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LumCAT: IP65 SPOT LIGHT 5W 4000K

Luminaire:

Report No: WJ16047159P-1

Test No: WJ16047159P-1

LampCAT:

Lamp flux(lm)

Number of Lamps: 0

Length(mm): 0

Phm Type: C

Voltage(V): 229.9800

Current(A): 0.0410

Power (W): 5.0200

PF: 0.5289

Ballast type:

Width(mm): 0

Height(mm): 0

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### Photometric Results

Lumens(lm): 350.41

Lumens(lm)/Power(W): 69.80

Central intensity(cd): 151.713

Maximum intensity(cd): 152.741

Angle of maximum intensity: C=180.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=93.0

[C90/270]Total=93.2

Field angle(10%Imax): [C0/180]Total=153.1

[C90/270]Total=154.7

Beam angle of C180plane: 93.06

Average BeamAngle(IEC 61341):93.07

Maximum s/h(1/2): C0\_180=1.12 C90\_270=1.15

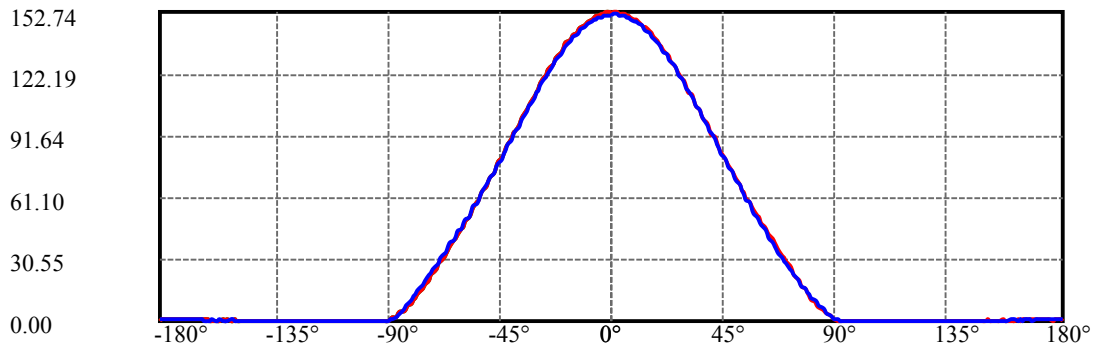
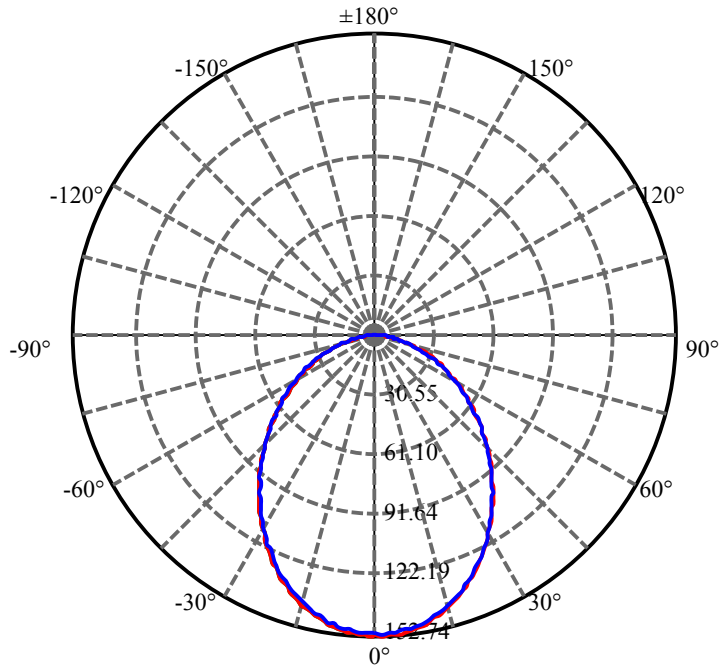
Maximum s/h(1/4): C0\_180=1.22 C90\_270=1.25

Up flux rate of LUM(%): 0.52%

Down flux rate of LUM(%): 99.48%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 82.080%



C180(Max): ———

C0/C180: ———

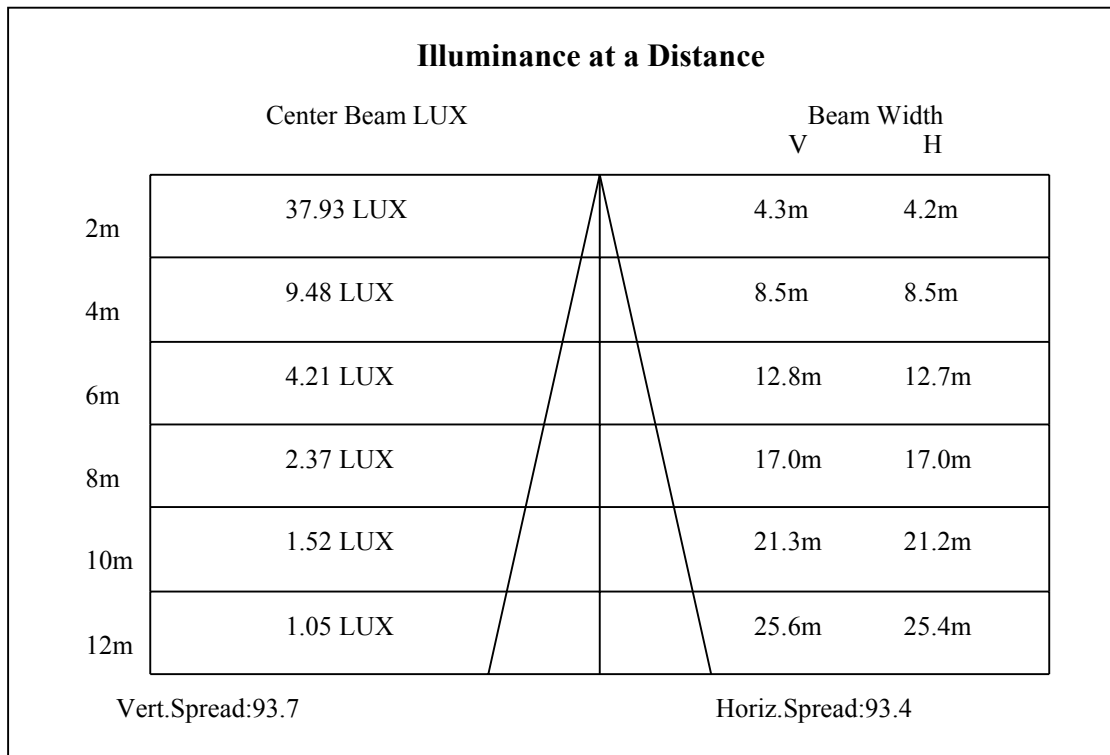
C90/C270: ———

Field angle(10%Imax):C0/180Left:75.7 Right:77.4

:C90/270Left:77.1 Right:77.6

Beam Angle(50%Imax):C0/180Left:45.9 Right:47.1

:C90/270Left:46.0 Right:47.2



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Intensity data(cd)

