

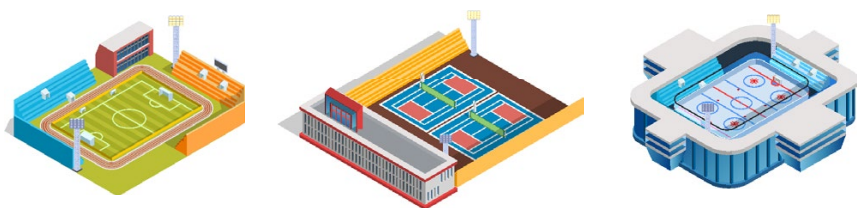
LEDiL®

GUIDE FOR SPORTS LIGHTING OPTICS



SPORTS LIGHTING IN A NUTSHELL

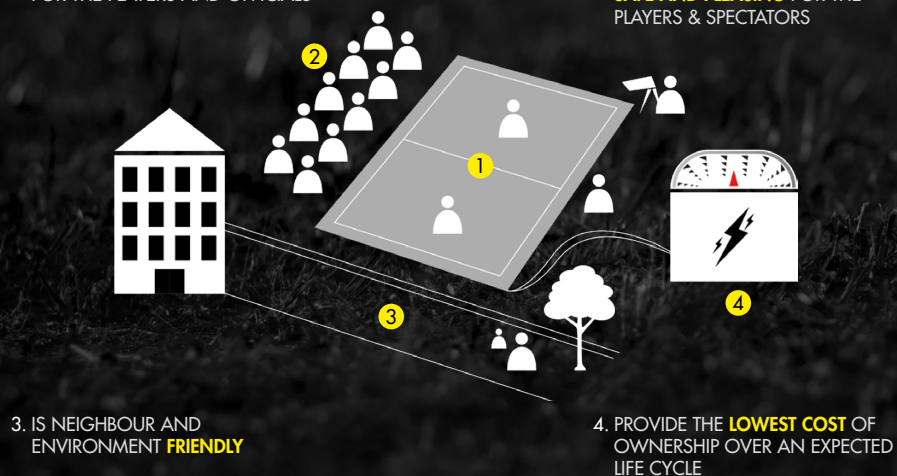
There is a huge variety in the size, standard and location of sporting venues and stadiums around the world. Venues may be indoor or outdoor, small or large, in rural or urban locations and either single or multi-discipline, but they all have a need for their own lighting requirements. Stadiums especially, can be unique pieces of architecture, with a need for specific lighting to showcase or enhance the building itself. Venue owners, players, spectators, television broadcasters and their audiences have different needs, and therefore lighting solutions must be flexible so that events can be played and enjoyed by all stakeholders.



GOOD SPORTS LIGHTING

1. ENSURES **OPTIMUM PLAYABILITY**
FOR THE PLAYERS AND OFFICIALS

2. PROVIDES A LIGHTING THAT IS
SAFE AND PLEASING FOR THE
PLAYERS & SPECTATORS



WHY LEDiL?

All our optics for sports venues and stadiums fully comply with current standards set by different standards authorities. Our modular optic design makes mixing and replacing different beam types inside one luminaire easy, allowing the same light engine to be used for multiple purposes. Sports venue lighting luminaires must perform well in all conditions, and our high-quality optics and IP-capable products ensure a long product lifetime, even in the most extreme environments.

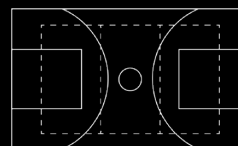
Make our optics the heart of
your luminaire to optimize cost,
efficacy and light distribution
with great results!

LIGHT
THAT IS
RIGHT

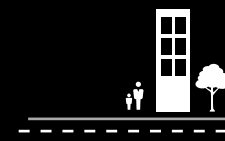
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DESIGN STRATEGY

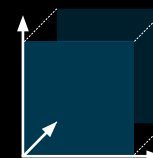
THE **LAYOUT(S)**
OF SPORTS AREAS



ADJACENT AREAS
WITH **VISUAL LINKS**



THE **VOLUME(S)** OF
THE FIELD(S) OF PLAY



GENERAL LIGHTING
REQUIREMENTS



PRIMARY AND
ADDITIONAL **USES**



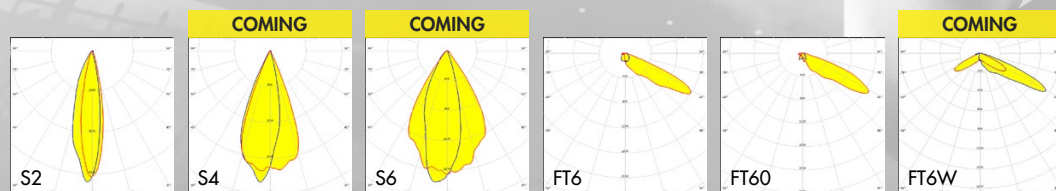
SPORT-2X2

Game-changing, low glare optics
for all types of sports lighting

- Allows optimal lighting conditions for both players and spectators that meet standards and requirements of different sports
- Symmetrical and asymmetrical beams designed for low glare sports lighting floodlights
- Enables creation of energy efficient solutions that are also neighbour friendly

COMPATIBILITY

- Optimized for HP 3535 and compatible with up to 5050 size flat LED packages.



