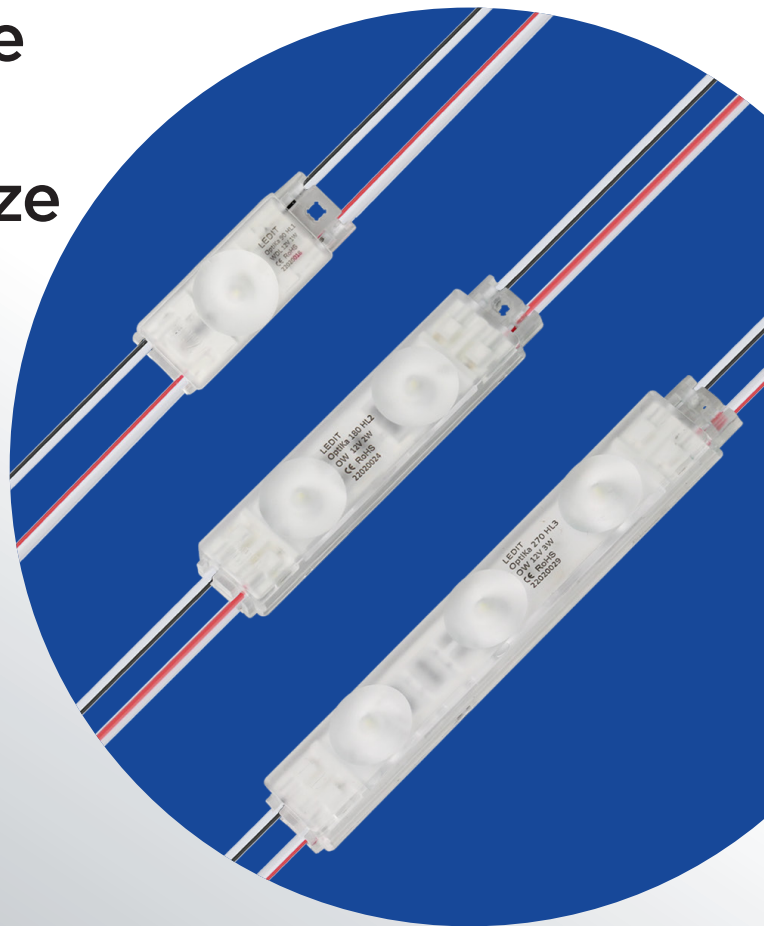


Optika[®] HL

SIGNAGE - Backlighting

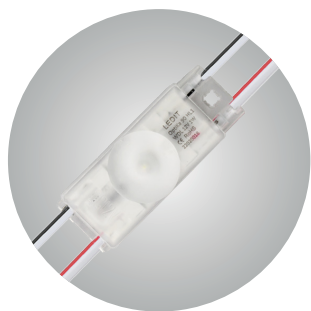
90 180 270

The widest optics for the most brilliant modules make installation a breeze and brightly uniform results



5 YEARS
50.000hrs
L70

- Robust and reliable
- Depth range: 80 to 300 mm
- MacAdam ellipse 3 to achieve Consistent light
- 5 different Whites



5 YEARS
50.000hrs
L70



IP67



170°



50 Max



CUTTABLE
EVERY 1 MOD.



