

# PHOTOMETRIC REPORT

## BT-THEATRE HD2



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# TESTING NOTES

Operator: Robbie Smedts  
Report date: 7/05/2025  
Measurement date: 3/04/2025

## TESTING PROCESS

### TOTAL ILLUMINANCE MEASUREMENTS

Illuminance is measured using the Viso Systems LabSpion®, which takes multiple measurements across a light beam to calculate the total delivered lumens, beam, and field angles of a product. These values can be described as the empirical output of the product as it projects from the lens or lenses. All photometric data contained in this report are obtained from the actual illuminance of the tested Briteq light source and are never theoretical values derived from calculations.

### TESTING LAB EQUIPMENT AND PROCESS

The Briteq headquarters in Dilbeek, Belgium has a climate- and light-controlled photometric testing laboratory where Briteq products are analyzed and photometric data are measured using the Viso Systems LabSpion® light measurement solution.

This system includes a spectrometer sensor, which measures the precise light and color output of the fixture, and a dual-axis goniometer, which rotates the product to allow for multi-angle and multidirectional measurement. The Viso Light Inspector software then collects and summarizes the data. From the data gathered, the software can also measure the beam angles and field angles, accurate color temperature, color quality, and illuminance at multiple distances. The custom-built, Briteq-specific template presents this information in the photometric and chromaticity report that follow.

IES (Illuminating Engineering Society) files, and industry-standard file format, are also generated from each test for easy distribution of photometric data. The IES files can be downloaded from the product page on our website.

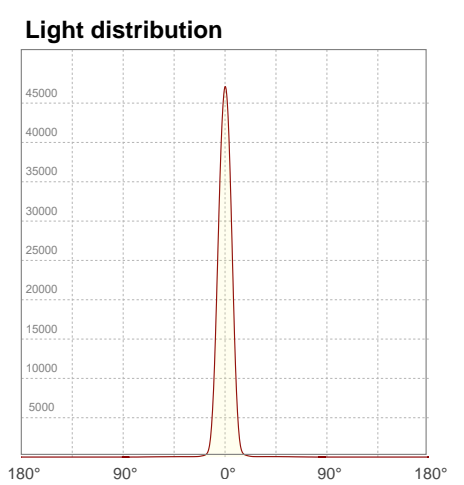
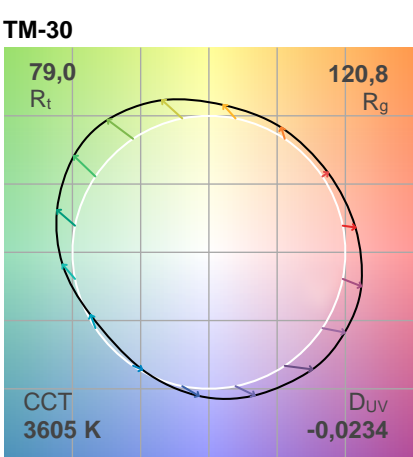
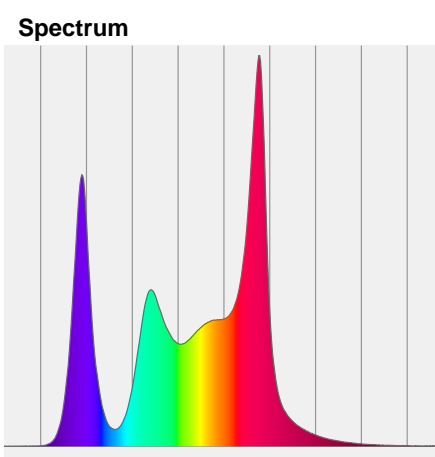
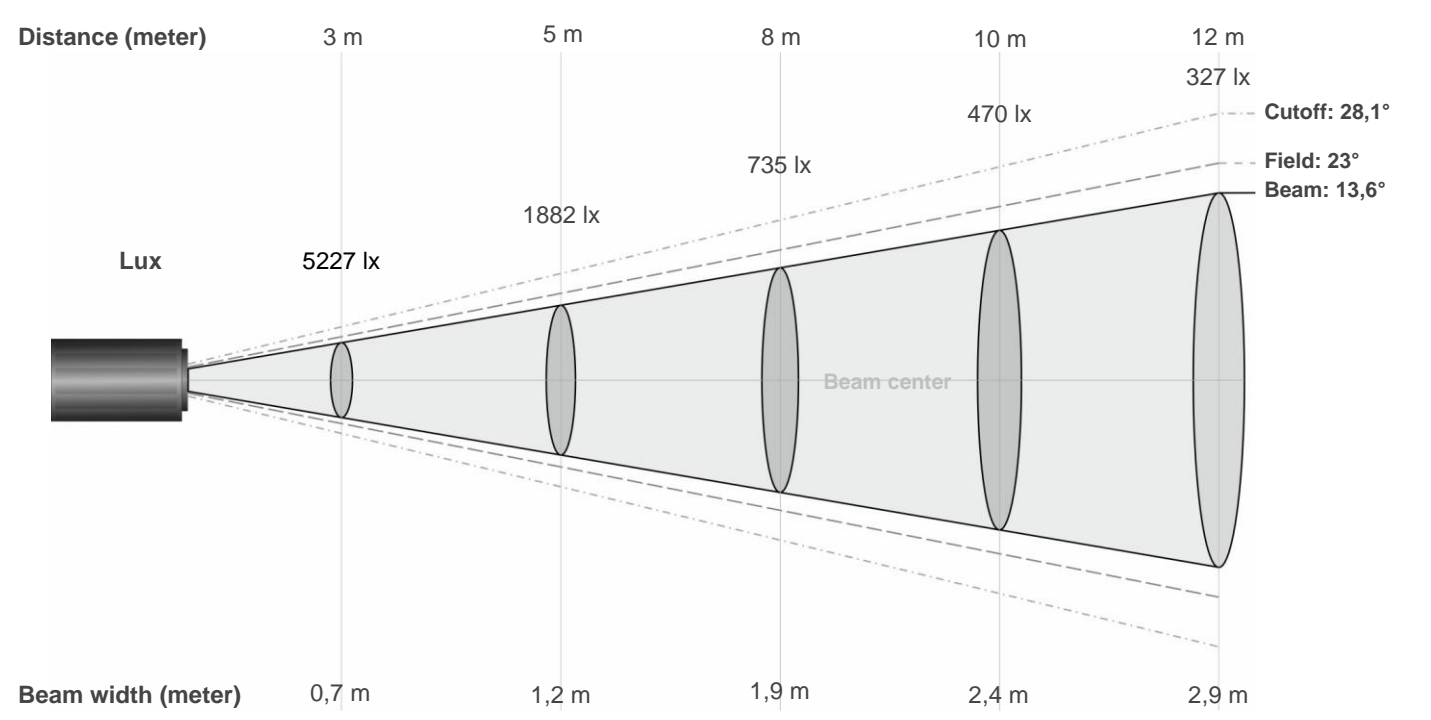
To ensure accurate measurements in every photometric and chromaticity test, Briteq routinely calibrates the LabSpion® system every six months as recommended by Viso Systems.

# MIN. ZOOM – FULL POWER

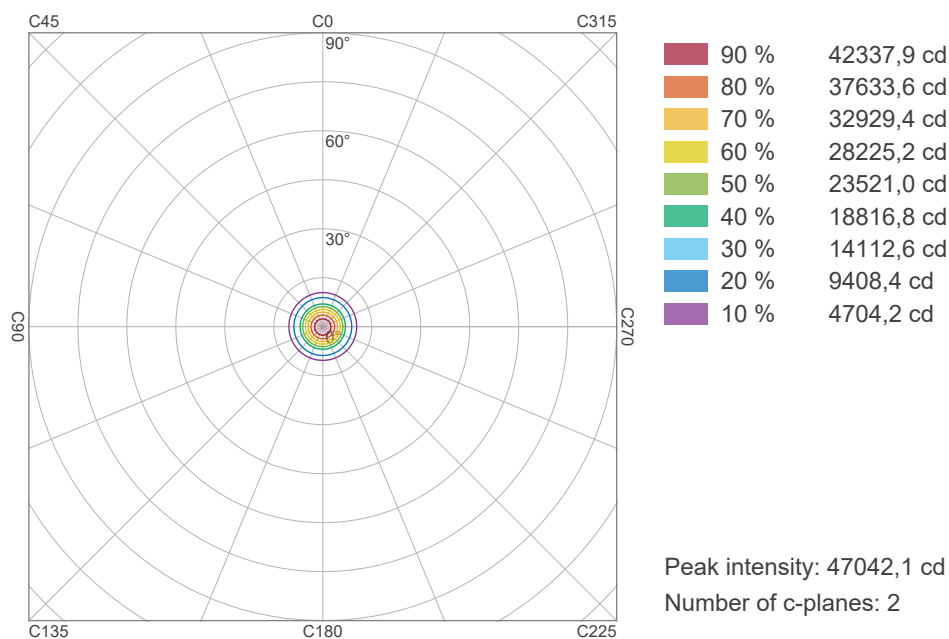
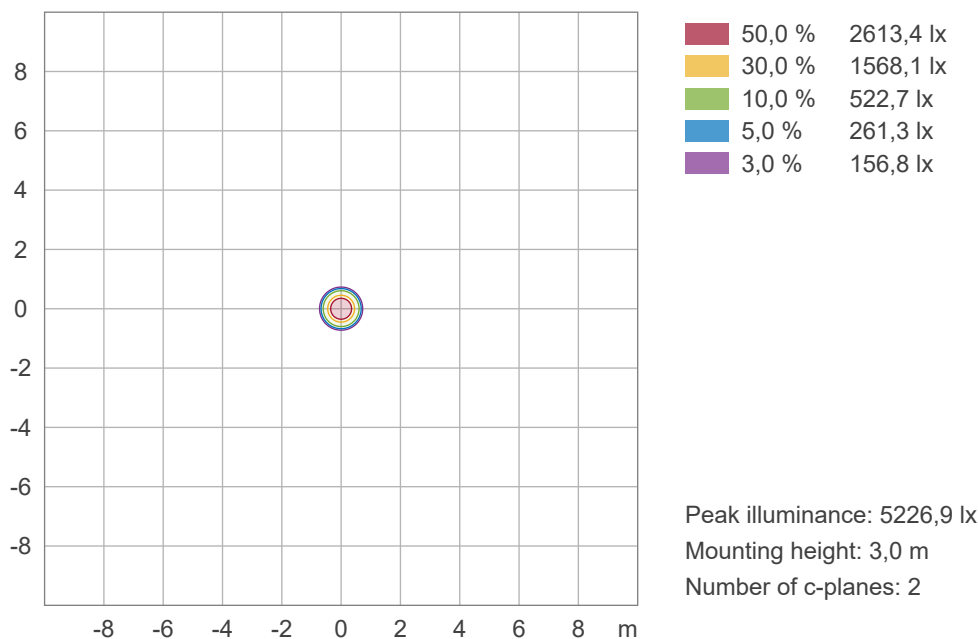
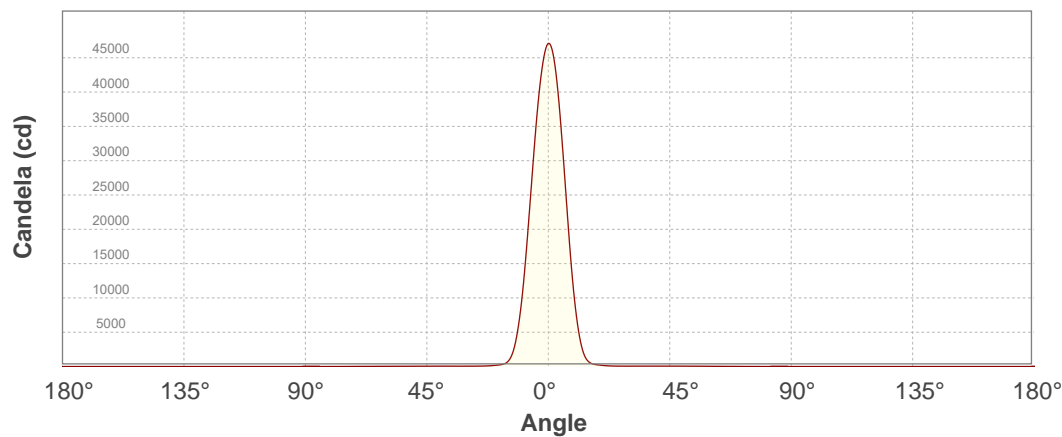
## OVERVIEW

Notes:  
DMX mode: TOUR, PWM: 1200Hz, Fan: Live

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Total lumen output (goniometer)	Peak candela	Power	Efficiency	Power factor
13,6°	23°	28,1°	2911 lm	47099 cd	140,6 W	21 lm/W	0,83



BEAM DETAILS



CHROMATICITY

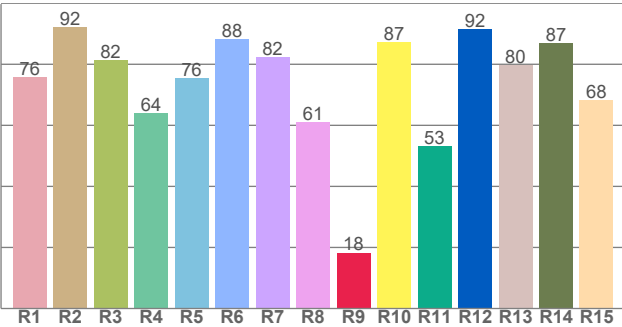
Color paramters

Color temperature	Color rendering index	Red component
CCT	CRI	CRI – R9
3605 K	77,6	18,3

