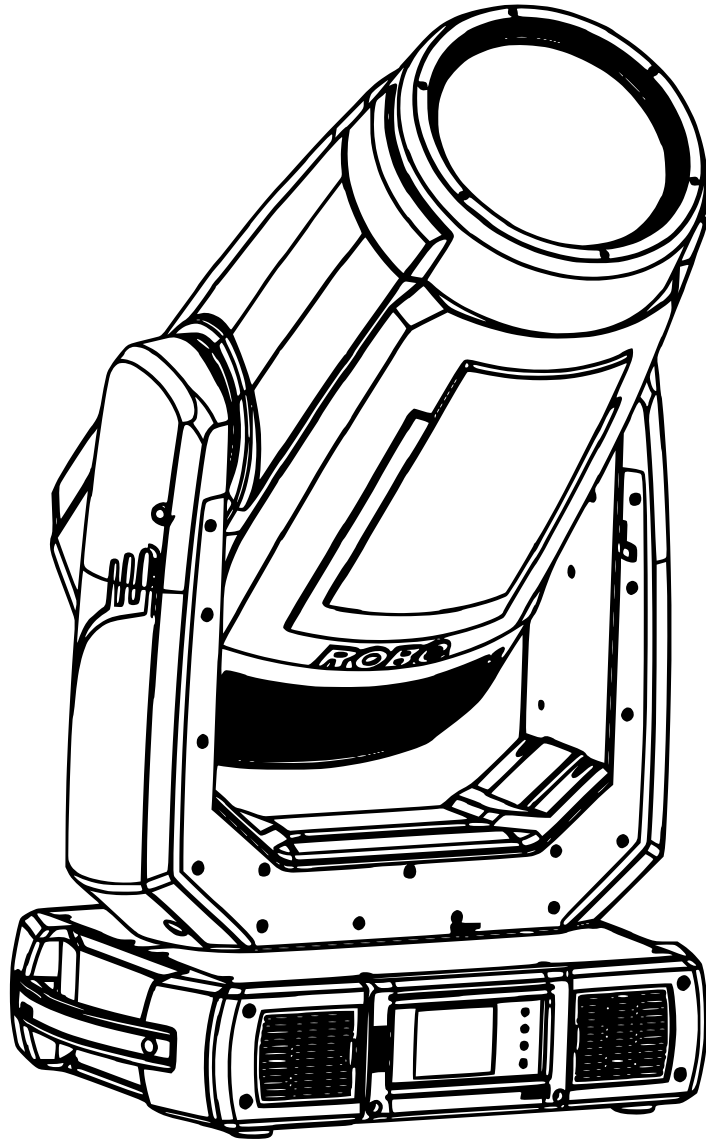


FORT[®]



ROBE[®]

Forte HP

Photometric report

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Forte HP

Photometric report

Total Lumen output measurements

Total lumen output is measured by a Goniophotometer device according to EN 13032-1 within our state of the art ROBE lighting Ltd. photometric laboratory. We measure light emitted from the fixture at all radiating angles for minimum, maximum and mid zoom range. As a confirmation method we also measure lumens on the wall. Data from both measurements are processed in the software to calculate all photometric data. We provide photometric data in IES and LDT file and photometric report that includes spectrum, light distribution, TM30-15 and TLCI report.

Measurement conditions

For absolute consistency the Climate room temperature is 25°C. Fixtures are operated for at least 30 minutes for stabilization. Measurement angles used: -90° to +90° pan (-90° to +90° tilt), step 1°. A step angle of 10° is used for fixtures with elliptical or asymmetrical light output. Distances used are 5 m or 10 m.

All fixtures to produce the data are calibrated and checked for several photometric parameters, such as Intensity, CCT, CRI and duv, to meet all the specified values.

Equipment

Konica Minolta Illuminance Spectrophotometer CL-500A

Konica Minolta Illuminance Colour Meter CL-200A

Konica Minolta CRI Illuminance meter CL-70F

PRC Krochmann Radiolux 111

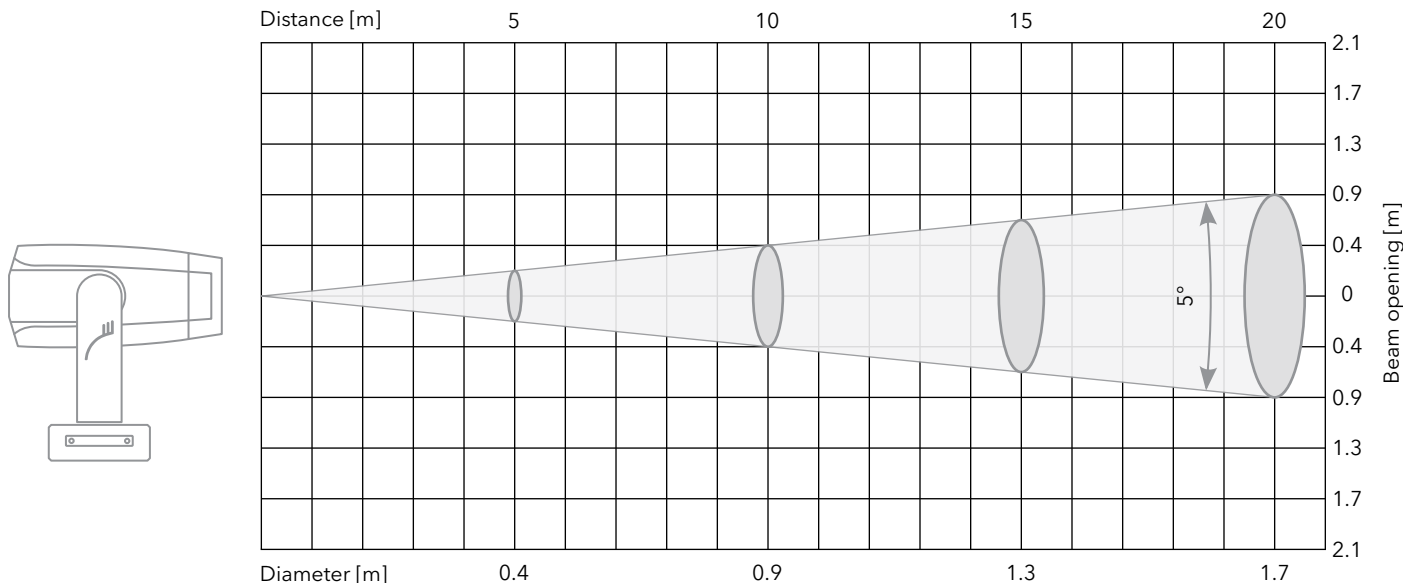
- Photometric measurement head
- UVA and UVC measurement head

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Photometric report

Beam angle 5° - Min. zoom - CRI 70

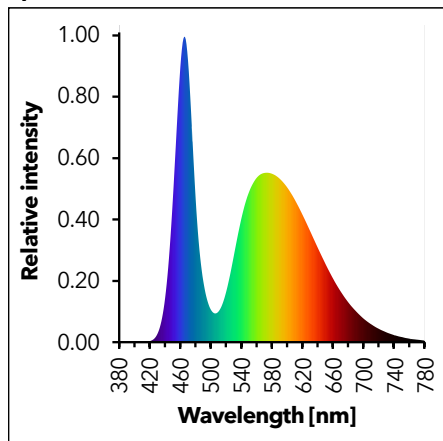
Beam angle	Total lumen output (integrating sphere)	Total lumen output (goniophotometer)	Peak candela	Power
5°	17668 lm	16869 lm	2875000 cd	1245 W



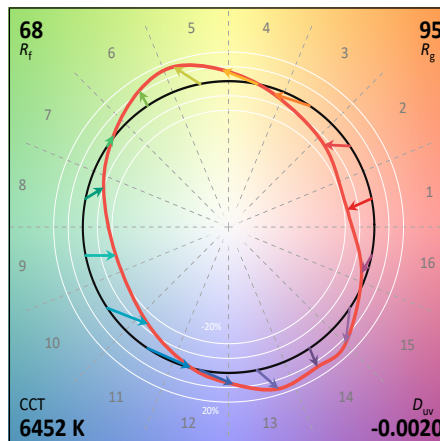
Center beam intensity [lx]/[fcd]; Total lumen output [lm] measured by goniophotometer

Distance	5 m	10 m	15 m	20 m	30 m	40 m	50 m	Total lumens
High Fan Mode	115000/10684	28750/2671	12778/1187	7188/668	3194/297	1797/167	1150/107	16869
Auto Fan Mode	113000/10498	28250/2625	12556/1166	7063/656	3139/292	1766/164	1130/105	16695
Quiet Fan Mode	82977/7709	20744/1927	9220/857	5186/482	2305/214	1297/120	830/77	12259

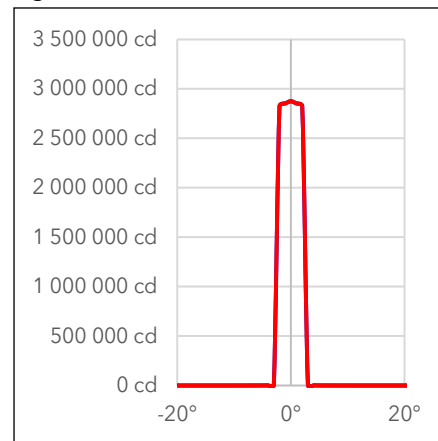
Spectrum



TM-30



Light distribution



Color temperature	CCT	6452
Color Deviation from Black	Duv	-0.0020
Color Coordinate CIE 1931	x	0.3147
	y	0.3211
Color Coordinate	u	0.2023
	v	0.3095

Color rendering index	CRI	70
Red component	CRI R9	-25
Color fidelity	TM30 Rf	68
Color gamut	TM30 Rg	95
Television consistency Index	TLCI	43

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam

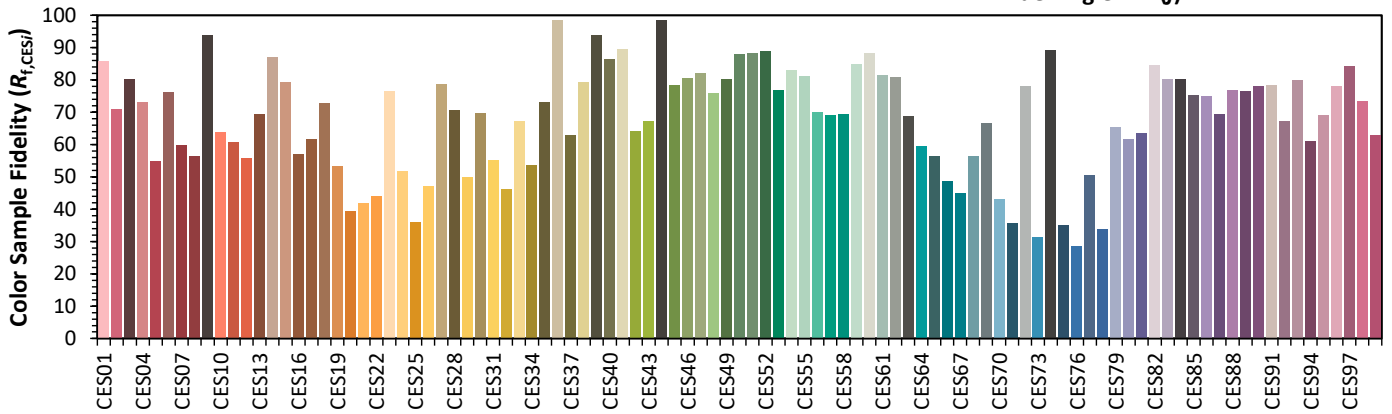
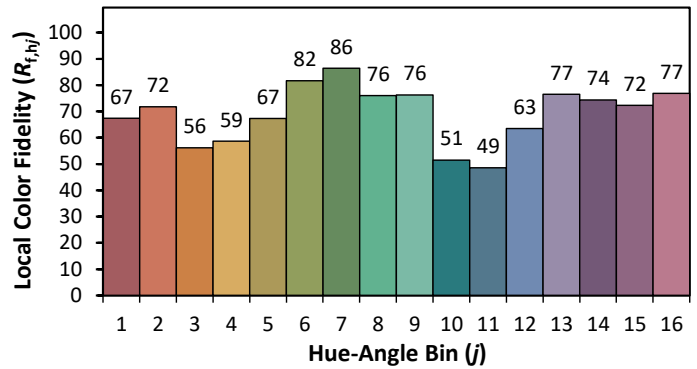
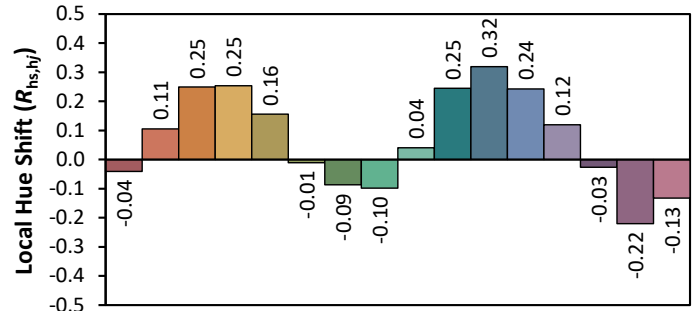
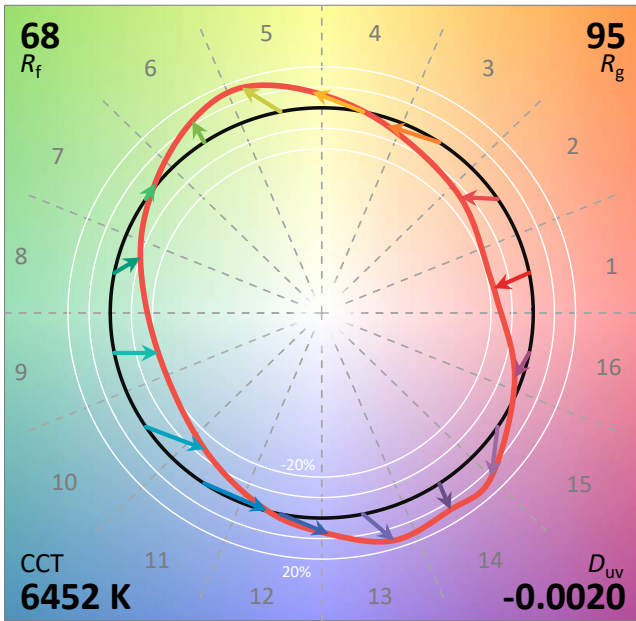
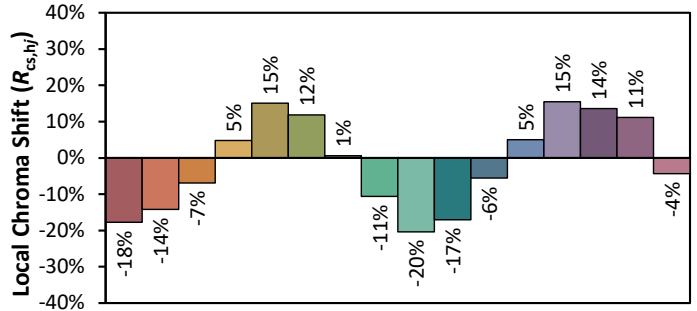
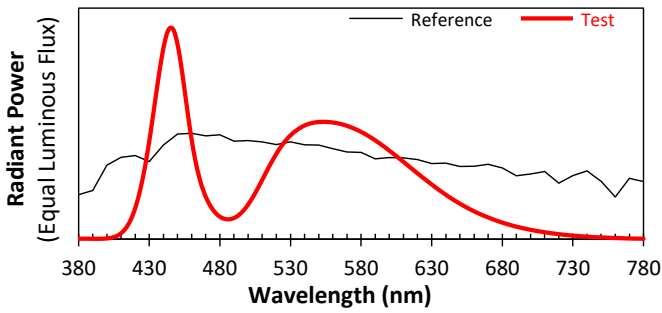
Measurement date: 01.04.2021

Forte HP

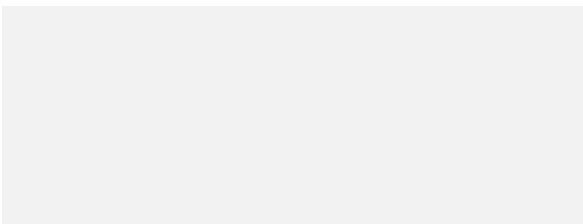
Photometric report

Beam angle 5° - Min. zoom - CRI 70

ANSI/IES TM-30-18 Color Rendition Report



Notes:



x 0.3147
y 0.3210
u' 0.2023
v' 0.4643

CIE 13.3-1995 (CRI)	
R _a	70
R _g	-25

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
Measurement date: 01.04.2021



Forte HP

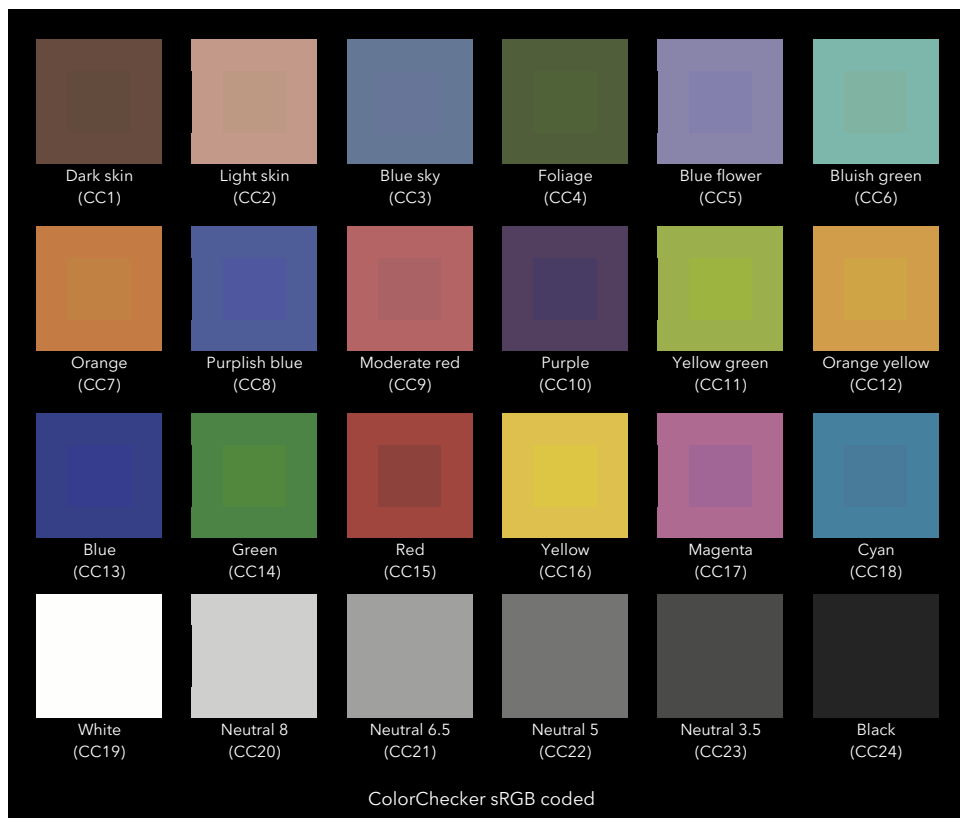
Photometric report

Beam angle 5° - Min. zoom - CRI 70

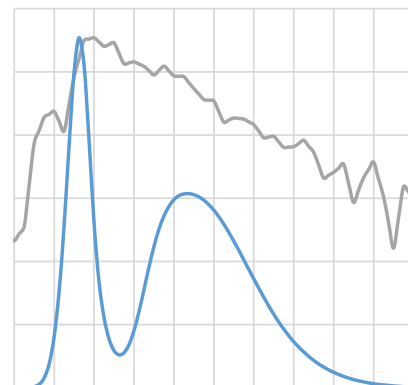
Television Lighting Consistency Index 2012 report

Direct spectrum input: CCT = D6452 (-0.4)

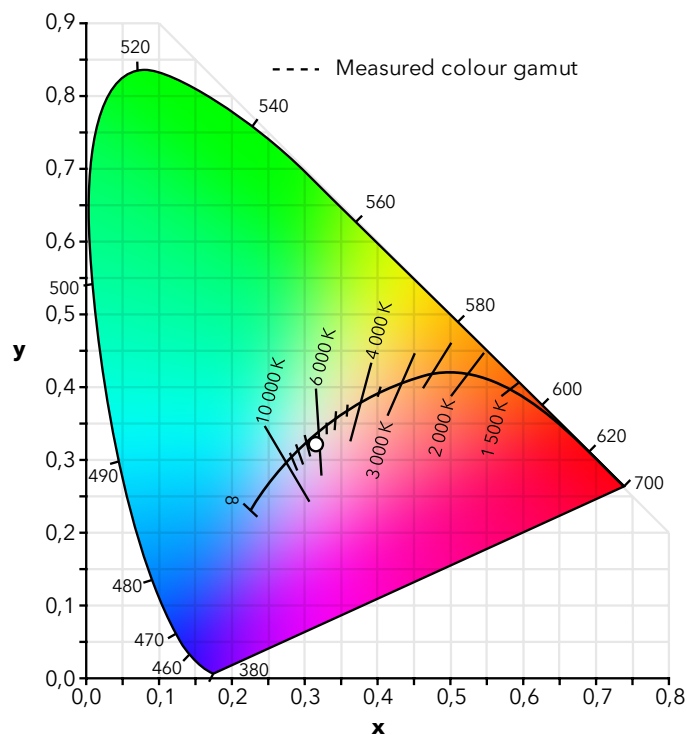
TLCI-2012: 43 (D6452)



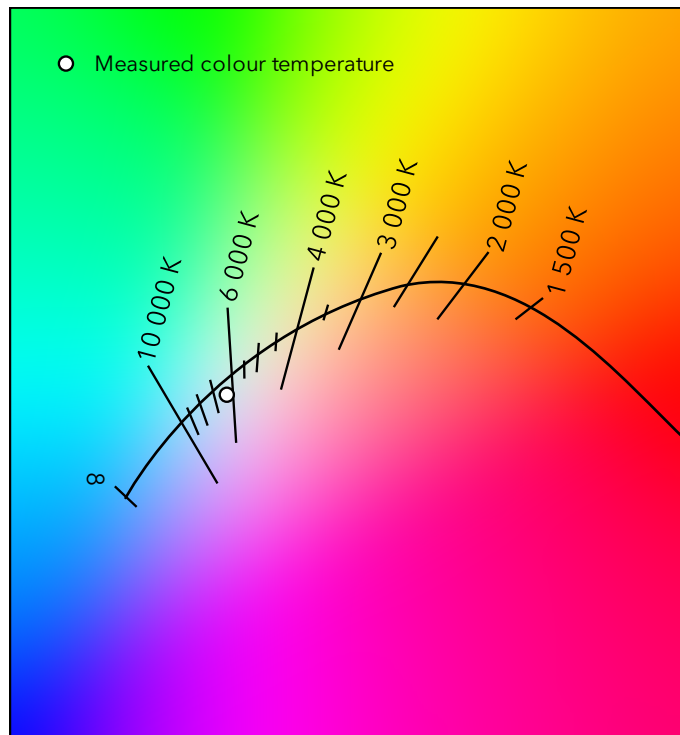
Sector	Lightness	Chroma	Hue
R	+++++	+++	+
R/Y	0	+	----
Y	--	--	-----
Y/G	-	---	0
G	--	--	+++
G/C	+	0	++++
C	+++	0	0
C/B	++++	0	----
B	0	---	----
B/M	++	----	+++
M	+++++	-	++++++
M/R	+++++	-	++++++



