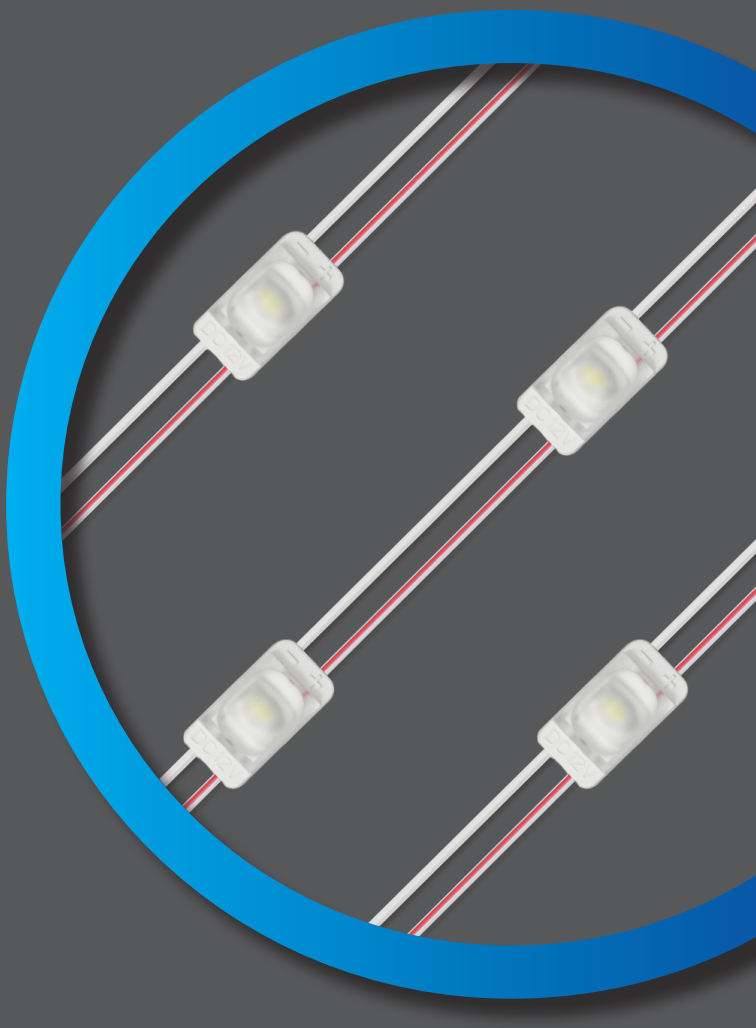
NANOptiKa

Signage – Backlighting

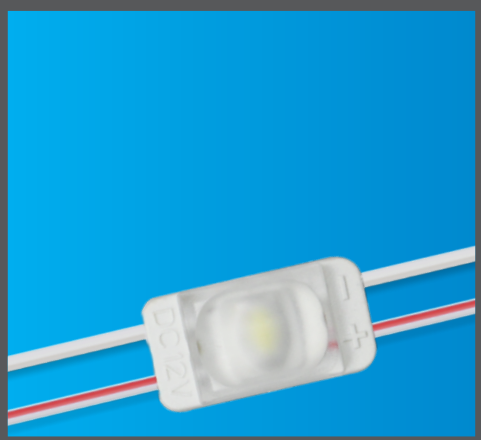
30 HF1

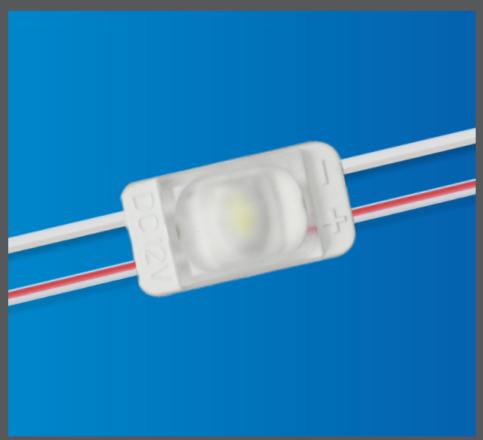
5 YEARS
50.000 hrs
L50



Powerful and small module with special optics and IC

- ▸Very compact, bright and small module
- ▸Optics (130x170°) specially designed for very small letters and BlockLED
- ▸Integrates quality IC for long stable life
- ▸Available in 5 White CCTs, Red, Green, Blue and Pink.
- ▸IP67 and Robust: ABS, PC, anti-UV





