



LIGHTING ANALYSIS • PANORAMIC COURT AP-P02

COURT LIGHTING, ANALYZED

How the Alta Padel outdoor and indoor lighting systems perform: where the light lands, how the two compare, and how to control glare from neighboring courts on a multi-court site.

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A NOTE ON THIS DOCUMENT

This analysis is a companion to the AP-SPEC-2026 Technical & Spec Pack. Photometric values are approximate, drawn from our simulation studies on a 20 × 10 m calculation grid; results on site will vary.

ABOUT ALTA PADEL

PADEL, ENGINEERED PROPERLY.

Alta Padel is a new name in padel court supply, built by a team with more than thirty years of combined experience in the racket sports industry. We have spent that time on courts around the world, watching what holds up and what doesn't, and we started this company to put those lessons into a single build standard: engineer every element to the highest available specification, source it from partners we trust, and build courts made to perform for the long haul.

30+ Years

RACKET SPORTS EXPERIENCE

Combined industry experience across design, manufacturing and distribution, brought together under one roof.

Global

SUPPLY NETWORK

Partnered with vetted facilities worldwide, sourced through a supply partner we trust.

Built to Last

ENGINEERED STANDARD

Structure, glass, turf and lighting specified to competition-standard tolerances.

We're new. What we've built isn't — it's the product of three decades spent learning what a padel court should be.

Every court we build is configurable to your club — frame color, turf spec, glass and branding, doorway covers and lighting. Customization is available on every order, worked out with you from the first conversation, whether that is the standard Alta build or something fully custom.

This analysis applies that same standard to lighting — where the light lands, how the two systems compare, and how to keep glare out of players' eyes on a multi-court site.

Built with Newlands Group

Alta Padel is a new company. The supply behind it is not. Every Alta Padel court is supplied through our supply partner, Newlands Group, set up in Hong Kong in 2017 by a family with a history in sourcing going back to 1973. Newlands works directly with vetted factories across Asia, and its padel division has delivered this court platform to clubs in five countries. Alta Padel brings that platform to the United States, built and documented to US standards.

Since 1973

FAMILY HISTORY IN SOURCING

Newlands Group, our supply partner, set up in Hong Kong in 2017.

5 Countries

MARKETS SERVED

UK, Ireland, Australia, USA, Hong Kong.

Supply partner: Newlands Group — newlandsgroup.net

AT A GLANCE

ONE AVERAGE, TWO VERY DIFFERENT COURTS.

Both Alta Padel lighting systems deliver an average of 829 lux across the playing surface, comfortably above competition level. What separates them is where that light lands, how much glare it creates, and how it behaves on a site with several courts.

OUTDOOR • 4 swan poles, 8 m

- 66% above the outdoor competition level of 500 lx
- About 20% less power than the indoor ring for the same light
- Only 8 fixtures to maintain, rated IP66
- Brightest across the service boxes; lowest along the back glass (≈ 700 lx) and at the net (≈ 745 lx)

INDOOR • Suspended ring, 7 m

- 11% above the indoor competition level of 750 lx
- Lower glare of the two: peak rating 16 against 21
- Brightest in the back courts, with no pole hot spots
- Lowest at the center of the net (≈ 695 lx); rated IP20, for fully enclosed halls

829 lx

 AVERAGE
BOTH SYSTEMS

+66%

 OUTDOOR MARGIN
OVER 500 LX

+11%

 INDOOR MARGIN
OVER 750 LX

2.4 / 2.9

 KW PER COURT
OUTDOOR / INDOOR

21 / 16

 PEAK GLARE
OUTDOOR / INDOOR

THE COURT NEXT DOOR

On a multi-court site, the glare players complain about most usually isn't from their own court's lights. It comes from the floodlights of the neighboring courts, aimed across those courts and toward yours. Section 03 shows why it happens and how to design it out.

01 Where the light lands

Both photometric studies seen from above, zone by zone.

02 Outdoor vs indoor

Side-by-side performance, energy and which system suits which court.

03 The court next door

Glare from neighboring courts: why it happens, how to prevent it and how to fix it.

04 What to specify

A lighting checklist for club projects, with the EN 12193 classes.