CIE 1931 color space gamut



Colour temperature



Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
 Measurement date: 01.04.2021

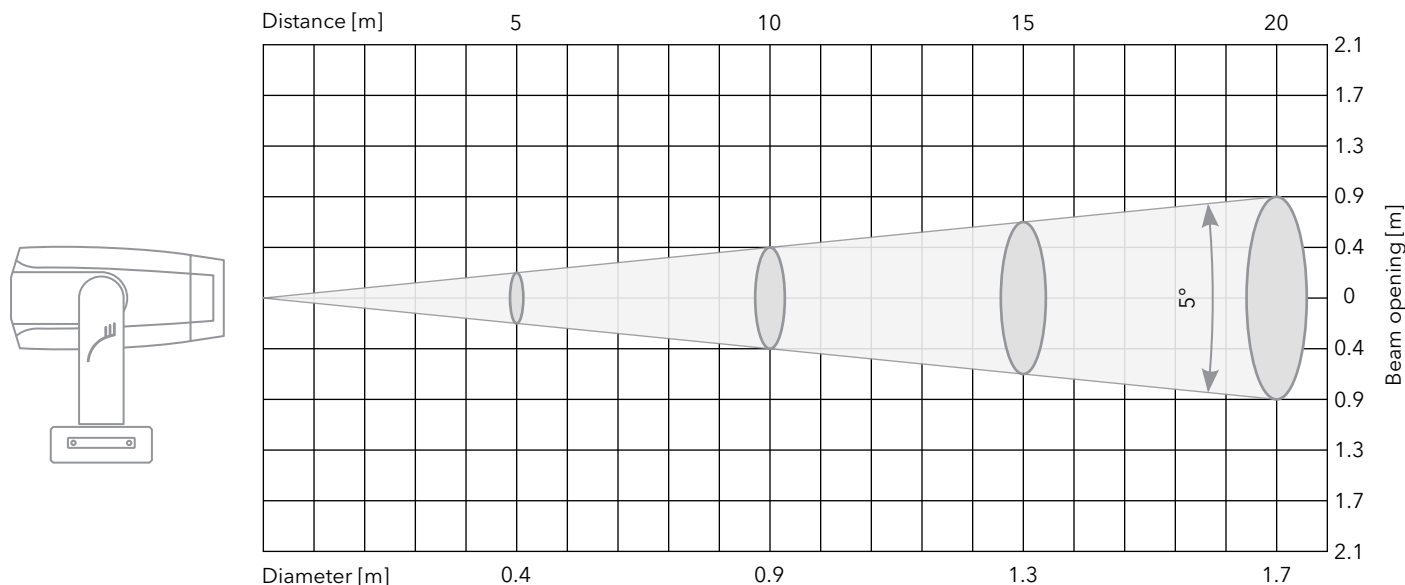


Forte HP

Photometric report

Beam angle 5° - Min. zoom - CRI 80

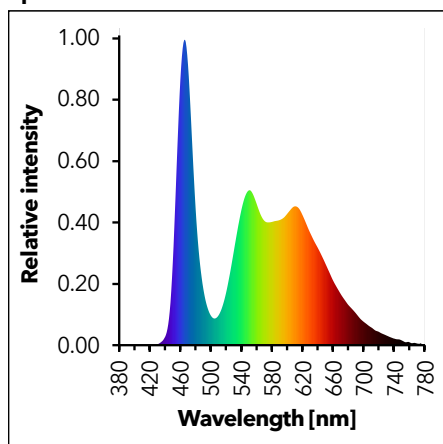
Beam angle	Total lumen output (integrating sphere)	Total lumen output (goniophotometer)	Peak candela	Power
5°	14572 lm	13913 lm	2365000 cd	1245 W



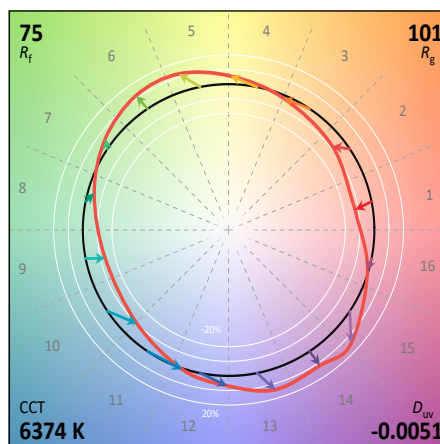
Center beam intensity [lx]/[fcd]; Total lumen output [lm] measured by goniophotometer

Distance	5 m	10 m	15 m	20 m	30 m	40 m	50 m	Total lumens
High Fan Mode	94600/8789	23650/2197	10511/977	5913/549	2628/244	1478/137	946/88	13913
Auto Fan Mode	91300/8482	22825/2121	10144/942	5706/530	2536/236	1427/133	913/85	13391
Quiet Fan Mode	67043/6228	16761/1557	7449/692	4190/389	1862/173	1048/97	670/62	9833

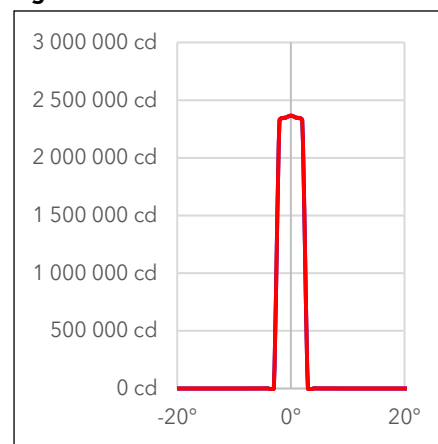
Spectrum



TM-30



Light distribution



Color temperature	CCT	6374
Color Deviation from Black	Duv	-0.0051
Color Coordinate CIE 1931	x	0.3166
	y	0.3170
Color Coordinate	u	0.2052
	v	0.3082

Color rendering index	CRI	79
Red component	CRI R9	11
Color fidelity	TM30 Rf	75
Color gamut	TM30 Rg	101
Television consistency Index	TLCI	58

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam

Measurement date: 01.04.2021

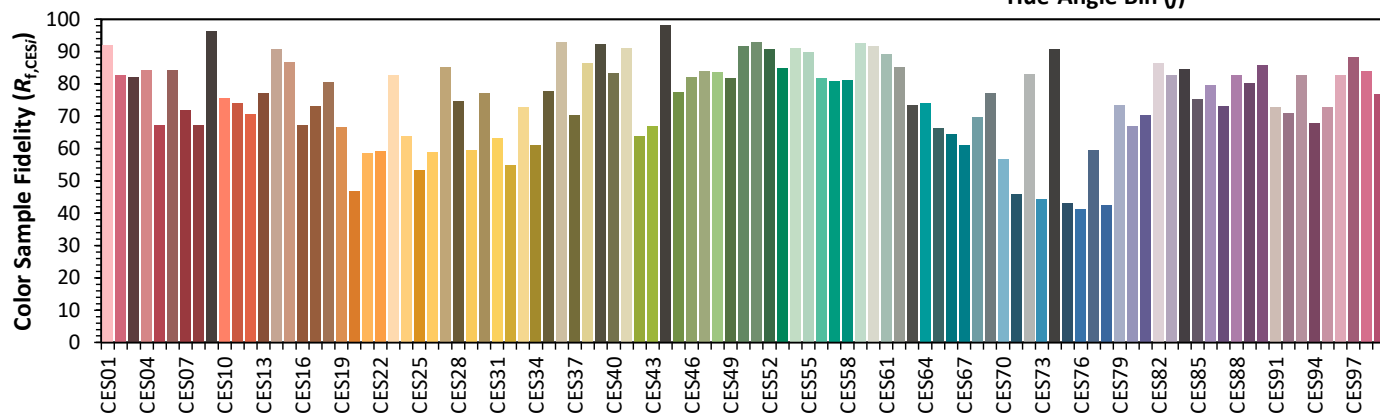
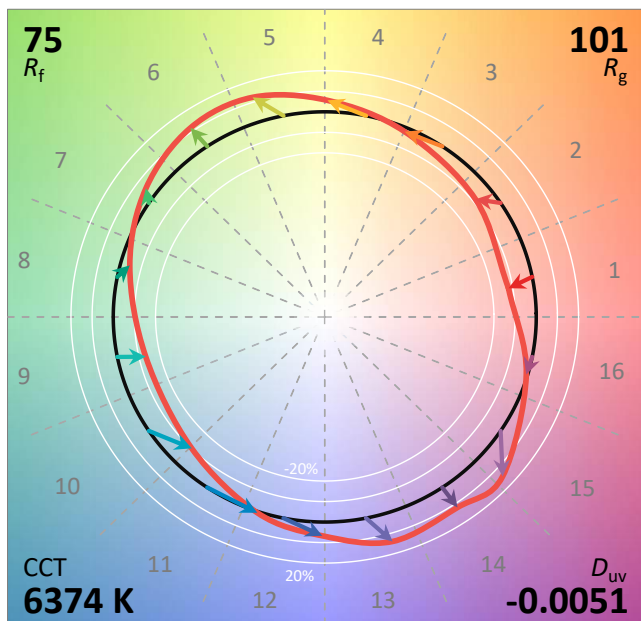
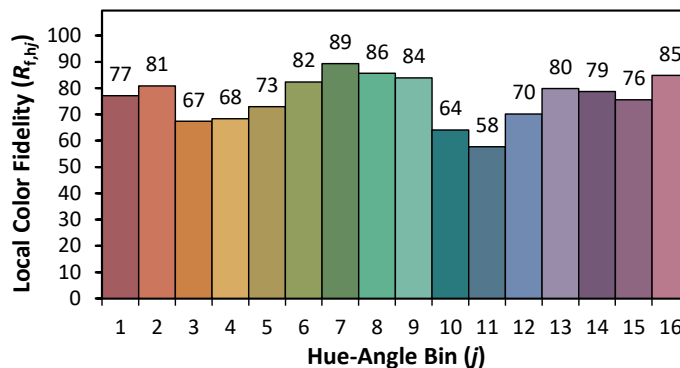
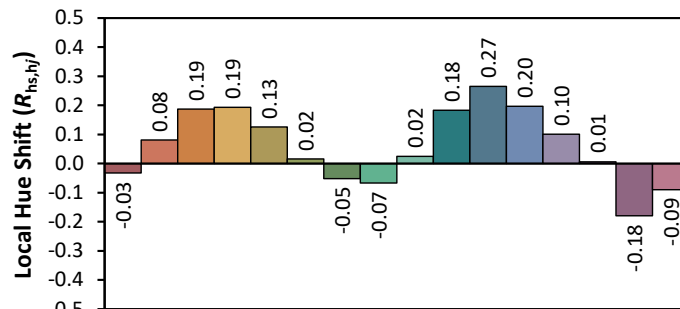
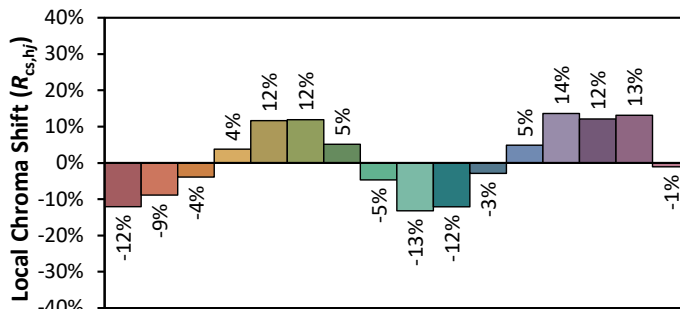
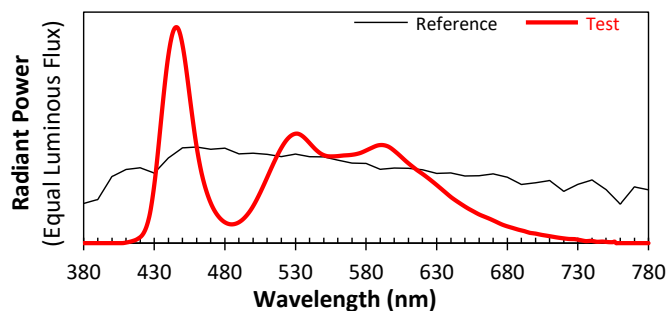


Forte HP

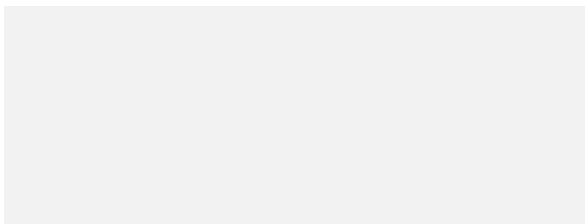
Photometric report

Beam angle 5° - Min. zoom - CRI 80

ANSI/IES TM-30-18 Color Rendition Report



Notes:



x 0.3165
y 0.3170
u' 0.2052
v' 0.4623

CIE 13.3-1995 (CRI)	
R _a	79
R _g	11

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
Measurement date: 01.04.2021



Forte HP

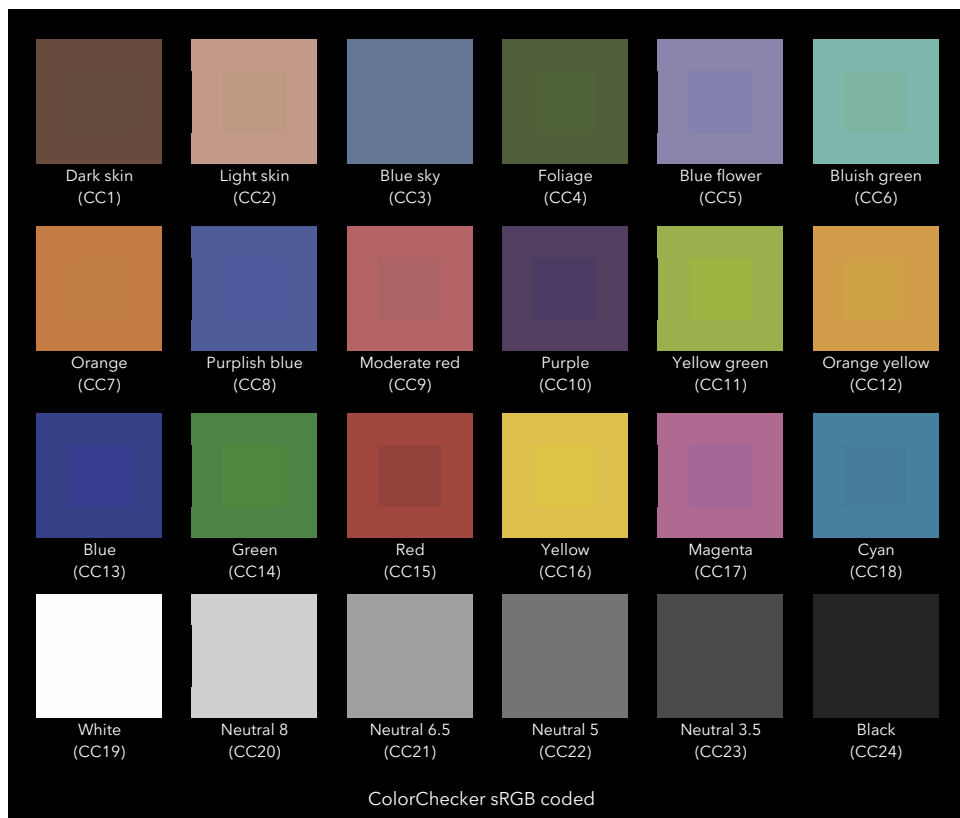
Photometric report

Beam angle 5° - Min. zoom - CRI 80

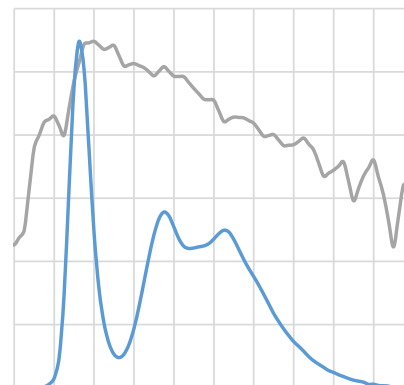
Television Lighting Consistency Index 2012 report

Direct spectrum input: CCT = D6374 (-0.9)

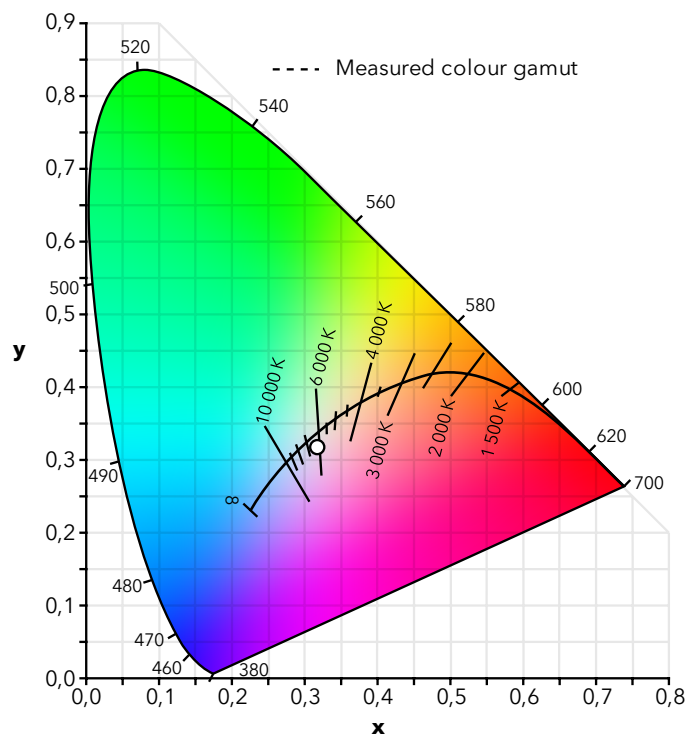
TLCI-2012: 58 (D6374)



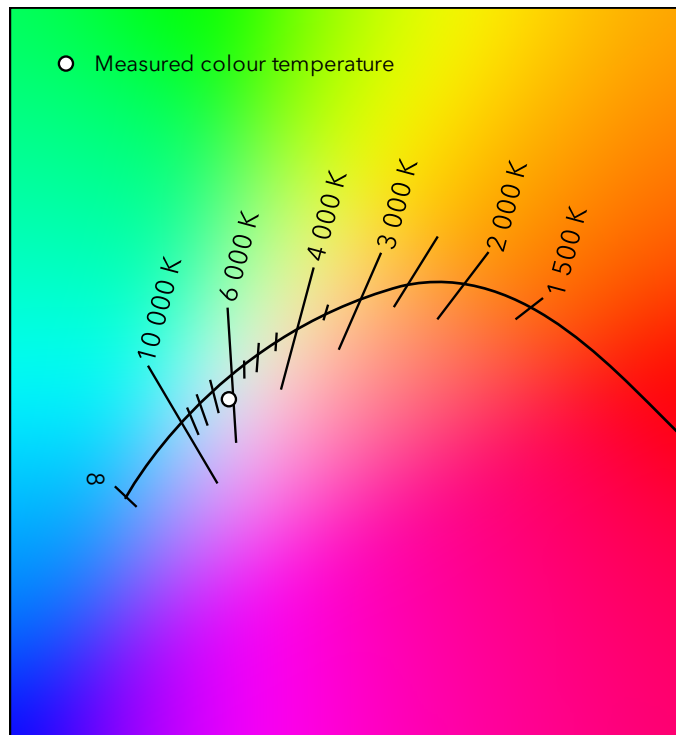
Sector	Lightness	Chroma	Hue
R	++++	++	+
R/Y	0	0	---
Y	-	-	----
Y/G	-	--	0
G	--	--	++
G/C	0	0	+++++
C	+	0	+
C/B	++	0	-
B	0	---	--
B/M	+	---	+++++
M	++	--	+++++
M/R	++++	0	+++++



CIE 1931 color space gamut



Colour temperature



Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
 Measurement date: 01.04.2021

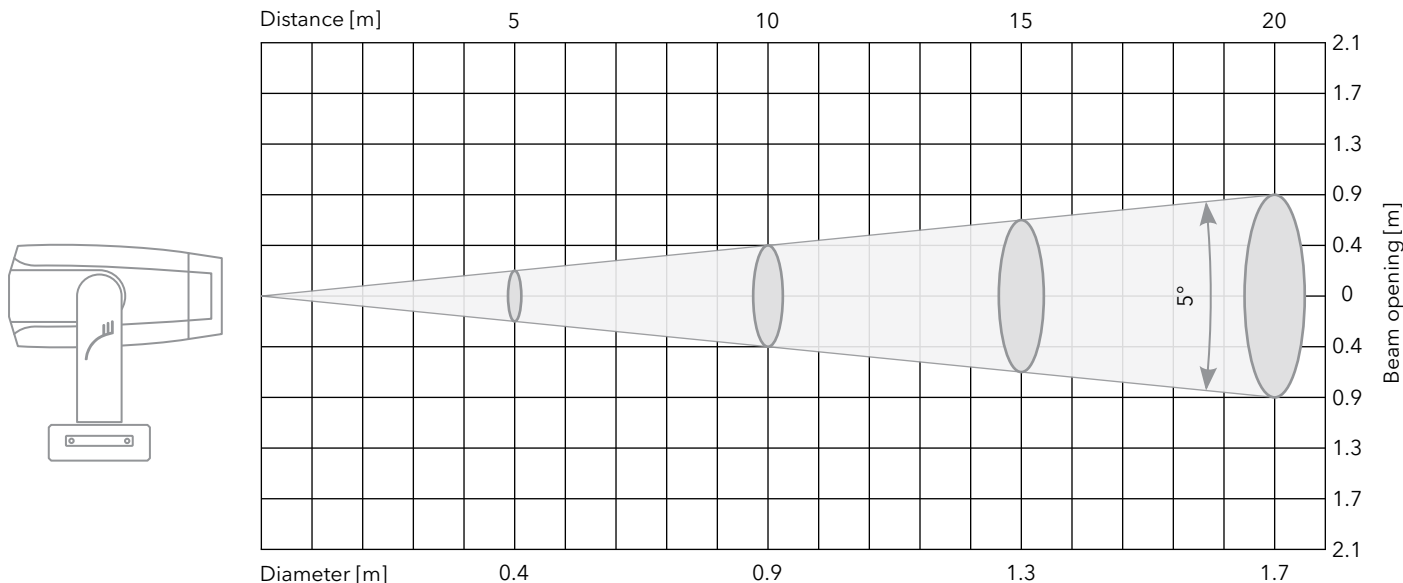


Forte HP

Photometric report

Beam angle 5° - Min. zoom - CRI 90

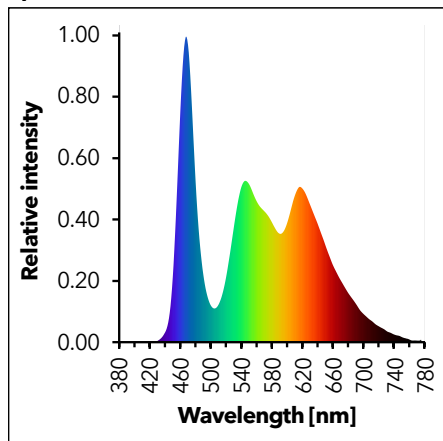
Beam angle	Total lumen output (integrating sphere)	Total lumen output (goniophotometer)	Peak candela	Power
5°	12568 lm	12000 lm	2057500 cd	1245 W