LUMIÈRES SOLUTIONS DURABLES

YAKI
3 allée des vignes,
91160 CHAMPLAN - FRANCE

NANOptiKa 30 HF1

FEATURES & BENEFITS

- Flexible chains with 50 modules - cuttable anywhere
- 130x170° IRISLENS special-design optics for superior light distribution and uniformity in very small letters or BlockLED applications
- IP67 rated for outdoor applications
- Durability: Robust body made of ABS and PC lens , both UV rated
- 98 lm/W efficiency brings your customer high energy savings
- All modules are equipped with regulation components (11-14V) to ensure that any fluctuation of the output voltage from the converter would not affect the lumen output, increase of temperature or life time of the module
- Available in 5 White CCTs, Red, Green, Blue and Pink
- CRI up to 80
- 3M VHB 4950
- DC 12V
- 100% aging test
- Wide operating temperature from -25° to +55°C

NORMS & CERTIFICATES

- EN 55015:2013+A1:2015
- EN 61547:2009
- EN 61000-3-2:2014
- EN 61000-3-3:2013

LIFETIME & WARRANTY

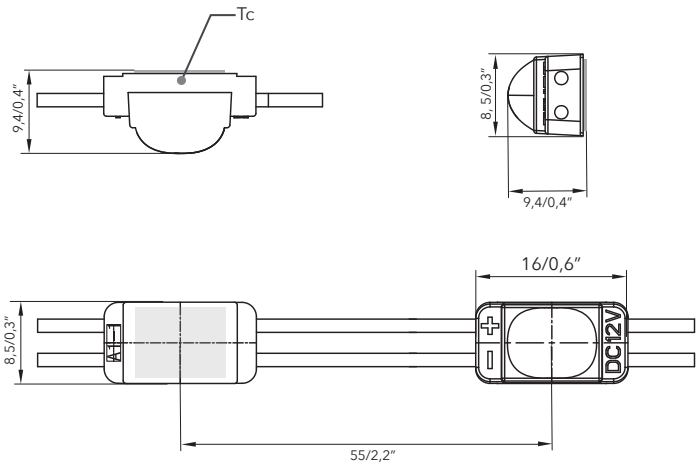
- Warranty: 5 years
- Lifetime: 50.000 hours at L50

TECHNICAL DATA

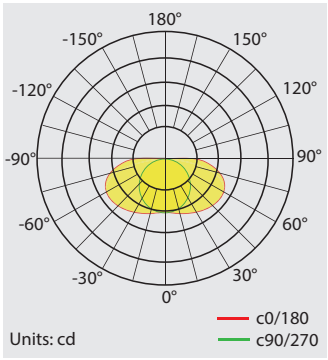
Code	Designation	Color	ColorTemp / wavelength	Voltage (V)	Typical power/ mod (W)	Lumen output (lm/module)	Efficiency (Lm/W)	Modules / chain	Modules max in series	Module distance - axe to axe (mm / in)
20880121	NANOptiKa 30 HF1 UW 50mod 55mm 0,36W 12V IP67	UW	9000-12000	12	0,36	30	83	50	50	55±5/2,16"
20880090	NANOptiKa 30 HF1 OW 50mod 55mm 0,36W 12V IP67	OW	6900-8100	12	0,36	30	83	50	50	55±5/2,16"
20880091	NANOptiKa 30 HF1 WDL 50mod 55mm 0,36W 12V IP67	WDL	5500-6500	12	0,36	30	83	50	50	55±5/2,16"
20880092	NANOptiKa 30 HF1 NW 50mod 55mm 0,36W 12V IP67	NW	3800-4500	12	0,36	30	83	50	50	55±5/2,16"
20880135	NANOptiKa 30 HF1 WW 50mod 55mm 0,36W 12V IP67	WW	2800-3200	12	0,36	30	83	50	50	55±5/2,16"
20880134	NANOptiKa 30 HF1 P 50mod 55mm 0,36W 12V IP67	P	1500-1700	12	0.36	16	44	50	50	55±5/2,16"
20880125	NANOptiKa 30 HF1 R 50mod 55mm 0,36W 12V IP67	R	620-630nm	12	0.36	7	19	50	50	55±5/2,16"
20880126	NANOptiKa 30 HF1 G 50mod 55mm 0,36W 12V IP67	G	520-525nm	12	0.36	27	75	50	50	55±5/2,16"
20880127	NANOptiKa 30 HF1 B 50mod 55mm 0,36W 12V IP67	B	455-460nm	12	0.36	9	25	50	50	55±5/2,16"