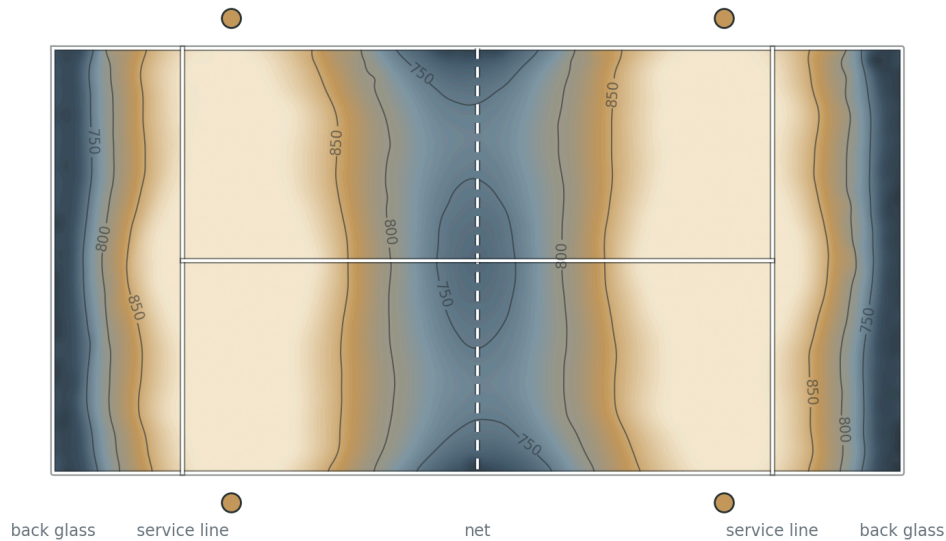
01 WHERE THE LIGHT LANDS

TWO SYSTEMS, OPPOSITE PATTERNS

Seen from directly above, on one color scale, the outdoor and indoor studies put their light in opposite places. Darker areas receive less light; the palest areas receive 900 lux or more.

Outdoor | 8 floodlights on 4 swan poles, 8 m

Bright across the service boxes; lowest along the back glass (≈ 700 lx) and at the net (≈ 745 lx). Gold dots: poles.



Indoor | 42-unit suspended ring, 7 m

Bright perimeter and back courts; lowest at the center of the net (≈ 695 lx).

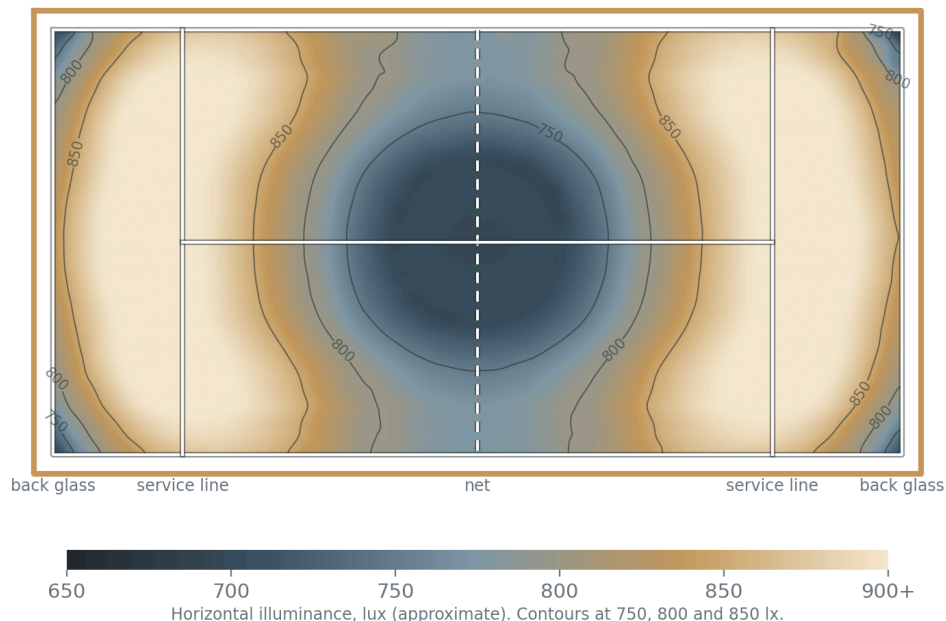


FIG. 1.1 – OUTDOOR AND INDOOR PHOTOMETRIC STUDIES IN PLAN, 20 × 10 M PLAYING AREA, WITH COURT LINES, NET, SERVICE LINES AND FIXTURE POSITIONS.

