

AREA LIGHTING
2021



About us



Omnitech Lighting Private Limited (OLT) is an ISO 9001:2015 quality certified LED luminaires manufacturing company specializing in outdoor Flood and Architectural lights that are 100% designed and made in India conforming to the latest Indian and international lighting standards. OLT LED lights have high reliability built into the design through years of R&D and experience.

Omnitech Lighting also undertakes custom design and Manufacturing of project based LED lighting fixtures to suit special applications.

Omnitech Lighting has a modern manufacturing unit located at Greater Noida in Delhi NCR, India. We ensure. All OLT lighting fixtures are tested in-house as well as at NABL accredited labs like UL, Intertek and undergo rigorous testing for extreme temperature and humidity conditions to ensure reliability in all operating conditions.

Photometric design IES files for all OLT luminaires are available to enable customers and architects for design and selection of appropriate type and number of luminaires in any design software like DIALUX, RELUX or AGI 32.



AREA LIGHTING

Crisp, Uniform and Efficient Professional LED Flood Lights for Area and Sports Arena

Area Lighting



Aero flood-
QUADRA



Aero flood-
DAZZLE



Aero flood-
DAZZLE DUO



Aero flood-
STADIA-III



Aero flood-
STADIA-IV



Flood Lights for Train stations, Airports & Container Terminals



Infrastructure

Train stations, airports and large transit areas are regarded as “landmarks”, i.e. well defined signs of a city’s ambition and desire for renovation. This is why the design of major infrastructure requires flexible optics and colour temperature options. Lighting should meet functional requirements and also enhance the challenging solutions chosen by the designers. Lighting becomes an integral part of these public works, giving them extraordinary visibility during the evenings. Proper lighting can increase safety, efficiency and energy savings and improve aesthetics.





Uniform, efficient and safe lighting for any design requirement

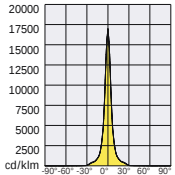
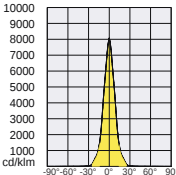
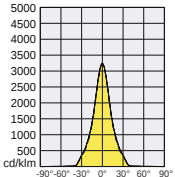
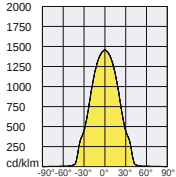
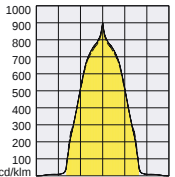
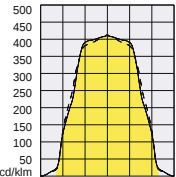
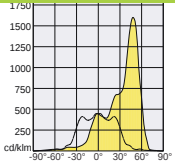


Applications

- A truly complete range of LED Flood Lights offering the best performance to meet all outdoor lighting needs for:
- Building and facades, Industrial zones, Harbour areas, Railway Loading / Unloading bays, Public or private infrastructure, Airports, Metro stations, Car parks and transit zones
- Stadiums, Indoor and Outdoor multi sports facilities (Tennis court, Basketball court, Swimming pool, Velodrome, Hockey rink, Volleyball court, etc.).

Performance and advantages

- Latest Generation LED Sources with excellent colour rendering and light output. The advanced LED sources, with colour temperature options of 4000K/5700K and CRI 70/80/90, are ideal to enable non televised or perfect high definition TV coverage.
- The remarkable performance of these flood lights facilities their use in large areas as well as in stadiums or indoor and outdoor arenas, providing unprecedented performance in any setting
- The use of variety of PMMA/PC lens based optical system and the incorporation of the LED source into the floodlight guarantee precision and high performance non intrusive and low glare light for the benefit of visual well being of players and viewers alike.

NARROW BEAM				
	AEROFLOOD 10° SPOT 5700 K - 70 CRI		AEROFLOOD 15° NARROW 5700 K - 70 CRI	
SYMMETRIC BEAM				
	AEROFLOOD 25° MEDIUM 30° MS 4000 K - 170 CRI		AEROFLOOD 38° MEDIUM 40° MS 4000 K - 170 CRI	
	AEROFLOOD 60° WIDE 60° W 4000 K - 170 CRI		AEROFLOOD 120° EXTRA WIDE 40° M 4000 K - 170 CRI	
ASSYMMETRIC BEAM				
	AEROFLOOD 50° FORWARD ASSYMMITRIC		AEROFLOOD 24° X 90° BI SYMMITRIC	

Outdoor areas

The lighting of outdoor areas, such as loading / unloading bays, is a very delicate and difficult element in a lighting design project. The perfect visibility of outdoor areas must be guaranteed at any time of the night and under any weather condition.

People must be able to quickly and safely orient themselves. Therefore in outdoor areas, lights should be sufficiently bright and above all without glare. The light emitted by the modular optical design makes OLT LED particularly suited for this type of applications. Furthermore, thanks to different photometric distributions, it can adjust with great flexibility to any design requirement, because every outdoor area has different needs.



Buildings and facades

In the lighting of building and facades attention is placed on functional aspects, as well as on architectural and aesthetic elements.

First of all, it is important to ensure the perfect lighting of road signs and entrance areas in order to guide visitors easily and safely. Moreover, there is the need to enhance the building's architecture, highlighting those elements that make the building recognizable.



LED Types for outdoor use

Oslon Square



CREE 3535



Duris S8



Luxeon 5050

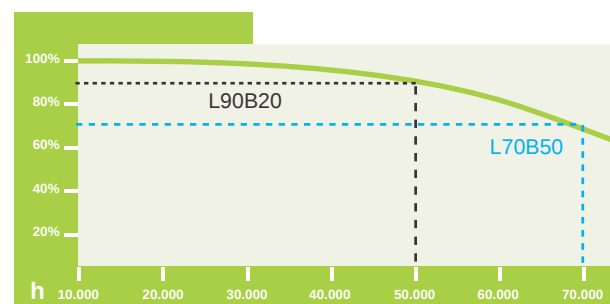


LED Life expectancy

- LEDs, unlike traditional sources, will not turn off suddenly when their working life ends, but will slowly fade their initial luminous flux until they turn off completely.

In fact, LEDs do not break (except for manufacturing damages) but decay gradually and constantly. The decrease of LED flux is defined by the working life and is represented by the "L" mark (for example L70 which means that the flux is maintained up to 70% till the declared hours of operation). The "B" followed by a number ranging between 10 and 50 indicates the quality of the fixture and defines the LED percentage that is likely to fail up to the declared life.

EXAMPLE: LED declared L90B20=50000 Hrs. This means that when the LED reaches 50000 Hours of operation, 80% (B20) of the LED will have a luminous flux corresponding to 90% of the initial flux (L90). Similarly L70B50= 70000 Hours will indicate 70% of initial flux and 50% (B50) of LEDs operational at reaching 70000 Hours.



Aeroflood-QUADRA

IP66 IK08



Energy Label A++

LED FLOOD LIGHT

DESIGN FEATURES

- High pressure die cast Aluminium alloy housing
- Polyester powder coating with multiple color options
- Robust, Sleek design with excellent heat dissipation
- 360° Cradle movement for omnidirectional precise focusing
- 4mm Thick extra clear toughened glass
- Silicon moulded & Extruded gaskets for IP66 rating
- Separate integral driver compartment IP 66
- All stainless steel - AISI 304 grade hardware
- Minimised windage area (0.0676M²)
- ON REQUEST: Microwave Motion Sensor, Dimmable / DALI Versions, Daylight Sensor, Emergency Version through Lithium Ion Battery Pack, Mechanical Protection Guard.

THERMAL MANAGEMENT

- Generously designed radiator fins in vertical direction to ensure proper air convection
- Separate integral driver compartment for thermal isolation & not to affect LED compartment during maintenance, provided with brass PG9 cable gland

COMPLIANCES - LUMINAIRE

- As per IS 10322 (Part5/ Sec.5) 2012 & 2015
- IP66, IK08 as per IEC-EN 62262
- ON REQUEST: Surface coating resistant to salt spray tests pursuant to standard UNI EN ISO 9227.