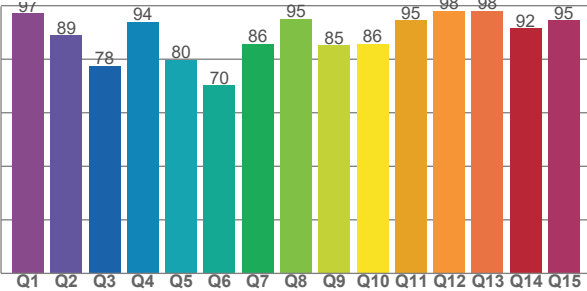
Color fidelity	Color gammut	Television lighting consistency index
TM-30-18 - Rf	TM-30-18 - Rg	TLCI
79,0	120,8	56

Color coordinate CIE 1931	Color coordinate CIE 1976	Color deviation from Black Body Curve
x   y	u   v	$\Delta uv$
0,379   0,330	0,245   0,319	-0,0234

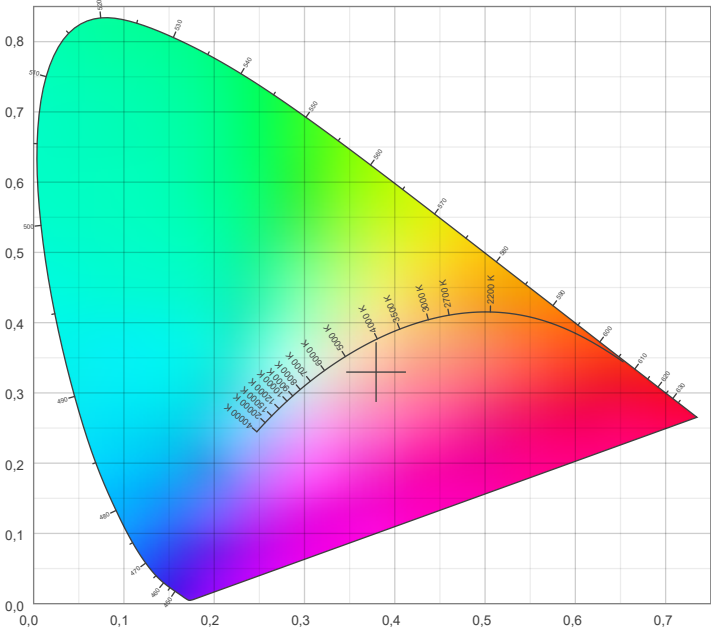
CRI: 77,6 (R1-R15)



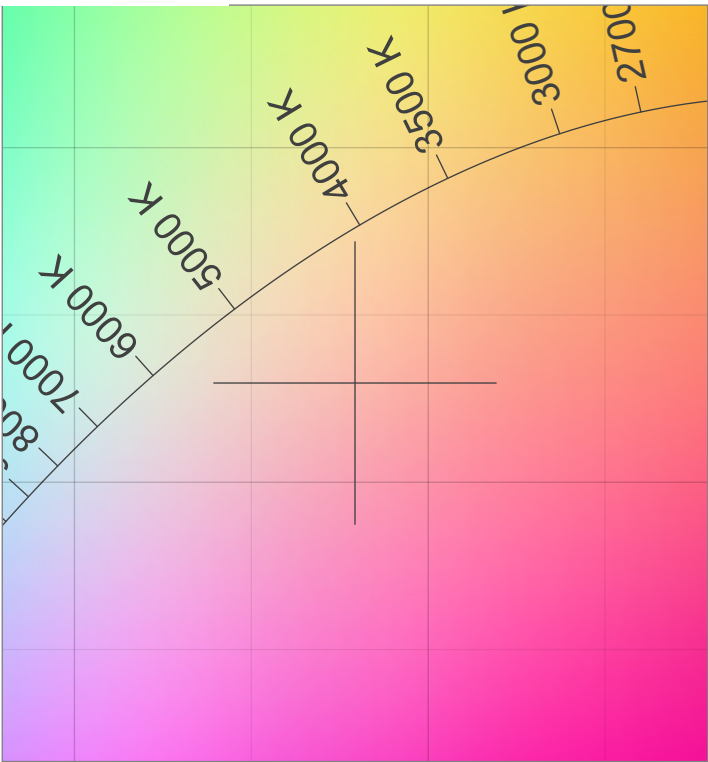
CQS: 86,5



CIE1931



CIE1931 – Zoom



TM-30 DETAILS

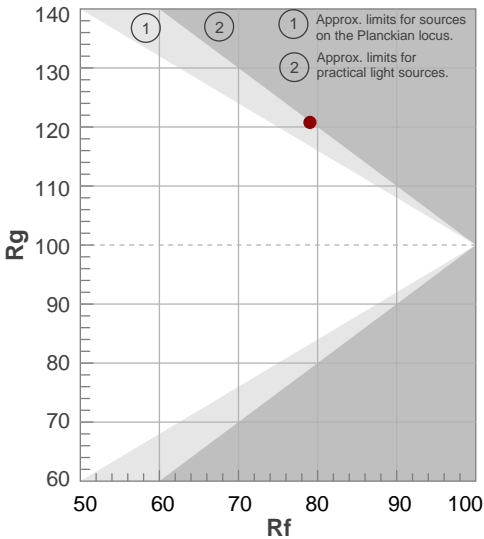
Shifts (%)			
Hue Bin	R <sub>f</sub>	Chroma	Hue
1	82	9%	-3%
2	88	5%	0%
3	83	5%	7%
4	80	8%	11%
5	74	16%	12%
6	68	22%	8%
7	69	21%	-4%
8	73	15%	-9%
9	80	7%	-12%
10	85	-2%	-10%
11	87	-1%	7%
12	76	5%	13%
13	80	9%	12%
14	77	13%	15%
15	77	15%	6%
16	78	14%	-3%

**R<sub>f</sub> 79,0**

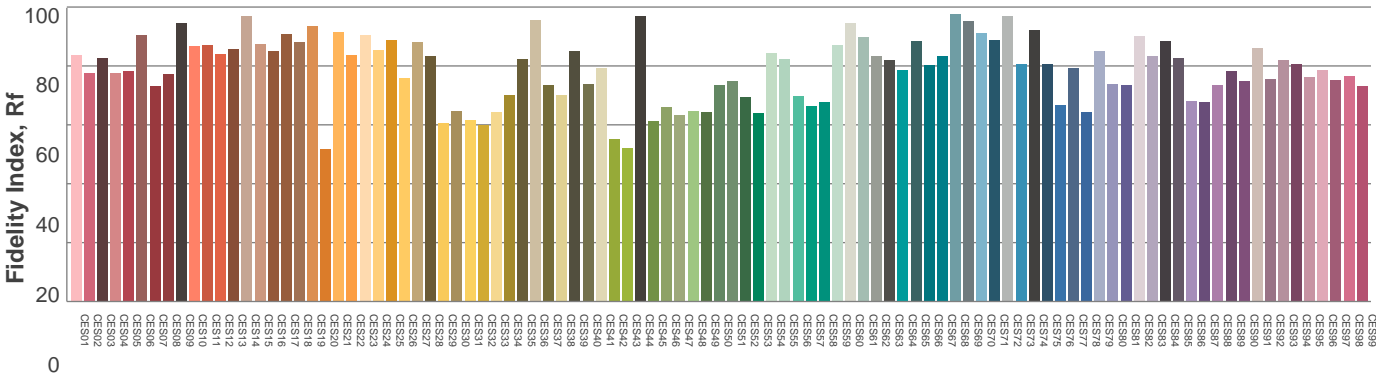
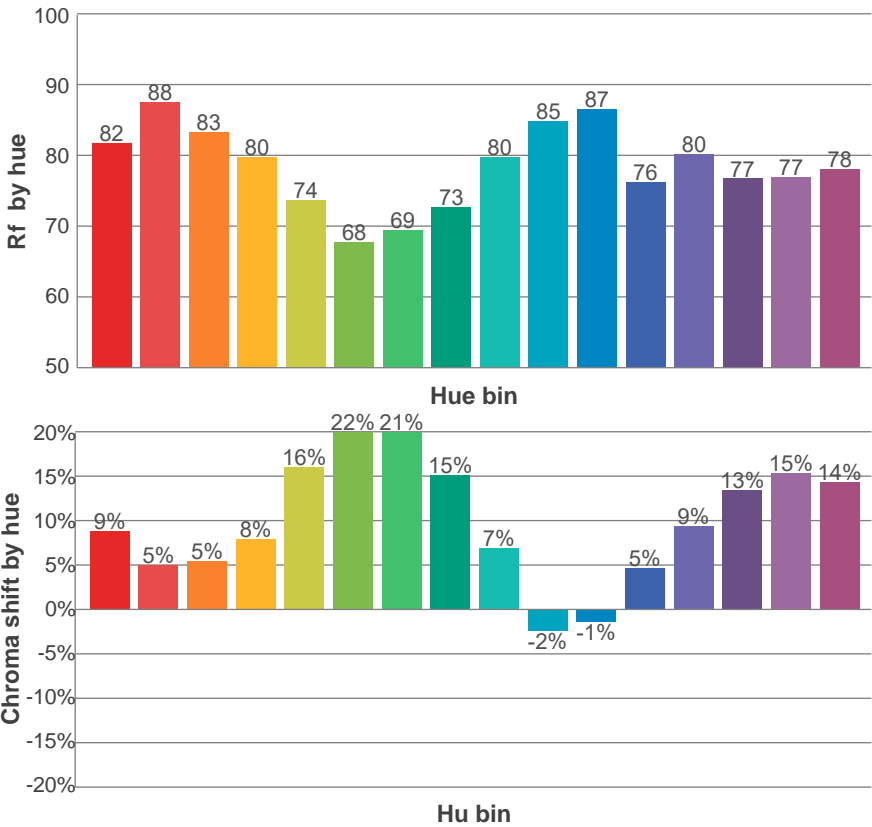
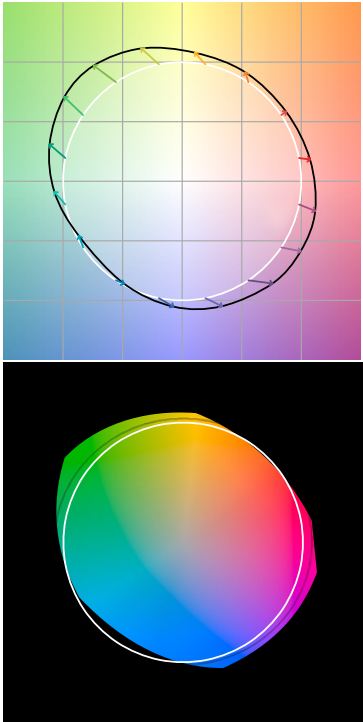
Fidelity index R<sub>f</sub>

