NOVA FLEX

# Flexible Grazer Test Report

**Light efficiency:**

86 Lumen/Watt

**Light quality:**

CRI: 70.2

**Color temperature:**

5910 K

**Output:** 690 lm
**Peak:** 1285 cd

**Power:** 8.0 W
**PF:** 1.0

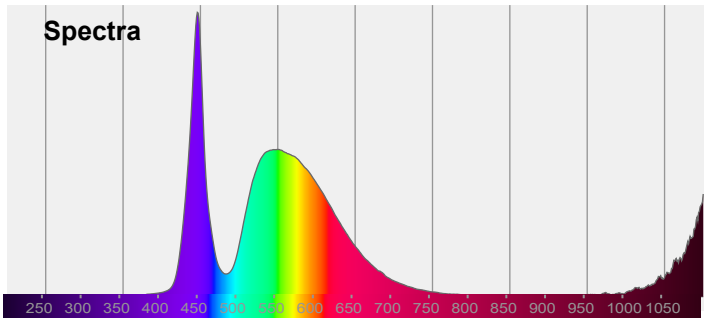
**Tracking number:** VT250729-005241

**Product name:**
GRZ Blk 15x40 24 57

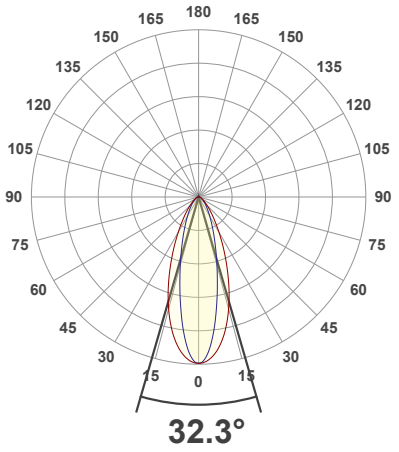
**Item number:**
1 foot Flex Grazer Black 5700K 15°x40° Optic