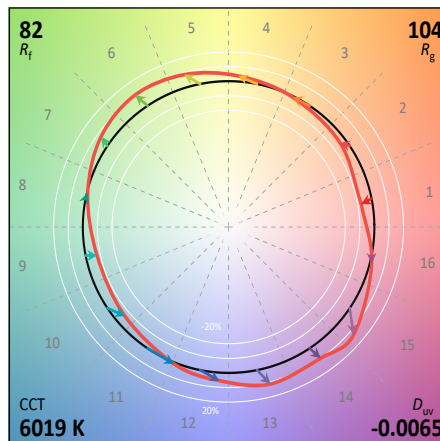
Center beam intensity [lx]/[fcd]; Total lumen output [lm] measured by goniophotometer

Distance	5 m	10 m	15 m	20 m	30 m	40 m	50 m	Total lumens
High Fan Mode	82300/7646	20575/1911	9144/850	5144/478	2286/212	1286/119	823/76	12000
Auto Fan Mode	80000/7432	20000/1858	8889/826	5000/465	2222/206	1250/116	800/74	11826
Quiet Fan Mode	58745/5458	14686/1364	6527/606	3672/341	1632/152	918/85	587/55	8684

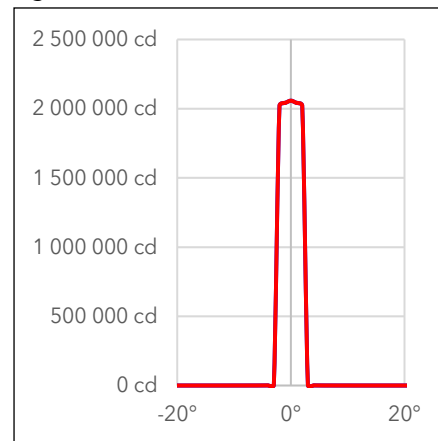
Spectrum



TM-30



Light distribution



Color temperature	CCT	6019
Color Deviation from Black	Duv	-0.0065
Color Coordinate CIE 1931	x	0.3225
	y	0.3200
Color Coordinate	u	0.2082
	v	0.3099

Color rendering index	CRI	86
Red component	CRI R9	41
Color fidelity	TM30 Rf	82
Color gamut	TM30 Rg	104
Television consistency Index	TLCI	71

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam

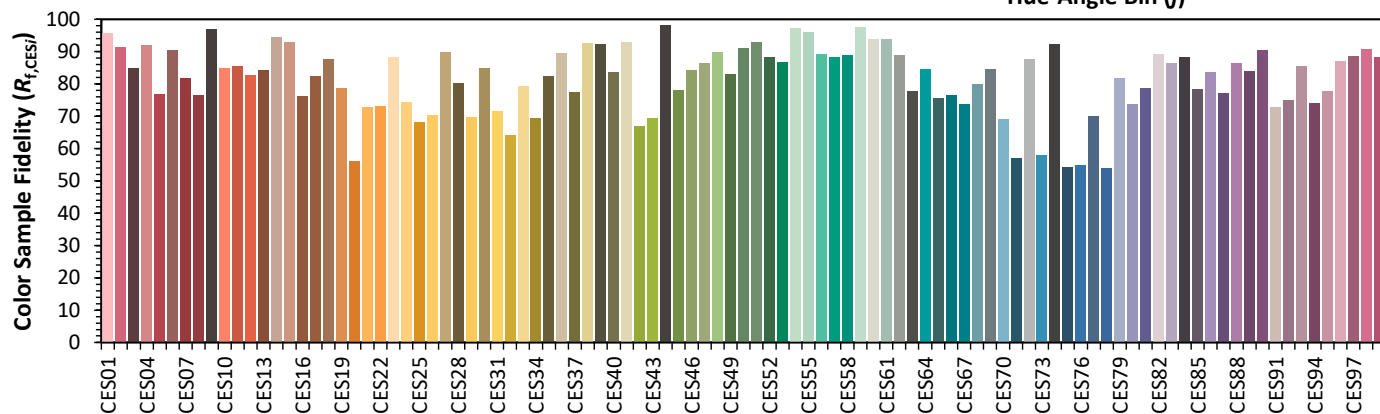
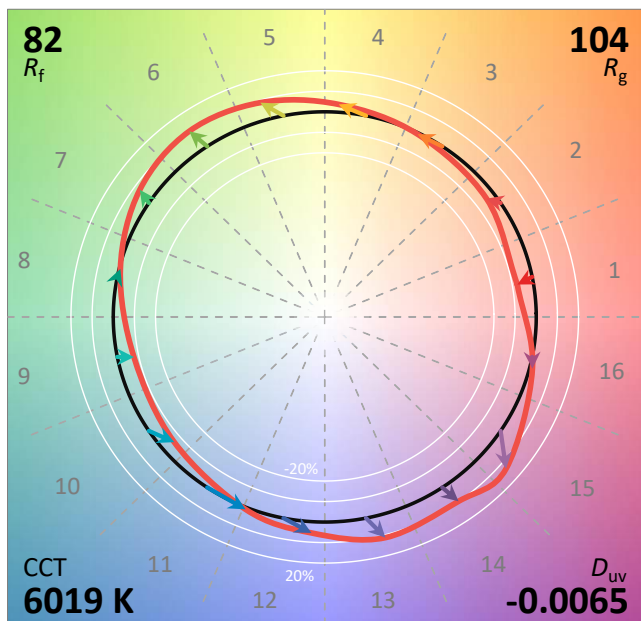
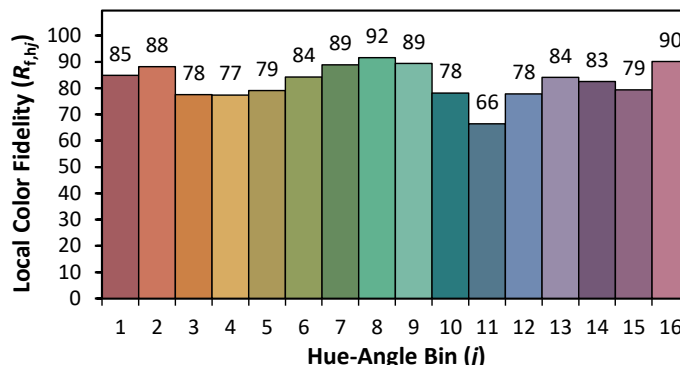
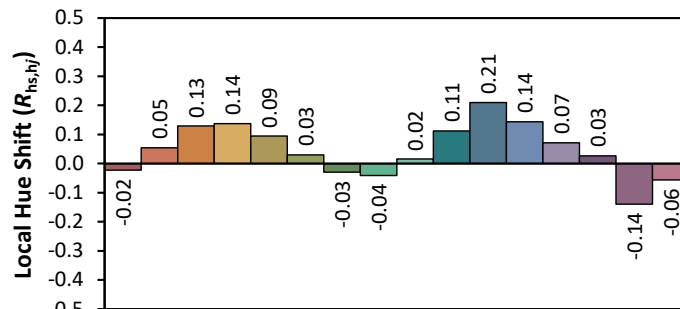
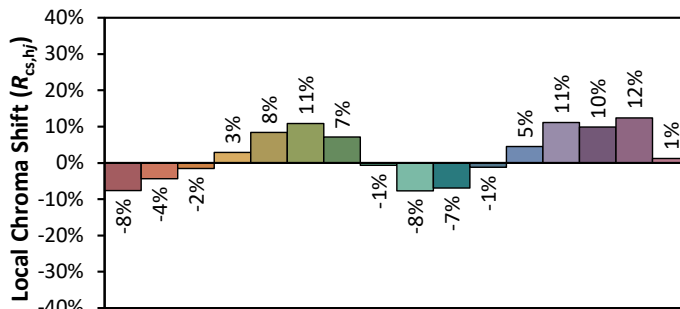
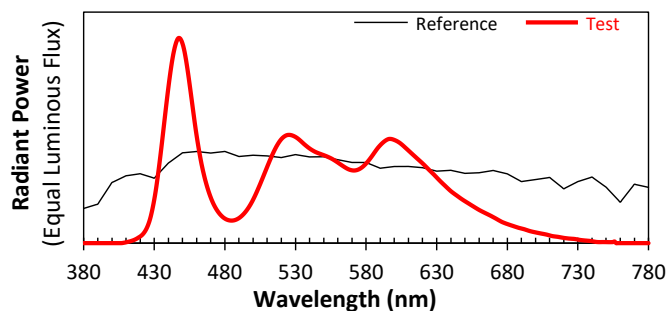
Measurement date: 01.04.2021

Forte HP

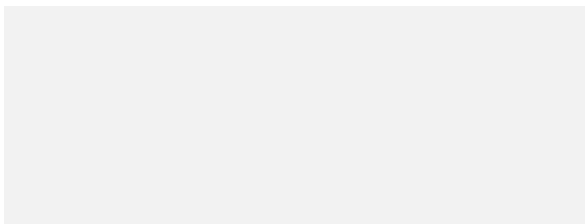
Photometric report

Beam angle 5° - Min. zoom - CRI 90

ANSI/IES TM-30-18 Color Rendition Report



Notes:



x 0.3225
y 0.3200
u' 0.2082
v' 0.4649

CIE 13.3-1995 (CRI)	
R _a	86
R _g	41

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
Measurement date: 01.04.2021

Forte HP

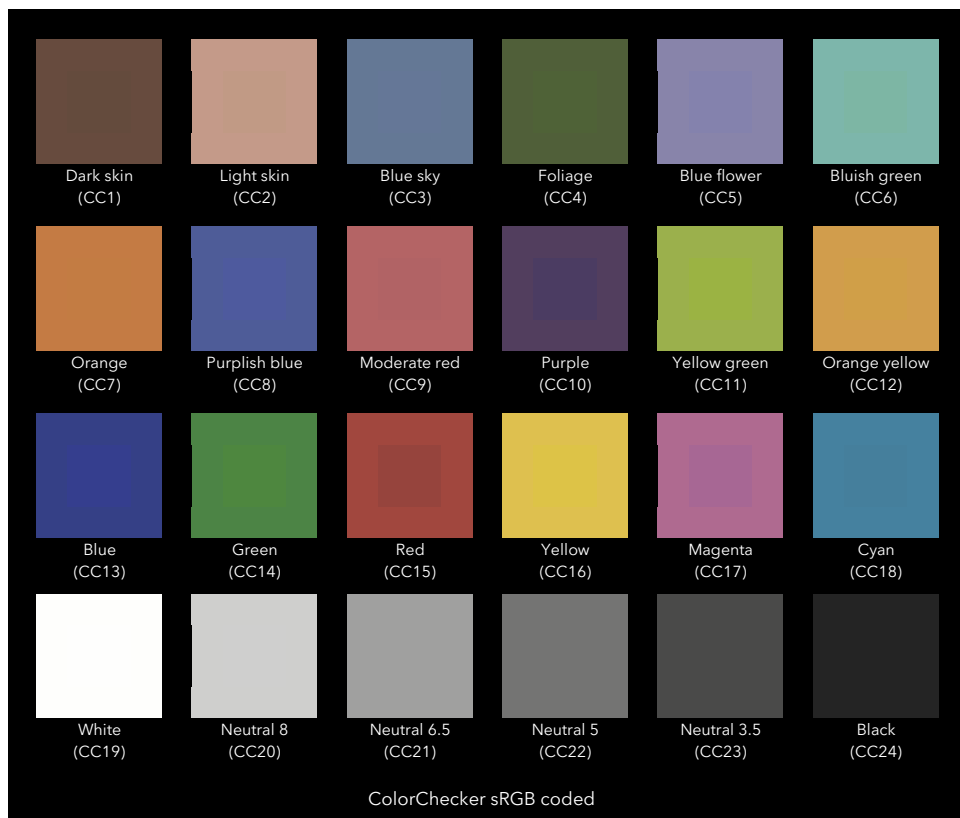
Photometric report

Beam angle 5° - Min. zoom - CRI 90

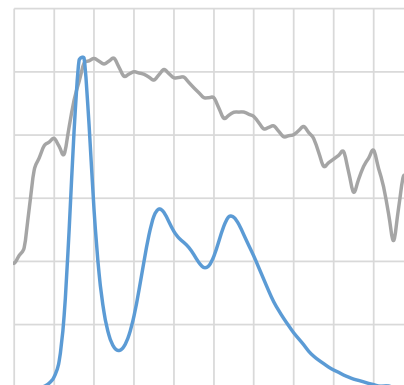
Television Lighting Consistency Index 2012 report

Direct spectrum input: CCT = D6019 (-1.2)

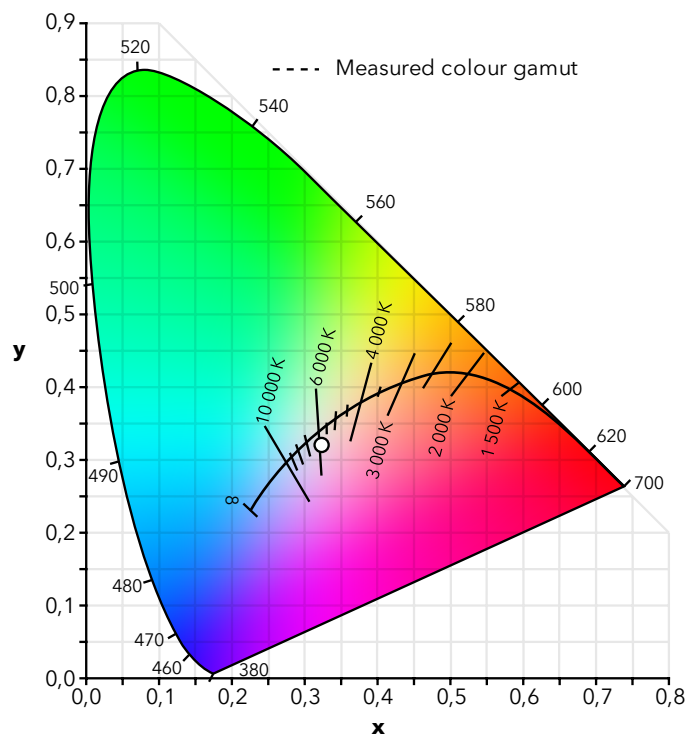
TLCI-2012: 71 (D6019)



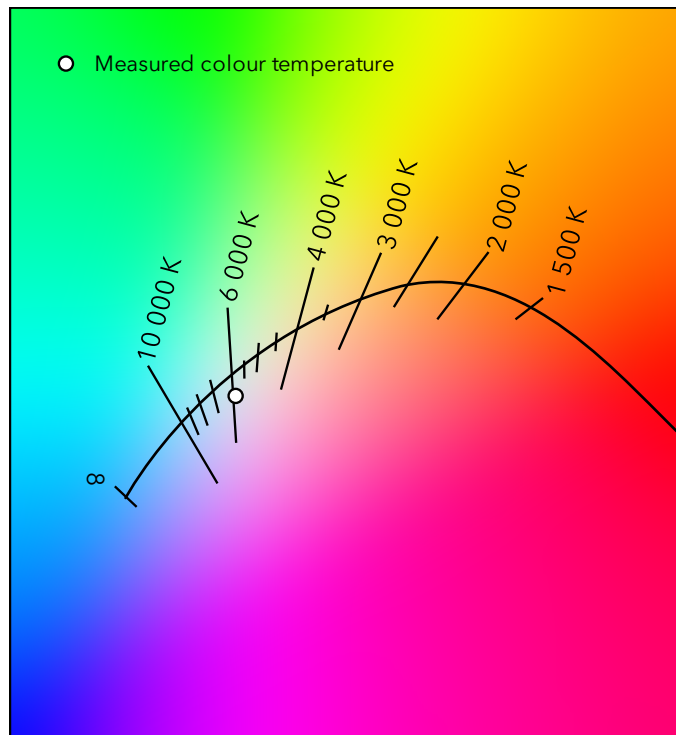
Sector	Lightness	Chroma	Hue
R	++	+	+
R/Y	0	0	--
Y	0	-	--
Y/G	-	--	0
G	-	--	++
G/C	0	-	++++
C	+	0	++
C/B	+	0	0
B	0	--	-
B/M	+	--	++++
M	++	-	++++
M/R	+++	0	++++



CIE 1931 color space gamut



Colour temperature



Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
 Measurement date: 01.04.2021

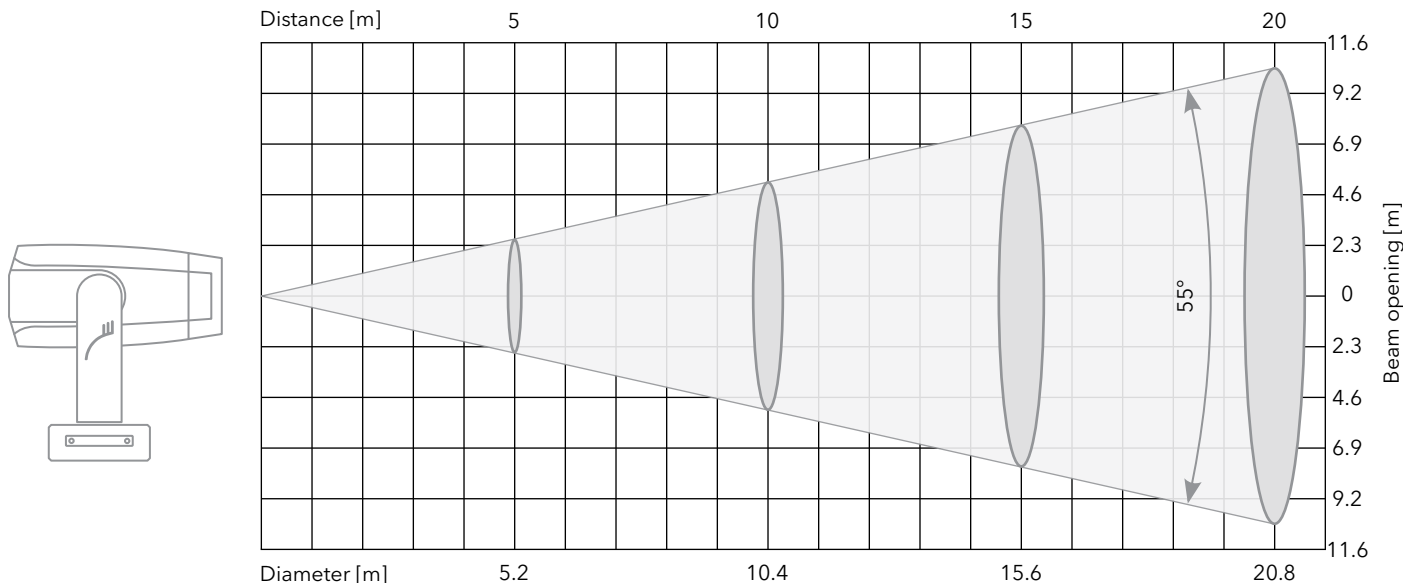


Forte HP

Photometric report

Beam angle 55° - Max. zoom - CRI 70

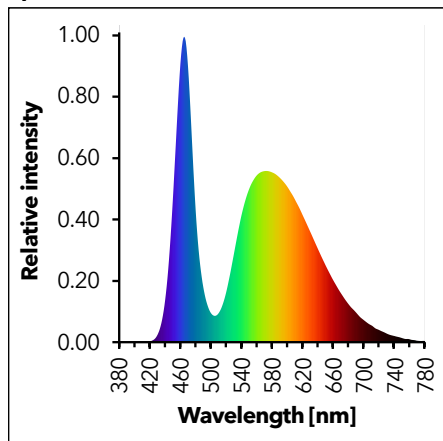
Beam angle	Total lumen output (integrating sphere)	Total lumen output (goniophotometer)	Peak candela	Power
55°	50433 lm	40607 lm	63000 cd	1245 W



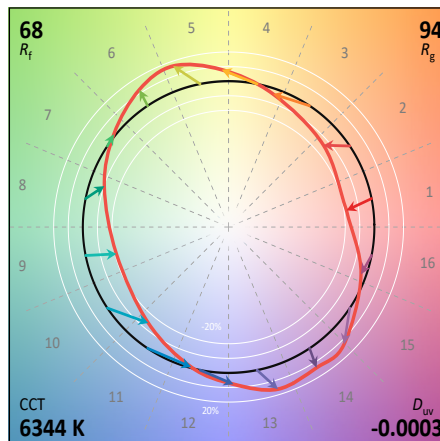
Center beam intensity [lx]/[fcd]; Total lumen output [lm] measured by goniophotometer

Distance	5 m	10 m	15 m	20 m	30 m	40 m	50 m	Total lumens
High Fan Mode	2520/234.1	630/58.5	280/26	157.5/14.6	70/6.5	39.4/3.7	25.2/2.3	40607
Auto Fan Mode	2490/231.3	622.5/57.8	276.7/25.7	155.6/14.5	69.2/6.4	38.9/3.6	24.9/2.3	40191
Quiet Fan Mode	1593/148	398.3/37	177/16.4	99.6/9.2	44.3/4.1	24.9/2.3	15.9/1.5	25708

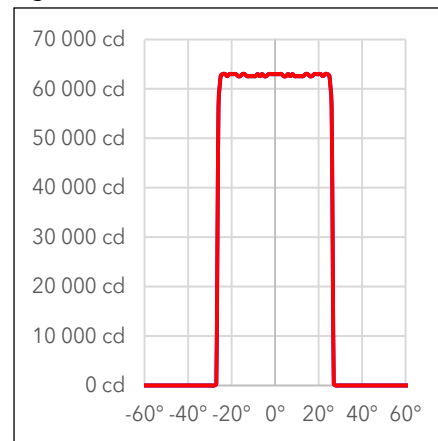
Spectrum



TM-30



Light distribution



Color temperature	CCT	6344
Color Deviation from Black	Duv	-0.0003
Color Coordinate CIE 1931	x	0.3161
	y	0.3255
Color Coordinate	u	0.2015
	v	0.3113

