

F L E X
L E N S

K

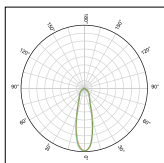
khatod.com



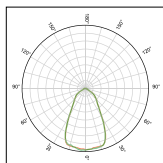
KHATOD

KFLEX 16XX

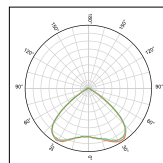
SQUARE MODULE



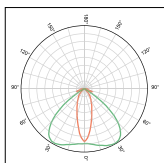
KFLEX1601A
Symmetric beam
30°FWHM



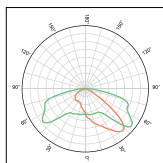
KFLEX1602A
Symmetric beam
60°FWHM



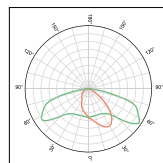
KFLEX1603A
Symmetric beam
90°FWHM



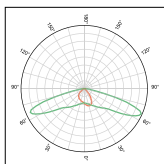
KFLEX1604A
Elliptical beam
30°x100° FWHM



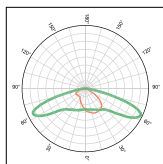
KFLEX1605A
ECE M class
wide street



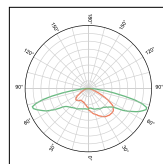
KFLEX1606A
ECE M class
narrow street



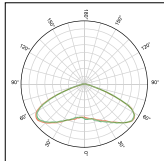
KFLEX1607A
IESNA Type I
Medium



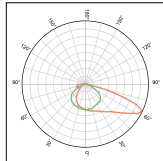
KFLEX1608A
IESNA Type II
Medium



KFLEX1609A
IESNA Type III
Medium



KFLEX1610A
IESNA Type Vs
Short



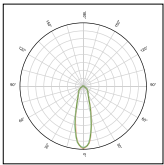
KFLEX1611A
Vertical asymmetric
beam for sports light



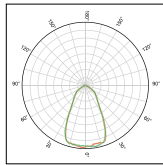
Square module – **49.5mm side** - consisting of **16 optics** in one, with 12.5mm lens pitch.
Made of optical grade PMMA.

KFLEX 32XX

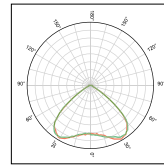
VERTICAL ALIGNED RECTANGULAR MODULE



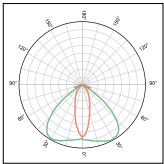
KFLEX3201A
Symmetric beam
30°FWHM



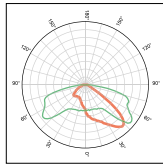
KFLEX3202A
Symmetric beam
60° FWHM



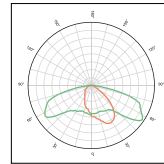
KFLEX3203A
Symmetric beam
90° FWHM



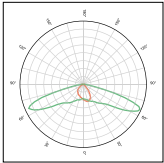
KFLEX3204A
Elliptical beam
30°x100° FWHM



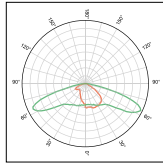
KFLEX3205A
ECE M class
wide street



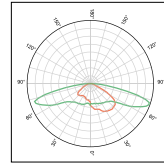
KFLEX3206A
ECE M class
narrow street



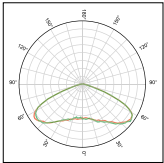
KFLEX3207A
IESNA Type I
Medium



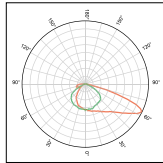
KFLEX3208A
IESNA Type II
Medium



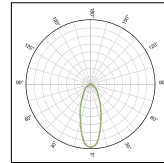
KFLEX3209A
IESNA Type III
Medium



KFLEX3210A
IESNA Type Vs
Short



KFLEX3211A
Vertical asymmetric beam
for sports light



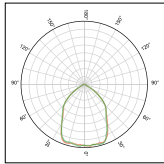
KFLEX3250B
Symmetric beam
40°FWHM



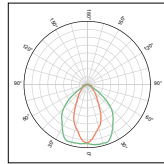
Vertical aligned rectangular module – **49.5mm x 100.3mm** - consisting of **32 optics** in one, with 12.5mm lens.
Made of optical grade PMMA.

