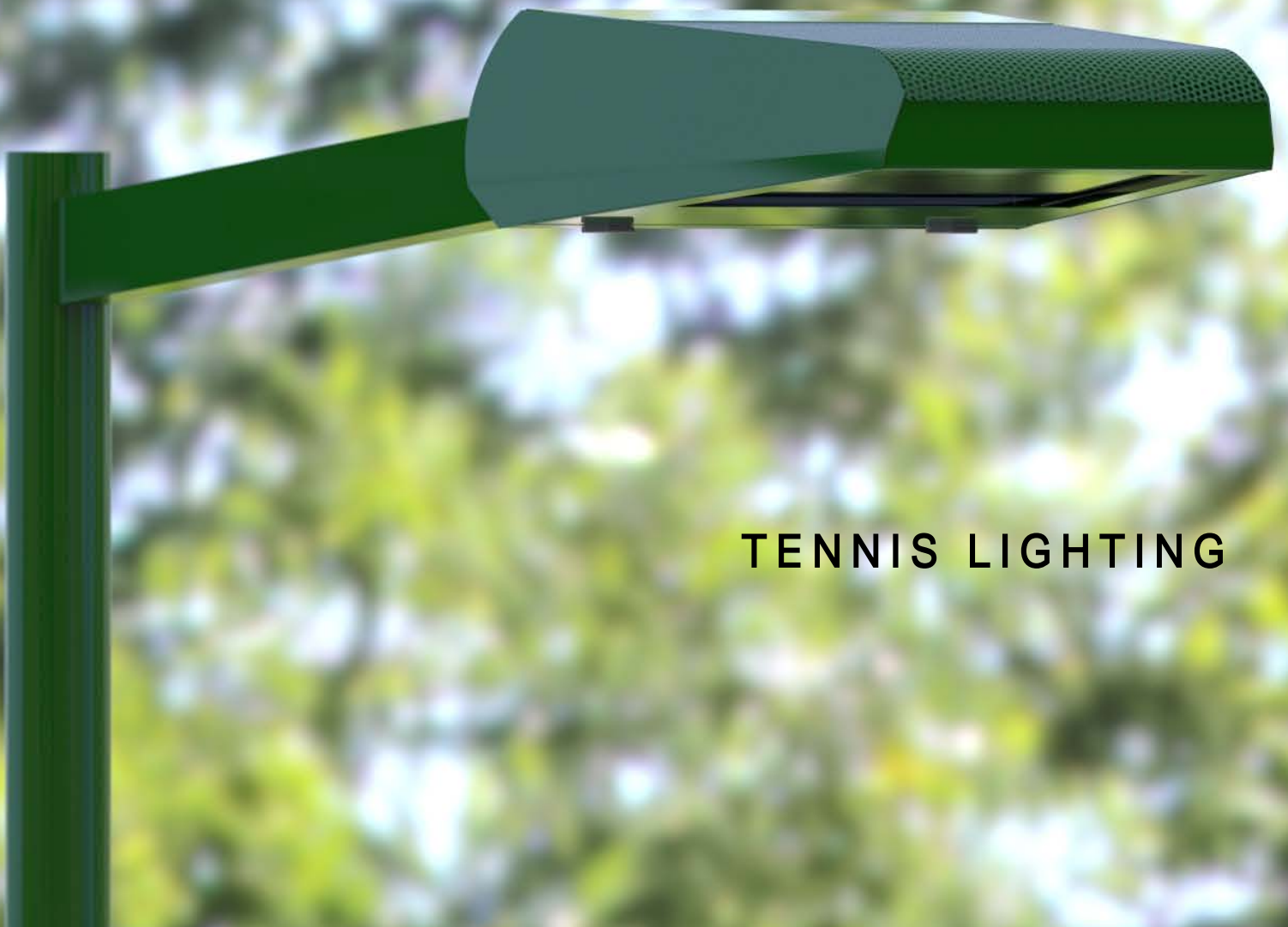




BELLA POWER & LIGHT



TENNIS LIGHTING

RECOMMENDED ILLUMINATION FOR OUTDOOR TENNIS FACILITIES

RECOMMENDED HORIZONTAL ILLUMINATION

Performance Criteria	Class I	Class II	Class III	Class IV
Average Maintained Horizontal Footcandles within PPA (1,2,4)	125+ (1250 lux)	75+ (750 lux)	50+ (500 lux)	30+ (300 lux)
Minimum Maintained Horizontal Footcandles within PPA (2,4)	100+ (1000 lux)	60+ (600 lux)	40+ (400 lux)	20+ (200 lux)
Maximum Uniformity Ratio (3)	1.5	1.7	2.0	2.0

RECOMMENDED VERTICAL ILLUMINATION

Performance Criteria	Class I	Class II	Class III	Class IV
Average Maintained Vertical Footcandles within PPA (1,2,4)	50+ (500 lux)	30+ (300 lux)	20+ (200 lux)	NA
Maximum Uniformity Ratio (3)	2.0	3.0	3.0	NA

Notes:

1. Maintained footcandles is determined by applying a light loss factor (LLF) to the initial or measured footcandles. LLF is dependent upon lamp characteristics, fixture maintenance, voltage variations and atmospheric conditions. It normally varies between .6 and .85. Consult the Illuminating Engineering Society handbook and fixture manufacturer's publications for proper LLF values.
 2. Average maintained and minimum maintained footcandles should be calculated within the Primary Playing Area (PPA) with the footcandle values multiplied by the appropriate LLF.
 3. Uniformity ratio is defined as the ratio of the maximum footcandles divided by the minimum footcandles.
- Primary Playing Area (PPA) is defined as the area that includes 6' beyond the sidelines and 10' behind the baseline.

