

AZOR SP2 IP

PHOTOMETRIC TEST REPORT

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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-I, 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

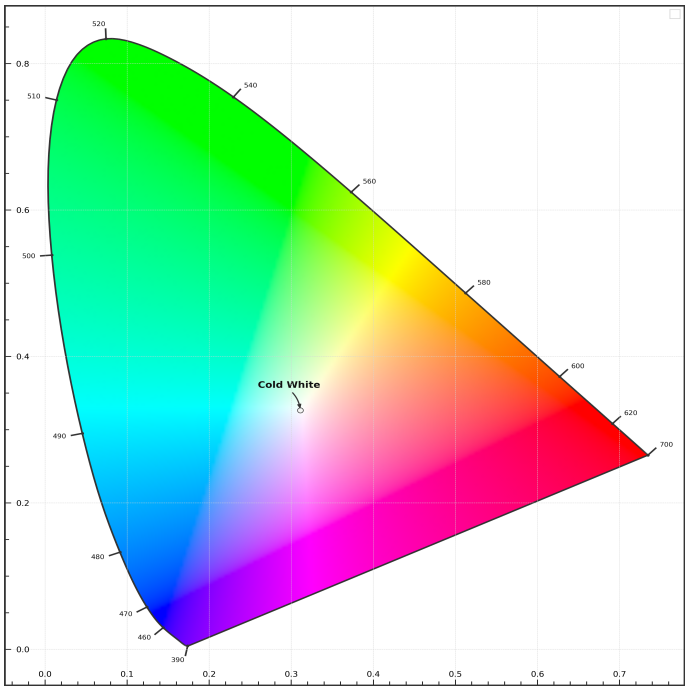
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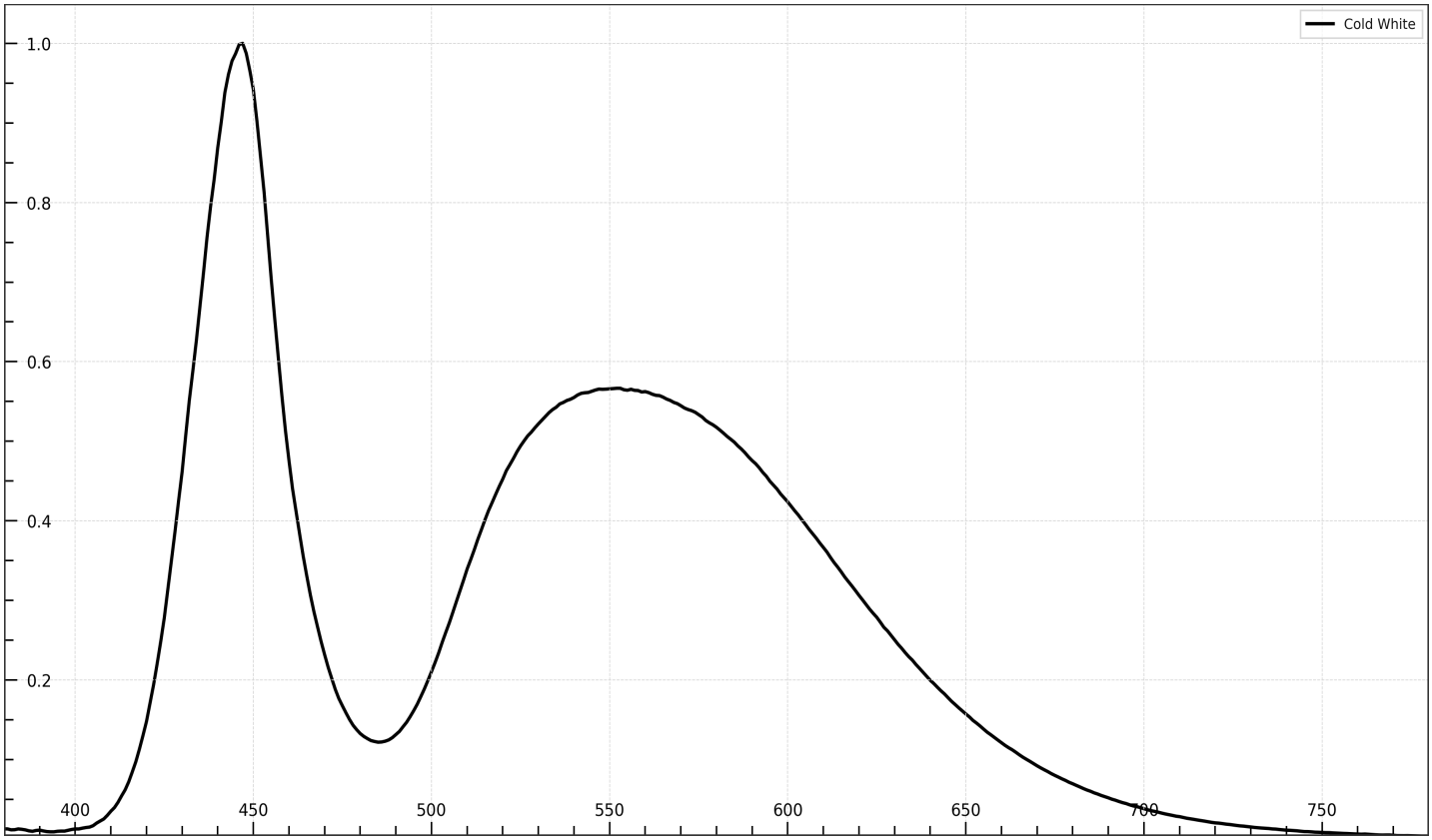
Overview