LEDs

- High Efficacy (>145Lm/W) Outdoor illumination grade SMD LEDs, LM80 Certified.
- Low junction thermal resistance for long life and low lumen depreciation
- Luminous flux maintenance 80%, 50,000 Hrs (L80B20)
- High color rendering : CRI - 70/80/90
- Various CCT : 5700K/ 4000K/ 3000K/2200K

ELECTRICAL SYSTEM•

- Outdoor rated >90% efficiency constant current drivers with over Voltage (440V AC)/Undervoltage, Short circuit & Open circuit Protection 4KV / 5KV / 6KV Inbuilt surge protection
- Optional 10KV / 20 KV External SPD
- Low Current Harmonics : THD < 10%
- Low Flicker : <3%
- Ambient Temperature range : -30°C To 45°C

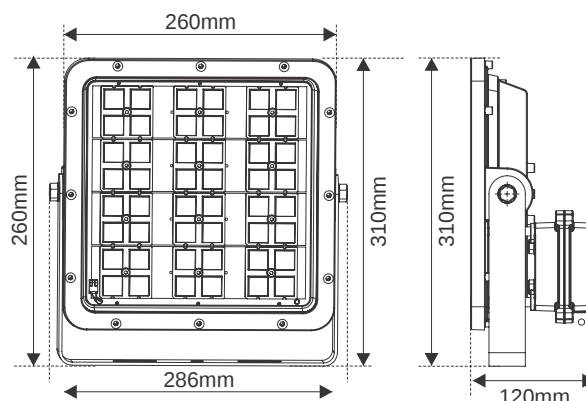
OPTICAL SYSTEM

- Variety of photometric beam options for - Area Lighting, Facade Lighting, Tunnel Lighting, Sports Arenas
- Structured on high performance optical grade lenses in PMMA / PC
- Photometric design data for all optics available



Aeroflood-QUADRA

IP66 IK08

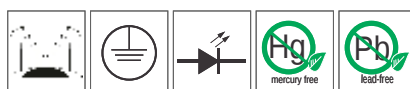


Technical Parameters

Input AC Voltage	: 140 to 277V AC
Frequency	: 50 / 60 Hz
Luminous Efficacy	: 120 Lumens/Watt
CCT (K)	: 5700K / 4000K / 3000K
Optics	: Symmetric : 10° / 25° / 35° / 50° / 60° / 90° Asymmetric : 20° x 90° Oval / FN - Forward Asymmetric 45° / Tunnel Counterbeam TF 55°

Technical Specifications

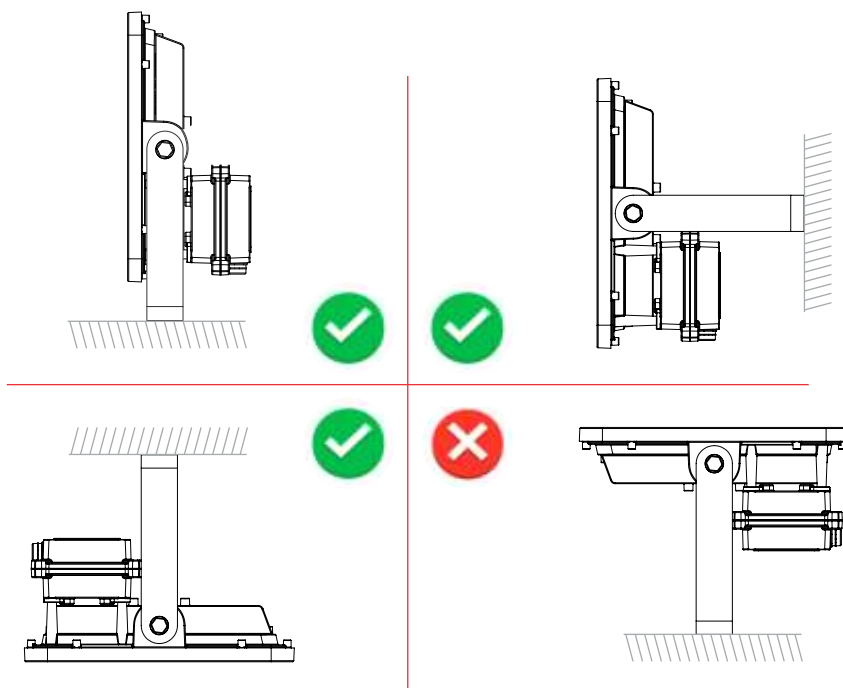
SERIES	ITEM CODE	SYSTEM WATTAGE	INPUT CURRENT	DELIVERED LUMENS	LIGHT BEAM	THD	PF	SURGE PROTECTION	CCT	CRI
QUADRA	OLFL-0075-757-60-00	75	0.325	9000	Symm 60°	<10%	0.95	4 KV	5700K	70
QUADRA	OLFL-0100-757-25-00	100	0.436	12000	Symm 25°	<10%	0.95	4 KV	5700K	70
QUADRA	OLFL-0135-757-60-00	135	0.592	16200	Symm 60°	<10%	0.95	4 KV	5700K	70
QUADRA	OLFL-0150-757-20x90	150	0.655	18000	20° x 90°	<10%	0.95	4 KV	5700K	70
QUADRA	OLFL-0150-757-25-00	150	0.655	18000	Symm 25°	<10%	0.95	4 KV	5700K	70
QUADRA	OLFL-0150-757-60-00	150	0.655	18000	Symm 60°	<10%	0.95	4 KV	5700K	70
QUADRA	OLFL-0200-757-20x90	200	0.857	24000	20° x 90°	<10%	0.95	4 KV	5700K	70
QUADRA	OLFL-0200-757-FN-00	200	0.875	24000	AsymFN	<10%	0.95	4 KV	5700K	70
QUADRA	OLFL-0200-757-25-00	200	0.875	24000	Symm 25°	<10%	0.95	4 KV	5700K	70
QUADRA	OLFL-0200-757-60-00	200	0.875	24000	Symm 60°	<10%	0.95	4 KV	5700K	70



Aeroflood-QUADRA

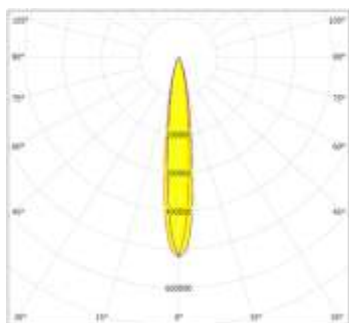
IP66 IK08

Installation Illustrations

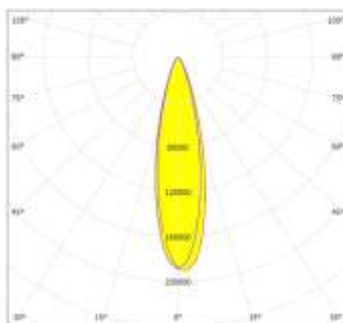


Polar Diagrams

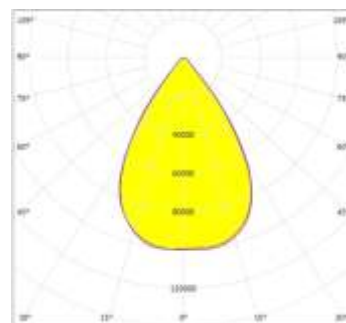
10° - 15° Narrow



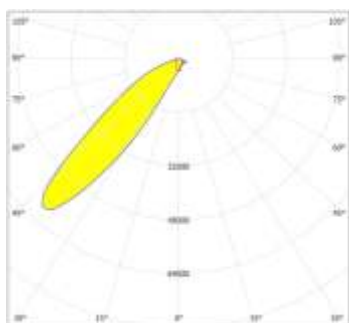
25° - 33° Medium



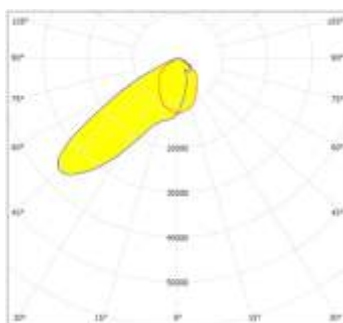
50° - 60° Wide



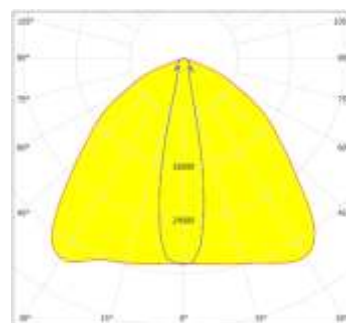
TF Tunnel Counterbeam



FN Forward Assymmetric



24° x 90° Bi Symmetric





Aeroflood-DAZZLE

IP66 IK08



Energy Label A++



LED FLOOD LIGHT

DESIGN FEATURES

- High pressure die cast Aluminium alloy housing
- Polyester powder coating with multiple color options
- Robust, Sleek design with excellent heat dissipation
- 360° Cradle movement for omnidirectional precise focusing
- 4mm thick extra clear toughened glass
- Silicon moulded gaskets for IP66 rating
- Separate integral driver compartment IP 66
- All stainless steel - AISI 304 grade hardware
- Minimised windage area (0.120M²)
- Anti condensation breather cum pressure equalization valve
- ON REQUEST: Microwave motion sensor, Dimmable/ DALI Versions, Daylight sensor, Emergency Version through Lithium Ion battery pack, Mechanical protection guard.

THERMAL MANAGEMENT

- Generously designed radiator fins in vertical direction to ensure proper air convection
- Separate integral driver compartment for thermal isolation & not to affect LED compartment during maintenance, provided with brass PG9 Cable gland

COMPLIANCES - LUMINAIRE

- As Per IS 10322 (Part5/ Sec.5) 2012 & 2015
- IP66, IK08 as per IEC-EN 62262
- On Request: Surface coating resistant to salt spray tests pursuant to standard UNI EN ISO 9227.

