LED Linear™ GmbH • Dr.-Alfred-Herrhausen-Allee 20, 47228 Duisburg, Germany
www.led-linear.com • info@led-linear.com • +49 2065 94322-100

View this configuration in the online product finder

LED LINEAR™
A Fagerhult Group Company

VENUS TC TV/3D IP67

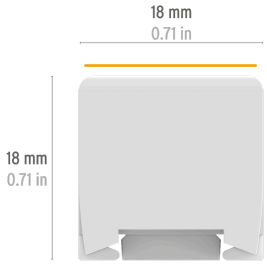
VENUS TC 3D SW HC_ _ OL ___ _ IP67

Project name

Company

Phase / Luminaire type for tech. spec. document

Date



- Luminaire configuration: Stand-alone luminaire
- White — Light color / light source: Static White
- Color rendering and efficiency: HC - CRI > 90, standard efficacy
- LED pitch / density: High Density
- Luminaire type (rigid / flexible): 3D-bendable
- W — Profile color: White (RAL9003)
- Power supply position: External PSU
- Cable / connector configuration: MO - Male connector one side
- Cable / connector configuration: DC - Daisy chain
- Cable / connector configuration: OO - Open cable one side only
- Cable / connector configuration: OT - Open cable both sides
- IP67 — Protection class: IP67
- 24V — Input voltage [V]: 24V DC

THE FLEXIBLE BENCHMARK FOR ORGANIC ARCHITECTURAL INTEGRATION.

The VENUS TC family is a highly flexible linear lighting system developed for organic and complex architectural forms. Available as Top View and full 3D bendable versions with identical cross-section, it enables seamless integration into curved and free-flowing geometries. Designed for exterior architectural applications, the system supports continuous, precise light lines that follow the architecture.

CERTIFICATES

Conformité Européenne (CE)

Ecodesign Directive

Environmental Product Declaration (EPD)

ETL certified

Protection Class III

WEEE

- IECEE CB Scheme

- IPx7 testing according to IEC 60529:1989 by Intertek
- Salt mist testing according to DIN EN 60068-2-52:2018 by Intertek

ELECTRICAL & OUTPUT DATA [1]

Power [W/m]	6	10	15
Efficiency [lm/W]	58	53.9	61.1
Max. daisy chain length [m]	5	3	2
CRI / R9	96/75	96/75	96/75
Rf / Rg	93/101	93/101	93/101
Ambient temperature [°C] max	50	50	40
Housing Temperature [°C] max	65	65	65

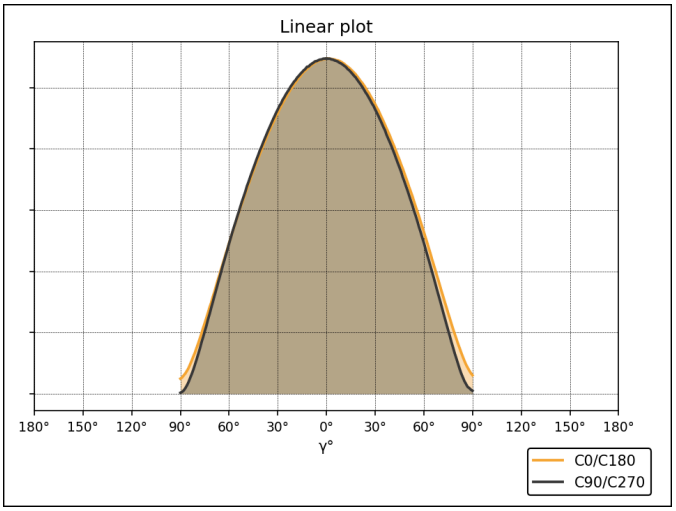
Power [W/m]	6	10	15
		Luminous flux [lm/m]	
W922	300	490	800
W927	320	540	890
W930	350	540	920

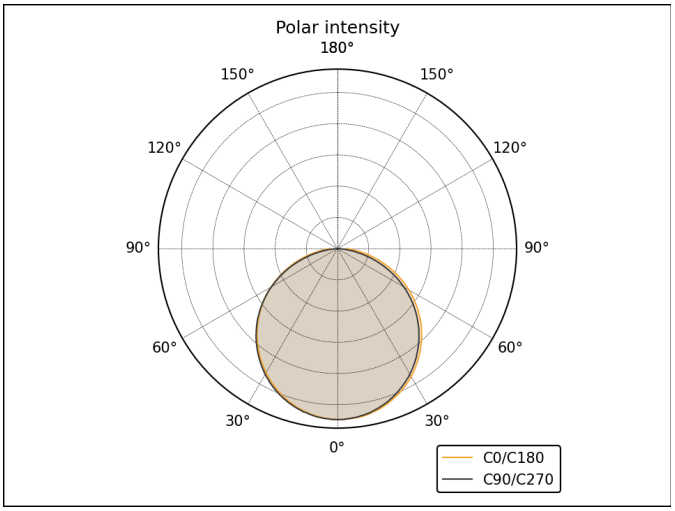
(1): Light engine family: VarioLED Flex Nexus3D HD HC ; Light distribution: OL - Opal low (sealed or cover) ; Light color / light source: Static White ; Profile color: White (RAL9003) ; Integrated anti-glare: No integrated anti-glare ; Optional glare control accessory: No Accessories

PRODUCT INFORMATION

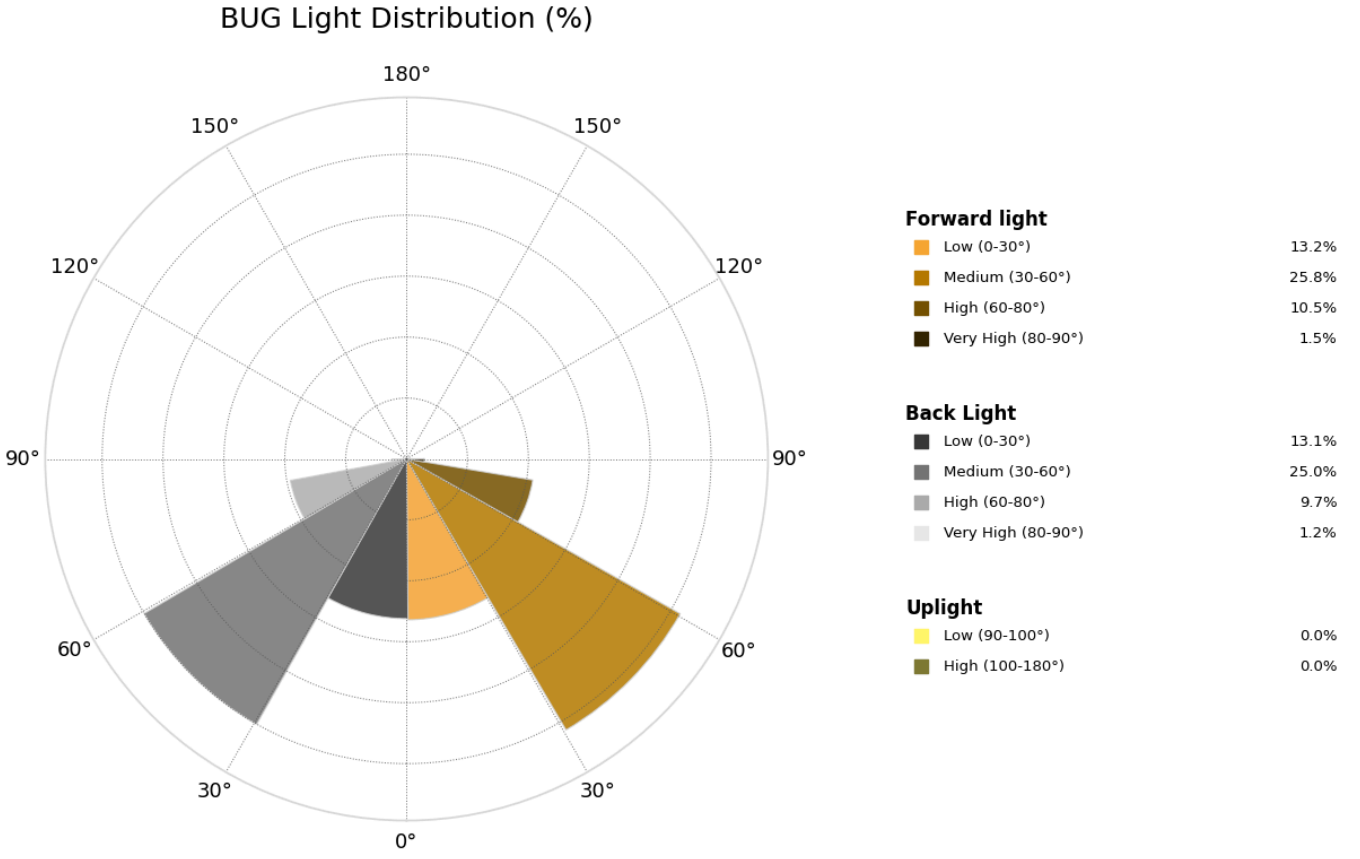
Product family	VENUS TC TV/3D IP67	Protection class	IP67
Luminaire type (rigid / flexible)	3D-bendable	Luminaire profile size	Standard
Profile color	White (RAL9003)	Light distribution	OL - Opal low (sealed or cover)
Light color / light source	Static White	Color rendering and efficiency	HC - CRI > 90, standard efficacy
Light engine family	VarioLED Flex Nexus3D HD HC	Lumen maintenance (LED manufacturer specification)	L80/B10
LED pitch / density	High Density	ANSI LED binning	3 SDCM
Cable outlet position	X - Not relevant	Integrated anti-glare	No integrated anti-glare
Optional glare control accessory	No Accessories	Power supply position	External PSU
Control technology	No PSU with No Control Controller	Input voltage [V]	24V DC
Luminaire configuration	Stand-alone luminaire	DarkSky certification	Not DarkSky certified
Case temperature [°C]	TC(min): -25°, TC(max): 65°	Storage temperature [°C]	TS(min): -30°, TS(max): 85°
Lifespan [h]	60,000	fixed luminaire section [mm]	4
LED step length [mm]	70		

PHOTOMETRIC GRAPHS





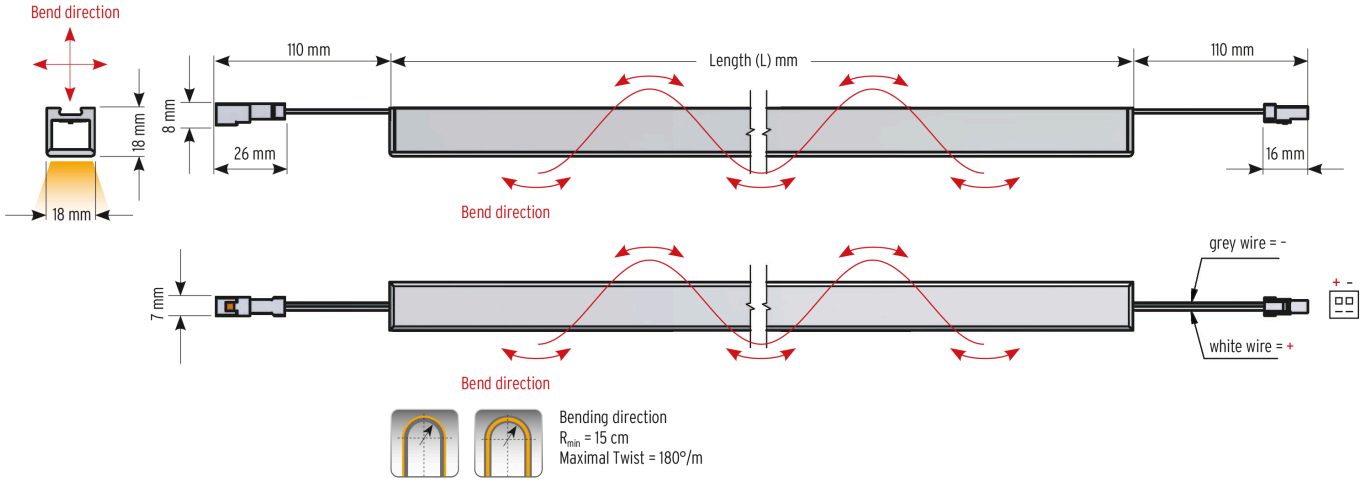
BUG LIGHT DISTRIBUTION



Light engine family: VarioLED Flex Nexus3D HD HC ; Light distribution: OL - Opal low (sealed or cover) ; Light color / light source: Static White ; Profile color: White (RAL9003) ; Integrated anti-glare: No integrated anti-glare ; Optional glare control accessory: No Accessories

TECHNICAL SPECIFICATIONS

For general tolerances, including length tolerances, please refer to the technical drawing.



VARIOLED FLEX NEXUS3D HD HC

VarioLED™ Flex NEXUS3D is based on advanced LED technology and is designed for applications requiring excellent color rendition, outstanding thermal performance, and highly consistent visual appearance. The light engine design is unique from LED Linear Reel-to-reel production and offers unmatched life time and performance while being fully 3D bendable.

Electrical & Output Data

Power [W/m]	**6**	**10**	**15**
Efficiency [lm/W]	82.7	84.8	88.5
Max. daisy chain length [m]	5	3	2
CRI / R9	91/70	91/70	91/70
Rf / Rg	90/101	90/101	90/101
Ambient temperature [°C] max	50	50	40
Housing Temperature [°C] max	65	65	65

Power [W/m]	**6**	**10**	**15**
		Luminous flux [lm/m]	
W922	410	670	1100
W927	440	740	1230
W930	480	740	1260
W935	480	830	1290
W940	490	830	1310
W950	500	850	1330

Light engine family: VarioLED Flex Nexus3D HD HC ; Light distribution: 20 - 20° - linear optics ; Light color / light source: Static White ; Profile color: White (RAL9003) ; Integrated anti-glare: No integrated anti-glare ; Optional glare control accessory: No Accessories

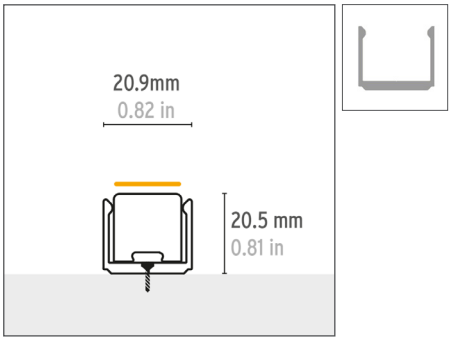
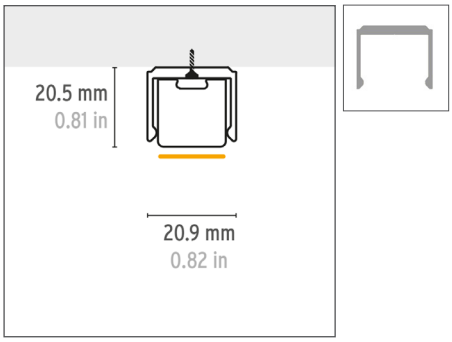
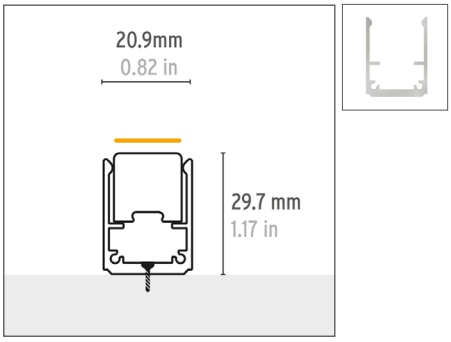
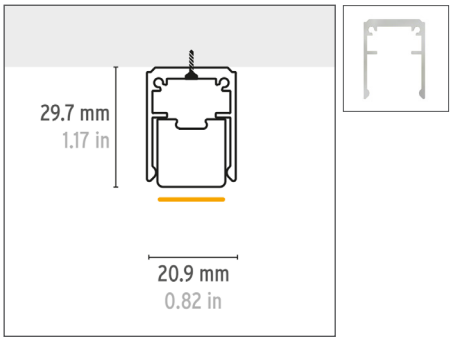
Available product options

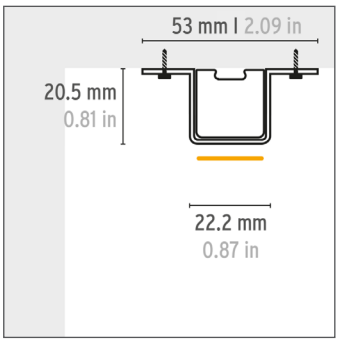
Luminaire type (rigid / flexible)	Light color / light source	Class	Power [W/m]	Historical order code CCT	Light distribution	Cable / connector configuration	Mounting type and accessory	Length [mm]	Protection class
3D-bendable	Static White	High Density	6	W922	OL - Opal low (sealed or cover)	MO - Male connector one side	CLC - Clear PVC holding clip	284	IP67
			10	W927	20 - 20° - linear optics	DC - Daisy chain	CLH - Mounting Clip with cable channel	354	
			15	W930		OO - Open cable one side only	CLL - Mounting Clip w/o cable channel	424	
				W935		OT - Open cable both sides	MPH - Mounting profile with cable channel	...	
				W940			MPL - Mounting profile without cable channel	1,824	
				W945			X - No supplied mounting accessory	1,894	
				W950				1,964	

NOTE: The order code table shows all available options for each product. However some combinations are not possible, due to product design. Please use our online configurator to specify your final product order code.

MOUNTING ACCESSORIES (SELECTABLE WITH ORDER CODE)

Please note: Mounting accessories are automatically included with the luminaire with the required amount of clips or the correct length of the mounting profile when chosen as part of the order code - see the digits in the order code below.

	Mounting accessories	Description
	**SURFACE MOUNTING CLIP W/O CABLE CHANNEL** Digits in order code: CLL	Robust aluminum extrusion powder-coated clip in white without cable channel. 30 mm / 1.18 in clip length. Use according to the mounting instruction.
	**SURFACE MOUNTING PROFILE W/O CABLE CHANNEL** Digits in order code: MPL	Robust aluminum extrusion powder-coated profile in white without cable channel. Profile length = luminaire length. DarkSky requires a downward-facing installation. Use according to the mounting instruction.
	**SURFACE MOUNTING CLIP WITH CABLE CHANNEL** Digits in order code: CLH	Robust aluminum extrusion powder-coated clip in white with cable channel. 30 mm / 1.18 in clip length. Use according to the mounting instruction.
	**SURFACE MOUNTING PROFILE WITH CABLE CHANNEL** Digits in order code: MPH	Robust aluminum extrusion powder-coated profile in white with cable channel. Profile length = luminaire length. DarkSky requires a downward-facing installation. Use according to the mounting instruction.



SURFACE MOUNTING WITH HOLDING CLAMP, VERTICAL / HORIZONTAL

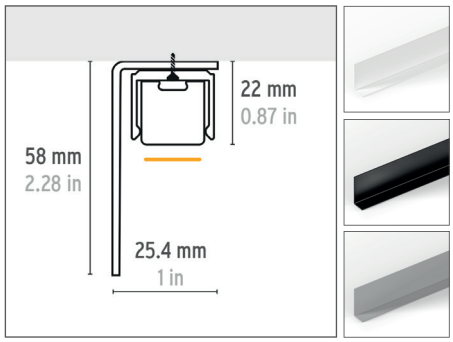
Digits in order code: CLC

PVC-casting clamp for surface mount.

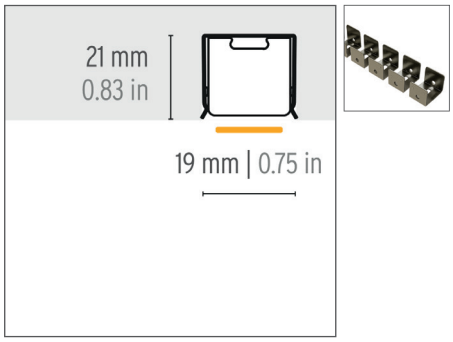
Use according to the mounting instruction.

ADDITIONAL ACCESSORY (OPTIONAL - ORDERED SEPARATELY)

Please note: Mounting accessories are not automatically included with the luminaire. Please order the right amount of accessories with the article numbers listed below. For any questions, please contact our customer service.



Mounting accessories	Description
GLARE SHIELD WHITE - 1 M OR 2 M Art.-#: 10000622-RAL9003-1m or 10000622-RAL9003-2m **GLARE SHIELD BLACK - 1 M OR 2 M** Art.-#: 10000622-RAL9005-1m or 10000622-RAL9005-2m **GLARE SHIELD GREY - 1 M OR 2 M** Art.-#: 10000622-RAL9022-1m or 10000622-RAL9022-2m	The glare shield can be combined with the following mounting accessories: CLL Glare is completely cut off to one side. Glare shield has to be cut on site to the needed length and prepared to be combined with the mounting accessory. DarkSky requires a downward-facing installation. Use according to the mounting instructions.

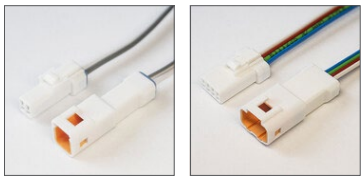
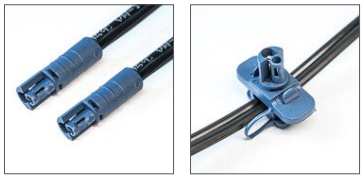
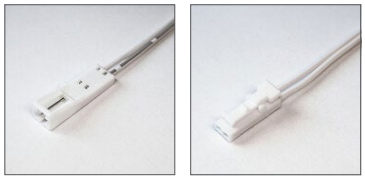


FLEXIBLE MOUNTING PROFILE Art.-#: 10000651-SIL-0-2000	Flexible stainless steel mounting profile for Top View and Side View. Available in a standard length of 2 meters. Can be cut to size on site. Use according to the mounting instruction.

CABLING ACCESSORIES

Cables & Connectors: A complete overview of all extension cables and connectors and additional cabling accessory can be found on the global website: https://www.led-linear.com/products/cables-connectors

Not every product can be extended and used with every cable and connector system. Please contact your local sales team for further information.

PRODUCT FAMILY	CABLE ACCESSORY	INFORMATION	EXAMPLE
VENUS TC Family IP67 AMOR IP67 VARIO LED FLEX IP67 XOOLINE IP40 / IP67 ULTIMA Family IP40 LUNA IP40	VarioConnect IP67 Mini	Single shielded, flat, white cable IP67 connector male / female Different lengths for 2 up to 5 wires 2 wires = 0.34 mm² / 4 wires = 0.25 mm² 5 wires = 0.2 mm²	
VENUS Family IP67 ADONIS IP67* FUSION IP67 XOOLUM IP40 / IP67* XOOLIGHT IP67 VARIOLED IP67	VarioConnect IP67	Double shielded, oval, black, IP68 cable IP67 connector male / female w/o nut Different lengths for 2 up to 4 wires 2 wires = 0.34 mm² / 4 wires = 0.25 mm²	
XOOCOVE IP40	VarioConnect IP20 Cove	IP20 connector system with 2 x 0.75mm²	
OCEANOS IP67	VarioCon Oceanos	IP67 connector system with 4 x 0.75mm² Stainless Steel Newton-Meter Clutch	
VARIO CABLE	Most products can be ordered with a open lead cable. Use the configurator „cable and connector configuration" to choose between „00" (open one side) and „0T"(open two side) cables, if possible.		
Assembled Solutions (North America only)	VarioConnect IP20 Mini	Single shielded, flate, white cable IP20 connector male / female Different lengths for 2 wires 2 wires = 0.34 mm²	

*RGBW cable is always a flat ribbon IP67 Mini cable and connector system.

POWER SUPPLY UNIT (PSU) & CONTROLS

Recommended PSU: A complete overview of all PSUs and controls with different power ratings can be found on the website:

GLOBAL https://www.led-linear.com/products/drivers-controls
USA https://www.ledlinearusa.com/products/drivers-controllers

Recommended controls: A complete overview of all controls can be found on the website:

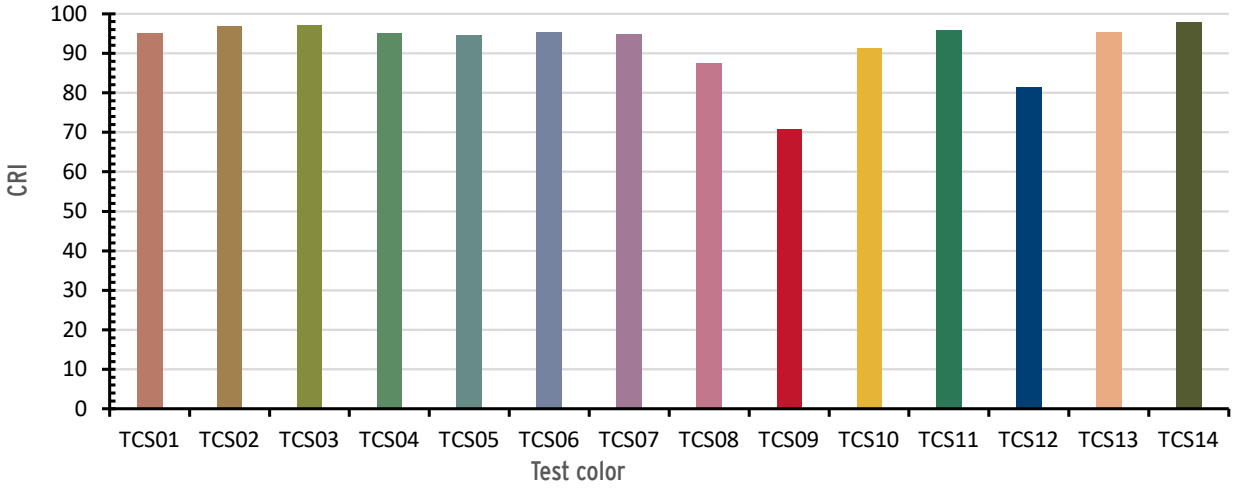
GLOBAL https://www.led-linear.com/products/smart-lighting
USA https://www.ledlinearusa.com/products/drivers-controllers

Smart Lighting accessory: A complete overview of all smart lighting accessories and controls can be found on the website:

GLOBAL https://www.led-linear.com/products/smart-lighting

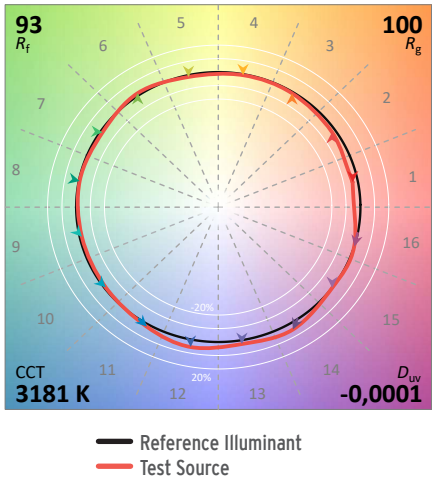
Example for „NEXUS 3D“ at 3.000K

CRI

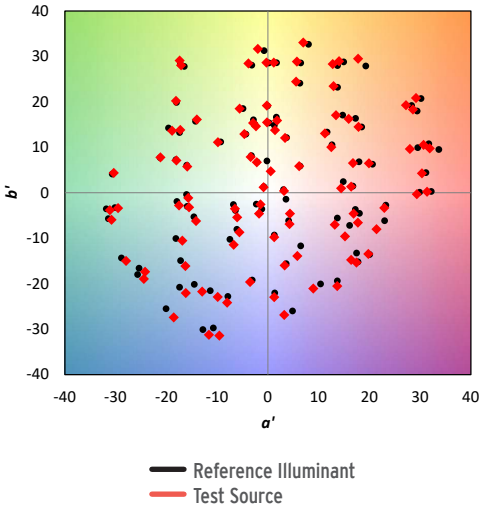


TM-30-18

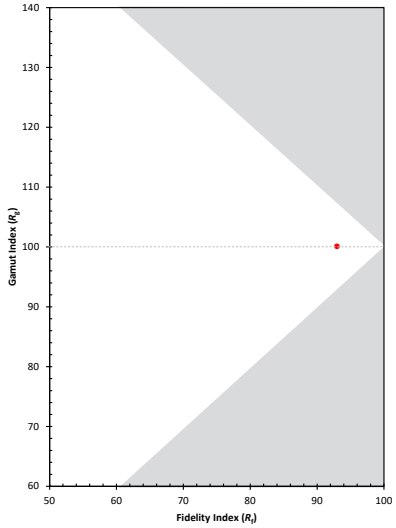
Color Vector Graphig

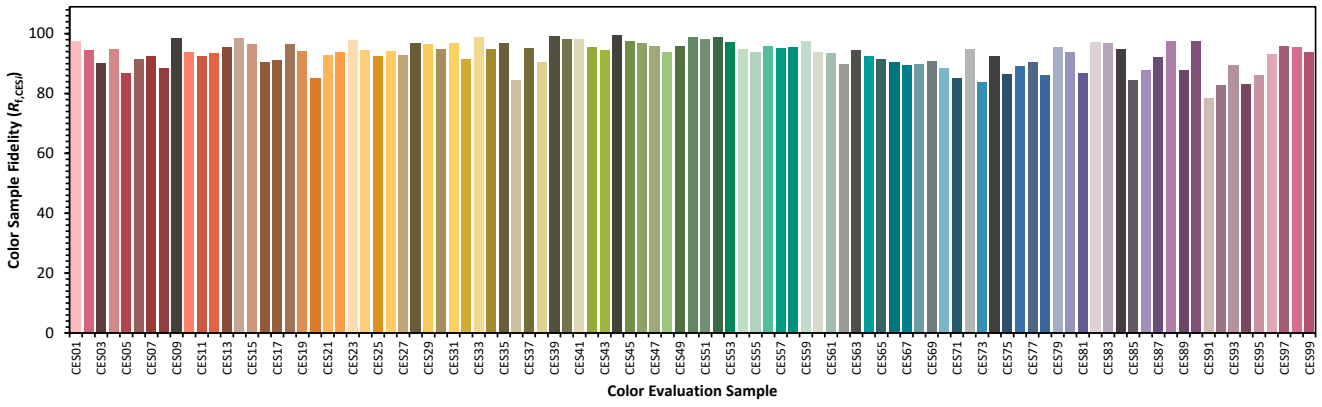


Shift in Hue-Chroma Plane



Gamut Index vs. Fidelity Index





The Fidelity Index chart shows the color fidelity index for each of the 99 reference colors. The reference colors are arranged under the 5000 K reference source, which was also used to determine the color of each bar. The colors are approximate and depend on the correct monitor calibration. Some colors may be outside the color gamut of the monitor used and will not be displayed accurately.

VOLTAGE DROP INFORMATION FOR THE FEED-IN LINE (EXTERNAL PSU / CONTROL TO FIXTURE)

Cable cross section	mm²						
	0.25	0.34	0.5	0.75	1.0	1.5	2.5
Total wattage of light line* [W]	MAX. CABLE LENGTH BETWEEN PSU / CONTROL UNIT AND THE LUMINAIRE						
	m						
0 - 5	29	39	58	87	116	174	291
0 - 10	14	19	29	43	58	87	145
10 - 15	9.7	13	19	29	38	58	97
15 - 20	7.2	9.9	14	21	29	43	72
20 - 25	5.8	7.9	11	17	23	34	58
25 - 30	4.8	6.6	9.7	14	19	29	48
30 - 35	4.1	5.6	8.3	12	16	24	41
35 - 40	3.6	4.9	7.2	10	14	21	36
40 - 45	3.2	4.4	6.4	9.7	12	19	32
45 - 50	2.9	3.9	5.8	8.7	11	17	29
50 - 60	2.4	3.3	4.8	7.2	9.7	14	24
60 - 70	2.0	2.8	4.1	6.2	8.3	12	20
70 - 80	1.8	2.4	3.6	5.4	7.2	10	18
80 - 90	1.6	2.2	3.2	4.8	6.4	9.7	16
90 - 100	1.4	1.9	2.9	4.3	5.8	8.7	14
100 - 110	1.3	1.8	2.6	3.9	5.2	7.9	13
110 - 120	1.2	1.6	2.4	3.6	4.8	7.2	12.
120 - 130	1.1	1.5	2.2	3.3	4.4	6.7	11
130 - 140	1.0	1.4	2.0	3.1	4.1	6.2	10
140 - 150	0.9	1.3	1.9	2.9	3.8	5.8	9.7
150 - 160	0.9	1.2	1.8	2.7	3.6	5.4	9.1
170 - 180	0.8	1.1	1.6	2.4	3.2	4.8	8.0
180 - 190	0.7	1.0	1.5	2.3	3.0	4.6	7.6
190 - 200	0.7	0.9	1.4	2.1	2.9	4.3	7.2

Cable cross section	AWG						
	24	22	21	19	18	16	14
Total wattage of light line* [W]	MAX. CABLE LENGTH BETWEEN PSU / CONTROL UNIT AND THE LUMINAIRE						
	ft						
0 - 5	95	130	191	286	382	573	956
0 - 10	47	65	95	143	191	286	478
10 - 15	31	43	63	95	127	191	318
15 - 20	23	32	47	71	95	143	239
20 - 25	19	26	38	57	76	114	191
25 - 30	15	21	31	47	63	95	159
30 - 35	13	18	27	40	54	81	136
35 - 40	11	16	23	35	47	71	119
40 - 45	10	14	21	31	42	63	106
45 - 50	9.5	13	19	28	38	57	95
50 - 60	7.9	10	15	23	31	47	79
60 - 70	6.8	9.2	13	20	27	40	68
70 - 80	5.9	8.1	11	17	23	35	59
80 - 90	5.3	7.2	10	15	21	31	53
90 - 100	4.7	6.5	9.5	14	19	28	47
100 - 110	4.3	5.9	8.6	13	17	26	43
110 - 120	3.9	5.4	7.9	11.9	15	23	39
120 - 130	3.6	5.0	7.3	11	14	22	36
130 - 140	3.4	4.6	6.8	10	13	20	34
140 - 150	3.1	4.3	6.3	9.5	12	19	31
150 - 160	2.9	4.0	5.9	8.9	11	17	29
170 - 180	2.6	3.6	5.3	7.9	10.6	15	26
180 - 190	2.5	3.4	5.0	7.5	10	15	25
190 - 200	2.3	3.2	4.7	7.1	9.5	14	23

*** Multiply the number of lights within the light line by the wattage per m or ft to determine the total power of the light line.**

Please note, these cables are not supplied by the factory. For table calculation, the underscored power level is used.
Calculation refers to the cable configuration on site for static white applications.
For tunable white, RGB, RGBW or other multichannel luminaires, the individual wattage per channel must be considered.
This might differ due the control type used.
The information listed in the table only refers to the conductor-based voltage drop of max. 0.85V at 24V DC input voltage.

Regarding the electromagnetic combability (EMC) the maximum cable length is defined by the power supply manufacturer.
A cable length between power supply and planned product longer than indicated by the datasheet of the power supply is possible. However the electromagnetic combability can then be influenced by the conditions of the installation site. There is no data on electromagnetic compatibility for longer cable lengths, which might lead to the necessity of an evaluation of the electromagnetic compatibility by a third party.
Datasheets and mounting instructions of the components in combination with the planned product must be carefully read and followed.