

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



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: HALO

Report Number: P670553 (CONVERTED FROM TYPE C PHOTOMETRY)

Luminaire Tested: ARFL50DBZ-45W-4000K

Issue Date: 3/30/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P670553 (CONVERTED FROM TYPE C PHOTOMETRY)  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( 2022-08-03)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/30/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ARFL50DBZ-45W-4000K  
Description: SLIM WALL OR FLOODLIGHT  
Light Source:  
Ballast/Driver: -

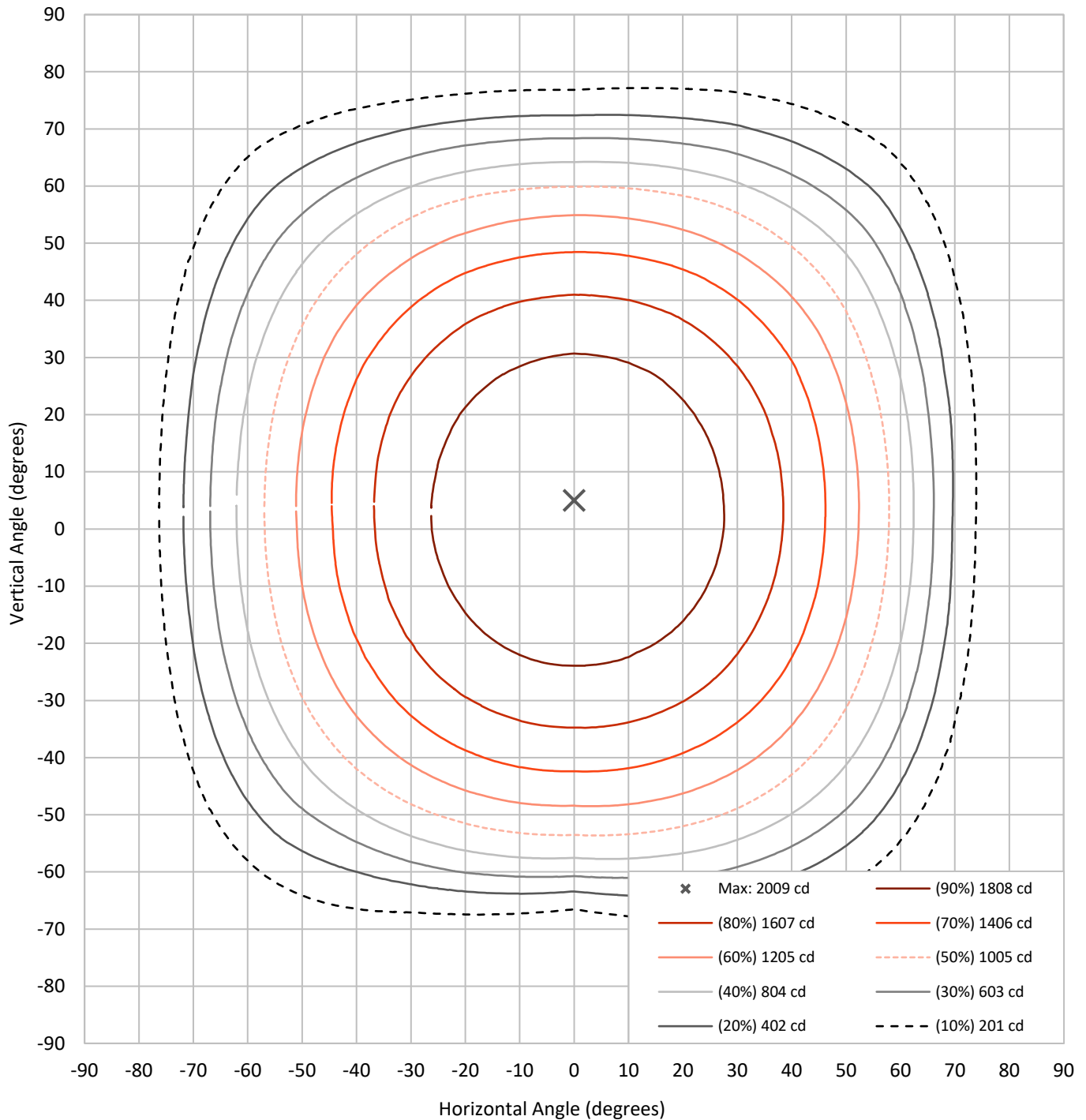
**Summary**

|                                   |   |                      |                   |
|-----------------------------------|---|----------------------|-------------------|
| Lumens per Lamp:                  | N/A   | NEMA Type:           | 7H x 7V           |
| Luminaire Lumens:                 | 5577.6 lumens   | Max Intensity:       | 2009 candela      |
| Efficiency:                       | N/A   | Max Intensity Angle: | 0°H x 5°V         |
| Efficacy:                         | 125.1 lumens/watt                                     |                      |                   |
| Luminous Opening:                 | Rectangular w/ Sides (W: 0.34' x L: 0.58' x H: 0.15') |                      |                   |
| Beam Angle (50%):                 | 114.9°H x 113.4°V                                     | Field Angle (10%):   | 150.2°H x 143.3°V |
| Beam Lumens:                      | 4468.5 lumens   | Field Lumens:        | 5494.1 lumens     |
| Beam Efficiency:                  | 80.1%   | Field Efficiency:    | 98.5%             |
| Input Watts (W):                  | 44.6  |                      |                   |
| 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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CATALOG NUMBER: ARFL50DBZ-45W-4000K

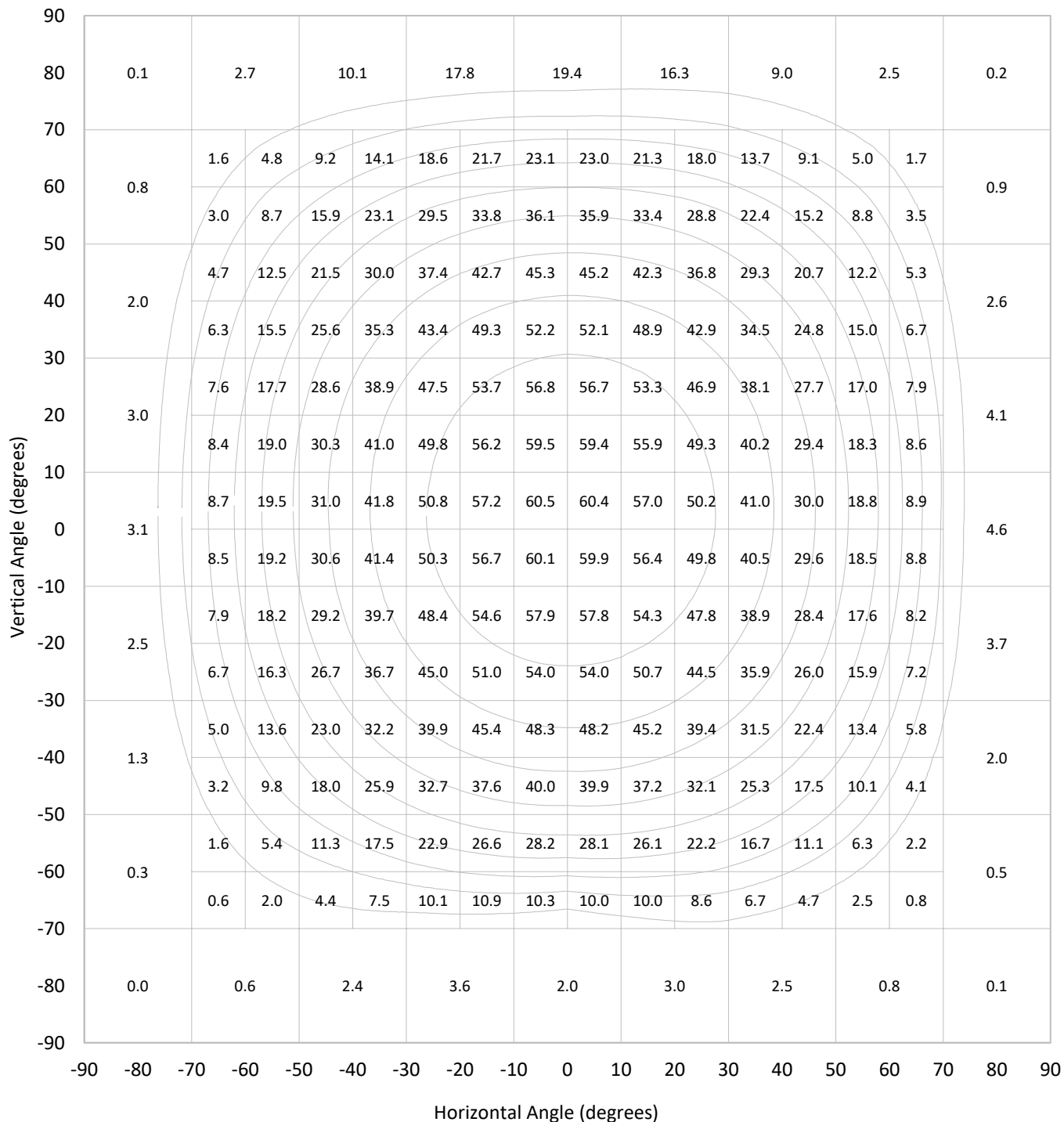
### Iso-Candela Plot





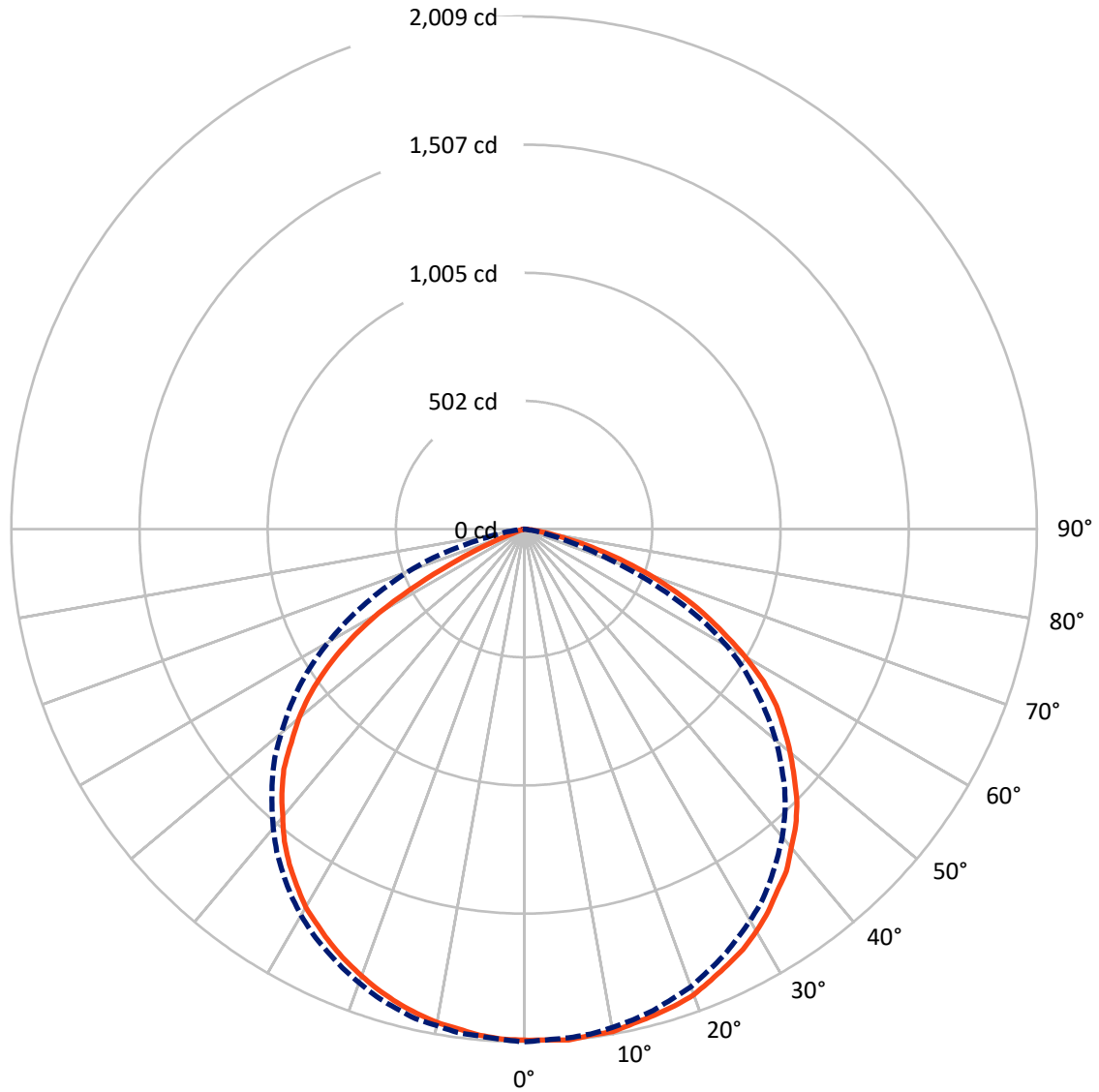
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### Lumen Table



