# Prudential Lighting

Light measurement results

Print date 8/10/2026

## Laboratory and Equipment

| | |
|---|---|
| Test lab | Viso LabSpion - serial: 2435469709 sensor serial: 0895736217 - T |
| Spectrometer Manufacturer and Model | LabSpion – Type C, horizontal |
| Measurement date | 8/7/2026 |

**Measurement Conditions**

| | |
|---|---|
| Tested c-planes | 72 planes – 5.00° |
| Tested gamma resolution | 1.00° |
| Input Power | 43.06 W |

**Tested Light Source**

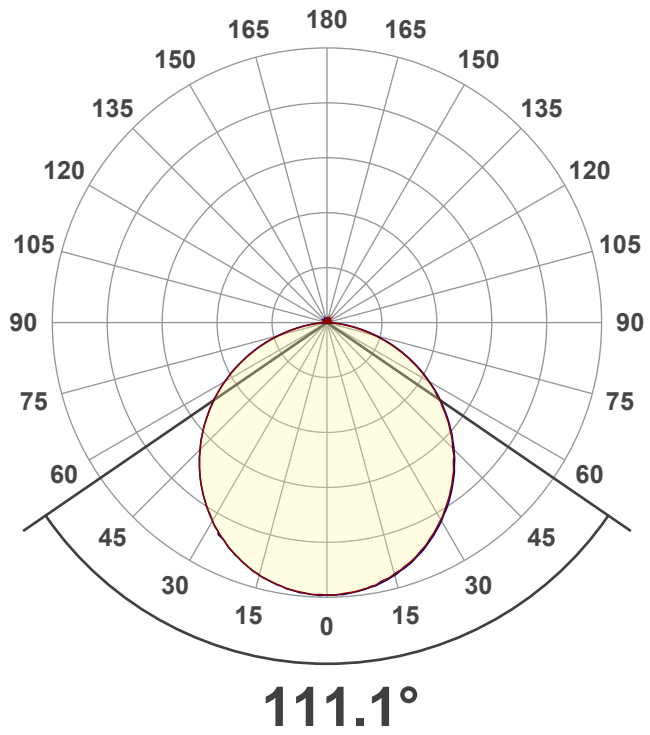
| | |
|---|---|
| Luminaire | WETBPRO5-LIN-FLSH-LED35-HO-04-SAL-NU-SC-DM01 |
| Basic Luminous Shape | NONE |
| Item No. | |
| Manufacturer | Prudential Lighting |
| Description | |

**Main Light Measurement Results**

| | |
|---|---|
| Output – Total Lumen (Up% / Down%) | 5350 lm – 2.588% / 97.41% |
| Efficiency | 124.2 lm/W |
| Peak Intensity | 1859 cd |
| Correlated Color Temperature, CCT | 3474 K |
| Color Rendering Index | CRI 84.5 |

## Polar light distribution diagram

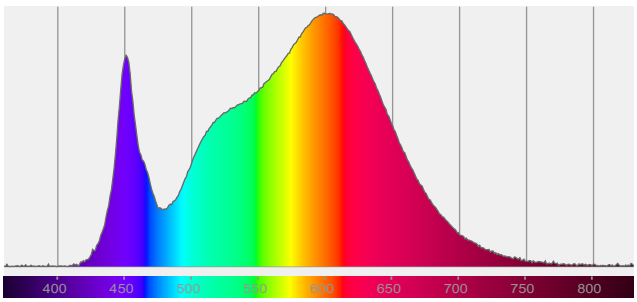
Unit: 0-100% of peak intensity




## Zonal Lumen Summary:

| VA/HA | 0° | 22.5° | 45° | 67.5° | 90° |
|---|---|---|---|---|---|
| 0° | 1855 cd | 1855 cd | 1855 cd | 1855 cd | 1855 cd |
| 5° | 1845 cd | 1845 cd | 1845 cd | 1846 cd | 1848 cd |
| 15° | 1772 cd | 1774 cd | 1774 cd | 1775 cd | 1782 cd |
| 25° | 1639 cd | 1638 cd | 1637 cd | 1640 cd | 1647 cd |
| 35° | 1449 cd | 1447 cd | 1444 cd | 1449 cd | 1459 cd |
| 45° | 1212 cd | 1211 cd | 1205 cd | 1214 cd | 1224 cd |
| 55° | 946 cd | 945.8 cd | 937.5 cd | 946.9 cd | 951.8 cd |
| 65° | 647.8 cd | 650.7 cd | 641.8 cd | 652.5 cd | 656.5 cd |
| 75° | 335.5 cd | 341.1 cd | 339.4 cd | 347.4 cd | 351.1 cd |
| 85° | 61.82 cd | 73.99 cd | 81.23 cd | 85.84 cd | 83.79 cd |
| 90° | 9.141 cd | 10.13 cd | 8.787 cd | 10.81 cd | 6.466 cd |

