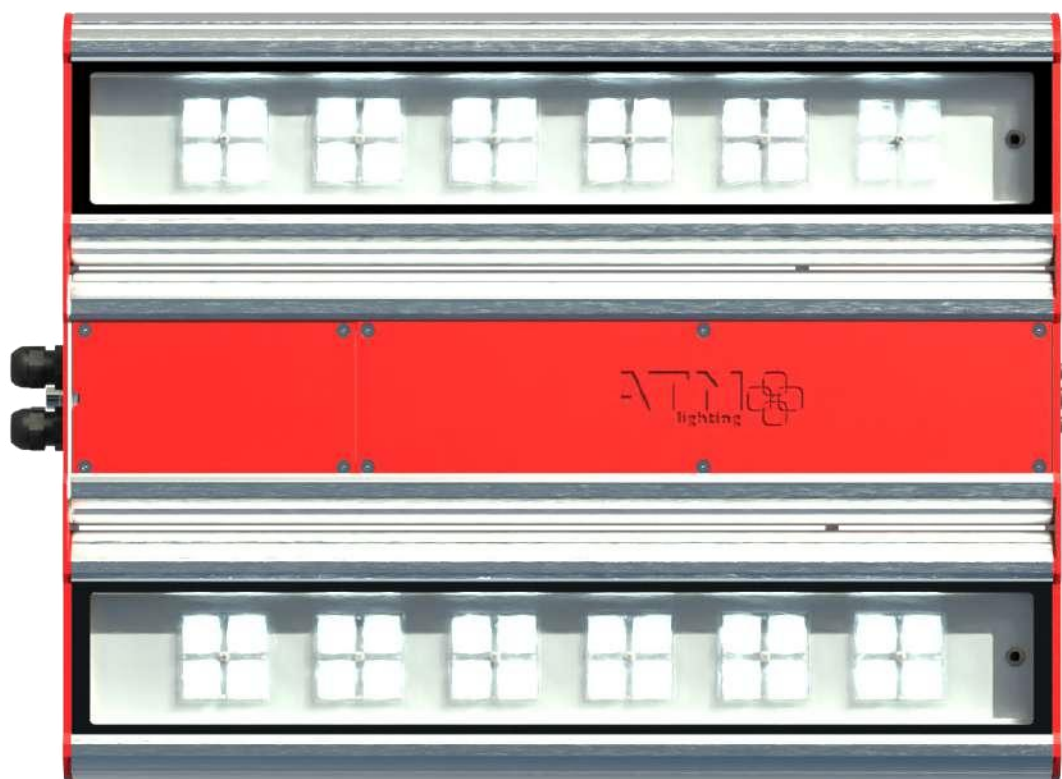
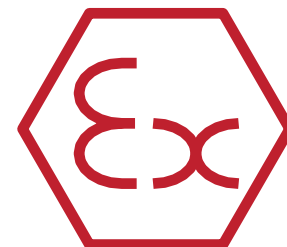
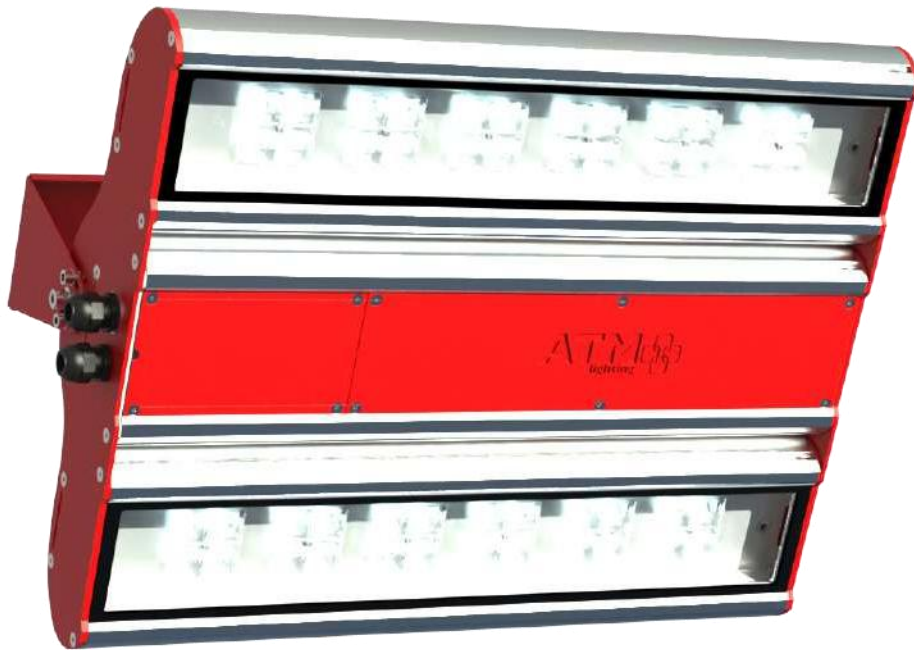


