

F L E X  
L E N S

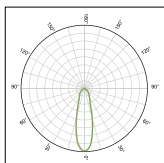
K

[khatod.com](http://khatod.com)

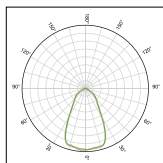


# KFLEX 16XX

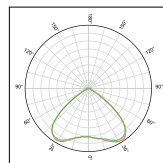
## SQUARE MODULE



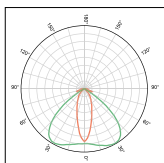
**KFLEX1601A**  
Symmetric beam  
30°FWHM



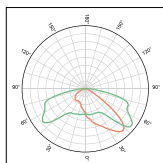
**KFLEX1602A**  
Symmetric beam  
60°FWHM



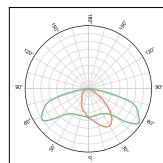
**KFLEX1603A**  
Symmetric beam  
90°FWHM



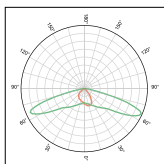
**KFLEX1604A**  
Elliptical beam  
30°x100° FWHM



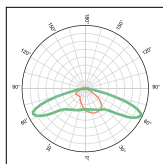
**KFLEX1605A**  
ECE M class  
wide street



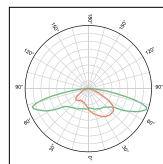
**KFLEX1606A**  
ECE M class  
narrow street



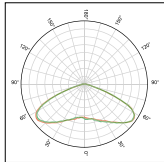
**KFLEX1607A**  
IESNA Type I  
Medium



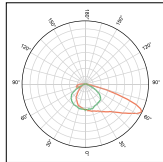
**KFLEX1608A**  
IESNA Type II  
Medium



**KFLEX1609A**  
IESNA Type III  
Medium



**KFLEX1610A**  
IESNA Type Vs  
Short



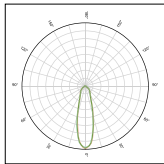
**KFLEX1611A**  
Vertical asymmetric  
beam for sports light



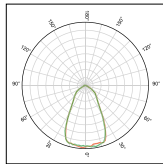
Square module – **49.5mm side** - consisting of **16 optics** in one, with 12.5mm lens pitch.  
Made of optical grade PMMA.

# KFLEX 32XX

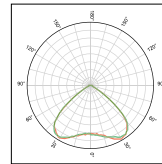
VERTICAL ALIGNED RECTANGULAR MODULE



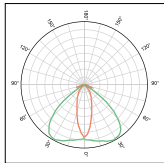
**KFLEX3201A**  
Symmetric beam  
30°FWHM



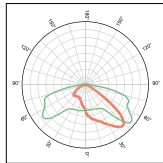
**KFLEX3202A**  
Symmetric beam  
60° FWHM



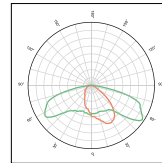
**KFLEX3203A**  
Symmetric beam  
90° FWHM



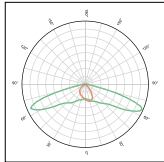
**KFLEX3204A**  
Elliptical beam  
30°x100° FWHM



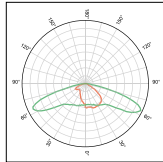
**KFLEX3205A**  
ECE M class  
wide street



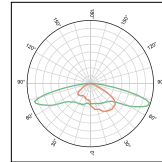
**KFLEX3206A**  
ECE M class  
narrow street



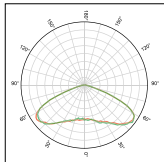
**KFLEX3207A**  
IESNA Type I  
Medium



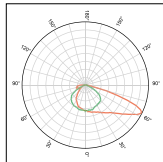
**KFLEX3208A**  
IESNA Type II  
Medium



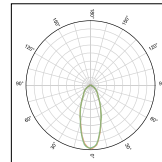
**KFLEX3209A**  
IESNA Type III  
Medium



**KFLEX3210A**  
IESNA Type Vs  
Short



**KFLEX3211A**  
Vertical asymmetric beam  
for sports light



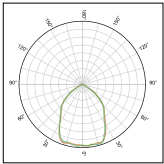
**KFLEX3250B**  
Symmetric beam  
40°FWHM



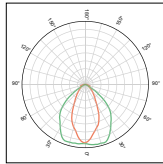
Vertical aligned rectangular module – **49.5mm x 100.3mm** - consisting of **32 optics** in one, with 12.5mm lens.  
Made of optical grade PMMA.