## Spectral power distribution



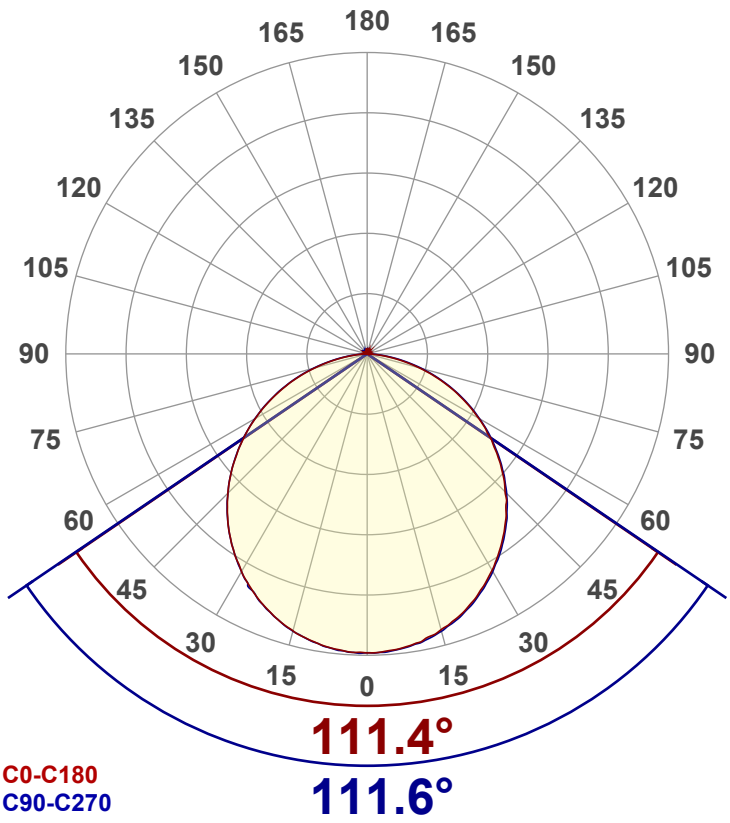
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## Luminous Intensity diagram

Unit: 0-100% of peak intensity




## Main Values

| | |
|---|---|
| Output (total Lumen) | 5350 lm |
| Lumen Up% / Down% | 2.588% / 97.41% |
| Peak Intensity | 1859 cd |
| Beam Angle (50%-FWHM) | 111.1° |

## EU Ecodesign parameters

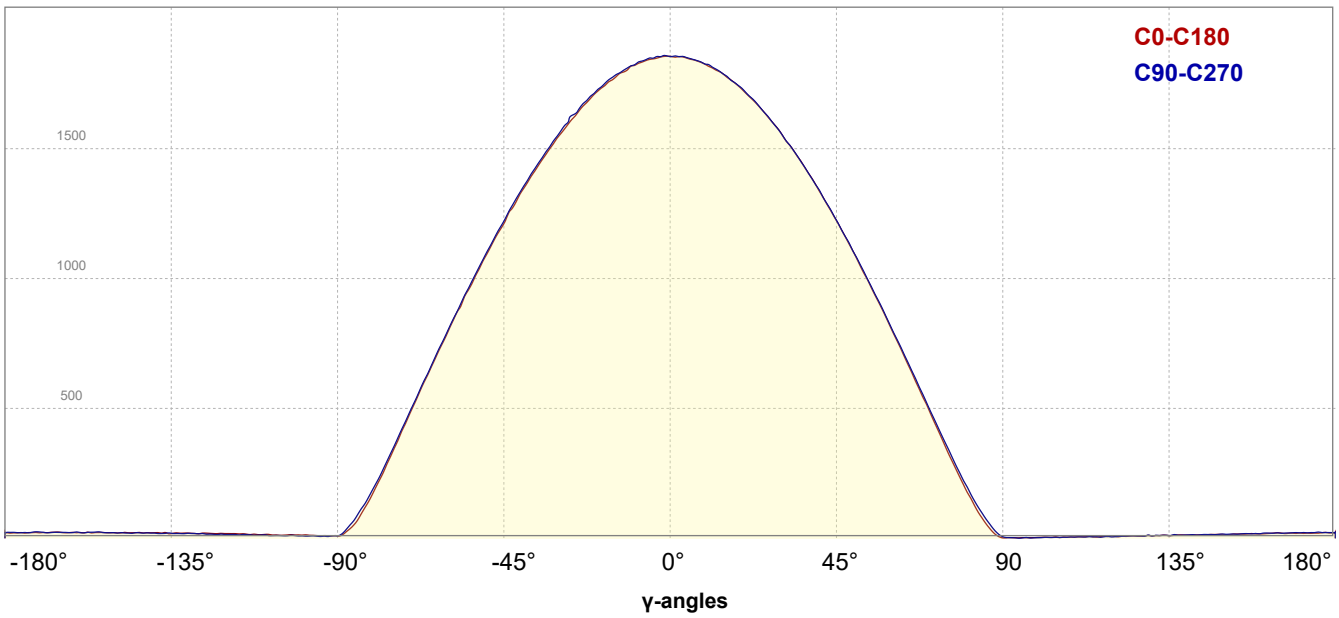
| | |
|---|---|
| Directionality (DLS or NDLS) | NDLS |
| Ecodesign Useful Luminous Flux | 5350 lm |
| Ecodesign Energy Class | E |

## Intensity Ratio

| | |
|---|---|
| In 120° cone | 77.01% |
| In 90° cone | 52.58% |

## Linear distribution diagram

Intensity [cd]

