



**U.S. ARCHITECTURAL
LIGHTING**



Pickleball & Tennis **COURT LIGHTING**

ILLUMINATING THE GAME



Excellence in Court Lighting

Adding on to our World Class PLED Optical Portfolio, U.S. Architectural Lighting has developed an Outdoor Court Lighting specific optical package, the Type IV-CL. This application driven optic was designed for excellence in illuminating all types of court lighting. From recreational to tournament courts, it provides for the highest levels of visual acuity and light control on the court.

For further versatility and a contemporary aesthetic, we offer our Court Lighting Optical Package with our Baseline (BAS) series of Luminaires. The BAS efficiently adapts to a wide variety of court lighting configurations.

Design superiority

The Type IV-CL precision optic illuminates the court for the best playing experience possible. It's output precisely targets the court and enhances the visual acuity of the players.

Light levels

Just as important as the Horizontal illumination of the courts surface are the Vertical light levels across the court to maintain proper illumination of the court boundaries, ball, and the players themselves.

Uniformity of light

Strategic placement of the luminaires along the perimeter and between courts blends the targeted light smoothly, preventing hot spots and dark areas for superior uniformity. Illumination from multiple sources gives better acuity and depth perception with objects being lit from multiple angles.

Glare control

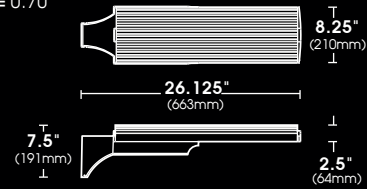
The Type IV-CL optic limits high intensity, high angle light which is the main cause of disability glare and veiling luminance. Players will not suffer from glare and have better acuity for an improved playing experience.

Minimizing light trespass

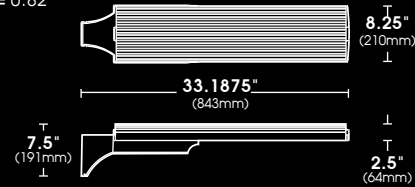
Precision optics efficiently put light on the court and minimize backlight and high angle light trespass. Optional house side shields effectively cut backlight again. This allows courts to be closer to residential areas without any offensive light trespass or glare from the courts intruding on homes or wildlife areas.



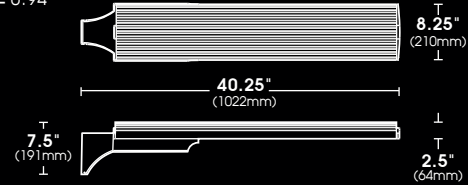
BAS2
E.P.A. = 0.70



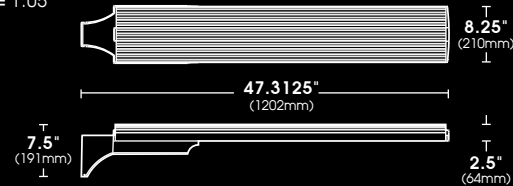
BAS3
E.P.A. = 0.82



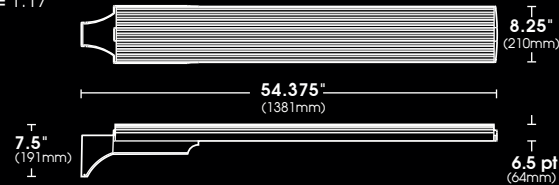
BAS4
E.P.A. = 0.94



BAS5
E.P.A. = 1.05



BAS6
E.P.A. = 1.17



The Baseline (BAS) integrates a contemporary, low profile linear aesthetic luminaire with the purpose built Type IV-CL precision optics for covering every inch of the court. With 5 sizes, numerous wattage options, and unique mounting configurations, the BAS is the versatile fixture that gives a unique signature to all levels of court lighting.

