

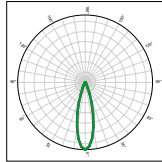
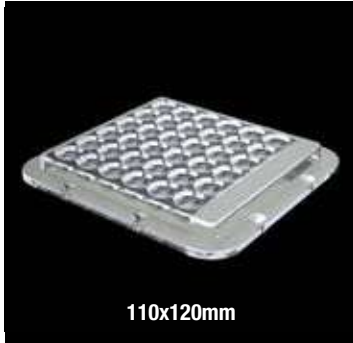
# ***SPORTLINE***

OPTICAL SOLUTIONS FOR LEDs

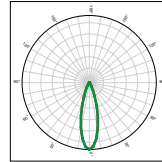
**K**

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

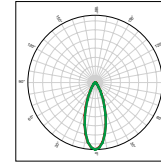




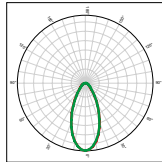
**PL1758NA  
NEMA 2/3**  
Full angle at 50%  
from maximum: ~ 14.5°  
Full angle at 10%  
from maximum: ~ 27°



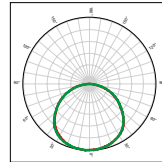
**PL1758ME  
NEMA 3**  
Full angle at 50%  
from maximum: ~ 18°  
Full angle at 10%  
from maximum: ~ 35°



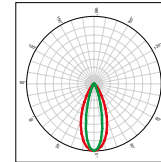
**PL1758WI  
NEMA 24**  
Full angle at 50%  
from maximum: ~ 28°  
Full angle at 10%  
from maximum: ~ 55°



**PL1758EW  
NEMA 5**  
Full angle at 50%  
from maximum: ~ 45°  
Full angle at 10%  
from maximum: ~ 84°



**PL1758CV  
NEMA 7**  
Full angle at 50%  
from maximum: ~ 111°  
Full angle at 10%  
from maximum: ~ 156°



**PL1758EL  
15°x40° FWHM**  
Full angle at 50% from  
maximum: ~ 15° x 40°  
Full angle at 10% from  
maximum: ~ 40° x 65°



Ready-to-use panels, 110 mm (w) x 120 (l) x 9,51 to 12 mm (h), made of optical grade **PMMA HT**. Outstanding light quality, anti-glare, meet NEMA 2 – 3 – 4 – 5 – 7 standards. Engineered for arena/stadium/event lighting, are also excellent for road and urban works. Designed to comply with **IK08** and **IP65**.

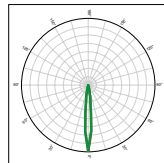
Beam angles: **Narrow, Medium, Wide, Extra Wide, Elliptical.**



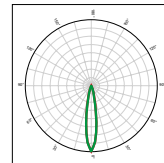
PATENTED SYSTEM



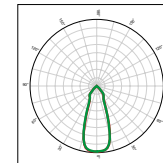
145mm side



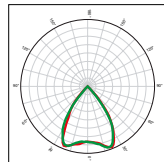
**KCLP4801CRSM**  
 Full angle at 50% from maximum: ~ 8°  
 Full angle at 10% from maximum: ~ 20.4°



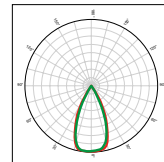
**KCLP4802CRSM**  
 Full angle at 50% from maximum: ~ 18°  
 Full angle at 10% from maximum: ~ 38°



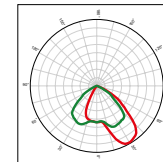
**KCLP4803CRSM**  
 Full angle at 50% from maximum: ~ 48°  
 Full angle at 10% from maximum: ~ 65°



**KCLP4804CRSM**  
 Full angle at 50% from maximum: ~ 71°  
 Full angle at 10% from maximum: ~ 87°



**KCLP4805CRSM**  
 Full angle at 50% from maximum: ~ 40°  
 Full angle at 10% from maximum: ~ 88°



**KCLP4806CRSM**  
 Full angle at 50% from maximum: ~ 86° x 105°  
 Full angle at 10% from maximum: ~ 110° x 130°



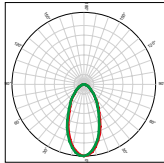
The ARENA reflective optical system, developed for new generation high-power LEDs, is suitable for lighting of wide areas, industrial spaces and above all sports facilities. Thanks to the high efficiency of the vacuumcoated reflectors and the availability of different beam angles, ARENA reflectors are the right solution for both indoor and outdoor installations. Optimized for the most famous **3535** package LEDs with dome. They are also available with a cover made of transparent PC and provided with a **silicone gasket** ensuring **IP** and **IK protection**. Beam angles: **Narrow, Medium, Wide, Extra Wide, Ultra Wide, Asymmetrical**.