Color rendering index	CRI	68
Red component	CRI R9	-32
Color fidelity	TM30 Rf	68
Color gamut	TM30 Rg	94
Television consistency Index	TLCI	42

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam

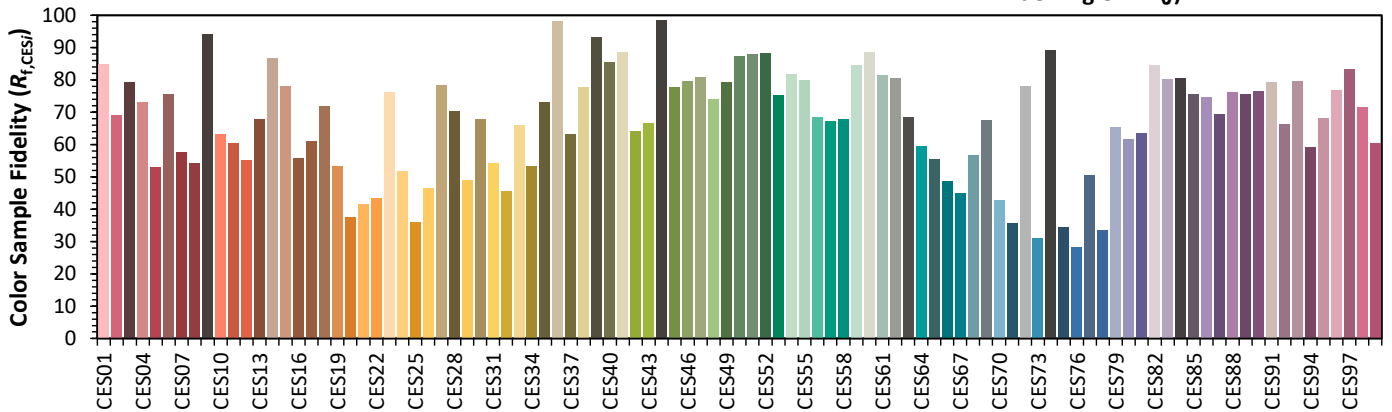
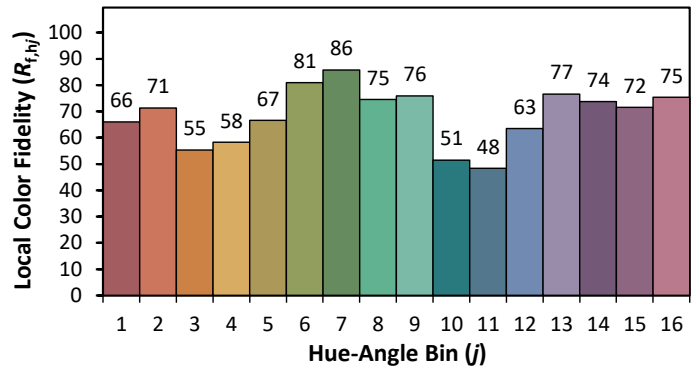
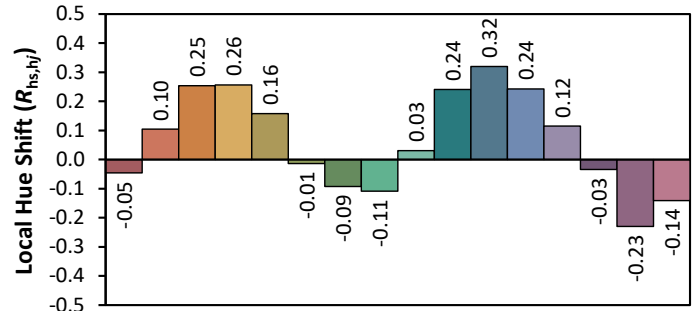
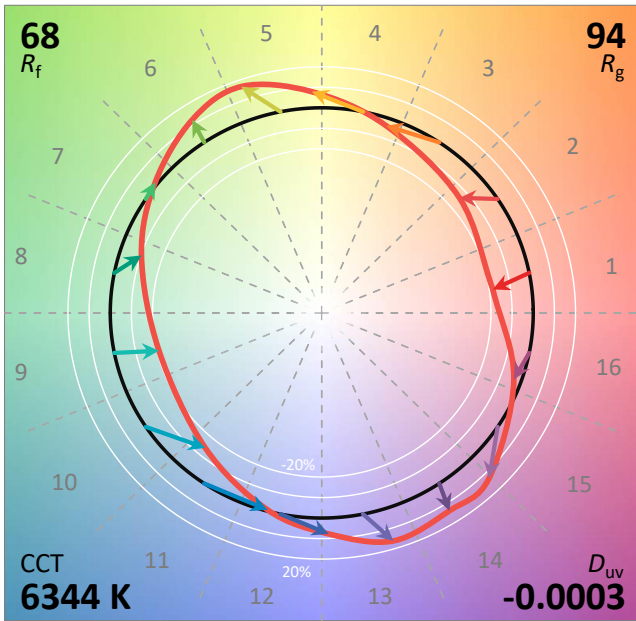
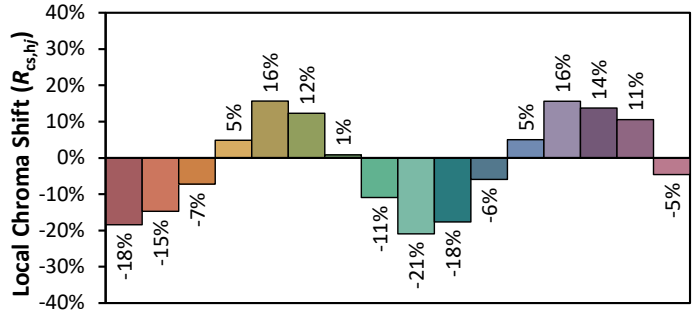
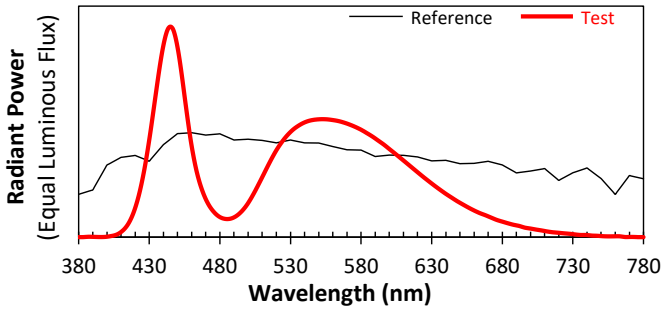
Measurement date: 01.04.2021

Forte HP

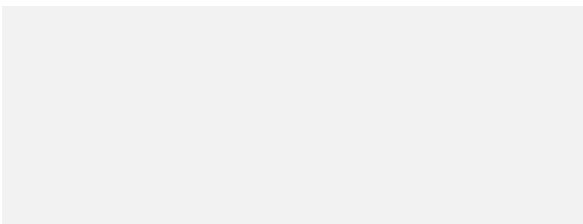
Photometric report

Beam angle 55° - Max. zoom - CRI 70

ANSI/IES TM-30-18 Color Rendition Report



Notes:



x 0.3161
y 0.3255
u' 0.2015
v' 0.4669

CIE 13.3-1995 (CRI)	
R _a	68
R _g	-32

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
Measurement date: 01.04.2021

Forte HP

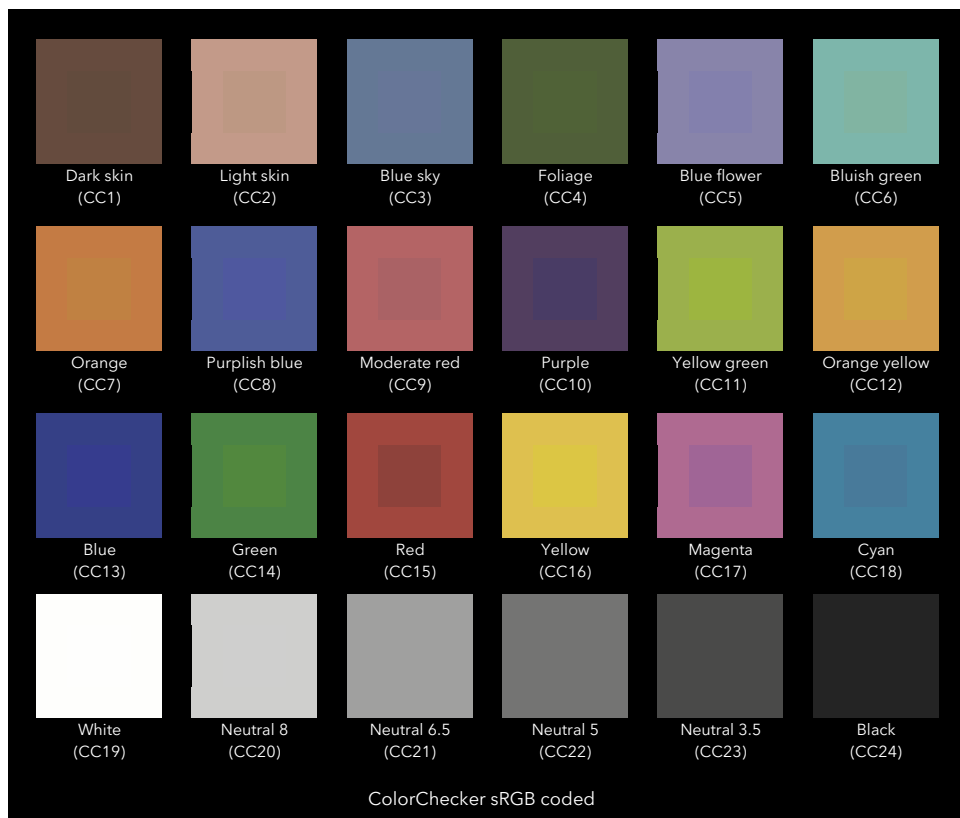
Photometric report

Beam angle 55° - Max. zoom - CRI 70

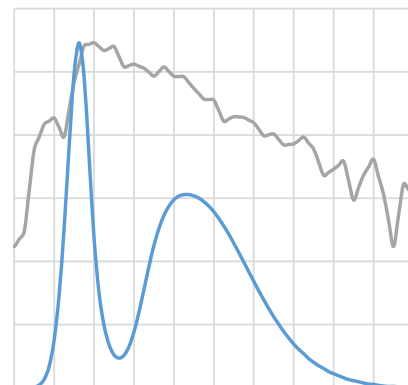
Television Lighting Consistency Index 2012 report

Direct spectrum input: CCT = D6344 (-0.1)

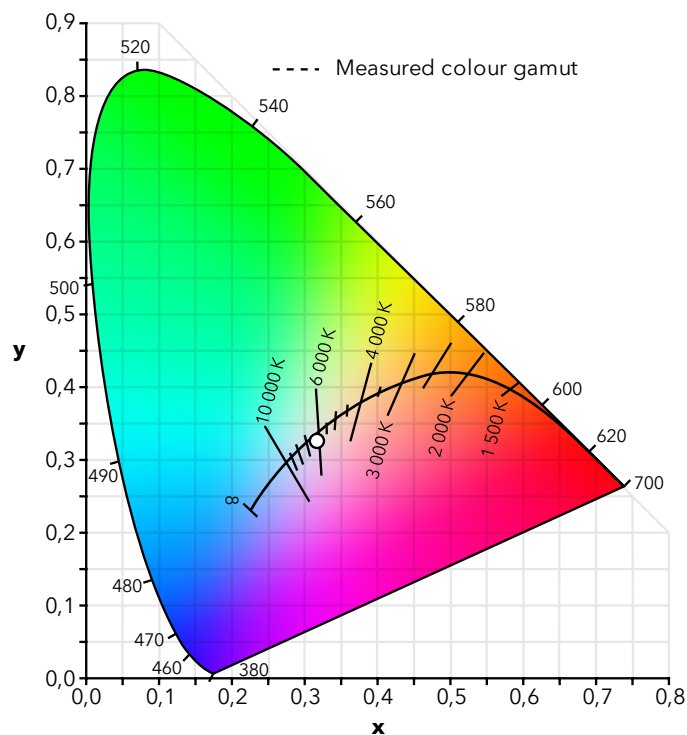
TLCI-2012: 42 (D6344)



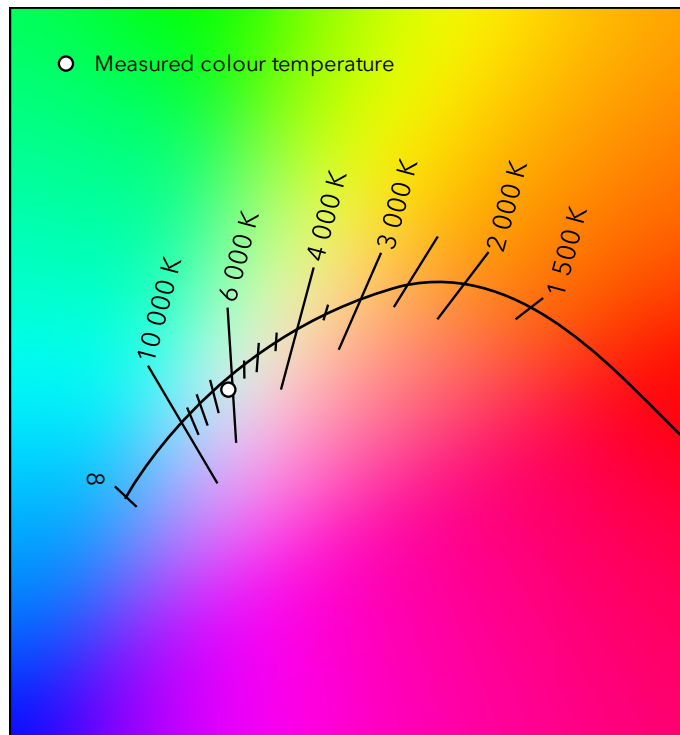
Sector	Lightness	Chroma	Hue
R	+++++	+++	+
R/Y	0	+	----
Y	--	--	-----
Y/G	-	---	0
G	--	--	+++
G/C	+	0	+++++
C	+++	0	0
C/B	++++	0	----
B	0	---	----
B/M	++	----	+++
M	+++++	-	+++++++
M/R	+++++	-	+++++++



CIE 1931 color space gamut



Colour temperature



Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
 Measurement date: 01.04.2021

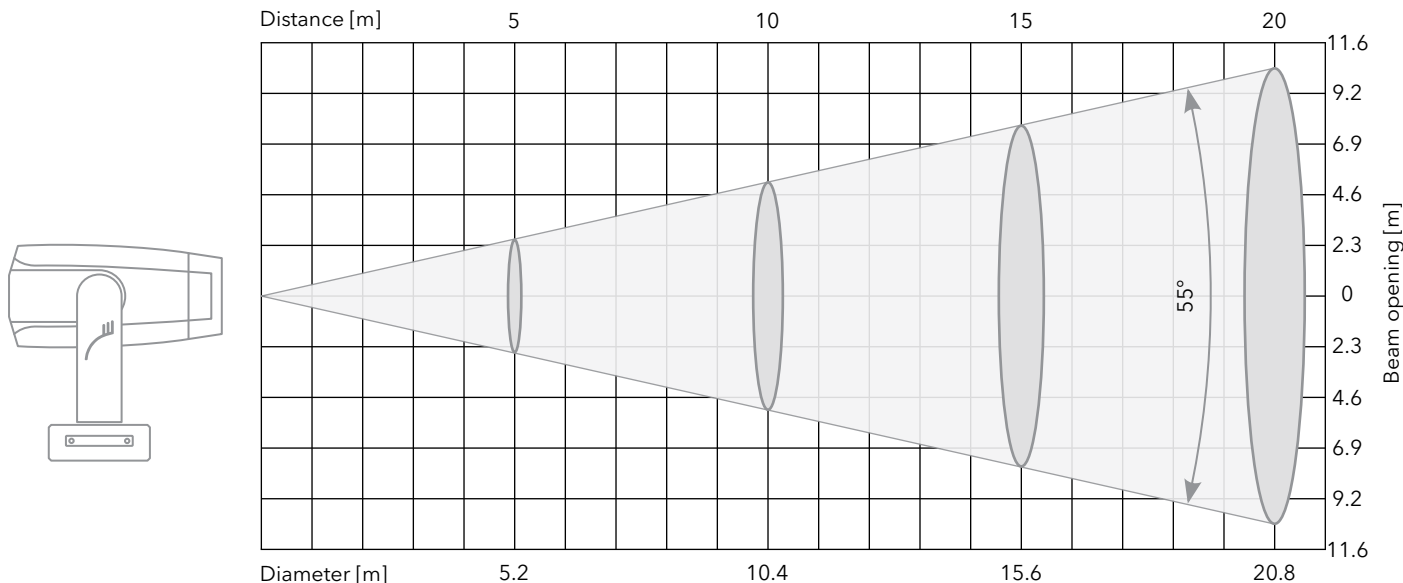


Forte HP

Photometric report

Beam angle 55° - Max. zoom - CRI 80

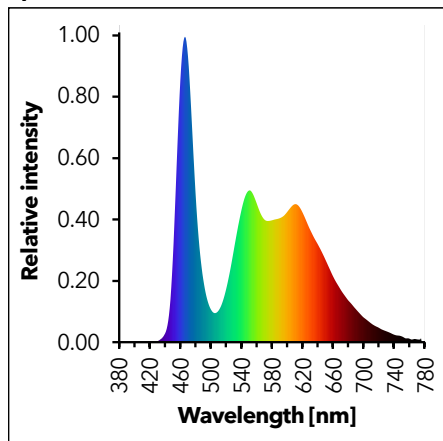
Beam angle	Total lumen output (integrating sphere)	Total lumen output (goniophotometer)	Peak candela	Power
55°	40138 lm	32318 lm	50000 cd	1245 W



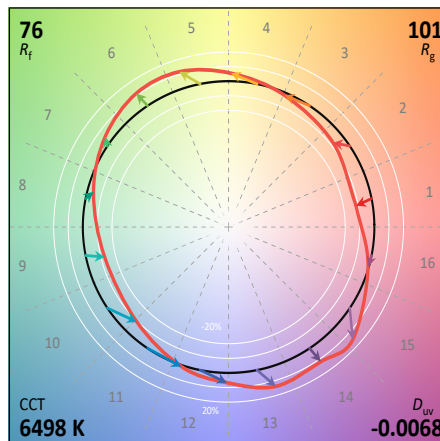
Center beam intensity [lx]/[fcd]; Total lumen output [lm] measured by goniophotometer

Distance	5 m	10 m	15 m	20 m	30 m	40 m	50 m	Total lumens
High Fan Mode	2000/185.8	500/46.5	222.2/20.6	125/11.6	55.6/5.2	31.3/2.9	20/1.9	32318
Auto Fan Mode	1992/185.1	498/46.3	221.3/20.6	124.5/11.6	55.3/5.1	31.1/2.9	19.9/1.9	31489
Quiet Fan Mode	1274/118.4	318.5/29.6	141.6/13.2	79.6/7.4	35.4/3.3	19.9/1.8	12.7/1.2	20142

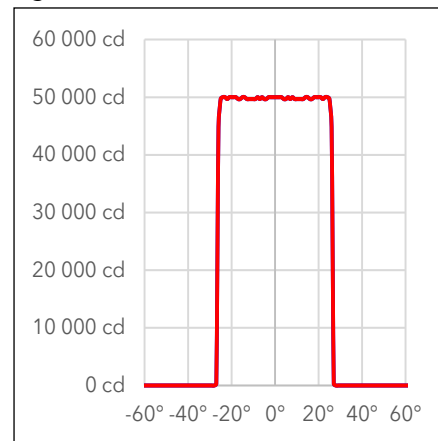
Spectrum



TM-30



Light distribution



Color temperature	CCT	6498
Color Deviation from Black	Duv	-0.0068
Color Coordinate CIE 1931	x	0.3151
	y	0.3124
Color Coordinate	u	0.2060
	v	0.3064

Color rendering index	CRI	80
Red component	CRI R9	18
Color fidelity	TM30 Rf	76
Color gamut	TM30 Rg	101
Television consistency Index	TLCI	60