|        |        |        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| C/γ(°) | 0.0    | 1.0    | 2.0    | 3.0    | 4.0    | 5.0    | 6.0    | 7.0    | 8.0    |
| 0.0    | 151.71 | 152.59 | 152.45 | 152.01 | 152.15 | 151.86 | 151.27 | 150.69 | 150.25 |
| 30.0   | 151.42 | 151.42 | 151.57 | 151.42 | 150.98 | 150.83 | 150.25 | 149.66 | 148.93 |
| 60.0   | 151.57 | 151.13 | 151.27 | 151.13 | 151.13 | 150.54 | 150.25 | 149.81 | 148.93 |
| 90.0   | 150.98 | 151.42 | 151.42 | 151.27 | 150.83 | 150.39 | 149.81 | 149.66 | 149.07 |
| 120.0  | 151.27 | 151.42 | 151.13 | 150.98 | 150.83 | 150.39 | 149.81 | 149.22 | 148.78 |
| 150.0  | 151.57 | 151.57 | 151.27 | 151.13 | 150.83 | 150.25 | 149.81 | 149.22 | 148.19 |
| 180.0  | 152.74 | 152.45 | 152.30 | 152.15 | 151.57 | 151.13 | 150.83 | 149.81 | 149.07 |
| 210.0  | 151.42 | 151.42 | 151.27 | 150.98 | 150.54 | 150.10 | 149.51 | 148.78 | 148.05 |
| 240.0  | 151.57 | 151.42 | 150.98 | 150.69 | 150.54 | 149.81 | 149.66 | 148.34 | 147.61 |
| 270.0  | 150.98 | 151.27 | 150.98 | 150.83 | 150.25 | 149.66 | 149.37 | 148.78 | 147.75 |
| 300.0  | 151.27 | 151.13 | 150.83 | 150.54 | 150.39 | 149.81 | 149.51 | 148.78 | 148.19 |
| 330.0  | 151.57 | 151.27 | 151.27 | 150.98 | 150.69 | 150.39 | 149.81 | 149.22 | 148.63 |
| 360.0  | 151.71 | 152.59 | 152.45 | 152.01 | 152.15 | 151.86 | 151.27 | 150.69 | 150.25 |
| C/γ(°) | 9.0    | 10.0   | 11.0   | 12.0   | 13.0   | 14.0   | 15.0   | 16.0   | 17.0   |
| 0.0    | 149.37 | 148.78 | 147.75 | 146.43 | 145.55 | 144.82 | 143.20 | 142.03 | 140.42 |
| 30.0   | 148.05 | 147.31 | 146.72 | 145.40 | 144.38 | 143.35 | 142.18 | 141.00 | 139.24 |
| 60.0   | 148.19 | 147.31 | 146.58 | 145.40 | 144.52 | 143.35 | 142.03 | 141.15 | 139.39 |
| 90.0   | 148.34 | 147.75 | 146.58 | 145.70 | 144.67 | 143.64 | 142.03 | 140.86 | 139.39 |
| 120.0  | 147.90 | 147.16 | 146.28 | 144.96 | 144.38 | 143.35 | 141.74 | 140.56 | 138.80 |
| 150.0  | 147.90 | 147.02 | 145.99 | 144.96 | 143.64 | 142.47 | 141.74 | 139.54 | 138.07 |
| 180.0  | 148.34 | 147.46 | 146.14 | 145.11 | 144.08 | 142.76 | 141.59 | 139.83 | 138.21 |
| 210.0  | 147.16 | 146.43 | 145.70 | 144.67 | 143.06 | 142.03 | 140.56 | 138.65 | 137.77 |
| 240.0  | 147.31 | 146.14 | 144.96 | 144.23 | 143.20 | 141.44 | 140.42 | 138.65 | 137.48 |
| 270.0  | 147.31 | 145.99 | 144.96 | 144.23 | 142.76 | 141.15 | 140.12 | 138.51 | 137.19 |
| 300.0  | 147.16 | 146.14 | 145.11 | 144.67 | 143.35 | 142.03 | 140.27 | 139.10 | 137.77 |
| 330.0  | 147.90 | 147.31 | 145.99 | 144.96 | 144.08 | 142.62 | 141.15 | 140.27 | 138.21 |
| 360.0  | 149.37 | 148.78 | 147.75 | 146.43 | 145.55 | 144.82 | 143.20 | 142.03 | 140.42 |
| C/γ(°) | 18.0   | 19.0   | 20.0   | 21.0   | 22.0   | 23.0   | 24.0   | 25.0   | 26.0   |
| 0.0    | 138.95 | 136.89 | 135.72 | 133.67 | 131.91 | 130.59 | 128.24 | 125.89 | 124.28 |
| 30.0   | 138.07 | 136.45 | 134.99 | 133.23 | 131.17 | 129.70 | 127.50 | 125.30 | 123.54 |
| 60.0   | 137.63 | 136.60 | 134.99 | 132.64 | 131.47 | 129.26 | 127.36 | 126.33 | 123.69 |
| 90.0   | 137.77 | 136.60 | 134.69 | 133.08 | 131.61 | 129.41 | 127.80 | 125.89 | 123.98 |
| 120.0  | 137.48 | 136.01 | 134.25 | 131.91 | 130.59 | 128.82 | 126.77 | 125.16 | 122.96 |
| 150.0  | 136.75 | 135.28 | 133.37 | 132.20 | 129.85 | 128.09 | 126.48 | 124.28 | 121.49 |
| 180.0  | 137.19 | 135.13 | 133.08 | 131.91 | 130.00 | 127.50 | 126.48 | 123.84 | 121.63 |
| 210.0  | 135.57 | 134.25 | 132.93 | 131.03 | 128.53 | 127.21 | 125.45 | 123.10 | 121.34 |
| 240.0  | 135.43 | 134.11 | 132.05 | 130.00 | 129.12 | 126.92 | 124.86 | 122.96 | 120.90 |
| 270.0  | 136.01 | 134.11 | 132.20 | 131.03 | 128.97 | 126.77 | 125.16 | 122.81 | 120.61 |
| 300.0  | 135.87 | 134.69 | 132.79 | 130.88 | 129.41 | 127.21 | 124.86 | 123.25 | 121.49 |
| 330.0  | 136.89 | 135.72 | 133.67 | 132.20 | 130.29 | 128.38 | 126.18 | 124.13 | 122.81 |
| 360.0  | 138.95 | 136.89 | 135.72 | 133.67 | 131.91 | 130.59 | 128.24 | 125.89 | 124.28 |
| C/γ(°) | 27.0   | 28.0   | 29.0   | 30.0   | 31.0   | 32.0   | 33.0   | 34.0   | 35.0   |
| 0.0    | 122.37 | 119.58 | 118.26 | 115.47 | 113.27 | 111.80 | 109.02 | 106.08 | 104.32 |
| 30.0   | 121.63 | 119.14 | 117.23 | 115.33 | 112.54 | 111.07 | 108.28 | 105.94 | 104.32 |
| 60.0   | 121.78 | 119.58 | 117.67 | 115.18 | 113.27 | 111.22 | 108.43 | 106.82 | 104.03 |
| 90.0   | 121.34 | 119.73 | 117.82 | 115.18 | 113.86 | 110.78 | 108.72 | 106.38 | 104.17 |
| 120.0  | 120.61 | 119.29 | 116.79 | 114.15 | 112.39 | 110.19 | 107.70 | 105.94 | 103.00 |
| 150.0  | 120.31 | 118.11 | 115.62 | 114.01 | 111.36 | 109.31 | 107.55 | 104.61 | 101.83 |
| 180.0  | 120.17 | 117.38 | 114.89 | 113.27 | 111.22 | 108.43 | 106.67 | 104.03 | 101.53 |
| 210.0  | 118.99 | 116.94 | 115.47 | 112.68 | 110.04 | 108.28 | 105.94 | 103.15 | 101.53 |
| 240.0  | 118.11 | 116.79 | 114.15 | 111.95 | 110.34 | 107.70 | 105.35 | 102.85 | 100.95 |
| 270.0  | 119.14 | 116.50 | 114.30 | 112.68 | 110.19 | 107.55 | 105.79 | 103.29 | 100.65 |
| 300.0  | 118.99 | 117.53 | 114.89 | 112.68 | 110.92 | 108.14 | 105.50 | 103.88 | 101.53 |
| 330.0  | 120.46 | 117.97 | 116.06 | 113.86 | 111.36 | 109.60 | 106.82 | 104.76 | 103.00 |
| 360.0  | 122.37 | 119.58 | 118.26 | 115.47 | 113.27 | 111.80 | 109.02 | 106.08 | 104.32 |

