

PHOTOMETRIC MEASUREMENT REPORT N° 01

Photometric measurement date: **27/09/2017**

Company: **SLAMP S.p.A.**

Operator: **/Sedis Light Technology**

Type of photometric measurement: **C - Gamma**

The measurements have been performed in the following laboratory ambient conditions:

Temperature: **23°C+/-2°C**

Relative humidity: **50% U.R.+/-15% U.R.**

Air turbulence: **< 0.2 m/s**

Stabilization time before measurement: **1 hour**

Regulations applied: **UNI EN 13032-4**

Electro Magnetic Compatibility (EMC): **Shielded instrument**

Luminaire name: **Etoile ceiling-wall**

Eulumdat reference: **Etoile ceiling-wall**

Size of luminaire (mm): **730 x 0 x 230**

Size of luminous area (mm): **730 x 230**

Number n of standard sets of lamps (optional): **1**

Number of lamps: **1**

Type of light source: **LED SLAMP S.p.A. PCB**

Total luminous flux of the light source (lm): **3500**

Output luminous flux of the lamp (lm): **2180.40**

Colour temperature (K): **2700**

Colour rendering index: **0**

Supply current (mA): **140**

Source power (W): **35**

Power consumption included source power (W): **35**

LED module efficacy (lm/W): **100.00**

System light efficacy (lm/W): **100.00**

Luminaire light efficacy (lm/W): **62.30**

Light Output Ratio of luminaire (LOR): **100**

Downward Flux Fraction (DFF): **100**

Upward Flux Fraction (UFF): **0.00**

Tilt during measurement (for street luminaires): **0**

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Luminous intensities

| Gamma | C0° | C5° | C10° | C15° | C20° | C25° | C30° | C35° | C40° | C45° | C50° | C55° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 |
| 5° | 66.18 | 66.38 | 66.45 | 66.18 | 66.45 | 66.12 | 66.38 | 66.12 | 66.18 | 66.45 | 66.38 | 66.45 |
| 10° | 63.77 | 64.12 | 64.12 | 64.12 | 64.12 | 64.12 | 64.41 | 64.12 | 64.12 | 64.12 | 64.12 | 64.26 |
| 15° | 62.82 | 62.61 | 62.82 | 63.03 | 62.55 | 62.75 | 63.03 | 62.82 | 62.55 | 62.82 | 62.82 | 62.82 |
| 20° | 60.68 | 60.35 | 60.61 | 60.68 | 60.61 | 60.68 | 60.61 | 60.68 | 60.41 | 60.20 | 59.93 | 60.41 |
| 25° | 58.85 | 58.85 | 58.65 | 58.51 | 58.43 | 58.51 | 58.79 | 58.51 | 58.46 | 58.05 | 57.76 | 58.05 |
| 30° | 59.12 | 59.19 | 58.54 | 58.34 | 58.15 | 57.96 | 58.41 | 57.96 | 57.70 | 57.57 | 57.18 | 57.31 |
| 35° | 58.31 | 58.17 | 57.52 | 57.06 | 56.46 | 56.14 | 56.06 | 56.00 | 55.67 | 54.87 | 54.62 | 54.62 |
| 40° | 57.25 | 57.07 | 56.43 | 56.24 | 55.66 | 55.03 | 53.96 | 53.19 | 52.61 | 51.85 | 50.33 | 50.39 |
| 45° | 57.24 | 57.50 | 57.24 | 56.77 | 56.69 | 55.51 | 54.17 | 51.79 | 50.06 | 48.80 | 47.68 | 47.54 |
| 50° | 54.81 | 56.66 | 57.18 | 57.31 | 56.91 | 55.67 | 53.37 | 50.35 | 47.32 | 45.81 | 45.09 | 44.77 |
| 55° | 50.07 | 53.67 | 55.42 | 56.25 | 55.87 | 54.44 | 52.38 | 48.91 | 46.08 | 43.96 | 43.18 | 42.73 |
| 60° | 45.81 | 48.60 | 50.91 | 53.08 | 53.08 | 52.06 | 50.09 | 47.03 | 43.77 | 41.87 | 40.51 | 39.97 |
| 65° | 41.19 | 43.64 | 45.39 | 47.63 | 48.53 | 47.63 | 45.39 | 42.31 | 40.07 | 38.32 | 37.48 | 37.00 |
| 70° | 35.17 | 37.95 | 39.93 | 41.77 | 43.26 | 44.05 | 42.34 | 39.72 | 37.59 | 35.54 | 34.40 | 33.62 |
| 75° | 33.34 | 35.24 | 38.55 | 41.35 | 43.68 | 44.45 | 42.81 | 40.16 | 37.63 | 34.52 | 33.34 | 32.05 |
| 80° | 35.57 | 35.57 | 38.98 | 42.93 | 45.79 | 45.92 | 44.84 | 42.52 | 40.54 | 39.46 | 39.93 | 41.01 |
| 85° | 41.66 | 39.02 | 41.24 | 45.63 | 49.19 | 51.21 | 50.92 | 50.02 | 49.47 | 50.31 | 51.41 | 52.12 |
| 90° | 47.16 | 42.89 | 43.55 | 47.56 | 51.23 | 53.76 | 55.50 | 56.77 | 57.77 | 59.91 | 61.18 | 61.18 |
| 95° | 55.67 | 53.44 | 55.39 | 58.24 | 57.54 | 58.66 | 60.68 | 60.27 | 59.14 | 56.44 | 58.04 | 61.80 |
