



### LED Hazardous Area Floodlight Standard and Emergency Variants

The SPARTAN Floodlight range is designed specifically for hazardous environments which require high performance, high reliability, Infra-Red illumination. Housed in Marine Grade aluminium with a toughened glass window, and using **RayLED's** field-proven, long-life LED technology, SPARTAN Floodlights are ATEX and IEC Ex approved for all Zone 1 and Zone 2 applications, C1D2, UL, CSA, ABS and rated for T4, T5 and T6 environments/locations. Available in both standard and emergency versions.

SPARTAN Flood is available in a variety of different beam patterns, both circular and elliptical, to suit any application. The circular beam patterns maximise light output, while the elliptical beam patterns use **RayLED's** revolutionary VARIO holographic lens technology to shape the light providing greater illumination distances with significantly reduced energy wastage. The VARIO holographic beam patterns can easily be modified – offering ultimate flexibility to specifiers, distributors and end-users.

SPARTAN Flood has been designed from the ground up for easy installation, easy maintenance, easy inspection, and long life performance. SPARTAN uses **CODLEXTRUDE™** thermal management technology, ensuring a much cooler LED operating temperature allowing the product to operate for >10 years. A unique, maintenance-friendly design allows quick and easy servicing and inspection of all key components including LED and PSU modules if required.

### Features

- ATEX & IEC EX approved Zone 1 & 2 and ABS
- Ultra long life LED
- Easy installation, maintenance and inspection
- Emergency variants
- Wide operating temperature range

## Why RayLED

- UK Designed & Manufactured
- Manufacturing precision engineered LED products
- Worldwide distributor support

- Integral photocell (optional)
- 5 year warranty
- VARIO lens technology easy modification of beam patterns
- Lighting design and full technical support
- ISO9001 and ISO140001 accredited
- Award Winning Technology



## Key Features

#### Ultra-Powerful

Latest high power LED technology

#### Ultra-Flexible

Beam patterns from 10° to 120° both circular and elliptical. Operating temperature range of -50°C to + 55°C with a T4/T5/T6 rating for even the most challenging conditions. (-20°C emergency variants) Models incorporating VARIO Technology allow for easy modification of beam pattern.

#### Ultra-Reliable

Industry leading 5 year warranty Designed and manufactured in the UK to the highest standards including both ISO9001 & ISO14001. Advanced electronics and LED's protected by vibration resistant and water proof potting compound

#### Ultra-Modular

Both the LED and PSU modules are easily accessible for maintenance and inspection Available as a standard or emergency fitting – upgradeable on site. Removable PSU housing allows power supply to be fitted remotely

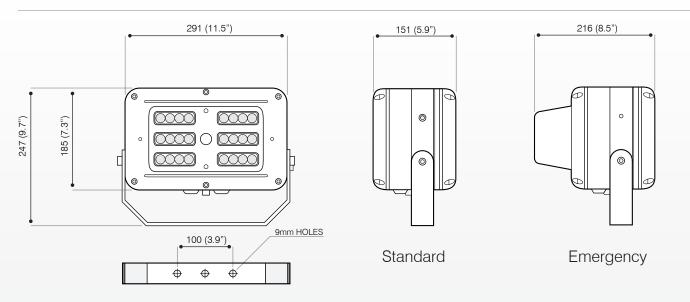
#### Ultra-Efficient

**COOLEXTRUDE™** thermal management delivers class leading energy efficiency Significant running and maintenance savings compared to traditional lighting technologies SMART access wiring system for safe and efficient installation, set-up and ongoing inspection

#### Ultra-Support

Photometric files available (.ies & .ldt) Full Lighting Design Service Site specific Energy and Cost Saving Report available