**Date and time:**
7/29/25 9:01:13 AM

**All values scaled to 1 foot**
**From 0.75 M sample tested @ 11 M**

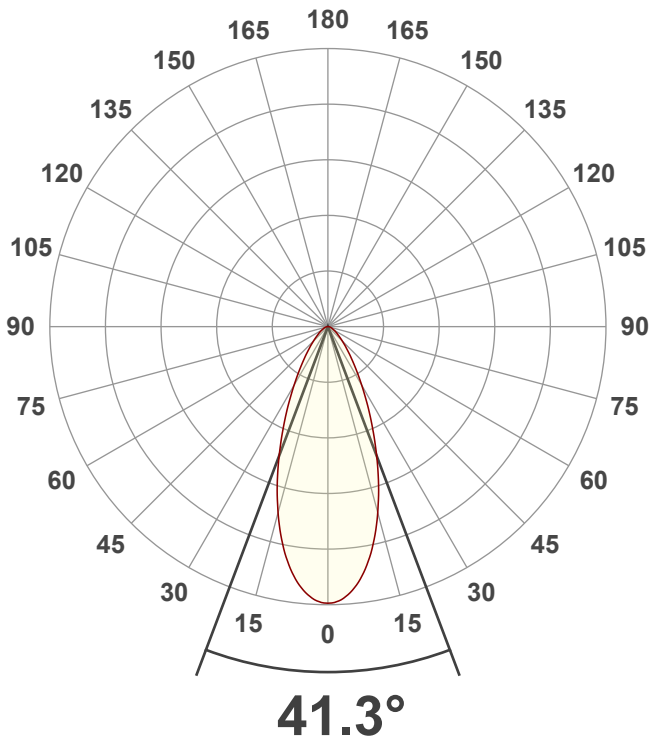



**Average Beam Angle**

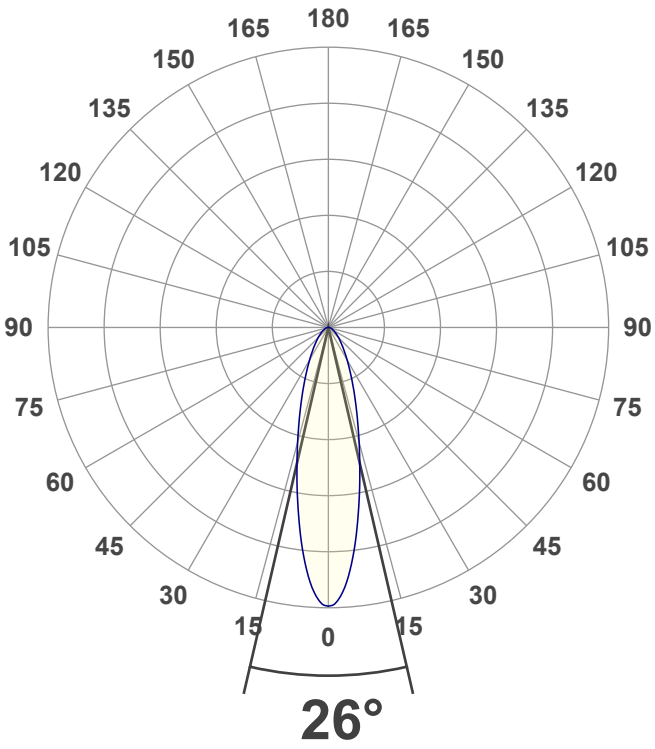



C Plane Resolution: 5°

**Angular Distribution 0 ° Plane**

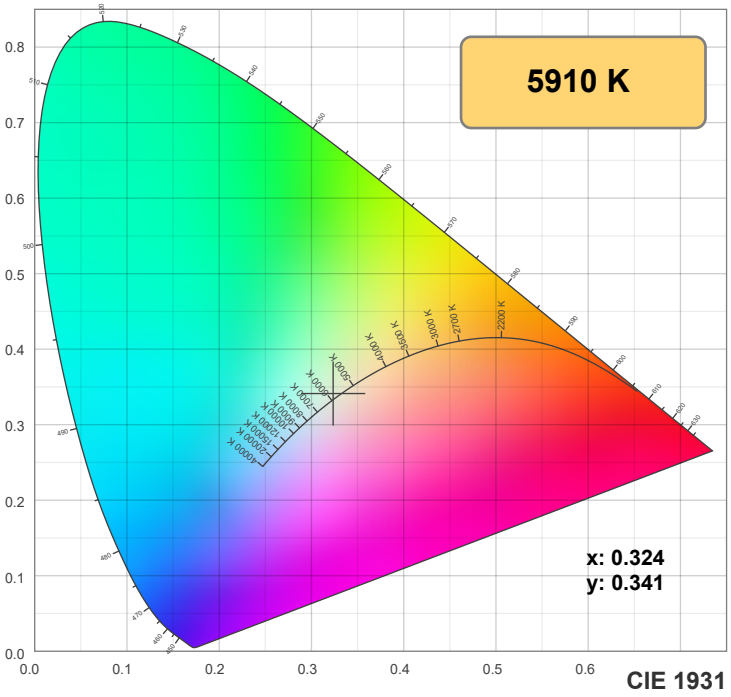


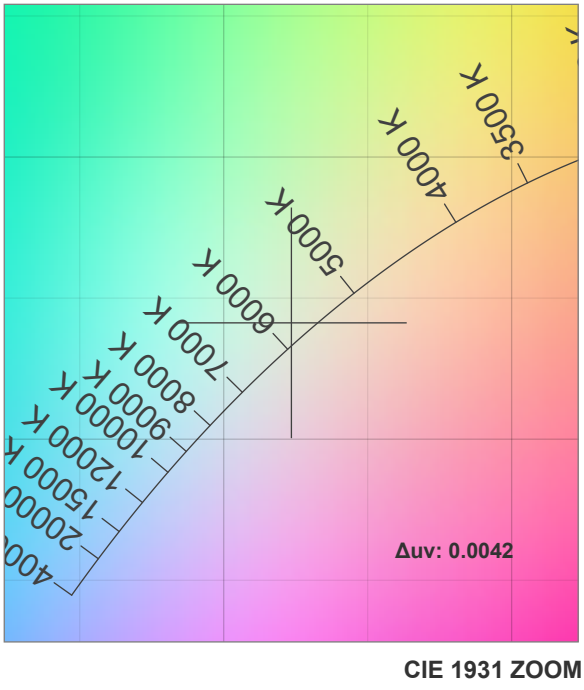

**Angular Distribution 90 ° Plane**



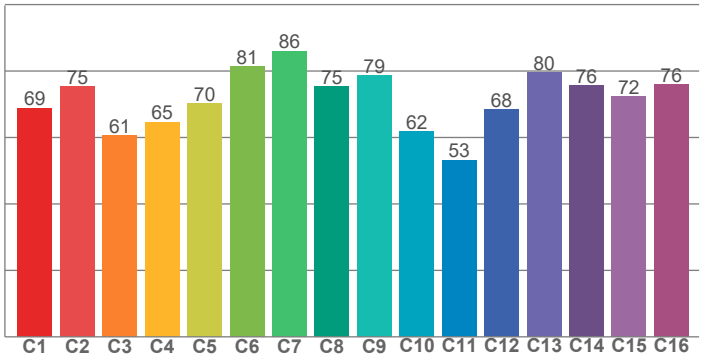
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# Color details