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam

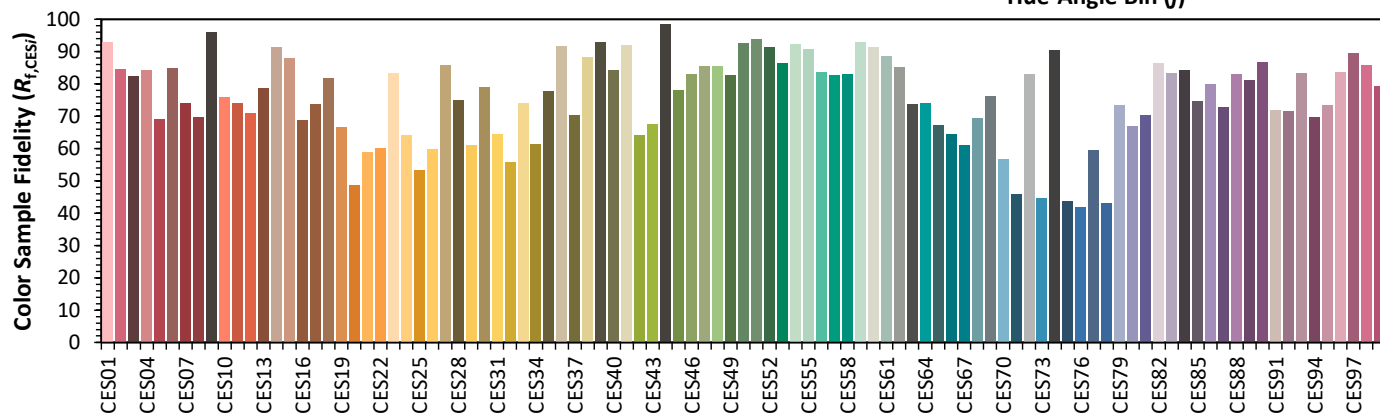
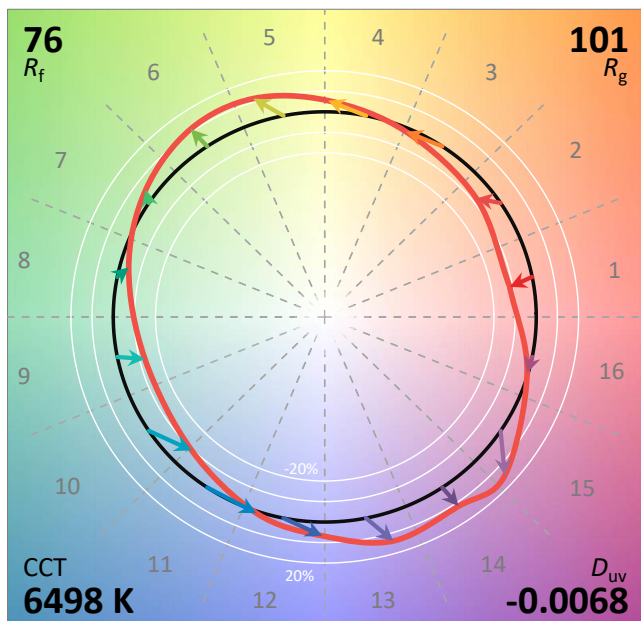
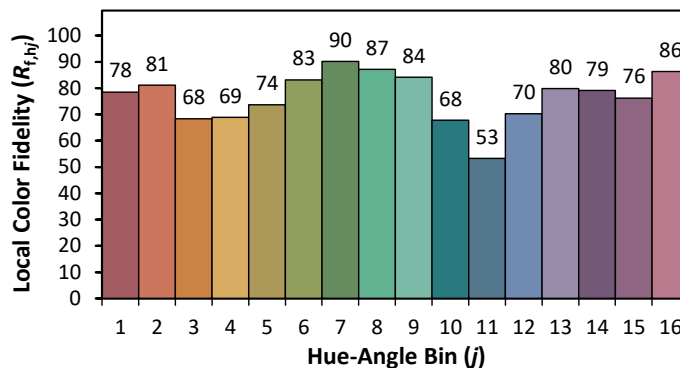
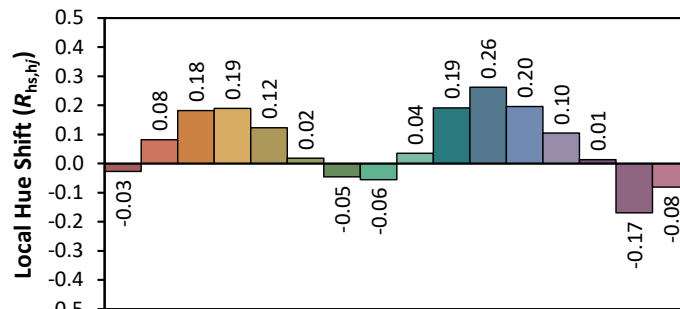
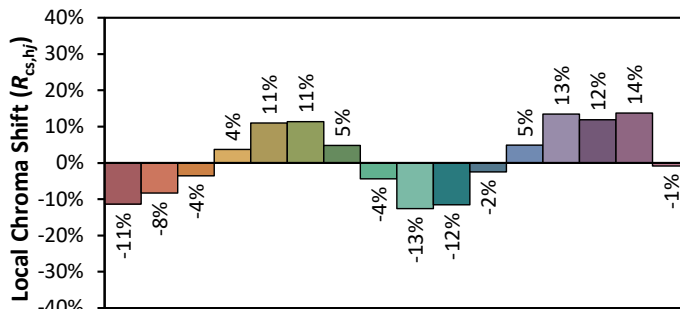
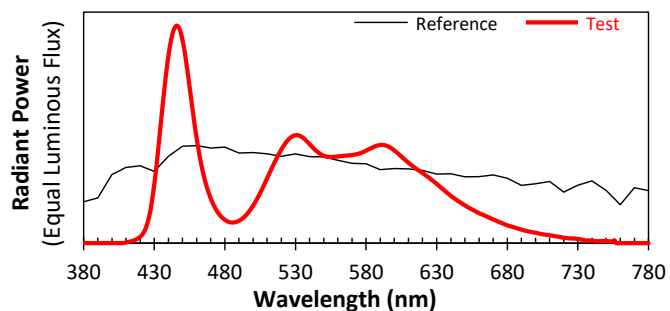
Measurement date: 01.04.2021

Forte HP

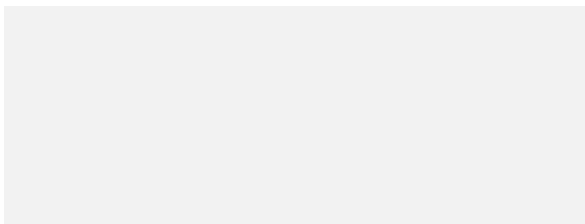
Photometric report

Beam angle 55° - Max. zoom - CRI 80

ANSI/IES TM-30-18 Color Rendition Report



Notes:



x 0.3151
y 0.3124
u' 0.2060
v' 0.4595

CIE 13.3-1995 (CRI)	
R _a	80
R _g	18

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
Measurement date: 01.04.2021



Forte HP

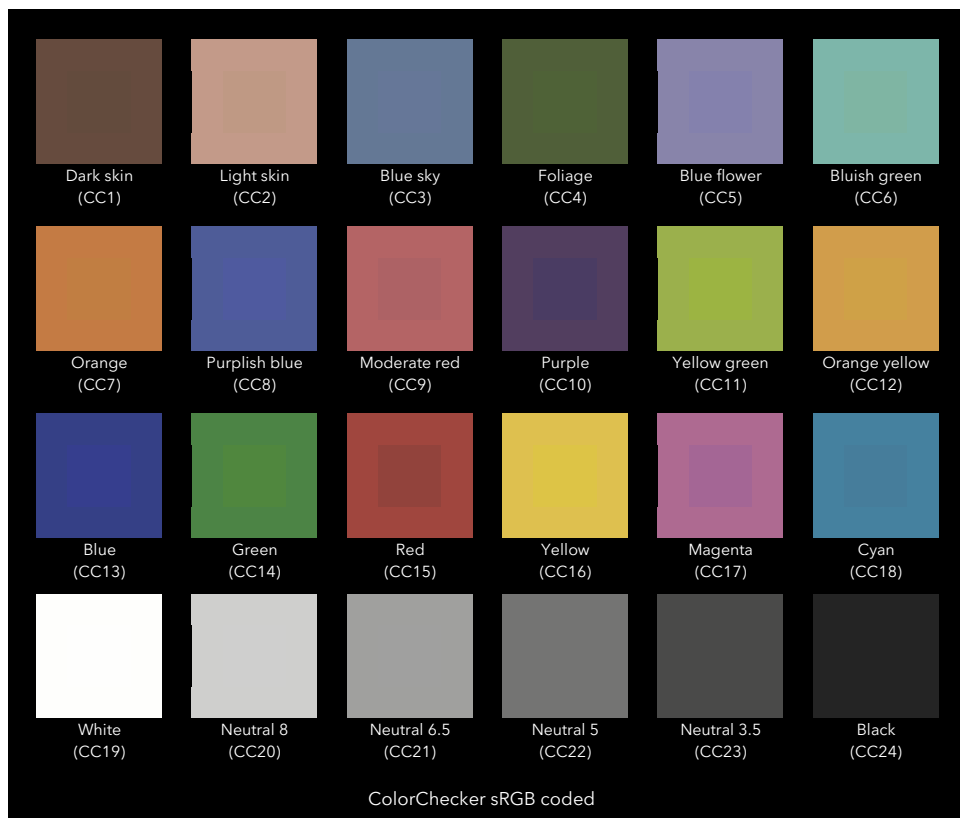
Photometric report

Beam angle 55° - Max. zoom - CRI 80

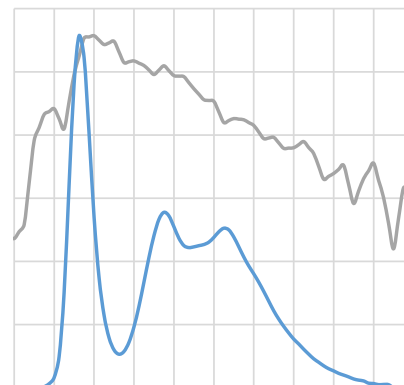
Television Lighting Consistency Index 2012 report

Direct spectrum input: CCT = D6498 (-1.3)

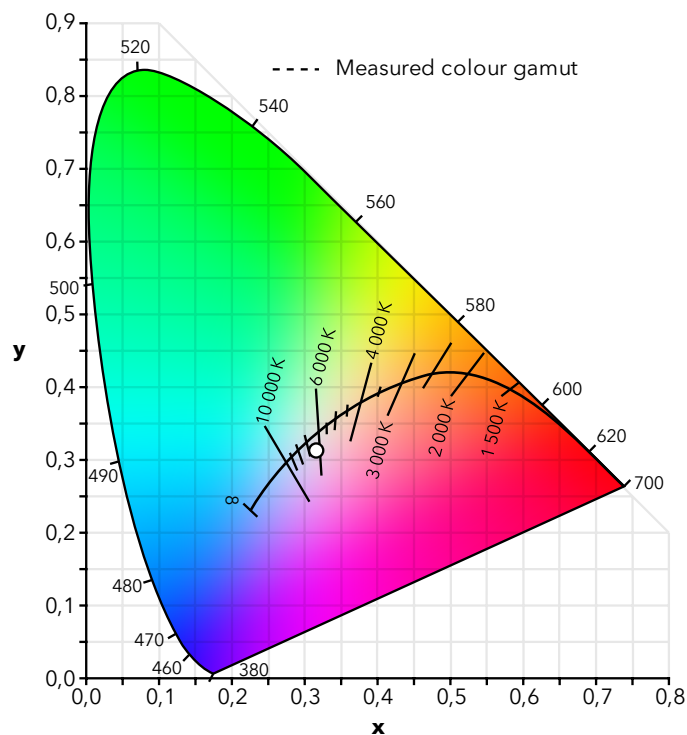
TLCI-2012: 60 (D6498)



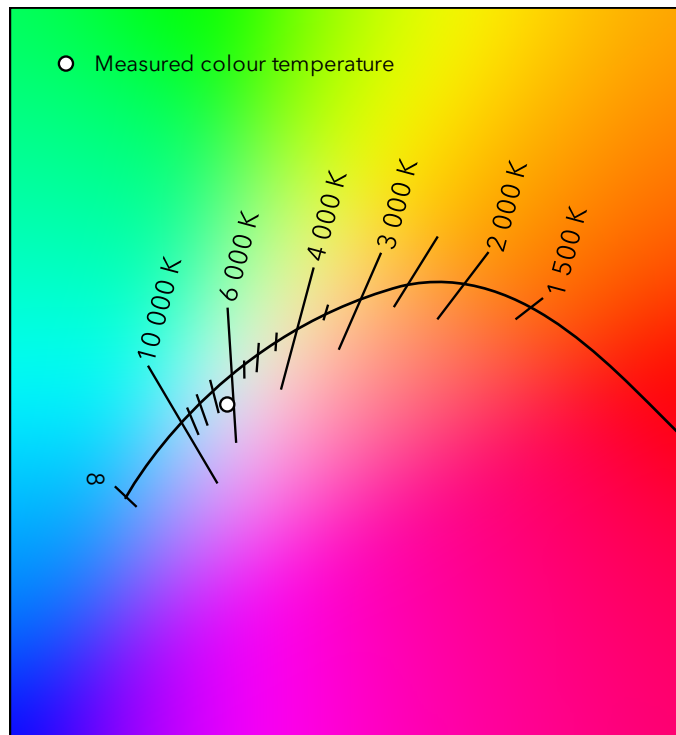
Sector	Lightness	Chroma	Hue
R	+++	++	+
R/Y	0	0	---
Y	-	-	----
Y/G	-	--	0
G	--	--	++
G/C	0	0	++++
C	+	0	+
C/B	++	0	--
B	0	---	--
B/M	+	--	++++
M	++	-	++++
M/R	++++	0	++++



CIE 1931 color space gamut



Colour temperature



Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
 Measurement date: 01.04.2021

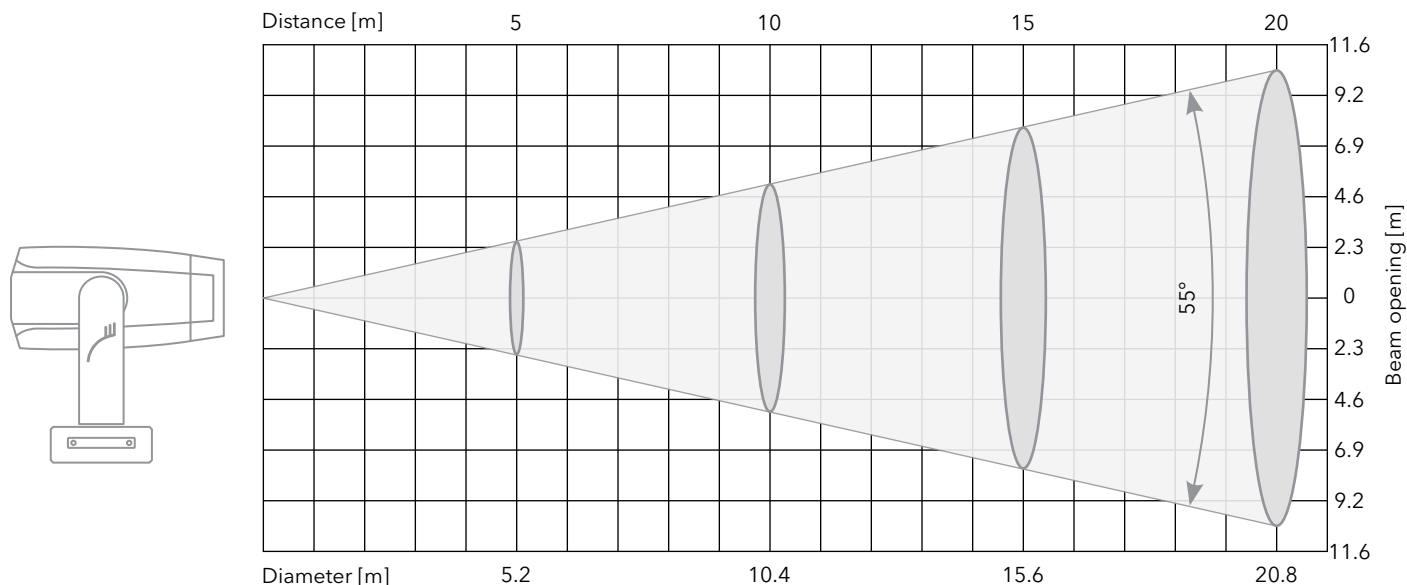


Forte HP

Photometric report

Beam angle 55° - Max. zoom - CRI 90

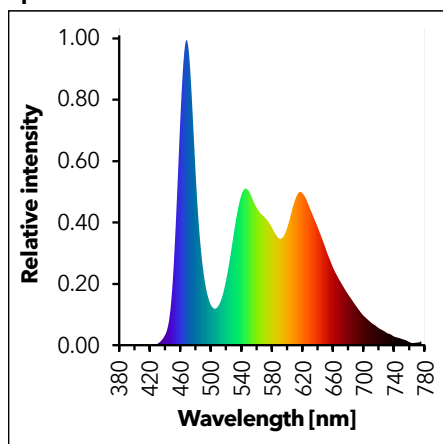
Beam angle	Total lumen output (integrating sphere)	Total lumen output (goniophotometer)	Peak candela	Power
55°	34479 lm	27761 lm	43000 cd	1245 W



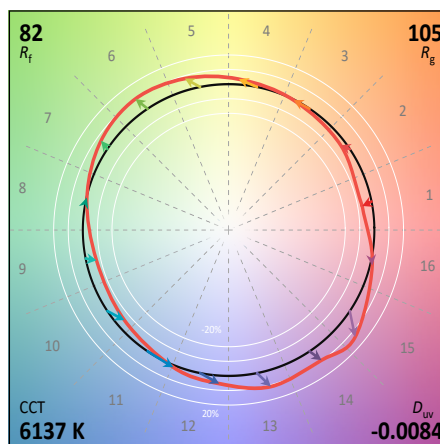
Center beam intensity [lx]/[fcd]; Total lumen output [lm] measured by goniophotometer

Distance	5 m	10 m	15 m	20 m	30 m	40 m	50 m	Total lumens
High Fan Mode	1720/159.8	430/39.9	191.1/17.8	107.5/10	47.8/4.4	26.9/2.5	17.2/1.6	27761
Auto Fan Mode	1680/156.1	420/39	186.7/17.3	105/9.8	46.7/4.3	26.3/2.4	16.8/1.6	26932
Quiet Fan Mode	1075/99.9	268.8/25	119.4/11.1	67.2/6.2	29.9/2.8	16.8/1.6	10.8/1	17227

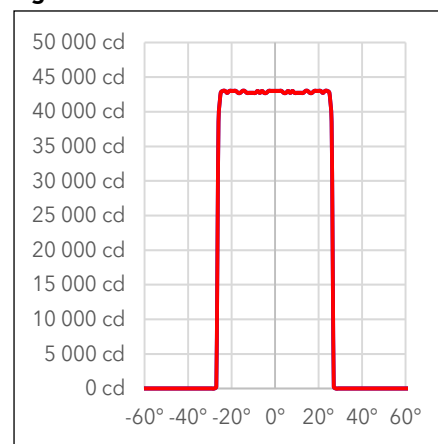
Spectrum



TM-30



Light distribution



Color temperature	CCT	6137
Color Deviation from Black	Duv	-0.0084
Color Coordinate CIE 1931	x	0.3208
	y	0.3149
Color Coordinate	u	0.2091
	v	0.3079

Color rendering index	CRI	88
Red component	CRI R9	49
Color fidelity	TM30 Rf	82
Color gamut	TM30 Rg	105
Television consistency Index	TLCI	74

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam

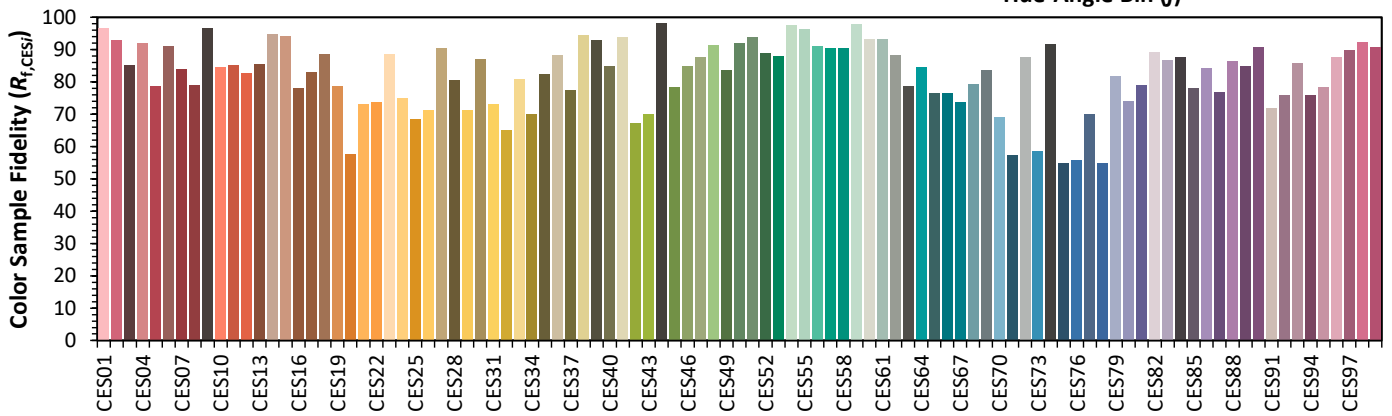
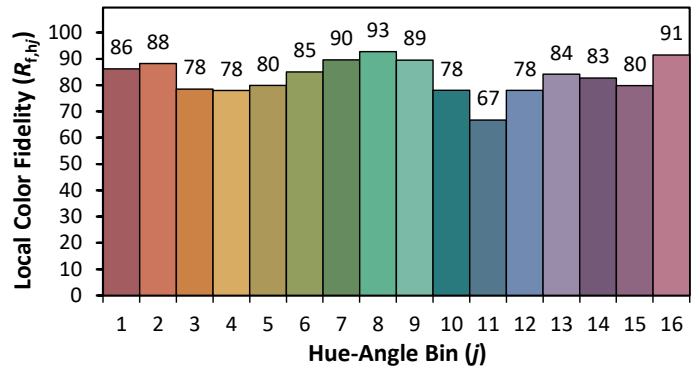
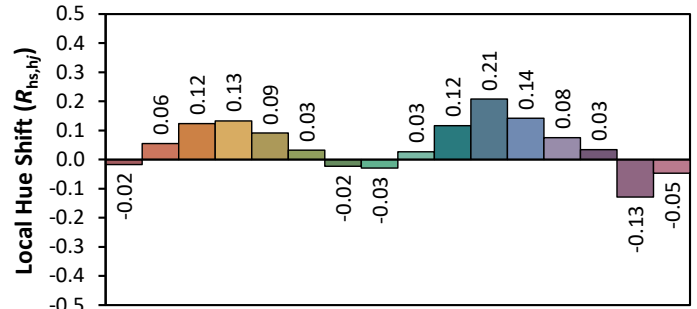
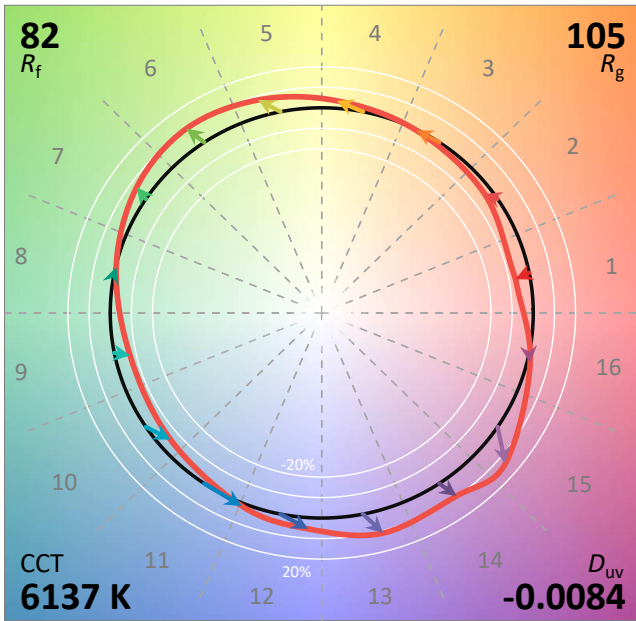
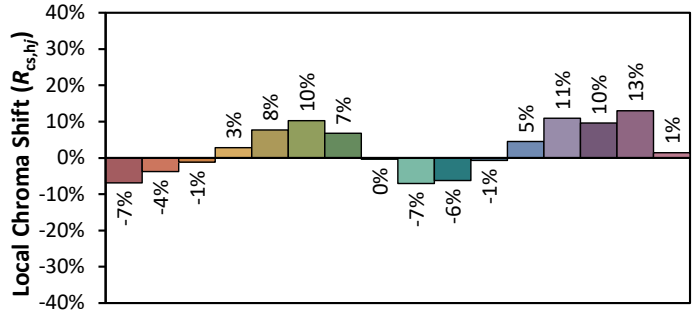
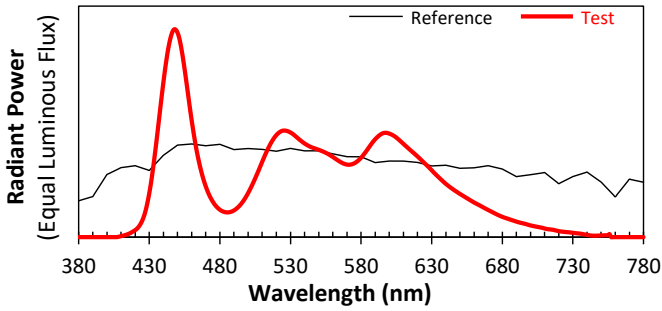
Measurement date: 01.04.2021

