

# **P6** (EK03780425)

# PHOTOMETRIC TEST REPORT



Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

# P6
Profiler

**Table of Contents**


Report Introduction . . . 3
Overview . . . 4
Maximum Output . . . 5
Zoom Wide - Photometric . . . 8
Zoom Mid - Photometric . . . 9
Zoom Narrow - Photometric . . . 10
Zoom Wide 5600K . . . 11
Zoom Mid 5600K - Photometric . . . 14
Zoom Narrow 5600K - Photometric . . . 15
Zoom Wide 3200K . . . 16
Zoom Mid 3200K - Photometric . . . 19
Zoom Narrow 3200K - Photometric . . . 20
6500K - Colorimetric . . . 21
5600K - Colorimetric . . . 23
4000K - Colorimetric . . . 25
3200K - Colorimetric . . . 27
2700K - Colorimetric . . . 29
Zoom Wide Frost - Photometric . . . 31
Zoom Mid Frost - Photometric . . . 32
Zoom Narrow Frost - Photometric . . . 33
Zoom Wide Fresnel Lens - Photometric . . . 34
Zoom Mid Fresnel Lens - Photometric . . . 35
Zoom Narrow Fresnel Lens - Photometric . . . 36




Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## Report Introduction

### About this report

We measure total luminous flux with state-of-the-art equipment, such as an integrating sphere and a goniophotometer, based on a 6-Axis industry Robot. In this process we rely on our professional Cameo photometric laboratory or certified partners. Our measurements reflect the utilised flux emitted from the luminaire at all radiating angles considering the zoom range.
We process our measurement data in a specialized software to calculate all photometric data. This photometric report includes spectra, light distribution, TM-30-18, TLCI, and many other standardised reports. Additionally, we provide photometric data in IES and LDT file format.

### Measurement conditions

- Stabilised laboratory room temperature for absolute consistency
- Stabilised luminaires (max. +-0.5% flux for at least 15min)
- Goniophotometer resolution: gamma = 5° and C-level = 0.1°
- Distance > photometric limit distance (tolerance < 1.0%)
- Calibrated and accurate tools

### Equipment

- Goniometer with 6-Axis Robogonio by Opsira including Spectral Radiometer Spec`3 and frc-f-l, a fast Class-L Photometer for flicker etc.
- Integrating sphere UKU800 by Opsira
- Spectral Radiometer Spec`3 by Opsira
- Luxmeter Gossen MavoLux 5032-C
- Handheld-Spectrometer Gossen MavoSpec M600A
- Handheld-Spectrometer UPR-Tec MK350S Premium



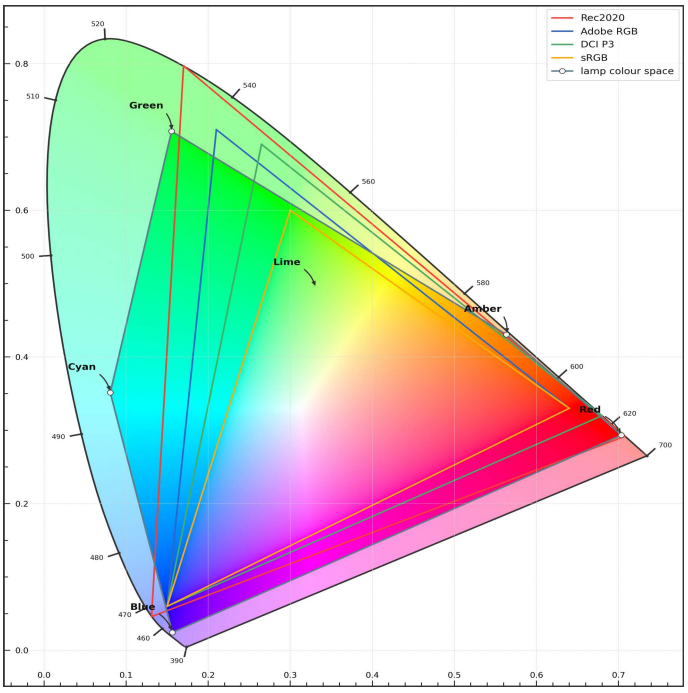

Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## Overview

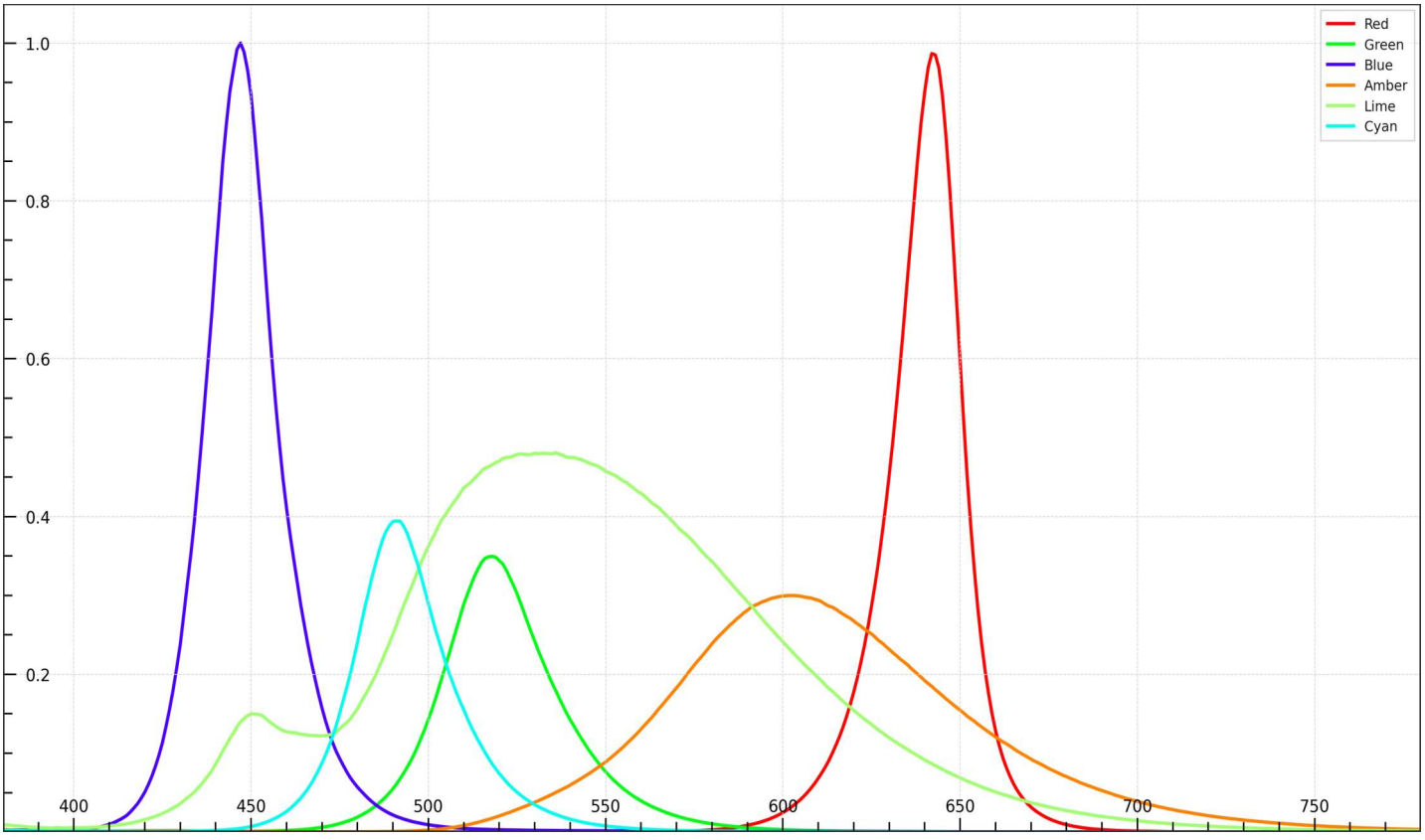
| LED Colours | Lum flux [lm] | x | y |
|---|---|---|---|
| **Red** | 1576 | 0.7035 | 0.2934 |
| **Green** | 3069 | 0.1554 | 0.7078 |
| **Blue** | 409 | 0.1564 | 0.0244 |
| **Amber** | 4809 | 0.5634 | 0.4307 |
| **Lime** | 12241 | 0.3308 | 0.4945 |
| **Cyan** | 1335 | 0.0807 | 0.3514 |

| Colour space | Coverage [%] |
|---|---|
| **Rec2020** | 90.5 |
| **Adobe RGB** | 97.5 |
| **DCI P3** | 94.8 |
| **sRGB** | 100.0 |

### CIE 1931 Chromaticity Diagram - 2° Standard Observer




### Spectral Distribution for Colours (Wavelength [nm] --> relative Intensity)








Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

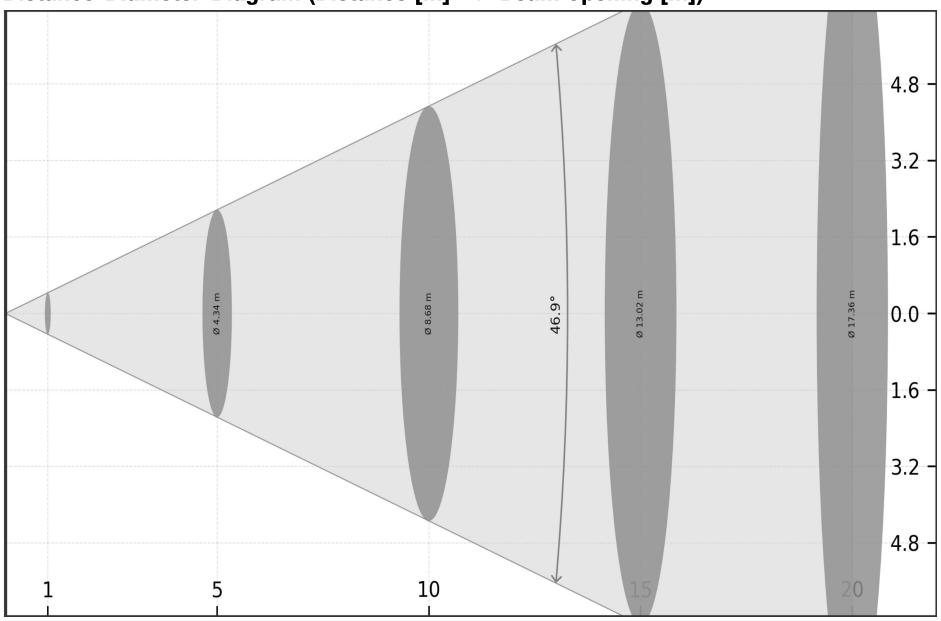
# P6
Profiler

## Maximum Output – Photometric Report

| Beam Angle [°] | Field Angle [°] | Luminous flux [lm] | Power [W] | Luminous Efficacy [lm/W] |
|---|---|---|---|---|
| 46.9 | 50.4 | 16489 | 609 | 27.1 |

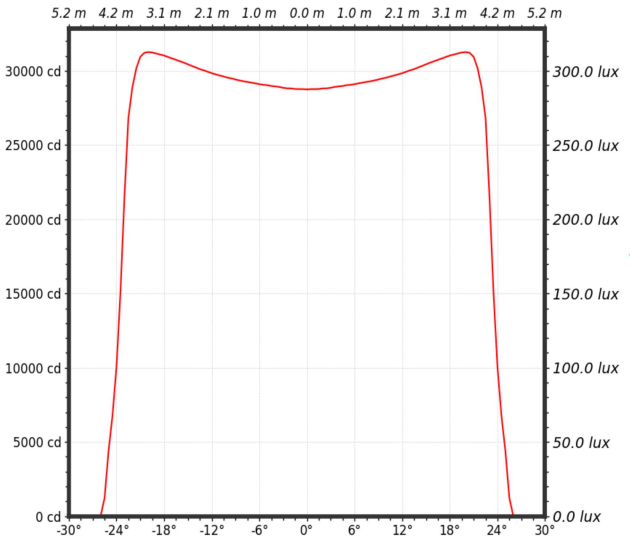


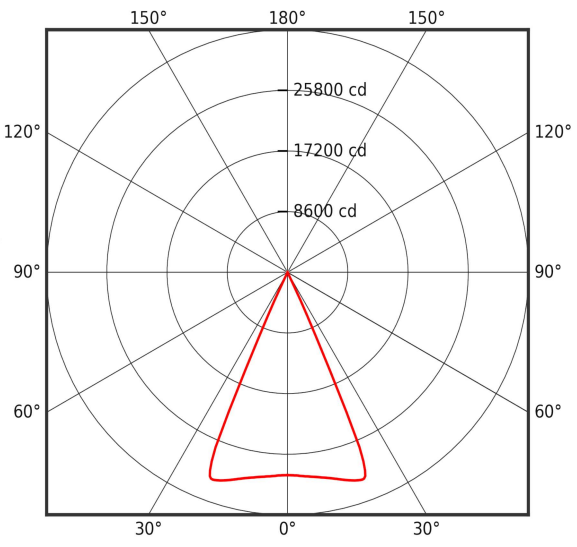
### Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])




| Distance [m] | 1 | 5 | 10 | 15 | 20 |
|---|---|---|---|---|---|
| Illuminance [lx] | 28756 | 1150 | 288 | 128 | 72 |
| Diameter [m] | 0.87 | 4.34 | 8.68 | 13.02 | 17.36 |

### Light Distribution Diagrams / Illuminance




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 4000K; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5





Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

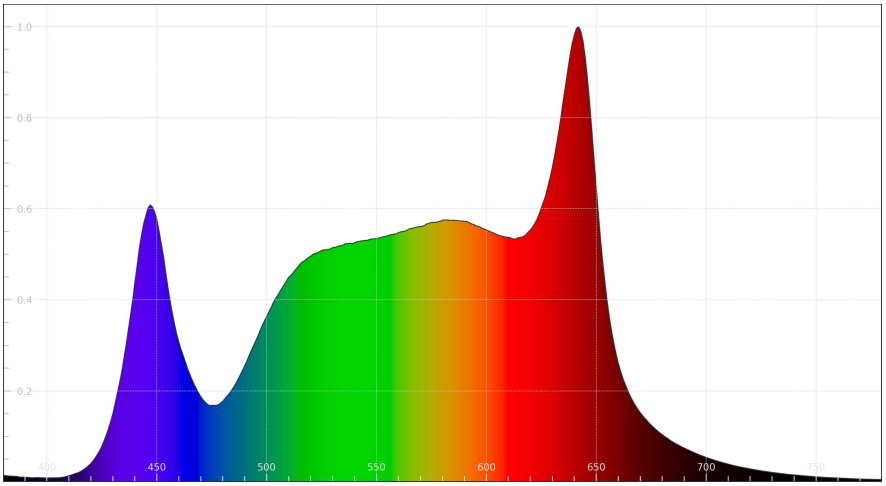
# P6
Profiler

## Maximum Output – Colorimetric Report

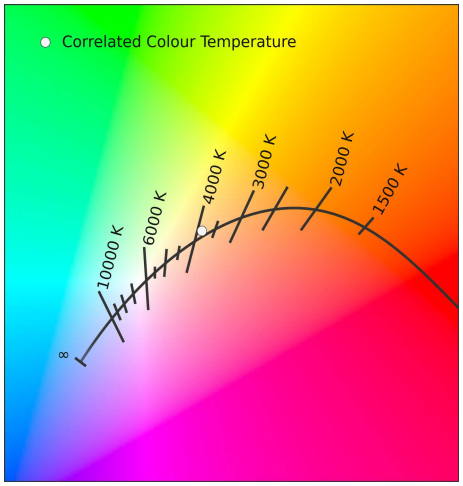
### Colorimetric Characteristics

| | | | | | |
|---|---|---|---|---|---|
| Correlated Colour Temperature [K] | **CCT** | 3861 | Luminous Flux [lm] | **Lum Flux** | 16489 |
| Colour Deviation from Black | **$D_{uv}$** | 0.0017 | Colour Rendering Index | **CRI Ra** | 93 |
| Colour Coordinate CIE 1931 | **x** | 0.3881 | Red Component | **CRI R9** | 91 |
| Colour Coordinate CIE 1931 | **y** | 0.3852 | Colour Fidelity | **TM30 $R_f$** | 92 |
| Colour Coordinate CIE 1976 | **u'** | 0.2268 | Colour Gamut | **TM30 $R_g$** | 103 |
| Colour Coordinate CIE 1976 | **v'** | 0.5064 | Television Lighting Consistency Index | **TLCI** | 91 |
| Spectral Similarity Index | **SSI[P3861]** | 74 | | | |

### CIE 1931 2° Standard Observer (Wavelength [nm] --> relative Spectral Distribution)




### Colour Temperature

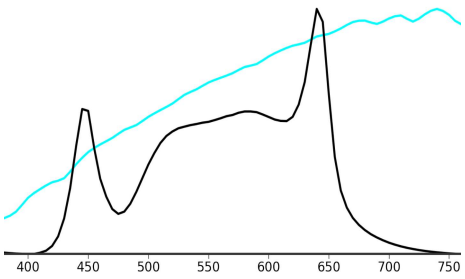



### Television Lighting Consistency Index-2012

CCT = M3861 ( 0.3 ) TLCI-2012 : 91 (M3861)




| Sector | Lightness | Chroma | Hue |
|---|---|---|---|
| R | + | 0 | 0 |
| R/Y | 0 | 0 | - |
| Y | 0 | 0 | 0 |
| Y/G | 0 | 0 | 0 |
| G | 0 | 0 | + |
| G/C | 0 | 0 | + |
| C | 0 | 0 | ++ |
| C/B | 0 | 0 | 0 |
| B | 0 | - | - |
| B/M | + | - | ++ |
| M | 0 | - | ++ |
| M/R | + | 0 | ++ |




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 4000K; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5

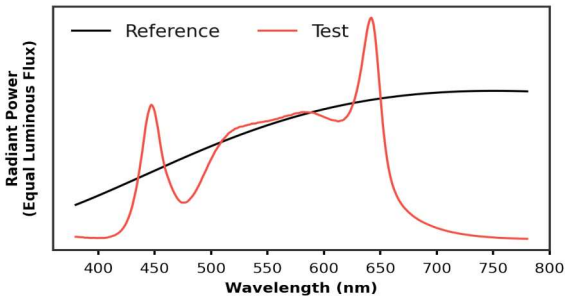


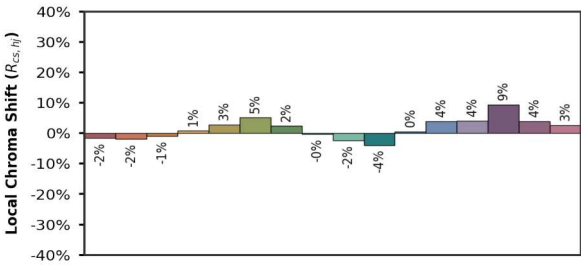


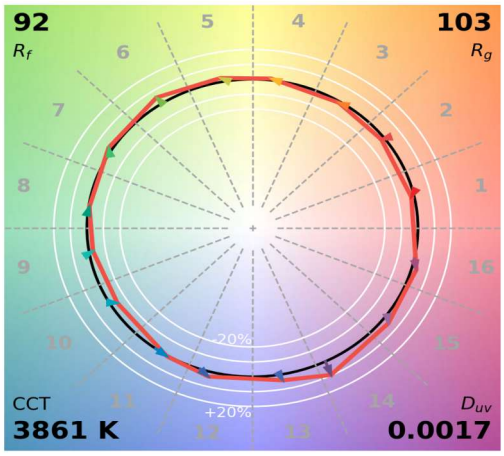
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

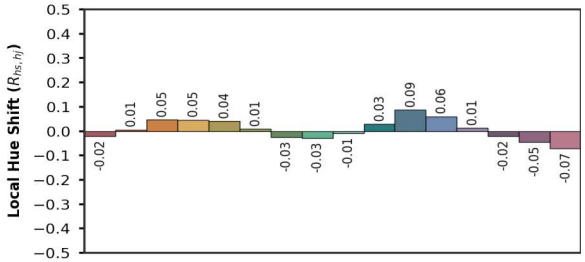
## Maximum Output – Colorimetric Report

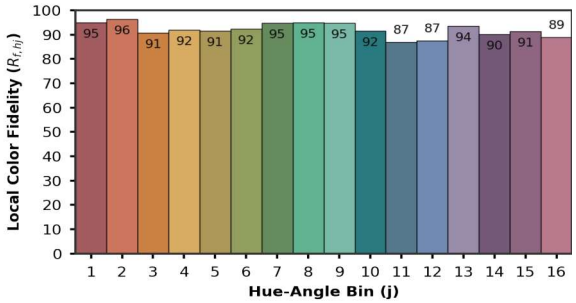
### IES TM-30-18 Colour Rendition Report

