City of Pembroke Pines
Planning & Economic Development Department
601 City Center Way 3rd Floor
Pembroke Pines FL, 33025

Summary

Agenda Date:	August 14, 2025	**Application ID:**	ZV2025-0014 – ZV2025-0015
Project:	Pembroke Falls Recreation Facility Lighting Variance	**Project Number:**	PRJ2025-0009
Project Planner:	Cole Williams, Senior Planner		
Owner:	Pembroke Falls HOA Inc	**Agent:**	Nelson Scott
Location:	1651 NW 136 Avenue	**District**	District 3
Existing Zoning:	PUD (Planned Unit Development)	**Existing Land Use:**	Irregular Residential (3.1 du/acre)
Reference Applications:	MSC2023-0021, SP 2005-02, SP 2004-47, SP 2003-12, SP-2000-57, SP-99-58, SP-99-60, SP-99-61, SP 97-100, SP 97-67, SP 97-66, SP 97-65 , SP 97-51, SP 97-6, SP 96-70, SP 96-56, SP 96-33, SP 96-1, SP 95-125, SP 95-113,SP 95-82, SP 95-35, SP 95-26, SP 95-23, SP 95-22, SP 95-21, SP 95-20, SP 95-19, SP 95-11, ZC 94-19		

Variance Summary

Application	Code Section	Required/Allowed	Request
ZV2025-0014	Table 155.686 Color Correlated Temperature (CCT)	CCT maximum of 3,000K	CCT maximum of 5,000K
ZV2025-0015	155.686(D)	Maximum of 12 footcandles	Maximum of 105 footcandles

Final:	☒ Planning & Zoning Board	☐ Board of Adjustment
Reviewed for the Agenda:	Director: 	Assistant Director: 

PROJECT DESCRIPTION / BACKGROUND:

Nelson Scott, agent, is requesting two lighting variances for the Pembroke Falls Recreational Facility located at 1651 NW 136 Avenue. The applicant is proposing to upgrade the existing lighting on the tennis / pickleball courts to LED fixtures. The applicant is specifically requesting the following:

- To allow a maximum CCT of 5,000K instead of the maximum allowed CCT of 3,000K for residential common areas.
- To allow a maximum of 105 footcandles instead of the required maximum of 12 footcandles.

The Pembroke Falls Recreation Facility was approved in 1995 through site plan application SP95-26. At the time there were no illumination standards, and the existing fixtures and luminaries are existing non-conforming. Code section 155.686(H)1 requires that when 50% or more of any component (e.g., luminaires, poles) of the exterior lighting system at a building or project is upgraded, changed, or replaced (not including regular maintenance), such component for the remainder of the exterior lighting shall be brought in compliance with all applicable requirements of this section.

Additionally, public facilities including but not limited to parks; lighted recreation and athletic areas, courts and fields are exempt from the lighting standards within the Land Development Code; however, the code does not provided exemption or have specific standards for private recreation facilities beyond code section 155.686 general lighting standards thus resulting in the necessity for the applications before the Board.

Should the variances be approved, the applicant must obtain all applicable building permits.

VARIANCE REQUEST DETAILS:

The applicant is requesting two lighting variances for Pembroke Falls Recreation Facility. The variances are intended to allow for proper illumination for tennis and pickleball, as outlined in the applicant's justification statement. The specific variance requests are the following:

- ZV2025-0014: To allow a maximum CCT of 5,000K instead of the maximum allowed CCT of 3,000K for residential common areas.
- ZV2025-0015: To allow a maximum of 105 footcandles instead of the required maximum of 12 footcandles.

General lighting standards are regulated by Land Development Code section 155.686. For reference, staff has attached all applicable sections from Article 6 of the Land Development Code.

VARIANCE DETERMINATION:

The Planning & Zoning Board shall not grant any non-single-family residential variances, permits, or make any decision, finding, and determination unless it first determines that:

Its decision and action taken is in harmony with the general purposes of the zoning ordinances of the city and is not contrary to the public interest, health, or welfare, taking into account the

character and use of adjoining buildings and those in the vicinity, the number of persons residing or working in the buildings, and traffic conditions in the vicinity.

In the granting of non-single-family residential variances, the Board shall follow Section 155.301(O) Variance:

1. Purpose: To allow for the provision of relief from certain development standards of this LDC for one or more of the following reasons:

    a) There are special circumstances or conditions applying to the land or building for which the variance is sought, which circumstances are peculiar to the land or building and do not apply generally to land or buildings in the neighborhood, and that the strict application of the provisions of the zoning ordinances would result in an unnecessary hardship and deprive the applicant of the reasonable use of the land or building; or

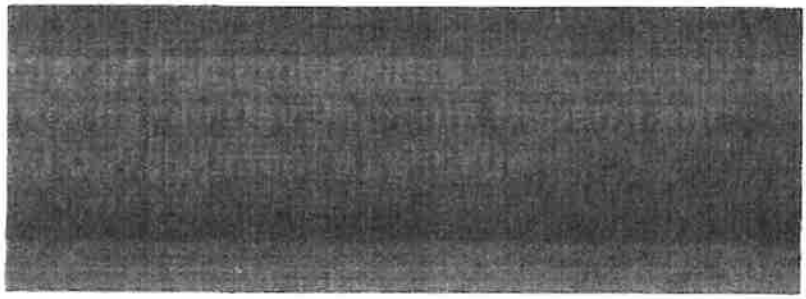
    b) Any alleged hardship is not self-created by any person having an interest in the property nor is the result of a mere disregard for or in ignorance of the provisions of the zoning ordinances of the city; or

    c) Granting the variance is not incompatible with public policy, will not adversely affect any adjacent property owners, and that the circumstances which cause the special conditions are peculiar to the subject property.

Enclosed: Variance Request Application
Variance Justification Statement
Code Section 155.686 General Lighting Standards
Lighting Plans
Subject Site Aerial Photo

City of Pembroke Pines
Planning and Economic Development Department
Unified Development Application

Planning and Economic Development
City Center - Third Floor
601 City Center Way
Pembroke Pines, FL 33025
Phone: (954) 392-2100
http://www.ppines.com



Indicate the type of application you are applying for:

- ☐ Appeal*
- ☐ Comprehensive Plan Amendment
- ☐ Delegation Request
- ☐ DRI*
- ☐ DRI Amendment (NOPC)*
- ☐ Flexibility Allocation
- ☐ Interpretation*
- ☐ Land Use Plan Map Amendment*
- ☐ Miscellaneous
- ☐ Plat*
- ☐ Sign Plan
- ☐ Site Plan*
- ☐ Site Plan Amendment*
- ☐ Special Exception*
- ☐ Variance (Homeowner Residential)
- ☑ Variance (Multifamily, Non-residential)*
- ☐ Zoning Change (Map or PUD)*
- ☐ Zoning Change (Text)
- ☐ Zoning Exception*
- ☐ Deed Restriction

INSTRUCTIONS:

1. All questions must be completed on this application. If not applicable, mark ***N/A***.
2. Include all submittal requirements / attachments with this application.
3. All applicable fees are due when the application is submitted (Fees adjusted annually).
4. Include mailing labels of all property owners within a 500 feet radius of affected site with signed affidavit (Applications types marked with *).
5. All plans must be submitted no later than noon on Thursday to be considered for Development Review Committee (DRC) review the following week.
6. Adjacent Homeowners Associations need to be noticed after issuance of a project number and a minimum of 30 days before hearing. (Applications types marked with *).
7. The applicant is responsible for addressing staff review comments in a timely manner. Any application which remains inactive for over 6 months will be removed from staff review. A new, updated, application will be required with applicable fees.
8. Applicants presenting demonstration boards or architectural renderings to the City Commission must have an electronic copy (PDF) of each board submitted to Planning Division no later than the Monday preceding the meeting.

