

FEATURES

- 4 different sharp beam angles
- Wide variety of TM30 optimized LEDs
- ENEC approved drivers
- IEEE P1789 Flickerfree driver to 1%

SPRINGS

Standard with CS springs (concrete/gyproc).
Also available as above with
WS springs (gypro/metal).

LV 18° / 37° / 60°

LV 80° (on request)

COLOURS

Available colours:

Matt white RAL 9016 (XX=MW)
Matt black RAL 9005 (XX=BL)

Linea DS-FS 120 LV

Fixed

SPECIFICATIONS

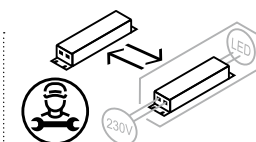
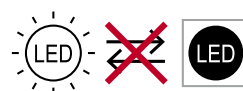
Beam angle (FWHM)	18° / 37° / 60° (80° on request)
Fixture material	Die cast aluminium / Glass
Environment	Indoor
IP rate	IP20 / IP44
IK rate	IK09
Operating temperature (Ta)	-20°C / +45°C ¹
Safety marks	EN60598 / EN62031 / EN62471
EMC compliance	EN55015
Colour consistency (SDCM)	MacAdam step 3
Warranty	7 years * (within the European Union and the countries of the Free Trade Association for products delivered after 1 May 2015)
Energy class	These products contains a light source of energy efficiency class F (CRI97 3000K) / D (CRI80 3000K/4000K)

This luminaire contains built-in LED lamps. The lamps cannot be changed in the luminaire. EU 874/2012

¹ In applications with a flat roof (fi. car showrooms) the temperatures may exceed 45°C. Please ask our sales office for a special driver.



Ask our sales department about the possibilities for:
- Tunable white 2700-6500K.
- Extra LED options from the LUXEON Stylist Series



Only when the product is installed in a closed ceiling it may be exposed to water splashes, and only on its front side.



LINEA DS-FS 120 VARIATIONS

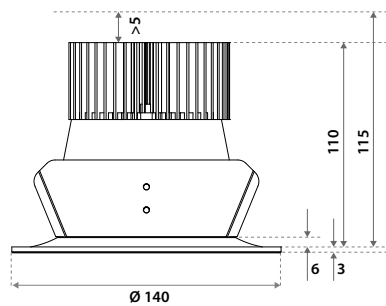
LINEA DS-FS 120	CRI80	3000/4000K	3000/3400Lm	incl. power supply	page 3
LINEA DS-FS 120	CRI80	3000/4000K	5000/5700Lm	incl. power supply	page 4
LINEA DS-FS 120	CRI97	3000K	2500Lm	incl. power supply	page 5
LINEA DS-FS 120	CRI97	3000K	3250/3750Lm	incl. power supply	page 6

CRI80/97 CHOOSE YOUR LV LUMEN OUTPUT

	mA	W	Lumen Output			Lumen / Watt			Driver types				
			CRI80	CRI80	CRI97	CRI80	CRI80	CRI97	No dim	Triac	1-10V&Push	Dali	Casambi
			3000K	4000K	3000K	3000K	4000K	3000K					
<i>Special request</i>	250	9,4	1200	1400	800	127	149	85	127570	x	126421	127576	x
<i>Special request</i>	350	13,2	1650	1900	1100	125	144	83	127570	x	127021	127576	127630
<i>Special request</i>	500	17,9	2250	2500	1450	125	139	81	127570	127032	127021	127576	127630
Standard	700	27,0	3000	3400	2150	111	126	80	127480N	122260	127021	127576	127630
<i>Special request</i>	800	32,1	3400	3750	2500	106	117	78	127484	on request	127021	127490	127630
<i>Special request</i>	900	35,5	3700	4100	2700	104	115	76	127484	on request	127021	127490	127630
<i>Special request</i>	1050	41,7	4200	4700	3000	101	113	72	127484	on request	127021	127490	127630
Standard	1200	50,5	5000	5700	3250 ¹	99	113	64	127690	on request	123170	123170	On request
Special request	1400	57,2	5600	6300	3750 ²	98	110	66	x	on request	123170	123170	On request

¹ For large downlights CRI97 No dim. ² For large downlights CR97 1-10V and Dali

DIMENSIONS



HOLE SIZE



Using CS springs: Ø 120 mm.
Thickness ceiling 10-115 mm & recess depth 115 mm. For plasterboard ceilings or similar harder materials thicker than 9 mm.