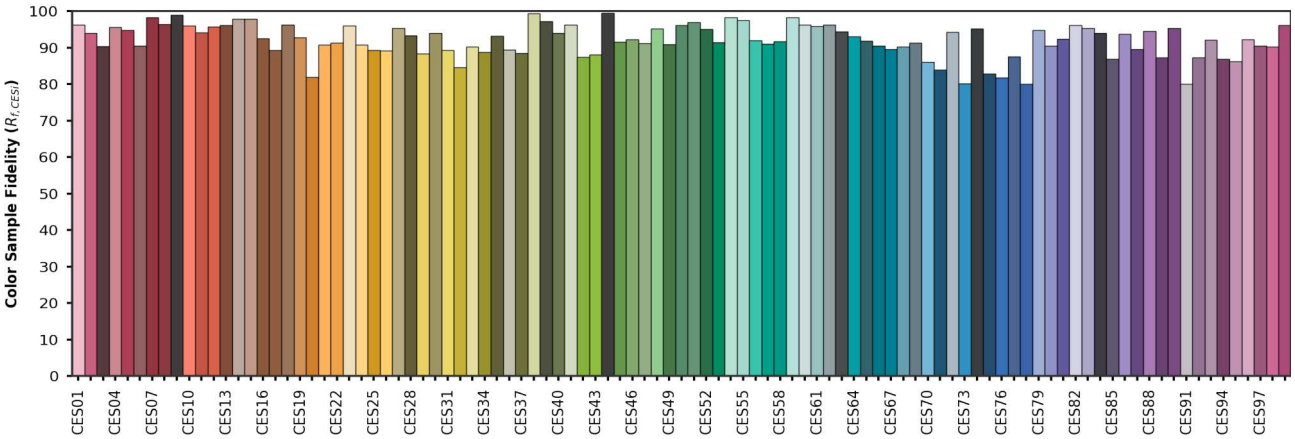



| | |
|---|---|
| *x* | 0.3881 |
| *y* | 0.3852 |
| *u′* | 0.2268 |
| *v′* | 0.5064 |

**CIE 13.31-1995**
**(CRI)**
$R_a$ **93**
$R_9$ **91**

Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 4000K; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5

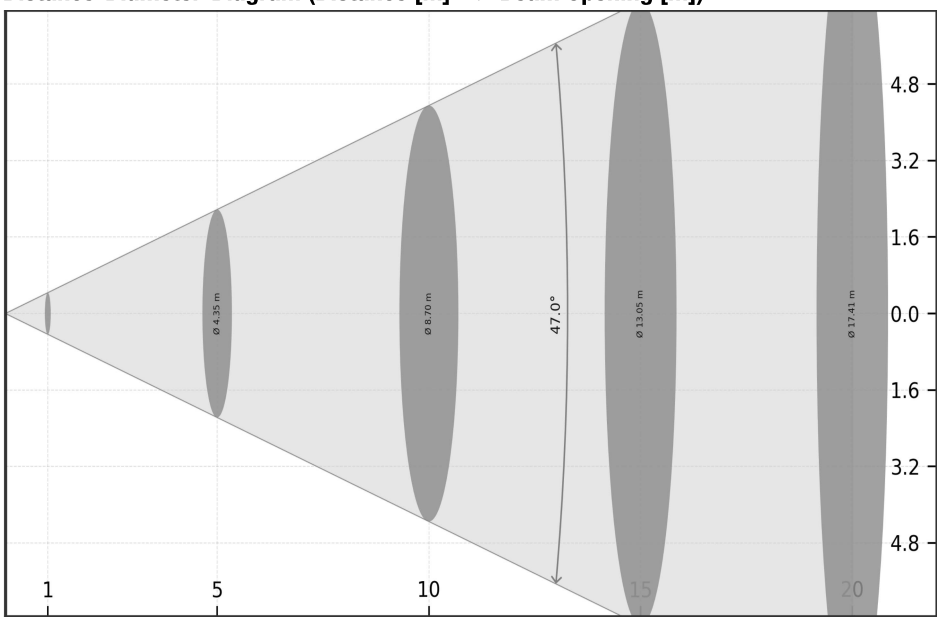

Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## Zoom Wide - Photometric – Photometric Report

| Beam Angle [°] | Field Angle [°] | Luminous flux [lm] | Power [W] | Luminous Efficacy [lm/W] |
|---|---|---|---|---|
| 47.0 | 50.2 | 13344 | 566 | 23.6 |

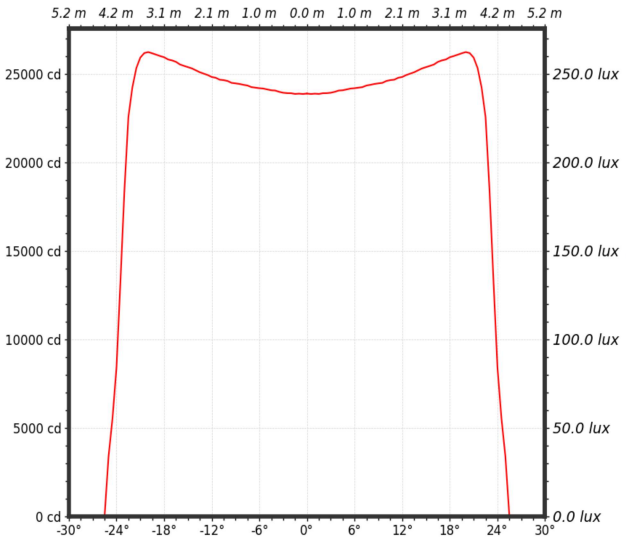


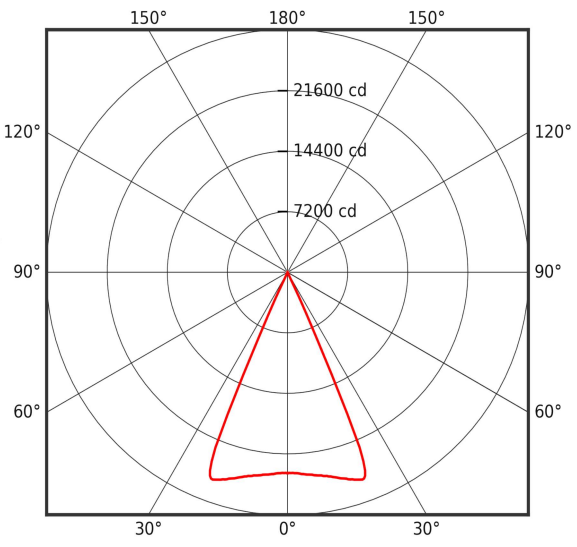
### Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])




| Distance [m] | 1 | 5 | 10 | 15 | 20 |
|---|---|---|---|---|---|
| Illuminance [lx] | 23890 | 956 | 239 | 106 | 60 |
| Diameter [m] | 0.87 | 4.35 | 8.70 | 13.05 | 17.41 |

### Light Distribution Diagrams / Illuminance




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: Off; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5

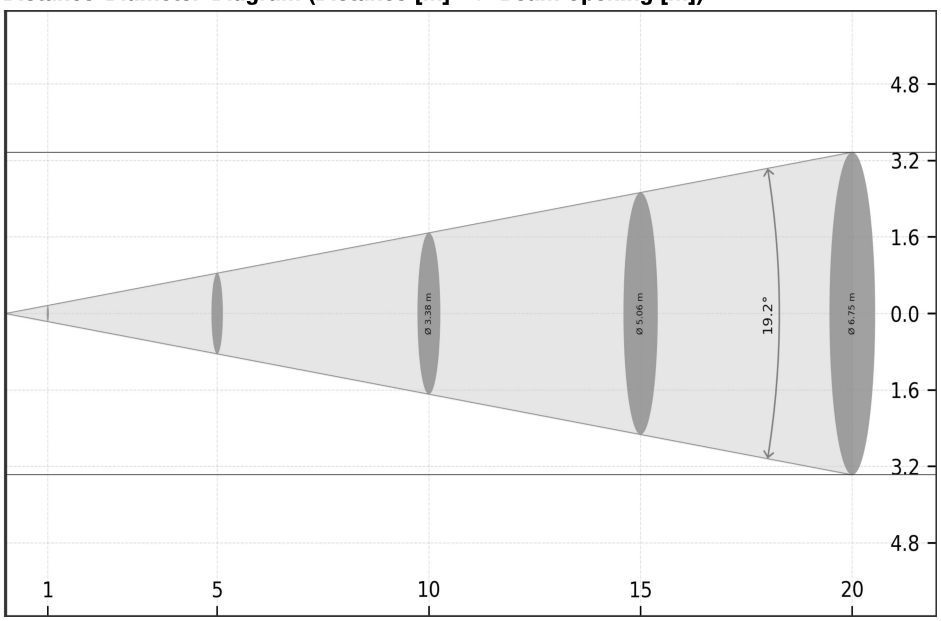

Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## Zoom Mid - Photometric – Photometric Report

| Beam Angle [°] | Field Angle [°] | Luminous flux [lm] | Power [W] | Luminous Efficacy [lm/W] |
|---|---|---|---|---|
| 19.2 | 22.1 | 12800 | 566 | 22.6 |

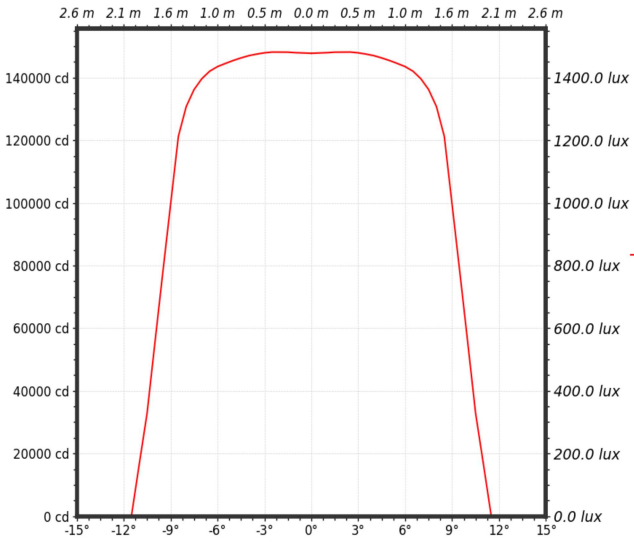


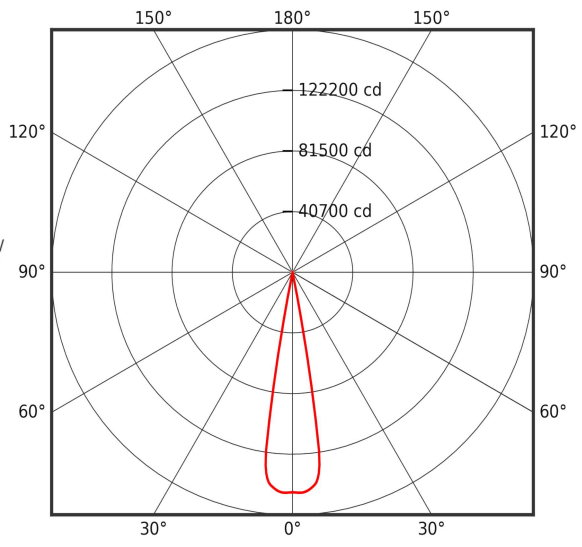
### Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])




| Distance [m] | 1 | 5 | 10 | 15 | 20 |
|---|---|---|---|---|---|
| Illuminance [lx] | 147774 | 5911 | 1478 | 657 | 369 |
| Diameter [m] | 0.34 | 1.69 | 3.38 | 5.06 | 6.75 |

### Light Distribution Diagrams / Illuminance




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: Off; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: G; Focus: 2



Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

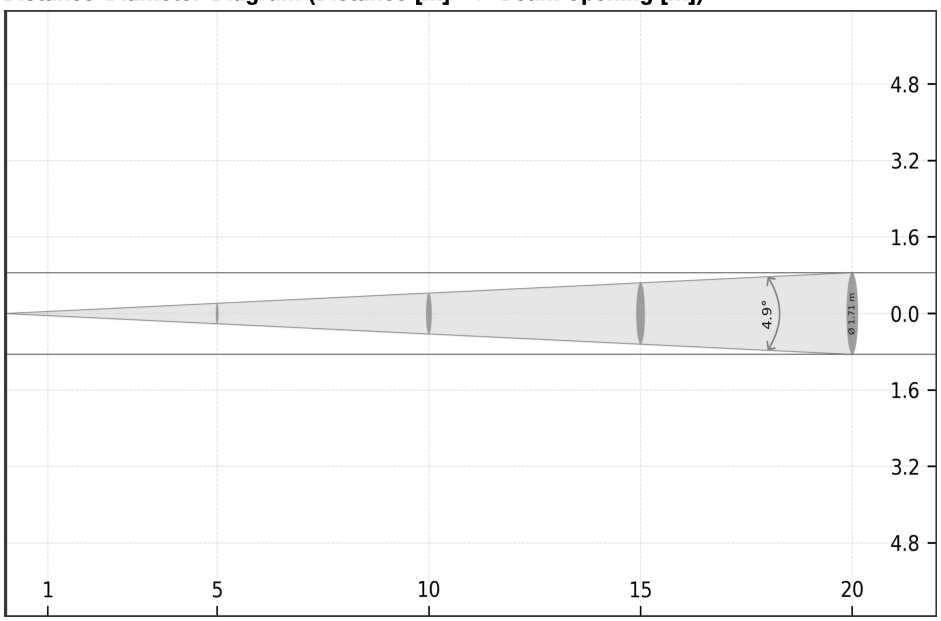
# P6
Profiler

## Zoom Narrow - Photometric – Photometric Report

| Beam Angle [°] | Field Angle [°] | Luminous flux [lm] | Power [W] | Luminous Efficacy [lm/W] |
|---|---|---|---|---|
| 4.9 | 6.6 | 5269 | 566 | 9.3 |

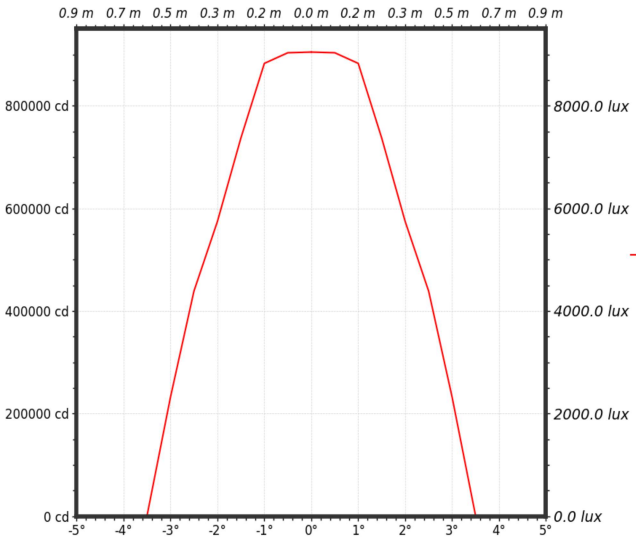


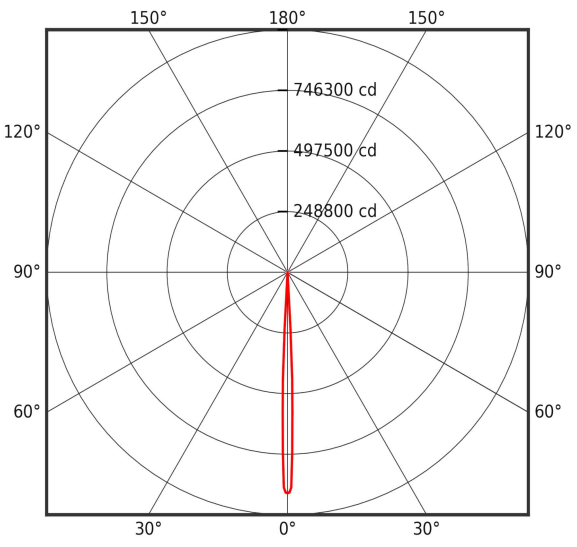
### Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])




| Distance [m] | 1 | 5 | 10 | 15 | 20 |
|---|---|---|---|---|---|
| Illuminance [lx] | 904568 | 36183 | 9046 | 4020 | 2261 |
| Diameter [m] | 0.09 | 0.43 | 0.86 | 1.28 | 1.71 |

### Light Distribution Diagrams / Illuminance




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: Off; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: D; Focus: 1



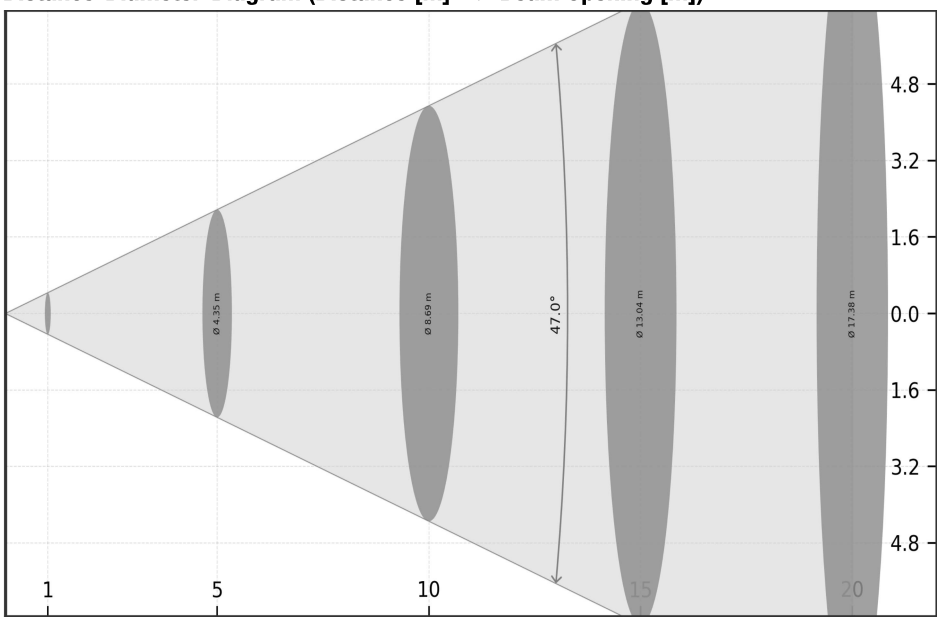
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## Zoom Wide 5600K – Photometric Report

| Beam Angle [°] | Field Angle [°] | Luminous flux [lm] | Power [W] | Luminous Efficacy [lm/W] |
|---|---|---|---|---|
| 47.0 | 50.2 | 16250 | 596 | 27.3 |

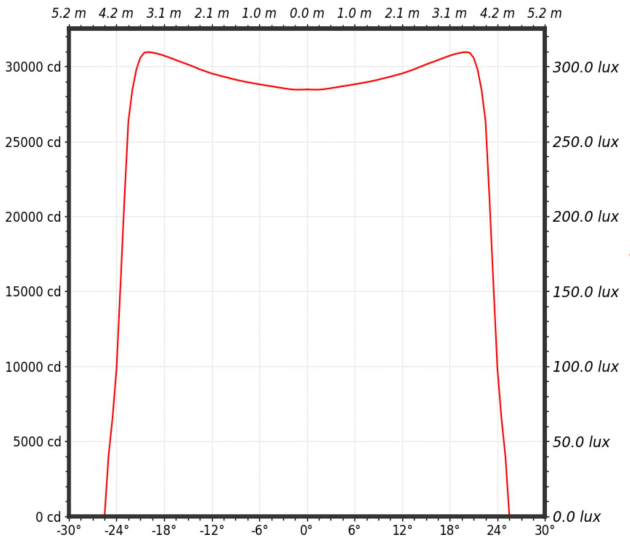


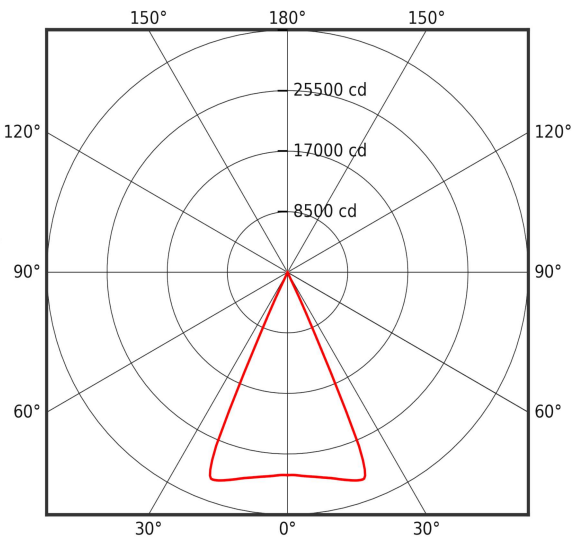
### Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])




| Distance [m] | 1 | 5 | 10 | 15 | 20 |
|---|---|---|---|---|---|
| Illuminance [lx] | 28461 | 1138 | 285 | 126 | 71 |
| Diameter [m] | 0.87 | 4.35 | 8.69 | 13.04 | 17.38 |