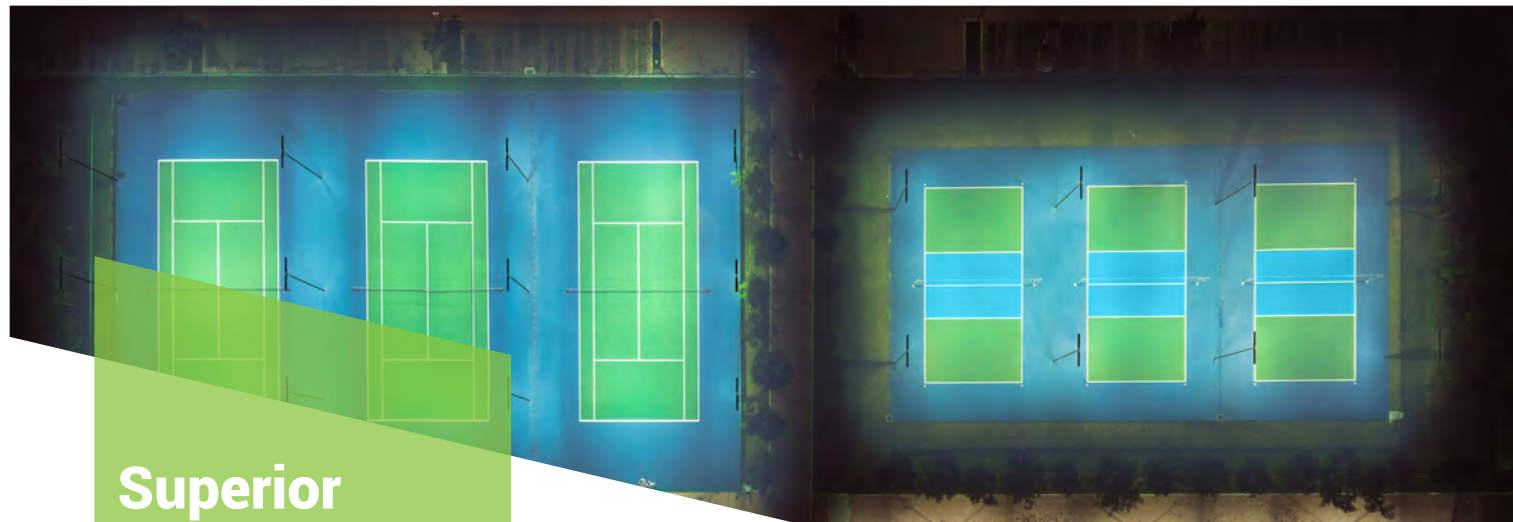
With factory rotatable optics, the BAS is suitable for mounting oriented into the court or twinned along the edge of the court. When mounted along the edges of the court, a built-in tilt feature (up to 5°) allows the luminaire(s) to put even more light on the court. Baseline requires no davit arms hanging over the court.

MOUNTING CONFIGURATIONS



**Versatile
Solution**

WITH CHAMPIONSHIP PERFORMANCE



Superior Uniformity & Light Levels

What Makes U.S. Architectural Lighting So Different?

Engineered for high performance and reliability, our PLED® (Panel LED Optical System) is engineered to excel at site and area illumination. With the Type IV-CL optic, it exceeds the minimum footcandle and uniformity requirements of governing associations of pickleball and tennis, for both recreation and competition events.

PLED® utilizes a micro reflector behind each LED in asymmetric distributions, the PLED® module enhances forward throw and reduces backlight. Each LED is optically controlled by a refractive lens with a unique shape for a particular distribution. The LED's and lenses are arrayed on circuit boards that are field rotatable in 90° increments and field replaceable.

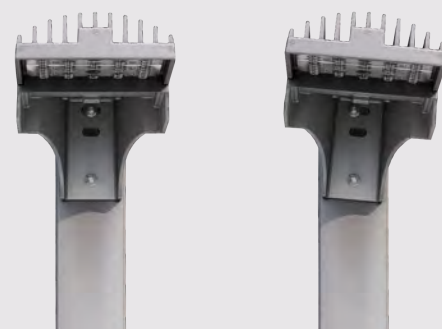
With superior performance from the PLED® system, available with 5 photometric distributions plus house side shielding, we now offer our new, innovative "Type IV-CL" Court Lighting optics, designed specifically to enhance any athletic court illumination.

