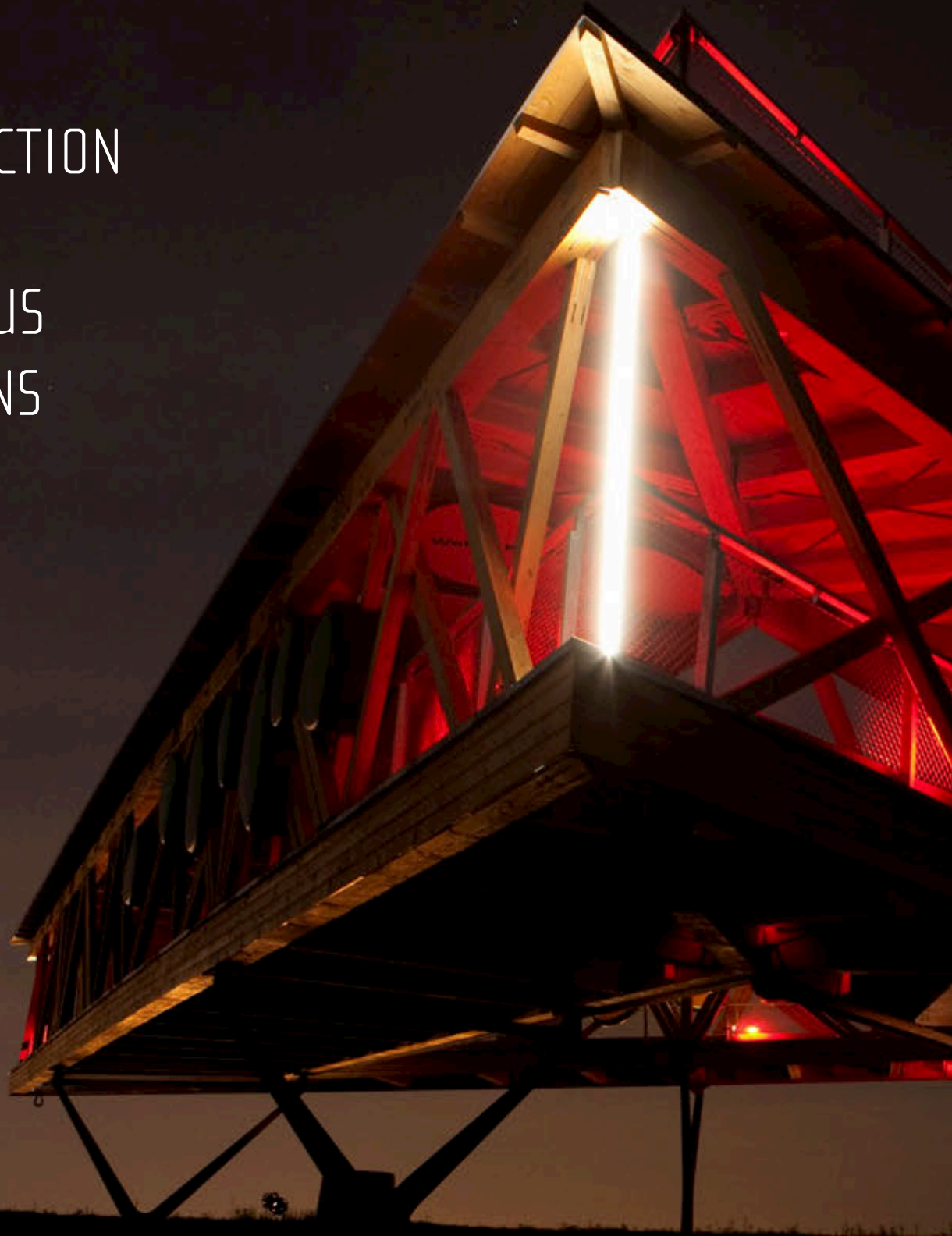


VarioLED™ Flex IP67  
VarioLED™ IP67 in Contour



HIGH  
PROTECTION  
AND  
VARIOUS  
OPTIONS





## VarioLED™ Flex IP67

High protection and amazing flexibility

VarioLED™ Flex IP67 are flexible, linear LED light lines which are protected against environmental influences and can be produced in customer specified individual lengths. They offer up to 1,880 lm/m (573 lm/ft) at 15.4 W/m (4.7 W/ft).

They are IP67 protected against water, salt water and UV radiation through a clear polyurethane encapsulation. Depending on the step measurement they are freely scalable and available in lengths of up to 10 m (32.8'). The lamps are delivered ready to plug in with IP67 Mini-connectors at both ends and can be easily installed with an adhesive tape or plastic clips. A white base profile with lateral fins and reflective surface guarantees high luminous flux.

