

Romeo 600 FullSpectrum - Photometric Report

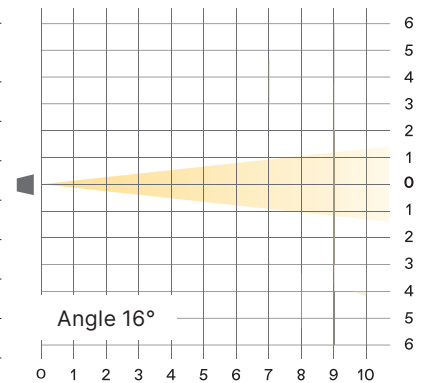
Last update:
21/12/2023

Romeo 600 FullSpectrum

Measurements taken on Robert Juliat 614 at 5 meters

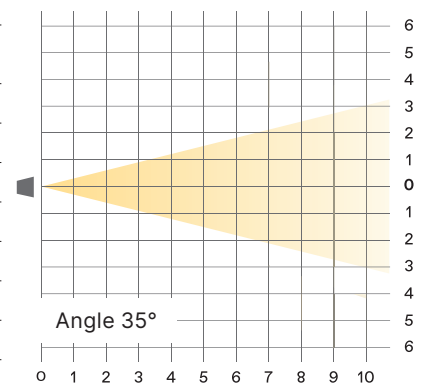
Minimum Zoom

Distance(m)		1	2	3	4	5	6	7	8	9	10
lux	RED	17875	4469	1986	1117	715	497	365	279	221	179
	GREEN	46750	11688	5194	2922	1870	1299	954	730	577	468
	BLUE	9650	2413	1072	603	386	268	197	151	119	97
	CYAN	22625	5656	2514	1414	905	628	462	354	279	226
	LIME	92550	23138	10283	5784	3702	2571	1889	1446	1143	926
	AMBER	49850	12463	5539	3116	1994	1385	1017	779	615	499
	3.200K	130275	32569	14475	8142	5211	3619	2659	2036	1608	1303
	5.600K	133725	33431	14858	8358	5349	3715	2729	2089	1651	1337
Ø (m)		0.28	0.56	0.84	1.12	1.41	1.69	1.97	2.25	2.53	2.81
3.200K		CRI 98.3	TLCI 97.5								
5.600K		CRI 98.4	TLCI 97.4								



Maximum Zoom

Distance(m)		1	2	3	4	5	6	7	8	9	10
lux	RED	4125	1031	458	258	165	115	84	64	51	41
	GREEN	10225	2556	1136	639	409	284	209	160	126	102
	BLUE	2025	506	225	127	81	56	41	32	25	20
	CYAN	4900	1225	544	306	196	136	100	77	60	49
	LIME	20575	5144	2286	1286	823	572	420	321	254	206
	AMBER	11075	2769	1231	692	443	308	226	173	137	111
	3.200K	28100	7025	3122	1756	1124	781	573	439	347	281
	5.600K	28725	7181	3192	1795	1149	798	586	449	355	287
Ø (m)		0.63	1.26	1.89	2.52	3.15	3.78	4.41	5.04	5.68	6.31
3.200K		CRI 98.4	TLCI 97.4								
5.600K		CRI 97.8	TLCI 97.0								



Romeo 600 FullSpectrum - Minimum Zoom - 3.200K

Measurements taken on Robert Juliat 614 at 5 meters

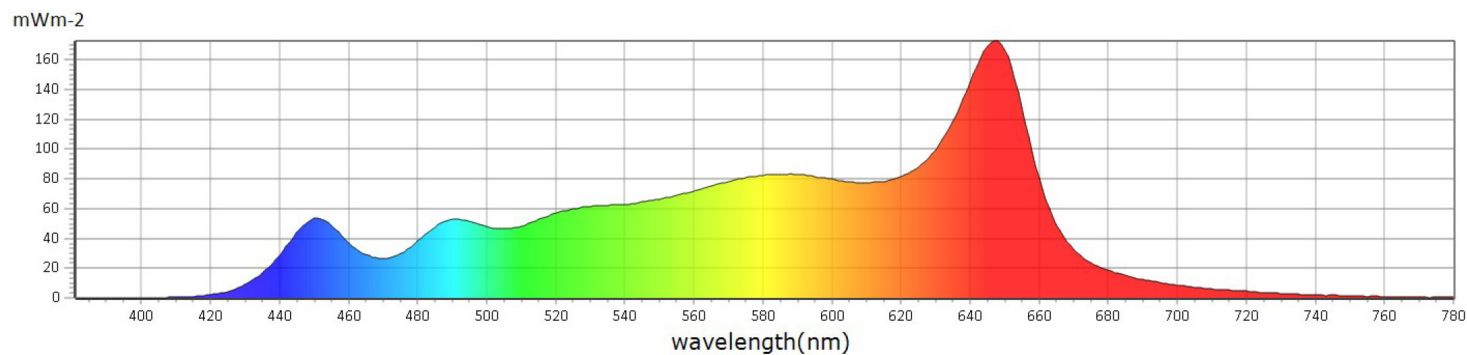
General

● CCT	3243 K
● x	0,4208
● y	0,3984
● LambdaD	582 nm
● LambdaP	646 nm

Measurements

CCT : 3243 K	x10 : 0,4250	delta-x : 0,0002	LambdaD : 582 nm	PPFD : 82,35 $\mu\text{molm}^{-2}\text{s}^{-1}$	S/P : 1,59	R3 : 97,2	R10 : 99,6
LUX : 5211 lx	y10 : 0,3985	delta-y : 0,0006	LambdaP : 646 nm	PFD : 83,69 $\mu\text{molm}^{-2}\text{s}^{-1}$	IRR : 17,28	R4 : 99,5	R11 : 98,6
I-Time : 1600 us	u'10 : 0,2452	delta-u' : -0,0001	Purity : 45,82%	PFD-B : 10,81 $\mu\text{molm}^{-2}\text{s}^{-1}$	CQS : 97,1	R5 : 99,3	R12 : 90,7
x : 0,4208	v'10 : 0,5174	delta-v' : 0,0003	fc : 484,2	PFD-G : 31,43 $\mu\text{molm}^{-2}\text{s}^{-1}$	CRI : 98,3	R6 : 98,6	R13 : 99,5
y : 0,3984	X : 5503,87	Duv : 0,0002	Rf : 95,5	PFD-R : 40,12 $\mu\text{molm}^{-2}\text{s}^{-1}$	TLCI : 97,5	R7 : 98,6	R14 : 97,1
u' : 0,2426	Y : 5210,51	MEL : 3313 lx	Rg : 100,5	PFD-UV : 0,0016 $\mu\text{molm}^{-2}\text{s}^{-1}$	R1 : 99,7	R8 : 94,1	R15 : 97,7
v' : 0,5167	Z : 2364,28	LambdaPV : 172,5	GAI : 64,0	PFD-FR : 1,333 $\mu\text{molm}^{-2}\text{s}^{-1}$	R2 : 99,4	R9 : 85,6	

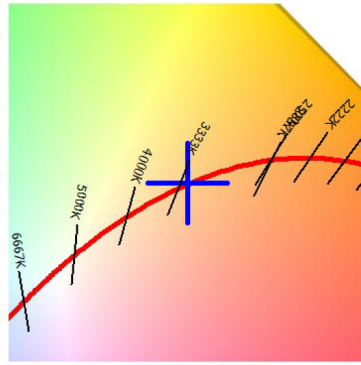
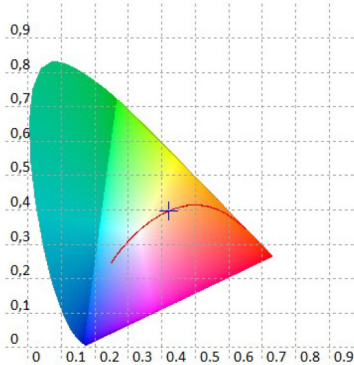
Spectrum



