 | 119.4 | 119.2 | 119.0 |
| 112.5° | 150.0 | 149.9 | 149.8 | 149.7 | 149.6 | 149.5 | 149.4 | 149.3 | 149.2 | 149.1 | 149.0 |
| 115°   | 182.0 | 181.7 | 181.4 | 181.1 | 180.8 | 180.5 | 180.2 | 179.9 | 179.6 | 179.3 | 179.0 |
| 117.5° | 215.0 | 214.5 | 214.0 | 213.5 | 213.0 | 212.5 | 212.0 | 211.5 | 211.0 | 210.5 | 210.0 |
| 120°   | 250.0 | 249.5 | 249.0 | 248.5 | 248.0 | 247.5 | 247.0 | 246.5 | 246.0 | 245.5 | 245.0 |
| 122.5° | 283.0 | 282.5 | 282.0 | 281.5 | 281.0 | 280.5 | 280.0 | 279.5 | 279.0 | 278.5 | 278.0 |
| 125°   | 315.0 | 314.5 | 314.0 | 313.5 | 313.0 | 312.5 | 312.0 | 311.5 | 311.0 | 310.5 | 310.0 |
| 127.5° | 346.0 | 346.0 | 346.0 | 346.0 | 346.0 | 346.0 | 346.0 | 346.0 | 346.0 | 346.0 | 346.0 |
| 130°   | 381.0 | 381.0 | 381.0 | 381.0 | 381.0 | 381.0 | 381.0 | 381.0 | 381.0 | 381.0 | 381.0 |
| 132.5° | 416.0 | 415.8 | 415.6 | 415.4 | 415.2 | 415.0 | 414.8 | 414.6 | 414.4 | 414.2 | 414.0 |
| 135°   | 448.0 | 447.9 | 447.8 | 447.7 | 447.6 | 447.5 | 447.4 | 447.3 | 447.2 | 447.1 | 447.0 |
| 137.5° | 475.0 | 475.1 | 475.2 | 475.3 | 475.4 | 475.5 | 475.6 | 475.7 | 475.8 | 475.9 | 476.0 |
| 140°   | 502.0 | 502.2 | 502.4 | 502.6 | 502.8 | 503.0 | 503.2 | 503.4 | 503.6 | 503.8 | 504.0 |
| 142.5° | 533.0 | 533.0 | 533.0 | 533.0 | 533.0 | 533.0 | 533.0 | 533.0 | 533.0 | 533.0 | 533.0 |
| 145°   | 562.0 | 561.9 | 561.8 | 561.7 | 561.6 | 561.5 | 561.4 | 561.3 | 561.2 | 561.1 | 561.0 |
| 147.5° | 585.0 | 585.1 | 585.2 | 585.3 | 585.4 | 585.5 | 585.6 | 585.7 | 585.8 | 585.9 | 586.0 |
| 150°   | 600.0 | 600.3 | 600.6 | 600.9 | 601.2 | 601.5 | 601.8 | 602.1 | 602.4 | 602.7 | 603.0 |
| 152.5° | 614.0 | 614.4 | 614.8 | 615.2 | 615.6 | 616.0 | 616.4 | 616.8 | 617.2 | 617.6 | 618.0 |
| 155°   | 631.0 | 631.5 | 632.0 | 632.5 | 633.0 | 633.5 | 634.0 | 634.5 | 635.0 | 635.5 | 636.0 |
| 157.5° | 648.0 | 648.2 | 648.4 | 648.6 | 648.8 | 649.0 | 649.2 | 649.4 | 649.6 | 649.8 | 650.0 |
| 160°   | 664.0 | 663.7 | 663.4 | 663.1 | 662.8 | 662.5 | 662.2 | 661.9 | 661.6 | 661.3 | 661.0 |
| 162.5° | 671.0 | 670.9 | 670.8 | 670.7 | 670.6 | 670.5 | 670.4 | 670.3 | 670.2 | 670.1 | 670.0 |
| 165°   | 677.0 | 677.3 | 677.6 | 677.9 | 678.2 | 678.5 | 678.8 | 679.1 | 679.4 | 679.7 | 680.0 |
| 167.5° | 684.0 | 684.4 | 684.8 | 685.2 | 685.6 | 686.0 | 686.4 | 686.8 | 687.2 | 687.6 | 688.0 |
| 170°   | 689.0 | 689.5 | 690.0 | 690.5 | 691.0 | 691.5 | 692.0 | 692.5 | 693.0 | 693.5 | 694.0 |
| 172.5° | 692.0 | 692.2 | 692.4 | 692.6 | 692.8 | 693.0 | 693.2 | 693.4 | 693.6 | 693.8 | 694.0 |
| 175°   | 695.0 | 695.1 | 695.2 | 695.3 | 695.4 | 695.5 | 695.6 | 695.7 | 695.8 | 695.9 | 696.0 |
| 177.5° | 699.0 | 699.2 | 699.4 | 699.6 | 699.8 | 700.0 | 700.2 | 700.4 | 700.6 | 700.8 | 701.0 |
| 180°   | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 |