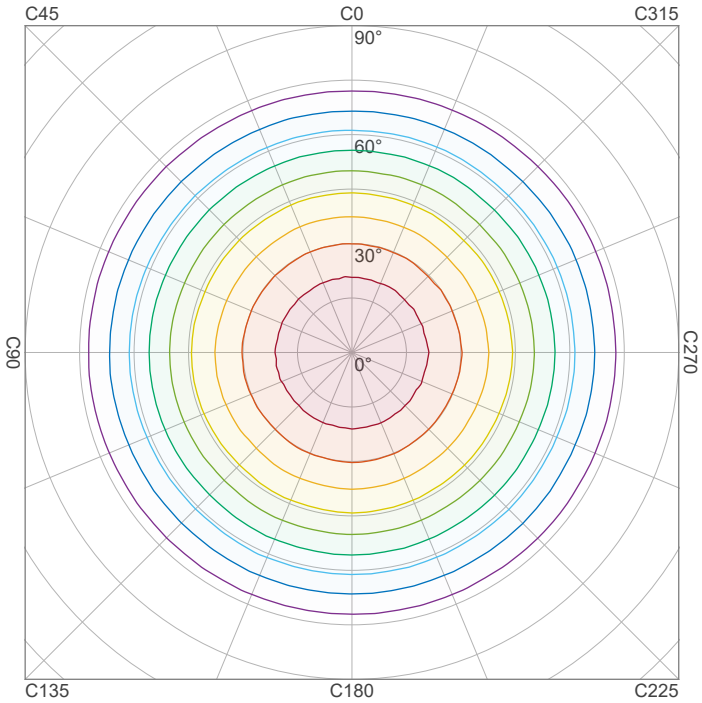


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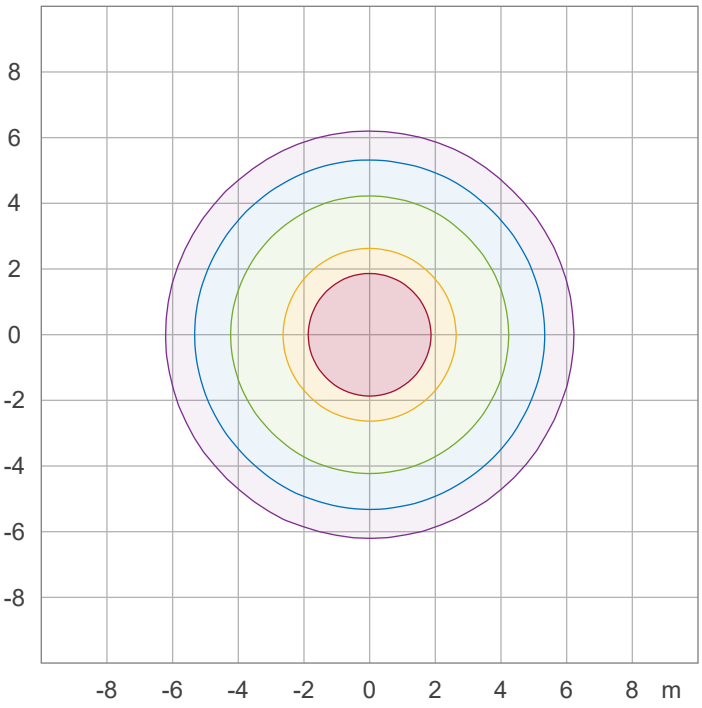
### Iso-intensity Diagram (Iso-candela)




| | |
|---|---|
| 90 % | 1671.9 cd |
| 80 % | 1486.2 cd |
| 70 % | 1300.4 cd |
| 60 % | 1114.6 cd |
| 50 % | 928.8 cd |
| 40 % | 743.1 cd |
| 30 % | 557.3 cd |
| 20 % | 371.5 cd |
| 10 % | 185.8 cd |

Peak intensity: 1857.7 cd
Number of c-planes: 72

### Iso-illuminance Diagram (Iso-lux)




| | |
|---|---|
| 50.0 % | 103 lx |
| 30.0 % | 61.9 lx |
| 10.0 % | 20.6 lx |
| 5.0 % | 10.3 lx |
| 3.0 % | 6.19 lx |

Peak illuminance: 206 lx
Mounting height: 3 m
Number of c-planes: 72

# Prudential Lighting

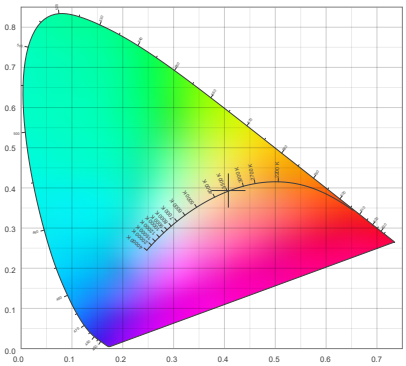
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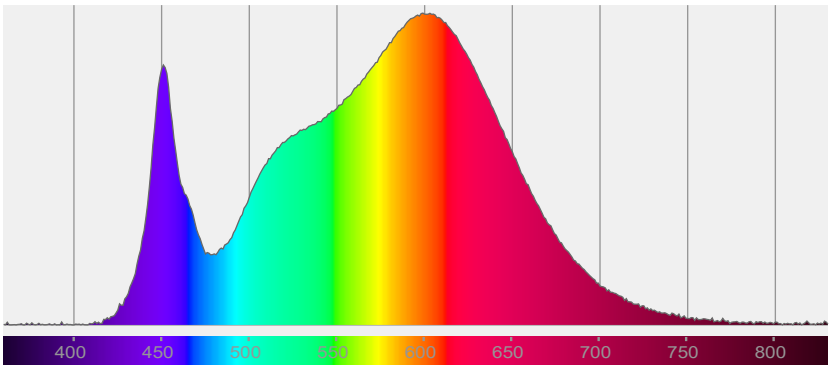
## Color details

| | | | |
|---|---|---|---|
| Correlated Color Temperature, Target | CCT = 3474 K | MacAdam Steps | SDCM = NaN |
| Correlated Color Temperature, Measured | CCT = 3474 K | Color deviation from BBL | Duv = 0.0007 |
| Color Rendering Index | CRI 84.5 | Color coordinates CIE 1931 | (x;y) = (0.4077;0.3935) |
| Color Rendering Index, R9 (red) | R9 = 12.9 | Color coordinate CIEs 1960 | (u;v) = (0.2361;0.3418) |
| Color Rendering TM30-18 | Rf 85.7 | Color coordinate CIEs 1976 | (u';v') = (0.2361;0.5128) |
| | Rg 96.0 | Color Quality Scale | CQS = 84.3 |