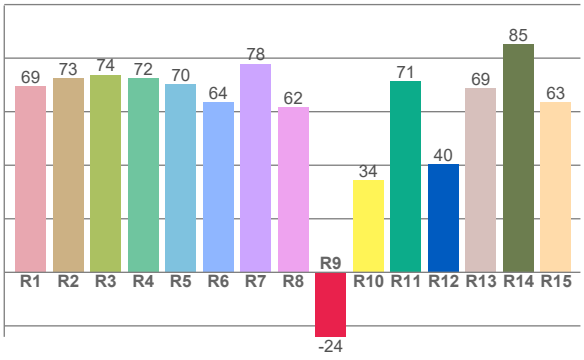



## TM-30: 71.0




## CRI: (R1-R8): 70.2




CRI R values, only R1-R8 are used to calculate final CRI value

| R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 | R13 | R14 | R15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 69.4 | 72.6 | 73.8 | 72.5 | 70.2 | 63.6 | 77.9 | 61.6 | -24.1 | 34.3 | 71.3 | 40.2 | 68.8 | 85.1 | 63.4 |

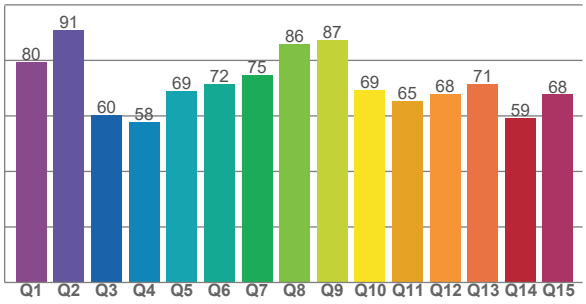
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 68.9 | 75.4 | 60.7 | 64.7 | 70.2 | 81.4 | 86.0 | 75.4 | 78.7 | 61.8 | 53.2 | 68.5 | 79.5 | 75.5 | 72.5 | 76.0 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 79.6 | 90.9 | 60.4 | 57.8 | 69.1 | 71.6 | 74.9 | 86.0 | 87.3 | 69.3 | 65.3 | 68.0 | 71.4 | 59.4 | 67.8 |

## CQS: 70.2




## Color parameters

| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate | Color diviation from black body |
|---|---|---|---|---|---|---|---|---|---|---|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | x | y | u | v | Δuv |
| 5910 K | 70.2 | -24.1 | 71.0 | 96.0 | 70.2 | 0.324 | 0.341 | 0.201 | 0.318 | 0.0042 |