REPORT NUMBER: P226312

CATALOG NUMBER: IST-AF-450-LED-E1-T2-7060-ULG

**CANDELA DISTRIBUTION (continued):**

|        | 76°    | 77°    | 78°    | 79°    | 80°    | 81°    | 82°    | 83°    | 84°    | 85°    | 86°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  | 436.4  |
| 2.5°   | 444.6  | 445.5  | 445.0  | 443.2  | 442.8  | 442.8  | 441.9  | 441.4  | 440.5  | 440.0  | 440.9  |
| 5°     | 452.8  | 452.8  | 451.4  | 449.6  | 447.8  | 447.3  | 446.9  | 444.6  | 443.7  | 442.8  | 441.9  |
| 7.5°   | 460.5  | 459.6  | 457.8  | 454.6  | 452.8  | 452.3  | 450.5  | 448.2  | 446.0  | 444.1  | 443.2  |
| 10°    | 468.7  | 467.8  | 464.2  | 461.9  | 458.3  | 457.8  | 454.6  | 451.9  | 449.6  | 447.3  | 445.5  |
| 12.5°  | 480.6  | 479.7  | 475.6  | 470.1  | 467.4  | 465.5  | 461.4  | 458.3  | 455.1  | 452.3  | 449.1  |
| 15°    | 498.8  | 495.2  | 492.4  | 487.0  | 482.9  | 479.2  | 474.2  | 469.6  | 465.1  | 460.5  | 457.8  |
| 17.5°  | 524.3  | 519.3  | 512.0  | 508.8  | 503.4  | 497.4  | 490.6  | 487.4  | 481.5  | 476.0  | 470.6  |
| 20°    | 557.6  | 552.5  | 541.2  | 537.1  | 529.3  | 520.7  | 515.2  | 508.4  | 503.4  | 494.7  | 488.8  |
| 22.5°  | 594.5  | 589.9  | 579.0  | 568.0  | 560.7  | 553.9  | 545.3  | 536.6  | 527.0  | 518.8  | 512.5  |
| 25°    | 642.3  | 635.5  | 625.9  | 615.0  | 604.0  | 594.5  | 582.6  | 570.3  | 562.1  | 550.7  | 541.6  |
| 27.5°  | 707.4  | 695.6  | 679.6  | 667.8  | 659.1  | 644.6  | 630.0  | 619.1  | 606.3  | 591.3  | 581.2  |
| 30°    | 778.0  | 764.8  | 753.0  | 739.3  | 724.7  | 710.6  | 690.6  | 674.6  | 661.0  | 645.0  | 628.6  |
| 32.5°  | 856.4  | 845.0  | 828.1  | 810.4  | 794.4  | 776.7  | 762.1  | 745.2  | 721.5  | 704.7  | 687.4  |
| 35°    | 935.2  | 922.0  | 904.7  | 889.6  | 871.4  | 853.2  | 836.8  | 814.5  | 793.1  | 768.9  | 744.8  |
| 37.5°  | 1011.3 | 999.9  | 980.7  | 958.0  | 942.0  | 922.4  | 905.6  | 881.9  | 856.4  | 829.5  | 811.3  |
| 40°    | 1096.0 | 1077.8 | 1064.6 | 1038.1 | 1021.7 | 999.9  | 975.7  | 957.5  | 932.9  | 903.8  | 877.8  |
| 42.5°  | 1193.0 | 1180.3 | 1166.1 | 1144.7 | 1127.4 | 1101.4 | 1070.9 | 1047.7 | 1024.9 | 990.3  | 954.3  |
| 45°    | 1316.0 | 1307.8 | 1284.6 | 1267.3 | 1244.0 | 1216.7 | 1190.3 | 1162.0 | 1126.0 | 1086.0 | 1053.2 |
| 47.5°  | 1463.6 | 1457.2 | 1436.3 | 1411.7 | 1381.1 | 1344.2 | 1319.6 | 1280.9 | 1250.4 | 1200.3 | 1161.1 |
| 50°    | 1597.5 | 1600.7 | 1589.3 | 1551.5 | 1524.2 | 1487.3 | 1448.6 | 1414.8 | 1367.9 | 1316.0 | 1265.9 |
| 52.5°  | 1757.4 | 1754.2 | 1725.5 | 1704.6 | 1672.2 | 1627.6 | 1585.2 | 1541.9 | 1490.5 | 1436.7 | 1374.3 |