Pivot Tilt Feature

In addition to its flexible optical arrangement, the BAS has site adaptive rotatable adjustability, tilting $\pm 5^\circ$ to additionally reduce perceived light from beyond the court playing perimeter in sensitive areas and neighborhoods.

FIXTURE AT 0°

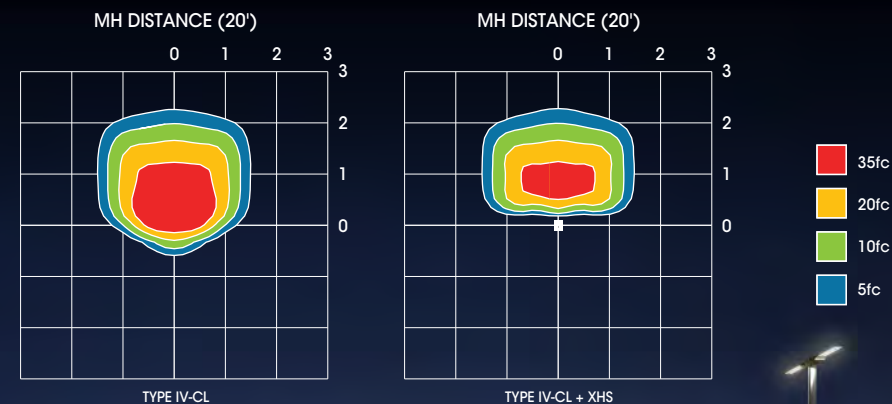
FIXTURE ADJUSTED AT +5°



Type IV-CL

COURT LIGHTING DISTRIBUTION

2@180° -BAS4-PLED-80LED-1225mA-40K-5° Pivot Tilt-20' Height (3' Above Grade)