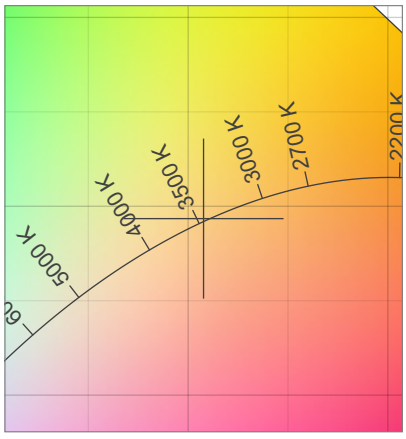
### CIE 1931 Chromaticity diagram



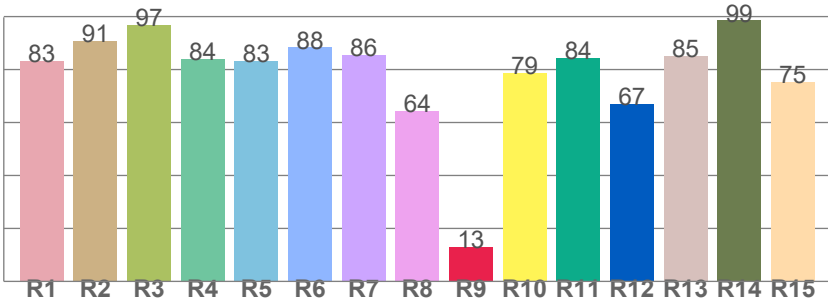
### Spectral power distribution




### CIE 1931 Chromaticity - zoomed



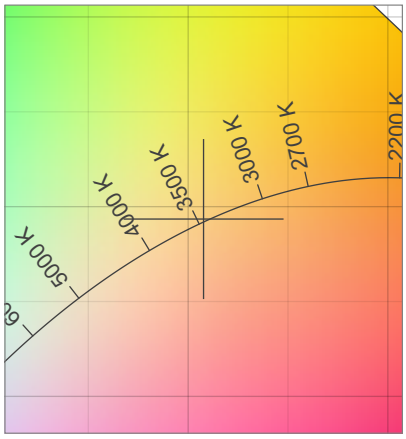

### Color Rendering Index per reference color (CIE 1995)



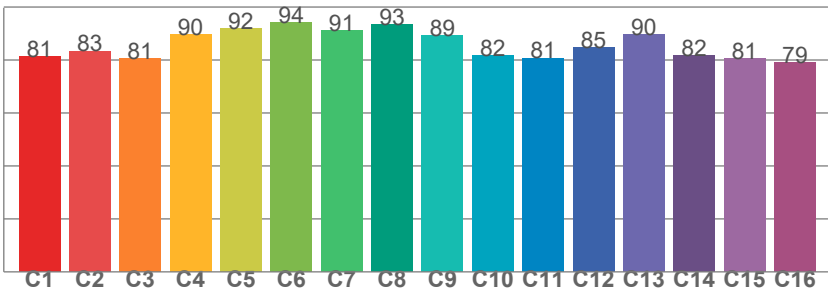

CRI R values, only R1-R8 are used to calculate final CRI value

| R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 | R13 | R14 | R15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 83.2 | 90.9 | 96.7 | 84.0 | 83.2 | 88.3 | 85.6 | 64.2 | 12.9 | 78.8 | 84.2 | 67.1 | 85.2 | 98.5 | 75.4 |

### CIE 1931 Chromaticity - SDCM




### TM30-18 Rf-values per hue bin




TM30-18 Rf-values per hue bin

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 81.3 | 83.5 | 80.6 | 89.8 | 92.0 | 94.2 | 91.1 | 93.4 | 89.2 | 81.8 | 80.8 | 84.9 | 89.7 | 81.8 | 80.7 | 79.1 |

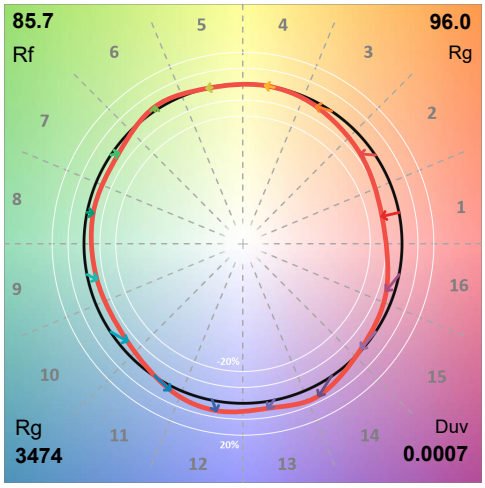
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## Color details - ANSI/IES TM-30-18 Color Rendition Report