| 55°    | 1910.5 | 1920.0 | 1900.0 | 1870.4 | 1831.2 | 1768.8 | 1726.0 | 1669.9 | 1615.7 | 1556.5 | 1484.5 |
| 57.5°  | 2059.0 | 2089.5 | 2074.0 | 2038.9 | 1998.8 | 1953.7 | 1897.2 | 1834.4 | 1778.4 | 1700.9 | 1619.8 |
| 60°    | 2243.9 | 2284.4 | 2290.8 | 2268.0 | 2224.3 | 2171.9 | 2097.7 | 2048.5 | 1971.5 | 1900.0 | 1837.6 |
| 62.5°  | 2528.6 | 2620.6 | 2615.1 | 2626.1 | 2595.1 | 2562.8 | 2475.8 | 2422.9 | 2322.7 | 2271.2 | 2184.2 |
| 65°    | 3004.2 | 3072.0 | 3153.6 | 3150.8 | 3129.4 | 3052.0 | 2961.8 | 2873.4 | 2807.4 | 2705.8 | 2615.1 |
| 67.5°  | 3403.2 | 3459.2 | 3507.5 | 3482.5 | 3433.3 | 3346.3 | 3240.6 | 3117.6 | 3016.9 | 2904.9 | 2786.0 |
| 69°    | 3440.5 | 3508.9 | 3537.1 | 3506.1 | 3417.8 | 3304.3 | 3200.9 | 3086.6 | 2948.1 | 2852.0 | 2707.2 |
| 70°    | 3340.3 | 3407.8 | 3464.7 | 3385.0 | 3303.9 | 3193.2 | 3080.2 | 2961.3 | 2837.4 | 2734.0 | 2587.8 |
| 72.5°  | 2653.4 | 2729.5 | 2721.7 | 2713.1 | 2648.4 | 2537.7 | 2433.8 | 2370.1 | 2283.1 | 2158.3 | 2052.6 |
| 75°    | 1542.8 | 1577.9 | 1516.4 | 1581.1 | 1503.7 | 1392.1 | 1406.6 | 1334.7 | 1270.9 | 1198.9 | 1143.4 |
| 77.5°  | 605.8  | 636.8  | 604.5  | 594.0  | 559.4  | 551.6  | 493.8  | 500.6  | 471.9  | 415.4  | 389.5  |
| 80°    | 229.6  | 233.7  | 228.2  | 216.8  | 214.6  | 201.3  | 197.7  | 184.9  | 179.0  | 160.3  | 153.5  |
| 82.5°  | 123.4  | 125.7  | 122.1  | 118.4  | 115.7  | 108.0  | 102.9  | 93.4   | 87.9   | 82.0   | 81.5   |
| 85°    | 71.1   | 69.2   | 67.4   | 65.6   | 61.5   | 56.9   | 53.3   | 49.7   | 45.6   | 42.4   | 39.2   |
| 87.5°  | 37.4   | 37.8   | 38.3   | 36.4   | 33.7   | 30.1   | 27.8   | 26.4   | 23.2   | 21.9   | 20.5   |
| 90°    | 21.1   | 17.7   | 18.9   | 21.4   | 20.3   | 17.8   | 17.2   | 15.6   | 14.0   | 13.8   | 12.5   |
| 92.5°  | 6.0    | 6.0    | 6.0    | 6.0    | 6.0    | 6.0    | 6.0    | 6.0    | 6.0    | 6.0    | 6.0    |
| 95°    | 7.0    | 7.0    | 7.0    | 7.0    | 7.0    | 7.0    | 7.0    | 7.0    | 7.0    | 7.0    | 7.0    |
| 97.5°  | 8.9    | 8.8    | 8.7    | 8.6    | 8.5    | 8.4    | 8.3    | 8.2    | 8.1    | 8.0    | 8.0    |
| 100°   | 22.6   | 22.2   | 21.8   | 21.4   | 21.0   | 20.6   | 20.2   | 19.8   | 19.4   | 19.0   | 19.0   |
| 102.5° | 41.7   | 41.4   | 41.1   | 40.8   | 40.5   | 40.2   | 39.9   | 39.6   | 39.3   | 39.0   | 38.8   |
| 105°   | 64.6   | 64.2   | 63.8   | 63.4   | 63.0   | 62.6   | 62.2   | 61.8   | 61.4   | 61.0   | 61.0   |
| 107.5° | 89.7   | 89.4   | 89.1   | 88.8   | 88.5   | 88.2   | 87.9   | 87.6   | 87.3   | 87.0   | 86.8   |



