

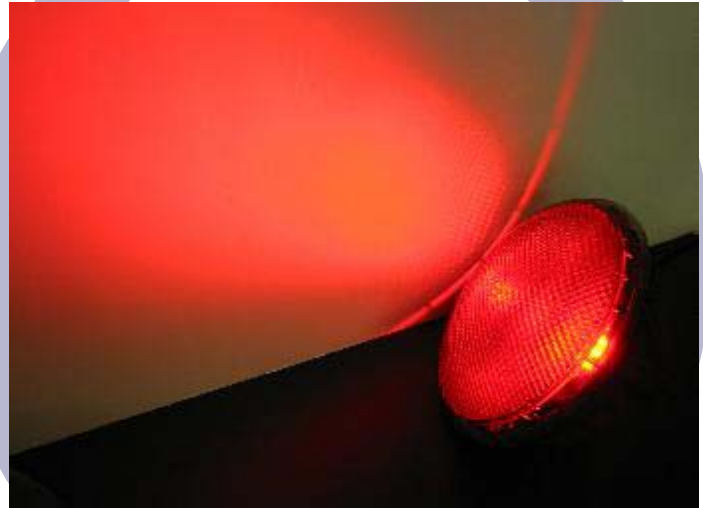
## LED Traffic Signal

Series 438

Dual Voltage

120VAC-230VAC

200 mm / 300 mm



- High efficiencies as a result of the new High Flux Reflector Technology and Central Light Source
- No Colour Phantom when fitted with the blackened (smoked effect) lens
- Unrivaled reading contrast

Dialight Garufo GmbH  
Gewerbepark Spörerau 25, 85368 Wang, Deutschland  
Tel.: +49(0)8709/9249-0 Fax: +49(0)8709/9249-10  
Email: [sales@dialightgarufo.com](mailto:sales@dialightgarufo.com)  
Internet: [www.dialightgarufo.com](http://www.dialightgarufo.com)

## Optical advantages and characteristics

	Typical Data		Standard		Definition	
	200 mm	300 mm	200 mm	300 mm	200 mm	300 mm
<b>Luminous Intensity</b> Red Yellow Green	350 cd 350 cd 350 cd	400 cd 400 cd 400 cd	EN 12368, 6.3, Tab. 1		B 2/1 Type W	B3/1 Type N
<b>Light distribution</b>	Wide angle	Narrow angle	EN 12368, 6.4, Tab. 3	EN 12368, 6.4, Tab. 5	Type W, category B	Type N, category B
<b>Uniformity</b>	minimum 1 : 2.2	minimum 1 : 2.5	EN 12368, 6.5		>1:10	>1:15
<b>Phantom light</b>	No colour phantom (black lens)		EN 12368, 6.6		No 'false' signal in direct sunlight	
<b>Ratio signal light / reflection</b>	Red > 16 Yellow > 16 Green > 16	Red > 16 Yellow > 8 Green > 16	EN 12368, 6.6		class 5 class 5 class 5	class 5 class 4 class 5
<b>Light colours</b>	Red, Yellow, Green, White		EN 12368, 6.7 DIN 6163, Part 5			

Tested by BASt, Germany (Black outer lens type)

measured at room temperature

## Electrical characteristics: Preliminary

Input Voltage Range: 95 VAC to 265 VAC

		Typical power consumption	Current at 120Vac	Current at 230Vac
200mm	Red	9.5 Watt	79 mA	41 mA
	Yellow	9.5 Watt	79 mA	41 mA
	Green	9.5 Watt	79 mA	41 mA
300mm	Red	9.5 Watt	79 mA	41 mA
	Yellow	11.5 Watt	96 mA	50 mA
	Green	10.5 Watt	87 mA	46 mA

measured at room temperature

## Ambient Conditions

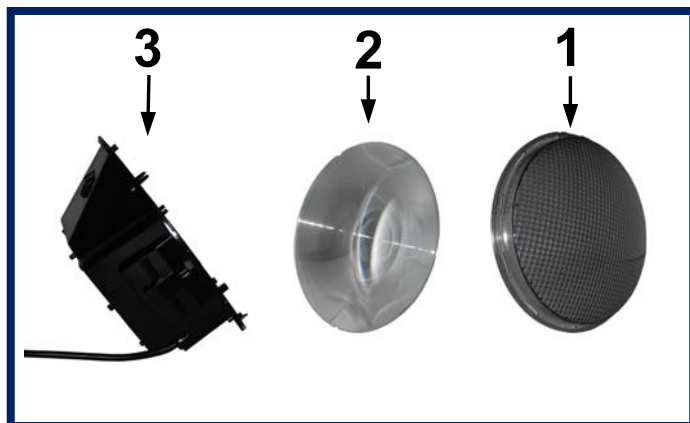
Storage temperature	-20°C to +60°C
Storage relative humidity	Max. 70%
Operating temperature	-40°C to +60°C

## Part Numbers

	Black Outer Lens	Coloured Outer Lens
200mm	Red 143971	Red 144158
	Amber 143972	Amber 144159
	Green 143973	Green 144160
	White 143984	White N/A
300mm	Red 143974	Red 144161
	Amber 143975	Amber 144162
	Green 143976	Green 144163
	White 143985	White N/A

Dialight Garufo GmbH  
 Gewerbepark Spörrerau 25, 85368 Wang, Deutschland  
 Tel.: +49(0)8709/9249-0 Fax: +49(0)8709/9249-10  
 Email: [sales@dialightgarufo.com](mailto:sales@dialightgarufo.com)  
 Internet: [www.dialightgarufo.com](http://www.dialightgarufo.com)