01 WHERE THE LIGHT LANDS – CONTINUED

WHAT THE STUDIES SHOW

Outdoor

The four swan poles stand along the sides, about 4.2 m in from each end. Their light forms two bright bands across the service boxes, 3–6 m from each back wall, where much of the surface reads 900 lx or more. Between the bands the level eases to about 745 lx at the net; beyond them it eases to about 700 lx along the back glass, the lowest point on the court.

Indoor

The ring hangs just outside the enclosure, so it washes the perimeter first. The back courts are the brightest zones, mostly above 850 lx. Light fades toward the middle of the court and reaches its lowest level, about 695 lx, at the center of the net. The four corners dip slightly, to around 730–740 lx.

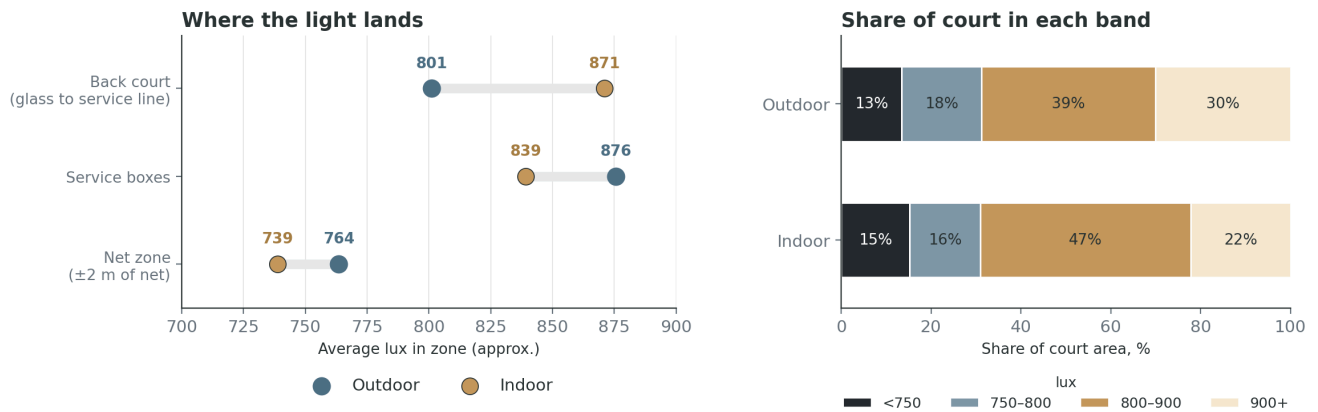
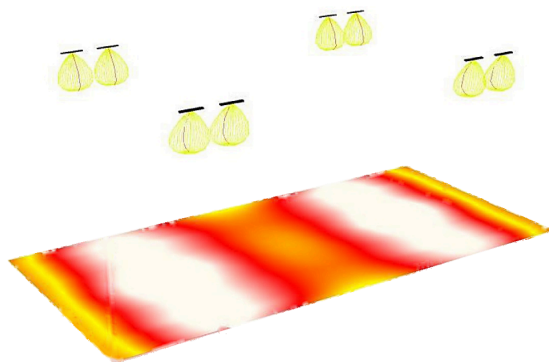


FIG. 1.2 – AVERAGE ILLUMINANCE BY ZONE AND SHARE OF THE PLAYING AREA IN EACH BAND. THE INDOOR RING IS ABOUT 70 LX BRIGHTER IN THE BACK COURTS; THE OUTDOOR SYSTEM IS BRIGHTER IN THE SERVICE BOXES AND AT THE NET. VALUES APPROXIMATE.