LEDs

- High Efficacy (>145lm/W) Outdoor illumination grade SMD LEDs, LM80 Certified.
- Low junction thermal resistance for long life and low Lumen depreciation
- Luminous flux maintenance 80%, 50,000 Hrs (L80B20)
- High colour rendering : CRI - 70/80/90
- Various CCT : 3000K/ 4000K/ 5700K

ELECTRICAL SYSTEM •

- Outdoor rated >90% efficiency constant current drivers with over voltage (440V AC)/Undervoltage, Short circuit & Open circuit Protection 4KV / 5KV / 6KV inbuilt surge protection
- Optional 10KV / 20 KV external SPD
- Low current harmonics : THD < 10%
- Low flicker : <3%
- Ambient Temperature range : -30°C To +50°C

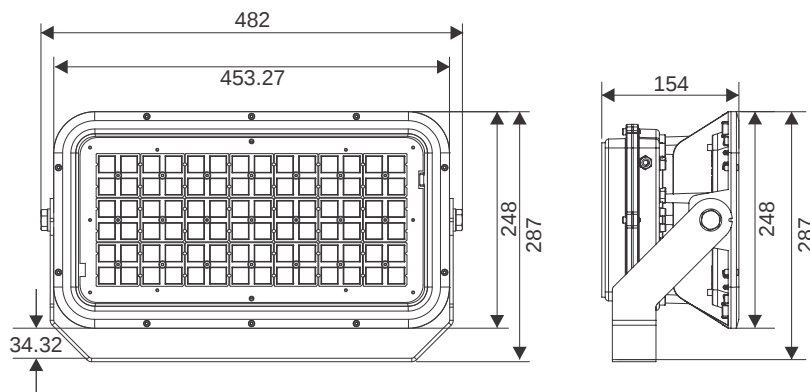
OPTICAL SYSTEM

- Variety of photometric beam options for - Area Lighting, Facade Lighting, Tunnel Lighting, Sports Arenas
- Structured on high performance optical grade lenses in PMMA / PC
- Photometric design data for all optics available



Aeroflood-DAZZLE

IP66 IK08

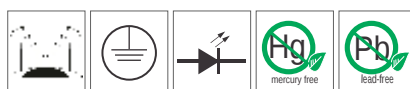


Technical Parameters

Input AC Voltage	: 140 to 277V AC
Frequency	: 50 / 60 Hz
Luminous Efficacy	: 120 Lumens/Watt
CCT (K)	: 3000K / 4000K / 5700K
Optics	: Symmetric : 10° / 15° / 25° / 33° / 60° / 90° Asymmetric : 20°x 90° Oval / FN - Forward Asymmetric 45° / Tunnel Counterbeam TF 55°

Technical Specifications

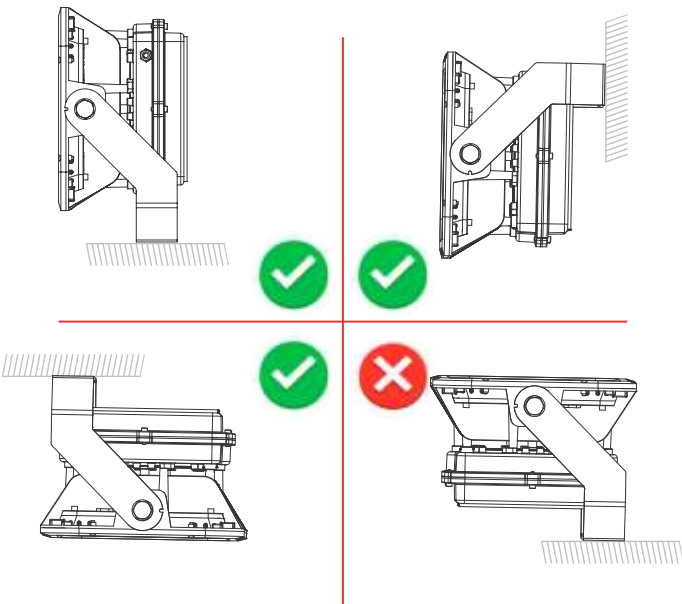
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DAZZLE	OLFL-0200-757-60-00	200	0.850	24000	Symm 60°	<10%	0.95	4 KV	5700K	70
DAZZLE	OLFL-0240-757-60-00	240	1.002	28800	Symm 60°	<10%	0.95	4 KV	5700K	70
DAZZLE	OLFL-0240-757-25-00	240	1.002	28800	Symm 25°	<10%	0.95	4 KV	5700K	70
DAZZLE	OLFL-0300-757-10-SP	300	1.275	36000	Symm 10°	<10%	0.95	4 KV	5700K	70
DAZZLE	OLFL-0300-957-10-SP	300	1.275	30900	Symm 10°	<10%	0.95	4 KV	5700K	90
DAZZLE	OLFL-0300-757-25-SP	300	1.275	36000	Symm 60°	<10%	0.95	4 KV	5700K	70
DAZZLE	OLFL-0300-757-60-00	300	1.275	36000	Symm 60°	<10%	0.95	4 KV	5700K	70
DAZZLE	OLFL-0300-757-FN-00	300	1.275	36000	Asymm FN	<10%	0.95	4 KV	5700K	70
DAZZLE	OLFL-0350-757-28-00	350	1.495	42000	Symm 28°	<10%	0.95	4 KV	5700K	70
DAZZLE	OLFL-0350-757-60-00	350	1.495	42000	Symm 60°	<10%	0.95	4 KV	5700K	70



Aeroflood-DAZZLE

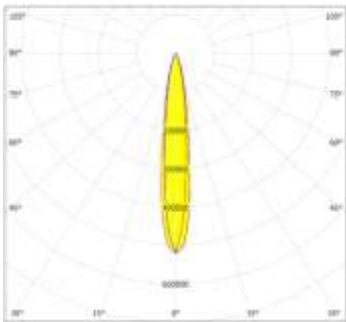
IP66 IK08

Installation Illustrations

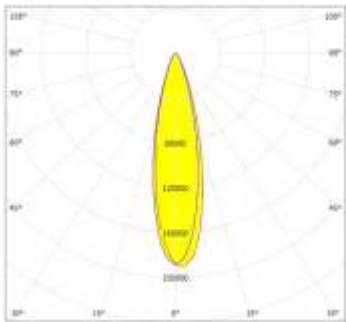


Polar Diagrams

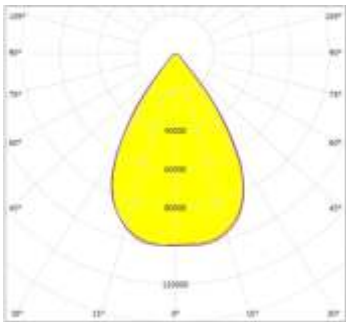
9.5° Spot



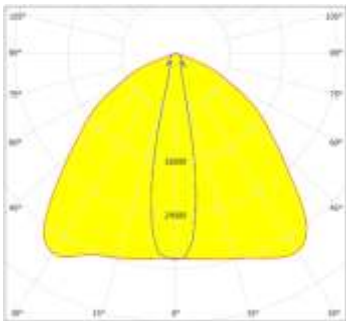
25° - 33° Medium



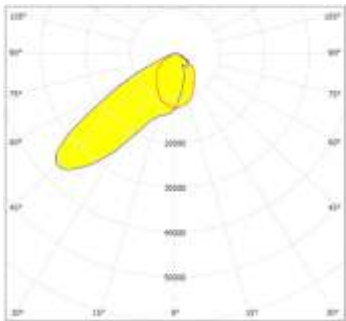
50° - 60° Wide



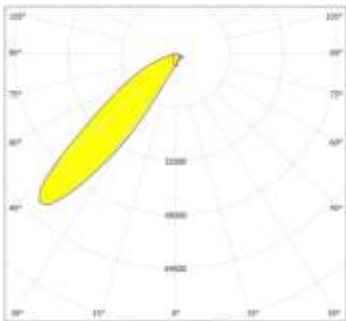
24° x 90° Bi Symmetric



FN Forward Assymmetric



TF Tunnel Counterbeam





Aeroflood-DAZZLE DUO

IP66 IK08



Energy Label A++



LED FLOOD LIGHT

DESIGN FEATURES

- High pressure die cast Aluminium alloy housing
- High tensile mild steel powder coated chassis
- Angle of each module fixed / adjustable (on demand)
- Polyester powder coating
- Robust, Sleek design with excellent heat dissipation
- 360° Cradle movement for omnidirectional precise focusing
- 4mm Thick extra clear toughened glass
- Silicon moulded gaskets for IP66 rating
- Separate integral / Non integral driver compartment IP 66
- All Stainless steel - AISI 304 grade hardware
- Minimised windage area (0.260M²)
- Anti condensation breather cum pressure equalization valve
- ON REQUEST: Microwave Motion Sensor, Dimmable/ DALI Versions, Daylight Sensor, Emergency Version through Lithium Ion Battery Pack, Mechanical Protection Guard

THERMAL MANAGEMENT

- Generously designed radiator fins in vertical direction to ensure proper air convection
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LEDs

- High efficacy (>145Lm/W) outdoor illumination grade SMD LEDs, LM80 Certified.
- Low junction thermal resistance for long life and low Lumen depreciation
- Luminous flux maintenance 80%, 50,000 Hrs (L80B20)
- High Colour rendering : CRI - 70/80/90
- Various CCT : 5700K/ 4000K/ 3000K/2200K

ELECTRICAL SYSTEM

- Outdoor rated >90% Efficiency constant current drivers with over Voltage (440V AC)/Undervoltage, Short circuit & Open circuit protection 4KV / 5KV / 6KV inbuilt surge protection.