REPORT NUMBER: P670553 (CONVERTED FROM TYPE C PHOTOMETRY)  
CATALOG NUMBER: ARFL50DBZ-45W-4000K

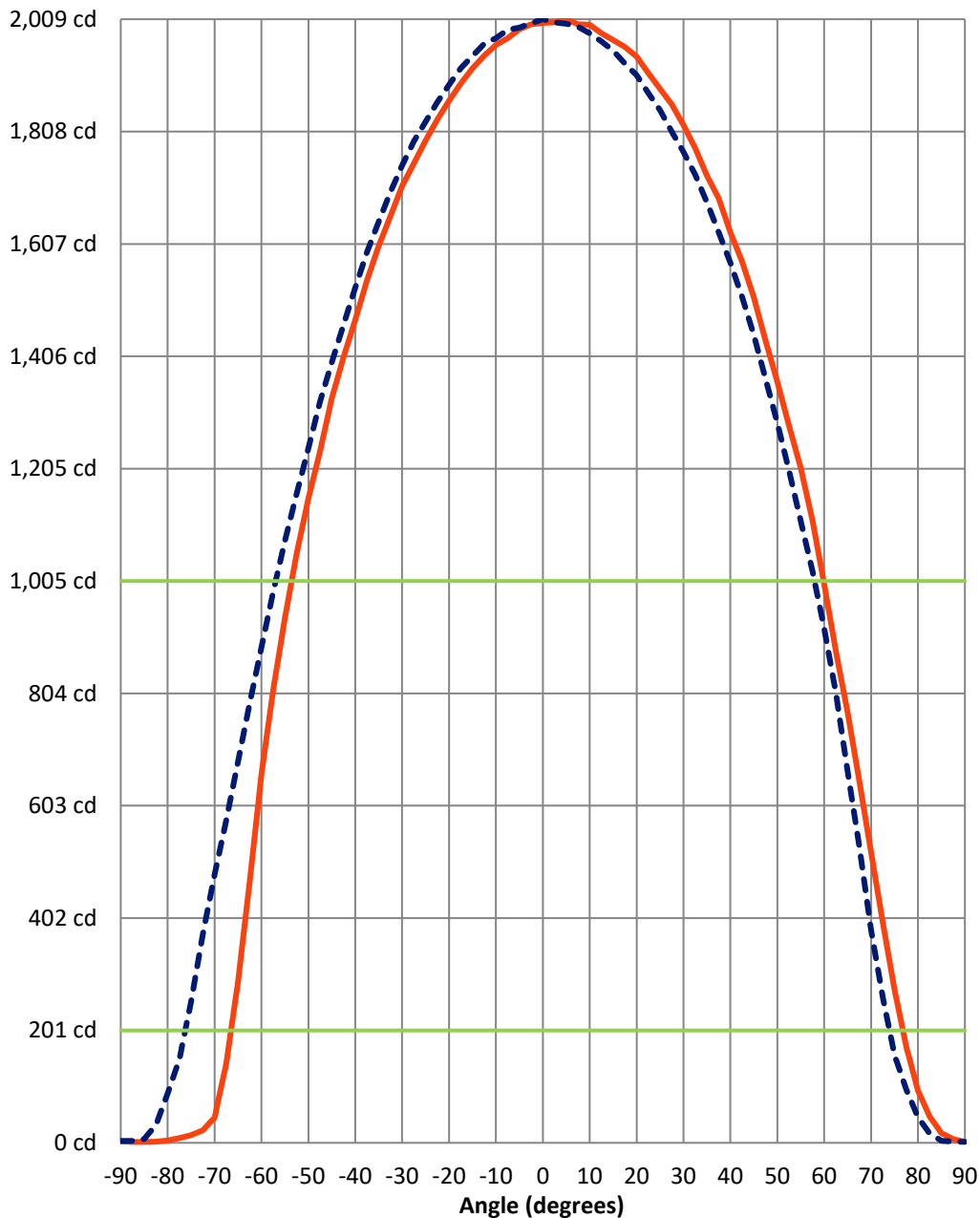
### Luminous Intensity Polar Plot



— Vertical Distribution Through 0-Deg      - - - Horizontal Distribution Through 5-Deg

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### Luminous Intensity Plot



**Beam:**  
 H Angle: 114.9°  
 V Angle: 113.4°  
 Lumens: 4468.5  
 Efficiency: 80.1%

**Field:**  
 H Angle: 150.2°  
 V Angle: 143.3°  
 Lumens: 5494.1  
 Efficiency: 98.5%

**Spill:**  
 Lumens: 83.4  
 Efficiency: 1.5%

— Vertical Distribution through 0-Deg  
 - - Horizontal Distribution through 5-Deg



REPORT NUMBER: P670553 (CONVERTED FROM TYPE C PHOTOMETRY)  
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FIELD  
 BEAM

**CANDELA DISTRIBUTION:**

|        | -90° | -87.5° | -85° | -82.5° | -80° | -77.5° | -75°  | -72.5° | -70°  | -67.5° | -65°  |
|--------|------|--------|------|--------|------|--------|-------|--------|-------|--------|-------|
| 90°    | 3.3  | 3.3    | 3.2  | 3.2    | 3.1  | 3.1    | 3.0   | 3.0    | 2.9   | 2.9    | 2.8   |
| 87.5°  | 3.3  | 3.3    | 3.4  | 3.5    | 3.6  | 3.8    | 4.0   | 4.1    | 4.4   | 4.6    | 4.9   |
| 85°    | 3.3  | 3.4    | 3.5  | 3.6    | 3.8  | 4.1    | 4.5   | 4.9    | 5.3   | 5.8    | 6.5   |
| 82.5°  | 3.3  | 3.4    | 3.5  | 3.7    | 4.1  | 4.5    | 5.0   | 5.8    | 6.7   | 7.8    | 9.3   |
| 80°    | 3.3  | 3.4    | 3.6  | 3.9    | 4.3  | 5.0    | 5.9   | 7.0    | 9.1   | 11.5   | 15.3  |
| 77.5°  | 3.3  | 3.4    | 3.6  | 4.0    | 4.7  | 5.6    | 7.2   | 9.6    | 13.5  | 19.2   | 25.6  |
| 75°    | 3.3  | 3.4    | 3.7  | 4.2    | 5.1  | 6.6    | 9.1   | 14.0   | 20.4  | 27.5   | 37.3  |
| 72.5°  | 3.3  | 3.4    | 3.8  | 4.4    | 5.5  | 7.9    | 12.7  | 19.5   | 27.1  | 40.2   | 56.1  |
| 70°    | 3.3  | 3.4    | 3.8  | 4.7    | 6.4  | 10.1   | 16.8  | 24.8   | 39.1  | 57.7   | 77.2  |
| 67.5°  | 3.3  | 3.4    | 3.9  | 4.9    | 7.3  | 13.1   | 21.0  | 34.5   | 54.4  | 75.8   | 97.9  |
| 65°    | 3.3  | 3.4    | 4.0  | 5.3    | 8.7  | 16.1   | 27.1  | 46.5   | 70.2  | 94.3   | 123.7 |
| 62.5°  | 3.3  | 3.5    | 4.1  | 5.8    | 10.7 | 19.1   | 35.1  | 60.8   | 84.8  | 116.9  | 154.4 |
| 60°    | 3.3  | 3.5    | 4.2  | 6.3    | 12.5 | 23.4   | 46.0  | 72.5   | 104.4 | 142.4  | 188.1 |
| 57.5°  | 3.3  | 3.5    | 4.3  | 6.8    | 14.6 | 29.4   | 57.5  | 86.4   | 125.2 | 169.8  | 224.8 |
| 55°    | 3.3  | 3.5    | 4.3  | 7.9    | 16.5 | 36.2   | 66.6  | 103.1  | 146.7 | 199.4  | 264.5 |
| 52.5°  | 3.3  | 3.5    | 4.5  | 8.9    | 18.9 | 45.1   | 76.0  | 120.0  | 168.5 | 231.6  | 299.8 |
| 50°    | 3.3  | 3.5    | 4.7  | 9.9    | 22.9 | 53.8   | 89.8  | 136.4  | 192.3 | 264.1  | 335.5 |
| 47.5°  | 3.3  | 3.5    | 4.9  | 10.8   | 26.7 | 60.3   | 103.1 | 153.2  | 217.8 | 294.4  | 371.4 |
| 45°    | 3.3  | 3.6    | 5.0  | 11.9   | 30.8 | 66.5   | 115.4 | 170.1  | 244.5 | 323.9  | 405.6 |
| 42.5°  | 3.3  | 3.6    | 5.2  | 12.9   | 36.8 | 74.5   | 127.0 | 187.2  | 269.7 | 353.7  | 436.8 |
| 40°    | 3.3  | 3.6    | 5.3  | 13.9   | 42.5 | 84.4   | 138.7 | 206.2  | 293.6 | 383.6  | 463.8 |
| 37.5°  | 3.3  | 3.6    | 5.4  | 14.7   | 47.8 | 93.9   | 149.5 | 225.8  | 315.7 | 409.7  | 492.3 |
| 35°    | 3.3  | 3.6    | 5.7  | 16.3   | 52.0 | 102.2  | 160.4 | 244.5  | 338.2 | 433.1  | 518.7 |
| 32.5°  | 3.3  | 3.6    | 6.1  | 18.2   | 55.5 | 109.4  | 171.0 | 262.3  | 361.3 | 453.3  | 542.0 |
| 30°    | 3.3  | 3.6    | 6.3  | 19.9   | 58.6 | 116.1  | 180.5 | 278.7  | 381.9 | 473.8  | 562.5 |
| 27.5°  | 3.3  | 3.6    | 6.6  | 21.4   | 61.5 | 122.1  | 192.1 | 292.9  | 399.7 | 493.5  | 581.0 |
| 25°    | 3.3  | 3.6    | 6.8  | 22.7   | 64.8 | 127.7  | 203.1 | 305.6  | 415.7 | 510.3  | 601.0 |
| 22.5°  | 3.3  | 3.6    | 6.9  | 23.9   | 69.6 | 132.6  | 212.9 | 318.3  | 428.3 | 524.9  | 619.1 |
| 20°    | 3.3  | 3.6    | 7.1  | 25.3   | 73.9 | 136.8  | 221.8 | 331.4  | 439.4 | 537.6  | 634.4 |
| 17.5°  | 3.3  | 3.6    | 7.1  | 27.1   | 77.6 | 140.3  | 230.2 | 343.0  | 449.2 | 547.7  | 647.7 |
| 15°    | 3.3  | 3.6    | 7.2  | 28.7   | 80.9 | 143.3  | 237.2 | 353.1  | 458.6 | 556.1  | 658.7 |
| 12.5°  | 3.3  | 3.6    | 7.2  | 29.9   | 83.6 | 146.0  | 243.0 | 360.9  | 466.3 | 562.8  | 667.4 |
| 10°    | 3.3  | 3.6    | 7.2  | 30.8   | 85.7 | 147.8  | 247.5 | 366.4  | 472.3 | 569.1  | 674.1 |
| 7.5°   | 3.3  | 3.5    | 7.1  | 31.5   | 87.2 | 149.0  | 250.7 | 370.3  | 476.6 | 573.9  | 678.7 |
| 5°     | 3.3  | 3.5    | 7.0  | 31.8   | 88.2 | 149.3  | 252.5 | 372.7  | 479.1 | 576.8  | 681.3 |
| 2.5°   | 3.3  | 3.5    | 6.9  | 31.9   | 88.6 | 149.0  | 252.9 | 373.5  | 479.9 | 577.6  | 681.9 |
| 0°     | 3.3  | 3.5    | 6.8  | 31.7   | 88.4 | 148.1  | 251.9 | 372.7  | 479.0 | 576.5  | 680.4 |
| -2.5°  | 3.3  | 3.5    | 6.8  | 31.3   | 87.4 | 146.7  | 249.5 | 369.6  | 475.6 | 573.1  | 676.9 |
| -5°    | 3.3  | 3.5    | 6.8  | 30.7   | 85.9 | 144.7  | 245.7 | 365.0  | 470.5 | 567.6  | 671.3 |
| -7.5°  | 3.3  | 3.5    | 6.7  | 29.8   | 83.7 | 142.1  | 240.5 | 358.8  | 463.7 | 560.2  | 663.7 |
| -10°   | 3.3  | 3.5    | 6.6  | 28.6   | 81.0 | 138.8  | 233.9 | 350.9  | 455.1 | 550.8  | 654.0 |
| -12.5° | 3.3  | 3.5    | 6.5  | 27.1   | 77.8 | 135.0  | 226.0 | 341.5  | 444.8 | 540.0  | 642.3 |
| -15°   | 3.3  | 3.5    | 6.4  | 25.4   | 74.1 | 130.5  | 216.8 | 329.7  | 432.9 | 528.7  | 628.6 |
| -17.5° | 3.3  | 3.5    | 6.3  | 23.5   | 69.9 | 125.8  | 206.4 | 315.7  | 419.2 | 515.7  | 612.7 |
| -20°   | 3.3  | 3.5    | 6.1  | 21.3   | 65.2 | 120.9  | 194.7 | 300.0  | 405.4 | 501.0  | 594.8 |



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 CATALOG NUMBER: ARFL50DBZ-45W-4000K