# KFLEX 32XX

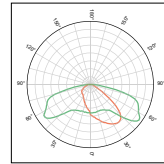
VERTICAL ALIGNED RECTANGULAR MODULE



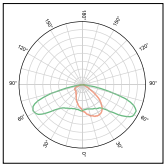
**KFLEX3251B**  
Symmetric beam  
90°FWHM



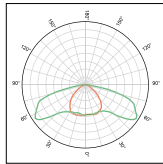
**KFLEX3253B**  
Elliptical beam  
55°x95° FWHM



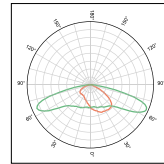
**KFLEX3254B**  
ECE M class



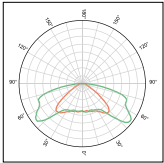
**KFLEX3255B**  
ECE M class



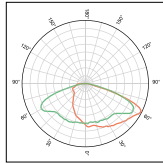
**KFLEX3256B**  
ECE M class  
on median installation



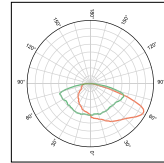
**KFLEX3257B**  
ECE M class



**KFLEX3258B**  
ECE M Class  
on median installation



**KFLEX3260B**  
Vertical asymmetric  
beam



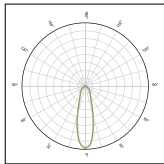
**KFLEX3261B**  
Vertical asymmetric  
beam



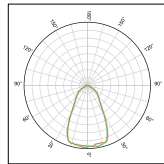
Vertical aligned rectangular module – 49.5mm x 100.3mm - consisting of **32 optics** in one, with 12.5mm lens pitch.  
Made of optical grade PMMA.

# KFLEX 48XX

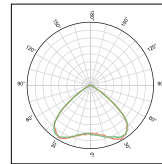
VERTICAL ALIGNED RECTANGULAR MODULE



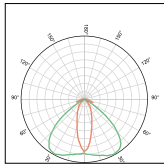
**KFLEX4801A**  
Symmetric beam  
30°FWHM



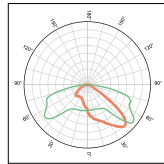
**KFLEX4802A**  
Symmetric beam  
60° FWHM



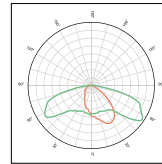
**KFLEX4803A**  
Symmetric beam  
90° FWHM



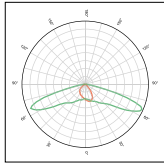
**KFLEX4804A**  
Elliptical beam  
30°x100° FWHM



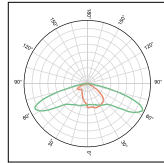
**KFLEX4805A**  
ECE M class  
wide street



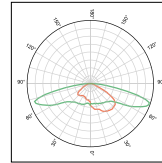
**KFLEX4806A**  
ECE M class  
narrow street



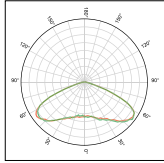
**KFLEX4807A**  
IESNA Type I  
Medium



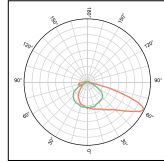
**KFLEX4808A**  
IESNA Type II  
Medium



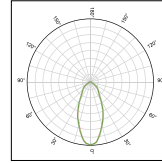
**KFLEX4809A**  
IESNA Type III  
Medium



**KFLEX4810A**  
IESNA Type Vs  
Short



**KFLEX4811A**  
Vertical asymmetric  
beam for sports light



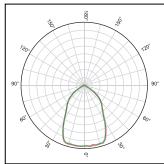
**KFLEX4850B**  
Symmetric beam  
45°FWHM



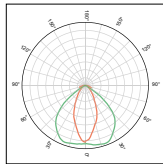
Vertical aligned rectangular module – 49.5mm x 151.1mm - consisting of **48 optics** in one, with 12.5mm lens pitch.  
Made of optical grade PMMA.