ZONE 21 & 2,22



# ES EXL450LED





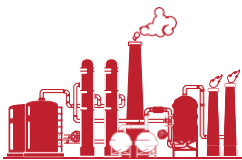
EX MARKING:

II 3G Ex ec IIC T6...T4 Gc  
II 2D Ex tb IIIC T80°C...T105°C Db

CERTIFICATES:

OBAC 22 ATEX 0349X

## EXEMPLARY APPLICATIONS



REFINERIES



OFFSHORE

CHEMICAL  
PLANTSCHEMICAL  
WAREHOUSES

Explosionproof floodlight with **LED** modules with very high luminous flux. Designed to be used in the zones **21&2,22** of the explosion hazard of gases, vapors and mists of flammable liquids with air, as well as of flammable dusts and fibers.










The housing is made of anodized aluminum. The diffuser can be made of glass or polycarbonate. There is a possibility to choose one out of four available optics.

Optional version compatible with central battery **ZB** and **DA** with DALI protocol.



Additional accessories such as protection grid **PRG** or EX vent plugs **VENT** can be installed optionally.

FEATURES








MECHANICAL PARAMETERS

	housing	anodized aluminum (ALU)
	diffuser	hartened glass (GL), polycarbonate (PC)
	ingress protection	IP66, IP67
	protection class	I
	shock resistance	GL: IK09 PC: IK10
	mounting	on the bracket
	mounting accessories	check: <i>mountings</i>
	optional accessories	protection grid (PRG), vent plugs (VENT)
	wires between the fitting modules	halogen-free high temperature resistant silicone wires





WORK PARAMETERS

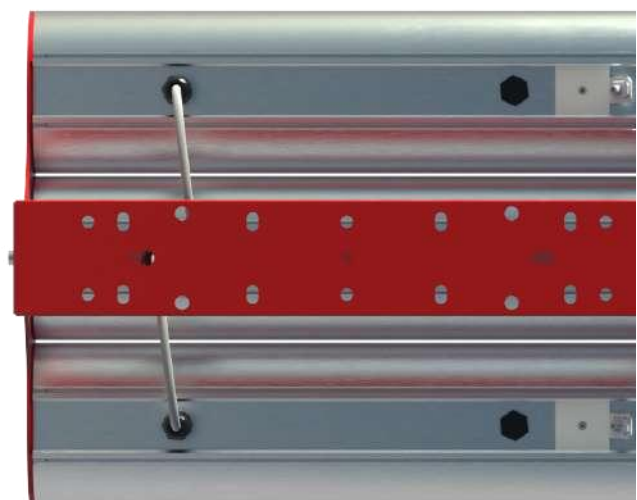
	ambient temperature	-40 °C up to +65 °C check: <i>types of comparison</i>
	lifetime	>50.000h L <sub>80</sub> B <sub>10</sub> >70.000h L <sub>70</sub> B <sub>10</sub>

ELECTRICAL PARAMETERS

2,5 mm <sup>2</sup> 6,0 mm <sup>2</sup> - <i>optionally</i>	connection terminals	
100-277 V, 50-60 Hz voltage ± 10%	input voltage	24E 
230-305 V, 50-60 Hz + 230-431 V, 0 Hz voltage ± 10%	input voltage	35E 
intrinsically safe LED modules	light source	
>0,98	power factor	
Ø20 (wire 6-13mm) Ø25 - <i>option</i> (wire 9-17mm)	cable inlets	
24E: L-N 6kV, L-PE 10kV 35E: L-N 4kV, L-PE 6kV	overvoltage protection	