LED Colours	Lum flux [lm]	x	y
Cold White	10432	0.3110	0.3264

CIE 1931 Chromaticity Diagram - 2° Standard Observer



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



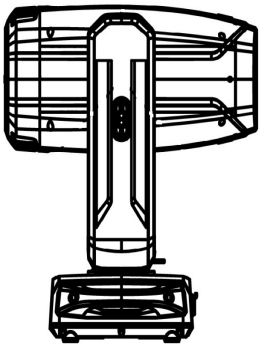
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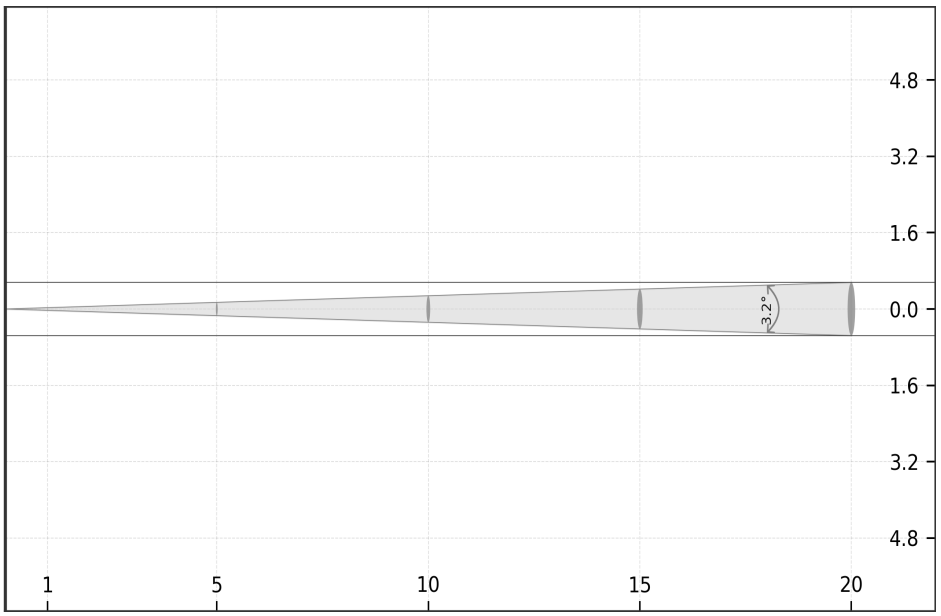
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Narrow Beam – Photometric Report

Beam Angle [°]	Field Angle [°]	Luminous flux [lm]	Power [W]	Luminous Efficacy [lm/W]
3.2	3.5	7910	435	18.2

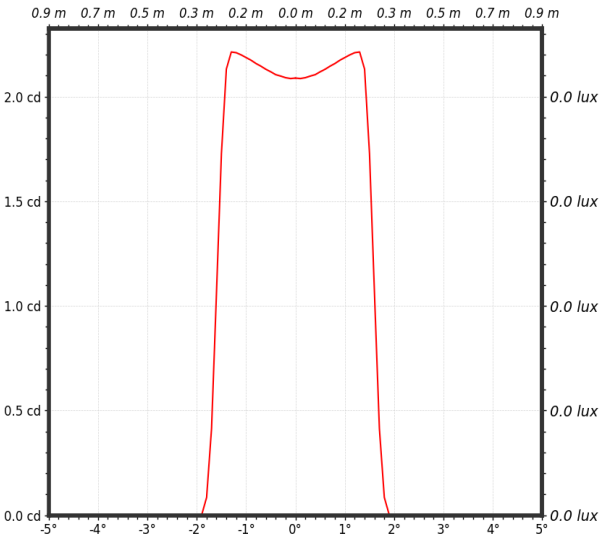
Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])