# KFLEX 48XX

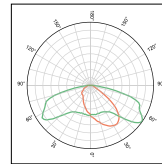
VERTICAL ALIGNED RECTANGULAR MODULE



**KFLEX4851B**  
Symmetric beam  
70°FWHM



**KFLEX4853B**  
Elliptical beam  
45°x100° FWHM



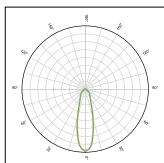
**KFLEX4854B**  
ECE M class



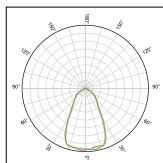
Vertical aligned rectangular module – 49.5mm x 151.1mm - consisting of **48 optics** in one, with 12.5mm lens pitch.  
Made of optical grade PMMA.

# KFLEX 64XX

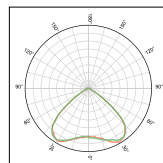
VERTICAL ALIGNED RECTANGULAR MODULE



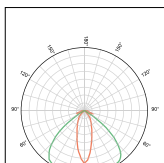
**KFLEX6401A**  
Symmetric beam  
30°FWHM



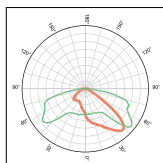
**KFLEX6402A**  
Symmetric beam  
60°FWHM



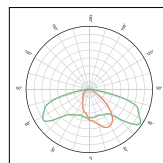
**KFLEX6403A**  
Symmetric beam  
90°FWHM



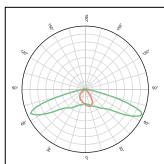
**KFLEX6404A**  
Elliptical beam  
30°x100° FWHM



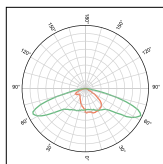
**KFLEX6405A**  
ECE M class  
wide street



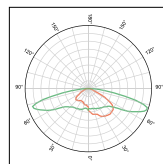
**KFLEX6406A**  
ECE M class  
narrow street



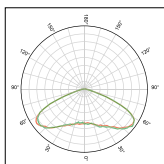
**KFLEX6407A**  
IESNA Type I  
Medium



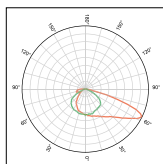
**KFLEX6408A**  
IESNA Type II  
Medium



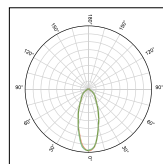
**KFLEX6409A**  
IESNA Type III  
Medium



**KFLEX6410A**  
IESNA Type Vs  
Short



**KFLEX6411A**  
Vertical asymmetric  
beam for sports light



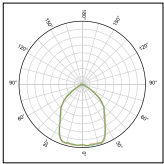
**KFLEX6450B**  
Symmetric beam  
40°FWHM



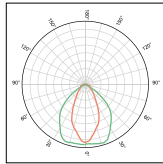
Vertical aligned rectangular module – 49.5mm x 201.9mm - consisting of **64 optics** in one, with 12.5mm lens pitch.  
Made of optical grade PMMA.

# KFLEX 64XX

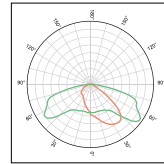
VERTICAL ALIGNED RECTANGULAR MODULE



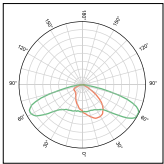
**KFLEX6451B**  
Symmetric beam  
90°FWHM



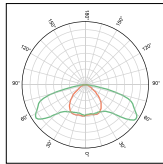
**KFLEX6453B**  
Elliptical beam  
55°x95° FWHM



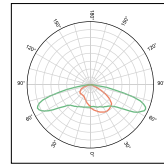
**KFLEX6454B**  
ECE M class



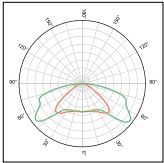
**KFLEX6455B**  
ECE M class



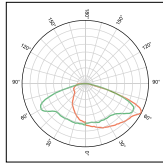
**KFLEX6456B**  
ECE M class  
on median installation



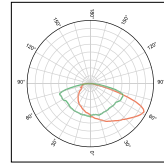
**KFLEX6457B**  
ECE M class



**KFLEX6458B**  
ECE M class  
on median installation



**KFLEX6460B**  
Vertical asymmetric  
beam



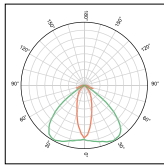
**KFLEX6461B**  
Vertical asymmetric  
beam



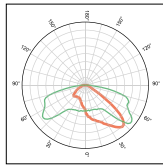
Vertical aligned rectangular module – 49.5mm x 201.9mm - consisting of **64 optics** in one, with 12.5mm lens pitch.  
Made of optical grade PMMA.