**R<sub>g</sub> 120,8**

Gamut index R<sub>g</sub>

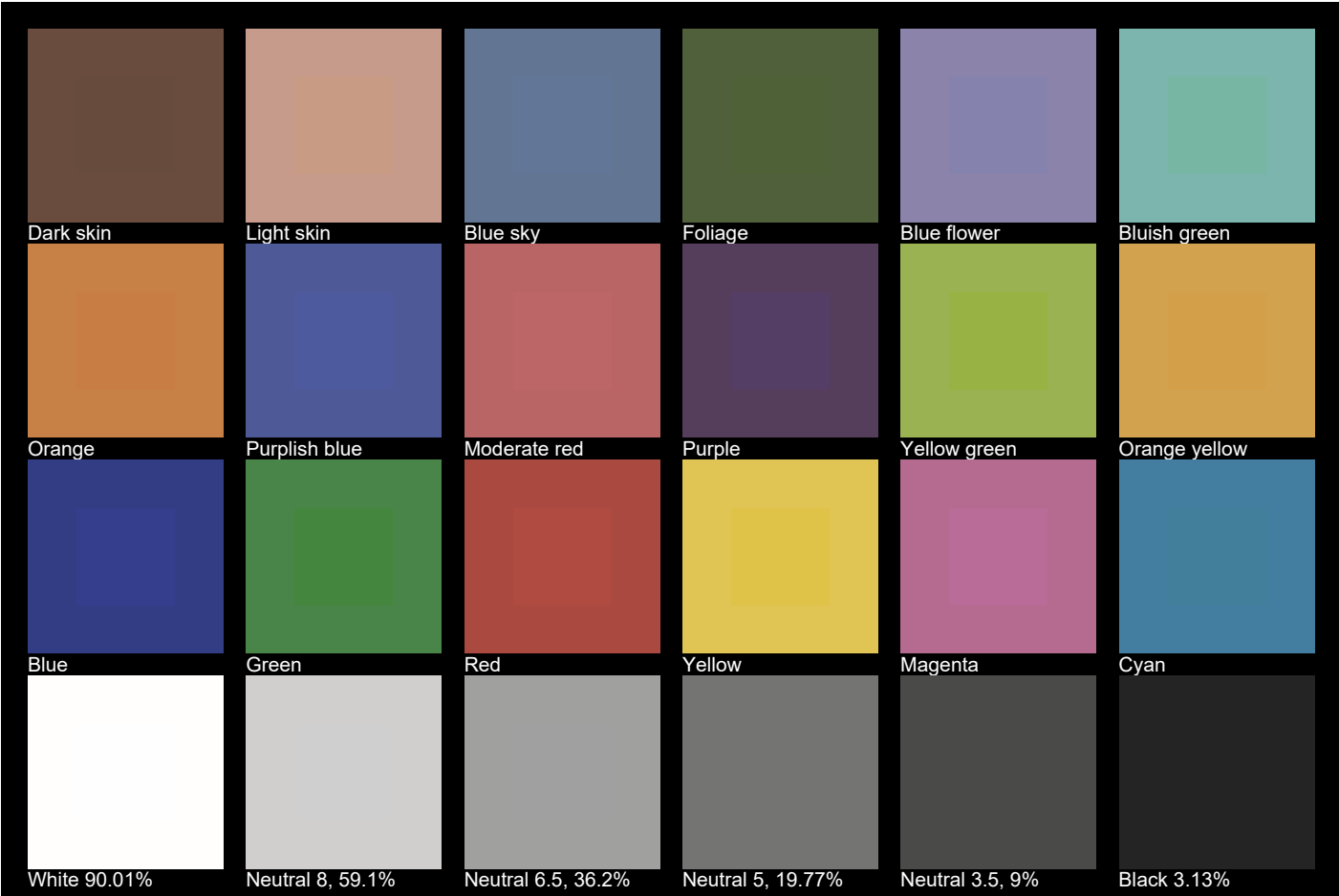


Color vector graphics



TLCI 56

Television Lighting  
Consistency Index



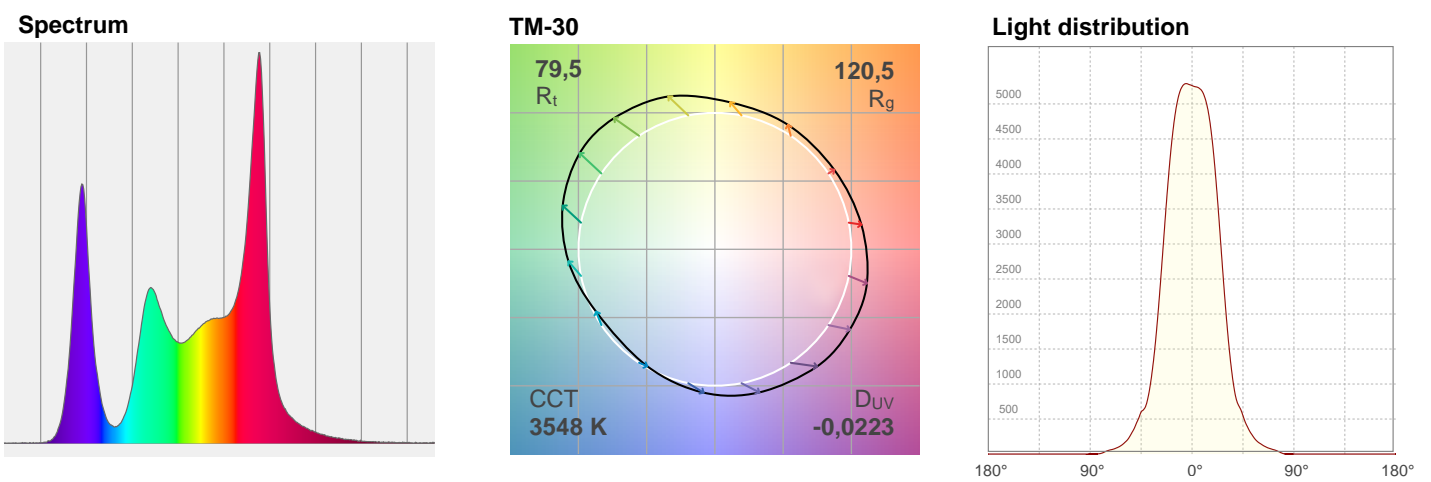
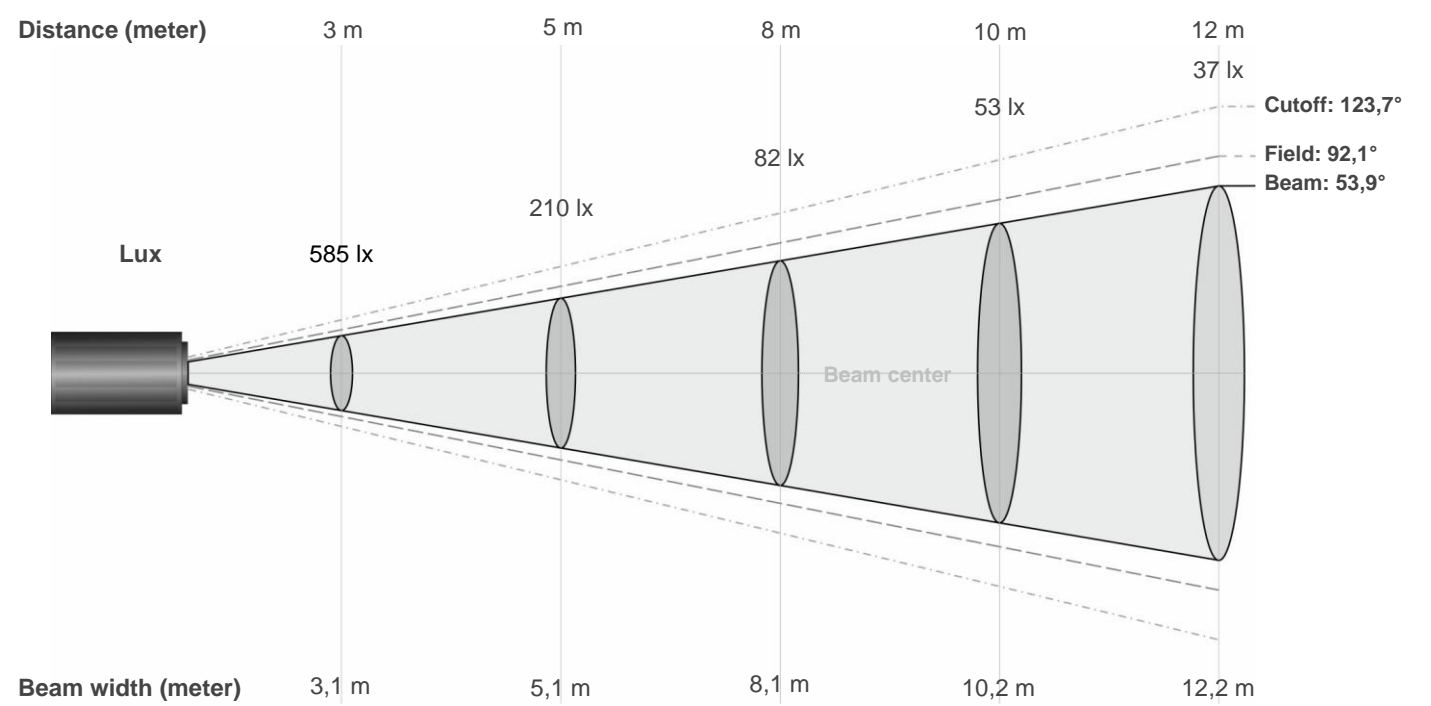


# MAX. ZOOM – FULL POWER

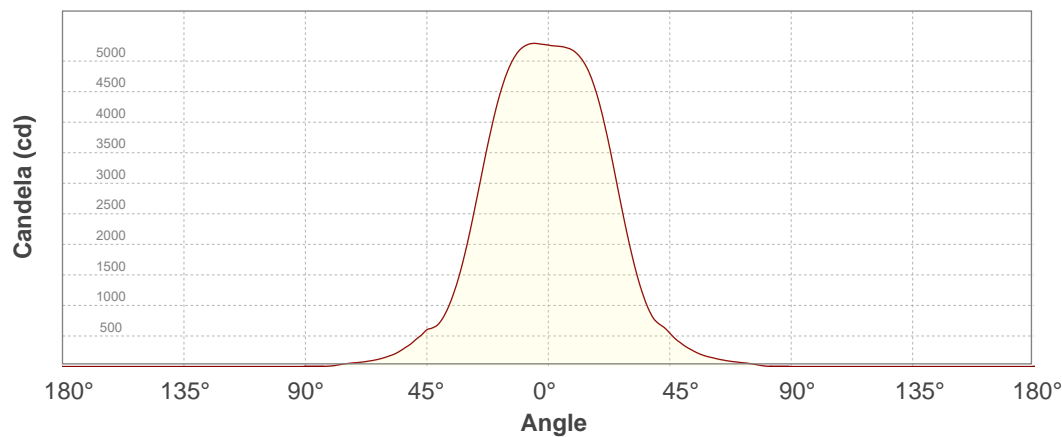
## OVERVIEW

Notes:  
DMX mode: TOUR, PWM: 1200Hz, Fan: Live

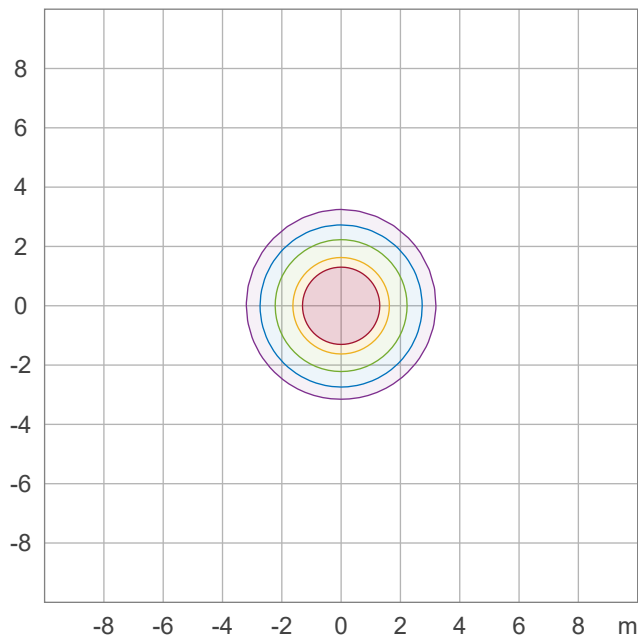
Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Total lumen output (goniometer)	Peak candela	Power	Efficiency	Power factor
53,9°	92,1°	123,7°	4801 lm	5290 cd	140,4 W	34 lm/W	0,83



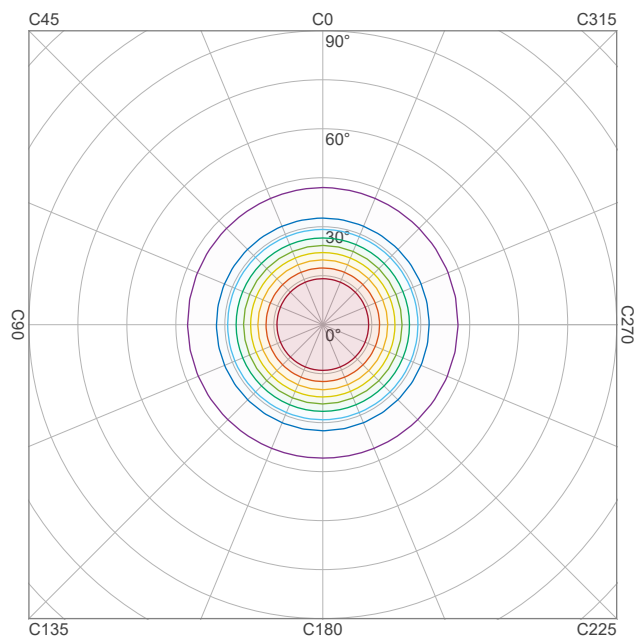
BEAM DETAILS



Beam angle (50%): 53,9°  
Field angle (10%): 92,1°  
Cutoff angle (3%): 123,7°



Peak illuminance: 585,1 lx  
Mounting height: 3,0 m  
Number of c-planes: 2



Peak intensity: 5290,3 cd  
Number of c-planes: 2

CHROMATICITY

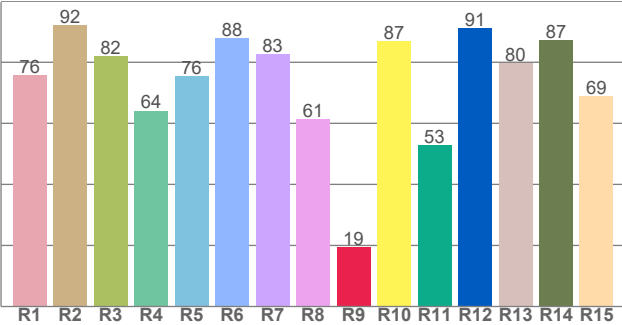
Color paramters

Color temperature	Color rendering index	Red component
CCT	CRI	CRI – R9
3548 K	77,7	19,3

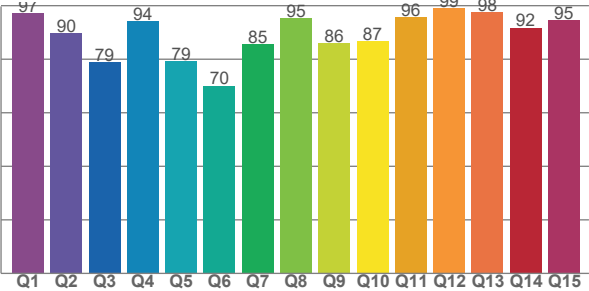
Color fidelity	Color gammut	Television lighting consistency index
TM-30-18 - Rf	TM-30-18 - Rg	TLCI
79,5	120,5	56

Color coordinate CIE 1931	Color coordinate CIE 1976	Color deviation from Black Body Curve
x   y	u   v	$\Delta uv$
0,382   0,333	0,245   0,321	-0,0223

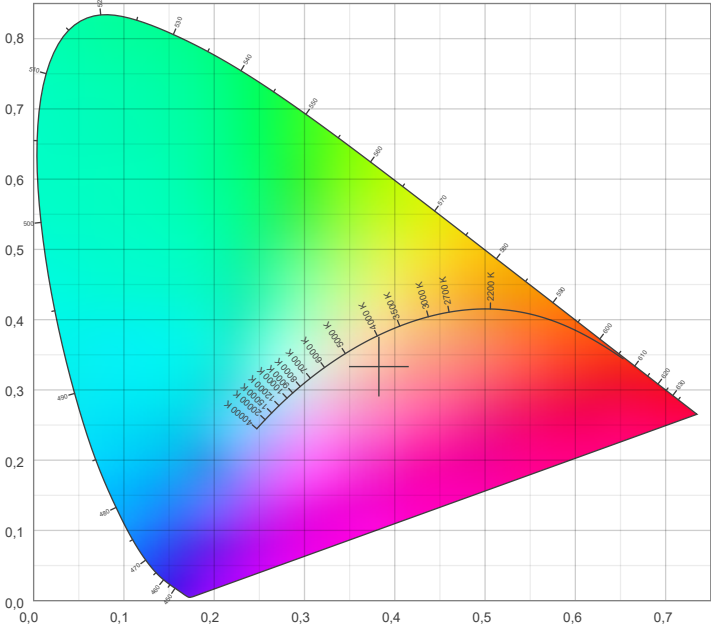
CRI: 77,7 (R1-R15)



