

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: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)

Luminaire Tested: BKHDR150CLD2D-MID-5000K

Issue Date: 11/5/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( )  
Test Lab: INNOVATION CENTER  
Issue Date: 11/5/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: BKHDR150CLD2D-MID-5000K  
Description: BULK HEAD 2800LM SEL 5CCT UNV D2D BRONZE at 5000K CCT  
  
Light Source:  
Ballast/Driver: ELECTRONIC DRIVER

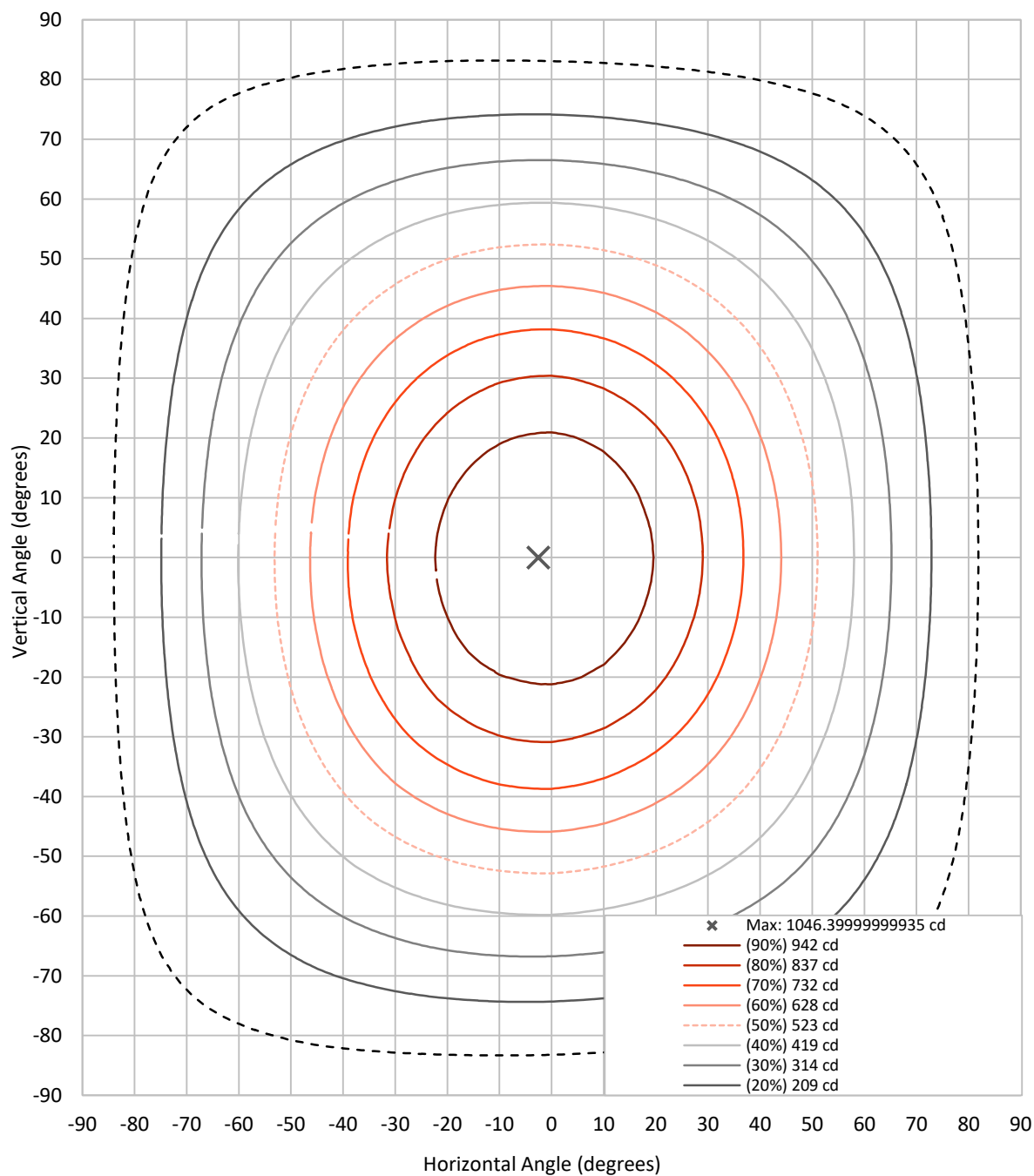
**Summary**

|                                   |                               |                      |                   |
|-----------------------------------|-------------------------------|----------------------|-------------------|
| Lumens per Lamp:                  | 2087.9 (1 lamp)               | NEMA Type:           | 7H x 7V           |
| Luminaire Lumens:                 | 2834.6 lumens                 | Max Intensity:       | 1046.4 candela    |
| Efficiency:                       | 135.8%                        | Max Intensity Angle: | -2.5°H x 0°V      |
| Efficacy:                         | 118.1 lumens/watt             |                      |                   |
| Luminous Opening:                 | Circular (Dia: 0.76' x H: 0') |                      |                   |
| Beam Angle (50%):                 | 104.2°H x 105.2°V             | Field Angle (10%):   | 165.8°H x 166.3°V |
| Beam Lumens:                      | 1874.1 lumens                 | Field Lumens:        | 2777.4 lumens     |
| Beam Efficiency:                  | 66.1%                         | Field Efficiency:    | 98.0%             |
| Input Watts (W):                  | 24                            |                      |                   |
| Input Voltage (V):                | 122                           |                      |                   |
| Input Current (Ain):              | NR                            |                      |                   |
| Voltage Rise (V):                 | NR                            |                      |                   |
| Power Factor:                     | >0.9                          |                      |                   |
| Total Harmonic Distortion (THDi): | <20                           |                      |                   |
| Frequency (hertz):                | 60                            |                      |                   |
| Stabilization Time:               | HR                            |                      |                   |
| Operation Time:                   | HR                            |                      |                   |
| Ambient Temperature (°C):         | NR                            |                      |                   |
| Test Distance:                    | 25 FT                         |                      |                   |

REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)

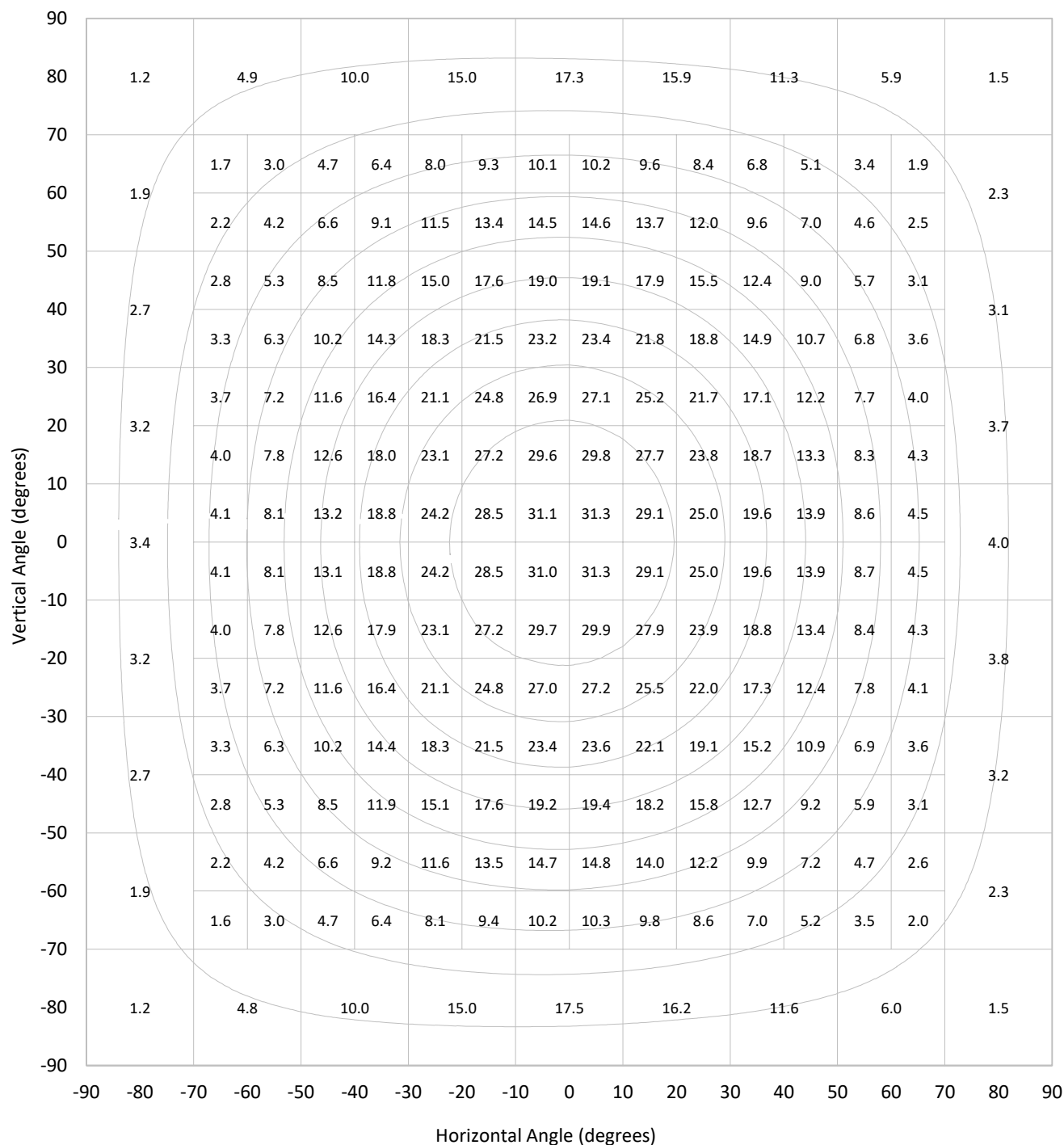
CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

### Iso-Candela Plot



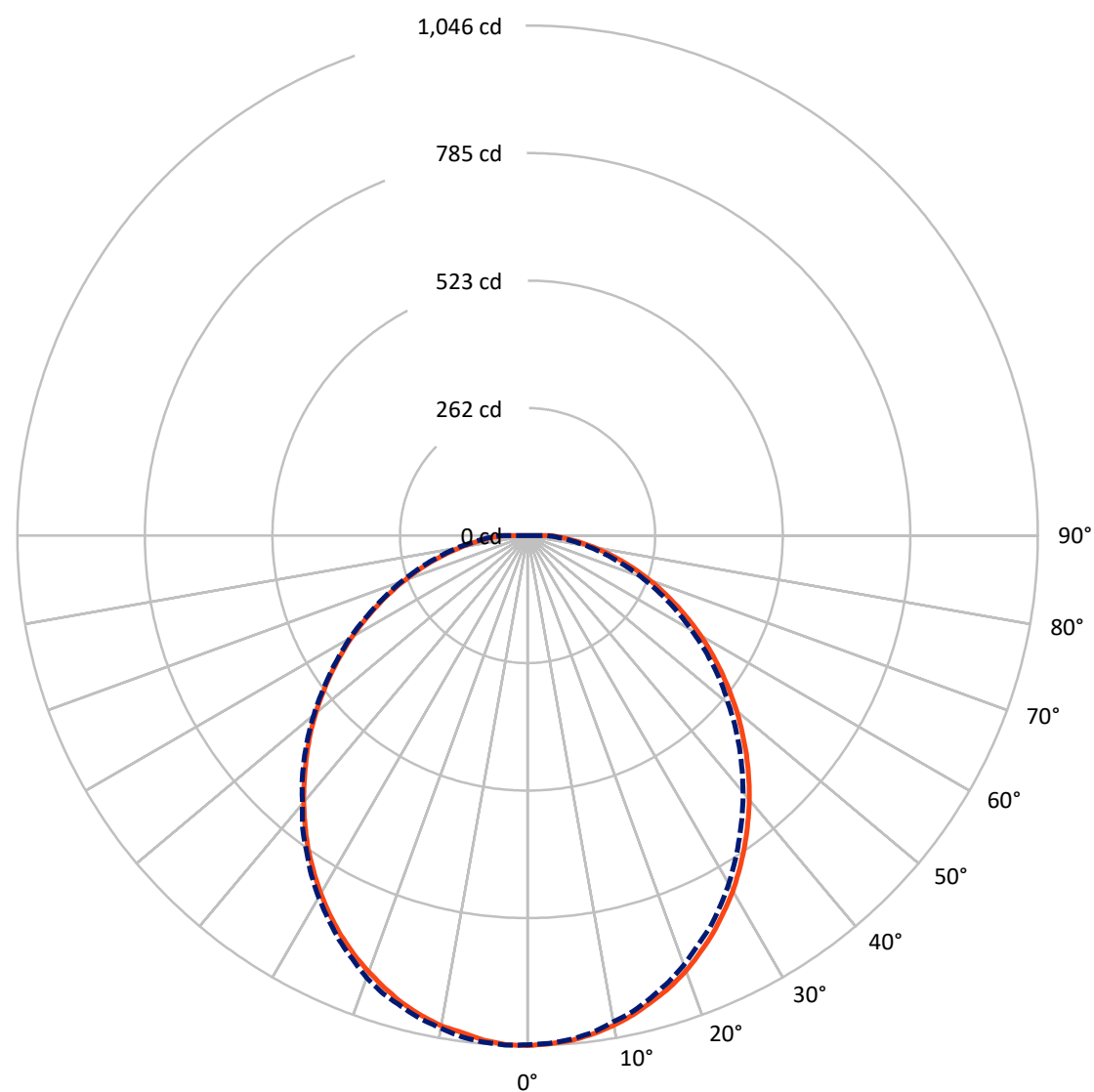
REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)  
CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

## Lumen Table



REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)  
CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