| 100° | 74.39 | 71.33 | 71.27 | 71.88 | 70.86 | 68.74 | 68.74 | 68.74 | 70.04 | 71.60 | 72.63 | 72.77 |
| 105° | 95.26 | 94.14 | 94.92 | 96.88 | 95.33 | 92.15 | 89.22 | 87.66 | 87.81 | 87.37 | 85.76 | 82.17 |
| 110° | 106.91 | 105.35 | 104.50 | 106.70 | 105.86 | 103.37 | 100.18 | 98.82 | 99.40 | 100.31 | 102.15 | 100.39 |
| 115° | 124.04 | 122.30 | 120.06 | 118.45 | 114.67 | 112.79 | 112.57 | 113.13 | 111.81 | 112.22 | 116.64 | 116.91 |
| 120° | 135.39 | 131.31 | 124.99 | 121.52 | 120.03 | 120.71 | 120.03 | 120.71 | 120.03 | 121.72 | 124.99 | 123.49 |
| 125° | 133.14 | 130.44 | 127.99 | 127.74 | 128.44 | 128.89 | 128.83 | 128.64 | 129.08 | 130.11 | 132.88 | 132.69 |
| 130° | 137.33 | 137.05 | 136.40 | 134.50 | 133.78 | 135.81 | 139.03 | 141.14 | 139.76 | 139.03 | 140.42 | 141.46 |
| 135° | 140.64 | 141.97 | 141.51 | 141.11 | 143.63 | 147.27 | 150.20 | 149.80 | 146.02 | 144.44 | 145.70 | 149.08 |
| 140° | 137.75 | 140.56 | 142.85 | 145.83 | 148.70 | 154.17 | 156.14 | 153.98 | 150.92 | 148.25 | 146.03 | 145.90 |
| 145° | 137.62 | 140.40 | 146.73 | 150.10 | 152.61 | 156.52 | 158.10 | 156.73 | 155.08 | 149.00 | 143.24 | 141.66 |
| 150° | 135.45 | 140.64 | 148.88 | 151.47 | 153.17 | 157.19 | 160.06 | 156.42 | 151.03 | 145.83 | 140.06 | 139.02 |
| 155° | 136.92 | 140.10 | 145.79 | 149.58 | 150.80 | 153.51 | 150.39 | 146.34 | 143.36 | 137.96 | 134.44 | 137.12 |
| 160° | 123.01 | 125.76 | 130.59 | 133.13 | 134.37 | 136.57 | 133.54 | 131.40 | 130.52 | 130.92 | 132.50 | 134.64 |
| 165° | 115.59 | 118.12 | 120.71 | 122.81 | 125.54 | 126.83 | 125.54 | 124.72 | 123.83 | 122.95 | 124.66 | 126.16 |
| 170° | 107.91 | 110.30 | 112.63 | 114.37 | 115.43 | 115.14 | 114.58 | 113.89 | 113.89 | 113.89 | 114.02 | 115.57 |
| 175° | 120.16 | 119.56 | 118.62 | 118.01 | 118.08 | 118.08 | 117.61 | 117.41 | 116.93 | 116.54 | 115.73 | 115.26 |
| 180° | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 |
| Gamma | C60° | C65° | C70° | C75° | C80° | C85° | C90° | C95° | C100° | C105° | C110° | C115° |
| 0° | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 |
| 5° | 66.59 | 66.85 | 66.65 | 66.85 | 67.05 | 66.98 | 67.32 | 67.46 | 67.46 | 67.72 | 67.72 | 67.86 |
| 10° | 64.26 | 64.47 | 64.90 | 65.04 | 65.24 | 65.67 | 65.73 | 66.16 | 66.45 | 66.59 | 66.93 | 67.07 |
| 15° | 63.03 | 62.96 | 63.44 | 63.91 | 63.91 | 64.52 | 64.99 | 65.47 | 65.61 | 66.09 | 66.35 | 66.76 |
| 20° | 60.41 | 60.83 | 61.58 | 61.72 | 62.41 | 63.03 | 63.51 | 63.92 | 64.20 | 64.34 | 64.61 | 64.75 |
| 25° | 58.59 | 58.85 | 59.39 | 60.42 | 60.81 | 61.77 | 62.44 | 63.19 | 63.19 | 63.60 | 63.60 | 63.19 |
| 30° | 57.50 | 58.03 | 58.61 | 59.65 | 60.88 | 62.11 | 63.15 | 64.19 | 64.58 | 64.84 | 64.58 | 64.19 |
| 35° | 54.81 | 55.00 | 55.67 | 56.93 | 58.38 | 60.31 | 62.02 | 63.48 | 64.34 | 64.34 | 64.07 | 63.28 |
| 40° | 50.96 | 51.79 | 53.00 | 54.65 | 56.24 | 58.52 | 60.25 | 61.91 | 62.73 | 63.17 | 62.73 | 61.96 |
| 45° | 48.40 | 49.41 | 51.39 | 53.45 | 55.32 | 57.70 | 59.42 | 60.69 | 61.09 | 61.29 | 61.09 | 60.69 |
| 50° | 45.36 | 46.54 | 48.17 | 50.62 | 52.26 | 53.31 | 53.71 | 54.03 | 53.76 | 54.35 | 55.22 | 55.94 |
| 55° | 42.73 | 43.37 | 44.41 | 46.08 | 46.85 | 47.56 | 47.69 | 47.88 | 47.75 | 47.50 | 48.27 | 49.10 |
| 60° | 39.69 | 39.89 | 40.58 | 41.87 | 43.90 | 45.34 | 46.08 | 45.34 | 44.52 | 43.84 | 44.52 | 45.67 |
| 65° | 36.51 | 36.30 | 37.00 | 38.74 | 41.26 | 43.22 | 44.33 | 44.13 | 42.31 | 40.35 | 38.96 | 40.14 |
| 70° | 33.13 | 32.84 | 33.83 | 35.59 | 38.87 | 42.41 | 45.25 | 46.53 | 44.54 | 40.50 | 36.73 | 34.81 |