The product is available in the colors White, IQ White, RGB and Mono-Color. The small cross-section, the minimum bending radius of only 30 mm (1.18'') and the high robustness allow use in virtually any application, such as coves, contours, furniture, organic forms, counters, stairways and backlighting.



## VarioLED™ IP67 in Contour

High protection and optimum heat dissipation

VarioLED™ IP67 are fully encapsulated linear LED light lines in aluminum profiles with excellent heat dissipation and very high lumen packages. They offer up to 2,880 lm/m (878 lm/ft) at 25 W/m (7.6 W/ft).

They are IP67 rated and protected against water, salt water and UV radiation by a clear polyurethane encapsulation. They are delivered ready to use with an IP67 connector on both ends and can be easily installed via clips or mounting profiles. The aluminum profile is used for cooling, so that even powerful LED strips with up to 25 W/m (7.6 W/ft) can be used.

They are suitable for surface mounting and recessed installation and optimal for the illumination of facades, baths and shower rooms, workshops, backlighting and other dusty or humid areas.



# VarioLED™ Flex IP67 and VarioLED™ IP67 in Contour

## Features and Benefits

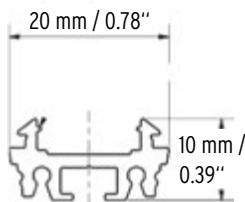
Flexible or in Contour - choose according to your application! Both are IP67 protected!



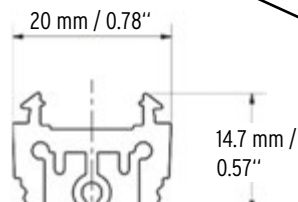
Specially developed polyurethane encapsulation protects the luminaire against environmental influences in IP67

27 different tapes:  
White, IQ White, RGB and Color  
(Overview on page 14)

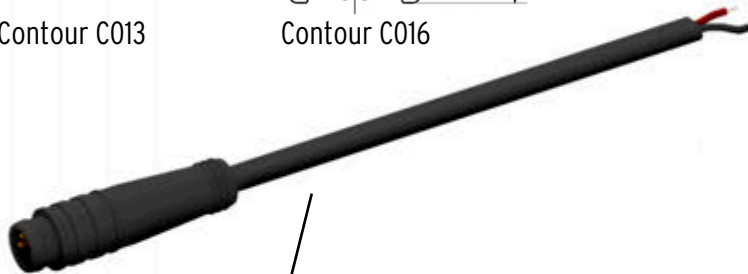
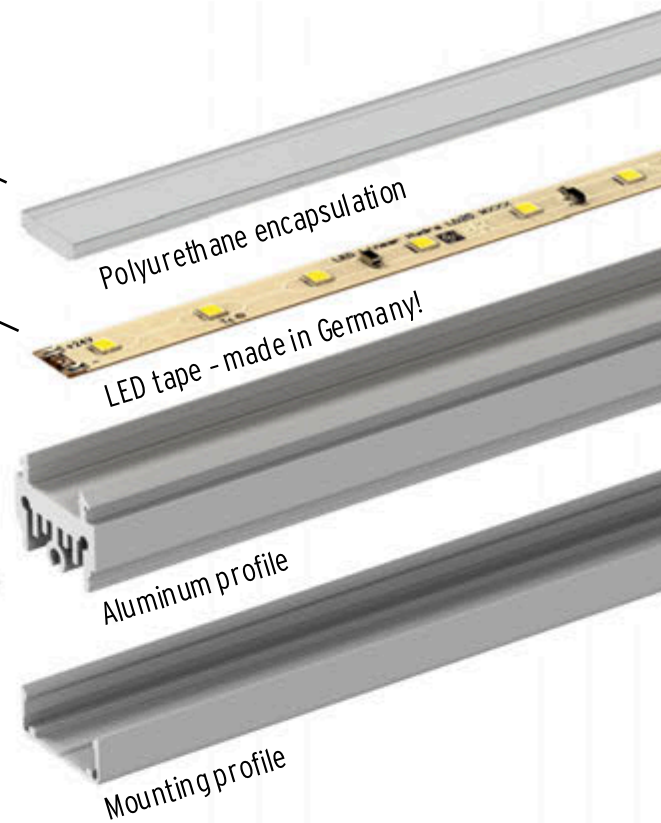
Aluminum profile with small cross section