REPORT NUMBER: P226312  
 CATALOG NUMBER: IST-AF-450-LED-E1-T2-7060-ULG

REPORT N  
 CATALOG

**CANDELA DISTRIBUTION (continued):**

**CANDELA**

|        | 76°   | 77°   | 78°   | 79°   | 80°   | 81°   | 82°   | 83°   | 84°   | 85°   | 86°   |        |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 110°   | 118.7 | 118.4 | 118.1 | 117.8 | 117.5 | 117.2 | 116.9 | 116.6 | 116.3 | 116.0 | 116.2 | 0°     |
| 112.5° | 148.8 | 148.6 | 148.4 | 148.2 | 148.0 | 147.8 | 147.6 | 147.4 | 147.2 | 147.0 | 147.0 | 2.5°   |
| 115°   | 178.8 | 178.6 | 178.4 | 178.2 | 178.0 | 177.8 | 177.6 | 177.4 | 177.2 | 177.0 | 177.2 | 5°     |
| 117.5° | 209.8 | 209.6 | 209.4 | 209.2 | 209.0 | 208.8 | 208.6 | 208.4 | 208.2 | 208.0 | 208.2 | 7.5°   |
| 120°   | 244.8 | 244.6 | 244.4 | 244.2 | 244.0 | 243.8 | 243.6 | 243.4 | 243.2 | 243.0 | 243.0 | 10°    |
| 122.5° | 277.8 | 277.6 | 277.4 | 277.2 | 277.0 | 276.8 | 276.6 | 276.4 | 276.2 | 276.0 | 276.2 | 12.5°  |
| 125°   | 310.0 | 310.0 | 310.0 | 310.0 | 310.0 | 310.0 | 310.0 | 310.0 | 310.0 | 310.0 | 310.0 | 15°    |
| 127.5° | 345.9 | 345.8 | 345.7 | 345.6 | 345.5 | 345.4 | 345.3 | 345.2 | 345.1 | 345.0 | 345.4 | 17.5°  |
| 130°   | 380.8 | 380.6 | 380.4 | 380.2 | 380.0 | 379.8 | 379.6 | 379.4 | 379.2 | 379.0 | 379.2 | 20°    |
| 132.5° | 414.0 | 414.0 | 414.0 | 414.0 | 414.0 | 414.0 | 414.0 | 414.0 | 414.0 | 414.0 | 414.2 | 22.5°  |
| 135°   | 447.3 | 447.6 | 447.9 | 448.2 | 448.5 | 448.8 | 449.1 | 449.4 | 449.7 | 450.0 | 450.2 | 25°    |
| 137.5° | 476.5 | 477.0 | 477.5 | 478.0 | 478.5 | 479.0 | 479.5 | 480.0 | 480.5 | 481.0 | 481.2 | 27.5°  |
| 140°   | 504.5 | 505.0 | 505.5 | 506.0 | 506.5 | 507.0 | 507.5 | 508.0 | 508.5 | 509.0 | 509.4 | 30°    |
| 142.5° | 533.1 | 533.2 | 533.3 | 533.4 | 533.5 | 533.6 | 533.7 | 533.8 | 533.9 | 534.0 | 534.4 | 32.5°  |
| 145°   | 560.7 | 560.4 | 560.1 | 559.8 | 559.5 | 559.2 | 558.9 | 558.6 | 558.3 | 558.0 | 558.4 | 35°    |
| 147.5° | 585.7 | 585.4 | 585.1 | 584.8 | 584.5 | 584.2 | 583.9 | 583.6 | 583.3 | 583.0 | 583.4 | 37.5°  |
| 150°   | 603.3 | 603.6 | 603.9 | 604.2 | 604.5 | 604.8 | 605.1 | 605.4 | 605.7 | 606.0 | 606.8 | 40°    |
| 152.5° | 618.5 | 619.0 | 619.5 | 620.0 | 620.5 | 621.0 | 621.5 | 622.0 | 622.5 | 623.0 | 624.0 | 42.5°  |
| 155°   | 636.2 | 636.4 | 636.6 | 636.8 | 637.0 | 637.2 | 637.4 | 637.6 | 637.8 | 638.0 | 638.6 | 45°    |
| 157.5° | 650.0 | 650.0 | 650.0 | 650.0 | 650.0 | 650.0 | 650.0 | 650.0 | 650.0 | 650.0 | 651.0 | 47.5°  |
| 160°   | 660.9 | 660.8 | 660.7 | 660.6 | 660.5 | 660.4 | 660.3 | 660.2 | 660.1 | 660.0 | 661.2 | 50°    |
| 162.5° | 669.8 | 669.6 | 669.4 | 669.2 | 669.0 | 668.8 | 668.6 | 668.4 | 668.2 | 668.0 | 669.2 | 52.5°  |
| 165°   | 679.8 | 679.6 | 679.4 | 679.2 | 679.0 | 678.8 | 678.6 | 678.4 | 678.2 | 678.0 | 678.8 | 55°    |
| 167.5° | 688.0 | 688.0 | 688.0 | 688.0 | 688.0 | 688.0 | 688.0 | 688.0 | 688.0 | 688.0 | 689.2 | 57.5°  |
| 170°   | 694.2 | 694.4 | 694.6 | 694.8 | 695.0 | 695.2 | 695.4 | 695.6 | 695.8 | 696.0 | 697.0 | 60°    |
| 172.5° | 694.2 | 694.4 | 694.6 | 694.8 | 695.0 | 695.2 | 695.4 | 695.6 | 695.8 | 696.0 | 697.0 | 62.5°  |
| 175°   | 695.8 | 695.6 | 695.4 | 695.2 | 695.0 | 694.8 | 694.6 | 694.4 | 694.2 | 694.0 | 695.0 | 65°    |
| 177.5° | 700.7 | 700.4 | 700.1 | 699.8 | 699.5 | 699.2 | 698.9 | 698.6 | 698.3 | 698.0 | 698.8 | 67.5°  |
| 180°   | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 69°    |
|        |       |       |       |       |       |       |       |       |       |       |       | 70°    |
|        |       |       |       |       |       |       |       |       |       |       |       | 72.5°  |
|        |       |       |       |       |       |       |       |       |       |       |       | 75°    |
|        |       |       |       |       |       |       |       |       |       |       |       | 77.5°  |
|        |       |       |       |       |       |       |       |       |       |       |       | 80°    |
|        |       |       |       |       |       |       |       |       |       |       |       | 82.5°  |
|        |       |       |       |       |       |       |       |       |       |       |       | 85°    |
|        |       |       |       |       |       |       |       |       |       |       |       | 87.5°  |
|        |       |       |       |       |       |       |       |       |       |       |       | 90°    |
|        |       |       |       |       |       |       |       |       |       |       |       | 92.5°  |
|        |       |       |       |       |       |       |       |       |       |       |       | 95°    |
|        |       |       |       |       |       |       |       |       |       |       |       | 97.5°  |
|        |       |       |       |       |       |       |       |       |       |       |       | 100°   |
|        |       |       |       |       |       |       |       |       |       |       |       | 102.5° |
|        |       |       |       |       |       |       |       |       |       |       |       | 105°   |
|        |       |       |       |       |       |       |       |       |       |       |       | 107.5° |