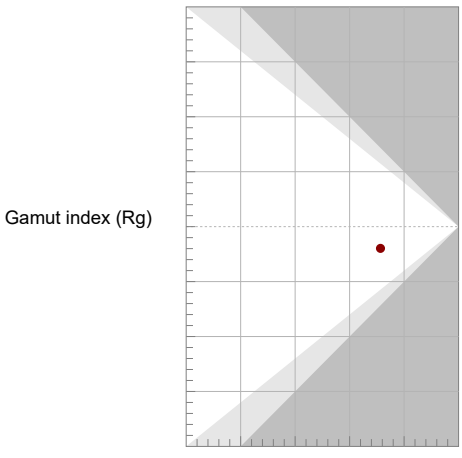
### Color Vector Graphic



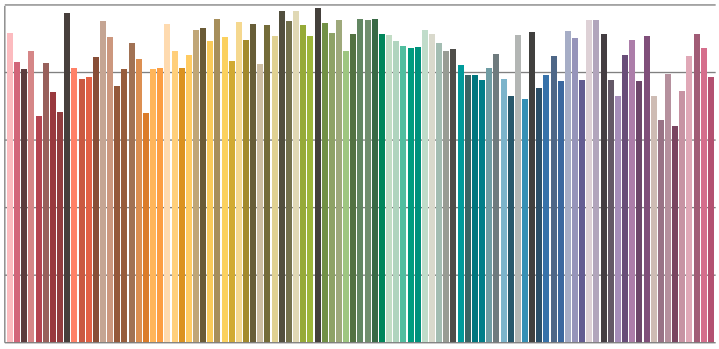

### Color Distortion Graphic



### Gamut Index vs. Fidelity Index

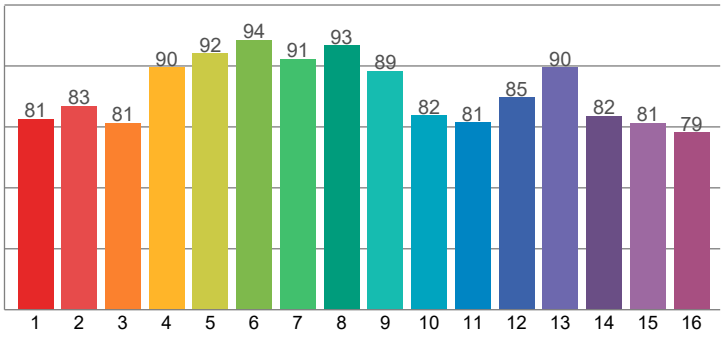



### Color Rendition by Color Evaluation Sample (CES)

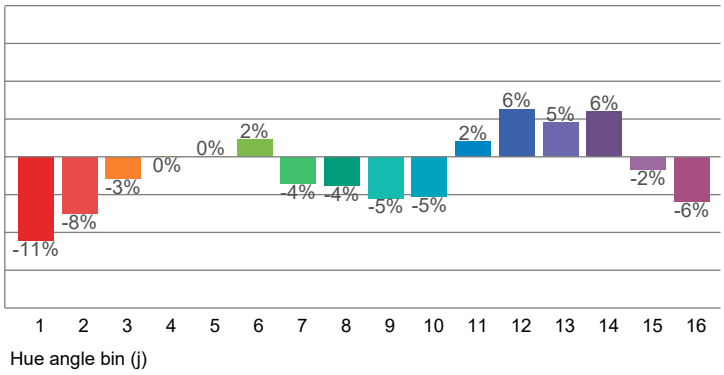


Color evaluation sample CES01 through CES99

### Local Color Fidelity (per hue bin)




### Local Chroma Shift (per hue bin)




| | |
|---|---|
| CIE x | 0.4077 |
| CIE y | 0.4077 |
| CIE u' | 0.2361 |
| CIE v' | 0.5128 |

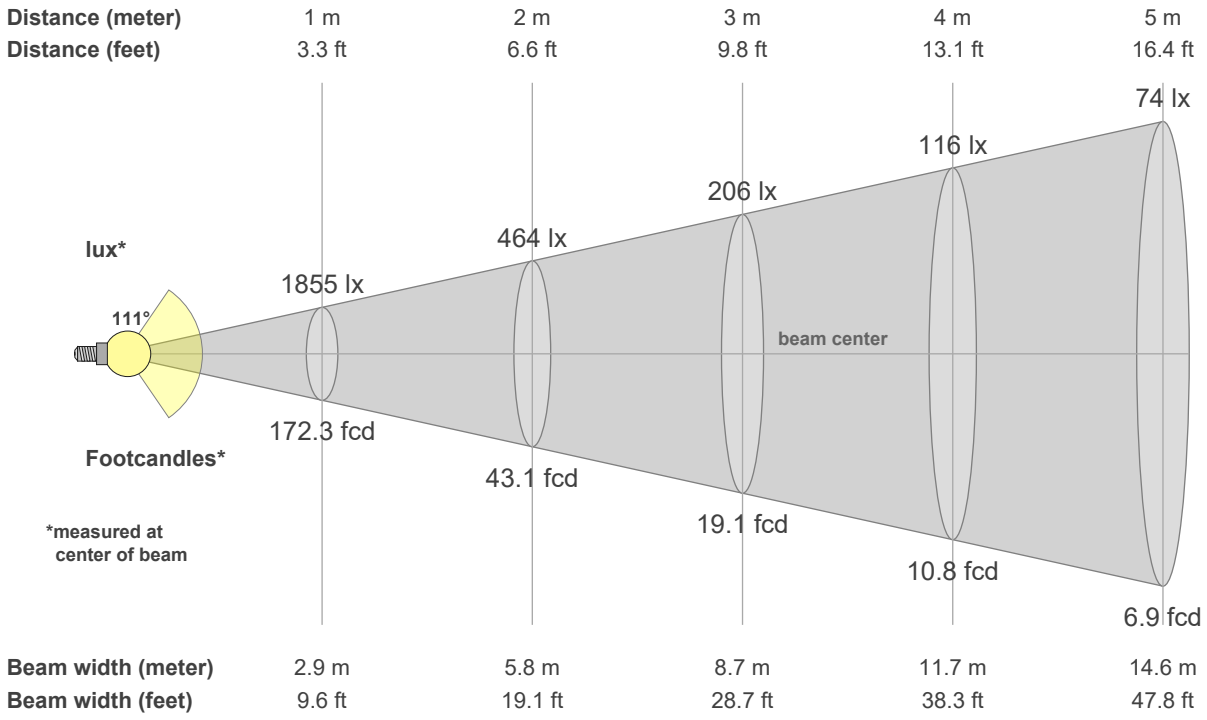
| CIE | 13.3-1995 |
|---|---|
| Ra | 84.5 |
| R9 | 12.9 |