Forte HP

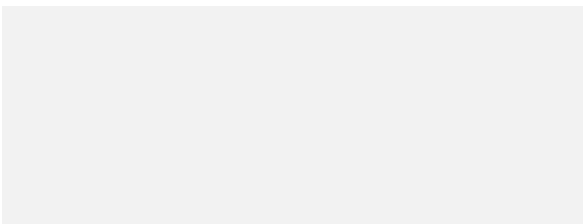
Photometric report

Beam angle 55° - Max. zoom - CRI 90

ANSI/IES TM-30-18 Color Rendition Report



Notes:



x 0.3208
y 0.3149
u' 0.2091
v' 0.4618

CIE 13.3-1995 (CRI)	
R _a	88
R _g	49

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
Measurement date: 01.04.2021



Forte HP

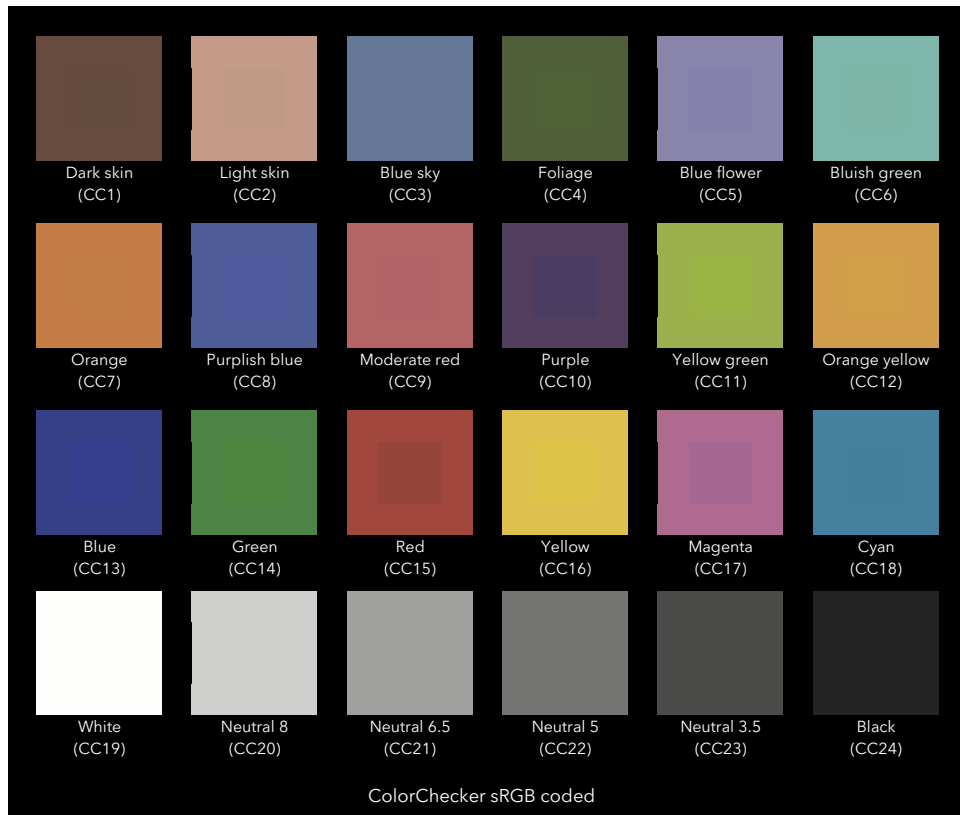
Photometric report

Beam angle 55° - Max. zoom - CRI 90

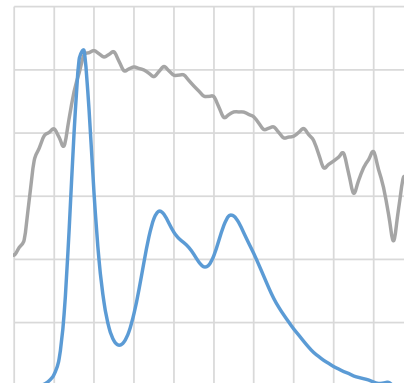
Television Lighting Consistency Index 2012 report

Direct spectrum input: CCT = D6137 (-1.6)

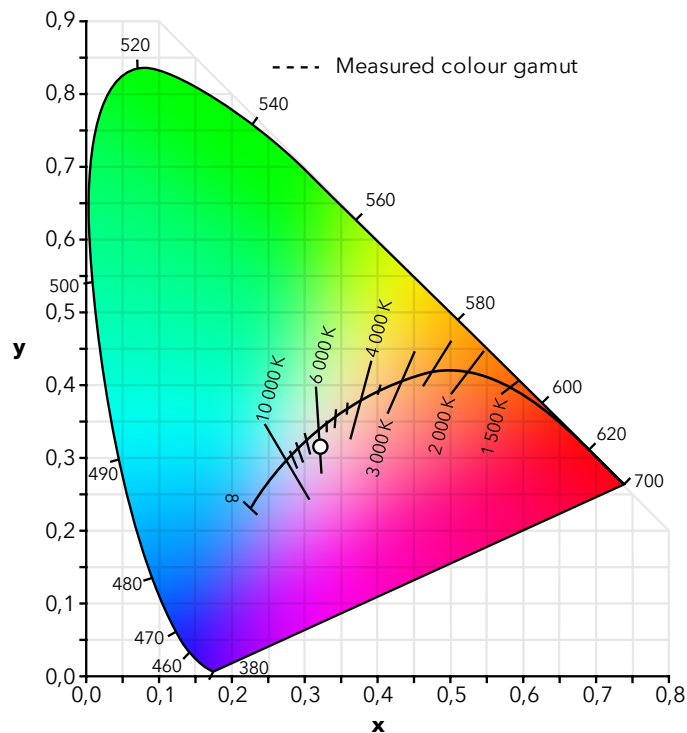
TLCI-2012: 74 (D6137)



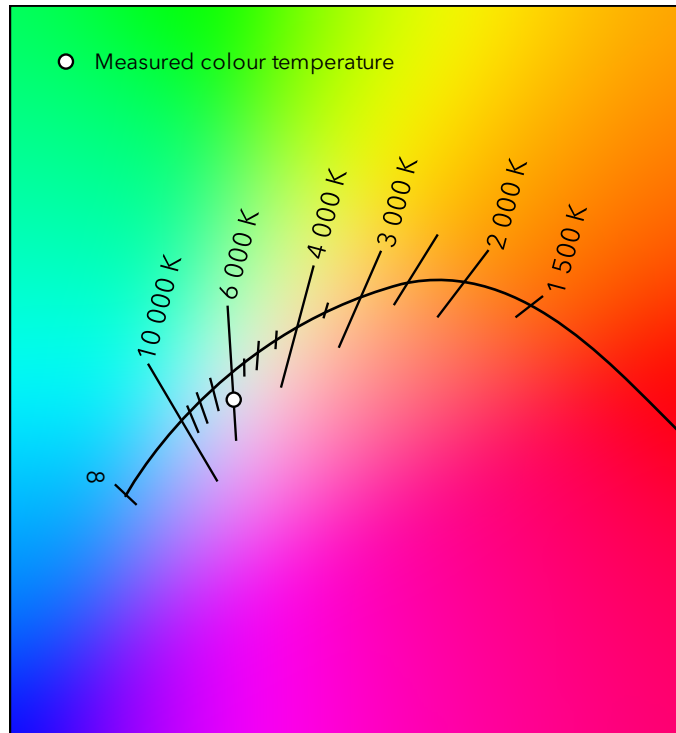
Sector	Lightness	Chroma	Hue
R	++	+	0
R/Y	0	0	--
Y	0	-	--
Y/G	-	--	0
G	-	--	+
G/C	0	-	++++
C	+	0	++
C/B	+	0	0
B	0	--	-
B/M	+	--	++++
M	++	-	++++
M/R	++	0	++++



CIE 1931 color space gamut



Colour temperature



Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
 Measurement date: 01.04.2021

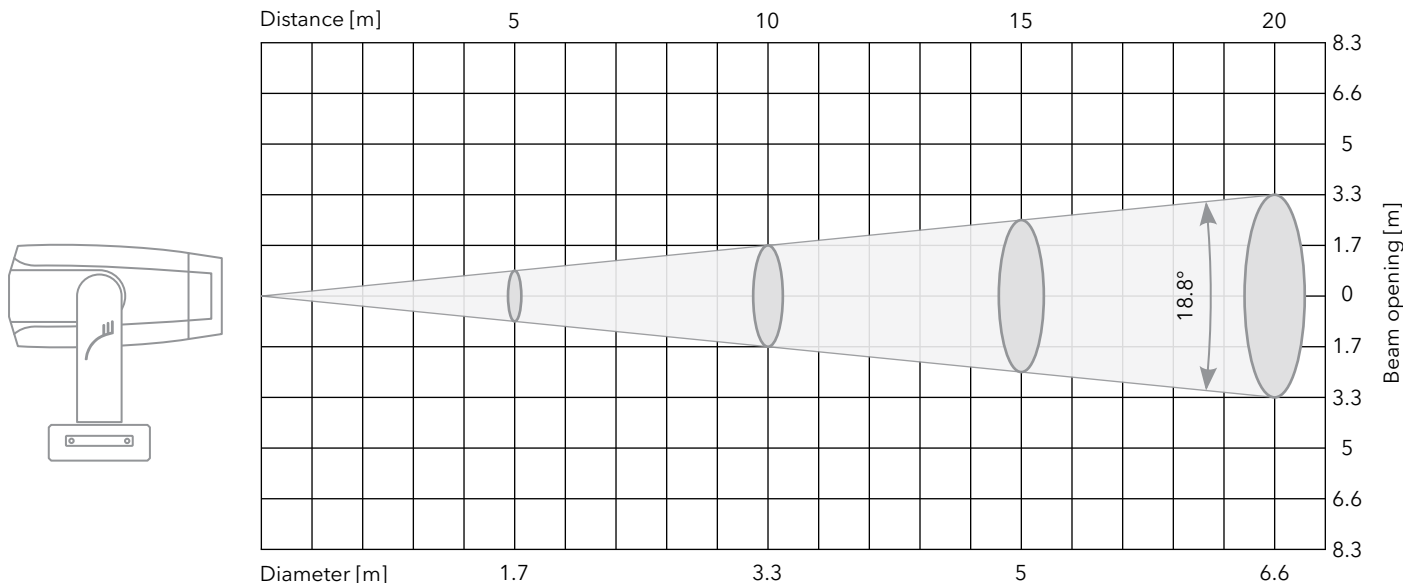


Forte HP

Photometric report

Beam angle 18.8° - Mid. zoom - CRI 70

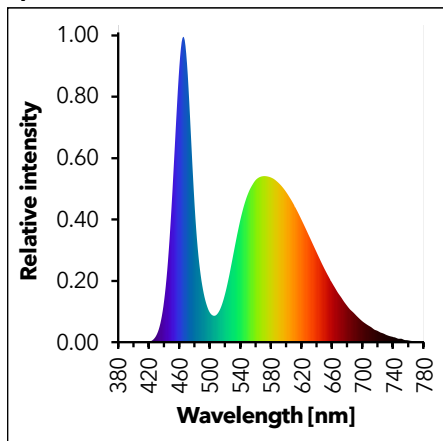
Beam angle	Total lumen output (integrating sphere)	Total lumen output (goniophotometer)	Peak candela	Power
18.8°	41836 lm	33664 lm	432300 cd	1245 W



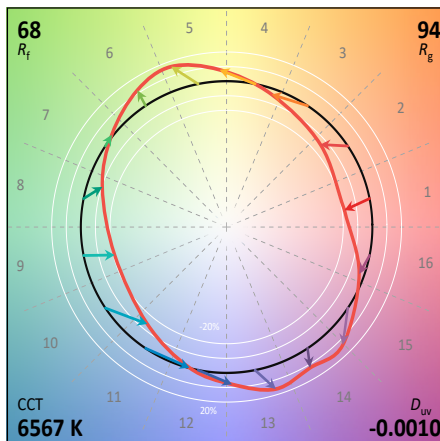
Center beam intensity [lx]/[fcd]; Total lumen output [lm] measured by goniophotometer

Distance	5 m	10 m	15 m	20 m	30 m	40 m	50 m	Total lumens
High Fan Mode	17292/1606.5	4323/401.6	1921.3/178.5	1080.8/100.4	480.3/44.6	270.2/25.1	172.9/16.1	33664
Auto Fan Mode	16953/1575	4238.3/393.7	1883.7/175	1059.6/98.4	470.9/43.7	264.9/24.6	169.5/15.7	33004
Quiet Fan Mode	10863/1009.2	2715.8/252.3	1207/112.1	678.9/63.1	301.8/28	169.7/15.8	108.6/10.1	21149

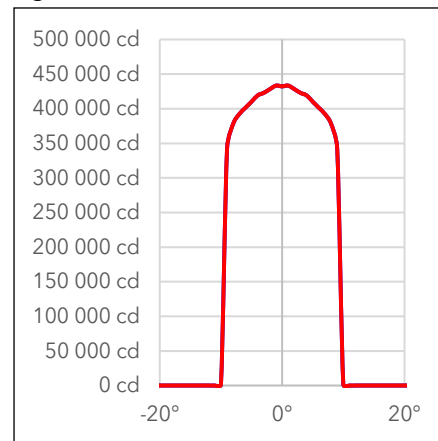
Spectrum



TM-30



Light distribution



Color temperature	CCT	6567
Color Deviation from Black	Duv	-0.0010
Color Coordinate CIE 1931	x	0.3127
	y	0.3210
Color Coordinate	u	0.2009
	v	0.3093

Color rendering index	CRI	69
Red component	CRI R9	-31
Color fidelity	TM30 Rf	68
Color gamut	TM30 Rg	94
Television consistency Index	TLCI	42

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam

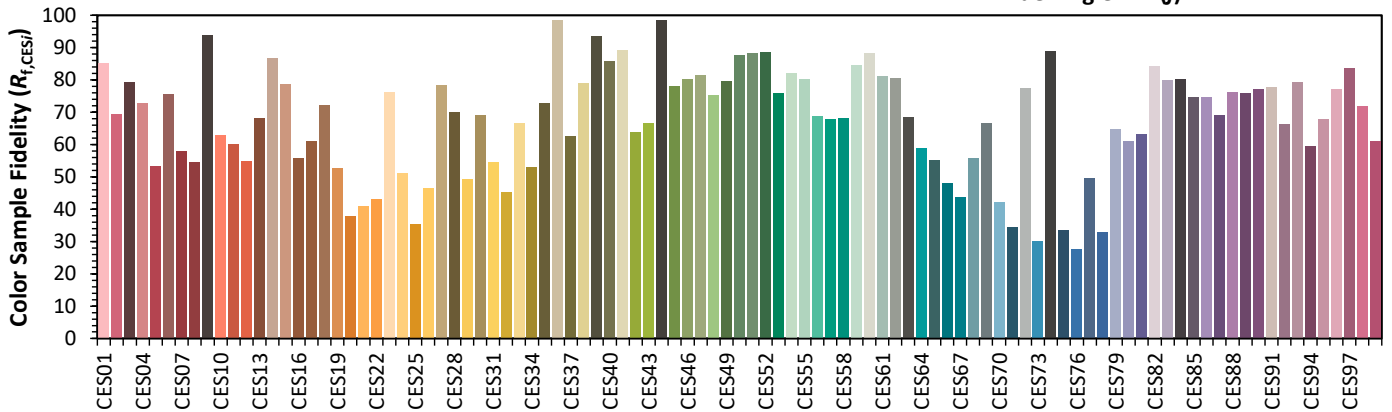
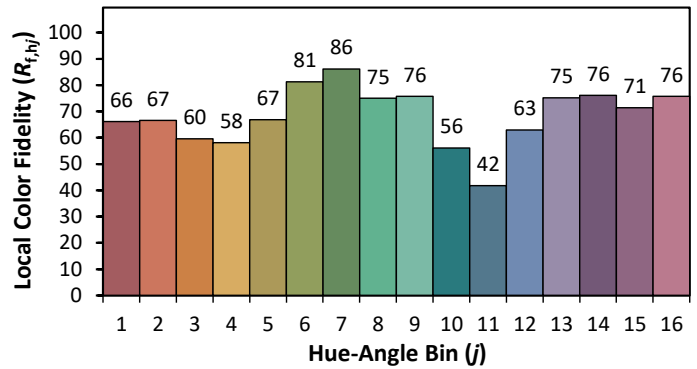
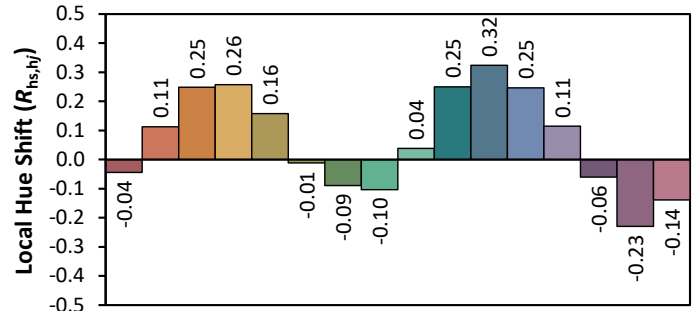
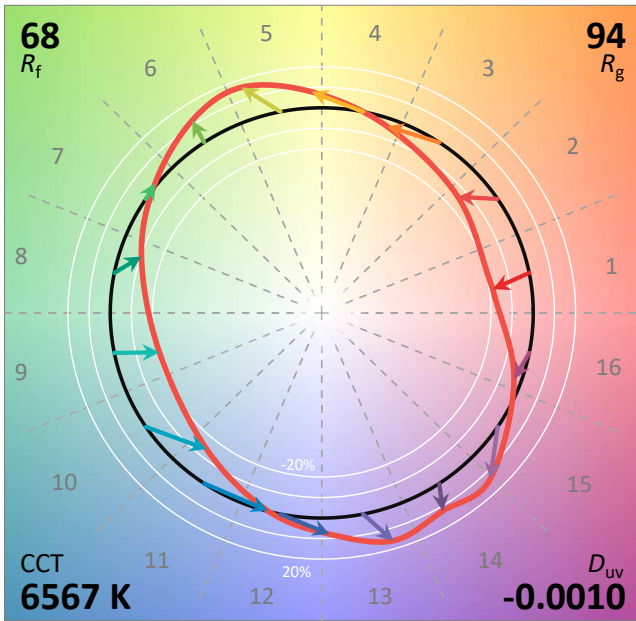
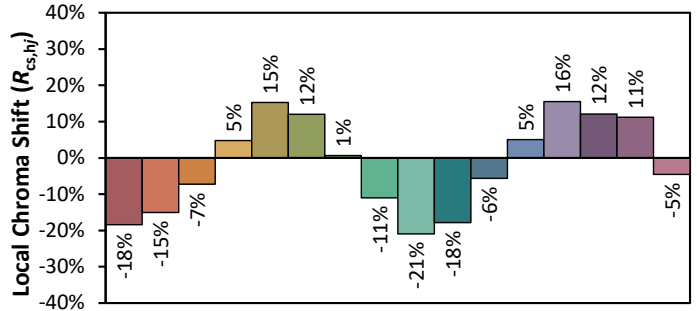
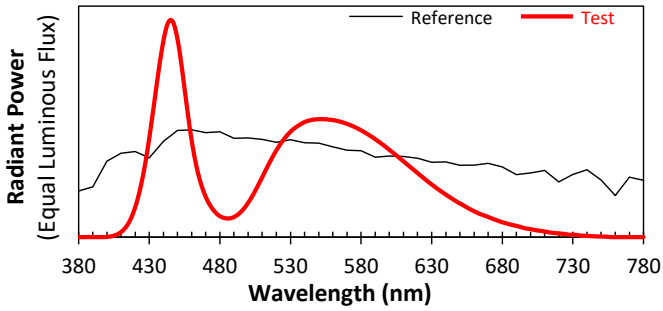
Measurement date: 01.04.2021

Forte HP

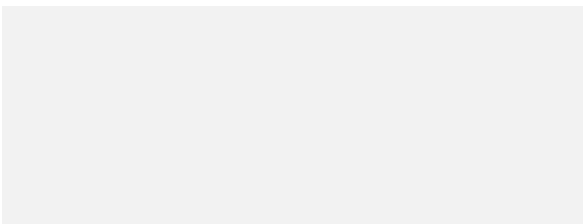
Photometric report

Beam angle 18.8° - Mid. zoom - CRI 70

ANSI/IES TM-30-18 Color Rendition Report



Notes:



x 0.3127
y 0.3210
u' 0.2009
v' 0.4640

CIE 13.3-1995 (CRI)	
R _a	69
R _g	-31

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
Measurement date: 01.04.2021