## Composition

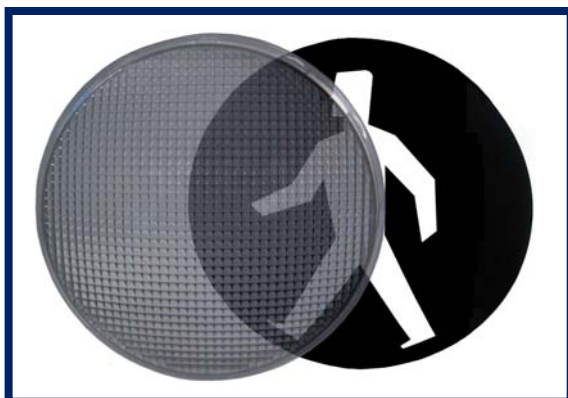


- 1. Front lens material:**  
Polycarbonate.  
(Black and colour dye lens available)
- 2. Fresnel lens material:**  
Clear Acrylic
- 3. Base housing material:**  
Polycarbonate

## Symbols

### Flexible symbol design

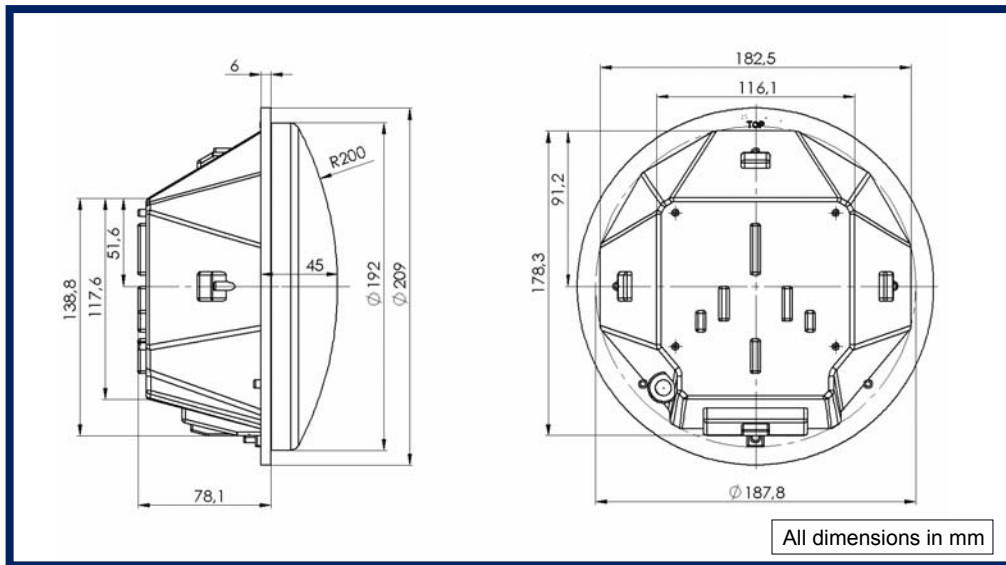
Standard or customised symbol designs can be supplied on laser-cut, polycarbonate masks. The mask is mounted inside the outer lens or supplied separately. The outer lens can be supplied in a 'semi-locked' condition to allow the mask to be swapped or removed before the lens is finally locked in position and installed.



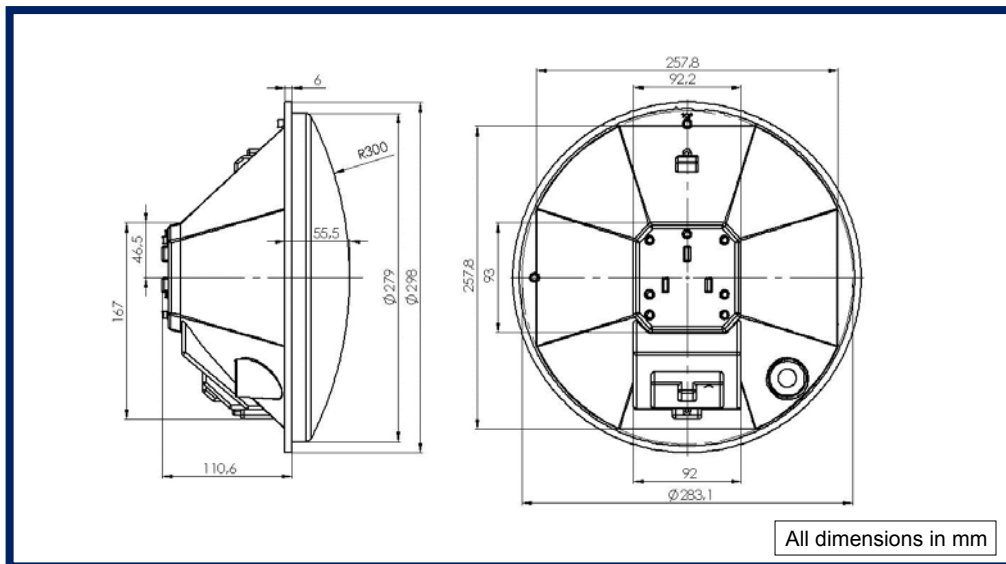
Dialight Garufo GmbH  
Gewerbepark Spörerau 25, 85368 Wang, Deutschland  
Tel.: +49(0)8709/9249-0 Fax: +49(0)8709/9249-10  
Email: [sales@dialightgarufo.com](mailto:sales@dialightgarufo.com)  
Internet: [www.dialightgarufo.com](http://www.dialightgarufo.com)

## Dimensions

### 200mm



### 300mm



Dialight Garufo GmbH  
Gewerbepark Spörrau 25, 85368 Wang, Deutschland  
Tel.: +49(0)8709/9249-0 Fax: +49(0)8709/9249-10  
Email: [sales@dialightgarufo.com](mailto:sales@dialightgarufo.com)  
Internet: [www.dialightgarufo.com](http://www.dialightgarufo.com)