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|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 75° | 31.93 | 32.00 | 32.56 | 35.24 | 38.90 | 43.33 | 47.76 | 51.57 | 52.14 | 48.88 | 42.90 | 36.22 |
| 80° | 41.22 | 40.61 | 38.84 | 37.75 | 39.31 | 44.29 | 49.67 | 53.55 | 55.05 | 54.03 | 50.96 | 44.90 |
| 85° | 52.25 | 51.62 | 50.50 | 47.37 | 45.22 | 46.12 | 50.50 | 54.48 | 56.09 | 54.97 | 53.86 | 50.09 |
| 90° | 59.66 | 58.65 | 56.91 | 55.84 | 54.38 | 51.37 | 51.63 | 55.44 | 58.18 | 56.71 | 54.83 | 53.97 |
| 95° | 62.01 | 61.38 | 62.08 | 63.33 | 66.05 | 66.39 | 66.88 | 64.73 | 61.80 | 59.02 | 55.88 | 51.70 |
| 100° | 70.18 | 64.86 | 66.36 | 68.74 | 71.95 | 77.33 | 79.92 | 80.60 | 78.48 | 76.36 | 75.07 | 71.60 |
| 105° | 79.29 | 77.80 | 74.64 | 75.43 | 78.57 | 84.64 | 90.40 | 92.10 | 90.46 | 88.50 | 88.01 | 86.89 |
| 110° | 96.41 | 92.37 | 91.65 | 91.30 | 92.37 | 96.55 | 101.31 | 104.56 | 105.78 | 104.42 | 104.07 | 104.50 |
| 115° | 115.38 | 114.74 | 108.94 | 106.28 | 107.12 | 109.42 | 114.74 | 117.82 | 119.15 | 118.66 | 117.82 | 116.76 |
| 120° | 125.67 | 124.58 | 118.74 | 117.37 | 117.24 | 119.14 | 122.40 | 125.46 | 128.46 | 132.05 | 132.33 | 132.60 |
| 125° | 132.31 | 128.83 | 122.46 | 122.07 | 122.46 | 124.78 | 129.73 | 132.17 | 136.49 | 139.77 | 142.35 | 141.95 |
| 130° | 137.99 | 129.44 | 125.76 | 125.76 | 126.69 | 129.58 | 136.21 | 141.93 | 141.80 | 142.97 | 143.50 | 143.17 |
| 135° | 144.03 | 135.54 | 131.28 | 131.09 | 134.73 | 139.32 | 145.28 | 150.39 | 148.74 | 146.36 | 146.22 | 147.21 |
| 140° | 140.37 | 135.34 | 132.86 | 133.75 | 137.12 | 142.59 | 146.66 | 150.16 | 151.18 | 151.30 | 150.29 | 150.10 |
| 145° | 139.20 | 136.56 | 138.55 | 139.94 | 139.86 | 142.91 | 146.35 | 147.27 | 150.12 | 151.37 | 151.11 | 151.37 |
| 150° | 139.47 | 139.80 | 144.53 | 145.77 | 144.80 | 145.83 | 147.39 | 146.35 | 148.50 | 151.15 | 151.22 | 151.61 |
| 155° | 137.12 | 135.92 | 142.05 | 141.64 | 141.19 | 143.28 | 142.81 | 140.10 | 140.97 | 143.03 | 143.49 | 146.47 |
| 160° | 132.43 | 131.34 | 134.99 | 135.89 | 137.33 | 140.09 | 139.05 | 136.16 | 135.75 | 136.16 | 135.75 | 139.05 |
| 165° | 126.36 | 127.98 | 129.28 | 129.34 | 130.30 | 131.87 | 131.19 | 130.72 | 131.19 | 131.05 | 130.78 | 133.17 |
| 170° | 117.19 | 118.80 | 119.57 | 120.83 | 121.89 | 121.95 | 121.12 | 119.71 | 119.23 | 119.23 | 119.08 | 119.57 |
| 175° | 114.40 | 114.66 | 114.46 | 114.86 | 115.26 | 115.46 | 116.00 | 116.00 | 115.66 | 115.53 | 115.06 | 114.66 |
| 180° | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 |
| Gamma | C120° | C125° | C130° | C135° | C140° | C145° | C150° | C155° | C160° | C165° | C170° | C175° |
| 0° | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 |
| 5° | 68.13 | 68.13 | 68.33 | 68.33 | 68.33 | 68.59 | 68.73 | 68.73 | 68.73 | 68.73 | 68.73 | 69.00 |
| 10° | 67.36 | 67.34 | 67.71 | 67.85 | 68.19 | 68.19 | 68.54 | 68.62 | 68.97 | 68.89 | 68.89 | 68.89 |
| 15° | 66.91 | 66.91 | 67.65 | 67.80 | 67.99 | 68.20 | 68.20 | 68.62 | 68.88 | 69.09 | 69.03 | 69.35 |
| 20° | 65.02 | 65.23 | 65.23 | 65.65 | 66.13 | 66.61 | 66.54 | 67.02 | 67.02 | 67.43 | 67.43 | 67.71 |
