

**Luminaire**

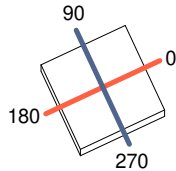
Code 90817+90823V003  
Name SONA V 3 SPOT 940 50°

**Measurem.**

Code 24/6/2024  
Name SONA V 3 SPOT 940 50°

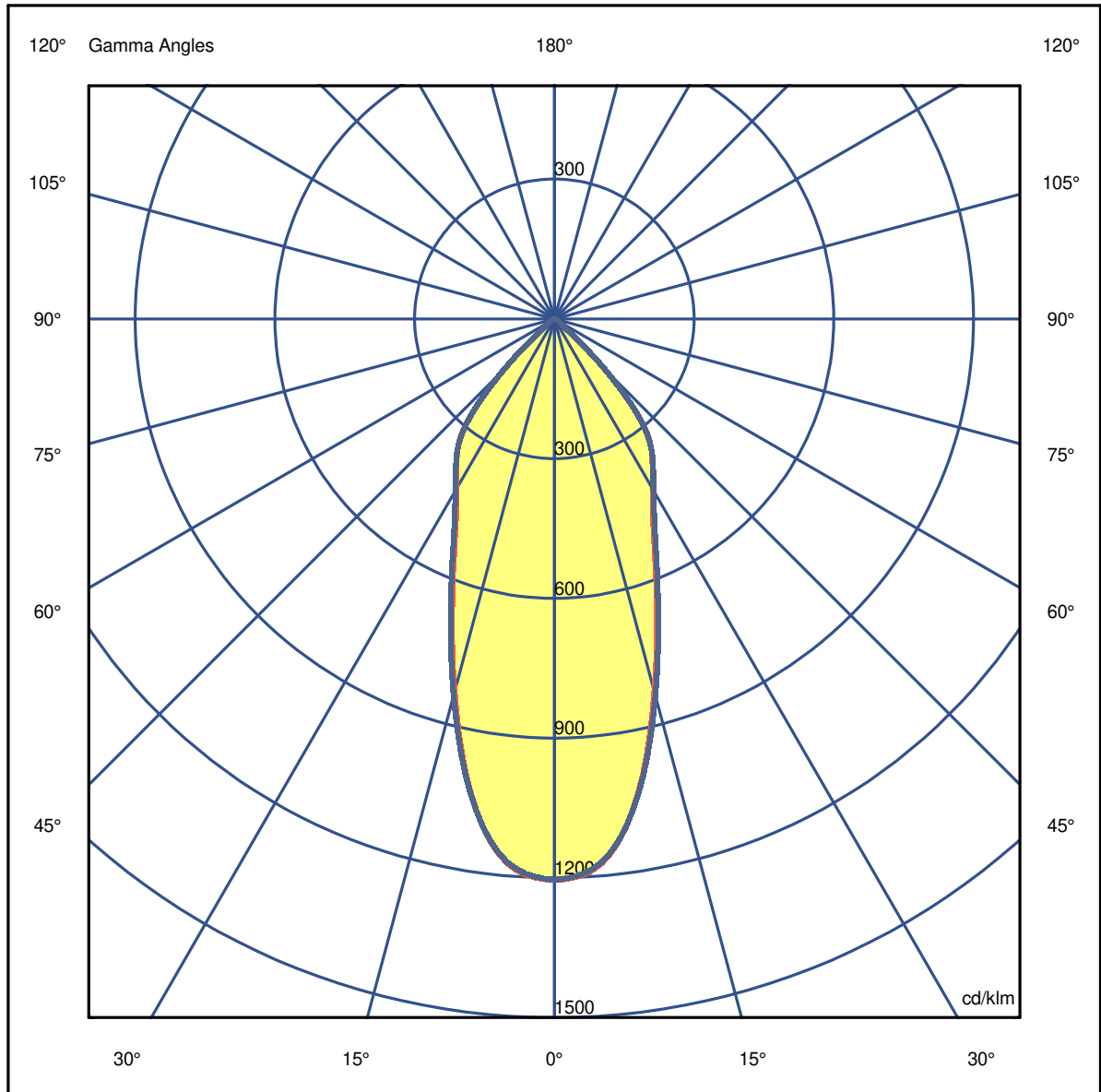
|                |         |                 |                |          |               |            |                    |
|----------------|---------|-----------------|----------------|----------|---------------|------------|--------------------|
| Luminaire Flux | 2175 lm | Luminaire Power | 17.9 W         | Efficacy | 121.249 lm/W  | Efficiency | 95.15%             |
| Source Flux    | 2286 lm | Maximum value   | 1204.80 cd/klm | Position | C=0.00 G=0.00 | CG         | Double Symmetrical |