### Light Distribution Diagrams / Illuminance




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 5600K; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5



Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

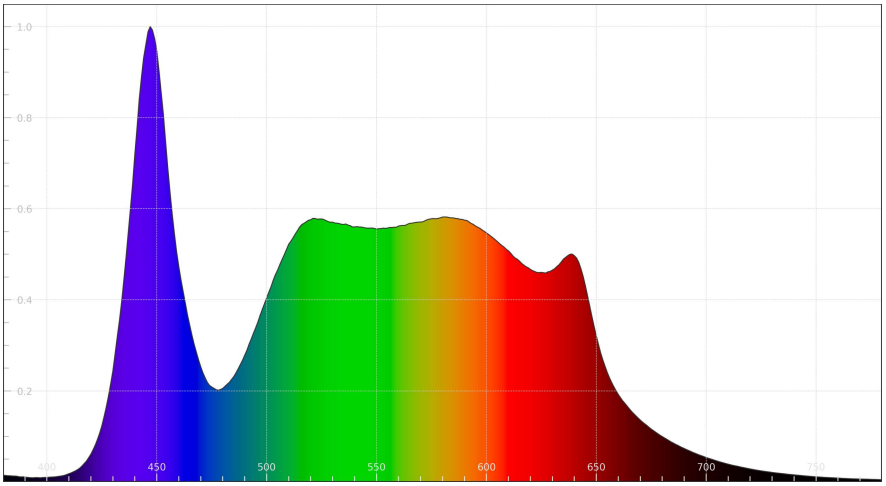
# P6
Profiler

## Zoom Wide 5600K – Colorimetric Report

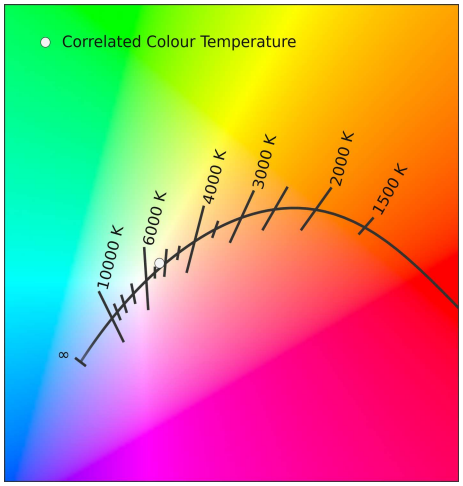
### Colorimetric Characteristics

| | | | | | |
|---|---|---|---|---|---|
| Correlated Colour Temperature [K] | **CCT** | 5282 | Luminous Flux [lm] | **Lum Flux** | 16250 |
| Colour Deviation from Black | **$D_{uv}$** | 0.0027 | Colour Rendering Index | **CRI Ra** | 86 |
| Colour Coordinate CIE 1931 | **x** | 0.3379 | Red Component | **CRI R9** | 33 |
| Colour Coordinate CIE 1931 | **y** | 0.3510 | Colour Fidelity | **TM30 $R_f$** | 85 |
| Colour Coordinate CIE 1976 | **u'** | 0.2068 | Colour Gamut | **TM30 $R_g$** | 100 |
| Colour Coordinate CIE 1976 | **v'** | 0.4833 | Television Lighting Consistency Index | **TLCI** | 75 |
| Spectral Similarity Index | **SSI[CIE D5282]** | 68 | | | |

### CIE 1931 2° Standard Observer (Wavelength [nm] --> relative Spectral Distribution)




### Colour Temperature

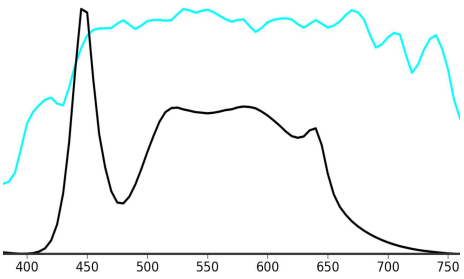



### Television Lighting Consistency Index-2012

CCT = D5282 ( 0.5 ) TLCI-2012 : 75 (D5282)




| Sector | Lightness | Chroma | Hue |
|---|---|---|---|
| R | +++ | + | 0 |
| R/Y | 0 | 0 | -- |
| Y | 0 | 0 | -- |
| Y/G | 0 | - | 0 |
| G | - | 0 | ++ |
| G/C | 0 | 0 | +++ |
| C | 0 | 0 | + |
| C/B | + | 0 | 0 |
| B | 0 | - | 0 |
| B/M | + | - | ++++ |
| M | ++ | 0 | ++++ |
| M/R | +++ | 0 | ++++ |




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 5600K; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5

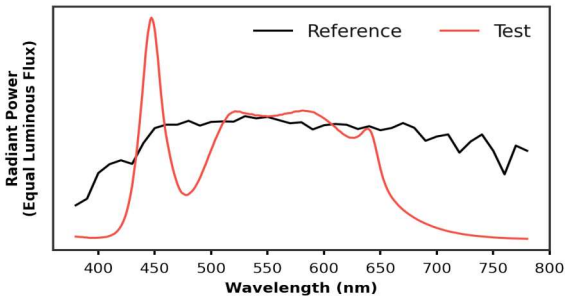


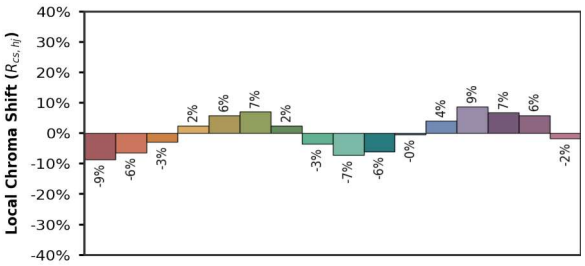


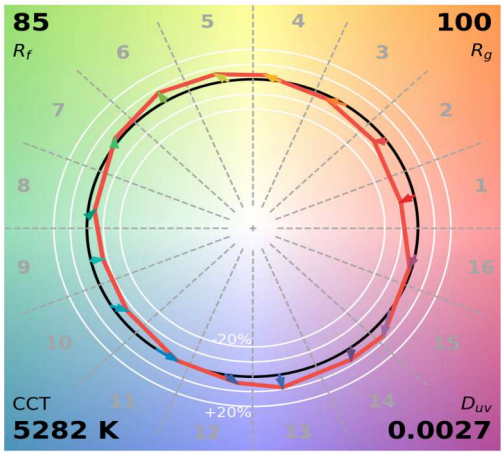
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

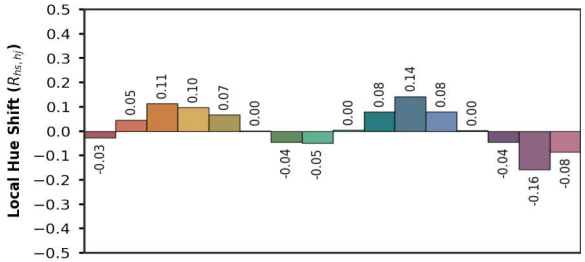
## Zoom Wide 5600K – Colorimetric Report

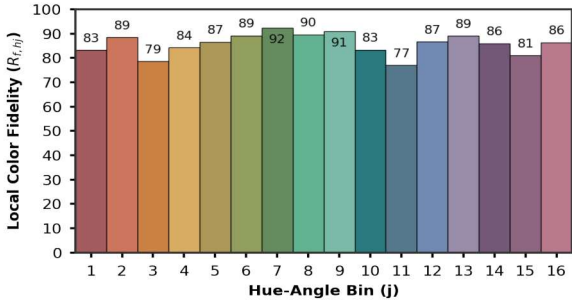
### IES TM-30-18 Colour Rendition Report

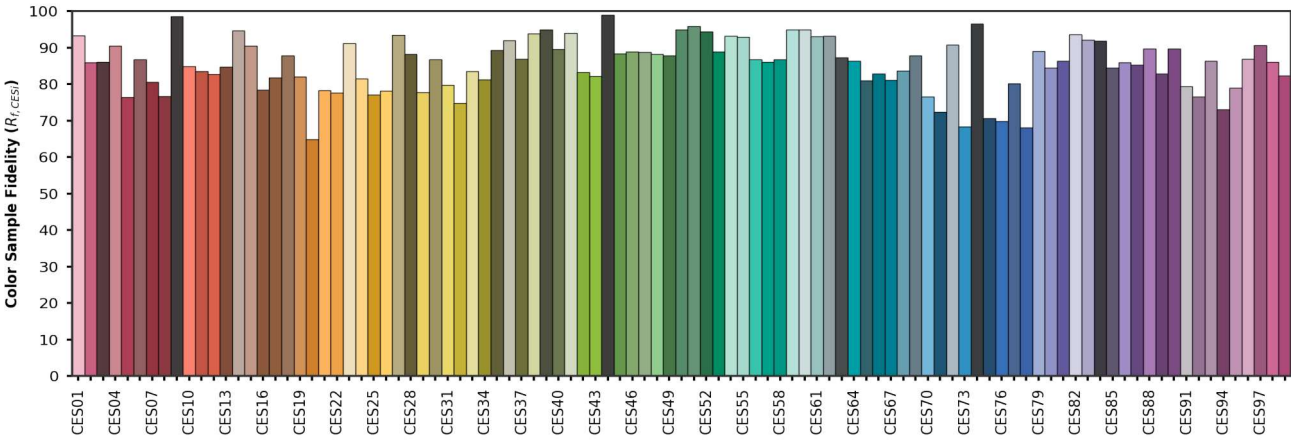



| | |
|---|---|
| *x* 0.3379 | CIE 13.31-1995 |
| *y* 0.3510 | (CRI) |
| *u′* 0.2068 | $R_a$ 86 |
| *v′* 0.4833 | $R_9$ 33 |

Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 5600K; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5



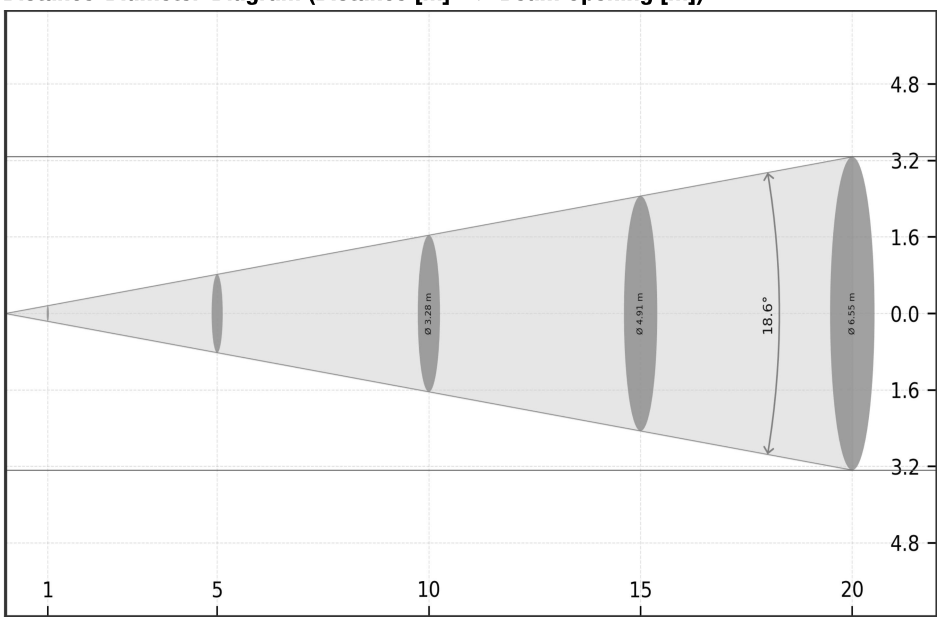
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## Zoom Mid 5600K - Photometric – Photometric Report

| Beam Angle [°] | Field Angle [°] | Luminous flux [lm] | Power [W] | Luminous Efficacy [lm/W] |
|---|---|---|---|---|
| 18.6 | 21.5 | 15054 | 596 | 25.3 |

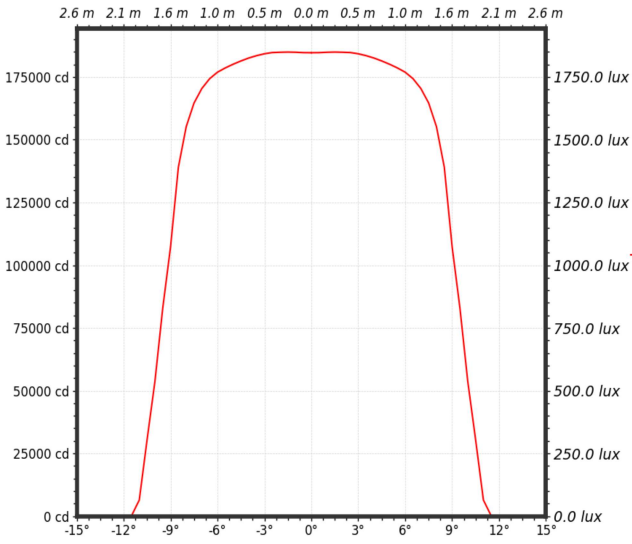


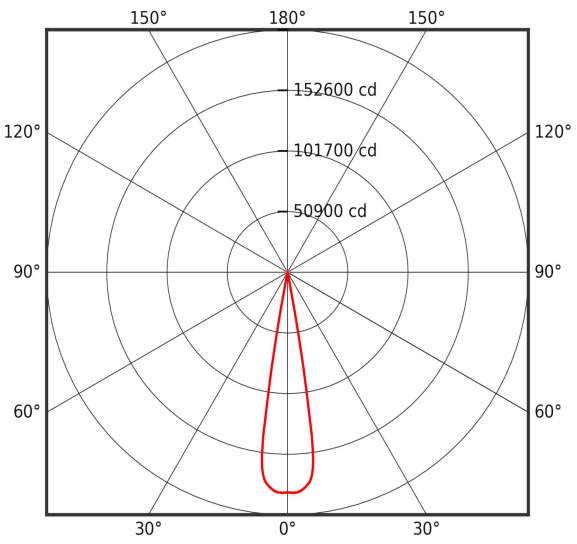
### Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])




| Distance [m] | 1 | 5 | 10 | 15 | 20 |
|---|---|---|---|---|---|
| Illuminance [lx] | 184679 | 7387 | 1847 | 821 | 462 |
| Diameter [m] | 0.33 | 1.64 | 3.28 | 4.91 | 6.55 |

### Light Distribution Diagrams / Illuminance




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 5600K; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: G; Focus: 2



Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

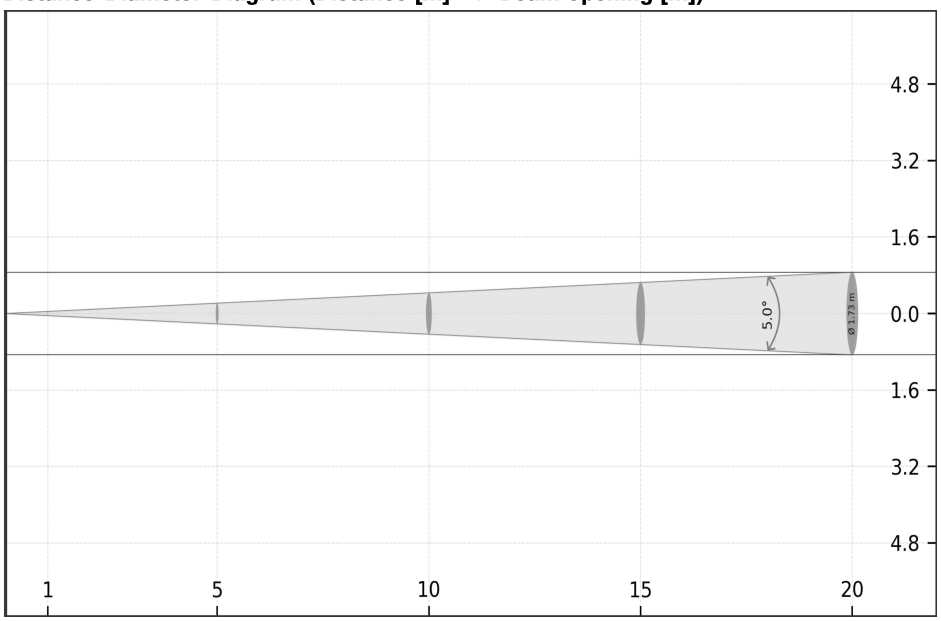
# P6
Profiler

## Zoom Narrow 5600K - Photometric – Photometric Report

| Beam Angle [°] | Field Angle [°] | Luminous flux [lm] | Power [W] | Luminous Efficacy [lm/W] |
|---|---|---|---|---|
| 5.0 | 6.8 | 6144 | 596 | 10.3 |

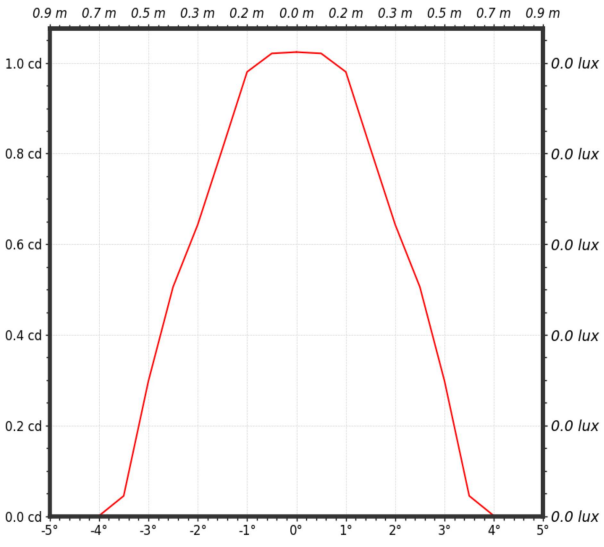


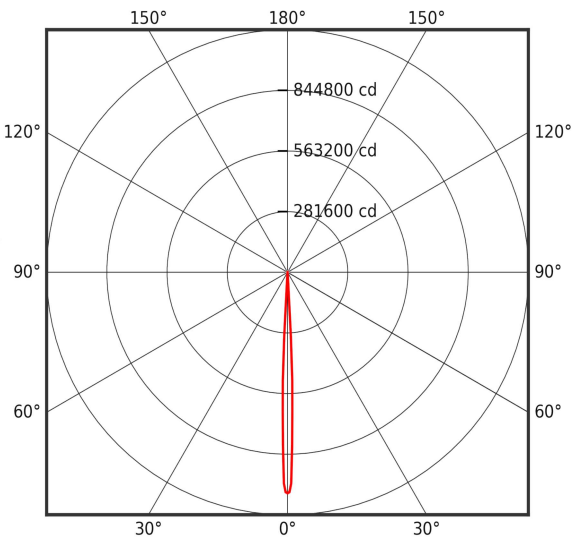
### Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])




| Distance [m] | 1 | 5 | 10 | 15 | 20 |
|---|---|---|---|---|---|
| Illuminance [lx] | 1024049 | 40962 | 10240 | 4551 | 2560 |
| Diameter [m] | 0.09 | 0.43 | 0.87 | 1.30 | 1.73 |

### Light Distribution Diagrams / Illuminance




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 5600K; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: D; Focus: 1





Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

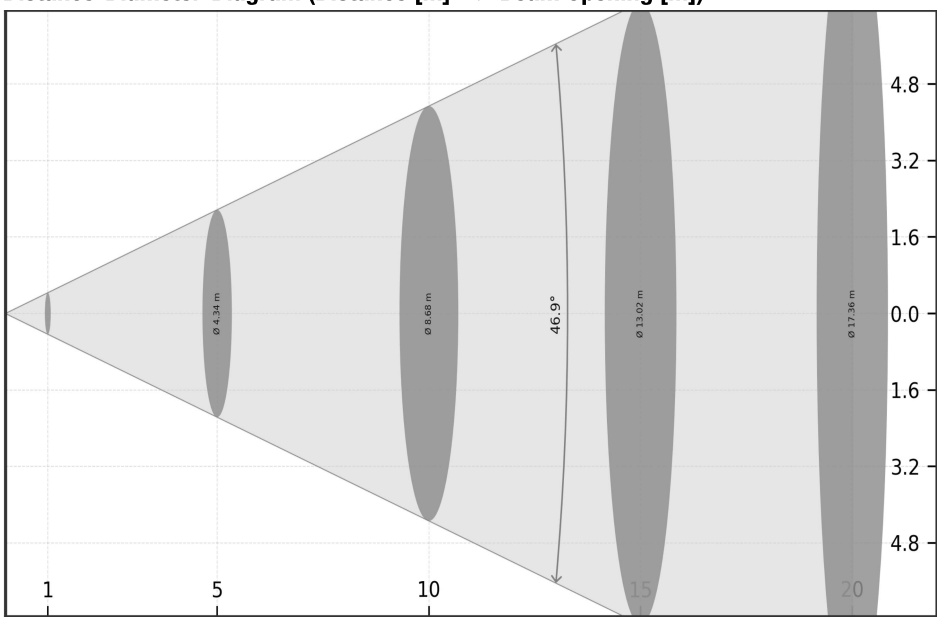
# P6
Profiler

## Zoom Wide 3200K – Photometric Report

| Beam Angle [°] | Field Angle [°] | Luminous flux [lm] | Power [W] | Luminous Efficacy [lm/W] |
|---|---|---|---|---|
| 46.9 | 50.2 | 16044 | 612 | 26.2 |

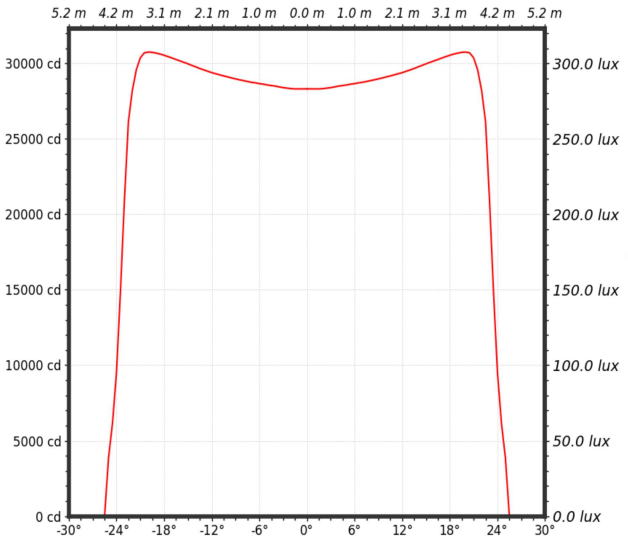


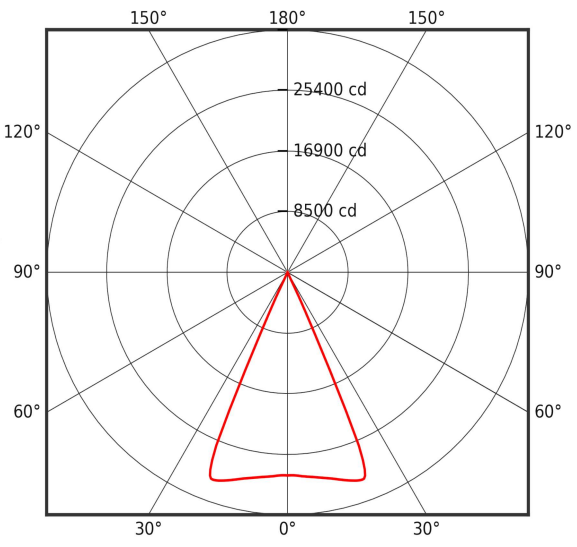
### Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])




| Distance [m] | 1 | 5 | 10 | 15 | 20 |
|---|---|---|---|---|---|
| Illuminance [lx] | 28313 | 1133 | 283 | 126 | 71 |
| Diameter [m] | 0.87 | 4.34 | 8.68 | 13.02 | 17.36 |

### Light Distribution Diagrams / Illuminance




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 3200K; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5



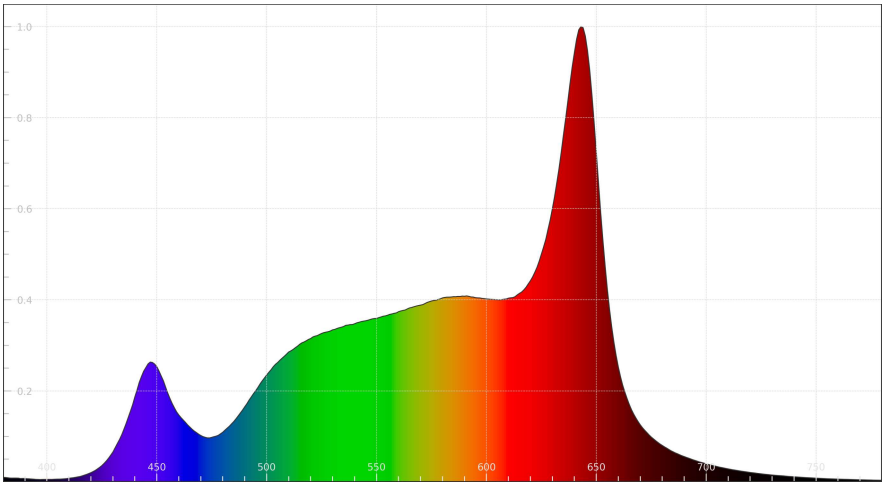
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## Zoom Wide 3200K – Colorimetric Report

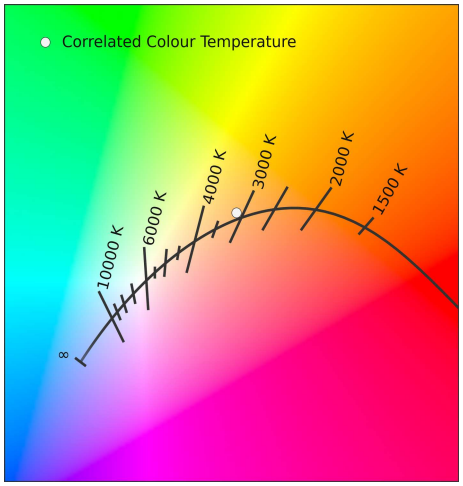
### Colorimetric Characteristics

| | | | | | |
|---|---|---|---|---|---|
| Correlated Colour Temperature [K] | **CCT** | 3147 | Luminous Flux [lm] | **Lum Flux** | 16044 |
| Colour Deviation from Black | **$D_{uv}$** | 0.0022 | Colour Rendering Index | **CRI Ra** | 94 |
| Colour Coordinate CIE 1931 | **x** | 0.4297 | Red Component | **CRI R9** | 80 |
| Colour Coordinate CIE 1931 | **y** | 0.4068 | Colour Fidelity | **TM30 $R_f$** | 95 |
| Colour Coordinate CIE 1976 | **u'** | 0.2448 | Colour Gamut | **TM30 $R_g$** | 104 |
| Colour Coordinate CIE 1976 | **v'** | 0.5214 | Television Lighting Consistency Index | **TLCI** | 95 |
| Spectral Similarity Index | **SSI[P3147]** | 77 | | | |

### CIE 1931 2° Standard Observer (Wavelength [nm] --> relative Spectral Distribution)




### Colour Temperature

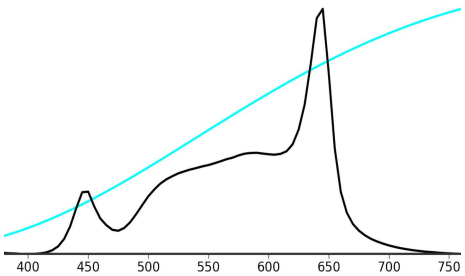



### Television Lighting Consistency Index-2012

CCT = P3147 ( 0.4 ) TLCI-2012 : 95 (P3147)




| Sector | Lightness | Chroma | Hue |
|---|---|---|---|
| R | 0 | 0 | 0 |
| R/Y | 0 | 0 | 0 |
| Y | 0 | 0 | 0 |
| Y/G | 0 | 0 | - |
| G | 0 | 0 | 0 |
| G/C | 0 | 0 | 0 |
| C | 0 | 0 | + |
| C/B | 0 | 0 | 0 |
| B | 0 | - | 0 |
| B/M | + | 0 | ++ |
| M | 0 | 0 | + |
| M/R | 0 | 0 | 0 |



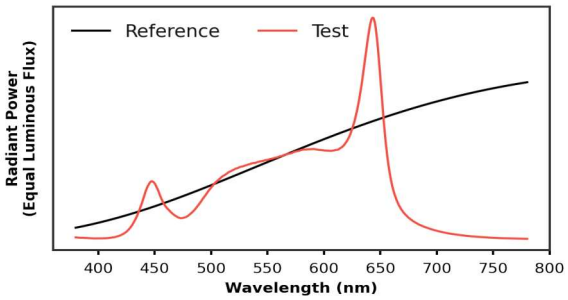

Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 3200K; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5

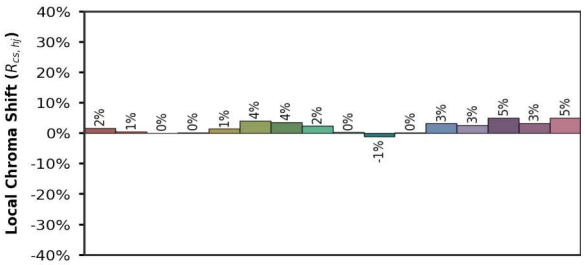


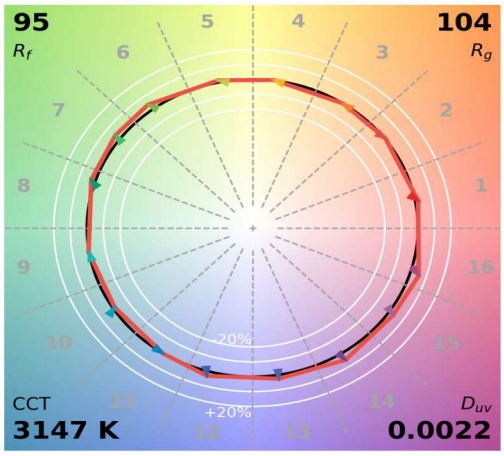
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

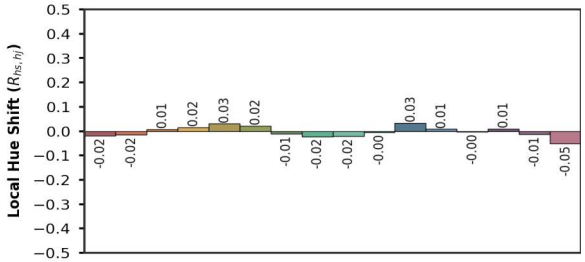
## Zoom Wide 3200K – Colorimetric Report

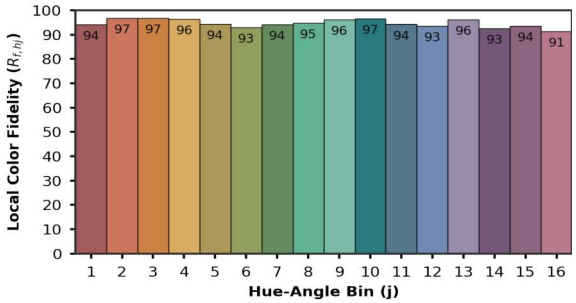
### IES TM-30-18 Colour Rendition Report

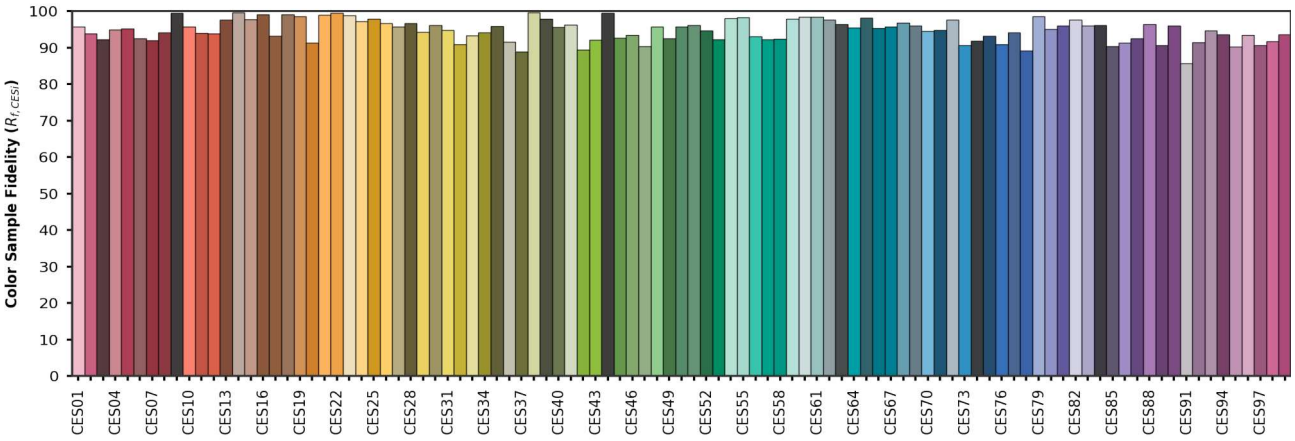



| | |
|---|---|
| *x* | 0.4297 |
| *y* | 0.4068 |
| *u′* | 0.2448 |
| *v′* | 0.5214 |

**CIE 13.31-1995**
**(CRI)**
$R_a$ **94**
$R_9$ **80**

Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 3200K; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5

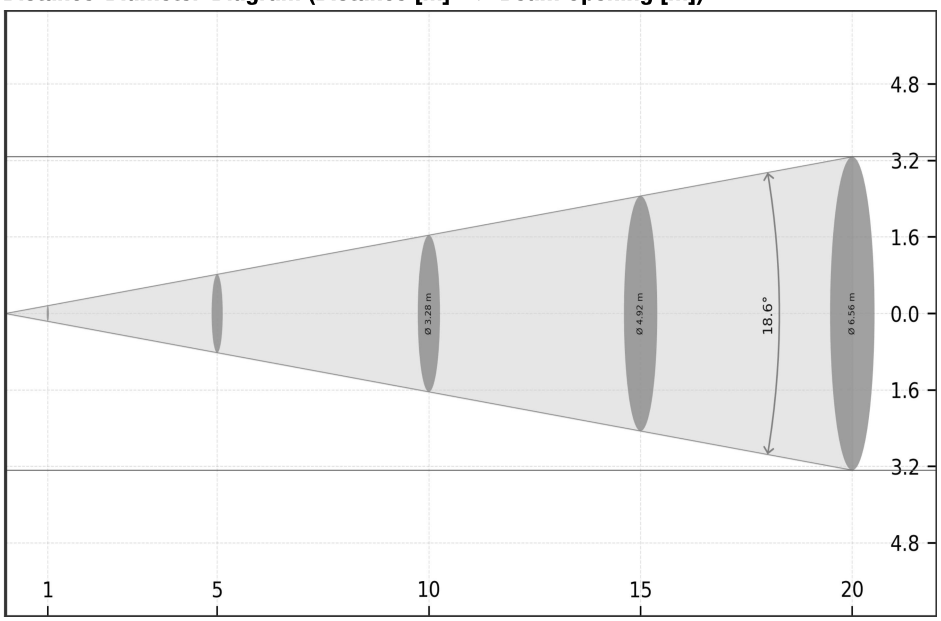

Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## Zoom Mid 3200K - Photometric – Photometric Report

| Beam Angle [°] | Field Angle [°] | Luminous flux [lm] | Power [W] | Luminous Efficacy [lm/W] |
|---|---|---|---|---|
| 18.6 | 21.5 | 14955 | 612 | 24.4 |

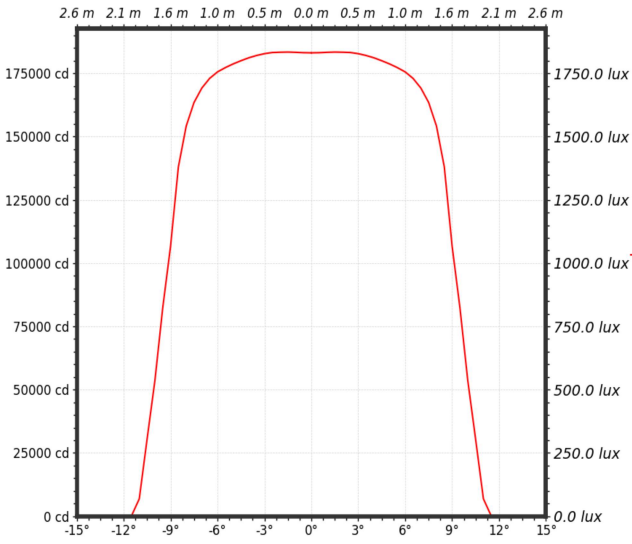


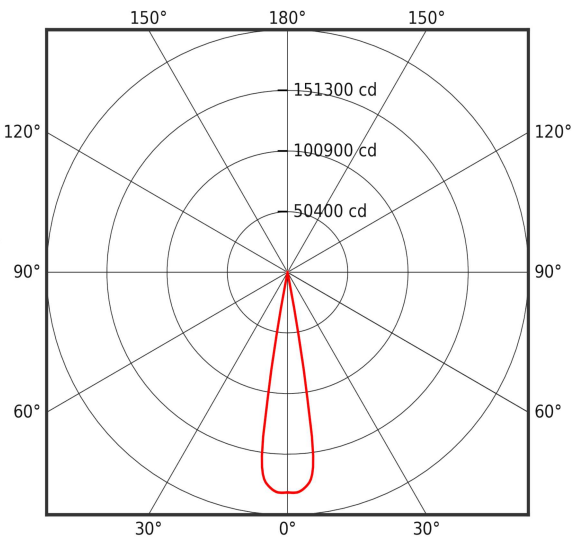
### Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])




| Distance [m] | 1 | 5 | 10 | 15 | 20 |
|---|---|---|---|---|---|
| Illuminance [lx] | 183136 | 7325 | 1831 | 814 | 458 |
| Diameter [m] | 0.33 | 1.64 | 3.28 | 4.92 | 6.56 |

### Light Distribution Diagrams / Illuminance




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 3200K; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: G; Focus: 2



Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

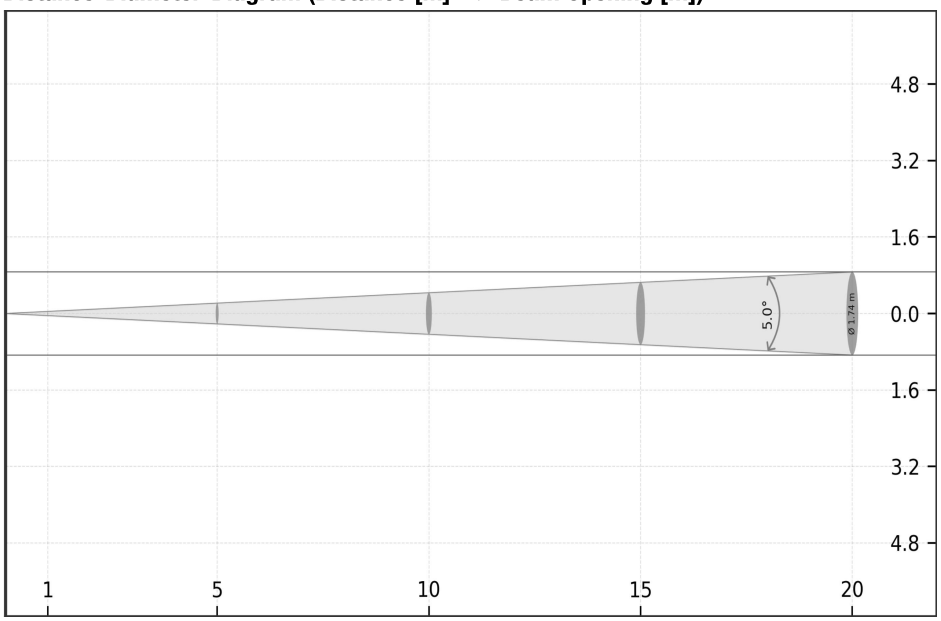
# P6
Profiler

## Zoom Narrow 3200K - Photometric – Photometric Report

| Beam Angle [°] | Field Angle [°] | Luminous flux [lm] | Power [W] | Luminous Efficacy [lm/W] |
|---|---|---|---|---|
| 5.0 | 6.7 | 6164 | 612 | 10.1 |