# NACTUS SMALL 2X2

OPTICAL SYSTEMS

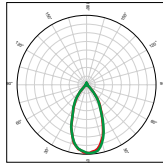
HIGH-POWER LEDs



**KNAC0420ASM**  
**IESNA Type V**

Full angle at 50%  
from maximum: ~ 50°

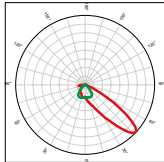
Full angle at 10%  
from maximum: ~ 115°



**KNAC0442ASM**  
**Rotosymmetric**

Full angle at 50%  
from maximum: ~ 50°

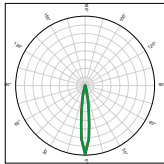
Full angle at 10%  
from maximum: ~ 90°



**KNAC0436ASM**  
**Asymmetrical**

Full angle at 50% from  
maximum: ~ 90° x 100°

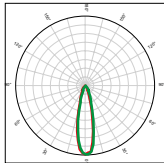
Full angle at 10% from  
maximum: ~ 125° x 160°



**KNAC0437ASM**  
**Rotosymmetric**

Full angle at 50%  
from maximum: ~ 12°

Full angle at 10%  
from maximum: ~ 29°



**KNAC0441ASM**  
**Rotosymmetric**

Full angle at 50%  
from maximum: ~ 25°

Full angle at 10%  
from maximum: ~ 50°



Square module – **50.00 mm side** - consisting of 4 optics, with 25.40mm lens pitch.  
Made of optical grade **PMMA**; on request, **PMMA-HT** (-30°C ~ 110°C).

# PIXEL 2X2

COMFORT LIGHTING REFLECTOR SYSTEMS

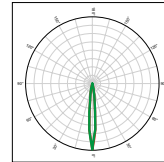
HIGH-POWER LEDS



50mm side

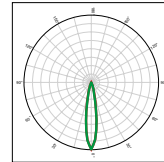


50mm side



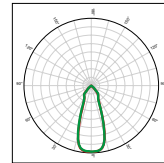
## NEW BEAM KCLP0401CRSM

Full angle at 50%  
from maximum: ~ 6°  
Full angle at 10%  
from maximum: ~ 20°



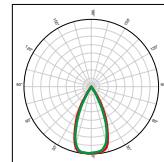
## KCLP0402CRSM

Full angle at 50%  
from maximum: ~ 18°  
Full angle at 10%  
from maximum: ~ 38°



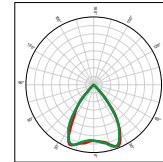
## KCLP0403CRSM

Full angle at 50%  
from maximum: ~ 40°  
Full angle at 10%  
from maximum: ~ 88°



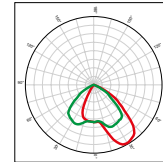
## KCLP0404CRSM

Full angle at 50%  
from maximum: ~ 48°  
Full angle at 10%  
from maximum: ~ 65°



## KCLP0405CRSM

Full angle at 50%  
from maximum: ~ 71°  
Full angle at 10%  
from maximum: ~ 87°



## KCLP0406CRSM

Full angle at 50% from  
maximum: ~ 85° x 105°  
Full angle at 10% from  
maximum: ~ 110° x 130°



Square module – 50.00 mm side - consisting of 4 reflectors, with 25.40mm lens pitch. Made of optical **PC-HT**. **6 versions available**, for any application in sport and wide area lighting. Designed to comply with **low UGR**.

Beam angles: **Narrow, Medium, Wide, Extra Wide, Ultra Wide, Asymmetrical.**



	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



FLEX LENS – ready to use multi-lens array **64 optics** (49.5mm x 201.9mm) 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 clear **PMMA** the Flex Lens family is UV protected and the average optical efficiency exceeds 90%.  
 Layout compliant with **ZHAGA book 15** circuit boards.



## 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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