FOOTBALL PITCH

6 poles

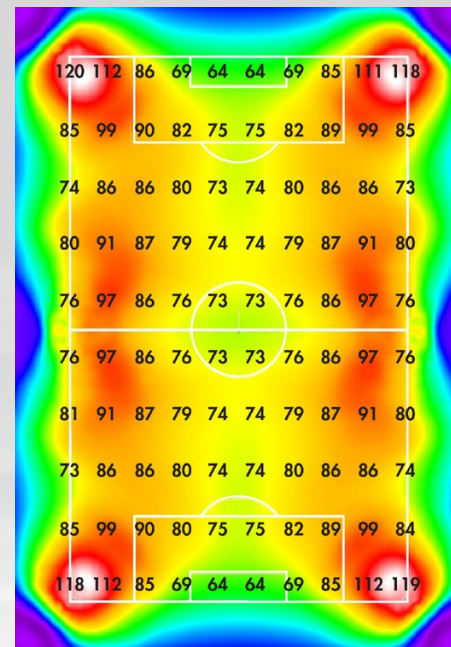
- Optics: SPORT-2X2-FT6 and -FT6W
- Mounting height: 16 m
- Pitch size: 110 x 72 m
- Upwards light ratio (ULR): 1.0 %
- Luminous flux (Corner poles): 220 klm
- Luminous flux (Centre poles): 240 klm
- Total luminous flux: 1390 klm
- Total power: 10 400 W

Results from calculation grid (TA):

- E Average (requirement ≥ 75 lx): 84 lx
- E Min: 64 lx
- E Max: 120 lx
- Uo (requirement ≥ 0.7): 0.77

Qualifies for post-curfew **E2***

Source intensity at 140 m: Max 0.3 kcd



*CIE 1917, IESNA 1999

MULTI-PURPOSE INDOOR SPORTS FACILITY

3 lighting scenes to meet 3 different sport requirements with 1 setup

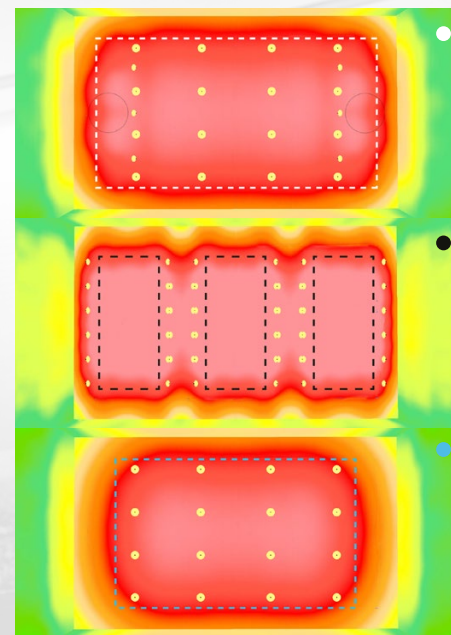
Number of luminaires:

- » SPORT-2X2-S4 58 pcs
- » DAISY-7X1-W 16 pcs
- Mounting height: 10 m
- Room size: 19 x 32 m
- Total load*: 1344 - 1585 W
- Power consumption*: 2.2 - 2.6 W/m²

Field results	● Basketball	● Badminton	● Volleyball
E Average:	242 lx	316 - 317 lx	233 lx
Uo:	0.69	0.73	0.66

Vertical illuminance levels on net	● Badminton	● Volleyball
E Average:	62 lx	56 lx
Uo:	0.42	0.37

*Based on individual lighting scenes.



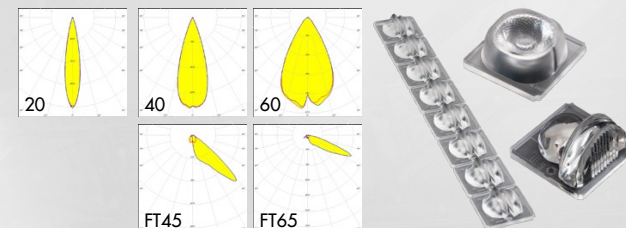
PLAYING WITH THE ENVIRONMENT IS NOT **A GAME**

With the right lighting solutions you can reduce environmental impact, save energy and get the effect you want for the heroes **at play**.