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Intensity data(cd)

|        |        |       |       |       |       |       |       |       |       |
|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| C/γ(°) | 36.0   | 37.0  | 38.0  | 39.0  | 40.0  | 41.0  | 42.0  | 43.0  | 44.0  |
| 0.0    | 101.97 | 99.48 | 97.43 | 94.93 | 92.44 | 90.68 | 88.03 | 85.10 | 83.34 |
| 30.0   | 101.53 | 98.45 | 96.84 | 94.64 | 91.56 | 88.77 | 87.01 | 85.10 | 83.19 |
| 60.0   | 101.83 | 99.63 | 97.28 | 94.34 | 92.73 | 90.38 | 87.45 | 85.83 | 82.75 |
| 90.0   | 101.24 | 99.92 | 96.99 | 94.34 | 92.73 | 90.38 | 87.59 | 85.83 | 82.90 |
| 120.0  | 100.51 | 99.04 | 96.25 | 94.64 | 91.56 | 89.36 | 86.71 | 84.95 | 82.02 |
| 150.0  | 100.36 | 98.01 | 95.08 | 93.32 | 90.09 | 88.33 | 86.57 | 83.93 | 80.85 |
| 180.0  | 99.63  | 96.99 | 94.20 | 92.58 | 90.09 | 87.30 | 85.69 | 82.75 | 80.41 |
| 210.0  | 98.60  | 96.40 | 94.64 | 91.85 | 89.06 | 87.45 | 85.39 | 82.31 | 80.11 |
| 240.0  | 98.01  | 96.40 | 94.05 | 91.12 | 89.50 | 86.57 | 84.51 | 82.17 | 79.97 |
| 270.0  | 98.89  | 96.10 | 93.90 | 92.14 | 89.36 | 87.01 | 84.22 | 82.75 | 79.97 |
| 300.0  | 98.60  | 97.13 | 94.78 | 92.00 | 90.24 | 87.30 | 85.10 | 83.63 | 80.70 |
| 330.0  | 100.21 | 97.43 | 95.52 | 93.32 | 90.38 | 88.77 | 86.13 | 83.93 | 82.02 |
| 360.0  | 101.97 | 99.48 | 97.43 | 94.93 | 92.44 | 90.68 | 88.03 | 85.10 | 83.34 |
| C/γ(°) | 45.0   | 46.0  | 47.0  | 48.0  | 49.0  | 50.0  | 51.0  | 52.0  | 53.0  |
| 0.0    | 80.99  | 78.35 | 76.59 | 73.95 | 71.75 | 69.99 | 67.35 | 64.56 | 63.24 |
| 30.0   | 80.41  | 77.47 | 75.71 | 73.51 | 70.72 | 67.93 | 66.47 | 64.27 | 61.62 |
| 60.0   | 80.70  | 78.94 | 76.15 | 73.36 | 71.60 | 69.55 | 66.61 | 65.00 | 62.36 |
| 90.0   | 80.85  | 78.94 | 76.30 | 73.66 | 71.60 | 69.55 | 67.05 | 64.12 | 62.36 |
| 120.0  | 79.97  | 78.20 | 75.42 | 72.63 | 71.16 | 68.81 | 66.03 | 64.27 | 61.62 |
| 150.0  | 79.08  | 76.74 | 73.95 | 72.48 | 69.55 | 67.35 | 65.88 | 63.09 | 60.89 |
| 180.0  | 78.79  | 76.15 | 73.07 | 71.45 | 69.11 | 66.32 | 64.71 | 62.21 | 60.01 |
| 210.0  | 77.91  | 75.86 | 73.95 | 71.31 | 69.11 | 66.47 | 64.85 | 62.36 | 60.01 |
| 240.0  | 77.47  | 75.86 | 73.51 | 70.87 | 69.25 | 66.47 | 64.41 | 62.80 | 60.16 |
| 270.0  | 78.20  | 75.71 | 73.36 | 70.72 | 69.11 | 67.05 | 64.41 | 62.80 | 60.01 |
| 300.0  | 77.91  | 76.44 | 74.39 | 71.16 | 69.69 | 67.35 | 65.00 | 63.39 | 60.89 |
| 330.0  | 79.23  | 76.44 | 74.98 | 72.78 | 70.13 | 68.67 | 65.88 | 63.68 | 62.21 |