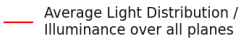


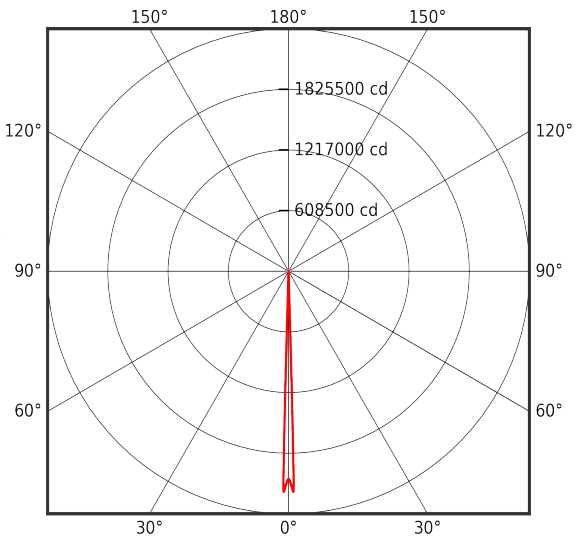


Distance [m]	1	5	10	15	20
Illuminance [lx]	2087977	83519	20880	9280	5220
Diameter [m]	0.06	0.28	0.56	0.83	1.11

Light Distribution Diagrams / Illuminance







Full-On Zoom-015 Focus-222 Sharp Temp-HEATED

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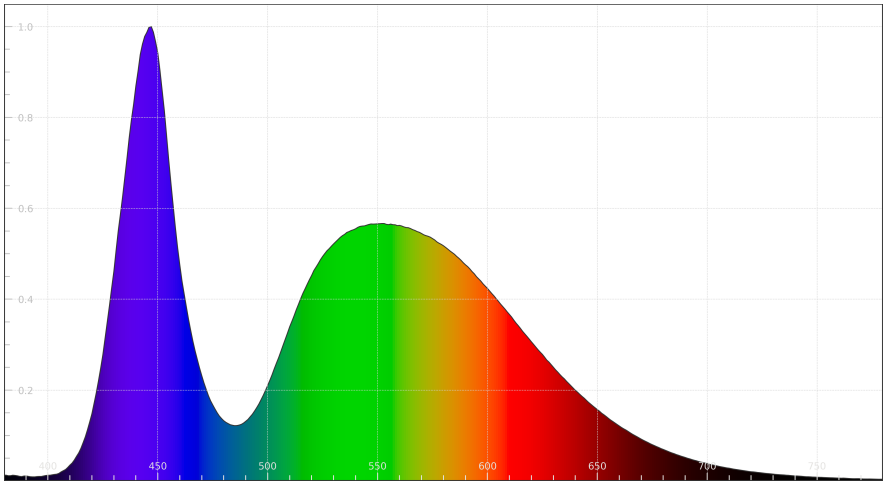
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Narrow Beam – Colorimetric Report

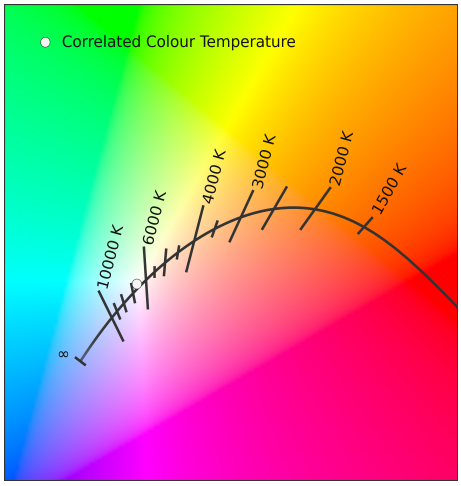
Colorimetric Characteristics

Correlated Colour Temperature [K]	**CCT**	6619	Luminous Flux [lm]	**Lum Flux**	7910
Colour Deviation from Black	**D_{uv}**	0.0028	Colour Rendering Index	**CRI Ra**	70
Colour Coordinate CIE 1931	**x**	0.3110	Red Component	**CRI R9**	-35
Colour Coordinate CIE 1931	**y**	0.3264	Colour Fidelity	**TM30 R_f**	71
Colour Coordinate CIE 1976	**u'**	0.1976	Colour Gamut	**TM30 R_g**	93
Colour Coordinate CIE 1976	**v'**	0.4667	Television Lighting Consistency Index	**TLCI**	43
Spectral Similarity Index	**SSI[CIE D6619]**	56			