Staff Use Only

Project Planner: _____ **Project #: PRJ 20____ -____ Application #:** _____

Date Submitted: ____/____/____ **Posted Signs Required: (____) Fees: $**_____

SECTION 1-PROJECT INFORMATION:

Project Name: Pembroke Pines HOA Tennis Facility Lighting Replacement

Project Address: 1651 NW 136 Ave Pembroke Pines, FL 33018

Location / Shopping Center: HOA TENNIS FACILITY

Acreage of Property: N/A **Building Square Feet:** N/A

Flexibility Zone: N/A **Folio Number(s):** N/A

Plat Name: PARCEL #51401105304 **Traffic Analysis Zone (TAZ):** N/A

Legal Description: PARCEL #51401105304

Has this project been previously submitted? ☑ Yes ☐ No

Describe previous applications on property (Approved Variances, Deed Restrictions, etc...) Include previous application numbers and any conditions of approval.

Date	Application	Request	Action	Resolution / Ordinance #	Conditions of Approval
5/12/25	ATTACHED & REFERENCED IN PERMIT CORRECTIONS DATED 6/16/25 CX25-04538	PERMIT FOR TENNIS LIGHTING REPLACEMENT	DENIED	D P Pines Ordinance § 155 686 GENERAL LIGHTING	The Pembroke Pines HOA is requesting a variance of current lighting footcandle and light temperatura requirements for sports lighting that has been in place at the Tennis Facilty for the last 25 years Supporting documents are included for this request

SECTION 2 - APPLICANT / OWNER / AGENT INFORMATION

Owner's Name: Pembroke Pines HOA

Owner's Address: 1651 NW 136 Ave Pembroke Pines, FL 33018

Owner's Email Address: aacuna@kwpmc.com

Owner's Phone: 954-430-8700 Owner's Fax: _____

Agent: SES Lighting

Contact Person: Nelson Scott

Agent's Address: 14405 W Colfax Ave #412 Lakewood, CO 80401

Agent's Email Address: nscott@seslighting.com

Agent's Phone: 720-280-0672 Agent's Fax: N/A

All staff comments will be sent directly to agent unless otherwise instructed in writing from the owner.

SECTION 3- LAND USE AND ZONING INFORMATION:

EXISTING	PROPOSED
Zoning: _____	Zoning: _____
Land Use / Density: _____	Land Use / Density: _____
Use: _____	Use: _____
Plat Name: _____	Plat Name: _____
Plat Restrictive Note: _____	Plat Restrictive Note: _____
_____	_____

ADJACENT ZONING	ADJACENT LAND USE PLAN
North: _____	North: _____
South: _____	South: _____
East: _____	East: _____
West: _____	West: _____

-This page is for Variance, Zoning Appeal, Interpretation and Land Use applications only-

SECTION 4 – VARIANCE • ZONING APPEAL • INTERPRETATION ONLY

Application Type (Circle One): ⦿Variance ○Zoning Appeal ○Interpretation

Related Applications: _____

Code Section: D P. Pines Ordinance § 155.686 GENERAL LIGHTING

Required: CCT cannot exceed 3,000k A maximum of 12 f.c is permitted. Lighting must be full cut off and angled at 90 degrees

Request: Sports Lighting Common CCT 5,000k and f.c of 75 which matches general existing conditions

Details of Variance, Zoning Appeal, Interpretation Request:

PLEASE REFER TO PERMIT CORRECTIONS SUBMITTAL CX25-04538

SECTION 5 - LAND USE PLAN AMENDMENT APPLICATION ONLY

☐ City Amendment Only ☐ City and County Amendment

Existing City Land Use: _____

Requested City Land Use: _____

Existing County Land Use: _____

Requested County Land Use: _____

SECTION 7- PROJECT AUTHORIZATION

OWNER CERTIFICATION

This is to certify that I am the owner of the property described in this application and that all information supplied herein is true and correct to the best of my knowledge.

Signature of Owner — Date: 7/11/25

Sworn and Subscribed before me this 14 day of July, 2025

Notary Public State of Florida
Kevin James Clark
My Commission HH 589664
Expires 9/4/2028

Fee Paid — Signature of Notary Public — My Commission Expires: 9/4/2028

AGENT CERTIFICATION

This is to certify that I am the agent of the property owner described in this application and that all information supplied herein is true and correct to the best of my knowledge.

Signature of Agent — Date

Sworn and Subscribed before me this _____ day of _____, 20_____

Fee Paid — Signature of Notary Public — My Commission Expires

Waiver of Florida Statutes Section 166.033, Development Permits and Orders

Applicant: PEMBROKE FALLS HOA

Authorized Representative: MIGUEL FERNANDEZ

Application Number: _____

Application Request: _____

I, MIGUEL FERNANDEZ (print Applicant/Authorized Representative name), on behalf of PEMBROKE FALLS HOA (Applicant), hereby waive the deadlines and/or procedural requirements of Florida Statute Section 166.033 as the provisions of said statute apply to the above referenced application, including, but not limited to the following:

a. 30-day requirement for Applicant Response to Staff determination of incompleteness as described in DRC Comments and/or Letter to Applicant;

b. 30-day Staff review of Applicant Response to DRC Comments and/ or Letter to Applicant;

c. Limitation of three (3) Staff Requests for Additional Information;

d. Requirement of Final Determination on Applicant's application approving, denying, or approving with conditions within 120 or 180 days of the determination of incompleteness, as applicable.

Signature of Applicant or Applicant's Authorized Representative — Date

Print Name of Applicant/Authorized Representative

height considerations only where applicable. Any other conflicting FAA landscape regulations with the City Code will be judged on a case by case basis.

(B) All waterways or waterway maintenance easements shall be landscaped to the water's edge in accordance with the applicable drainage or water management district standards and shall be shown on the landscape plan.

(C) Where there may be interference with existing or proposed utilities, either above or below ground.

(D) All landscaping shall comply with all applicable federal and state regulations.

LIGHTING

155.685 PURPOSE AND INTENT – LIGHTING

The purpose and intent of this section is to ensure that exterior (outdoor) lighting positively enhances the visual impact of a building or project on surrounding properties and uses. To that end, exterior lighting at a building or project should be designed, operated, and installed in a consistent and coordinated fashion to provide safe, convenient and efficient lighting for customers, pedestrians and vehicles, while avoiding the creation of hot spots, glare, obtrusive light, light pollution, light trespass, and visual nuisance. Also, exterior lighting should accentuate key architectural elements of a building or project, and highlight or otherwise emphasize landscape features.

(A) Guiding principles.

1. Lighting designs shall be of a consistent design within each respective site, and should minimize light trespass/pollution and impact on neighboring properties and natural habitats, while ensuring safety, security, utility, productivity, commerce, livability, and enjoyment. Lighting equipment should be responsibly selected and sourced through careful consideration of the short and long-term financial, environmental, and social costs incurred through lighting.
2. Energy and resource should be conserved to the greatest extent possible. Designs should be practical as well as financially and technologically feasible, based on industry-acceptable best practices. Energy efficient practices and lighting is encouraged

155.686 GENERAL LIGHTING STANDARDS

(A) Lighting. Shall at a minimum meet all applicable local, state, and Federal codes and regulations.

(B) Exterior lighting plan. An exterior lighting plan, including a photometric plan (which covers the parcel which is the site of the building or project in question), appropriate pole, fixture, and lamp cut sheets, and descriptions of lenses and appropriate data tables, shall be submitted for site plan review.

1. The exterior lighting plan shall be prepared by a licensed professional engineer, who shall certify that the exterior lighting plan complies with this section.
2. The photometric plan shall be prepared in a scale that is easily legible. The current edition of the "IES Lighting Handbook," published by the Illumination Engineers Society is the standard to be used by the engineer as a guide for the design and testing of lighting plans.
3. The standards contained therein shall apply unless standards developed and adopted by this section or subsequent amendments are more restrictive, in which case the more restrictive standards shall apply.
4. Lighting equipment must be of commercial quality and listed with a Nationally Recognized Testing Laboratory (NRTL) such as Underwriters Laboratories (U.L.) or Electrical Testing Labs (ETL).

