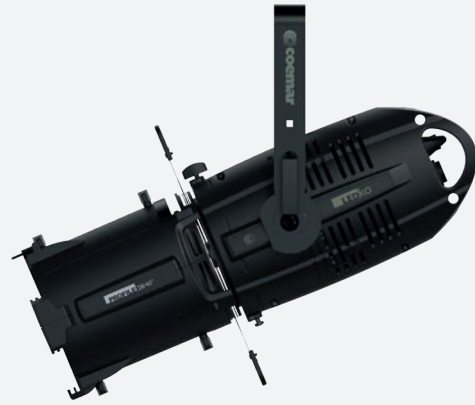


# LEDko FullSpectrum 6 HD Studio +

Product code:  
F114Q000A

Last update:  
27/10/2023



LEDko FullSpectrum 6 HD +  
with Profile Zoom 28°-40° Optic

LEDko FullSpectrum 6 HD + with 28°-40° optic

#### Introducing

● Designed with HD electronic and a new OLED display, this spot profile projector is the evolution of the FS6 HD. The HD + electronic with advanced LED controller enables a smooth dimming and it offers a higher luminous efficiency, with a color rendering index of the white range greater than 95. Very quick setup of the functions thanks to the potentiometer knob

#### Key Features

- Red, Green, Blue, Cyan, Lime, Amber light source, 20 bit color mixing
- Color mixing with hue and saturation control
- Green-Magenta adjustment
- High CRI > 95
- CCT from 2.700 K to 10.000 K (through DMX Chart) or up to 20.000 K (through Display)
- High lumen flux and flat field
- Swappable lens tubes between 5°-90°
- Soft profiling thanks to Fresnel and PC optics (Coemar patent)
- Four blade framing system, each shutter blade is adjustable for radial position and angle
- Flame-retardant technopolymer reinforced with fiberglass
- Custom color on request (optional)
- Manual (standard) or Pole Operated Pan-Tilt (optional)

## General

● LED Source	RGBCLA COB LED (Red, Green, Blue, Cyan, Lime, Amber) - Color mixing with hue and saturation control
● CCT Range	●●●●● 2.700 K → 20.000 K
● Color Rendition Average	CRI > 95, TLCI > 95
● Green-Magenta adjustment	Continuously adjustable from full minus-green to full plus-green
● Dimming	8 or 16 bit, 5 selectable curves: Exponential, Logarithmic, Linear, Halo and Standard
● Dimming Smooth Selection	Fast, Slow and Very Slow
● Strobe	Electronic strobe, synchronized, random, pulse effect
● Available Optics	Swappable lens tubes between 5°-90°
● Camera flicker control/Hz range	Yes: 20.000 Hz
● Calibrated Cob	Yes
● L80 Rating (hours to 80% output)	50.000 Hours
● Pattern projection	Yes
● Pattern size	A or B

## Electrical

● Voltage Input	80-264 V, 50-60 Hz, Auto-sensing
● Power Consumption	220 W Maximum - 1.06 A at 230 V, 2.13 A at 115 V - cosφ: 0.9
● Power Connection	In and Out PowerCON TRUE1 Top connectors, 1.5 m (4.9 ft) PowerCon cable without power plug
● Data Connection	In and Out DMX 5 pin locking XLR connectors

## Thermal

● Ambient Operating Temperature	0°C - +40°C (32°F - 104°F)
● Fan (controllable)	Yes, 4 different settings: Silent, Studio, Auto, DMX regulated

## Control

● Protocols	DMX-512, RDM (Remote Device Management), Wireless (optional by LumenRadio)
● RDM configuration	Yes
● DMX Channels	16 / 7 / 1 / Studio / RGB / Fine RGB / Sunrise Mode
● Display	Graphic OLED with on-board selector for quick setting
● Software upload	Through DMX input (With RDM interface code AC10011A001)

## Physical

● Yoke	Manual (standard) or Pole Operated Pan-Tilt (optional)
● Materials	Flame-retardant technopolymer reinforced with fiberglass
● Framing System	Four stainless steel shutter blades in a two-plane assembly, 0.40mm (AISI 316)
● Weight	Body: 6 Kg/13.2 lbs - With 28°-40° Optic: 8.5 Kg/18.7 lbs
● Weight with Front Barrel	7.2 Kg/ 15.9 lbs
● Length	Body: 362 mm/14.2 in - With 28°-40° Optic: 601 mm/14.2 in
● Height	189 mm/7.4 in - With bracket: 372 mm/14.6 in
● Width	355 mm / 13.97 in
● IP Rating	IP20 (available IP65 LEDko Ext Series)
● Color options	Black (standard), custom color on request (optional)

## Included accessories

GKIT17 (USA) / GKIT16 (EU)	1.5 m power cable with PowerCON TRUE1 Top and bare ends
BC10011A106	Metal Gobo Holder

Optics

BC10011A017	Profile Zoom 15°-35°
BC10011A019	Profile Zoom 25°-50°
BC10011A003	Profile Zoom 28°-40°
BC10011A002	Soft Profile Fresnel Zoom 14°-40°
BC10011A001	Soft Profile PC Zoom 11°-38°
BC10011A000	Front Barrel with Burnished Blades
BC10011A041	Lens Tube Profile 5°
BC10011A042	Lens Tube Profile 10°
BC10011A023	Lens Tube Profile 14°
BC10011A012	Lens Tube Profile 19°
BC10011A013	Lens Tube Profile 26°
BC10011A015	Lens Tube Profile 36°
BC10011A016	Lens Tube Profile 50°
BC10011A024	Lens Tube Profile 70°
BC10011A025	Lens Tube Profile 90°

General accessories

BC10034A003	4-Leaf Barndoor for Zoom Fresnel optic
BC10011A006	Magnetic Gobo Holder
BC10011A030	Gobo Holder for Glass Gobo
BC10011A010	Iris
BC10011A049	Gobo Holder for Iris Slot
BC10011A047	Hook Clamp, 48-51 mm (Max Load 20 Kg)
BC10011A045	Light Clamp Silver, 48-51 mm (Max 75 Kg)
BC10011A046	Light Clamp Black, 48-51 mm (Max 75 Kg)
BC10011A043	Clamp Silver Flat 13-30 mm/ø15-50 mm (Max 20 Kg)
BC10011A044	Clamp Black Flat 13-30 mm/ø15-50 mm (Max 20 Kg)
BC10011A100	Wireless Kit (LumenRadio)
BC10011A150	Pole Operated Yoke

Accessories for Profile Zoom 15°-35° and 25°-50°

BC10011A028	Donut (190.5 mm)
BC10011A027	Half Top Hat (190.5 mm)
BC10011A029	Top Hat (190.5 mm)
BC10011A040	Color Frame Holder (190.5 mm)

Accessories for Soft Profile Zoom (Fresnel, PC) and Profile Zoom 28°-40°

BC10011A036	Donut (185 mm)
BC10011A035	Half Top Hat (185 mm)
BC10011A037	Top Hat (185 mm)
ACO4204	Color Frame Holder (185 mm)

Accessories for Lens Tube

BC10011A032	Donut (159 mm)
BC10011A031	Half Top Hat (159 mm)
BC10011A033	Top Hat (159 mm)
BC10011A021	Color Frame Holder (159 mm)



LEDko FullSpectrum 6 HD + Rear Panel  
with the new OLED Display



LEDko FullSpectrum 6 HD+ with  
Pole Operated Yoke

LEDko FullSpectrum 6 HD + Pole Operated Yoke/Rear Panel

DMX Charts

**16 Channels**

- 01 → Master Dimmer
- 02 → Red
- 03 → Green
- 04 → Blue
- 05 → Cyan
- 06 → Lime
- 07 → Amber
- 08 → Strobe Effect
- 09 → Dimmer Fine
- 10 → Special Functions
- 11 → Red Tone
- 12 → Green Tone
- 13 → Blue Tone
- 14 → White Tone
- 15 → Green Saturation
- 16 → Saturation

**7 Channels**

- 01 → Master Dimmer
- 02 → Red
- 03 → Green
- 04 → Blue
- 05 → Cyan
- 06 → Lime
- 07 → Amber

**Studio Mode**

- 01 → Master Dimmer
- 02 → White Tone
- 03 → Green Saturation
- 04 → Saturation
- 05 → Hue
- 06 → Dimmer Fine
- 07 → Special Functions

**1 Channel**

- 01 → Master Dimmer - Color  
Temperature Settable by Display

**RGB Mode**

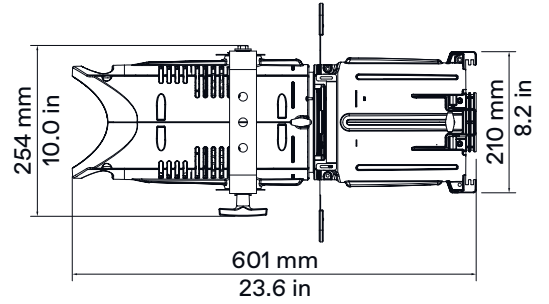
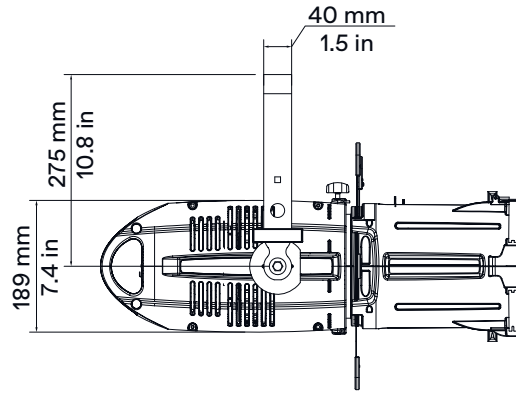
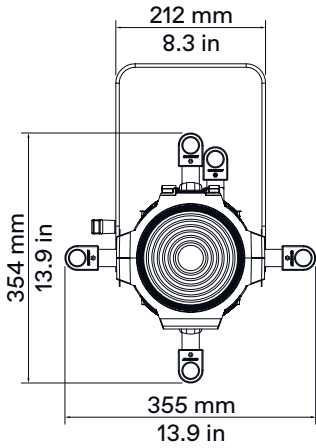
- 01 → Master Dimmer
- 02 → Dimmer Fine
- 03 → Red
- 04 → Green
- 05 → Blue
- 06 → White Tone
- 07 → Saturation
- 08 → Strobe Effect
- 09 → Special Functions

**Fine RGB Mode**

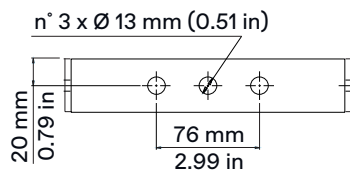
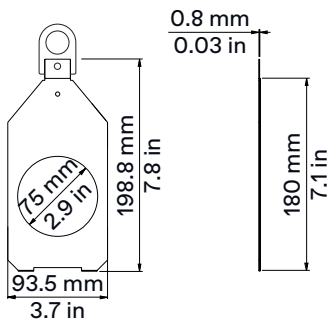
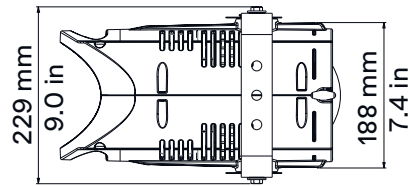
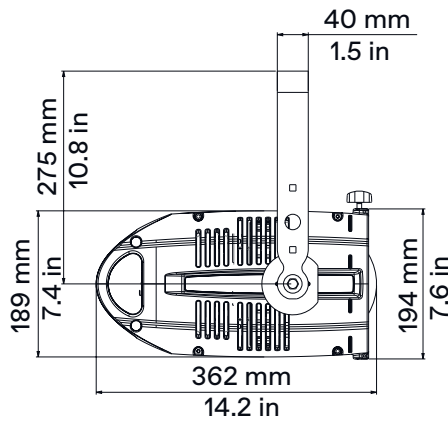
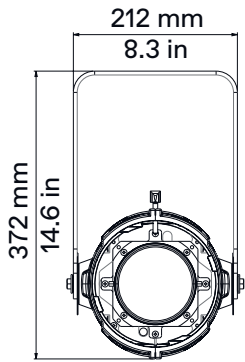
- 01 → Master Dimmer
- 02 → Dimmer Fine
- 03 → Red
- 04 → Red Fine
- 05 → Green
- 06 → Green Fine
- 07 → Blue
- 08 → Blue Fine
- 09 → White Tone
- 10 → Saturation
- 11 → Strobe
- 12 → Special Functions

**Sunrise Mode**

- 01 → Master Dimmer
- 02 → Dimmer Fine
- 03 → Proportional CCT
- 04 → Step CCT
- 05 → Green Saturation
- 06 → Special Functions



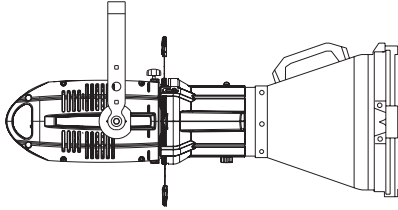
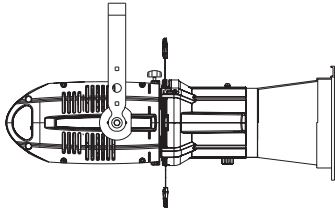
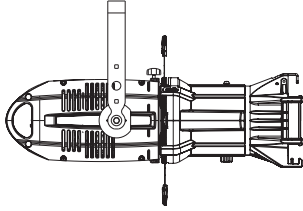
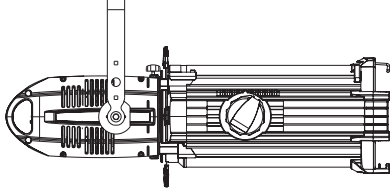
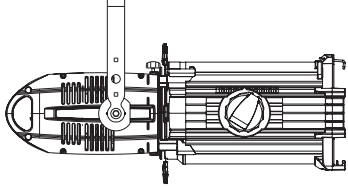
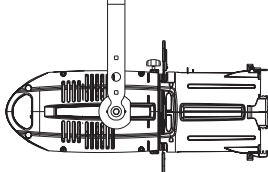
\* with Profile Zoom 28°/40° optic