693mm x 693mm



C Halfplanes

180.0 ——— 0.0  
270.0 ——— 90.0



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**Measur.**

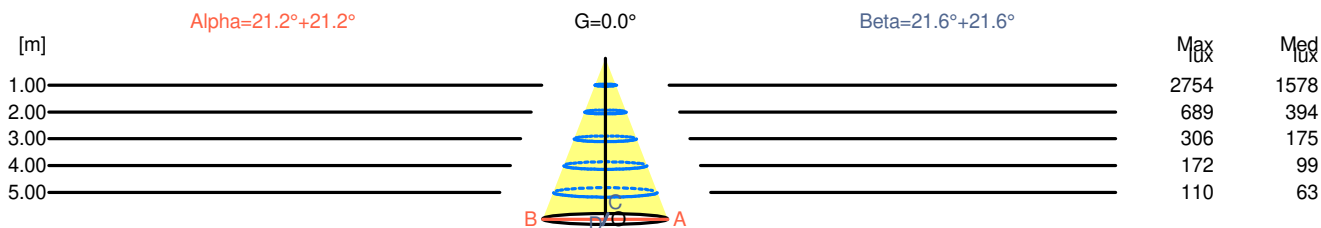
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Name SONA V 3 SPOT 940 50°

|                |         |                 |                |          |               |            |                    |
|----------------|---------|-----------------|----------------|----------|---------------|------------|--------------------|
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| Source Flux    | 2286 lm | Maximum value   | 1204.80 cd/klm | Position | C=0.00 G=0.00 | CG         | Double Symmetrical |

Width at 50.00 % of Max Intensity

|      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|
| H[m] | 1.00 | 2.00 | 3.00 | 4.00 | 5.00 | H[m] | 1.00 | 2.00 | 3.00 | 4.00 | 5.00 |
| OA   | 0.39 | 0.78 | 1.17 | 1.56 | 1.94 | OC   | 0.40 | 0.79 | 1.19 | 1.58 | 1.98 |
| OB   | 0.39 | 0.78 | 1.17 | 1.56 | 1.94 | OD   | 0.40 | 0.79 | 1.19 | 1.58 | 1.98 |

|    | Luminous Intensities [ cd/klm ] |         |         |         |        |        |       |       |      |      |
|----|---------------------------------|---------|---------|---------|--------|--------|-------|-------|------|------|
|    | 0                               | 5       | 15      | 25      | 35     | 45     | 55    | 65    | 75   | 85   |
| OA | 2754.17                         | 2679.88 | 1893.95 | 1151.69 | 836.45 | 349.53 | 33.15 | 12.34 | 2.06 | 1.14 |
| OB | 2754.17                         | 2679.88 | 1893.95 | 1151.69 | 836.45 | 349.53 | 33.15 | 12.34 | 2.06 | 1.14 |
| OC | 2754.17                         | 2674.62 | 1913.61 | 1169.29 | 841.48 | 355.70 | 36.12 | 13.49 | 2.06 | 1.14 |
| OD | 2754.17                         | 2674.62 | 1913.61 | 1169.29 | 841.48 | 355.70 | 36.12 | 13.49 | 2.06 | 1.14 |



| H[m] | D[m] | Max lux | Med lux | Alpha=21.2°+21.2° | G=0.0 |
|------|------|---------|---------|-------------------|-------|
| 1.00 | 0.78 | 2754    | 1578    |                   |       |
| 2.00 | 1.56 | 689     | 394     |                   |       |
| 3.00 | 2.33 | 306     | 175     |                   |       |
| 4.00 | 3.11 | 172     | 99      |                   |       |
| 5.00 | 3.89 | 110     | 63      |                   |       |