# KFLEX 9032XX

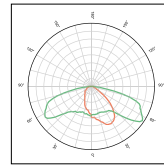
HORIZONTAL ALIGNED RECTANGULAR MODULE



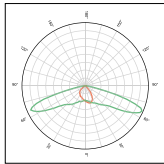
**KFLEX903204A**  
 Elliptical beam  
 30°x100° FWHM



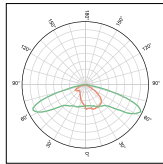
**KFLEX903205A**  
 ECE M class  
 wide street



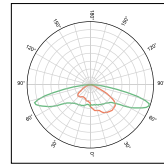
**KFLEX903206A**  
 ECE M class  
 narrow street



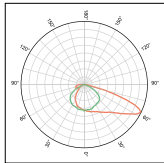
**KFLEX903207A**  
 IESNA Type I  
 Medium



**KFLEX903208A**  
 IESNA Type II  
 Medium



**KFLEX903209A**  
 IESNA Type III  
 Medium



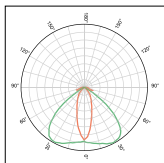
**KFLEX903211A**  
 Vertical asymmetric  
 beam for sports light



Horizontal aligned rectangular module – 100.3mm x 49.5mm - consisting of **32 optics** in one, with 12.5mm lens pitch.  
 Made of optical grade PMMA.

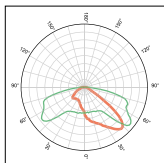
# KFLEX 9048XX

HORIZONTAL ALIGNED RECTANGULAR MODULE



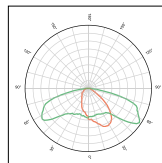
**KFLEX904804A**

Elliptical beam  
30°x100° FWHM



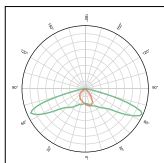
**KFLEX904805A**

ECE M class  
wide street



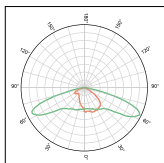
**KFLEX904806A**

ECE M class  
narrow street



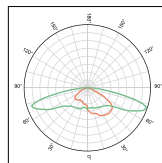
**KFLEX904807A**

IESNA Type I  
Medium



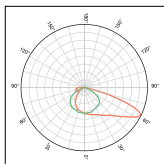
**KFLEX904808A**

IESNA Type II  
Medium



**KFLEX904809A**

IESNA Type III  
Medium



**KFLEX904811A**

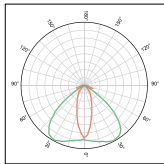
Vertical asymmetric  
beam for sports light



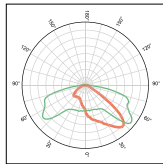
Horizontal aligned rectangular module – 151.1mm x 49.5mm - consisting of **48 optics** in one, with 12.5mm lens pitch.  
Made of optical grade PMMA.

# KFLEX 9064XX

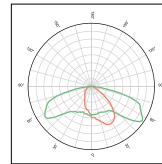
HORIZONTAL ALIGNED RECTANGULAR MODULE



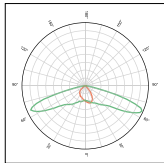
**KFLEX906404A**  
 Elliptical beam  
 30°x100° FWHM



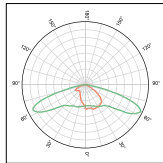
**KFLEX906405A**  
 ECE M class  
 wide street



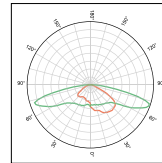
**KFLEX906406A**  
 ECE M class  
 narrow street



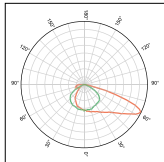
**KFLEX906407A**  
 IESNA Type I  
 Medium



**KFLEX906408A**  
 IESNA Type II  
 Medium



**KFLEX906409A**  
 IESNA Type III  
 Medium



**KFLEX906411A**  
 Vertical asymmetric  
 beam for sports light

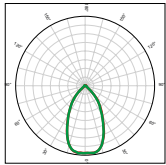


Horizontal aligned rectangular module – 201.9mm x 49.5mm - consisting of **64 optics** in one, with 12.5mm lens pitch.  
 Made of optical grade PMMA.