KFLEX 32XX

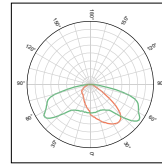
VERTICAL ALIGNED RECTANGULAR MODULE



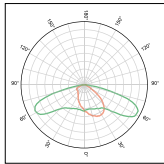
KFLEX3251B
Symmetric beam
90°FWHM



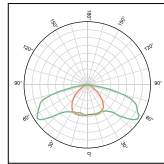
KFLEX3253B
Elliptical beam
55°x95° FWHM



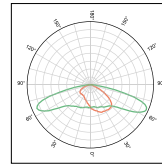
KFLEX3254B
ECE M class



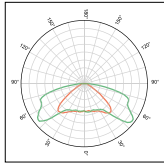
KFLEX3255B
ECE M class



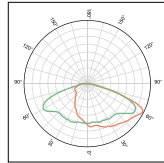
KFLEX3256B
ECE M class
on median installation



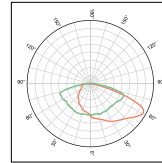
KFLEX3257B
ECE M class



KFLEX3258B
ECE M Class
on median installation



KFLEX3260B
Vertical asymmetric
beam



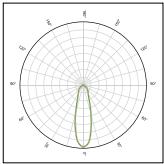
KFLEX3261B
Vertical asymmetric
beam



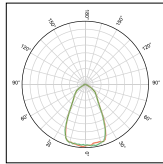
Vertical aligned rectangular module – 49.5mm x 100.3mm - consisting of **32 optics** in one, with 12.5mm lens pitch.
Made of optical grade PMMA.

KFLEX 48XX

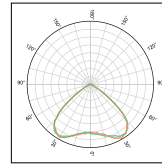
VERTICAL ALIGNED RECTANGULAR MODULE



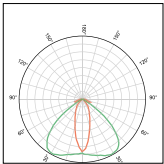
KFLEX4801A
Symmetric beam
30°FWHM



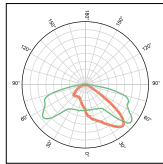
KFLEX4802A
Symmetric beam
60° FWHM



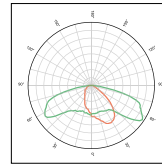
KFLEX4803A
Symmetric beam
90° FWHM



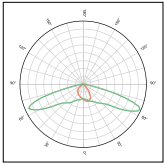
KFLEX4804A
Elliptical beam
30°x100° FWHM



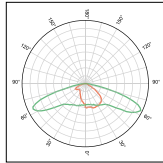
KFLEX4805A
ECE M class
wide street



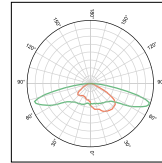
KFLEX4806A
ECE M class
narrow street



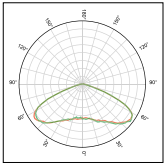
KFLEX4807A
IESNA Type I
Medium



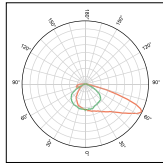
KFLEX4808A
IESNA Type II
Medium



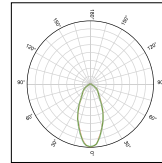
KFLEX4809A
IESNA Type III
Medium



KFLEX4810A
IESNA Type Vs
Short



KFLEX4811A
Vertical asymmetric
beam for sports light



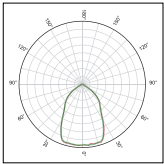
KFLEX4850B
Symmetric beam
45°FWHM



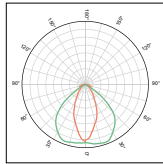
Vertical aligned rectangular module – 49.5mm x 151.1mm - consisting of **48 optics** in one, with 12.5mm lens pitch.
Made of optical grade PMMA.

KFLEX 48XX

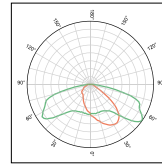
VERTICAL ALIGNED RECTANGULAR MODULE



KFLEX4851B
Symmetric beam
70°FWHM



KFLEX4853B
Elliptical beam
45°x100° FWHM



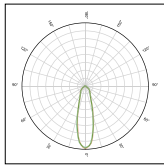
KFLEX4854B
ECE M class



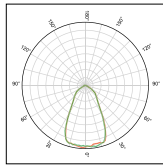
Vertical aligned rectangular module – 49.5mm x 151.1mm - consisting of **48 optics** in one, with 12.5mm lens pitch.
Made of optical grade PMMA.