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

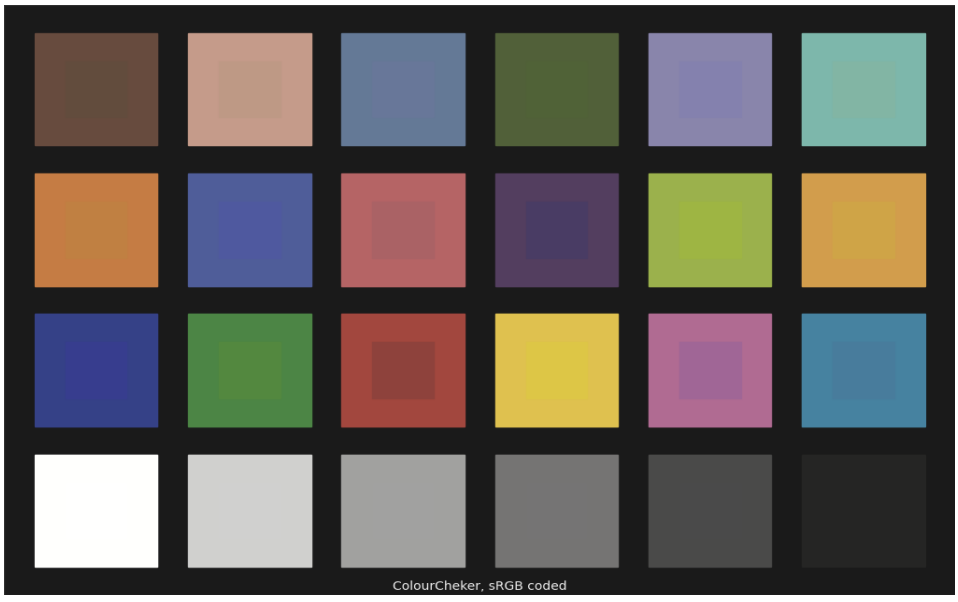


Colour Temperature

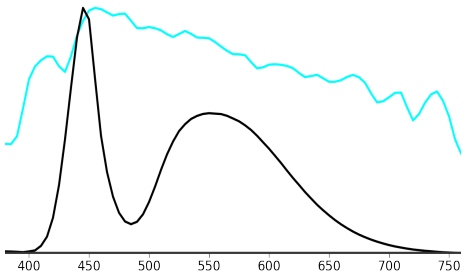


Television Lighting Consistency Index-2012

CCT = D6619 (0.5) TLCI-2012 : 43 (D6619)



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



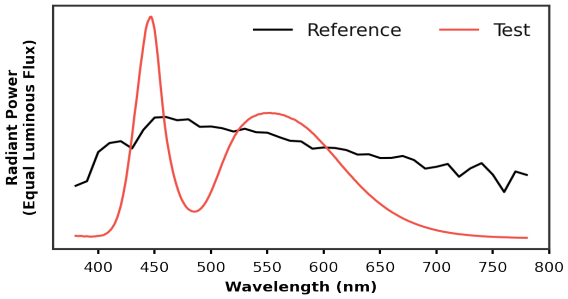
Full-On Zoom-015 Focus-222 Sharp Temp-HEATED