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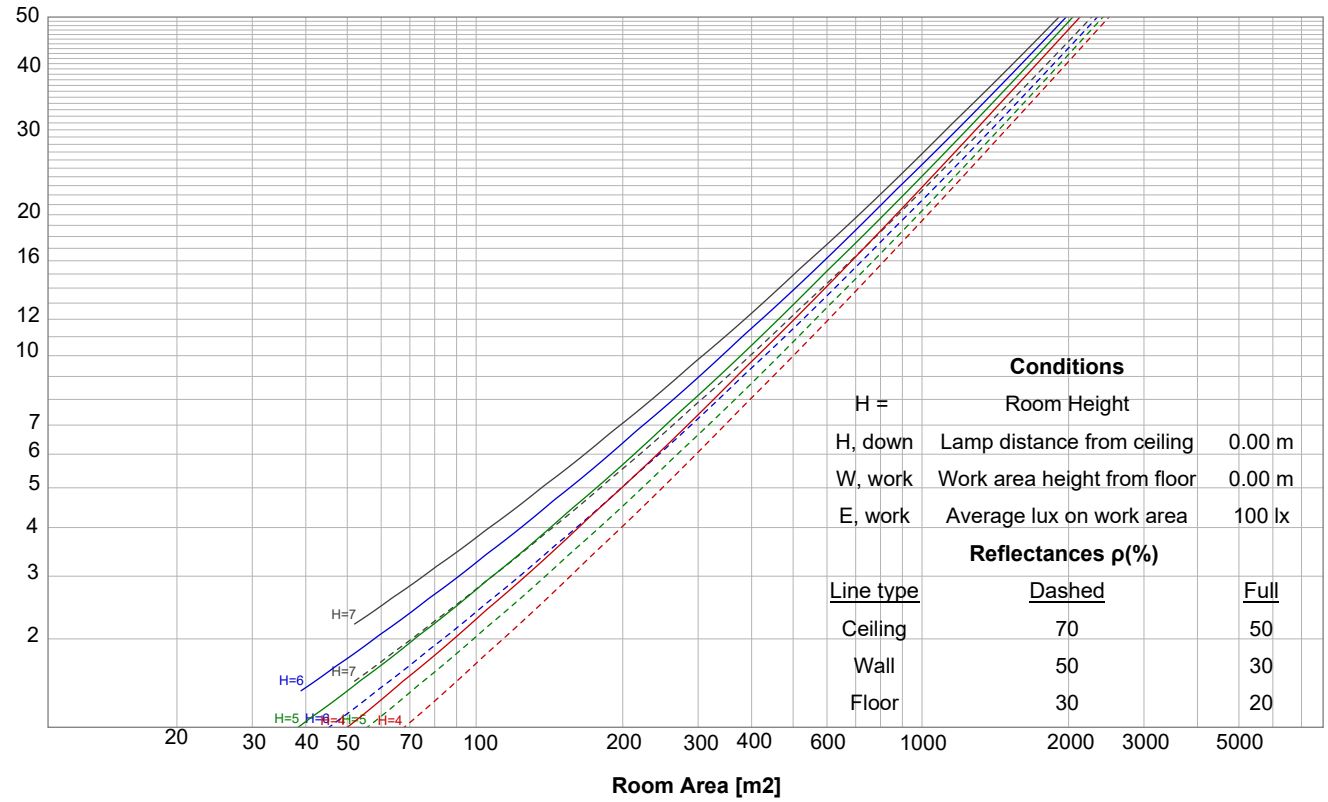
Print date 8/10/2026

## Beam details




## Luminaire budgetary diagram

**LAMPS (number of lamps)**



## Intensity details

Beam intensities from 1 – 20 m

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.3 | 6.6 | 9.8 | 13.1 | 16.4 | 19.7 | 23 | 26.2 | 29.5 | 32.8 | 36.1 | 39.4 | 42.7 | 45.9 | 49.2 | 52.5 | 55.8 | 59.1 | 62.3 | 65.6 | ft |
| 1855 | 464 | 206 | 116 | 74 | 52 | 38 | 29 | 23 | 19 | 15 | 13 | 11 | 9 | 8 | 7 | 6 | 6 | 5 | 5 | lux |
| 172.3 | 43.1 | 19.1 | 10.8 | 6.9 | 4.8 | 3.5 | 2.7 | 2.1 | 1.7 | 1.4 | 1.2 | 1 | 0.9 | 0.8 | 0.7 | 0.6 | 0.5 | 0.5 | 0.4 | fc |

Intensities in 0° c-plane

| 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1855 | 1845 | 1819 | 1772 | 1716 | 1639 | 1551 | 1449 | 1339 | 1212 | 1084 | 946 | 799 | 648 | 493 | 336 | 186 | 62 | 9 | 10 | cd |
| 100% | 99% | 98% | 96% | 93% | 88% | 84% | 78% | 72% | 65% | 58% | 51% | 43% | 35% | 27% | 18% | 10% | 3% | 0% | 1% | of 0°val |

Intensities in 90° c-plane

| 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1855 | 1848 | 1824 | 1782 | 1723 | 1647 | 1559 | 1459 | 1348 | 1224 | 1092 | 952 | 805 | 656 | 502 | 351 | 206 | 84 | 6 | 1 | cd |
| 100% | 100% | 98% | 96% | 93% | 89% | 84% | 79% | 73% | 66% | 59% | 51% | 43% | 35% | 27% | 19% | 11% | 5% | 0% | 0% | of 0°val |

Intensities in 180° c-plane

| 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1855 | 1846 | 1820 | 1779 | 1720 | 1647 | 1559 | 1459 | 1346 | 1223 | 1090 | 948 | 801 | 649 | 495 | 336 | 188 | 65 | 2 | 2 | cd |
| 100% | 100% | 98% | 96% | 93% | 89% | 84% | 79% | 73% | 66% | 59% | 51% | 43% | 35% | 27% | 18% | 10% | 4% | 0% | 0% | of 0°val |