Contour C013



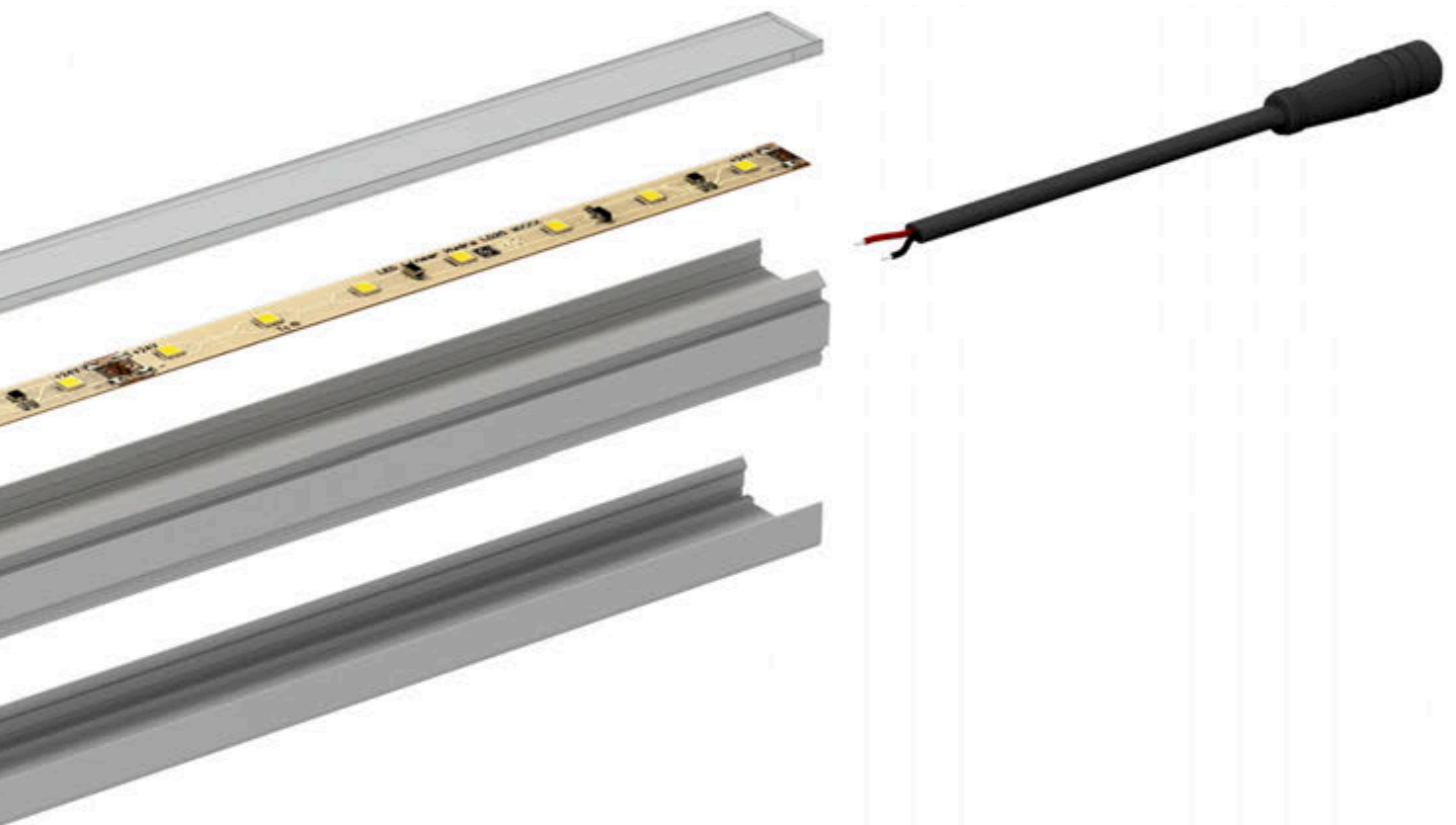
Contour C016



VarioLED™ IP67: with 110 mm (4.33")  
IP67 connectors on both ends

(VarioLED™ Flex IP67: with 200 mm (7.87")  
IP67 mini connectors on both ends)





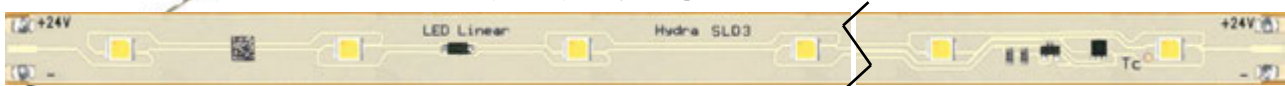
## Flexible or in Contour - linear LED light lines in IP67