- Optional 10KV / 20 KV external SPD
- Low Current harmonics : THD < 10%
- Low Flicker : <3%
- Ambient Temperature range : -30°C To 50°C

OPTICAL SYSTEM

- Variety of photometric beam options for - Area Lighting, Facade Lighting, Tunnel Lighting, Sports Arenas
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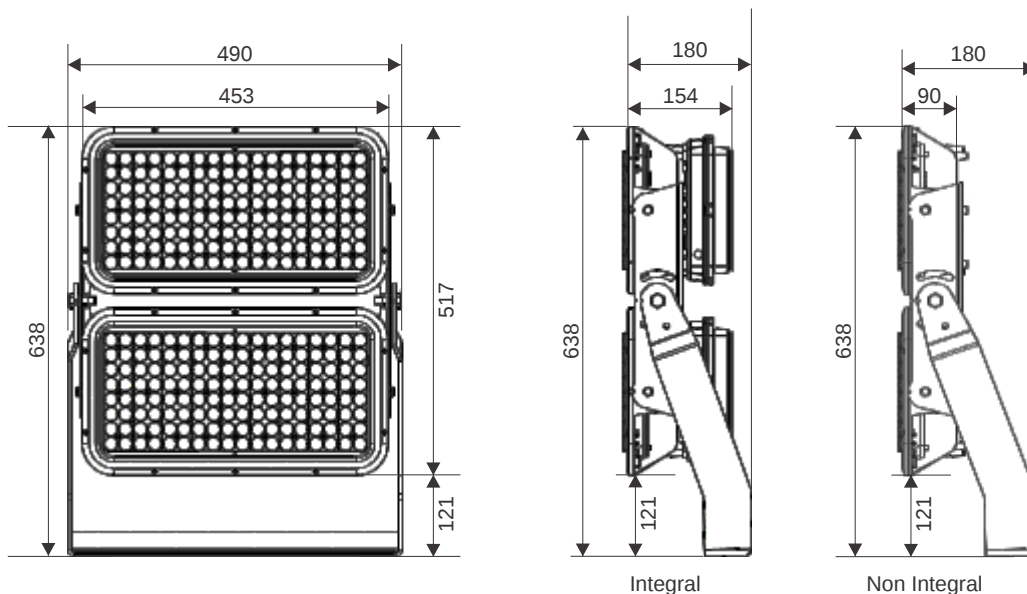
COMPLIANCES - LUMINAIRE

- As per IS 10322 (Part5/ Sec.5) 2012 & 2015
- IP66, IK08 as per IEC-EN 62262
- On Request: Surface coating resistant to salt spray tests pursuant to Standard UNI EN ISO 9227.



Aeroflood-DAZZLE DUO

IP66 IK08



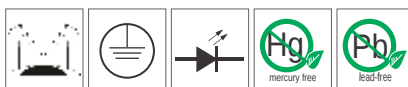
AREA LIGHTING

Technical Parameters

Input AC Voltage	: 140 to 277V AC
Frequency	: 50 / 60 Hz
Luminous Efficacy	: 120 Lumens / Watt
CCT (K)	: 5700K / 4000K / 3000K
Optics	: Symmetric : 10° / 15° / 25° / 33° / 60° / 90° Asymmetric : 20°x 90° Oval / FN - Forward Asymmetric 45°

Technical Specifications

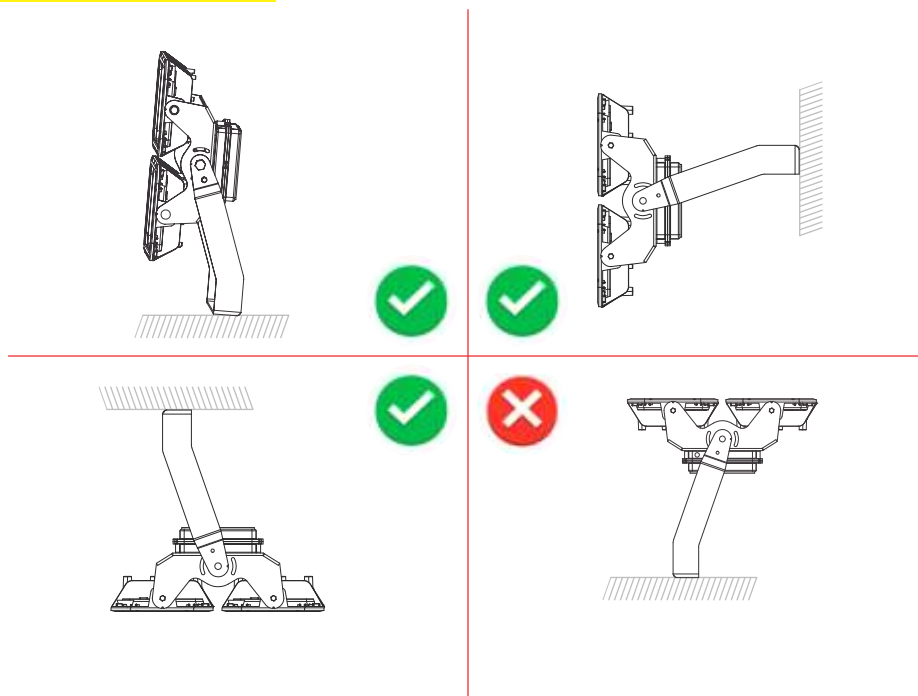
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AEROFLOOD DAZZLE DUO	OLFL-0480-757-60-00	480	2.041	57600	Symm 60°	<10%	0.95	4 KV	5700K	70
AEROFLOOD DAZZLE DUO	OLFL-0500-757-60-00	500	2.120	60000	Symm 60°	<10%	0.95	4 KV	5700K	70
AEROFLOOD DAZZLE DUO	OLFL-0500-757-25-00	500	2.120	60000	Symm 25°	<10%	0.95	4 KV	5700K	70
AEROFLOOD DAZZLE DUO	OLFL-0600-757-10-SP	600	2.550	72000	Symm 10°	<10%	0.95	4 KV	5700K	70
AEROFLOOD DAZZLE DUO	OLFL-0600-957-10-SP	600	2.550	63000	Symm 10°	<10%	0.95	4 KV	5700K	90
AEROFLOOD DAZZLE DUO	OLFL-0600-757-25-SP	600	2.550	72000	Symm 25°	<10%	0.95	4 KV	5700K	70
AEROFLOOD DAZZLE DUO	OLFL-0600-757-60-00	600	2.550	72000	Symm 60°	<10%	0.95	4 KV	5700K	70
AEROFLOOD DAZZLE DUO	OLFL-0600-757-FN-00	600	2.550	72000	Asymm FN	<10%	0.95	4 KV	5700K	70
AEROFLOOD DAZZLE DUO	OLFL-0700-757-25-00	700	2.980	84000	Symm 25°	<10%	0.95	4 KV	5700K	70
AEROFLOOD DAZZLE DUO	OLFL-0700-757-60-00	700	2.980	84000	Symm 60°	<10%	0.95	4 KV	5700K	70