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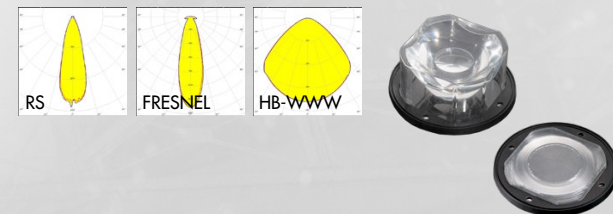
JENNY

35 x 35 mm single lenses and 8x1 arrays for up to 7070 size LED packages. Made from silicone.



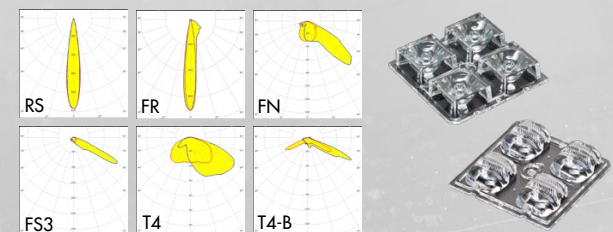
STELLA

Ø90 mm ingress protected silicone lenses for up to 30 mm LES size COBs.



2X2 (STRADA & HB)

50 x 50 mm modular product families for up to 5050 size LED packages



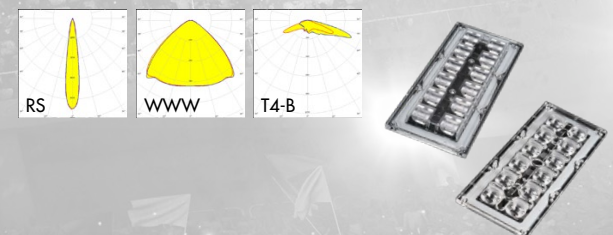
2X2MXS (STRADA & HB)

90 x 90 mm ingress protected silicone arrays for up to 9 mm COBs.



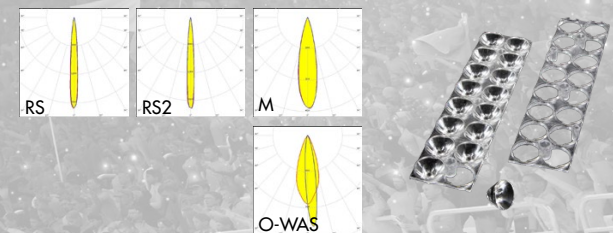
IP-2X6 (STRADA & HB)

173 x 71.4 mm ingress protected arrays for up to 5050 size LED packages.



LEILA-2X8

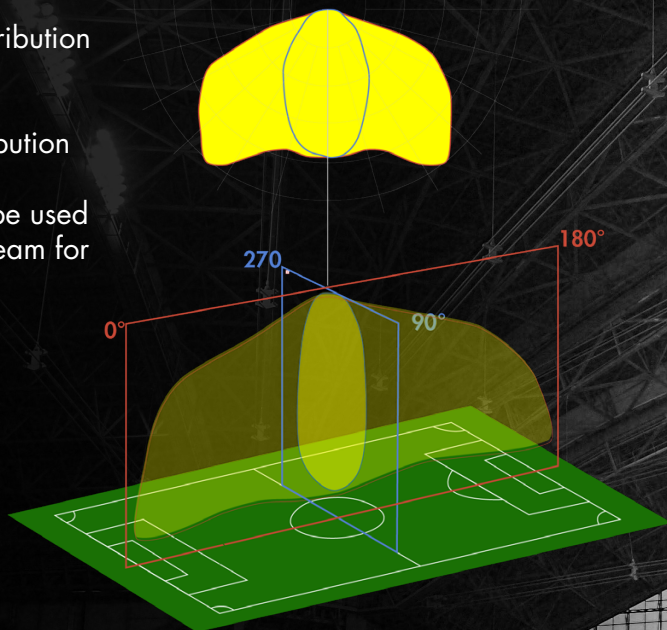
175 x 43 mm array holding 16 pieces of single LEILA lenses



HOW TO READ POLAR CURVES

- 0° to 180° :
Longitudinal light distribution
- 90° to 270° :
Horizontal light distribution

The polar curve can be used to estimate optimal beam for installation



TECHNICAL SUPPORT

Simulations to show optic performance in real applications

Guides and tips for installations

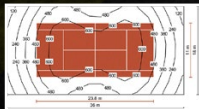
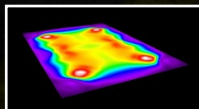
Thermal analysis for luminaire designs

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