Bright Courts Dark Skies

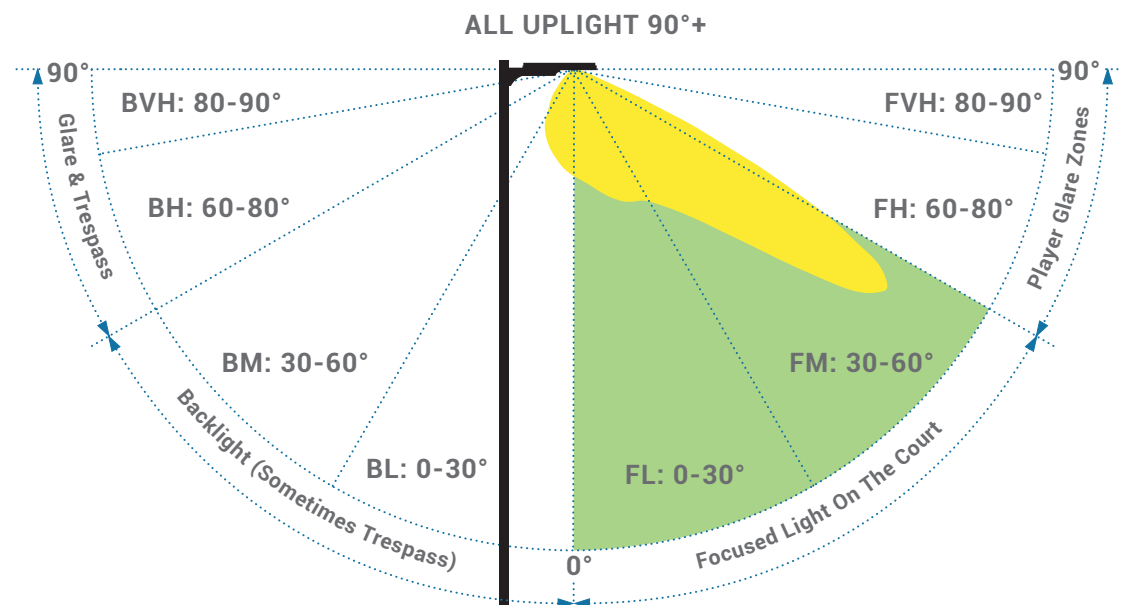
ADHERING TO THE BEST LIGHTING PRINCIPLES

Optics specifically Designed for Court Lighting

The PLED Type IV-CL is a purpose-built, application driven optical package tuned for providing the highest levels of court lighting. It starts with efficiently moving light to the court side of the optic and minimizing backlight. The court side horizontal distribution is then tuned to work in concert with groups of luminaires, combining to give high uniformity and smooth, uniform illuminance over the playing space. Vertical control from the optical package puts the majority of the light in the Forward Medium Zone (30°-60°). Not only does this keep the light on the court, but minimizes high angle glare and veiling luminance that limits visual acuity on the court.

With the increased sensitivity to light pollution and many courts being in close proximity to residential zones, the Type IV-CL was also designed to be highly focused on the court. The optical package produces no uplight (U0) and virtually eliminates high angle light that causes glare in the Very High Zones (80°-90° vertical). It's highly focused beam produces minimal light in the High Zones (60°-80°) and keeps the light on the playing area. To eliminate backlight, the Type IV-CL has an optional House Side Shield. The XHS was specifically designed for the optical package and eliminates backlight spill.

Luminaire Classification System (LCS) Vertical Zones



(IV-CL Relative Candela Polar Plot Through Max Candela Shown In Yellow)

LCS Chart % Luminaire Lumens

LCS ZONE	IV-CL	IV-CL +XHS
FL	14.1%	5.6%
FM	56.8%	75.8%
FH	10.2%	15.8%
FVH	0.4%	0.3%
BL	8.9%	0.8%
BM	7.9%	1.4%
BH	1.4%	0.3%
BVH	0.3%	0.0%
U	0.0%	0.0%

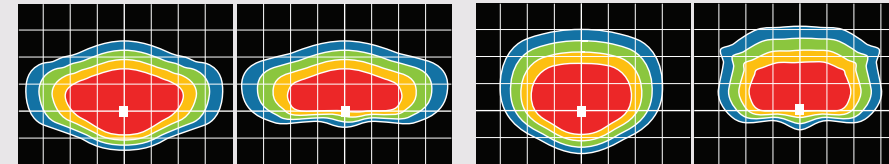
Lighting is one of the key elements for good sports performance since it can improve concentration, performance and motivation of the players.

House Side Shield



House Side Shields are applied to each individual LED in asymmetric distributions and result in outstanding house side cutoff to control property line trespass and unwanted brightness in surrounding areas.

As with standard PLED® panels HS PLED® panels may be field rotated in 90° increments and are field replaceable.



TYPE II STANDARD AND WITH HOUSE SIDE SHIELD

TYPE IV STANDARD AND WITH HOUSE SIDE SHIELD



House Side Shielding cuts off backlight to less than .1fc at 1/2 mounting height behind pole

U0 no uplight

Light focused on court with minimal backlight

House side shields for backlight elimination (light trespass)

Light is focused below high angle zones for reduced glare



Court Lighting Design

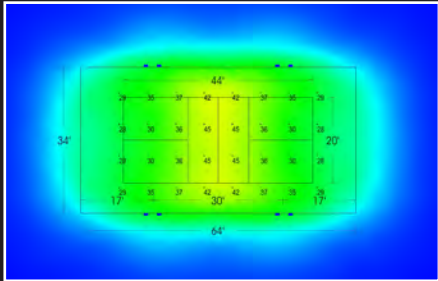
OPTIMAL LAYOUT CONFIGURATIONS

To achieve optimal lighting levels traditional Court Lighting Layout has required light fixtures to overhang the court on long obtrusive arms. This was not only visually unappealing, but created unnecessary glare for players and light pollution for the surrounding areas.