| H[m] | D[m] | Max lux | Med lux | Beta=21.6°+21.6° | G=0.0 |
|------|------|---------|---------|------------------|-------|
| 1.00 | 0.79 | 2754    | 1578    |                  |       |
| 2.00 | 1.58 | 689     | 394     |                  |       |
| 3.00 | 2.37 | 306     | 175     |                  |       |
| 4.00 | 3.16 | 172     | 99      |                  |       |
| 5.00 | 3.95 | 110     | 63      |                  |       |

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Name SONA V 3 SPOT 940 50°

|                |         |                 |                |          |               |            |                    |
|----------------|---------|-----------------|----------------|----------|---------------|------------|--------------------|
| Luminaire Flux | 2175 lm | Luminaire Power | 17.9 W         | Efficacy | 121.249 lm/W  | Efficiency | 95.15%             |
| Source Flux    | 2286 lm | Maximum value   | 1204.80 cd/klm | Position | C=0.00 G=0.00 | CG         | Double Symmetrical |

**UGR**  
S = 0.250

| Reflectancies   |              |      |      |      |      |                |      |      |      |      |
|-----------------|--------------|------|------|------|------|----------------|------|------|------|------|
| Ceiling/Cavity  | 0.7          | 0.7  | 0.5  | 0.5  | 0.3  | 0.7            | 0.7  | 0.5  | 0.5  | 0.3  |
| Walls           | 0.5          | 0.3  | 0.5  | 0.3  | 0.3  | 0.5            | 0.3  | 0.5  | 0.3  | 0.3  |
| Working Plane   | 0.2          | 0.2  | 0.2  | 0.2  | 0.2  | 0.2            | 0.2  | 0.2  | 0.2  | 0.2  |
| Room Dimensions | Lateral View |      |      |      |      | Viewed Endwise |      |      |      |      |
| x=2H y=2H       | 19.6         | 20.4 | 19.8 | 20.6 | 20.8 | 19.6           | 20.4 | 19.9 | 20.6 | 20.8 |
| x=2H y=3H       | 19.5         | 20.2 | 19.8 | 20.4 | 20.6 | 19.5           | 20.2 | 19.8 | 20.4 | 20.7 |
| x=2H y=4H       | 19.4         | 20.1 | 19.7 | 20.3 | 20.6 | 19.4           | 20.1 | 19.7 | 20.3 | 20.6 |
| x=2H y=6H       | 19.3         | 19.9 | 19.7 | 20.2 | 20.5 | 19.4           | 20.0 | 19.7 | 20.2 | 20.5 |
| x=2H y=8H       | 19.3         | 19.9 | 19.6 | 20.2 | 20.5 | 19.3           | 19.9 | 19.7 | 20.2 | 20.5 |
| x=2H y=12H      | 19.3         | 19.8 | 19.6 | 20.1 | 20.4 | 19.3           | 19.8 | 19.6 | 20.1 | 20.5 |
| x=4H y=2H       | 19.4         | 20.1 | 19.7 | 20.3 | 20.6 | 19.4           | 20.1 | 19.7 | 20.3 | 20.6 |
| x=4H y=3H       | 19.3         | 19.8 | 19.6 | 20.1 | 20.4 | 19.3           | 19.9 | 19.7 | 20.2 | 20.5 |
| x=4H y=4H       | 19.2         | 19.7 | 19.6 | 20.0 | 20.4 | 19.2           | 19.7 | 19.6 | 20.0 | 20.4 |
| x=4H y=6H       | 19.1         | 19.5 | 19.5 | 19.9 | 20.3 | 19.2           | 19.6 | 19.6 | 19.9 | 20.3 |
| x=4H y=8H       | 19.1         | 19.5 | 19.5 | 19.8 | 20.2 | 19.1           | 19.5 | 19.5 | 19.9 | 20.3 |
| x=4H y=12H      | 19.1         | 19.4 | 19.5 | 19.8 | 20.2 | 19.1           | 19.4 | 19.5 | 19.8 | 20.2 |
| x=8H y=4H       | 19.1         | 19.4 | 19.5 | 19.8 | 20.2 | 19.1           | 19.5 | 19.5 | 19.9 | 20.3 |
| x=8H y=6H       | 19.0         | 19.3 | 19.5 | 19.7 | 20.2 | 19.0           | 19.3 | 19.5 | 19.8 | 20.2 |
| x=8H y=8H       | 19.0         | 19.2 | 19.4 | 19.7 | 20.1 | 19.0           | 19.2 | 19.5 | 19.7 | 20.1 |
| x=8H y=12H      | 18.9         | 19.1 | 19.4 | 19.6 | 20.1 | 19.0           | 19.2 | 19.4 | 19.6 | 20.1 |
| x=12H y=4H      | 19.1         | 19.4 | 19.5 | 19.8 | 20.2 | 19.1           | 19.4 | 19.5 | 19.8 | 20.2 |
| x=12H y=6H      | 19.0         | 19.2 | 19.4 | 19.6 | 20.1 | 19.0           | 19.2 | 19.5 | 19.7 | 20.1 |
| x=12H y=8H      | 18.9         | 19.1 | 19.4 | 19.6 | 20.1 | 19.0           | 19.2 | 19.4 | 19.6 | 20.1 |