PHOTOMETRICAL PARAMETERS

>70 >80 - <i>optionally</i>	CRI	
4000K 6500K - <i>optionally</i>	colour temperature	
SVM < 0,01 <i>acc. with IEC TR 61547-1:2020</i>	light pulsation	
PstLM < 0,2 <i>acc. with IEC TR 61547-1:2020</i>	flicker indicator	



## TYPES COMPARISON

## NB OPTICS (NARROW BEAM):

TYPE	LUMINOUS FLUX [lm]	POWER CONSUM. [W]	EFFICIENCY [lm/W]	MIN. AMB. TEMP.	MAX. AMB. TEMPERATURE			TEMP. CLASS / MAX. SURFACE TEMPERATURE
					24E	35E	PC diffuser	
EXL450LED-EX2-1	15200	103	148	-40°C	+65°C	+60°C	+50°C	T6/T80 °C
EXL450LED-EX2-2	21500	153	141	-40°C	+55°C	+50°C	+45°C	T5/T80 °C
EXL450LED-EX3-1	22800	155	147	-40°C	+65°C	+60°C	+50°C	T5/T80 °C
EXL450LED-EX3-2	32200	238	135	-40°C	+50°C	+45°C	+45°C	T4/T105 °C
EXL450LED-EX4-1	30300	207	146	-40°C	+55°C	+50°C	+50°C	T5/T80 °C

## MB OPTICS (MEDIUM BEAM):

TYPE	LUMINOUS FLUX [lm]	POWER CONSUM. [W]	EFFICIENCY [lm/W]	MIN. AMB. TEMP.	MAX. AMB. TEMPERATURE			TEMP. CLASS / MAX. SURFACE TEMPERATURE
					24E	35E	PC diffuser	
EXL450LED-EX2-1	16000	103	155	-40°C	+65°C	+60°C	+50°C	T6/T80 °C
EXL450LED-EX2-2	23000	153	150	-40°C	+55°C	+50°C	+45°C	T5/T80 °C
EXL450LED-EX3-1	24000	155	155	-40°C	+65°C	+60°C	+50°C	T5/T80 °C
EXL450LED-EX3-2	34000	238	143	-40°C	+50°C	+45°C	+45°C	T4/T105 °C
EXL450LED-EX4-1	31500	207	152	-40°C	+55°C	+50°C	+50°C	T5/T80 °C

## WB OPTICS (WIDE BEAM):

TYPE	LUMINOUS FLUX [lm]	POWER CONSUM. [W]	EFFICIENCY [lm/W]	MIN. AMB. TEMP.	MAX. AMB. TEMPERATURE			TEMP. CLASS / MAX. SURFACE TEMPERATURE
					24E	35E	PC diffuser	
EXL450LED-EX2-1	15250	103	148	-40°C	+65°C	+60°C	+50°C	T6/T80 °C
EXL450LED-EX2-2	21500	153	141	-40°C	+55°C	+50°C	+45°C	T5/T80 °C
EXL450LED-EX3-1	23500	155	152	-40°C	+65°C	+60°C	+50°C	T5/T80 °C
EXL450LED-EX3-2	33000	238	139	-40°C	+50°C	+45°C	+45°C	T4/T105 °C
EXL450LED-EX4-1	30500	207	147	-40°C	+55°C	+50°C	+50°C	T5/T80 °C

## OB OPTICS (OVAL BEAM):

TYPE	LUMINOUS FLUX [lm]	POWER CONSUM. [W]	EFFICIENCY [lm/W]	MIN. AMB. TEMP.	MAX. AMB. TEMPERATURE			TEMP. CLASS / MAX. SURFACE TEMPERATURE
					24E	35E	PC diffuser	
EXL450LED-EX2-1	15100	103	140	-40°C	+65°C	+60°C	+50°C	T6/T80 °C
EXL450LED-EX2-2	21500	153	141	-40°C	+55°C	+50°C	+45°C	T5/T80 °C
EXL450LED-EX3-1	22600	155	146	-40°C	+65°C	+60°C	+50°C	T5/T80 °C
EXL450LED-EX3-2	32200	238	135	-40°C	+50°C	+45°C	+45°C	T4/T105 °C
EXL450LED-EX4-1	30200	207	146	-40°C	+55°C	+50°C	+50°C	T5/T80 °C