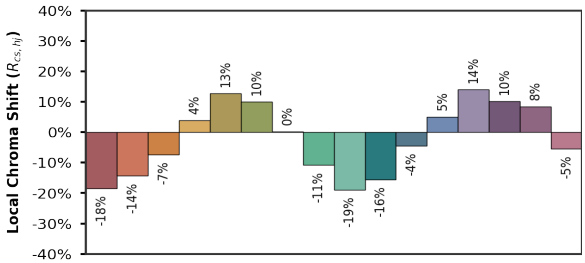
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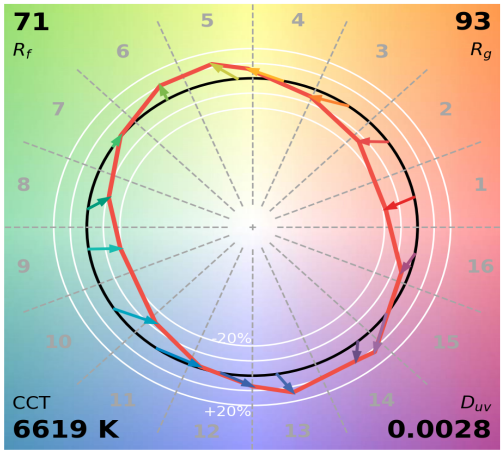
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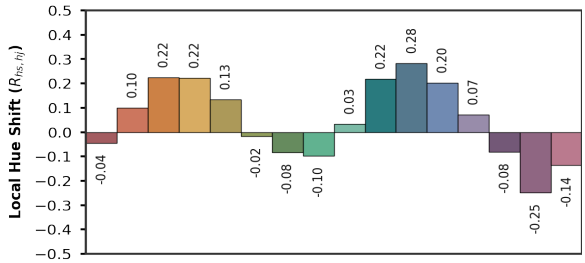
Narrow Beam – Colorimetric Report