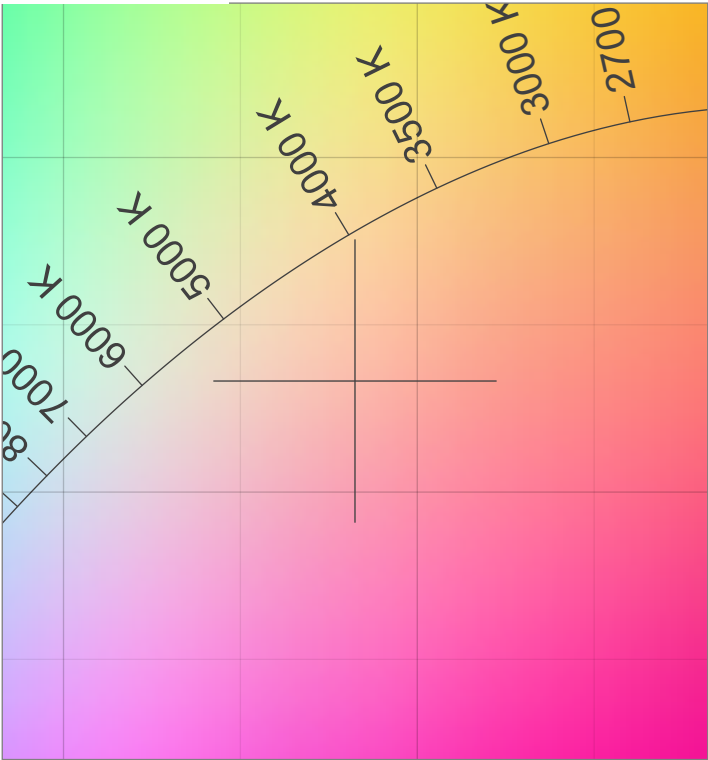
CQS: 86,7



CIE1931



CIE1931 – Zoom

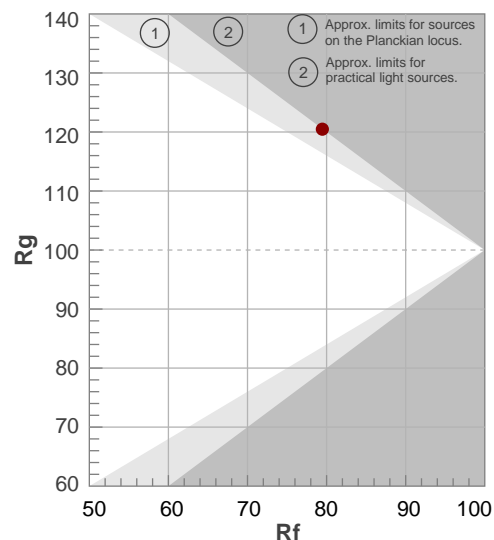


# TM-30 DETAILS

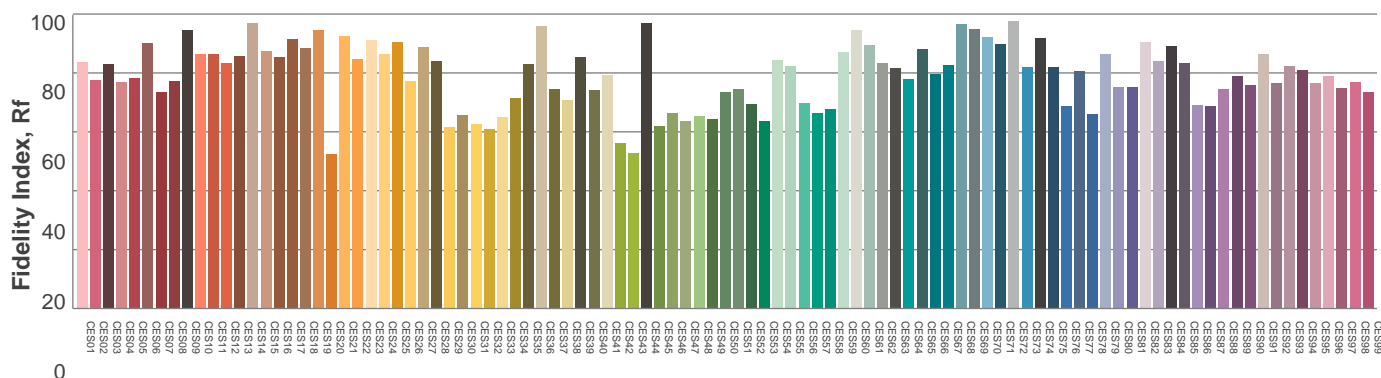
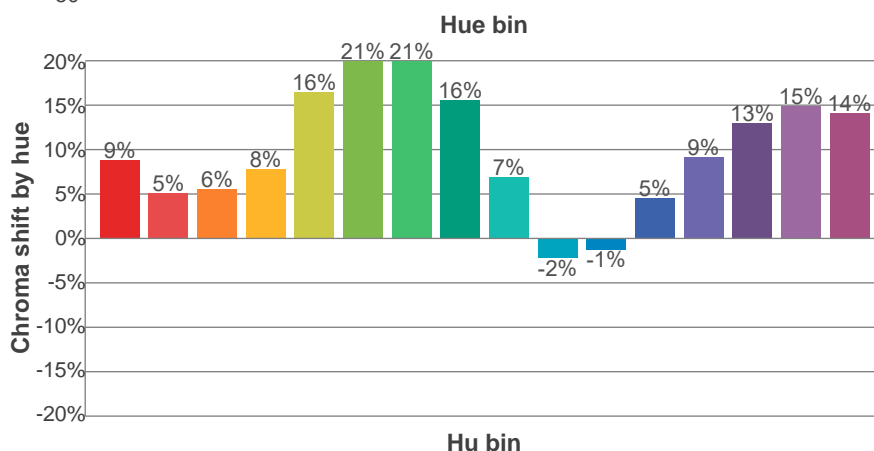
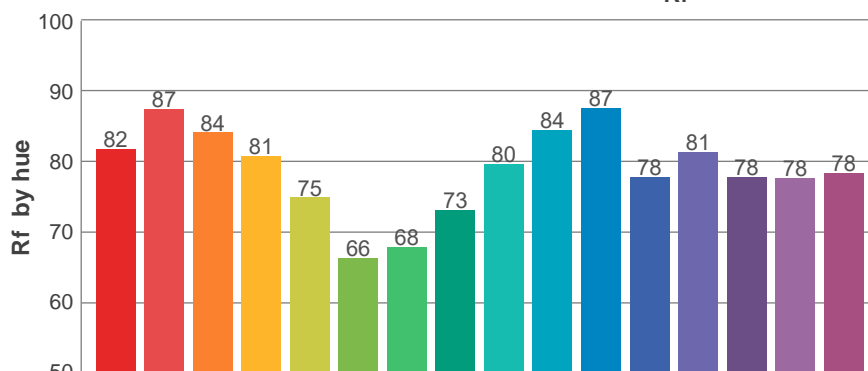
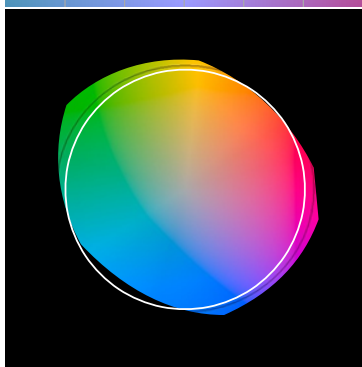
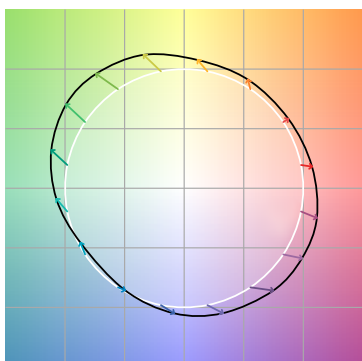
Hue Bin	R <sub>f</sub>	Shifts (%)	
		Chroma	Hue
1	82	9%	-3%
2	87	5%	0%
3	84	6%	6%
4	81	8%	10%
5	75	16%	12%
6	66	21%	8%
7	68	21%	-3%
8	73	16%	-10%
9	80	7%	-12%
10	84	-2%	-10%
11	87	-1%	6%
12	78	5%	12%
13	81	9%	11%
14	78	13%	15%
15	78	15%	6%
16	78	14%	-3%

**R<sub>f</sub> 79,5**  
Fidelity index R<sub>f</sub>

**R<sub>g</sub> 120,5**  
Gamut index R<sub>g</sub>

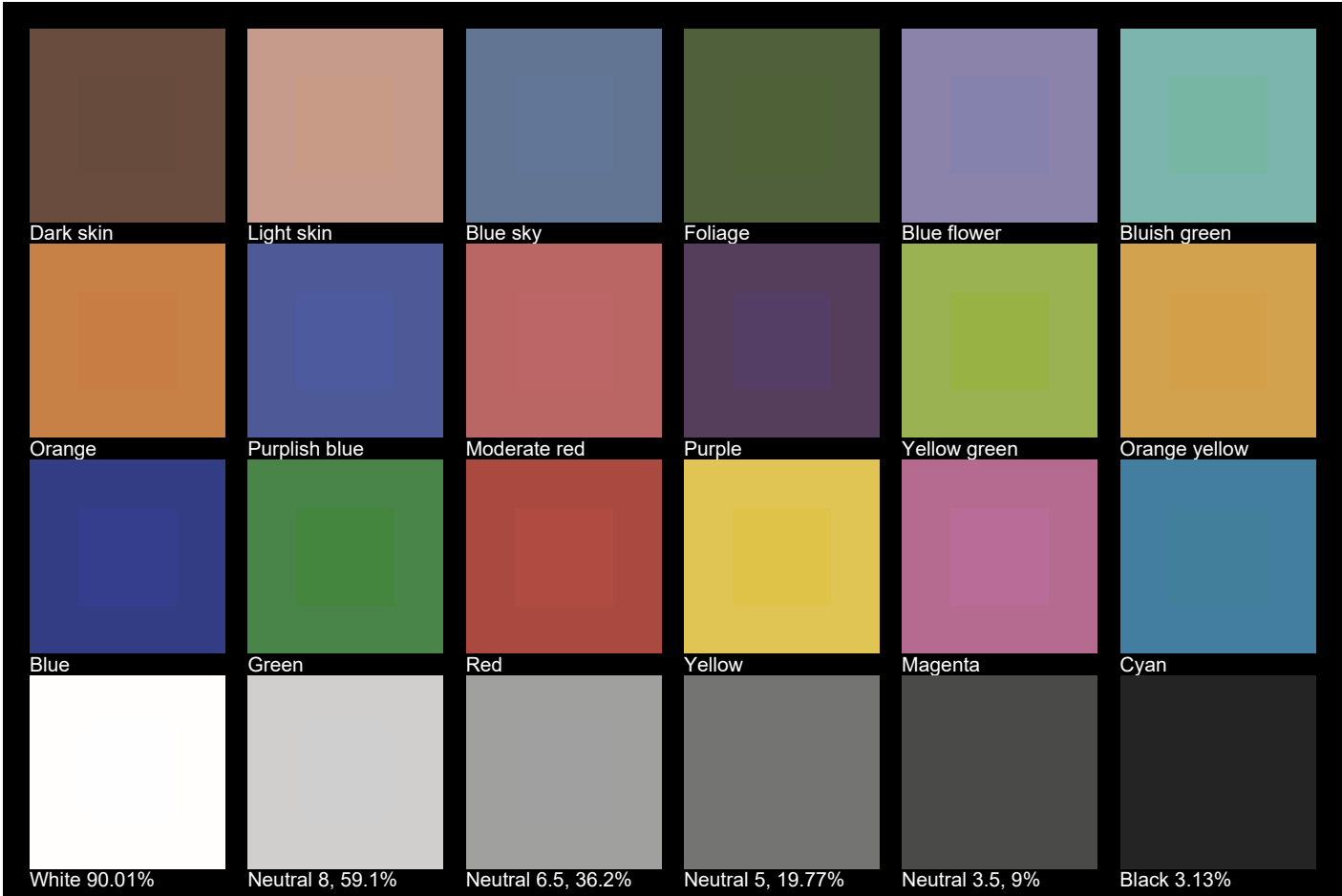


Color vector graphics



TLCI 56

Television Lighting  
Consistency Index



# CCT: 3200K

## OVERVIEW

Notes:  
Zoom: 50%, DMX mode: TOUR, PWM:  
1200Hz, Fan: Live

Total lumen output (goniometer)	Peak candela	Efficiency	Power factor
3756 lm	11880 cd	32 lm/W	0,78