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# TM-30 details

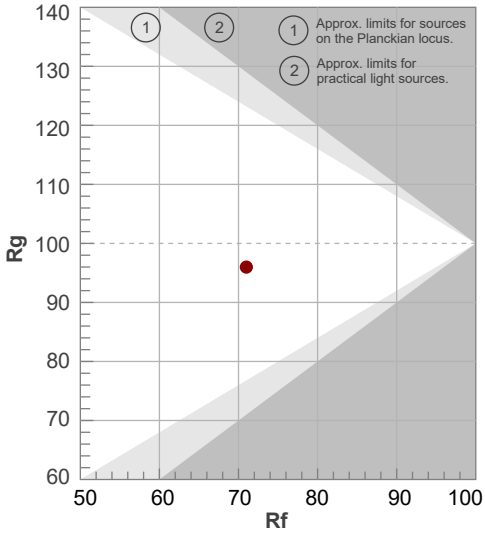
**Rf 71.0**

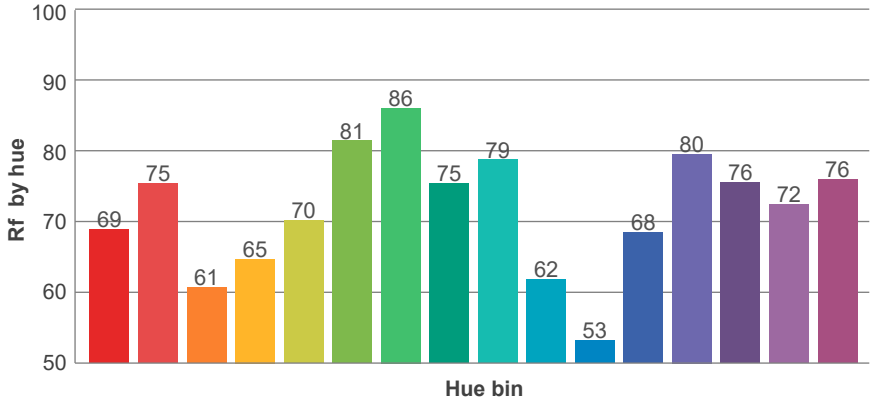
Fidelity index Rf

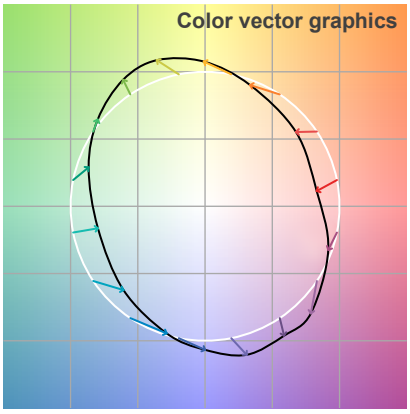
**Rg 96.0**

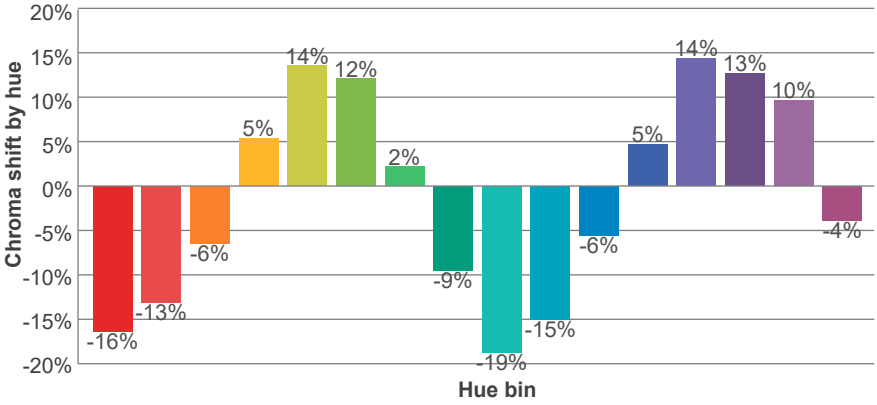
Gamut index Rg

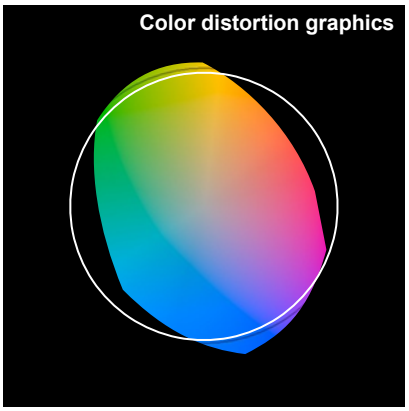
| Hue Bin | $R_f$ | Shifts (%) Chroma | Hue |
|---|---|---|---|
| 1 | 69 | -16% | -5% |
| 2 | 75 | -13% | 8% |
| 3 | 61 | -6% | 22% |
| 4 | 65 | 5% | 22% |
| 5 | 70 | 14% | 14% |
| 6 | 81 | 12% | -2% |
| 7 | 86 | 2% | -9% |
| 8 | 75 | -9% | -12% |
| 9 | 79 | -19% | 1% |
| 10 | 62 | -15% | 18% |
| 11 | 53 | -6% | 29% |
| 12 | 68 | 5% | 21% |
| 13 | 80 | 14% | 9% |
| 14 | 76 | 13% | -5% |
| 15 | 72 | 10% | -22% |
| 16 | 76 | -4% | -14% |