(C) Pole lighting height standard. All private, pole mounted, outdoor surface lot lighting shall be limited to 30 feet in height above grade. Non-vehicular pedestrian areas shall incorporate pedestrian scale lighting where appropriate.

(D) Illumination levels. The maximum illumination for a project shall be 12 f.c. with the minimum average illumination, at grade, to be not less than two foot-candles, average maintained over the site. The illumination level at the property line of any project shall be a maximum of 0.5 f.c. To avoid glare or spill light from encroaching onto adjacent properties, illumination shall be installed with house side shields and reflectors, and shall be maintained in such a manner as to confine light rays to the premises of the building or project. Color Correlated Temperature (CCT). The maximum color correlated temperature for a site shall be as follows:

Table 155.686 Color Correlated Temperature (CCT)

Location	Maximum Color Correlated Temperature
B-2, B-3, C-1, I-L, I-M and I-H Zoning Districts	4,000K
B-1, PO, A, U, A-E, R-R, REC and CF Zoning Districts	3,000 K
Residential Common Area	3,000 K
Natural Areas, Preserves and Environmentally Sensitive Areas	3,000 K

(E) Installation. The lighting installation shall not be placed in permanent use until a letter of compliance from a registered engineer or architect has been provided stating that installation has been field checked and meets the requirements of this section.

(F) Architectural and landscape lighting.

Pembroke Pines Homeowners Association

TENNIS COURTS
LIGHTING VARIANCE REQUEST
JUNE 23RD, 2025

Illuminating ENGINEERING SOCIETY

BACKGROUND INFORMATION

The Pembroke Pines Home-Owners Association (PPHOA) has had amenities for the community for over 25 years which include a commercial sized clubhouse, athletic facilities, swimming, tennis and basketball courts all of which include lighting for night-time use. It should be noted that the City of Pembroke Pines has allowed and continues to allow outdoor sports lighting standards in the City and at the PPHOA that establishes precedent for our request.

The request is to reconsider the stringent restrictions of Broward County Residential Zoning Codes applied to this project. The residents of Pembroke Falls are deserving of Commercial Grade construction in the amenities that they use and pay for, contributing to a good quality of life. Application of Residential zone rules does not make sense in a rebuild of a recreational facility already in existence for 3 decades.

- The subdivision of Pembroke Falls has been in existence since 1994, comprising of 2085 homes with approximately 7000 residents. Located 13 miles from the ocean/beach area, adjacent to I-75, Pines Boulevard, and Sheridan Street.
- The tennis and pool amenities opened in 1998. This permit is for an energy-efficient LED system that is better for the environment. The rebuild design is safer than the existing design, with 8 of 9 poles outside the fenced areas Pickleball and tennis courts.
- Amenities for residents include 8 tennis and 3 full court basketball areas. Original lighting made and installed by RLS. The RLS system uses (72) – 1000 watt metal halide bulbs burning at very high temperatures. Their efficiency degraded over time, along with the condition of the wiring and steel poles, requiring a rebuild.
- LED lighting has less carbon footprint and is better for the environment.
- Adjacent to Pembroke Falls, County facility CB Smith Park revamped the tennis court lighting system in 2019 with LED fixtures.
- All of these SES Projects completed are in residential communities.
- The proposed project meets standard building and hurricane wind codes; the LED optics are not tilted and precise optics to prevent light trespass to neighboring properties.
- A 12 Footcandle limitation and Orange light temperature would stop this project. Considering the hundreds of sports lighting complexes in Broward County, we are respectively requesting approval of this lighting zoning.
- The contractor on this project (SES Lighting) was selected from a National search that included 6 other companies evaluated over a two-year period. SES was chosen for there expertise in sports lighting nationwide and after recently building 4 other new or rebuild projects in the state of Florida; two in Tampa, one in West Palm Beach and another in Saint Lucie County. These facilities are Tampa Bay Yacht and Country Club, The Ibis Club in West Palm Beach, Avila Golf and Country Club in Tampa Bay and the The Legacy Golf and Country Club in Port Saint Lucie. Nelson Scott, COO of SES, is the Owners Representative for the project.

INTRODUCTION

SES Lighting has provided sports lighting throughout North America for facilities such as PPHOA's Tennis Facilities located in residential neighborhoods. In sensitive areas such as these SES provides the following:

- All tennis lighting complies with the International Dark Sky Association. This means that fixtures are horizontal to the ground and prevents light trespassing into the sky and to neighboring properties.

- The design for the PPHOA's Tennis facility is in accordance with the Illuminating Engineering Society (IES) Class 2 standards (IES RP-6-20) appropriate for Tennis Sports Lighting and matches general existing conditions.

- Provide efficiency and uniformity of lighting throughout the entire playing areas and eliminate lumen depreciation associated with traditional metal halide sports lighting fixtures that the PPHOA currently utilizes.

To achieve these objectives, quantitative and qualitive factors of illumination are as follows:

Placement of Luminaires - Luminaire locations should coincide with the way the game is played and to prevent light trespass to neighbors and sky. An engineered, professional stamped photometric design is included. An engineered, professional stamped pole structure drawing is included.

Quality of Illumination – The recommended quality of illuminance is defined by such factors as the Uniformity Ratio (UR), Color Rendering Index (CRI), Scotoptic and Photoptic Ratio (S/P Ratio) and Color Contrast (CC) modeling improves the lighting environment.

Quantity of Illumination – The recommended quantity of illuminance is defined by the horizontal and/or vertical illuminance levels provided by the full cut-off, non-glare optics and IES Class 2 standards (IES RP-6-20).

IES Illuminating ENGINEERING SOCIETY

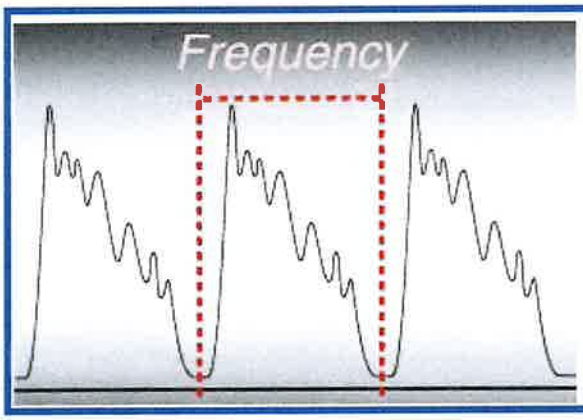
DarkSky International Dark Sky Association

LIGHT QUALITY REQURIEMENTS

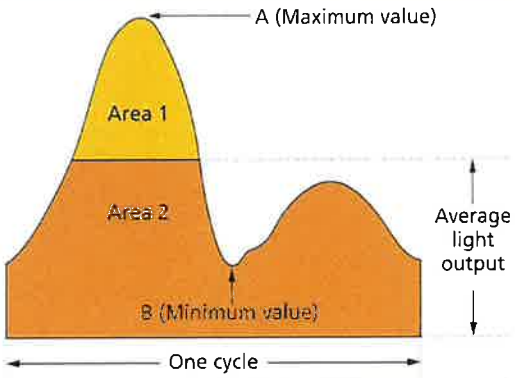
The IES standards for Sports Lighting and the fixture specified for the PPHOA's Tennis facility are reflected below.

1) **CORRELATED COLOR TEMPERATURE (CCT)** – A natural daylight white 5000K is the optimal color temperature for tennis lighting applications. This is the current light temperature of the PPHOA's facility with their existing metal halide fixtures and will be replaced with the same light temperature for the LED fixtures.

2) FLICKER PERCENTAGE– Light flicker refers to quick, repeated changes in light intensity that makes the light flutter and be unsteady. The fixture specified provides no flicker percentage which is an improvement for the players and natural wildlife in this area.



Flicker Percentage is a relative measure of the cyclic variation in output of a light source. Higher values indicate an increased possibility of noticeable lamp flicker, as well as stroboscopic effect. Therefore, lower flicker percentage is better.