Aeroflood-DAZZLE DUO

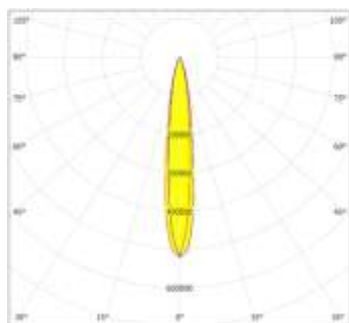
IP66 IK08

Installation Illustrations

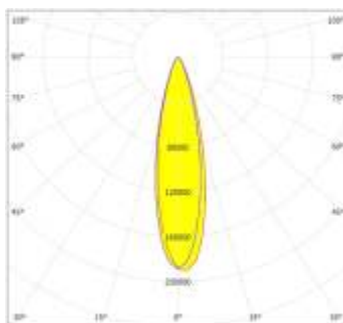


Polar Diagrams

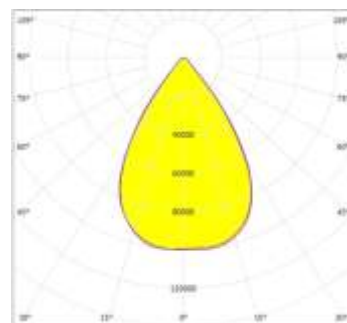
9.5° Spot



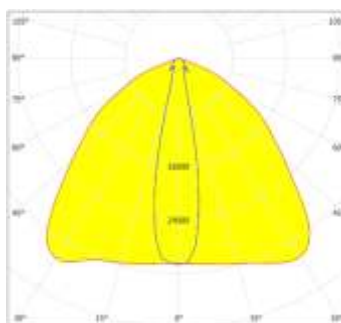
25° - 33° Medium



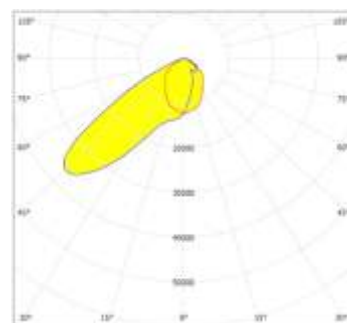
50° - 60° Wide



24° x 90° Bi Symmetric



FN Forward Asymmetric



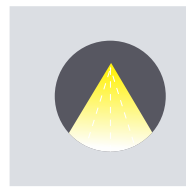




Floodlights for illuminating Sports Arenas

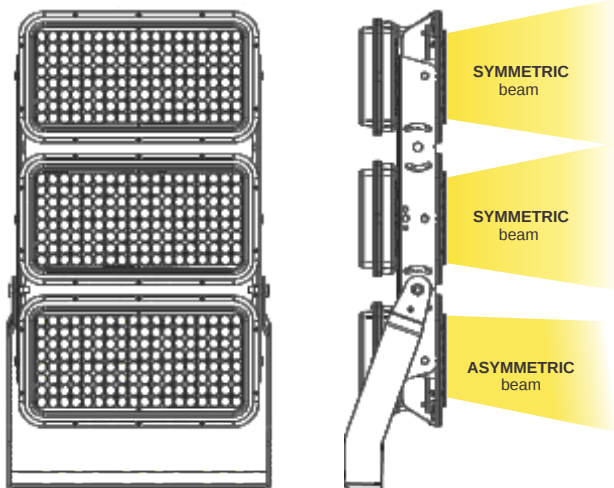


High design flexibility and combination of optics, Modular Scalability

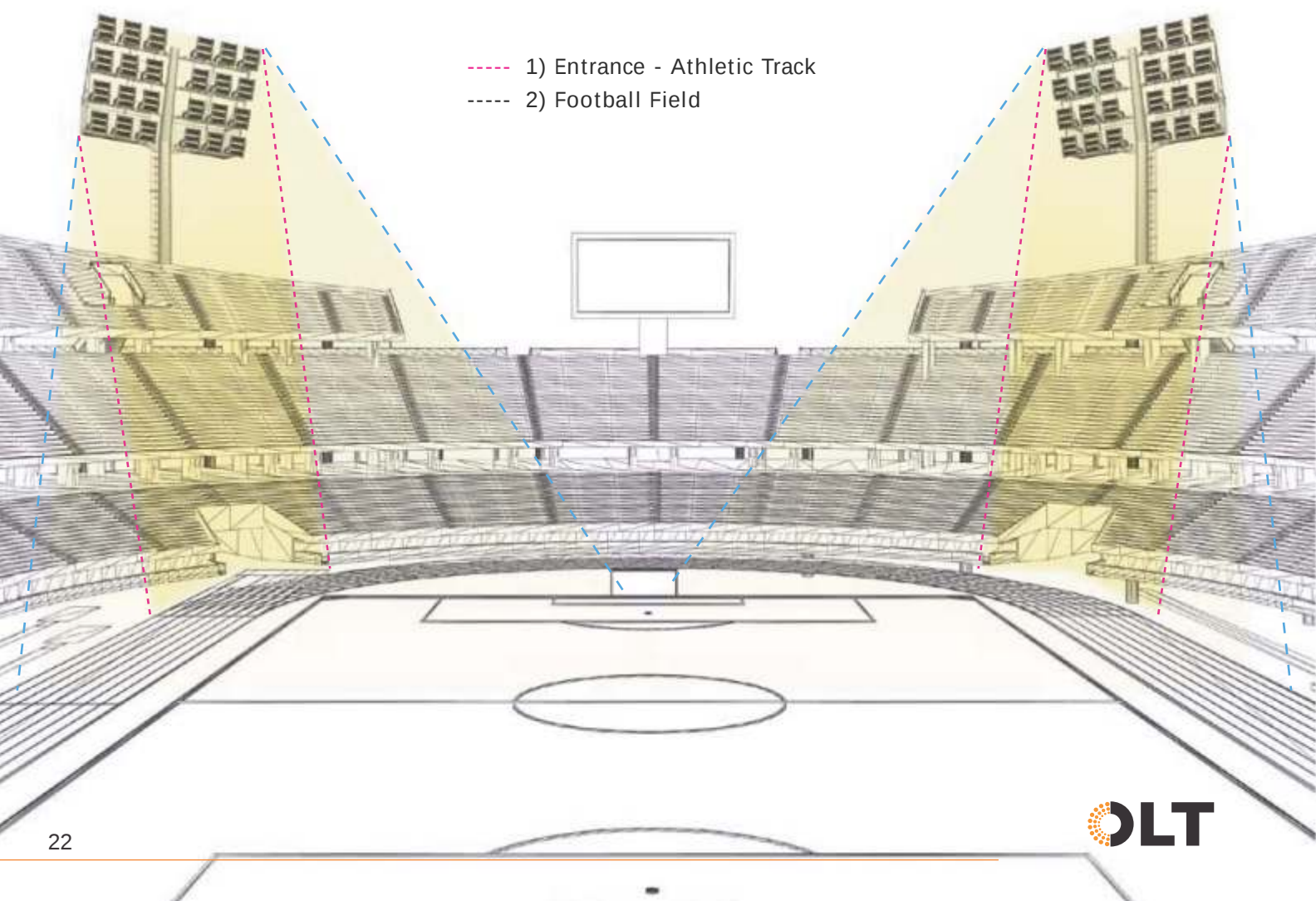


Lighting is ever more important in any setting. A lighting solution designed according to the most advanced standards reduces running costs and improves visibility, thereby increasing safety.

The extreme versatility of the optics mounted in Aeroflood LED guarantees the fixture's suitability to all application needs, ensuring higher performance in any circumstance compared to projectors featuring traditional technology.



Upon request, it is possible to equip 2-3 module products with mixed optics, combining different lighting distributions in order to obtain the ideal lighting for any setting.



- 1) Entrance - Athletic Track
- 2) Football Field

Quick reference for Sports Lighting Lux levels required



A modern stadium is a confluence of technology and theatrics

Light stability is a fundamental requirement for good quality TV resolution. Sport facilities are now multi-purpose venues, designed to host different types of events and built according to new environment friendly criteria, attracting an ever larger audience.

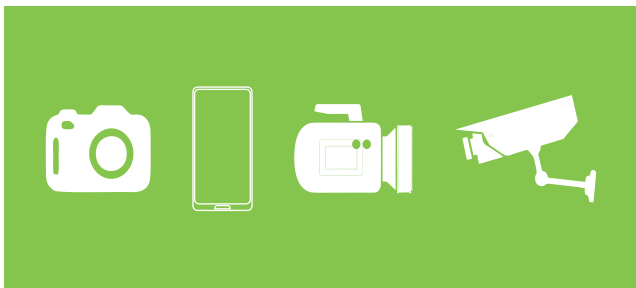
Below are the “Recommended values for indoor and outdoor sports lighting” (refer to Standard UNI EN 12193 / ICC / Other relevant standards for further details):

SPACES / SYSTEMS	Level (a)	OUTDOOR (A)			INDOOR (B)			Note
		Average illuminance (lux)	Average Uniformity (U ₀)	Specific illuminance (lux)	Average illuminance (lux)	Average Uniformity (U ₀)	Specific illuminance (lux)	
ATHLETICS	3	500	0.7	1000 (1)	500	0.7	1000 (1)	(1) fotofinish
	2	200	0.5		300	0.6		
	1	100	0.5		200	0.5		
SWIMMING POOL	3	500	0.7		500	0.7		
	2	300	0.7		300	0.7		
	1	200	0.5		200	0.5		
BASEBALL	3	750 (1)	0.7(1)		750(1)	0.7(1)		(1) infield
	2	500 (1)	0.5(1)					
	1	300 (1)	0.5(1)					
FOOTBALL	3	500	0.7					
	2	200	0.6					
	1	75	0.5					
CRICKET	3	2000-2500 (V)	0.7	1500-2000 (H)				V-Vertical H-Horizontal Pitch uniformity >0.9
	2	500-750	0.5					
	1	250-300	0.5					
CYCLING	3	500	0.7	1000 (1)	750	0.7	1000 (1)	(1) fotofinish vert. plane (1) tee
	2	300	0.7		500	0.7		
	1	100	0.5		200	0.5		
GOLF	3-2	100 (1)	0.8	100 (2)				
GYMNASTICS	3				500	0.7		
	2				300	0.6		
	1				200	0.5		
HOCKEY (FIELD AND INDOOR)	3	500	0.7		750	0.7		
	2	200	0.7		500	0.7		
	1	200	0.7		300	0.7		
ROLLER SKATING	3	500	0.7		750	0.7		
	2	200	0.5		500	0.6		
	1	100	0.5		300	0.5		
BASKETBALL VOLLEYBALL HANDBALL WRESTLING WEIGHTLIFTING JUDO	3	500	0.7		750	0.7		
	2	200	0.6		500	0.7		
	1	100	0.5		200	0.5		
BOXING	3				2000 (1)	0.8		(1) on the ring
	2				1000 (1)	0.8		
	1				500 (1)	0.5		
RUGBY	3	500	0.7					
	2	200	0.6					
	1	75	0.5					
EQUESTRIAN SPORTS	3	500	0.7		500	0.7		
	2	300	0.6		200	0.5		
	1	200	0.5		100	0.5		
MOTOR SPORTS	3	200	0.6	1000 (1)	200	0.6	1000 (1)	(1) fotofinish
	2	200	0.6		200	0.6		
	1	80	0.5		80	0.5		
ICE RINKS	3	750	0.7		750	0.7		
	2	500	0.7		500	0.7		
	1	200	0.5		300	0.7		
SQUASH	3				750	0.7		
	2				500	0.7		
	1				300	0.7		
TENNIS	3	500	0.7		750	0.7		
	2	300	0.7		500	0.7		
	1	200	0.6		300	0.5		
SHOOTING	3-2-1	200	0.5	500 (1) 300 (2)	200	0.5	500 (1) 300 (2)	(1) target (2) platform

N.B.: Level: (a) 1. Practice / Non professional level - 2. Competition / Local professional level - 3. National and international professional level and for HDTV Broadcast.