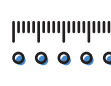
NO NEED



12 V/DC



11 TO 14V



14 TO 20
MOD./M²



133 TO 400
MOD./ML

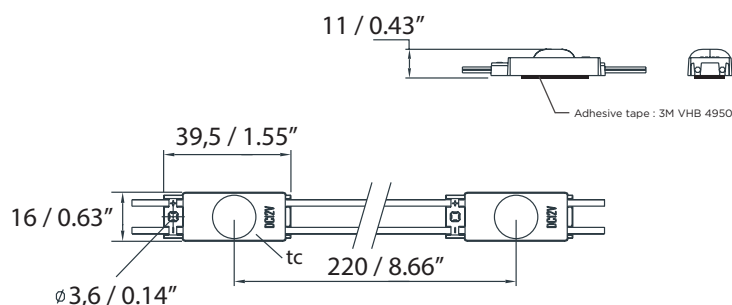


-30/+50°C

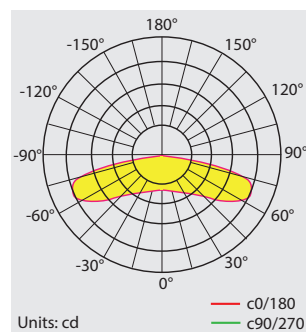
TECHNICAL DATA

Code	Designation	ColorTemp / wavelength	Typical power/mod (W)	Lumen output (lm/mod)	Efficiency (Lm/W)	Modules / chain	Module distance - axe to axe (mm / in)
22020020	OptiKa 90 HL1 WS 50mod 220mm 1W 12V IP67	WS 8700-10000K	0,93	89	95	50	220±5 / 8.66"
22020019	OptiKa 90 HL1 OW 50mod 220mm 1W 12V IP67	OW 6800-7500K	0,93	91	98	50	220±5 / 8.66"
22020018	OptiKa 90 HL1 WDL 50mod 220mm 1W 12V IP67	WDL 6000-6500K	0,93	94	101	50	220±5 / 8.66"
22020017	OptiKa 90 HL1 NW 50mod 220mm 1W 12V IP67	NW 3850-4250K	0,93	96	103	50	220±5 / 8.66"
22020016	OptiKa 90 HL1 WW 50mod 220mm 1W 12V IP67	WW 2900-3100K	0,93	93	100	50	220±5 / 8.66"

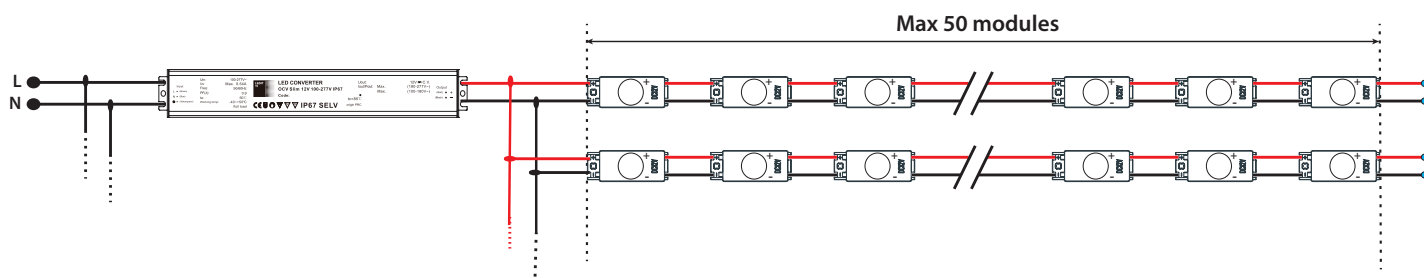
DIMENSIONS

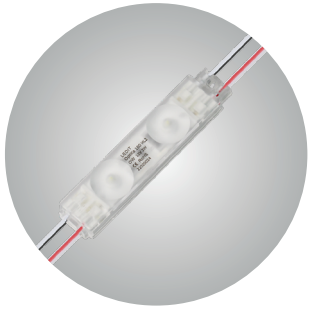


LIGHT DISTRIBUTION



WIRING DIAGRAM





5 YEARS
50.000hrs
L70



IP67



170°



30 Max



CUTTABLE
EVERY 1 MOD.