\*Standard gobo holder

\*Yoke

LEDko Optics dimensions and weight

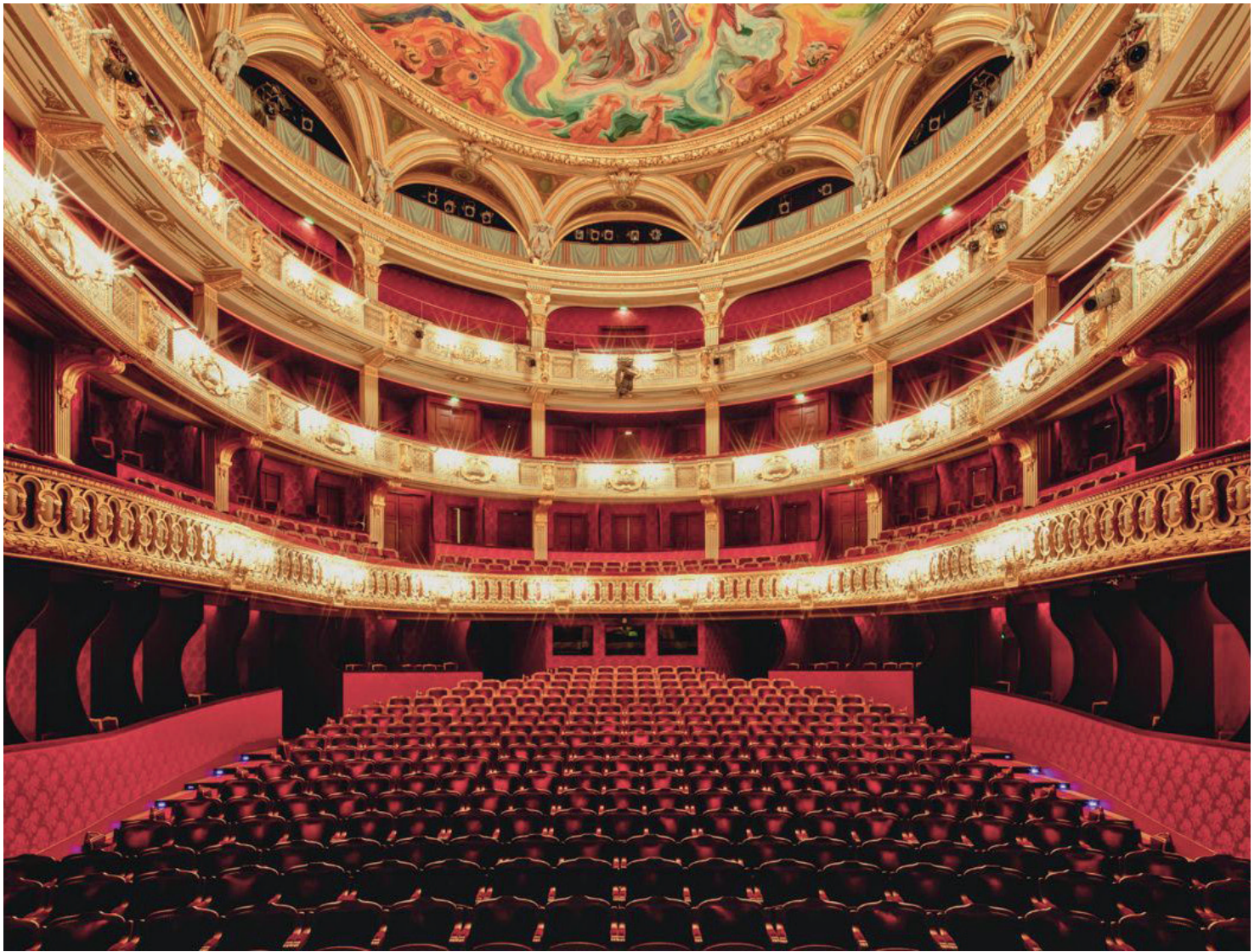
Product	Optics	Length	Weight
	Lens Tube Profile 10°	900 mm (35.4 in)	9 Kg (19.8 lbs)
	Lens Tube Profile 14°	750 mm (35.4 in)	9 Kg (19.8 lbs)
	Lens Tube Profile 70°	750 mm (35.4 in)	8.68 Kg (19.14 lbs)
	Lens Tube Profile 19°	670 mm (26.3 in)	9.15 Kg (20.17 lbs)
	Lens Tube Profile 26°	670 mm (26.3 in)	9.05 Kg (19.95 lbs)
	Lens Tube Profile 36°	670 mm (26.3 in)	9.35 Kg (20.60 lbs)
	Lens Tube Profile 50°	670 mm (26.3 in)	9.05 Kg (19.95 lbs)
	Profile Zoom 15°-35°	886 mm (34.9 in)	13.05 Kg (28.77 lbs)
	Profile Zoom 25°-50°	783 mm (30.8 in)	11.2 Kg (24.69 lbs)
	Profile Zoom 28°-40°	601 mm (23.7 in)	8.3 Kg (18.3 lbs)
	Soft Profile Fresnel Zoom 14°-40°	601 mm (23.7 in)	7.75 Kg (17.09 lbs)
	Soft Profile PC Zoom 11°-38°	601 mm (23.7 in)	8.25 Kg (18.19 lbs)



Musical - Pretty Woman, National Theatre Milan, Italy

Product	LEDko FS 6 HD
CCT	RGBCLA
CRI	>95
Light Designer	Francesco Vignati
Installation	Audiolux Srl





Theatre - The Odéon-Théâtre de l'Europe, France

Product	LEDko FS 6 HD
CCT	RGBCLA
CRI	>95
Light Designers	Baron Xavier & Jauféré Thumerel



Concert - Camp Wildfire Festival, UK

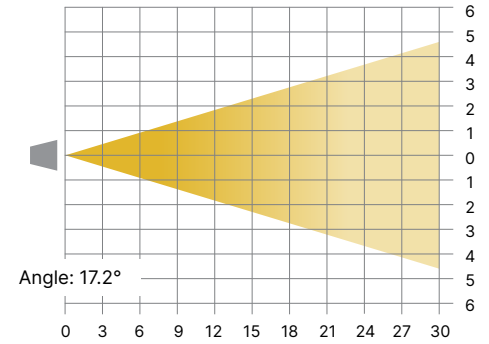
Product	LEDko FS 6 HD
CCT	RGBCLA
CRI	>95
Light Designer	Jack Gunesh
Rental	STLS

**LEDko FS6 HD Studio +**

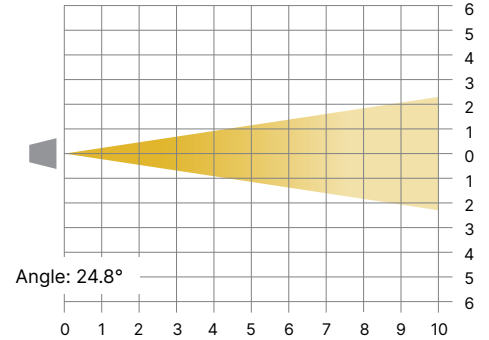
Measurements taken with fan in AUTO mode

Optic: **Lens Tube Profile 19°**

Distance (m)		3	6	9	12	15	18	21	24	27	30
lux	<b>RED</b>	992	248	110	62	40	28	20	15	12	10
	<b>GREEN</b>	2714	678	302	170	109	75	55	42	34	27
	<b>BLUE</b>	711	178	79	44	28	20	15	11	9	7
	<b>CYAN</b>	1728	432	192	108	69	48	35	27	21	17
	<b>LIME</b>	8781	2195	976	549	351	244	179	137	108	88
	<b>AMBER</b>	5392	1348	599	337	216	150	110	84	67	54
	<b>3.200 K</b>	13981	3495	1553	874	559	388	285	218	173	140
	<b>5.600 K</b>	15956	3989	1773	997	638	443	326	249	197	160
<b>Diameter Ø (m)</b>		0.91	1.81	2.72	3.63	4.54	5.44	6.35	7.26	8.17	9.07

Optic: **Lens Tube Profile 26°**

Distance (m)		1	2	3	4	5	6	7	8	9	10
lux	<b>RED</b>	4800	1200	533	300	192	133	89	75	59	48
	<b>GREEN</b>	12850	3213	1428	803	514	357	262	201	159	129
	<b>BLUE</b>	3400	850	378	213	136	94	69	53	42	34
	<b>CYAN</b>	8225	2056	914	514	329	228	168	129	102	82
	<b>LIME</b>	41850	10463	4650	2616	1674	1163	854	654	517	419
	<b>AMBER</b>	25800	6450	2867	1613	1032	717	527	403	319	258
	<b>3.200 K</b>	66225	16556	7358	4139	2649	1840	1352	1035	818	662
	<b>5.600 K</b>	75125	18781	8347	4695	3005	2087	1533	1174	927	751
<b>Diameter Ø (m)</b>		0.44	0.88	1.32	1.76	2.20	2.64	3.08	3.52	3.96	4.40

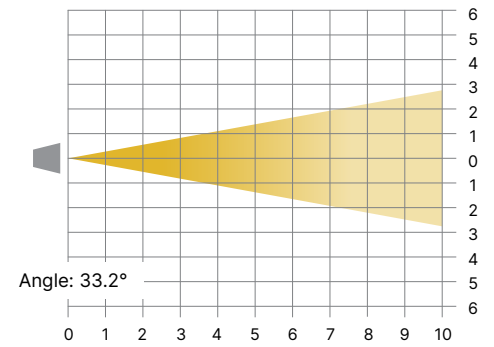


**LEDko FS6 HD Studio +**

Measurements taken with fan in AUTO mode

Optic: **Lens Tube Profile 36°**

Distance (m)		1	2	3	4	5	6	7	8	9	10
<b>lux</b>	<b>RED</b>	2400	600	267	150	96	67	49	38	30	24
	<b>GREEN</b>	6525	1631	725	408	261	181	133	102	81	65
	<b>BLUE</b>	1775	444	197	111	71	49	36	28	22	18
	<b>CYAN</b>	4225	1056	469	264	169	117	86	66	52	42
	<b>LIME</b>	21050	5263	2339	1316	842	585	430	329	260	211
	<b>AMBER</b>	12950	3238	1439	809	518	360	264	202	160	130
	<b>3.200 K</b>	33150	8288	3683	2072	1326	921	677	518	409	332
	<b>5.600 K</b>	37625	9406	4181	2352	1505	1045	768	588	465	376
<b>Diameter Ø (m)</b>		0.60	1.19	1.79	2.38	2.98	3.58	4.17	4.77	5.37	5.96



## LEDko FS6 HD Studio + with Lens Tube Profile 19° - 3.200K

### General

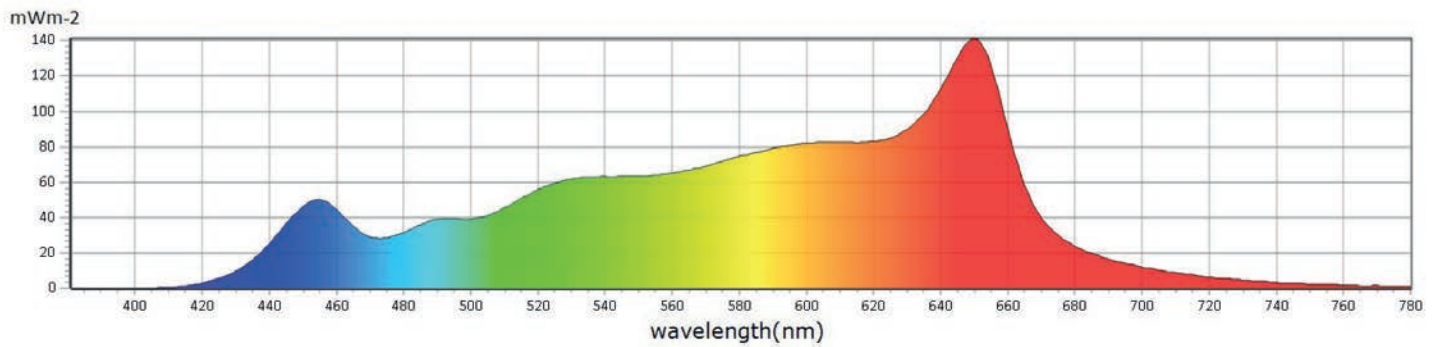
$I_{CCT}$	3231 K
$I_x$	0,4209
$I_y$	0,3972
$I_{\lambda D}$	582 mm
$I_{\lambda P}$	649 mm



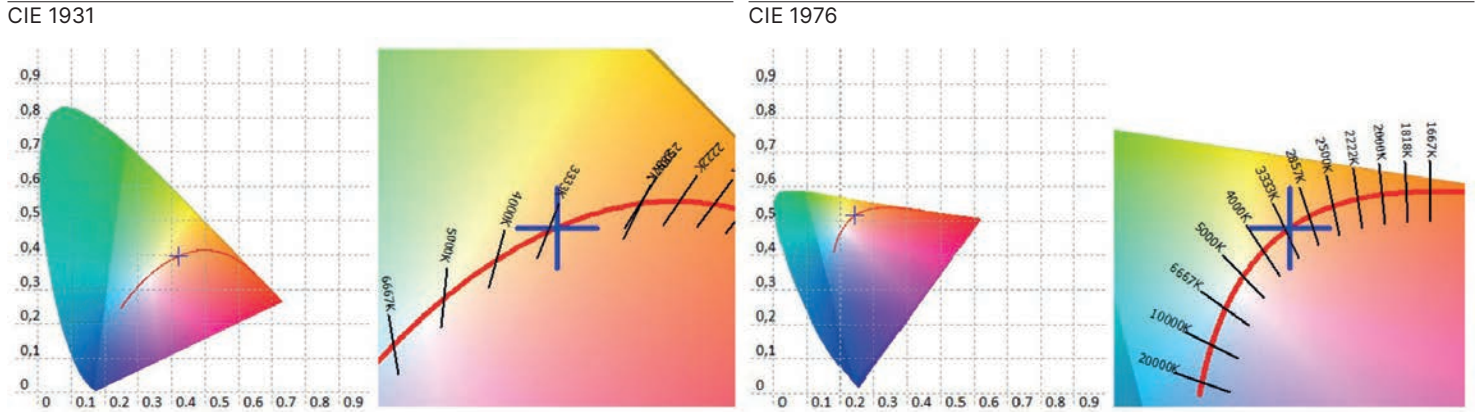
### Measurements

<b>CCT</b>	3231 K	<b>u'10</b>	0,2464	<b>Duv</b>	-0,0003	<b>GAI</b>	64,8	<b>IRR</b>	16,49	<b>R6</b>	97,9	<b>R15</b>	99,0
<b>LUX</b>	4926 lx	<b>v'10</b>	0,5166	<b>MEL</b>	3051 lx	<b>PPFD</b>	78,10 umolm <sup>2</sup> s <sup>-1</sup>	<b>CQS</b>	96,5	<b>R7</b>	99,4		
<b>I-Time</b>	200 us	<b>X</b>	5220,95	<b>LambdaPV</b>	141.4	<b>PFD</b>	80,16 umolm <sup>2</sup> s <sup>-1</sup>	<b>CRI</b>	98,7	<b>R8</b>	99,4		
<b>x</b>	0,4209	<b>Y</b>	4925,96	<b>LambdaD</b>	582 nm	<b>PFD-B</b>	9,810 umolm <sup>2</sup> s <sup>-1</sup>	<b>TLCI</b>	97,6	<b>R9</b>	98,9		
<b>y</b>	0,3972	<b>Z</b>	2255,96	<b>LambdaP</b>	649 nm	<b>PFD-G</b>	29,75 umolm <sup>2</sup> s <sup>-1</sup>	<b>R1</b>	99,6	<b>R10</b>	97,0		
<b>u'</b>	0,2432	<b>delta-x</b>	-0,0004	<b>Purity</b>	45,55%	<b>PFD-R</b>	38,55 umolm <sup>2</sup> s <sup>-1</sup>	<b>R2</b>	99,6	<b>R11</b>	96,6		
<b>v'</b>	0,5162	<b>delta-y</b>	-0,0010	<b>fc</b>	457,8	<b>PFD-UV</b>	0,0003 umolm <sup>2</sup> s <sup>-1</sup>	<b>R3</b>	95,6	<b>R12</b>	87,4		
<b>x10</b>	0,4254	<b>delta-u'</b>	0,0001	<b>Rf</b>	95,7	<b>PFD-FR</b>	2,058 umolm <sup>2</sup> s <sup>-1</sup>	<b>R4</b>	98,6	<b>R13</b>	99,7		
<b>y10</b>	0,3964	<b>delta-v'</b>	-0,0005	<b>Rg</b>	101,2	<b>S/P</b>	1,56	<b>R5</b>	99,5	<b>R14</b>	96,2		

### Spectrum



### LEDko FS6 HD Studio + with Lens Tube Profile 19° - 3.200K



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
99,6	99,6	95,6	98,6	99,5	97,9	99,4	99,4	98,9	97,0	96,6	87,4	99,7	96,2	99,0

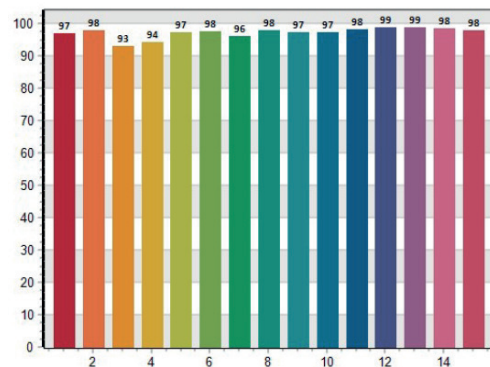
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
97,0	98,4	90,9	90,4	94,4	97,0	95,1	98,0	95,0	92,7	92,0	92,4	90,1	93,9	93,4	90,5