Cross section	Flex: between 10 x 4 mm (0.39" x 0.15") and 12,5 x 3,8 mm (0.49" x 0.15") Contour C013: 20 x 10 mm (0.78" x 0.39") Contour C016: 20 x 14.7 mm (0.78" x 0.57")
Length	Flex: up to 10 m (32.8'), Profile: up to 4 m (13.1')
Power	3 W/m - 25 W/m (0.9 W/ft - 7.6 W/ft)
Luminous flux	Flex: up to 1,880 lm/m (573 lm/ft), Profile: up to 2,880 lm/m (878 lm/ft)
Max. efficacy	up to 138 lm/W
Beam angle / optics	15°, 30°, 60°, 90°, 120°
Color temperatures	2,500 - 9,600 K
Colors	White, IQ White, RGB, Color
CRI	85-96

# VarioLED™ Flex IP67 and VarioLED™ IP67 in Contour

Choose from 15 different white LED tapes to match your application

VarioLED™ Flex HYDRA SLD3 – 250 mm (9.84”) step length



High efficiency with 138 Lumen/W

Super low density (SLD): Large LED pitch of 31.25 mm (1.23”) and max. serial run length of 10 m (32.8’)

Intended for soft ambient lighting and indirect view applications. Low light output without the need for dimming.

VarioLED™ Flex HYDRA LD Series – 125 mm (4.92”) step length



Low density (LD): LED pitch of 17.86 mm (0.7”)

CRI > 95 available at LD5 and up to 2.880 Lumen/m (878 lm/ft) @ 25 Watt/m (7,6 W/ft)

Intended for cove and accent lighting and other indirect view applications.