KFLEX 64XX

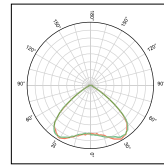
VERTICAL ALIGNED RECTANGULAR MODULE



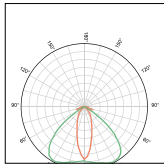
KFLEX6401A
Symmetric beam
30°FWHM



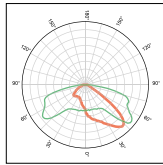
KFLEX6402A
Symmetric beam
60°FWHM



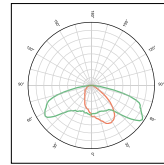
KFLEX6403A
Symmetric beam
90°FWHM



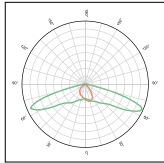
KFLEX6404A
Elliptical beam
30°x100° FWHM



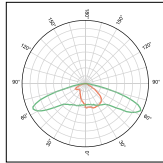
KFLEX6405A
ECE M class
wide street



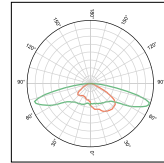
KFLEX6406A
ECE M class
narrow street



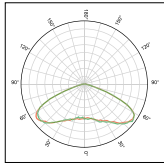
KFLEX6407A
IESNA Type I
Medium



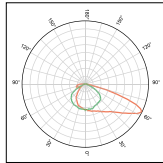
KFLEX6408A
IESNA Type II
Medium



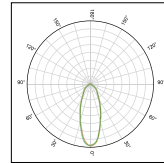
KFLEX6409A
IESNA Type III
Medium



KFLEX6410A
IESNA Type Vs
Short



KFLEX6411A
Vertical asymmetric
beam for sports light



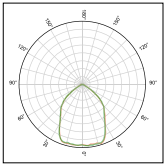
KFLEX6450B
Symmetric beam
40°FWHM



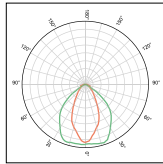
Vertical aligned rectangular module – 49.5mm x 201.9mm - consisting of **64 optics** in one, with 12.5mm lens pitch.
Made of optical grade PMMA.

KFLEX 64XX

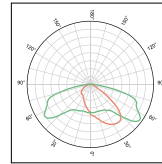
VERTICAL ALIGNED RECTANGULAR MODULE



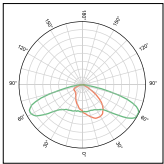
KFLEX6451B
Symmetric beam
90°FWHM



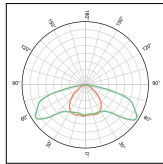
KFLEX6453B
Elliptical beam
55°x95° FWHM



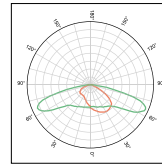
KFLEX6454B
ECE M class



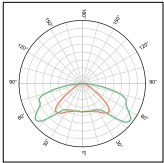
KFLEX6455B
ECE M class



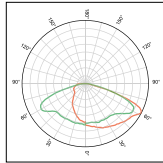
KFLEX6456B
ECE M class
on median installation



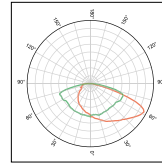
KFLEX6457B
ECE M class



KFLEX6458B
ECE M class
on median installation



KFLEX6460B
Vertical asymmetric
beam



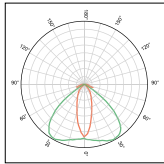
KFLEX6461B
Vertical asymmetric
beam



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.

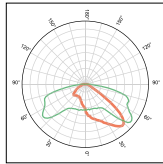
KFLEX 9032XX

HORIZONTAL ALIGNED RECTANGULAR MODULE



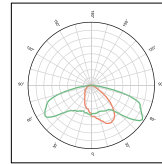
KFLEX903204A

Elliptical beam
30°x100° FWHM



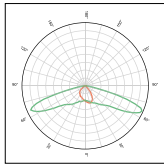
KFLEX903205A

ECE M class
wide street



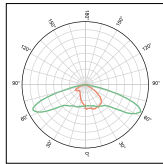
KFLEX903206A

ECE M class
narrow street



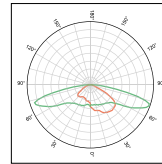
KFLEX903207A

IESNA Type I
Medium



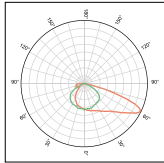
KFLEX903208A

IESNA Type II
Medium



KFLEX903209A

IESNA Type III
Medium



KFLEX903211A

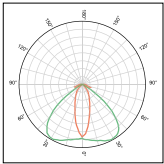
Vertical asymmetric
beam for sports light



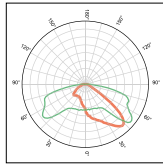
Horizontal aligned rectangular module – 100.3mm x 49.5mm - consisting of **32 optics** in one, with 12.5mm lens pitch.
Made of optical grade PMMA.