### **Product Dimensions**





IJ

## **Technical Specifications**

IP66 & IP67 - Ta -50°C to +55°C (-20°C emergency variants)all external fasteners and bracked are marine grade stainless steelNorth America Rating:Class I, Division 2 Groups A, B, C, D, T5 Class II, Division 1 & 2 Groups E, F, G Class III, Division 1 & 2 NEMA 4x, IP66/IP67 UL50E, UL8750, UL 1203 C22.2 No Emergency Variants - Certification Pending ABS Certificate # 15-LD1364539-1-PDUnit Colour:Silver (RAL 9006), emergency battery box red (RAL3024)Installation instructions:RayLED ref 910-M-0094 - please contact RayLED for copyDimensions:Standard - 291 x 247 x 150mm (11.5 x 9.7 x 6")ElectricalElectrical	Certification		Mechanical/Environmental	
Certificates:CML13ATEX3007 & IEC Ex CML 14.0001Temperature range:-50°C to +55°CGas:II 2 GD Ex emb IIC T5 or T4 Gb Ta -50°C to +45°C (-20°C emergency variants)Weight:8kg (17.61bs) Standard, 10kg (221bs) Emergency variants)Dust:Ex tb IIIC T82°C Db IP66 & IP67 - Ta -50°C to +55°C (-20°C emergency variants)Weight:8kg (17.61bs) Standard, 10kg (221bs) EmergencyNorth America Rating:Class II, Division 2 Groups A, B, C, D, T5 Class III, Division 1 & 2 Groups A, B, C, D, T5 Class III, Division 1 & 2 Groups A, B, C, D, T6 Class III, Division 2 Group A, B, C, D, T6 Class III, Division 2 Group A, B, C, D, T6 Class III, Division 2 Group A, B, C, D, T6 	ATEX Rating:	ATEX and IEC Ex rated for Gas and Dust	Burning position:	Universal
Gas:II 2 GD Ex emb IIC T5 or T4 Gb Ta -50°C to +45°C (-20°C emergency variants) II 2 GD Ex emb IIC T6 Gb Ta -50°C to +45°C (-20°C emergency variants) II 2 GD Ex emb IIC T6 GbWeight:8kg (17.6lbs) Standard, 10kg (22lbs) EmergencyDust:Ex tb IIIC T82°C Db IP66 & IP67 - Ta -50°C to +45°C (-20°C emergency variants)Enclosure:Marine grade aluminium epoxy powder coated, toughened glass all external fasteners and bracked are marine grade stainless steelNorth America Rating:Class I, Division 2 Groups A, B, C, D, T5 Class II, Division 1 & 2 Groups E, F, G Class II, Division 1 & 2 Groups E, F, G UL50E, UL8750, UL 1203 C22.2 NoUnit Colour:Silver (RAL 9006), emergency battery box red (RAL3024)Input:10-254V 50/60Hz AC only Emergency - 71WDimensions:Standard - 291 x 247 x 150mm (11.5 x 9.7 x 6") Emergency - 291 x 247 x 215mm (11.5 x 9.7 x 6")Power:Standard - 68W Emergency - 71WMounting:Ub rock (see dimension drawin on Page 2) – complete with lock screwPower Factor> 0.95Duration:Up to 2hrs at 50% power Other options availableCable entries2xM20 as standard (other entries available upon request), dispatched complete with one ATEX/ IEC Ex approved blanking plug 3/4" NPT as standard on C1D2Battery:Ni/Cd 12V 4.5Ah Charge time:OpticalExem Patterns-circular:10°x 10° or 30°x 30° or 50°x 50° or 120°x 120°Diration:Up to 2hrs at 50% power Other options available	Hazardous Area rating:	Zone 1 & 2 – Gas and Dust	IP rating:	IP66 & IP67
II 2 GD Ex emb IIC 76 Gb Ta -50°C to +48°C (-20°C emergency variants)IntegrateTokg (22lbs) EmergencyDust:Ex to IIIC 782°C Db (-20°C emergency variants)Enclosure:Marine grade aluminium epoxy powder coated, toughened glass are marine grade stainless steelNorth America Rating:Class I, Division 2 Groups A, B, C, D, T5 Class III, Division 1 & 2 Groups E, F, G Class III, Division 1 & 2 Groups E, F, G Class III, Division 1 & 2 Groups E, F, G Class III, Division 1 & 2 Groups E, F, G Class III, Division 1 & 2 Groups A, B, C, D, T5 DL50E, UL8750, UL 1203 C22.2 No Emergency Variants - Certification Pending ABC Certificate # 15-LD1364539-1-PDUnit Colour:Silver (RAL 9006), emergency battery box red (RAL3024) Dimensions:Electrical Input:110-254V 50/60Hz AC only Emergency - 71WMounting:U bracket (see dimension drawin on Page 2) – complete with lock screwPower:Standard - 68W Emergency - 71WStandard - 68W Emergency - 71WEmergency PowerPower Factor>0.95Duration:Up to 2hrs at 50% power Other options availableCable entries2xM20 as standard (other entries available upon request), dispatched complete with one ATEX/ Battery:Battery:Ni/Cd 12V 4.5Ah Charge time:Detact20 hours3/4" NPT as standard on C1D2Duration:Up to 2hrs at 50% power Other options availablePoteralEmergency and for 00°x 30° or 50°x 50° or 120°x 120°Emergency		II 2 GD Ex emb IIC T5 or T4 Gb	Temperature range:	
Dust:Ex to IIIC T82°C Db IP66 & IP67 - Ta -50°C to +55°C (-20°C emergency variants)Enclosure:Marine grade aluminium epoxy powder coated, toughened glass all external fasteners and bracke are marine grade stainless steelNorth America Rating:Class I, Division 2 Groups A, B, C, D, T5 Class II, Division 1 & 2 Groups A, B, C, D, T5 Class II, Division 1 & 2 Groups A, IP66/IP67 UL50E, UL8750, UL 1203 C22.2 No Emergency Variants - Certification Pending ABS Certificate # 15-LD1364539-1-PDInstallation instructions:RayLED ref 910-M-0094 - please contact RayLED for copy Dimensions:Electrical Input:110-254V 50/60Hz AC only Emergency - 71WMounting:U bracket (see dimension drawin on Page 2) - complete with lock screwPower:Standard - 68W Emergency - 71WEmergency Emergency - 71WU bracket (see dimension drawin on Page 2) - complete with lock screwPower Factor>0.95Duration:Up to 2hrs at 50% power Other options available Battery:Ni/Cd 12V 4.5Ah Charge time:Cable entries2xM20 as standard on C1D2Battery:Ni/Cd 12V 4.5AhOptical Beam Patterns-circular: 10°x 10° or 30°x 30° or 50°x 50° or 120°x 120°Line Sine Sine Sine Sine Sine Sine Sine S		II 2 GD Ex emb IIC T6 Gb	Weight:	
Class II, Division 1 & 2 Groups E, F, Gbattery box red (RAL3024)Class III, Division 1 & 2 NEMA 4x, IP66/IP67 UL50E, UL8750, UL 1203 C22.2 NoInstallation instructions:RayLED ref 910-M-0094 – please contact RayLED for copyDimensions:Standard - 291 x 247 x 150mm (11.5 x 9.7 x 6") Emergency Variants - Certification Pending ABS Certificate # 15-LD1364539-1-PDDimensions:Standard - 291 x 247 x 150mm (11.5 x 9.7 x 6") Emergency - 291 x 247 x 215mm (11.5 x 9.7 x 8.5")Electrical Input:110-254V 50/60Hz AC only Emergency - 71WMounting:U bracket (see dimension drawin on Page 2) – complete with lock screwPower:Standard - 68W Emergency - 71WEmergencyUb racket (see dimension drawin on Page 2) – complete with lock screwPower Factor>0.95Duration:Up to 2hrs at 50% power Other options availableCable entries2xM20 as standard (other entries available upon request), dispatched complete with one ATEX/ IEC Ex approved blanking plug 3/4" NPT as standard on C1D2Battery:Ni/Cd 12V 4.5Ah Charge time:Optical Beam Patterns-circular:I0°x 10° or 30°x 30° or 50°x 50° or 120°x 120°Standard screen s	Dust:	Ex tb IIIC T82°C Db IP66 & IP67 -	Enclosure:	powder coated, toughened glass, all external fasteners and brackets
NEMA 4x, IP66/IP67 UL50E, UL8750, UL 1203 C22.2 No Emergency Variants - Certification Pending ABS Certificate # 15-LD1364539-1-PDInstantion instructions: RayLED for copy please contact RayLED for copy Int.5 x 9.7 x 6")Electrical 	-	Class II, Division 1 & 2 Groups E, F, G Class III, Division 1 & 2 NEMA 4x, IP66/IP67 UL50E, UL8750, UL 1203 C22.2 No Emergency Variants - Certification Pending	Unit Colour:	