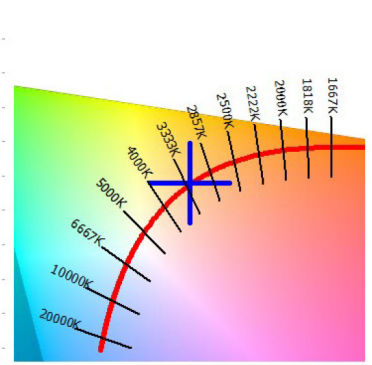
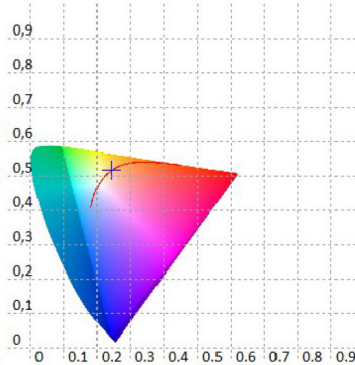
Romeo 600 FullSpectrum - Minimum Zoom - 3.200K

Measurements taken on Robert Juliat 614 at 5 meters

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
99,7	99,4	97,2	99,5	99,3	98,6	98,6	94,1	85,6	99,6	98,6	90,7	99,5	97,1	97,7

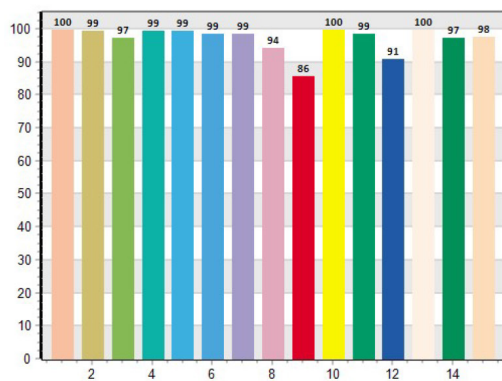
TM30 C values, 16 binned values out of total of 99 C values

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

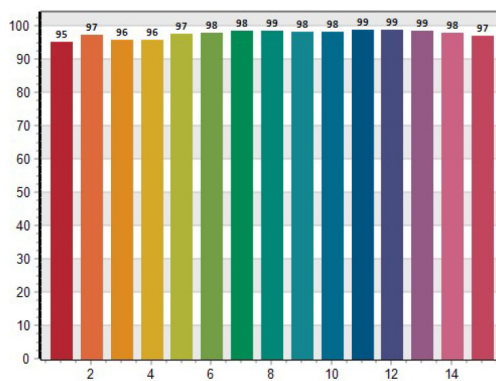
CQS Q values

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

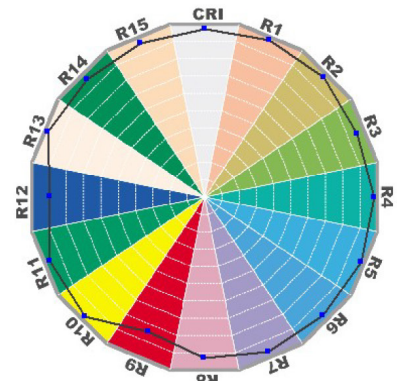
CRI: 98,29



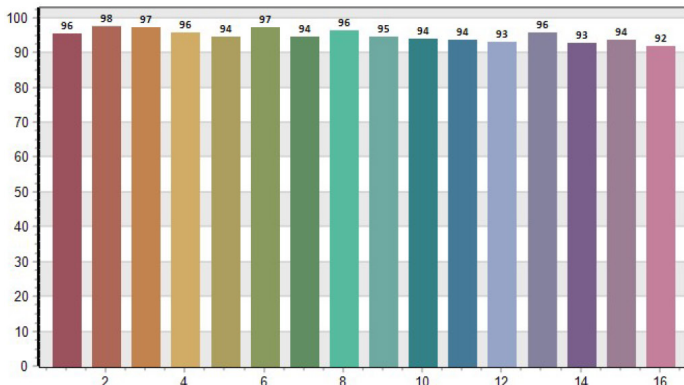
CQS: 97,11



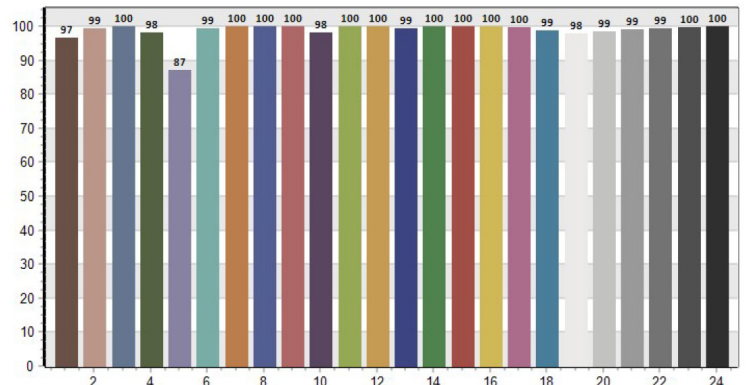
CRI-2



TM30: 95,50



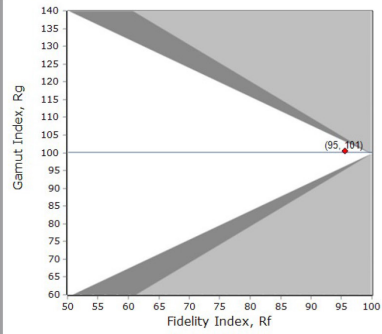
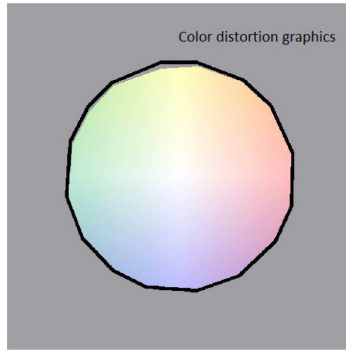
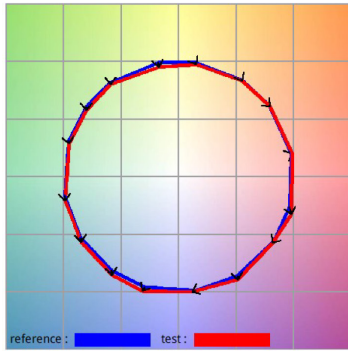
TLCI: 97,54



Romeo 600 FullSpectrum - Minimum Zoom - 3.200K

Measurements taken on Robert Juliat 614 at 5 meters

General Color Rendition

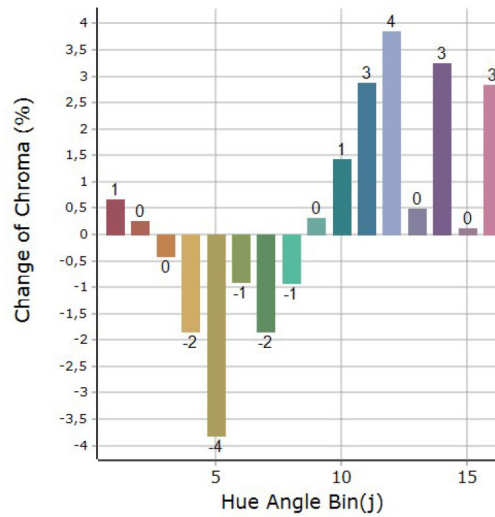
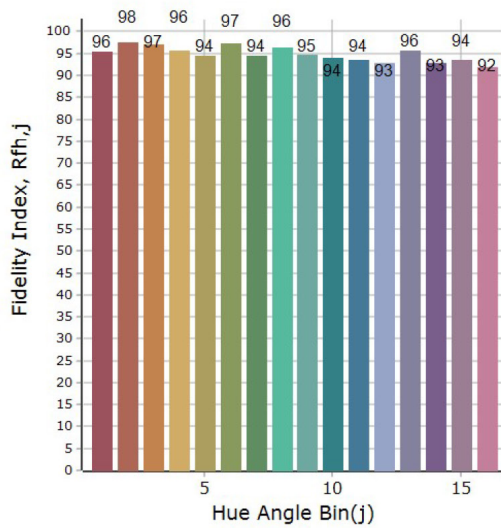
**Rf 95,5**