**CANDELA DISTRIBUTION (continued):**

|        | -90° | -87.5° | -85° | -82.5° | -80° | -77.5° | -75°  | -72.5° | -70°  | -67.5° | -65°  |
|--------|------|--------|------|--------|------|--------|-------|--------|-------|--------|-------|
| -22.5° | 3.3  | 3.5    | 5.9  | 19.6   | 60.0 | 115.5  | 183.1 | 282.9  | 390.3 | 483.5  | 574.8 |
| -25°   | 3.3  | 3.5    | 5.7  | 18.3   | 54.4 | 109.8  | 171.3 | 266.4  | 374.0 | 463.9  | 551.8 |
| -27.5° | 3.3  | 3.5    | 5.5  | 16.8   | 50.5 | 103.6  | 158.6 | 250.4  | 353.5 | 442.2  | 527.0 |
| -30°   | 3.3  | 3.4    | 5.3  | 15.2   | 47.1 | 96.8   | 145.7 | 233.1  | 330.9 | 418.0  | 503.4 |
| -32.5° | 3.3  | 3.4    | 5.0  | 13.6   | 43.5 | 89.6   | 135.7 | 213.1  | 305.7 | 393.2  | 477.7 |
| -35°   | 3.3  | 3.4    | 4.7  | 11.9   | 39.7 | 82.0   | 125.1 | 191.5  | 277.8 | 369.3  | 448.7 |
| -37.5° | 3.3  | 3.4    | 4.5  | 10.3   | 35.4 | 73.5   | 114.7 | 170.6  | 251.3 | 341.3  | 417.0 |
| -40°   | 3.3  | 3.4    | 4.4  | 9.6    | 30.4 | 63.6   | 105.0 | 151.4  | 226.4 | 309.4  | 383.8 |
| -42.5° | 3.3  | 3.4    | 4.3  | 8.8    | 25.2 | 53.5   | 95.0  | 133.7  | 198.8 | 274.0  | 353.4 |
| -45°   | 3.3  | 3.4    | 4.1  | 7.9    | 19.9 | 45.5   | 84.0  | 119.0  | 169.5 | 239.9  | 316.2 |
| -47.5° | 3.3  | 3.4    | 4.0  | 7.1    | 16.6 | 39.8   | 72.8  | 105.3  | 145.6 | 208.1  | 275.3 |
| -50°   | 3.3  | 3.4    | 3.9  | 6.4    | 13.8 | 33.9   | 60.0  | 92.6   | 124.2 | 173.1  | 234.2 |
| -52.5° | 3.3  | 3.4    | 3.7  | 5.9    | 10.9 | 26.9   | 46.8  | 78.9   | 106.0 | 142.9  | 196.3 |
| -55°   | 3.3  | 3.3    | 3.7  | 5.3    | 9.3  | 19.9   | 38.7  | 64.5   | 91.0  | 117.8  | 155.9 |
| -57.5° | 3.3  | 3.3    | 3.6  | 4.7    | 8.1  | 15.3   | 31.3  | 49.2   | 75.0  | 97.3   | 124.7 |
| -60°   | 3.3  | 3.3    | 3.6  | 4.4    | 6.8  | 11.7   | 23.1  | 37.4   | 58.1  | 80.3   | 99.9  |
| -62.5° | 3.3  | 3.3    | 3.5  | 4.2    | 6.0  | 9.2    | 15.9  | 28.7   | 41.1  | 61.2   | 80.0  |
| -65°   | 3.3  | 3.3    | 3.5  | 3.9    | 5.2  | 7.7    | 11.8  | 19.8   | 30.5  | 42.8   | 59.3  |
| -67.5° | 3.3  | 3.3    | 3.4  | 3.7    | 4.6  | 6.4    | 8.9   | 13.5   | 21.0  | 29.4   | 39.6  |
| -70°   | 3.3  | 3.3    | 3.4  | 3.6    | 4.2  | 5.4    | 7.1   | 9.4    | 13.5  | 19.4   | 25.7  |
| -72.5° | 3.3  | 3.3    | 3.4  | 3.6    | 3.9  | 4.6    | 5.9   | 7.4    | 9.2   | 12.3   | 16.0  |
| -75°   | 3.3  | 3.3    | 3.3  | 3.5    | 3.7  | 4.1    | 4.8   | 5.9    | 7.1   | 8.5    | 10.2  |
| -77.5° | 3.3  | 3.3    | 3.3  | 3.4    | 3.6  | 3.8    | 4.2   | 4.8    | 5.6   | 6.5    | 7.5   |
| -80°   | 3.3  | 3.3    | 3.3  | 3.3    | 3.4  | 3.6    | 3.8   | 4.1    | 4.6   | 5.1    | 5.7   |
| -82.5° | 3.3  | 3.3    | 3.3  | 3.3    | 3.3  | 3.4    | 3.5   | 3.7    | 3.9   | 4.1    | 4.4   |
| -85°   | 3.3  | 3.3    | 3.2  | 3.2    | 3.2  | 3.3    | 3.3   | 3.4    | 3.5   | 3.6    | 3.7   |
| -87.5° | 3.3  | 3.3    | 3.2  | 3.2    | 3.2  | 3.2    | 3.2   | 3.2    | 3.2   | 3.2    | 3.2   |
| -90°   | 3.3  | 3.3    | 3.4  | 3.4    | 3.4  | 3.5    | 3.5   | 3.5    | 3.6   | 3.6    | 3.6   |





REPORT NUMBER: P670553 (CONVERTED FROM TYPE C PHOTOMETRY)  
 CATALOG NUMBER: ARFL50DBZ-45W-4000K

**CANDELA DISTRIBUTION (continued):**

|        | -62.5° | -60°  | -57.5° | -55°   | -52.5° | -50°   | -47.5° | -45°   | -42.5° | -40°   | -37.5° |
|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 90°    | 2.8    | 2.7   | 2.9    | 3.0    | 3.2    | 3.4    | 3.5    | 3.7    | 3.9    | 4.0    | 4.2    |
| 87.5°  | 5.2    | 5.5   | 5.6    | 5.7    | 5.8    | 5.9    | 6.0    | 6.1    | 6.1    | 6.2    | 6.2    |
| 85°    | 7.3    | 8.2   | 8.6    | 9.0    | 9.5    | 10.3   | 11.0   | 11.6   | 12.2   | 12.7   | 13.2   |
| 82.5°  | 11.4   | 13.6  | 15.2   | 18.1   | 20.8   | 23.3   | 25.6   | 27.9   | 30.2   | 32.4   | 34.6   |
| 80°    | 20.6   | 26.4  | 30.4   | 34.0   | 38.1   | 44.0   | 49.6   | 55.0   | 60.8   | 66.2   | 71.1   |
| 77.5°  | 32.2   | 41.1  | 50.2   | 58.7   | 67.7   | 76.2   | 84.0   | 91.4   | 98.7   | 105.6  | 112.1  |
| 75°    | 50.3   | 65.2  | 78.2   | 88.9   | 99.3   | 109.9  | 120.6  | 134.2  | 146.5  | 159.2  | 170.3  |
| 72.5°  | 74.0   | 90.8  | 106.2  | 119.8  | 138.2  | 156.7  | 175.5  | 193.8  | 211.4  | 229.1  | 246.4  |
| 70°    | 96.3   | 117.5 | 142.4  | 166.8  | 191.6  | 217.5  | 242.9  | 267.7  | 291.1  | 314.6  | 337.3  |
| 67.5°  | 123.6  | 155.1 | 190.8  | 223.6  | 256.2  | 286.9  | 314.9  | 344.9  | 374.5  | 404.6  | 432.2  |
| 65°    | 159.0  | 200.4 | 247.8  | 286.7  | 318.6  | 354.4  | 389.2  | 423.4  | 456.4  | 488.3  | 521.1  |
| 62.5°  | 198.9  | 250.6 | 302.2  | 342.4  | 382.7  | 421.3  | 459.2  | 496.2  | 535.4  | 570.9  | 604.6  |
| 60°    | 242.7  | 298.7 | 352.0  | 399.8  | 442.3  | 483.6  | 527.5  | 569.1  | 608.7  | 648.3  | 687.4  |
| 57.5°  | 286.3  | 344.3 | 401.4  | 453.2  | 498.3  | 547.3  | 592.4  | 637.2  | 682.7  | 726.8  | 770.4  |
| 55°    | 326.7  | 389.8 | 448.6  | 503.2  | 556.2  | 605.8  | 656.0  | 707.0  | 755.4  | 806.1  | 856.2  |
| 52.5°  | 367.9  | 433.1 | 492.1  | 554.0  | 609.5  | 664.4  | 720.2  | 774.4  | 829.7  | 886.9  | 938.0  |
| 50°    | 407.7  | 472.4 | 538.6  | 600.5  | 662.6  | 723.0  | 782.1  | 841.5  | 903.1  | 956.8  | 1006.4 |
| 47.5°  | 444.6  | 513.2 | 580.2  | 646.8  | 715.4  | 778.9  | 842.5  | 907.3  | 966.0  | 1019.0 | 1068.5 |
| 45°    | 477.6  | 551.2 | 620.5  | 694.0  | 763.4  | 832.1  | 901.5  | 965.4  | 1022.5 | 1076.3 | 1130.9 |
| 42.5°  | 513.0  | 585.8 | 661.7  | 735.7  | 810.4  | 885.9  | 954.3  | 1016.4 | 1075.3 | 1134.3 | 1187.7 |
| 40°    | 544.2  | 620.4 | 700.6  | 779.2  | 857.9  | 931.6  | 1000.0 | 1065.4 | 1129.0 | 1187.6 | 1242.6 |
| 37.5°  | 572.5  | 654.9 | 736.3  | 817.4  | 898.5  | 973.5  | 1045.8 | 1114.5 | 1177.7 | 1238.0 | 1291.8 |
| 35°    | 599.7  | 686.9 | 772.4  | 858.0  | 937.9  | 1014.0 | 1087.0 | 1158.0 | 1224.1 | 1282.4 | 1335.6 |
| 32.5°  | 627.7  | 715.2 | 803.0  | 890.4  | 971.3  | 1049.5 | 1125.4 | 1198.0 | 1265.0 | 1320.7 | 1376.2 |
| 30°    | 653.4  | 744.5 | 835.2  | 921.9  | 1005.0 | 1083.9 | 1160.5 | 1233.8 | 1296.7 | 1358.4 | 1414.9 |
| 27.5°  | 676.5  | 770.1 | 862.5  | 949.4  | 1033.6 | 1114.5 | 1191.8 | 1263.1 | 1329.7 | 1390.8 | 1450.5 |
| 25°    | 696.6  | 791.6 | 886.0  | 974.9  | 1059.7 | 1142.0 | 1219.6 | 1287.9 | 1355.9 | 1420.7 | 1477.8 |
| 22.5°  | 716.0  | 813.7 | 907.6  | 998.5  | 1083.3 | 1165.7 | 1242.3 | 1314.7 | 1382.4 | 1445.9 | 1504.2 |
| 20°    | 734.4  | 833.3 | 926.3  | 1017.5 | 1104.1 | 1185.8 | 1261.3 | 1335.4 | 1404.4 | 1465.6 | 1525.1 |
| 17.5°  | 749.7  | 848.1 | 942.7  | 1033.9 | 1121.4 | 1203.2 | 1278.2 | 1353.8 | 1421.9 | 1485.2 | 1546.4 |
| 15°    | 760.8  | 860.7 | 956.6  | 1047.4 | 1135.7 | 1216.6 | 1295.5 | 1370.4 | 1435.7 | 1497.5 | 1561.6 |
| 12.5°  | 769.8  | 870.8 | 967.9  | 1058.2 | 1146.0 | 1226.9 | 1308.0 | 1381.9 | 1446.9 | 1510.2 | 1573.6 |
| 10°    | 776.9  | 878.3 | 976.4  | 1066.9 | 1153.3 | 1234.4 | 1316.2 | 1390.0 | 1456.1 | 1522.6 | 1582.9 |
| 7.5°   | 782.7  | 883.4 | 981.9  | 1072.9 | 1158.1 | 1239.4 | 1321.9 | 1394.2 | 1462.2 | 1527.4 | 1589.1 |
| 5°     | 785.9  | 885.9 | 984.7  | 1076.0 | 1160.2 | 1241.5 | 1325.3 | 1395.4 | 1462.5 | 1528.8 | 1592.3 |
| 2.5°   | 786.7  | 886.0 | 985.0  | 1076.3 | 1159.5 | 1240.9 | 1325.5 | 1393.8 | 1460.0 | 1527.0 | 1592.3 |
| 0°     | 785.0  | 883.7 | 982.7  | 1073.7 | 1156.0 | 1237.4 | 1322.5 | 1389.5 | 1455.2 | 1522.2 | 1588.7 |
| -2.5°  | 781.1  | 880.1 | 978.6  | 1069.9 | 1152.3 | 1233.7 | 1317.9 | 1385.9 | 1452.2 | 1518.5 | 1584.2 |
| -5°    | 774.8  | 874.1 | 971.9  | 1063.1 | 1145.8 | 1227.1 | 1310.0 | 1379.5 | 1446.8 | 1512.0 | 1576.1 |
| -7.5°  | 766.0  | 865.6 | 962.6  | 1053.3 | 1136.5 | 1217.4 | 1298.8 | 1370.2 | 1438.6 | 1502.6 | 1564.6 |
| -10°   | 754.7  | 854.6 | 950.5  | 1040.5 | 1124.5 | 1204.9 | 1285.2 | 1357.8 | 1423.8 | 1490.1 | 1548.9 |
| -12.5° | 742.2  | 841.1 | 935.9  | 1024.8 | 1109.9 | 1189.5 | 1268.9 | 1342.0 | 1405.2 | 1469.4 | 1529.8 |
| -15°   | 727.8  | 825.0 | 918.9  | 1007.5 | 1092.2 | 1171.2 | 1248.9 | 1323.2 | 1385.9 | 1448.5 | 1508.6 |
| -17.5° | 711.2  | 806.2 | 899.1  | 987.7  | 1072.4 | 1149.9 | 1225.2 | 1298.1 | 1363.7 | 1427.6 | 1486.7 |
| -20°   | 690.8  | 785.1 | 876.5  | 964.0  | 1049.6 | 1125.3 | 1199.7 | 1270.6 | 1337.3 | 1396.1 | 1457.0 |