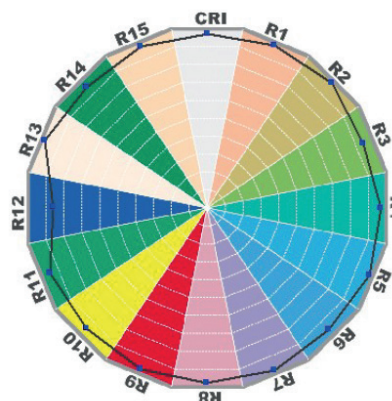
CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,8	97,8	93,0	94,1	97,3	97,5	96,0	97,8	97,2	97,1	98,0	98,6	98,7	98,3	97,7

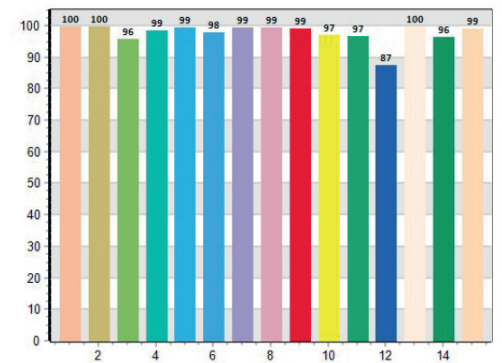
CQS: 96, 47



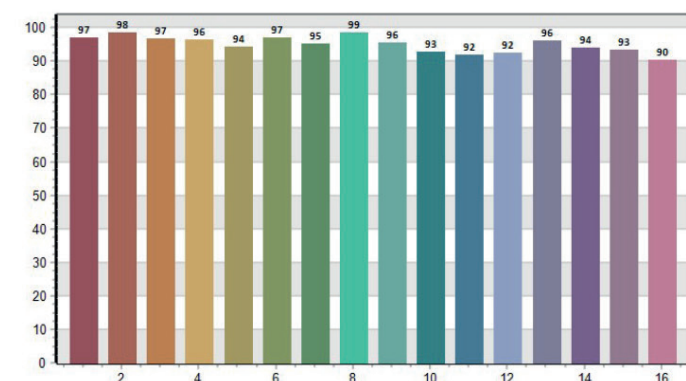
CRI-2



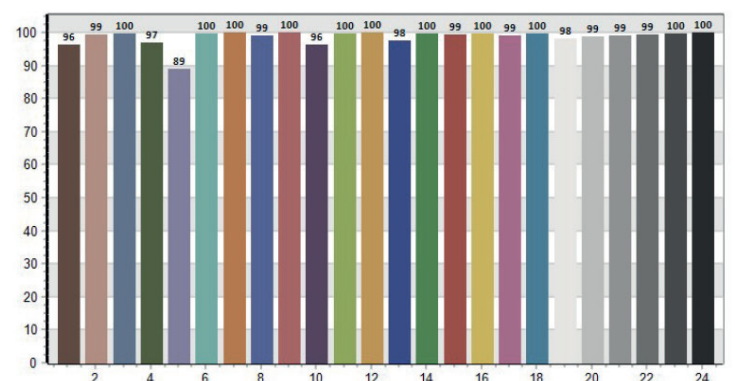
CRI: 98, 70



TM30: 95, 66

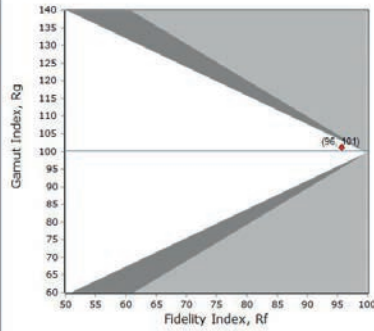
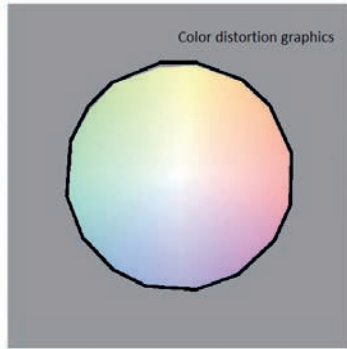
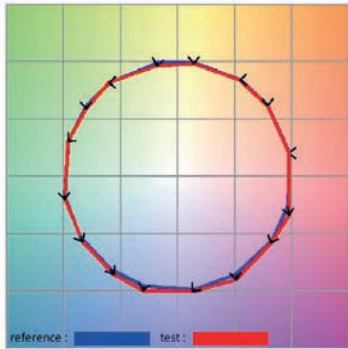


TLCI: 97, 60



## LEDko FS6 HD Studio + with Lens Tube Profile 19° - 3.200K

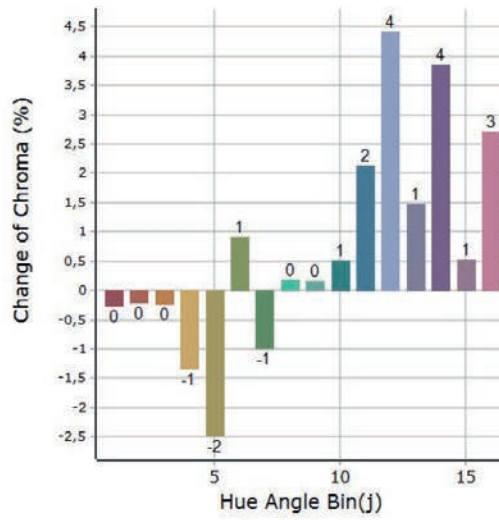
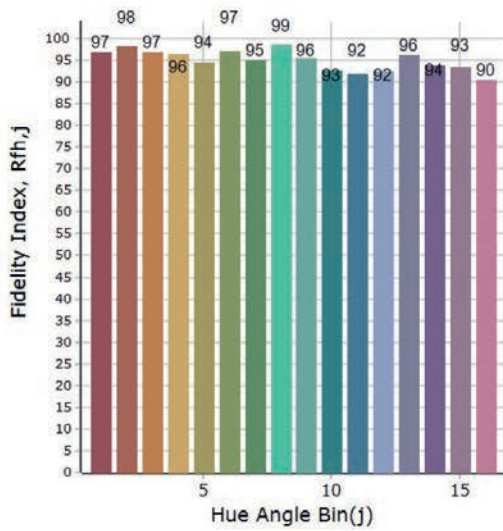
### General Color Rendition



**Rf**  
95,7  
Fidelity index Rf

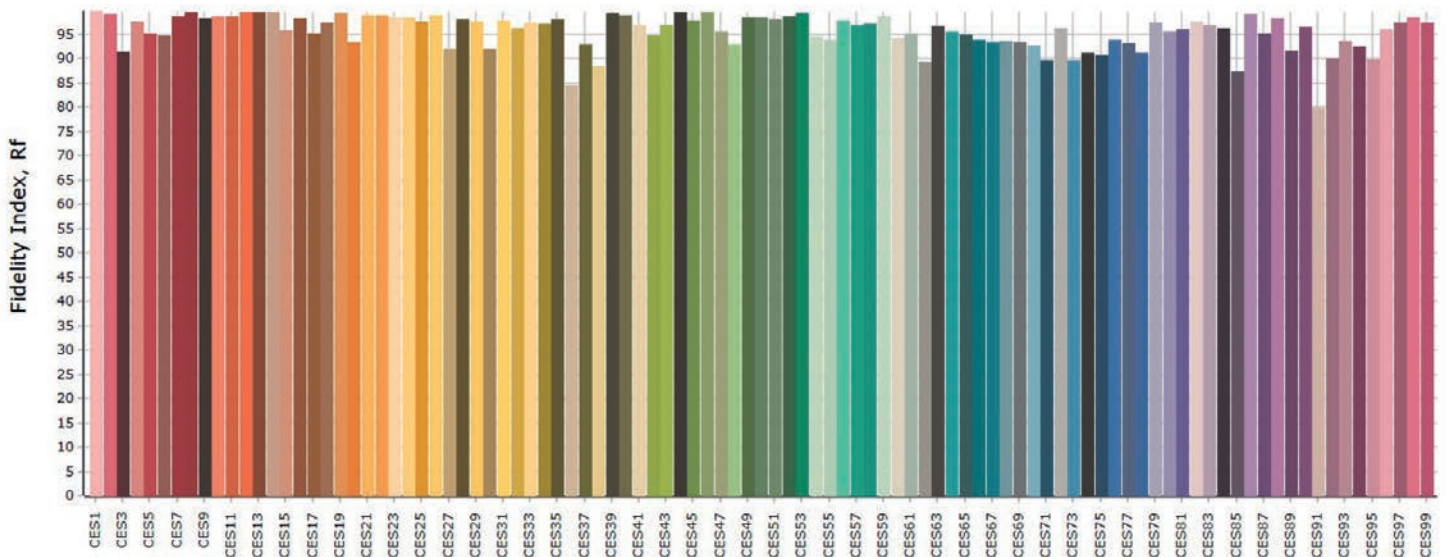
**Rg**  
101,2  
Gammut index Rg

### Color Rendition by Hue



Hue Bin	Graphic shifts (%)		
	Rf	Chroma	Hue
1	97,0	-0,3%	-0,1%
2	98,4	-0,2%	-0,2%
3	96,9	-0,2%	0,6%
4	96,4	-1,3%	-0,2%
5	94,4	-2,5%	1,0%
6	97,0	0,9%	1,0%
7	95,1	-1,0%	1,5%
8	98,6	0,2%	0,4%
9	95,6	0,2%	2,8%
10	92,7	0,5%	3,8%
11	92,0	2,1%	4,4%
12	92,4	4,4%	0,4%
13	96,1	1,5%	-1,8%
14	93,9	3,9%	-2,1%
15	93,4	0,5%	-2,1%
16	90,5	2,7%	-6,4%

### Color Fidelity by Sample



## LEDko FS6 HD Studio + with Lens Tube Profile 19° - 5.600K

### General

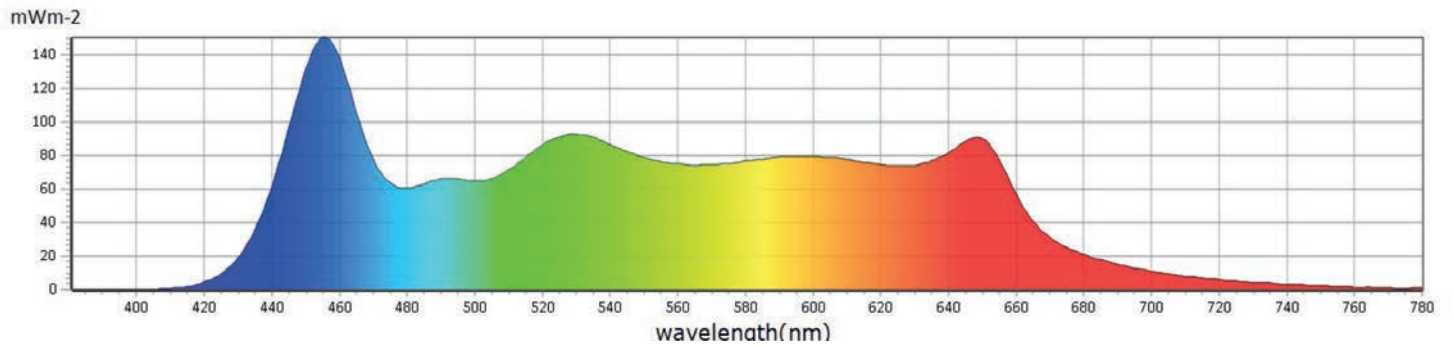
$I_{CCT}$	5675 K
$I_x$	0,3286
$I_y$	0,3370
$I_{\lambda D}$	502 mm
$I_{\lambda P}$	455 mm



### Measurements

<b>CCT</b>	5675 K	<b>u'10</b>	0,2067	<b>Duv</b>	-0,0004	<b>GAI</b>	96,3	<b>IRR</b>	19,86	<b>R6</b>	94,8	<b>R15</b>	96,1
<b>LUX</b>	5745 lx	<b>v'10</b>	0,4771	<b>MEL</b>	5732 lx	<b>PPFD</b>	89,61 umolm <sup>2</sup> s <sup>-1</sup>	<b>CQS</b>	95,0	<b>R7</b>	98,4		
<b>I-Time</b>	1400 us	<b>X</b>	5601,58	<b>LambdaPV</b>	150,4	<b>PFD</b>	91,53 umolm <sup>2</sup> s <sup>-1</sup>	<b>CRI</b>	97,4	<b>R8</b>	98,8		
<b>x</b>	0,3286	<b>Y</b>	5744,95	<b>LambdaD</b>	502 nm	<b>PFD-B</b>	23,12 umolm <sup>2</sup> s <sup>-1</sup>	<b>TLCI</b>	97,4	<b>R9</b>	97,5		
<b>y</b>	0,3370	<b>Z</b>	5701,72	<b>LambdaP</b>	455 nm	<b>PFD-G</b>	36,50 umolm <sup>2</sup> s <sup>-1</sup>	<b>R1</b>	97,1	<b>R10</b>	97,4		
<b>u'</b>	0,2058	<b>delta-x</b>	0,0000	<b>Purity</b>	1,45%	<b>PFD-R</b>	29,99 umolm <sup>2</sup> s <sup>-1</sup>	<b>R2</b>	98,6	<b>R11</b>	95,4		
<b>v'</b>	0,4749	<b>delta-y</b>	-0,0007	<b>fc</b>	533,9	<b>PFD-UV</b>	0,0024 umolm <sup>2</sup> s <sup>-1</sup>	<b>R3</b>	95,5	<b>R12</b>	75,9		
<b>x10</b>	0,3318	<b>delta-u'</b>	0,0003	<b>Rf</b>	92,9	<b>PFD-FR</b>	1,915 umolm <sup>2</sup> s <sup>-1</sup>	<b>R4</b>	98,6	<b>R13</b>	97,2		
<b>y10</b>	0,3405	<b>delta-v'</b>	-0,0004	<b>Rg</b>	100,9	<b>S/P</b>	2,27	<b>R5</b>	97,3	<b>R14</b>	96,7		

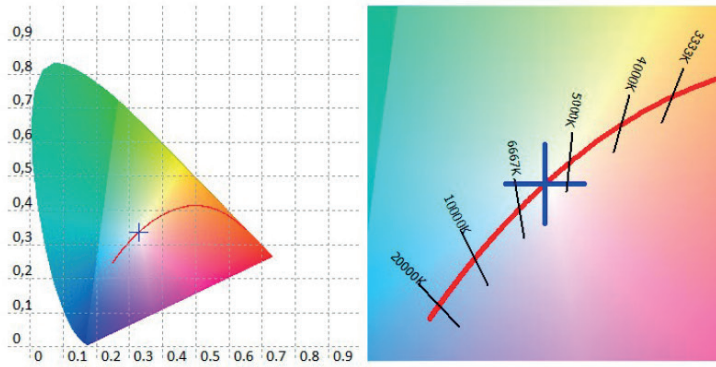
### Spectrum



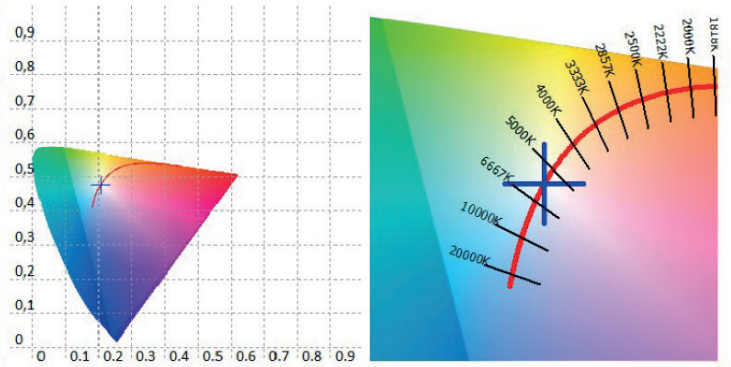


**LEDko FS6 HD Studio + with Lens Tube Profile 19° - 5.600K**

CIE 1931



CIE 1976



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
97,1	98,6	95,5	98,6	97,3	94,8	98,4	98,8	97,5	97,4	95,4	75,9	97,2	96,7	96,1