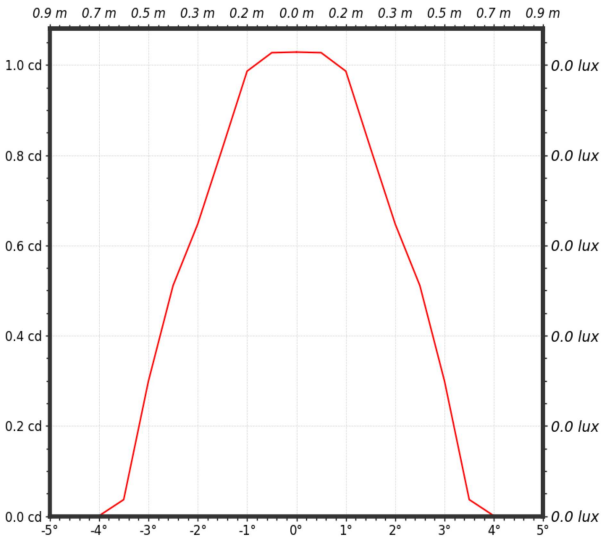


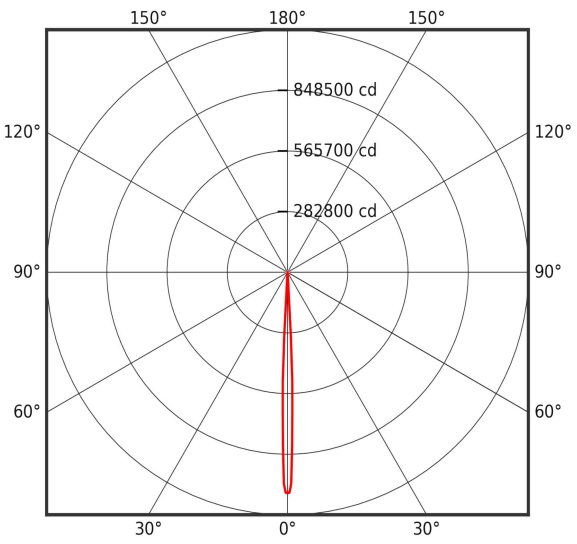
### Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])




| Distance [m] | 1 | 5 | 10 | 15 | 20 |
|---|---|---|---|---|---|
| Illuminance [lx] | 1028509 | 41140 | 10285 | 4571 | 2571 |
| Diameter [m] | 0.09 | 0.43 | 0.87 | 1.30 | 1.74 |

### Light Distribution Diagrams / Illuminance




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 3200K; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: D; Focus: 1





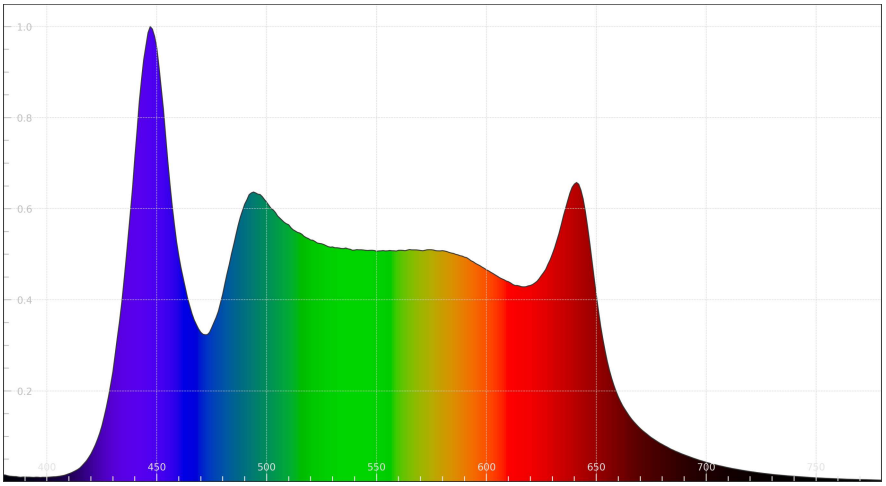
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## 6500K - Colorimetric – Colorimetric Report

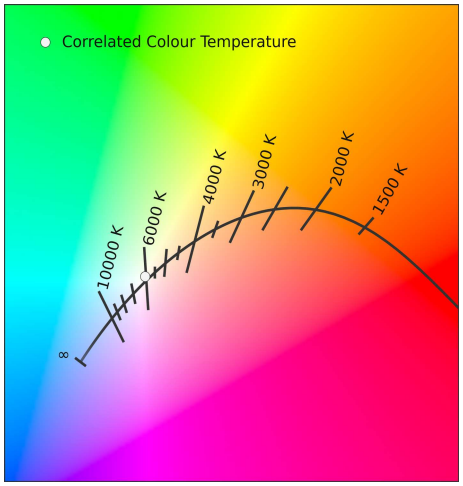
### Colorimetric Characteristics

| | | | | | |
|---|---|---|---|---|---|
| Correlated Colour Temperature [K] | **CCT** | 6057 | Luminous Flux [lm] | **Lum Flux** | 15440 |
| Colour Deviation from Black | **$D_{uv}$** | 0.0025 | Colour Rendering Index | **CRI Ra** | 98 |
| Colour Coordinate CIE 1931 | **x** | 0.3207 | Red Component | **CRI R9** | 94 |
| Colour Coordinate CIE 1931 | **y** | 0.3352 | Colour Fidelity | **TM30 $R_f$** | 96 |
| Colour Coordinate CIE 1976 | **u'** | 0.2010 | Colour Gamut | **TM30 $R_g$** | 101 |
| Colour Coordinate CIE 1976 | **v'** | 0.4728 | Television Lighting Consistency Index | **TLCI** | 95 |
| Spectral Similarity Index | **SSI[CIE D6057]** | 72 | | | |

### CIE 1931 2° Standard Observer (Wavelength [nm] --> relative Spectral Distribution)




### Colour Temperature

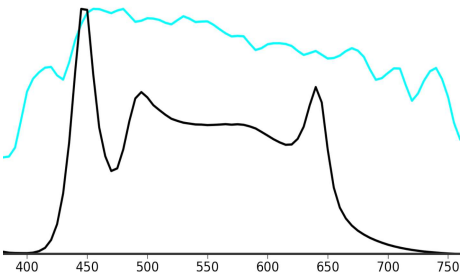



### Television Lighting Consistency Index-2012

CCT = D6057 ( 0.5 ) TLCI-2012 : 95 (D6057)




| Sector | Lightness | Chroma | Hue |
|---|---|---|---|
| R | + | 0 | 0 |
| R/Y | 0 | 0 | 0 |
| Y | 0 | 0 | 0 |
| Y/G | 0 | 0 | 0 |
| G | 0 | 0 | 0 |
| G/C | 0 | 0 | 0 |
| C | 0 | 0 | 0 |
| C/B | 0 | 0 | 0 |
| B | 0 | 0 | + |
| B/M | 0 | 0 | ++ |
| M | 0 | 0 | + |
| M/R | + | 0 | + |




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 6500K; PWM: 18.9kHz; Color Quality: High CRI; Fan Mode: Auto; Zoom: J; Focus: 2.5

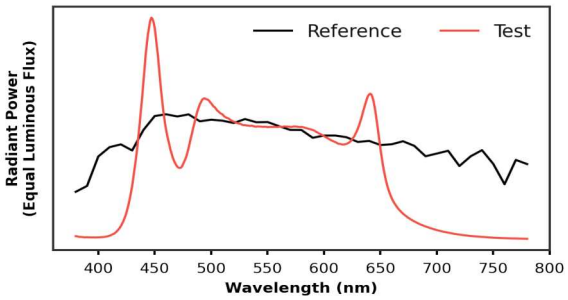


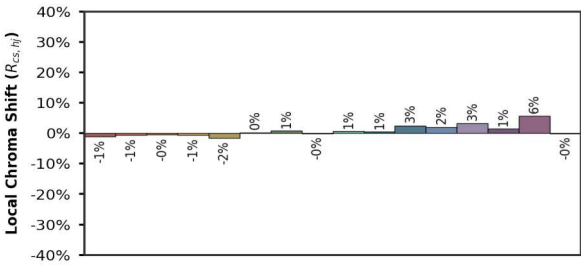


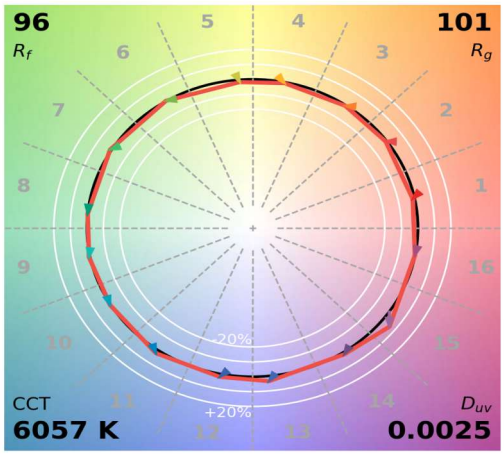
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

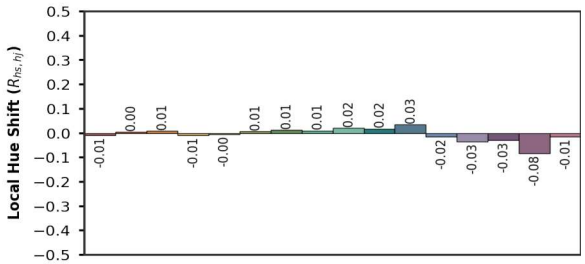
## 6500K - Colorimetric – Colorimetric Report

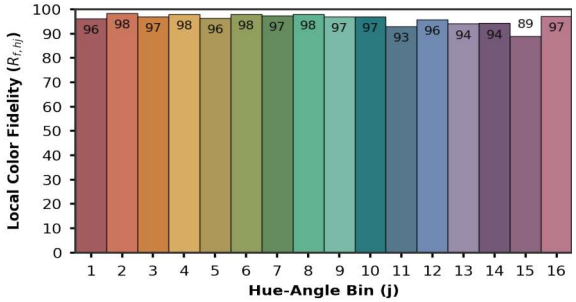
### IES TM-30-18 Colour Rendition Report

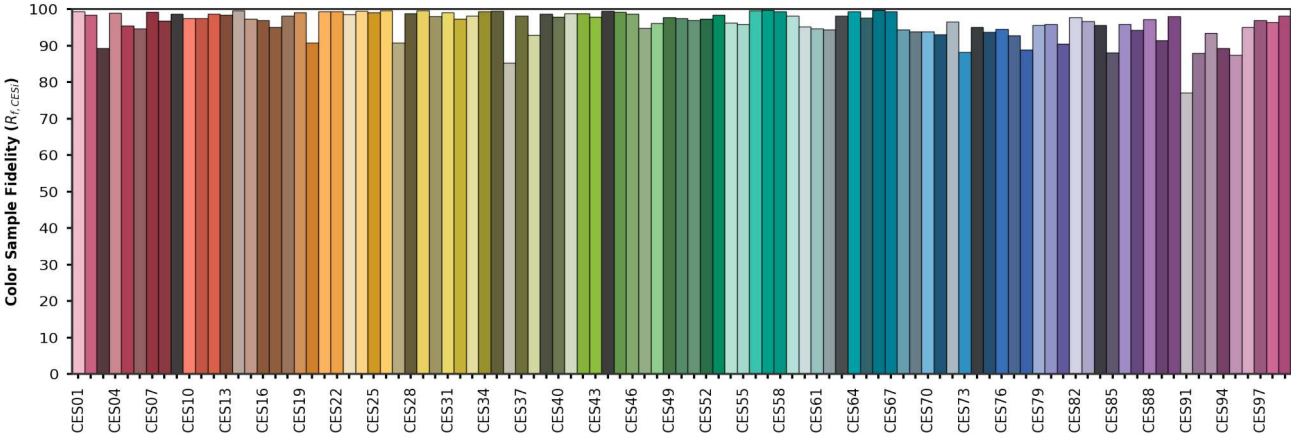



| | |
|---|---|
| $x$ | 0.3207 |
| $y$ | 0.3352 |
| $u'$ | 0.2010 |
| $v'$ | 0.4728 |

**CIE 13.31-1995**
**(CRI)**
$R_a$ **98**
$R_9$ **94**

Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 6500K; PWM: 18.9kHz; Color Quality: High CRI; Fan Mode: Auto; Zoom: J; Focus: 2.5

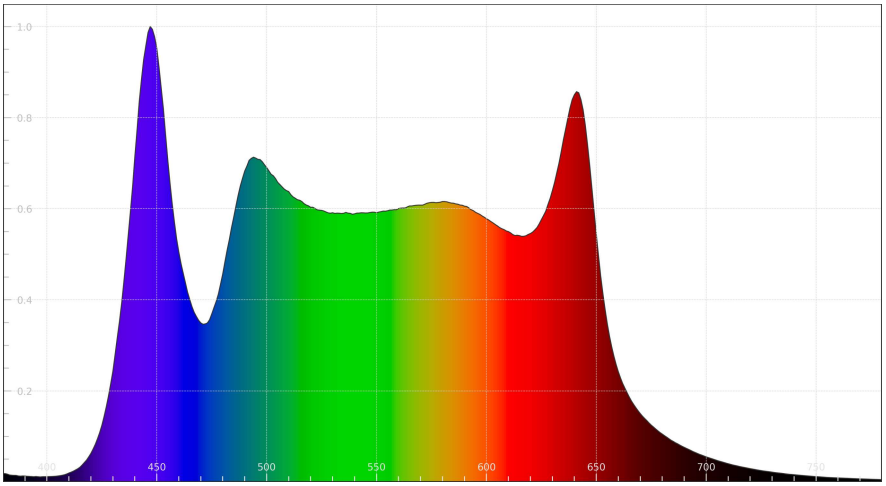

Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## 5600K - Colorimetric – Colorimetric Report

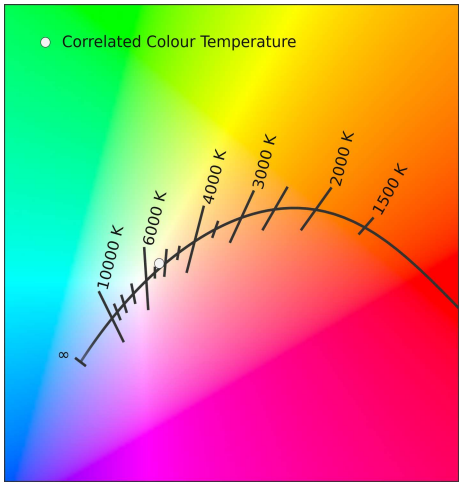
### Colorimetric Characteristics

| | | | | | |
|---|---|---|---|---|---|
| Correlated Colour Temperature [K] | **CCT** | 5295 | Luminous Flux [lm] | **Lum Flux** | 15501 |
| Colour Deviation from Black | **$D_{uv}$** | 0.0024 | Colour Rendering Index | **CRI Ra** | 98 |
| Colour Coordinate CIE 1931 | **x** | 0.3375 | Red Component | **CRI R9** | 94 |
| Colour Coordinate CIE 1931 | **y** | 0.3500 | Colour Fidelity | **TM30 $R_f$** | 96 |
| Colour Coordinate CIE 1976 | **u'** | 0.2069 | Colour Gamut | **TM30 $R_g$** | 101 |
| Colour Coordinate CIE 1976 | **v'** | 0.4828 | Television Lighting Consistency Index | **TLCI** | 94 |
| Spectral Similarity Index | **SSI[CIE D5295]** | 75 | | | |

### CIE 1931 2° Standard Observer (Wavelength [nm] --> relative Spectral Distribution)




### Colour Temperature

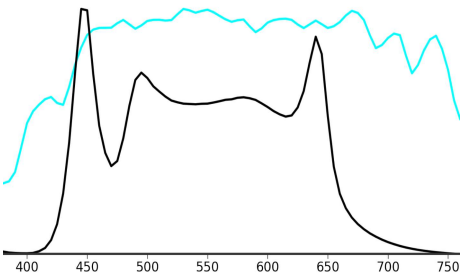



### Television Lighting Consistency Index-2012

CCT = D5295 ( 0.4 ) TLCI-2012 : 94 (D5295)




| Sector | Lightness | Chroma | Hue |
|---|---|---|---|
| R | + | 0 | 0 |
| R/Y | 0 | 0 | 0 |
| Y | 0 | 0 | 0 |
| Y/G | 0 | 0 | 0 |
| G | 0 | 0 | 0 |
| G/C | 0 | 0 | 0 |
| C | 0 | 0 | 0 |
| C/B | 0 | 0 | 0 |
| B | 0 | 0 | + |
| B/M | 0 | 0 | + |
| M | 0 | 0 | ++ |
| M/R | + | 0 | + |




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 5600K; PWM: 18.9kHz; Color Quality: High CRI; Fan Mode: Auto; Zoom: J; Focus: 2.5

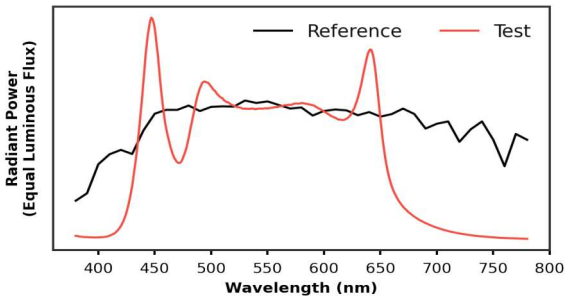


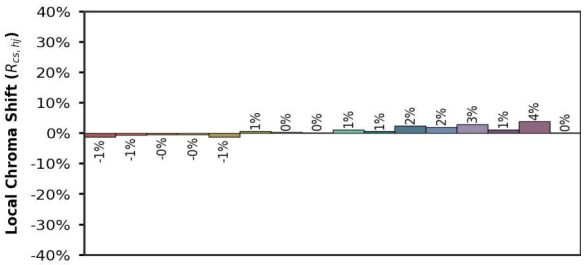


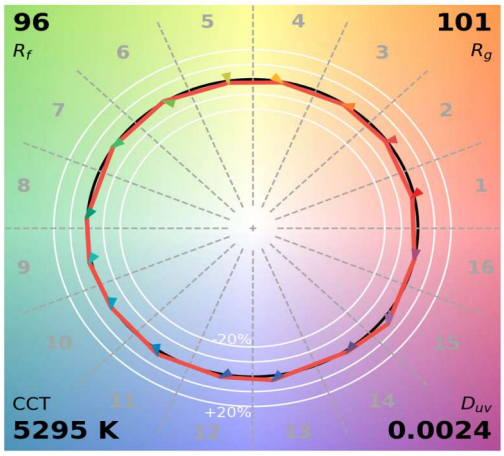
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

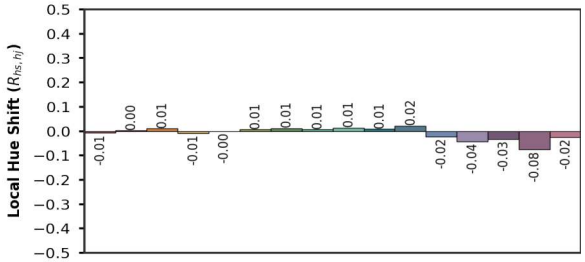
## 5600K - Colorimetric – Colorimetric Report