The SES Lighting Technical Team has independently tested the Flicker Percentage for metal halide and LED sports lighting luminaires. The results below confirm that the GRAND SLAM FUSION testing:

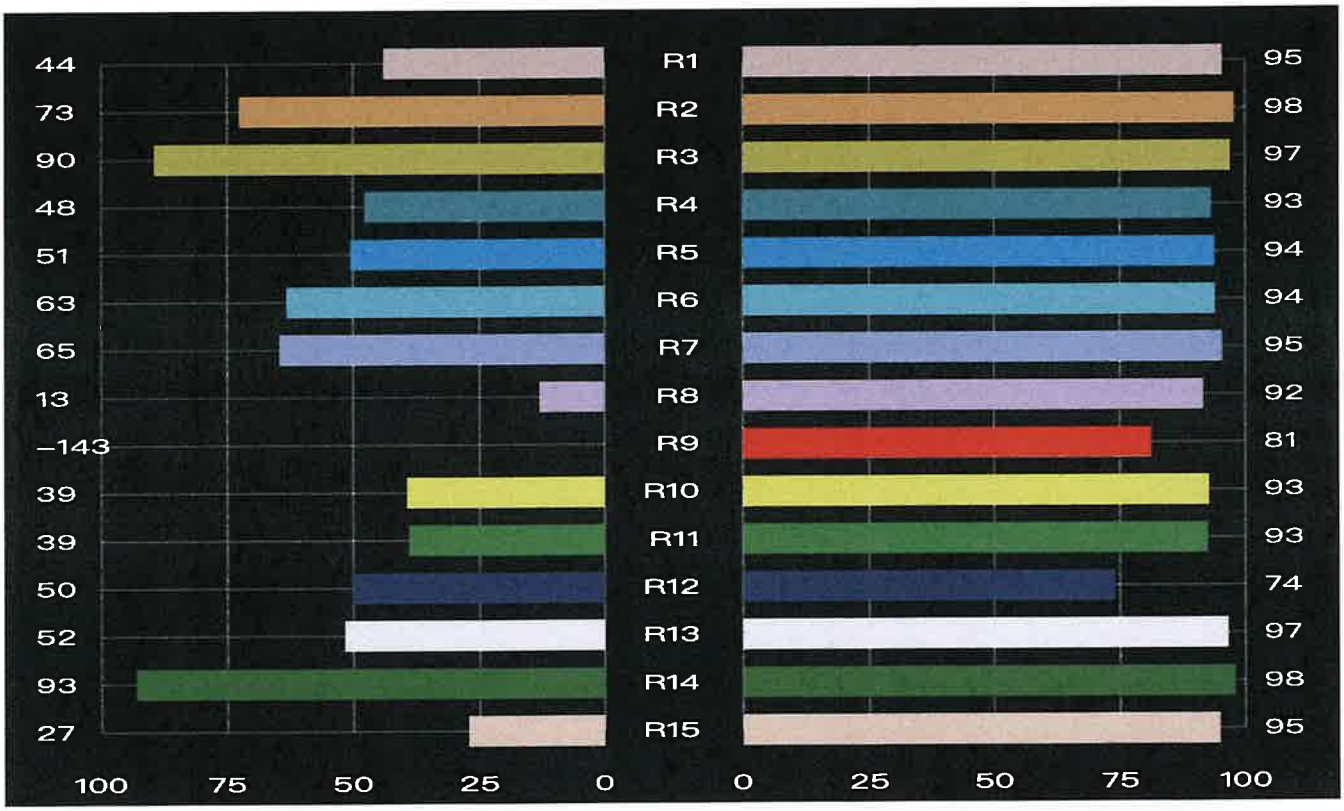
METAL HALIDE FLICKER INDEX - .13 (EQUATES TO 35% FLICKER PERCENTAGE)
GRAND SLAM FLICKER INDEX – 0.00 (EQUATES TO <0% FLICKER PERCENTAGE)

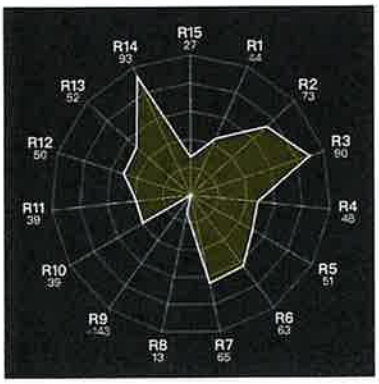
LIGHT QUALITY COMPARISON – CURRENT TESTING VS. LED TESTING

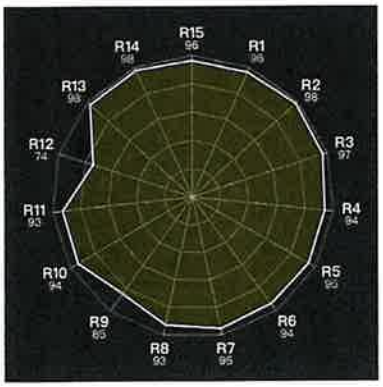
3) COLOR RENDERING INDEX (CRI)- CRI is defined by the effect of an illuminant on the color appearance of objects by conscious or subconscious comparison with their color appearance under a reference illuminant. If the sport were being played in direct sunlight, the CRI would equal 100 CRI. The spectrometer reading below was taken on the GRAND SLAM FUSION SERIES. This fixture is the industry leader in CRI performance the LED chips used on the fixture. The conclusion is that for the environment at PPHOA neighborhood the lighting replaced is the most natural artificial light compared to sunlight available for this application.

EXISTING METAL HALIDE CRI – 50 (R1-R15)

GRAND SLAM FUSION CRI – 80 (R1-R15)







SUNLIGHT = 100 CRI

IES LIGHTING DESIGN QUANTITY REQUIREMENTS - TENNIS

Illuminating Engineering Society

Brightness and uniformity for PPHOA Tennis Courts are being designed to Class 2 IES Standards appropriate for recreational and competitive Tennis. In accordance with IES RP-6-20 standards, thes recommended illuminance levels are:

Class 1 - Professional, international, national, and college
Maintained Average Horizontal illuminance – 125 Foot-candles – Max/Min Ratio 2:1 or Less

Class 2 - College, regional, municipal, club, and residential.
Maintained Average Horizontal illuminance – 75 Foot-candles – Max/Min Ratio: 2:1 or Less

Class 3 - Club, high school, instructional, parks, and residential.
Maintained Average Horizontal illuminance – 60 Foot-Candles-Max/Min Ratio: 2:1 or Less

Class 4 - Parks and recreational. Maintained Average Horizontal illuminance- 50 Foot-Candles – Max/Min Ratio 2.5:1 or Less

FACILITY	CLASS			
	I	II	III	IV
Professional				
College	X	X		
Semi-Professional	X	X		
Sports Clubs	X	X	X	X
Amateur Leagues		X	X	X
High School		X	X	X
Training Facilities			X	X
Elementary School				X
Recreational Event				X
Social Event				X

Class I: Facilities with spectator capacity over 5,000
Class II: Facilities with spectator capacity under 5,000
Class III: Facilities with some provision for spectators
Class IV: Facilities with limited or no provision for spectators

CONCLUSION

The key milestones achieved for this project are as follows:

- ✓ IES Lighting Design and conformance with IES RP-6-20 for Sports and Recreational Lighting Standards for facilities located in residential areas.
- ✓ Photometrics and luminaire aiming to keep fixtures out of player glare zones and conform to the International Dark Sky Association.
- ✓ Quality of Illumination includes uniformity ratios less than 2:1, CRI of 80 and S/P ratio of 1.9.
- ✓ Quantity of Illumination – Designed to Class 2 IES standards with an average of 75 foot-candles and uniformity ratio of less than 2:1.
- ✓ Pole structures are designed for wind zones for this location.
- ✓ Current Electrical distribution panels remain unchanged. Conduit and wiring to the panels will be replaced.

In conclusion, SES Lighting has extensive project references and testimonials in the USA and Canada. Please feel free to contact us with any further questions.