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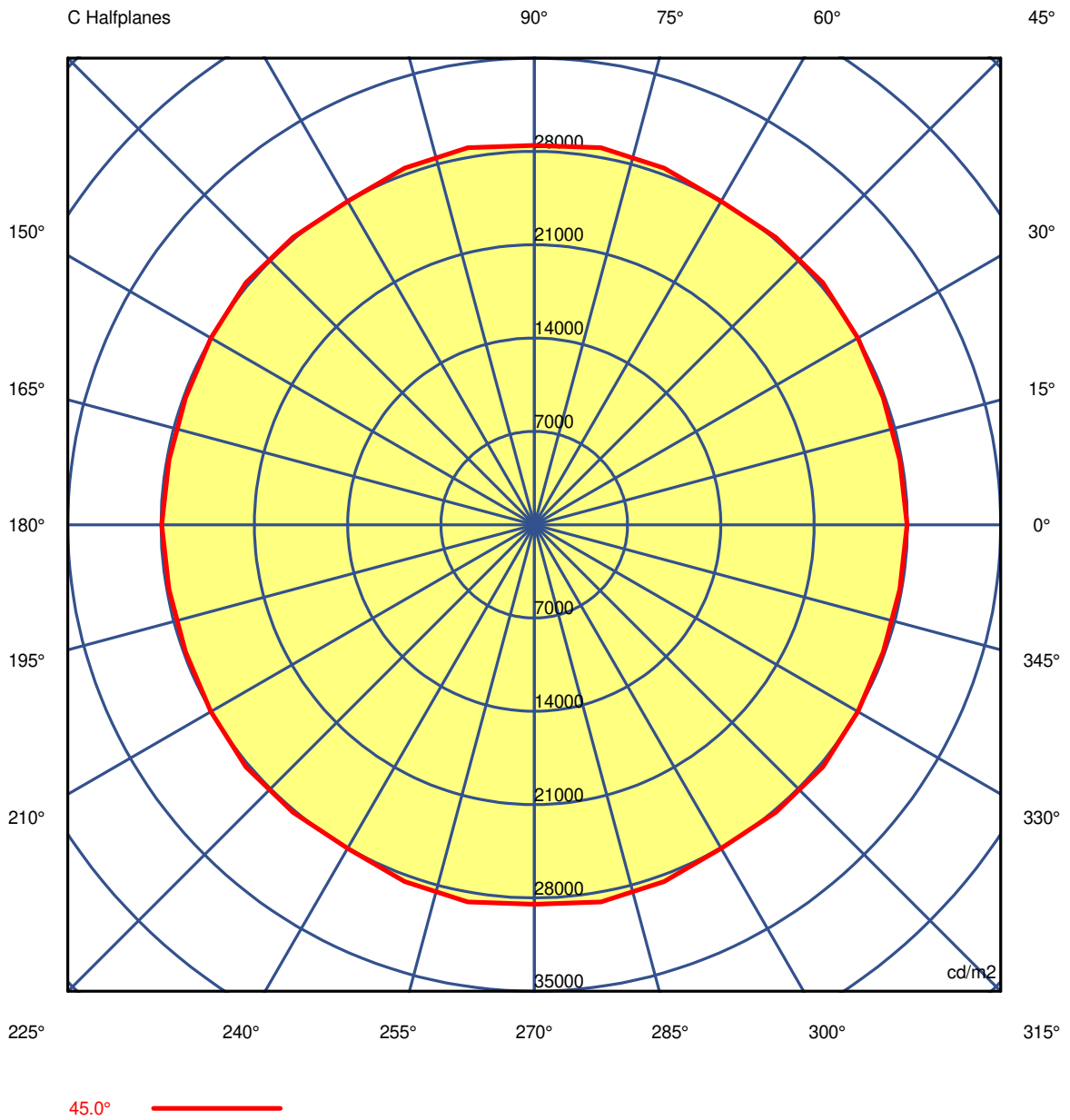
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|                |         |                 |                |          |               |            |                    |
|----------------|---------|-----------------|----------------|----------|---------------|------------|--------------------|
| Luminaire Flux | 2175 lm | Luminaire Power | 17.9 W         | Efficacy | 121.249 lm/W  | Efficiency | 95.15%             |
| Source Flux    | 2286 lm | Maximum value   | 1204.80 cd/klm | Position | C=0.00 G=0.00 | CG         | Double Symmetrical |