VarioLED™ Flex HYDRA HD Series – 62.5 mm (2.46”) step length

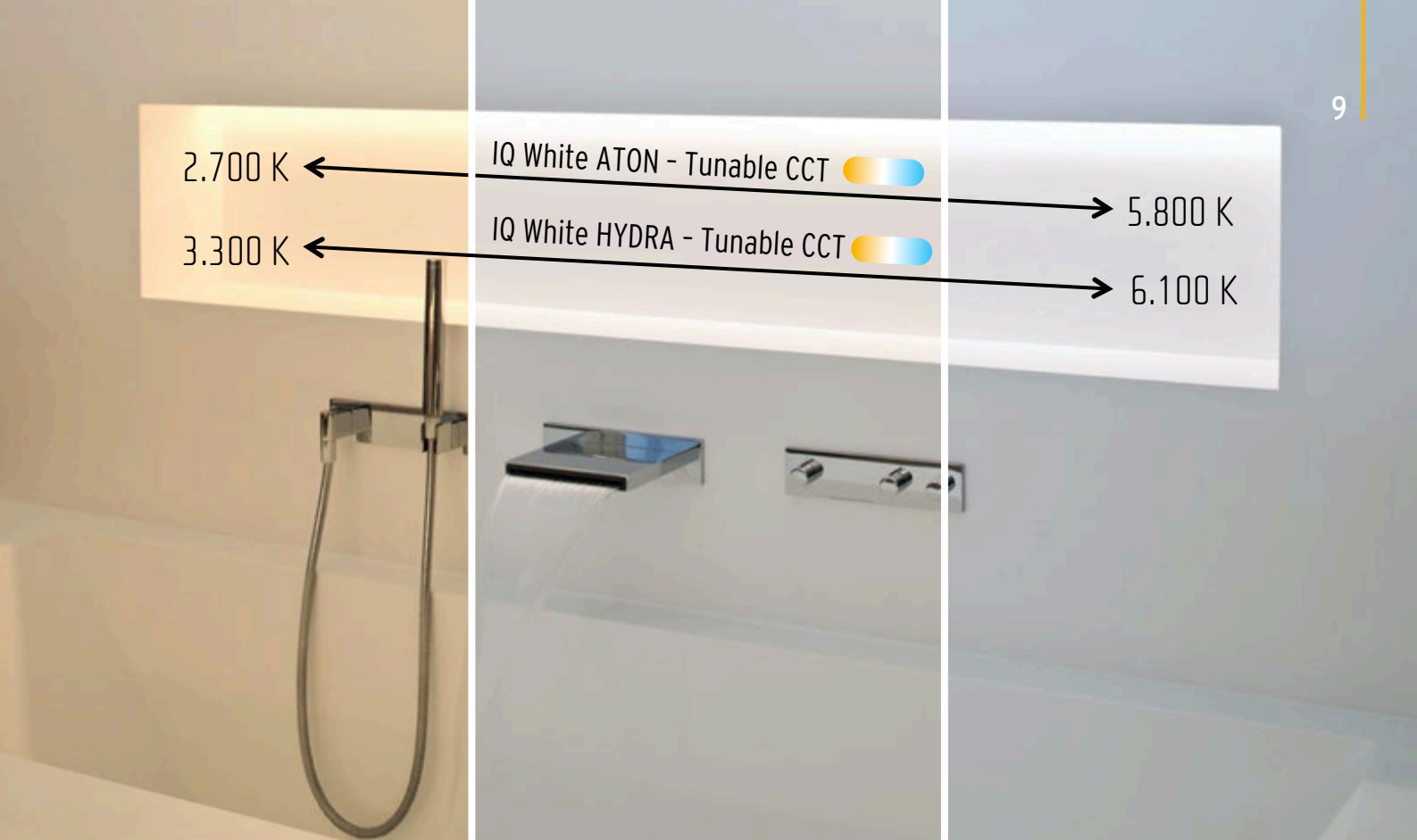


High density (HD): Short LED pitch of only 8.9 mm (0.35”)

CRI > 95 (for HD6 and HD10) and up to 2.880 Lumen/m (878 lm/ft) @ 25 Watt/m (7,6 W/ft)

Intended for direct view applications. Can be used with opal covers for absolutely homogeneous light.





## IQ White

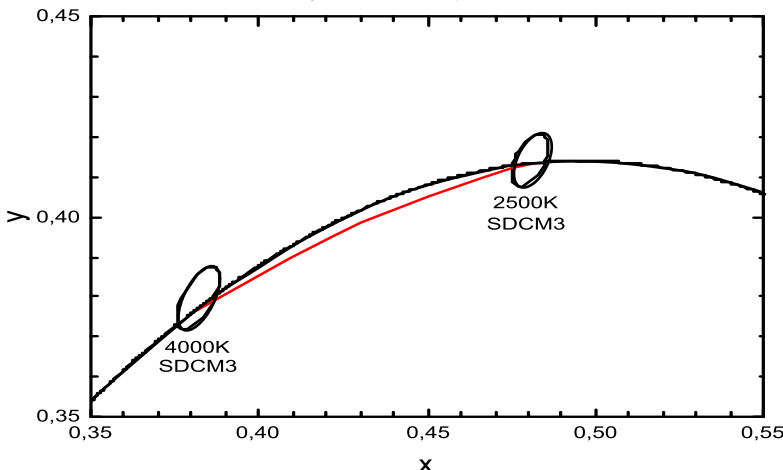
Perfect white mixing all along the line

Superior mixing of warm white (2,700 K or 3,300 K\*) and cold white (5,800 K or 6,100 K\*) to stage your application. Homogeneous color temperature gives you an inimitable new lighting experience. Available are three IQ White tapes to match your application in terms of lumen output, step length and color temperatures. Choose between IQ White HYDRA LD25 with a step length of 250 mm (9.84") or two different IQ White ATON HD versions with a step length of 62.5 mm (2.46") and either 12 or 24 Watt/m (3.6 or 7.3 Watt/ft).

**Example: IQ White ATON HD24 IP67**

		Lumen/m (lm/ft)	Color Temperature CCT*
W822 (2,700 K*)	●	820 (250.0)	2,700 K - 5,800 K*
W840 (5,800 K*)	●	890 (271.3)	
Total (W822 + W840)	● <span style="color: #ADD8E6;">●</span>	1,710 (521.3)	

\*Due to the encapsulation material polyurethane the respective spectral regions are affected differently. The light is therefore overall colder due to shift to higher color temperatures.



CCT mixing right below the Planckian locus with respect to the atmospheric optical window. This is the most natural and convenient method of mixing color temperatures depending on the daily course of the sun.

We also offer 3 RGB tapes for atmospheric lighting and color accents for every application. Please find further details on page 15.

# VarioLED™ Flex IP67 and VarioLED™ IP67 in Contour

A solution for indoor and outdoor

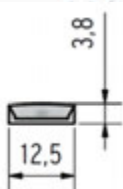
A specially developed polyurethane encapsulation protects the VarioLED™ Flex tape against a wide variety of environmental influences and makes it an absolute all-rounder in the outdoor and indoor use. The utilized Polyurethane features a 5 times higher chemical resistance and a 10 times lower water transmission compared to typical Silicones for LED applications in the relevant temperature range (-50°C to 80°C).

VarioLED™ Flex IP67 and VarioLED™ IP67 have a very high resistance in harsh climatic conditions and are resistant to salt water, chlorine, solvents and UV radiation. The whole system has a protection class of IP67. Wherever protection is essential, this lighting solution shows its advantages.