## ASY OPTICS (ASYMETRICAL BEAM):

TYPE	LUMINOUS FLUX [lm]	POWER CONSUM. [W]	EFFICIENCY [lm/W]	MIN. AMB. TEMP.	MAX. AMB. TEMPERATURE			TEMP. CLASS / MAX. SURFACE TEMPERATURE
					24E	35E	PC diffuser	
EXL450LED-EX2-1	14390	103	140	-40°C	+65°C	+60°C	+50°C	T6/T80 °C
EXL450LED-EX2-2	20680	153	135	-40°C	+55°C	+50°C	+45°C	T5/T80 °C
EXL450LED-EX3-1	21580	155	139	-40°C	+65°C	+60°C	+50°C	T5/T80 °C
EXL450LED-EX3-2	30570	238	128	-40°C	+50°C	+45°C	+45°C	T4/T105 °C
EXL450LED-EX4-1	28320	207	137	-40°C	+55°C	+50°C	+50°C	T5/T80 °C



Luminous flux is indicated for LED modules with CRI 70. The luminous flux decreases to 9% of its nominal value with modules CRI80.

Luminous flux tolerance +/- 10%

Power tolerance +/- 5%

The parameters given in the following data sheet has been determined for the temperature  $T_a=25^{\circ}\text{C}$ .

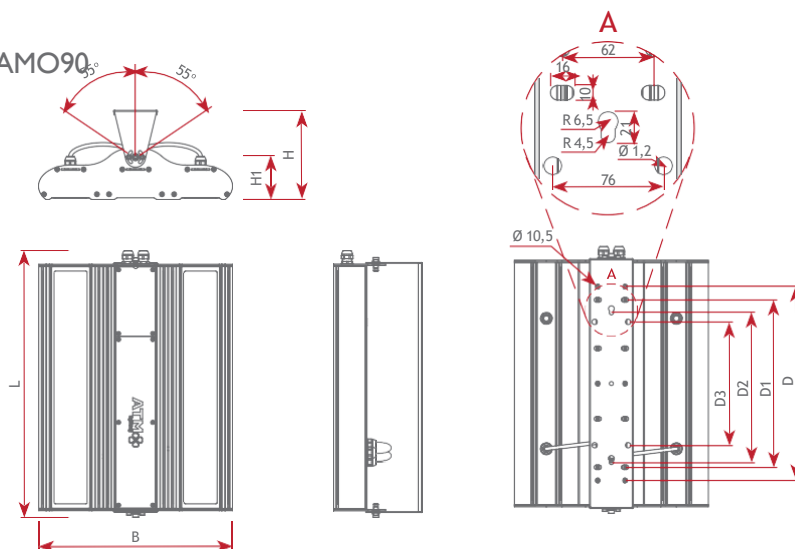
Luminous flux, light intensity distribution and efficiency has been tested on the basis of the standards EN ISO 17025:2018-02, norm series EN13032 and LM-79.

The actual data and General Warranty Conditions are available on our website [www.atmlighting.pl](http://www.atmlighting.pl)