(b) All luminance values, except otherwise stated, refer to the horizontal plane that matches the surfaces where the activity takes place (water surface for swimming activities).

Quality light without glare for high-resolution TV



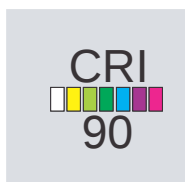
Light with no glare

Lighting must meet the needs of international events in terms of efficiency and high-definition TV broadcasting, which require high levels of luminance, light uniformity, excellent colour rendering and greater attention the visual comfort of spectators and athletes with a light without glare.



OLT luminaires are compliant with IES LM-79-08 and BIS / IS-10322 / IEC 60598 standards tested at in house and NABL accredited labs like UL / INTERTEK

The Low Flicker Pictogram (LF)



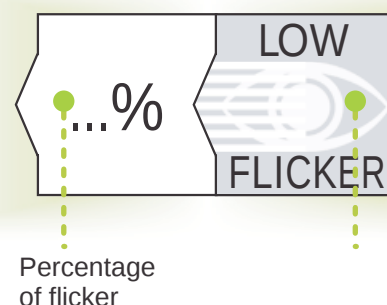
Best quality lighting

- Sports lighting also requires luminaires with High colour reproduction light for HDTV broadcast. This requires LED fixtures with CRI>90.

The colour rendering index (CRI) indicates how the colours of an object is reproduced when illuminated by an artificial light source. It is a scale from 0 to 100, where 0 represents the lowest reproducibility and 100 is the maximum. Daylight is the best source of light from the physiological point of view thanks to the completeness of its colour spectrum; this is why the choice of fixtures with a high colour index is very important to enhance people's sense of well being and comfort and it is particularly needed in cases where a faithful reproduction of colours is required.

Aeroflood is equipped with LEDs in following options:

- CRI 70 (5700K) and CRI 90 (5700K)
- CRI 70 (4000K) and CRI 90 (4000K)
- CRI 80 (4000K)



Flicker is a common issue with LED lamps. It can occur at frequencies below 60 Hz and depends on several factors, such as the ripple emitted by drivers. The notion of flicker-free is very different from that of ripple-free. Ripple is most commonly used by driver manufacturers. Furthermore, “flicker-free” does not mean “without” but rather “very low”.



Quality LED drivers come with a sophisticated multistage circuit to power LED with an ideal current source (one line), without overloads (Figure 1). By “ripple” we mean the dimension of the output

waveform of a LED driver.

Despite the oscillation occurs at frequencies that cannot be perceived by naked eye, evidence shows that the human brain can perceive light oscillations up to 200 Hz (in LED drivers with ripple, this frequency is 100 Hz) Possible problems include headaches, eye strain, distorted vision and, in some cases, even epileptic seizures.

Figure 2 shows the greatest impact on LED life at high temperatures: the LED appears to be overpowered in zone “A” and underpowered in zone “B”.

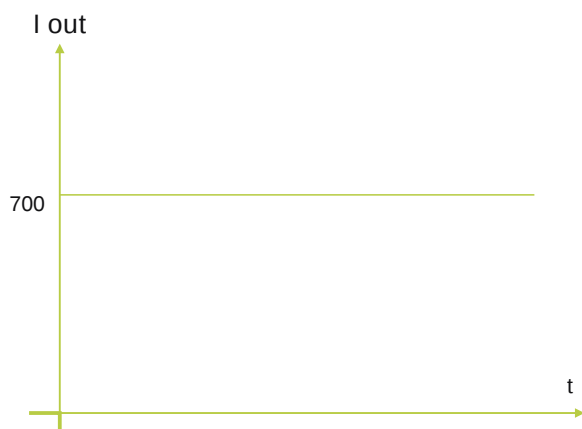


Figure 1. LED powered with ideal current

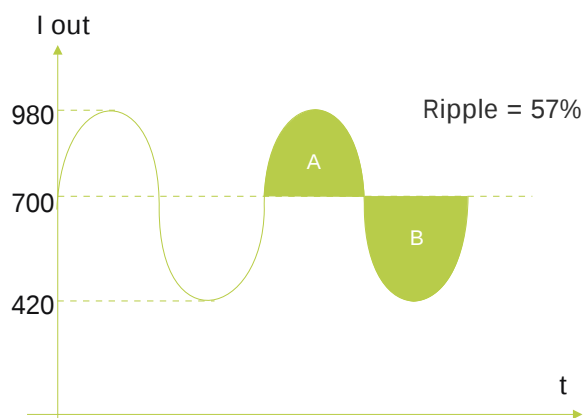


Figure 2. A: LED overpowered, B: LED underpowered

Figure 2: in the absence of a suitable heat sink, the excess temperature of area “A” is not balanced by zone “B”, with the result that the LED junction temperature will be higher than the temperature of a RIPPLE-FREE product.

Guidelines for TV broadcasts with LED lighting systems

During a broadcast it is not uncommon to perceive an annoying flicker especially during slow motion. This flicker is distracting and should be eliminated where possible.

The circumstances that produce the flicker vary upon the frequency modulation, voltage and camera frame rate.

The table below provides a general rule of flicker factor values produced by various lighting systems. A flicker factor of less than 5% will generally not cause problems for slow motion replays at up to 150 frames per second. A lighting system with a flicker factor of less than 5% will eliminate the perceived flicker at most frame rates per second used within the sports television industry.

The acceptable level of flicker factor (FF) is indicated in the Illuminance Category Tables.

Flicker Factor Reference Table	
Type of Illuminance System	FF value (guide only)
Daylight	0 %
LED Luminaires % of flicker depends upon the type of LED power supply	<3 %
Discharge lamps with high frequency ballasts	<4 %
Discharge lamps with 3-phase magnetic ballasts for uniform light	8-20 %
Discharge lamps with single-phase magnetic ballasts	30-50 %

Aeroflood-STADIA-III

IP66 IK08



Energy Label **A++**



LED FLOOD LIGHT

DESIGN FEATURES

- High pressure die cast Aluminium alloy housing
- High tensile mild Steel powder coated chassis
- Angle of each module fixed / adjustable (on demand)
- Polyester powder coating
- Robust, Sleek design with excellent heat dissipation
- 360° Cradle movement for omnidirectional precise focusing
- 4mm Thick extra clear toughened glass
- Silicon moulded gaskets for IP66 rating
- Separate Non integral driver compartment / Tray
- All Stainless steel - AISI 304 grade hardware
- Minimised windage Area (0.408M²)
- Anti condensation breather cum pressure equalization valve
- ON REQUEST: Microwave Motion Sensor, Dimmable / DALI Versions, Daylight Sensor, Emergency Version through Lithium Ion Battery Pack, Mechanical Protection Guard

THERMAL MANAGEMENT

- Generously designed radiator fins in vertical direction to ensure proper air convection
- Separate Non integral driver compartment for thermal isolation & Not to affect LED compartment during maintenance, Provided with brass PG9 cable glands and IP68 inline connectors

LEDs

- High Efficacy (>155Lm/W) Outdoor Illumination grade SMD LEDs, LM80 Certified.
- Low Junction thermal resistance for long Life and low Lumen depreciation
- Luminous flux maintenance 80%, 50,000 Hrs (L80B20)
- High colour rendering : CRI - 70/80/90
- Various CCT : 3000K/ 4000K/ 5700K

ELECTRICAL SYSTEM

- Outdoor rated >90% Efficiency constant current drivers with over voltage (440V AC)/ undervoltage, Short circuit & open circuit protection 4KV / 5KV / 6KV inbuilt surge protection.