Outdoor study



Indoor study

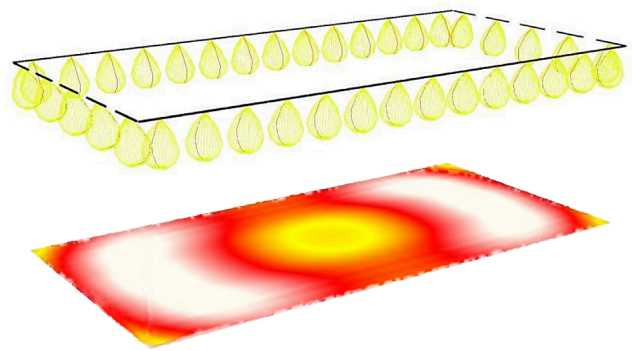


FIG. 1.3 – THE ORIGINAL PHOTOMETRIC STUDY VIEWS: 8 FLOODLIGHTS ON 4 SWAN POLES (OUTDOOR) AND THE CONTINUOUS 42-UNIT RING (INDOOR), WITH THE STUDY COLOR SCALE IN LUX.

02 OUTDOOR VS INDOOR

SIDE BY SIDE

	OUTDOOR	INDOOR
Luminaires	8 x AP-L300-O floodlights, 4 swan poles	28 x 80 W + 14 x 50 W AP-L80-I linear ring
Mounting height	8 m (26'-3")	7 m (22'-11")
Total power per court	≈ 2.4 kW	2.94 kW
Luminaire efficacy	170-180 lm/W	≈ 130 lm/W
Average illuminance (Eav)	829 lx	829 lx
Minimum / maximum	694 / 952 lx	681 / 924 lx
Uniformity U0 (Emin ÷ Eav)	0.84	0.82
Glare rating GR (lower is better)	10-14 typical, 21 peak	16 peak
Competition level (EN 12193 Class I)	500 lx outdoor	750 lx indoor
Margin over Class I	+66%	+11%
Brightest zone	Service boxes	Back courts
Lowest zone	Back glass, ≈700 lx	Center of net, ≈695 lx
Ingress rating	IP66 · IK08	IP20 · IK08
Warranty	5 years	5 years

WHICH SUITS WHICH COURT

The two systems aren't alternatives: the pole package lights open-air courts and the ring lights courts inside a building. Side by side, each has clear strengths.

OUTDOOR: STRONGEST ON PAPER

A large margin over its competition level, fewer fixtures and lower running costs. At four hours a night, every night, it uses about 830 kWh less per court per year than the indoor ring, around \$125 at \$0.15 per kWh. Its lowest light falls along the back glass, where defensive padel is played, and its glare peaks close to the poles.

INDOOR: MOST COMFORTABLE TO PLAY

Lower glare, no pole hot spots and the most light in the back courts. Its margin over the 750 lx indoor level is narrower, so the site design should confirm the maintained level after years of lumen depreciation and dust. At IP20 it belongs in fully enclosed halls; covered courts with open sides need IP65-rated fixtures.

03 THE COURT NEXT DOOR

GLARE FROM THE COURT NEXT DOOR

Court lighting studies, including the two in this analysis, are calculated for one court on its own. At a multi-court club, the floodlights of neighboring courts are aimed across their own court and often straight toward yours. It is the lighting complaint we hear most from clubs, by a wide margin: players lose the ball against a neighbor's floodlight as they look up for a lob or turn to chase one.