NUMBER: P226312  
 NUMBER: IST-AF-450-LED-E1-T2-7060-ULG

REPORT NUMBER: P  
 CATALOG NUMBER:

**DISTRIBUTION (continued):**

**CANDELA DISTRIBUTION**

| 87°    | 88°    | 89°    | 90°    | 95°   | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 110°   | 87°   |
|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 436.4  | 436.4  | 436.4  | 436.4  | 436.4 | 436.4 | 436.4 | 436.4 | 436.4 | 436.4 | 436.4 | 110°   | 116.4 |
| 439.6  | 439.6  | 438.2  | 437.3  | 434.1 | 428.6 | 423.2 | 418.2 | 411.3 | 408.6 | 405.0 | 112.5° | 147.0 |
| 440.9  | 440.0  | 438.7  | 436.8  | 430.5 | 417.7 | 404.5 | 390.4 | 375.8 | 362.6 | 347.1 | 115°   | 177.4 |
| 441.9  | 440.0  | 438.2  | 435.9  | 426.8 | 407.2 | 380.8 | 353.0 | 327.1 | 307.5 | 299.3 | 117.5° | 208.4 |
| 442.3  | 440.9  | 438.7  | 435.5  | 422.7 | 393.6 | 351.2 | 311.1 | 288.3 | 280.6 | 279.2 | 120°   | 243.0 |
| 447.3  | 445.0  | 441.4  | 437.8  | 420.9 | 378.5 | 318.0 | 279.7 | 270.6 | 274.2 | 280.6 | 122.5° | 276.4 |
| 453.7  | 451.0  | 446.4  | 442.8  | 420.0 | 359.0 | 285.6 | 261.9 | 265.1 | 275.1 | 285.6 | 125°   | 310.0 |
| 465.1  | 460.5  | 455.5  | 451.9  | 421.8 | 334.8 | 259.6 | 252.8 | 262.4 | 275.1 | 289.3 | 127.5° | 345.8 |
| 481.9  | 475.6  | 469.6  | 463.3  | 424.5 | 304.7 | 244.2 | 246.9 | 258.3 | 271.9 | 287.4 | 130°   | 379.4 |
| 502.9  | 495.6  | 487.4  | 477.8  | 427.7 | 278.8 | 235.5 | 240.5 | 251.0 | 262.8 | 275.6 | 132.5° | 414.4 |
| 531.1  | 521.1  | 510.6  | 498.8  | 432.3 | 250.5 | 227.8 | 233.2 | 239.6 | 246.4 | 252.8 | 135°   | 450.4 |
| 566.7  | 553.0  | 541.6  | 525.7  | 436.8 | 231.4 | 221.4 | 223.2 | 224.6 | 225.5 | 225.0 | 137.5° | 481.4 |
| 614.0  | 593.1  | 579.9  | 560.3  | 441.9 | 221.4 | 214.1 | 211.8 | 209.5 | 206.4 | 202.7 | 140°   | 509.8 |
| 664.1  | 646.8  | 625.9  | 600.8  | 445.0 | 214.6 | 207.3 | 200.0 | 193.6 | 190.4 | 190.4 | 142.5° | 534.8 |
| 722.5  | 701.0  | 674.6  | 643.2  | 440.9 | 207.3 | 198.2 | 188.6 | 184.9 | 189.0 | 187.7 | 145°   | 558.8 |
| 780.8  | 751.2  | 722.0  | 686.0  | 430.9 | 199.1 | 188.1 | 183.1 | 185.9 | 180.4 | 177.2 | 147.5° | 583.8 |
| 845.0  | 812.2  | 771.7  | 729.7  | 416.3 | 190.4 | 183.1 | 185.9 | 176.3 | 169.9 | 172.6 | 150°   | 607.6 |
| 917.0  | 878.2  | 834.5  | 777.6  | 406.8 | 184.9 | 175.4 | 177.7 | 169.5 | 164.9 | 163.5 | 152.5° | 625.0 |
| 1014.9 | 959.8  | 906.5  | 839.5  | 414.1 | 176.3 | 160.3 | 169.5 | 164.9 | 160.8 | 157.2 | 155°   | 639.2 |
| 1111.0 | 1052.3 | 989.4  | 910.6  | 426.8 | 169.9 | 148.5 | 160.8 | 164.0 | 157.2 | 150.3 | 157.5° | 652.0 |
| 1207.6 | 1145.2 | 1071.8 | 983.9  | 442.3 | 165.8 | 139.4 | 150.3 | 161.7 | 153.5 | 148.0 | 160°   | 662.4 |