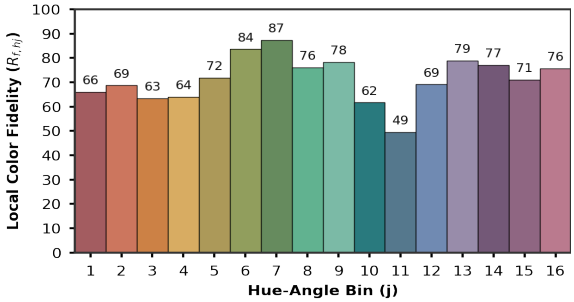
IES TM-30-18 Colour Rendition Report

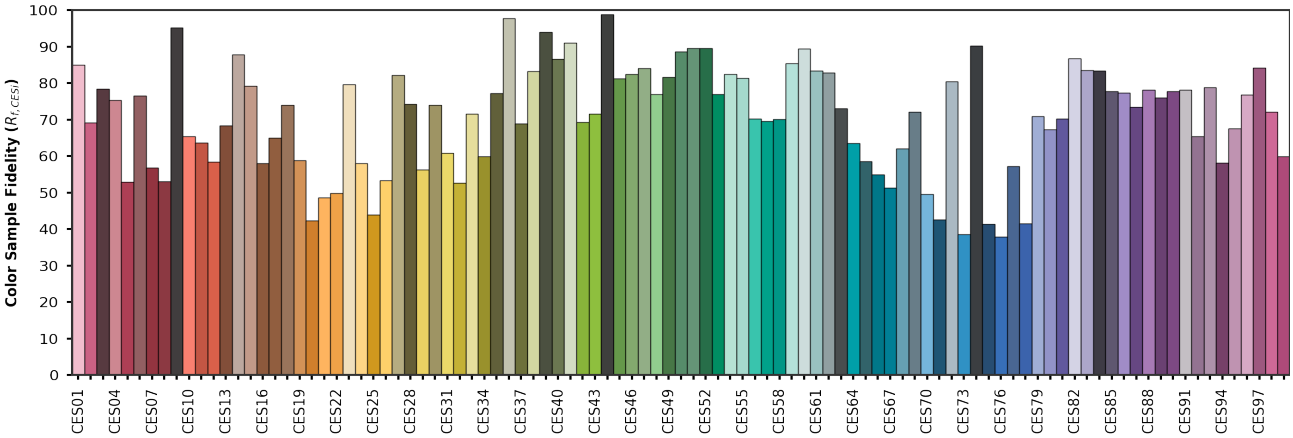












x	**0.3110**
y	**0.3264**
u'	**0.1976**
v'	**0.4667**

CIE 13.31-1995
(CRI)
R_a **70**
R_9 **-35**

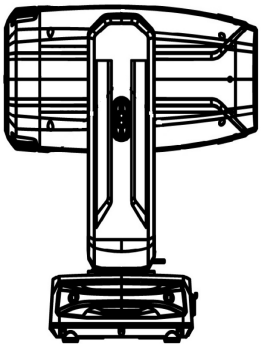
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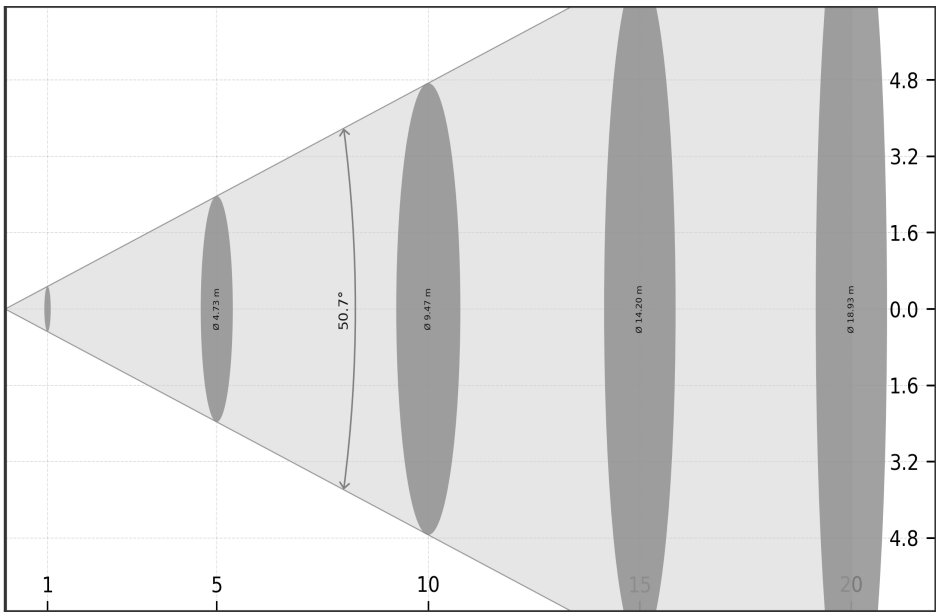
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Wide Beam – Photometric Report

Beam Angle [°]	Field Angle [°]	Luminous flux [lm]	Power [W]	Luminous Efficacy [lm/W]
50.7	52.2	12038	436	27.6

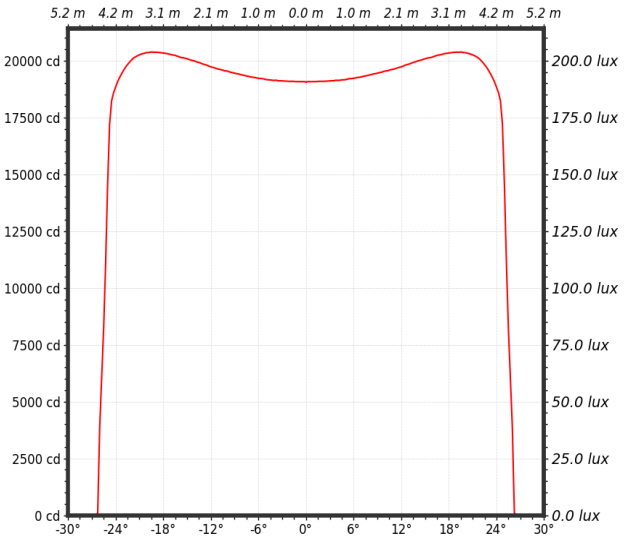


Distance-Diameter-Diagram (Distance [m] --> Beam Opening [m])

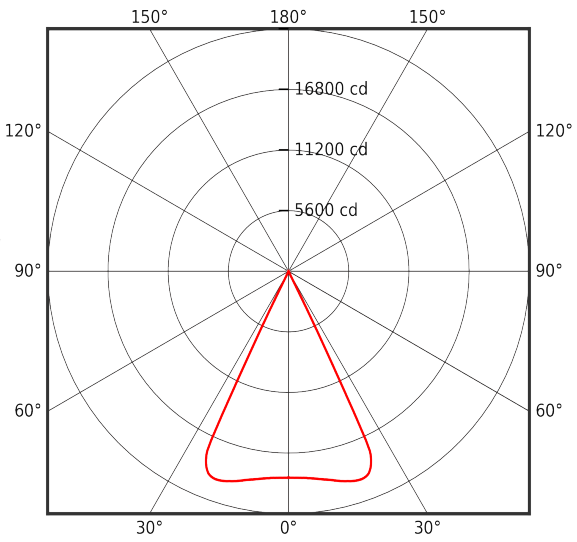


Distance [m]	1	5	10	15	20
Illuminance [lx]	19059	762	191	85	48
Diameter [m]	0.95	4.73	9.47	14.20	18.93

Light Distribution Diagrams / Illuminance



Average Light Distribution / Illuminance over all planes



Full-On Zoom-255 Focus-146 sharp Temp-HEATED

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