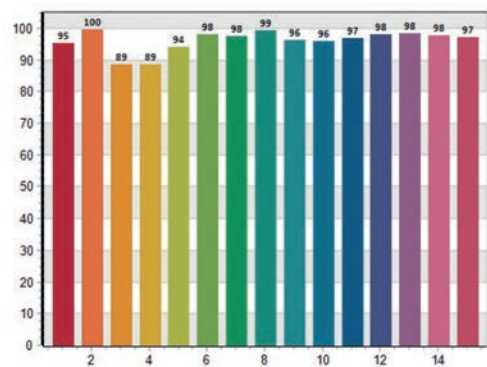
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,6	96,7	95,2	93,3	91,0	96,0	95,3	91,9	89,9	86,6	84,9	95,3	95,9	94,1	84,2	96,5

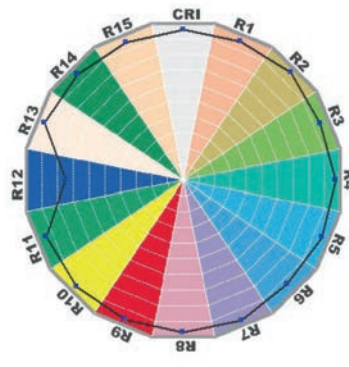
CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,5	99,6	88,7	88,7	94,1	98,0	97,6	99,4	96,4	96,1	97,0	98,0	98,3	97,9	97,2

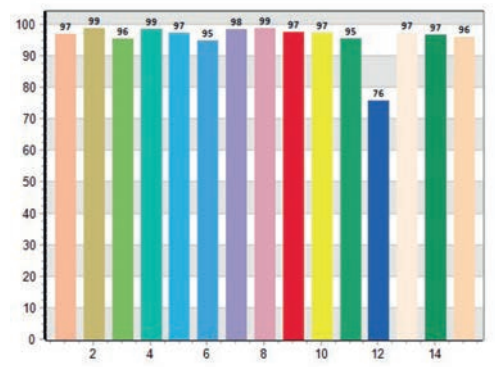
CQS: 94, 98



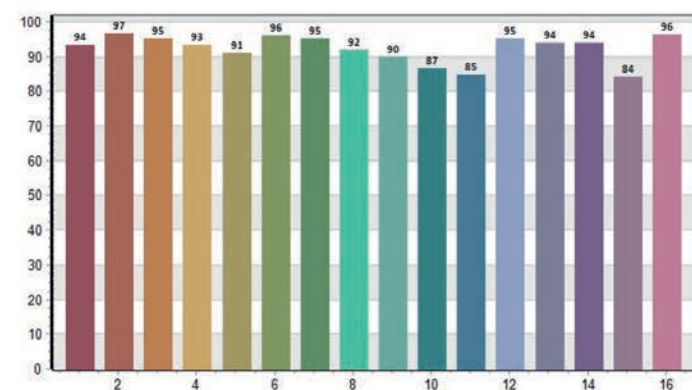
CRI-2



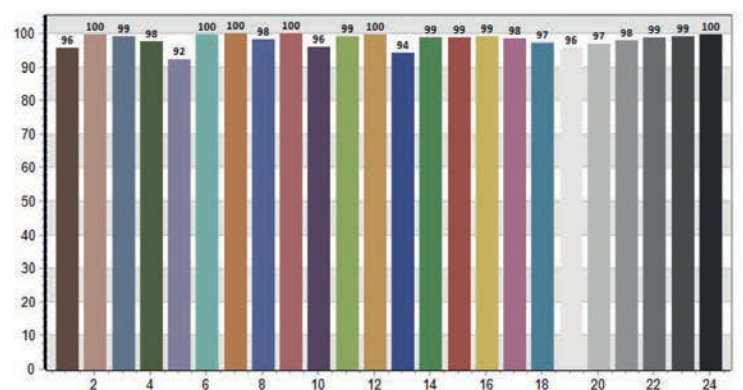
CRI: 97, 39



TM30: 95, 66

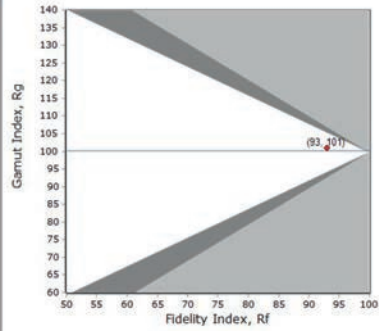
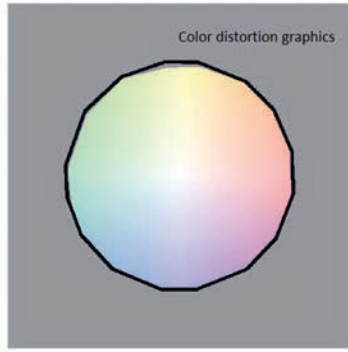
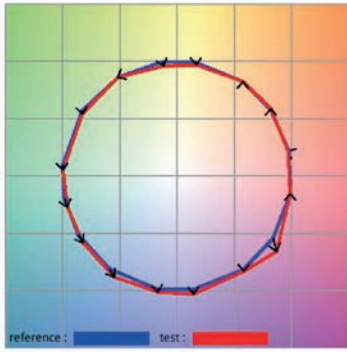


TLCI: 97, 60



LEDko FS6 HD Studio + with Lens Tube Profile 19° - 5.600K

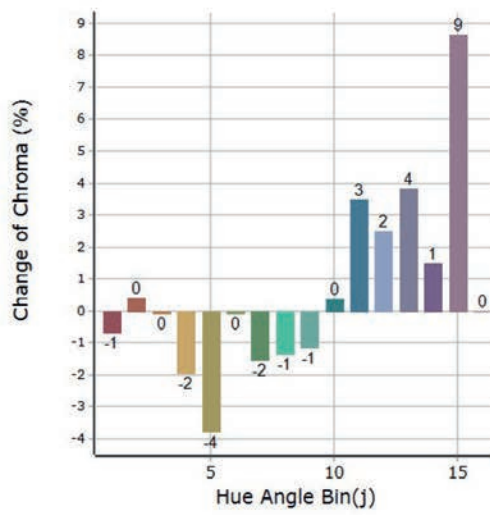
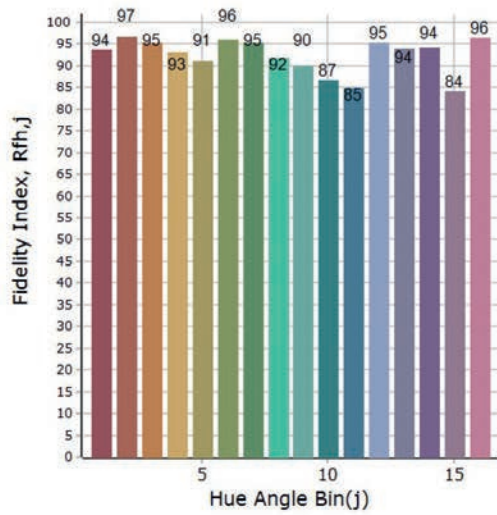
General Color Rendition



**Rf**  
92,9  
Fidelity index Rf

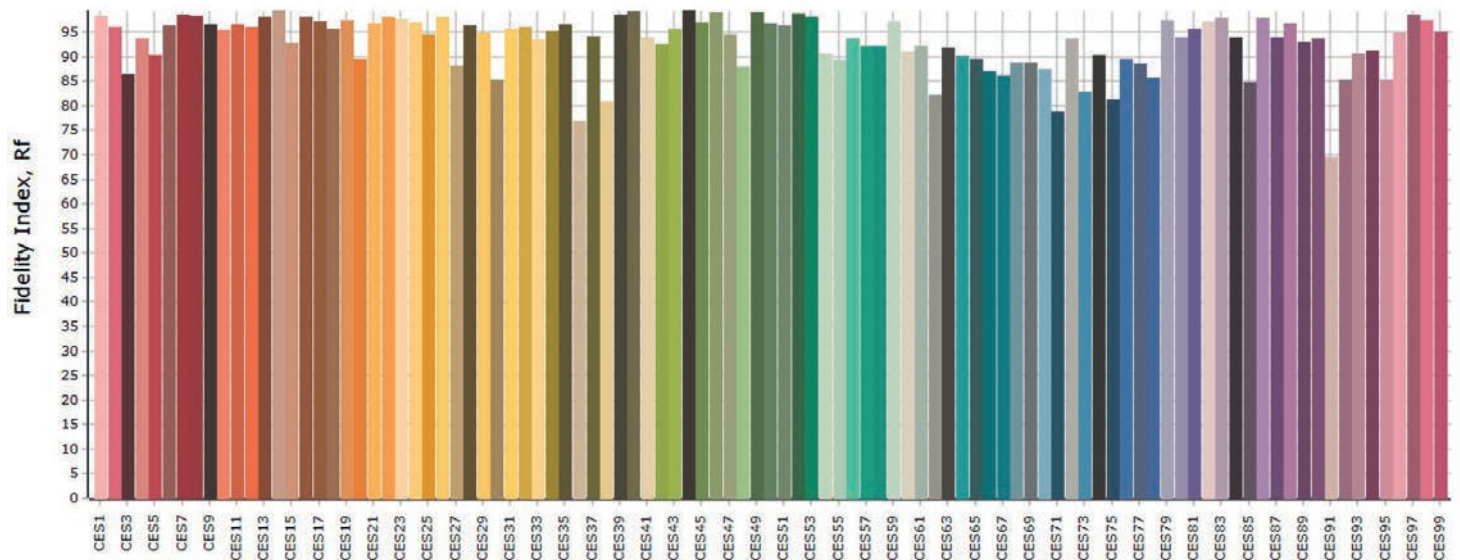
**Rg**  
100,9  
Gammut index Rg

Color Rendition by Hue



Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	93,6	-0,7%	0,6%
2	96,7	0,4%	0,8%
3	95,2	-0,1%	0,2%
4	93,3	-1,9%	-0,6%
5	91,0	-3,8%	-0,3%
6	96,0	-0,1%	1,0%
7	95,3	-1,5%	1,8%
8	91,9	-1,3%	4,3%
9	89,9	-1,1%	8,2%
10	86,6	0,4%	7,6%
11	84,9	3,5%	7,5%
12	95,3	2,5%	0,9%
13	93,9	3,8%	-0,5%
14	94,1	1,5%	-1,0%
15	84,2	8,6%	-7,3%
16	96,5	0,0%	0,3%

Color Fidelity by Sample



## LEDko FS6 HD Studio + with Lens Tube Profile 26° - 3.200K

### General

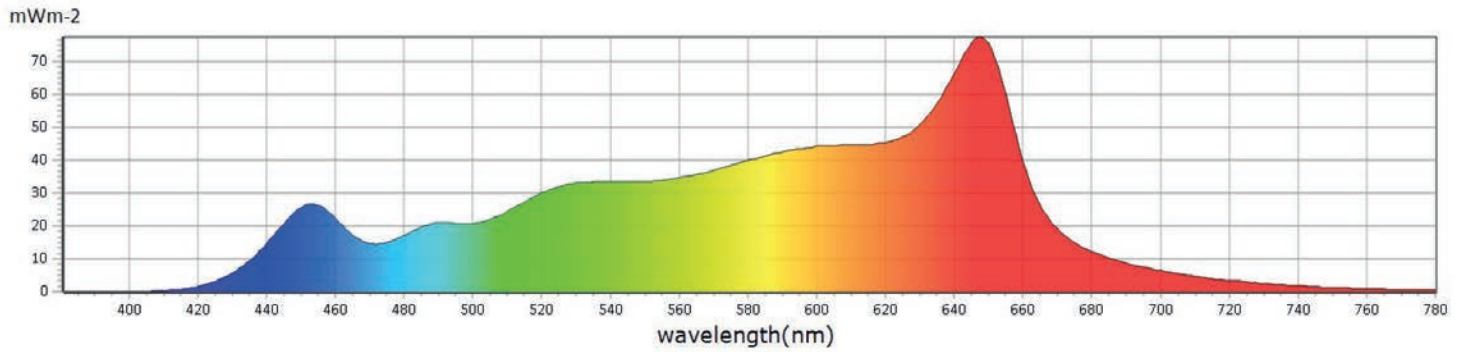
$\bar{I}$ CCT	3186 K
$\bar{I}$ x	0,4227
$\bar{I}$ y	0,3959
$\bar{I}$ LambdaD	583 nm
$\bar{I}$ LambdaP	647 nm



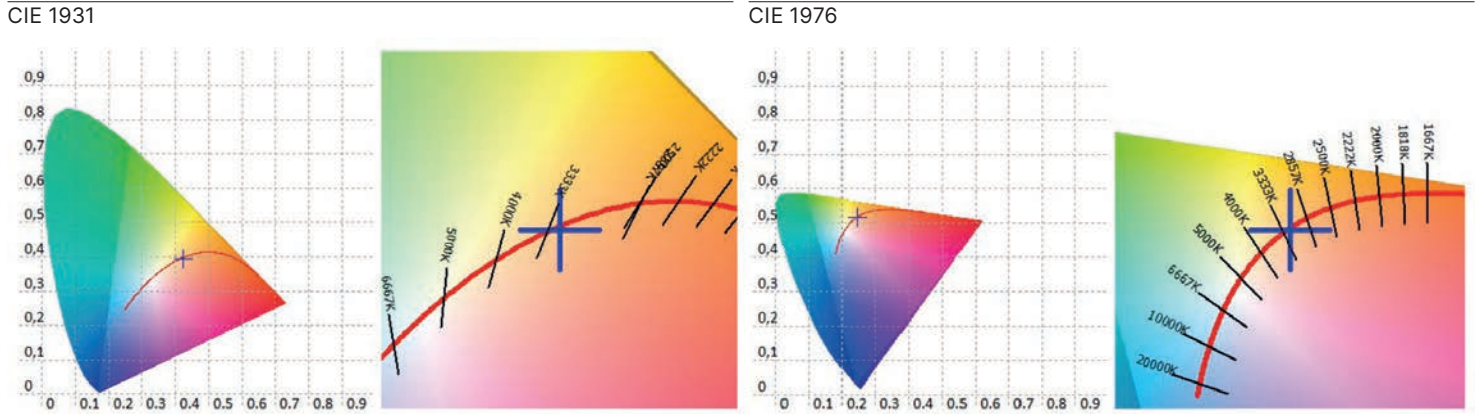
### Measurements

<b>CCT</b>	3186 K	<b>u'10</b>	0,2479	<b>Duv</b>	-0,0012	<b>GAI</b>	65,4	<b>IRR</b>	8,825	<b>R6</b>	97,7	<b>R15</b>	99,0
<b>LUX</b>	2649 lx	<b>v'10</b>	0,5163	<b>MEL</b>	1630 lx	<b>PPFD</b>	41,77 umolm <sup>2</sup> s <sup>-1</sup>	<b>CQS</b>	96,5	<b>R7</b>	99,0		
<b>I-Time</b>	3600 us	<b>X</b>	2828,30	<b>LambdaPV</b>	77,60	<b>PFD</b>	42,87 umolm <sup>2</sup> s <sup>-1</sup>	<b>CRI</b>	98,2	<b>R8</b>	98,6		
<b>x</b>	0,4227	<b>Y</b>	2649,05	<b>LambdaD</b>	583 nm	<b>PFD-B</b>	5,266 umolm <sup>2</sup> s <sup>-1</sup>	<b>TLCI</b>	96,9	<b>R9</b>	97,0		
<b>y</b>	0,3959	<b>Z</b>	1213,35	<b>LambdaP</b>	647 nm	<b>PFD-G</b>	15,93 umolm <sup>2</sup> s <sup>-1</sup>	<b>R1</b>	98,9	<b>R10</b>	98,2		
<b>u'</b>	0,2449	<b>delta-x</b>	-0,0016	<b>Purity</b>	45,55 %	<b>PFD-R</b>	20,57 umolm <sup>2</sup> s <sup>-1</sup>	<b>R2</b>	99,4	<b>R11</b>	95,0		
<b>v'</b>	0,5160	<b>delta-y</b>	-0,0034	<b>fc</b>	246,2	<b>PFD-UV</b>	0,0002 umolm <sup>2</sup> s <sup>-1</sup>	<b>R3</b>	95,7	<b>R12</b>	89,8		
<b>x10</b>	0,4269	<b>delta-u'</b>	0,0004	<b>Rf</b>	96,0	<b>PFD-FR</b>	1,104 umolm <sup>2</sup> s <sup>-1</sup>	<b>R4</b>	97,2	<b>R13</b>	98,8		
<b>y10</b>	0,3951	<b>delta-v'</b>	-0,0016	<b>Rg</b>	102,0	<b>S/P</b>	1,55	<b>R5</b>	99,0	<b>R14</b>	96,2		