Fidelity index Rf

Rg 100,5

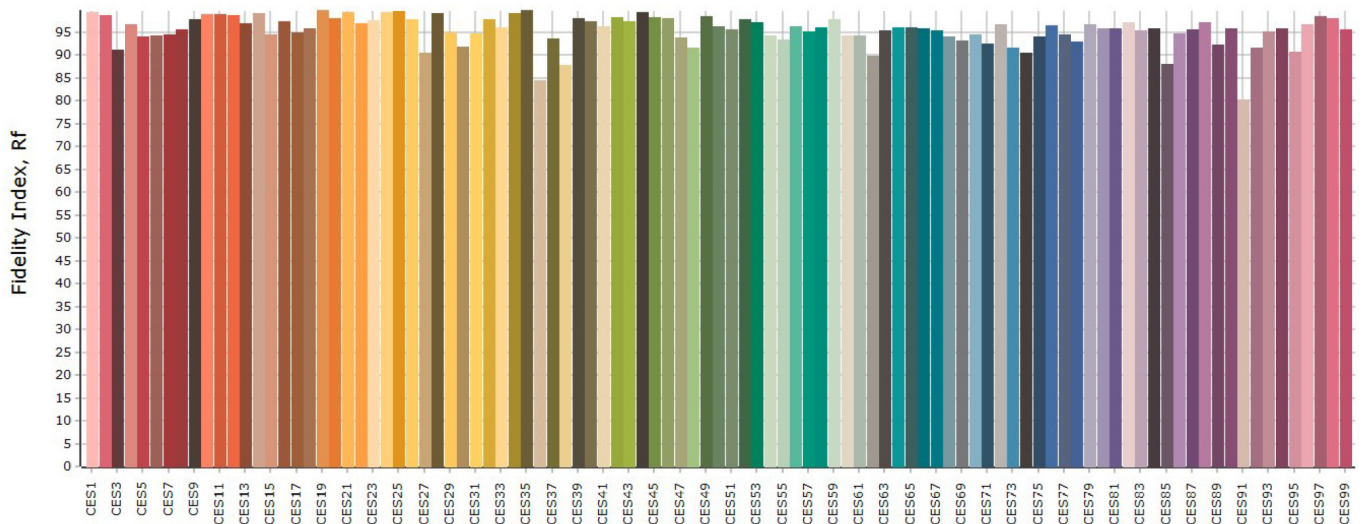
Gamut index Rg

Color Rendition by Hue



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

Color Fidelity by Sample



Romeo 600 FullSpectrum - Maximum Zoom - 3.200K

Measurements taken on Robert Juliat 614 at 5 meters

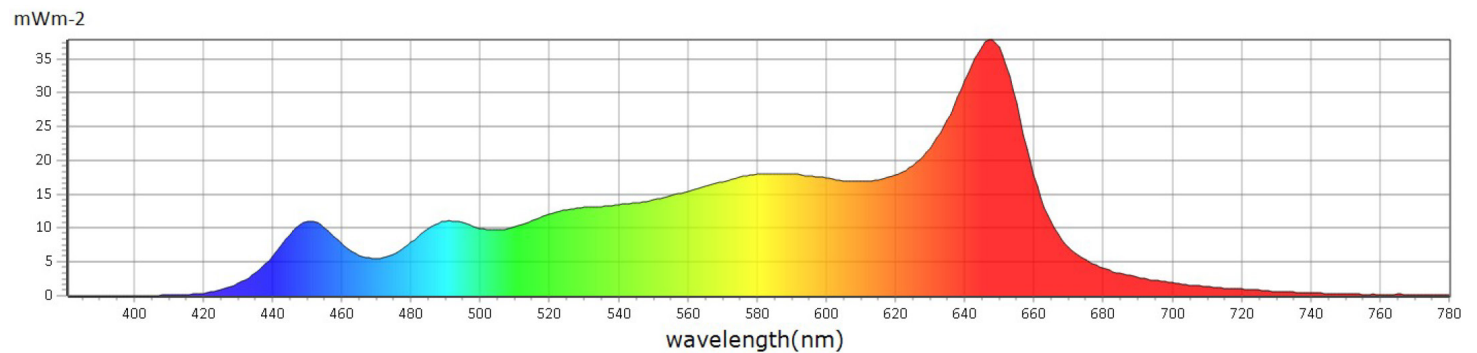
General

● CCT	3171 K
● x	0,4254
● y	0,4002
● LambdaD	582 nm
● LambdaP	647 nm

Measurements

CCT : 3171 K	x10 : 0,4296	delta-x : 0,0002	LambdaD : 582 nm	PPFD : 17,81 $\mu\text{molm}^{-2}\text{s}^{-1}$	S/P : 1,56	R3 : 97,1	R10 : 99,3
LUX : 1124 lx	y10 : 0,4002	delta-y : 0,0005	LambdaP : 647 nm	PFD : 18,11 $\mu\text{molm}^{-2}\text{s}^{-1}$	IRR : 3,729	R4 : 99,7	R11 : 98,8
I-Time : 8400 us	u'10 : 0,2475	delta-u' : -0,0001	Purity : 47,83%	PFD-B : 2,243 $\mu\text{molm}^{-2}\text{s}^{-1}$	CQS : 97,0	R5 : 99,4	R12 : 91,0
x : 0,4254	v'10 : 0,5187	delta-v' : 0,0002	fc : 104,5	PFD-G : 6,760 $\mu\text{molm}^{-2}\text{s}^{-1}$	CRI : 98,4	R6 : 98,6	R13 : 99,5
y : 0,4002	X : 1194,91	Duv : 0,0002	Rf : 95,6	PFD-R : 8,809 $\mu\text{molm}^{-2}\text{s}^{-1}$	TLCI : 97,4	R7 : 98,8	R14 : 97,1
u' : 0,2448	Y : 1124,12	MEL : 695,9 lx	Rg : 100,5	PFD-UV : 0,0002 $\mu\text{molm}^{-2}\text{s}^{-1}$	R1 : 99,6	R8 : 94,6	R15 : 98,0
v' : 0,5181	Z : 489,72	LambdaPV : 37,85	GAI : 62,2	PFD-FR : 0,2964 $\mu\text{molm}^{-2}\text{s}^{-1}$	R2 : 99,6	R9 : 86,7	

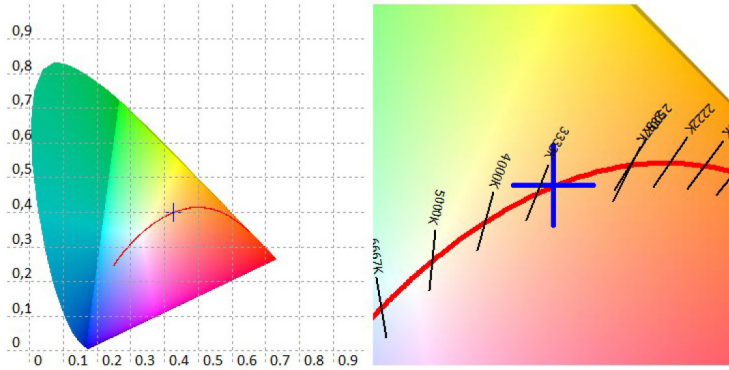
Spectrum



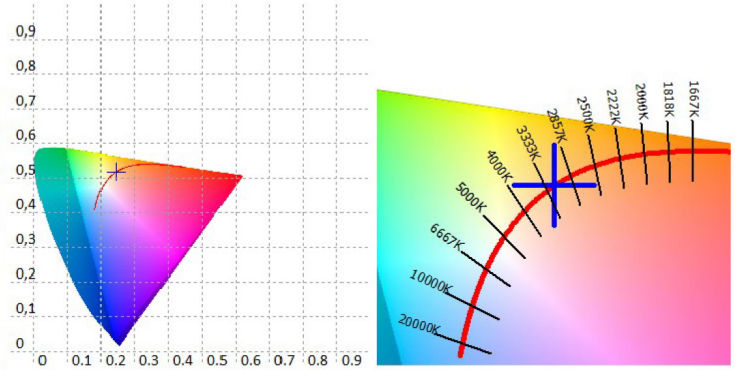
Romeo 600 FullSpectrum - Maximum Zoom - 3.200K

Measurements taken on Robert Juliat 614 at 5 meters

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
99,6	99,6	97,1	99,7	99,4	98,6	98,8	94,6	86,7	99,3	98,8	91,0	99,5	97,1	98,0

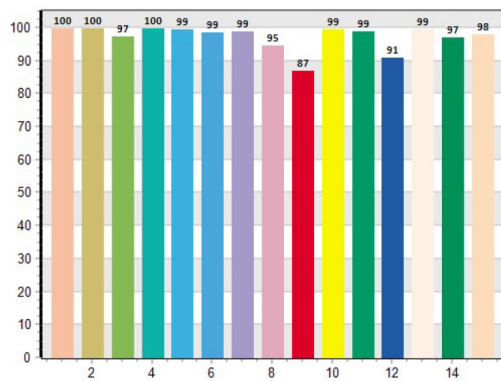
TM30 C values, 16 binned values out of total of 99 C values