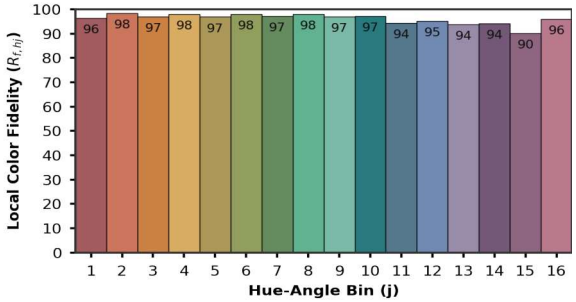
### IES TM-30-18 Colour Rendition Report

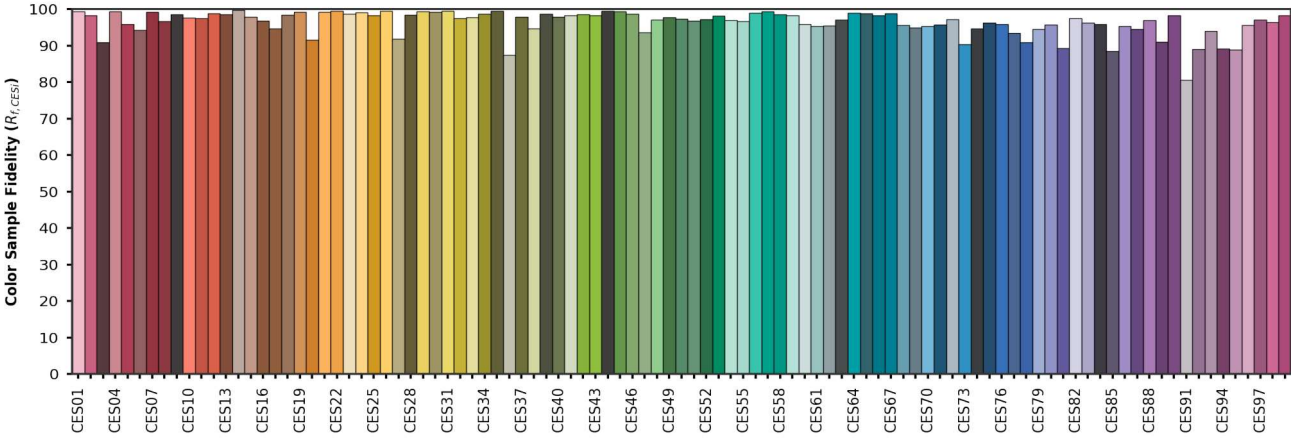



| | |
|---|---|
| *x* 0.3375 | CIE 13.31-1995 |
| *y* 0.3500 | (CRI) |
| *u'* 0.2069 | $R_a$ 98 |
| *v'* 0.4828 | $R_9$ 94 |

Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 5600K; PWM: 18.9kHz; Color Quality: High CRI; Fan Mode: Auto; Zoom: J; Focus: 2.5

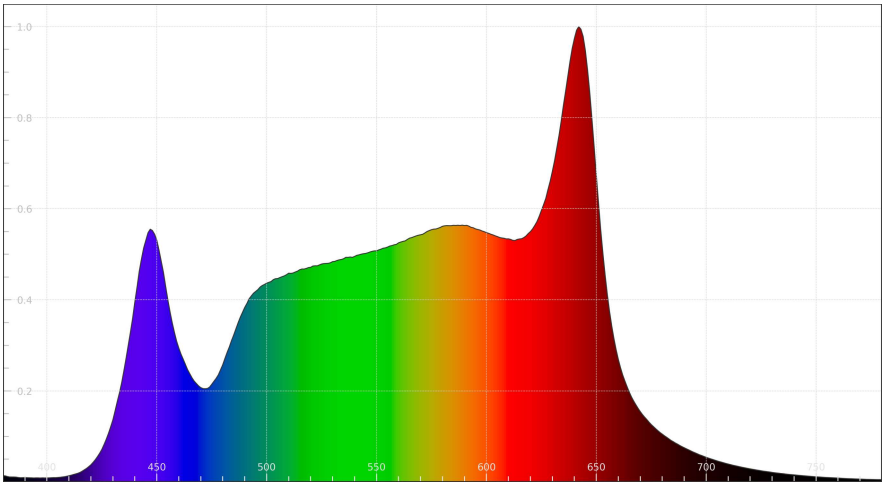

Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## 4000K - Colorimetric – Colorimetric Report

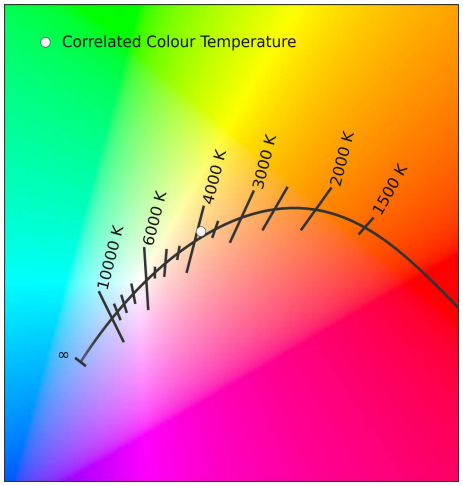
### Colorimetric Characteristics

| | | | | | |
|---|---|---|---|---|---|
| Correlated Colour Temperature [K] | **CCT** | 3886 | Luminous Flux [lm] | **Lum Flux** | 16046 |
| Colour Deviation from Black | **$D_{uv}$** | 0.0019 | Colour Rendering Index | **CRI Ra** | 98 |
| Colour Coordinate CIE 1931 | **x** | 0.3870 | Red Component | **CRI R9** | 99 |
| Colour Coordinate CIE 1931 | **y** | 0.3848 | Colour Fidelity | **TM30 $R_f$** | 96 |
| Colour Coordinate CIE 1976 | **u'** | 0.2262 | Colour Gamut | **TM30 $R_g$** | 101 |
| Colour Coordinate CIE 1976 | **v'** | 0.5061 | Television Lighting Consistency Index | **TLCI** | 95 |
| Spectral Similarity Index | **SSI[P3886]** | 77 | | | |

### CIE 1931 2° Standard Observer (Wavelength [nm] --> relative Spectral Distribution)




### Colour Temperature

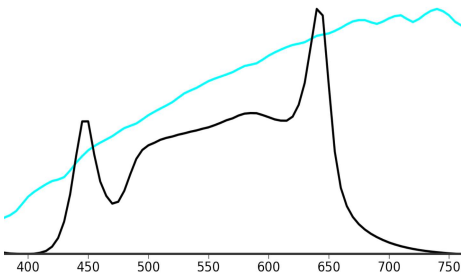



### Television Lighting Consistency Index-2012

CCT = M3886 ( 0.3 ) TLCI-2012 : 95 (M3886)




| Sector | Lightness | Chroma | Hue |
|---|---|---|---|
| R | 0 | 0 | 0 |
| R/Y | 0 | 0 | 0 |
| Y | 0 | 0 | 0 |
| Y/G | 0 | 0 | 0 |
| G | 0 | 0 | 0 |
| G/C | 0 | 0 | 0 |
| C | 0 | 0 | 0 |
| C/B | 0 | 0 | 0 |
| B | 0 | 0 | 0 |
| B/M | + | 0 | +++ |
| M | 0 | 0 | ++ |
| M/R | + | 0 | + |




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 4000K; PWM: 18.9kHz; Color Quality: High CRI; Fan Mode: Auto; Zoom: J; Focus: 2.5

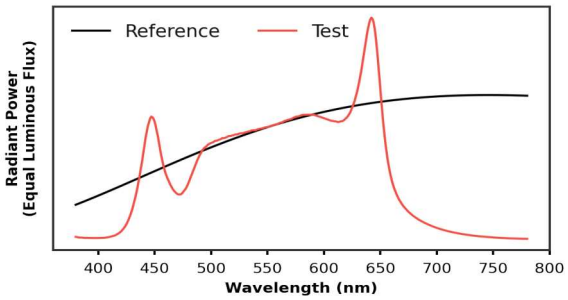


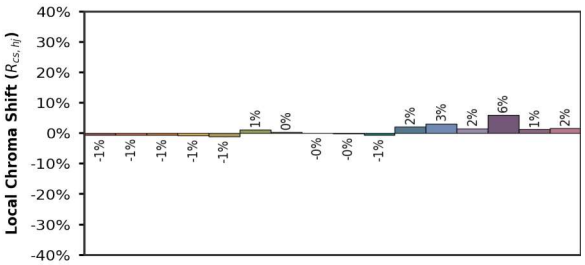


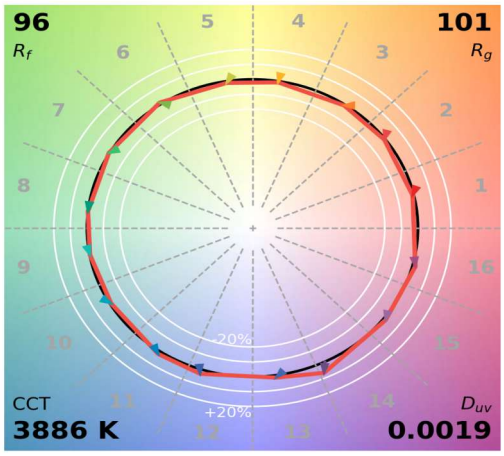
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

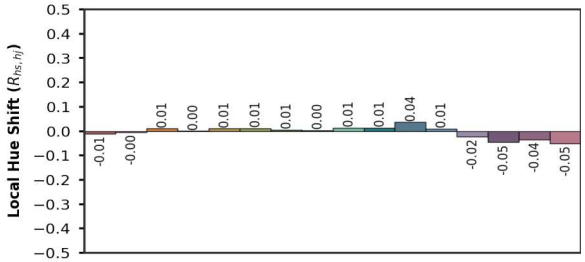
## 4000K - Colorimetric – Colorimetric Report

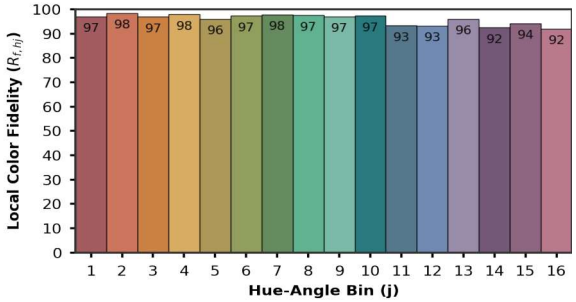
### IES TM-30-18 Colour Rendition Report

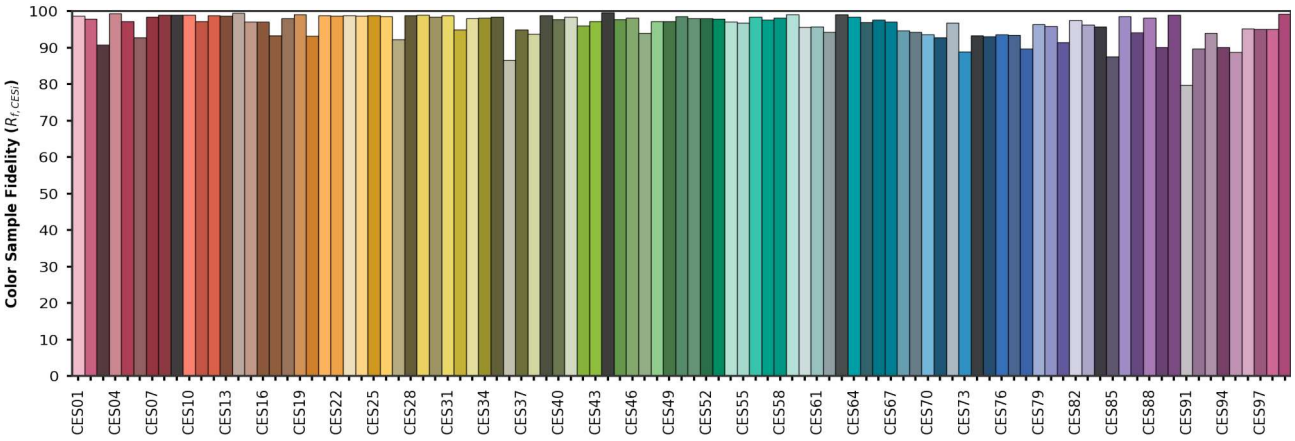



| | |
|---|---|
| *x* | 0.3870 |
| *y* | 0.3848 |
| *u′* | 0.2262 |
| *v′* | 0.5061 |

**CIE 13.31-1995**
**(CRI)**
$R_a$ **98**
$R_9$ **99**

Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 4000K; PWM: 18.9kHz; Color Quality: High CRI; Fan Mode: Auto; Zoom: J; Focus: 2.5

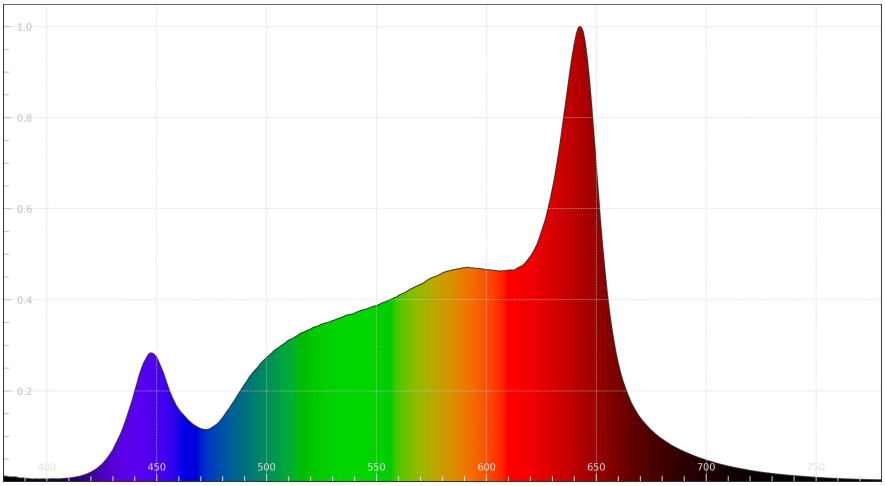

Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## 3200K - Colorimetric – Colorimetric Report

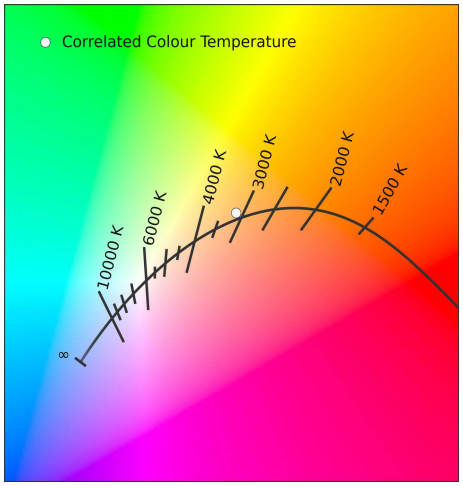
### Colorimetric Characteristics

| | | | | | |
|---|---|---|---|---|---|
| Correlated Colour Temperature [K] | **CCT** | 3154 | Luminous Flux [lm] | **Lum Flux** | 14558 |
| Colour Deviation from Black | **$D_{uv}$** | 0.0021 | Colour Rendering Index | **CRI Ra** | 97 |
| Colour Coordinate CIE 1931 | **x** | 0.4292 | Red Component | **CRI R9** | 96 |
| Colour Coordinate CIE 1931 | **y** | 0.4064 | Colour Fidelity | **TM30 $R_f$** | 96 |
| Colour Coordinate CIE 1976 | **u'** | 0.2446 | Colour Gamut | **TM30 $R_g$** | 102 |
| Colour Coordinate CIE 1976 | **v'** | 0.5211 | Television Lighting Consistency Index | **TLCI** | 95 |
| Spectral Similarity Index | **SSI[P3154]** | 80 | | | |

### CIE 1931 2° Standard Observer (Wavelength [nm] --> relative Spectral Distribution)




### Colour Temperature

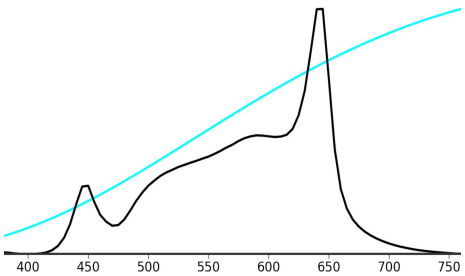



### Television Lighting Consistency Index-2012

CCT = P3154 ( 0.4 ) TLCI-2012 : 95 (P3154)




| Sector | Lightness | Chroma | Hue |
|---|---|---|---|
| R | 0 | 0 | 0 |
| R/Y | 0 | 0 | 0 |
| Y | 0 | 0 | 0 |
| Y/G | 0 | 0 | 0 |
| G | 0 | 0 | 0 |
| G/C | 0 | 0 | 0 |
| C | 0 | 0 | + |
| C/B | 0 | 0 | 0 |
| B | 0 | 0 | 0 |
| B/M | + | 0 | +++ |
| M | 0 | 0 | + |
| M/R | 0 | 0 | 0 |



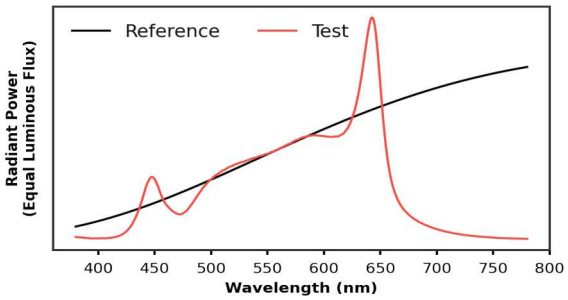

Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 3200K; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5

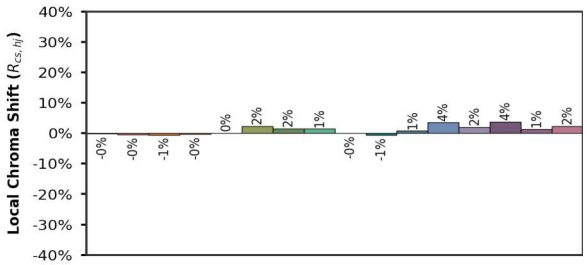


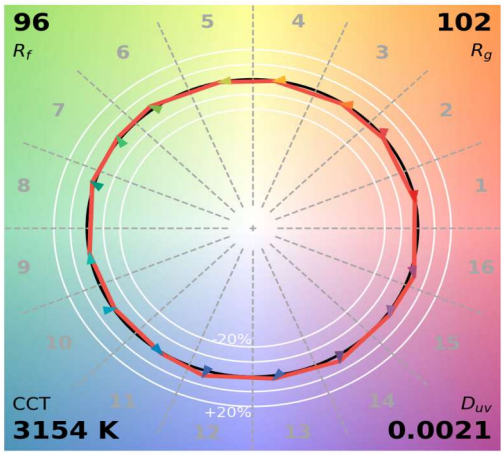
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

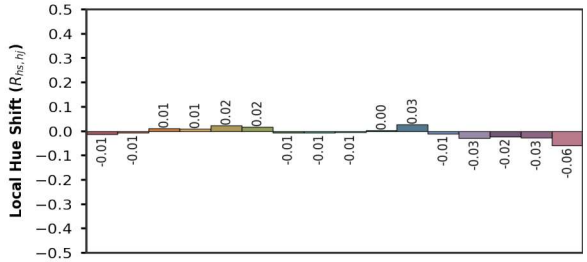
### 3200K - Colorimetric – Colorimetric Report