## IP67

IP6X = Dust tight (no ingress of dust)

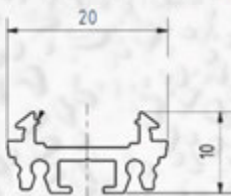
IPX7 = Temporary immersion protection



VarioLED™ Flex IP67

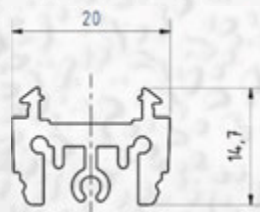
Water & UV resistant flexible linear LED luminaire in up to 10 m (32.8') length in polyurethane encapsulation with white casing and with 200 mm (7.87") IP67 mini connectors on both ends. Very small with only 12.5 mm x 3.8 mm (0.49" x 0.15"). Available for tapes with up to 15 W/m (4.7 W/ft).





### VarioLED™ IP67 with VarioContour C013

Water & UV resistant linear LED luminaire in aluminum profile with up to 4 m (13.1') length, polyurethane encapsulation and 110 mm (4.33") IP67 connectors on both ends. Small form factor of 20 mm x 10 mm (0.78" x 0.39"). Available for tapes from 5 W/m (1.5 W/ft) to 10 W/m (2.9 W/ft).



### VarioLED™ IP67 with VarioContour C016




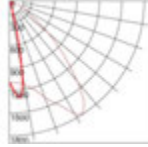



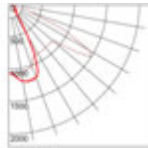



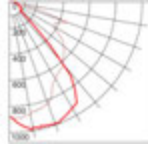



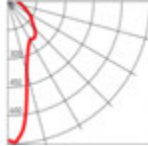



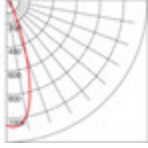



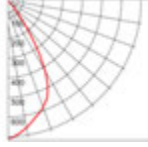



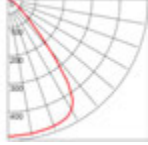
Water & UV resistant linear LED luminaire in aluminum profile with up to 4 m (13.1') length, polyurethane encapsulation and 110 mm (4.33") IP67 connectors on both ends. Small form factor of 20 mm x 14.7 mm (0.78" x 0.57"). Available for tapes with higher output from 15 W/m (4.7 W/ft) to 25 W/m (7.6 W/ft).

# VarioLED™ IP67 in Contour












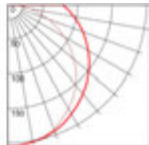
Possible optics for VarioContour C013 and C016

7 linear lenses in 15°, 30°, 60°, 90° for directed light

Art.-No.:

Linear Lens clear 30°					30°	12000020
Linear Lens clear 60°					60°	12000021
Linear Lens clear 90°					90°	12000022
Linear Lens diffuse 15°					15°	12000049
Linear Lens diffuse 30°					30°	12000029
Linear Lens diffuse 60°					60°	12000031
Linear Lens diffuse 90°					90°	12000032

3 round covers in clear, diffuse or opal for soft light

VarioCover Round Clear					120°	12000002
VarioCover Round Diffuse					100°	12000003
VarioCover Round Opal					154°	12000004