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

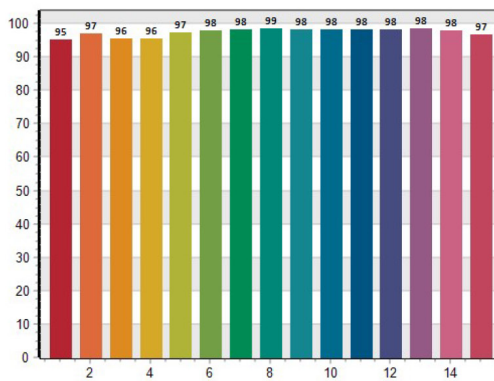
CQS Q values

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

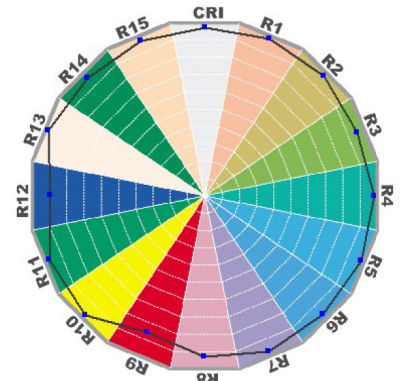
CRI: 98,43



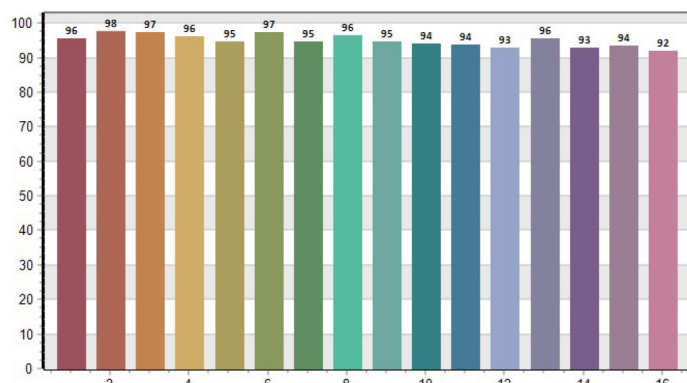
CQS: 96,97



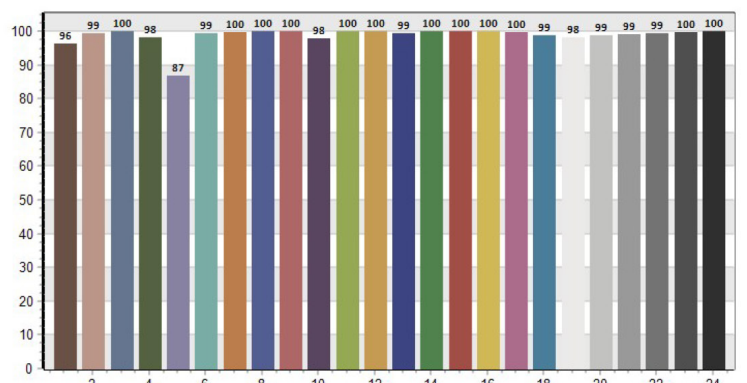
CRI-2



TM30: 95,62



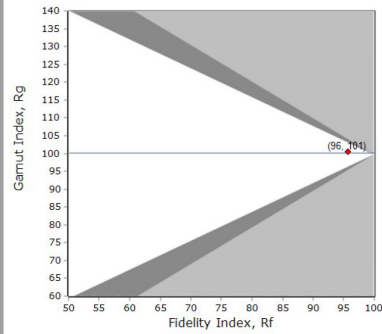
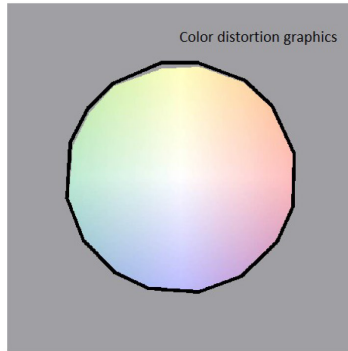
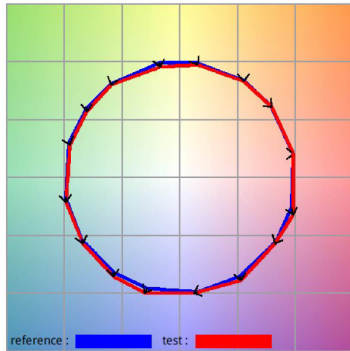
TLCI: 97,44



Romeo 600 FullSpectrum - Maximum Zoom - 3.200K

Measurements taken on Robert Juliat 614 at 5 meters

General Color Rendition

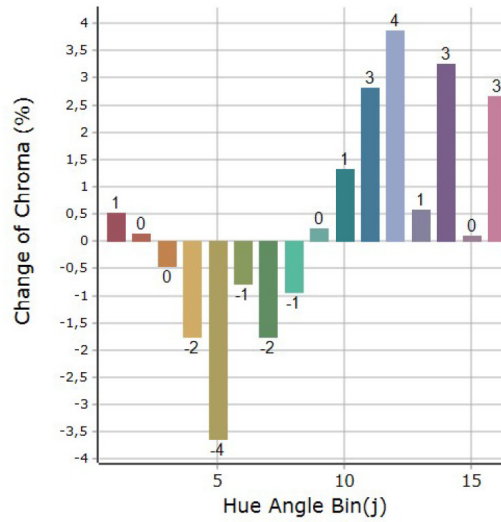
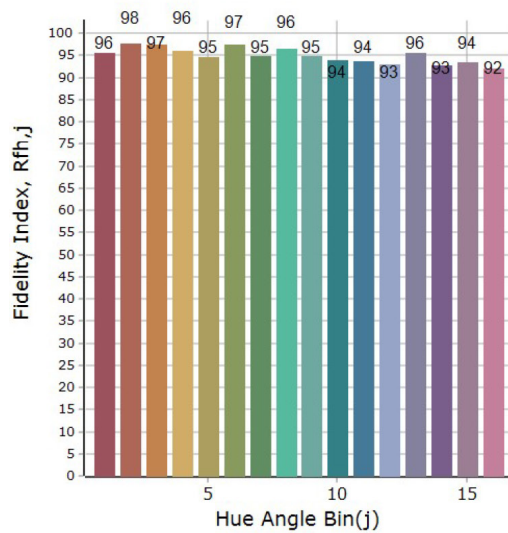
**Rf 95,6**