Intensities in 270° c-plane

| 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1855 | 1849 | 1821 | 1781 | 1721 | 1646 | 1560 | 1457 | 1347 | 1221 | 1091 | 951 | 804 | 652 | 500 | 345 | 200 | 81 | 10 | 7 | cd |
| 100% | 100% | 98% | 96% | 93% | 89% | 84% | 79% | 73% | 66% | 59% | 51% | 43% | 35% | 27% | 19% | 11% | 4% | 1% | 0% | of 0°val |

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## UGR Table

*Corrected, comprehensive UGR table according to 117-1995, S/H ratio=0.25*

| **Reflectances** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ρ Ceiling | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| ρ Walls | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| ρ Floor | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| **Room size** | **Viewed Crosswise** | | | | | **Viewed Endwise** | | | | |
| H = mouting height above eye level | (Viewing direction orthogonal to lamp length axis) | | | | | (Viewing direction parallel to lamp length axis) | | | | |
| **X** **Y** | | | | | | | | | | |
| 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 |
| 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 |
| Variations with the observer position for the luminaire spacings, S: | | | | | | | | | | |
| n/a | n/a | | | | | n/a | | | | |
| n/a | n/a | | | | | n/a | | | | |
| n/a | n/a | | | | | n/a | | | | |

UGR data could not be calculated due to missing light source dimensions. Go to Edit -> Photometric -> Dimensions and set the source dimensions.

## 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 | 20 |
| RCR | (Room Cavity Ratio) | | | | Room values are expressed as percentage of Lumen delivered to the task surface | | | | | | | | | | | | | |
| 0 | 118.4 | 118.4 | 118.4 | 118.4 | 115.4 | 115.4 | 115.4 | 115.4 | 109.7 | 109.7 | 109.7 | 104.5 | 104.5 | 104.5 | 99.7 | 99.7 | 99.7 | 97.4 |
| 1 | 108.2 | 103.4 | 99.2 | 95.3 | 105.2 | 100.9 | 97.0 | 93.5 | 96.2 | 93.0 | 90.1 | 91.8 | 89.3 | 86.9 | 87.8 | 85.8 | 83.9 | 81.6 |
| 2 | 98.4 | 90.1 | 83.3 | 77.6 | 95.5 | 88.0 | 81.8 | 76.5 | 84.0 | 78.8 | 74.3 | 80.4 | 76.0 | 72.2 | 77.0 | 73.4 | 70.2 | 67.9 |
| 3 | 89.6 | 79.1 | 70.9 | 64.4 | 86.9 | 77.3 | 69.8 | 63.7 | 74.0 | 67.5 | 62.2 | 70.9 | 65.4 | 60.8 | 68.0 | 63.4 | 59.5 | 57.2 |
| 4 | 82.0 | 70.0 | 61.3 | 54.6 | 79.5 | 68.5 | 60.4 | 54.0 | 65.7 | 58.6 | 53.0 | 63.1 | 56.9 | 52.0 | 60.6 | 55.4 | 51.0 | 48.8 |
| 5 | 75.4 | 62.5 | 53.6 | 46.9 | 73.1 | 61.3 | 52.8 | 46.5 | 58.9 | 51.5 | 45.8 | 56.6 | 50.1 | 45.1 | 54.5 | 48.9 | 44.3 | 42.1 |
| 6 | 69.6 | 56.3 | 47.3 | 40.9 | 67.5 | 55.2 | 46.8 | 40.6 | 53.1 | 45.7 | 40.1 | 51.2 | 44.6 | 39.5 | 49.4 | 43.5 | 39.0 | 36.8 |
| 7 | 64.5 | 51.0 | 42.3 | 36.1 | 62.6 | 50.1 | 41.8 | 35.9 | 48.3 | 40.9 | 35.4 | 46.6 | 40.0 | 35.0 | 45.1 | 39.1 | 34.6 | 32.6 |
| 8 | 60.1 | 46.5 | 38.0 | 32.2 | 58.3 | 45.7 | 37.6 | 32.0 | 44.2 | 36.9 | 31.7 | 42.7 | 36.1 | 31.3 | 41.4 | 35.4 | 31.0 | 29.0 |
| 9 | 56.1 | 42.7 | 34.5 | 28.9 | 54.5 | 42.0 | 34.2 | 28.8 | 40.7 | 33.5 | 28.5 | 39.4 | 32.9 | 28.2 | 38.2 | 32.3 | 27.9 | 26.1 |
| 10 | 52.6 | 39.4 | 31.5 | 26.2 | 51.2 | 38.8 | 31.2 | 26.1 | 37.6 | 30.7 | 25.9 | 36.5 | 30.1 | 25.6 | 35.4 | 29.6 | 25.4 | 23.6 |

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## Power details

| Input power | |
|---|---|
| Frequency of input power | 60.0 Hz |
| Power feed to light source | 43.06 W |
| RMS Input voltage feed V,RMS | 120 V |
| RMS Input current feed I,RMS | 0.36 A |
| Volt-Amp or apparent power = V,RMS*I,RMS | 43.7 VA |
| Displacement factor of AC power feed | 0.99 |
| Power factor of AC current feed | 0.99 |
| Total harmonic distortion of the current | 8.969% |
| Total harmonic distortion of the voltage | 0.0733% |