REPORT NUMBER: P670553 (CONVERTED FROM TYPE C PHOTOMETRY)  
 CATALOG NUMBER: ARFL50DBZ-45W-4000K

**CANDELA DISTRIBUTION (continued):**

|        | -62.5° | -60°  | -57.5° | -55°  | -52.5° | -50°   | -47.5° | -45°   | -42.5° | -40°   | -37.5° |
|--------|--------|-------|--------|-------|--------|--------|--------|--------|--------|--------|--------|
| -22.5° | 667.6  | 760.0 | 851.3  | 937.0 | 1020.4 | 1097.5 | 1171.4 | 1241.5 | 1308.6 | 1368.3 | 1427.4 |
| -25°   | 643.2  | 732.8 | 823.2  | 908.4 | 989.8  | 1067.7 | 1139.9 | 1208.7 | 1271.9 | 1332.9 | 1387.1 |
| -27.5° | 617.5  | 705.6 | 792.7  | 877.1 | 956.4  | 1035.4 | 1104.7 | 1173.0 | 1236.0 | 1296.4 | 1352.5 |
| -30°   | 589.5  | 675.0 | 759.1  | 842.7 | 919.3  | 995.4  | 1066.1 | 1133.8 | 1196.9 | 1253.4 | 1310.9 |
| -32.5° | 559.2  | 641.3 | 721.9  | 803.9 | 881.4  | 954.3  | 1027.4 | 1090.2 | 1153.1 | 1210.9 | 1263.8 |
| -35°   | 526.0  | 606.9 | 685.6  | 763.6 | 840.7  | 909.1  | 979.2  | 1045.8 | 1105.2 | 1162.4 | 1215.9 |
| -37.5° | 493.4  | 570.1 | 645.2  | 718.4 | 793.3  | 864.4  | 928.7  | 994.5  | 1052.6 | 1108.9 | 1162.1 |
| -40°   | 459.1  | 530.6 | 603.6  | 674.3 | 744.6  | 814.5  | 877.2  | 938.5  | 999.2  | 1051.0 | 1102.8 |
| -42.5° | 421.3  | 490.3 | 559.7  | 627.2 | 692.5  | 759.4  | 823.4  | 878.9  | 937.4  | 992.9  | 1040.7 |
| -45°   | 380.7  | 449.0 | 513.2  | 578.5 | 640.7  | 699.8  | 759.6  | 818.8  | 870.6  | 925.0  | 975.6  |
| -47.5° | 344.4  | 403.9 | 466.4  | 526.9 | 586.8  | 638.9  | 692.1  | 748.4  | 802.5  | 850.9  | 901.1  |
| -50°   | 300.6  | 358.1 | 416.6  | 474.0 | 528.1  | 574.8  | 622.3  | 672.5  | 725.7  | 774.1  | 819.4  |
| -52.5° | 253.2  | 314.2 | 363.6  | 418.9 | 465.7  | 506.9  | 550.0  | 593.9  | 640.1  | 689.7  | 733.6  |
| -55°   | 208.5  | 262.0 | 316.9  | 360.4 | 401.7  | 438.8  | 474.6  | 513.0  | 552.2  | 593.3  | 636.5  |
| -57.5° | 164.1  | 210.9 | 259.3  | 306.8 | 335.9  | 369.8  | 401.3  | 431.6  | 462.7  | 496.8  | 531.4  |
| -60°   | 126.2  | 162.0 | 203.6  | 243.3 | 278.5  | 303.0  | 328.3  | 353.5  | 377.8  | 401.5  | 426.8  |
| -62.5° | 97.5   | 120.4 | 150.2  | 184.2 | 214.1  | 241.6  | 264.2  | 278.6  | 297.2  | 314.6  | 331.8  |
| -65°   | 75.4   | 89.7  | 107.9  | 128.5 | 155.8  | 178.5  | 199.0  | 216.6  | 229.7  | 236.8  | 246.7  |
| -67.5° | 52.6   | 66.8  | 77.5   | 91.1  | 105.9  | 122.1  | 140.0  | 153.9  | 165.5  | 174.7  | 181.2  |
| -70°   | 32.6   | 42.1  | 53.4   | 63.6  | 71.5   | 81.3   | 90.9   | 99.6   | 110.6  | 118.1  | 122.3  |
| -72.5° | 19.8   | 24.7  | 30.8   | 37.6  | 46.0   | 53.0   | 58.1   | 63.2   | 68.0   | 72.4   | 75.8   |
| -75°   | 12.0   | 14.3  | 16.4   | 20.7  | 24.3   | 28.5   | 31.8   | 36.3   | 39.5   | 41.8   | 43.3   |
| -77.5° | 8.3    | 9.3   | 10.3   | 11.5  | 13.1   | 14.3   | 16.4   | 17.8   | 19.0   | 19.8   | 19.7   |
| -80°   | 6.4    | 7.0   | 7.5    | 7.8   | 8.2    | 8.8    | 9.2    | 9.6    | 10.2   | 10.5   | 10.6   |
| -82.5° | 4.9    | 5.3   | 5.6    | 5.9   | 6.2    | 6.4    | 6.5    | 6.7    | 6.8    | 6.9    | 6.9    |
| -85°   | 3.9    | 4.0   | 4.3    | 4.5   | 4.6    | 4.8    | 5.0    | 5.1    | 5.2    | 5.3    | 5.4    |
| -87.5° | 3.3    | 3.3   | 3.5    | 3.7   | 3.9    | 4.0    | 4.2    | 4.4    | 4.5    | 4.7    | 4.8    |
| -90°   | 3.7    | 3.7   | 3.7    | 3.6   | 3.6    | 3.6    | 3.5    | 3.5    | 3.5    | 3.4    | 3.4    |



REPORT NUMBER: P670553 (CONVERTED FROM TYPE C PHOTOMETRY)  
 CATALOG NUMBER: ARFL50DBZ-45W-4000K

**CANDELA DISTRIBUTION (continued):**

|        | -35°   | -32.5° | -30°   | -27.5° | -25°   | -22.5° | -20°   | -17.5° | -15°   | -12.5° | -10°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 90°    | 4.4    | 4.5    | 4.7    | 4.5    | 4.2    | 4.0    | 3.7    | 3.5    | 3.3    | 3.0    | 2.8    |
| 87.5°  | 6.3    | 6.4    | 6.5    | 6.5    | 6.6    | 6.6    | 6.7    | 6.7    | 6.7    | 6.8    | 6.8    |
| 85°    | 14.1   | 15.0   | 15.9   | 16.6   | 17.1   | 17.6   | 17.9   | 18.2   | 18.3   | 18.4   | 18.4   |
| 82.5°  | 37.3   | 40.1   | 42.6   | 44.4   | 45.9   | 47.0   | 47.9   | 48.8   | 49.4   | 49.6   | 49.6   |
| 80°    | 75.7   | 79.9   | 83.8   | 86.6   | 89.0   | 91.2   | 92.9   | 94.4   | 95.4   | 96.1   | 96.3   |
| 77.5°  | 119.5  | 126.8  | 133.2  | 139.0  | 144.6  | 149.9  | 154.6  | 158.8  | 162.7  | 166.2  | 168.9  |
| 75°    | 180.9  | 190.5  | 198.5  | 209.6  | 221.0  | 231.2  | 240.8  | 250.1  | 257.9  | 264.2  | 269.0  |
| 72.5°  | 263.4  | 280.7  | 297.2  | 312.5  | 327.0  | 341.0  | 354.6  | 366.2  | 375.8  | 383.3  | 388.8  |
| 70°    | 360.4  | 384.4  | 406.5  | 425.9  | 443.4  | 459.2  | 473.5  | 486.1  | 496.6  | 505.3  | 512.0  |
| 67.5°  | 458.8  | 484.5  | 509.9  | 533.7  | 552.8  | 569.9  | 585.4  | 599.1  | 611.2  | 621.5  | 630.6  |
| 65°    | 552.1  | 580.1  | 606.4  | 631.1  | 654.3  | 675.9  | 694.3  | 710.8  | 725.7  | 739.0  | 749.9  |
| 62.5°  | 637.5  | 670.6  | 700.9  | 729.7  | 757.0  | 781.7  | 803.6  | 822.8  | 839.8  | 853.6  | 864.5  |
| 60°    | 724.7  | 761.7  | 798.7  | 834.9  | 867.3  | 894.8  | 918.6  | 937.8  | 954.6  | 968.1  | 979.2  |
| 57.5°  | 814.6  | 858.5  | 902.2  | 941.0  | 972.9  | 995.8  | 1018.0 | 1038.9 | 1056.3 | 1071.3 | 1084.7 |
| 55°    | 907.4  | 951.1  | 989.2  | 1025.3 | 1057.0 | 1080.4 | 1103.2 | 1125.2 | 1146.5 | 1164.4 | 1177.3 |
| 52.5°  | 983.7  | 1026.5 | 1063.6 | 1096.9 | 1131.1 | 1160.7 | 1183.1 | 1205.9 | 1225.6 | 1241.7 | 1255.2 |
| 50°    | 1051.9 | 1092.2 | 1135.0 | 1169.3 | 1203.7 | 1234.2 | 1259.4 | 1281.5 | 1301.8 | 1319.6 | 1333.6 |
| 47.5°  | 1116.5 | 1159.7 | 1201.7 | 1239.8 | 1273.7 | 1305.7 | 1332.5 | 1355.3 | 1375.5 | 1392.8 | 1407.5 |
| 45°    | 1177.9 | 1224.5 | 1266.1 | 1305.4 | 1340.2 | 1373.7 | 1402.1 | 1425.5 | 1445.1 | 1462.8 | 1478.0 |
| 42.5°  | 1238.1 | 1284.0 | 1325.6 | 1366.0 | 1404.0 | 1436.4 | 1464.2 | 1488.2 | 1509.9 | 1528.8 | 1544.6 |
| 40°    | 1292.5 | 1337.4 | 1382.3 | 1422.4 | 1459.0 | 1491.9 | 1522.5 | 1549.7 | 1570.9 | 1588.2 | 1601.6 |
| 37.5°  | 1341.2 | 1389.0 | 1433.0 | 1473.6 | 1510.4 | 1547.3 | 1577.6 | 1601.8 | 1620.6 | 1640.8 | 1656.8 |
| 35°    | 1386.9 | 1435.5 | 1480.0 | 1521.6 | 1560.1 | 1593.9 | 1623.2 | 1650.3 | 1671.5 | 1690.5 | 1705.4 |
| 32.5°  | 1429.5 | 1478.0 | 1523.9 | 1565.3 | 1602.4 | 1637.0 | 1667.0 | 1694.6 | 1716.3 | 1733.4 | 1748.2 |
| 30°    | 1468.4 | 1517.2 | 1562.7 | 1604.4 | 1641.8 | 1676.3 | 1706.6 | 1732.7 | 1754.6 | 1769.7 | 1785.7 |
| 27.5°  | 1501.9 | 1552.0 | 1598.6 | 1639.6 | 1677.4 | 1710.4 | 1738.9 | 1763.2 | 1788.9 | 1807.0 | 1821.4 |
| 25°    | 1533.1 | 1584.9 | 1629.8 | 1671.2 | 1706.3 | 1738.9 | 1768.4 | 1796.0 | 1817.6 | 1841.5 | 1855.9 |
| 22.5°  | 1561.0 | 1612.0 | 1657.4 | 1695.8 | 1731.8 | 1766.4 | 1796.1 | 1824.3 | 1846.8 | 1871.4 | 1883.3 |
| 20°    | 1583.9 | 1635.3 | 1679.9 | 1717.7 | 1757.1 | 1790.0 | 1821.2 | 1846.6 | 1870.9 | 1893.4 | 1905.7 |
| 17.5°  | 1602.5 | 1654.0 | 1696.0 | 1740.8 | 1777.7 | 1809.7 | 1837.8 | 1865.6 | 1892.8 | 1909.8 | 1929.2 |
| 15°    | 1618.8 | 1667.7 | 1712.1 | 1756.3 | 1791.4 | 1823.2 | 1854.2 | 1883.8 | 1906.8 | 1927.4 | 1944.0 |
| 12.5°  | 1631.8 | 1678.7 | 1728.0 | 1770.0 | 1805.6 | 1835.6 | 1868.1 | 1896.3 | 1921.8 | 1942.4 | 1958.9 |
| 10°    | 1638.4 | 1687.1 | 1738.0 | 1778.4 | 1812.0 | 1848.8 | 1879.7 | 1908.5 | 1932.1 | 1953.1 | 1969.3 |
| 7.5°   | 1643.3 | 1695.1 | 1744.0 | 1786.4 | 1819.0 | 1857.2 | 1886.9 | 1917.3 | 1942.6 | 1957.7 | 1975.4 |
| 5°     | 1646.8 | 1699.8 | 1747.5 | 1790.6 | 1825.7 | 1860.6 | 1891.6 | 1921.3 | 1943.3 | 1964.9 | 1975.2 |
| 2.5°   | 1647.3 | 1700.7 | 1747.7 | 1788.8 | 1829.0 | 1860.8 | 1892.5 | 1921.9 | 1943.8 | 1963.0 | 1979.3 |
| 0°     | 1644.2 | 1697.8 | 1744.5 | 1785.0 | 1828.2 | 1857.7 | 1889.6 | 1918.1 | 1942.5 | 1960.8 | 1979.9 |
| -2.5°  | 1638.9 | 1691.9 | 1737.9 | 1780.8 | 1821.9 | 1852.8 | 1882.8 | 1911.2 | 1934.0 | 1952.4 | 1969.0 |
| -5°    | 1629.7 | 1682.6 | 1728.8 | 1773.9 | 1811.1 | 1845.2 | 1874.1 | 1900.8 | 1920.9 | 1943.1 | 1955.9 |
| -7.5°  | 1616.6 | 1670.1 | 1718.3 | 1761.3 | 1796.6 | 1833.0 | 1862.1 | 1888.7 | 1906.9 | 1927.2 | 1945.7 |
| -10°   | 1602.4 | 1655.8 | 1702.6 | 1744.4 | 1782.0 | 1817.4 | 1844.9 | 1866.9 | 1889.8 | 1909.2 | 1929.7 |
| -12.5° | 1588.7 | 1637.5 | 1681.7 | 1718.1 | 1762.8 | 1797.3 | 1826.5 | 1854.0 | 1874.6 | 1892.0 | 1907.4 |
| -15°   | 1567.9 | 1613.4 | 1659.8 | 1704.0 | 1739.9 | 1776.3 | 1806.2 | 1833.4 | 1855.8 | 1872.5 | 1884.4 |
| -17.5° | 1540.5 | 1589.2 | 1637.7 | 1673.0 | 1707.9 | 1748.5 | 1780.3 | 1806.5 | 1831.5 | 1850.1 | 1865.1 |
| -20°   | 1510.6 | 1564.5 | 1604.5 | 1649.3 | 1685.6 | 1716.1 | 1749.7 | 1777.6 | 1799.8 | 1820.1 | 1838.6 |