### Spectrum



**LEDko FS6 HD Studio + with Lens Tube Profile 26° - 3.200K**



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
98,9	99,4	95,7	97,2	99,0	97,7	99,0	98,6	97,0	98,2	95,0	89,8	98,8	96,2	99,0

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
97,1	98,5	96,9	97,4	95,0	96,0	95,5	98,0	97,0	94,7	93,3	92,2	95,3	93,9	93,8	90,6

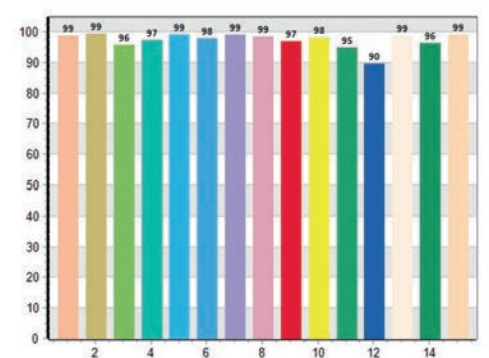
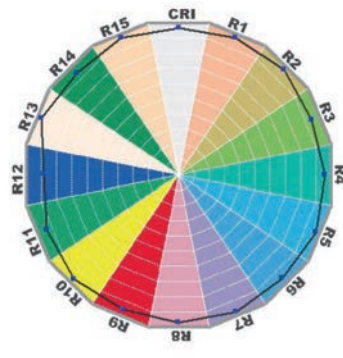
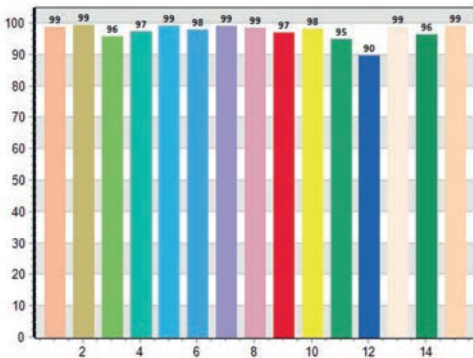
CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,7	97,6	93,3	95,1	98,4	96,1	95,3	97,6	97,2	96,9	97,9	98,5	98,6	97,9	97,9

CQS: 96, 51

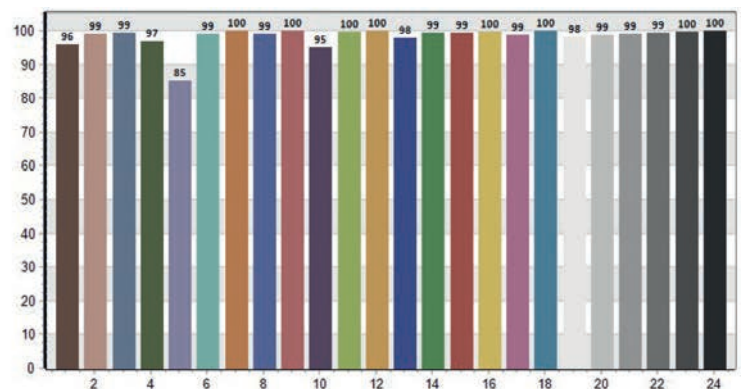
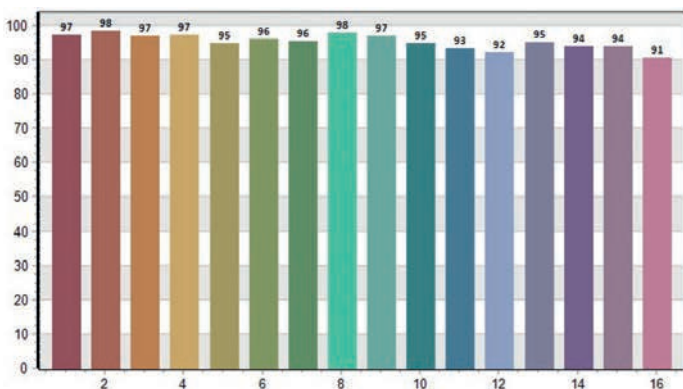
CRI-2

CRI: 98, 18



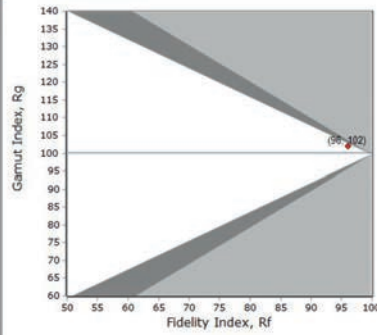
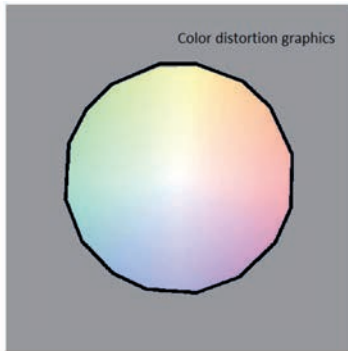
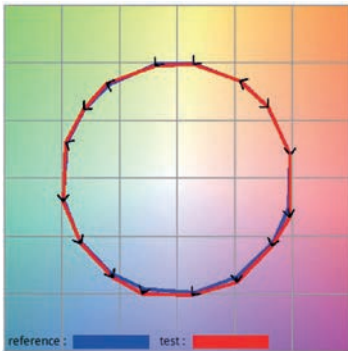
TM30: 96, 02

TLCI: 96, 94



## LEDko FS6 HD Studio + with Lens Tube Profile 26° - 3.200K

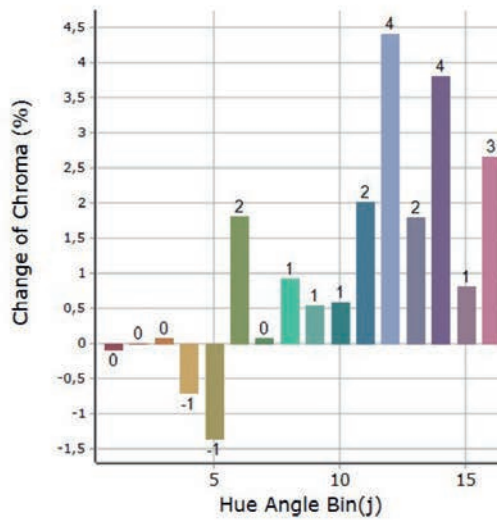
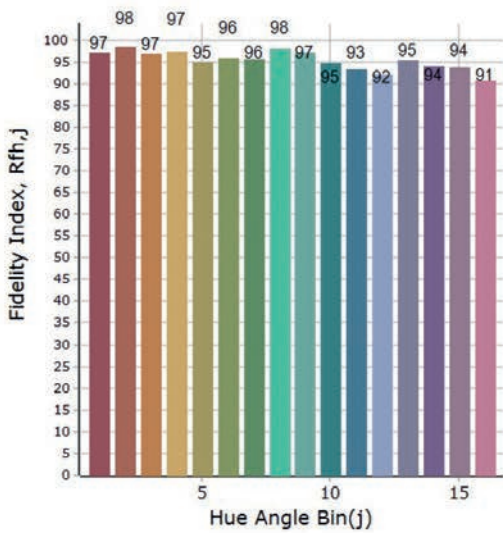
### General Color Rendition



**Rf**  
96,0  
Fidelity index Rf

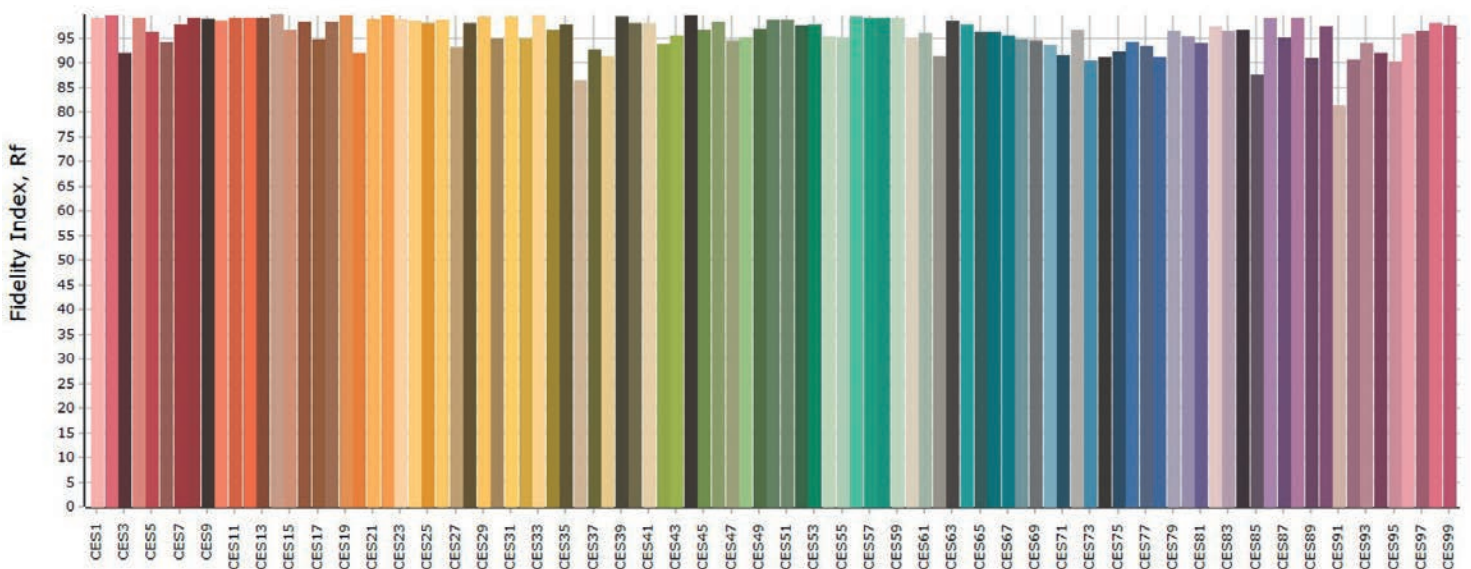
**Rg**  
102,0  
Gammut index Rg

### Color Rendition by Hue



		Graphic shifts (%)	
Hue Bin	Rf	Chroma	Hue
1	97,1	-0,1%	-0,3%
2	98,5	0,0%	-0,1%
3	96,9	0,1%	0,8%
4	97,4	-0,7%	0,1%
5	95,0	-1,4%	1,3%
6	96,0	1,8%	1,1%
7	95,5	0,1%	1,0%
8	98,0	0,9%	-0,1%
9	97,0	0,5%	1,8%
10	94,7	0,6%	2,6%
11	93,3	2,0%	3,6%
12	92,2	4,4%	-0,4%
13	95,3	1,8%	-2,4%
14	93,9	3,8%	-2,3%
15	93,8	0,8%	-2,3%
16	90,6	2,7%	-6,2%

### Color Fidelity by Sample



## LEDko FS6 HD Studio + with Lens Tube Profile 26° - 5.600K

### General

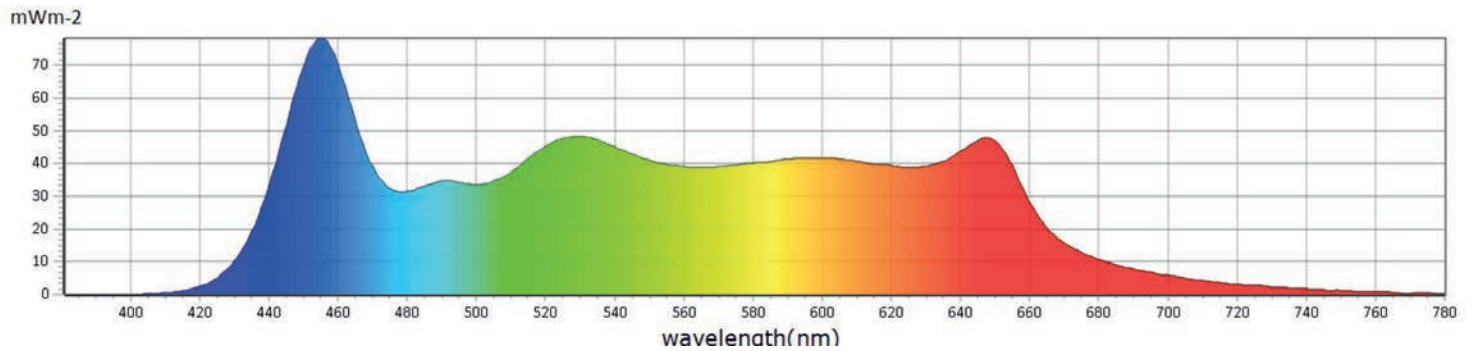
$I_{CCT}$	5641 K
$I_x$	0,3293
$I_y$	0,3370
$I_{\lambda D}$	504 mm
$I_{\lambda P}$	454 mm