Using WS springs: Ø 120-130 mm.
Thickness ceiling 1-40 mm & recess depth 115 mm.
For soft ceiling tiles. We recommend using a ceiling ring on the reverse side of the tile.

LINEA DS-FS 120 LV

CRI80 3000/3400LM

ITEM SPECIFICATIONS (PART A)

Description	Item code		UGR	Type	mA	Vf
	CS	WS				
Linea DS-FS LV 3000 Lm 3000K CRI80 18° No dim	282003XXCA02	282003XXEA02	18.0	Incl. PSU	700	35,3
Linea DS-FS LV 3000 Lm 3000K CRI80 18° 1-10V & Push	282003XXNA02	282003XXQA02	18.0	Incl. PSU	700	35,3
Linea DS-FS LV 3000 Lm 3000K CRI80 18° Dali	282003XXPA02	282003XXRA02	18.0	Incl. PSU	700	35,3
Linea DS-FS LV 3000 Lm 3000K CRI80 37° No dim	282003XXCB02	282003XXEB02	17.4	Incl. PSU	700	35,3
Linea DS-FS LV 3000 Lm 3000K CRI80 37° 1-10V & Push	282003XXNB02	282003XXQB02	17.4	Incl. PSU	700	35,3
Linea DS-FS LV 3000 Lm 3000K CRI80 37° Dali	282003XXPB02	282003XXRB02	17.4	Incl. PSU	700	35,3
Linea DS-FS LV 3000 Lm 3000K CRI80 60° No dim	282003XXCC02	282003XXEC02	20.5	Incl. PSU	700	35,3
Linea DS-FS LV 3000 Lm 3000K CRI80 60° 1-10V & Push	282003XXNC02	282003XXQC02	20.5	Incl. PSU	700	35,3
Linea DS-FS LV 3000 Lm 3000K CRI80 60° Dali	282003XXPC02	282003XXRC02	20.5	Incl. PSU	700	35,3
Linea DS-FS LV 3400 Lm 4000K CRI80 18° No dim	282003XXCD02	282003XXED02	18.4	Incl. PSU	700	35,3
Linea DS-FS LV 3400 Lm 4000K CRI80 18° 1-10V & Push	282003XXND02	282003XXQD02	18.4	Incl. PSU	700	35,3
Linea DS-FS LV 3400 Lm 4000K CRI80 18° Dali	282003XXPD02	282003XXRD02	18.4	Incl. PSU	700	35,3
Linea DS-FS LV 3400 Lm 4000K CRI80 37° No dim	282003XXCE02	282003XXEE02	17.9	Incl. PSU	700	35,3
Linea DS-FS LV 3400 Lm 4000K CRI80 37° 1-10V & Push	282003XXNE02	282003XXQE02	17.9	Incl. PSU	700	35,3
Linea DS-FS LV 3400 Lm 4000K CRI80 37° Dali	282003XXPE02	282003XXRE02	17.9	Incl. PSU	700	35,3
Linea DS-FS LV 3400 Lm 4000K CRI80 60° No dim	282003XXCF02	282003XXEF02	20.9	Incl. PSU	700	35,3
Linea DS-FS LV 3400 Lm 4000K CRI80 60° 1-10V & Push	282003XXNF02	282003XXQF02	20.9	Incl. PSU	700	35,3
Linea DS-FS LV 3400 Lm 4000K CRI80 60° Dali	282003XXPF02	282003XXRF02	20.9	Incl. PSU	700	35,3

ITEM SPECIFICATIONS (PART B)