| 360.0  | 80.99  | 78.35 | 76.59 | 73.95 | 71.75 | 69.99 | 67.35 | 64.56 | 63.24 |
| C/γ(°) | 54.0   | 55.0  | 56.0  | 57.0  | 58.0  | 59.0  | 60.0  | 61.0  | 62.0  |
| 0.0    | 61.18  | 58.69 | 57.22 | 54.58 | 52.38 | 51.06 | 48.27 | 46.66 | 44.60 |
| 30.0   | 60.01  | 57.37 | 55.32 | 53.55 | 51.21 | 49.59 | 46.95 | 45.04 | 42.55 |
| 60.0   | 60.30  | 58.69 | 55.90 | 53.41 | 51.65 | 49.74 | 47.10 | 45.63 | 43.28 |
| 90.0   | 60.16  | 58.54 | 56.34 | 53.55 | 51.21 | 49.74 | 47.25 | 45.92 | 43.28 |
| 120.0  | 59.57  | 57.66 | 55.32 | 52.53 | 51.06 | 48.86 | 46.51 | 45.19 | 42.55 |
| 150.0  | 58.84  | 56.78 | 54.29 | 52.53 | 50.47 | 47.98 | 46.37 | 44.02 | 41.82 |
| 180.0  | 58.54  | 55.76 | 53.11 | 51.50 | 49.45 | 46.95 | 45.34 | 42.99 | 40.94 |
| 210.0  | 58.25  | 56.05 | 53.70 | 52.23 | 50.03 | 47.83 | 46.22 | 44.02 | 42.11 |
| 240.0  | 57.37  | 56.05 | 54.29 | 51.65 | 50.18 | 47.69 | 46.07 | 44.46 | 42.11 |
| 270.0  | 58.10  | 56.49 | 53.99 | 51.65 | 50.33 | 48.13 | 45.78 | 44.31 | 41.96 |
| 300.0  | 58.69  | 56.64 | 54.73 | 52.23 | 50.77 | 48.71 | 46.66 | 45.19 | 42.55 |
| 330.0  | 59.57  | 57.08 | 55.61 | 53.55 | 51.06 | 49.45 | 47.10 | 45.19 | 43.87 |
| 360.0  | 61.18  | 58.69 | 57.22 | 54.58 | 52.38 | 51.06 | 48.27 | 46.66 | 44.60 |
| C/γ(°) | 63.0   | 64.0  | 65.0  | 66.0  | 67.0  | 68.0  | 69.0  | 70.0  | 71.0  |
| 0.0    | 42.70  | 40.35 | 38.88 | 36.97 | 34.77 | 32.43 | 30.96 | 29.34 | 27.44 |
| 30.0   | 41.08  | 38.59 | 37.27 | 35.36 | 33.01 | 30.81 | 29.34 | 27.58 | 26.26 |
| 60.0   | 39.76  | 39.32 | 37.85 | 35.51 | 33.01 | 30.81 | 30.08 | 28.02 | 25.97 |
| 90.0   | 41.23  | 38.74 | 37.27 | 35.07 | 33.31 | 31.69 | 29.49 | 28.02 | 25.82 |
| 120.0  | 40.50  | 39.18 | 36.68 | 34.63 | 32.87 | 31.11 | 28.76 | 27.44 | 25.82 |
| 150.0  | 40.06  | 38.00 | 35.65 | 34.33 | 32.57 | 30.08 | 28.76 | 26.56 | 24.94 |
| 180.0  | 39.47  | 37.12 | 34.77 | 33.60 | 31.55 | 29.20 | 28.02 | 25.68 | 23.62 |
| 210.0  | 40.79  | 38.15 | 36.09 | 34.63 | 32.87 | 30.67 | 29.34 | 27.14 | 25.38 |
| 240.0  | 39.76  | 38.44 | 36.39 | 34.19 | 33.01 | 30.81 | 29.05 | 27.73 | 25.68 |
| 270.0  | 40.06  | 38.74 | 36.53 | 34.19 | 32.87 | 31.25 | 28.90 | 27.58 | 25.53 |
| 300.0  | 41.08  | 38.88 | 36.97 | 34.92 | 33.45 | 31.84 | 29.34 | 27.29 | 25.97 |
| 330.0  | 41.52  | 39.03 | 37.71 | 35.80 | 33.60 | 32.28 | 29.93 | 28.32 | 27.00 |
| 360.0  | 42.70  | 40.35 | 38.88 | 36.97 | 34.77 | 32.43 | 30.96 | 29.34 | 27.44 |