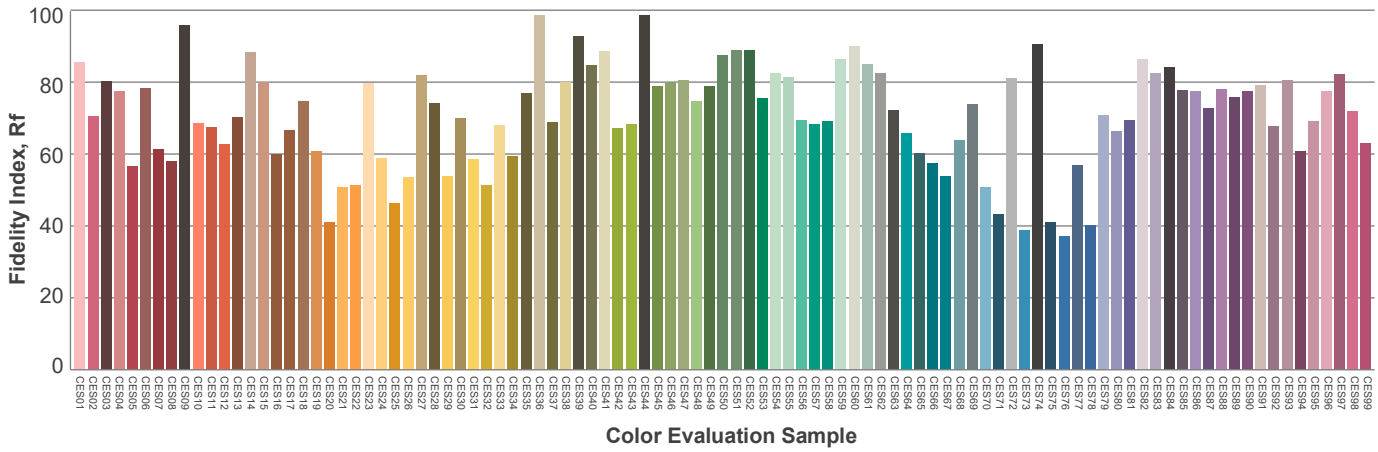


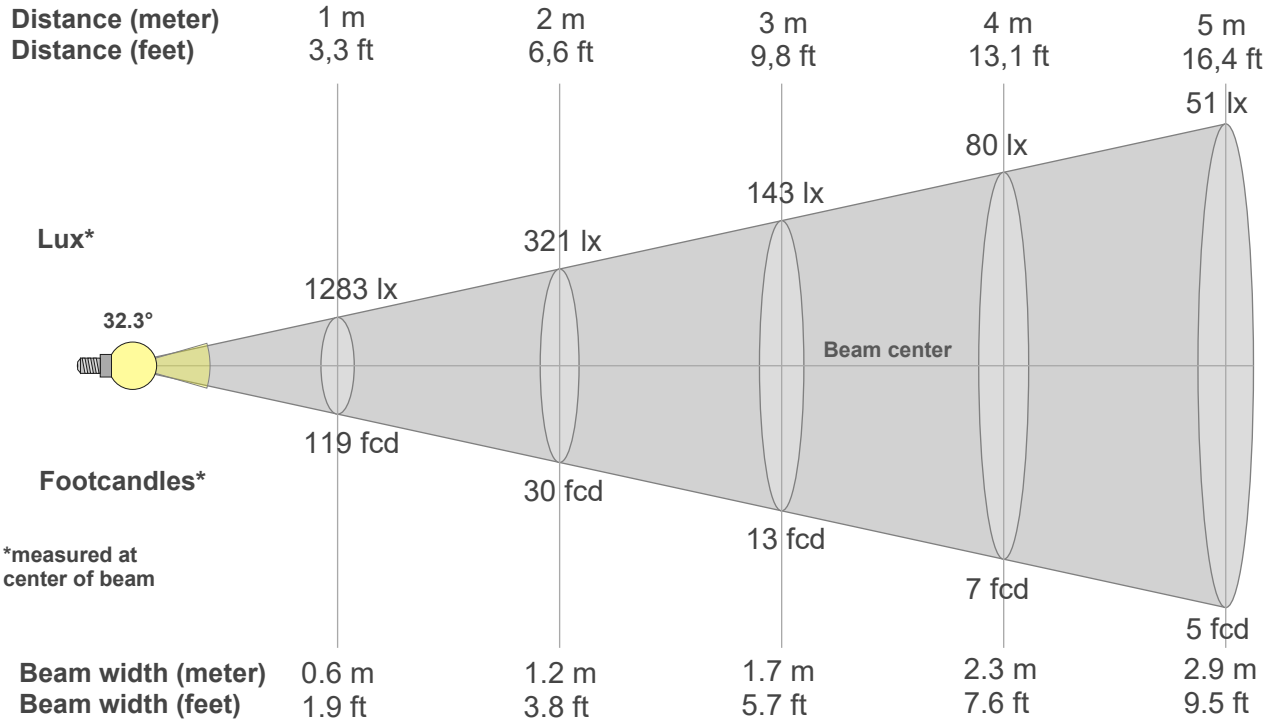



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# Beam details




**Beam intensities from 1-20m**

| 1m | 2m | 3m | 4m | 5m | 6m | 7m | 8m | 9m | 10m | 11m | 12m | 13m | 14m | 15m | 16m | 17m | 18m | 19m | 20m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.3ft | 6.6ft | 9.8ft | 13.1ft | 16.4ft | 19.7ft | 23ft | 26.2ft | 29.5ft | 32.8ft | 36.1ft | 39.4ft | 42.7ft | 45.9ft | 49.2ft | 52.5ft | 55.8ft | 59.1ft | 62.3ft | 65.6ft |
| 1283lx | 321lx | 143lx | 80lx | 51lx | 36lx | 26lx | 20lx | 16lx | 13lx | 11lx | 9lx | 8lx | 7lx | 6lx | 5lx | 4lx | 4lx | 4lx | 3lx |
| 119.2fcd | 29.8fcd | 13.2fcd | 7.4fcd | 4.8fcd | 3.3fcd | 2.4fcd | 1.9fcd | 1.5fcd | 1.2fcd | 1fcd | 0.8fcd | 0.7fcd | 0.6fcd | 0.5fcd | 0.5fcd | 0.4fcd | 0.4fcd | 0.3fcd | 0.3fcd |