Classified

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

Scaled Data Report



REPORT NUMBER: P670553 (CONVERTED FROM TYPE C PHOTOMETRY)  
CATALOG NUMBER: ARFL50DBZ-45W-4000K

**CANDELA DISTRIBUTION (continued):**

|        | -35°   | -32.5° | -30°   | -27.5° | -25°   | -22.5° | -20°   | -17.5° | -15°   | -12.5° | -10°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| -22.5° | 1481.0 | 1529.2 | 1576.0 | 1615.4 | 1654.2 | 1688.8 | 1715.9 | 1744.4 | 1766.6 | 1785.3 | 1801.3 |
| -25°   | 1445.5 | 1494.2 | 1542.5 | 1580.6 | 1617.3 | 1653.1 | 1682.4 | 1706.7 | 1735.3 | 1747.9 | 1764.4 |
| -27.5° | 1405.2 | 1457.0 | 1500.3 | 1544.9 | 1578.2 | 1609.6 | 1642.3 | 1668.4 | 1691.9 | 1709.5 | 1729.2 |
| -30°   | 1362.8 | 1413.1 | 1459.6 | 1498.1 | 1537.4 | 1567.0 | 1595.7 | 1619.8 | 1647.8 | 1665.7 | 1681.5 |
| -32.5° | 1317.1 | 1363.7 | 1410.1 | 1452.6 | 1487.5 | 1521.3 | 1548.9 | 1573.0 | 1594.5 | 1612.5 | 1629.1 |
| -35°   | 1265.7 | 1314.6 | 1356.5 | 1396.5 | 1435.5 | 1470.7 | 1496.2 | 1522.5 | 1543.1 | 1559.7 | 1575.8 |
| -37.5° | 1211.8 | 1257.6 | 1302.1 | 1340.6 | 1373.1 | 1408.8 | 1439.6 | 1466.5 | 1483.6 | 1502.7 | 1517.6 |
| -40°   | 1151.6 | 1197.3 | 1240.3 | 1279.1 | 1317.3 | 1344.2 | 1370.8 | 1398.5 | 1421.1 | 1439.9 | 1454.6 |
| -42.5° | 1086.5 | 1130.6 | 1172.0 | 1212.5 | 1246.9 | 1277.7 | 1308.7 | 1330.3 | 1350.0 | 1367.4 | 1382.5 |
| -45°   | 1020.9 | 1060.1 | 1098.9 | 1136.2 | 1170.0 | 1204.1 | 1231.4 | 1254.1 | 1273.8 | 1292.3 | 1306.6 |
| -47.5° | 947.6  | 989.9  | 1024.8 | 1057.1 | 1088.4 | 1118.6 | 1146.7 | 1171.3 | 1192.5 | 1208.6 | 1221.1 |
| -50°   | 864.6  | 908.0  | 946.0  | 979.8  | 1008.0 | 1033.6 | 1058.1 | 1081.7 | 1102.2 | 1119.2 | 1132.5 |
| -52.5° | 775.4  | 813.4  | 853.5  | 889.5  | 920.3  | 946.6  | 969.9  | 990.1  | 1008.3 | 1022.9 | 1035.0 |
| -55°   | 681.2  | 716.6  | 750.6  | 781.8  | 813.0  | 843.8  | 867.2  | 887.3  | 903.6  | 917.2  | 927.6  |
| -57.5° | 567.6  | 604.9  | 642.5  | 673.5  | 698.7  | 722.0  | 744.1  | 764.0  | 781.6  | 795.8  | 806.4  |
| -60°   | 454.8  | 482.4  | 511.4  | 540.5  | 567.5  | 591.2  | 611.8  | 626.0  | 638.7  | 649.5  | 658.1  |
| -62.5° | 348.5  | 364.0  | 383.8  | 403.5  | 422.5  | 440.1  | 455.8  | 468.8  | 479.1  | 486.1  | 489.7  |
| -65°   | 255.9  | 264.2  | 273.3  | 281.6  | 291.6  | 299.8  | 309.6  | 316.5  | 320.6  | 322.7  | 321.9  |
| -67.5° | 183.7  | 183.0  | 183.6  | 184.8  | 188.9  | 191.6  | 192.6  | 193.3  | 191.7  | 187.7  | 182.6  |
| -70°   | 124.8  | 125.5  | 123.8  | 122.1  | 121.8  | 119.9  | 116.2  | 111.1  | 106.2  | 99.5   | 91.0   |
| -72.5° | 78.5   | 79.7   | 78.4   | 77.1   | 76.5   | 75.2   | 73.3   | 70.1   | 65.5   | 60.1   | 53.9   |
| -75°   | 44.4   | 44.8   | 44.1   | 44.7   | 45.2   | 44.8   | 43.7   | 41.9   | 39.4   | 36.2   | 32.5   |
| -77.5° | 20.1   | 20.2   | 19.4   | 20.0   | 21.1   | 21.6   | 21.5   | 21.0   | 20.1   | 18.8   | 17.2   |
| -80°   | 10.6   | 10.4   | 9.8    | 9.4    | 9.1    | 8.8    | 8.5    | 8.1    | 7.7    | 7.2    | 6.7    |
| -82.5° | 7.0    | 7.0    | 6.9    | 6.6    | 6.3    | 6.0    | 5.6    | 5.3    | 4.9    | 4.4    | 4.0    |
| -85°   | 5.4    | 5.4    | 5.4    | 5.2    | 4.9    | 4.6    | 4.3    | 3.9    | 3.6    | 3.3    | 3.0    |
| -87.5° | 5.0    | 5.1    | 5.2    | 4.9    | 4.6    | 4.3    | 4.0    | 3.7    | 3.4    | 3.1    | 2.8    |
| -90°   | 3.4    | 3.3    | 3.3    | 3.3    | 3.2    | 3.2    | 3.1    | 3.1    | 3.1    | 3.0    | 3.0    |



REPORT NUMBER: P670553 (CONVERTED FROM TYPE C PHOTOMETRY)  
 CATALOG NUMBER: ARFL50DBZ-45W-4000K

**CANDELA DISTRIBUTION (continued):**

|        | -7.5°  | -5°    | -2.5°  | 0°     | 2.5°   | 5°     | 7.5°   | 10°    | 12.5°  | 15°    | 17.5°  |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 90°    | 2.5    | 2.3    | 2.0    | 1.8    | 2.0    | 2.2    | 2.4    | 2.5    | 2.7    | 2.9    | 3.1    |
| 87.5°  | 6.7    | 6.7    | 6.7    | 6.7    | 6.8    | 7.0    | 7.1    | 7.2    | 7.4    | 7.5    | 7.5    |
| 85°    | 18.2   | 18.0   | 17.8   | 17.4   | 18.2   | 18.9   | 19.5   | 20.1   | 20.5   | 20.8   | 21.1   |
| 82.5°  | 49.3   | 48.8   | 48.0   | 46.9   | 48.7   | 50.4   | 51.7   | 52.8   | 53.5   | 54.0   | 54.1   |
| 80°    | 96.2   | 95.7   | 94.8   | 93.5   | 96.8   | 99.7   | 102.1  | 104.0  | 105.5  | 106.4  | 106.8  |
| 77.5°  | 170.9  | 172.1  | 172.5  | 172.0  | 176.5  | 180.1  | 182.8  | 184.6  | 185.5  | 185.6  | 184.8  |
| 75°    | 272.4  | 274.3  | 274.8  | 274.0  | 278.2  | 281.1  | 282.7  | 283.0  | 282.0  | 279.6  | 276.0  |
| 72.5°  | 392.6  | 394.7  | 395.2  | 393.9  | 396.9  | 398.3  | 398.1  | 396.2  | 392.8  | 388.0  | 381.7  |
| 70°    | 516.8  | 519.6  | 520.5  | 519.5  | 522.1  | 522.7  | 521.4  | 518.2  | 513.0  | 505.9  | 496.9  |
| 67.5°  | 637.9  | 643.0  | 645.9  | 646.5  | 648.0  | 647.3  | 644.5  | 639.6  | 632.8  | 624.0  | 613.1  |
| 65°    | 758.5  | 764.6  | 768.3  | 769.5  | 770.7  | 769.4  | 765.7  | 759.5  | 751.0  | 740.1  | 726.9  |
| 62.5°  | 872.2  | 877.1  | 879.3  | 878.9  | 881.7  | 881.9  | 879.7  | 874.8  | 866.8  | 855.9  | 842.1  |
| 60°    | 988.0  | 994.4  | 998.2  | 999.0  | 1000.7 | 999.3  | 995.2  | 988.3  | 979.0  | 967.1  | 952.6  |
| 57.5°  | 1095.5 | 1103.9 | 1109.7 | 1112.9 | 1112.3 | 1108.9 | 1103.0 | 1094.3 | 1082.5 | 1068.4 | 1052.8 |
| 55°    | 1188.1 | 1196.6 | 1202.8 | 1206.6 | 1205.2 | 1201.3 | 1194.9 | 1186.1 | 1174.8 | 1160.2 | 1143.3 |
| 52.5°  | 1266.0 | 1274.0 | 1279.4 | 1282.2 | 1281.4 | 1277.8 | 1271.4 | 1262.4 | 1251.4 | 1238.1 | 1221.7 |
| 50°    | 1344.5 | 1352.7 | 1358.2 | 1360.9 | 1360.8 | 1357.7 | 1351.5 | 1341.9 | 1329.2 | 1314.4 | 1296.5 |
| 47.5°  | 1418.9 | 1426.8 | 1431.9 | 1434.2 | 1433.8 | 1430.5 | 1424.3 | 1415.1 | 1403.4 | 1389.5 | 1373.6 |
| 45°    | 1490.7 | 1500.7 | 1507.7 | 1511.4 | 1509.2 | 1503.9 | 1495.9 | 1485.4 | 1472.5 | 1457.3 | 1438.9 |
| 42.5°  | 1556.8 | 1566.0 | 1572.2 | 1575.5 | 1573.5 | 1568.5 | 1560.5 | 1550.4 | 1537.8 | 1519.9 | 1499.9 |
| 40°    | 1612.1 | 1620.0 | 1625.3 | 1628.0 | 1627.2 | 1623.8 | 1617.5 | 1608.6 | 1595.9 | 1578.9 | 1558.4 |
| 37.5°  | 1669.3 | 1678.9 | 1685.2 | 1688.7 | 1687.7 | 1684.5 | 1678.1 | 1665.8 | 1649.9 | 1632.3 | 1614.5 |
| 35°    | 1716.5 | 1723.5 | 1727.6 | 1729.3 | 1729.8 | 1728.0 | 1723.5 | 1714.5 | 1699.7 | 1688.0 | 1666.4 |
| 32.5°  | 1759.7 | 1768.4 | 1774.6 | 1778.3 | 1776.6 | 1772.0 | 1765.3 | 1756.5 | 1744.2 | 1730.2 | 1709.8 |
| 30°    | 1799.2 | 1808.8 | 1815.6 | 1819.6 | 1817.4 | 1812.6 | 1805.9 | 1795.1 | 1780.7 | 1765.8 | 1747.9 |
| 27.5°  | 1835.7 | 1845.7 | 1852.6 | 1856.7 | 1854.3 | 1848.8 | 1841.4 | 1830.7 | 1815.7 | 1803.3 | 1777.7 |
| 25°    | 1870.3 | 1877.4 | 1882.1 | 1884.5 | 1883.6 | 1880.0 | 1873.0 | 1862.8 | 1849.7 | 1831.4 | 1808.2 |
| 22.5°  | 1895.8 | 1906.2 | 1910.0 | 1912.7 | 1911.8 | 1908.4 | 1901.3 | 1891.2 | 1877.6 | 1857.3 | 1835.4 |
| 20°    | 1918.8 | 1929.9 | 1937.5 | 1942.1 | 1939.5 | 1932.0 | 1922.1 | 1916.1 | 1902.0 | 1882.1 | 1859.5 |
| 17.5°  | 1937.6 | 1949.1 | 1956.0 | 1959.5 | 1956.8 | 1952.1 | 1946.6 | 1938.0 | 1918.9 | 1904.2 | 1879.4 |
| 15°    | 1958.2 | 1966.3 | 1970.0 | 1971.7 | 1971.7 | 1968.7 | 1959.2 | 1948.7 | 1936.5 | 1919.9 | 1899.5 |
| 12.5°  | 1972.0 | 1980.3 | 1984.1 | 1983.9 | 1983.7 | 1980.1 | 1976.4 | 1963.9 | 1947.0 | 1929.5 | 1914.9 |
| 10°    | 1982.3 | 1992.4 | 1998.0 | 1999.1 | 1999.8 | 1994.7 | 1983.1 | 1972.9 | 1960.0 | 1939.3 | 1920.9 |
| 7.5°   | 1986.8 | 1997.6 | 1998.9 | 2000.1 | 2000.5 | 2000.4 | 1993.6 | 1976.2 | 1963.4 | 1949.0 | 1923.8 |
| 5°     | 1989.9 | 1994.1 | 2001.8 | 2009.0 | 2003.3 | 2000.8 | 1995.5 | 1983.7 | 1969.3 | 1952.8 | 1929.7 |
| 2.5°   | 1990.3 | 1997.7 | 2003.2 | 2003.6 | 2001.2 | 2000.0 | 1994.1 | 1985.4 | 1970.6 | 1953.7 | 1931.3 |
| 0°     | 1989.0 | 1992.4 | 1995.8 | 2002.4 | 2001.7 | 1998.8 | 1992.7 | 1980.0 | 1970.5 | 1953.4 | 1929.5 |
| -2.5°  | 1983.6 | 1991.9 | 1996.9 | 1999.9 | 1999.3 | 2000.0 | 1992.2 | 1978.0 | 1965.6 | 1945.6 | 1923.0 |
| -5°    | 1974.4 | 1981.5 | 1986.0 | 1991.0 | 1991.8 | 1991.9 | 1980.9 | 1971.2 | 1956.1 | 1933.1 | 1913.9 |
| -7.5°  | 1960.3 | 1970.7 | 1974.2 | 1975.1 | 1979.0 | 1976.6 | 1970.1 | 1960.7 | 1940.5 | 1919.9 | 1899.8 |
| -10°   | 1945.8 | 1958.9 | 1962.5 | 1962.9 | 1964.2 | 1961.6 | 1954.4 | 1939.4 | 1921.3 | 1905.6 | 1884.8 |
| -12.5° | 1923.7 | 1935.0 | 1942.3 | 1943.8 | 1944.9 | 1939.8 | 1929.3 | 1918.5 | 1902.4 | 1884.8 | 1862.8 |
| -15°   | 1900.3 | 1909.5 | 1918.0 | 1921.1 | 1920.0 | 1915.5 | 1906.5 | 1890.5 | 1879.1 | 1860.7 | 1843.9 |
| -17.5° | 1873.7 | 1882.8 | 1890.5 | 1893.8 | 1891.8 | 1885.2 | 1877.8 | 1865.8 | 1852.5 | 1837.8 | 1818.0 |
| -20°   | 1848.2 | 1856.4 | 1861.8 | 1863.1 | 1861.9 | 1857.0 | 1848.7 | 1837.3 | 1826.5 | 1808.6 | 1788.3 |