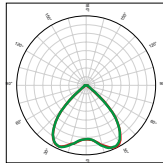


# KFLEX 64XXIP

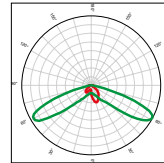
VERTICAL ALIGNED RECTANGULAR MODULE



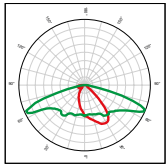
**KFLEX6412AIP**  
 Full angle at 50%  
 from maximum: ~ 60°  
 Full angle at 10%  
 from maximum: ~ 95°



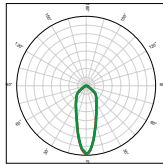
**KFLEX6413AIP**  
 Full angle at 50%  
 from maximum: ~ 90°  
 Full angle at 10%  
 from maximum: ~ 110°



**KFLEX6414AIP**  
 Full angle at 50%  
 from maximum:  
 ~ 100° x 143°  
 Full angle at 10%  
 from maximum:  
 ~ 170° x 155°



**KFLEX6415AIP**  
 Full angle at 50%  
 from maximum:  
 ~ 70° x 150°  
 Full angle at 10%  
 from maximum:  
 ~ 140° x 160°



**KFLEX6416AIP**  
 Full angle at 50%  
 from maximum: ~ 33°  
 Full angle at 10%  
 from maximum: ~ 110°

**DESIGNED TO COMPLY WITH**



**IP65**



FLEX LENS IP SERIES – ready to use multi-lens array available in 5 models: **64 optics** (73.96mm x 252.96mm), all with 12.5mm pitch.

This series covers, with a large variety of models, street lighting application as well as industrial lighting, sports lighting and in general any wide area lighting application.

Made of optical grade **PC**. Compatible with **Zhaga Book 15**.



# INDUSTRIAL

	PRODUCT NUMBER	# OF LEDS (each lens)	BEAM	MOUNTING HEIGHT AND INST. LAYOUT (m)			UNIFORMITY	
				H	X	Y	U0	EMIN/EMAX
Open space warehouse	KFLEX6401A	64	Symm 30°	8	2,5	2,5	0,4	0,3
	KFLEX6402A	64	Symm 60°	6	7	7	0,3	0,2
	KFLEX6403A	64	Symm 100°	8	10	10	0,5	0,4
	KFLEX6450A	64	Symm 40°	8	3,5	3,5	0,4	0,3
	KFLEX6451A	64	Symm 75°	6	5	5	0,3	0,2
Warehouse with shelves	KFLEX6404A	64	Ell. 30°x100°	6	5	3	0,4	0,3
	KFLEX6453A	64	Ell. 40°x90°	6	5	4	0,4	0,3



# SPORTS

	SPORTS INSTALLATION	PRODUCT NUMBER	# OF LEDS (each lens)	# OF LENSES per fixture	DESCRIPTION	EAVE	UO
INDOOR	<b>BASKETBALL AND VOLLEY FIELD</b> (Standards 2; Eav>500lx Uo>0.7)	<b>KFLEX6410A</b>	64	8	Ceiling mounted 7x4 lamps	>500 lux	0,8
	<b>TENNIS COURT</b> (Standards 2; Eav>500lx Uo>0.7)	<b>KFLEX6410A</b>	64	8	Ceiling mounted 6x5 lamps	>500 lux	0,75
	<b>FOOTBALL FIELD 5 PLAYERS</b> (Standards 2; Eav>500lx Uo>0.7)	<b>KFLEX6410A</b>	64	8	Ceiling mounted 8x4 lamps	>500 lux	0,7
	<b>SWIMMING POOL</b> (Standards 2; Eav>300lx Uo>0.7)	<b>KFLEX6403A</b>	64	8	Ceiling mounted 7x5 lamps	>300 lux	0,7
OUTDOOR	<b>FOOTBALL FIELD</b> (Standards 1; Eav>75lx Uo>0.5)	<b>KFLEX6461B</b>	64	8	6 poles 15m high	>75 lux	0,5
	<b>FOOTBALL FIELD 5 PLAYERS</b> (Standards 1; Eav>100lx Uo>0.5)	<b>KFLEX6460B</b>	64	8	6 poles 8m high	>200 lux	0,8
	<b>TENNIS COURT</b> (Standards 1; Eav>200lx Uo>0.5)	<b>KFLEX6411A</b>	64	8	4 poles 8m high	>200 lux	0,6