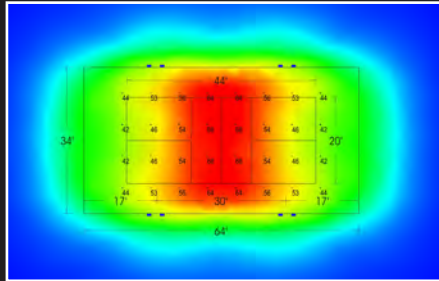
With our Baseline luminaire we have changed the game. Our unique fixture and optical design allows Baseline to surpass illumination and uniformity requirements when installed parallel to the court along the sideline and baseline. This frees players from distractions and gives designers an exciting new tool for Court Lighting Layout in Recreational, Club, and Professional settings.

Pickleball Courts

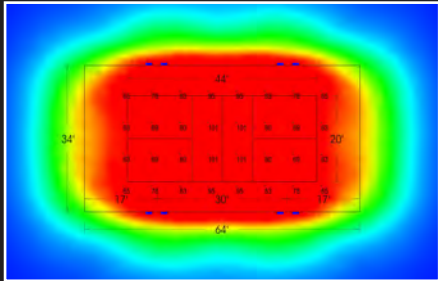
Category III
Recreational



Category II
Club

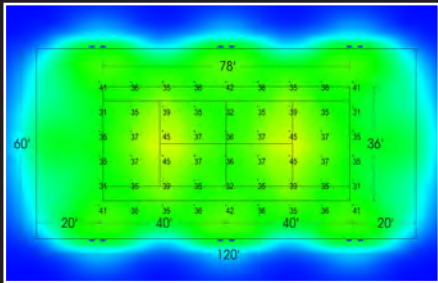


Category I
Professional

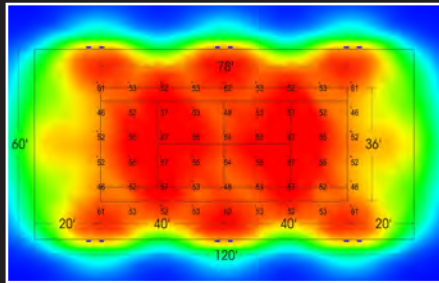


Tennis Courts

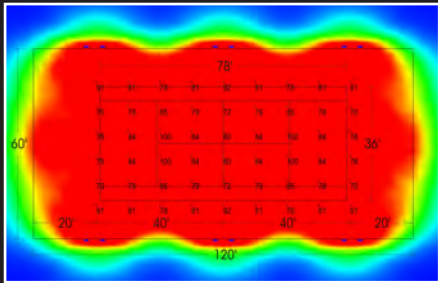
Category III
Recreational



Category II
Club



Category I
Professional



	Category	Part Number	Pole Arr.	Pole Spacing (ft)	Mounting Ht. (ft)	Pivot Tilt (°)	Lumens Per Pole	Watts Per Pole	Illuminance (FC)	AVG FC	MAX FC	MIN FC	MAX: MIN
Pickleball (34'x64') 4-Pole	III - Recreational	BAS2-PLED-IV-CL-40LED-700mA-40K	2x180°	30	20	5	25,162	173.6	PPA @ 3'AG Vertical @ Net	35 22	44 23	28 21	1.57 1.10
	II - Club	BAS2-PLED-IV-CL-40LED-1225mA-40K					38,196	317.8	PPA @ 3'AG Vertical @ Net	53 34	67 35	43 32	1.56 1.09
	I - Professional	BAS3-PLED-IV-CL-60LED-1225mA-40K					57,294	476.8	PPA @ 3'AG Vertical @ Net	81 51	101 53	64 48	1.58 1.10

	Category	Part Number	Pole Arr.	Pole Spacing (ft)	Mounting Ht. (ft)	Pivot Tilt (°)	Lumens Per Pole	Watts Per Pole	Illuminance (FC)	AVG FC	MAX FC	MIN FC	MAX: MIN
Tennis (60'x120') 6-Pole	III - Recreational	BAS3-PLED-IV-CL-60LED-1050mA-40K	2x180°	40	20	5	51,460	404.2	PPA @ 3'AG Vertical @ Net	37 26	45 28	31 24	1.45 1.17
	II - Club	BAS4-PLED-IV-CL-80LED-1225mA-40K					76,430	635.8	PPA @ 3'AG Vertical @ Net	55 38	67 42	47 35	1.43 1.20
	I - Professional	BAS6-PLED-IV-CL-120LED-1050mA-40K					114,588	953.6	PPA @ 3'AG Vertical @ Net	83 56	100 61	70 51	1.43 1.20