REPORT NUMBER: P670553 (CONVERTED FROM TYPE C PHOTOMETRY)  
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**CANDELA DISTRIBUTION (continued):**

|        | -7.5°  | -5°    | -2.5°  | 0°     | 2.5°   | 5°     | 7.5°   | 10°    | 12.5°  | 15°    | 17.5°  |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| -22.5° | 1815.4 | 1824.8 | 1829.2 | 1829.6 | 1829.2 | 1825.5 | 1820.1 | 1808.2 | 1789.3 | 1775.0 | 1755.1 |
| -25°   | 1777.6 | 1785.7 | 1790.6 | 1792.0 | 1791.7 | 1787.4 | 1779.1 | 1769.3 | 1754.2 | 1739.9 | 1721.7 |
| -27.5° | 1738.1 | 1744.7 | 1749.7 | 1751.2 | 1750.9 | 1747.0 | 1740.8 | 1732.0 | 1718.4 | 1701.2 | 1679.6 |
| -30°   | 1694.6 | 1703.1 | 1708.6 | 1710.7 | 1710.3 | 1706.4 | 1699.2 | 1687.7 | 1673.1 | 1656.0 | 1634.6 |
| -32.5° | 1643.4 | 1651.9 | 1656.0 | 1656.8 | 1657.3 | 1654.3 | 1647.5 | 1636.6 | 1623.5 | 1606.1 | 1584.8 |
| -35°   | 1587.3 | 1595.8 | 1601.4 | 1603.4 | 1603.6 | 1599.8 | 1592.3 | 1581.9 | 1569.2 | 1553.7 | 1533.7 |
| -37.5° | 1529.3 | 1536.9 | 1541.1 | 1542.0 | 1542.8 | 1540.4 | 1534.2 | 1523.9 | 1510.8 | 1495.6 | 1471.1 |
| -40°   | 1463.1 | 1468.8 | 1471.6 | 1471.3 | 1473.4 | 1471.9 | 1466.2 | 1456.2 | 1444.3 | 1428.8 | 1408.7 |
| -42.5° | 1393.7 | 1400.9 | 1404.5 | 1404.6 | 1405.8 | 1403.6 | 1398.0 | 1389.1 | 1377.2 | 1360.5 | 1340.6 |
| -45°   | 1317.2 | 1325.2 | 1330.0 | 1331.0 | 1331.6 | 1328.2 | 1321.5 | 1311.8 | 1300.1 | 1286.1 | 1268.9 |
| -47.5° | 1230.4 | 1235.7 | 1237.8 | 1236.6 | 1239.9 | 1239.9 | 1236.6 | 1229.4 | 1218.9 | 1205.3 | 1187.9 |
| -50°   | 1142.4 | 1148.9 | 1152.0 | 1151.6 | 1154.4 | 1153.6 | 1149.2 | 1141.2 | 1129.9 | 1115.6 | 1098.2 |
| -52.5° | 1044.3 | 1050.6 | 1053.5 | 1052.9 | 1055.8 | 1055.3 | 1051.5 | 1044.6 | 1034.8 | 1022.5 | 1005.9 |
| -55°   | 935.2  | 939.6  | 940.6  | 938.0  | 942.7  | 943.9  | 941.6  | 936.3  | 928.2  | 916.9  | 902.8  |
| -57.5° | 812.4  | 814.8  | 813.8  | 809.2  | 816.1  | 819.4  | 819.3  | 815.8  | 808.4  | 797.9  | 784.3  |
| -60°   | 663.9  | 666.3  | 664.7  | 658.7  | 667.7  | 672.3  | 673.1  | 670.5  | 665.1  | 657.7  | 648.6  |
| -62.5° | 489.8  | 486.1  | 478.6  | 467.1  | 482.4  | 494.0  | 502.0  | 506.9  | 508.8  | 508.0  | 504.9  |
| -65°   | 318.1  | 311.1  | 301.0  | 287.7  | 306.7  | 322.5  | 335.2  | 344.9  | 351.8  | 356.0  | 359.2  |
| -67.5° | 175.8  | 166.8  | 155.5  | 141.9  | 161.9  | 179.7  | 195.0  | 208.1  | 219.3  | 229.8  | 238.0  |
| -70°   | 81.1   | 70.0   | 57.9   | 45.1   | 63.7   | 81.4   | 98.0   | 113.1  | 126.3  | 137.4  | 146.0  |
| -72.5° | 46.9   | 39.2   | 31.0   | 22.5   | 34.1   | 45.2   | 55.7   | 65.2   | 73.5   | 80.8   | 86.7   |
| -75°   | 28.2   | 23.6   | 18.7   | 13.7   | 19.9   | 25.9   | 31.6   | 36.7   | 41.2   | 44.9   | 47.7   |
| -77.5° | 15.3   | 13.2   | 10.9   | 8.5    | 11.2   | 13.7   | 16.1   | 18.2   | 20.0   | 21.3   | 22.4   |
| -80°   | 6.1    | 5.5    | 4.9    | 4.2    | 5.1    | 6.0    | 6.9    | 7.6    | 8.3    | 8.9    | 9.5    |
| -82.5° | 3.5    | 3.0    | 2.5    | 2.1    | 2.6    | 3.2    | 3.7    | 4.2    | 4.7    | 5.2    | 5.6    |
| -85°   | 2.6    | 2.3    | 1.9    | 1.6    | 2.0    | 2.3    | 2.6    | 3.0    | 3.3    | 3.6    | 3.9    |
| -87.5° | 2.5    | 2.2    | 1.9    | 1.6    | 1.8    | 2.0    | 2.3    | 2.5    | 2.7    | 3.0    | 3.2    |
| -90°   | 2.9    | 2.9    | 2.8    | 2.8    | 2.9    | 2.9    | 3.0    | 3.1    | 3.1    | 3.2    | 3.3    |



REPORT NUMBER: P670553 (CONVERTED FROM TYPE C PHOTOMETRY)  
 CATALOG NUMBER: ARFL50DBZ-45W-4000K

**CANDELA DISTRIBUTION (continued):**

|        | 20°    | 22.5°  | 25°    | 27.5°  | 30°    | 32.5°  | 35°    | 37.5°  | 40°    | 42.5°  | 45°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 90°    | 3.3    | 3.5    | 3.6    | 3.8    | 4.0    | 3.8    | 3.6    | 3.4    | 3.1    | 2.9    | 2.7    |
| 87.5°  | 7.6    | 7.7    | 7.7    | 7.7    | 7.7    | 7.4    | 7.1    | 6.8    | 6.5    | 6.2    | 6.0    |
| 85°    | 21.2   | 21.1   | 21.0   | 20.7   | 20.2   | 19.0   | 17.6   | 16.3   | 15.3   | 14.2   | 13.1   |
| 82.5°  | 53.9   | 53.6   | 53.0   | 52.0   | 50.4   | 47.3   | 43.9   | 40.6   | 37.8   | 34.9   | 31.9   |
| 80°    | 106.6  | 105.9  | 104.5  | 102.4  | 98.9   | 92.7   | 86.2   | 79.8   | 74.2   | 68.1   | 61.6   |
| 77.5°  | 183.0  | 180.2  | 176.3  | 171.4  | 164.5  | 153.5  | 142.2  | 131.7  | 122.9  | 113.8  | 104.0  |
| 75°    | 271.1  | 266.2  | 260.9  | 254.7  | 245.2  | 230.5  | 215.2  | 199.5  | 183.3  | 167.2  | 151.8  |
| 72.5°  | 374.0  | 365.0  | 355.9  | 346.7  | 333.2  | 313.4  | 292.1  | 271.0  | 249.7  | 228.2  | 208.3  |
| 70°    | 486.1  | 473.7  | 459.8  | 445.1  | 426.2  | 403.4  | 378.1  | 352.7  | 327.9  | 301.0  | 272.8  |
| 67.5°  | 600.0  | 585.4  | 569.0  | 550.8  | 526.0  | 498.7  | 471.4  | 443.1  | 413.2  | 378.6  | 344.4  |
| 65°    | 711.3  | 693.5  | 675.5  | 656.4  | 628.7  | 598.1  | 565.9  | 531.4  | 495.9  | 462.4  | 426.4  |
| 62.5°  | 824.9  | 804.2  | 781.1  | 756.1  | 726.2  | 694.7  | 663.3  | 626.0  | 584.9  | 542.4  | 499.5  |
| 60°    | 935.7  | 916.1  | 893.6  | 864.3  | 828.5  | 790.5  | 754.1  | 715.2  | 675.3  | 631.0  | 580.9  |
| 57.5°  | 1036.6 | 1017.6 | 994.5  | 964.1  | 928.4  | 889.7  | 847.6  | 802.5  | 758.5  | 712.7  | 665.1  |
| 55°    | 1123.9 | 1102.6 | 1077.8 | 1049.0 | 1016.9 | 977.5  | 935.7  | 890.0  | 841.3  | 789.6  | 740.0  |
| 52.5°  | 1202.2 | 1180.2 | 1155.0 | 1124.8 | 1090.9 | 1053.2 | 1014.9 | 968.0  | 919.5  | 866.5  | 810.8  |
| 50°    | 1274.1 | 1251.8 | 1225.7 | 1194.2 | 1160.8 | 1123.9 | 1082.9 | 1038.4 | 990.1  | 936.8  | 880.1  |
| 47.5°  | 1350.1 | 1324.0 | 1294.9 | 1259.9 | 1226.3 | 1187.9 | 1147.3 | 1102.8 | 1053.5 | 1001.9 | 943.0  |
| 45°    | 1417.9 | 1394.8 | 1365.3 | 1327.4 | 1291.5 | 1248.8 | 1206.9 | 1162.0 | 1113.3 | 1059.6 | 1003.1 |
| 42.5°  | 1479.8 | 1455.4 | 1424.0 | 1391.4 | 1353.7 | 1311.7 | 1264.4 | 1217.3 | 1167.6 | 1114.6 | 1056.0 |
| 40°    | 1536.9 | 1507.4 | 1478.9 | 1447.8 | 1409.1 | 1369.0 | 1321.6 | 1272.6 | 1218.6 | 1164.4 | 1106.4 |
| 37.5°  | 1589.8 | 1560.9 | 1529.5 | 1495.6 | 1460.7 | 1418.9 | 1374.4 | 1323.2 | 1270.3 | 1210.9 | 1152.3 |
| 35°    | 1638.5 | 1610.3 | 1577.3 | 1542.8 | 1505.3 | 1464.6 | 1420.9 | 1371.4 | 1316.8 | 1257.0 | 1194.1 |
| 32.5°  | 1686.4 | 1654.9 | 1621.7 | 1585.4 | 1549.0 | 1506.4 | 1461.8 | 1413.7 | 1359.6 | 1302.9 | 1231.9 |
| 30°    | 1724.5 | 1694.2 | 1663.4 | 1625.8 | 1585.4 | 1546.5 | 1500.9 | 1453.0 | 1398.3 | 1336.7 | 1272.1 |
| 27.5°  | 1755.6 | 1730.4 | 1698.0 | 1661.8 | 1622.3 | 1577.8 | 1534.2 | 1486.6 | 1434.6 | 1369.4 | 1301.8 |
| 25°    | 1783.2 | 1759.2 | 1728.4 | 1694.0 | 1652.5 | 1610.7 | 1563.7 | 1510.7 | 1456.8 | 1397.3 | 1329.8 |
| 22.5°  | 1809.7 | 1782.0 | 1755.8 | 1721.1 | 1683.6 | 1638.1 | 1588.7 | 1542.0 | 1486.1 | 1425.5 | 1355.3 |
| 20°    | 1832.2 | 1804.9 | 1772.2 | 1743.1 | 1705.6 | 1660.7 | 1614.0 | 1560.7 | 1502.3 | 1443.6 | 1376.3 |
| 17.5°  | 1854.6 | 1823.1 | 1793.7 | 1757.7 | 1722.3 | 1682.0 | 1631.9 | 1579.5 | 1526.4 | 1464.1 | 1395.4 |
| 15°    | 1870.5 | 1839.9 | 1809.8 | 1775.7 | 1742.1 | 1697.0 | 1647.4 | 1597.1 | 1540.8 | 1478.4 | 1412.1 |
| 12.5°  | 1886.5 | 1857.6 | 1820.4 | 1788.8 | 1748.8 | 1708.8 | 1663.2 | 1610.0 | 1553.0 | 1488.5 | 1423.8 |
| 10°    | 1897.5 | 1865.8 | 1832.5 | 1796.8 | 1758.1 | 1718.1 | 1671.5 | 1618.7 | 1563.1 | 1500.6 | 1433.8 |
| 7.5°   | 1906.8 | 1873.7 | 1843.5 | 1803.1 | 1766.8 | 1727.5 | 1677.8 | 1624.3 | 1569.9 | 1508.9 | 1440.6 |
| 5°     | 1908.9 | 1877.0 | 1846.2 | 1807.9 | 1771.5 | 1730.9 | 1681.3 | 1628.1 | 1573.4 | 1512.3 | 1444.2 |
| 2.5°   | 1907.8 | 1876.8 | 1846.8 | 1809.7 | 1773.3 | 1729.8 | 1681.7 | 1628.9 | 1573.7 | 1512.9 | 1444.4 |
| 0°     | 1905.3 | 1873.4 | 1844.8 | 1808.3 | 1771.8 | 1727.0 | 1678.9 | 1626.4 | 1571.1 | 1510.5 | 1441.5 |
| -2.5°  | 1899.0 | 1867.9 | 1838.9 | 1802.6 | 1765.9 | 1721.4 | 1673.0 | 1620.6 | 1565.7 | 1505.0 | 1436.2 |
| -5°    | 1888.4 | 1859.3 | 1830.3 | 1793.8 | 1756.5 | 1713.8 | 1664.0 | 1611.8 | 1557.5 | 1496.3 | 1428.0 |
| -7.5°  | 1874.2 | 1847.7 | 1819.6 | 1780.0 | 1743.7 | 1702.2 | 1652.1 | 1599.9 | 1546.4 | 1484.6 | 1416.9 |
| -10°   | 1860.3 | 1832.1 | 1802.3 | 1763.0 | 1725.6 | 1686.0 | 1637.0 | 1584.9 | 1532.4 | 1469.3 | 1402.9 |
| -12.5° | 1841.1 | 1815.9 | 1783.6 | 1750.5 | 1705.7 | 1665.8 | 1618.0 | 1566.8 | 1513.8 | 1451.2 | 1383.9 |
| -15°   | 1818.9 | 1792.5 | 1757.0 | 1726.8 | 1689.2 | 1643.2 | 1596.1 | 1546.5 | 1492.1 | 1429.9 | 1360.9 |
| -17.5° | 1795.1 | 1766.4 | 1737.8 | 1695.0 | 1661.9 | 1618.1 | 1570.3 | 1523.0 | 1467.5 | 1405.5 | 1336.2 |
| -20°   | 1765.0 | 1739.1 | 1704.1 | 1673.4 | 1631.5 | 1588.6 | 1543.1 | 1494.7 | 1440.0 | 1378.6 | 1309.5 |