Forte HP

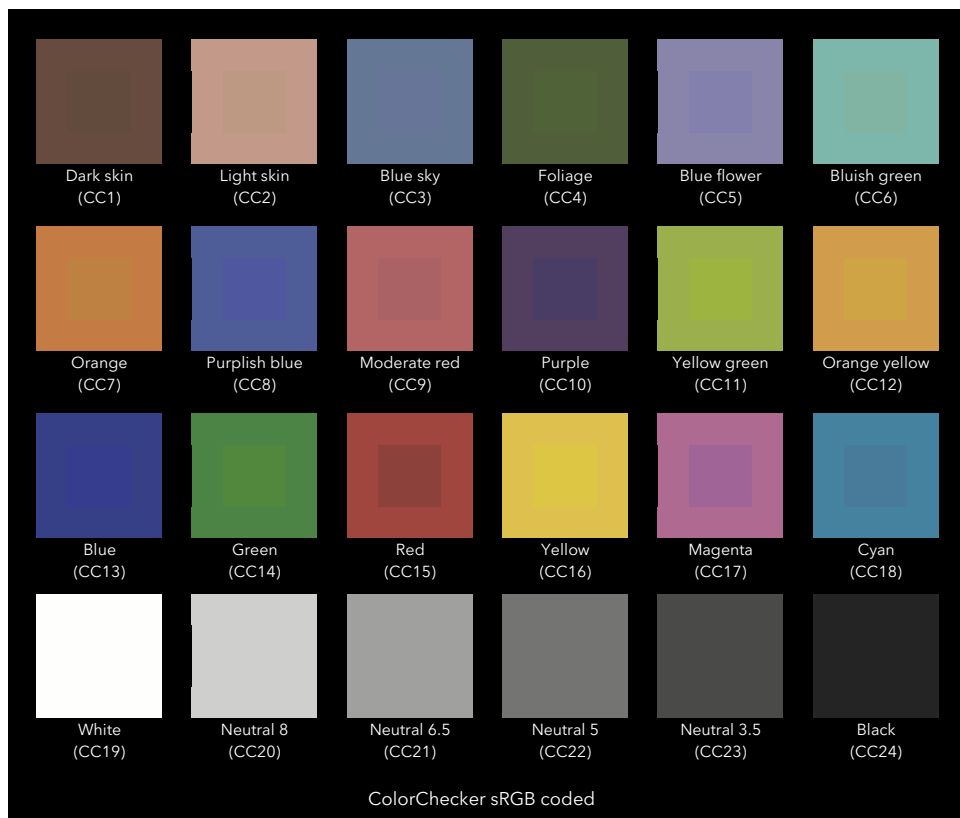
Photometric report

Beam angle 18.8° - Mid. zoom - CRI 70

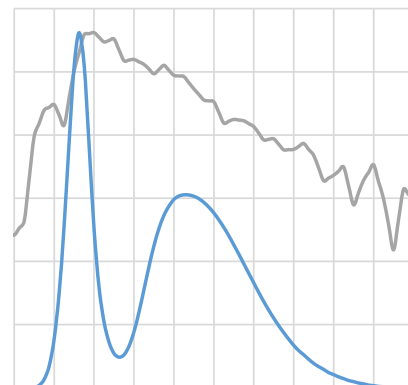
Television Lighting Consistency Index 2012 report

Direct spectrum input: CCT = D6567 (-0.2)

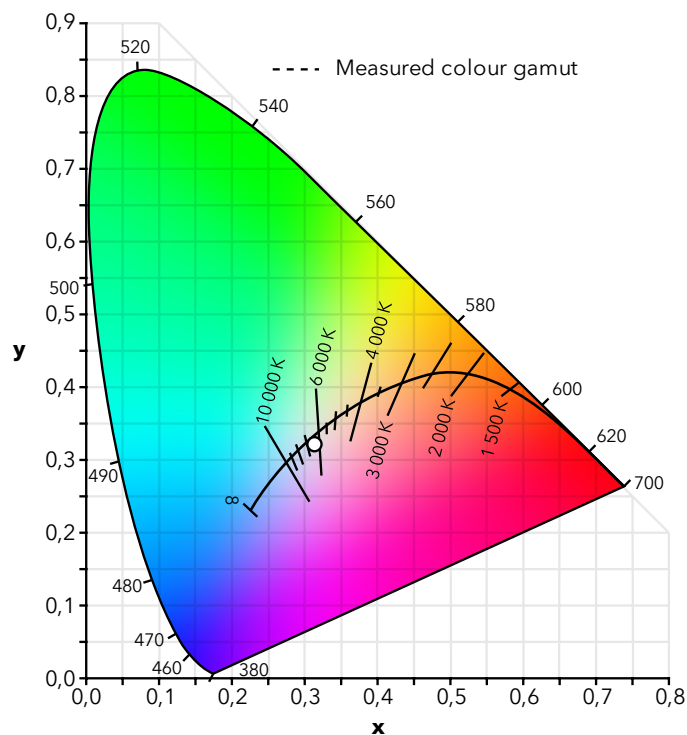
TLCI-2012: 42 (D6567)



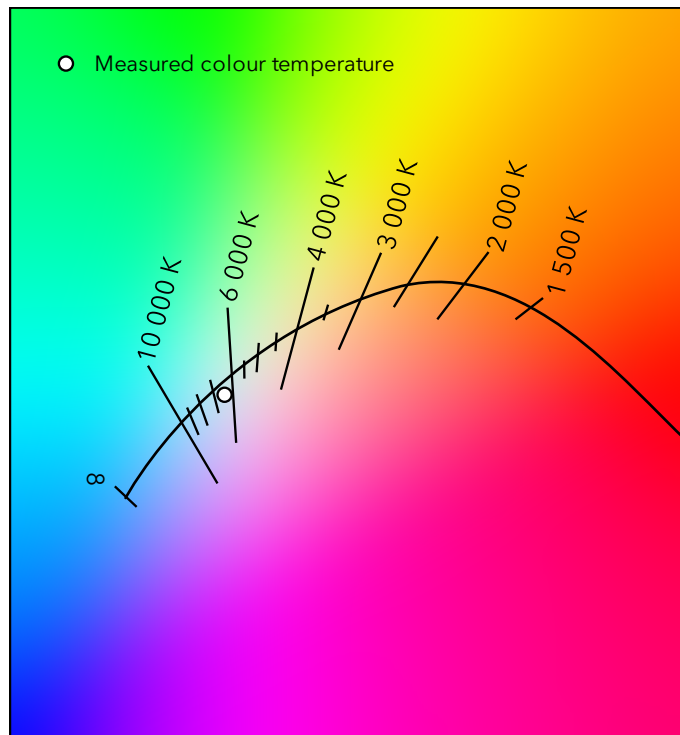
Sector	Lightness	Chroma	Hue
R	+++++	+++	+
R/Y	0	+	----
Y	--	--	-----
Y/G	-	---	0
G	--	--	+++
G/C	+	0	+++++
C	+++	0	0
C/B	++++	0	----
B	0	---	----
B/M	++	----	+++
M	+++++	-	+++++++
M/R	+++++	-	+++++++



CIE 1931 color space gamut



Colour temperature



Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
 Measurement date: 01.04.2021

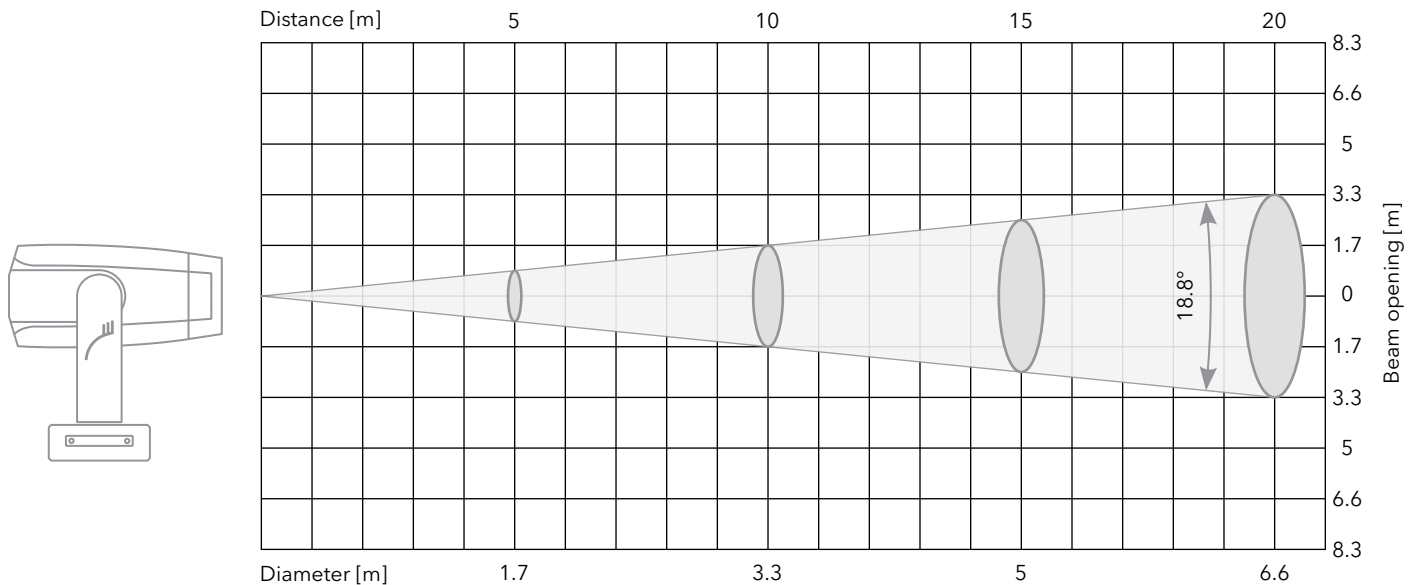


Forte HP

Photometric report

Beam angle 18.8° - Mid. zoom - CRI 80

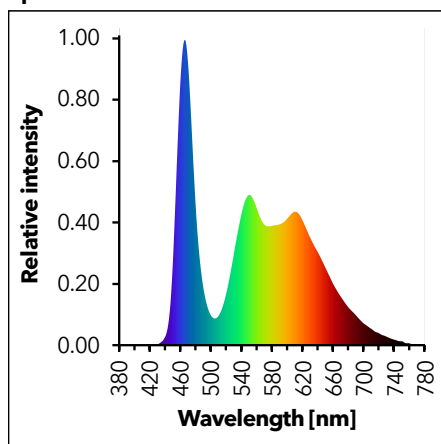
Beam angle	Total lumen output (integrating sphere)	Total lumen output (goniophotometer)	Peak candela	Power
18.8°	33552 lm	26998 lm	346700 cd	1245 W



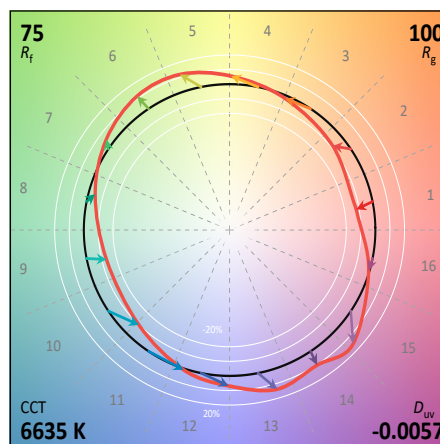
Center beam intensity [lx]/[fcd]; Total lumen output [lm] measured by goniophotometer

Distance	5 m	10 m	15 m	20 m	30 m	40 m	50 m	Total lumens
High Fan Mode	13868/1288.4	3467/322.1	1540.9/143.2	866.8/80.5	385.2/35.8	216.7/20.1	138.7/12.9	26998
Auto Fan Mode	13596/1263.1	3399/315.8	1510.7/140.3	849.8/78.9	377.7/35.1	212.4/19.7	136/12.6	26469
Quiet Fan Mode	8712/809.4	2178/202.3	968/89.9	544.5/50.6	242/22.5	136.1/12.6	87.1/8.1	16961

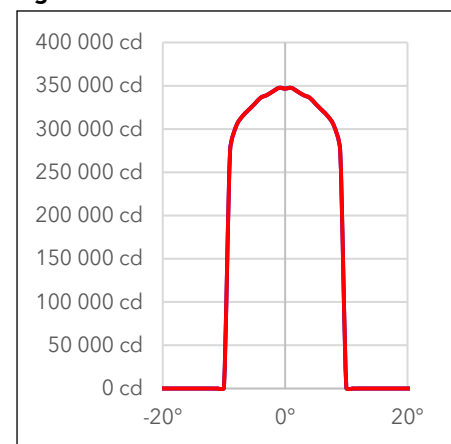
Spectrum



TM-30



Light distribution



Color temperature	CCT	6635
Color Deviation from Black	Duv	-0.0057
Color Coordinate CIE 1931	x	0.3129
	y	0.3124
Color Coordinate	u	0.2044
	v	0.3061

Color rendering index	CRI	79
Red component	CRI R9	12
Color fidelity	TM30 Rf	75
Color gamut	TM30 Rg	100
Television consistency Index	TLCI	59

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam

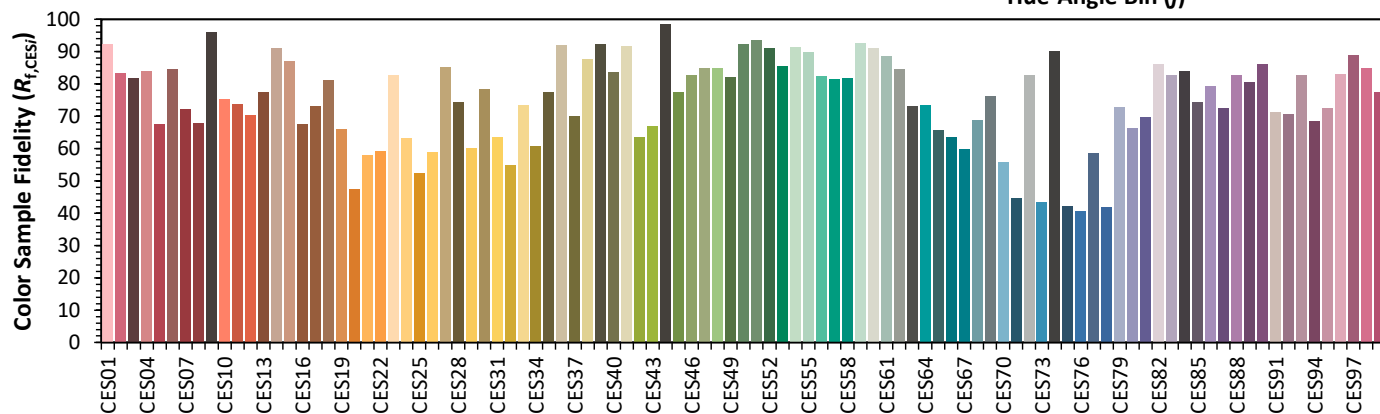
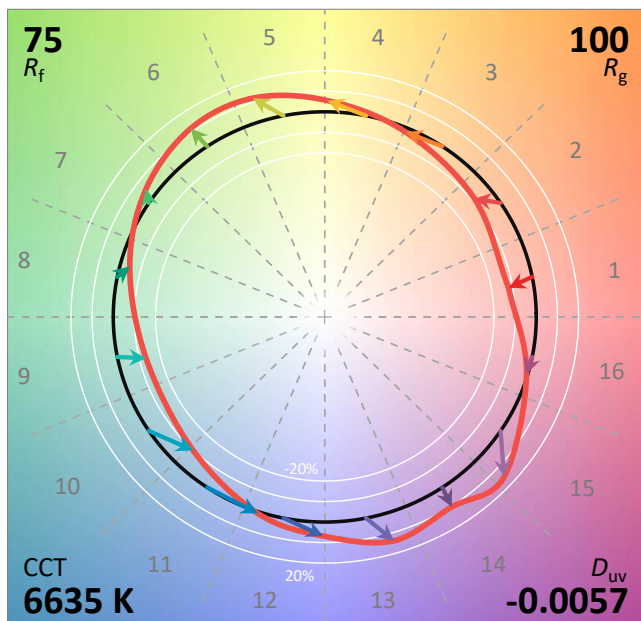
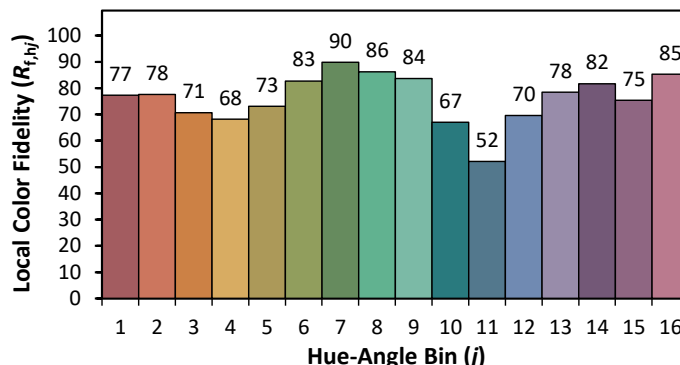
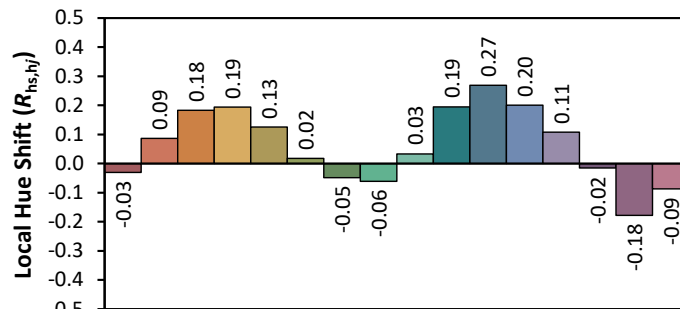
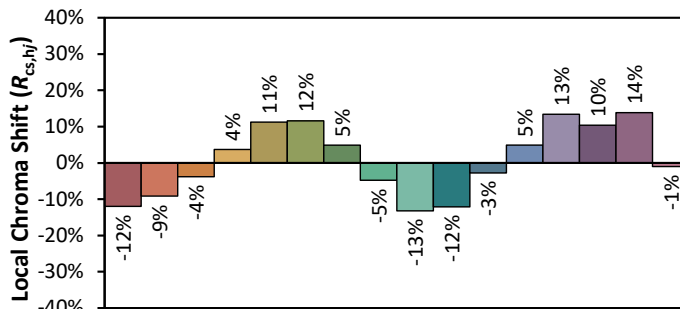
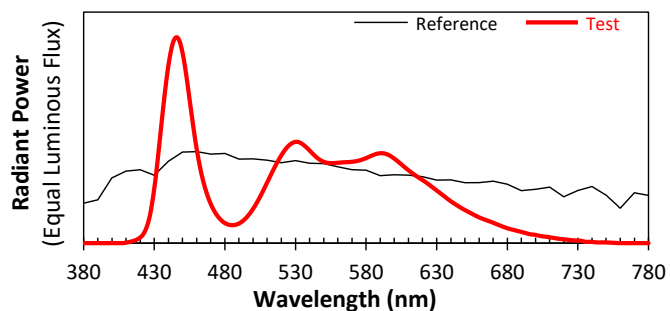
Measurement date: 01.04.2021

Forte HP

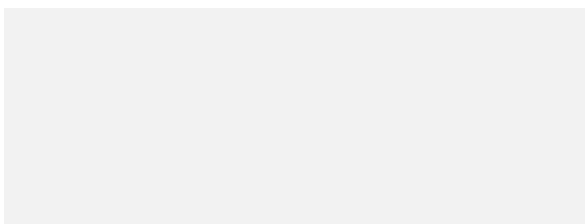
Photometric report

Beam angle 18.8° - Mid. zoom - CRI 80

ANSI/IES TM-30-18 Color Rendition Report



Notes:



x 0.3129
y 0.3124
u' 0.2044
v' 0.4592

CIE 13.3-1995 (CRI)	
R _a	79
R _g	13

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
Measurement date: 01.04.2021



Forte HP

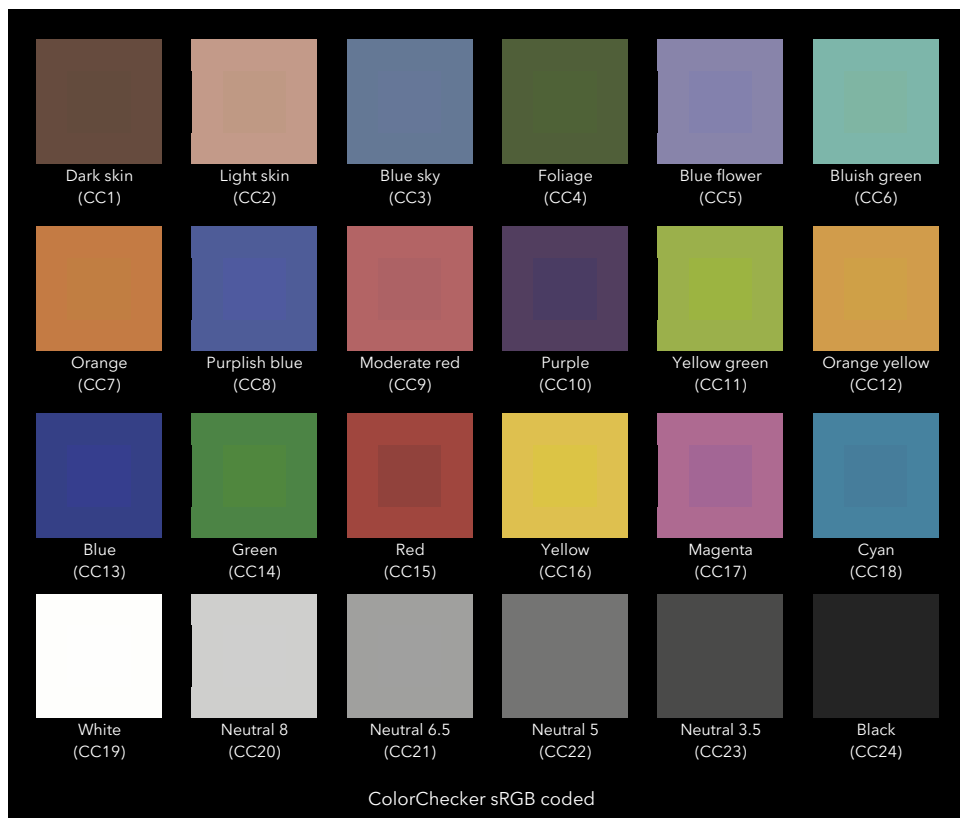
Photometric report

Beam angle 18.8° - Mid. zoom - CRI 80

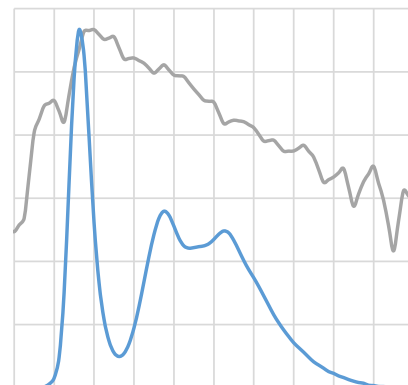
Television Lighting Consistency Index 2012 report

Direct spectrum input: CCT = D6635 (-1.1)

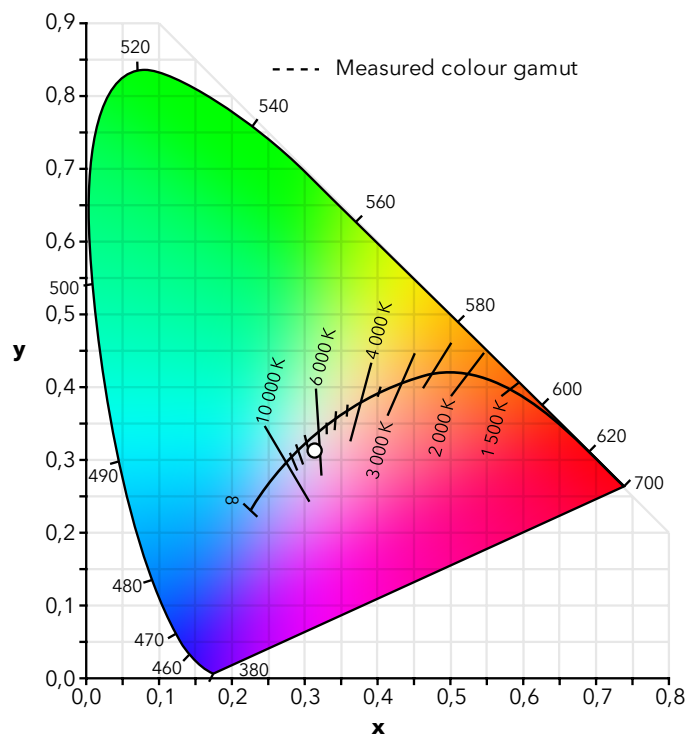
TLCI-2012: 59 (D6635)