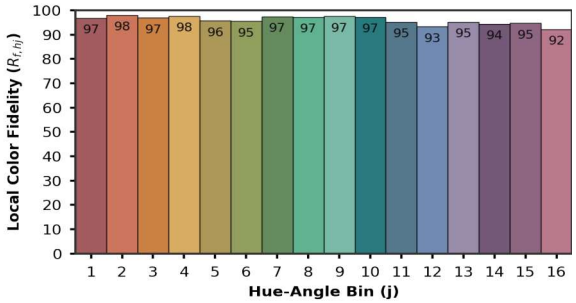
## IES TM-30-18 Colour Rendition Report

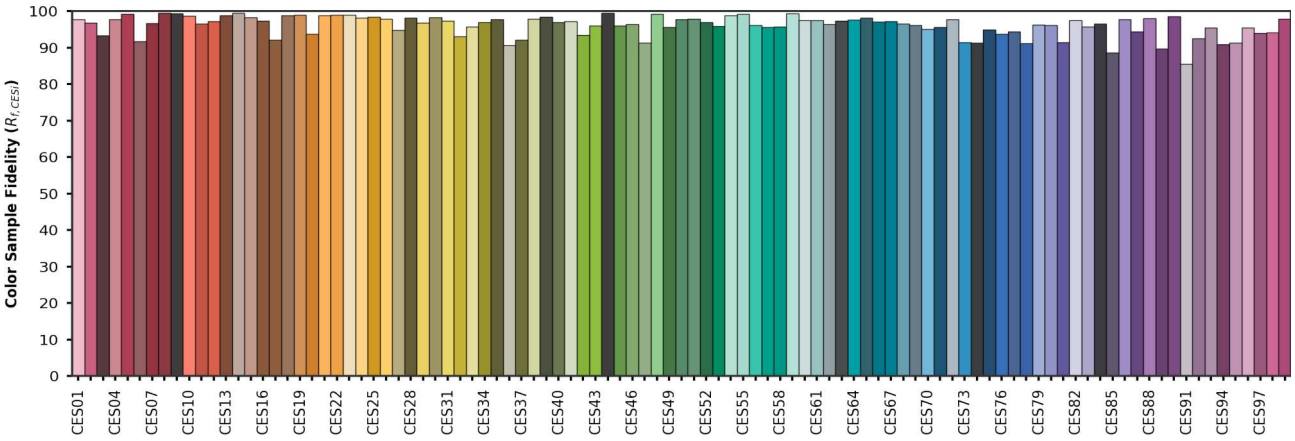



| | |
|---|---|
| $x$ | 0.4292 |
| $y$ | 0.4064 |
| $u'$ | 0.2446 |
| $v'$ | 0.5211 |

**CIE 13.31-1995**
**(CRI)**
$R_a$ **97**
$R_9$ **96**

Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 3200K; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5

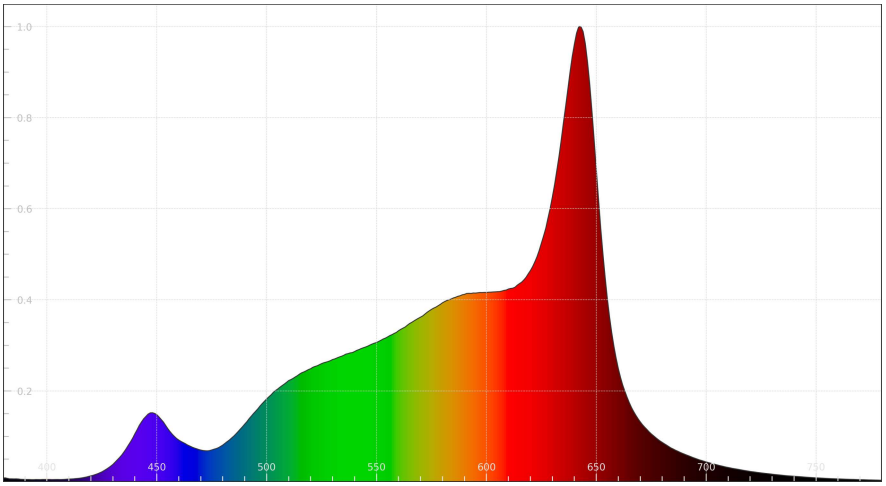

Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## 2700K - Colorimetric – Colorimetric Report

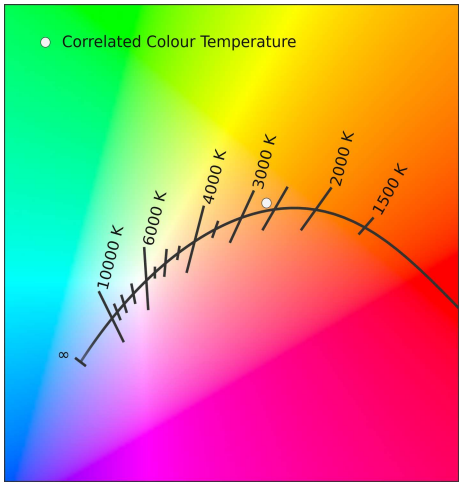
### Colorimetric Characteristics

| | | | | | |
|---|---|---|---|---|---|
| Correlated Colour Temperature [K] | **CCT** | 2679 | Luminous Flux [lm] | **Lum Flux** | 12592 |
| Colour Deviation from Black | **$D_{uv}$** | 0.0023 | Colour Rendering Index | **CRI Ra** | 97 |
| Colour Coordinate CIE 1931 | **x** | 0.4656 | Red Component | **CRI R9** | 96 |
| Colour Coordinate CIE 1931 | **y** | 0.4181 | Colour Fidelity | **TM30 $R_f$** | 96 |
| Colour Coordinate CIE 1976 | **u'** | 0.2628 | Colour Gamut | **TM30 $R_g$** | 102 |
| Colour Coordinate CIE 1976 | **v'** | 0.5311 | Television Lighting Consistency Index | **TLCI** | 93 |
| Spectral Similarity Index | **SSI[P2679]** | 81 | | | |

### CIE 1931 2° Standard Observer (Wavelength [nm] --> relative Spectral Distribution)




### Colour Temperature

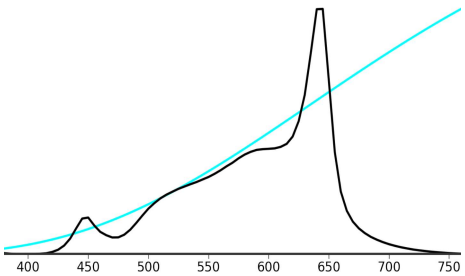



### Television Lighting Consistency Index-2012

CCT = P2679 ( 0.4 ) TLCI-2012 : 93 (P2679)




| Sector | Lightness | Chroma | Hue |
|---|---|---|---|
| R | 0 | 0 | 0 |
| R/Y | 0 | 0 | 0 |
| Y | 0 | 0 | 0 |
| Y/G | 0 | 0 | - |
| G | 0 | 0 | 0 |
| G/C | 0 | 0 | 0 |
| C | 0 | 0 | + |
| C/B | 0 | 0 | 0 |
| B | 0 | 0 | 0 |
| B/M | + | 0 | +++ |
| M | 0 | 0 | ++ |
| M/R | 0 | 0 | + |



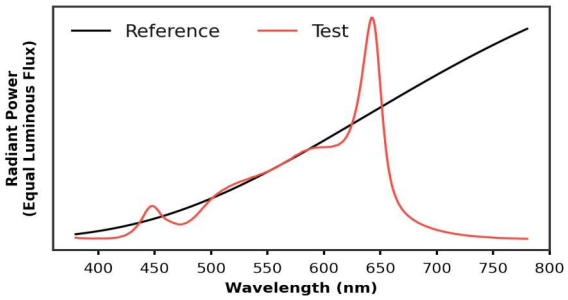

Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 4000K; PWM: 18.9kHz; Color Quality: High CRI; Fan Mode: Auto; Zoom: J; Focus: 2.5

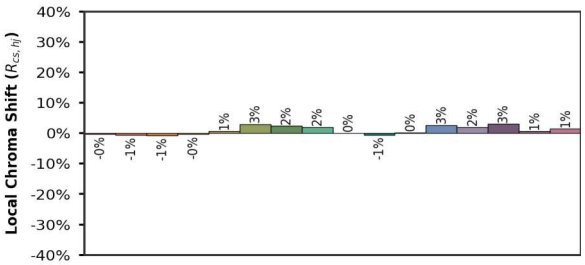


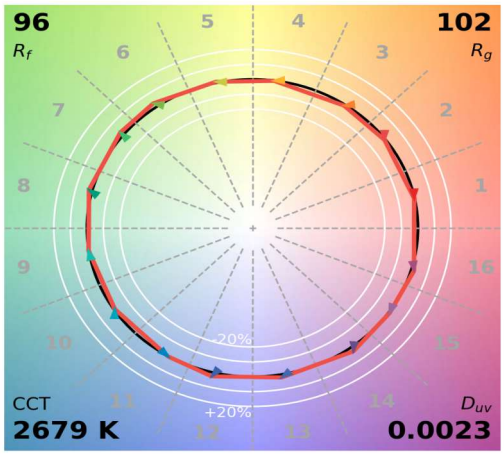
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

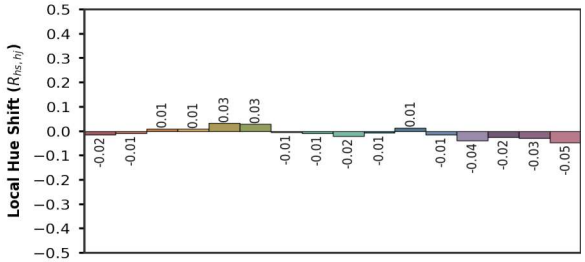
## 2700K - Colorimetric – Colorimetric Report

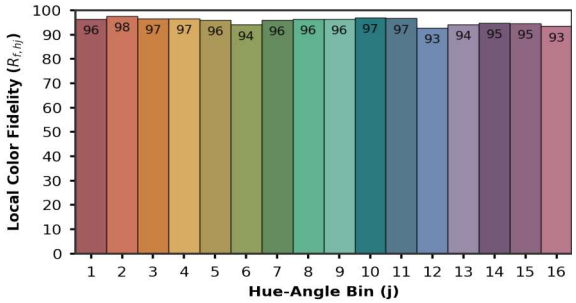
### IES TM-30-18 Colour Rendition Report

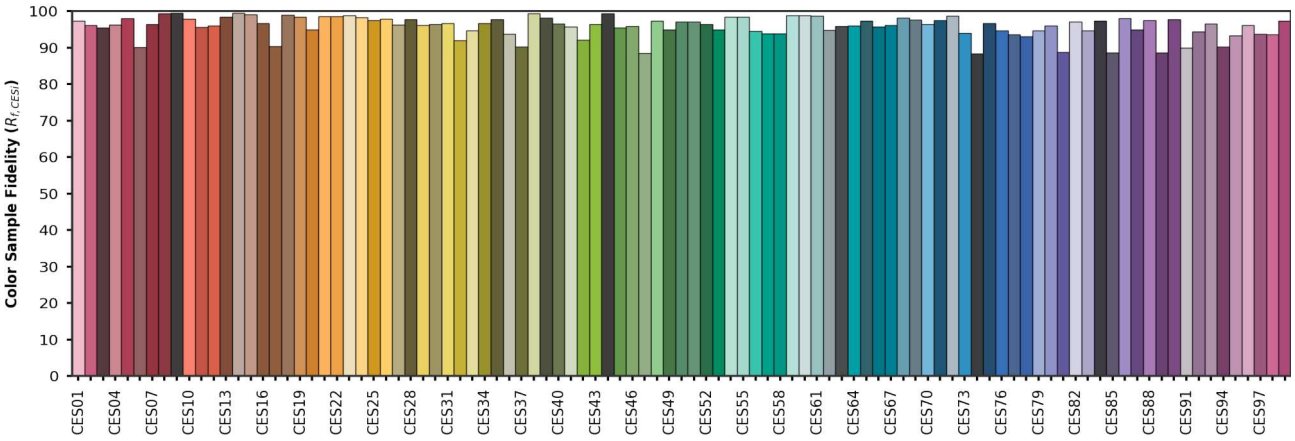



| | |
|---|---|
| *x* | 0.4656 |
| *y* | 0.4181 |
| *u′* | 0.2628 |
| *v′* | 0.5311 |

**CIE 13.31-1995**
**(CRI)**
$R_a$ **97**
$R_9$ **96**

Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: 4000K; PWM: 18.9kHz; Color Quality: High CRI; Fan Mode: Auto; Zoom: J; Focus: 2.5





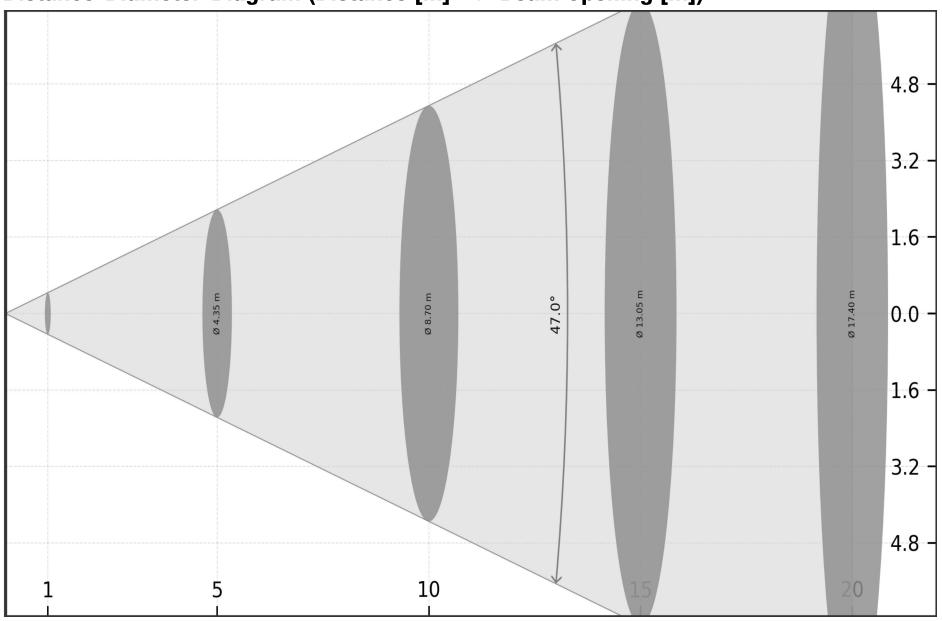
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## Zoom Wide Frost - Photometric – Photometric Report

| Beam Angle [°] | Field Angle [°] | Luminous flux [lm] | Power [W] | Luminous Efficacy [lm/W] |
|---|---|---|---|---|
| 47.0 | 51.9 | 11381 | 566 | 20.1 |

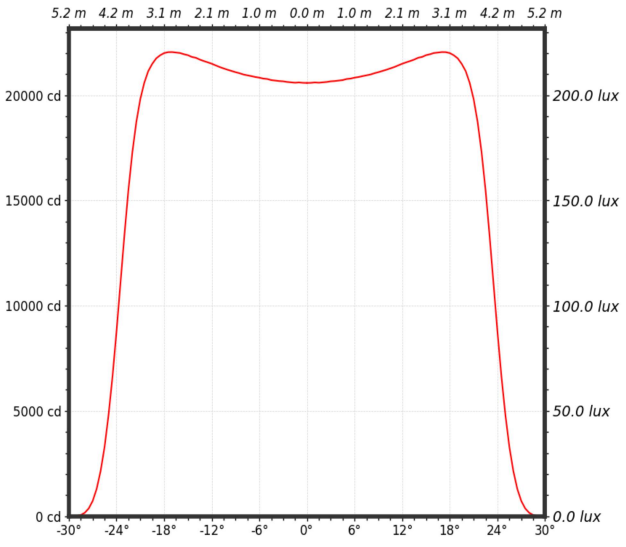


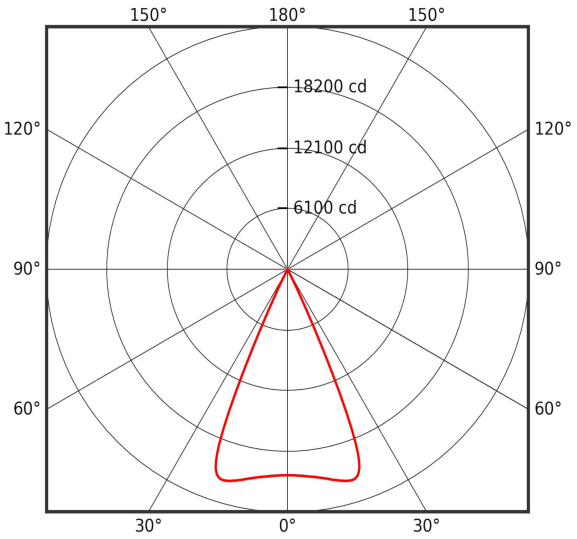
### Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])




| Distance [m] | 1 | 5 | 10 | 15 | 20 |
|---|---|---|---|---|---|
| Illuminance [lx] | 20583 | 823 | 206 | 91 | 51 |
| Diameter [m] | 0.87 | 4.35 | 8.70 | 13.05 | 17.40 |

### Light Distribution Diagrams / Illuminance




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: Off; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5



Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

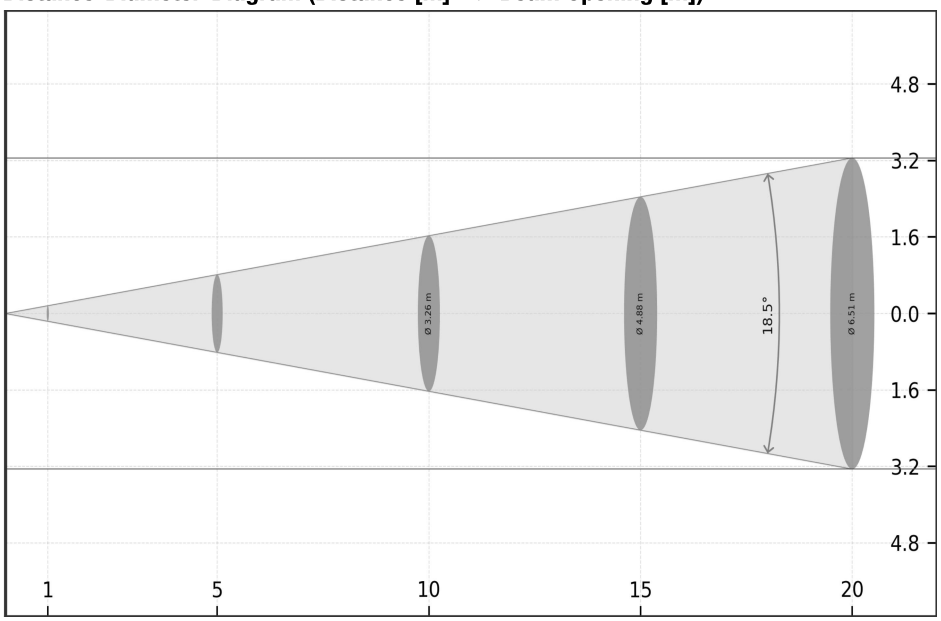
# P6
Profiler

## Zoom Mid Frost - Photometric – Photometric Report

| Beam Angle [°] | Field Angle [°] | Luminous flux [lm] | Power [W] | Luminous Efficacy [lm/W] |
|---|---|---|---|---|
| 18.5 | 23.2 | 10745 | 566 | 19.0 |

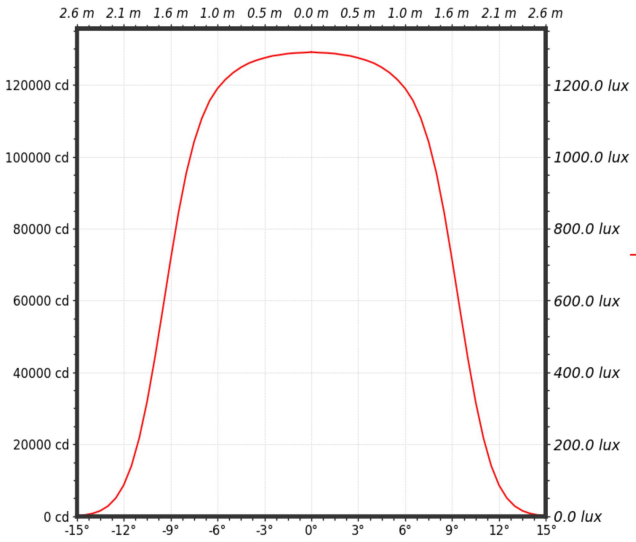


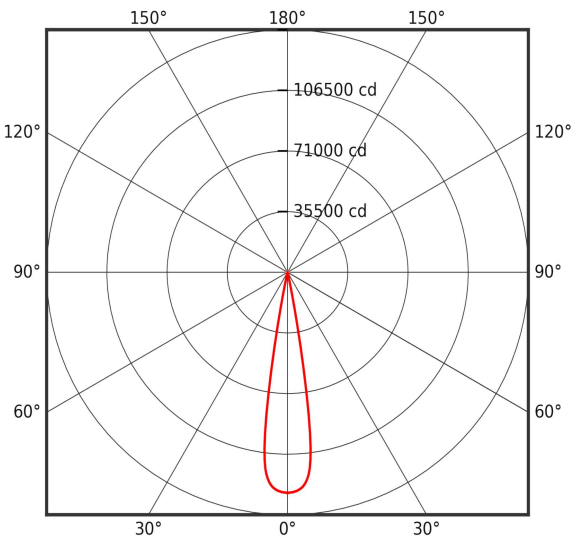
### Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])




| Distance [m] | 1 | 5 | 10 | 15 | 20 |
|---|---|---|---|---|---|
| Illuminance [lx] | 129110 | 5164 | 1291 | 574 | 323 |
| Diameter [m] | 0.33 | 1.63 | 3.26 | 4.88 | 6.51 |