Sincerely,

Nelson A. Scott, COO
SES Lighting Founding Owner

Illuminating ENGINEERING SOCIETY

DarkSky
International Dark Sky Association

** Information for this request and design standards conforms directly from IES RP-6-20 Sports and Recreational Standards for Sports Lighting and the International Dark Sky Association.*

1.) The exterior lighting plan shall be prepared by a licensed professional engineer, who shall certify that the exterior lighting
plan complies with this section.

RESPONSE: REFER TO STAMPED PHOTOMETRIC ON PAGES 12- 14

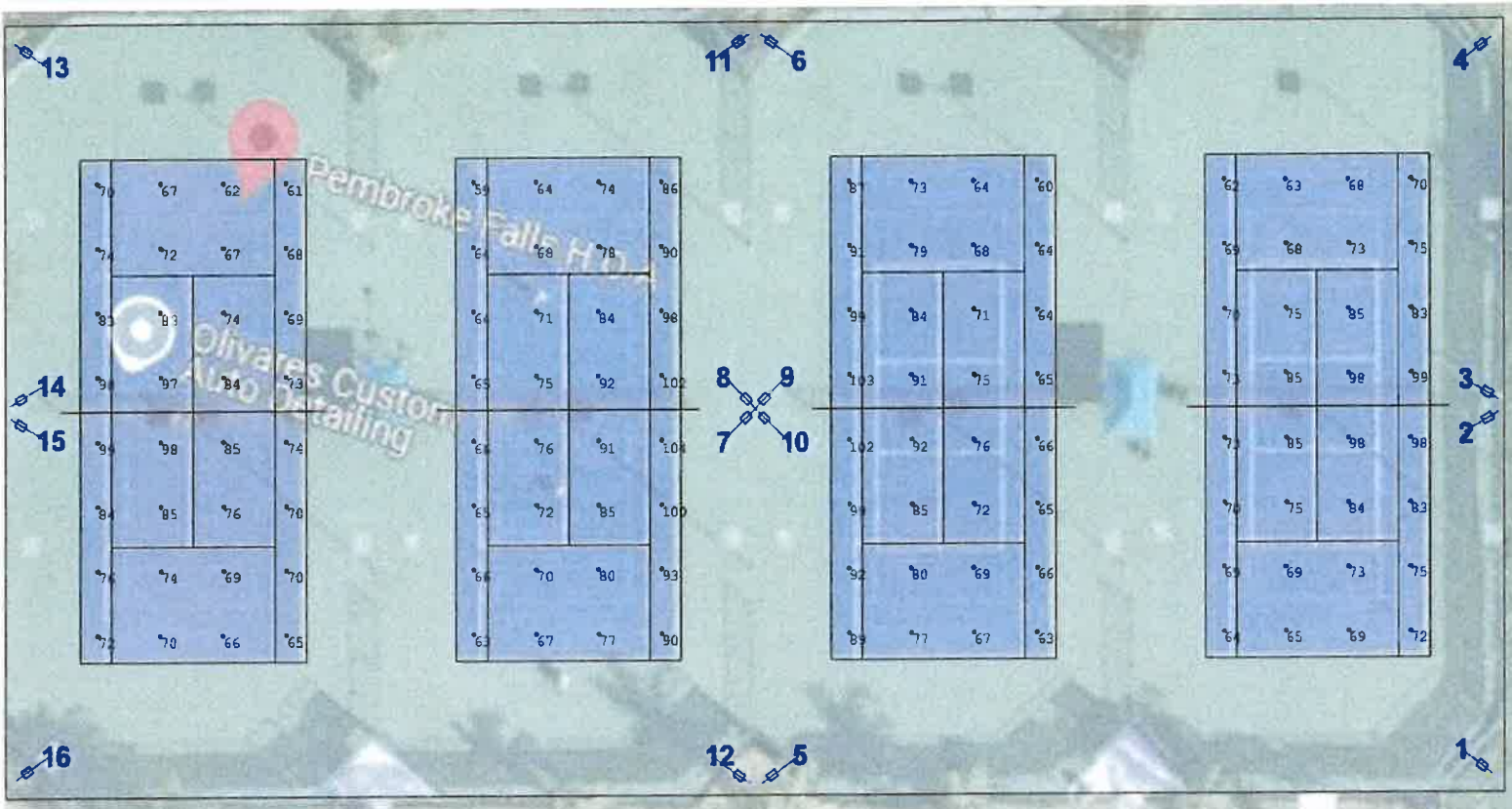
2.) CCT cannot exceed 3,000k A maximum of 12 f.c is permitted. Lighting must be full cut off and angled at 90 degrees.

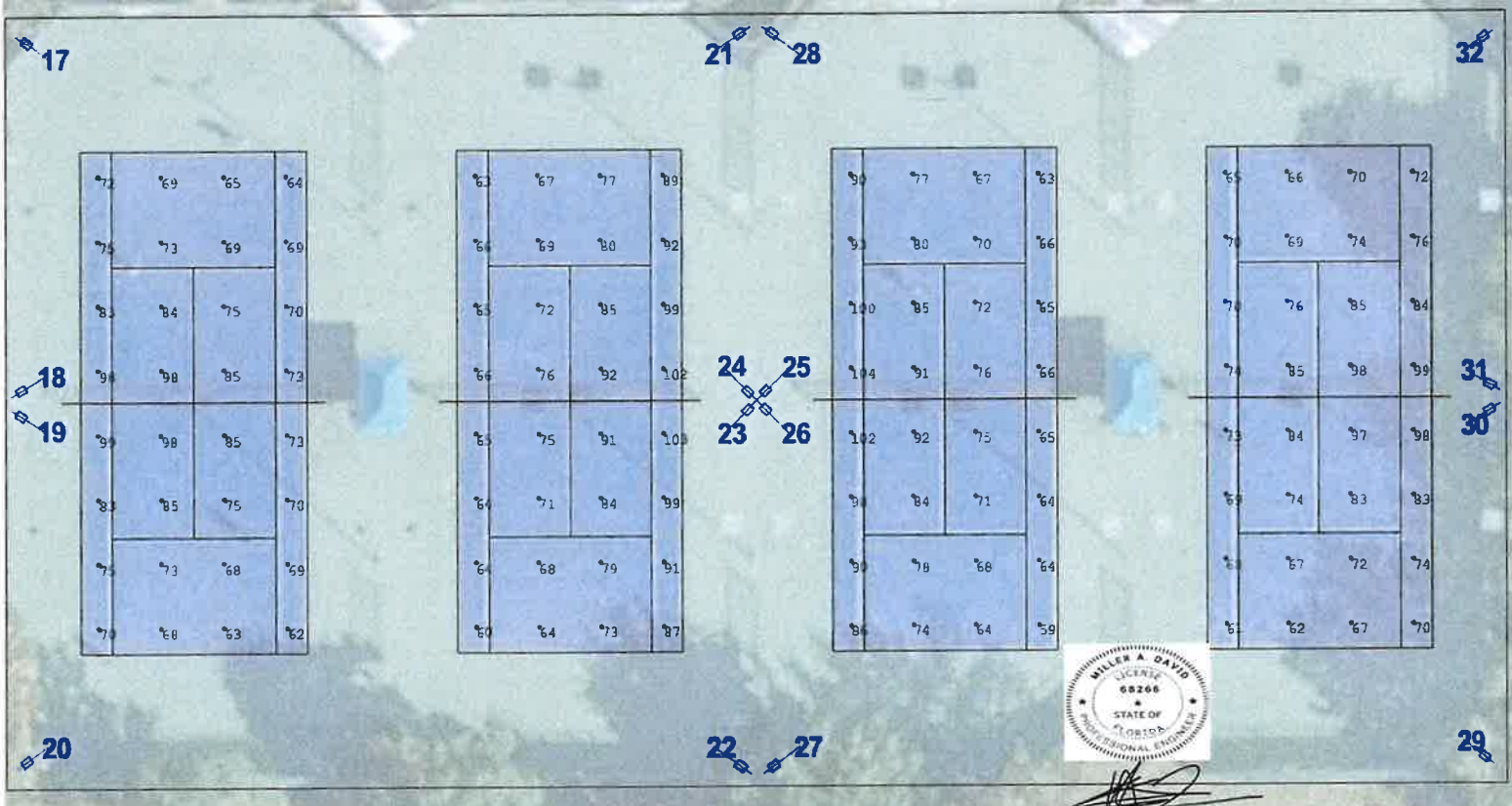
RESPONSE: REFER TO VARIANCE REQUEST FOR CCT AND FOOTCANDLE REQUIREMENT ON PAGES 4-10 AND STAMPED PHOTOMETRIC ON PAGE 12 & 13 COLUMN Z SHOWING ZERO (0) TILT & 90 DEGREE ANGLE AND PAGE 14 FOR 90 DEGREE ANGLE LOCATIONS