**Intensities in 0° c-plane**

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1283 | 1276 | 1252 | 1214 | 1162 | 1097 | 1021 | 938 | 849 | 760 | 671 | 585 | 506 | 435 | 370 | 314 | 267 | 226 | 192 | 164 |
| 100% | 99% | 98% | 95% | 91% | 85% | 80% | 73% | 66% | 59% | 52% | 46% | 39% | 34% | 29% | 25% | 21% | 18% | 15% | 13% |

**Intensities in 90° c-plane**

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1283 | 1256 | 1180 | 1068 | 941 | 814 | 696 | 593 | 504 | 429 | 366 | 313 | 268 | 230 | 199 | 173 | 150 | 131 | 115 | 101 |
| 100% | 98% | 92% | 83% | 73% | 63% | 54% | 46% | 39% | 33% | 29% | 24% | 21% | 18% | 16% | 13% | 12% | 10% | 9% | 8% |

**Intensities in 180° c-plane**

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1283 | 1276 | 1252 | 1214 | 1162 | 1097 | 1021 | 938 | 849 | 760 | 671 | 585 | 506 | 435 | 370 | 314 | 267 | 226 | 192 | 164 |
| 100% | 99% | 98% | 95% | 91% | 85% | 80% | 73% | 66% | 59% | 52% | 46% | 39% | 34% | 29% | 25% | 21% | 18% | 15% | 13% |