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Intensity data(cd)

|        |       |       |       |       |       |       |       |       |       |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C/γ(°) | 72.0  | 73.0  | 74.0  | 75.0  | 76.0  | 77.0  | 78.0  | 79.0  | 80.0  |
| 0.0    | 25.38 | 22.89 | 20.98 | 19.51 | 17.31 | 15.99 | 14.09 | 12.32 | 10.42 |
| 30.0   | 23.92 | 21.86 | 19.95 | 18.63 | 16.14 | 14.82 | 12.77 | 10.71 | 8.80  |
| 60.0   | 24.65 | 21.28 | 20.83 | 19.66 | 17.61 | 15.41 | 14.53 | 12.77 | 10.86 |
| 90.0   | 24.21 | 22.89 | 20.69 | 18.93 | 17.46 | 16.29 | 14.38 | 13.35 | 11.59 |
| 120.0  | 23.62 | 22.30 | 20.25 | 18.49 | 17.17 | 15.26 | 13.35 | 12.03 | 10.56 |
| 150.0  | 23.48 | 21.28 | 18.93 | 17.46 | 15.55 | 13.35 | 12.03 | 9.83  | 8.36  |
| 180.0  | 22.30 | 19.95 | 18.19 | 16.43 | 14.82 | 12.91 | 11.74 | 10.27 | 8.51  |
| 210.0  | 24.36 | 22.01 | 19.95 | 19.22 | 17.46 | 15.55 | 14.23 | 12.47 | 11.15 |
| 240.0  | 23.48 | 22.16 | 20.69 | 18.49 | 17.02 | 15.11 | 13.50 | 12.32 | 10.12 |
| 270.0  | 23.77 | 22.45 | 20.25 | 18.34 | 17.17 | 15.41 | 13.21 | 12.18 | 10.12 |
| 300.0  | 24.36 | 23.04 | 20.98 | 18.93 | 17.31 | 15.99 | 14.38 | 13.06 | 11.44 |
| 330.0  | 24.94 | 22.74 | 21.57 | 19.66 | 17.61 | 16.43 | 14.53 | 13.06 | 11.88 |
| 360.0  | 25.38 | 22.89 | 20.98 | 19.51 | 17.31 | 15.99 | 14.09 | 12.32 | 10.42 |
| C/γ(°) | 81.0  | 82.0  | 83.0  | 84.0  | 85.0  | 86.0  | 87.0  | 88.0  | 89.0  |
| 0.0    | 9.39  | 7.48  | 6.60  | 5.72  | 4.70  | 3.37  | 2.49  | 1.91  | 0.88  |
| 30.0   | 7.48  | 5.43  | 4.40  | 3.23  | 1.76  | 1.32  | 0.59  | 0.59  | 0.44  |
| 60.0   | 9.68  | 8.07  | 6.31  | 5.58  | 4.26  | 3.08  | 2.35  | 1.61  | 0.73  |
| 90.0   | 10.27 | 9.39  | 7.78  | 6.60  | 5.43  | 4.26  | 3.08  | 2.35  | 1.17  |
| 120.0  | 8.36  | 7.48  | 5.72  | 4.84  | 3.81  | 2.93  | 2.05  | 1.61  | 1.03  |
| 150.0  | 7.04  | 5.14  | 3.52  | 2.79  | 1.76  | 0.88  | 0.73  | 0.59  | 0.44  |
| 180.0  | 7.63  | 6.16  | 5.14  | 4.40  | 3.52  | 2.35  | 1.76  | 1.32  | 0.44  |
| 210.0  | 9.98  | 8.36  | 7.04  | 5.87  | 4.84  | 3.37  | 2.79  | 1.17  | 0.59  |
| 240.0  | 8.22  | 7.04  | 5.28  | 3.52  | 2.79  | 1.47  | 1.47  | 0.73  | 0.44  |
| 270.0  | 8.36  | 7.19  | 5.58  | 3.81  | 2.93  | 2.05  | 1.32  | 0.88  | 0.44  |
| 300.0  | 9.98  | 8.22  | 7.48  | 6.02  | 4.99  | 3.81  | 2.64  | 1.17  | 0.59  |
| 330.0  | 10.27 | 8.80  | 7.78  | 6.46  | 4.84  | 4.11  | 3.23  | 1.91  | 1.03  |
| 360.0  | 9.39  | 7.48  | 6.60  | 5.72  | 4.70  | 3.37  | 2.49  | 1.91  | 0.88  |
| C/γ(°) | 90.0  | 91.0  | 92.0  | 93.0  | 94.0  | 95.0  | 96.0  | 97.0  | 98.0  |
| 0.0    | 0.44  | 0.15  | 0.29  | 0.29  | 0.15  | 0.29  | 0.15  | 0.29  | 0.15  |
| 30.0   | 0.29  | 0.15  | 0.29  | 0.29  | 0.15  | 0.15  | 0.29  | 0.29  | 0.29  |
| 60.0   | 0.29  | 0.29  | 0.29  | 0.15  | 0.44  | 0.29  | 0.44  | 0.29  | 0.15  |
| 90.0   | 0.59  | 0.29  | 0.15  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.15  |
| 120.0  | 0.59  | 0.15  | 0.29  | 0.15  | 0.15  | 0.15  | 0.15  | 0.00  | 0.29  |
| 150.0  | 0.29  | 0.29  | 0.29  | 0.15  | 0.15  | 0.44  | 0.15  | 0.15  | 0.15  |
| 180.0  | 0.44  | 0.29  | 0.15  | 0.15  | 0.29  | 0.29  | 0.15  | 0.29  | 0.44  |
| 210.0  | 0.29  | 0.15  | 0.15  | 0.15  | 0.15  | 0.29  | 0.29  | 0.15  | 0.15  |
| 240.0  | 0.29  | 0.29  | 0.15  | 0.29  | 0.15  | 0.29  | 0.29  | 0.29  | 0.15  |
| 270.0  | 0.29  | 0.29  | 0.29  | 0.44  | 0.15  | 0.15  | 0.15  | 0.29  | 0.15  |
| 300.0  | 0.29  | 0.44  | 0.15  | 0.29  | 0.15  | 0.29  | 0.29  | 0.29  | 0.29  |
| 330.0  | 0.44  | 0.29  | 0.29  | 0.15  | 0.15  | 0.15  | 0.29  | 0.29  | 0.15  |
| 360.0  | 0.44  | 0.15  | 0.29  | 0.29  | 0.15  | 0.29  | 0.15  | 0.29  | 0.15  |
| C/γ(°) | 99.0  | 100.0 | 101.0 | 102.0 | 103.0 | 104.0 | 105.0 | 106.0 | 107.0 |
| 0.0    | 0.29  | 0.29  | 0.15  | 0.29  | 0.29  | 0.15  | 0.15  | 0.29  | 0.15  |
| 30.0   | 0.29  | 0.29  | 0.00  | 0.29  | 0.15  | 0.15  | 0.29  | 0.15  | 0.15  |
| 60.0   | 0.44  | 0.29  | 0.29  | 0.29  | 0.15  | 0.29  | 0.15  | 0.29  | 0.29  |
| 90.0   | 0.15  | 0.15  | 0.15  | 0.00  | 0.15  | 0.29  | 0.15  | 0.29  | 0.29  |
| 120.0  | 0.15  | 0.15  | 0.15  | 0.29  | 0.15  | 0.15  | 0.15  | 0.15  | 0.29  |
| 150.0  | 0.15  | 0.29  | 0.29  | 0.15  | 0.15  | 0.00  | 0.29  | 0.15  | 0.15  |
| 180.0  | 0.15  | 0.15  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.15  |
| 210.0  | 0.15  | 0.15  | 0.15  | 0.15  | 0.29  | 0.15  | 0.29  | 0.29  | 0.15  |
| 240.0  | 0.15  | 0.29  | 0.44  | 0.15  | 0.29  | 0.15  | 0.15  | 0.44  | 0.44  |
| 270.0  | 0.15  | 0.15  | 0.15  | 0.29  | 0.29  | 0.15  | 0.15  | 0.29  | 0.15  |
| 300.0  | 0.29  | 0.29  | 0.15  | 0.29  | 0.15  | 0.29  | 0.29  | 0.15  | 0.29  |
| 330.0  | 0.29  | 0.15  | 0.29  | 0.15  | 0.15  | 0.15  | 0.29  | 0.15  | 0.29  |
| 360.0  | 0.29  | 0.29  | 0.15  | 0.29  | 0.29  | 0.15  | 0.15  | 0.29  | 0.15  |