| 25° | 63.19 | 62.86 | 63.14 | 62.86 | 63.60 | 63.73 | 64.35 | 64.82 | 64.87 | 65.08 | 65.29 | 65.57 |
| 30° | 63.34 | 62.50 | 61.92 | 61.34 | 61.34 | 61.72 | 62.50 | 63.22 | 63.54 | 63.73 | 63.93 | 64.12 |
| 35° | 62.41 | 60.63 | 59.38 | 57.98 | 57.59 | 57.25 | 57.98 | 59.11 | 59.97 | 60.31 | 60.31 | 60.31 |
| 40° | 60.31 | 58.52 | 56.48 | 54.65 | 53.06 | 52.61 | 53.25 | 54.01 | 54.84 | 55.47 | 55.22 | 55.03 |
| 45° | 59.17 | 57.24 | 54.77 | 52.59 | 51.13 | 50.46 | 50.53 | 50.53 | 51.13 | 51.13 | 51.06 | 50.67 |
| 50° | 55.87 | 55.08 | 53.04 | 51.08 | 49.97 | 48.90 | 48.45 | 47.72 | 47.07 | 47.34 | 47.07 | 46.89 |
| 55° | 50.13 | 51.81 | 52.06 | 51.23 | 50.13 | 49.30 | 48.52 | 46.85 | 44.99 | 44.41 | 44.01 | 43.44 |
| 60° | 46.69 | 47.98 | 49.75 | 50.77 | 50.84 | 50.16 | 48.80 | 46.69 | 44.52 | 42.95 | 41.87 | 41.05 |
| 65° | 42.31 | 44.13 | 45.45 | 47.06 | 48.12 | 48.12 | 46.51 | 44.06 | 41.61 | 40.14 | 39.02 | 37.90 |
| 70° | 35.59 | 38.09 | 40.00 | 41.63 | 43.34 | 43.77 | 41.99 | 39.36 | 36.52 | 34.89 | 33.97 | 33.26 |
| 75° | 33.26 | 34.18 | 37.28 | 39.73 | 41.43 | 41.43 | 40.59 | 37.77 | 35.73 | 33.83 | 32.42 | 31.30 |
| 80° | 36.46 | 34.75 | 37.75 | 41.49 | 43.20 | 43.81 | 42.37 | 40.20 | 38.02 | 36.46 | 35.63 | 35.84 |
| 85° | 44.10 | 38.80 | 40.12 | 43.48 | 45.84 | 47.65 | 47.23 | 46.12 | 45.28 | 45.42 | 47.44 | 48.63 |
| 90° | 49.23 | 43.49 | 41.82 | 45.22 | 48.89 | 50.97 | 52.04 | 53.31 | 54.98 | 56.51 | 58.24 | 57.83 |
| 95° | 47.87 | 45.63 | 49.60 | 54.27 | 54.48 | 56.99 | 59.14 | 58.31 | 55.39 | 53.44 | 55.60 | 58.66 |
| 100° | 66.56 | 63.71 | 64.53 | 65.48 | 63.71 | 66.77 | 66.56 | 68.33 | 67.85 | 67.71 | 68.68 | 67.44 |
| 105° | 85.71 | 87.17 | 91.32 | 93.57 | 92.53 | 89.71 | 87.32 | 86.19 | 84.64 | 85.33 | 81.68 | 78.92 |
| 110° | 103.73 | 102.29 | 105.28 | 106.98 | 106.91 | 103.43 | 100.95 | 98.61 | 97.77 | 97.68 | 98.26 | 95.62 |
| 115° | 118.03 | 116.49 | 118.25 | 118.87 | 118.51 | 114.74 | 112.93 | 112.51 | 111.18 | 111.18 | 113.55 | 113.06 |
| 120° | 132.33 | 132.19 | 131.10 | 126.28 | 122.00 | 121.11 | 121.11 | 121.25 | 120.71 | 120.37 | 122.67 | 121.32 |
| 125° | 140.48 | 137.58 | 133.14 | 129.66 | 129.47 | 129.61 | 128.64 | 128.44 | 128.89 | 130.50 | 130.25 | 128.38 |
| 130° | 142.91 | 142.32 | 140.81 | 137.99 | 137.21 | 136.86 | 137.26 | 138.58 | 140.22 | 140.49 | 139.84 | 139.11 |
| 135° | 148.73 | 149.74 | 149.34 | 146.22 | 144.89 | 144.89 | 147.74 | 149.00 | 148.53 | 146.15 | 145.96 | 146.22 |
| 140° | 152.19 | 153.72 | 153.34 | 151.37 | 150.35 | 153.53 | 156.07 | 155.06 | 150.15 | 146.73 | 147.11 | 147.68 |
| 145° | 152.23 | 151.18 | 150.27 | 151.65 | 153.63 | 157.72 | 161.42 | 159.97 | 153.36 | 148.86 | 146.54 | 143.24 |
| 150° | 153.04 | 153.50 | 154.34 | 158.42 | 159.01 | 160.96 | 160.89 | 154.85 | 150.12 | 147.45 | 144.41 | 138.77 |
| 155° | 149.44 | 148.50 | 150.39 | 157.97 | 157.02 | 155.06 | 154.92 | 152.55 | 148.49 | 145.47 | 140.85 | 134.75 |
| 160° | 142.23 | 141.67 | 141.67 | 146.50 | 147.38 | 147.80 | 150.42 | 148.22 | 143.18 | 140.08 | 136.71 | 131.75 |

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| | | | | | | | | | | | | |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 165° | 134.87 | 133.52 | 133.79 | 136.31 | 136.64 | 136.78 | 137.87 | 137.05 | 133.72 | 131.87 | 129.83 | 126.62 |
| 170° | 119.63 | 119.99 | 120.48 | 121.26 | 122.09 | 123.64 | 124.34 | 124.34 | 122.72 | 120.77 | 118.65 | 116.97 |
| 175° | 113.99 | 113.32 | 112.71 | 111.84 | 111.37 | 110.97 | 110.16 | 109.70 | 109.09 | 108.69 | 108.02 | 107.41 |
| 180° | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 |
| Gamma | C180° | C185° | C190° | C195° | C200° | C205° | C210° | C215° | C220° | C225° | C230° | C235° |
| 0° | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 |
| 5° | 68.73 | 68.73 | 68.73 | 68.73 | 68.53 | 68.53 | 68.33 | 68.26 | 68.33 | 68.33 | 68.13 | 68.13 |
| 10° | 68.89 | 68.89 | 68.68 | 68.54 | 68.54 | 68.54 | 68.19 | 68.19 | 68.06 | 67.77 | 67.63 | 67.71 |
| 15° | 69.29 | 69.35 | 69.09 | 69.09 | 68.88 | 68.62 | 68.20 | 68.20 | 68.06 | 68.06 | 67.58 | 67.32 |
| 20° | 67.71 | 67.64 | 67.71 | 67.23 | 67.02 | 66.82 | 66.34 | 66.34 | 66.13 | 65.58 | 65.92 | 65.65 |
| 25° | 65.49 | 65.36 | 65.02 | 64.68 | 64.68 | 64.27 | 64.27 | 64.07 | 63.86 | 63.65 | 63.53 | 63.53 |
| 30° | 64.19 | 63.73 | 63.08 | 62.96 | 62.69 | 62.96 | 63.08 | 63.34 | 63.34 | 63.15 | 62.96 | 62.89 |
| 35° | 60.17 | 59.77 | 59.52 | 59.11 | 59.44 | 60.17 | 60.49 | 60.96 | 61.28 | 61.36 | 61.36 | 61.23 |
| 40° | 54.90 | 54.65 | 55.09 | 55.09 | 55.72 | 56.68 | 57.51 | 58.28 | 58.66 | 58.90 | 58.90 | 58.90 |
| 45° | 50.27 | 50.53 | 51.39 | 52.18 | 52.99 | 54.31 | 55.17 | 55.98 | 56.43 | 56.69 | 56.43 | 56.84 |
| 50° | 46.48 | 46.48 | 47.07 | 48.52 | 49.30 | 49.70 | 49.63 | 49.89 | 49.89 | 50.35 | 51.21 | 52.85 |
| 55° | 43.05 | 42.73 | 42.80 | 43.37 | 43.57 | 43.37 | 42.54 | 42.16 | 42.41 | 42.54 | 44.27 | 46.46 |
| 60° | 40.03 | 39.28 | 38.87 | 39.08 | 40.03 | 40.65 | 40.03 | 39.35 | 39.35 | 39.28 | 40.65 | 42.82 |
| 65° | 36.57 | 35.45 | 35.18 | 36.15 | 37.41 | 38.32 | 38.39 | 37.06 | 35.88 | 35.74 | 37.00 | 39.38 |
| 70° | 32.05 | 31.85 | 32.34 | 33.91 | 35.67 | 37.66 | 39.22 | 39.30 | 36.95 | 34.54 | 33.62 | 34.54 |
| 75° | 30.52 | 30.66 | 31.73 | 33.69 | 36.94 | 39.81 | 42.98 | 44.59 | 44.24 | 40.11 | 35.38 | 32.91 |
| 80° | 35.63 | 34.75 | 33.72 | 34.75 | 38.02 | 42.52 | 46.40 | 49.87 | 51.17 | 49.40 | 44.49 | 36.46 |
| 85° | 48.28 | 46.74 | 43.48 | 40.41 | 40.62 | 44.80 | 48.97 | 52.25 | 53.65 | 53.22 | 50.22 | 44.38 |
| 90° | 57.83 | 55.84 | 53.97 | 50.97 | 47.16 | 46.90 | 50.36 | 52.90 | 54.43 | 54.11 | 53.31 | 50.16 |
| 95° | 57.75 | 58.66 | 55.60 | 53.44 | 55.39 | 58.31 | 59.14 | 56.99 | 54.48 | 54.27 | 49.60 | 45.63 |
| 100° | 64.79 | 67.44 | 68.68 | 67.71 | 67.85 | 68.33 | 66.56 | 66.77 | 63.71 | 65.48 | 64.53 | 63.71 |
| 105° | 77.04 | 78.92 | 81.68 | 85.33 | 84.64 | 86.19 | 87.32 | 89.71 | 92.53 | 93.57 | 91.32 | 87.17 |
| 110° | 94.35 | 95.62 | 98.26 | 97.68 | 97.77 | 98.61 | 100.95 | 103.43 | 106.91 | 106.98 | 105.28 | 102.29 |
| 115° | 112.79 | 113.06 | 113.55 | 111.18 | 111.18 | 112.51 | 112.93 | 114.74 | 118.51 | 118.87 | 118.25 | 116.49 |
| 120° | 121.32 | 121.32 | 122.67 | 120.37 | 120.71 | 121.25 | 121.11 | 121.11 | 122.00 | 126.28 | 131.10 | 132.19 |
| 125° | 128.83 | 128.38 | 130.25 | 130.50 | 128.89 | 128.44 | 128.64 | 129.61 | 129.47 | 129.66 | 133.14 | 137.58 |
| 130° | 138.25 | 139.11 | 139.84 | 140.49 | 140.22 | 138.58 | 137.26 | 136.86 | 137.21 | 137.99 | 140.81 | 142.32 |
| 135° | 144.68 | 146.22 | 145.96 | 146.15 | 148.53 | 149.00 | 147.74 | 144.89 | 144.89 | 146.22 | 149.34 | 149.74 |
| 140° | 144.63 | 147.68 | 147.11 | 146.73 | 150.15 | 155.06 | 156.07 | 153.53 | 150.35 | 151.37 | 153.34 | 153.72 |
| 145° | 138.48 | 143.24 | 146.54 | 148.86 | 153.36 | 159.97 | 161.42 | 157.72 | 153.63 | 151.65 | 150.27 | 151.18 |
| 150° | 133.24 | 138.77 | 144.41 | 147.45 | 150.12 | 154.85 | 160.89 | 160.96 | 159.01 | 158.42 | 154.34 | 153.50 |
| 155° | 130.90 | 134.75 | 140.85 | 145.47 | 148.49 | 152.55 | 154.92 | 155.06 | 157.02 | 157.97 | 150.39 | 148.50 |
| 160° | 128.24 | 131.75 | 136.71 | 140.08 | 143.18 | 148.22 | 150.42 | 147.80 | 147.38 | 146.50 | 141.67 | 141.67 |
| 165° | 123.36 | 126.62 | 129.83 | 131.87 | 133.72 | 137.05 | 137.87 | 136.78 | 136.64 | 136.31 | 133.79 | 133.52 |
| 170° | 114.23 | 116.97 | 118.65 | 120.77 | 122.72 | 124.34 | 124.34 | 123.64 | 122.09 | 121.26 | 120.48 | 119.99 |
| 175° | 106.74 | 107.41 | 108.02 | 108.69 | 109.09 | 109.70 | 110.16 | 110.97 | 111.37 | 111.84 | 112.71 | 113.32 |
| 180° | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 |
| Gamma | C240° | C245° | C250° | C255° | C260° | C265° | C270° | C275° | C280° | C285° | C290° | C295° |
| 0° | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 |
| 5° | 68.13 | 67.86 | 67.72 | 67.46 | 67.72 | 67.46 | 67.25 | 67.25 | 67.25 | 67.25 | 67.05 | 67.05 |
| 10° | 67.20 | 67.28 | 66.93 | 66.65 | 66.80 | 66.51 | 66.45 | 66.16 | 66.16 | 65.81 | 65.81 | 65.67 |
| 15° | 67.11 | 66.91 | 66.91 | 66.71 | 66.50 | 66.23 | 66.23 | 66.03 | 65.82 | 65.34 | 65.41 | 64.93 |
| 20° | 65.23 | 65.23 | 65.16 | 65.30 | 65.02 | 65.02 | 64.54 | 64.54 | 64.13 | 64.13 | 63.65 | 63.44 |
| 25° | 63.53 | 63.53 | 63.53 | 63.53 | 63.40 | 63.11 | 63.06 | 62.64 | 62.31 | 62.31 | 62.18 | 61.97 |
| 30° | 62.96 | 62.50 | 62.50 | 62.76 | 62.76 | 62.50 | 62.05 | 62.05 | 61.65 | 61.20 | 60.81 | 60.42 |
| 35° | 60.90 | 60.49 | 60.17 | 60.17 | 60.09 | 60.17 | 59.77 | 59.71 | 58.58 | 58.11 | 57.52 | 56.79 |
| 40° | 58.90 | 58.22 | 57.89 | 57.45 | 57.26 | 56.82 | 56.68 | 55.80 | 54.78 | 53.57 | 52.61 | 52.17 |
| 45° | 57.09 | 56.77 | 56.58 | 55.98 | 55.57 | 54.77 | 53.91 | 52.59 | 51.32 | 50.06 | 49.27 | 48.08 |
| 50° | 54.03 | 54.49 | 54.41 | 54.35 | 53.98 | 52.59 | 50.76 | 48.77 | 47.27 | 46.21 | 45.17 | 44.44 |
| 55° | 49.36 | 51.81 | 52.97 | 53.42 | 53.03 | 51.61 | 49.10 | 46.46 | 44.41 | 43.12 | 42.35 | 41.82 |
| 60° | 45.13 | 48.40 | 51.38 | 53.15 | 52.67 | 51.38 | 49.27 | 45.74 | 43.43 | 41.66 | 40.58 | 39.28 |

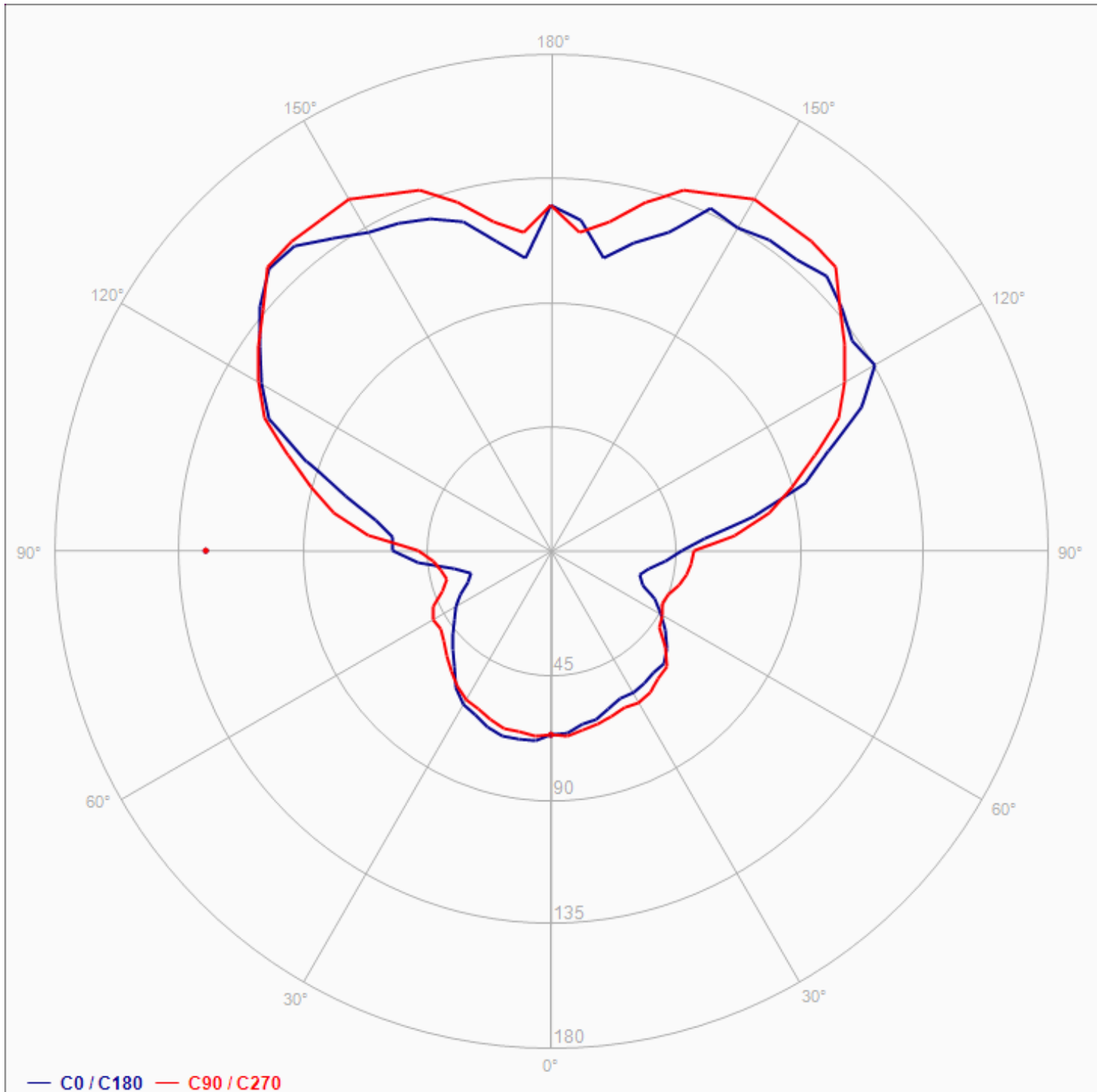
PHOTOMETRIC MEASUREMENT REPORT N° 01

| | | | | | | | | | | | | |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 65° | 42.38 | 44.75 | 47.69 | 49.65 | 50.28 | 49.72 | 47.27 | 44.13 | 40.99 | 39.02 | 37.41 | 36.15 |
| 70° | 36.95 | 39.28 | 41.56 | 43.83 | 45.32 | 44.97 | 41.99 | 38.73 | 35.59 | 33.97 | 32.84 | 31.91 |
| 75° | 33.48 | 35.87 | 38.17 | 40.45 | 41.43 | 41.29 | 39.04 | 35.87 | 33.48 | 31.35 | 30.60 | 29.75 |
| 80° | 33.04 | 33.87 | 37.34 | 40.20 | 41.90 | 42.37 | 40.61 | 37.34 | 34.34 | 32.10 | 31.75 | 32.36 |
| 85° | 37.06 | 34.84 | 38.38 | 41.74 | 44.38 | 44.58 | 43.26 | 40.96 | 39.71 | 39.64 | 42.15 | 44.31 |
| 90° | 44.21 | 38.41 | 39.89 | 43.75 | 46.96 | 48.03 | 48.17 | 48.17 | 49.03 | 50.56 | 51.83 | 53.10 |
| 95° | 47.87 | 51.70 | 55.88 | 59.02 | 61.80 | 64.73 | 66.88 | 66.39 | 66.05 | 63.33 | 62.08 | 61.38 |
| 100° | 66.56 | 71.60 | 75.07 | 76.36 | 78.48 | 80.60 | 79.92 | 77.33 | 71.95 | 68.74 | 66.36 | 64.86 |
| 105° | 85.71 | 86.89 | 88.01 | 88.50 | 90.46 | 92.10 | 90.40 | 84.64 | 78.57 | 75.43 | 74.64 | 77.80 |
| 110° | 103.73 | 104.50 | 104.07 | 104.42 | 105.78 | 104.56 | 101.31 | 96.55 | 92.37 | 91.30 | 91.65 | 92.37 |
| 115° | 118.03 | 116.76 | 117.82 | 118.66 | 119.15 | 117.82 | 114.74 | 109.42 | 107.12 | 106.28 | 108.94 | 114.74 |
| 120° | 132.33 | 132.60 | 132.33 | 132.05 | 128.46 | 125.46 | 122.40 | 119.14 | 117.24 | 117.37 | 118.74 | 124.58 |
| 125° | 140.48 | 141.95 | 142.35 | 139.77 | 136.49 | 132.17 | 129.73 | 124.78 | 122.46 | 122.07 | 122.46 | 128.83 |
| 130° | 142.91 | 143.17 | 143.50 | 142.97 | 141.80 | 141.93 | 136.21 | 129.58 | 126.69 | 125.76 | 125.76 | 129.44 |
| 135° | 148.73 | 147.21 | 146.22 | 146.36 | 148.74 | 150.39 | 145.28 | 139.32 | 134.73 | 131.09 | 131.28 | 135.54 |
| 140° | 152.19 | 150.10 | 150.29 | 151.30 | 151.18 | 150.16 | 146.66 | 142.59 | 137.12 | 133.75 | 132.86 | 135.34 |
| 145° | 152.23 | 151.37 | 151.11 | 151.37 | 150.12 | 147.27 | 146.35 | 142.91 | 139.86 | 139.94 | 138.55 | 136.56 |
| 150° | 153.04 | 151.61 | 151.22 | 151.15 | 148.50 | 146.35 | 147.39 | 145.83 | 144.80 | 145.77 | 144.53 | 139.80 |
| 155° | 149.44 | 146.47 | 143.49 | 143.03 | 140.97 | 140.10 | 142.81 | 143.28 | 141.19 | 141.64 | 142.05 | 135.92 |
| 160° | 142.23 | 139.05 | 135.75 | 136.16 | 135.75 | 136.16 | 139.05 | 140.09 | 137.33 | 135.89 | 134.99 | 131.34 |
| 165° | 134.87 | 133.17 | 130.78 | 131.05 | 131.19 | 130.72 | 131.19 | 131.87 | 130.30 | 129.34 | 129.28 | 127.98 |
| 170° | 119.63 | 119.57 | 119.08 | 119.23 | 119.23 | 119.71 | 121.12 | 121.95 | 121.89 | 120.83 | 119.57 | 118.80 |
| 175° | 113.99 | 114.66 | 115.06 | 115.53 | 115.66 | 116.00 | 116.00 | 115.46 | 115.26 | 114.86 | 114.46 | 114.66 |
| 180° | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 |
| Gamma | C300° | C305° | C310° | C315° | C320° | C325° | C330° | C335° | C340° | C345° | C350° | C355° |
| 0° | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 | 66.37 |
| 5° | 67.05 | 67.32 | 66.85 | 66.85 | 66.59 | 66.59 | 66.59 | 66.59 | 66.38 | 66.38 | 66.45 | 66.45 |
| 10° | 65.38 | 65.24 | 65.24 | 64.82 | 64.90 | 64.76 | 64.76 | 64.47 | 64.12 | 64.12 | 64.41 | 64.12 |
| 15° | 64.99 | 64.32 | 64.05 | 64.11 | 63.64 | 63.64 | 63.44 | 63.22 | 63.03 | 62.82 | 62.82 | 62.82 |
| 20° | 63.23 | 62.82 | 62.54 | 62.13 | 62.41 | 61.93 | 61.72 | 61.51 | 61.24 | 60.76 | 61.09 | 60.61 |
| 25° | 61.51 | 61.23 | 60.81 | 60.47 | 60.68 | 60.89 | 60.68 | 60.76 | 60.34 | 59.52 | 59.60 | 59.18 |
| 30° | 60.03 | 59.58 | 59.58 | 59.84 | 59.97 | 60.42 | 60.81 | 60.81 | 60.81 | 60.36 | 60.42 | 59.84 |
| 35° | 56.33 | 56.14 | 56.33 | 56.65 | 57.19 | 58.17 | 58.90 | 59.30 | 59.63 | 59.44 | 59.30 | 58.90 |
| 40° | 52.04 | 52.04 | 52.23 | 53.38 | 54.45 | 55.86 | 56.68 | 57.45 | 57.45 | 57.89 | 57.64 | 57.63 |
| 45° | 48.15 | 48.54 | 49.80 | 51.79 | 52.79 | 53.91 | 54.71 | 55.17 | 55.32 | 55.57 | 56.37 | 56.77 |
| 50° | 44.57 | 45.17 | 46.62 | 47.67 | 48.12 | 47.72 | 47.39 | 47.27 | 47.67 | 48.85 | 50.95 | 52.98 |
| 55° | 41.57 | 41.26 | 41.71 | 42.35 | 42.35 | 42.80 | 42.41 | 42.09 | 42.35 | 43.12 | 45.24 | 47.50 |
| 60° | 38.68 | 38.26 | 38.26 | 39.15 | 40.37 | 40.51 | 40.10 | 39.69 | 39.28 | 39.28 | 41.46 | 43.57 |
| 65° | 35.18 | 34.55 | 35.18 | 36.78 | 38.32 | 39.65 | 39.93 | 39.23 | 37.41 | 36.15 | 36.57 | 38.81 |
| 70° | 31.49 | 31.56 | 32.70 | 34.75 | 37.24 | 39.93 | 42.06 | 42.41 | 40.00 | 36.61 | 34.26 | 33.54 |
| 75° | 29.83 | 30.52 | 32.22 | 35.24 | 38.82 | 42.50 | 46.06 | 48.03 | 47.68 | 44.45 | 38.90 | 34.04 |
| 80° | 33.25 | 33.46 | 33.25 | 35.43 | 39.46 | 44.49 | 47.90 | 50.96 | 51.37 | 50.56 | 46.60 | 41.49 |
| 85° | 44.31 | 44.66 | 42.15 | 39.92 | 40.83 | 44.93 | 49.61 | 52.25 | 52.74 | 52.04 | 51.21 | 46.54 |
| 90° | 53.31 | 52.44 | 50.97 | 50.16 | 47.82 | 46.69 | 49.30 | 53.97 | 55.65 | 53.51 | 52.50 | 51.77 |
| 95° | 62.01 | 61.80 | 58.04 | 56.44 | 59.14 | 60.27 | 60.68 | 58.66 | 57.54 | 58.24 | 55.39 | 53.44 |
| 100° | 70.18 | 72.77 | 72.63 | 71.60 | 70.04 | 68.74 | 68.74 | 68.74 | 70.86 | 71.88 | 71.27 | 71.33 |
| 105° | 79.29 | 82.17 | 85.76 | 87.37 | 87.81 | 87.66 | 89.22 | 92.15 | 95.33 | 96.88 | 94.92 | 94.14 |
| 110° | 96.41 | 100.39 | 102.15 | 100.31 | 99.40 | 98.82 | 100.18 | 103.37 | 105.86 | 106.70 | 104.50 | 105.35 |
| 115° | 115.38 | 116.91 | 116.64 | 112.22 | 111.81 | 113.13 | 112.57 | 112.79 | 114.67 | 118.45 | 120.06 | 122.30 |
| 120° | 125.67 | 123.49 | 124.99 | 121.72 | 120.03 | 120.71 | 120.03 | 120.71 | 120.03 | 121.52 | 124.99 | 131.31 |
| 125° | 132.31 | 132.69 | 132.88 | 130.11 | 129.08 | 128.64 | 128.83 | 128.89 | 128.44 | 127.74 | 127.99 | 130.44 |
| 130° | 137.99 | 141.46 | 140.42 | 139.03 | 139.76 | 141.14 | 139.03 | 135.81 | 133.78 | 134.50 | 136.40 | 137.05 |
| 135° | 144.03 | 149.08 | 145.70 | 144.44 | 146.02 | 149.80 | 150.20 | 147.27 | 143.63 | 141.11 | 141.51 | 141.97 |
| 140° | 140.37 | 145.90 | 146.03 | 148.25 | 150.92 | 153.98 | 156.14 | 154.17 | 148.70 | 145.83 | 142.85 | 140.56 |
| 145° | 139.20 | 141.66 | 143.24 | 149.00 | 155.08 | 156.73 | 158.10 | 156.52 | 152.61 | 150.10 | 146.73 | 140.40 |
| 150° | 139.47 | 139.02 | 140.06 | 145.83 | 151.03 | 156.42 | 160.06 | 157.19 | 153.17 | 151.47 | 148.88 | 140.64 |

PHOTOMETRIC MEASUREMENT REPORT N° 01

| | | | | | | | | | | | | |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 155° | 137.12 | 137.12 | 134.44 | 137.96 | 143.36 | 146.34 | 150.39 | 153.51 | 150.80 | 149.58 | 145.79 | 140.10 |
| 160° | 132.43 | 134.64 | 132.50 | 130.92 | 130.52 | 131.40 | 133.54 | 136.57 | 134.37 | 133.13 | 130.59 | 125.76 |
| 165° | 126.36 | 126.16 | 124.66 | 122.95 | 123.83 | 124.72 | 125.54 | 126.83 | 125.54 | 122.81 | 120.71 | 118.12 |
| 170° | 117.19 | 115.57 | 114.02 | 113.89 | 113.89 | 113.89 | 114.58 | 115.14 | 115.43 | 114.37 | 112.63 | 110.30 |
| 175° | 114.40 | 115.26 | 115.73 | 116.54 | 116.93 | 117.41 | 117.61 | 118.08 | 118.08 | 118.01 | 118.62 | 119.56 |
| 180° | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 | 125.36 |

Photometric Polar Diagram



PHOTOMETRIC MEASUREMENT REPORT N° 01

Photometric Cartesian Diagram



Light Emmission Photo



Opening angle