NO NEED



12 V/DC



11 TO 14V



3 TO 7
MOD./M²



9 TO 17
MOD./ML

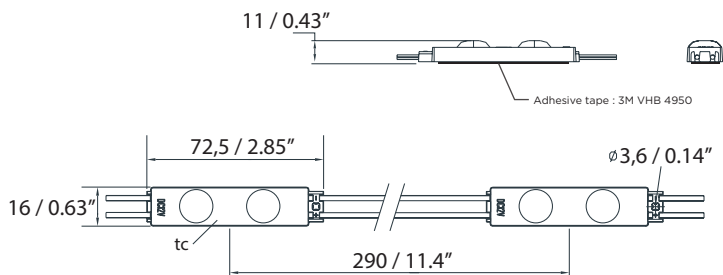


-30/+50°C

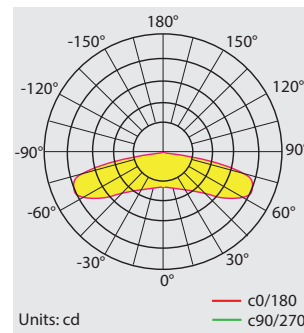
TECHNICAL DATA

Code	Designation	ColorTemp / wavelength	Typical power/mod (W)	Lumen output (lm/mod)	Efficiency (Lm/W)	Modules / chain	Module distance - axe to axe (mm / in)
22020025	OptiKa 180 HL2 WS 30mod 290mm 2W 12V IP67	WS 8700-10000K	1,86	173	93	30	290±5 / 11.4"
22020024	OptiKa 180 HL2 OW 30mod 290mm 2W 12V IP67	OW 6800-7500K	1,86	180	97	30	290±5 / 11.4"
22020023	OptiKa 180 HL2 WDL 30mod 290mm 2W 12V IP67	WDL 6000-6500K	1,86	186	100	30	290±5 / 11.4"
22020022	OptiKa 180 HL2 NW 30mod 290mm 2W 12V IP67	NW 3850-4250K	1,86	188	101	30	290±5 / 11.4"
22020021	OptiKa 180 HL2 WW 30mod 290mm 2W 12V IP67	WW 2900-3100K	1,86	184	99	30	290±5 / 11.4"

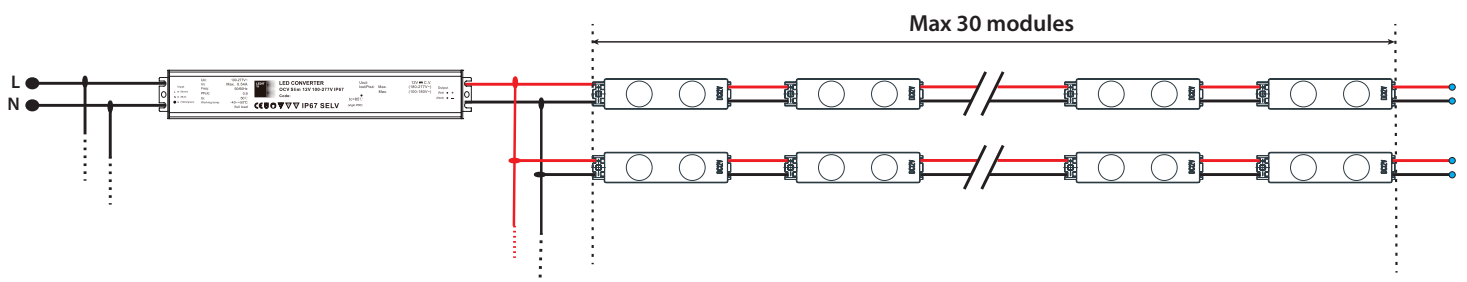
DIMENSIONS

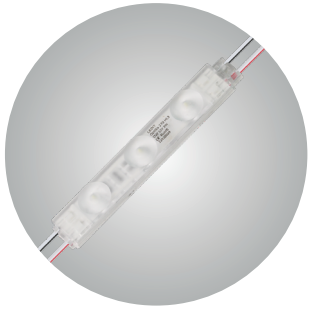


LIGHT DISTRIBUTION



WIRING DIAGRAM





5 YEARS
50.000hrs
L70



IP67



170°



20 Max



CUTTABLE
EVERY 1 MOD.