DIMENSIONS

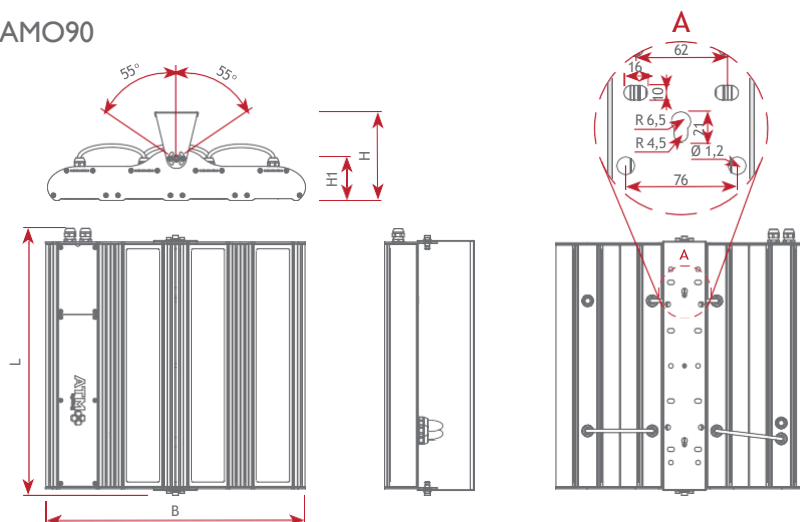
EX2 VERSION

standard bracket AMO90



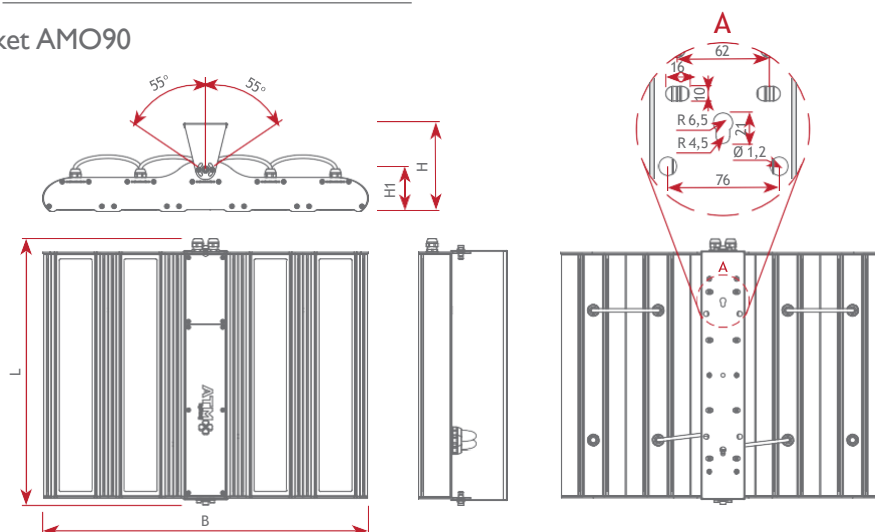
EX3 VERSION

standard bracket AMO90



EX4 VERSION

standard bracket AMO90



DIMENSIONS

TYPE	L	B	H	H1	D	D1	D2	D3	Weight [kg]
EXL450LED-EX2	606	435	202	97	440	380	340	280	10
EXL450LED-EX3	606	585	202	97	440	380	340	280	13
EXL450LED-EX4	606	735	202	97	440	380	340	280	16

## OPTIONAL VERSIONS

 Central battery: **ZB**

Optional version adapted to central battery

For version adapted central battery (ZB) standard luminous flux is equal to nominal (100%).

 DALI driver: **DA**

Optional version with DALI interface.

Available for power supply 35E (230-305V, 50-60 Hz lub 230-431V, 0Hz)

Optionally, the housing can be equipped with an integrated power supply with a DALI interface, which allows monitoring the operation of the fixture and controlling the lighting using data directly from motion sensors or from the building management system (BMS). A properly configured lighting control system can significantly reduce electricity costs and improve user ergonomics.

**The DALI power supply is available only for the 35E power version (220-240V, 50-60Hz).**

**3F** 3-phase power supply: **3F**

Optional version adapted to 3-phase power supply

## WYPOSAŻENIE OPCJONALNE

 Protection grid: **PRG**

Additional protection grid protecting from unexpected damages



 Additional equipment: **VENT**

Additional ventilated plug for every LED module of the lighting fixture



The ventilated plug prevents from the condensation of water vapor inside the fitting.