Description	W	Lm	Lm/W	CRI (typ.)	Pf	Ripple	Inrush current	B-16A Fuse	Safety class	Energy class
Linea DS-FS LV 3000 Lm 3000K CRI80 No dim	27,0	3000	111	82	0.95	<3%	5A 50µS	50 pcs	I	D
Linea DS-FS LV 3000 Lm 3000K CRI80 1-10V & Push	27,0	3000	111	82	0.95	<3%	5A 50µS	50 pcs	II	D
Linea DS-FS LV 3000 Lm 3000K CRI80 Dali	27,0	3000	111	82	0.95	<3%	5A 50µS	50 pcs	II	D
Linea DS-FS LV 3400 Lm 4000K CRI80 No dim	27,0	3400	126	82	0.95	<3%	5A 50µS	50 pcs	I	D
Linea DS-FS LV 3400 Lm 4000K CRI80 1-10V & Push	27,0	3400	126	82	0.95	<3%	5A 50µS	50 pcs	II	D
Linea DS-FS LV 3400 Lm 4000K CRI80 Dali	27,0	3400	126	82	0.95	<3%	5A 50µS	50 pcs	II	D

ITEM SPECIFICATIONS (PART C)

Description	Weight	Dimensions single carton	Quantity per carton	Expected lifespan B10 reported (25°C)		
				L70B10	L80B10	L90B10
Linea DS-FS LV CRI80	622 gr	190x150x120 mm	32 pcs	>60.500 hrs	>60.500 hrs	>60.500 hrs

All values are measured at 230V (+/- 7%)

STRADA 100 LV

CRI80 5000/5700LM

ITEM SPECIFICATIONS (PART A)

Description	Item code		UGR	Type	mA	Vf
	CS	WS				
Linea DS-FS LV 5000 Lm 3000K CRI80 18° No dim	282003XXCR02	282003XXER02	19.7	Incl. PSU	1200	37,5
Linea DS-FS LV 5000 Lm 3000K CRI80 18° 1-10V & Push	282003XXNK02	282003XXQK02	19.7	Incl. PSU	1200	37,5
Linea DS-FS LV 5000 Lm 3000K CRI80 18° Dali	282003XXPK02	282003XXRK02	19.7	Incl. PSU	1200	37,5
Linea DS-FS LV 5000 Lm 3000K CRI80 37° No dim	282003XXCS02	282003XXES02	19.2	Incl. PSU	1200	37,5
Linea DS-FS LV 5000 Lm 3000K CRI80 37° 1-10V & Push	282003XXNL02	282003XXQL02	19.2	Incl. PSU	1200	37,5
Linea DS-FS LV 5000 Lm 3000K CRI80 37° Dali	282003XXPL02	282003XXRL02	19.2	Incl. PSU	1200	37,5
Linea DS-FS LV 5000 Lm 3000K CRI80 60° No dim	282003XXCT02	282003XXET02	22.2	Incl. PSU	1200	37,5
Linea DS-FS LV 5000 Lm 3000K CRI80 60° 1-10V & Push	282003XXNM02	282003XXQM02	22.2	Incl. PSU	1200	37,5
Linea DS-FS LV 5000 Lm 3000K CRI80 60° Dali	282003XXPM02	282003XXRM02	22.2	Incl. PSU	1200	37,5
Linea DS-FS LV 5700 Lm 4000K CRI80 18° No dim	282003XXCU02	282003XXEU02	20.2	Incl. PSU	1200	37,5
Linea DS-FS LV 5700 Lm 4000K CRI80 18° 1-10V & Push	282003XXNN02	282003XXQN02	20.2	Incl. PSU	1200	37,5
Linea DS-FS LV 5700 Lm 4000K CRI80 18° Dali	282003XXPN02	282003XXRN02	20.2	Incl. PSU	1200	37,5
Linea DS-FS LV 5700 Lm 4000K CRI80 37° No dim	282003XXCV02	282003XXEV02	19.7	Incl. PSU	1200	37,5
Linea DS-FS LV 5700 Lm 4000K CRI80 37° 1-10V & Push	282003XXNP02	282003XXQP02	19.7	Incl. PSU	1200	37,5
Linea DS-FS LV 5700 Lm 4000K CRI80 37° Dali	282003XXPP02	282003XXRP02	19.7	Incl. PSU	1200	37,5
Linea DS-FS LV 5700 Lm 4000K CRI80 60° No dim	282003XXCW02	282003XXEW02	22.7	Incl. PSU	1200	37,5
Linea DS-FS LV 5700 Lm 4000K CRI80 60° 1-10V & Push	282003XXNQ02	282003XXQQ02	22.7	Incl. PSU	1200	37,5
Linea DS-FS LV 5700 Lm 4000K CRI80 60° Dali	282003XXPQ02	282003XXRQ02	22.7	Incl. PSU	1200	37,5