- Optional 10KV / 20 KV External SPD
- Low Current harmonics : THD < 10%
- Low Flicker : <3% / <1%
- Ambient temperature range : -30°C To +50°C

OPTICAL SYSTEM

- Variety of photometric beam options for - Area Lighting, Facade Lighting, Tunnel Lighting, Sports Arenas
- Structured on high performance optical grade lenses in PMMA / PC
- Photometric design data for all optics available

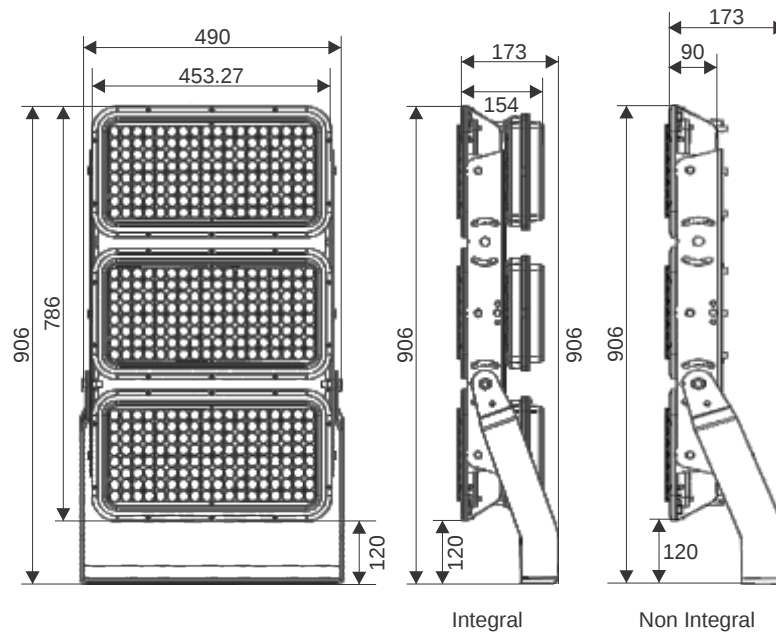
COMPLIANCES - LUMINAIRE

- As Per IS 10322 (Part5/ Sec.5) 2012 & 2015
- IP66, IK08 as per IEC-EN 62262
- On Request: Surface coating resistant to Salt spray tests pursuant to Standard UNI EN ISO 9227.



Aeroflood-STADIA-III

IP66 IK08



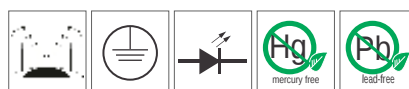
AREA LIGHTING

Technical Parameters

Input AC Voltage	: 140 to 277V AC
Frequency	: 50 / 60 Hz
Luminous Efficacy	: 120 Lumens/Watt
CCT (K)	: 3000K / 4000K / 5700K
Optics	: Symmetric : 9° / 15° / 24° / 33° / 42° / 60° / 90° Asymmetric : 20°x 90° Oval / FN - Forward Asymmetric 45°

Technical Specifications

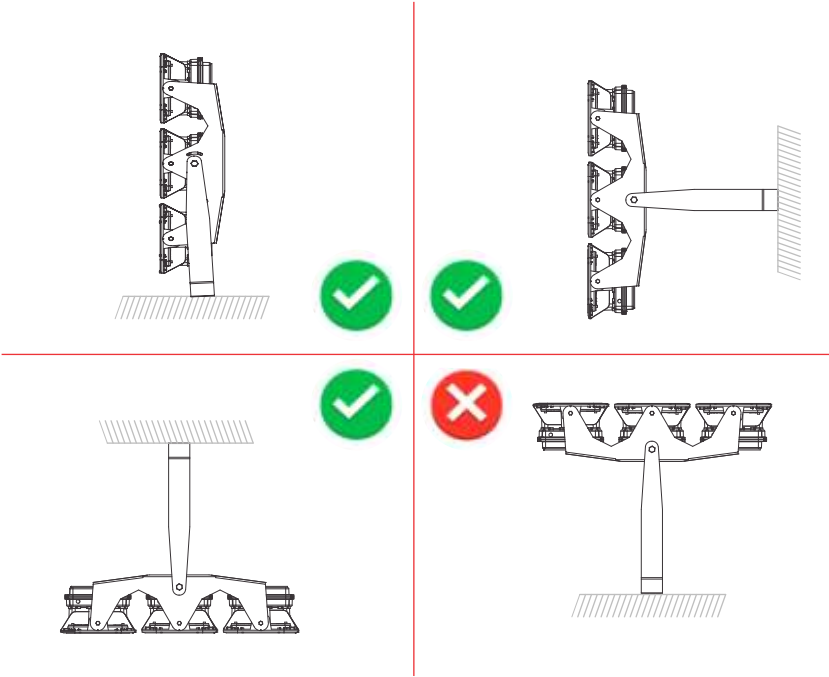
SERIES	ITEM CODE	SYSTEM WATTAGE	INPUT CURRENT	DELIVERED LUMENS	LIGHT BEAM	THD	PF	SURGE PROTECTION	CCT	CRI
STADIA-III	OLFL -0750-757-25-00	750	3.080	90000	Symm 25°	<10%	0.95	4 KV	5700K	70
STADIA-III	OLFL-0750-757-38-00	750	3.080	90000	Symm 38°	<10%	0.95	4 KV	5700K	70
STADIA-III	OLFL-0750-757-60-00	750	3.080	90000	Symm 60°	<10%	0.95	4 KV	5700K	70
STADIA-III	OLFL-0750-757-10-SP	750	3.080	90000	Symm 10°	<10%	0.95	4 KV	5700K	70
STADIA-III	OLFL-0900-757-38-00	900	3.820	108000	Symm 38°	<10%	0.95	4 KV	5700K	70
STADIA-III	OLFL-0900-757-25-SP	900	3.820	108000	Symm 25°	<10%	0.95	4 KV	5700K	70
STADIA-III	OLFL-0900-757-10-SP	900	3.820	108000	Symm 10°	<10%	0.95	4 KV	5700K	70
STADIA-III	OLFL-0900-957-10-SP	900	3.820	94500	Symm 10°	<10%	0.95	4 KV	5700K	90
STADIA-III	OLFL-1050-757-25-SP	1050	4.460	126000	Symm 25°	<10%	0.95	4 KV	5700K	70
STADIA-III	OLFL-1050-957-10-SP	1050	4.460	110250	Symm 10°	<10%	0.95	4 KV	5700K	90



Aeroflood-STADIA-III

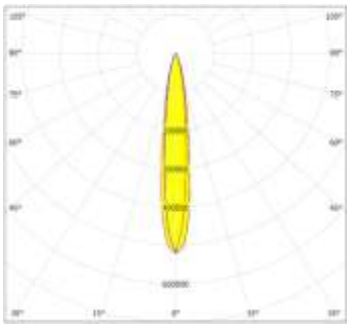
IP66 IK08

Installation Illustrations

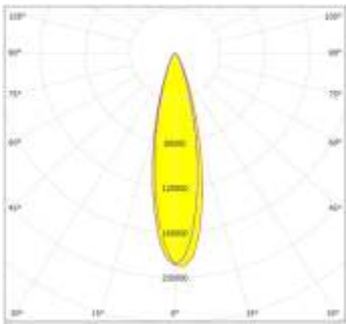


Polar Diagrams

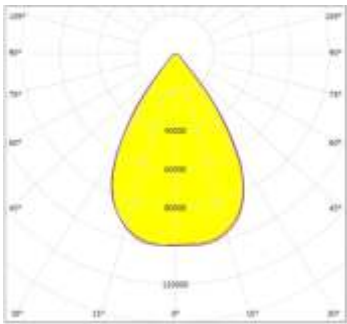
9.5° Spot



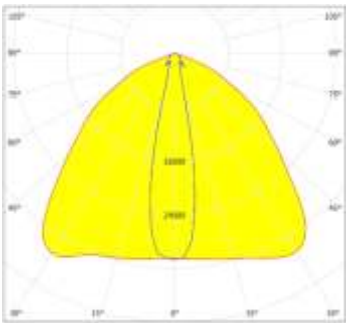
25° - 33° Medium



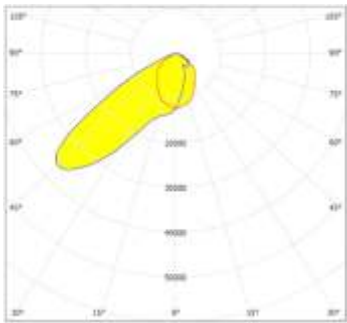
50° - 60° Wide



24° x 90° Bi Symmetric



FN Forward Assymmetric





Aeroflood-STADIA-IV

IP66 IK08



Energy Label A++

LED FLOOD LIGHT

DESIGN FEATURES

- High pressure die cast Aluminium alloy housing
- High tensile mild Steel powder coated chassis
- Angle of each module fixed / adjustable (on demand)
- Polyester powder coating
- Robust, Sleek design with excellent heat dissipation
- 360° Cradle movement for omnidirectional precise focusing
- 4mm Thick extra clear toughened glass
- Silicon moulded gaskets for IP66 rating
- Separate Non integral driver compartment / Tray
- All Stainless steel - AISI 304 grade hardware
- Minimised windage area (0.474M²)
- Anti condensation breather cum pressure equalization valve
- ON REQUEST: Microwave motion sensor, Dimmable / DALI Versions, Daylight Sensor, Emergency Version through Lithium Ion Battery Pack, Mechanical Protection Guard

THERMAL MANAGEMENT

- Generously designed radiator fins in vertical direction to ensure proper air convection
- Separate Non integral driver compartment for thermal isolation & not to affect LED compartment during maintenance, provided with brass PG9 cable glands and IP68 inline connectors

LEDs

- High efficacy (>155Lm/W) outdoor illumination grade SMD LEDs, LM80 Certified.
- Low junction thermal resistance for long life and low Lumen depreciation
- Luminous flux maintenance 80%, 50,000 Hrs (L80B20)
- High colour rendering : CRI - 70/80/90
- Various CCT : 3000K/ 4000K/ 5700K

ELECTRICAL SYSTEM

- Outdoor rated >90% Efficiency constant current drivers with over voltage (440V AC)/Undervoltage, Short circuit & open circuit protection 4KV / 5KV / 6KV inbuilt surge protection.