IP65 SPOT LIGHT 5W 4000K

Intensity data(cd)

|        |       |       |       |       |       |       |       |       |       |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C/γ(°) | 108.0 | 109.0 | 110.0 | 111.0 | 112.0 | 113.0 | 114.0 | 115.0 | 116.0 |
| 0.0    | 0.29  | 0.15  | 0.44  | 0.29  | 0.15  | 0.15  | 0.29  | 0.15  | 0.15  |
| 30.0   | 0.00  | 0.29  | 0.29  | 0.29  | 0.29  | 0.44  | 0.44  | 0.44  | 0.44  |
| 60.0   | 0.29  | 0.15  | 0.15  | 0.29  | 0.15  | 0.29  | 0.44  | 0.44  | 0.29  |
| 90.0   | 0.15  | 0.29  | 0.29  | 0.29  | 0.29  | 0.44  | 0.15  | 0.29  | 0.29  |
| 120.0  | 0.29  | 0.29  | 0.15  | 0.29  | 0.29  | 0.44  | 0.29  | 0.15  | 0.29  |
| 150.0  | 0.29  | 0.44  | 0.15  | 0.15  | 0.15  | 0.15  | 0.44  | 0.15  | 0.00  |
| 180.0  | 0.29  | 0.29  | 0.15  | 0.29  | 0.15  | 0.15  | 0.29  | 0.15  | 0.15  |
| 210.0  | 0.44  | 0.15  | 0.15  | 0.15  | 0.15  | 0.15  | 0.15  | 0.44  | 0.15  |
| 240.0  | 0.15  | 0.29  | 0.29  | 0.15  | 0.29  | 0.15  | 0.29  | 0.15  | 0.29  |
| 270.0  | 0.29  | 0.15  | 0.29  | 0.29  | 0.29  | 0.15  | 0.15  | 0.29  | 0.29  |
| 300.0  | 0.44  | 0.15  | 0.29  | 0.29  | 0.15  | 0.15  | 0.15  | 0.29  | 0.29  |
| 330.0  | 0.15  | 0.15  | 0.15  | 0.15  | 0.29  | 0.15  | 0.15  | 0.15  | 0.29  |
| 360.0  | 0.29  | 0.15  | 0.44  | 0.29  | 0.15  | 0.15  | 0.29  | 0.15  | 0.15  |
| C/γ(°) | 117.0 | 118.0 | 119.0 | 120.0 | 121.0 | 122.0 | 123.0 | 124.0 | 125.0 |
| 0.0    | 0.15  | 0.29  | 0.29  | 0.29  | 0.29  | 0.44  | 0.29  | 0.15  | 0.29  |
| 30.0   | 0.15  | 0.44  | 0.15  | 0.44  | 0.15  | 0.29  | 0.15  | 0.29  | 0.29  |
| 60.0   | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.15  |
| 90.0   | 0.15  | 0.15  | 0.44  | 0.15  | 0.29  | 0.15  | 0.29  | 0.29  | 0.44  |
| 120.0  | 0.15  | 0.15  | 0.29  | 0.15  | 0.15  | 0.29  | 0.15  | 0.44  | 0.29  |
| 150.0  | 0.29  | 0.29  | 0.29  | 0.15  | 0.15  | 0.15  | 0.15  | 0.44  | 0.44  |
| 180.0  | 0.29  | 0.29  | 0.29  | 0.29  | 0.00  | 0.15  | 0.29  | 0.29  | 0.44  |
| 210.0  | 0.29  | 0.15  | 0.15  | 0.29  | 0.29  | 0.29  | 0.29  | 0.15  | 0.29  |
| 240.0  | 0.15  | 0.29  | 0.15  | 0.29  | 0.29  | 0.29  | 0.15  | 0.15  | 0.15  |
| 270.0  | 0.15  | 0.29  | 0.29  | 0.29  | 0.15  | 0.15  | 0.15  | 0.29  | 0.29  |
| 300.0  | 0.29  | 0.44  | 0.15  | 0.29  | 0.15  | 0.29  | 0.29  | 0.29  | 0.29  |
| 330.0  | 0.15  | 0.29  | 0.29  | 0.29  | 0.15  | 0.44  | 0.15  | 0.29  | 0.29  |
| 360.0  | 0.15  | 0.29  | 0.29  | 0.29  | 0.29  | 0.44  | 0.29  | 0.15  | 0.29  |
| C/γ(°) | 126.0 | 127.0 | 128.0 | 129.0 | 130.0 | 131.0 | 132.0 | 133.0 | 134.0 |
| 0.0    | 0.15  | 0.15  | 0.29  | 0.29  | 0.15  | 0.29  | 0.15  | 0.29  | 0.44  |
| 30.0   | 0.29  | 0.15  | 0.29  | 0.29  | 0.44  | 0.15  | 0.15  | 0.15  | 0.15  |
| 60.0   | 0.15  | 0.29  | 0.15  | 0.29  | 0.15  | 0.15  | 0.29  | 0.29  | 0.29  |
| 90.0   | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.15  |
| 120.0  | 0.29  | 0.44  | 0.29  | 0.29  | 0.15  | 0.15  | 0.15  | 0.15  | 0.29  |
| 150.0  | 0.44  | 0.15  | 0.29  | 0.15  | 0.29  | 0.29  | 0.15  | 0.44  | 0.15  |
| 180.0  | 0.29  | 0.29  | 0.15  | 0.29  | 0.29  | 0.29  | 0.44  | 0.29  | 0.15  |
| 210.0  | 0.15  | 0.29  | 0.44  | 0.15  | 0.44  | 0.15  | 0.29  | 0.15  | 0.29  |
| 240.0  | 0.29  | 0.15  | 0.44  | 0.29  | 0.29  | 0.29  | 0.44  | 0.29  | 0.44  |
| 270.0  | 0.29  | 0.15  | 0.44  | 0.29  | 0.29  | 0.15  | 0.29  | 0.29  | 0.44  |
| 300.0  | 0.15  | 0.15  | 0.29  | 0.29  | 0.15  | 0.29  | 0.29  | 0.29  | 0.29  |
| 330.0  | 0.29  | 0.44  | 0.29  | 0.29  | 0.15  | 0.29  | 0.29  | 0.29  | 0.29  |
| 360.0  | 0.15  | 0.15  | 0.29  | 0.29  | 0.15  | 0.29  | 0.15  | 0.29  | 0.44  |
| C/γ(°) | 135.0 | 136.0 | 137.0 | 138.0 | 139.0 | 140.0 | 141.0 | 142.0 | 143.0 |
| 0.0    | 0.15  | 0.15  | 0.29  | 0.15  | 0.29  | 0.44  | 0.29  | 0.15  | 0.29  |
| 30.0   | 0.29  | 0.44  | 0.29  | 0.29  | 0.44  | 0.29  | 0.29  | 0.29  | 0.29  |
| 60.0   | 0.29  | 0.29  | 0.29  | 0.44  | 0.15  | 0.29  | 0.44  | 0.29  | 0.29  |
| 90.0   | 0.29  | 0.44  | 0.29  | 0.44  | 0.29  | 0.29  | 0.29  | 0.29  | 0.44  |
| 120.0  | 0.44  | 0.29  | 0.15  | 0.15  | 0.15  | 0.15  | 0.29  | 0.29  | 0.29  |
| 150.0  | 0.29  | 0.15  | 0.29  | 0.29  | 0.29  | 0.29  | 0.44  | 0.29  | 0.44  |
| 180.0  | 0.29  | 0.29  | 0.29  | 0.15  | 0.29  | 0.44  | 0.29  | 0.29  | 0.29  |
| 210.0  | 0.29  | 0.29  | 0.15  | 0.44  | 0.29  | 0.44  | 0.29  | 0.15  | 0.29  |
| 240.0  | 0.29  | 0.44  | 0.29  | 0.29  | 0.15  | 0.29  | 0.15  | 0.15  | 0.29  |
| 270.0  | 0.15  | 0.29  | 0.29  | 0.44  | 0.15  | 0.29  | 0.29  | 0.15  | 0.15  |
| 300.0  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  |
| 330.0  | 0.29  | 0.29  | 0.29  | 0.44  | 0.29  | 0.15  | 0.44  | 0.29  | 0.15  |
| 360.0  | 0.15  | 0.15  | 0.29  | 0.15  | 0.29  | 0.44  | 0.29  | 0.15  | 0.29  |