Luminance



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| Source Flux    | 2286 lm | Maximum value   | 1204.80 cd/klm | Position | C=0.00 G=0.00 | CG         | Double Symmetrical |

**Luminance cd/m2 Table 1/3**

|        | C 0.00 | C 10.00 | C 20.00 | C 30.00 | C 40.00 | C 50.00 | C 60.00 | C 70.00 | C 80.00 | C 90.00 | C 100.00 | C 110.00 | C 120.00 |
|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|
| G 0.0  | 155854 | 155854  | 155854  | 155854  | 155854  | 155854  | 155854  | 155854  | 155854  | 155854  | 155854   | 155854   | 155854   |
| G 5.0  | 152229 | 152152  | 152229  | 152372  | 152324  | 152109  | 151970  | 152126  | 152164  | 151931  | 152164   | 152126   | 151970   |
| G 10.0 | 135810 | 136278  | 136796  | 137044  | 136620  | 136213  | 136243  | 136502  | 136487  | 136099  | 136487   | 136502   | 136243   |
| G 15.0 | 110956 | 110851  | 111103  | 111613  | 111878  | 111646  | 111398  | 111874  | 112236  | 112108  | 112236   | 111874   | 111398   |
| G 20.0 | 88352  | 88352   | 88403   | 88683   | 89185   | 89343   | 89343   | 89812   | 90012   | 89660   | 90012    | 89812    | 89343    |
| G 25.0 | 71910  | 71836   | 72011   | 72381   | 72646   | 72727   | 72794   | 73064   | 73174   | 73009   | 73174    | 73064    | 72794    |
| G 30.0 | 62961  | 62971   | 63007   | 63125   | 63296   | 63402   | 63454   | 63556   | 63583   | 63499   | 63583    | 63556    | 63454    |
| G 35.0 | 57783  | 57756   | 57758   | 57815   | 57932   | 58030   | 58099   | 58186   | 58203   | 58131   | 58203    | 58186    | 58099    |
| G 40.0 | 50103  | 50065   | 49999   | 49951   | 49978   | 49916   | 49799   | 49819   | 49816   | 49715   | 49816    | 49819    | 49799    |
| G 45.0 | 27972  | 27847   | 27852   | 28027   | 28253   | 28161   | 28027   | 28475   | 28727   | 28466   | 28727    | 28475    | 28027    |
| G 50.0 | 6199   | 6234    | 6229    | 6178    | 6118    | 6098    | 6098    | 6098    | 6074    | 5997    | 6074     | 6098     | 6098     |
| G 55.0 | 3270   | 3426    | 3490    | 3518    | 3636    | 3670    | 3609    | 3621    | 3622    | 3563    | 3622     | 3621     | 3609     |
| G 60.0 | 2458   | 2590    | 2669    | 2691    | 2710    | 2797    | 2872    | 2786    | 2740    | 2820    | 2740     | 2786     | 2872     |
| G 65.0 | 1653   | 1761    | 1841    | 1867    | 1829    | 1793    | 1806    | 1854    | 1860    | 1806    | 1860     | 1854     | 1806     |
| G 70.0 | 1021   | 1021    | 1021    | 1021    | 1021    | 1021    | 1021    | 1021    | 1021    | 1021    | 1021     | 1021     | 1021     |
| G 75.0 | 450    | 450     | 481     | 550     | 550     | 550     | 550     | 550     | 526     | 450     | 526      | 550      | 550      |
| G 80.0 | 670    | 670     | 670     | 670     | 670     | 670     | 670     | 557     | 538     | 670     | 538      | 557      | 670      |
| G 85.0 | 742    | 939     | 1129    | 1039    | 457     | 394     | 742     | 449     | 323     | 742     | 323      | 449      | 742      |
| G 90.0 | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0        | 0        | 0        |