REPORT NUMBER: P670553 (CONVERTED FROM TYPE C PHOTOMETRY)  
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**CANDELA DISTRIBUTION (continued):**

|        | 20°    | 22.5°  | 25°    | 27.5°  | 30°    | 32.5°  | 35°    | 37.5°  | 40°    | 42.5°  | 45°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| -22.5° | 1734.1 | 1705.2 | 1676.5 | 1638.3 | 1599.5 | 1555.4 | 1513.1 | 1463.3 | 1406.4 | 1344.8 | 1279.8 |
| -25°   | 1696.0 | 1671.2 | 1637.9 | 1602.9 | 1564.1 | 1523.5 | 1477.8 | 1429.6 | 1373.2 | 1310.1 | 1244.9 |
| -27.5° | 1657.0 | 1628.9 | 1597.6 | 1563.8 | 1526.3 | 1484.3 | 1439.8 | 1387.7 | 1332.1 | 1273.1 | 1209.5 |
| -30°   | 1611.3 | 1584.0 | 1554.6 | 1521.3 | 1482.0 | 1441.5 | 1394.8 | 1345.5 | 1290.3 | 1230.9 | 1164.4 |
| -32.5° | 1563.3 | 1536.6 | 1507.5 | 1471.4 | 1434.8 | 1393.2 | 1349.1 | 1298.3 | 1243.3 | 1185.4 | 1119.3 |
| -35°   | 1511.4 | 1480.9 | 1452.4 | 1419.6 | 1381.5 | 1342.8 | 1297.1 | 1247.4 | 1195.0 | 1131.7 | 1071.3 |
| -37.5° | 1448.8 | 1423.1 | 1395.8 | 1361.4 | 1327.2 | 1286.5 | 1241.2 | 1193.1 | 1135.6 | 1081.4 | 1021.8 |
| -40°   | 1386.7 | 1359.5 | 1334.0 | 1302.6 | 1266.2 | 1224.5 | 1180.1 | 1128.8 | 1080.1 | 1024.2 | 966.9  |
| -42.5° | 1320.0 | 1296.9 | 1268.3 | 1235.9 | 1197.5 | 1156.6 | 1111.5 | 1067.6 | 1017.3 | 964.9  | 906.7  |
| -45°   | 1248.1 | 1223.4 | 1192.8 | 1159.2 | 1123.2 | 1085.3 | 1044.4 | 1000.7 | 951.9  | 898.3  | 839.5  |
| -47.5° | 1164.7 | 1138.5 | 1111.1 | 1080.9 | 1049.3 | 1011.8 | 972.6  | 927.4  | 878.6  | 824.6  | 768.2  |
| -50°   | 1077.5 | 1055.3 | 1030.4 | 1001.2 | 969.4  | 932.6  | 891.1  | 846.4  | 797.8  | 747.4  | 695.6  |
| -52.5° | 987.2  | 966.5  | 942.4  | 912.8  | 879.0  | 841.8  | 801.9  | 759.2  | 714.5  | 666.9  | 613.9  |
| -55°   | 885.3  | 864.8  | 840.1  | 811.4  | 779.9  | 745.6  | 708.9  | 668.9  | 625.4  | 576.3  | 522.4  |
| -57.5° | 768.0  | 749.7  | 730.3  | 706.4  | 677.0  | 644.4  | 608.6  | 567.8  | 523.7  | 480.3  | 435.3  |
| -60°   | 638.2  | 625.7  | 611.8  | 592.4  | 563.3  | 530.7  | 496.1  | 462.1  | 426.1  | 386.8  | 344.8  |
| -62.5° | 498.9  | 490.2  | 480.0  | 466.6  | 443.4  | 418.7  | 391.1  | 361.4  | 329.4  | 296.5  | 260.8  |
| -65°   | 360.7  | 359.9  | 356.9  | 351.6  | 334.7  | 314.0  | 291.2  | 266.5  | 239.8  | 213.5  | 189.0  |
| -67.5° | 243.8  | 247.6  | 248.6  | 247.1  | 234.8  | 218.0  | 200.3  | 182.9  | 165.4  | 149.8  | 133.9  |
| -70°   | 152.9  | 156.9  | 157.7  | 157.4  | 150.9  | 141.0  | 130.9  | 120.6  | 110.0  | 100.6  | 92.0   |
| -72.5° | 90.9   | 93.0   | 93.9   | 93.7   | 90.5   | 85.6   | 80.6   | 75.4   | 69.8   | 63.7   | 57.4   |
| -75°   | 49.5   | 50.6   | 50.9   | 50.1   | 48.3   | 46.6   | 44.1   | 41.4   | 39.0   | 35.6   | 32.2   |
| -77.5° | 23.4   | 23.9   | 24.0   | 23.6   | 22.9   | 22.2   | 21.1   | 20.0   | 19.6   | 18.8   | 17.6   |
| -80°   | 9.9    | 10.2   | 10.4   | 10.6   | 10.9   | 11.2   | 11.1   | 10.6   | 10.2   | 9.5    | 8.5    |
| -82.5° | 6.0    | 6.4    | 6.8    | 7.2    | 7.4    | 7.2    | 6.8    | 6.4    | 6.0    | 5.6    | 5.2    |
| -85°   | 4.2    | 4.5    | 4.8    | 5.0    | 5.2    | 4.9    | 4.7    | 4.4    | 4.1    | 3.9    | 3.6    |
| -87.5° | 3.4    | 3.6    | 3.9    | 4.1    | 4.3    | 4.1    | 3.8    | 3.6    | 3.3    | 3.1    | 2.8    |
| -90°   | 3.3    | 3.4    | 3.5    | 3.5    | 3.6    | 3.5    | 3.5    | 3.4    | 3.3    | 3.3    | 3.2    |





REPORT NUMBER: P670553 (CONVERTED FROM TYPE C PHOTOMETRY)  
 CATALOG NUMBER: ARFL50DBZ-45W-4000K

**CANDELA DISTRIBUTION (continued):**

|        | 47.5°  | 50°    | 52.5°  | 55°    | 57.5°  | 60°   | 62.5° | 65°   | 67.5° | 70°   | 72.5° |
|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| 90°    | 2.5    | 2.3    | 2.0    | 1.8    | 1.6    | 1.4   | 1.4   | 1.5   | 1.5   | 1.5   | 1.5   |
| 87.5°  | 5.7    | 5.4    | 5.2    | 4.9    | 4.7    | 4.4   | 4.0   | 3.7   | 3.4   | 3.1   | 2.9   |
| 85°    | 11.9   | 10.6   | 9.2    | 8.4    | 7.7    | 7.0   | 6.1   | 5.3   | 4.6   | 4.1   | 3.6   |
| 82.5°  | 28.7   | 25.8   | 22.8   | 19.6   | 16.3   | 14.0  | 11.1  | 8.4   | 6.6   | 5.5   | 4.5   |
| 80°    | 55.5   | 49.3   | 42.9   | 37.9   | 33.0   | 27.8  | 21.4  | 15.8  | 11.4  | 8.4   | 5.9   |
| 77.5°  | 93.6   | 83.0   | 73.6   | 63.7   | 54.6   | 45.1  | 35.0  | 26.6  | 19.4  | 13.4  | 9.1   |
| 75°    | 136.5  | 123.7  | 111.0  | 97.6   | 83.9   | 69.4  | 52.9  | 39.6  | 28.9  | 20.3  | 13.5  |
| 72.5°  | 188.3  | 168.9  | 150.2  | 132.4  | 116.8  | 97.8  | 76.1  | 57.0  | 41.0  | 28.2  | 19.0  |
| 70°    | 244.6  | 217.6  | 193.8  | 171.6  | 150.2  | 125.7 | 101.0 | 77.5  | 56.4  | 38.5  | 25.3  |
| 67.5°  | 312.5  | 279.2  | 244.7  | 212.2  | 185.6  | 155.7 | 125.5 | 98.4  | 73.5  | 51.2  | 33.2  |
| 65°    | 385.7  | 342.6  | 304.7  | 266.4  | 224.9  | 186.4 | 152.1 | 119.8 | 90.8  | 65.1  | 42.5  |
| 62.5°  | 460.8  | 418.4  | 368.1  | 321.1  | 275.9  | 222.9 | 179.3 | 142.6 | 108.6 | 78.9  | 53.3  |
| 60°    | 530.3  | 482.5  | 438.2  | 385.1  | 323.6  | 266.4 | 211.1 | 166.0 | 127.6 | 93.2  | 64.0  |
| 57.5°  | 609.8  | 551.1  | 495.0  | 447.5  | 380.8  | 308.7 | 248.3 | 191.0 | 147.2 | 108.5 | 74.8  |
| 55°    | 686.6  | 627.6  | 561.2  | 497.6  | 433.8  | 358.0 | 284.5 | 222.6 | 167.1 | 124.1 | 85.9  |
| 52.5°  | 755.2  | 697.4  | 632.9  | 554.8  | 476.5  | 406.4 | 324.8 | 251.7 | 190.3 | 139.9 | 97.9  |
| 50°    | 820.2  | 759.5  | 697.0  | 617.0  | 526.0  | 446.6 | 367.6 | 284.2 | 214.7 | 155.7 | 109.7 |
| 47.5°  | 882.4  | 818.2  | 751.3  | 672.1  | 581.8  | 486.9 | 407.5 | 318.6 | 237.6 | 173.2 | 121.9 |
| 45°    | 939.2  | 874.1  | 800.7  | 720.0  | 634.4  | 533.9 | 440.9 | 353.5 | 264.6 | 191.5 | 133.7 |
| 42.5°  | 993.6  | 925.0  | 849.2  | 766.0  | 677.4  | 582.9 | 474.5 | 387.5 | 291.1 | 209.0 | 144.9 |
| 40°    | 1042.7 | 970.9  | 895.0  | 811.6  | 718.4  | 624.4 | 515.3 | 415.5 | 316.4 | 226.8 | 157.1 |
| 37.5°  | 1087.5 | 1015.3 | 935.4  | 853.2  | 759.8  | 659.4 | 556.1 | 441.8 | 345.1 | 247.0 | 169.3 |
| 35°    | 1127.2 | 1055.1 | 976.6  | 891.8  | 799.5  | 693.2 | 592.2 | 469.9 | 370.2 | 265.4 | 180.6 |
| 32.5°  | 1162.9 | 1091.0 | 1013.3 | 925.2  | 834.4  | 728.9 | 619.5 | 502.2 | 391.4 | 281.7 | 191.1 |
| 30°    | 1195.5 | 1122.9 | 1045.4 | 959.1  | 866.1  | 762.3 | 645.1 | 532.8 | 409.9 | 299.2 | 201.4 |
| 27.5°  | 1227.0 | 1151.6 | 1074.0 | 989.4  | 893.8  | 792.1 | 670.3 | 560.9 | 425.9 | 318.4 | 213.9 |
| 25°    | 1258.8 | 1177.4 | 1099.1 | 1015.7 | 919.1  | 817.9 | 697.2 | 579.0 | 445.4 | 335.3 | 225.1 |
| 22.5°  | 1282.6 | 1201.3 | 1121.1 | 1037.8 | 943.3  | 840.2 | 721.6 | 594.8 | 465.6 | 348.0 | 234.1 |
| 20°    | 1303.2 | 1223.7 | 1140.5 | 1056.7 | 964.3  | 859.8 | 743.3 | 609.4 | 483.5 | 359.2 | 240.7 |
| 17.5°  | 1321.7 | 1243.8 | 1157.0 | 1072.8 | 982.4  | 875.7 | 761.8 | 621.8 | 499.0 | 368.4 | 245.8 |
| 15°    | 1337.3 | 1258.4 | 1170.8 | 1085.8 | 996.4  | 889.3 | 775.7 | 633.3 | 512.0 | 374.3 | 249.3 |
| 12.5°  | 1349.1 | 1269.7 | 1183.1 | 1096.2 | 1006.9 | 900.9 | 787.1 | 645.1 | 522.4 | 378.4 | 252.9 |
| 10°    | 1357.2 | 1278.5 | 1192.5 | 1104.0 | 1014.8 | 909.9 | 795.8 | 654.4 | 527.5 | 380.8 | 257.2 |
| 7.5°   | 1362.6 | 1284.5 | 1198.8 | 1109.2 | 1019.8 | 916.2 | 801.1 | 660.7 | 529.5 | 381.5 | 259.6 |
| 5°     | 1365.8 | 1287.5 | 1201.8 | 1111.7 | 1022.3 | 919.7 | 803.9 | 664.1 | 529.4 | 380.6 | 260.1 |
| 2.5°   | 1365.7 | 1287.5 | 1201.7 | 1111.6 | 1022.3 | 920.2 | 803.9 | 664.3 | 527.3 | 378.0 | 258.6 |
| 0°     | 1362.4 | 1284.4 | 1198.6 | 1108.7 | 1019.7 | 917.9 | 801.3 | 661.2 | 523.2 | 373.9 | 255.1 |
| -2.5°  | 1357.6 | 1279.7 | 1193.9 | 1104.2 | 1015.2 | 913.3 | 797.2 | 657.8 | 520.6 | 372.1 | 253.1 |
| -5°    | 1349.7 | 1272.0 | 1186.4 | 1097.0 | 1008.2 | 905.8 | 790.5 | 650.9 | 516.1 | 368.6 | 249.2 |
| -7.5°  | 1338.6 | 1261.4 | 1175.8 | 1087.1 | 998.6  | 895.3 | 781.0 | 640.8 | 509.5 | 363.6 | 243.3 |
| -10°   | 1325.2 | 1248.1 | 1162.1 | 1074.7 | 986.4  | 882.1 | 769.0 | 627.5 | 500.9 | 356.8 | 235.6 |
| -12.5° | 1309.1 | 1231.5 | 1145.5 | 1059.7 | 971.4  | 866.0 | 753.6 | 611.0 | 489.0 | 348.4 | 226.2 |
| -15°   | 1289.1 | 1210.4 | 1126.4 | 1041.9 | 953.9  | 847.3 | 735.3 | 591.6 | 471.9 | 338.1 | 217.8 |
| -17.5° | 1264.8 | 1186.3 | 1103.8 | 1021.3 | 932.5  | 826.2 | 714.4 | 572.7 | 452.2 | 326.2 | 210.2 |
| -20°   | 1239.1 | 1159.4 | 1078.4 | 997.4  | 906.2  | 802.5 | 688.7 | 552.9 | 429.9 | 310.7 | 201.6 |