IP65 SPOT LIGHT 5W 4000K

Intensity data(cd)

| C/γ(°) | 144.0 | 145.0 | 146.0 | 147.0 | 148.0 | 149.0 | 150.0 | 151.0 | 152.0 |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0    | 0.44  | 0.29  | 0.15  | 0.29  | 0.29  | 0.44  | 0.59  | 0.29  | 0.44  |
| 30.0   | 0.29  | 0.29  | 0.29  | 0.44  | 0.15  | 0.29  | 0.29  | 0.44  | 0.44  |
| 60.0   | 0.15  | 0.44  | 0.29  | 0.29  | 0.44  | 0.44  | 0.29  | 0.44  | 0.44  |
| 90.0   | 0.44  | 0.29  | 0.44  | 0.44  | 0.15  | 0.29  | 0.44  | 0.44  | 0.44  |
| 120.0  | 0.29  | 0.29  | 0.29  | 0.29  | 0.29  | 0.44  | 0.44  | 0.15  | 0.44  |
| 150.0  | 0.29  | 0.44  | 0.44  | 0.29  | 0.44  | 0.44  | 0.29  | 0.44  | 0.44  |
| 180.0  | 0.29  | 0.29  | 0.29  | 0.44  | 0.44  | 0.29  | 0.59  | 0.44  | 0.44  |
| 210.0  | 0.29  | 0.44  | 0.29  | 0.29  | 0.44  | 0.15  | 0.29  | 0.44  | 0.44  |
| 240.0  | 0.29  | 0.29  | 0.29  | 0.15  | 0.44  | 0.44  | 0.44  | 0.15  | 0.44  |
| 270.0  | 0.29  | 0.44  | 0.44  | 0.29  | 0.44  | 0.29  | 0.44  | 0.59  | 0.59  |
| 300.0  | 0.29  | 0.29  | 0.44  | 0.44  | 0.59  | 0.44  | 0.15  | 0.29  | 0.44  |
| 330.0  | 0.29  | 0.44  | 0.15  | 0.29  | 0.44  | 0.29  | 0.44  | 0.44  | 0.44  |
| 360.0  | 0.44  | 0.29  | 0.15  | 0.29  | 0.29  | 0.44  | 0.59  | 0.29  | 0.44  |