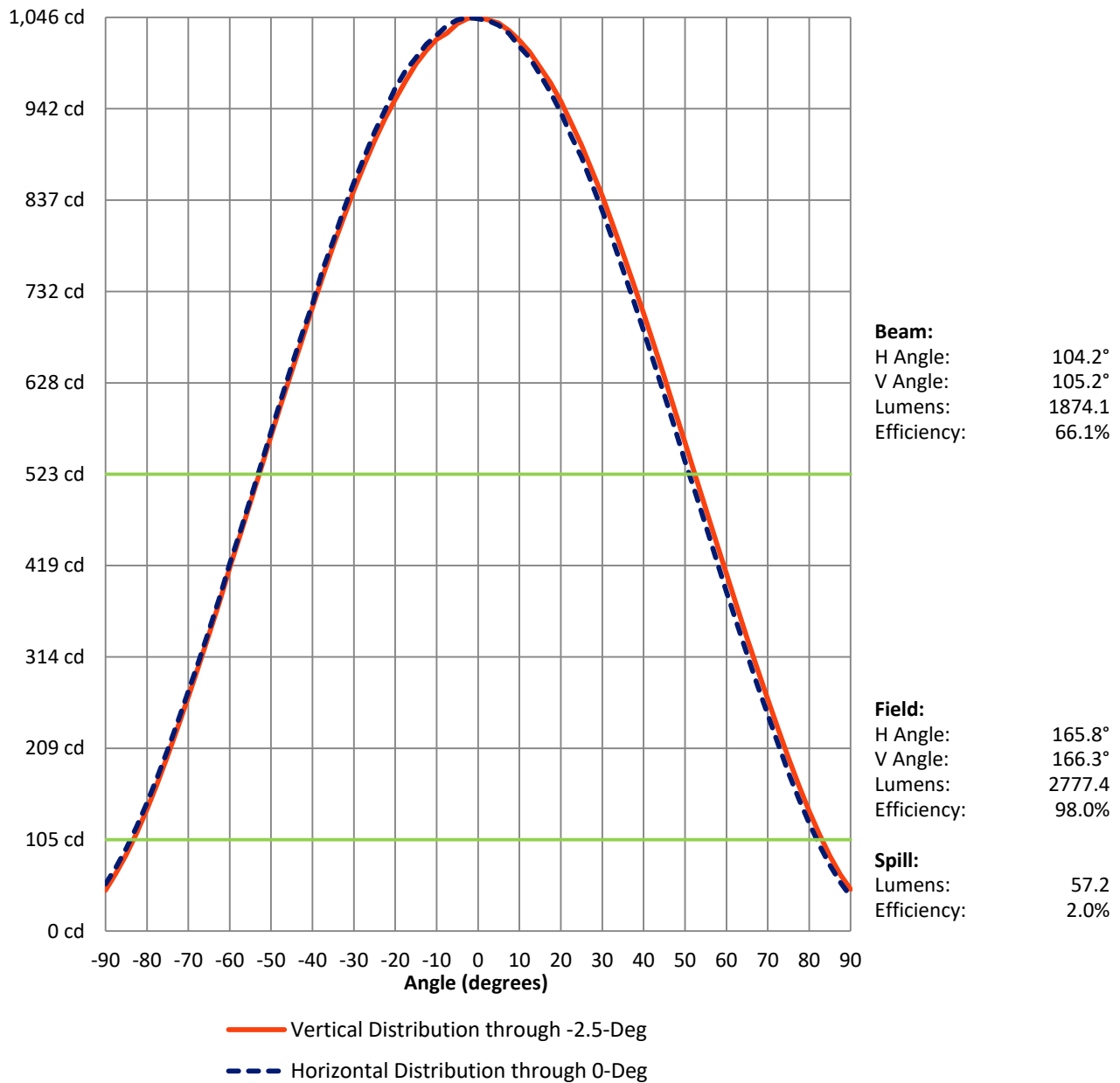
## Luminous Intensity Polar Plot



— Vertical Distribution Through -2.5-Deg      - - - Horizontal Distribution Through 0-Deg

REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)  
CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

### Luminous Intensity Plot



REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)

CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

FIELD  
BEAM

**CANDELA DISTRIBUTION:**

|        | -90° | -87.5° | -85° | -82.5° | -80°  | -77.5° | -75°  | -72.5° | -70°  | -67.5° | -65°  |
|--------|------|--------|------|--------|-------|--------|-------|--------|-------|--------|-------|
| 90°    | 53.9 | 53.9   | 54.0 | 54.0   | 54.0  | 54.1   | 54.1  | 54.1   | 54.2  | 54.2   | 54.1  |
| 87.5°  | 53.9 | 54.7   | 55.4 | 56.2   | 57.0  | 57.7   | 58.5  | 59.2   | 60.0  | 60.7   | 61.2  |
| 85°    | 53.9 | 55.5   | 57.0 | 58.6   | 60.1  | 61.7   | 63.3  | 64.8   | 66.4  | 67.9   | 69.3  |
| 82.5°  | 53.9 | 56.2   | 58.6 | 60.9   | 63.3  | 65.8   | 68.2  | 70.7   | 73.1  | 75.6   | 77.9  |
| 80°    | 53.9 | 57.0   | 60.1 | 63.4   | 66.6  | 69.9   | 73.3  | 76.7   | 80.2  | 83.7   | 87.0  |
| 77.5°  | 53.9 | 57.8   | 61.7 | 65.8   | 70.0  | 74.2   | 78.6  | 83.0   | 87.6  | 92.2   | 96.7  |
| 75°    | 53.9 | 58.5   | 63.3 | 68.2   | 73.3  | 78.6   | 84.0  | 89.6   | 95.2  | 101.0  | 106.6 |
| 72.5°  | 53.9 | 59.3   | 64.9 | 70.7   | 76.7  | 83.1   | 89.6  | 96.3   | 103.1 | 110.0  | 116.9 |
| 70°    | 53.9 | 60.0   | 66.5 | 73.2   | 80.3  | 87.6   | 95.3  | 103.2  | 111.2 | 119.3  | 127.5 |
| 67.5°  | 53.9 | 60.8   | 68.1 | 75.7   | 83.8  | 92.2   | 101.1 | 110.1  | 119.3 | 128.8  | 138.4 |
| 65°    | 53.9 | 61.5   | 69.6 | 78.2   | 87.3  | 96.9   | 106.9 | 117.1  | 127.6 | 138.5  | 149.4 |
| 62.5°  | 53.9 | 62.3   | 71.2 | 80.7   | 90.9  | 101.6  | 112.7 | 124.1  | 136.1 | 148.3  | 160.6 |
| 60°    | 53.9 | 63.0   | 72.8 | 83.2   | 94.3  | 106.3  | 118.5 | 131.3  | 144.6 | 158.1  | 171.9 |
| 57.5°  | 53.9 | 63.7   | 74.2 | 85.6   | 97.9  | 110.9  | 124.3 | 138.5  | 153.1 | 168.0  | 183.2 |
| 55°    | 53.9 | 64.4   | 75.7 | 88.1   | 101.4 | 115.5  | 130.2 | 145.6  | 161.5 | 177.8  | 194.4 |
| 52.5°  | 53.9 | 65.1   | 77.1 | 90.5   | 104.9 | 120.0  | 135.9 | 152.7  | 169.9 | 187.6  | 205.5 |
| 50°    | 53.9 | 65.8   | 78.6 | 92.8   | 108.3 | 124.3  | 141.7 | 159.6  | 178.1 | 197.1  | 216.5 |
| 47.5°  | 53.9 | 66.4   | 80.0 | 95.1   | 111.5 | 128.8  | 147.2 | 166.4  | 186.2 | 206.6  | 227.3 |
| 45°    | 53.9 | 67.0   | 81.4 | 97.4   | 114.7 | 133.1  | 152.7 | 173.1  | 194.1 | 215.8  | 237.8 |
| 42.5°  | 53.9 | 67.6   | 82.7 | 99.6   | 117.8 | 137.3  | 158.0 | 179.6  | 201.9 | 224.8  | 248.0 |
| 40°    | 53.9 | 68.1   | 84.0 | 101.7  | 120.8 | 141.3  | 163.1 | 185.8  | 209.4 | 233.6  | 258.0 |
| 37.5°  | 53.9 | 68.7   | 85.2 | 103.7  | 123.6 | 145.2  | 168.0 | 191.8  | 216.5 | 241.8  | 267.6 |
| 35°    | 53.9 | 69.2   | 86.3 | 105.6  | 126.4 | 148.9  | 172.7 | 197.6  | 223.4 | 249.8  | 276.9 |
| 32.5°  | 53.9 | 69.7   | 87.4 | 107.4  | 129.0 | 152.5  | 177.2 | 203.1  | 230.1 | 257.4  | 285.6 |
| 30°    | 53.9 | 70.1   | 88.4 | 109.1  | 131.5 | 155.8  | 181.4 | 208.3  | 236.3 | 264.7  | 293.7 |
| 27.5°  | 53.9 | 70.5   | 89.4 | 110.7  | 133.8 | 158.9  | 185.4 | 213.1  | 241.9 | 271.5  | 301.2 |
| 25°    | 53.9 | 70.9   | 90.3 | 112.2  | 135.9 | 161.8  | 189.0 | 217.6  | 247.2 | 277.8  | 308.4 |
| 22.5°  | 53.9 | 71.3   | 91.1 | 113.5  | 137.9 | 164.4  | 192.3 | 221.8  | 252.1 | 283.5  | 315.0 |
| 20°    | 53.9 | 71.6   | 91.8 | 114.7  | 139.7 | 166.8  | 195.4 | 225.6  | 256.6 | 288.7  | 320.9 |
| 17.5°  | 53.9 | 71.9   | 92.4 | 115.8  | 141.3 | 168.9  | 198.1 | 229.1  | 260.6 | 293.2  | 326.1 |
| 15°    | 53.9 | 72.1   | 93.0 | 116.7  | 142.7 | 170.8  | 200.5 | 232.1  | 264.2 | 297.2  | 330.7 |
| 12.5°  | 53.9 | 72.3   | 93.4 | 117.5  | 143.9 | 172.4  | 202.6 | 234.6  | 267.3 | 300.5  | 334.8 |
| 10°    | 53.9 | 72.5   | 93.8 | 118.2  | 144.9 | 173.7  | 204.3 | 236.6  | 269.8 | 303.4  | 338.2 |
| 7.5°   | 53.9 | 72.6   | 94.1 | 118.7  | 145.6 | 174.7  | 205.6 | 238.2  | 271.8 | 305.7  | 340.9 |
| 5°     | 53.9 | 72.7   | 94.3 | 119.1  | 146.2 | 175.5  | 206.6 | 239.4  | 273.3 | 307.3  | 342.8 |
| 2.5°   | 53.9 | 72.8   | 94.5 | 119.3  | 146.5 | 175.9  | 207.2 | 240.1  | 274.2 | 308.4  | 344.0 |
| 0°     | 53.9 | 72.8   | 94.5 | 119.4  | 146.6 | 176.1  | 207.4 | 240.4  | 274.5 | 308.7  | 344.5 |
| -2.5°  | 53.9 | 72.8   | 94.5 | 119.3  | 146.5 | 176.0  | 207.3 | 240.3  | 274.4 | 308.6  | 344.5 |
| -5°    | 53.9 | 72.7   | 94.3 | 119.1  | 146.2 | 175.6  | 206.9 | 239.7  | 273.7 | 307.9  | 343.6 |
| -7.5°  | 53.9 | 72.6   | 94.1 | 118.8  | 145.7 | 174.9  | 206.0 | 238.7  | 272.5 | 306.5  | 342.1 |
| -10°   | 53.9 | 72.5   | 93.9 | 118.3  | 145.0 | 174.0  | 204.8 | 237.3  | 270.8 | 304.5  | 339.7 |
| -12.5° | 53.9 | 72.3   | 93.5 | 117.6  | 144.1 | 172.7  | 203.2 | 235.4  | 268.5 | 301.8  | 336.6 |
| -15°   | 53.9 | 72.1   | 93.0 | 116.9  | 142.9 | 171.1  | 201.2 | 233.0  | 265.7 | 298.7  | 332.7 |
| -17.5° | 53.9 | 71.9   | 92.5 | 115.9  | 141.6 | 169.3  | 198.9 | 230.1  | 262.4 | 295.0  | 328.4 |
| -20°   | 53.9 | 71.6   | 91.8 | 114.9  | 140.0 | 167.3  | 196.2 | 226.8  | 258.5 | 290.7  | 323.5 |

REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)

CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

**CANDELA DISTRIBUTION (continued):**

|        | -90° | -87.5° | -85° | -82.5° | -80°  | -77.5° | -75°  | -72.5° | -70°  | -67.5° | -65°  |
|--------|------|--------|------|--------|-------|--------|-------|--------|-------|--------|-------|
| -22.5° | 53.9 | 71.3   | 91.1 | 113.7  | 138.2 | 164.9  | 193.3 | 223.1  | 254.1 | 285.9  | 317.9 |
| -25°   | 53.9 | 70.9   | 90.4 | 112.3  | 136.3 | 162.3  | 190.0 | 219.1  | 249.2 | 280.4  | 311.5 |
| -27.5° | 53.9 | 70.6   | 89.5 | 110.9  | 134.1 | 159.5  | 186.3 | 214.7  | 244.0 | 274.5  | 304.3 |
| -30°   | 53.9 | 70.1   | 88.5 | 109.3  | 131.9 | 156.4  | 182.4 | 210.0  | 238.4 | 267.9  | 297.0 |
| -32.5° | 53.9 | 69.7   | 87.5 | 107.6  | 129.4 | 153.1  | 178.2 | 204.9  | 232.2 | 260.8  | 289.2 |
| -35°   | 53.9 | 69.2   | 86.4 | 105.8  | 126.8 | 149.6  | 173.8 | 199.3  | 225.7 | 253.0  | 280.9 |
| -37.5° | 53.9 | 68.7   | 85.3 | 103.9  | 124.0 | 145.9  | 169.0 | 193.5  | 218.9 | 244.9  | 272.0 |
| -40°   | 53.9 | 68.2   | 84.1 | 101.9  | 121.2 | 142.0  | 164.1 | 187.4  | 211.9 | 236.5  | 262.5 |
| -42.5° | 53.9 | 67.6   | 82.8 | 99.8   | 118.2 | 138.0  | 158.9 | 181.1  | 204.4 | 227.8  | 252.2 |
| -45°   | 53.9 | 67.0   | 81.5 | 97.6   | 115.1 | 133.8  | 153.7 | 174.6  | 196.5 | 218.9  | 241.7 |
| -47.5° | 53.9 | 66.4   | 80.2 | 95.3   | 111.9 | 129.5  | 148.2 | 167.8  | 188.4 | 209.8  | 231.0 |
| -50°   | 53.9 | 65.8   | 78.7 | 93.1   | 108.6 | 125.0  | 142.6 | 160.8  | 180.1 | 200.2  | 220.2 |
| -52.5° | 53.9 | 65.1   | 77.3 | 90.7   | 105.2 | 120.6  | 136.8 | 153.9  | 171.7 | 190.2  | 209.4 |
| -55°   | 53.9 | 64.5   | 75.8 | 88.3   | 101.8 | 116.0  | 131.1 | 146.9  | 163.1 | 180.2  | 197.8 |
| -57.5° | 53.9 | 63.8   | 74.4 | 85.9   | 98.3  | 111.4  | 125.2 | 139.7  | 154.6 | 170.1  | 186.0 |
| -60°   | 53.9 | 63.0   | 72.9 | 83.4   | 94.7  | 106.8  | 119.3 | 132.4  | 146.1 | 159.8  | 174.5 |
| -62.5° | 53.9 | 62.3   | 71.3 | 80.9   | 91.2  | 102.1  | 113.4 | 125.2  | 137.4 | 150.1  | 162.8 |
| -65°   | 53.9 | 61.6   | 69.7 | 78.4   | 87.7  | 97.4   | 107.5 | 118.0  | 128.9 | 140.1  | 151.5 |
| -67.5° | 53.9 | 60.8   | 68.2 | 75.9   | 84.1  | 92.7   | 101.7 | 110.9  | 120.5 | 130.3  | 140.3 |
| -70°   | 53.9 | 60.1   | 66.6 | 73.4   | 80.6  | 88.1   | 95.9  | 103.9  | 112.1 | 120.6  | 129.2 |
| -72.5° | 53.9 | 59.3   | 65.0 | 70.9   | 77.0  | 83.5   | 90.2  | 97.0   | 104.0 | 111.1  | 118.3 |
| -75°   | 53.9 | 58.6   | 63.4 | 68.4   | 73.6  | 79.0   | 84.5  | 90.3   | 96.1  | 102.0  | 107.8 |
| -77.5° | 53.9 | 57.8   | 61.8 | 65.9   | 70.1  | 74.5   | 79.0  | 83.6   | 88.3  | 93.1   | 97.9  |
| -80°   | 53.9 | 57.1   | 60.2 | 63.5   | 66.8  | 70.2   | 73.7  | 77.2   | 80.8  | 84.4   | 88.0  |
| -82.5° | 53.9 | 56.3   | 58.6 | 61.0   | 63.5  | 66.0   | 68.4  | 71.0   | 73.6  | 76.2   | 78.8  |
| -85°   | 53.9 | 55.5   | 57.1 | 58.7   | 60.2  | 61.8   | 63.5  | 65.1   | 66.7  | 68.3   | 69.9  |
| -87.5° | 53.9 | 54.7   | 55.5 | 56.3   | 57.1  | 57.9   | 58.7  | 59.5   | 60.2  | 61.0   | 61.7  |
| -90°   | 53.9 | 53.9   | 53.9 | 53.9   | 53.9  | 53.8   | 53.8  | 53.8   | 53.8  | 53.8   | 53.6  |

REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)

CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

**CANDELA DISTRIBUTION (continued):**

|        | -62.5° | -60°  | -57.5° | -55°  | -52.5° | -50°  | -47.5° | -45°  | -42.5° | -40°  | -37.5° |
|--------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 90°    | 54.1   | 54.0  | 54.0   | 53.9  | 53.9   | 53.8  | 53.8   | 53.7  | 53.4   | 53.0  | 52.7   |
| 87.5°  | 61.7   | 62.2  | 62.7   | 63.2  | 63.6   | 64.1  | 64.5   | 64.8  | 65.2   | 65.5  | 65.8   |
| 85°    | 70.6   | 72.0  | 73.3   | 74.5  | 75.7   | 77.0  | 78.2   | 79.3  | 80.4   | 81.4  | 82.3   |
| 82.5°  | 80.2   | 82.4  | 84.6   | 86.9  | 89.0   | 91.1  | 93.1   | 95.1  | 97.1   | 98.9  | 100.6  |
| 80°    | 90.4   | 93.6  | 96.9   | 100.1 | 103.3  | 106.4 | 109.4  | 112.4 | 115.3  | 118.1 | 120.7  |
| 77.5°  | 101.1  | 105.4 | 109.8  | 114.2 | 118.5  | 122.7 | 126.9  | 130.9 | 134.8  | 138.5 | 142.1  |
| 75°    | 112.2  | 117.8 | 123.3  | 128.9 | 134.4  | 139.9 | 145.1  | 150.3 | 155.3  | 160.2 | 165.0  |
| 72.5°  | 123.7  | 130.6 | 137.5  | 144.3 | 151.1  | 157.7 | 164.3  | 170.7 | 176.9  | 183.0 | 188.8  |
| 70°    | 135.6  | 143.9 | 152.1  | 160.3 | 168.4  | 176.4 | 184.2  | 191.7 | 199.6  | 207.1 | 214.1  |
| 67.5°  | 147.9  | 157.4 | 167.1  | 176.7 | 186.1  | 195.5 | 205.0  | 214.3 | 223.2  | 231.6 | 239.7  |
| 65°    | 160.3  | 171.4 | 182.4  | 193.3 | 204.5  | 215.4 | 226.2  | 236.7 | 246.9  | 256.3 | 265.6  |
| 62.5°  | 173.0  | 185.4 | 197.9  | 210.5 | 223.0  | 235.3 | 247.4  | 259.0 | 270.5  | 281.5 | 291.9  |
| 60°    | 185.7  | 199.6 | 213.7  | 227.7 | 241.5  | 255.1 | 268.5  | 281.7 | 294.5  | 306.6 | 318.4  |
| 57.5°  | 198.5  | 213.8 | 229.3  | 244.6 | 259.9  | 275.1 | 289.9  | 304.3 | 318.4  | 332.1 | 345.1  |
| 55°    | 211.1  | 228.0 | 244.8  | 261.6 | 278.4  | 294.9 | 311.0  | 327.0 | 342.4  | 357.6 | 372.0  |
| 52.5°  | 223.7  | 241.9 | 260.2  | 278.5 | 296.7  | 314.5 | 332.2  | 349.5 | 366.5  | 383.0 | 399.0  |
| 50°    | 236.0  | 255.6 | 275.5  | 295.2 | 314.6  | 334.1 | 353.1  | 371.9 | 390.5  | 408.5 | 425.5  |
| 47.5°  | 248.1  | 269.2 | 290.4  | 311.5 | 332.5  | 353.3 | 373.8  | 394.4 | 414.4  | 433.4 | 451.5  |
| 45°    | 260.0  | 282.5 | 305.0  | 327.5 | 349.9  | 372.1 | 394.5  | 416.6 | 437.5  | 457.8 | 477.4  |
| 42.5°  | 271.7  | 295.4 | 319.2  | 343.2 | 366.9  | 390.9 | 415.1  | 437.9 | 460.1  | 481.8 | 502.7  |
| 40°    | 283.0  | 307.9 | 333.1  | 358.2 | 383.5  | 409.6 | 434.5  | 458.6 | 482.3  | 505.2 | 527.6  |
| 37.5°  | 293.7  | 319.9 | 346.5  | 372.9 | 400.3  | 427.3 | 453.2  | 478.8 | 503.6  | 528.1 | 551.9  |
| 35°    | 304.0  | 331.4 | 359.2  | 387.0 | 416.5  | 444.1 | 471.3  | 498.0 | 524.5  | 550.3 | 575.4  |
| 32.5°  | 313.8  | 342.6 | 371.5  | 401.4 | 431.1  | 460.0 | 488.6  | 516.7 | 544.5  | 571.6 | 598.0  |
| 30°    | 323.0  | 353.0 | 383.0  | 415.0 | 445.3  | 475.3 | 504.9  | 534.5 | 563.5  | 591.9 | 619.4  |
| 27.5°  | 331.7  | 362.8 | 394.3  | 427.1 | 458.2  | 489.5 | 520.6  | 551.3 | 581.6  | 611.0 | 639.5  |
| 25°    | 339.9  | 372.0 | 405.2  | 438.3 | 470.5  | 502.7 | 535.0  | 567.0 | 598.3  | 628.9 | 658.6  |
| 22.5°  | 347.5  | 380.3 | 415.2  | 448.5 | 482.0  | 515.1 | 548.4  | 581.5 | 613.9  | 645.3 | 676.2  |
| 20°    | 354.3  | 387.7 | 424.0  | 457.6 | 492.0  | 526.6 | 560.8  | 594.7 | 628.2  | 660.6 | 692.5  |
| 17.5°  | 360.4  | 395.1 | 431.7  | 465.9 | 501.1  | 536.3 | 571.8  | 606.7 | 640.8  | 674.0 | 706.8  |
| 15°    | 365.9  | 401.6 | 438.3  | 473.7 | 509.1  | 545.3 | 581.6  | 617.3 | 651.9  | 686.1 | 719.3  |
| 12.5°  | 370.6  | 407.2 | 443.9  | 480.3 | 516.5  | 553.3 | 590.0  | 626.8 | 661.5  | 696.5 | 730.2  |
| 10°    | 374.4  | 411.8 | 448.5  | 485.4 | 522.7  | 559.8 | 597.0  | 634.6 | 669.4  | 705.3 | 739.6  |
| 7.5°   | 377.3  | 415.5 | 452.1  | 489.4 | 527.3  | 564.9 | 602.6  | 640.2 | 675.5  | 711.3 | 747.2  |
| 5°     | 379.4  | 418.2 | 454.7  | 492.3 | 530.4  | 568.7 | 606.7  | 644.3 | 680.1  | 715.2 | 752.8  |
| 2.5°   | 380.6  | 419.9 | 456.3  | 494.0 | 532.4  | 571.0 | 609.4  | 646.8 | 683.0  | 717.4 | 756.4  |
| 0°     | 381.1  | 420.6 | 456.9  | 494.7 | 533.1  | 572.0 | 610.4  | 647.9 | 684.0  | 718.0 | 757.9  |
| -2.5°  | 381.1  | 420.3 | 456.8  | 494.5 | 532.9  | 571.7 | 610.1  | 647.5 | 683.7  | 718.0 | 757.0  |
| -5°    | 380.2  | 419.0 | 455.7  | 493.3 | 531.6  | 570.0 | 608.4  | 645.6 | 681.7  | 716.5 | 754.1  |
| -7.5°  | 378.5  | 416.7 | 453.5  | 490.9 | 529.0  | 566.9 | 605.3  | 642.2 | 677.9  | 713.3 | 749.1  |
| -10°   | 376.0  | 413.4 | 450.3  | 487.3 | 524.9  | 562.4 | 600.3  | 637.1 | 672.3  | 708.2 | 742.2  |
| -12.5° | 372.6  | 409.1 | 446.1  | 482.6 | 519.4  | 556.6 | 593.6  | 630.0 | 664.8  | 700.2 | 733.4  |
| -15°   | 368.4  | 404.0 | 440.8  | 476.5 | 512.9  | 549.2 | 585.6  | 621.4 | 656.0  | 690.9 | 723.1  |
| -17.5° | 363.5  | 398.3 | 434.4  | 469.4 | 505.2  | 540.7 | 576.7  | 612.5 | 646.6  | 679.9 | 712.0  |
| -20°   | 357.8  | 391.9 | 427.2  | 461.6 | 496.4  | 531.3 | 566.3  | 601.5 | 633.3  | 666.0 | 698.9  |

REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)

CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

**CANDELA DISTRIBUTION (continued):**

|        | -62.5° | -60°  | -57.5° | -55°  | -52.5° | -50°  | -47.5° | -45°  | -42.5° | -40°  | -37.5° |
|--------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| -22.5° | 351.4  | 384.6 | 418.9  | 452.9 | 486.4  | 520.7 | 554.6  | 587.9 | 620.5  | 652.0 | 683.6  |
| -25°   | 344.1  | 376.3 | 409.2  | 442.6 | 475.5  | 509.0 | 541.6  | 574.2 | 607.5  | 636.1 | 665.8  |
| -27.5° | 335.7  | 367.8 | 399.7  | 431.7 | 464.0  | 495.7 | 527.4  | 559.1 | 589.5  | 619.8 | 648.4  |
| -30°   | 327.2  | 358.6 | 389.4  | 420.1 | 451.2  | 481.3 | 512.9  | 542.6 | 572.3  | 601.7 | 629.2  |
| -32.5° | 318.3  | 348.6 | 377.3  | 407.0 | 436.7  | 467.1 | 496.3  | 525.3 | 553.8  | 581.3 | 609.0  |
| -35°   | 308.3  | 336.9 | 366.1  | 395.3 | 422.8  | 451.3 | 479.0  | 507.3 | 534.1  | 560.7 | 586.2  |
| -37.5° | 298.2  | 325.5 | 353.9  | 380.0 | 407.1  | 434.3 | 461.6  | 487.6 | 514.0  | 539.0 | 563.4  |
| -40°   | 287.8  | 313.4 | 339.9  | 366.1 | 392.1  | 417.1 | 442.7  | 467.9 | 492.5  | 516.6 | 539.7  |
| -42.5° | 277.0  | 300.9 | 325.8  | 351.3 | 374.6  | 399.7 | 423.3  | 447.4 | 470.4  | 493.3 | 515.1  |
| -45°   | 265.7  | 288.4 | 311.2  | 334.4 | 358.2  | 380.1 | 403.5  | 425.7 | 448.1  | 469.1 | 489.9  |
| -47.5° | 253.1  | 275.4 | 296.5  | 318.3 | 340.1  | 361.7 | 382.3  | 404.0 | 424.3  | 444.9 | 464.0  |
| -50°   | 240.5  | 261.7 | 281.8  | 301.6 | 321.9  | 342.1 | 361.7  | 380.7 | 400.7  | 419.3 | 437.7  |
| -52.5° | 228.0  | 247.0 | 266.7  | 285.0 | 303.4  | 322.1 | 340.5  | 358.4 | 375.5  | 393.3 | 410.3  |
| -55°   | 215.5  | 232.6 | 250.3  | 268.2 | 285.2  | 302.0 | 318.8  | 335.4 | 351.7  | 366.6 | 381.5  |
| -57.5° | 202.6  | 218.5 | 234.3  | 250.4 | 266.7  | 282.0 | 297.3  | 312.3 | 326.9  | 341.3 | 354.3  |
| -60°   | 189.2  | 204.1 | 218.6  | 233.0 | 247.4  | 261.8 | 275.7  | 289.3 | 302.6  | 315.2 | 326.9  |
| -62.5° | 176.1  | 189.3 | 202.7  | 215.8 | 228.6  | 241.4 | 253.9  | 266.2 | 278.0  | 289.3 | 300.0  |
| -65°   | 162.9  | 174.8 | 186.5  | 198.4 | 210.0  | 221.3 | 232.4  | 243.3 | 253.8  | 263.4 | 272.8  |
| -67.5° | 150.3  | 160.3 | 170.8  | 181.0 | 191.2  | 201.3 | 211.2  | 220.6 | 229.9  | 238.4 | 246.4  |
| -70°   | 137.8  | 146.6 | 155.3  | 164.1 | 173.0  | 181.5 | 190.0  | 198.3 | 206.2  | 213.4 | 220.2  |
| -72.5° | 125.6  | 133.0 | 140.4  | 147.7 | 155.0  | 162.3 | 169.6  | 176.6 | 182.9  | 188.8 | 194.4  |
| -75°   | 113.7  | 119.8 | 125.8  | 131.9 | 137.9  | 143.8 | 149.5  | 155.3 | 160.5  | 165.3 | 169.8  |
| -77.5° | 102.5  | 107.2 | 111.9  | 116.6 | 121.3  | 125.9 | 130.6  | 135.1 | 139.1  | 142.7 | 146.0  |
| -80°   | 91.7   | 95.3  | 98.8   | 102.4 | 105.9  | 109.3 | 112.6  | 115.8 | 118.6  | 121.3 | 123.7  |
| -82.5° | 81.3   | 83.7  | 86.2   | 88.7  | 91.2   | 93.6  | 95.9   | 98.3  | 100.1  | 101.8 | 103.4  |
| -85°   | 71.5   | 73.1  | 74.6   | 76.1  | 77.5   | 78.9  | 80.3   | 81.7  | 82.6   | 83.5  | 84.3   |
| -87.5° | 62.4   | 63.1  | 63.8   | 64.5  | 65.1   | 65.8  | 66.4   | 67.0  | 67.2   | 67.3  | 67.5   |
| -90°   | 53.4   | 53.2  | 53.0   | 52.7  | 52.5   | 52.3  | 52.1   | 51.9  | 51.7   | 51.5  | 51.2   |

REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)

CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

**CANDELA DISTRIBUTION (continued):**

|        | -35°  | -32.5° | -30°  | -27.5° | -25°  | -22.5° | -20°  | -17.5° | -15°   | -12.5° | -10°   |
|--------|-------|--------|-------|--------|-------|--------|-------|--------|--------|--------|--------|
| 90°    | 52.4  | 52.0   | 51.7  | 51.4   | 51.0  | 50.7   | 50.3  | 50.0   | 49.6   | 49.3   | 48.9   |
| 87.5°  | 66.1  | 66.4   | 66.6  | 66.8   | 67.0  | 67.1   | 66.9  | 66.7   | 66.5   | 66.3   | 66.0   |
| 85°    | 83.2  | 84.1   | 84.9  | 85.6   | 86.2  | 86.8   | 87.0  | 87.1   | 87.1   | 87.1   | 86.9   |
| 82.5°  | 102.3 | 103.9  | 105.4 | 106.8  | 108.0 | 109.1  | 109.8 | 110.3  | 110.7  | 110.9  | 111.0  |
| 80°    | 123.2 | 125.6  | 127.8 | 129.8  | 131.7 | 133.4  | 134.6 | 135.6  | 136.4  | 137.0  | 137.4  |
| 77.5°  | 145.5 | 148.8  | 151.8 | 154.7  | 157.5 | 160.0  | 162.0 | 163.6  | 164.9  | 165.8  | 166.5  |
| 75°    | 169.5 | 173.8  | 177.8 | 181.6  | 185.0 | 188.2  | 190.7 | 192.8  | 194.6  | 196.0  | 197.1  |
| 72.5°  | 194.5 | 199.9  | 205.0 | 209.5  | 213.7 | 217.4  | 220.6 | 223.3  | 225.6  | 227.6  | 229.2  |
| 70°    | 220.7 | 226.9  | 232.6 | 238.1  | 243.1 | 247.7  | 251.8 | 255.4  | 258.4  | 260.9  | 262.8  |
| 67.5°  | 247.3 | 254.6  | 261.5 | 268.0  | 273.9 | 279.2  | 284.0 | 288.1  | 291.6  | 294.6  | 296.9  |
| 65°    | 274.5 | 282.9  | 290.7 | 298.0  | 304.8 | 311.1  | 316.6 | 321.3  | 325.4  | 328.8  | 331.6  |
| 62.5°  | 301.9 | 311.3  | 320.3 | 328.6  | 336.3 | 343.5  | 350.1 | 355.8  | 360.4  | 364.3  | 367.4  |
| 60°    | 329.6 | 340.2  | 350.5 | 360.0  | 368.6 | 376.6  | 383.7 | 390.3  | 395.9  | 400.5  | 404.2  |
| 57.5°  | 357.7 | 369.6  | 380.8 | 391.5  | 401.6 | 411.0  | 419.5 | 426.7  | 432.3  | 437.0  | 440.8  |
| 55°    | 385.8 | 399.2  | 411.9 | 423.8  | 434.7 | 444.4  | 453.2 | 460.9  | 467.4  | 473.0  | 477.5  |
| 52.5°  | 414.1 | 428.8  | 442.1 | 454.8  | 466.6 | 477.6  | 487.7 | 496.3  | 503.0  | 509.3  | 514.3  |
| 50°    | 441.8 | 457.4  | 472.1 | 486.1  | 499.0 | 511.1  | 522.2 | 531.3  | 539.5  | 546.6  | 552.0  |
| 47.5°  | 469.2 | 486.0  | 502.0 | 517.3  | 531.2 | 544.5  | 556.6 | 567.0  | 574.8  | 581.9  | 588.1  |
| 45°    | 496.1 | 514.3  | 531.7 | 548.2  | 563.6 | 576.7  | 589.1 | 600.6  | 610.4  | 618.4  | 624.9  |
| 42.5°  | 522.8 | 542.4  | 561.1 | 578.2  | 594.3 | 609.4  | 623.1 | 635.2  | 645.7  | 654.1  | 660.7  |
| 40°    | 549.2 | 569.9  | 589.6 | 608.1  | 625.5 | 641.3  | 655.9 | 668.5  | 679.5  | 688.6  | 696.0  |
| 37.5°  | 574.8 | 596.8  | 617.5 | 637.1  | 655.6 | 672.3  | 687.4 | 701.0  | 713.9  | 722.6  | 730.2  |
| 35°    | 599.6 | 622.6  | 644.3 | 665.3  | 684.7 | 702.4  | 718.7 | 732.7  | 745.9  | 756.6  | 763.8  |
| 32.5°  | 623.3 | 647.4  | 670.6 | 692.5  | 712.6 | 731.2  | 748.6 | 763.5  | 776.2  | 787.7  | 796.7  |
| 30°    | 645.7 | 671.3  | 695.7 | 718.0  | 739.4 | 759.5  | 776.9 | 793.1  | 807.5  | 820.1  | 828.4  |
| 27.5°  | 667.2 | 694.0  | 718.9 | 742.7  | 765.3 | 785.9  | 804.5 | 821.6  | 834.9  | 846.5  | 856.5  |
| 25°    | 687.5 | 714.9  | 741.2 | 766.2  | 789.5 | 810.5  | 829.8 | 846.5  | 861.6  | 874.7  | 883.9  |
| 22.5°  | 706.0 | 734.7  | 762.1 | 787.8  | 811.5 | 833.2  | 853.3 | 871.2  | 886.1  | 899.7  | 910.8  |
| 20°    | 723.2 | 752.8  | 780.8 | 807.3  | 831.7 | 854.5  | 875.1 | 893.0  | 909.3  | 922.9  | 933.3  |
| 17.5°  | 738.7 | 769.0  | 797.8 | 824.9  | 850.2 | 873.5  | 894.4 | 913.1  | 929.5  | 943.3  | 954.0  |
| 15°    | 752.4 | 783.3  | 812.9 | 840.5  | 866.5 | 890.4  | 911.9 | 930.8  | 947.7  | 961.8  | 972.9  |
| 12.5°  | 764.3 | 795.3  | 825.7 | 854.2  | 880.8 | 904.9  | 926.7 | 946.4  | 963.5  | 978.1  | 990.0  |
| 10°    | 774.1 | 805.5  | 836.5 | 865.2  | 892.6 | 917.1  | 939.4 | 959.5  | 976.9  | 991.7  | 1003.0 |
| 7.5°   | 781.5 | 813.6  | 845.0 | 873.8  | 901.5 | 927.0  | 949.4 | 970.1  | 987.3  | 1001.8 | 1013.7 |
| 5°     | 786.4 | 819.6  | 851.3 | 880.1  | 908.3 | 934.8  | 957.0 | 977.3  | 994.9  | 1009.7 | 1021.8 |
| 2.5°   | 789.3 | 823.6  | 855.4 | 884.4  | 912.9 | 938.5  | 962.5 | 982.6  | 998.8  | 1013.9 | 1025.8 |
| 0°     | 790.3 | 825.3  | 857.2 | 886.1  | 915.0 | 939.9  | 965.3 | 985.3  | 1000.2 | 1015.5 | 1026.0 |
| -2.5°  | 789.9 | 824.2  | 856.0 | 885.1  | 913.6 | 938.8  | 963.0 | 983.0  | 999.3  | 1013.9 | 1025.7 |
| -5°    | 787.7 | 820.7  | 852.2 | 881.7  | 909.6 | 935.2  | 958.2 | 978.7  | 997.1  | 1009.7 | 1022.1 |
| -7.5°  | 783.5 | 815.3  | 845.4 | 875.5  | 903.5 | 928.8  | 951.3 | 972.0  | 989.0  | 1003.5 | 1015.1 |
| -10°   | 776.7 | 808.5  | 838.1 | 866.2  | 894.6 | 920.1  | 941.7 | 961.7  | 979.5  | 995.0  | 1006.8 |
| -12.5° | 767.0 | 798.9  | 829.3 | 857.6  | 884.9 | 908.7  | 930.5 | 951.2  | 966.7  | 982.5  | 993.0  |
| -15°   | 756.1 | 787.4  | 816.8 | 842.7  | 869.9 | 895.1  | 917.2 | 936.9  | 954.5  | 965.2  | 975.8  |
| -17.5° | 743.4 | 773.9  | 803.7 | 830.8  | 855.2 | 880.1  | 900.7 | 919.9  | 936.5  | 948.9  | 957.8  |
| -20°   | 729.0 | 758.5  | 787.7 | 814.4  | 838.8 | 860.8  | 883.4 | 900.1  | 915.2  | 927.0  | 938.7  |

REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)

CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

**CANDELA DISTRIBUTION (continued):**

|        | -35°  | -32.5° | -30°  | -27.5° | -25°  | -22.5° | -20°  | -17.5° | -15°  | -12.5° | -10°  |
|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
| -22.5° | 713.4 | 741.8  | 768.9 | 796.4  | 820.5 | 842.5  | 860.9 | 879.1  | 892.9 | 904.5  | 913.4 |
| -25°   | 696.1 | 723.5  | 749.9 | 775.2  | 799.9 | 821.3  | 839.0 | 854.8  | 869.3 | 880.5  | 889.2 |
| -27.5° | 675.8 | 703.8  | 729.0 | 753.0  | 776.0 | 797.0  | 814.0 | 829.2  | 844.2 | 855.6  | 863.9 |
| -30°   | 655.9 | 680.7  | 707.0 | 729.9  | 750.5 | 769.1  | 787.4 | 802.2  | 814.9 | 825.5  | 835.2 |
| -32.5° | 634.6 | 658.8  | 680.9 | 704.9  | 724.2 | 742.3  | 757.9 | 772.8  | 785.4 | 795.7  | 804.3 |
| -35°   | 611.4 | 635.6  | 657.6 | 676.1  | 695.8 | 713.4  | 728.8 | 742.9  | 754.1 | 764.0  | 772.5 |
| -37.5° | 586.7 | 609.3  | 631.3 | 650.0  | 666.2 | 682.4  | 697.0 | 710.6  | 721.9 | 732.1  | 739.2 |
| -40°   | 561.8 | 582.9  | 602.1 | 621.0  | 637.7 | 652.5  | 665.5 | 678.2  | 687.6 | 696.2  | 703.9 |
| -42.5° | 536.4 | 555.3  | 573.4 | 590.3  | 606.1 | 621.1  | 633.7 | 644.9  | 654.5 | 662.7  | 669.2 |
| -45°   | 509.8 | 527.4  | 543.9 | 559.5  | 574.5 | 587.9  | 600.2 | 611.1  | 620.3 | 627.5  | 633.3 |
| -47.5° | 481.8 | 498.8  | 514.1 | 528.6  | 541.9 | 554.3  | 565.8 | 576.3  | 584.6 | 591.5  | 597.0 |
| -50°   | 454.1 | 469.0  | 483.7 | 497.4  | 509.8 | 521.0  | 531.0 | 540.0  | 547.9 | 554.3  | 559.6 |
| -52.5° | 424.9 | 439.8  | 453.2 | 465.3  | 476.8 | 487.3  | 496.8 | 505.1  | 512.1 | 517.6  | 522.0 |
| -55°   | 396.1 | 409.5  | 421.6 | 433.3  | 444.0 | 453.6  | 462.1 | 469.5  | 475.8 | 481.0  | 485.2 |
| -57.5° | 366.7 | 378.6  | 390.3 | 401.0  | 410.4 | 419.1  | 427.1 | 434.0  | 439.8 | 444.5  | 448.1 |
| -60°   | 338.3 | 349.2  | 359.4 | 368.7  | 377.0 | 385.3  | 392.7 | 398.3  | 403.2 | 407.5  | 411.0 |
| -62.5° | 310.0 | 319.3  | 328.3 | 336.7  | 344.7 | 352.1  | 358.7 | 363.7  | 367.5 | 370.6  | 373.1 |
| -65°   | 281.8 | 290.2  | 298.2 | 305.7  | 312.2 | 318.1  | 323.5 | 327.9  | 331.7 | 334.8  | 337.2 |
| -67.5° | 253.9 | 261.0  | 267.8 | 274.4  | 280.4 | 285.8  | 290.4 | 294.3  | 297.4 | 300.0  | 301.8 |
| -70°   | 226.8 | 233.1  | 239.0 | 244.3  | 249.2 | 253.5  | 257.0 | 260.0  | 262.8 | 265.1  | 266.7 |
| -72.5° | 199.9 | 205.2  | 210.1 | 214.6  | 218.6 | 222.4  | 225.6 | 228.2  | 230.3 | 232.0  | 233.1 |
| -75°   | 174.0 | 178.0  | 181.8 | 185.2  | 188.4 | 191.2  | 193.7 | 196.0  | 197.8 | 199.2  | 200.2 |
| -77.5° | 149.2 | 152.3  | 155.2 | 157.8  | 160.2 | 162.2  | 164.0 | 165.5  | 166.8 | 167.8  | 168.6 |
| -80°   | 126.1 | 128.4  | 130.5 | 132.4  | 134.1 | 135.5  | 136.6 | 137.6  | 138.4 | 139.0  | 139.4 |
| -82.5° | 104.8 | 106.1  | 107.4 | 108.5  | 109.4 | 110.3  | 111.0 | 111.6  | 112.0 | 112.3  | 112.5 |
| -85°   | 85.0  | 85.8   | 86.4  | 86.9   | 87.4  | 87.7   | 88.0  | 88.2   | 88.3  | 88.3   | 88.2  |
| -87.5° | 67.6  | 67.7   | 67.7  | 67.8   | 67.8  | 67.7   | 67.6  | 67.5   | 67.4  | 67.2   | 67.0  |
| -90°   | 51.0  | 50.8   | 50.6  | 50.3   | 50.1  | 49.9   | 49.5  | 49.1   | 48.7  | 48.3   | 47.9  |

REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)

CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

**CANDELA DISTRIBUTION (continued):**

|        | -7.5°  | -5°    | -2.5°  | 0°     | 2.5°   | 5°     | 7.5°   | 10°    | 12.5° | 15°   | 17.5° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| 90°    | 48.6   | 48.2   | 47.9   | 47.5   | 47.0   | 46.6   | 46.1   | 45.7   | 45.2  | 44.8  | 44.3  |
| 87.5°  | 65.6   | 65.3   | 64.8   | 64.4   | 64.0   | 63.6   | 63.2   | 62.7   | 62.2  | 61.6  | 61.0  |
| 85°    | 86.7   | 86.4   | 86.0   | 85.5   | 85.0   | 84.5   | 83.9   | 83.2   | 82.4  | 81.5  | 80.6  |
| 82.5°  | 111.0  | 110.8  | 110.4  | 110.0  | 109.4  | 108.7  | 107.8  | 106.9  | 105.7 | 104.4 | 103.0 |
| 80°    | 137.6  | 137.5  | 137.3  | 136.8  | 136.2  | 135.3  | 134.2  | 132.9  | 131.4 | 129.7 | 127.8 |
| 77.5°  | 166.9  | 167.0  | 166.8  | 166.4  | 165.6  | 164.6  | 163.2  | 161.6  | 159.8 | 157.6 | 155.2 |
| 75°    | 197.9  | 198.2  | 198.2  | 197.8  | 196.9  | 195.6  | 194.0  | 192.0  | 189.6 | 186.9 | 183.9 |
| 72.5°  | 230.4  | 231.1  | 231.4  | 231.2  | 230.1  | 228.5  | 226.5  | 224.0  | 221.1 | 217.8 | 214.2 |
| 70°    | 264.2  | 265.1  | 265.3  | 265.1  | 263.9  | 262.2  | 259.9  | 257.2  | 254.0 | 250.2 | 246.0 |
| 67.5°  | 298.6  | 299.6  | 300.1  | 299.9  | 298.7  | 296.8  | 294.4  | 291.4  | 287.7 | 283.4 | 278.4 |
| 65°    | 333.5  | 334.8  | 335.4  | 335.2  | 333.9  | 332.0  | 329.3  | 325.8  | 321.7 | 316.9 | 311.3 |
| 62.5°  | 369.8  | 371.4  | 372.1  | 372.1  | 370.6  | 368.3  | 365.2  | 361.3  | 356.6 | 351.1 | 344.8 |
| 60°    | 407.0  | 408.7  | 409.5  | 409.3  | 407.8  | 405.3  | 401.9  | 397.4  | 392.0 | 385.8 | 379.1 |
| 57.5°  | 443.6  | 445.5  | 446.4  | 446.2  | 444.8  | 442.4  | 439.0  | 434.6  | 429.1 | 422.5 | 414.9 |
| 55°    | 480.8  | 483.0  | 484.0  | 483.8  | 482.2  | 479.5  | 475.6  | 470.6  | 464.4 | 457.4 | 449.7 |
| 52.5°  | 518.0  | 520.3  | 521.4  | 521.3  | 519.7  | 516.8  | 512.7  | 507.2  | 500.5 | 492.7 | 484.1 |
| 50°    | 555.9  | 558.4  | 559.6  | 559.4  | 557.7  | 554.6  | 550.3  | 544.7  | 537.7 | 529.2 | 519.4 |
| 47.5°  | 592.6  | 595.4  | 596.7  | 596.6  | 595.0  | 592.0  | 587.5  | 581.2  | 573.1 | 563.8 | 553.7 |
| 45°    | 629.8  | 633.0  | 634.7  | 634.7  | 632.8  | 629.3  | 624.4  | 618.1  | 609.8 | 599.6 | 588.4 |
| 42.5°  | 665.5  | 669.2  | 671.3  | 671.5  | 669.2  | 665.1  | 659.4  | 652.7  | 644.5 | 634.2 | 622.4 |
| 40°    | 701.9  | 705.7  | 707.5  | 707.3  | 705.4  | 701.7  | 696.0  | 688.4  | 678.6 | 667.0 | 654.3 |
| 37.5°  | 736.1  | 740.1  | 742.1  | 742.0  | 739.6  | 735.0  | 728.6  | 721.4  | 712.6 | 701.4 | 687.1 |
| 35°    | 769.9  | 774.1  | 776.2  | 776.2  | 773.8  | 769.4  | 763.0  | 754.7  | 745.0 | 731.0 | 717.7 |
| 32.5°  | 803.3  | 807.6  | 809.5  | 809.1  | 806.7  | 802.0  | 795.2  | 786.4  | 775.1 | 762.2 | 747.8 |
| 30°    | 834.6  | 839.4  | 842.2  | 842.7  | 839.6  | 834.1  | 826.5  | 817.2  | 806.0 | 792.1 | 776.5 |
| 27.5°  | 864.2  | 869.3  | 871.1  | 870.9  | 868.3  | 863.3  | 855.7  | 846.3  | 833.5 | 819.3 | 804.1 |
| 25°    | 892.4  | 897.4  | 900.0  | 900.1  | 897.3  | 891.9  | 883.9  | 873.4  | 860.7 | 846.4 | 829.0 |
| 22.5°  | 918.8  | 923.1  | 925.4  | 925.5  | 922.6  | 917.3  | 909.4  | 899.0  | 886.1 | 870.2 | 853.1 |
| 20°    | 941.5  | 946.8  | 950.3  | 951.4  | 948.2  | 941.8  | 933.1  | 922.3  | 908.7 | 892.7 | 874.4 |
| 17.5°  | 963.8  | 968.3  | 971.5  | 971.9  | 968.7  | 962.7  | 954.1  | 943.9  | 929.5 | 913.4 | 893.4 |
| 15°    | 981.3  | 987.4  | 989.1  | 989.2  | 986.2  | 980.6  | 971.8  | 961.0  | 947.0 | 930.9 | 911.5 |
| 12.5°  | 997.5  | 1003.3 | 1006.5 | 1007.0 | 1003.4 | 997.8  | 988.9  | 976.7  | 962.4 | 944.8 | 926.0 |
| 10°    | 1011.6 | 1016.1 | 1020.0 | 1020.8 | 1016.3 | 1011.6 | 1001.8 | 990.2  | 975.4 | 958.5 | 936.7 |
| 7.5°   | 1022.5 | 1028.7 | 1031.2 | 1031.4 | 1026.8 | 1022.1 | 1013.0 | 1000.7 | 986.0 | 967.5 | 945.7 |
| 5°     | 1030.7 | 1036.3 | 1039.8 | 1039.0 | 1033.7 | 1030.5 | 1020.8 | 1008.7 | 992.9 | 975.4 | 954.9 |
| 2.5°   | 1035.3 | 1040.9 | 1043.5 | 1042.1 | 1040.0 | 1033.1 | 1024.3 | 1012.6 | 998.4 | 979.7 | 959.2 |
| 0°     | 1037.1 | 1043.4 | 1046.4 | 1044.8 | 1042.6 | 1037.3 | 1027.7 | 1012.9 | 999.9 | 980.7 | 960.6 |
| -2.5°  | 1035.5 | 1042.1 | 1045.1 | 1042.4 | 1039.6 | 1033.2 | 1024.3 | 1011.4 | 997.7 | 978.8 | 958.7 |
| -5°    | 1031.4 | 1036.9 | 1039.2 | 1039.2 | 1034.0 | 1028.5 | 1019.1 | 1006.9 | 991.8 | 974.0 | 954.0 |
| -7.5°  | 1024.0 | 1028.5 | 1028.4 | 1031.2 | 1028.5 | 1020.0 | 1011.9 | 999.8  | 984.7 | 966.8 | 946.6 |
| -10°   | 1013.5 | 1019.2 | 1021.2 | 1021.5 | 1017.5 | 1011.3 | 1001.8 | 990.0  | 975.1 | 957.5 | 937.6 |
| -12.5° | 1000.3 | 1005.5 | 1008.4 | 1007.8 | 1004.2 | 998.0  | 989.7  | 977.1  | 962.6 | 945.3 | 925.8 |
| -15°   | 985.0  | 990.2  | 993.0  | 993.7  | 989.8  | 982.3  | 972.8  | 961.8  | 947.6 | 930.7 | 911.4 |
| -17.5° | 963.5  | 970.0  | 973.5  | 973.9  | 970.2  | 964.1  | 955.0  | 945.7  | 930.2 | 913.5 | 894.3 |
| -20°   | 944.5  | 949.9  | 952.5  | 952.0  | 950.0  | 944.7  | 935.4  | 924.2  | 909.6 | 893.2 | 875.2 |

REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)

CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

**CANDELA DISTRIBUTION (continued):**

|        | -7.5° | -5°   | -2.5° | 0°    | 2.5°  | 5°    | 7.5°  | 10°   | 12.5° | 15°   | 17.5° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -22.5° | 920.6 | 926.4 | 930.3 | 930.8 | 927.0 | 920.3 | 911.1 | 899.5 | 886.4 | 871.1 | 854.3 |
| -25°   | 896.4 | 901.7 | 905.1 | 905.9 | 901.5 | 894.4 | 885.2 | 873.8 | 862.6 | 848.4 | 830.5 |
| -27.5° | 870.3 | 874.7 | 877.5 | 877.9 | 873.9 | 867.7 | 859.9 | 849.8 | 836.1 | 821.8 | 805.9 |
| -30°   | 842.0 | 846.3 | 848.3 | 848.0 | 844.3 | 838.2 | 830.1 | 820.7 | 809.0 | 793.9 | 777.5 |
| -32.5° | 810.1 | 814.2 | 816.5 | 816.5 | 813.2 | 807.4 | 799.3 | 788.5 | 777.1 | 764.5 | 749.5 |
| -35°   | 778.5 | 782.4 | 784.5 | 784.5 | 781.0 | 775.4 | 767.6 | 758.0 | 747.3 | 733.9 | 719.8 |
| -37.5° | 744.3 | 747.9 | 749.8 | 749.6 | 746.4 | 741.1 | 733.8 | 725.2 | 714.5 | 701.1 | 688.3 |
| -40°   | 709.2 | 712.7 | 714.3 | 714.0 | 710.8 | 705.9 | 699.2 | 691.0 | 681.2 | 670.0 | 657.1 |
| -42.5° | 673.5 | 676.1 | 677.3 | 676.8 | 674.3 | 670.1 | 664.2 | 656.3 | 646.1 | 635.0 | 623.5 |
| -45°   | 637.5 | 640.1 | 641.1 | 640.6 | 638.0 | 633.9 | 628.3 | 621.3 | 612.2 | 601.2 | 589.8 |
| -47.5° | 601.0 | 603.7 | 604.9 | 604.6 | 601.8 | 597.6 | 592.0 | 585.1 | 576.8 | 567.2 | 556.4 |
| -50°   | 563.6 | 566.1 | 567.3 | 566.9 | 564.4 | 560.5 | 555.3 | 548.6 | 540.9 | 532.5 | 522.6 |
| -52.5° | 525.4 | 527.7 | 528.7 | 528.4 | 526.2 | 522.7 | 517.9 | 511.9 | 504.8 | 496.6 | 486.7 |
| -55°   | 488.2 | 490.1 | 490.9 | 490.5 | 488.3 | 484.9 | 480.4 | 474.8 | 468.2 | 460.5 | 451.7 |
| -57.5° | 450.8 | 452.5 | 453.2 | 452.8 | 450.6 | 447.4 | 443.1 | 437.9 | 431.9 | 425.0 | 417.1 |
| -60°   | 413.6 | 415.2 | 415.9 | 415.6 | 413.6 | 410.6 | 406.6 | 401.8 | 396.2 | 389.8 | 382.7 |
| -62.5° | 375.0 | 376.1 | 376.3 | 375.7 | 374.1 | 371.7 | 368.4 | 364.2 | 359.4 | 353.9 | 347.7 |
| -65°   | 338.8 | 339.7 | 339.7 | 339.0 | 337.5 | 335.3 | 332.4 | 328.7 | 324.3 | 319.2 | 313.4 |
| -67.5° | 303.0 | 303.6 | 303.6 | 303.0 | 301.6 | 299.5 | 296.9 | 293.7 | 289.8 | 285.3 | 280.2 |
| -70°   | 267.7 | 268.2 | 268.1 | 267.4 | 266.1 | 264.2 | 261.9 | 259.0 | 255.6 | 251.7 | 247.4 |
| -72.5° | 233.8 | 234.1 | 233.8 | 233.2 | 232.0 | 230.4 | 228.3 | 225.8 | 222.8 | 219.4 | 215.5 |
| -75°   | 200.8 | 201.0 | 200.7 | 200.1 | 198.9 | 197.3 | 195.4 | 193.1 | 190.5 | 187.5 | 184.1 |
| -77.5° | 169.0 | 169.1 | 168.9 | 168.4 | 167.4 | 166.0 | 164.4 | 162.5 | 160.3 | 157.8 | 155.1 |
| -80°   | 139.6 | 139.6 | 139.3 | 138.9 | 138.0 | 136.8 | 135.4 | 133.9 | 132.1 | 130.1 | 128.0 |
| -82.5° | 112.5 | 112.3 | 112.0 | 111.6 | 110.8 | 109.8 | 108.7 | 107.5 | 106.1 | 104.6 | 102.9 |
| -85°   | 88.1  | 87.8  | 87.5  | 87.1  | 86.4  | 85.6  | 84.7  | 83.8  | 82.8  | 81.7  | 80.5  |
| -87.5° | 66.7  | 66.5  | 66.1  | 65.8  | 65.2  | 64.6  | 63.9  | 63.3  | 62.5  | 61.8  | 61.0  |
| -90°   | 47.5  | 47.1  | 46.7  | 46.3  | 46.0  | 45.7  | 45.4  | 45.1  | 44.9  | 44.6  | 44.3  |

REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)  
CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

**CANDELA DISTRIBUTION (continued):**

|        | 20°   | 22.5° | 25°   | 27.5° | 30°   | 32.5° | 35°   | 37.5° | 40°   | 42.5° | 45°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 90°    | 43.9  | 43.4  | 43.2  | 42.9  | 42.7  | 42.4  | 42.2  | 41.9  | 41.7  | 41.4  | 41.2  |
| 87.5°  | 60.4  | 59.7  | 59.0  | 58.3  | 57.6  | 56.8  | 56.0  | 55.2  | 54.4  | 53.6  | 52.7  |
| 85°    | 79.6  | 78.5  | 77.3  | 76.1  | 74.8  | 73.5  | 72.1  | 70.7  | 69.2  | 67.6  | 66.0  |
| 82.5°  | 101.5 | 99.8  | 98.1  | 96.2  | 94.2  | 92.1  | 89.9  | 87.7  | 85.4  | 83.1  | 80.8  |
| 80°    | 125.7 | 123.4 | 120.9 | 118.4 | 115.7 | 112.9 | 109.9 | 106.8 | 103.5 | 100.2 | 96.7  |
| 77.5°  | 152.6 | 149.6 | 146.4 | 142.9 | 139.3 | 135.4 | 131.4 | 127.3 | 123.1 | 118.7 | 114.3 |
| 75°    | 180.6 | 177.0 | 173.0 | 168.7 | 164.1 | 159.5 | 154.7 | 149.5 | 144.0 | 138.3 | 132.8 |
| 72.5°  | 210.3 | 206.0 | 201.3 | 196.1 | 190.6 | 184.8 | 178.8 | 172.5 | 165.9 | 159.1 | 152.7 |
| 70°    | 241.3 | 236.1 | 230.7 | 224.7 | 218.2 | 211.5 | 204.5 | 197.0 | 189.0 | 180.9 | 173.0 |
| 67.5°  | 272.7 | 266.7 | 260.3 | 253.6 | 246.5 | 238.8 | 230.9 | 222.4 | 213.4 | 204.1 | 194.6 |
| 65°    | 305.0 | 298.2 | 291.3 | 283.8 | 275.2 | 266.1 | 257.2 | 247.7 | 237.5 | 227.4 | 216.9 |
| 62.5°  | 337.9 | 330.7 | 322.8 | 313.9 | 304.4 | 294.4 | 284.4 | 273.2 | 261.7 | 250.7 | 238.6 |
| 60°    | 371.7 | 363.3 | 354.3 | 344.7 | 334.5 | 323.7 | 311.6 | 299.2 | 286.8 | 273.9 | 260.5 |
| 57.5°  | 406.2 | 396.6 | 386.3 | 375.7 | 364.2 | 352.1 | 339.6 | 326.5 | 311.9 | 297.4 | 283.1 |
| 55°    | 440.8 | 431.1 | 419.6 | 407.3 | 394.4 | 381.2 | 366.9 | 352.3 | 337.6 | 321.9 | 305.0 |
| 52.5°  | 474.2 | 463.0 | 451.2 | 438.6 | 425.2 | 409.8 | 394.6 | 379.1 | 362.0 | 345.3 | 328.0 |
| 50°    | 508.3 | 496.2 | 483.1 | 469.3 | 454.4 | 438.3 | 422.4 | 404.3 | 387.1 | 368.5 | 349.7 |
| 47.5°  | 542.3 | 529.6 | 515.4 | 499.7 | 483.6 | 466.9 | 448.9 | 430.6 | 411.2 | 391.4 | 371.5 |
| 45°    | 575.4 | 561.3 | 546.1 | 530.4 | 513.2 | 494.2 | 475.4 | 456.3 | 435.3 | 414.6 | 392.2 |
| 42.5°  | 609.4 | 593.5 | 577.2 | 559.9 | 540.9 | 522.2 | 501.3 | 480.7 | 459.4 | 436.5 | 414.0 |
| 40°    | 641.1 | 624.9 | 608.2 | 588.7 | 569.2 | 547.9 | 527.2 | 505.1 | 482.1 | 458.7 | 434.1 |
| 37.5°  | 671.6 | 654.6 | 637.6 | 617.4 | 596.2 | 574.1 | 551.8 | 528.5 | 504.4 | 479.5 | 454.2 |
| 35°    | 702.6 | 684.1 | 665.3 | 644.6 | 622.7 | 599.7 | 575.6 | 551.0 | 525.7 | 499.7 | 472.8 |
| 32.5°  | 730.1 | 712.8 | 692.5 | 670.5 | 647.5 | 623.9 | 598.8 | 572.9 | 546.1 | 518.6 | 491.0 |
| 30°    | 758.6 | 739.4 | 717.2 | 695.9 | 671.4 | 646.6 | 620.3 | 593.2 | 565.4 | 537.1 | 507.6 |
| 27.5°  | 785.5 | 764.7 | 742.8 | 718.4 | 694.9 | 667.7 | 641.0 | 612.4 | 583.4 | 553.4 | 523.5 |
| 25°    | 810.2 | 788.8 | 766.2 | 742.0 | 715.9 | 688.7 | 658.5 | 630.5 | 600.7 | 570.2 | 539.2 |
| 22.5°  | 833.3 | 811.2 | 787.6 | 762.4 | 735.8 | 708.6 | 678.4 | 647.1 | 615.4 | 584.0 | 551.5 |
| 20°    | 854.8 | 832.1 | 807.6 | 781.6 | 754.1 | 725.0 | 694.5 | 660.4 | 629.7 | 597.8 | 564.9 |
| 17.5°  | 872.9 | 851.3 | 825.2 | 798.6 | 770.1 | 740.5 | 710.1 | 677.3 | 643.6 | 609.5 | 576.3 |
| 15°    | 890.2 | 865.3 | 841.3 | 812.5 | 783.8 | 753.9 | 722.6 | 688.6 | 653.2 | 620.2 | 585.5 |
| 12.5°  | 903.4 | 880.3 | 855.4 | 825.8 | 796.4 | 765.3 | 733.1 | 699.8 | 663.9 | 629.5 | 593.9 |
| 10°    | 915.2 | 891.7 | 863.8 | 837.1 | 806.4 | 775.5 | 742.5 | 708.4 | 673.9 | 637.4 | 600.7 |
| 7.5°   | 924.7 | 899.7 | 873.9 | 846.1 | 814.5 | 782.7 | 749.3 | 715.1 | 679.9 | 643.6 | 606.4 |
| 5°     | 931.6 | 905.6 | 881.1 | 852.0 | 820.5 | 787.9 | 754.0 | 719.7 | 684.2 | 647.5 | 610.6 |
| 2.5°   | 935.8 | 909.4 | 885.1 | 854.9 | 824.0 | 791.0 | 756.7 | 722.4 | 686.7 | 649.9 | 613.2 |
| 0°     | 937.6 | 910.4 | 886.2 | 855.8 | 825.1 | 791.9 | 757.4 | 723.1 | 687.5 | 650.8 | 614.1 |
| -2.5°  | 936.1 | 909.4 | 884.5 | 854.4 | 823.7 | 790.8 | 756.4 | 722.0 | 686.6 | 650.0 | 613.2 |
| -5°    | 931.9 | 905.6 | 880.2 | 850.4 | 820.0 | 787.5 | 753.4 | 719.0 | 683.8 | 647.5 | 610.5 |
| -7.5°  | 924.4 | 899.4 | 873.5 | 844.0 | 814.0 | 782.1 | 748.2 | 713.9 | 679.3 | 643.3 | 606.2 |
| -10°   | 914.9 | 889.9 | 863.9 | 835.3 | 805.5 | 774.4 | 741.0 | 706.9 | 672.8 | 637.1 | 600.4 |
| -12.5° | 903.5 | 879.2 | 852.7 | 824.0 | 794.9 | 763.9 | 731.9 | 698.2 | 664.2 | 629.3 | 593.4 |
| -15°   | 889.5 | 865.9 | 839.8 | 812.1 | 782.8 | 751.8 | 720.4 | 687.8 | 654.2 | 620.1 | 585.1 |
| -17.5° | 873.4 | 850.2 | 824.6 | 797.7 | 768.9 | 738.8 | 707.5 | 675.4 | 642.8 | 609.2 | 575.2 |
| -20°   | 855.1 | 832.1 | 807.4 | 781.2 | 753.1 | 724.0 | 693.3 | 661.8 | 629.4 | 597.0 | 563.6 |

REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)

CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

**CANDELA DISTRIBUTION (continued):**

|        | 20°   | 22.5° | 25°   | 27.5° | 30°   | 32.5° | 35°   | 37.5° | 40°   | 42.5° | 45°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -22.5° | 834.1 | 811.7 | 788.4 | 762.9 | 735.7 | 707.2 | 677.5 | 647.0 | 615.4 | 583.3 | 550.7 |
| -25°   | 811.3 | 790.2 | 767.2 | 742.3 | 716.3 | 688.8 | 660.2 | 630.4 | 600.2 | 568.7 | 537.1 |
| -27.5° | 786.4 | 766.6 | 744.0 | 720.5 | 695.4 | 668.9 | 641.2 | 612.8 | 583.2 | 553.0 | 522.4 |
| -30°   | 760.3 | 741.1 | 719.7 | 697.0 | 672.9 | 647.4 | 621.1 | 593.6 | 565.1 | 536.3 | 506.8 |
| -32.5° | 732.8 | 714.2 | 693.7 | 672.2 | 649.0 | 624.9 | 599.5 | 573.0 | 546.1 | 518.4 | 490.0 |
| -35°   | 703.3 | 685.7 | 667.0 | 645.9 | 624.1 | 600.9 | 576.7 | 551.7 | 525.9 | 499.4 | 472.3 |
| -37.5° | 673.8 | 657.0 | 637.9 | 618.8 | 597.9 | 575.9 | 553.1 | 529.3 | 504.8 | 479.6 | 453.7 |
| -40°   | 641.3 | 626.2 | 609.3 | 590.5 | 570.9 | 550.3 | 528.5 | 506.1 | 482.9 | 458.9 | 434.2 |
| -42.5° | 610.4 | 594.9 | 579.0 | 561.8 | 543.3 | 523.7 | 503.3 | 482.1 | 460.1 | 437.3 | 414.4 |
| -45°   | 577.5 | 563.7 | 548.7 | 532.2 | 515.1 | 496.6 | 477.4 | 457.4 | 436.6 | 415.6 | 393.2 |
| -47.5° | 544.5 | 531.7 | 517.8 | 502.2 | 485.9 | 468.6 | 450.7 | 432.1 | 413.1 | 392.2 | 371.2 |
| -50°   | 511.1 | 498.9 | 485.5 | 471.1 | 456.3 | 440.3 | 423.9 | 406.5 | 387.2 | 368.3 | 349.5 |
| -52.5° | 476.1 | 465.3 | 453.2 | 440.2 | 426.4 | 412.1 | 395.7 | 378.4 | 361.9 | 344.9 | 327.5 |
| -55°   | 442.1 | 431.7 | 421.1 | 409.2 | 396.0 | 381.8 | 367.4 | 352.3 | 337.0 | 321.3 | 305.2 |
| -57.5° | 408.3 | 398.9 | 388.6 | 377.6 | 365.6 | 352.8 | 339.8 | 326.1 | 311.8 | 297.6 | 283.0 |
| -60°   | 374.9 | 365.8 | 356.0 | 346.2 | 335.5 | 324.1 | 312.1 | 299.7 | 287.0 | 274.0 | 260.7 |
| -62.5° | 340.6 | 332.8 | 324.3 | 315.2 | 305.5 | 295.3 | 284.9 | 273.7 | 262.1 | 250.3 | 238.5 |
| -65°   | 306.8 | 299.8 | 292.7 | 285.0 | 276.3 | 267.1 | 257.5 | 247.8 | 237.6 | 227.0 | 216.4 |
| -67.5° | 274.4 | 268.1 | 261.5 | 254.4 | 247.2 | 239.4 | 230.9 | 222.2 | 213.2 | 204.0 | 194.6 |
| -70°   | 242.4 | 237.0 | 231.2 | 225.2 | 218.8 | 212.0 | 204.7 | 197.1 | 189.4 | 181.4 | 173.2 |
| -72.5° | 211.1 | 206.4 | 201.5 | 196.2 | 190.6 | 184.9 | 178.9 | 172.7 | 166.2 | 159.5 | 152.7 |
| -75°   | 180.4 | 176.6 | 172.7 | 168.5 | 164.1 | 159.4 | 154.5 | 149.4 | 144.0 | 138.4 | 132.9 |
| -77.5° | 152.2 | 149.0 | 145.8 | 142.4 | 138.9 | 135.2 | 131.3 | 127.2 | 123.1 | 118.7 | 114.3 |
| -80°   | 125.6 | 123.1 | 120.7 | 118.2 | 115.5 | 112.6 | 109.6 | 106.5 | 103.4 | 100.1 | 96.7  |
| -82.5° | 101.2 | 99.3  | 97.6  | 95.8  | 93.9  | 91.8  | 89.7  | 87.5  | 85.3  | 83.0  | 80.6  |
| -85°   | 79.3  | 78.0  | 76.9  | 75.7  | 74.5  | 73.2  | 71.8  | 70.4  | 68.9  | 67.4  | 65.9  |
| -87.5° | 60.2  | 59.4  | 58.7  | 58.0  | 57.3  | 56.6  | 55.9  | 55.1  | 54.3  | 53.5  | 52.7  |
| -90°   | 44.0  | 43.7  | 43.4  | 43.1  | 42.8  | 42.5  | 42.3  | 42.0  | 41.7  | 41.4  | 41.1  |

REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)  
CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

**CANDELA DISTRIBUTION (continued):**

|        | 47.5° | 50°   | 52.5° | 55°   | 57.5° | 60°   | 62.5° | 65°   | 67.5° | 70°   | 72.5° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 90°    | 41.0  | 40.8  | 40.6  | 40.4  | 40.1  | 39.9  | 39.7  | 39.5  | 39.3  | 39.3  | 39.4  |
| 87.5°  | 52.1  | 51.4  | 50.7  | 50.0  | 49.3  | 48.6  | 47.8  | 47.0  | 46.2  | 45.5  | 44.8  |
| 85°    | 64.6  | 63.1  | 61.6  | 60.1  | 58.7  | 57.2  | 55.7  | 54.2  | 52.7  | 51.2  | 49.8  |
| 82.5°  | 78.5  | 76.3  | 74.0  | 71.6  | 69.2  | 66.8  | 64.3  | 61.9  | 59.5  | 57.2  | 54.9  |
| 80°    | 93.5  | 90.3  | 86.9  | 83.7  | 80.3  | 76.9  | 73.6  | 70.2  | 66.8  | 63.5  | 60.2  |
| 77.5°  | 110.1 | 105.6 | 101.2 | 96.6  | 92.2  | 87.7  | 83.3  | 78.9  | 74.5  | 70.2  | 66.0  |
| 75°    | 127.4 | 121.9 | 116.3 | 110.7 | 104.9 | 99.2  | 93.5  | 87.9  | 82.4  | 77.1  | 71.9  |
| 72.5°  | 146.0 | 138.9 | 132.1 | 125.1 | 118.2 | 111.3 | 104.3 | 97.4  | 90.7  | 84.2  | 77.9  |
| 70°    | 165.0 | 156.9 | 148.8 | 140.4 | 132.0 | 123.6 | 115.5 | 107.4 | 99.4  | 91.6  | 84.0  |
| 67.5°  | 184.9 | 175.4 | 165.8 | 156.1 | 146.5 | 136.5 | 126.9 | 117.5 | 108.3 | 99.3  | 90.5  |
| 65°    | 205.9 | 194.7 | 183.4 | 172.2 | 161.0 | 150.0 | 138.8 | 127.8 | 117.4 | 107.0 | 97.0  |
| 62.5°  | 226.8 | 214.3 | 201.6 | 188.8 | 176.1 | 163.4 | 151.0 | 138.5 | 126.4 | 114.9 | 103.6 |
| 60°    | 247.4 | 233.6 | 219.8 | 205.6 | 191.3 | 177.2 | 163.1 | 149.4 | 135.8 | 122.8 | 110.3 |
| 57.5°  | 267.9 | 253.0 | 237.6 | 222.3 | 206.6 | 191.0 | 175.4 | 160.1 | 145.3 | 130.8 | 117.0 |
| 55°    | 288.9 | 272.3 | 255.5 | 238.6 | 221.8 | 204.7 | 187.8 | 170.9 | 154.7 | 138.9 | 123.5 |
| 52.5°  | 309.6 | 291.6 | 273.3 | 255.0 | 236.6 | 218.3 | 199.9 | 182.0 | 164.1 | 146.9 | 130.2 |
| 50°    | 330.6 | 310.6 | 291.0 | 271.1 | 251.3 | 231.5 | 211.9 | 192.5 | 173.4 | 154.8 | 136.8 |
| 47.5°  | 350.7 | 329.8 | 308.2 | 287.2 | 265.8 | 244.6 | 223.9 | 203.0 | 182.6 | 162.5 | 143.3 |
| 45°    | 370.6 | 348.2 | 325.5 | 302.4 | 280.0 | 257.6 | 235.4 | 213.4 | 191.4 | 170.1 | 149.6 |
| 42.5°  | 389.6 | 366.0 | 342.2 | 317.8 | 293.9 | 270.0 | 246.6 | 223.6 | 200.1 | 177.6 | 155.8 |
| 40°    | 409.2 | 383.4 | 358.1 | 332.7 | 306.9 | 282.3 | 257.7 | 233.2 | 208.6 | 184.8 | 161.8 |
| 37.5°  | 428.2 | 400.6 | 373.7 | 347.0 | 320.2 | 294.1 | 268.1 | 242.5 | 217.1 | 191.6 | 167.5 |
| 35°    | 445.5 | 418.2 | 388.0 | 360.5 | 333.0 | 305.2 | 278.0 | 251.4 | 225.0 | 198.3 | 173.0 |
| 32.5°  | 462.3 | 433.2 | 403.3 | 373.9 | 345.0 | 316.0 | 287.8 | 260.0 | 232.4 | 204.7 | 178.3 |
| 30°    | 478.3 | 448.1 | 418.2 | 385.9 | 356.2 | 326.5 | 296.8 | 267.9 | 239.3 | 210.9 | 183.3 |
| 27.5°  | 493.5 | 461.9 | 430.6 | 398.2 | 367.0 | 336.2 | 305.2 | 275.1 | 245.8 | 216.8 | 187.9 |
| 25°    | 506.7 | 475.0 | 442.5 | 409.9 | 377.1 | 344.9 | 313.2 | 282.1 | 252.0 | 222.2 | 192.1 |
| 22.5°  | 519.6 | 487.1 | 453.6 | 420.6 | 385.6 | 353.0 | 320.6 | 288.5 | 257.6 | 227.0 | 196.0 |
| 20°    | 531.7 | 498.0 | 463.6 | 429.2 | 393.9 | 360.5 | 327.5 | 294.3 | 262.7 | 231.3 | 199.7 |
| 17.5°  | 541.9 | 507.3 | 472.4 | 437.2 | 401.7 | 367.5 | 333.5 | 299.5 | 267.1 | 235.2 | 203.0 |
| 15°    | 550.2 | 515.9 | 480.1 | 444.4 | 408.5 | 373.6 | 338.4 | 304.1 | 270.8 | 238.5 | 205.8 |
| 12.5°  | 558.1 | 523.3 | 486.8 | 450.5 | 414.2 | 378.4 | 342.6 | 308.0 | 274.0 | 241.4 | 208.3 |
| 10°    | 565.4 | 529.1 | 492.3 | 455.6 | 418.9 | 382.1 | 346.1 | 311.2 | 276.7 | 243.7 | 210.4 |
| 7.5°   | 570.9 | 533.3 | 496.6 | 459.6 | 422.3 | 385.0 | 349.0 | 313.7 | 278.9 | 245.5 | 212.1 |
| 5°     | 574.2 | 536.1 | 499.7 | 462.4 | 424.7 | 387.1 | 351.0 | 315.5 | 280.4 | 246.9 | 213.3 |
| 2.5°   | 576.1 | 537.6 | 501.6 | 464.1 | 426.2 | 388.3 | 352.3 | 316.6 | 281.3 | 247.6 | 214.0 |
| 0°     | 576.6 | 537.9 | 502.2 | 464.6 | 426.6 | 388.7 | 352.7 | 317.0 | 281.6 | 247.9 | 214.2 |
| -2.5°  | 575.9 | 537.4 | 501.4 | 464.0 | 426.0 | 388.3 | 352.3 | 316.6 | 281.3 | 247.6 | 213.9 |
| -5°    | 573.8 | 535.7 | 499.4 | 462.1 | 424.5 | 387.2 | 351.0 | 315.6 | 280.3 | 246.8 | 213.2 |
| -7.5°  | 570.3 | 532.7 | 496.0 | 459.2 | 421.9 | 385.1 | 348.9 | 313.8 | 278.8 | 245.5 | 212.0 |
| -10°   | 564.7 | 528.4 | 491.5 | 455.1 | 418.3 | 382.2 | 346.0 | 311.2 | 276.7 | 243.6 | 210.3 |
| -12.5° | 557.7 | 522.7 | 485.9 | 449.9 | 413.7 | 378.5 | 342.6 | 308.0 | 274.0 | 241.2 | 208.1 |
| -15°   | 549.6 | 515.3 | 479.1 | 443.7 | 408.0 | 373.6 | 338.4 | 304.1 | 270.8 | 238.4 | 205.5 |
| -17.5° | 540.5 | 506.6 | 471.4 | 436.4 | 401.5 | 367.5 | 333.5 | 299.5 | 266.9 | 235.0 | 202.6 |
| -20°   | 530.2 | 496.4 | 462.5 | 428.2 | 394.0 | 360.6 | 327.5 | 294.2 | 262.6 | 231.1 | 199.2 |

REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)

CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

**CANDELA DISTRIBUTION (continued):**

|        | 47.5° | 50°   | 52.5° | 55°   | 57.5° | 60°   | 62.5° | 65°   | 67.5° | 70°   | 72.5° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -22.5° | 518.5 | 485.4 | 452.4 | 419.1 | 385.9 | 353.0 | 320.7 | 288.2 | 257.4 | 226.7 | 195.4 |
| -25°   | 505.5 | 473.4 | 441.3 | 409.0 | 377.2 | 344.8 | 313.3 | 281.9 | 251.7 | 221.8 | 191.3 |
| -27.5° | 491.2 | 460.4 | 429.2 | 398.1 | 367.2 | 336.1 | 305.3 | 275.0 | 245.6 | 216.3 | 187.1 |
| -30°   | 476.8 | 446.5 | 416.4 | 386.4 | 356.3 | 326.6 | 296.7 | 267.7 | 239.0 | 210.3 | 182.4 |
| -32.5° | 461.2 | 431.9 | 402.8 | 374.0 | 344.9 | 316.2 | 287.5 | 259.7 | 231.9 | 204.0 | 177.4 |
| -35°   | 444.7 | 416.8 | 388.7 | 360.6 | 333.0 | 305.3 | 277.9 | 251.1 | 224.4 | 197.3 | 172.1 |
| -37.5° | 427.3 | 400.8 | 373.8 | 346.8 | 320.4 | 293.9 | 267.9 | 242.0 | 216.4 | 190.4 | 166.5 |
| -40°   | 409.5 | 383.7 | 358.1 | 332.6 | 307.1 | 282.0 | 257.3 | 232.6 | 207.8 | 183.5 | 160.7 |
| -42.5° | 390.3 | 366.0 | 342.0 | 317.9 | 293.6 | 269.8 | 246.2 | 222.8 | 198.9 | 176.3 | 154.7 |
| -45°   | 370.4 | 348.0 | 325.4 | 302.5 | 279.7 | 257.1 | 234.7 | 212.4 | 189.8 | 168.8 | 148.5 |
| -47.5° | 350.5 | 329.6 | 308.3 | 286.9 | 265.5 | 244.0 | 222.9 | 201.6 | 180.9 | 161.2 | 142.2 |
| -50°   | 330.3 | 310.6 | 290.8 | 271.0 | 250.9 | 230.7 | 210.8 | 190.6 | 171.8 | 153.4 | 135.7 |
| -52.5° | 309.6 | 291.5 | 273.2 | 254.7 | 235.9 | 217.2 | 198.0 | 180.0 | 162.4 | 145.4 | 129.1 |
| -55°   | 288.9 | 272.2 | 255.3 | 238.1 | 220.8 | 203.3 | 185.7 | 169.1 | 153.1 | 137.5 | 122.4 |
| -57.5° | 268.0 | 252.7 | 237.2 | 221.4 | 205.5 | 189.2 | 173.5 | 158.2 | 143.7 | 129.5 | 115.7 |
| -60°   | 247.1 | 233.2 | 219.0 | 204.6 | 189.8 | 175.5 | 161.3 | 147.4 | 134.2 | 121.4 | 109.0 |
| -62.5° | 226.2 | 213.6 | 200.7 | 187.7 | 174.8 | 161.9 | 149.2 | 136.7 | 124.9 | 113.4 | 102.3 |
| -65°   | 205.4 | 194.1 | 182.8 | 171.3 | 159.8 | 148.5 | 137.2 | 126.1 | 115.7 | 105.6 | 95.7  |
| -67.5° | 184.9 | 175.1 | 165.2 | 155.2 | 145.2 | 135.2 | 125.4 | 115.8 | 106.6 | 97.8  | 89.2  |
| -70°   | 165.0 | 156.5 | 148.0 | 139.5 | 130.9 | 122.4 | 113.9 | 105.6 | 97.7  | 90.1  | 82.8  |
| -72.5° | 145.7 | 138.6 | 131.5 | 124.3 | 117.1 | 109.9 | 102.8 | 95.8  | 89.1  | 82.7  | 76.6  |
| -75°   | 127.2 | 121.5 | 115.6 | 109.7 | 103.8 | 97.9  | 92.0  | 86.3  | 80.8  | 75.6  | 70.6  |
| -77.5° | 109.8 | 105.1 | 100.5 | 95.8  | 91.1  | 86.5  | 81.9  | 77.2  | 72.8  | 68.8  | 64.8  |
| -80°   | 93.3  | 89.9  | 86.3  | 82.8  | 79.3  | 75.7  | 72.2  | 68.7  | 65.3  | 62.2  | 59.1  |
| -82.5° | 78.1  | 75.7  | 73.2  | 70.7  | 68.1  | 65.7  | 63.1  | 60.6  | 58.1  | 56.0  | 53.8  |
| -85°   | 64.4  | 62.8  | 61.1  | 59.5  | 57.9  | 56.3  | 54.6  | 53.0  | 51.3  | 50.1  | 48.8  |
| -87.5° | 51.9  | 51.1  | 50.3  | 49.5  | 48.6  | 47.7  | 46.9  | 46.0  | 45.1  | 44.6  | 44.0  |
| -90°   | 41.0  | 40.9  | 40.8  | 40.7  | 40.7  | 40.6  | 40.5  | 40.4  | 40.3  | 40.2  | 40.2  |

REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)

CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

**CANDELA DISTRIBUTION (continued):**

|        | 75°   | 77.5° | 80°   | 82.5° | 85°  | 87.5° | 90°  |
|--------|-------|-------|-------|-------|------|-------|------|
| 90°    | 39.4  | 39.5  | 39.5  | 39.6  | 39.6 | 39.7  | 39.7 |
| 87.5°  | 44.1  | 43.4  | 42.7  | 41.9  | 41.2 | 40.4  | 39.7 |
| 85°    | 48.3  | 46.8  | 45.3  | 43.9  | 42.5 | 41.1  | 39.7 |
| 82.5°  | 52.6  | 50.4  | 48.2  | 46.0  | 43.9 | 41.8  | 39.7 |
| 80°    | 57.1  | 54.0  | 51.0  | 48.1  | 45.2 | 42.5  | 39.7 |
| 77.5°  | 61.8  | 57.8  | 53.9  | 50.2  | 46.6 | 43.1  | 39.7 |
| 75°    | 66.7  | 61.7  | 56.9  | 52.3  | 48.0 | 43.8  | 39.7 |
| 72.5°  | 71.8  | 65.7  | 59.9  | 54.5  | 49.4 | 44.4  | 39.7 |
| 70°    | 76.9  | 69.8  | 63.1  | 56.7  | 50.7 | 45.1  | 39.7 |
| 67.5°  | 82.0  | 74.0  | 66.2  | 58.8  | 52.1 | 45.7  | 39.7 |
| 65°    | 87.3  | 78.2  | 69.4  | 61.1  | 53.4 | 46.3  | 39.7 |
| 62.5°  | 92.7  | 82.3  | 72.6  | 63.3  | 54.8 | 47.0  | 39.7 |
| 60°    | 98.2  | 86.5  | 75.8  | 65.6  | 56.2 | 47.6  | 39.7 |
| 57.5°  | 103.5 | 90.9  | 78.9  | 67.8  | 57.5 | 48.2  | 39.7 |
| 55°    | 109.0 | 95.1  | 82.0  | 70.0  | 58.7 | 48.8  | 39.7 |
| 52.5°  | 114.4 | 99.3  | 85.0  | 72.2  | 60.0 | 49.4  | 39.7 |
| 50°    | 119.7 | 103.4 | 88.2  | 74.2  | 61.3 | 50.0  | 39.7 |
| 47.5°  | 124.9 | 107.5 | 91.3  | 76.3  | 62.6 | 50.5  | 39.7 |
| 45°    | 130.0 | 111.5 | 94.2  | 78.3  | 63.8 | 51.0  | 39.7 |
| 42.5°  | 135.0 | 115.4 | 97.1  | 80.2  | 65.0 | 51.5  | 39.7 |
| 40°    | 139.9 | 119.2 | 99.8  | 82.0  | 66.1 | 52.0  | 39.7 |
| 37.5°  | 144.5 | 122.8 | 102.4 | 83.7  | 67.2 | 52.4  | 39.7 |
| 35°    | 149.0 | 126.2 | 105.0 | 85.5  | 68.2 | 52.9  | 39.7 |
| 32.5°  | 153.2 | 129.5 | 107.5 | 87.2  | 69.2 | 53.3  | 39.7 |
| 30°    | 157.2 | 132.6 | 109.7 | 88.8  | 70.1 | 53.7  | 39.7 |
| 27.5°  | 160.9 | 135.5 | 111.9 | 90.2  | 71.0 | 54.1  | 39.7 |
| 25°    | 164.4 | 138.2 | 113.8 | 91.6  | 71.7 | 54.4  | 39.7 |
| 22.5°  | 167.5 | 140.7 | 115.7 | 92.8  | 72.5 | 54.7  | 39.7 |
| 20°    | 170.4 | 142.9 | 117.3 | 93.9  | 73.1 | 55.0  | 39.7 |
| 17.5°  | 173.0 | 144.9 | 118.8 | 94.9  | 73.7 | 55.2  | 39.7 |
| 15°    | 175.2 | 146.6 | 120.1 | 95.8  | 74.2 | 55.4  | 39.7 |
| 12.5°  | 177.1 | 148.1 | 121.2 | 96.5  | 74.6 | 55.6  | 39.7 |
| 10°    | 178.7 | 149.3 | 122.1 | 97.1  | 74.9 | 55.8  | 39.7 |
| 7.5°   | 179.9 | 150.3 | 122.7 | 97.6  | 75.2 | 55.9  | 39.7 |
| 5°     | 180.7 | 150.9 | 123.2 | 97.9  | 75.4 | 55.9  | 39.7 |
| 2.5°   | 181.2 | 151.3 | 123.5 | 98.1  | 75.5 | 56.0  | 39.7 |
| 0°     | 181.3 | 151.4 | 123.6 | 98.2  | 75.5 | 56.0  | 39.7 |
| -2.5°  | 181.1 | 151.2 | 123.5 | 98.1  | 75.5 | 56.0  | 39.7 |
| -5°    | 180.6 | 150.8 | 123.2 | 97.9  | 75.3 | 55.9  | 39.7 |
| -7.5°  | 179.7 | 150.1 | 122.6 | 97.5  | 75.1 | 55.8  | 39.7 |
| -10°   | 178.4 | 149.1 | 121.9 | 97.0  | 74.8 | 55.7  | 39.7 |
| -12.5° | 176.8 | 147.8 | 121.0 | 96.4  | 74.5 | 55.6  | 39.7 |
| -15°   | 174.9 | 146.3 | 119.9 | 95.6  | 74.1 | 55.4  | 39.7 |
| -17.5° | 172.6 | 144.5 | 118.6 | 94.8  | 73.6 | 55.2  | 39.7 |
| -20°   | 169.9 | 142.5 | 117.0 | 93.7  | 73.0 | 54.9  | 39.7 |

REPORT NUMBER: P1209901 (CONVERTED FROM TYPE C PHOTOMETRY)  
CATALOG NUMBER: BKHDR150CLD2D-MID-5000K

**CANDELA DISTRIBUTION (continued):**

|        | 75°   | 77.5° | 80°   | 82.5° | 85°  | 87.5° | 90°  |
|--------|-------|-------|-------|-------|------|-------|------|
| -22.5° | 167.0 | 140.3 | 115.4 | 92.6  | 72.3 | 54.6  | 39.7 |
| -25°   | 163.8 | 137.8 | 113.5 | 91.3  | 71.6 | 54.3  | 39.7 |
| -27.5° | 160.3 | 135.0 | 111.5 | 90.0  | 70.8 | 54.0  | 39.7 |
| -30°   | 156.5 | 132.1 | 109.3 | 88.5  | 69.9 | 53.6  | 39.7 |
| -32.5° | 152.5 | 129.0 | 107.0 | 86.8  | 69.0 | 53.2  | 39.7 |
| -35°   | 148.2 | 125.7 | 104.5 | 85.1  | 68.0 | 52.8  | 39.7 |
| -37.5° | 143.7 | 122.2 | 102.0 | 83.3  | 66.9 | 52.3  | 39.7 |
| -40°   | 139.0 | 118.5 | 99.3  | 81.6  | 65.9 | 51.9  | 39.7 |
| -42.5° | 134.1 | 114.7 | 96.6  | 79.8  | 64.8 | 51.4  | 39.7 |
| -45°   | 129.2 | 110.8 | 93.7  | 77.8  | 63.6 | 50.9  | 39.7 |
| -47.5° | 124.0 | 106.8 | 90.7  | 75.8  | 62.4 | 50.4  | 39.7 |
| -50°   | 118.8 | 102.6 | 87.6  | 73.8  | 61.1 | 49.9  | 39.7 |
| -52.5° | 113.4 | 98.5  | 84.4  | 71.7  | 59.8 | 49.3  | 39.7 |
| -55°   | 108.0 | 94.3  | 81.3  | 69.5  | 58.5 | 48.7  | 39.7 |
| -57.5° | 102.5 | 90.0  | 78.2  | 67.3  | 57.2 | 48.1  | 39.7 |
| -60°   | 97.1  | 85.7  | 75.1  | 65.1  | 55.9 | 47.5  | 39.7 |
| -62.5° | 91.7  | 81.4  | 72.0  | 62.9  | 54.5 | 46.9  | 39.7 |
| -65°   | 86.2  | 77.3  | 68.8  | 60.6  | 53.2 | 46.2  | 39.7 |
| -67.5° | 80.9  | 73.1  | 65.6  | 58.4  | 51.8 | 45.6  | 39.7 |
| -70°   | 75.7  | 69.0  | 62.5  | 56.3  | 50.5 | 44.9  | 39.7 |
| -72.5° | 70.7  | 64.9  | 59.3  | 54.1  | 49.1 | 44.3  | 39.7 |
| -75°   | 65.7  | 60.9  | 56.3  | 51.9  | 47.7 | 43.7  | 39.7 |
| -77.5° | 60.9  | 57.0  | 53.3  | 49.8  | 46.3 | 43.0  | 39.7 |
| -80°   | 56.2  | 53.3  | 50.5  | 47.7  | 45.0 | 42.3  | 39.7 |
| -82.5° | 51.7  | 49.7  | 47.6  | 45.6  | 43.6 | 41.7  | 39.7 |
| -85°   | 47.5  | 46.2  | 44.9  | 43.6  | 42.3 | 41.0  | 39.7 |
| -87.5° | 43.4  | 42.8  | 42.2  | 41.6  | 41.0 | 40.3  | 39.7 |
| -90°   | 40.1  | 40.0  | 40.0  | 39.9  | 39.8 | 39.8  | 39.7 |

(END OF REPORT)