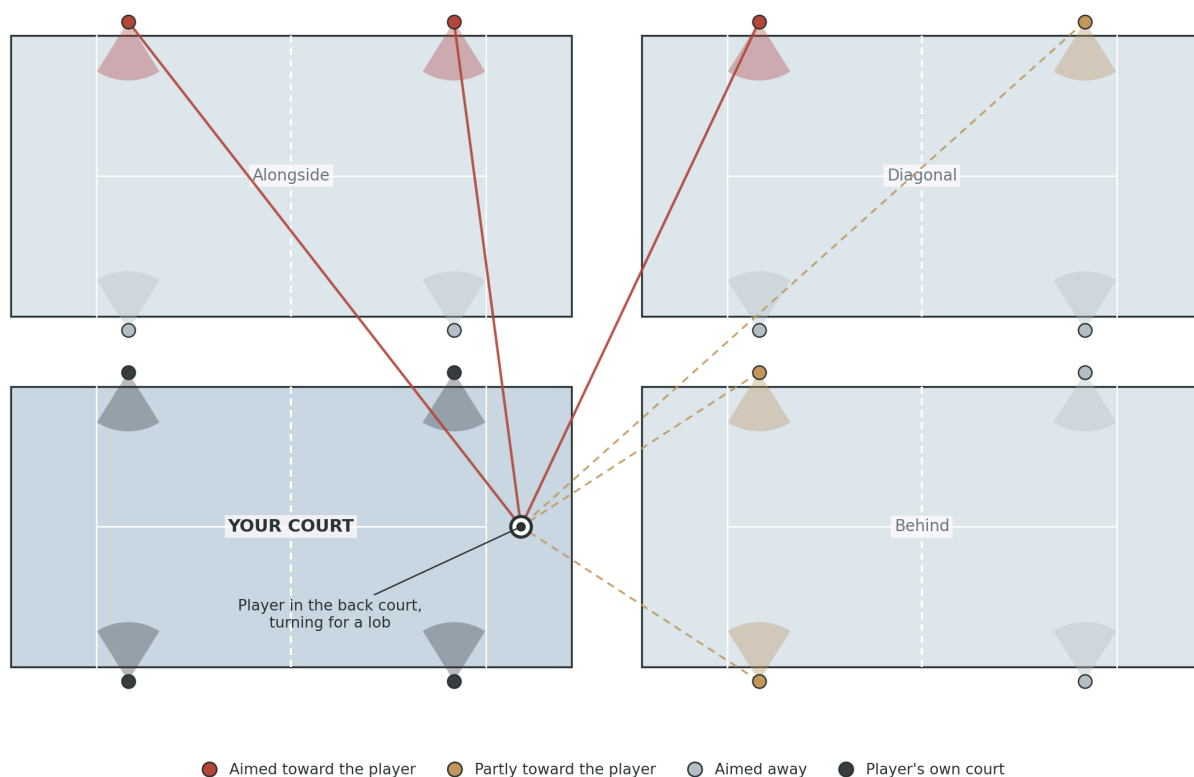


FIG. 3.1 – A 2 × 2 BLOCK WITH STANDARD ALTA POLE POSITIONS AND 2.5 M BETWEEN COURTS. FROM THE BACK COURT, 3 OF THE 12 NEIGHBORING POLES ARE AIMED TOWARD THE PLAYER AND 3 MORE PARTLY TOWARD THEM.

Lights aimed across the next court

The far-side poles of the court alongside, and of the court diagonally behind, light their own court by pointing across it, which points them at yours. From the back court they sit about 15–20° above the horizon: low in the sky, where a lob starts and finishes.

Lights on the court behind

When courts sit end to end, the nearest poles of the court behind are only about 10 m from a player at the back glass, around 30° above the horizon and seen at a steep angle. Players look straight at them every time they turn and run back for a lob.