Fidelity index Rf

Rg 100,5

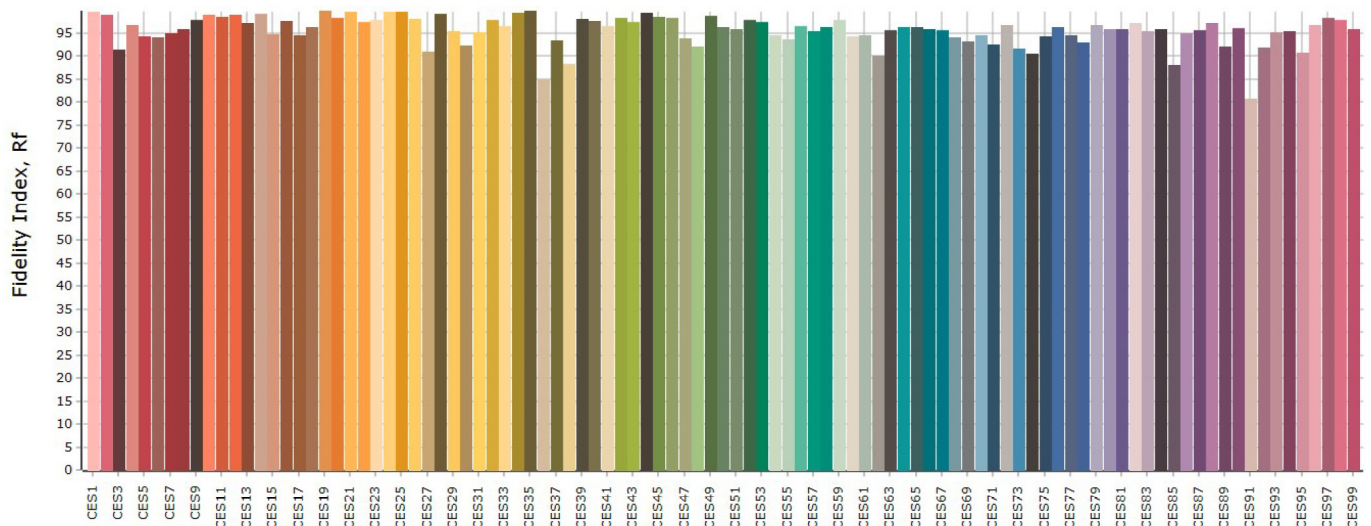
Gammut index Rg

Color Rendition by Hue



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

Color Fidelity by Sample



Romeo 600 FullSpectrum - Minimum Zoom - 5.600K

Measurements taken on Robert Juliat 614 at 5 meters

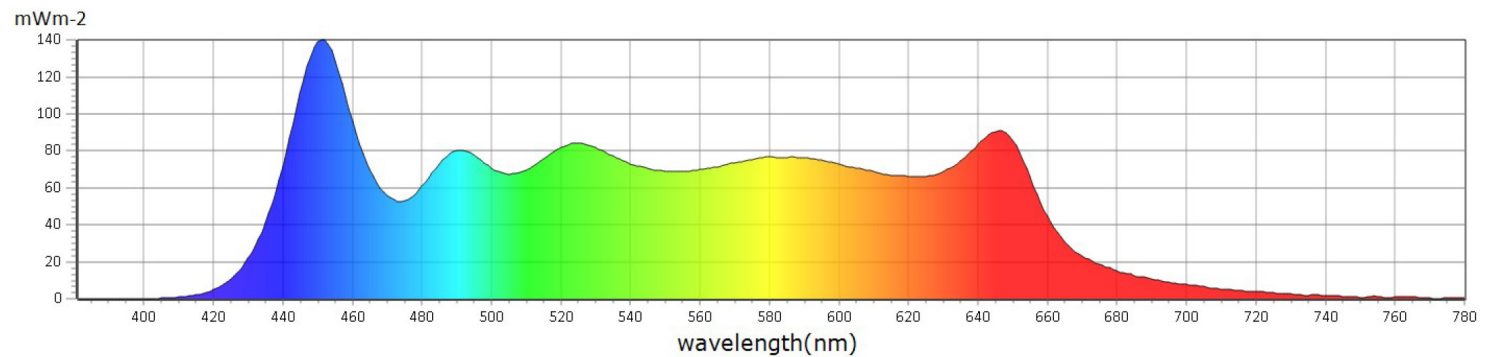
General

● CCT	5684 K
● x	0,3284
● y	0,3370
● LambdaD	502 nm
● LambdaP	450 nm

Measurements

CCT : 5684 K	x10 : 0,3310	delta-x : 0,0000	LambdaD : 502 nm	PPFD : 83,00 $\mu\text{molm}^{-2}\text{s}^{-1}$	S/P : 2,30	R3 : 99,2	R10 : 97,7
LUX : 5349 lx	y10 : 0,3408	delta-y : -0,0005	LambdaP : 450 nm	PFD : 84,18 $\mu\text{molm}^{-2}\text{s}^{-1}$	IRR : 18,37	R4 : 98,2	R11 : 95,2
I-Time : 1400 us	u'10 : 0,2060	delta-u' : 0,0002	Purity : 1,49%	PFD-B : 22,23 $\mu\text{molm}^{-2}\text{s}^{-1}$	CQS : 96,8	R5 : 98,1	R12 : 84,3
x : 0,3284	v'10 : 0,4772	delta-v' : -0,0002	fc : 497,1	PFD-G : 34,17 $\mu\text{molm}^{-2}\text{s}^{-1}$	CRI : 97,8	R6 : 95,5	R13 : 98,1
y : 0,3370	X : 5211,24	Duv : -0,0002	Rf : 94,8	PFD-R : 26,61 $\mu\text{molm}^{-2}\text{s}^{-1}$	TLCI : 97,0	R7 : 97,5	R14 : 98,2
u' : 0,2056	Y : 5348,86	MEL : 5430 lx	Rg : 101,0	PFD-UV : 0,0005 $\mu\text{molm}^{-2}\text{s}^{-1}$	R1 : 98,0	R8 : 97,8	R15 : 98,2
v' : 0,4749	Z : 5309,88	LambdaPV : 140,1	GAI : 95,9	PFD-FR : 1,175 $\mu\text{molm}^{-2}\text{s}^{-1}$	R2 : 98,3	R9 : 96,4	

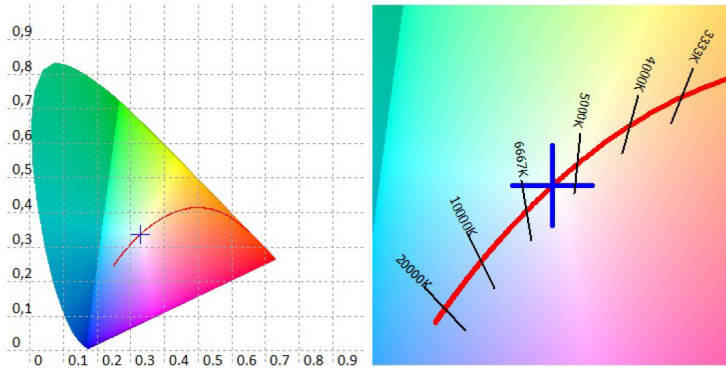
Spectrum



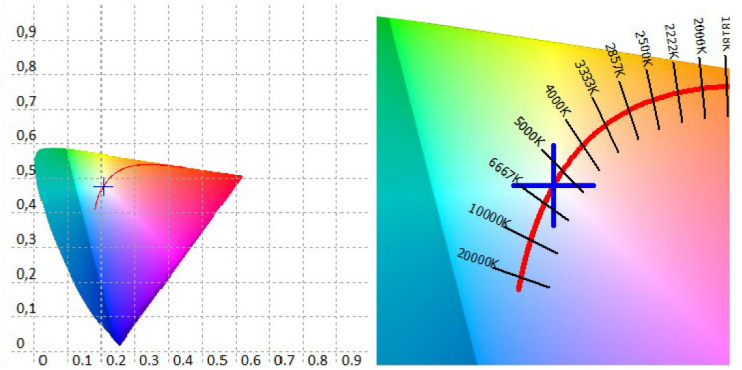
Romeo 600 FullSpectrum - Minimum Zoom - 5.600K

Measurements taken on Robert Juliat 614 at 5 meters

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
98,0	98,3	99,2	98,2	98,1	95,5	97,5	97,8	96,4	97,7	95,2	84,3	98,1	98,2	98,2

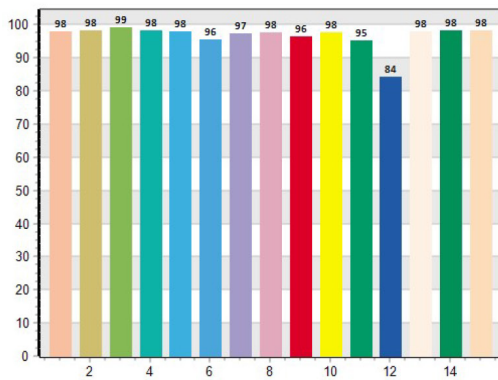
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,7	97,0	96,0	96,1	93,8	97,8	95,8	94,3	93,8	92,5	89,3	95,3	93,7	94,0	86,1	96,9

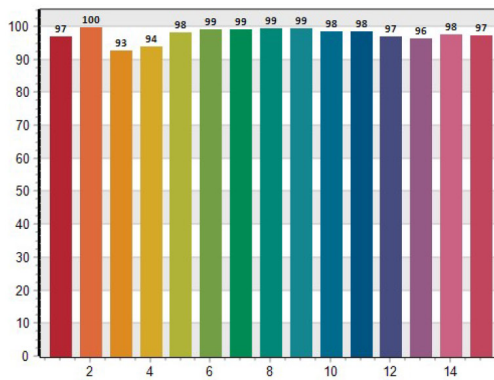
CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,8	99,7	92,5	93,8	98,1	99,2	99,0	99,4	99,4	98,4	98,4	97,0	96,3	97,6	97,3