ITEM SPECIFICATIONS (PART B)

Description	W	Lm	Lm/W	CRI (typ.)	Pf	Ripple	Inrush current	B-16A Fuse	Safety class	Energy class
Linea DS-FS LV 5000 Lm 3000K CRI80 No dim	50,5	5000	99	82	0.95	<3%	10A 200µs	30 pcs	II	D
Linea DS-FS LV 5000 Lm 3000K CRI80 1-10V & Push	50,5	5000	99	82	0.95	<3%	10A 200µs	30 pcs	I	D
Linea DS-FS LV 5000 Lm 3000K CRI80 Dali	50,5	5000	99	82	0.95	<3%	10A 200µs	30 pcs	I	D
Linea DS-FS LV 5700 Lm 4000K CRI80 No dim	50,5	5700	113	82	0.95	<3%	10A 200µs	30 pcs	II	D
Linea DS-FS LV 5700 Lm 4000K CRI80 1-10V & Push	50,5	5700	113	82	0.95	<3%	10A 200µs	30 pcs	I	D
Linea DS-FS LV 5700 Lm 4000K CRI80 Dali	50,5	5700	113	82	0.95	<3%	10A 200µs	30 pcs	I	D

ITEM SPECIFICATIONS (PART C)

Description	Weight	Dimensions single carton	Quantity per carton	Expected lifespan B10 reported (25°C)		
				L70B10	L80B10	L90B10
Linea DS-FS LV CRI80	622 gr	190x150x120 mm	32 pcs	>60.500 hrs	>60.500 hrs	>60.500 hrs

All values are measured at 230V (+/- 7%)

LINEA DS-FS 120 LV

CRI97 2500LM

ITEM SPECIFICATIONS (PART A)

Description	Item code		UGR	Type	mA	Vf
	CS	WS				
Linea DS-FS LV 2500 Lm 3000K CRI80 18° No dim	282003XXCG02	282003XXEG02	17.3	Incl. PSU	800	35,3
Linea DS-FS LV 2500 Lm 3000K CRI80 18° 1-10V & Push	282003XXNG02	282003XXQG02	17.3	Incl. PSU	800	35,3
Linea DS-FS LV 2500 Lm 3000K CRI80 18° Dali	282003XXPG02	282003XXRG02	17.3	Incl. PSU	800	35,3
Linea DS-FS LV 2500 Lm 3000K CRI80 37° No dim	282003XXCH02	282003XXEH02	16.8	Incl. PSU	800	35,3
Linea DS-FS LV 2500 Lm 3000K CRI80 37° 1-10V & Push	282003XXNH02	282003XXQH02	16.8	Incl. PSU	800	35,3
Linea DS-FS LV 2500 Lm 3000K CRI80 37° Dali	282003XXPH02	282003XXRH02	16.8	Incl. PSU	800	35,3
Linea DS-FS LV 2500 Lm 3000K CRI80 60° No dim	282003XXCJ02	282003XXEJ02	19.8	Incl. PSU	800	35,3
Linea DS-FS LV 2500 Lm 3000K CRI80 60° 1-10V & Push	282003XXNJ02	282003XXQJ02	19.8	Incl. PSU	800	35,3
Linea DS-FS LV 2500 Lm 3000K CRI80 60° Dali	282003XXPJ02	282003XXRJ02	19.8	Incl. PSU	800	35,3

ITEM SPECIFICATIONS (PART B)

Description	W	Lm	Lm/W	CRI (typ.)	Pf	Ripple	Inrush current	B-16A Fuse	Safety class	Energy class
Linea DS-FS LV 2500 Lm 3000K CRI97 No dim	32,1	2500	78	97	0.95	<3%	5A 50µS	50 pcs	I	F
Linea DS-FS LV 2500 Lm 3000K CRI97 1-10V & Push	32,1	2500	78	97	0.95	<3%	5A 50µS	50 pcs	II	F
Linea DS-FS LV 2500 Lm 3000K CRI97 Dali	32,1	2500	78	97	0.95	<3%	5A 50µS	50 pcs	II	F

ITEM SPECIFICATIONS (PART C)

Description	Weight	Dimensions single carton	Quantity per carton	Expected lifespan B10 reported (25°C)		
				L70B10	L80B10	L90B10
Linea DS-FS LV 2500 Lm 3000K CRI97	622 gr	190x150x120 mm	32 pcs	>60.500 hrs	>60.500 hrs	>60.500 hrs

All values are measured at 230V (+/- 7%)

LINEA DS-FS 120 LV

CRI97 3750LM

ITEM SPECIFICATIONS (PART A)

Description	Item code		UGR	Type	mA	Vf
	CS	WS				
Linea DS-FS LV 3250 Lm 3000K CRI80 18° No dim	282003XXFD02	282003XXFG02	18.2	Incl. PSU	1200	37,5
Linea DS-FS LV 3750 Lm 3000K CRI80 18° 1-10V & Push	282003XXNR02	282003XXQR02	18.7	Incl. PSU	1400	37,5
Linea DS-FS LV 3750 Lm 3000K CRI80 18° Dali	282003XXPR02	282003XXRR02	18.7	Incl. PSU	1400	37,5
Linea DS-FS LV 3250 Lm 3000K CRI80 37° No dim	282003XXFE02	282003XXFH02	17.7	Incl. PSU	1200	37,5
Linea DS-FS LV 3750 Lm 3000K CRI80 37° 1-10V & Push	282003XXNS02	282003XXQS02	18.2	Incl. PSU	1400	37,5
Linea DS-FS LV 3750 Lm 3000K CRI80 37° Dali	282003XXPS02	282003XXRS02	18.2	Incl. PSU	1400	37,5
Linea DS-FS LV 3250 Lm 3000K CRI80 60° No dim	282003XXFF02	282003XXFJ02	20.7	Incl. PSU	1200	37,5
Linea DS-FS LV 3750 Lm 3000K CRI80 60° 1-10V & Push	282003XXNT02	282003XXQT02	21.2	Incl. PSU	1400	37,5
Linea DS-FS LV 3750 Lm 3000K CRI80 60° Dali	282003XXPT02	282003XXRT02	21.2	Incl. PSU	1400	37,5

ITEM SPECIFICATIONS (PART B)

Description	W	Lm	Lm/W	CRI (typ.)	Pf	Ripple	Inrush current	B-16A Fuse	Safety class	Energy class
Linea DS-FS LV 3250 Lm 3000K CRI97 No dim	50,5	3250	64	97	0.95	<3%	10A 200µS	30 pcs	II	F
Linea DS-FS LV 3750 Lm 3000K CRI97 1-10V & Push	57,2	3750	66	97	0.95	<3%	10A 200µS	30 pcs	I	F
Linea DS-FS LV 3750 Lm 3000K CRI97 Dali	57,2	3750	66	97	0.95	<3%	10A 200µS	30 pcs	I	F

ITEM SPECIFICATIONS (PART C)

Description	Weight	Dimensions single carton	Quantity per carton	Expected lifespan B10 reported (25°C)		
				L70B10	L80B10	L90B10
Linea DS-FS LV 3250/3750 Lm 3000K CRI97	622 gr	190x150x120 mm	32 pcs	>60.500 hrs	>60.500 hrs	>60.500 hrs

All values are measured at 230V (+/- 7%)

NEW STANDARDS REQUIRE NEW LEDS

TM-30 (new color norm): The Illuminating Engineering Society (IES) has published a new Technical Memorandum – TM-30-15 entitled “IES Method for Evaluating Light Source Color Rendition” – that promises to supplant CRI as a color metric. TM-30 relies on separate fidelity and gamut metrics, as well as a set of color samples that is more representative of real-world objects, as opposed to the pastel samples that were primarily used for the baseline CRI metric that was sometimes called Ra. The new color metric is intended to fairly and accurately characterize both LED-based solid-state lighting (SSL) and legacy sources.



Desaturated

CRI = 80 / R_g = 92



Red-Enhanced

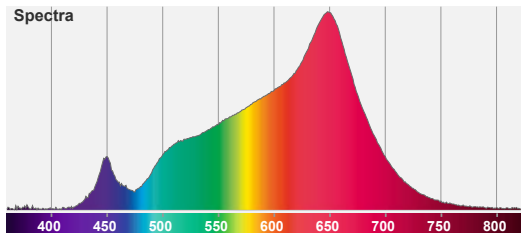
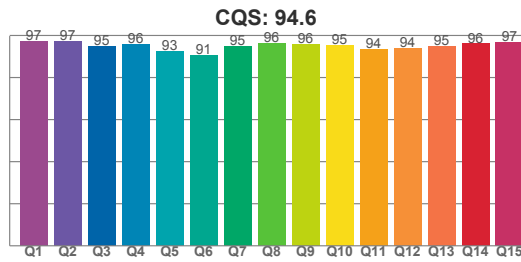
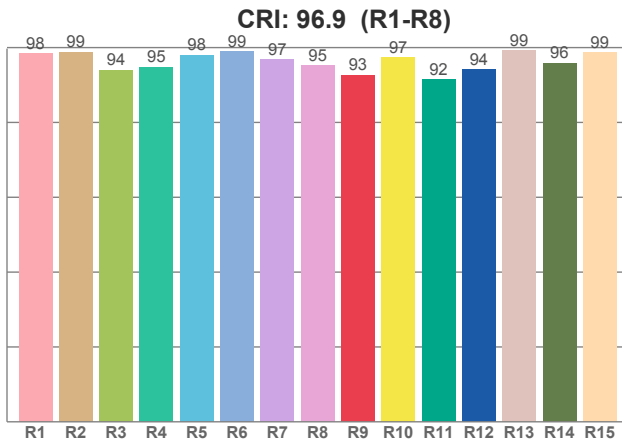
CRI = 98 / R_g = 103

SPECIAL LEDS AVAILABLE

	CCT	CRI	R9	RF	RG	R15	TLCI	DOWNLIGHTS SMALL		DOWNLIGHTS LARGE		DOWNLIGHTS LARGE		ITEM CODE
								MA	LM	MA	LM	MA	LM	
CRI80	2700K	82	5	82	92	75	69	350 mA	1550	700 mA	2900	1200 mA	4800	51-4028-27-1
CRI80	3000K	82	5	81	93	75	66	350 mA	1625	700 mA	3000	1200 mA	5000	51-4028-30-1
CRI80	4000K	82	5	81	93	74	66	350 mA	1700	700 mA	3400	1200 mA	5700	51-4028-40-1
CRI97	2700K	97	93	96	103	99	97	350 mA	1150	800 mA	x	1400 mA	x	50-3031-27
CRI97	3000K	97	96	95	103	100	97	350 mA	1250	800 mA	2500	1400 mA	3750	50-3031-30
CRI97	4000K	97	96	95	103	100	97	350 mA	1350	800 mA	x	1400 mA	x	50-3031-40
CrispWhite	3000K	90	61	87	102	89	83	350 mA	780	900 mA	2300	1400 mA	3550	51-4029-30
Red Meat	1800K	82	81	77	119	95	60	350 mA	515	900 mA	1750	1400 mA	2350	51-4042-00
Bread & Pastries	2700K	92	54	89	96	86	91	350 mA	770	900 mA	2600	1400 mA	3500	51-4045-00

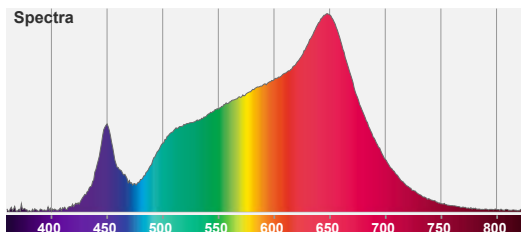
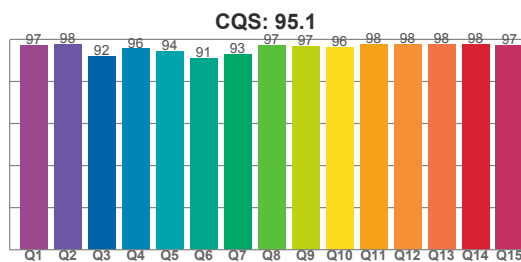
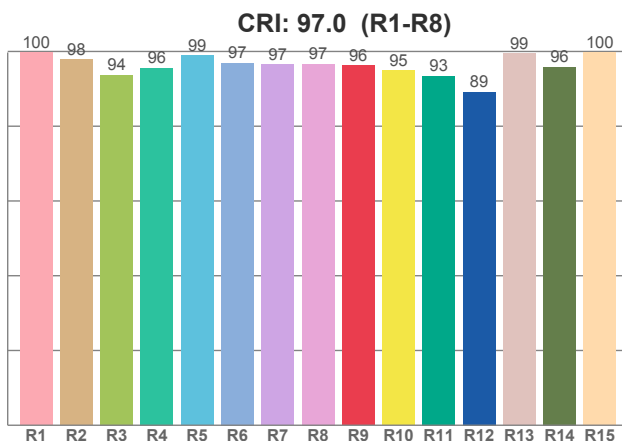


2700K



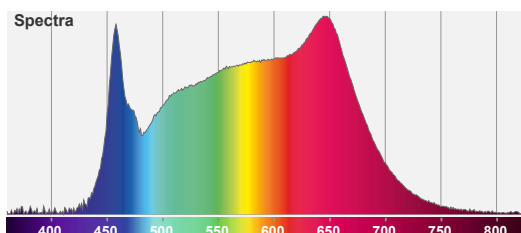
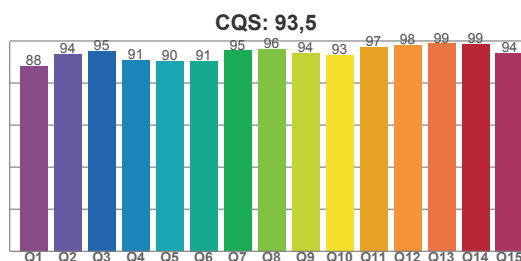
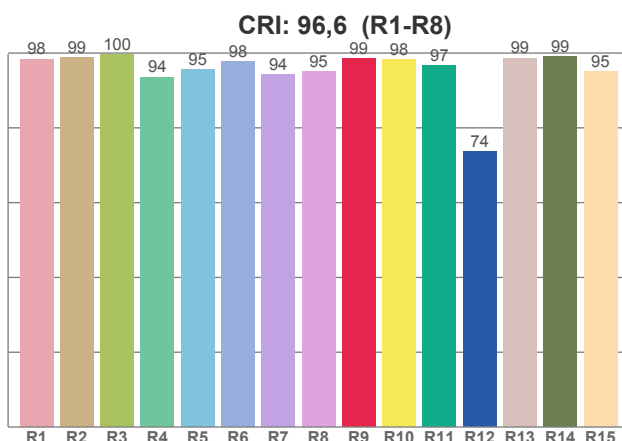
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS
2700K	96.9	92.7	96.0	102.6	94.6

3000K



CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS
3000 K	97.0	96.2	95.0	103.3	95.1

4000K



CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS
4000K	96.6	98.5	88.3	96.2	93.5