### Measurements

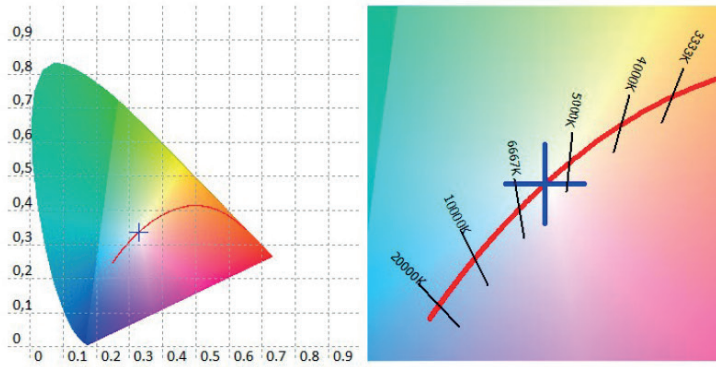
<b>CCT</b>	5641 K	<b>u'10</b>	0,2072	<b>Duv</b>	-0,0007	<b>GAI</b>	96,6	<b>IRR</b>	10,38	<b>R6</b>	97,7	<b>R15</b>	96,3
<b>LUX</b>	3005 lx	<b>v'10</b>	0,4771	<b>MEL</b>	2985 lx	<b>PPFD</b>	46,80 umolm <sup>2</sup> s <sup>-1</sup>	<b>CQS</b>	95,1	<b>R7</b>	98,5		
<b>I-Time</b>	2400 us	<b>X</b>	2936,71	<b>LambdaPV</b>	78,33	<b>PFD</b>	47,82 umolm <sup>2</sup> s <sup>-1</sup>	<b>CRI</b>	97,3	<b>R8</b>	99,1		
<b>x</b>	0,3293	<b>Y</b>	3005,30	<b>LambdaD</b>	504 nm	<b>PFD-B</b>	12,06 umolm <sup>2</sup> s <sup>-1</sup>	<b>TLCI</b>	97,3	<b>R9</b>	97,4		
<b>y</b>	0,3370	<b>Z</b>	2976,11	<b>LambdaP</b>	454 nm	<b>PFD-G</b>	19,09 umolm <sup>2</sup> s <sup>-1</sup>	<b>R1</b>	97,0	<b>R10</b>	97,2		
<b>u'</b>	0,2063	<b>delta-x</b>	0,0000	<b>Purity</b>	1,22 %	<b>PFD-R</b>	15,64 umolm <sup>2</sup> s <sup>-1</sup>	<b>R2</b>	98,6	<b>R11</b>	94,8		
<b>v'</b>	0,4750	<b>delta-y</b>	-0,0013	<b>fc</b>	279,3	<b>PFD-UV</b>	0,0026 umolm <sup>2</sup> s <sup>-1</sup>	<b>R3</b>	95,4	<b>R12</b>	76,7		
<b>x10</b>	0,3325	<b>delta-u'</b>	0,0005	<b>Rf</b>	93,1	<b>PFD-FR</b>	1,022 umolm <sup>2</sup> s <sup>-1</sup>	<b>R4</b>	98,0	<b>R13</b>	97,1		
<b>y10</b>	0,3403	<b>delta-v'</b>	-0,0007	<b>Rg</b>	101,2	<b>S/P</b>	2,26	<b>R5</b>	97,4	<b>R14</b>	96,6		

### Spectrum

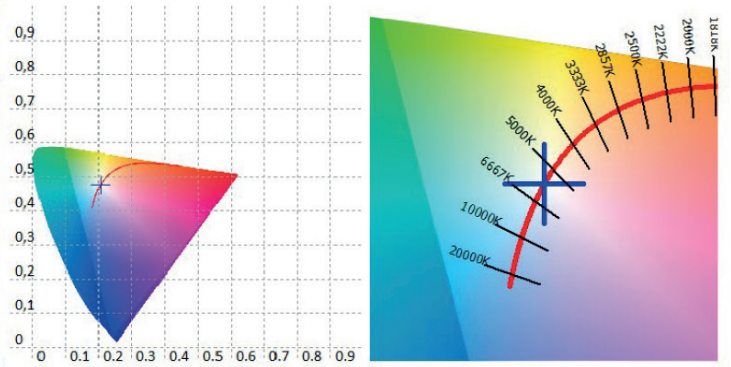


**LEDko FS6 HD Studio + with Lens Tube Profile 26° - 5.600K**

CIE 1931



CIE 1976



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
97,0	98,6	95,4	98,0	97,4	94,8	98,4	99,1	97,4	97,2	94,8	76,7	97,1	96,6	96,3

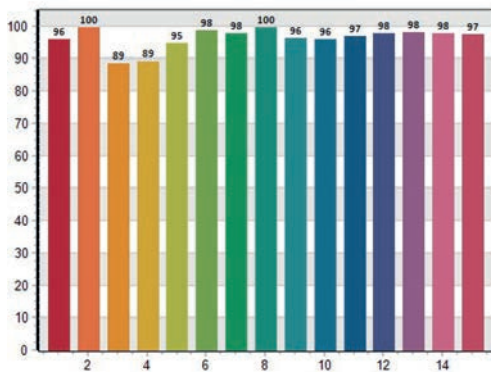
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,8	96,7	95,2	93,6	91,4	96,0	95,5	92,5	90,5	87,2	85,0	95,1	93,9	94,0	84,5	96,6

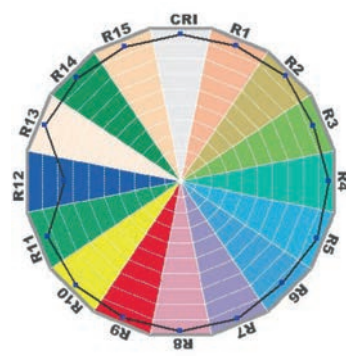
CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,0	99,6	88,6	89,0	94,6	98,5	97,6	99,5	96,3	95,9	96,9	97,8	98,1	97,8	97,4

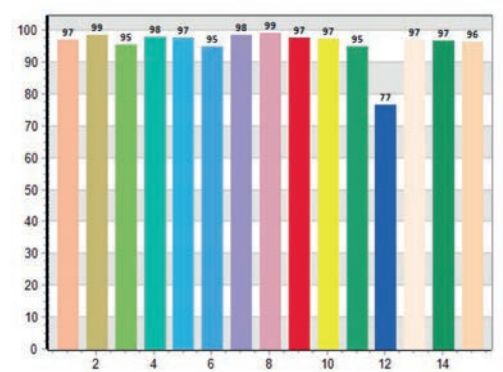
CQS: 95, 06



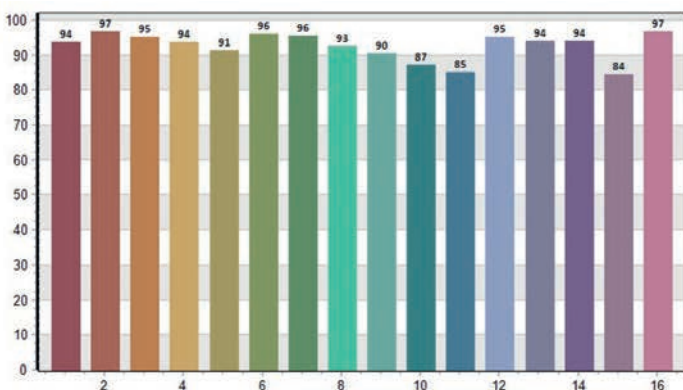
CRI-2



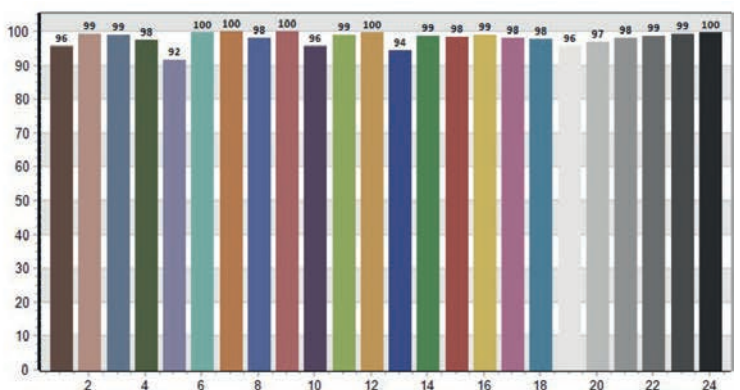
CRI: 97, 34



TM30: 93, 13

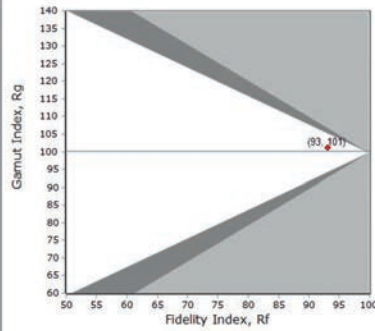
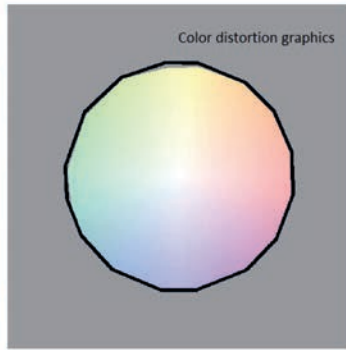
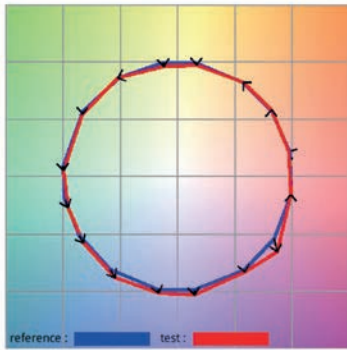


TLCI: 97, 33



## LEDko FS6 HD Studio + with Lens Tube Profile 26° - 5.600K

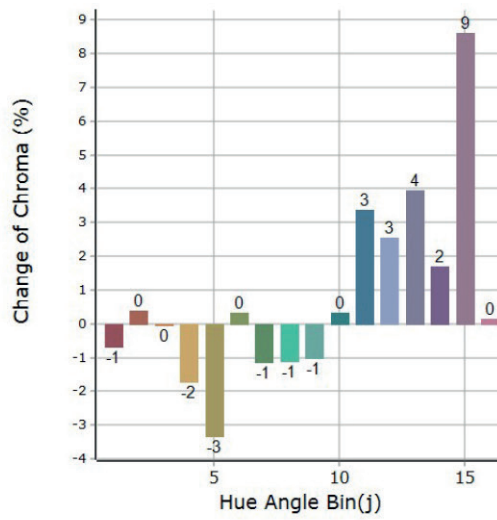
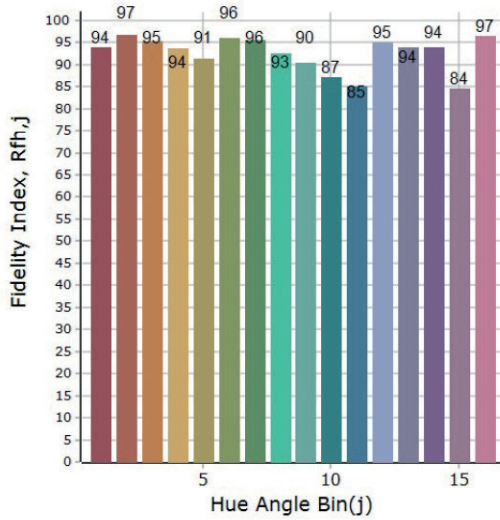
### General Color Rendition



**Rf**  
93,1  
Fidelity index Rf

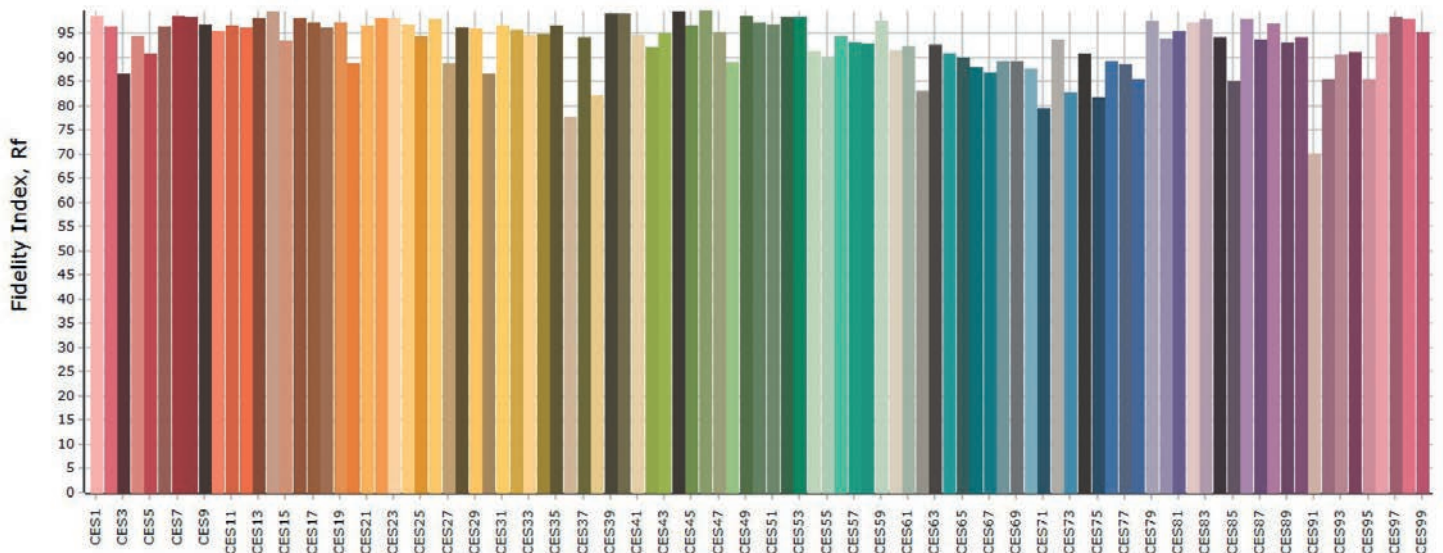
**Rg**  
101,2  
Gammut index Rg

### Color Rendition by Hue



Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	93,8	-0,7%	0,5%
2	96,7	0,4%	0,9%
3	95,2	0,0%	0,4%
4	93,6	-1,7%	-0,3%
5	91,4	-3,3%	0,0%
6	96,0	0,3%	1,2%
7	95,5	-1,1%	1,7%
8	92,5	-1,1%	3,9%
9	90,5	-1,0%	7,6%
10	87,2	0,3%	7,3%
11	85,0	3,4%	7,4%
12	95,1	2,5%	1,1%
13	93,9	4,0%	-0,4%
14	94,0	1,7%	-0,9%
15	84,5	8,6%	-7,2%
16	96,6	0,1%	0,2%

### Color Fidelity by Sample





## LEDko FS6 HD Studio + with Lens Tube Profile 36° - 3.200K

### General

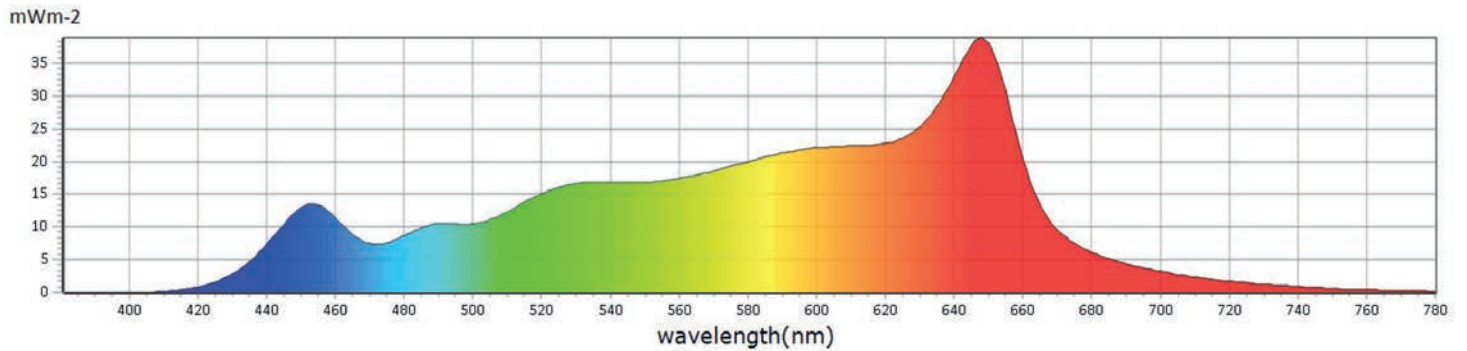
$I_{CCT}$	3197 K
$I_x$	0,4220
$I_y$	0,3955
$I_{\lambda D}$	582 nm
$I_{\lambda P}$	647 nm