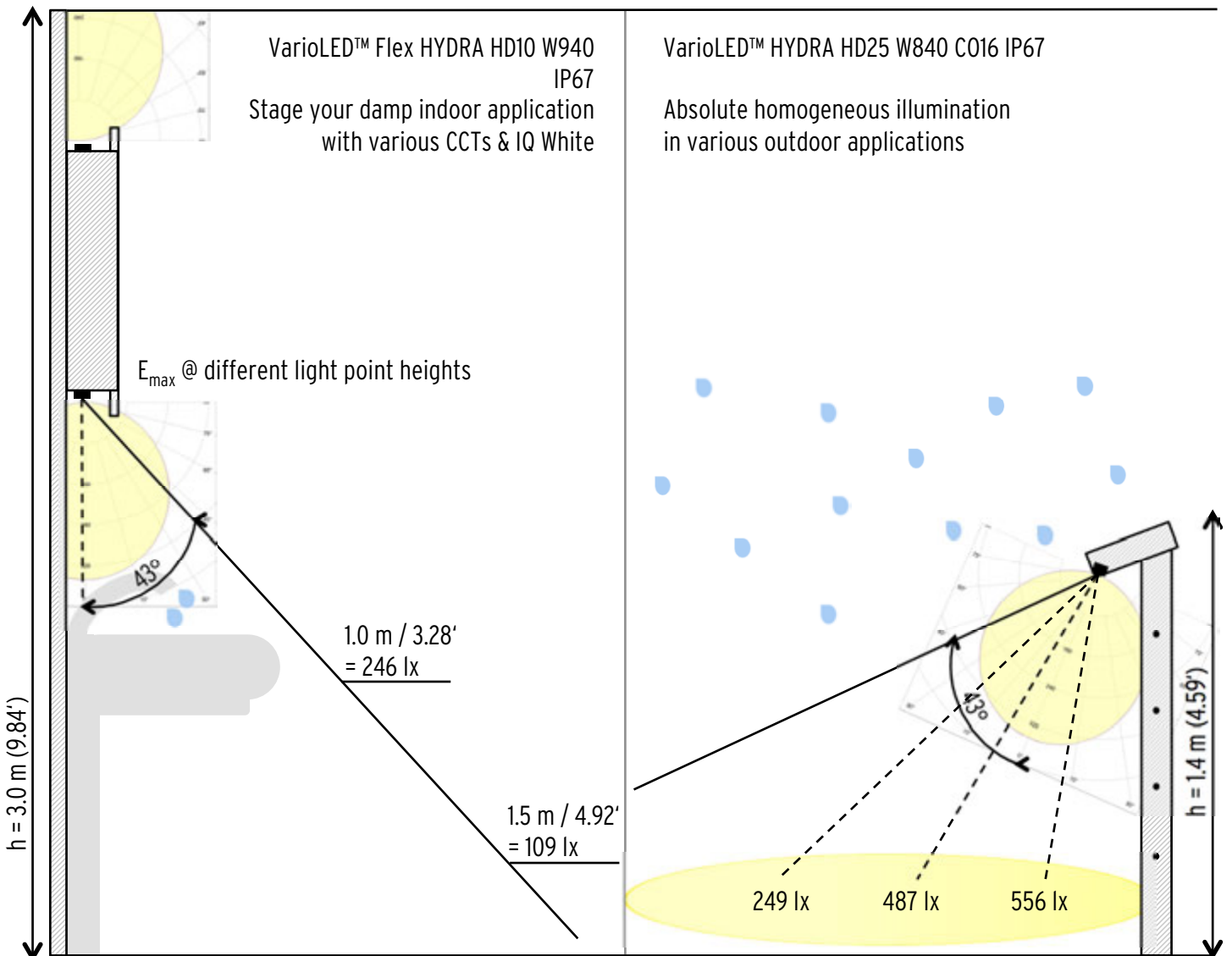
# VarioLED™ Flex IP67 and VarioLED™ IP67 in Contour

Lighting applications

Indoor – Example Bathroom



Outdoor – Example Bridge Lighting





## Tape Overview


















	Voltage (V)	CRI	Lumen/W (lm/W) <sup>1</sup>	Beam Angle	Watt/m (Watt/ft)	Lumen/m (Lumen/ft) <sup>1</sup>	Min. length mm (in)	Max. length m (ft)	Flex IP67	IP67 in profile	
 VarioLED™ Flex HYDRA SLD3 	HYDRA SLD3	24	85	138	120	2.9 (0.9)	400 (122)	250 (9.8)	10 (32.8)	✓	✓
 VarioLED™ Flex HYDRA LD White 	HYDRA LD5	24	95	123	120	4.8 (1.5)	590 (180)	125 (4.9)	7.5 (24.6)	✓	✓
	HYDRA LD10	24	85	123	120	9.6 (2.9)	1,180 (360)	125 (4.9)	5 (16.4)	✓	✓
	HYDRA LD15	24	85	122	120	15.4 (4.7)	1,880 (573)	125 (4.9)	4 (13.1)	✓	✓
	HYDRA LD25	24	85	115	120	25 (7.6)	2,880 (878)	125 (4.9)	3 (9.8)	-	✓
 VarioLED™ Flex HYDRA HD White 	HYDRA HD6	24	95	122	120	5.8 (1.8)	710 (216)	62.5 (2.5)	5 (16.4)	✓	✓
	HYDRA HD10	24	95	123	120	9.6 (2.9)	1,180 (360)	62.5 (2.5)	5 (16.4)	✓	✓
	HYDRA HD15	24	85	122	120	15.4 (4.7)	1,880 (573)	62.5 (2.5)	4 (13.1)	✓	✓
	HYDRA HD25	24	85	115	120	25 (7.6)	2,880 (878)	62.5 (2.5)	3 (9.8)	-	✓
 VarioLED™ Flex ATON3 White 	ATON3	24	82	81	120	9.6 (2.9)	780 (238)	62.5 (2.5)	5 (16.4)	✓	✓
 VarioLED™ Flex ATON Air White 	ATON Air	24	82	76	120	14.4 (4.4)	1,100 (335)	41.67 (1.6)	4 (13.1)	-	✓
 VarioLED™ Flex ECO LD White 	ECO LD4	24	82	64	120	5 (1.5)	320 (98)	125 (4.9)	5 (16.4)	✓	-
	ECO LD12	24	82	66	120	12.5 (3.8)	820 (250)	125 (4.9)	4 (13.1)	✓	-
 VarioLED™ Flex ECO HD White 	ECO HD8	24	82	66	120	7.7 (2.3)	510 (155)	62.5 (2.5)	5 (16.4)	✓	-
 VarioLED™ Flex Side View ECO 	Side View ECO LD10	24	80	61	60	9.6 (2.9)	589 (180)	125 (4.9)	5 (16.4)	✓	-
 VarioLED™ Flex IQ White HYDRA LD 	IQ White HYDRA LD25	24	85	96	120	25 (7.6)	2,410 (735)	250 (9.8)	3 (9.8)	-	✓
 VarioLED™ Flex IQ White ATON HD 	IQ White ATON HD12	24	85	77	120	11.5 (3.5)	880 (268)	62.5 (2.5)	5 (16.4)	✓	✓
	IQ White ATON HD24	24	85	72	120	23.8 (7.3)	1,710 (521)	62.5 (2.5)	4 (13.1)	-	✓