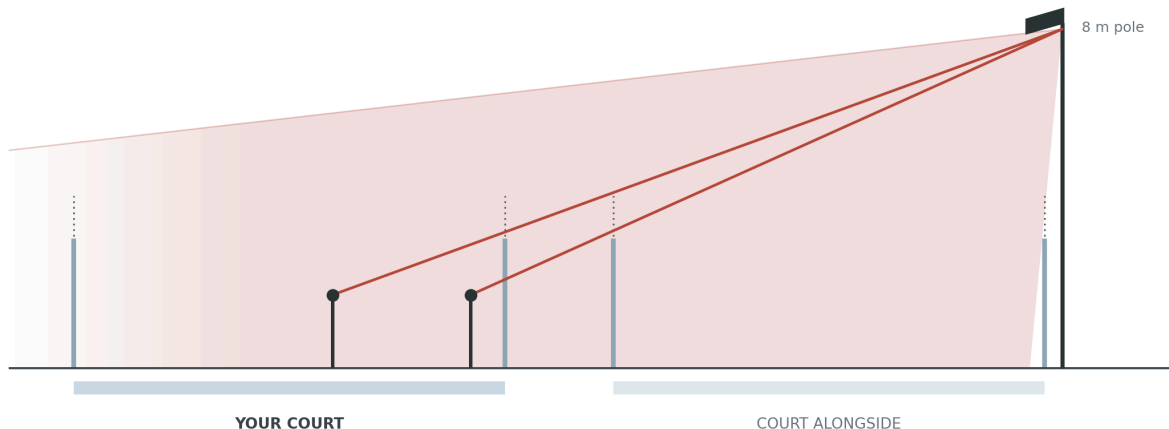
03 THE COURT NEXT DOOR – CONTINUED

WHY THE NEIGHBOR'S LIGHT REACHES YOUR PLAYERS

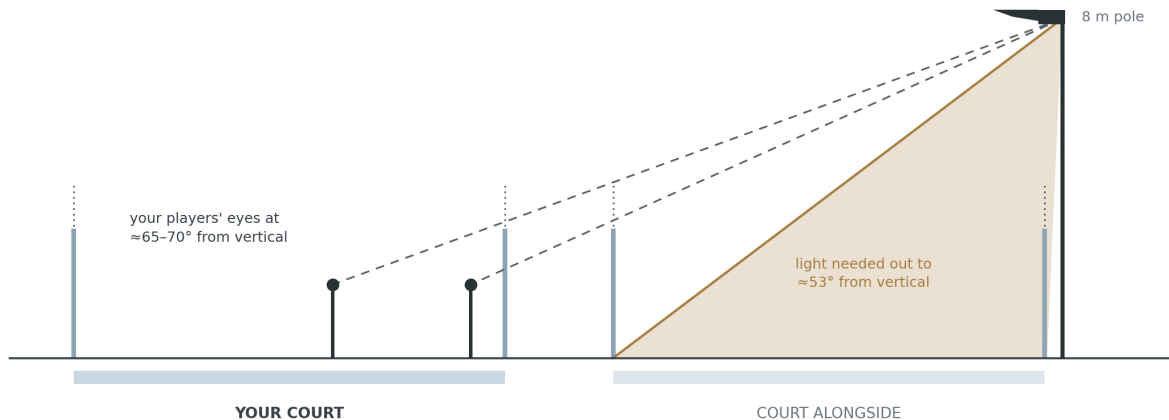
A floodlight on the far side of the next court has to throw light all the way to that court's near sideline, the one closest to you. Your players stand only a few meters beyond it. With 8 m poles, the light must reach about 53° from vertical to cover the neighboring court, while your players' eyes sit at about $65\text{--}70^\circ$. That narrow band is the whole margin between a well-lit neighbor and a floodlight shining into your players' eyes, and it is why the choice of optic, aiming and shielding matters so much on a multi-court site.

Wide beam, tilted up to reach the far side

Light spills past the next court and the lit face of the floodlight is in direct view of your players.

**Sharp cut-off optic, mounted flat, with visor**

The beam stops at the near sideline of the court it lights. From your court the LEDs are hidden.



Cross-section, illustrative: 8 m poles, 2.5 m between courts, eye height 1.7 m. Enclosure shown as glass to 3 m, mesh to 4 m.

FIG. 3.2 – CROSS-SECTION THROUGH TWO COURTS SIDE BY SIDE. TOP: A WIDE BEAM TILTED UP TO REACH THE FAR SIDE. BOTTOM: A SHARP CUT-OFF OPTIC MOUNTED FLAT, WITH A VISOR. ILLUSTRATIVE, NOT TO SCALE.

WHY PADEL MAKES IT WORSE

Players spend much of every rally looking up for lobs, bandejas and smashes, and turning toward the back glass. Panoramic glass adds reflections: bright sources behind a player can appear in the glass they are watching.

WHY SINGLE-COURT STUDIES MISS IT

The glare rating in a court lighting study is calculated from positions on that court, counting that court's own luminaires. The glare players notice most at a multi-court club comes from luminaires outside the calculation. A site-wide study, with every court lit, shows it before installation.

03 THE COURT NEXT DOOR — SOLUTIONS

DESIGNING IT OUT

Glare from neighboring courts is predictable, which means it can be designed out on a new site and brought under control on an existing one.

FOR A NEW CLUB

Light the club, not the court. Commission one site-wide photometric study with every court lit, and check glare from playing positions on every court, looking toward each neighbor as well as along the court.

Specify sharp cut-off optics. Asymmetric sports optics designed to be mounted flat or at a low tilt put light across the court and stop at its far sideline. Wide-beam floodlights tilted up to reach the far side are the main source of neighbor glare.