Calculation Summary									
Label	CalcType	Avg	Max	Min	Units	Avg/Min	Max/Min	CV	UG
Tennis #1	Illuminance	76.09	99	61	Fc	1.25	1.62	0.14	1.18
Tennis #2	Illuminance	78.09	104	59	Fc	1.32	1.76	0.17	1.23
Tennis #3	Illuminance	78.06	103	60	Fc	1.30	1.72	0.16	1.21
Tennis #4	Illuminance	76.19	99	62	Fc	1.23	1.60	0.14	1.19
Tennis #5	Illuminance	76.19	99	62	Fc	1.23	1.60	0.14	1.19
Tennis #6	Illuminance	78.06	103	60	Fc	1.30	1.72	0.16	1.21
Tennis #7	Illuminance	78.09	104	59	Fc	1.32	1.76	0.17	1.23
Tennis #8	Illuminance	76.09	99	61	Fc	1.25	1.62	0.14	1.18

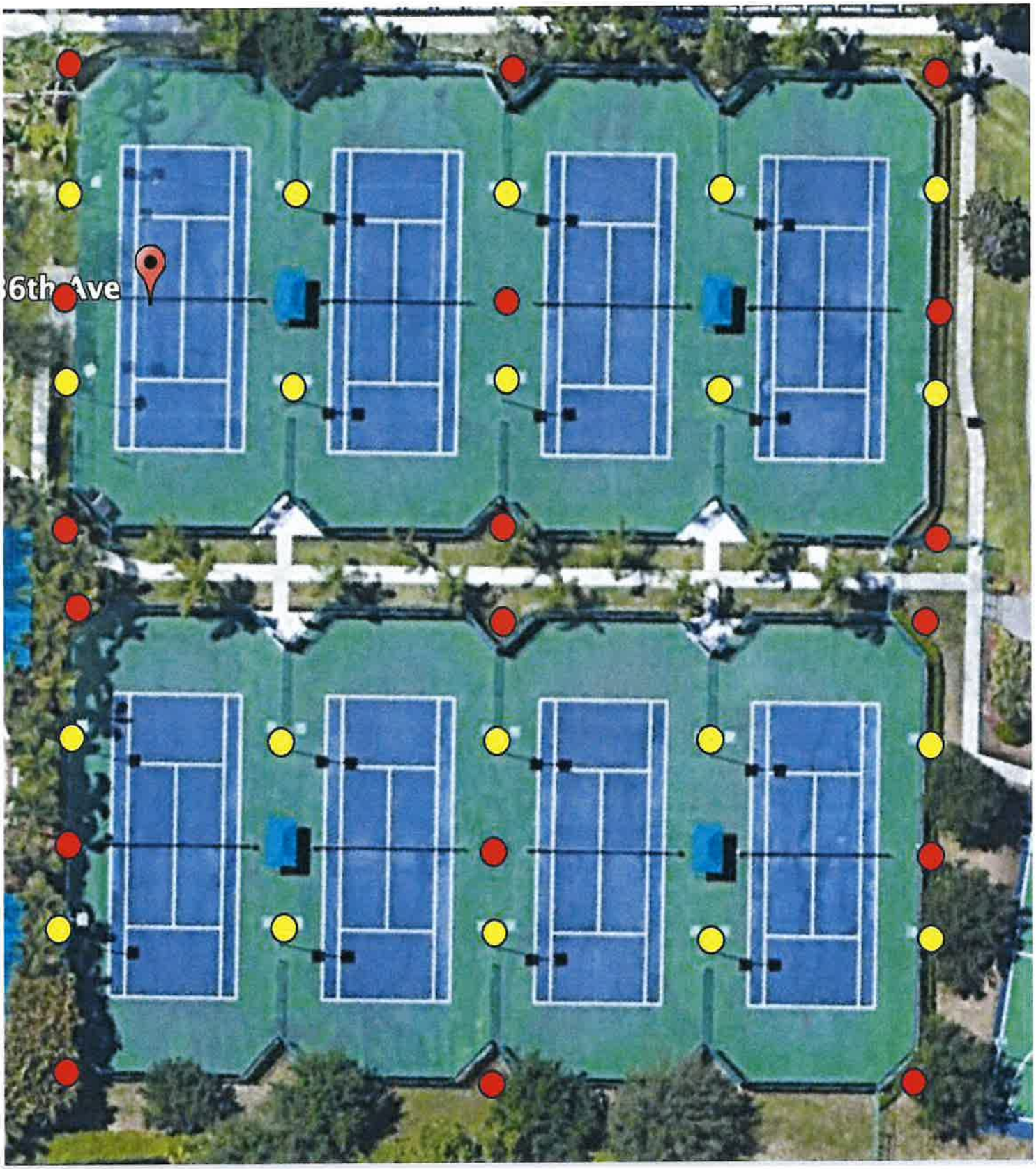
Luminaire Location Summary									
		Insertion Point					Aiming Point		
LumNo	Label	X	Y	Z	Orient	Tilt	X	Y	Z
1	AFL08-1200W	118	84	30	145	8	112.908	87.565	0
2	AFL08-1200W	119	140	30	210	8	113.617	136.892	0
3	AFL08-1200W	119	142	30	150	8	113.617	145.108	0
4	AFL08-1200W	118	198	30	215	8	112.908	194.435	0
5	AFL08-1200W	1	83	30	35	10	6.971	87.181	0
6	AFL08-1200W	1	199	30	325	10	6.971	194.819	0
7	AFL08-1200W	0	141	30	225	10	-5.155	135.845	0
8	AFL08-1200W	0	141	30	135	10	-5.155	146.155	0
9	AFL08-1200W	0	141	30	45	10	5.155	146.155	0
10	AFL08-1200W	0	141	30	315	10	5.155	135.845	0
11	AFL08-1200W	-1	199	30	215	10	-6.971	194.819	0
12	AFL08-1200W	-1	83	30	145	10	-6.971	87.181	0
13	AFL08-1200W	-118	198	30	325	8	-112.908	194.435	0
14	AFL08-1200W	-119	142	30	30	8	-113.617	145.108	0
15	AFL08-1200W	-119	140	30	330	8	-113.617	136.892	0
16	AFL08-1200W	-118	84	30	35	8	-112.908	87.565	0
17	AFL08-1200W	-118	57	30	325	8	-112.908	53.435	0
18	AFL08-1200W	-119	1	30	30	8	-113.617	4.108	0
19	AFL08-1200W	-119	-1	30	330	8	-113.617	-4.108	0
20	AFL08-1200W	-118	-57	30	35	8	-112.908	-53.435	0
21	AFL08-1200W	-1	58	30	215	10	-6.971	53.819	0
22	AFL08-1200W	-1	-58	30	145	10	-6.971	-53.819	0
23	AFL08-1200W	0	0	30	225	10	-5.155	-5.155	0
24	AFL08-1200W	0	0	30	135	10	-5.155	5.155	0
25	AFL08-1200W	0	0	30	45	10	5.155	5.155	0
26	AFL08-1200W	0	0	30	315	10	5.155	-5.155	0
27	AFL08-1200W	1	-58	30	35	10	6.971	-53.819	0
28	AFL08-1200W	1	58	30	325	10	6.971	53.819	0
29	AFL08-1200W	118	-57	30	145	8	112.908	-53.435	0
30	AFL08-1200W	119	-1	30	210	8	113.617	-4.108	0
31	AFL08-1200W	119	1	30	150	8	113.617	4.108	0
32	AFL08-1200W	118	57	30	215	8	112.908	53.435	0