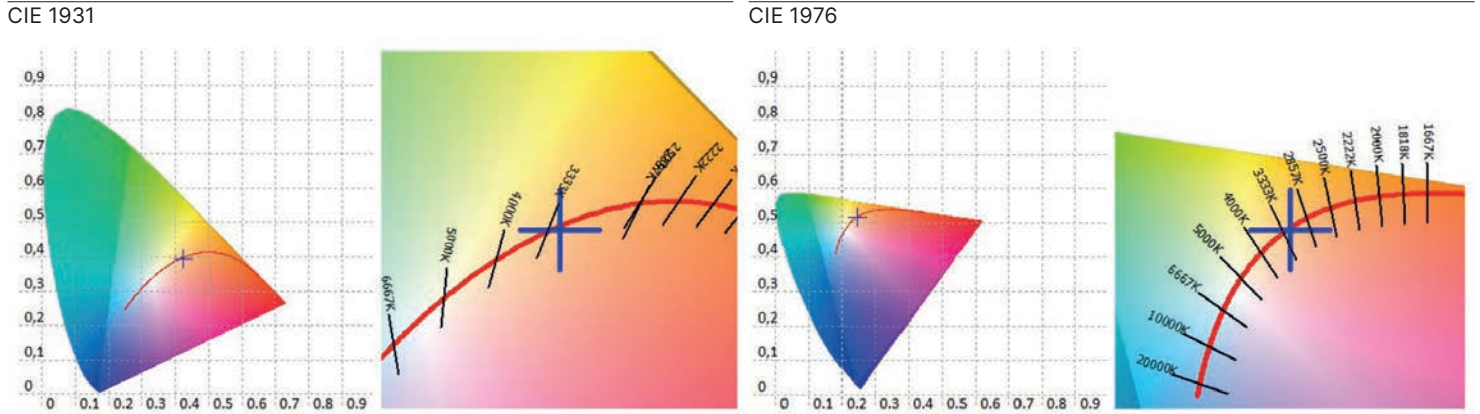
### Measurements

<b>CCT</b>	3197 K	<b>u'10</b>	0,2476	<b>Duv</b>	-0,0012	<b>GAI</b>	65,7	<b>IRR</b>	4,426	<b>R6</b>	97,7	<b>R15</b>	98,9
<b>LUX</b>	1327 lx	<b>v'10</b>	0,5160	<b>MEL</b>	820,5 lx	<b>PPFD</b>	20,94 $\mu\text{molm}^{-2}\text{s}^{-1}$	<b>CQS</b>	96,5	<b>R7</b>	99,1		
<b>I-Time</b>	8400 $\mu\text{s}$	<b>X</b>	1415,53	<b>LambdaPV</b>	38,91	<b>PFD</b>	21,49 $\mu\text{molm}^{-2}\text{s}^{-1}$	<b>CRI</b>	98,2	<b>R8</b>	98,4		
<b>x</b>	0,4220	<b>Y</b>	1326,84	<b>LambdaD</b>	582 nm	<b>PFD-B</b>	2,657 $\mu\text{molm}^{-2}\text{s}^{-1}$	<b>TLCI</b>	97,0	<b>R9</b>	96,5		
<b>y</b>	0,3955	<b>Z</b>	612,30	<b>LambdaP</b>	647 nm	<b>PFD-G</b>	7,981 $\mu\text{molm}^{-2}\text{s}^{-1}$	<b>R1</b>	98,8	<b>R10</b>	98,4		
<b>u'</b>	0,2445	<b>delta-x</b>	-0,0016	<b>Purity</b>	45,50 %	<b>PFD-R</b>	10,31 $\mu\text{molm}^{-2}\text{s}^{-1}$	<b>R2</b>	99,4	<b>R11</b>	94,9		
<b>v'</b>	0,5157	<b>delta-y</b>	-0,0035	<b>fc</b>	123,3	<b>PFD-UV</b>	0,0000 $\mu\text{molm}^{-2}\text{s}^{-1}$	<b>R3</b>	95,8	<b>R12</b>	89,6		
<b>x10</b>	0,4261	<b>delta-u'</b>	0,0005	<b>Rf</b>	96,0	<b>PFD-FR</b>	0,5485 $\mu\text{molm}^{-2}\text{s}^{-1}$	<b>R4</b>	97,2	<b>R13</b>	98,7		
<b>y10</b>	0,3948	<b>delta-v'</b>	-0,0017	<b>Rg</b>	102,0	<b>S/P</b>	1,56	<b>R5</b>	98,9	<b>R14</b>	96,3		

### Spectrum



**LEDko FS6 HD Studio + with Lens Tube Profile 36° - 3.200K**



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
98,8	99,4	95,8	97,2	98,9	97,7	99,1	98,4	96,5	98,4	94,9	89,6	98,7	96,3	98,9

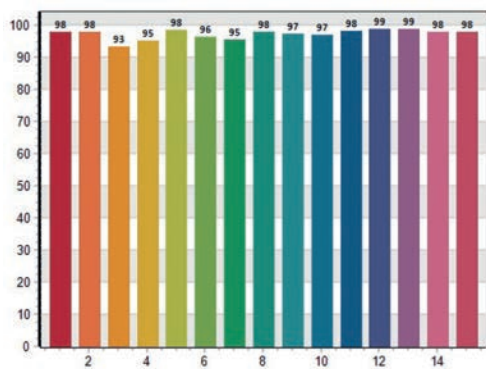
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
97,1	98,5	96,9	97,3	94,9	96,0	95,4	98,0	96,8	94,6	93,2	92,2	95,4	93,9	93,8	90,6

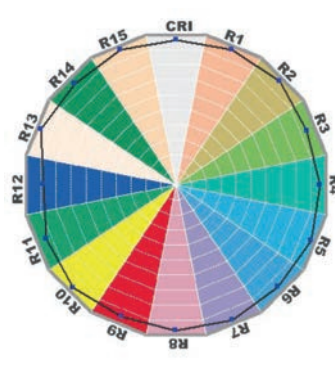
CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,6	97,6	93,3	95,1	98,5	96,2	95,4	97,7	97,2	97,0	98,0	98,5	98,7	97,9	97,8

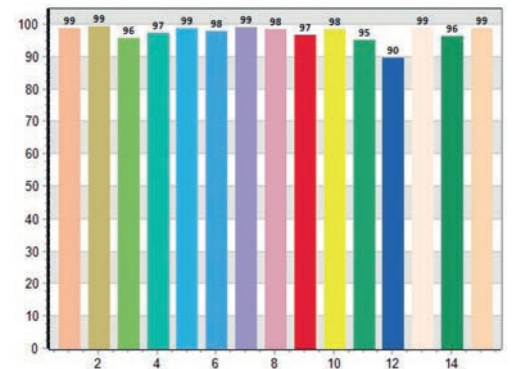
CQS: 96, 55



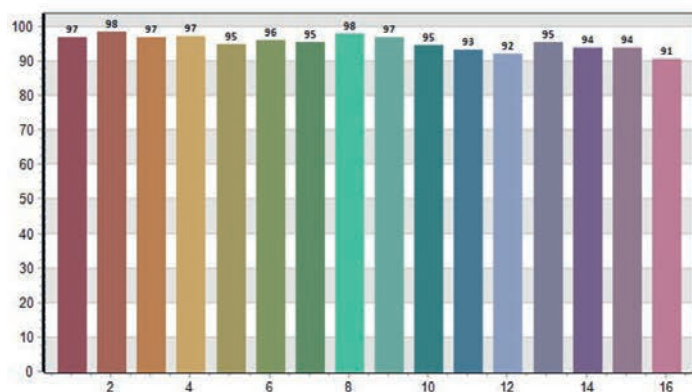
CRI-2



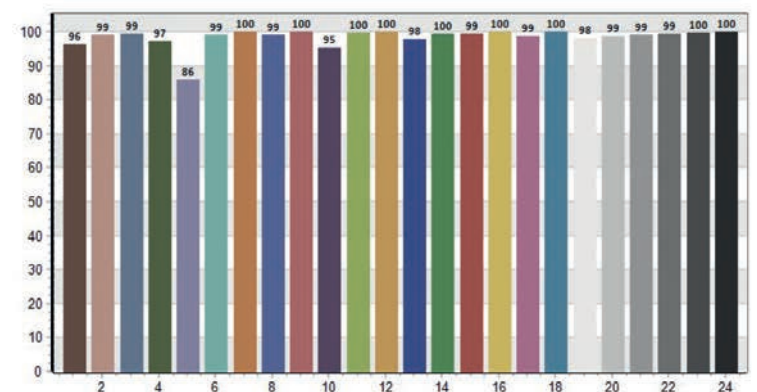
CRI: 98, 15



TM30: 95, 99

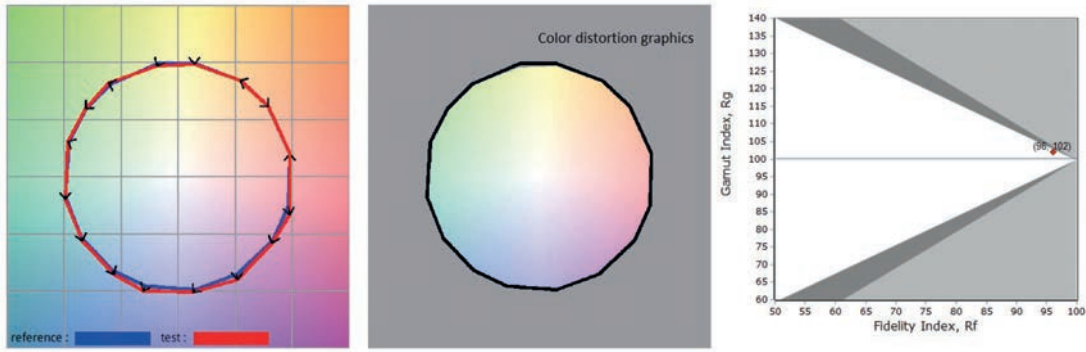


TLCI: 97, 04



## LEDko FS6 HD Studio + with Lens Tube Profile 36° - 3.200K

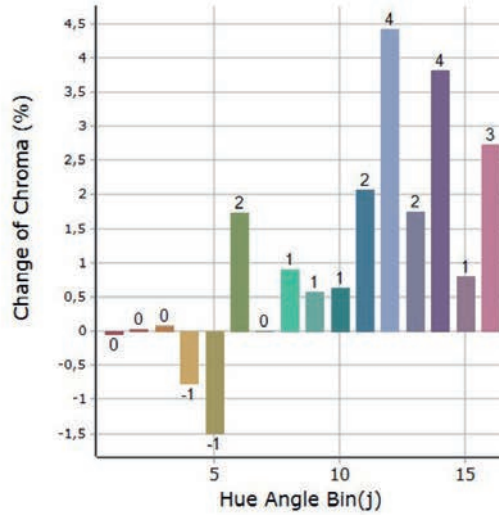
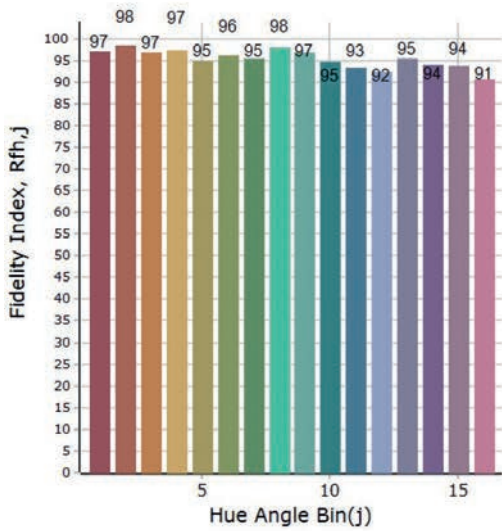
### General Color Rendition



**Rf**  
96,0  
Fidelity index Rf

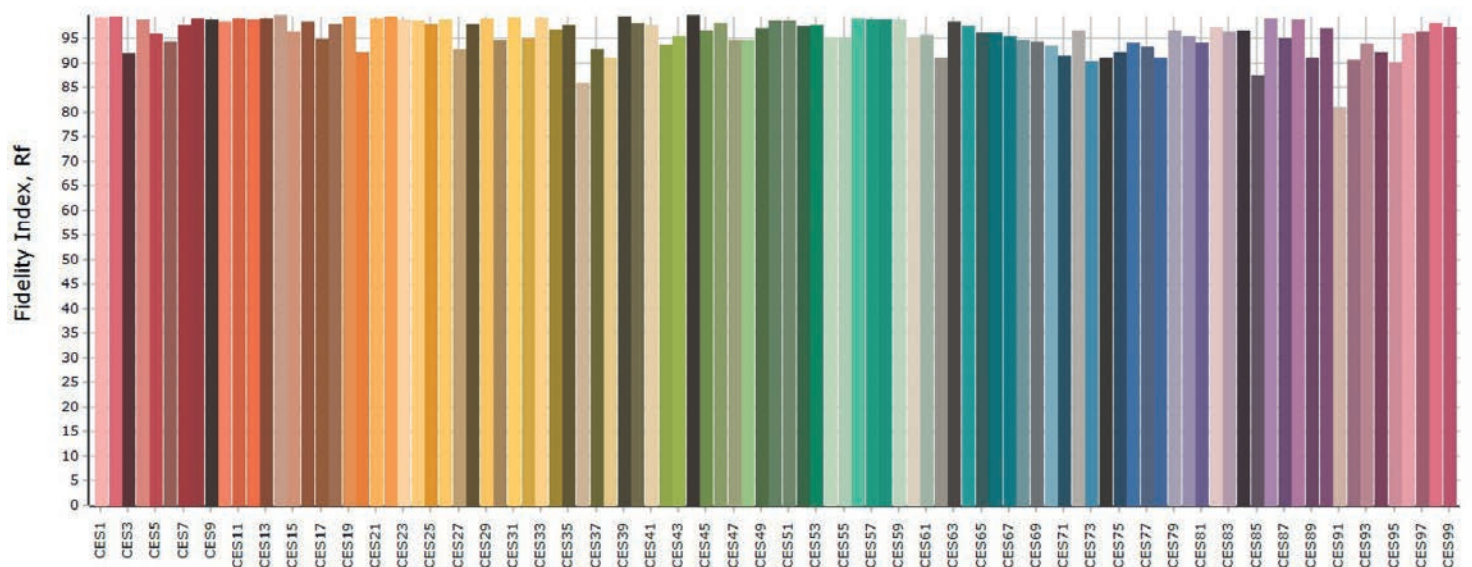
**Rg**  
102,0  
Gammut index Rg

### Color Rendition by Hue



Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	97,1	0,0%	-0,2%
2	98,5	0,0%	-0,2%
3	96,9	0,1%	0,8%
4	97,3	-0,8%	0,0%
5	94,9	-1,5%	1,2%
6	96,0	1,7%	1,1%
7	95,4	0,0%	1,1%
8	98,0	0,9%	-0,1%
9	96,8	0,6%	1,9%
10	94,6	0,6%	2,7%
11	93,2	2,1%	3,6%
12	92,2	4,4%	-0,3%
13	95,4	1,7%	-2,3%
14	93,9	3,8%	-2,2%
15	93,8	0,8%	-2,2%
16	90,6	2,7%	-6,2%

### Color Fidelity by Sample



## LEDko FS6 HD Studio + with Lens Tube Profile 36° - 5.600K

### General

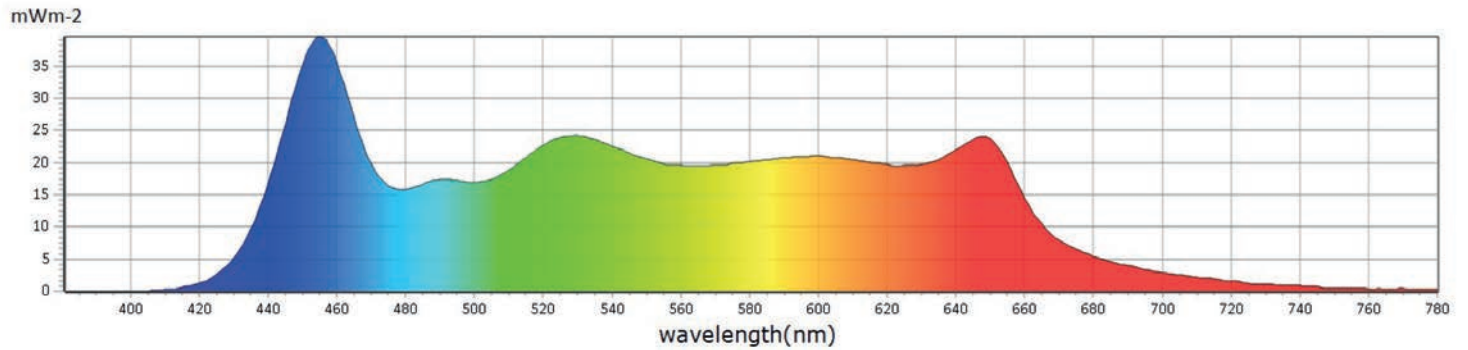
$I_{CCT}$	5660 K
$I_x$	0,3289
$I_y$	0,3360
$I_{\lambda D}$	500 mm
$I_{\lambda P}$	454 mm