TYPICAL FACILITY CLASSIFICATIONS

Class I (1)	Class II	Class III	Class IV
PROFESSIONAL	College (2)	College (4)	High School (6)
INTERNATIONAL	Tennis Clubs (6)	High School (6)	Tennis Clubs (6)
SATELLITE	Residential (6)	Tennis Clubs (6)	Parks & Recreation (6)
CHALLENGER	Parks & Recreation (6)	Residential (6)	College (5)
COLLEGE	-	Parks & Recreation (6)	-

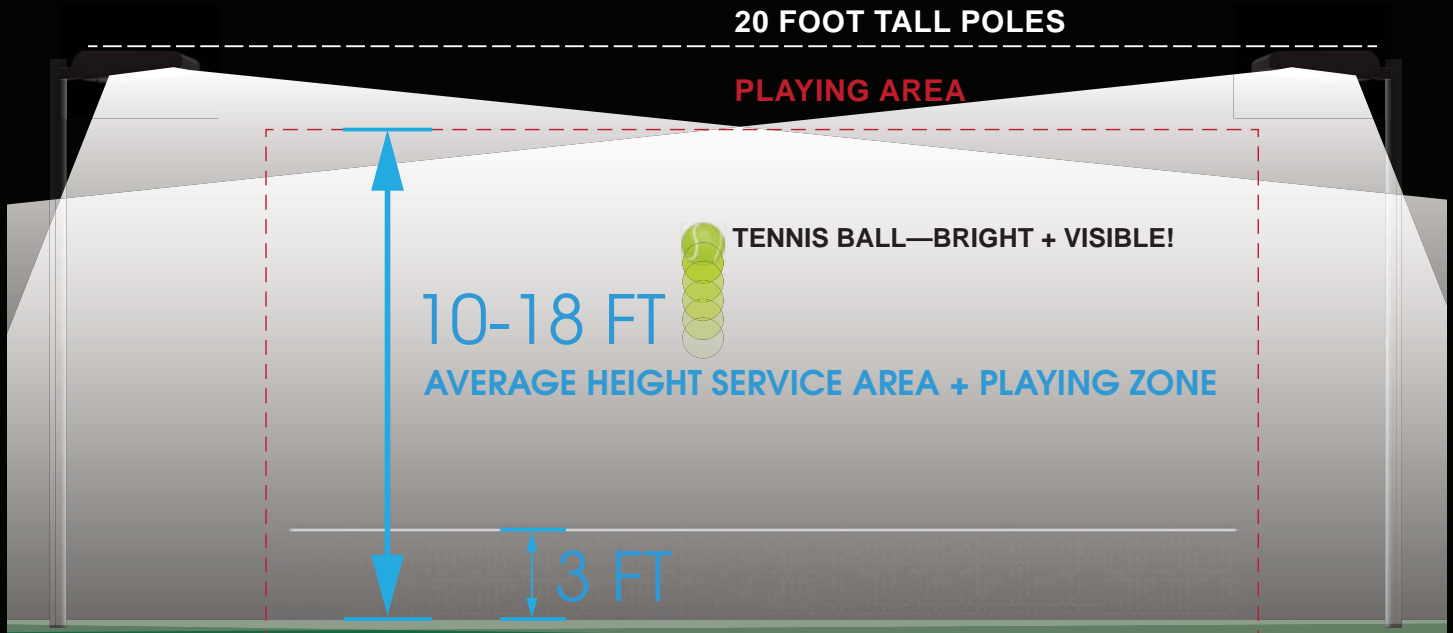
Notes:

1. Class I facilities generally involve broadcast quality television production. These facilities will include permanent spectator accommodations.
 2. Facilities that host intercollegiate play, but without broadcast television requirements. These facilities may have permanent or temporary seating.
 3. Professional tennis events without broadcast television requirements.
 4. Collegiate facilities primarily used for practice or for intramural or recreational play.
 5. Collegiate facilities used strictly for recreational play.
- Please note that some facility types appear in multiple categories. Illumination levels for a specific facility should be chosen based on the highest skill level, or spectator and television requirements that will take place at the facility. It is recognized that older players require higher light levels. Facilities with older average player ages should be designed for higher levels of light.

DON'T LOSE SIGHT OF YOUR GAME!

LIGHTING LEVELS

Lighting is distributed at high vertical levels, providing a well lit service area and playing zone!



COMPETITOR LEVELS

Vertical light levels are not achieved in a consistent pattern. Dark shadows in between poles create a poor service area and playing zone.