Recommended Horizontal Illuminance*	Category	Avg FC	Min FC	Max:Min
	III - Recreational	30	20	2:1
	II - Club	50	30	2:1
	I - Professional	75	50	1.7:1

*Based on Maintained Illuminance Levels 36" Above Grade within Players Playing Area (PPA)

Recommended Vertical Illuminance*	Category	Avg FC	Max:Min
	III - Recreational	20	2:1
	II - Club	30	2:1
	I - Professional	50	1.7:1

**Based on Maintained Illuminance Levels 36" Above Grade at Net Line within Players Playing Area (PPA)





Ordering Information

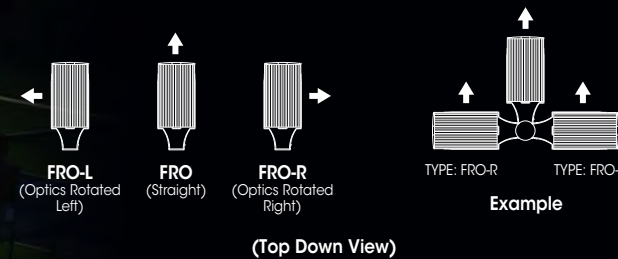
Spec/Order Example: BAS4/PLED-II-FR/XHS/120LED-700mA/50K/347/FRO-R/2-180/9005-T/TPR7

MODEL	OPTICS PLED™ Distribution Type	Shield	# of LEDs	LED Drive Current	Color Temp - CCT	VOLTAGE	FACTORY ROTATED OPTICS ³	MOUNTING Arm Mount	FINISH Standard Textured Finish	OPTIONS
BAS6	PLED-IV-CL	XHS ¹	120LED	700mA	27K (2700K)	UNV (120-277)	FRO	1	Black 9005-T	High-Low Dimming for Switch by Others/Select Levels 50/100 or 25/100 (Example: HLSW/25) HLSW
BAS5	PLED-II-FR	HS-PLED ²	100LED	875mA	30K (3000K)	347	FRO-R	2-180	White 9003-T	Photocell + Voltage (Example: PC347V) PC+V
BAS4	PLED-IV	None	80LED	1050mA	40K (4000K)	480	FRO-L	3-90	Grey 7004-T	Twist Lock Photocell + Voltage (Example: TPC480V) TPC+V
BAS3	PLED-IV		60LED	1225mA	50K (5000K)			4-90	Dark Bronze 8019-T	Twist Lock Receptable Only TPR
BAS2	PLED-VSQ-N		40LED	1400mA				2x2-180 Internal Mounting Bracket supplied for 18" and 24" vertical separation.	Green 6005-T	7-Pin Twist Lock Receptable Only TPR7
	PLED-VSQ-M							2x2-90 Internal Mounting Bracket supplied for 18" and 24" vertical separation.	Premium Finishes	Single Fuse (Example: DF347V) SF+V
									Rust	Double Fuse (Example: DF480V) DF+V
									Patina Copper PC	Step Dim Motion Sensor MS-F211
										Remote Motion Sensor MS-FC10

NOTES:

- 1 - XHS (extreme shield) available for PLED-IV-CL only.
- 2 - HS-PLED not available on PLED-IV-CL.
- 3 - Factory Rotated Optics ships standard as Straight. Option for Right (R) and Left (L). See below FRO schematic for details on Orientation.

FACTORY ROTATED OPTICS SCHEMATIC



For smooth finish
replace suffix "T"
with suffix "S"
(Example: 9500-S)

Consult factor for
custom colors

Illuminating The Game

LIGHTING UP THE COMPETITION



 **U.S. ARCHITECTURAL**
LIGHTING

U.S. POLE COMPANY
660 West Avenue O, Palmdale, California 93551
661.233.2000
www.usaltg.com

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USA