C22.2 No Emergency Variants - Certification Pending ABS Certificate # 15-LD1364539-1-PDDimensions:Standard - 291 x 247 x 150mm (11.5 x 9.7 x 6") Emergency - 291 x 247 x 215mm (11.5 x 9.7 x 6")ElectricalMounting:U bracket (see dimension drawin on Page 2) – complete with lock screwPower:Standard - 68W Emergency - 71WMounting:U bracket (see dimension drawin on Page 2) – complete with lock screwPower:Incoming terminal block suitable for looping 4 core 4mm² cableEmergencyUp to 2hrs at 50% power Other options availablePower Factor>0.95Duration:Up to 2hrs at 50% power Other options availableCable entries2xM20 as standard (other entries available upon request), dispatched complete with one ATEX/ IEC Ex approved blanking plug 			Installation instructions:	
Input:110-254V 50/60Hz AC onlyMounting:U bracket (see dimension drawir on Page 2) – complete with lock screwPower:Standard - 68W Emergency - 71WStandard - 68W Emergency - 71WScrewScrewTermination:Incoming terminal block suitable for looping 4 core 4mm² cableEmergencyScrewPower Factor>0.95Duration:Up to 2hrs at 50% power Other options availableCable entries2xM20 as standard (other entries available upon request), dispatched complete with one ATEX/ IEC Ex approved blanking plug 3/4" NPT as standard on C1D2Battery:Ni/Cd 12V 4.5AhOpticalBeam Patterns-circular:10°x 10° or 30°x 30° or 50°x 50° or 120°x 120°			Dimensions:	(11.5 x 9.7 x 6") Emergency - 291 x 247 x 215mm
Power: Standard - 68W Emergency - 71W screw   Termination: Incoming terminal block suitable for looping 4 core 4mm² cable Emergency   Power Factor >0.95 Duration: Up to 2hrs at 50% power   Cable entries 2xM20 as standard (other entries available upon request), dispatched complete with one ATEX/ IEC Ex approved blanking plug 3/4" NPT as standard on C1D2 Battery: Ni/Cd 12V 4.5Ah   Optical Beam Patterns-circular: 10°x 10° or 30°x 30° or 50°x 50° or 120°x 120° Control of the complete with one ATEX is the complete with the complete with the complete with one ATEX is		110 254V 50/60Hz AC only	Mounting:	U bracket (see dimension drawings
core 4mm² cableEmergencyPower Factor>0.95Duration:Up to 2hrs at 50% power Other options availableCable entries2xM20 as standard (other entries available upon request), dispatched complete with one ATEX/ IEC Ex approved blanking plug 3/4" NPT as standard on C1D2Battery:Ni/Cd 12V 4.5Ah Charge time:OpticalBeam Patterns-circular: 10°x 10° or 30°x 30° or 50°x 50° or 120°x 120°	•	Standard - 68W		0, 1 0
Cable entries 2xM20 as standard (other entries available upon request), dispatched complete with one ATEX/ Battery: Other options available   LEC Ex approved blanking plug 3/4" NPT as standard on C1D2 Charge time: 20 hours   Optical   Beam Patterns-circular: 10°x 10° or 30°x 30° or 50°x 50° or 120°x 120°	Termination:		Emergency	
Output changes in a standard (onto change dupling request), dispatched complete with one ATEX/ Battery: Ni/Cd 12V 4.5Ah   IEC Ex approved blanking plug 3/4" NPT as standard on C1D2 Charge time: 20 hours   Optical Beam Patterns-circular: 10°x 10° or 30°x 30° or 50°x 50° or 120°x 120° IEC * 20°	Power Factor	>0.95	Duration:	
IEC Ex approved blanking plug 3/4" NPT as standard on C1D2Charge time:20 hoursOptical Beam Patterns-circular: 10°x 10° or 30°x 30° or 50°x 50° or 120°x 120°Charge time:20 hours	Cable entries			
3/4" NPT as standard on C1D2 Optical Beam Patterns-circular: 10°x 10° or 30°x 30° or 50°x 50° or 120°x 120°			,	,
Beam Patterns-circular: 10°x 10° or 30°x 30° or 50°x 50° or 120°x 120°			Charge time:	20 hours
	Optical			
(10 x 10 option can be upgraded to VARIO Technology)	Beam Patterns-circular	: 10°x 10° or 30°x 30° or 50°x 50° or 120°x 120°		
		(10 x 10 option can be upgraded to VARIO Technology)		