Fit visors and rear shields. A front visor hides the LED face from anyone beyond the court being lit; a rear shield stops back-spill toward the court behind the pole. Both are widely available as bolt-on accessories.

Plan the gaps between courts. Where two courts share a gap, their poles can share it too, each fixture aimed into its own court and shielded from the other. Where courts sit end to end, allow a generous gap and shield the fixtures nearest the shared end.

Consider perimeter lighting. Linear fixtures mounted on each court's own structure, aimed down and inward, keep every light source above its own court; neighboring players see only the back of the housing. The Alta indoor ring works on this principle. Outdoors, specify a system rated IP65 or better.

Link lighting to bookings. A court that isn't in use doesn't need to be lit. Booking-linked controls remove glare for the courts around it and cut energy use.

AT AN EXISTING CLUB

- 1 Find the culprits.** After dark, stand in each back court and at the net, look up and toward each neighboring court, and note which fixtures dazzle. It is usually a handful: the far-side lights of the court alongside and the nearest lights of the court behind.
- 2 Shield them.** Fit front visors or louvres, and rear shields, to those fixtures first. It is the least expensive fix and often the most effective.
- 3 Re-aim.** Reduce the tilt of the offending fixtures so their beam stops at the far sideline of their own court, then re-check the light levels on that court.
- 4 Replace where needed.** If shielding and re-aiming can't control the glare without darkening the court, replace those fixtures with sharp cut-off asymmetric units on the existing poles.
- 5 Confirm with a site-wide study.** A photometric study of the whole club, with all courts lit, confirms the result and sets the aiming for any courts added later.

RULE OF THUMB

If a player can see the lit face of a neighboring court's floodlight from anywhere on their own court, that fixture needs a visor, a lower tilt or a sharper optic.

04 WHAT TO SPECIFY

A LIGHTING CHECKLIST FOR CLUB PROJECTS

Every Alta Padel court is configurable, lighting included. These are the points we recommend settling at design stage.

- **Maintained, not initial, light levels.** Illuminance and uniformity stated after lumen depreciation and dirt, with the maintenance factor shown.
- **A target class for every court.** Competition, club or recreational, indoor or outdoor, per EN 12193.
- **Glare checked across the whole site.** Glare ratings from playing positions on every court, with every court lit.
- **The right optic.** Asymmetric, sharp cut-off, low tilt. Visors and rear shields on multi-court sites.
- **The right ingress rating.** IP65 or better outdoors and under open-sided canopies; IP20 only in fully enclosed halls.
- **Filming and streaming.** Vertical illuminance and flicker-free drivers if matches will be recorded.
- **Clear height indoors.** Enough room above the court for the 7 m ring and for high lobbs.
- **Controls.** Booking-linked switching so that empty courts stay dark.

EN 12193 LIGHTING CLASSES FOR PADEL

CLASS	TYPICAL USE	INDOOR	OUTDOOR
Class I	National and international competition	750 lx	500 lx
Class II	Club competition and training	500 lx	300 lx
Class III	Recreational play	300 lx	200 lx
Alta Padel systems	Outdoor pole package and indoor ring	829 lx	829 lx

Minimum average horizontal illuminance. Class I also requires uniformity (U0) of at least 0.7; both Alta Padel systems achieve above 0.8.

TALK TO US ABOUT YOUR SITE

Tell us how many courts you are planning and how they sit on the site. We'll help you set the lighting class, pole positions and glare control for the whole club, not just a single court.

Photometric data: Alta Padel Court Technical & Spec Pack, AP-SPEC-2026, Rev A. Lighting classes: EN 12193, Light and lighting — Sports lighting. Zone values and area shares are approximate, read from the photometric study plots. Multi-court geometry is illustrative and based on standard Alta pole positions; site-specific designs will vary.

PADEL ELEVATED

LIGHT THE CLUB, NOT JUST THE COURT.

Alta Padel delivers premium padel infrastructure:
tournament-grade engineering, built to last, and lit to play
well on every court.

TECHNICAL & DRAWING REVIEW

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Court Lighting Analysis

SALES & PROJECTS

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