**Tolerance range for optical and electrical data: ±15 %.*

DIMENSIONS



LIGHT DISTRIBUTION



NANOptiKa 30 HF1

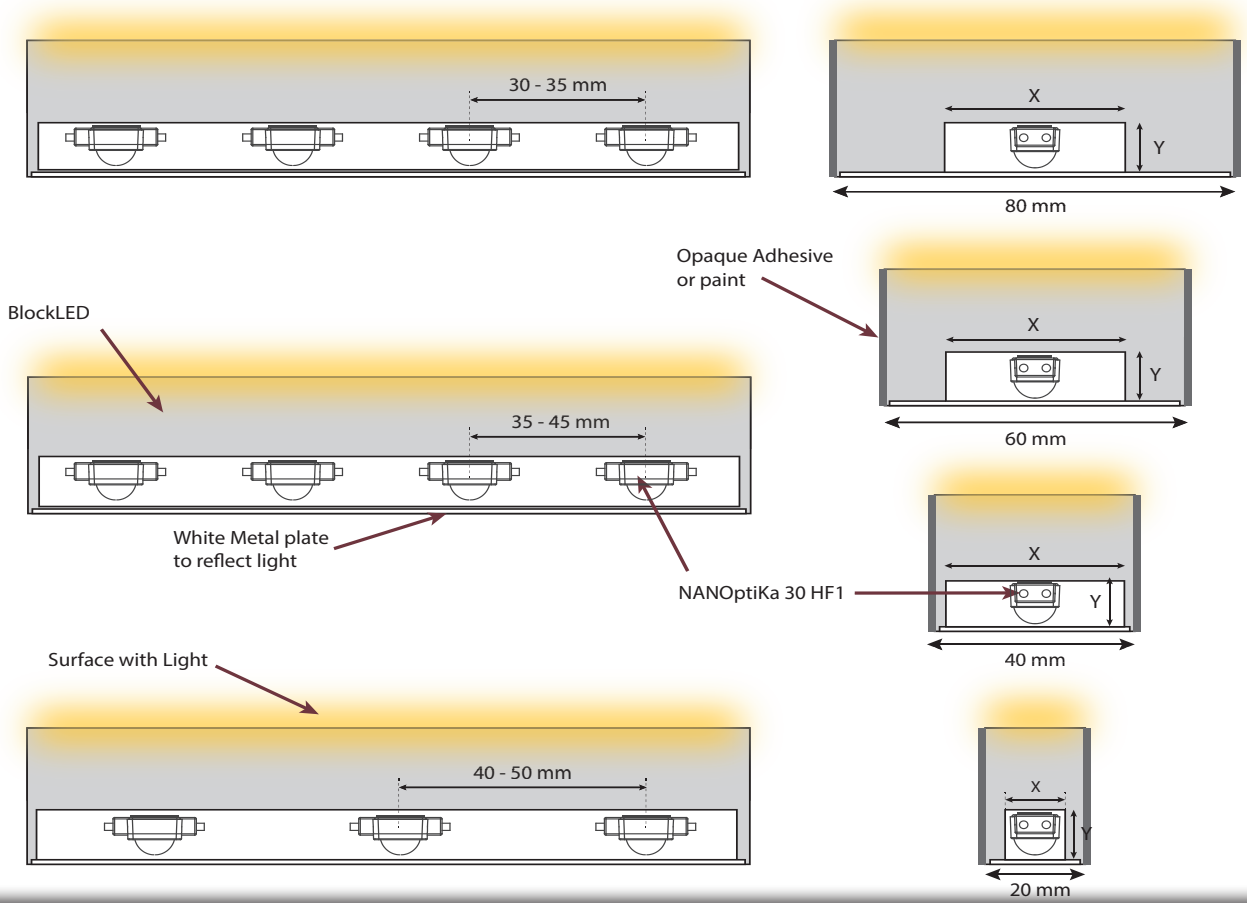
APPLICATION

RECOMMENDED MODULES PER TYPE OF SIGNAGE								
TYPE	Depth of letter or box to be illuminated (mm)							
	BlockLED (30mm)	<50mm < 2in	50 to 80mm 2 to 3in	80 to 120mm 3 to 4,7in	120 to 150mm 4,7 to 6 in	150 to 200mm 6 to 7,9 in	200 to 250mm 7,9 to 9,8 in	>250mm > 9,8 in
NANOptiKa 30 HF1	***	***	**					
OptiKa 10-20-30 HL1	***	***	***					
OptiKa 35-70 HL2			**	***	***	**		
OptiKa 100 HL3				**	***	***		
OptiKa 90 HL1				**	***	***		
OptiKa 180 HL2				**	***	***		
OptiKa 270 HL3				**	***	***		
OptiKa 500 HL7					**	***	***	***
OptiKa 900 DS					**	***	***	***

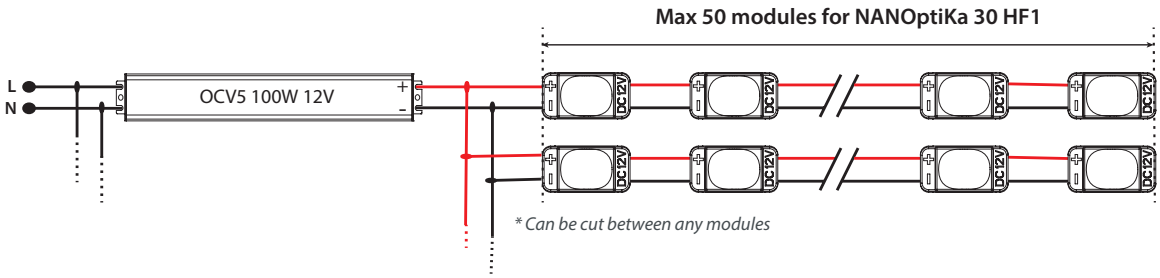
* *To be tested* ** *Possible under conditions* *** *Optimum*

APPLICATION - BlockLED

► Data and dimensions are given as recommendations based on standard 30mm BlockLED. Tests are always required for final confirmation. Always make a test or prototype to confirm results for your specific project.
► The light uniformity of your sign can be improved by creating different "holes" into the block. We recommend you to make tests how to achieve the best result (X & Y dimensions are critical to the width of the BlockLED letter).



WIRING DIAGRAM



INGRESS PROTECTION IP67

► Product is an "inbuilt LED module" designed to be used Indoors or Outdoors.
► The specified environmental protection of the LED module enclosure means that:
It is totally protected against the ingression of dust, and protected against the effect of water immersion up to 1 mtr deep.