IES CLASS 2 LIGHTING DESIGN – PPHOA Tennis Courts





3-D VIRTUAL RENDERING


6th Ave

POLE STRUCTURE SPECIFACTION SHEET

H30A8RT188DB

Hurricane Resistant Round Tapered Direct Burial AluminumLight Pole 30 Foot Above Grade, 8 Inch Diameter, 0.188 Inch Wall Thickness

Energy Light LLC

Job: _____

Job Site: _____ State: _____ Client Name: _____

Notes: _____ Approvals: _____ Date: _____

Pole Top Options: A removable pole cap is provided if the pole is drilled for attaching light fixtures. The drill pattern and drill orientation need to be provided by the customer unless Energy Light fixtures are used for the project. If tenon option is selected, a 2-3/8 inch diameter tenon with 4 inch length is provided.

Pole Shaft: 30 ft. height above ground, Tapered aluminum shaft with 0.188" wall thickness. The pole shaft is constructed of seamless extruded tube of 6063 Series Aluminum Alloy per the requirements of ASTM B221.

Handhole: Reinforced, 4" x 6" curved Cast Aluminum Frame is located 18 inches above ground. Handhole cover with 2 screws is provided. A ground lug with set screw is located near the handhole opening for proper grounding of the pole.

Embedment: Embedment length is 6 ft. Wire access is provided 24" below ground line.

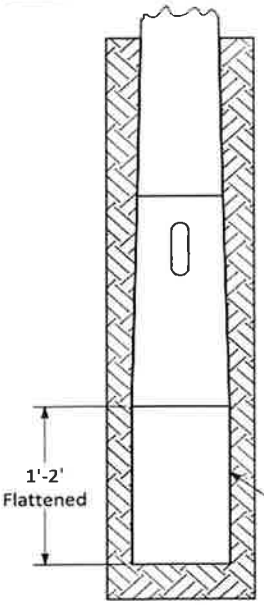
Finish: The standard finish is a natural aluminum finish.
Commercial grade, super durable powder coat finish for standard color options of Dark Bronze, White, Black, Gray colors and custom color options are available at a surcharge.

Other Options: The following options are available:
Vibration damper, custom tenon sizes, custom colors, electric/GFI outlets, custom pole heights, additional handhole and UL compliant handholes.

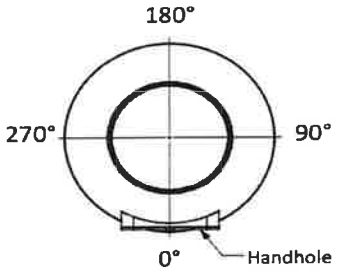
Warranty: 5 Years

Foundation design: Foundation should be designed by an engineer familiar with local soil and wind conditions as well as local code where the pole(s) will be installed.

Florida Building Code Guide 2023 FBC EPA's				POLE LENGTH AND WEIGHT		
120 mph	140 mph	160 mph	180 mph	Embedment (ft)	Total Length (ft)	Weight (lbs)
14.9	10.2	7.4	5.5	6	36	196