### Measurements

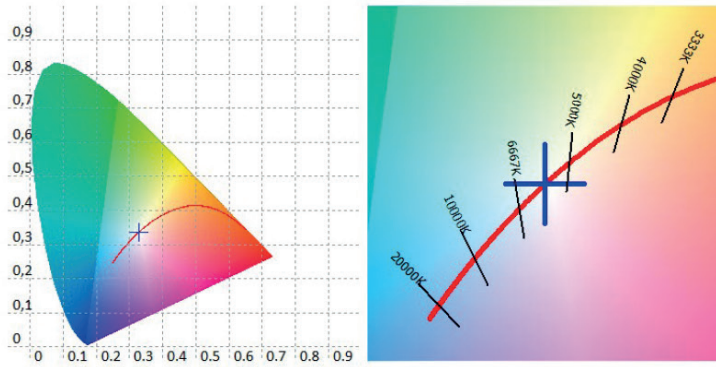
<b>CCT</b>	5660 K	<b>u'10</b>	0,2072	<b>Duv</b>	-0,0010	<b>GAI</b>	97,0	<b>IRR</b>	5,216	<b>R6</b>	94,7	<b>R15</b>	95,9
<b>LUX</b>	1506 lx	<b>v'10</b>	0,4766	<b>MEL</b>	1502 lx	<b>PPFD</b>	23,52 umolm <sup>2</sup> s <sup>-1</sup>	<b>CQS</b>	95,1	<b>R7</b>	98,6		
<b>I-Time</b>	4800 us	<b>X</b>	1474,00	<b>LambdaPV</b>	39,56	<b>PFD</b>	24,03 umolm <sup>2</sup> s <sup>-1</sup>	<b>CRI</b>	97,2	<b>R8</b>	99,0		
<b>x</b>	0,3289	<b>Y</b>	1505,71	<b>LambdaD</b>	500 nm	<b>PFD-B</b>	6,081 umolm <sup>2</sup> s <sup>-1</sup>	<b>TLCI</b>	97,4	<b>R9</b>	96,5		
<b>y</b>	0,3360	<b>Z</b>	1501,64	<b>LambdaP</b>	454 nm	<b>PFD-G</b>	9,562 umolm <sup>2</sup> s <sup>-1</sup>	<b>R1</b>	96,6	<b>R10</b>	97,6		
<b>u'</b>	0,2064	<b>delta-x</b>	0,0000	<b>Purity</b>	1,34 %	<b>PFD-R</b>	7,874 umolm <sup>2</sup> s <sup>-1</sup>	<b>R2</b>	98,3	<b>R11</b>	94,5		
<b>v'</b>	0,4744	<b>delta-y</b>	-0,0020	<b>fc</b>	139,9	<b>PFD-UV</b>	0,0008 umolm <sup>2</sup> s <sup>-1</sup>	<b>R3</b>	95,5	<b>R12</b>	76,9		
<b>x10</b>	0,3320	<b>delta-u'</b>	0,0008	<b>Rf</b>	93,1	<b>PFD-FR</b>	0,5098 umolm <sup>2</sup> s <sup>-1</sup>	<b>R4</b>	97,7	<b>R13</b>	96,7		
<b>y10</b>	0,3494	<b>delta-v'</b>	-0,0010	<b>Rg</b>	101,3	<b>S/P</b>	2,27	<b>R5</b>	97,2	<b>R14</b>	96,6		

### Spectrum

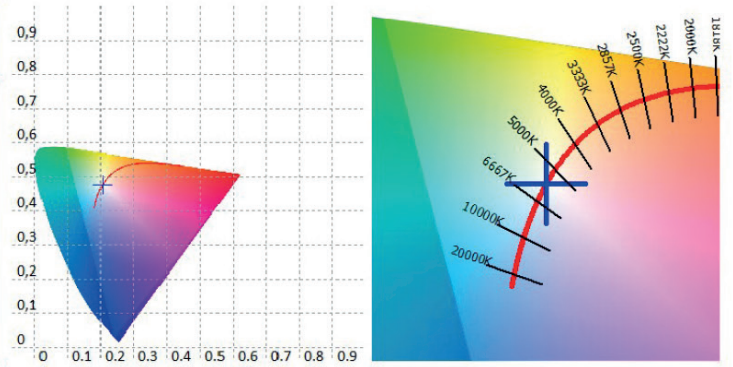


### LEDko FS6 HD Studio + with Lens Tube Profile 36° - 5.600K

CIE 1931



CIE 1976



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
96,6	98,3	95,5	97,7	97,2	94,7	98,6	99,0	96,5	97,6	94,5	76,9	96,7	96,6	95,9

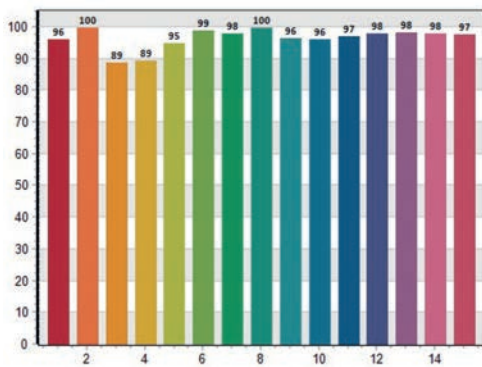
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,8	96,7	95,2	93,6	91,4	96,0	95,4	92,3	90,4	87,3	85,1	95,1	94,0	94,0	84,5	96,4

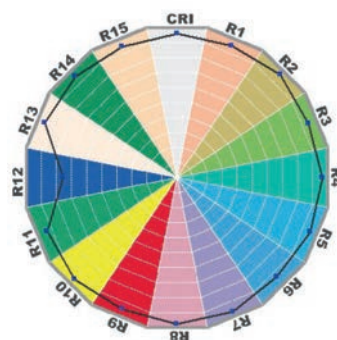
CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,0	99,6	88,6	89,1	94,7	98,7	97,7	99,7	96,3	96,0	97,0	97,8	98,0	97,8	97,4

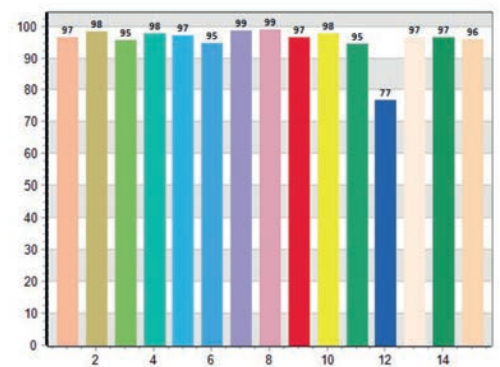
CQS: 95, 11



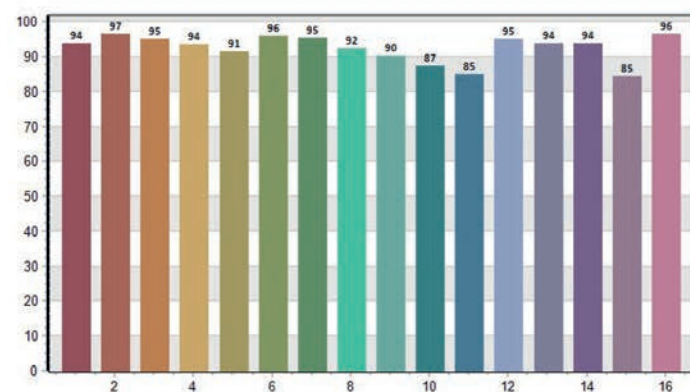
CRI-2



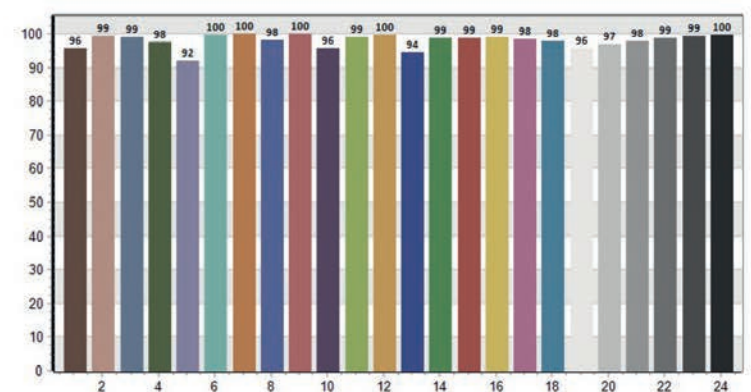
CRI: 97, 20



TM30: 93, 12

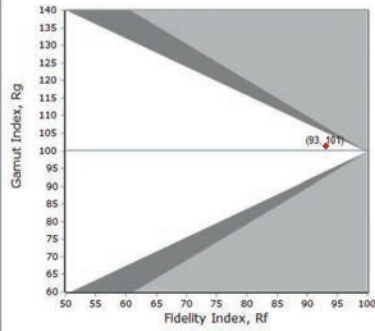
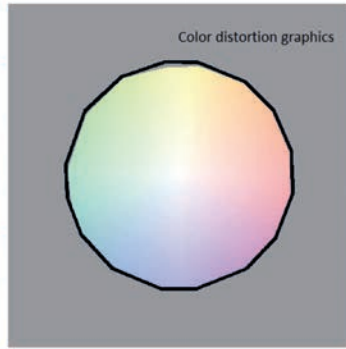
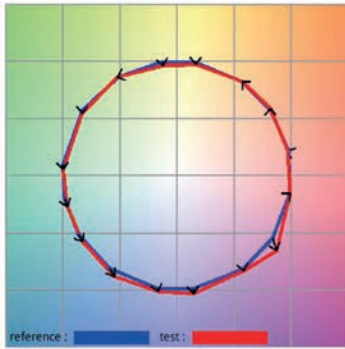


TLCI: 97, 39



LEDko FS6 HD Studio + with Lens Tube Profile 36° - 5.600K

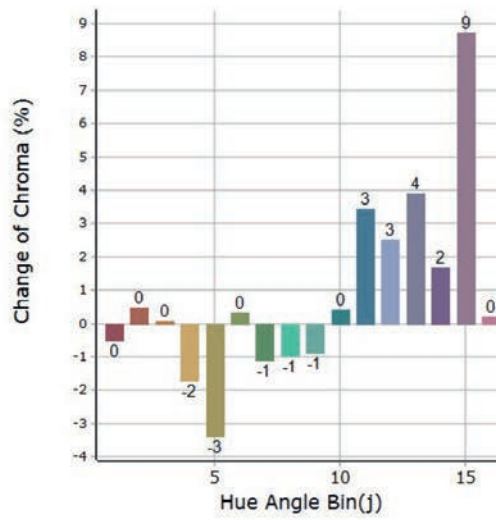
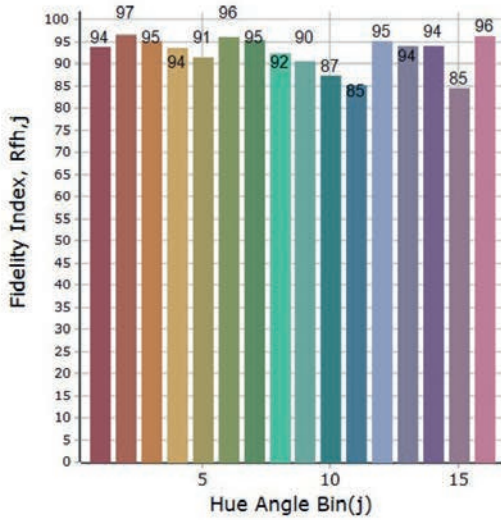
General Color Rendition



**Rf**  
93,1  
Fidelity index Rf

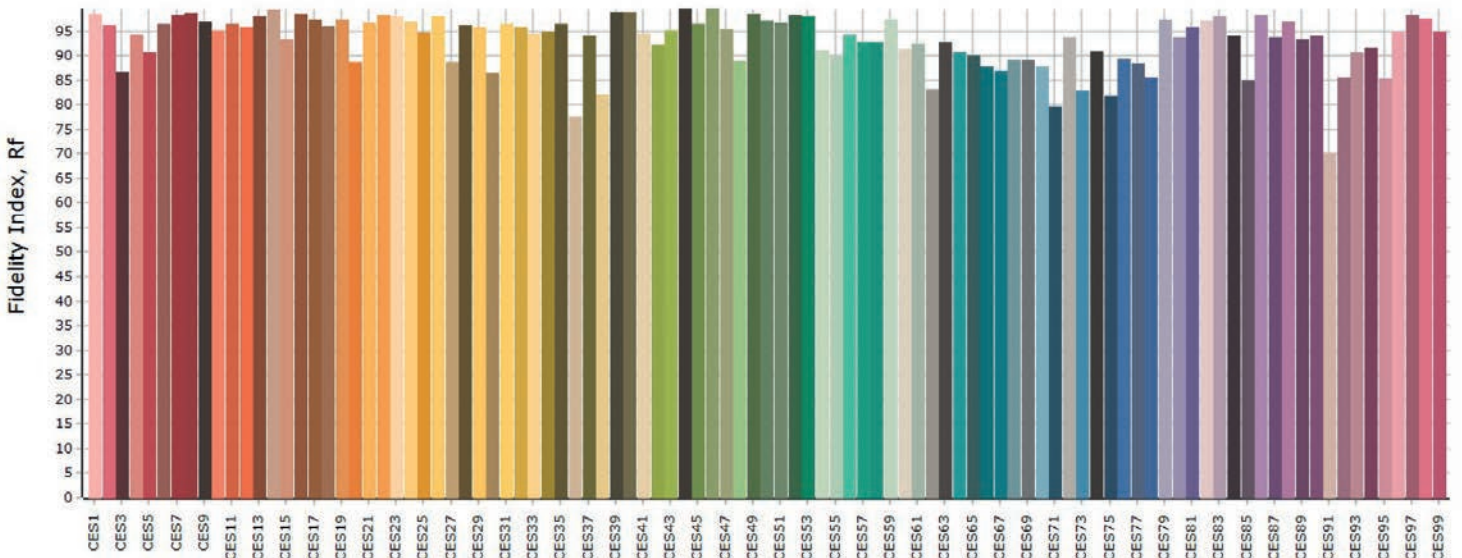
**Rg**  
101,3  
Gammut index Rg

Color Rendition by Hue



		Graphic shifts (%)	
Hue Bin	Rf	Chroma	Hue
1	93,8	-0,5%	0,6%
2	96,6	0,5%	0,9%
3	95,2	0,1%	0,3%
4	93,6	-1,7%	-0,4%
5	91,4	-3,4%	-0,1%
6	96,0	0,3%	1,2%
7	95,4	-1,1%	1,8%
8	92,3	-1,0%	4,0%
9	90,4	-0,9%	7,7%
10	87,3	0,4%	7,2%
11	85,1	3,4%	7,4%
12	95,1	2,5%	1,0%
13	94,0	3,9%	-0,3%
14	94,0	1,7%	-0,7%
15	84,5	8,7%	-7,0%
16	96,4	0,2%	0,3%

Color Fidelity by Sample



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Coemar reserves the right to change specifications without prior notice.

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