- Optional 10KV / 20 KV external SPD
- Low Current harmonics : THD < 10%
- Low flicker : <3% / <1%
- Ambient temperature range : -30°C To +50°C

OPTICAL SYSTEM

- Variety of photometric beam options for - Sports Arenas, Large Area Lighting.
- Structured on high performance optical grade lenses in PMMA / PC
- Photometric design data for all optics available

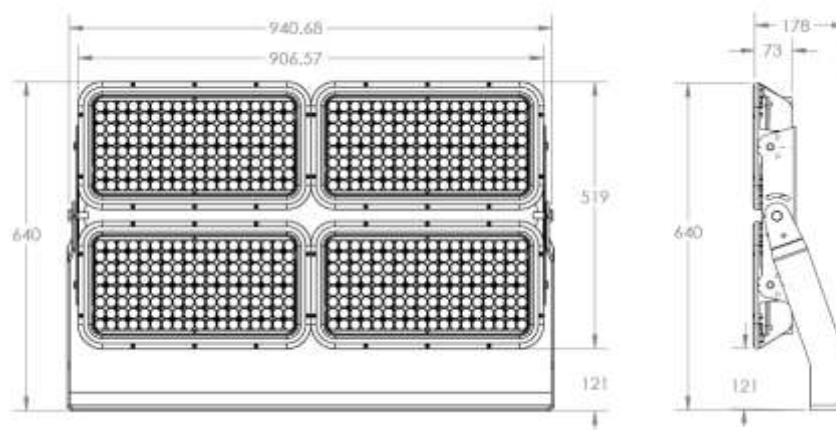
COMPLIANCES - LUMINAIRE

- As Per IS 10322 (Part5/ Sec.5) 2012 & 2015
- IP66, IK08 as per IEC-EN 62262
- On Request: Surface coating resistant to Salt spray tests pursuant to Standard UNI EN ISO 9227.



Aeroflood-STADIA-IV

IP66 IK08



AREA LIGHTING

Technical Parameters

Input AC Voltage	: 140 to 277V AC
Frequency	: 50 / 60 Hz
Luminous Efficacy	: 120 Lumens/Watt
CCT (K)	: 3000K / 4000K / 5700K
Optics	: Symmetric : 9° / 15° / 24° / 33° / 42° / 60° / 90° Asymmetric : 20°x 90° Oval / FN - Forward Asymmetric 45°

Technical Specifications

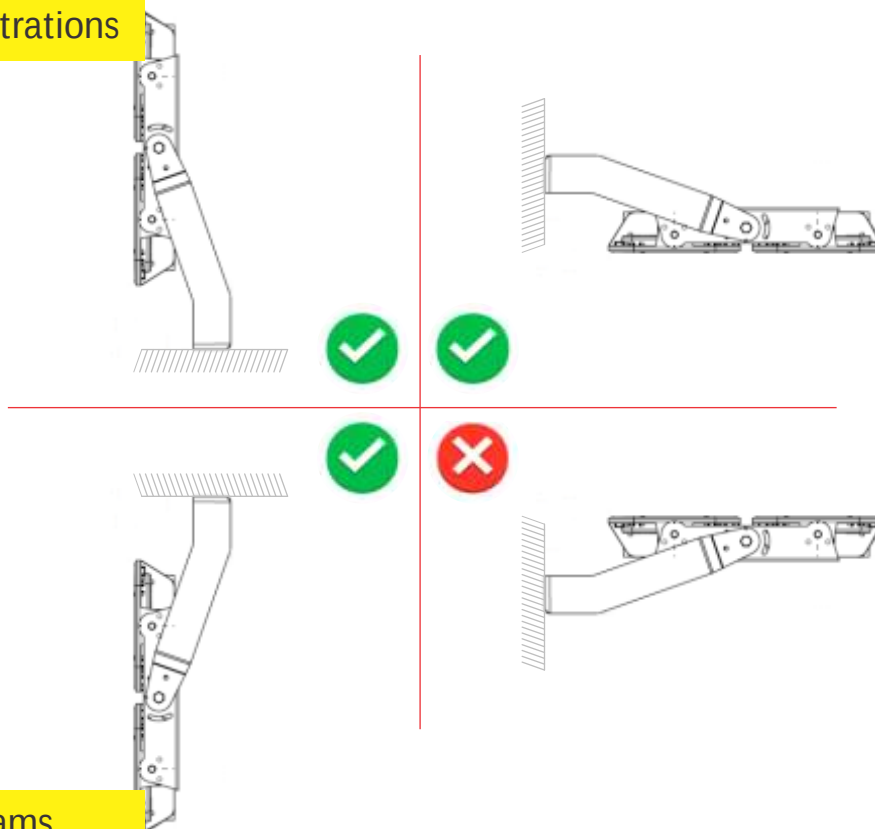
SERIES	ITEM CODE	SYSTEM WATTAGE	INPUT CURRENT	DELIVERED LUMENS	LIGHT BEAM	THD	PF	SURGE PROTECTION	CCT	CRI
STADIA-IV	OLFL-1000-757-10-SP	1000	4.23	125000	Symm 10°	<10%	0.95	4 KV	5700K	70
STADIA-IV	OLFL-1000-757-25-SP	1000	4.23	125000	Symm 25°	<10%	0.95	4 KV	5700K	70
STADIA-IV	OLFL-1000-757-42-SP	1000	4.23	125000	Symm 42°	<10%	0.95	4 KV	5700K	70
STADIA-IV	OLFL-1000-957-10-SP	1000	4.23	105000	Symm 10°	<10%	0.95	4 KV	5700K	90
STADIA-IV	OLFL-1200-757-10-SP	1200	5.08	150000	Symm 10°	<10%	0.95	4 KV	5700K	70
STADIA-IV	OLFL-1200-757-25-SP	1200	5.08	150000	Symm 25°	<10%	0.95	4 KV	5700K	70
STADIA-IV	OLFL-1200-757-42-SP	1200	5.08	150000	Symm 42°	<10%	0.95	4 KV	5700K	70
STADIA-IV	OLFL-1200-957-10-SP	1200	5.08	126000	Symm 10°	<10%	0.95	4 KV	5700K	90
STADIA-IV	OLFL-1400-757-25-SP	1400	5.92	173000	Symm 25°	<10%	0.95	4 KV	5700K	70
STADIA-IV	OLFL-1400-957-10-SP	1400	5.92	147000	Symm 10°	<10%	0.95	4 KV	5700K	90
STADIA-IV	OLFL-1400-957-25-SP	1400	5.92	147000	Symm 25°	<10%	0.95	4 KV	5700K	90
STADIA-IV	OLFL-1400-957-42-SP	1400	5.92	147000	Symm 42°	<10%	0.95	4 KV	5700K	90



Aeroflood-STADIA-IV

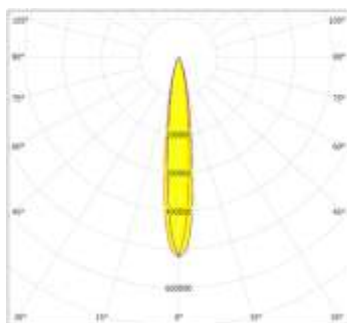
IP66 IK08

Installation Illustrations

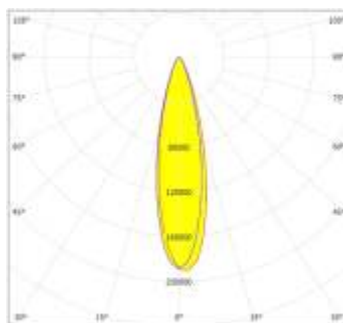


Polar Diagrams

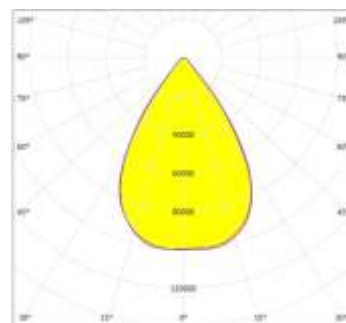
9.5° Spot



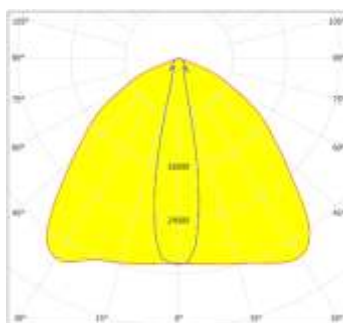
25° - 33° Medium



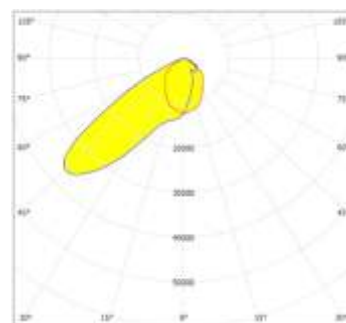
50° - 60° Wide



24° x 90° Bi Symmetric



FN Forward Assymmetric







Omnitech Lighting Pvt.Ltd.

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