**Input power curve**



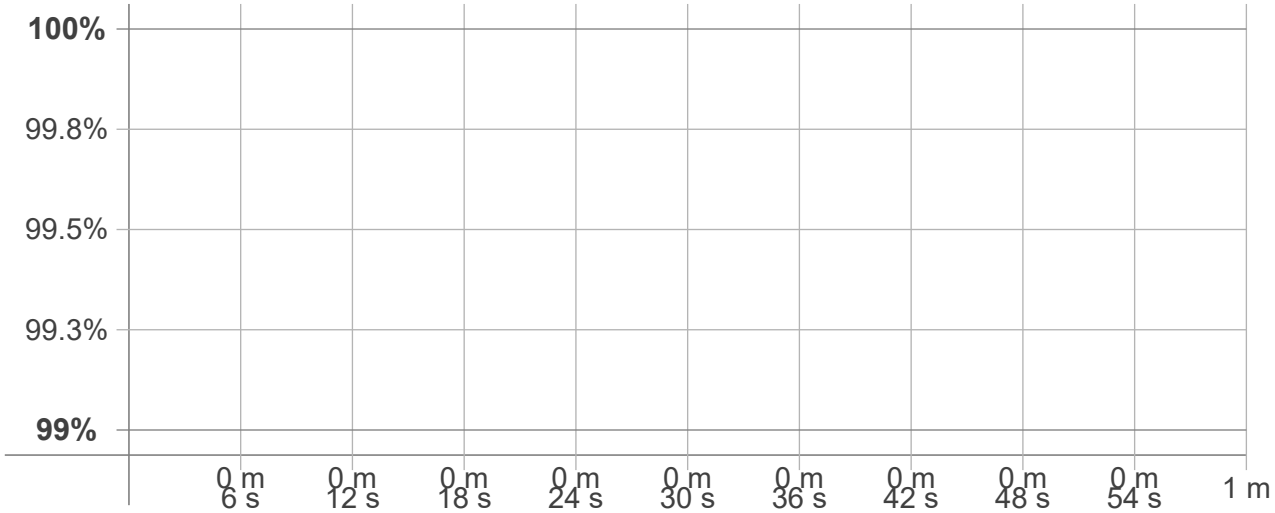
### Efficiency

| | |
|---|---|
| Radiated power efficiency | 37.35 |
| Lumen efficiency | 124.2 lm/W |

## Stabilization details

| Warmup Conditions | | Color Temperature Change | |
|---|---|---|---|
| Stable period | n/a | CCT start | NaN K |
| Stable change max | n/a% | CCT shift | NaN K |
| Minimum time | n/a | CCT end | 3474 K |
| **Warmup Result** | | **Output Change** | |
| Total warmup time | n/a | Output start | NaN lm |
| Warmup variation | NaN% | Output change | NaN lm |
| | | Output end | 5350 lm |

## Stabilization Curve



# Prudential Lighting

Light measurement results

Print date 8/10/2026

## Flicker TLA details

| | |
|---|---|
| Flicker Meter Type | Viso Systems LabFlicker |
| Frequency of input power | 60.0 Hz |
| Flicker/TLA sample rate | NaN samples/s |

**Measurement time**

| | |
|---|---|
| PstLM | 180 sec. |
| All other indices | 1,5 sec, |

**Flicker indices according to Illuminating Engineering Society (IES)**

| | |
|---|---|
| Flicker frequency | NaN Hz |
| Percent Flicker | NaN % |
| Flicker index | NaN |

**TLA indices (re IEC TR 61547-1, IEC 61000-3-3 and IEC 61000-4-15)**

| | |
|---|---|
| PstLM value (F < 80 Hz) | NaN |
| SVM value (80 < F < 2000 Hz) | NaN |

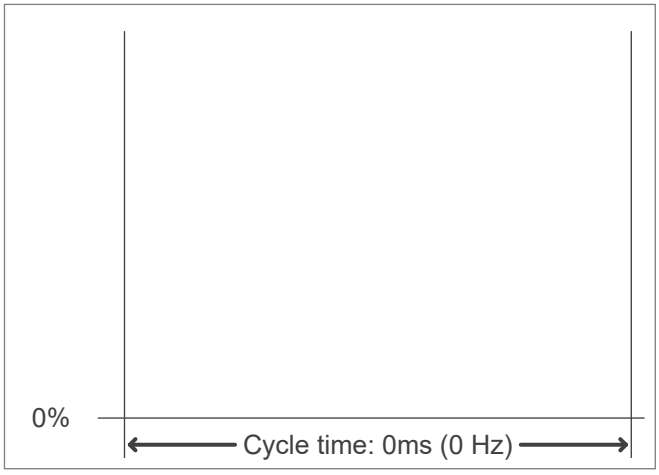
**Flicker indices according to California Energy Commission (CEC) 2016b**

| | |
|---|---|
| JA8/10 40 Hz | NaN % |
| JA8/10 90 Hz | NaN % |
| JA8/10 200 Hz | NaN % |
| JA8/10 400 Hz | NaN % |
| JA8/10 1000 Hz | NaN % |

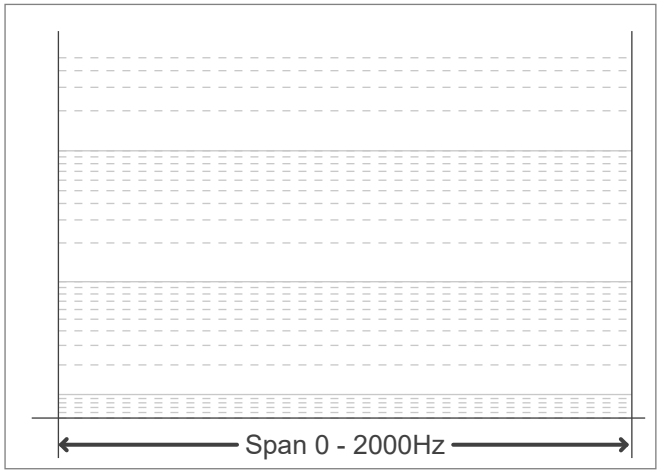
**Flicker indices according to Lighting Research Center (2015)**

| | |
|---|---|
| Perception metric, Assist Mp | NaN |

**Flicker frame (frame of one flicker period in time domain)**




**Flicker FFT (flicker curve in frequency domain)**




**IEEE 1789 Frequency/modulation plot**