### Tested color

CIE 1931  
Coordinates:  
X: 0,427 Y: 0,404

### Light quality

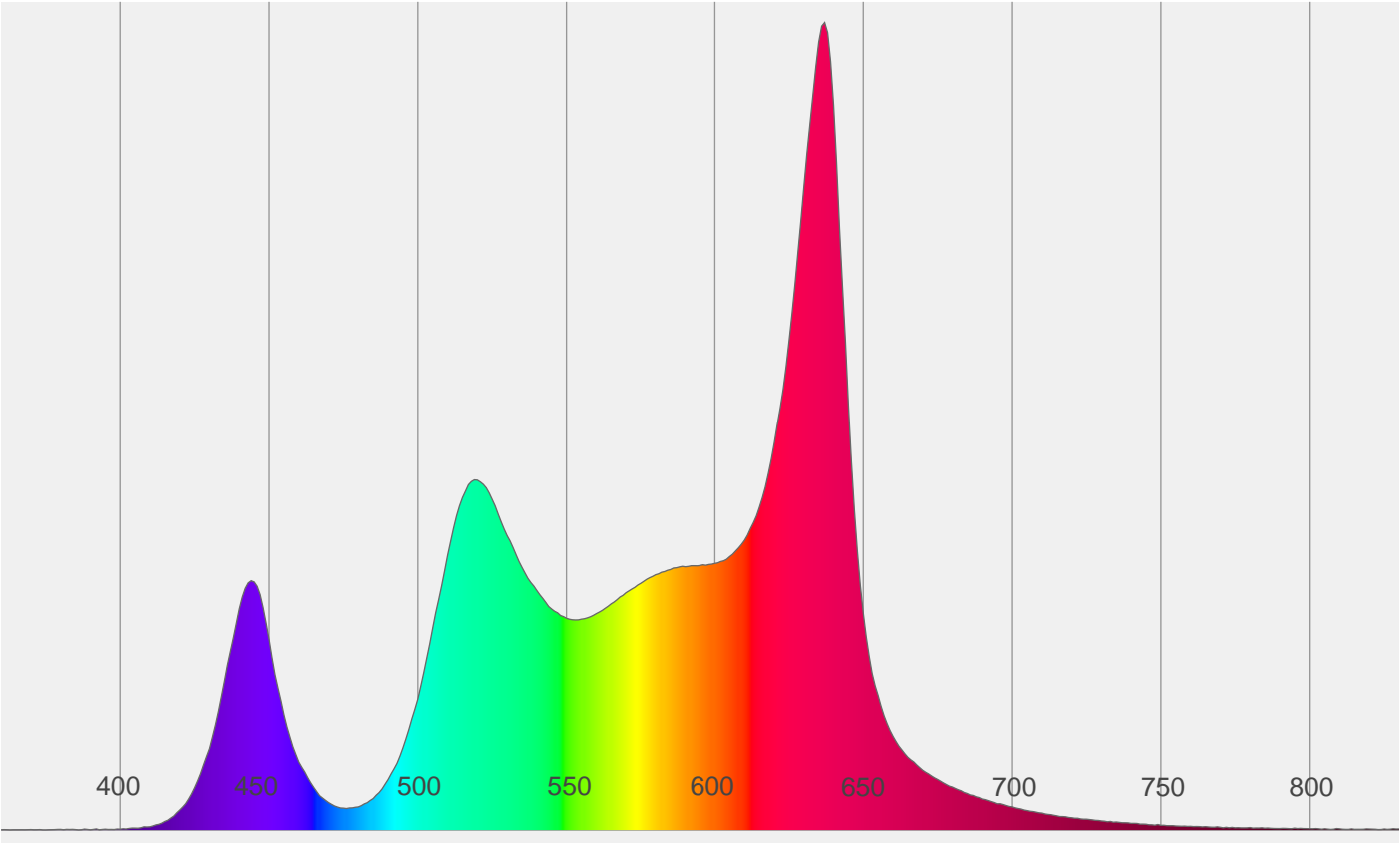
CRI: 84,6

### Color temperature

3174 K

CCT	3174 K
Duv	0,0014
CRI	84,6
CRI R9	57,2
CQS	85,7
TLCI	56
TM-30-18 Rf	85,6
TM-30-18 Rg	112,1

### Spectrum



CHROMATICITY

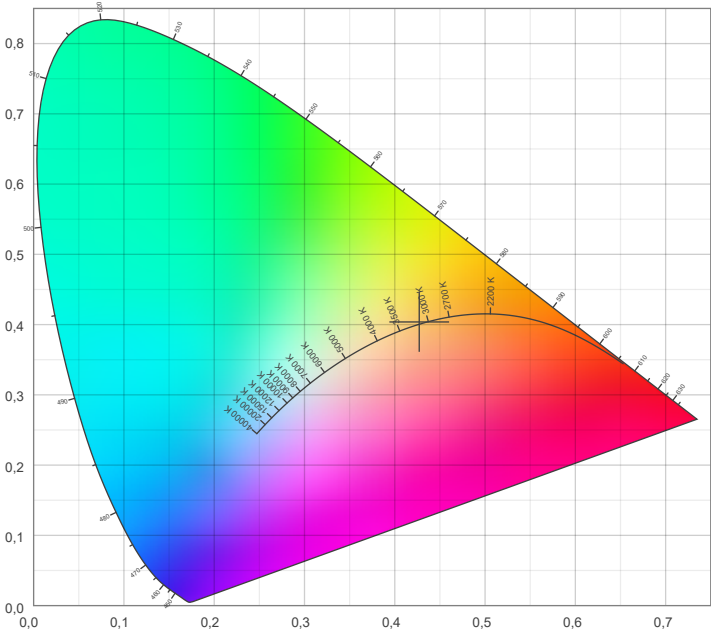
Color paramters

Color temperature	Color rendering index	Red component
CCT	CRI	CRI – R9
3174 K	84,6	57,2

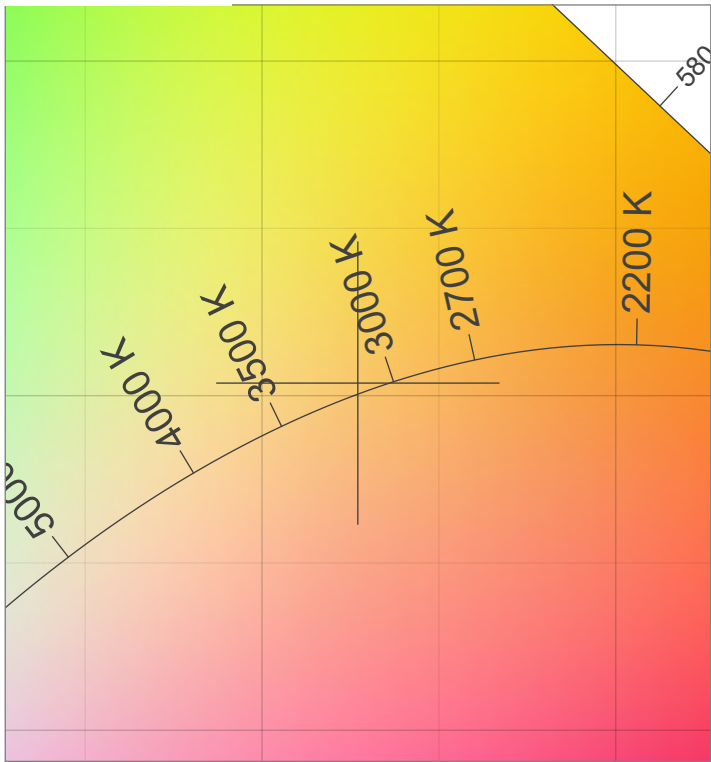
Color fidelity	Color gammut	Television lighting consistency index
TM-30-18 - Rf	TM-30-18 - Rg	TLCI
85,6	112,1	56

Color coordinate CIE 1931	Color coordinate CIE 1976	Color deviation from Black Body Curve
x   y	u   v	$\Delta uv$
0,427   0,404	0,244   0,347	0,0014

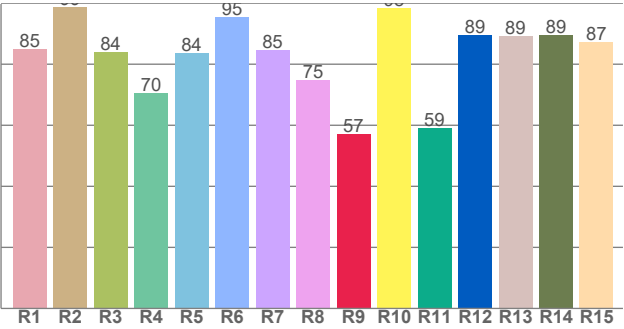
CIE1931



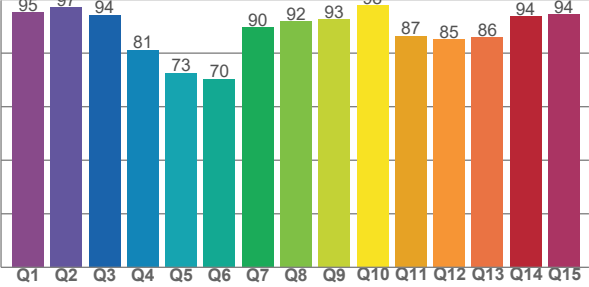
CIE1931 – Zoom



CRI: 84,6 (R1-R15)



CQS: 85,7



TM-30 DETAILS

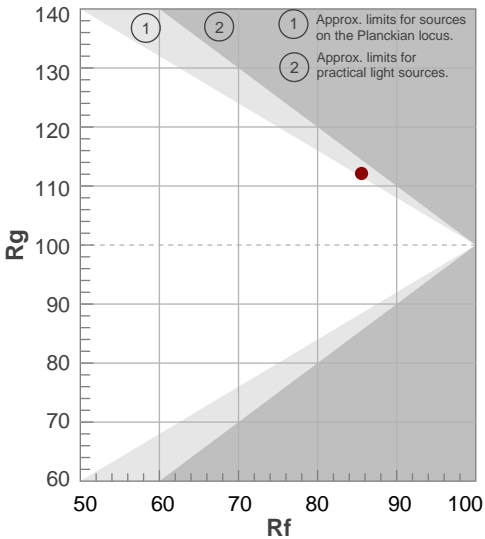
		Shifts (%)	
Hue Bin	Rf	Chroma	Hue
1	85	5%	-5%
2	88	4%	-3%
3	89	3%	-1%
4	89	4%	3%
5	85	10%	6%
6	78	14%	6%
7	75	15%	-5%
8	75	14%	-9%
9	80	5%	-13%
10	78	-2%	-13%
11	90	-3%	-3%
12	92	2%	-1%
13	92	5%	0%
14	91	5%	4%
15	88	8%	0%
16	88	9%	-3%

**Rf 85,6**

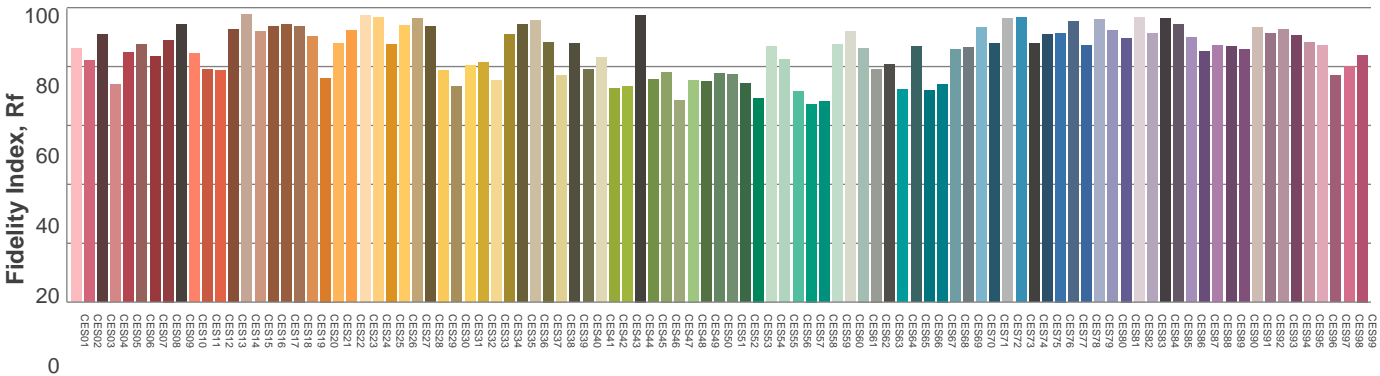
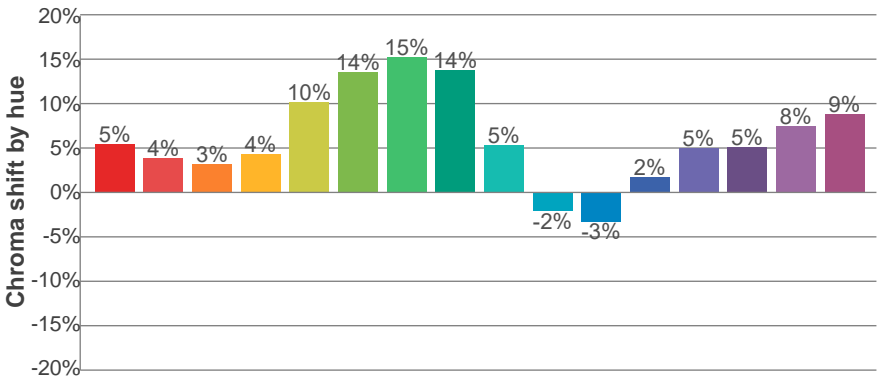
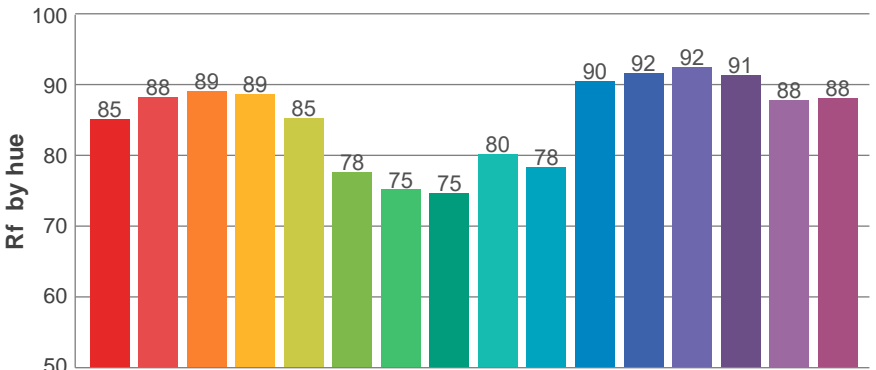
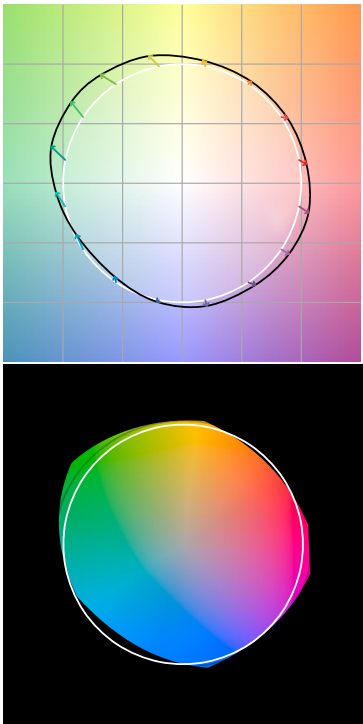
Fidelity index Rf