### Light Distribution Diagrams / Illuminance




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: Off; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5



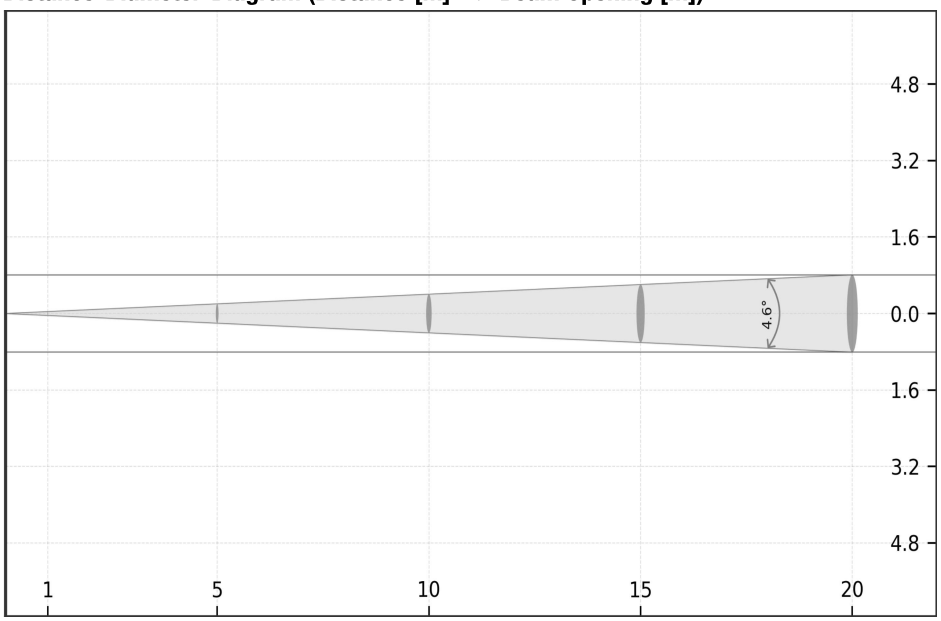
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## Zoom Narrow Frost - Photometric – Photometric Report

| Beam Angle [°] | Field Angle [°] | Luminous flux [lm] | Power [W] | Luminous Efficacy [lm/W] |
|---|---|---|---|---|
| 4.6 | 7.2 | 4633 | 566 | 8.2 |

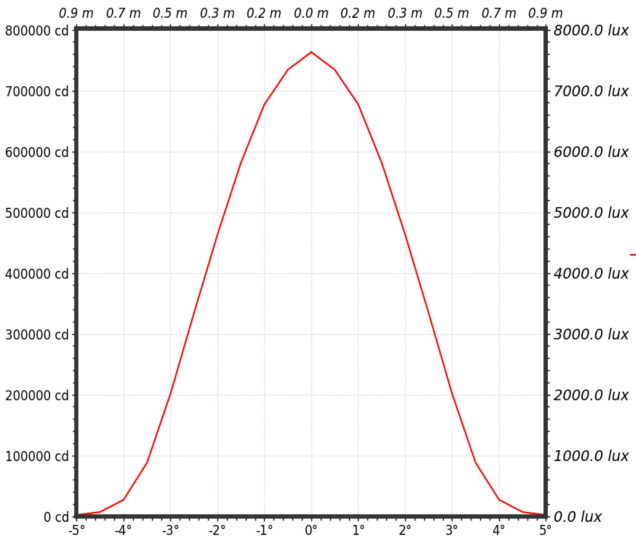


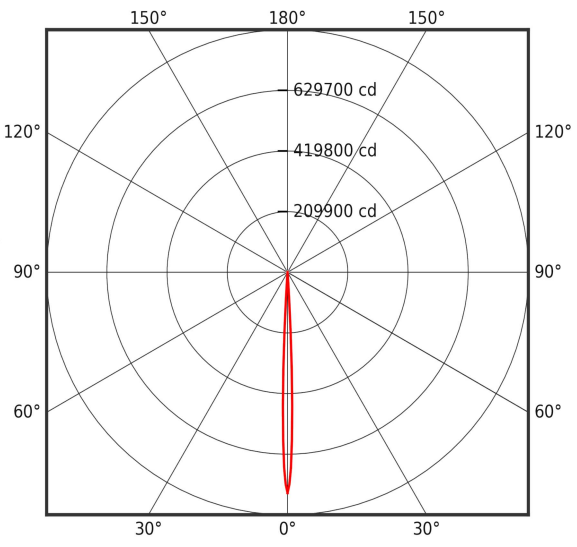
### Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])




| Distance [m] | 1 | 5 | 10 | 15 | 20 |
|---|---|---|---|---|---|
| Illuminance [lx] | 763332 | 30533 | 7633 | 3393 | 1908 |
| Diameter [m] | 0.08 | 0.40 | 0.81 | 1.21 | 1.62 |

### Light Distribution Diagrams / Illuminance




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: Off; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5



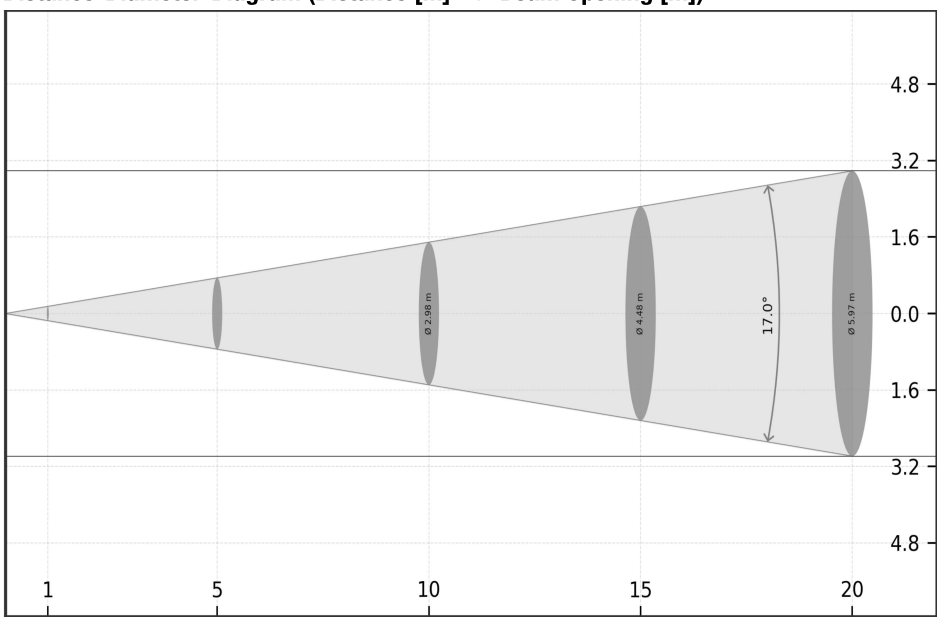
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## Zoom Wide Fresnel Lens - Photometric – Photometric Report

| Beam Angle [°] | Field Angle [°] | Luminous flux [lm] | Power [W] | Luminous Efficacy [lm/W] |
|---|---|---|---|---|
| 17.0 | 39.8 | 10660 | 566 | 18.8 |

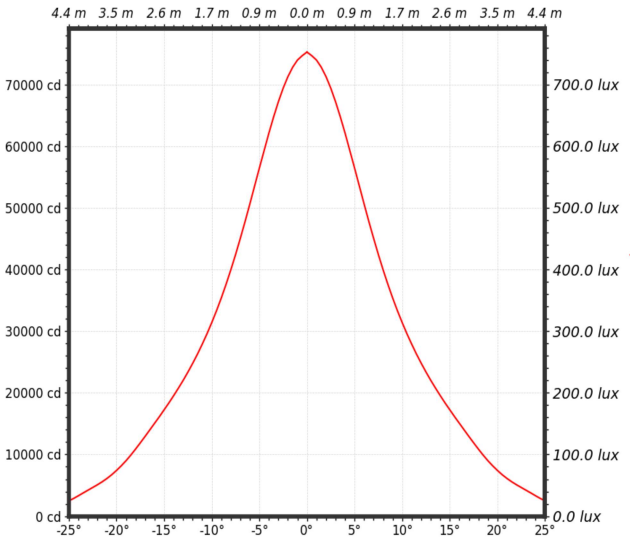


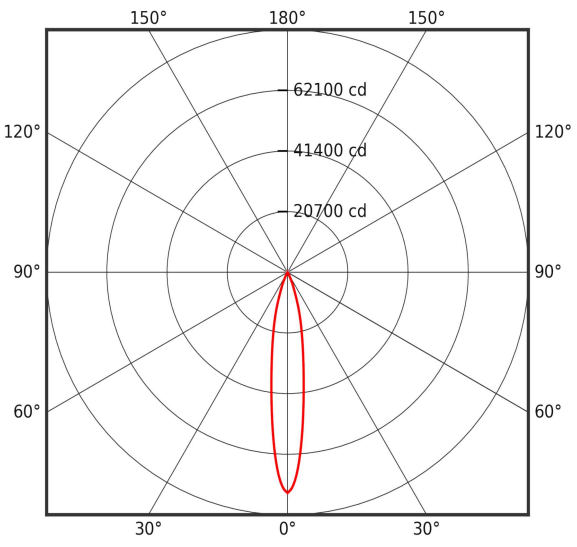
### Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])




| Distance [m] | 1 | 5 | 10 | 15 | 20 |
|---|---|---|---|---|---|
| Illuminance [lx] | 75263 | 3011 | 753 | 335 | 188 |
| Diameter [m] | 0.30 | 1.49 | 2.98 | 4.48 | 5.97 |

### Light Distribution Diagrams / Illuminance




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: Off; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5



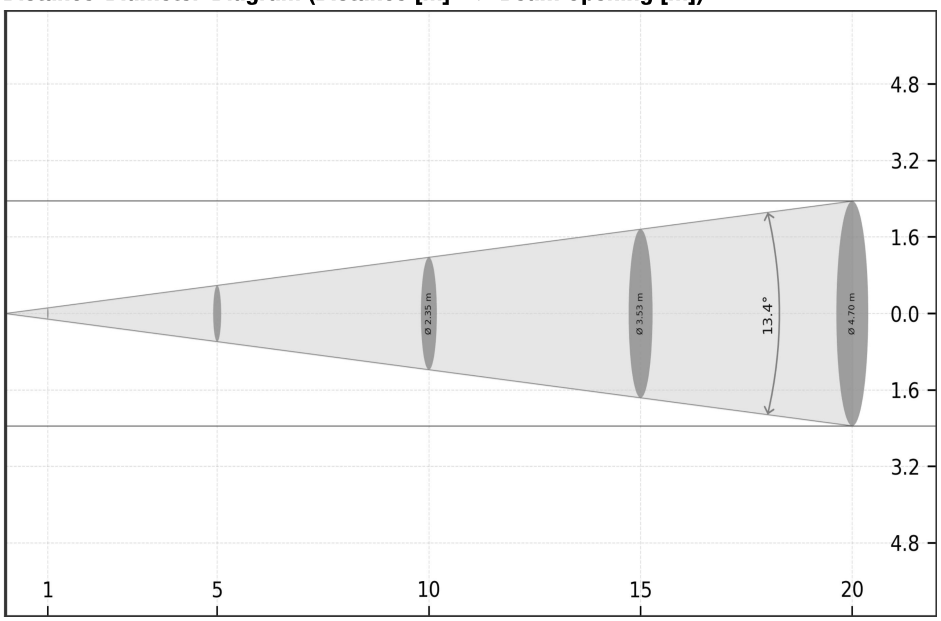
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## Zoom Mid Fresnel Lens - Photometric – Photometric Report

| Beam Angle [°] | Field Angle [°] | Luminous flux [lm] | Power [W] | Luminous Efficacy [lm/W] |
|---|---|---|---|---|
| 13.4 | 32.3 | 3803 | 566 | 6.7 |

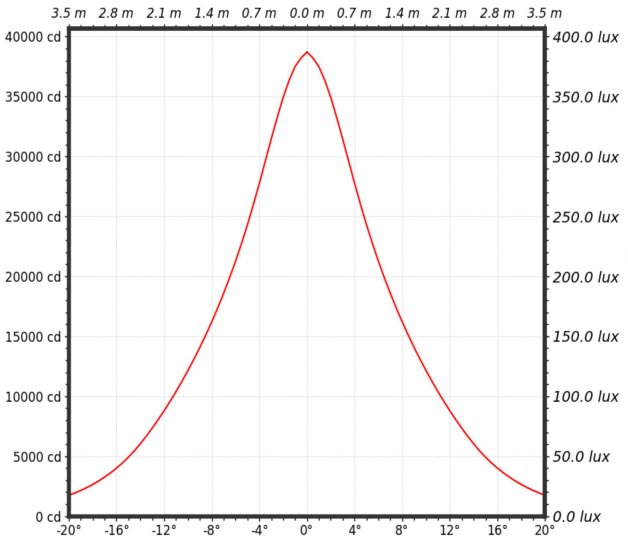


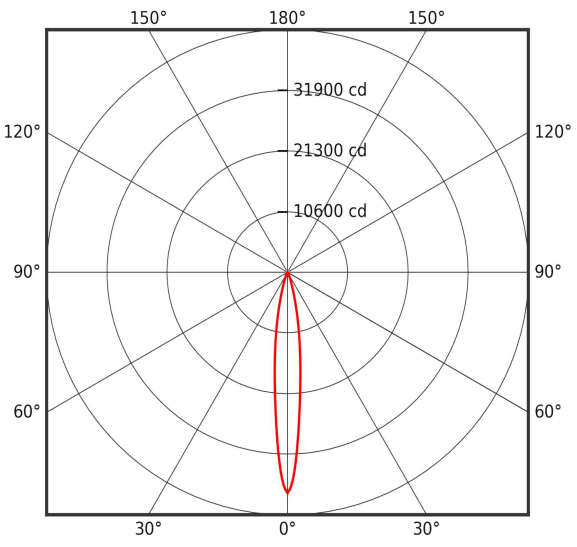
### Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])




| Distance [m] | 1 | 5 | 10 | 15 | 20 |
|---|---|---|---|---|---|
| Illuminance [lx] | 38708 | 1548 | 387 | 172 | 97 |
| Diameter [m] | 0.24 | 1.18 | 2.35 | 3.53 | 4.70 |

### Light Distribution Diagrams / Illuminance




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: Off; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5



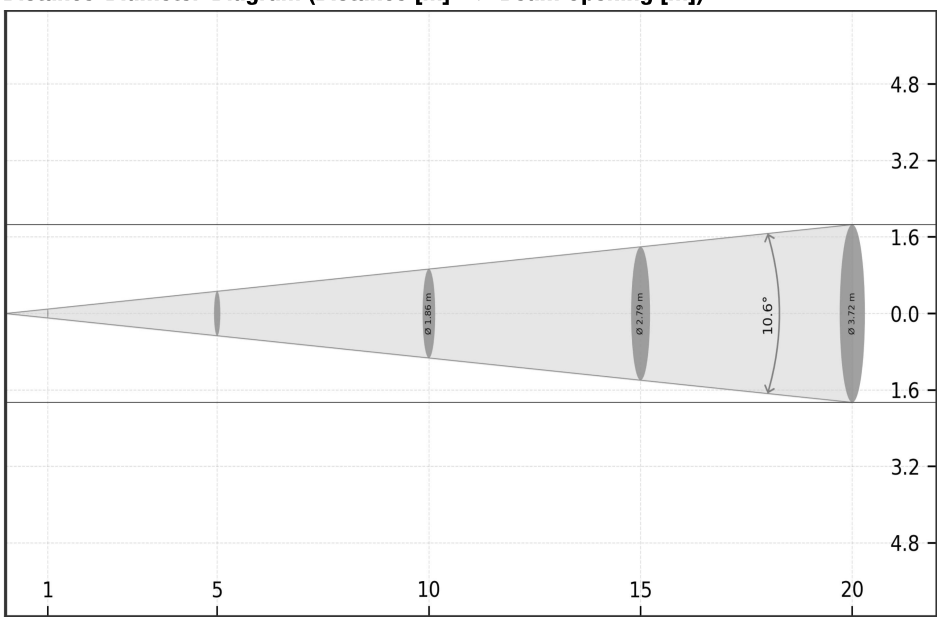
Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com

## Zoom Narrow Fresnel Lens - Photometric – Photometric Report

| Beam Angle [°] | Field Angle [°] | Luminous flux [lm] | Power [W] | Luminous Efficacy [lm/W] |
|---|---|---|---|---|
| 10.6 | 21.3 | 10587 | 566 | 18.7 |

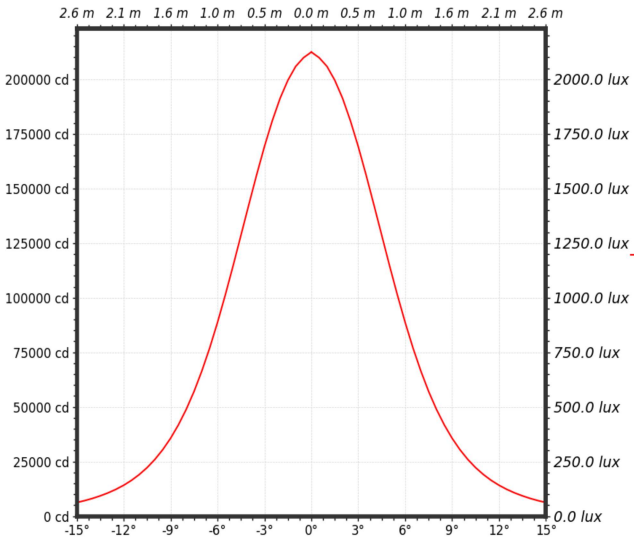


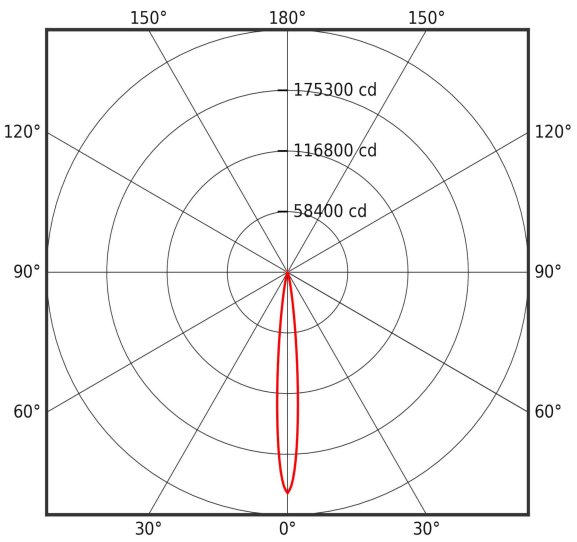
### Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])




| Distance [m] | 1 | 5 | 10 | 15 | 20 |
|---|---|---|---|---|---|
| Illuminance [lx] | 212425 | 8497 | 2124 | 944 | 531 |
| Diameter [m] | 0.19 | 0.93 | 1.86 | 2.79 | 3.72 |

### Light Distribution Diagrams / Illuminance




Device Settings: Dimmer: 100%; RGBALC: 100%; CCT: Off; PWM: 18.9kHz; Color Quality: High Brightness; Fan Mode: Auto; Zoom: J; Focus: 2.5



Cameo® is a registered brand of the Adam Hall Group | Adam Hall GmbH | Adam-Hall-Str. 1 | 61267 Neu-Anspach | Germany | Phone: +49 6081 9419-0 | adamhall.com