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| Luminaire Flux | 2175 lm | Luminaire Power | 17.9 W         | Efficacy | 121.249 lm/W  | Efficiency | 95.15%             |
| Source Flux    | 2286 lm | Maximum value   | 1204.80 cd/klm | Position | C=0.00 G=0.00 | CG         | Double Symmetrical |

**Luminance cd/m2 Table 2/3**

|        | C 130.00 | C 140.00 | C 150.00 | C 160.00 | C 170.00 | C 180.00 | C 190.00 | C 200.00 | C 210.00 | C 220.00 | C 230.00 | C 240.00 | C 250.00 |
|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| G 0.0  | 155854   | 155854   | 155854   | 155854   | 155854   | 155854   | 155854   | 155854   | 155854   | 155854   | 155854   | 155854   | 155854   |
| G 5.0  | 152109   | 152324   | 152372   | 152229   | 152152   | 152229   | 152152   | 152229   | 152324   | 152372   | 152109   | 151970   | 152126   |
| G 10.0 | 136213   | 136620   | 137044   | 136796   | 136278   | 135810   | 136278   | 136796   | 137044   | 136620   | 136213   | 136243   | 136502   |
| G 15.0 | 111646   | 111878   | 111613   | 111103   | 110851   | 110956   | 110851   | 111103   | 111613   | 111878   | 111646   | 111398   | 111874   |
| G 20.0 | 89343    | 89185    | 88683    | 88403    | 88352    | 88352    | 88352    | 88403    | 88683    | 89185    | 89343    | 89343    | 89812    |
| G 25.0 | 72727    | 72646    | 72381    | 72011    | 71836    | 71910    | 71836    | 72011    | 72381    | 72646    | 72727    | 72794    | 73064    |
| G 30.0 | 63402    | 63296    | 63125    | 63007    | 62971    | 62961    | 62971    | 63007    | 63125    | 63296    | 63402    | 63454    | 63556    |
| G 35.0 | 58030    | 57932    | 57815    | 57758    | 57756    | 57783    | 57756    | 57758    | 57815    | 57932    | 58030    | 58099    | 58186    |
| G 40.0 | 49916    | 49978    | 49951    | 49999    | 50065    | 50103    | 50065    | 49999    | 49978    | 49916    | 49916    | 49799    | 49819    |
| G 45.0 | 28161    | 28253    | 28027    | 27852    | 27847    | 27972    | 27847    | 27852    | 28027    | 28253    | 28161    | 28027    | 28475    |
| G 50.0 | 6098     | 6118     | 6178     | 6229     | 6234     | 6199     | 6234     | 6229     | 6178     | 6118     | 6098     | 6098     | 6098     |
| G 55.0 | 3670     | 3636     | 3518     | 3490     | 3426     | 3270     | 3426     | 3490     | 3518     | 3636     | 3670     | 3609     | 3621     |
| G 60.0 | 2797     | 2710     | 2691     | 2669     | 2590     | 2458     | 2590     | 2669     | 2691     | 2710     | 2797     | 2872     | 2786     |
| G 65.0 | 1793     | 1829     | 1867     | 1841     | 1761     | 1653     | 1761     | 1841     | 1867     | 1829     | 1793     | 1806     | 1854     |
| G 70.0 | 1021     | 1021     | 1021     | 1021     | 1021     | 1021     | 1021     | 1021     | 1021     | 1021     | 1021     | 1021     | 1021     |
| G 75.0 | 550      | 550      | 550      | 481      | 450      | 450      | 450      | 481      | 550      | 550      | 550      | 550      | 550      |
| G 80.0 | 670      | 670      | 670      | 670      | 670      | 670      | 670      | 670      | 670      | 670      | 670      | 670      | 557      |
| G 85.0 | 394      | 457      | 1039     | 1129     | 939      | 742      | 939      | 1129     | 1039     | 457      | 394      | 742      | 449      |
| G 90.0 | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |

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| Luminaire Flux | 2175 lm | Luminaire Power | 17.9 W         | Efficacy | 121.249 lm/W  | Efficiency | 95.15%             |
| Source Flux    | 2286 lm | Maximum value   | 1204.80 cd/klm | Position | C=0.00 G=0.00 | CG         | Double Symmetrical |

**Luminance cd/m2 Table 3/3**

|        | C 260.00 | C 270.00 | C 280.00 | C 290.00 | C 300.00 | C 310.00 | C 320.00 | C 330.00 | C 340.00 | C 350.00 |
|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| G 0.0  | 155854   | 155854   | 155854   | 155854   | 155854   | 155854   | 155854   | 155854   | 155854   | 155854   |
| G 5.0  | 152164   | 151931   | 152164   | 152126   | 151970   | 152109   | 152324   | 152372   | 152229   | 152152   |
| G 10.0 | 136487   | 136099   | 136487   | 136502   | 136243   | 136213   | 136620   | 137044   | 136796   | 136278   |
| G 15.0 | 112236   | 112108   | 112236   | 111874   | 111398   | 111646   | 111878   | 111613   | 111103   | 110851   |
| G 20.0 | 90012    | 89660    | 90012    | 89812    | 89343    | 89343    | 89185    | 88683    | 88403    | 88352    |
| G 25.0 | 73174    | 73009    | 73174    | 73064    | 72794    | 72727    | 72646    | 72381    | 72011    | 71836    |
| G 30.0 | 63583    | 63499    | 63583    | 63556    | 63454    | 63402    | 63296    | 63125    | 63007    | 62971    |
| G 35.0 | 58203    | 58131    | 58203    | 58186    | 58099    | 58030    | 57932    | 57815    | 57758    | 57756    |
| G 40.0 | 49816    | 49715    | 49816    | 49819    | 49799    | 49916    | 49978    | 49951    | 49999    | 50065    |
| G 45.0 | 28727    | 28466    | 28727    | 28475    | 28027    | 28161    | 28253    | 28027    | 27852    | 27847    |
| G 50.0 | 6074     | 5997     | 6074     | 6098     | 6098     | 6098     | 6118     | 6178     | 6229     | 6234     |
| G 55.0 | 3622     | 3563     | 3622     | 3621     | 3609     | 3670     | 3636     | 3518     | 3490     | 3426     |
| G 60.0 | 2740     | 2820     | 2740     | 2786     | 2872     | 2797     | 2710     | 2691     | 2669     | 2590     |
| G 65.0 | 1860     | 1806     | 1860     | 1854     | 1806     | 1793     | 1829     | 1867     | 1841     | 1761     |
| G 70.0 | 1021     | 1021     | 1021     | 1021     | 1021     | 1021     | 1021     | 1021     | 1021     | 1021     |
| G 75.0 | 526      | 450      | 526      | 550      | 550      | 550      | 550      | 550      | 481      | 450      |
| G 80.0 | 538      | 670      | 538      | 557      | 670      | 670      | 670      | 670      | 670      | 670      |
| G 85.0 | 323      | 742      | 323      | 449      | 742      | 394      | 457      | 1039     | 1129     | 939      |
| G 90.0 | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |