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

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LED LINEAR™
A Fagerhult Group Company

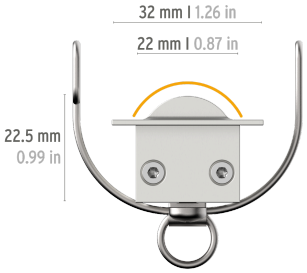
LUNA IP40 LUNA _ _ _ _ DR IP40

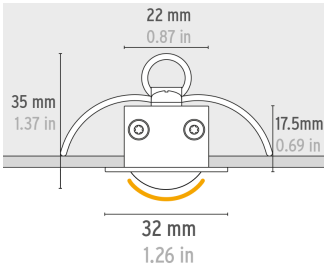
Project name

Company

Phase / Luminaire type for tech. spec. document

Date





- Luminaire configuration: Stand-alone luminaire
- Light color / light source: Tunable White (TW)
- BS — Cable outlet position: Back Side
- Color rendering and efficiency: HE - CRI > 80, high efficacy
- Color rendering and efficiency: HC - CRI > 90, standard efficacy
- Color rendering and efficiency: UHC - CRI > 97, sunlike spectrum
- LED pitch / density: Low Density
- LED pitch / density: High Density
- B — Profile color: Black
- S — Profile color: Silver (Anodized)
- W — Profile color: White (RAL9003)
- Power supply position: External PSU
- Cable / connector configuration: OO - Open cable one side only
- IP40 — Protection class: IP40
- 24V — Input voltage [V]: 24V DC

ARCHITECTURAL INDOOR INTEGRATION WITH MINIMAL VISUAL PRESENCE.

LUNA IP40 is a slim, recessed indoor linear luminaire designed to integrate cleanly into ceilings and walls with minimal visual presence. With a minimal installation depth, it delivers high performance in a compact form factor. LUNA supports general, accent and grazing lighting across offices, retail, hospitality and residential interiors where discreet integration and flexibility are essential.

CERTIFICATES

- Conformité Européenne (CE)
- Ecodesign Directive
- ETL certified
- Protection Class III
- WEEE

ELECTRICAL & OUTPUT DATA [1]

Power [W/m]	40
Efficiency [lm/W]	96.2
Max. daisy chain length [m]	2
CRI / R9	88/32
Rf / Rg	88/99
Ambient temperature [°C] max	35
Housing Temperature [°C] max	75

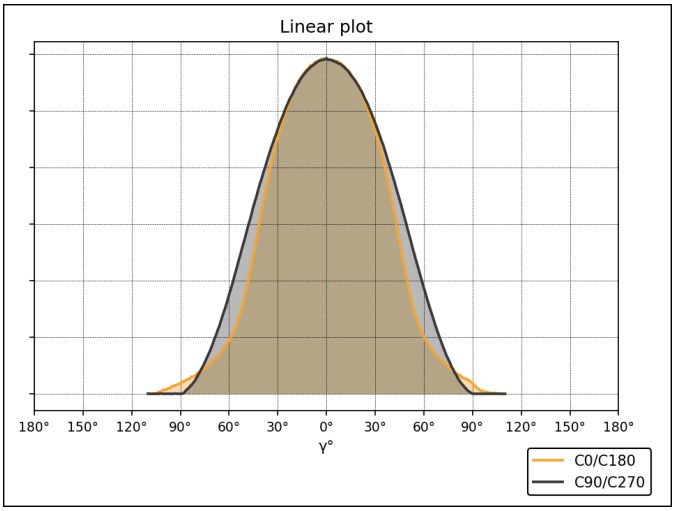
Power [W/m]	40
	Luminous flux [lm/m]
2250	3850

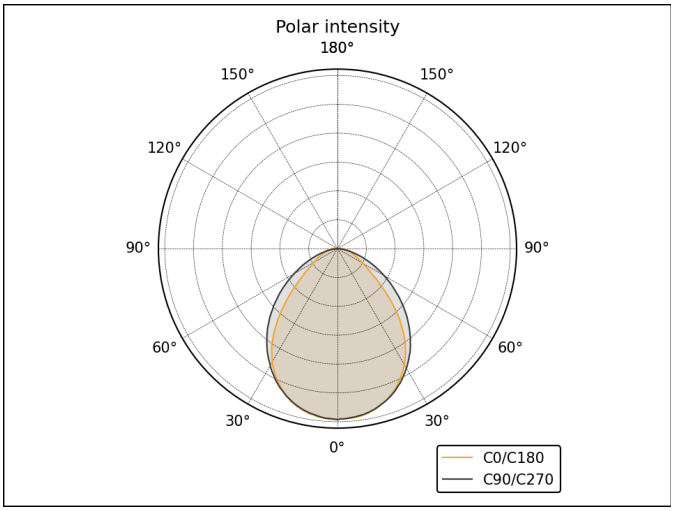
(1): Light engine family: VarioLED Flex IQ White NEXUS LD HC ; Light distribution: DR - Round cover, diffuse ; Light color / light source: Tunable White (TW) ; Profile color: White (RAL9003) ; Integrated anti-glare: No integrated anti-glare ; Optional glare control accessory: No Accessories

PRODUCT INFORMATION

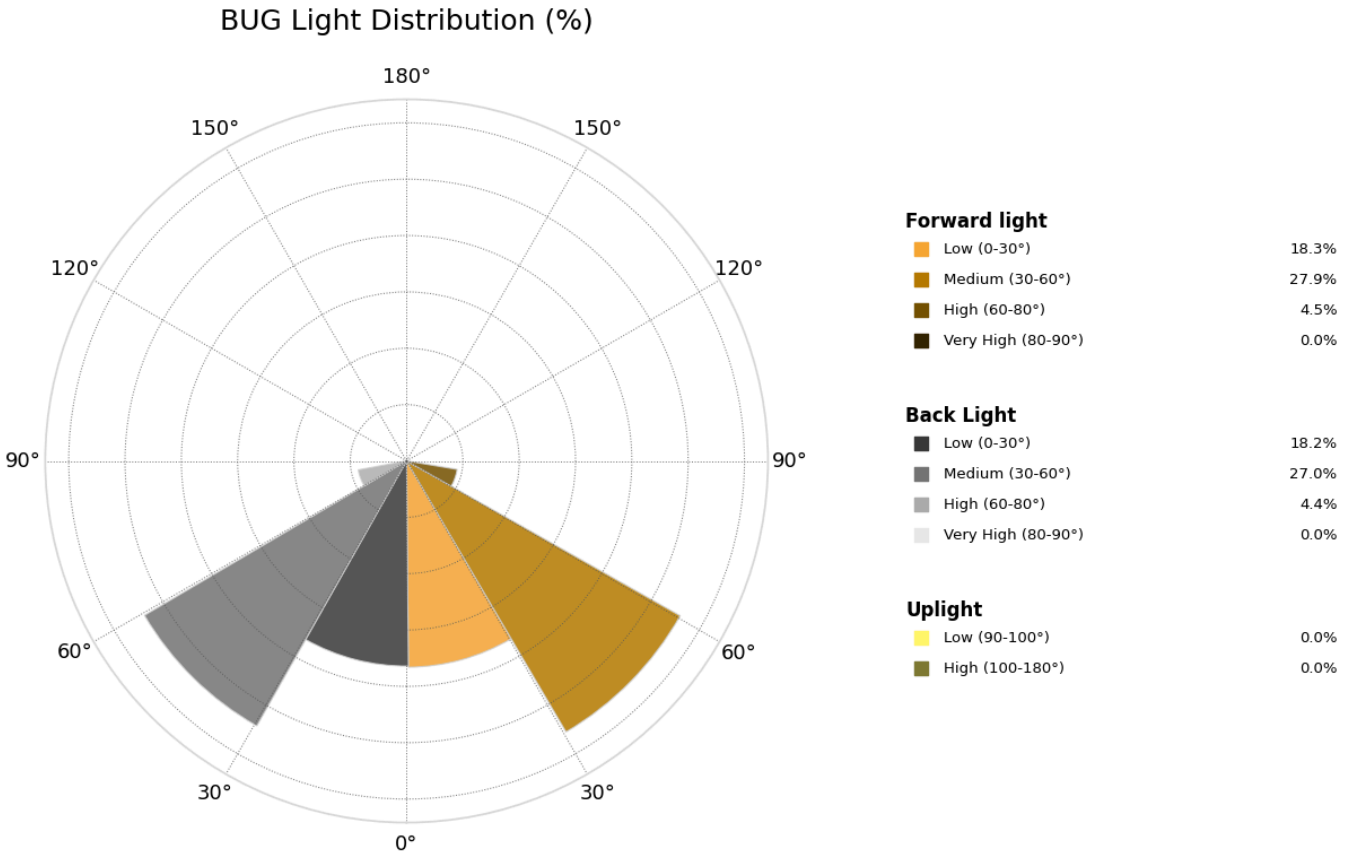
Product family	LUNA IP40	**Protection class**	IP40
Luminaire type (rigid / flexible)	Rigid luminaire	**Luminaire profile size**	Standard
Mounting type and accessory	R - Recessed with trim	**Light distribution**	DR - Round cover, diffuse
Light color / light source	Tunable White (TW)	**Width of fixture incl. mounting accessory [mm]**	90
Height of fixture incl. mounting accessory [mm]	75	**Lumen maintenance (LED manufacturer specification)**	L80/B10
ANSI LED binning	3 SDCM	**Cable outlet position**	Back Side
Cable / connector configuration	OO - Open cable one side only	**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
Storage temperature [°C]	TS(min): -30°, TS(max): 85°	**Lifespan [h]**	60,000
fixed luminaire section [mm]	10		

PHOTOMETRIC GRAPHS





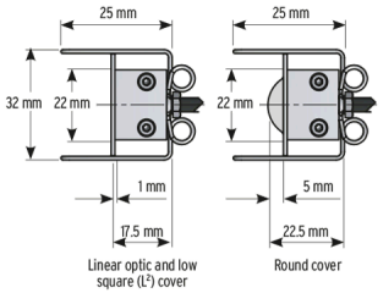
BUG LIGHT DISTRIBUTION

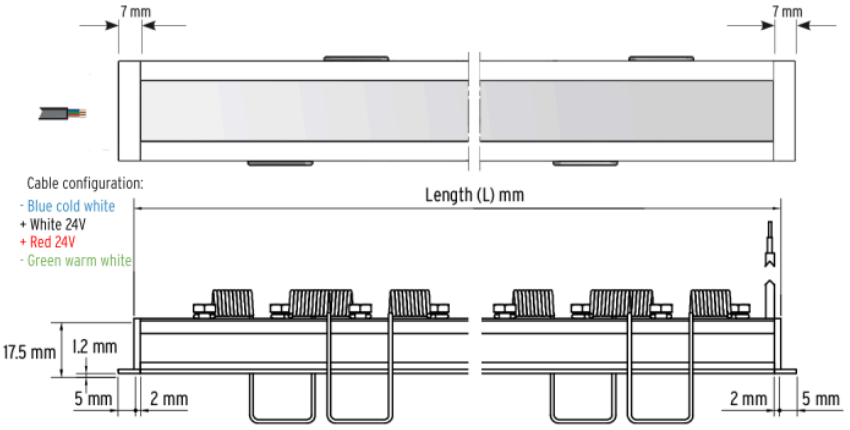


Light engine family: VarioLED Flex IQ White NEXUS LD HC ; Light distribution: DR - Round cover, diffuse ; Light color / light source: Tunable White (TW) ; Profile color: White (RAL9003) ; Integrated anti-glare: No integrated anti-glare ; Optional glare control accessory: No Accessories

TECHNICAL SPECIFICATIONS

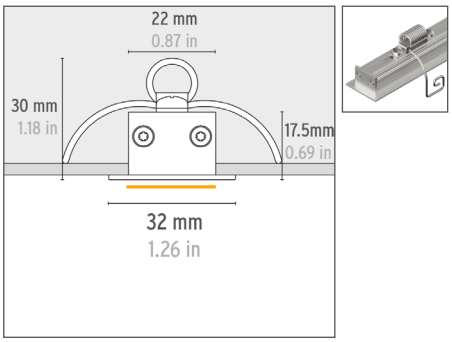
For general tolerances, including length tolerances, please refer to the technical drawing.





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

RECESSED WITH MOUNTING SPRING
No additional accessories are required for this mounting option.

Description

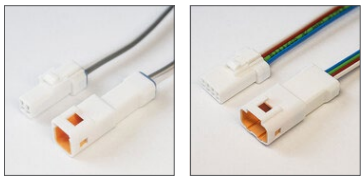
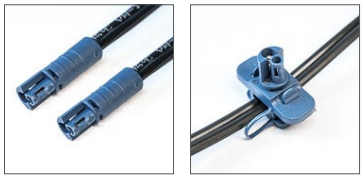
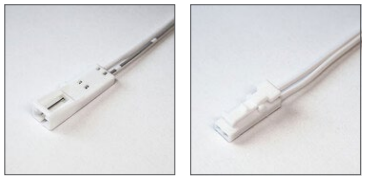
Mounting springs are pre-mounted. Luminaire can be installed directly into false ceiling.

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:

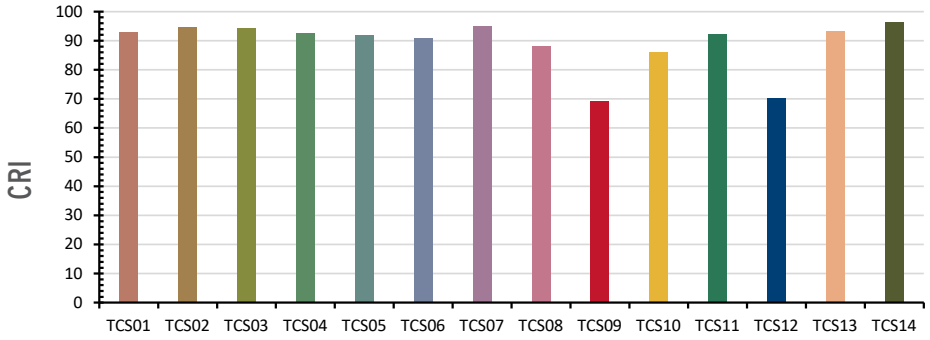
GLOBAL https://www.led-linear.com/products/smart-lighting
USA https://www.ledlinearusa.com/products/drivers-controllers

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

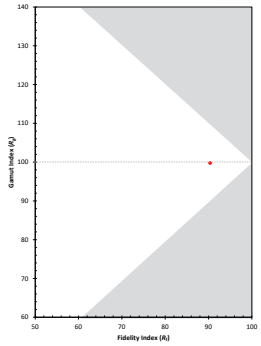
Example for „IQW HYDRA HD“ at 2200 K and 4000 K

CRI



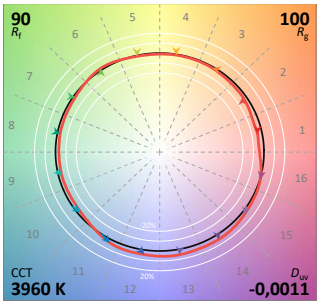
W822 - Test color

Gamut Index vs. Fidelity Index



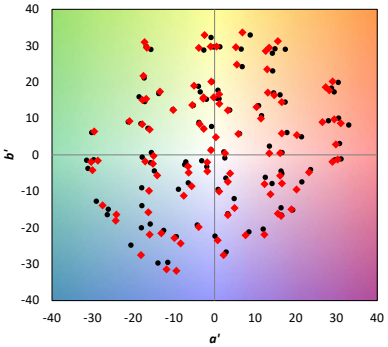
TM-30-18

Color Vector Graphig



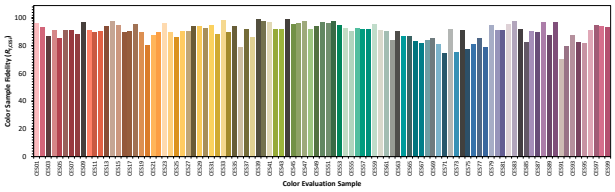
Reference Illuminant
Test Source

Shift in Hue-Chroma Plane



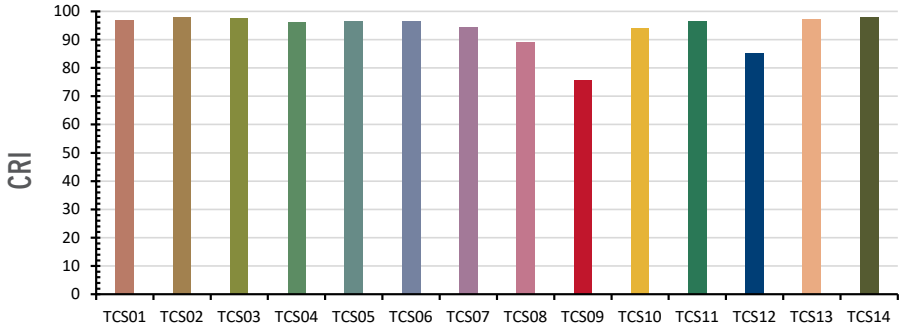
Reference Illuminant
Test Source

W822



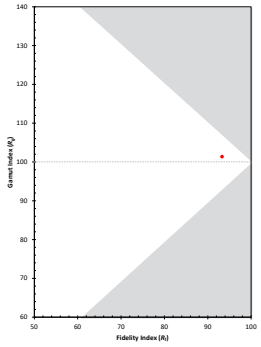
The Fidelity Index chart shows the color fidelity index for each of the 99 reference colors. The reference colors are arranged under the 5000 K reference source, which was also used to determine the color of each bar. The colors are approximate and depend on the correct monitor calibration. Some colors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

CRI



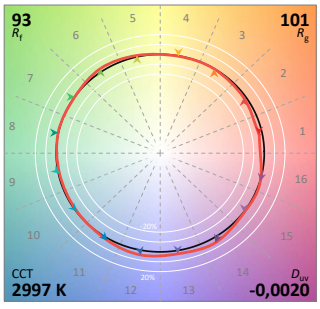
W840 - Test color

Gamut Index vs. Fidelity Index



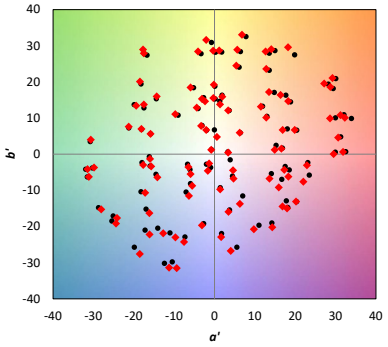
TM-30-18

Color Vector Graphig



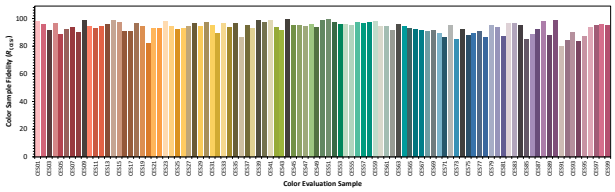
Reference Illuminant
Test Source

Shift in Hue-Chroma Plane



Reference Illuminant
Test Source

W840



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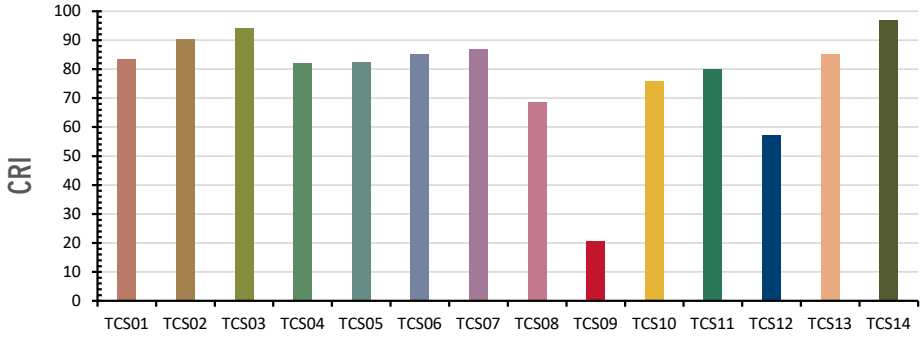
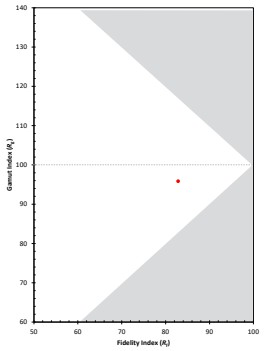
Example for „IQW HYDRA LD“ at 2500 K and 4000 K

CRI



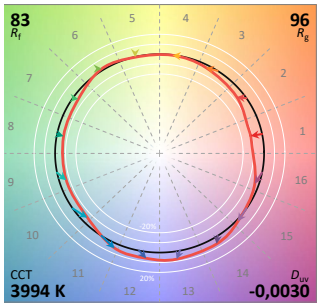
W825 - Test color

Gamut Index vs. Fidelity Index



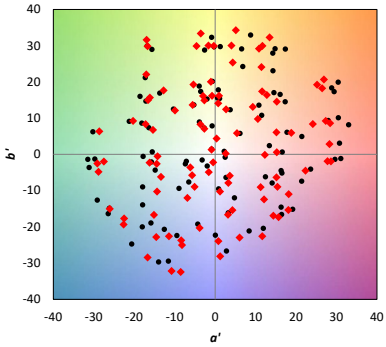
TM-30-18

Color Vector Graphig



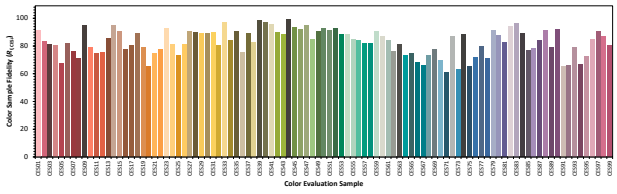
Reference Illuminant
Test Source

Shift in Hue-Chroma Plane



Reference Illuminant
Test Source

W825



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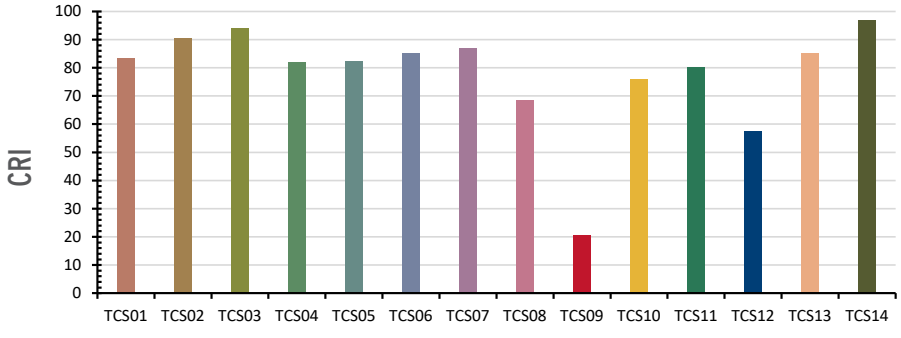
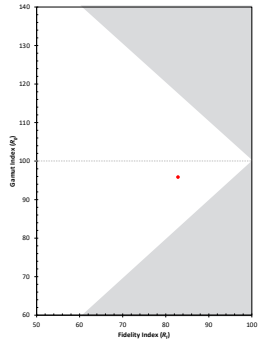
CRI



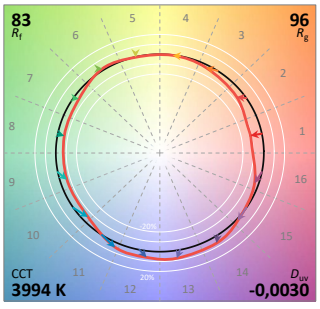
W840 - Test color

Gamut Index vs. Fidelity Index



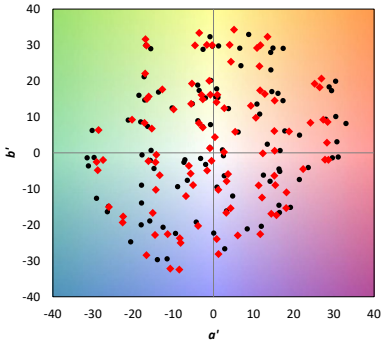
TM-30-18

Color Vector Graphig



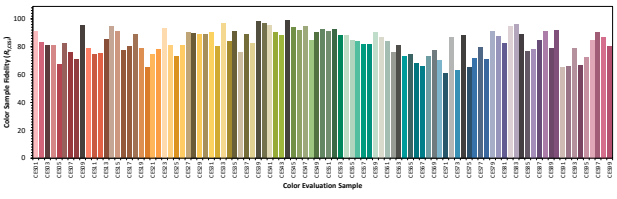
Reference Illuminant
Test Source

Shift in Hue-Chroma Plane



Reference Illuminant
Test Source

W840



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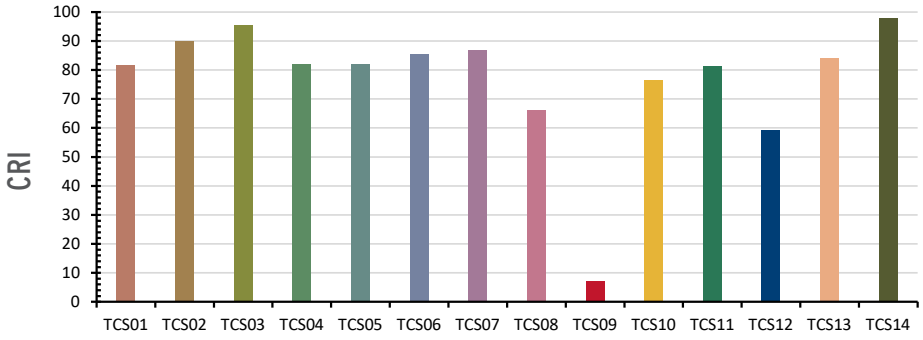
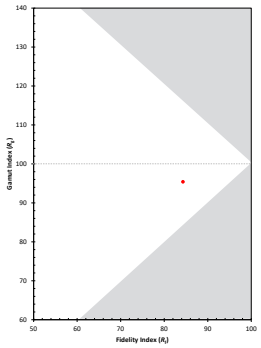
Example for „IQW NEXUS HD, LD and HDR“ at 2200 K and 5000 K

CRI



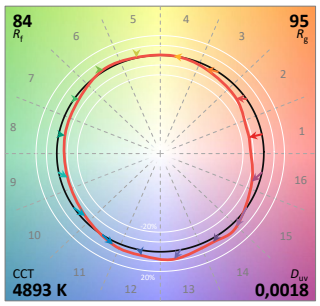
W822 - Test color

Gamut Index vs. Fidelity Index



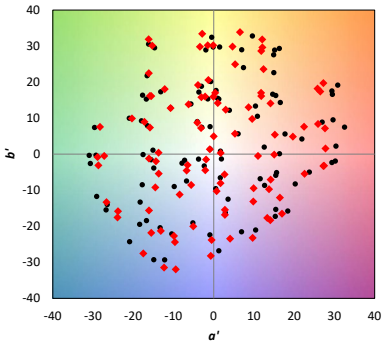
TM-30-18

Color Vector Graphig



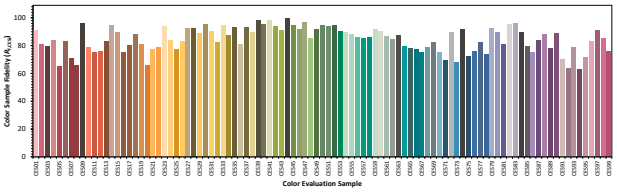
Reference Illuminant
Test Source

Shift in Hue-Chroma Plane



Reference Illuminant
Test Source

W822



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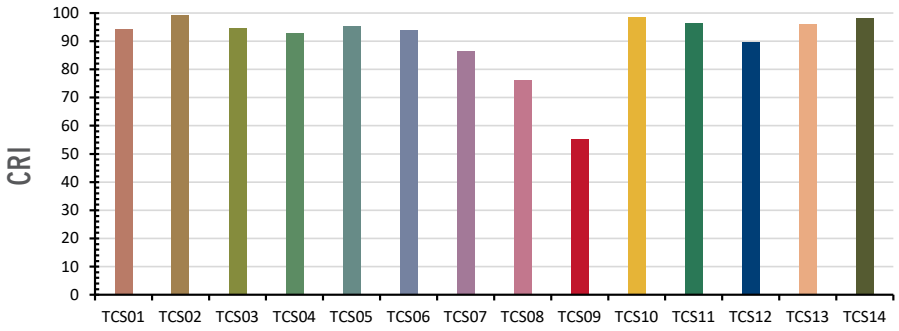
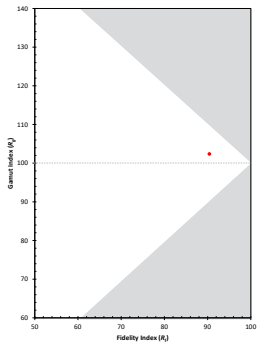
CRI



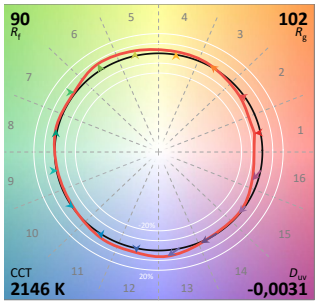
W850 - Test color

Gamut Index vs. Fidelity Index



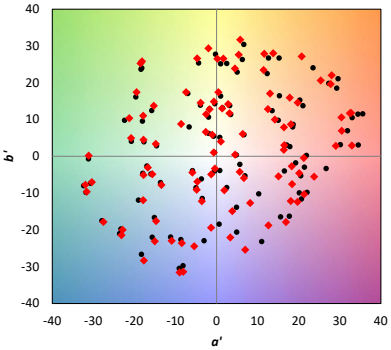
TM-30-18

Color Vector Graphig



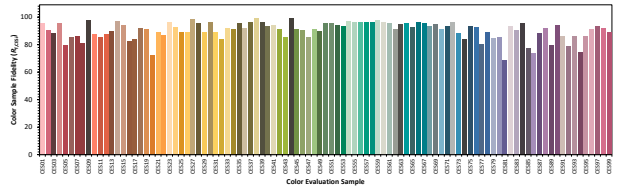
Reference Illuminant
Test Source

Shift in Hue-Chroma Plane



Reference Illuminant
Test Source

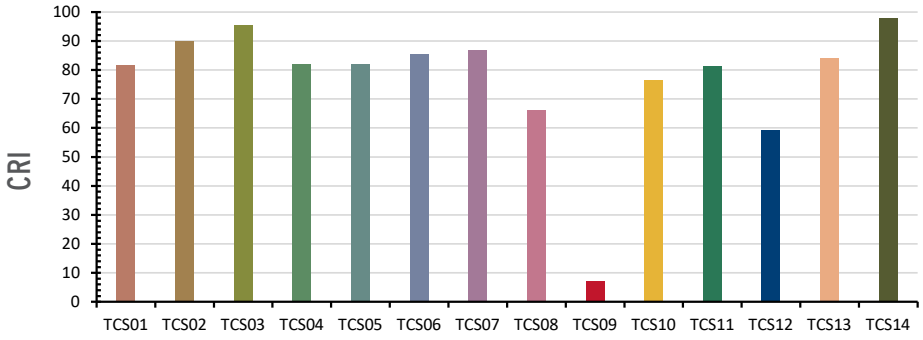
W850



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.

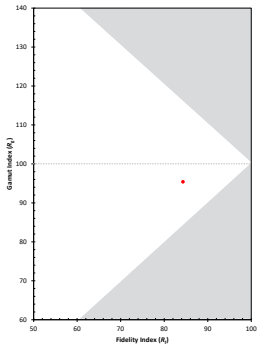
Example for „IQW NEXUS HD, LD and HDR“ at 2200 K and 5000 K

CRI



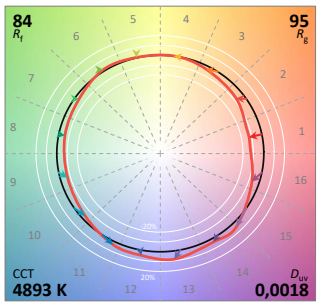
W822 - Test color

Gamut Index vs. Fidelity Index



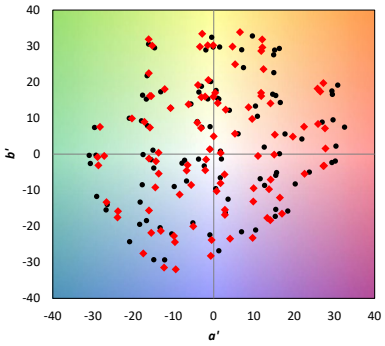
TM-30-18

Color Vector Graphig



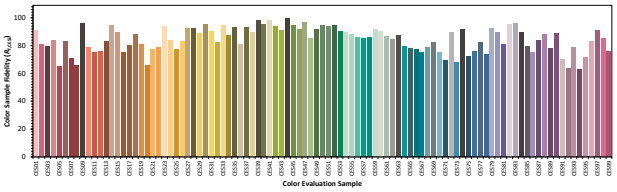
Reference Illuminant
Test Source

Shift in Hue-Chroma Plane



Reference Illuminant
Test Source

W822



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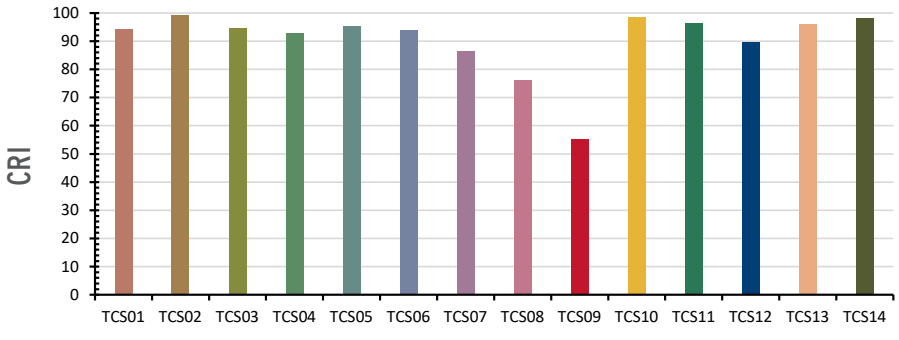
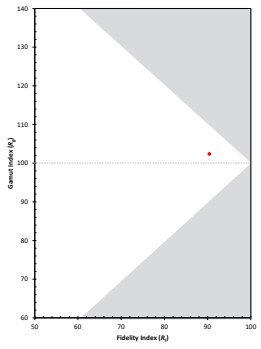
CRI



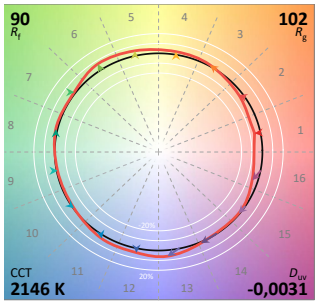
W850 - Test color

Gamut Index vs. Fidelity Index



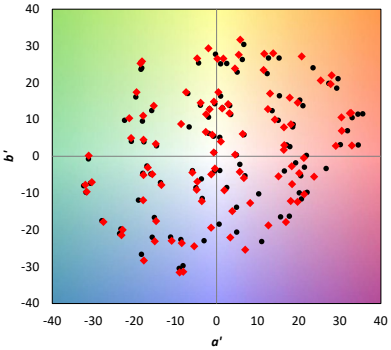
TM-30-18

Color Vector Graphig



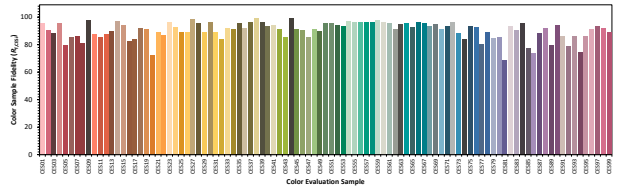
Reference Illuminant
Test Source

Shift in Hue-Chroma Plane



Reference Illuminant
Test Source

W850



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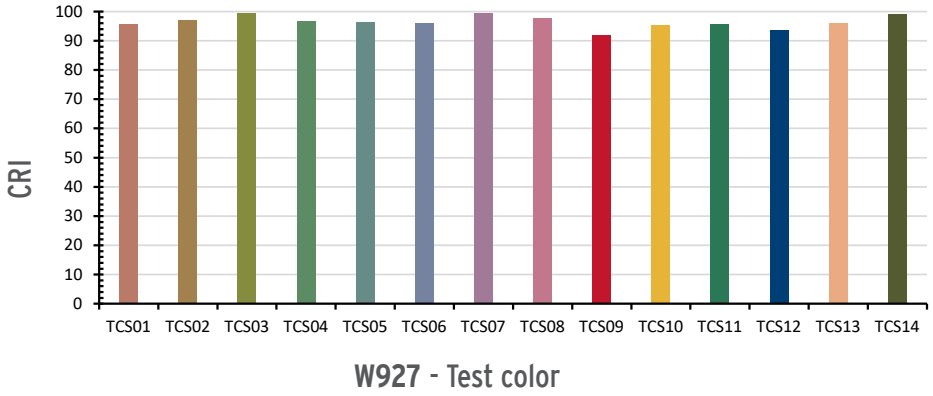
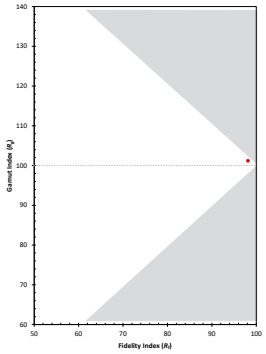
Example for „IQW SOL HD and LD“ at 2700 K and 6500 K

CRI



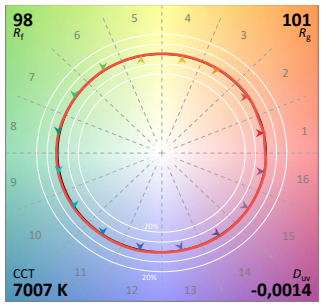
W927 - Test color

Gamut Index vs. Fidelity Index



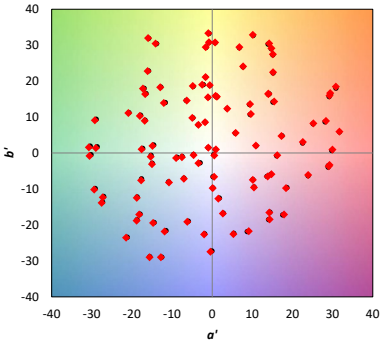
TM-30-18

Color Vector Graphig



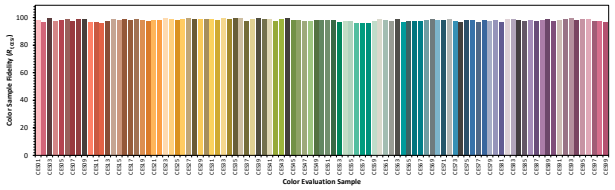
Reference Illuminant
Test Source

Shift in Hue-Chroma Plane



Reference Illuminant
Test Source

W927



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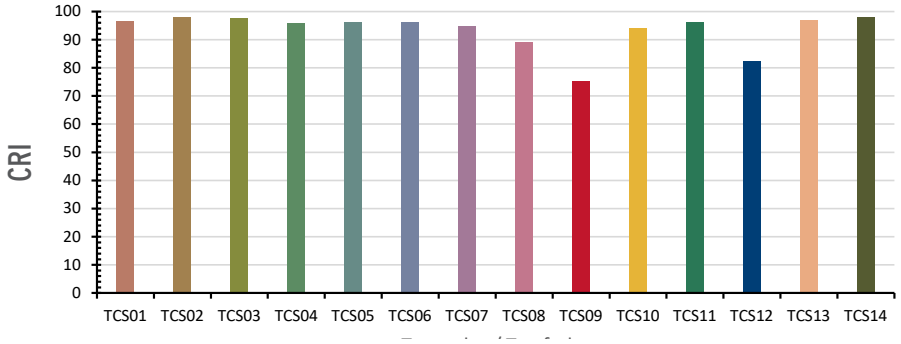
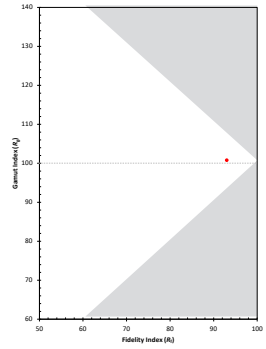
CRI



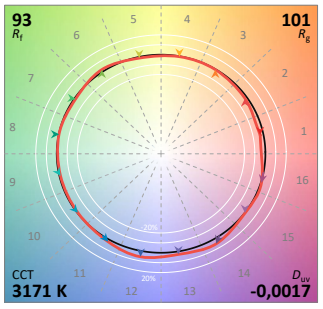
W965- Test color

Gamut Index vs. Fidelity Index



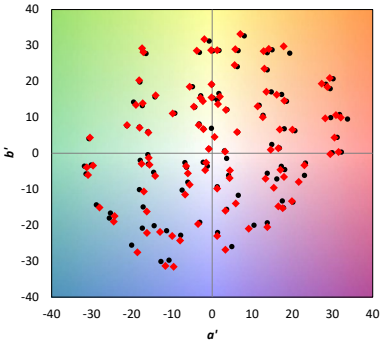
TM-30-18

Color Vector Graphig



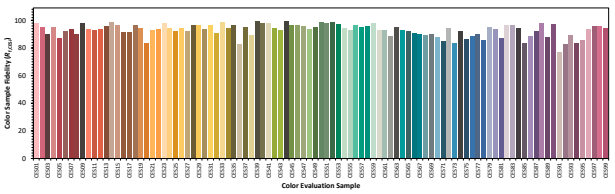
Reference Illuminant
Test Source

Shift in Hue-Chroma Plane



Reference Illuminant
Test Source

W965



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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.