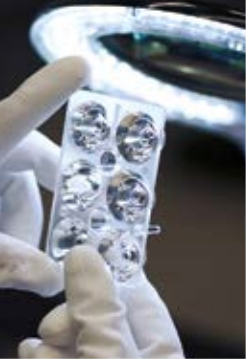


# STREET LIGHT EU

INSTALLATION TYPE	PRODUCT NUMBER	# OF LEDS (each lens)	# OF LENSES per fixture	ILLUMINANCE CLASS	ROAD WIDTH (m)	POLE HEIGHT (m)	RATIO	U0	UI	TI	EIR
Single row bottom or top	KFLEX4805B	48	3	M5 class	6	6	5	0,5	0,4	14	0,5
	KFLEX4806B	48	3	M5 class	5	6	5	0,5	0,5	13	0,6
	KFLEX4854B	48	3	M5 class	6	7	4	0,5	0,6	11	0,6
	KFLEX4808A	48	3	M5 class	7	7	4	0,35	0,6	13	0,6
Single row bottom or top	KFLEX6405B	64	4	M3, M4 class	7	6	3,5	0,5	0,6	14	0,5
	KFLEX6406B	64	4	M3, M4 class	6	7	4	0,5	0,65	11	0,6
	KFLEX6454B	64	4	M4 class	8	7	4	0,4	0,6	14	0,5
	KFLEX6455B	64	4	M3, M4 class	7	8	3,5	0,5	0,7	14	0,6
	KFLEX6457B	64	4	M4 class	6	6	4	0,4	0,6	12	0,5
On median	KFLEX6456B	64	4	M3, M4 class	6 + 0.5 + 6	8	4	0,4	0,6	13	0,4
	KFLEX6458B	64	4	M3, M4 class	7 + 1 + 7	8	4	0,5	0,6	15	0,5

# STREET LIGHT IESNA

PRODUCT NUMBER	# OF LEDS (each lens)	IESNA CLASSIFICATION	LONGITUDINAL CLASSIFICATION	CUTOFF CLASSIFICATION
KFLEX3207A	32	Type I	Medium	Cutoff
KFLEX3208A	32	Type II	Medium	Semi Cutoff
KFLEX3209A	32	Type III	Medium	Semi Cutoff
KFLEX3210A	32	Type VS	Short	Cutoff
KFLEX4807A	48	Type I	Medium	Cutoff
KFLEX4808A	48	Type II	Medium	Semi Cutoff
KFLEX4809A	48	Type III	Medium	Semi Cutoff
KFLEX4810A	48	Type VS	Short	Cutoff
KFLEX6407A	64	Type I	Medium	Cutoff
KFLEX6408A	64	Type II	Medium	Semi Cutoff
KFLEX6409A	64	Type III	Medium	Semi Cutoff
KFLEX6410A	64	Type VS	Short	Cutoff



## ADVANCED TECHNOLOGY UNIQUE PROJECTS READY-TO-USE

**Khatod optics enable to realize your most demanding applications in LED Lighting.**

Pioneer of SILICONE LENSES, unique to OPTICAL SYSTEMS, forerunner of new-concept REFLECTORS, skilled developer of CUSTOM OPTICS. To its customers, Khatod makes available its newest industrial area – 30,000sqm of advanced technology - free of charge technical support, fast deliveries from HQ, corporate sales offices around the world and global distributors of the industry.

**Standard products:** over 7900 models from stock – optics, optical systems and reflectors – for most popular LEDs, for any kind of applications in LED Lighting. Made from top quality materials – optical grade PMMA for HT, PC HT, ULTRA-CLEAR SILICONE (LSR) – by using exclusive manufacturing processes and superior finishing.

**Custom Optics:** Khatod started as manufacturer of custom optics when LED Lighting was in its early days. Since then, our lenses have been developing alongside the newest LEDs. Who can offer better expertise than Khatod? The answer is easy: nobody. Unique on the international scene, Khatod develops the entire product process 100% in-house, Milano, Italy. No outsourcing. For your new projects, do not hesitate to contact Khatod. You will find not only a manufacturer of optics, but a real partner in your project.

**Since 1985, from Project to Object. 100% Made in Khatod, Italy.**

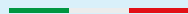
Watch our [corporate video](#)





KHATOD

# K



khatod.com

*We Manufacture Solutions*

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