NO NEED



12 V/DC



11 TO 14V



3 TO 6
MOD./M²



9 TO 16
MOD./ML

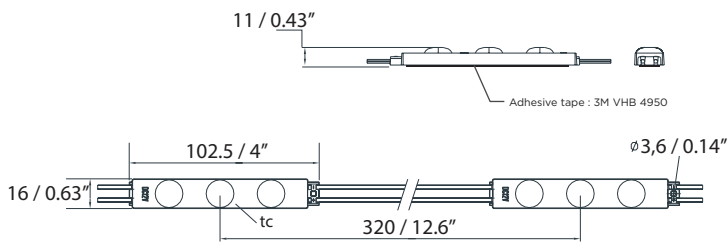


-30/+50°C

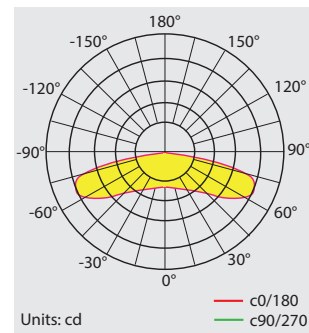
TECHNICAL DATA

Code	Designation	ColorTemp / wavelength	Typical power/ mod (W)	Lumen output (lm/mod)	Efficiency (Lm/W)	Modules / chain	Module distance - axe to axe (mm / in)
22020030	OptiKa 270 HL3 WS 20mod 320mm 3W 12V IP67	WS 8700-10000K	2,80	261	93	20	320±5 / 12.6"
22020029	OptiKa 270 HL3 OW 20mod 320mm 3W 12V IP67	OW 6800-7500K	2,80	272	97	20	320±5 / 12.6"
22020028	OptiKa 270 HL3 WDL 20mod 320mm 3W 12V IP67	WDL 6000-6500K	2,80	280	100	20	320±5 / 12.6"
22020027	OptiKa 270 HL3 NW 20mod 320mm 3W 12V IP67	NW 3850-4250K	2,80	283	101	20	320±5 / 12.6"
22020026	OptiKa 270 HL3 WW 20mod 320mm 3W 12V IP67	WW 2900-3100K	2,80	277	99	20	320±5 / 12.6"