**Rg 112,1**

Gamut index Rg



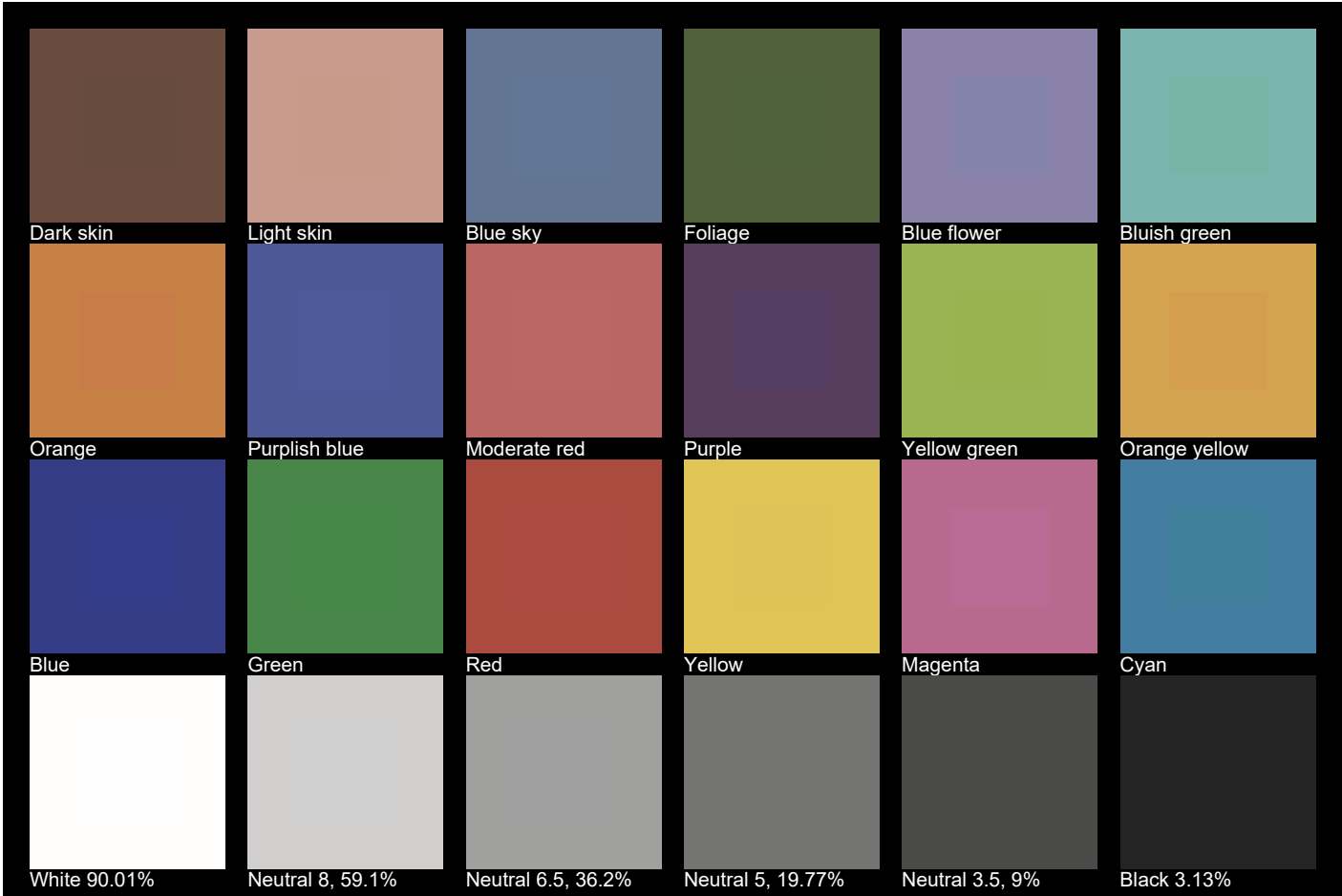
Color vector graphics





TLCI 56

Television Lighting  
Consistency Index



# CCT: 4000K

## OVERVIEW

Notes:  
Zoom: 50%, DMX mode: TOUR, PWM:  
1200Hz, Fan: Live

Total lumen output (goniometer)	Peak candela	Efficiency	Power factor
3293 lm	10431 cd	31 lm/W	0,75

### Tested color

CIE 1931  
Coordinates:  
X: 0,387 Y: 0,384

### Light quality

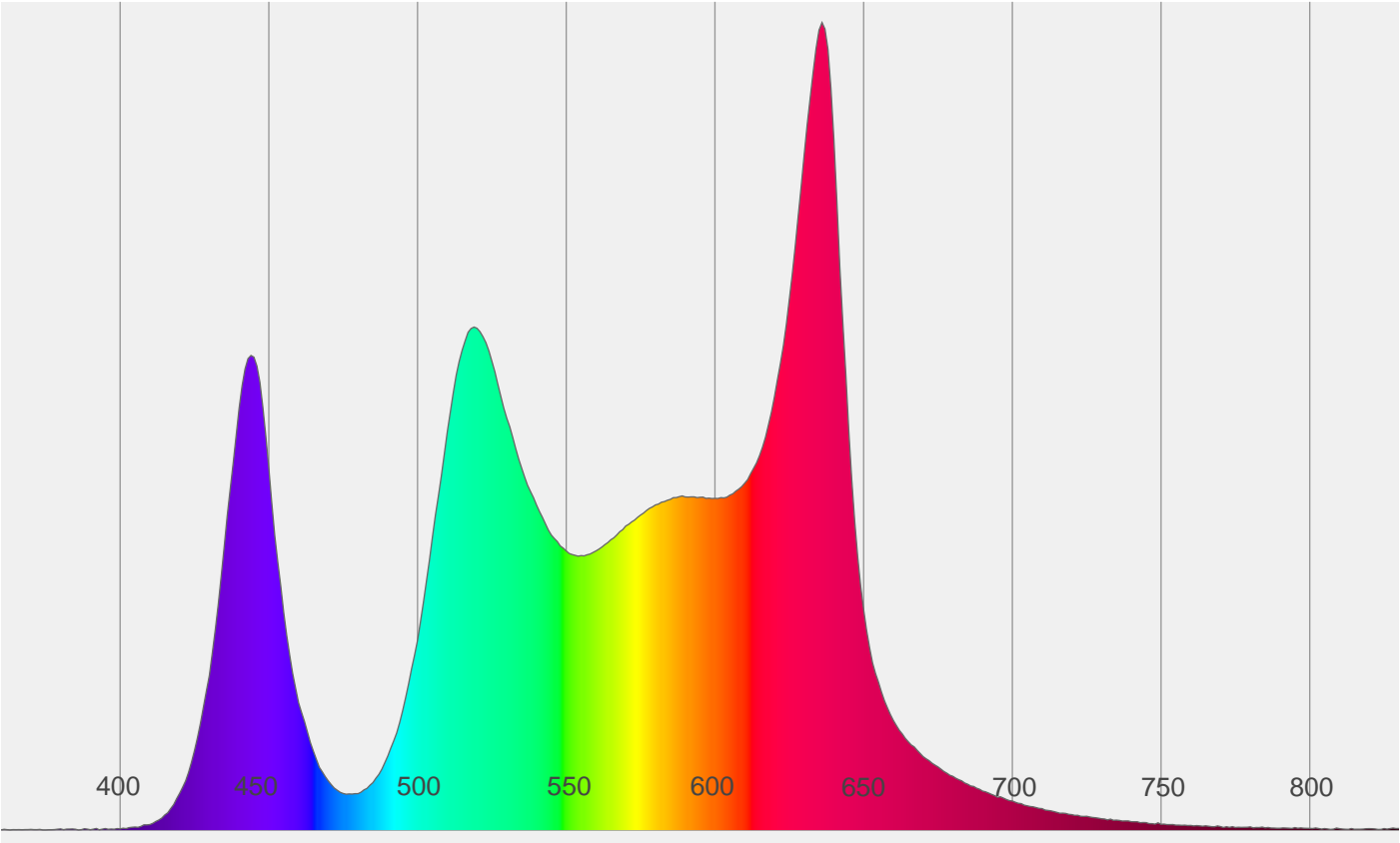
CRI: 86,3

### Color temperature

3887 K

CCT	3887 K
Duv	0,0014
CRI	86,3
CRI R9	70,9
CQS	88,7
TLCI	58
TM-30-18 Rf	86,3
TM-30-18 Rg	111,5

### Spectrum



CHROMATICITY

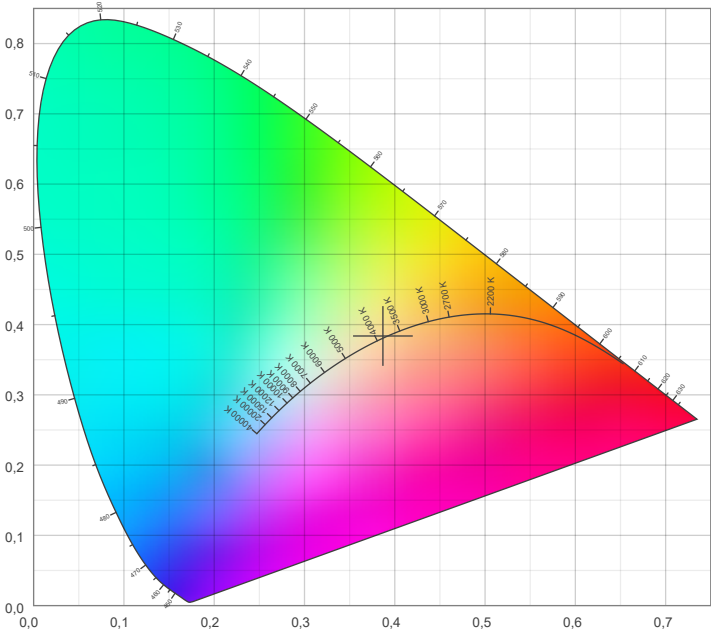
Color paramters

Color temperature	Color rendering index	Red component
CCT	CRI	CRI – R9
3887 K	86,3	70,9

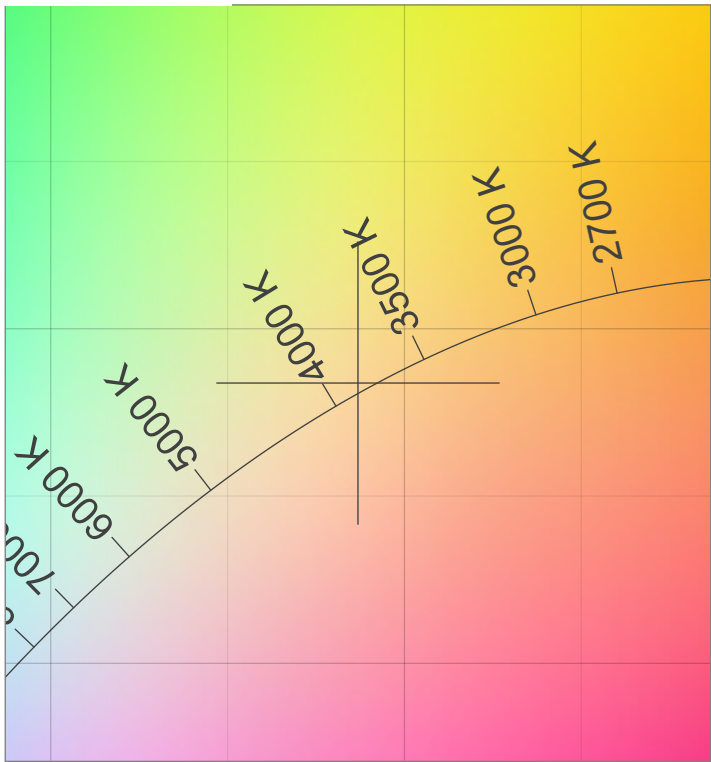
Color fidelity	Color gammut	Television lighting consistency index
TM-30-18 - Rf	TM-30-18 - Rg	TLCI
86,3	111,5	58

Color coordinate CIE 1931	Color coordinate CIE 1976	Color deviation from Black Body Curve
x   y	u   v	$\Delta uv$
0,387   0,384	0,227   0,337	0,0014