► The certification requires products to pass a test 30 minutes long at 1 mtr. depth. After 30 minutes of submersion product could start to be affected or damaged.

► Make sure the application (sign, box, etc.) where the LED modules are installed into, has proper drain holes for water to exit so that LED modules and any other electronic components are not submerged exceeding the IP67 certification limits.

INSTALLATION

► Always connect the LED modules to the power supply while it is OFF. Only then you can connect the power supply to electricity and turn it ON.
► Respect the maximum number of modules in a row.
► Check compatibility between LED and driver voltage.
► Install LED on a clean work station connected to the earth. All LEDs are sensitive to static electricity (ESD).
► Limit the cable length between LED and power supply (voltage drop).
► Do not make direct pressure on LED chip, this could damage the internal connection.
► Secure LED module lines with mechanical fixation (screws, glue ...) in addition to the adhesive tape.

THERMAL BEHAVIOUR

The temperature limits indicated below are expressed in °C, at full load, after 3 hrs of operation conditions, with natural convection:

► Operation temperature	Ta -25°C to +55°C
► Storage temperature	Ts -40°C to +85°C
► Max. temperature tc point	Tc +80°C

The life of the module will decrease when the maximum temperature limits are exceeded.
If LEDs are operated for a continuous extended time at temperatures that exceed the maximum limits, the modules can fail.

Our Warranty will be void when LED modules are operated exceeding the maximum values indicated.

PACKAGING

	Type	SIZE - LxWxH (cm)	SIZE - LxWxH (ft)	Weight (Kg)	Weight (lb)	Nb of Pcs / box
CARTON	NANOptiKa 30 HF1	52x37x26	1,7x1,2x0,8	8,66	19	120