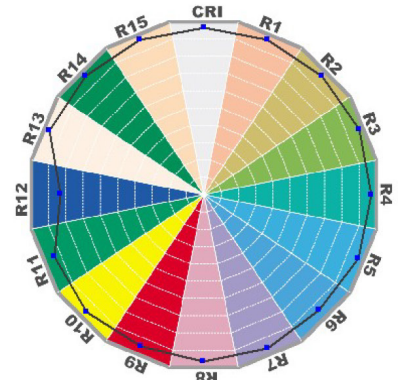
CRI: 97,85



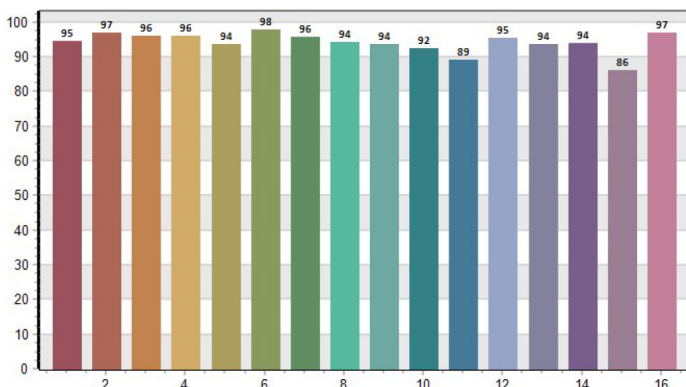
CQS: 96,82



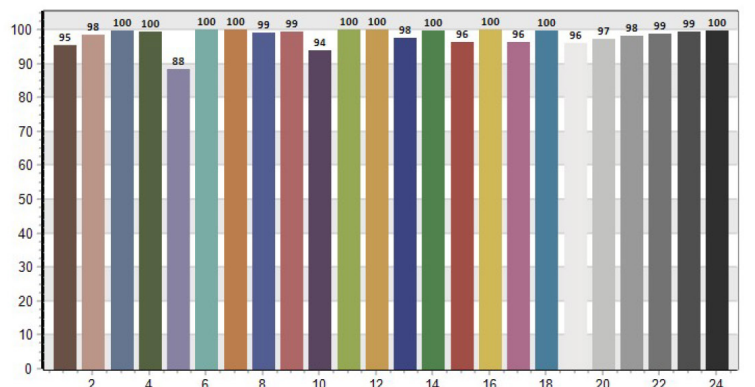
CRI-2



TM30: 94,78



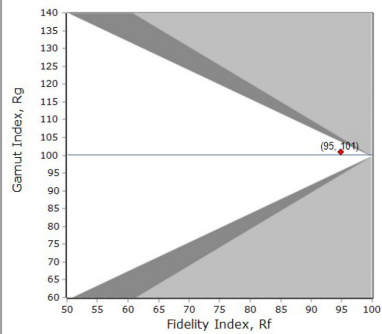
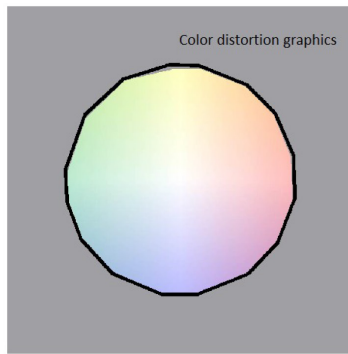
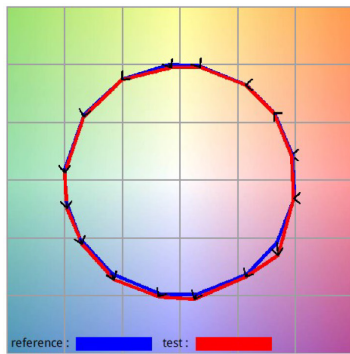
TLCI: 96,99



Romeo 600 FullSpectrum - Minimum Zoom - 5.600K

Measurements taken on Robert Juliat 614 at 5 meters

General Color Rendition

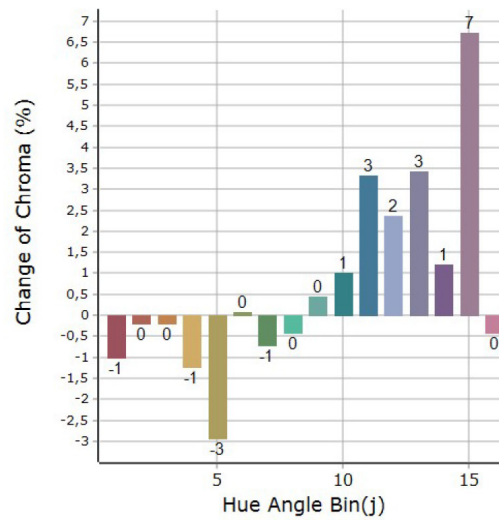
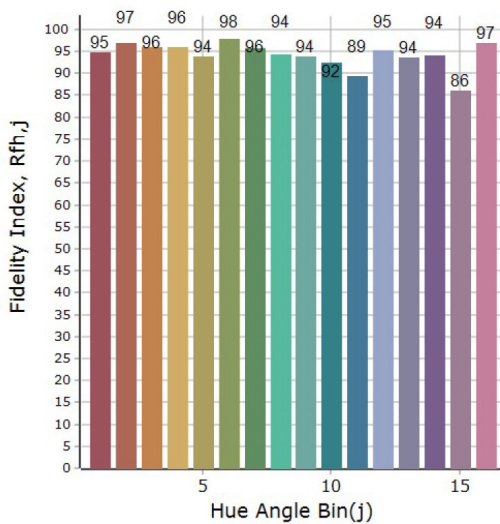
**Rf 94,8**

Fidelity index Rf

Rg 101,0

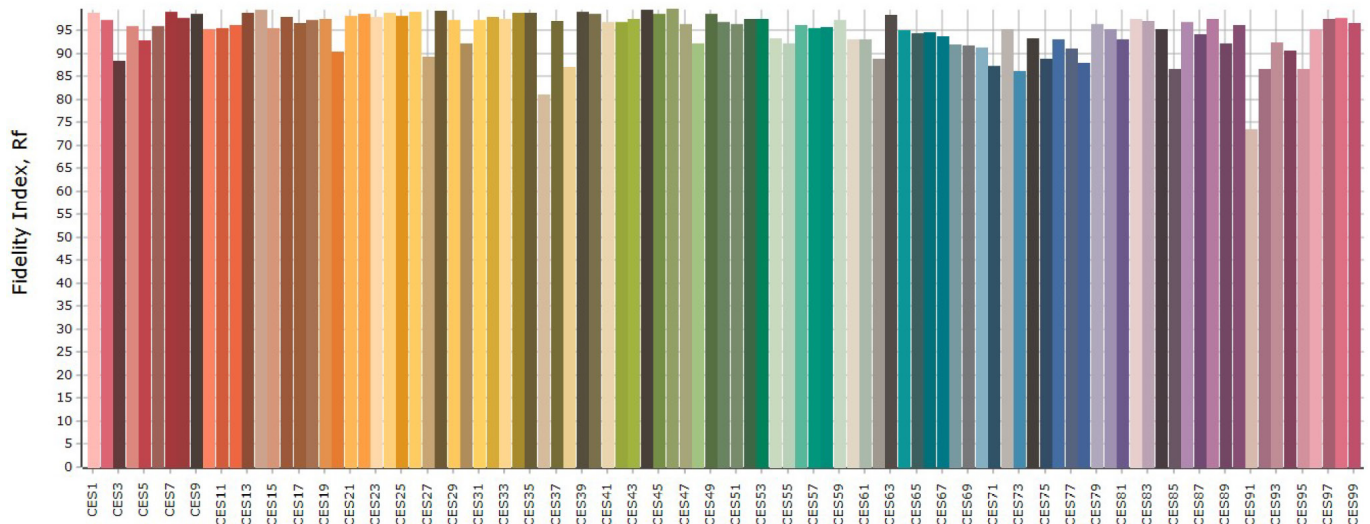
Gamut index Rg

Color Rendition by Hue



		Graphic shifts (%)	
Hue Bin	Rf	Chroma	Hue
1	94,7	-1,0%	0,1%
2	97,0	-0,2%	1,1%
3	96,0	-0,2%	0,6%
4	96,1	-1,2%	-1,1%
5	93,8	-2,9%	-0,8%
6	97,8	0,1%	0,9%
7	95,8	-0,7%	1,8%
8	94,3	-0,4%	2,9%
9	93,8	0,4%	5,0%
10	92,5	1,0%	4,2%
11	89,3	3,3%	4,8%
12	95,3	2,4%	-1,0%
13	93,7	3,4%	-2,3%
14	94,0	1,2%	-2,5%
15	86,1	6,7%	-7,8%
16	96,9	-0,4%	-0,2%