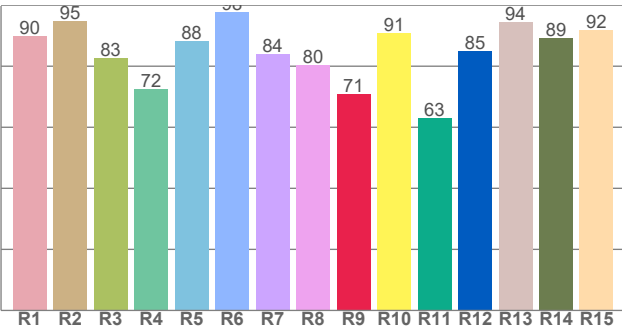
CIE1931



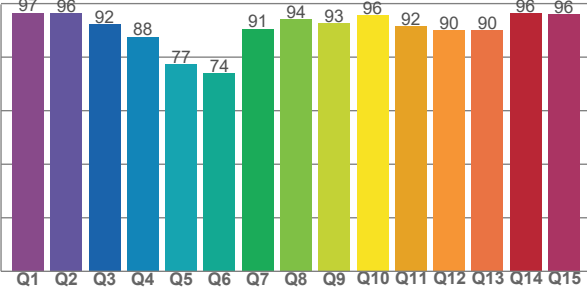
CIE1931 – Zoom



CRI: 86,3 (R1-R15)



CQS: 88,7



TM-30 DETAILS

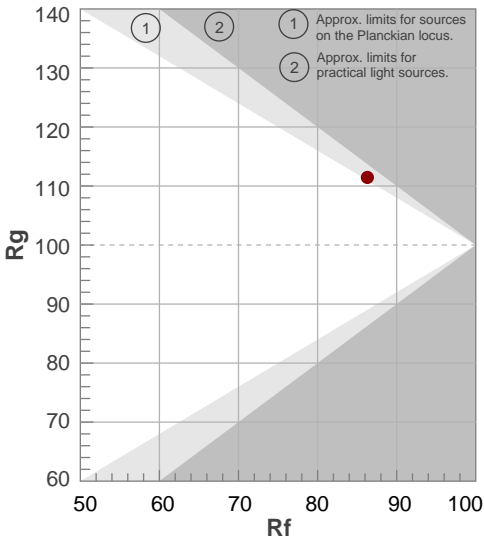
		Shifts (%)	
Hue Bin	Rf	Chroma	Hue
1	88	4%	-4%
2	90	3%	-3%
3	91	2%	2%
4	89	4%	4%
5	84	9%	7%
6	78	14%	5%
7	77	15%	-3%
8	81	9%	-8%
9	83	3%	-12%
10	84	-4%	-9%
11	91	-2%	2%
12	89	3%	5%
13	90	6%	4%
14	90	8%	5%
15	88	8%	1%
16	85	9%	-5%

**Rf 86,3**

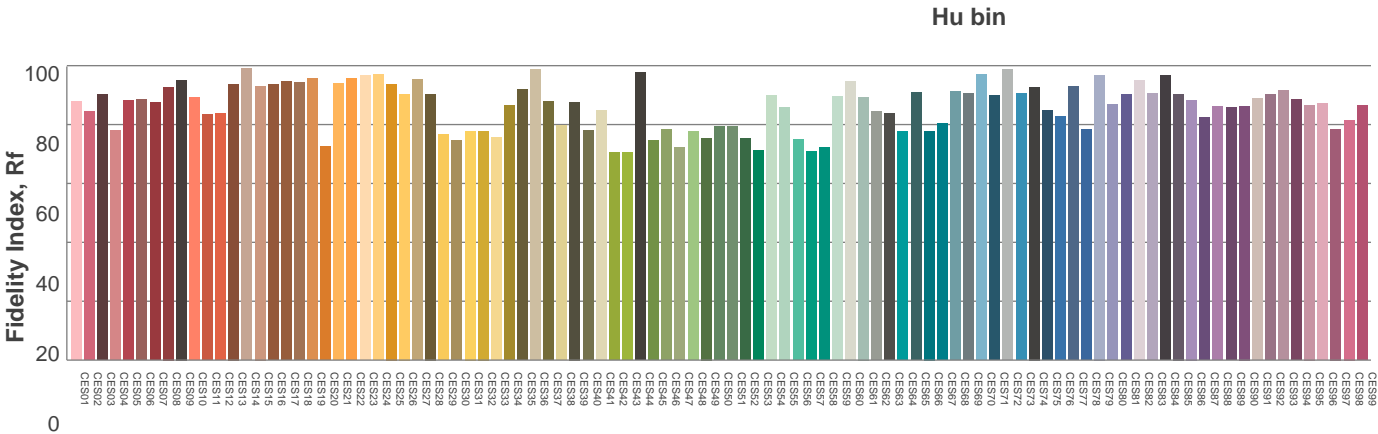
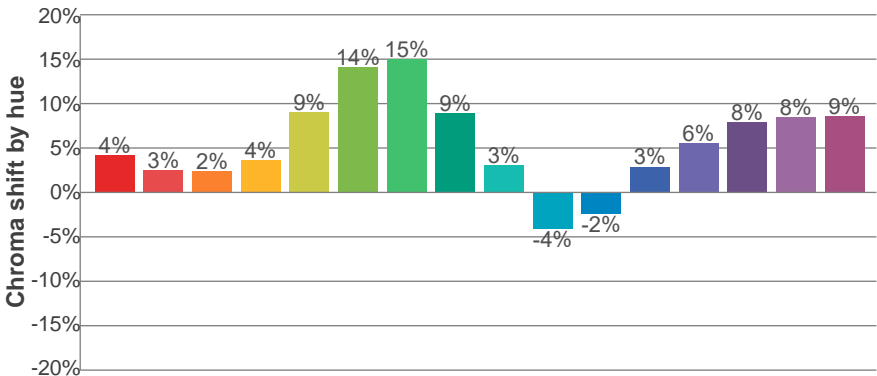
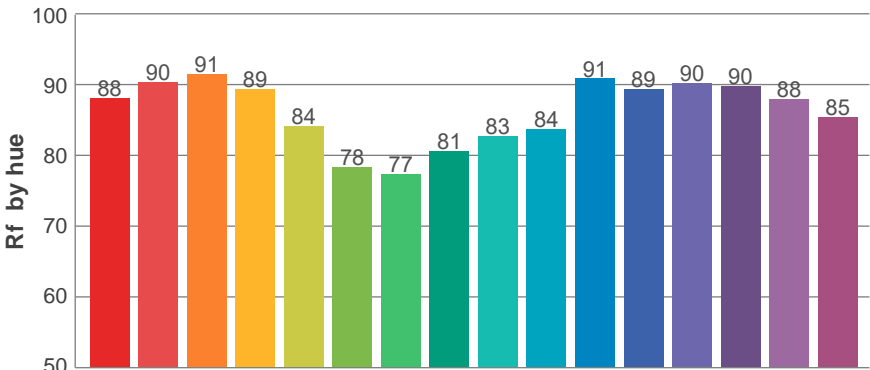
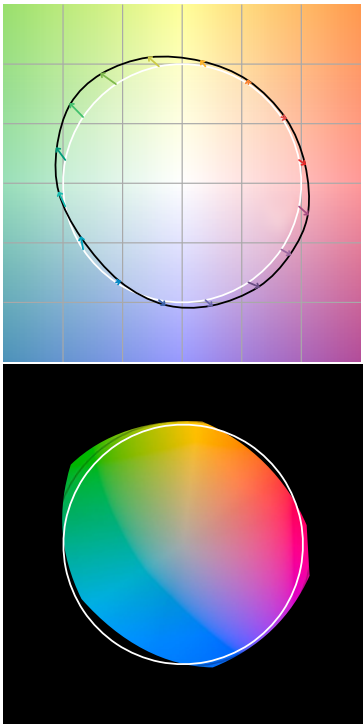
Fidelity index Rf

**Rg 111,5**

Gamut index Rg

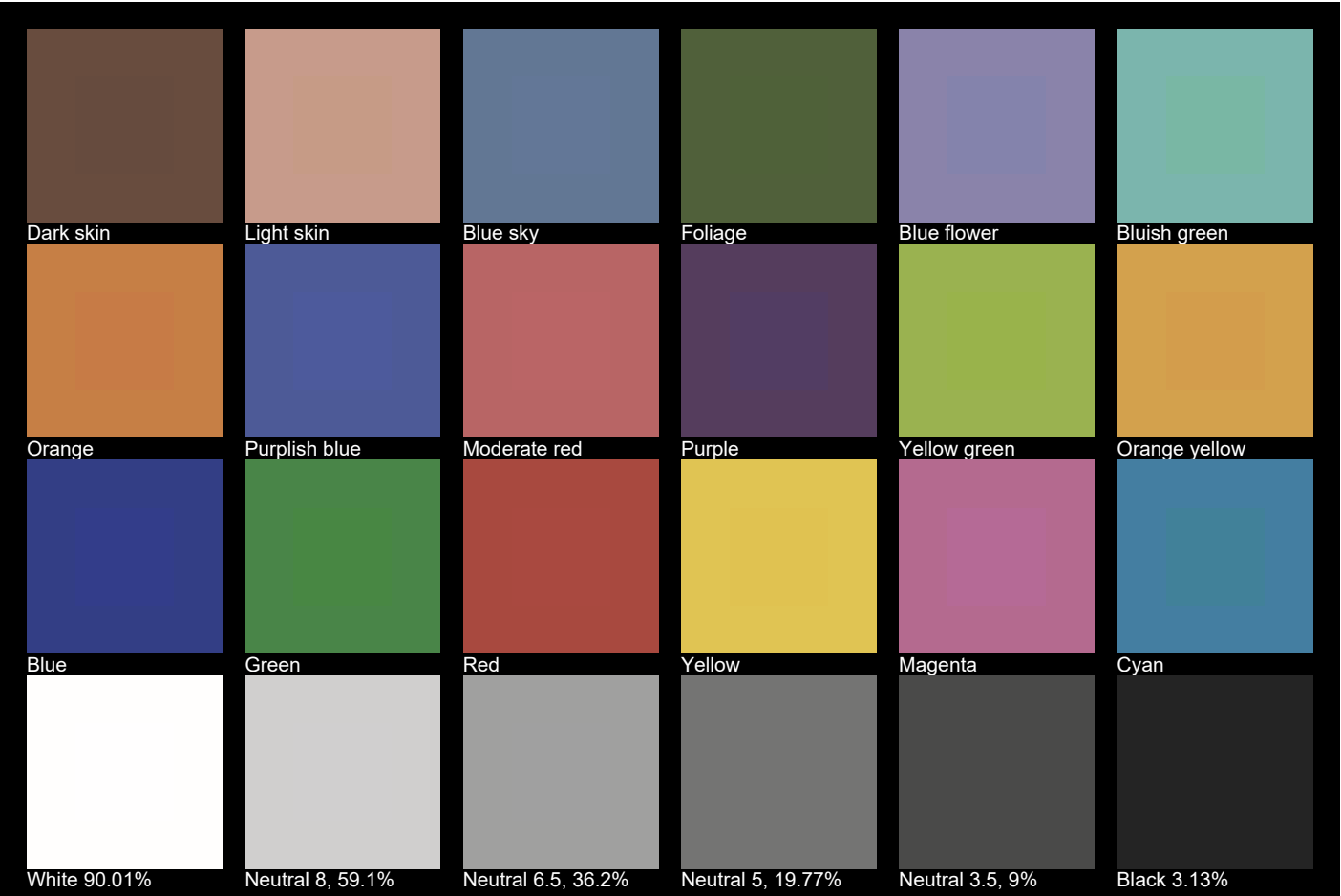


Color vector graphics



TLCI 58

Television Lighting  
Consistency Index



# CCT: 5600K

## OVERVIEW

Notes:  
Zoom: 50%, DMX mode: TOUR, PWM:  
1200Hz, Fan: Live

Total lumen output (goniometer)	Peak candela	Efficiency	Power factor
2870 lm	9091 cd	30 lm/W	0,72