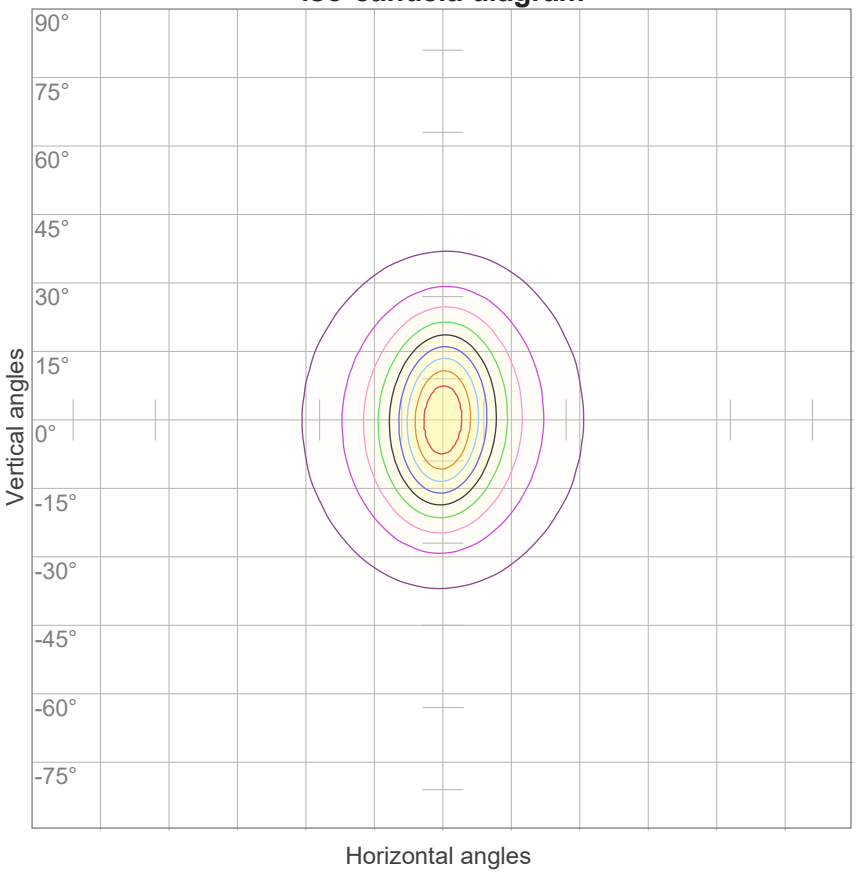
**Intensities in 270° c-plane**

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1283 | 1256 | 1180 | 1068 | 941 | 814 | 696 | 593 | 504 | 429 | 366 | 313 | 268 | 230 | 199 | 173 | 150 | 131 | 115 | 101 |
| 100% | 98% | 92% | 83% | 73% | 63% | 54% | 46% | 39% | 33% | 29% | 24% | 21% | 18% | 16% | 13% | 12% | 10% | 9% | 8% |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|---|---|---|---|---|
| 32.3° | 74.6° | 118.7° | 93.8% | 84.4% |

# Iso Diagrams

## iso-candela diagram



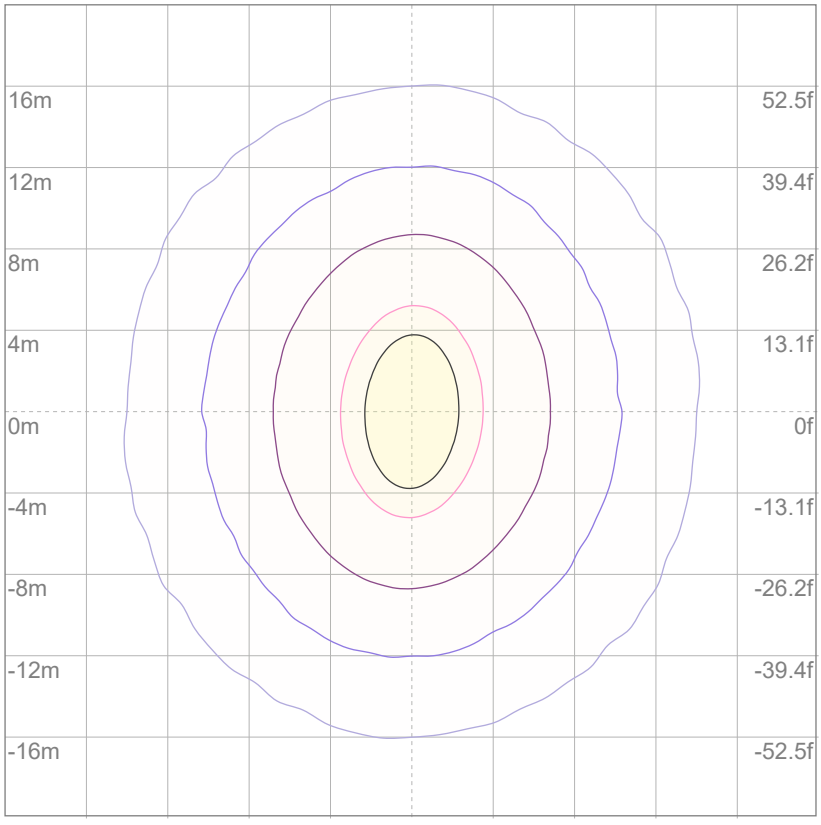

| | | |
|---|---|---|
| 10% | 128 cd |
| 20% | 257 cd |
| 30% | 385 cd |
| 40% | 513 cd |
| 50% | 641 cd |
| 60% | 770 cd |
| 70% | 898 cd |
| 80% | 1026 cd |
| 90% | 1155 cd |

Conditions:

Number of c-planes: 72

Candela at center: 1283 cd

## iso-lux diagram




Mounting height: 10 meters (33 feet)

| | | |
|---|---|---|
| 3% | 0.385 lx |
| 5% | 0.641 lx |
| 10% | 1.28 lx |
| 30% | 3.85 lx |
| 50% | 6.41 lx |

Conditions:

Number of c-planes: 72

Lux at center: 12.8 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

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| p Ceiling | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
|---|---|---|---|---|---|---|---|---|---|---|
| p Walls | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| p Floor | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Room size X Y | Viewing direction at right angles to lamp axis | | | | | Viewing direction parallel to lamp axis | | | | |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Variation of the observer position for the luminaire distance S | | | | | | | | | | |
| n/a | n/a | | | | | n/a | | | | |
| n/a | n/a | | | | | n/a | | | | |
| n/a | n/a | | | | | n/a | | | | |
| CIE 117-1995. Corrected glare indices referring to 690 lm total luminous flux | | | | | | | | | | |

UGR data could not be calculated due to missing/wrong symmetry. Go to Edit -> Photometric -> Corrections and select Correct asymmetry (UGR not defined for asymmetrical distributions)..

## Coefficients of Utilization

| Ceiling reflectance | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wall reflectance | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| Floor reflectance | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 0 |
| RCR | (RCR: Room Cavity Ratio) | | | | Room Values are expressed as percentage of Lumens delivered to the task surface | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 112 | 109 | 106 | 104 | 110 | 107 | 105 | 102 | 103 | 101 | 99 | 99 | 98 | 96 | 96 | 94 | 93 | 91 |
| 2 | 106 | 101 | 96 | 92 | 104 | 99 | 95 | 91 | 96 | 92 | 89 | 93 | 90 | 87 | 90 | 87 | 85 | 84 |
| 3 | 100 | 93 | 88 | 83 | 98 | 92 | 87 | 83 | 89 | 85 | 81 | 87 | 83 | 80 | 84 | 81 | 79 | 77 |
| 4 | 95 | 87 | 81 | 76 | 93 | 85 | 80 | 76 | 83 | 78 | 75 | 81 | 77 | 74 | 79 | 76 | 73 | 71 |
| 5 | 90 | 81 | 75 | 70 | 88 | 80 | 74 | 70 | 78 | 73 | 69 | 76 | 72 | 68 | 75 | 71 | 68 | 66 |
| 6 | 85 | 76 | 70 | 65 | 84 | 75 | 69 | 65 | 74 | 68 | 64 | 72 | 68 | 64 | 71 | 67 | 64 | 62 |
| 7 | 81 | 72 | 65 | 61 | 80 | 71 | 65 | 61 | 70 | 64 | 60 | 68 | 64 | 60 | 67 | 63 | 60 | 58 |
| 8 | 78 | 68 | 62 | 57 | 76 | 67 | 61 | 57 | 66 | 61 | 57 | 65 | 60 | 57 | 64 | 60 | 56 | 55 |
| 9 | 74 | 64 | 58 | 54 | 73 | 64 | 58 | 54 | 63 | 57 | 54 | 62 | 57 | 54 | 61 | 57 | 53 | 52 |
| 10 | 71 | 61 | 55 | 51 | 70 | 61 | 55 | 51 | 60 | 55 | 51 | 59 | 54 | 51 | 58 | 54 | 51 | 49 |

## Zonal Lumen Summary

| 0°-10° | 10°-20° | 20°-30° | 30°-40° | 40°-50° | 50°-60° | 60°-70° | 70°-80° | 80°-90° |
|---|---|---|---|---|---|---|---|---|
| 105 lm | 191 lm | 154 lm | 98.6 lm | 61.1 lm | 38.2 lm | 22.8 lm | 13.4 lm | 5.27 lm |

| 90°-100° | 100°-110° | 110°-120° | 120°-130° | 130°-140° | 140°-150° | 150°-160° | 160°-170° | 170°-180° |
|---|---|---|---|---|---|---|---|---|
| 0.245 lm | 0.225 lm | 0.211 lm | 0.191 lm | 0.074 lm | 0.000 lm | 0.000 lm | 0.000 lm | 0.000 lm |

## LCS table

| BUG rating: | B1 U0 G0 | |
|---|---|---|
| **Forward light** | Lumens | Lumens % |
| Low(0-30): | 225.2 | 32.6% |
| Medium(30-60): | 98.9 | 14.3% |
| High(60-80): | 18.2 | 2.6% |
| Very high(80-90): | 2.7 | 0.4% |
| **Back light** | | |
| Low(0-30): | 225.2 | 32.6% |
| Medium(30-60): | 98.9 | 14.3% |
| High(60-80): | 18.2 | 2.6% |
| Very high(80-90): | 2.7 | 0.4% |
| **Uplight** | | |
| Low(90-100): | 0 | 0% |
| High(100-180): | 0 | 0% |