KFLEX 9048XX

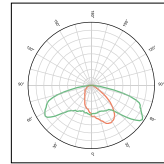
HORIZONTAL ALIGNED RECTANGULAR MODULE



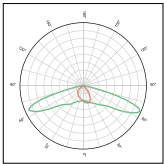
KFLEX904804A
Elliptical beam
30°x100° FWHM



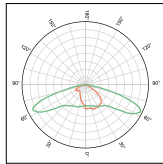
KFLEX904805A
ECE M class
wide street



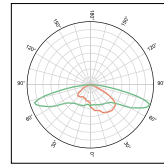
KFLEX904806A
ECE M class
narrow street



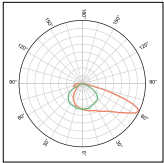
KFLEX904807A
IESNA Type I
Medium



KFLEX904808A
IESNA Type II
Medium



KFLEX904809A
IESNA Type III
Medium



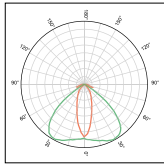
KFLEX904811A
Vertical asymmetric
beam for sports light



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.

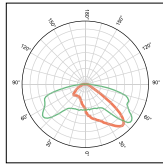
KFLEX 9064XX

HORIZONTAL ALIGNED RECTANGULAR MODULE



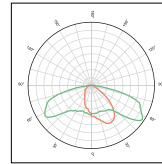
KFLEX906404A

Elliptical beam
30°x100° FWHM



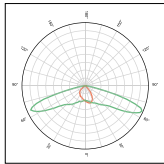
KFLEX906405A

ECE M class
wide street



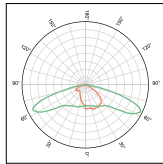
KFLEX906406A

ECE M class
narrow street



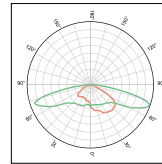
KFLEX906407A

IESNA Type I
Medium



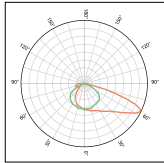
KFLEX906408A

IESNA Type II
Medium



KFLEX906409A

IESNA Type III
Medium



KFLEX906411A

Vertical asymmetric
beam for sports light

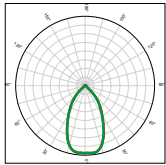


Horizontal aligned rectangular module – 201.9mm x 49.5mm - consisting of **64 optics** in one, with 12.5mm lens pitch.
Made of optical grade PMMA.

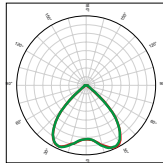


KFLEX 64XXIP

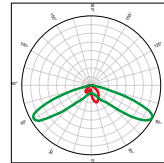
VERTICAL ALIGNED RECTANGULAR MODULE



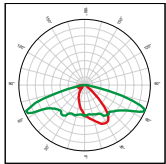
KFLEX6412AIP
 Full angle at 50%
 from maximum: ~ 60°
 Full angle at 10%
 from maximum: ~ 95°



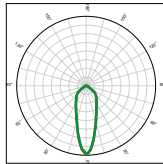
KFLEX6413AIP
 Full angle at 50%
 from maximum: ~ 90°
 Full angle at 10%
 from maximum: ~ 110°



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	BASKETBALL AND VOLLEY FIELD (Standards 2; Eav>500lx Uo>0.7)	KFLEX6410A	64	8	Ceiling mounted 7x4 lamps	>500 lux	0,8
	TENNIS COURT (Standards 2; Eav>500lx Uo>0.7)	KFLEX6410A	64	8	Ceiling mounted 6x5 lamps	>500 lux	0,75
	FOOTBALL FIELD 5 PLAYERS (Standards 2; Eav>500lx Uo>0.7)	KFLEX6410A	64	8	Ceiling mounted 8x4 lamps	>500 lux	0,7
	SWIMMING POOL (Standards 2; Eav>300lx Uo>0.7)	KFLEX6403A	64	8	Ceiling mounted 7x5 lamps	>300 lux	0,7
OUTDOOR	FOOTBALL FIELD (Standards 1; Eav>75lx Uo>0.5)	KFLEX6461B	64	8	6 poles 15m high	>75 lux	0,5
	FOOTBALL FIELD 5 PLAYERS (Standards 1; Eav>100lx Uo>0.5)	KFLEX6460B	64	8	6 poles 8m high	>200 lux	0,8
	TENNIS COURT (Standards 1; Eav>200lx Uo>0.5)	KFLEX6411A	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.

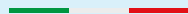
Since 1985, from Project to Object. 100% Made in Khatod, Italy.

Watch our [corporate video](#)





K



khatod.com

We Manufacture Solutions

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