## MAXIMAL NUMBER OF LUMINAIRES CONNECTED IN LINE

MAXIMAL QUANTITY OF FITTINGS THAT MAY BE CONNECTED ACCORDING TO THE USED CIRCUIT BRAKER

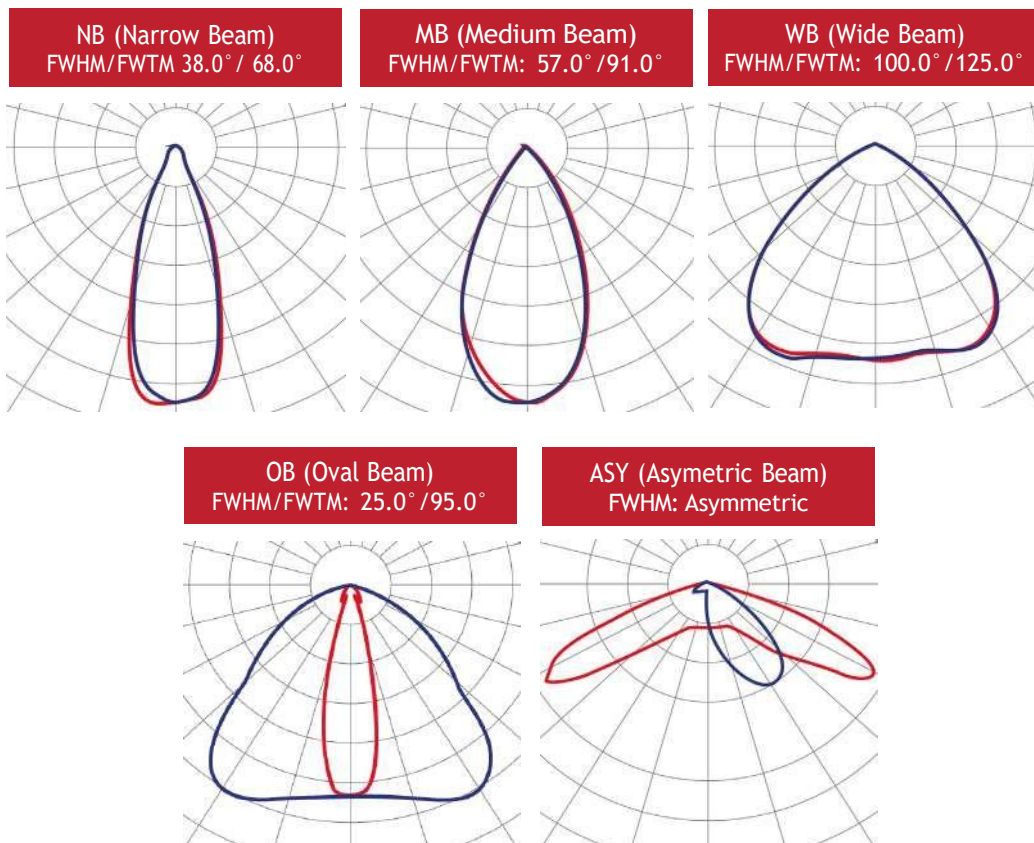
**Power supply 24E**

Type	B16	C16	Max. starting current	Starting time
EXL450LED-EX2-1	6	11	112A	<140µs
EXL450LED-EX2-2	3	6	177A	<140µs
EXL450LED-EX3-1	3	6	177A	<140µs
EXL450LED-EX3-2	4	7	171A	<140µs
EXL450LED-EX4-1	4	7	171A	<140µs

**Power supply 35E**

Type	B16	C16	Max. starting current	Starting time
EXL450LED-EX2-1	3	6	40A	<760µs
EXL450LED-EX2-2	3	6	65A	<485µs
EXL450LED-EX3-1	3	6	65A	<485µs
EXL450LED-EX3-2	2	4	75A	<450µs
EXL450LED-EX4-1	2	4	65A	<680µs

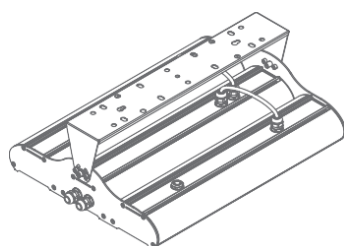
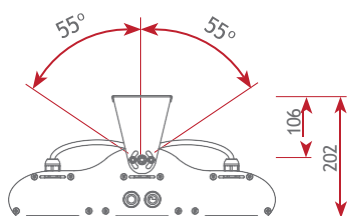
PHOTOMETRY



MOUNTINGS

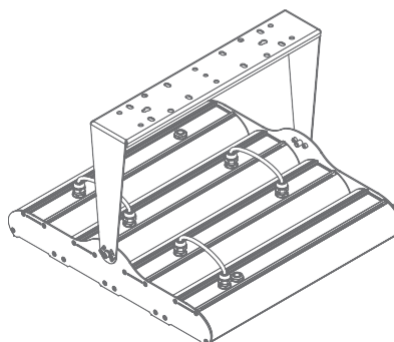
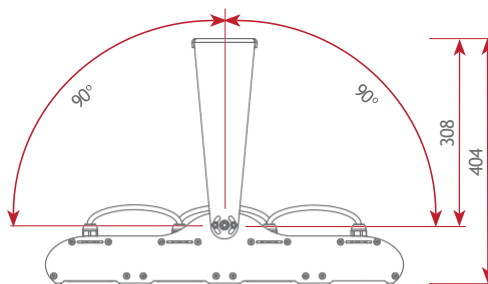
AMO90

standard



AMO180

optional



AMO360

optional