| C/γ(°) | 153.0 | 154.0 | 155.0 | 156.0 | 157.0 | 158.0 | 159.0 | 160.0 | 161.0 |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0    | 0.44  | 0.44  | 0.44  | 0.59  | 0.44  | 0.44  | 0.44  | 0.44  | 0.44  |
| 30.0   | 0.29  | 0.29  | 0.44  | 0.44  | 0.44  | 0.44  | 0.29  | 0.59  | 0.44  |
| 60.0   | 0.44  | 0.59  | 0.29  | 0.29  | 0.44  | 0.44  | 0.59  | 0.59  | 0.44  |
| 90.0   | 0.29  | 0.29  | 0.29  | 0.44  | 0.29  | 0.44  | 0.59  | 0.59  | 0.59  |
| 120.0  | 0.29  | 0.29  | 0.59  | 0.44  | 0.44  | 0.59  | 0.59  | 0.44  | 0.29  |
| 150.0  | 0.44  | 0.44  | 0.29  | 0.44  | 0.29  | 0.29  | 0.44  | 0.29  | 0.59  |
| 180.0  | 0.73  | 0.44  | 0.59  | 0.29  | 0.44  | 0.44  | 0.44  | 0.44  | 0.59  |
| 210.0  | 0.44  | 0.44  | 0.44  | 0.44  | 0.59  | 0.44  | 0.59  | 0.44  | 0.44  |
| 240.0  | 0.29  | 0.44  | 0.44  | 0.59  | 0.44  | 0.59  | 0.44  | 0.59  | 0.59  |
| 270.0  | 0.44  | 0.29  | 0.29  | 0.59  | 0.29  | 0.44  | 0.59  | 0.44  | 0.44  |
| 300.0  | 0.29  | 0.44  | 0.44  | 0.44  | 0.44  | 0.59  | 0.44  | 0.59  | 0.44  |
| 330.0  | 0.29  | 0.44  | 0.44  | 0.29  | 0.59  | 0.44  | 0.59  | 0.44  | 0.59  |
| 360.0  | 0.44  | 0.44  | 0.44  | 0.59  | 0.44  | 0.44  | 0.44  | 0.44  | 0.44  |

| C/γ(°) | 162.0 | 163.0 | 164.0 | 165.0 | 166.0 | 167.0 | 168.0 | 169.0 | 170.0 |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0    | 0.59  | 0.29  | 0.59  | 0.73  | 0.73  | 0.73  | 0.73  | 0.59  | 0.59  |
| 30.0   | 0.44  | 0.59  | 0.44  | 0.44  | 0.44  | 0.44  | 0.59  | 0.59  | 0.44  |
| 60.0   | 0.59  | 0.59  | 0.44  | 0.59  | 0.73  | 0.73  | 0.59  | 0.73  | 0.59  |
| 90.0   | 0.44  | 0.73  | 0.44  | 0.59  | 0.59  | 0.59  | 0.44  | 0.88  | 0.73  |
| 120.0  | 0.59  | 0.59  | 0.59  | 0.59  | 0.73  | 0.44  | 0.73  | 0.59  | 0.59  |
| 150.0  | 0.59  | 0.44  | 0.59  | 0.44  | 0.59  | 0.73  | 0.44  | 0.73  | 0.59  |
| 180.0  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.73  | 0.73  | 0.59  | 0.59  |
| 210.0  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.73  | 0.59  |
| 240.0  | 0.59  | 0.59  | 0.44  | 0.59  | 0.73  | 0.73  | 0.88  | 0.73  | 0.73  |
| 270.0  | 0.44  | 0.59  | 0.59  | 0.73  | 0.59  | 0.59  | 0.73  | 0.59  | 0.73  |
| 300.0  | 0.73  | 0.44  | 0.73  | 0.59  | 0.73  | 0.59  | 0.73  | 0.59  | 0.59  |
| 330.0  | 0.59  | 0.59  | 0.59  | 0.88  | 0.59  | 0.59  | 0.44  | 0.59  | 0.73  |
| 360.0  | 0.59  | 0.29  | 0.59  | 0.73  | 0.73  | 0.73  | 0.73  | 0.59  | 0.59  |

| C/γ(°) | 171.0 | 172.0 | 173.0 | 174.0 | 175.0 | 176.0 | 177.0 | 178.0 | 179.0 |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0    | 0.59  | 0.59  | 0.59  | 0.59  | 0.73  | 0.44  | 0.73  | 0.59  | 0.73  |
| 30.0   | 0.59  | 0.73  | 0.44  | 0.59  | 0.59  | 0.59  | 0.73  | 0.59  | 0.73  |
| 60.0   | 0.44  | 0.59  | 0.73  | 0.59  | 0.73  | 0.73  | 0.73  | 0.59  | 0.59  |
| 90.0   | 0.73  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.73  | 0.59  |
| 120.0  | 0.59  | 0.73  | 0.59  | 0.59  | 0.73  | 0.59  | 0.59  | 0.59  | 0.73  |
| 150.0  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.73  | 0.44  | 0.59  | 0.73  |
| 180.0  | 0.73  | 0.59  | 0.59  | 0.59  | 0.73  | 0.59  | 0.59  | 0.59  | 0.59  |
| 210.0  | 0.73  | 0.59  | 0.59  | 0.44  | 0.44  | 0.59  | 0.59  | 0.73  | 0.73  |
| 240.0  | 0.73  | 0.59  | 0.73  | 0.59  | 0.59  | 0.73  | 0.59  | 0.59  | 0.59  |
| 270.0  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.73  |
| 300.0  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.88  | 0.73  | 0.59  |
| 330.0  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.59  | 0.73  | 0.59  | 0.59  |
| 360.0  | 0.59  | 0.59  | 0.59  | 0.59  | 0.73  | 0.44  | 0.73  | 0.59  | 0.73  |



Intensity data(cd)

|                 |       |
|-----------------|-------|
| C/ $\gamma$ (°) | 180.0 |
| 0.0             | 0.44  |
| 30.0            | 0.59  |
| 60.0            | 0.73  |
| 90.0            | 0.73  |
| 120.0           | 0.59  |
| 150.0           | 0.59  |
| 180.0           | 0.44  |
| 210.0           | 0.59  |
| 240.0           | 0.73  |
| 270.0           | 0.73  |
| 300.0           | 0.59  |
| 330.0           | 0.59  |
| 360.0           | 0.44  |