### Tested color

CIE 1931  
Coordinates:  
X: 0,338 Y: 0,347

### Light quality

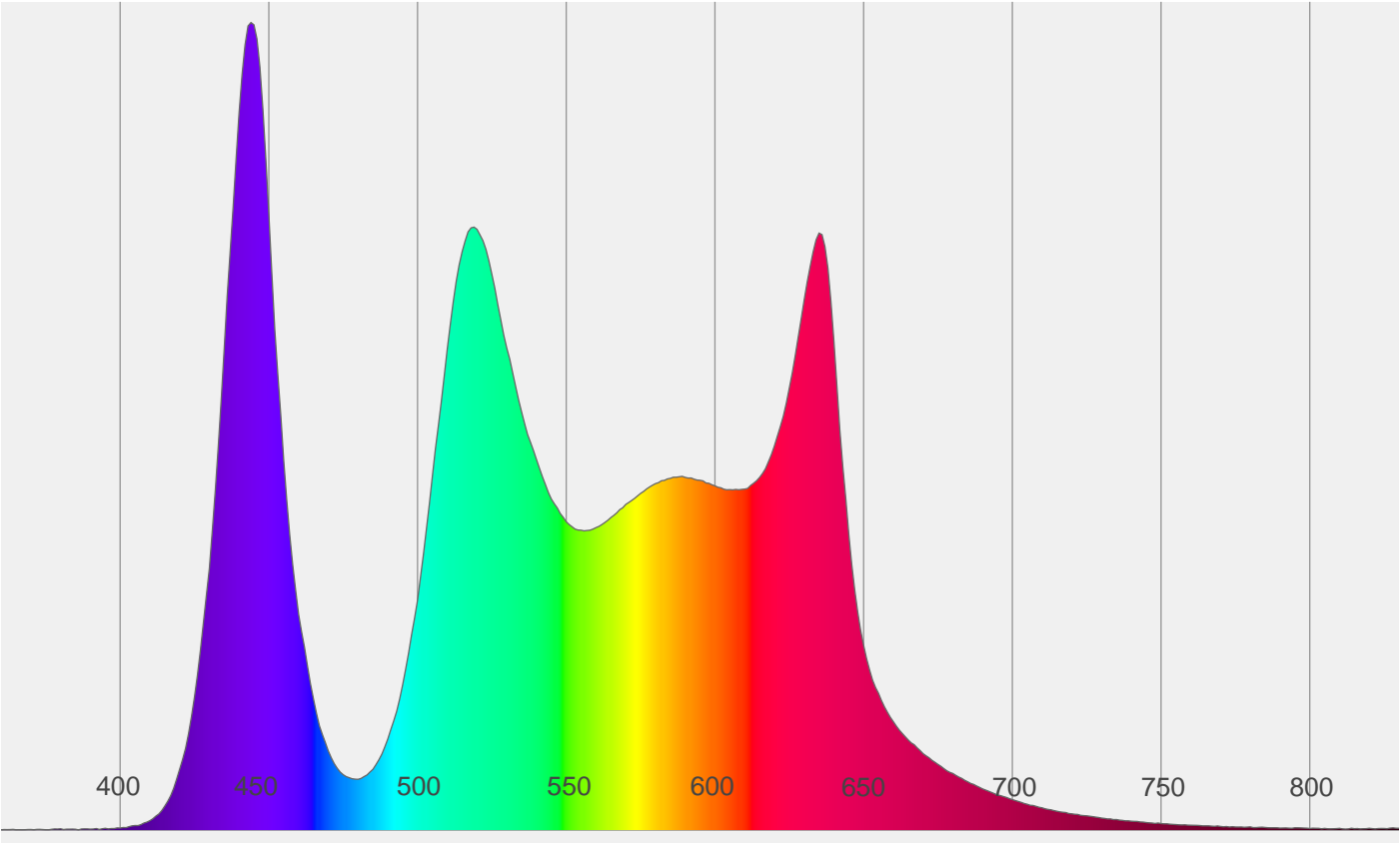
CRI: 85,6

### Color temperature

5291 K

CCT	5291 K
Duv	0,0006
CRI	85,6
CRI R9	94,5
CQS	88,8
TLCI	63
TM-30-18 Rf	83,7
TM-30-18 Rg	111,3

### Spectrum



CHROMATICITY

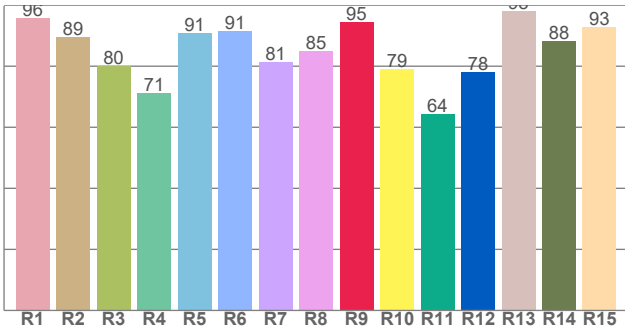
Color paramters

Color temperature	Color rendering index	Red component
CCT	CRI	CRI – R9
5291 K	85,6	94,5

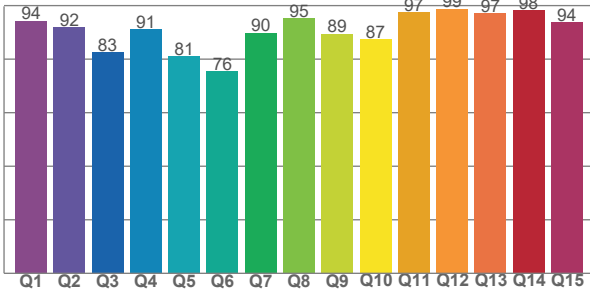
Color fidelity	Color gammut	Television lighting consistency index
TM-30-18 - Rf	TM-30-18 - Rg	TLCI
83,7	111,3	63

Color coordinate CIE 1931	Color coordinate CIE 1976	Color deviation from Black Body Curve
x   y	u   v	$\Delta uv$
0,338   0,347	0,208   0,321	0,0006

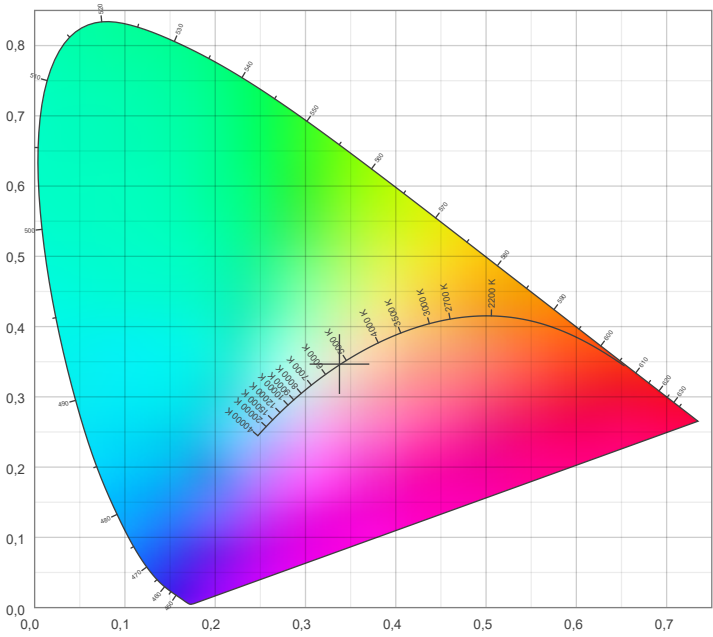
CRI: 85,6 (R1-R15)



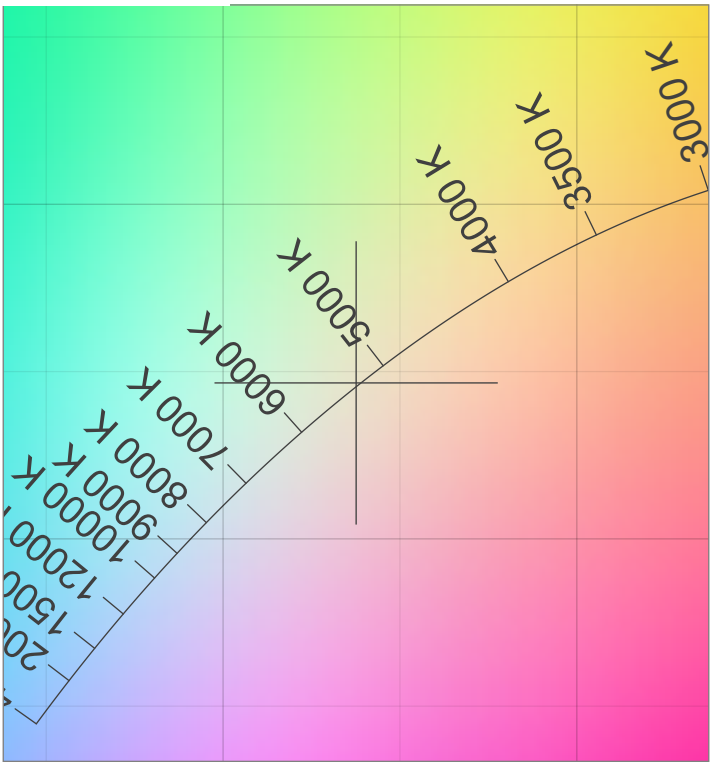
CQS: 88,8



CIE1931



CIE1931 – Zoom



TM-30 DETAILS

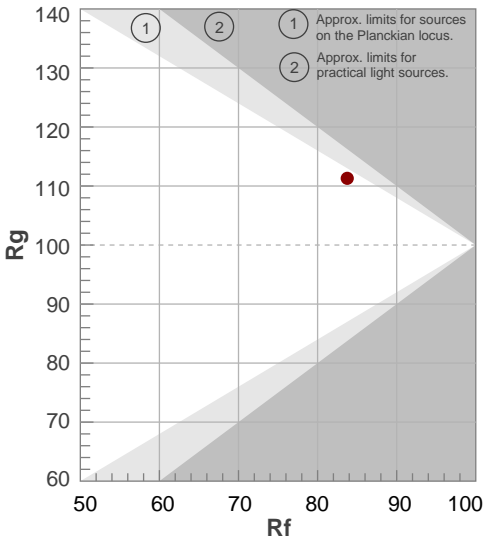
		Shifts (%)	
Hue Bin	Rf	Chroma	Hue
1	90	2%	-5%
2	94	0%	1%
3	87	1%	7%
4	83	5%	10%
5	79	12%	10%
6	75	16%	6%
7	76	15%	-4%
8	79	7%	-10%
9	86	-1%	-12%
10	89	-5%	-4%
11	81	-3%	11%
12	83	2%	12%
13	87	8%	9%
14	80	11%	6%
15	87	12%	-2%
16	85	8%	-6%

**Rf 83,7**

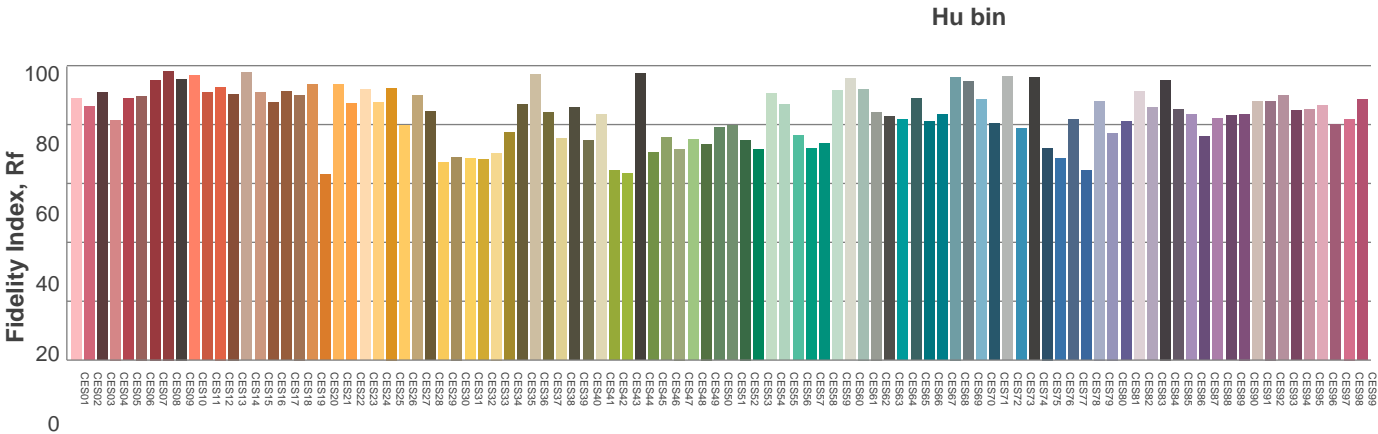
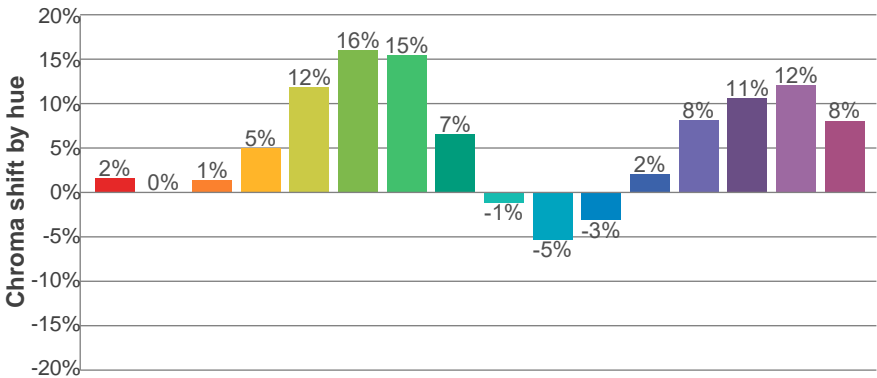
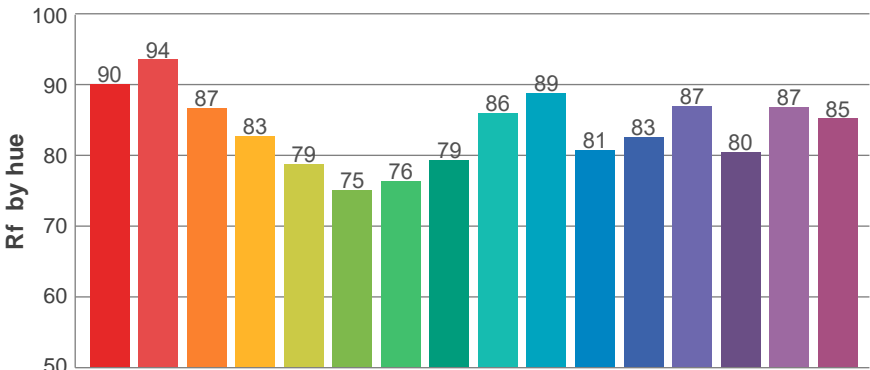
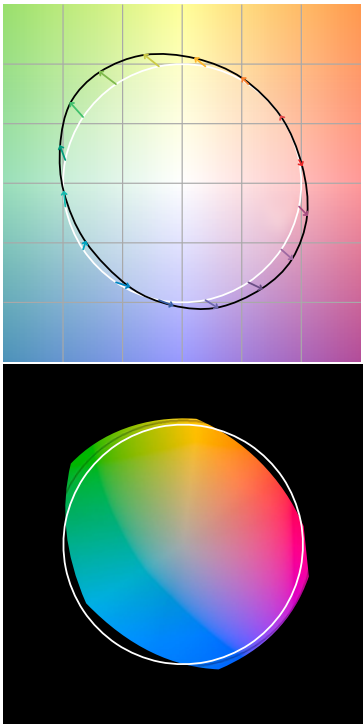
Fidelity index Rf

**Rg 111,3**

Gamut index Rg



Color vector graphics





TLCI 63

Television Lighting  
Consistency Index