Color Fidelity by Sample



Romeo 600 FullSpectrum - Maximum Zoom - 5.600K

Measurements taken on Robert Juliat 614 at 5 meters

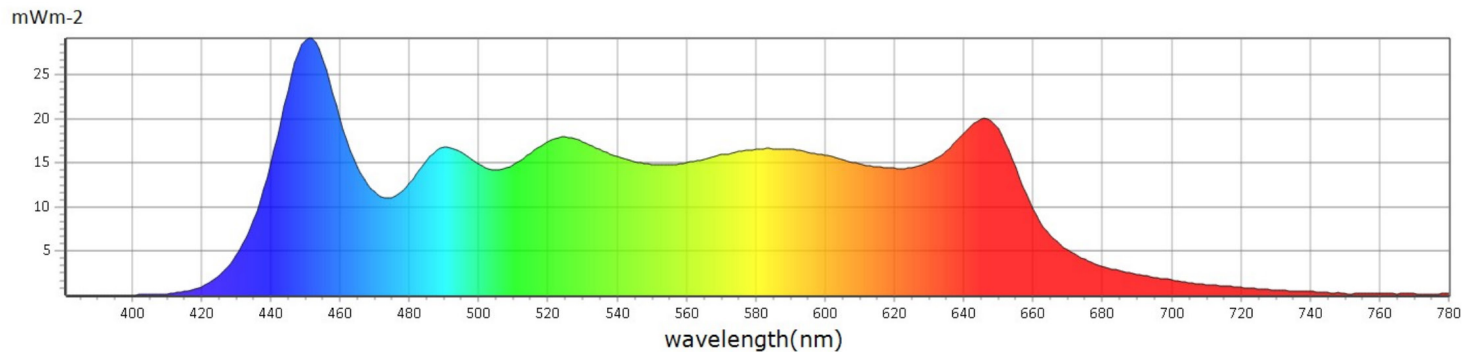
General

● CCT	5502 K
● x	0,3323
● y	0,3401
● LambdaD	547 nm
● LambdaP	450 nm

Measurements

CCT : 5502 K	x10 : 0,3351	delta-x : -0,0001	LambdaD : 547 nm	PPFD : 17,80 $\mu\text{molm}^{-2}\text{s}^{-1}$	S/P : 2,26	R3 : 99,1	R10 : 97,9
LUX : 1149 lx	y10 : 0,3436	delta-y : -0,0009	LambdaP : 450 nm	PFD : 18,07 $\mu\text{molm}^{-2}\text{s}^{-1}$	IRR : 3,933	R4 : 98,1	R11 : 95,2
I-Time : 7200 us	u'10 : 0,2077	delta-u' : 0,0003	Purity : 1,80%	PFD-B : 4,634 $\mu\text{molm}^{-2}\text{s}^{-1}$	CQS : 96,7	R5 : 98,3	R12 : 84,7
x : 0,3323	v'10 : 0,4792	delta-v' : -0,0005	fc : 106,8	PFD-G : 7,332 $\mu\text{molm}^{-2}\text{s}^{-1}$	CRI : 97,8	R6 : 95,6	R13 : 98,2
y : 0,3401	X : 1123,06	Duv : -0,0004	Rf : 94,9	PFD-R : 5,831 $\mu\text{molm}^{-2}\text{s}^{-1}$	TLCI : 96,9	R7 : 97,3	R14 : 98,3
u' : 0,2072	Y : 1149,38	MEL : 1142 lx	Rg : 101,1	PFD-UV : 0,0008 $\mu\text{molm}^{-2}\text{s}^{-1}$	R1 : 98,1	R8 : 97,7	R15 : 98,4
v' : 0,4771	Z : 1106,74	LambdaPV : 29,11	GAI : 94,9	PFD-FR : 0,2715 $\mu\text{molm}^{-2}\text{s}^{-1}$	R2 : 98,4	R9 : 96,0	

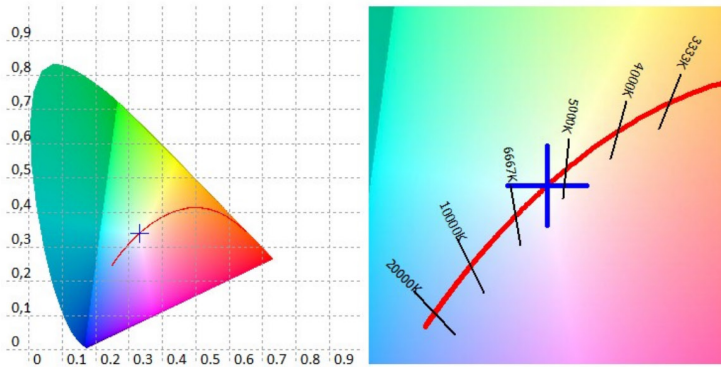
Spectrum



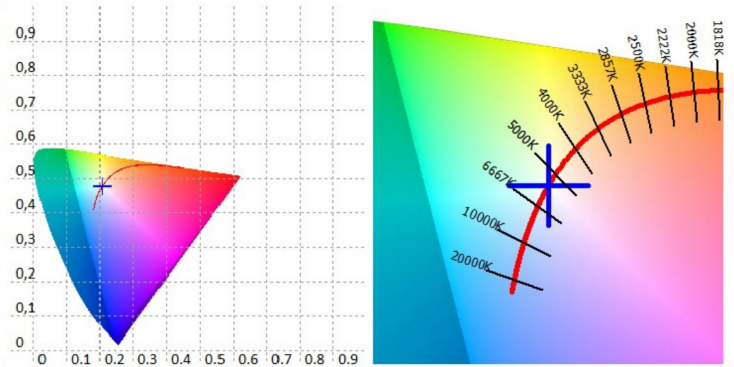
Romeo 600 FullSpectrum - Maximum Zoom - 5.600K

Measurements taken on Robert Juliat 614 at 5 meters

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
98,1	98,4	99,1	98,1	98,3	95,6	97,3	97,7	96,0	97,9	95,2	84,7	98,2	98,3	98,4

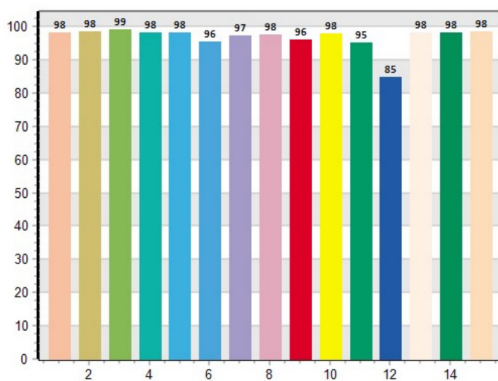
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,7	96,9	95,9	96,2	94,5	97,6	96,0	94,6	94,0	92,6	89,3	95,3	93,8	94,0	86,4	96,9

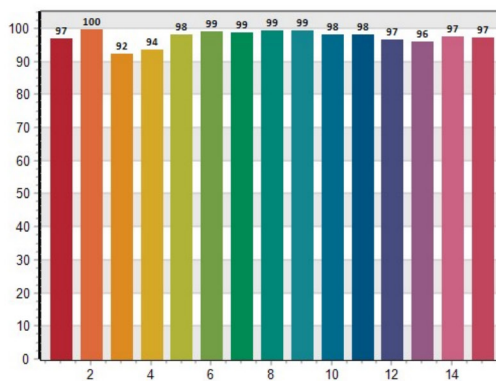
CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,0	99,7	92,3	93,7	98,1	99,0	98,8	99,3	99,3	98,1	98,0	96,7	96,1	97,4	97,3