| 1309.2 | 1230.4 | 1155.2 | 1060.5 | 462.4 | 161.7 | 132.1 | 141.2 | 157.6 | 153.5 | 145.3 | 162.5° | 670.4 |
| 1415.8 | 1322.8 | 1247.7 | 1145.2 | 497.4 | 155.8 | 123.0 | 133.9 | 153.5 | 153.1 | 142.6 | 165°   | 679.6 |
| 1539.7 | 1456.8 | 1360.2 | 1255.9 | 546.2 | 149.0 | 114.8 | 128.5 | 149.9 | 151.2 | 139.4 | 167.5° | 690.4 |
| 1750.6 | 1664.9 | 1548.3 | 1449.0 | 642.7 | 139.8 | 109.8 | 123.0 | 143.9 | 147.6 | 136.7 | 170°   | 698.0 |
| 2092.7 | 1976.0 | 1869.0 | 1776.1 | 808.1 | 127.1 | 106.1 | 117.1 | 137.6 | 143.0 | 134.4 | 172.5° | 698.0 |
| 2484.9 | 2371.0 | 2241.6 | 2085.4 | 900.1 | 115.2 | 101.1 | 109.8 | 131.2 | 138.5 | 132.1 | 175°   | 696.0 |
| 2651.6 | 2502.6 | 2345.5 | 2160.1 | 812.2 | 105.7 | 95.7  | 102.9 | 123.9 | 132.1 | 128.9 | 177.5° | 699.6 |
| 2575.1 | 2424.3 | 2241.6 | 2059.9 | 706.5 | 100.7 | 92.5  | 99.3  | 118.4 | 128.0 | 125.7 | 180°   | 700.0 |
| 2442.0 | 2290.4 | 2127.3 | 1909.1 | 630.9 | 97.9  | 90.2  | 97.0  | 116.2 | 125.7 | 123.9 |        |       |
| 1931.4 | 1796.1 | 1645.8 | 1479.5 | 430.0 | 88.8  | 82.9  | 90.2  | 107.0 | 117.5 | 117.1 |        |       |
| 1023.6 | 983.9  | 872.8  | 775.3  | 222.7 | 79.3  | 75.2  | 82.4  | 98.8  | 109.8 | 109.8 |        |       |
| 368.5  | 334.4  | 319.8  | 265.6  | 118.4 | 69.2  | 67.4  | 72.9  | 89.7  | 100.2 | 99.8  |        |       |
| 139.4  | 135.7  | 121.6  | 113.9  | 75.2  | 56.5  | 56.9  | 62.4  | 78.8  | 88.8  | 88.4  |        |       |
| 78.8   | 71.5   | 69.2   | 67.0   | 47.8  | 44.6  | 46.9  | 52.4  | 67.4  | 76.1  | 77.4  |        |       |
| 37.8   | 35.1   | 34.2   | 31.9   | 31.4  | 34.2  | 36.9  | 41.5  | 53.8  | 64.2  | 62.9  |        |       |
| 18.2   | 17.3   | 16.9   | 16.4   | 22.3  | 21.9  | 26.9  | 28.7  | 36.0  | 51.0  | 46.0  |        |       |
| 12.9   | 12.9   | 12.5   | 11.6   | 13.4  | 16.3  | 17.7  | 19.3  | 22.0  | 37.6  | 32.1  |        |       |
| 6.0    | 6.0    | 6.0    | 6.0    | 6.0   | 6.0   | 7.0   | 7.0   | 6.0   | 6.0   | 6.0   |        |       |
| 7.0    | 7.0    | 7.0    | 7.0    | 7.0   | 7.0   | 8.0   | 7.0   | 7.0   | 7.0   | 7.0   |        |       |
| 8.0    | 8.0    | 8.0    | 8.0    | 8.0   | 9.0   | 10.0  | 12.0  | 9.0   | 9.0   | 8.0   |        |       |
| 19.0   | 19.0   | 19.0   | 19.0   | 19.0  | 23.0  | 26.0  | 29.0  | 21.0  | 12.0  | 10.0  |        |       |
| 38.6   | 38.4   | 38.2   | 38.0   | 39.0  | 42.0  | 47.0  | 50.0  | 40.0  | 27.0  | 18.0  |        |       |
| 61.0   | 61.0   | 61.0   | 61.0   | 61.0  | 65.0  | 70.0  | 72.0  | 63.0  | 48.0  | 36.0  |        |       |
| 86.6   | 86.4   | 86.2   | 86.0   | 87.0  | 90.0  | 94.0  | 95.0  | 88.0  | 73.0  | 58.0  |        |       |