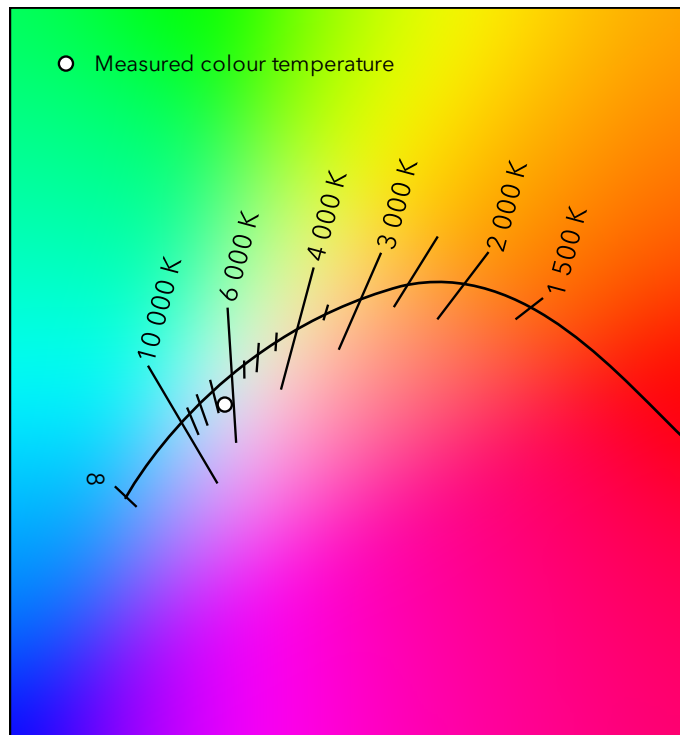
Sector	Lightness	Chroma	Hue
R	++++	++	+
R/Y	0	0	---
Y	-	-	----
Y/G	-	--	0
G	--	--	++
G/C	0	0	++++
C	+	0	+
C/B	++	0	-
B	0	---	--
B/M	+	---	+++++
M	++	-	+++++
M/R	++++	0	+++++



CIE 1931 color space gamut



Colour temperature



Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
 Measurement date: 01.04.2021

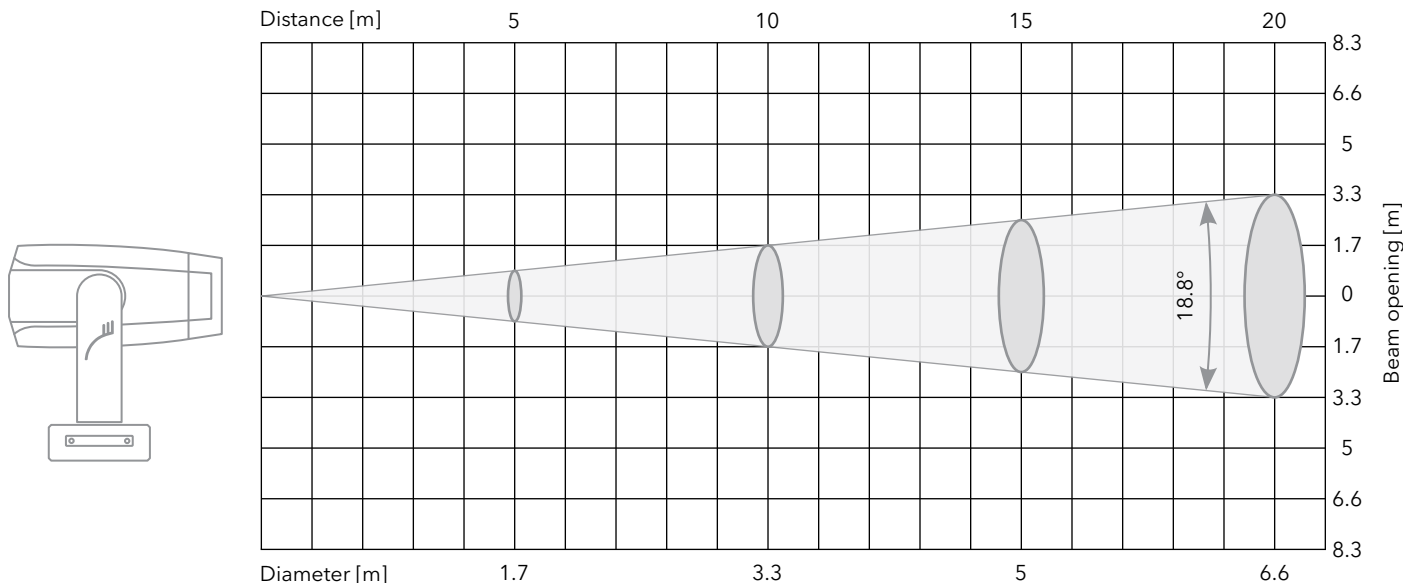


Forte HP

Photometric report

Beam angle 18.8° - Mid. zoom - CRI 90

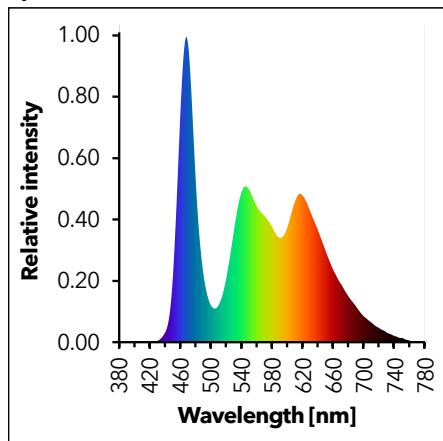
Beam angle	Total lumen output (integrating sphere)	Total lumen output (goniophotometer)	Peak candela	Power
18.8°	29619 lm	23833 lm	321350 cd	1245 W



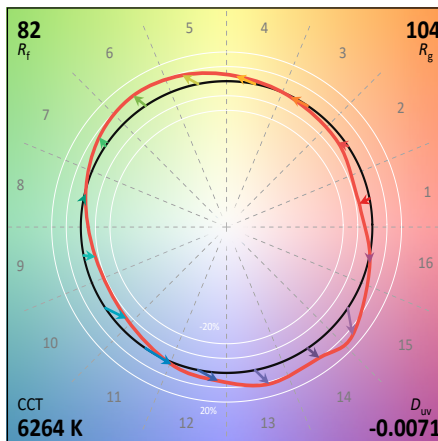
Center beam intensity [lx]/[fcd]; Total lumen output [lm] measured by goniophotometer

Distance	5 m	10 m	15 m	20 m	30 m	40 m	50 m	Total lumens
High Fan Mode	12854/1194.2	3213.5/298.5	1428.2/132.7	803.4/74.6	357.1/33.2	200.8/18.7	128.5/11.9	23833
Auto Fan Mode	12602/1170.8	3150.5/292.7	1400.2/130.1	787.6/73.2	350.1/32.5	196.9/18.3	126/11.7	23366
Quiet Fan Mode	8075/750.2	2018.8/187.5	897.2/83.4	504.7/46.9	224.3/20.8	126.2/11.7	80.8/7.5	14973

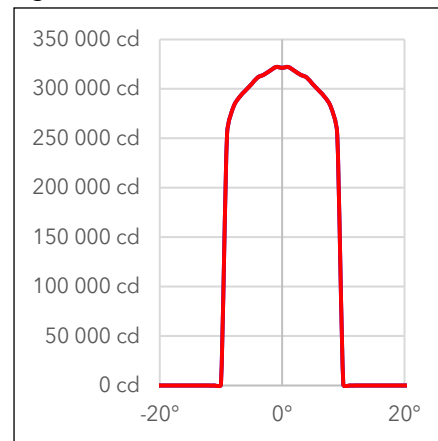
Spectrum



TM-30



Light distribution



Color temperature	CCT	6264
Color Deviation from Black	Duv	-0.0071
Color Coordinate CIE 1931	x	0.3186
	y	0.3152
Color Coordinate	u	0.2074
	v	0.3078

Color rendering index	CRI	87
Red component	CRI R9	43
Color fidelity	TM30 Rf	82
Color gamut	TM30 Rg	104
Television consistency Index	TLCI	72

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam

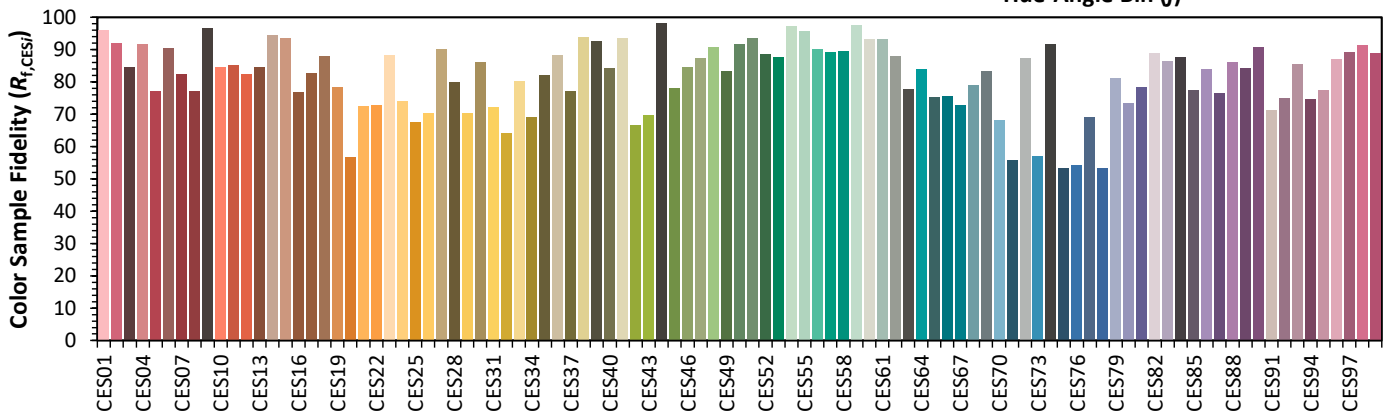
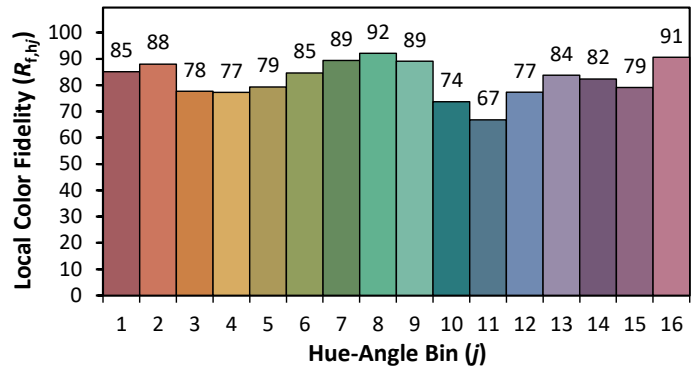
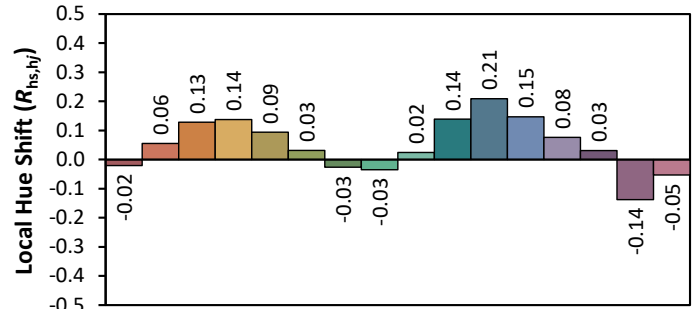
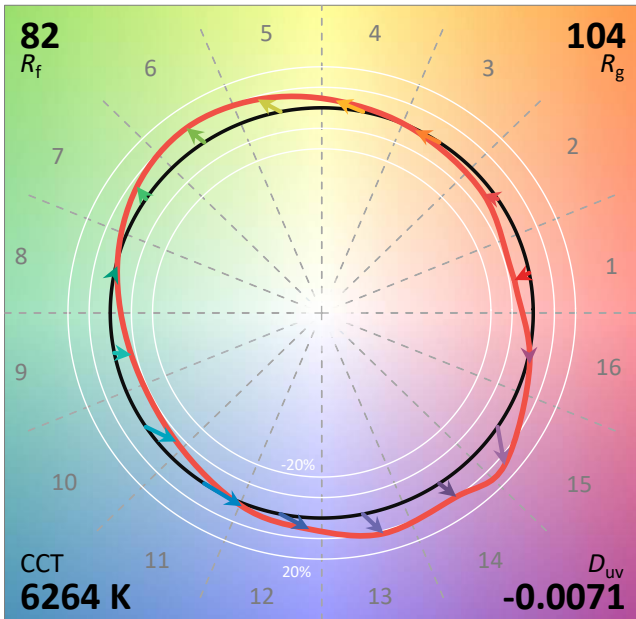
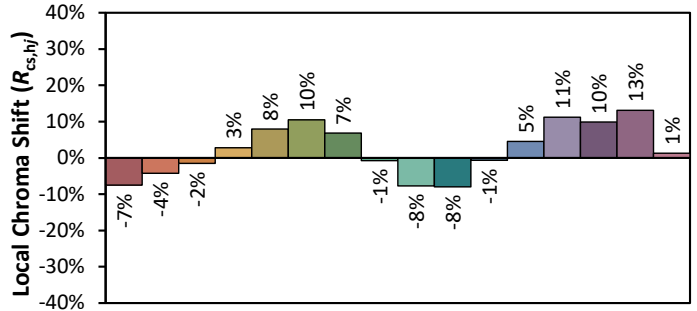
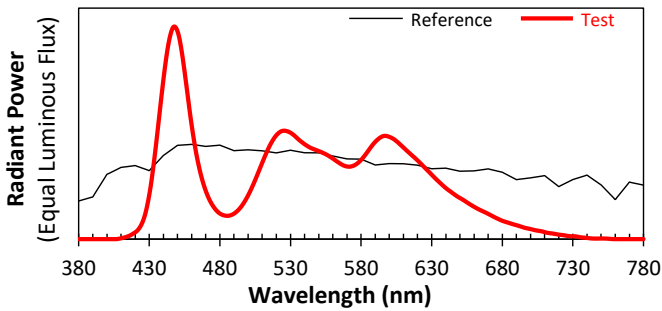
Measurement date: 01.04.2021

Forte HP

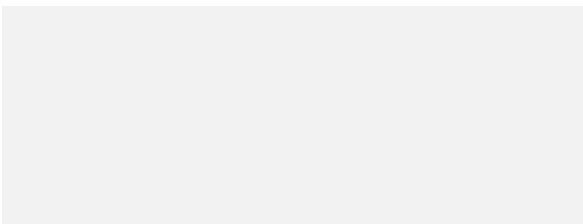
Photometric report

Beam angle 18.8° - Mid. zoom - CRI 90

ANSI/IES TM-30-18 Color Rendition Report



Notes:



x 0.3186
y 0.3152
u' 0.2074
v' 0.4616

CIE 13.3-1995 (CRI)	
R _a	87
R _g	43

Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
Measurement date: 01.04.2021



Forte HP

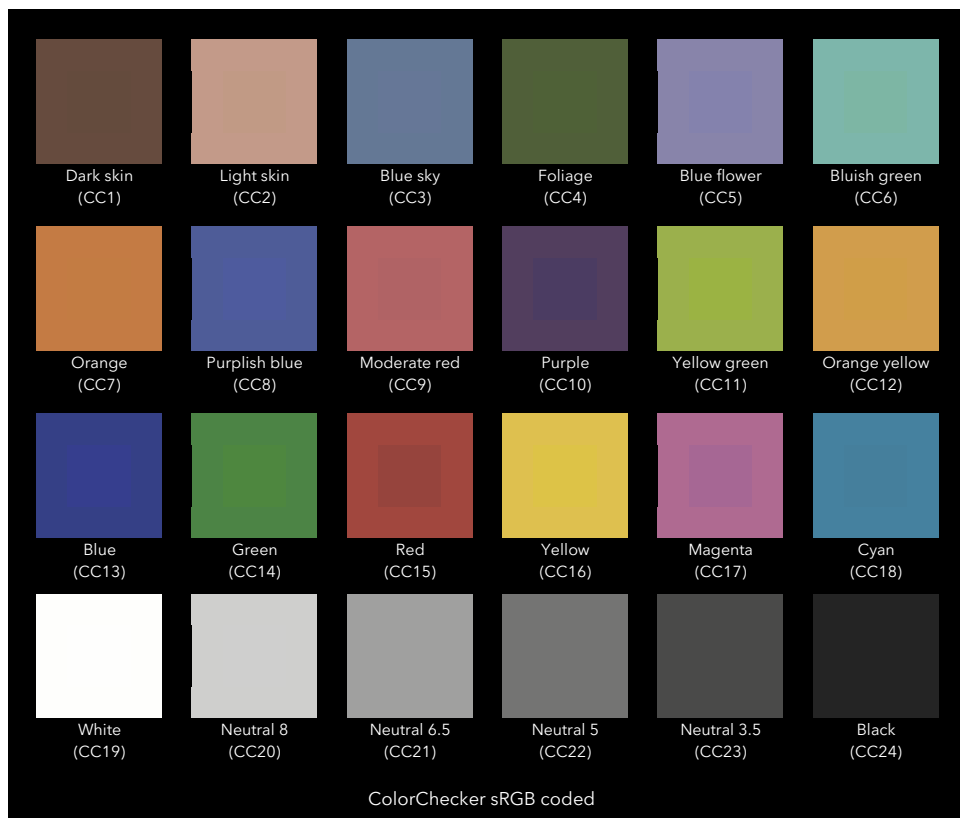
Photometric report

Beam angle 18.8° - Mid. zoom - CRI 90

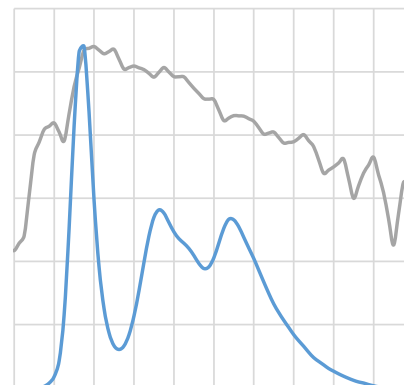
Television Lighting Consistency Index 2012 report

Direct spectrum input: CCT = D6264 (-1.3)

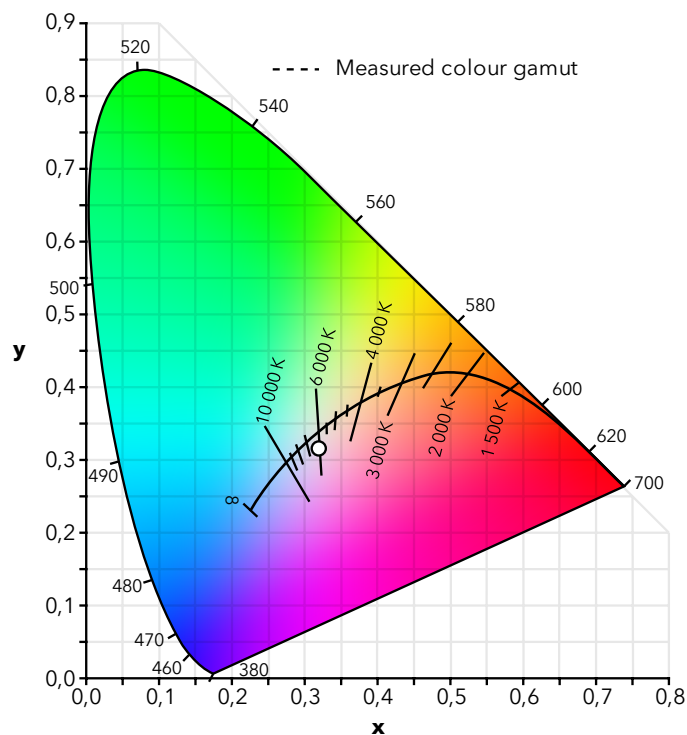
TLCI-2012: 72 (D6264)



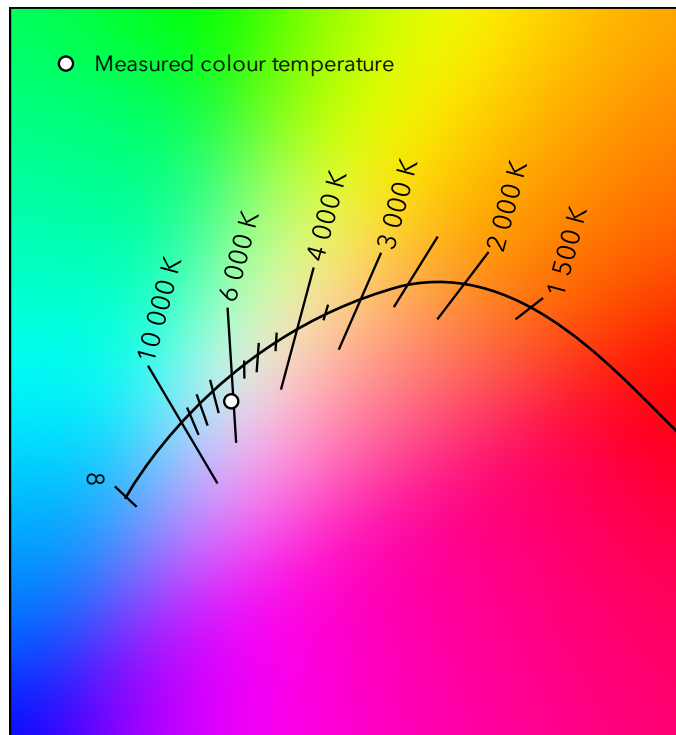
Sector	Lightness	Chroma	Hue
R	++	+	0
R/Y	0	0	--
Y	0	-	--
Y/G	-	--	0
G	-	--	++
G/C	0	-	++++
C	+	0	++
C/B	+	0	0
B	0	--	-
B/M	+	--	++++
M	++	-	++++
M/R	+++	0	++++



CIE 1931 color space gamut



Colour temperature



Fixture settings: DMX mode: 1; Fans: High; Dimmer curve: Square Law; Shutter: Open; Dimmer: Open; No effect in light beam
 Measurement date: 01.04.2021