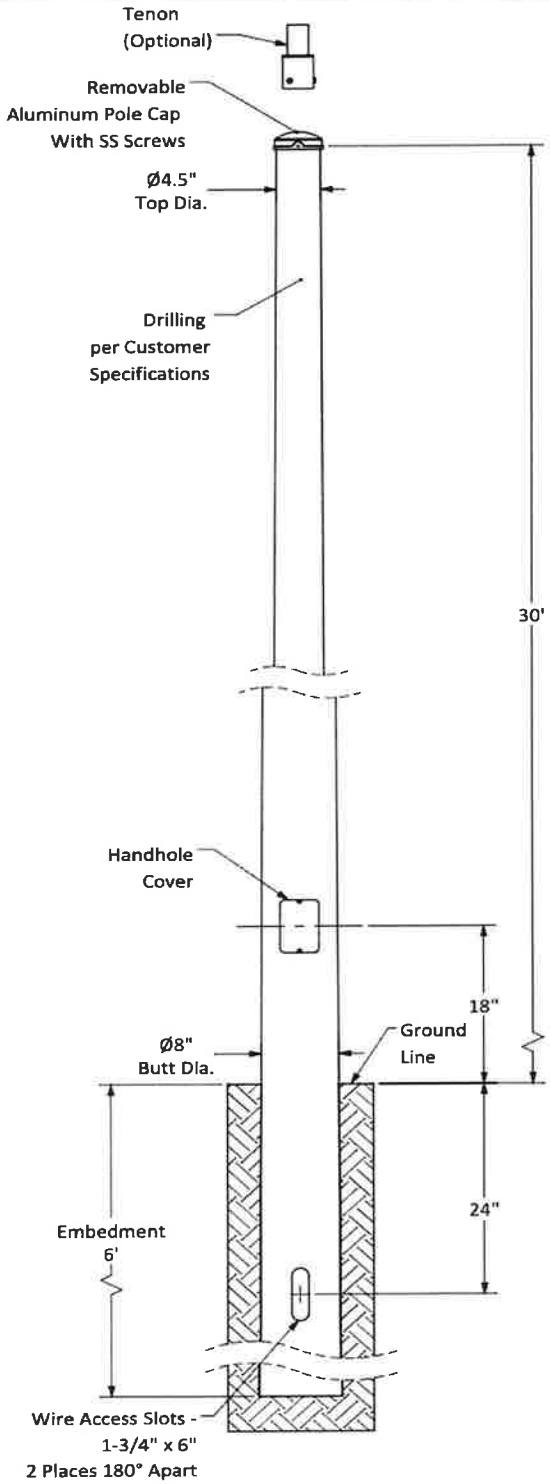


Mounting Designation

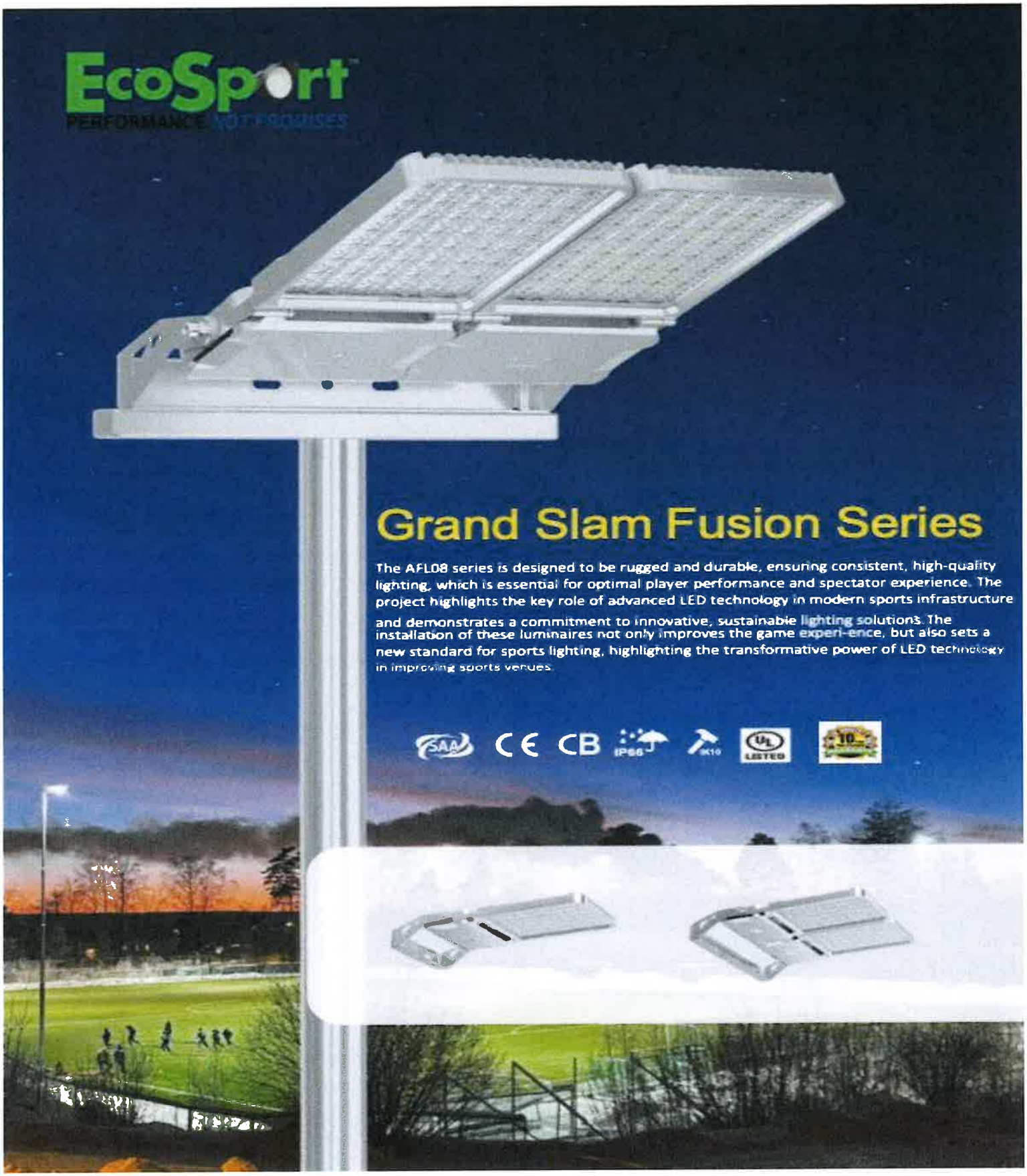


Side Drill Mount

MADE IN USA



Disclaimer: All dimensions and specifications are subject to change without any notice. Energy Light LLC is not responsible for any claims arising from improper loading (what is attached to the light pole), improper use, incorrect foundation design and/or installation.


EcoSport
PERFORMANCE NOT PROMISES
Grand Slam Fusion Series
The AFL08 series is designed to be rugged and durable, ensuring consistent, high-quality lighting, which is essential for optimal player performance and spectator experience. The project highlights the key role of advanced LED technology in modern sports infrastructure and demonstrates a commitment to innovative, sustainable lighting solutions. The installation of these luminaires not only improves the game experi-ence, but also sets a new standard for sports lighting, highlighting the transformative power of LED technology in improving sports venues.
SAA
CE
CB
IP66
IK10
UL LISTED
10

THE FIRST CHOICE FOR EVERY SPORT

Tool-free access to the power cavity.

The splicing design can freely combine power to quickly respond to project needs.

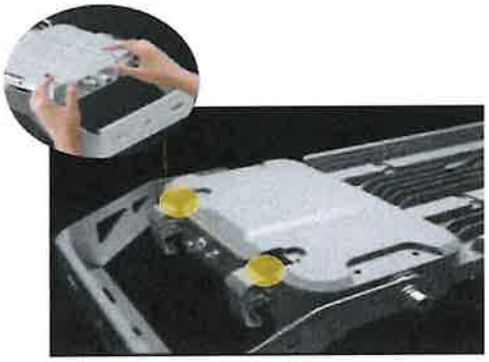
6 installation methods.

Reduces spill light, providing 0% up light when mounted at 0 degrees.

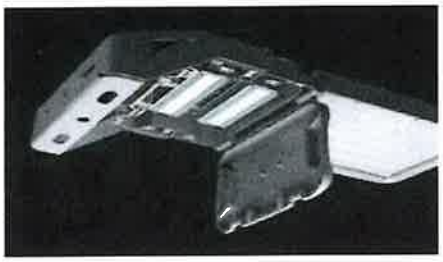
- Wall mount, ceiling mount, pole mount.
- Adopt the world's first yellow light technology to keep the luminaire permanently free of blue light and insect protection.
- Wireless control or DMX control . Remote control of lamps to achieve energy management and fault reporting.
- 7 types of cut-off cover installation.

New Private Patent Design

New private patent design. Power from 400W to 1000W.



Tool-free design.
"L" version with aluminum fastening locker.



When the lighting needs to be repaired, the body can be easily replaced without special tools.

Dual Lens Design, Easy To Swap

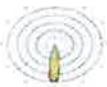
The optional 5050 small module lens provides a variety of angles to choose from, from symmetrical light to polarized light. It is flexible and convenient, and users can easily replace it according to their needs to meet the needs of various scenarios.

Optional tempered glass lens can be installed to improve light efficiency and ensure long-term use without yellowing.

Photometric diagrams

PC

FA034C0



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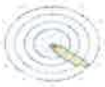
FA036E0

FA037E0

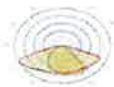
FS038E0

FS039C0



FA040C0

GLASS



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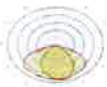

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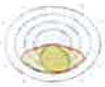

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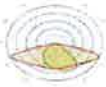

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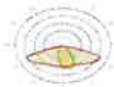

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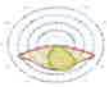

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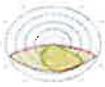

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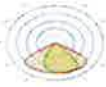


FS008F0

LIGHT FIXTURE SPECIFICATION DOCUMENT

Bracket options


Front visor


Bottom visor


Left visor


Right visor


Front three sides visor


Bottom three sides visor

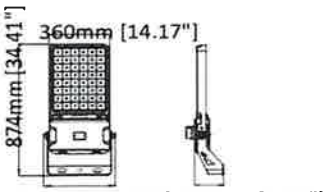

Four sides visor

Specifications

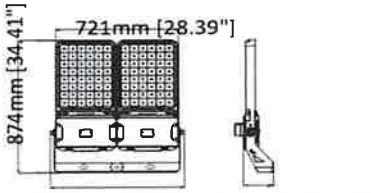
Ambient Temperature	-40 to +50 °C
Beam spread luminaire	FA034C0, FA035E0, FA036E0, FA037E0, FS038E0, FS039C0, FA040C0
Dimming	0-10V, DALI, DALI2.0, DMX
Driver	PHILIPS, VS LIGHTING SOLUTIONS
LED brand	OSRAM
Driver failure rate at 5000h in %	0.15% per 5000 hours
Initial correlated color temperature(K)	3000, 4000, 5000, 5700
Initial input power(W)	400, 500, 600, 800, 1000, 1200
Initial Luminous flux(Lm)	68000, 90000, 102000, 144000, 180000, 204000
Input frequency:	50 to 60 Hz
Input Voltage	AC100-277V / 277-480V
Warranty:	10 Years or 100,000 Hours
Materials:	Die cast aluminum
Optics:	PC/Glass

Flicker Factor	<1%
TLCI	＞90
CRI(Ra)	>80
Type	ECO-AFL08-400W ECO-AFL08-500W ECO-AFL08-600W ECO-AFL08-800W ECO-AFL08-1000W ECO-AFL08-1200W
Outlook dimensions:	874*425*174mm(34.4*16.7*6.8in) 874*721*174mm(34.4*28.4*6.8in)
Weight:	400-600W - 15.5kg(32lbs) 800-1200W- 34.17kg(70.5lbs)
EPA Rating:	0.67 ft2 400W/500W/600W 0.92 ft2 800W/1000W/1200W
Certificates:	UL LISTED, DLC, CE, CB, RoHS
Applications:	Sports, Container terminals fields, Stadiums, Arenas, Airports, etc.

Parameters:



Wattage: 400W, 500W, 600W



Wattage: 800W, 1000W, 1200W

SUBJECT SITE AERIAL PHOTO

Pembroke Falls Variance (ZC2025-0014 - 0015)