'226312  
 IST-AF-450-LED-E1-T2-7060-ULG

REPORT NUMBER: P226312  
 CATALOG NUMBER: IST-AF-450

**TION (continued):**

**CANDELA DISTRIBUTION (con**

| 88°   | 89°   | 90°   | 95°   | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  |        | 165°  | 175°  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|
| 116.6 | 116.8 | 117.0 | 116.0 | 119.0 | 121.0 | 120.0 | 114.0 | 102.0 | 87.0  | 0°     | 436.4 | 436.4 |
| 147.0 | 147.0 | 147.0 | 147.0 | 149.0 | 150.0 | 148.0 | 143.0 | 134.0 | 121.0 | 2.5°   | 401.8 | 395.4 |
| 177.6 | 177.8 | 178.0 | 177.0 | 179.0 | 182.0 | 179.0 | 174.0 | 168.0 | 159.0 | 5°     | 335.7 | 334.8 |
| 208.6 | 208.8 | 209.0 | 208.0 | 210.0 | 215.0 | 211.0 | 205.0 | 202.0 | 197.0 | 7.5°   | 294.3 | 288.3 |
| 243.0 | 243.0 | 243.0 | 243.0 | 245.0 | 250.0 | 246.0 | 243.0 | 237.0 | 233.0 | 10°    | 280.6 | 280.1 |
| 276.6 | 276.8 | 277.0 | 276.0 | 278.0 | 283.0 | 279.0 | 277.0 | 271.0 | 267.0 | 12.5°  | 286.5 | 287.9 |
| 310.0 | 310.0 | 310.0 | 310.0 | 310.0 | 315.0 | 313.0 | 310.0 | 305.0 | 299.0 | 15°    | 294.3 | 297.0 |
| 346.2 | 346.6 | 347.0 | 345.0 | 346.0 | 346.0 | 345.0 | 340.0 | 339.0 | 333.0 | 17.5°  | 299.3 | 304.3 |
| 379.6 | 379.8 | 380.0 | 379.0 | 381.0 | 381.0 | 377.0 | 372.0 | 370.0 | 366.0 | 20°    | 297.9 | 303.8 |
| 414.6 | 414.8 | 415.0 | 414.0 | 414.0 | 416.0 | 411.0 | 405.0 | 404.0 | 401.0 | 22.5°  | 282.9 | 285.6 |
| 450.6 | 450.8 | 451.0 | 450.0 | 447.0 | 448.0 | 443.0 | 437.0 | 435.0 | 432.0 | 25°    | 256.0 | 256.9 |
| 481.6 | 481.8 | 482.0 | 481.0 | 476.0 | 475.0 | 473.0 | 468.0 | 464.0 | 460.0 | 27.5°  | 223.7 | 222.7 |
| 510.2 | 510.6 | 511.0 | 509.0 | 504.0 | 502.0 | 500.0 | 497.0 | 491.0 | 489.0 | 30°    | 200.9 | 195.0 |
| 535.2 | 535.6 | 536.0 | 534.0 | 533.0 | 533.0 | 527.0 | 525.0 | 521.0 | 518.0 | 32.5°  | 190.4 | 186.8 |
| 559.2 | 559.6 | 560.0 | 558.0 | 561.0 | 562.0 | 556.0 | 551.0 | 550.0 | 547.0 | 35°    | 183.1 | 177.2 |
| 584.2 | 584.6 | 585.0 | 583.0 | 586.0 | 585.0 | 580.0 | 575.0 | 574.0 | 574.0 | 37.5°  | 190.0 | 189.5 |
| 608.4 | 609.2 | 610.0 | 606.0 | 603.0 | 600.0 | 597.0 | 593.0 | 593.0 | 593.0 | 40°    | 196.3 | 195.4 |
| 626.0 | 627.0 | 628.0 | 623.0 | 618.0 | 614.0 | 611.0 | 610.0 | 610.0 | 609.0 | 42.5°  | 185.4 | 177.2 |
| 639.8 | 640.4 | 641.0 | 638.0 | 636.0 | 631.0 | 626.0 | 628.0 | 630.0 | 627.0 | 45°    | 165.4 | 155.8 |
| 653.0 | 654.0 | 655.0 | 650.0 | 650.0 | 648.0 | 644.0 | 645.0 | 646.0 | 644.0 | 47.5°  | 151.7 | 146.2 |
| 663.6 | 664.8 | 666.0 | 660.0 | 661.0 | 664.0 | 658.0 | 655.0 | 655.0 | 656.0 | 50°    | 145.3 | 143.5 |
| 671.6 | 672.8 | 674.0 | 668.0 | 670.0 | 671.0 | 667.0 | 663.0 | 661.0 | 665.0 | 52.5°  | 143.5 | 148.0 |
| 680.4 | 681.2 | 682.0 | 678.0 | 680.0 | 677.0 | 672.0 | 673.0 | 673.0 | 676.0 | 55°    | 142.6 | 147.6 |
| 691.6 | 692.8 | 694.0 | 688.0 | 688.0 | 684.0 | 678.0 | 685.0 | 688.0 | 686.0 | 57.5°  | 136.2 | 144.9 |
| 699.0 | 700.0 | 701.0 | 696.0 | 694.0 | 689.0 | 686.0 | 691.0 | 693.0 | 692.0 | 60°    | 131.6 | 142.1 |
| 699.0 | 700.0 | 701.0 | 696.0 | 694.0 | 692.0 | 689.0 | 690.0 | 690.0 | 693.0 | 62.5°  | 128.9 | 140.8 |
| 697.0 | 698.0 | 699.0 | 694.0 | 696.0 | 695.0 | 690.0 | 690.0 | 691.0 | 695.0 | 65°    | 126.6 | 141.7 |
| 700.4 | 701.2 | 702.0 | 698.0 | 701.0 | 699.0 | 694.0 | 695.0 | 697.0 | 699.0 | 67.5°  | 123.0 | 144.4 |
| 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 700.0 | 69°    | 121.2 | 143.9 |
|       |       |       |       |       |       |       |       |       |       | 70°    | 119.3 | 142.6 |
|       |       |       |       |       |       |       |       |       |       | 72.5°  | 113.0 | 131.6 |
|       |       |       |       |       |       |       |       |       |       | 75°    | 105.2 | 116.2 |
|       |       |       |       |       |       |       |       |       |       | 77.5°  | 95.2  | 99.8  |
|       |       |       |       |       |       |       |       |       |       | 80°    | 84.3  | 87.0  |
|       |       |       |       |       |       |       |       |       |       | 82.5°  | 73.3  | 83.8  |
|       |       |       |       |       |       |       |       |       |       | 85°    | 57.4  | 71.1  |
|       |       |       |       |       |       |       |       |       |       | 87.5°  | 42.4  | 39.2  |
|       |       |       |       |       |       |       |       |       |       | 90°    | 31.1  | 22.8  |
|       |       |       |       |       |       |       |       |       |       | 92.5°  | 5.0   | 4.0   |
|       |       |       |       |       |       |       |       |       |       | 95°    | 6.0   | 5.0   |
|       |       |       |       |       |       |       |       |       |       | 97.5°  | 8.0   | 7.0   |
|       |       |       |       |       |       |       |       |       |       | 100°   | 9.0   | 8.0   |
|       |       |       |       |       |       |       |       |       |       | 102.5° | 13.0  | 11.0  |
|       |       |       |       |       |       |       |       |       |       | 105°   | 27.0  | 22.0  |
|       |       |       |       |       |       |       |       |       |       | 107.5° | 49.0  | 42.0  |