	(10 x 10 option can be upgraded to VARIO Technological Content of the technology of technology o
Beam Patterns-elliptical:	$35^\circ x \ 10^\circ \text{or} \ 60^\circ x \ 25^\circ \text{or} \ 80^\circ x \ 30^\circ \ \text{or} \ 120^\circ x \ 50^\circ$
	(VARIO)
LED type:	Platinum SMT LEDs
Number of LEDs:	24

#### Circular beam pattern

Part Codes	Description (T4 variants as standard)	Distances
SPX-FL24-I-1010	SPARTAN Flood, 24 LED, Infra-Red, 10°x 10° beam	250m (820ft)
SPX-FL24-I-3030	SPARTAN Flood, 24 LED, Infra-Red, 30°x 30° beam	105m (344ft)
SPX-FL24-I-5050	SPARTAN Flood, 24 LED, Infra-Red, 50°x 50° beam	77m (253ft)
SPX-FL24-I-120120	SPARTAN Flood, 24 LED, Infra-Red, 120°x 120° beam	35m (115ft)

Add -C1D2 to part code for North American standards

For emergency versions – add '-EM' to the above codes For options fitted with photocell add '-PC' to the above codes Contact RayLED for T5 and T6 varianrs

#### Elliptical beam pattern

Part Codes	Description (T4 variants as standard)	Distances
SPX-FL24-I-3510	SPARTAN Flood, 24 LED, Infra-Red, 35°x 10° beam	158m (518ft)
SPX-FL24-I-6025	SPARTAN Flood, 24 LED, Infra-Red, 60°x 25° beam	95m (312ft)
SPX-FL24-I-8030	SPARTAN Flood, 24 LED, Infra-Red, 80°x 30° beam	72m (236ft)
SPX-FL24-I-12050	SPARTAN Flood, 24 LED, Infra-Red, 120°x 50° beam	50m (164ft)

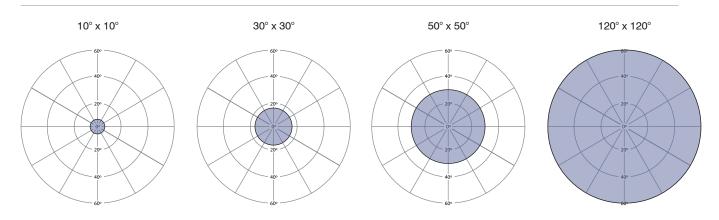
Add -C1D2 to part code for North American standards

For emergency versions – add '-EM' to the above codes For options fitted with photocell add '-PC' to the above codes Contact RayLED for T5 and T6 varianrs

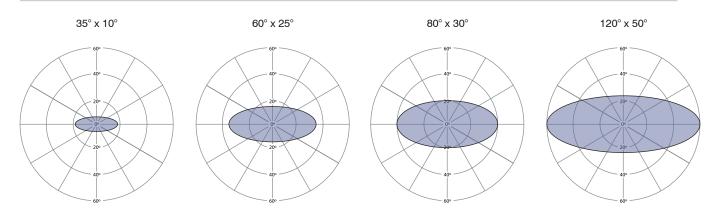


All RayLED luminaires are provided with an industry leading 5 year warranty and have an expected useful life in excess of 10 years

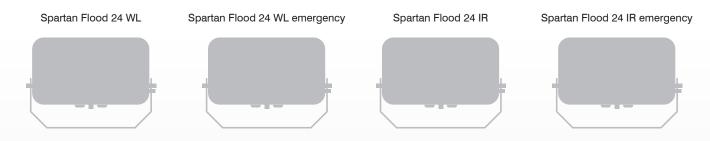
### Beam patterns - Circular



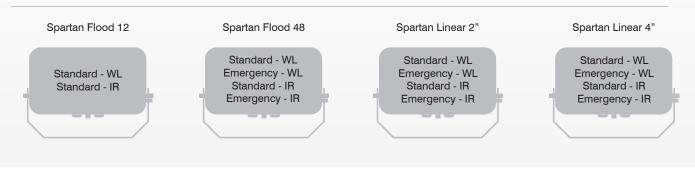
# Beam patterns – Elliptical (VARIO)



## Products in the SPARTAN Flood 24 range



## Other Products in the SPARTAN Hazardous Area Family





IJ