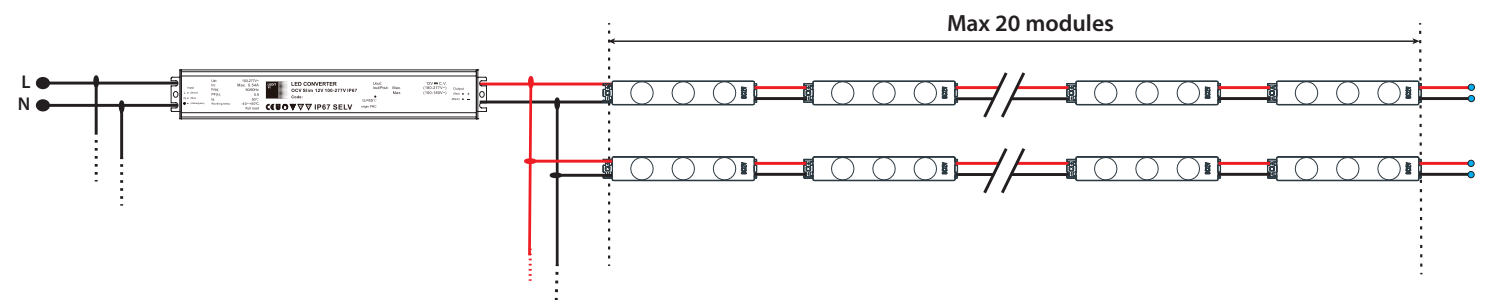
DIMENSIONS



LIGHT DISTRIBUTION

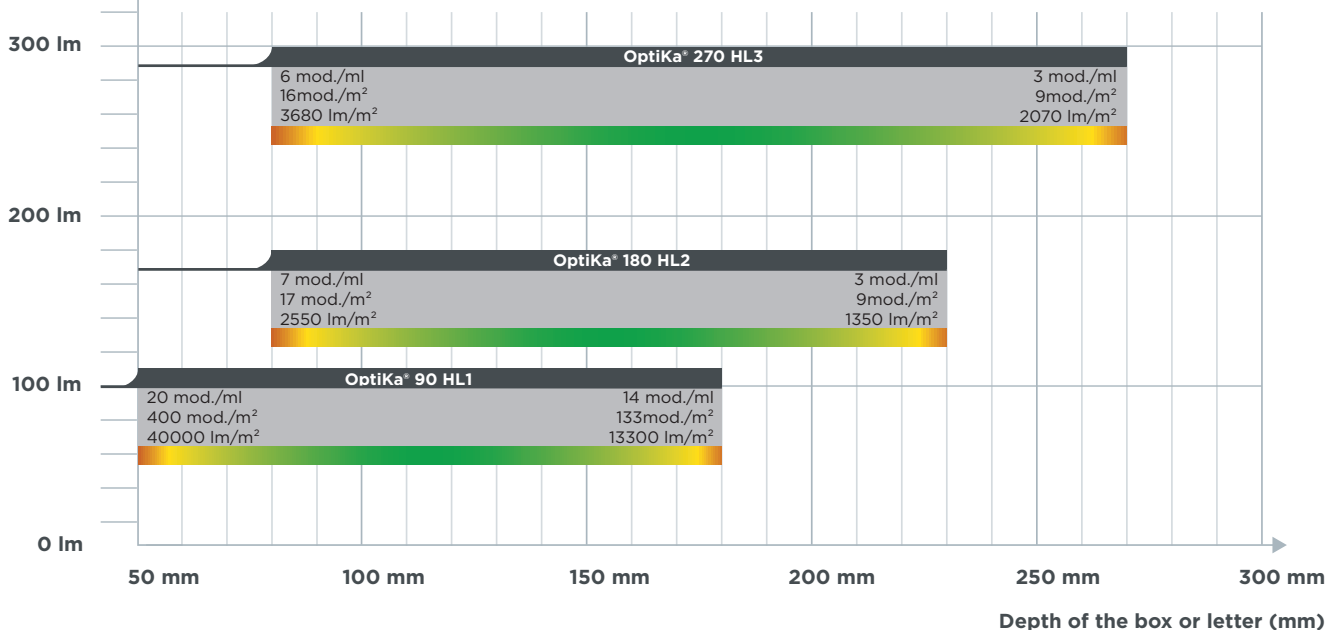


WIRING DIAGRAM



APPLICATION

Lumen output
(lm/module)



Depth of the box or letter (mm)

■ To be tested ■ Possible under conditions ■ Optimum

INGRESS PROTECTION IP67

“Inbuilt LED module” for Indoors or Outdoors.

The specified environmental protection of the LED module enclosure means that it is protected against dust ingress and water immersion up to 1m deep.

The certification requires products to pass a test 30min long at 1m depth. After 30min of submersion, the product could start to be affected or damaged.

Make sure that the application of the LED modules has proper drain holes for water to exit so that modules and any other electronic component are not submerged exceeding the IP67 certification limits.

NORMS & CERTIFICATES

- ▶ EN55015:2013
- ▶ EN61547:2009
- ▶ EN61000-3-2:2014
- ▶ EN61000-3-3:2013
- ▶ EN62031:2008 + A1:2013
- ▶ IEC62321:2013
- ▶ EN62471:2008



THERMAL BEHAVIOUR

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

- ▶ Operation temperature Ta -20°C to +50°C
- ▶ Storage temperature Ts -20°C to +85°C
- ▶ Max. temperature OptiKa 90 HL1 Tc +95°C
- OptiKa 180-270 HL2-3 Tc +88°C

The life of the module will decrease when the maximum temperature limits are exceeded.

Operating for a continuous extended time at temperatures exceeding the maximum limits, the modules can fail and our warranty will be void.

WHITE TOLERANCE

In order to ensure there is no color difference visible to the human eye, we adhere strictly to the following tolerance for White LEDs:

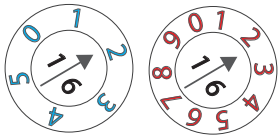
- ▶ MacAdam ellipse 5 between different production batches
- ▶ MacAdam ellipse 3 in the same production batch

FAILURE RATE

Our LED system has a max failure rate of 0.2% per 1000 operating hours.

IDENTIFICATION

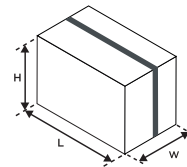
You can find the following production date code at the back of the module.



Production Week **22**
Production year **2016**

PACKAGING

Type	SIZE - LxWxH (cm)	SIZE - LxWxH (ft)	Weight (kg)	Weight (lb)	Units
OptiKa 90 HL1	40x30x34	1,3x1x1,1	11	24,3	15
OptiKa 180 HL2	40x30x32	1,3x1x1,1	10,5	23,1	16
OptiKa 270 HL3	40x30x34	1,3x1x1,1	14	31	24



(When the min and max values are not indicated, the tolerance range for optical and electrical data is ±15 %.)