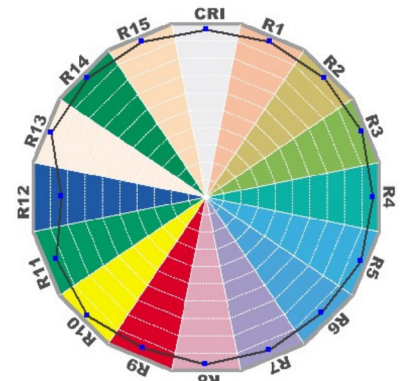
CRI: 97,83



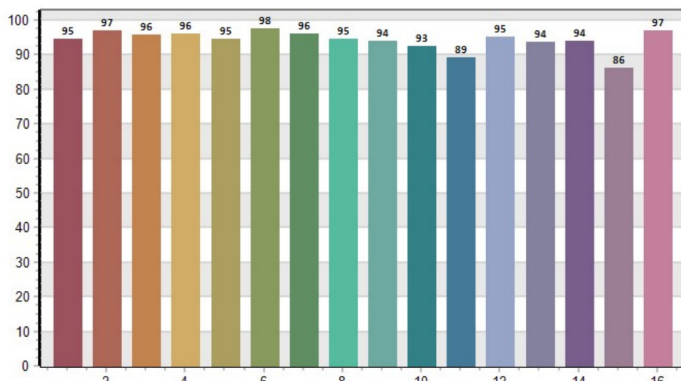
CQS: 96,70



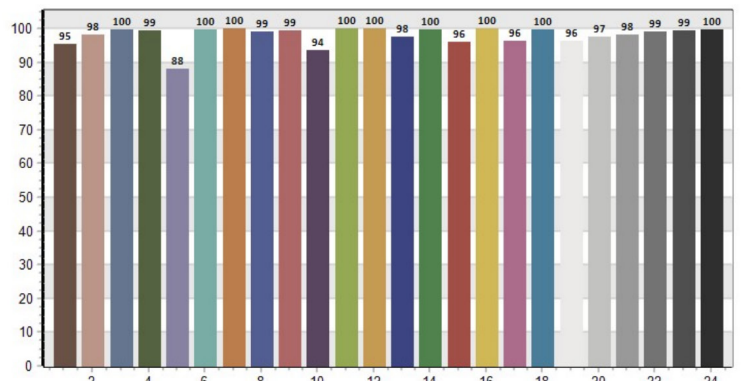
CRI-2



TM30: 94,85



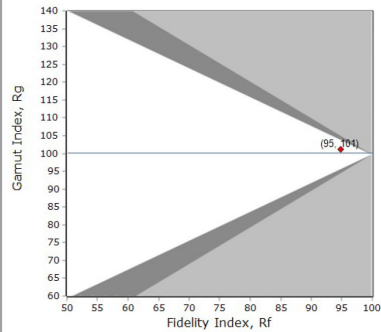
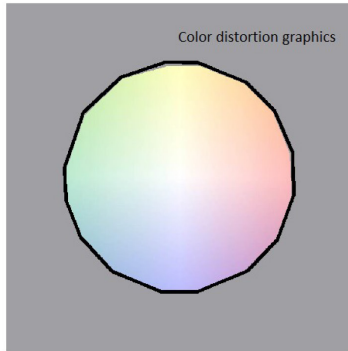
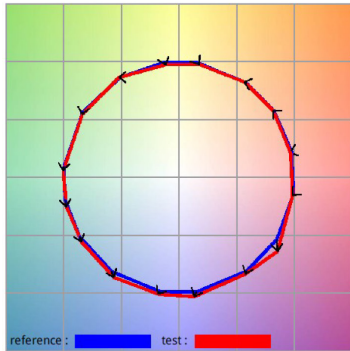
TLCI: 96,91



Romeo 600 FullSpectrum - Maximum Zoom - 5.600K

Measurements taken on Robert Juliat 614 at 5 meters

General Color Rendition

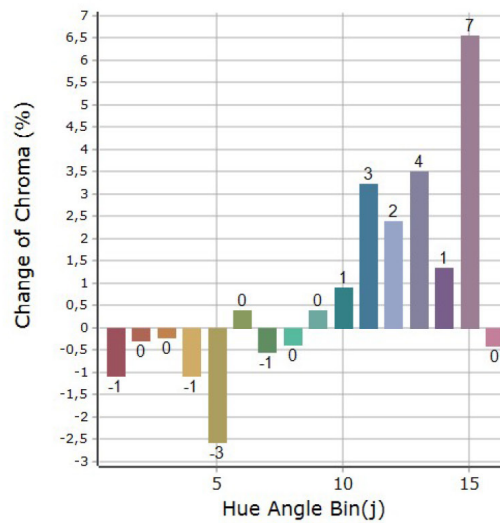
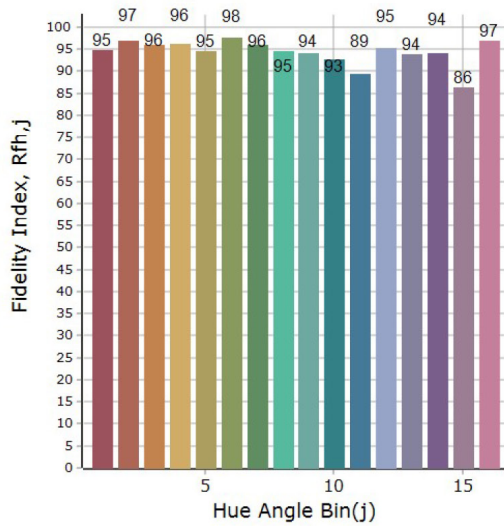
**Rf 94,9**

Fidelity index Rf

Rg 101,1

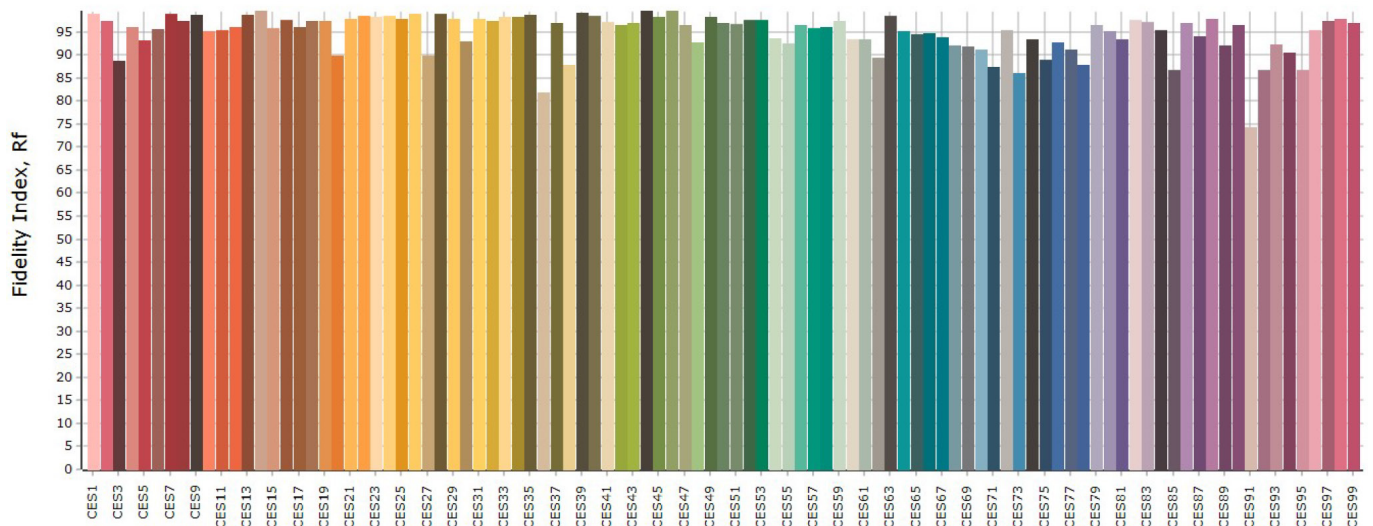
Gamut index Rg

Color Rendition by Hue



		Graphic shifts (%)	
Hue Bin	Rf	Chroma	Hue
1	94,7	-1,1%	0,1%
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4	96,2	-1,1%	-0,8%
5	94,5	-2,6%	-0,4%
6	97,6	0,4%	0,9%
7	96,0	-0,5%	1,7%
8	94,6	-0,4%	2,7%
9	94,0	0,4%	4,8%
10	92,6	0,9%	4,1%
11	89,3	3,2%	4,8%
12	95,3	2,4%	-0,8%
13	93,8	3,5%	-2,2%
14	94,0	1,4%	-2,5%
15	86,4	6,6%	-7,8%
16	96,9	-0,4%	-0,3%

Color Fidelity by Sample



● Coemar Lighting S.r.l.

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