REPORT NUMBER: P226312

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

0-LED-E1-T2-7060-ULG

**tinued):**

|       |
|-------|
| 180°  |
| 436.4 |
| 396.8 |
| 332.1 |
| 288.8 |
| 281.5 |
| 287.0 |
| 297.9 |
| 306.1 |
| 305.2 |
| 287.9 |
| 257.8 |
| 226.4 |
| 199.5 |
| 190.9 |
| 179.9 |
| 191.8 |
| 197.2 |
| 179.0 |
| 155.8 |
| 145.3 |
| 142.6 |
| 149.4 |
| 147.1 |
| 145.3 |
| 142.6 |
| 140.3 |
| 139.8 |
| 140.8 |
| 138.9 |
| 136.7 |
| 123.0 |
| 110.7 |
| 99.8  |
| 87.9  |
| 74.2  |
| 55.6  |
| 42.4  |
| 20.0  |
| 4.0   |
| 5.0   |
| 7.0   |
| 8.0   |
| 11.0  |
| 21.0  |
| 41.0  |

**CANDELA DISTRIBUTION (continued):**

|        | 165°  | 175°  | 180°  |
|--------|-------|-------|-------|
| 110°   | 74.0  | 68.0  | 66.0  |
| 112.5° | 106.0 | 99.0  | 99.0  |
| 115°   | 147.0 | 139.0 | 140.0 |
| 117.5° | 189.0 | 184.0 | 184.0 |
| 120°   | 226.0 | 223.0 | 225.0 |
| 122.5° | 261.0 | 260.0 | 263.0 |
| 125°   | 296.0 | 294.0 | 298.0 |
| 127.5° | 329.0 | 329.0 | 330.0 |
| 130°   | 362.0 | 361.0 | 363.0 |
| 132.5° | 393.0 | 394.0 | 396.0 |
| 135°   | 426.0 | 426.0 | 429.0 |
| 137.5° | 459.0 | 457.0 | 460.0 |
| 140°   | 487.0 | 485.0 | 488.0 |
| 142.5° | 517.0 | 515.0 | 518.0 |
| 145°   | 544.0 | 546.0 | 550.0 |
| 147.5° | 571.0 | 572.0 | 575.0 |
| 150°   | 593.0 | 592.0 | 595.0 |
| 152.5° | 608.0 | 608.0 | 611.0 |
| 155°   | 625.0 | 625.0 | 629.0 |
| 157.5° | 643.0 | 643.0 | 646.0 |
| 160°   | 659.0 | 660.0 | 663.0 |
| 162.5° | 669.0 | 669.0 | 673.0 |
| 165°   | 676.0 | 678.0 | 681.0 |
| 167.5° | 684.0 | 687.0 | 690.0 |
| 170°   | 692.0 | 695.0 | 698.0 |
| 172.5° | 695.0 | 697.0 | 699.0 |
| 175°   | 697.0 | 698.0 | 700.0 |
| 177.5° | 700.0 | 705.0 | 707.0 |
| 180°   | 700.0 | 700.0 | 700.0 |

(END OF F

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

Scaled Data Report