The luminous flux is related to the VarioLED™ Flex IP67 version. If this is not available it is related to the VarioLED™ IP67 version.

White: Luminous flux based on 5,000 K. With warmer light colors the luminous flux is reduced. (4,000 K: -5%; 3,500 K: -7%; 3,000 K: -12%; 2,700 K: -17%; 2,500 K: -40%; 2,200 K: -42%; 2,000 K: -44%; 2,000 K: -44%).

IQ White / RGB: When all channels / colors are at full power. Using single channels / colors reduces the luminous flux.



	Voltage (V)	CRI	Lumen/W (lm/W) <sup>1</sup>	Beam Angle	Watt/m (Watt/ft)	Lumen/m (Lumen/ft) <sup>1</sup>	Min. length mm (in)	Max. length m (ft)	Flex IP67	IP67 in profile
 <b>VarioLED™ Flex RGB LD</b> 										
RGB LD15	24	-	31	120	15 (4.6)	470 (143)	125 (4.9)	4 (13.1)	✓	✓
 <b>VarioLED™ Flex RGB HD</b> 										
RGB HD10	24	-	44	120	10 (3)	440 (134)	62.5 (2.5)	5 (16.4)	-	✓
RGB HD20	24	-	41	120	20 (6.1)	810 (247)	62.5 (2.5)	4 (13.1)	-	✓
 <b>VarioLED™ Flex ATON Color</b>   Product discontinued at the end of 2016. Successor product in 2017 guaranteed!										
 ATON Color R	24	-	15	120	8 (2.4)	120 (37)	125 (4.9)	7.5 (24.6)	✓	✓
 ATON Color Y	24	-	11	120	8 (2.4)	87 (27)	125 (4.9)	7.5 (24.6)	✓	✓
 <b>VarioLED™ Flex ECO Color LD</b> 										
 ECO LD4 Color B	24	-	19	120	4 (1.2)	74 (23)	125 (4.9)	5 (16.4)	✓	-
 ECO LD4 Color G	24	-	73	120	4 (1.2)	293 (89)	125 (4.9)	5 (16.4)	✓	-
 <b>VarioLED™ Flex ECO Color HD</b> 										
 ECO HD8 Color B	24	-	19	120	8 (2.4)	148 (45)	62.5 (2.5)	5 (16.4)	✓	-
 ECO HD8 Color G	24	-	73	120	8 (2.4)	585 (178)	62.5 (2.5)	5 (16.4)	✓	-

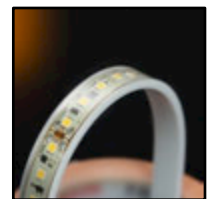
### Order Code

Example: VarioLED™ Flex IP67

	VarioLED Flex	Flex tape	CRI	Color	Length	IP rating
Your order code	VarioLED Flex	_____	W_	__	_____	IP67
Order code example	VarioLED Flex	HYDRA SLD3	W 8	27	2519	IP67

	VarioLED Flex	Flex tape	Length	IP rating
Your order code	VarioLED Flex	_____	_____	IP67
Order code example	VarioLED Flex	IQ White ATON HD12	2519	IP67

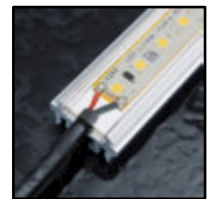


Example: VarioLED™ IP67 in Contour

	VarioLED	Flex tape	CRI	Color	Length	IP rating
Your order code	VarioLED	_____	W_	__	_____	IP67
Order code example	VarioLED	HYDRA SLD3	W 8	27	2519	IP67

	VarioLED	Flex tape	Length	IP rating
Your order code	VarioLED	_____	_____	IP67
Order code example	VarioLED	IQ White ATON HD12	2519	IP67





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