Classified

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

Scaled Data Report



REPORT NUMBER: P670553 (CONVERTED FROM TYPE C PHOTOMETRY)  
CATALOG NUMBER: ARFL50DBZ-45W-4000K

**CANDELA DISTRIBUTION (continued):**

|        | 47.5°  | 50°    | 52.5°  | 55°   | 57.5° | 60°   | 62.5° | 65°   | 67.5° | 70°   | 72.5° |
|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| -22.5° | 1208.9 | 1130.5 | 1051.9 | 970.5 | 877.0 | 775.9 | 659.3 | 530.8 | 405.9 | 293.2 | 192.0 |
| -25°   | 1172.9 | 1098.2 | 1021.9 | 940.9 | 845.2 | 746.8 | 626.1 | 507.6 | 380.0 | 274.0 | 179.9 |
| -27.5° | 1135.2 | 1062.1 | 988.2  | 905.9 | 811.3 | 713.1 | 589.0 | 481.9 | 354.4 | 251.9 | 165.5 |
| -30°   | 1096.9 | 1026.1 | 950.9  | 865.9 | 775.0 | 674.9 | 554.7 | 446.4 | 331.5 | 228.2 | 150.2 |
| -32.5° | 1052.2 | 984.8  | 910.5  | 823.4 | 736.3 | 631.9 | 520.5 | 408.7 | 305.9 | 208.1 | 138.4 |
| -35°   | 1008.5 | 939.3  | 862.2  | 779.5 | 692.5 | 583.0 | 484.8 | 371.3 | 277.2 | 191.9 | 127.5 |
| -37.5° | 958.2  | 889.7  | 811.5  | 733.6 | 642.4 | 538.5 | 440.4 | 336.4 | 246.5 | 172.9 | 116.4 |
| -40°   | 904.6  | 833.0  | 759.9  | 682.3 | 585.8 | 493.9 | 392.6 | 302.0 | 214.2 | 151.1 | 105.1 |
| -42.5° | 842.4  | 775.0  | 705.7  | 624.4 | 531.9 | 443.1 | 346.9 | 265.2 | 192.0 | 134.1 | 93.5  |
| -45°   | 777.4  | 716.1  | 644.8  | 558.7 | 478.1 | 386.7 | 304.3 | 227.3 | 168.1 | 119.4 | 82.0  |
| -47.5° | 711.5  | 649.1  | 575.4  | 498.5 | 415.5 | 334.3 | 260.8 | 195.3 | 141.1 | 104.5 | 70.2  |
| -50°   | 638.1  | 572.3  | 506.0  | 432.0 | 354.7 | 283.5 | 217.6 | 167.6 | 123.8 | 89.6  | 58.5  |
| -52.5° | 554.0  | 495.1  | 431.9  | 362.9 | 295.5 | 234.6 | 183.8 | 137.4 | 105.8 | 74.8  | 48.2  |
| -55°   | 471.4  | 414.9  | 355.7  | 296.8 | 240.2 | 191.8 | 150.4 | 117.6 | 87.7  | 60.6  | 38.5  |
| -57.5° | 384.8  | 335.3  | 283.4  | 235.3 | 192.6 | 156.1 | 123.8 | 96.3  | 70.4  | 47.8  | 30.9  |
| -60°   | 303.3  | 259.6  | 219.6  | 185.1 | 153.8 | 124.8 | 100.3 | 76.0  | 53.9  | 36.6  | 23.9  |
| -62.5° | 226.8  | 195.4  | 168.8  | 142.3 | 121.0 | 99.1  | 77.1  | 57.1  | 40.3  | 28.0  | 17.2  |
| -65°   | 166.5  | 145.7  | 124.1  | 110.2 | 92.5  | 73.4  | 56.0  | 41.2  | 30.0  | 20.0  | 12.0  |
| -67.5° | 117.0  | 105.8  | 92.8   | 78.8  | 65.0  | 50.8  | 38.6  | 29.6  | 20.7  | 13.3  | 8.2   |
| -70°   | 82.3   | 72.2   | 61.7   | 52.2  | 42.7  | 33.6  | 27.0  | 19.1  | 12.9  | 8.4   | 5.7   |
| -72.5° | 51.0   | 44.5   | 38.1   | 31.6  | 27.7  | 22.0  | 15.2  | 11.1  | 7.8   | 5.6   | 4.2   |
| -75°   | 28.1   | 25.7   | 23.1   | 19.2  | 14.3  | 11.3  | 8.4   | 6.5   | 5.1   | 4.0   | 3.3   |
| -77.5° | 15.7   | 13.0   | 11.3   | 9.2   | 7.5   | 5.9   | 5.0   | 4.3   | 3.7   | 3.1   | 2.6   |
| -80°   | 7.7    | 6.8    | 5.7    | 5.1   | 4.6   | 4.1   | 3.6   | 3.1   | 2.7   | 2.4   | 2.1   |
| -82.5° | 4.9    | 4.5    | 4.0    | 3.6   | 3.2   | 2.7   | 2.4   | 2.1   | 1.9   | 1.8   | 1.8   |
| -85°   | 3.3    | 2.9    | 2.6    | 2.2   | 2.0   | 1.7   | 1.6   | 1.6   | 1.5   | 1.6   | 1.6   |
| -87.5° | 2.6    | 2.4    | 2.1    | 1.9   | 1.6   | 1.4   | 1.4   | 1.5   | 1.5   | 1.5   | 1.5   |
| -90°   | 3.1    | 3.1    | 3.0    | 2.9   | 2.9   | 2.8   | 2.7   | 2.6   | 2.5   | 2.4   | 2.3   |



REPORT NUMBER: P670553 (CONVERTED FROM TYPE C PHOTOMETRY)  
 CATALOG NUMBER: ARFL50DBZ-45W-4000K

**CANDELA DISTRIBUTION (continued):**

|        | 75°   | 77.5° | 80°  | 82.5° | 85° | 87.5° | 90° |
|--------|-------|-------|------|-------|-----|-------|-----|
| 90°    | 1.6   | 1.6   | 1.6  | 1.6   | 1.7 | 1.7   | 1.7 |
| 87.5°  | 2.6   | 2.4   | 2.2  | 2.1   | 1.9 | 1.8   | 1.7 |
| 85°    | 3.1   | 2.7   | 2.4  | 2.2   | 2.0 | 1.8   | 1.7 |
| 82.5°  | 3.7   | 3.2   | 2.7  | 2.3   | 2.0 | 1.8   | 1.7 |
| 80°    | 4.7   | 3.7   | 3.0  | 2.5   | 2.1 | 1.8   | 1.7 |
| 77.5°  | 6.1   | 4.4   | 3.3  | 2.6   | 2.1 | 1.8   | 1.7 |
| 75°    | 8.5   | 5.5   | 3.8  | 2.8   | 2.2 | 1.9   | 1.7 |
| 72.5°  | 11.9  | 7.1   | 4.3  | 3.1   | 2.3 | 1.9   | 1.7 |
| 70°    | 15.8  | 9.2   | 5.3  | 3.4   | 2.4 | 1.9   | 1.7 |
| 67.5°  | 20.5  | 11.7  | 6.3  | 3.6   | 2.5 | 1.9   | 1.7 |
| 65°    | 25.8  | 14.7  | 7.5  | 4.0   | 2.6 | 1.9   | 1.7 |
| 62.5°  | 31.7  | 18.0  | 9.1  | 4.5   | 2.7 | 1.9   | 1.7 |
| 60°    | 39.4  | 21.6  | 10.5 | 5.0   | 2.9 | 2.0   | 1.7 |
| 57.5°  | 47.4  | 25.5  | 12.7 | 5.5   | 3.0 | 2.0   | 1.7 |
| 55°    | 55.1  | 29.9  | 14.7 | 6.3   | 3.1 | 2.0   | 1.7 |
| 52.5°  | 62.5  | 35.6  | 16.8 | 7.0   | 3.2 | 2.1   | 1.7 |
| 50°    | 70.8  | 40.9  | 19.1 | 7.6   | 3.4 | 2.1   | 1.7 |
| 47.5°  | 78.7  | 45.8  | 21.2 | 8.3   | 3.5 | 2.1   | 1.7 |
| 45°    | 87.2  | 50.3  | 23.4 | 9.4   | 3.6 | 2.1   | 1.7 |
| 42.5°  | 95.1  | 55.1  | 26.7 | 10.4  | 3.8 | 2.1   | 1.7 |
| 40°    | 103.6 | 60.2  | 29.7 | 11.3  | 3.9 | 2.2   | 1.7 |
| 37.5°  | 111.5 | 64.8  | 32.4 | 12.0  | 3.9 | 2.2   | 1.7 |
| 35°    | 118.8 | 69.6  | 34.8 | 12.8  | 4.1 | 2.2   | 1.7 |
| 32.5°  | 125.5 | 74.1  | 36.8 | 13.6  | 4.2 | 2.2   | 1.7 |
| 30°    | 131.5 | 78.1  | 38.6 | 14.2  | 4.3 | 2.2   | 1.7 |
| 27.5°  | 137.8 | 81.8  | 40.0 | 14.7  | 4.4 | 2.2   | 1.7 |
| 25°    | 143.3 | 85.6  | 41.4 | 15.1  | 4.4 | 2.2   | 1.7 |
| 22.5°  | 147.7 | 88.8  | 43.1 | 15.3  | 4.4 | 2.2   | 1.7 |
| 20°    | 151.5 | 91.5  | 44.5 | 15.7  | 4.4 | 2.2   | 1.7 |
| 17.5°  | 154.8 | 93.6  | 45.5 | 16.3  | 4.3 | 2.2   | 1.7 |
| 15°    | 157.1 | 95.1  | 46.2 | 16.7  | 4.3 | 2.2   | 1.7 |
| 12.5°  | 158.5 | 96.1  | 46.5 | 16.9  | 4.2 | 2.2   | 1.7 |
| 10°    | 158.9 | 96.5  | 46.6 | 17.0  | 4.0 | 2.2   | 1.7 |
| 7.5°   | 158.4 | 96.3  | 46.3 | 16.9  | 3.9 | 2.2   | 1.7 |
| 5°     | 157.1 | 95.5  | 45.7 | 16.6  | 3.7 | 2.2   | 1.7 |
| 2.5°   | 154.9 | 94.3  | 44.8 | 16.2  | 3.6 | 2.2   | 1.7 |
| 0°     | 151.9 | 92.5  | 43.6 | 15.7  | 3.4 | 2.2   | 1.7 |
| -2.5°  | 151.1 | 91.9  | 43.3 | 15.5  | 3.4 | 2.1   | 1.7 |
| -5°    | 149.5 | 90.9  | 42.8 | 15.3  | 3.4 | 2.1   | 1.7 |
| -7.5°  | 147.2 | 89.4  | 42.0 | 14.9  | 3.4 | 2.1   | 1.7 |
| -10°   | 144.2 | 87.4  | 40.9 | 14.4  | 3.4 | 2.1   | 1.7 |
| -12.5° | 140.4 | 84.8  | 39.6 | 13.8  | 3.3 | 2.1   | 1.7 |
| -15°   | 135.9 | 81.8  | 38.0 | 13.0  | 3.3 | 2.1   | 1.7 |
| -17.5° | 130.8 | 78.3  | 36.2 | 12.1  | 3.2 | 2.1   | 1.7 |
| -20°   | 125.0 | 74.4  | 34.1 | 11.1  | 3.2 | 2.1   | 1.7 |

Classified

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

Scaled Data Report



REPORT NUMBER: P670553 (CONVERTED FROM TYPE C PHOTOMETRY)  
CATALOG NUMBER: ARFL50DBZ-45W-4000K

**CANDELA DISTRIBUTION (continued):**

|        | 75°   | 77.5° | 80°  | 82.5° | 85° | 87.5° | 90° |
|--------|-------|-------|------|-------|-----|-------|-----|
| -22.5° | 119.1 | 70.0  | 31.9 | 10.4  | 3.1 | 2.1   | 1.7 |
| -25°   | 112.8 | 65.1  | 29.4 | 9.9   | 3.1 | 2.1   | 1.7 |
| -27.5° | 106.0 | 59.9  | 27.3 | 9.3   | 3.0 | 2.0   | 1.7 |
| -30°   | 98.6  | 55.0  | 25.3 | 8.6   | 2.9 | 2.0   | 1.7 |
| -32.5° | 91.0  | 50.1  | 23.2 | 8.0   | 2.8 | 2.0   | 1.7 |
| -35°   | 82.9  | 44.9  | 20.9 | 7.3   | 2.7 | 2.0   | 1.7 |
| -37.5° | 74.5  | 39.8  | 18.5 | 6.5   | 2.6 | 2.0   | 1.7 |
| -40°   | 65.9  | 35.2  | 16.0 | 5.9   | 2.6 | 1.9   | 1.7 |
| -42.5° | 56.8  | 30.5  | 13.5 | 5.2   | 2.5 | 1.9   | 1.7 |
| -45°   | 49.2  | 26.2  | 10.8 | 4.5   | 2.5 | 1.9   | 1.7 |
| -47.5° | 41.4  | 22.5  | 9.3  | 3.7   | 2.4 | 1.9   | 1.7 |
| -50°   | 34.9  | 18.5  | 8.1  | 3.4   | 2.3 | 1.9   | 1.7 |
| -52.5° | 28.5  | 14.9  | 6.8  | 3.2   | 2.3 | 1.8   | 1.7 |
| -55°   | 23.2  | 11.2  | 5.7  | 2.9   | 2.2 | 1.8   | 1.7 |
| -57.5° | 17.9  | 8.9   | 4.6  | 2.7   | 2.1 | 1.8   | 1.7 |
| -60°   | 13.4  | 7.1   | 3.6  | 2.6   | 2.1 | 1.7   | 1.7 |
| -62.5° | 9.4   | 5.6   | 3.3  | 2.4   | 2.0 | 1.7   | 1.7 |
| -65°   | 7.2   | 4.3   | 2.9  | 2.3   | 1.9 | 1.7   | 1.7 |
| -67.5° | 5.4   | 3.4   | 2.6  | 2.2   | 1.9 | 1.7   | 1.7 |
| -70°   | 3.9   | 3.0   | 2.4  | 2.1   | 1.8 | 1.7   | 1.7 |
| -72.5° | 3.2   | 2.6   | 2.2  | 1.9   | 1.8 | 1.7   | 1.7 |
| -75°   | 2.7   | 2.3   | 2.0  | 1.8   | 1.7 | 1.7   | 1.7 |
| -77.5° | 2.3   | 2.0   | 1.9  | 1.8   | 1.7 | 1.7   | 1.7 |
| -80°   | 1.9   | 1.8   | 1.7  | 1.7   | 1.7 | 1.7   | 1.7 |
| -82.5° | 1.7   | 1.7   | 1.7  | 1.6   | 1.7 | 1.7   | 1.7 |
| -85°   | 1.6   | 1.6   | 1.6  | 1.6   | 1.7 | 1.7   | 1.7 |
| -87.5° | 1.6   | 1.6   | 1.6  | 1.6   | 1.7 | 1.7   | 1.7 |
| -90°   | 2.3   | 2.2   | 2.1  | 2.0   | 1.9 | 1.8   | 1.7 |

(END OF REPORT)