

# GUELL series



GUELL is a complete series of LED floodlights designed and made to offer high performance lighting engineering solutions that combine the evolution and technological innovation of new light sources with the typical characteristics of this type of product.

Offered with symmetrical, asymmetrical optics (Imax 40° - Imax 50°) and circular, these floodlights are available in different colour temperatures: 4000 K, 3000 K\* and 5000 K\* (\* on request). They can be installed in the most diverse contexts: shop windows, store exteriors, attics, cornices, small sports centres, and industrial and commercial outdoor areas.

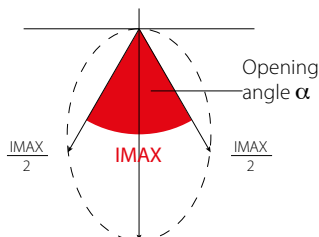
## IDENTIFYING AND CLASSIFYING THE OPTICS

PERFORMANCE IN LIGHTING luminaires offer different types of optics depending on project requirements. The optic can be identified as the set of equipment designed to direct the light generated by a light source in a particular direction, thus determining the luminous emission of the luminaire itself.

Depending on this luminous emission, PERFORMANCE IN LIGHTING classifies optics in the following categories:

- Symmetric optics
- Asymmetric optics
- Circular (or roto-symmetrical) optics

The diagram below identifies the data that will be contained in subsequent pages, regarding the opening angle of the beam.



**IMAX** = maximum luminous intensity, i.e. the maximum intensity of the emitted light beam.

**Opening angle of the light beam** = angle in a plane passing through the axis of the beam limited by the directions of the luminous intensities equal to 50% of the Imax. Based on the opening value  $\alpha$ , we can find intensive, medium or wide optics.

By convention we consider/classify:

Type of beam opening ( $\alpha$ )	Identification marking
Medium ( $21^\circ \leq 45^\circ$ )	M
Wide ( $46^\circ \leq 75^\circ$ )	W

Only for the circular (rotosymmetrical) optics on the contrary we consider/classify:

Type of beam opening ( $\alpha$ )	Identification marking
Intensive ( $0^\circ \leq 20^\circ$ )	I

### SYMMETRIC OPTICS

For PERFORMANCE IN LIGHTING, symmetric optics are ones with symmetric emission in relation to planes  $\alpha$  and  $\beta$ . The symmetry between the two planes may be either identical (in this case we are dealing with optics with square light distribution) or different (optics with rectangular light distribution).

#### EXAMPLE

**Symmetric optic code: S/xx**

where:

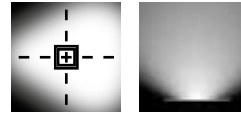
S = Symmetric

xx = the abbreviated name of the opening angle

For example: S/I - S/M - S/W - S/EW

By convention, we consider the beam opening of plane  $\alpha$ . Multiple optics within the same range of opening will be distinguished by inserting the numerical value of the beam opening at the end.

For example: S/W50 - S/W60



SYMMETRIC OPTIC NAME		
Mandatory indications		Additional indications
Type of optic	Type of opening	Opening angle plane $\alpha$
<b>S</b>	I	$0^\circ \div 20^\circ$
	M	$21^\circ \div 45^\circ$
	W	$46^\circ \div 75^\circ$
	EW	over $75^\circ$

### ASYMMETRIC OPTICS

PERFORMANCE IN LIGHTING asymmetric optics generally have asymmetric light distribution on plane  $\alpha$  with a point of maximum concentration. The axis passing through the point of maximum concentration and the point marked by the axis of the lamp is called the  $I_{max}$  axis. The light distribution on plane  $\beta$ , on the other hand, may be symmetric or asymmetric. An asymmetric optic may be symmetric in relation to one plane only.

#### EXAMPLE

**Asymmetric optic code: Ayy/xx**

where:

A = Asymmetric

yy = numeric value of the  $I_{max}$  angle.

The  $I_{max}$  angle is the angle between axis A and the  $I_{max}$  axis.

xx = the abbreviated name of the opening angle

For example: Ayy/I - Ayy/M - Ayy/W - Ayy/EW.

By convention, the beam opening of plane  $\alpha$  is considered.

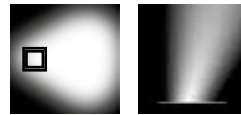
For example:

A30/M = Asymmetric axis with  $I_{max}$   $30^\circ$  and Medium opening

A45/I = Asymmetric axis with  $I_{max}$   $45^\circ$  and Intensive opening

In the presence of multiple asymmetric optics with the same  $I_{max}$  value and same beam opening range, it will be necessary to distinguish them by adding the numeric value of the beam opening at the end.

For example: A45/M25 - A45/M40



ASYMMETRIC OPTIC NAME			
Mandatory indications			Additional indications
Type of optic	$I_{max}$ angle	Type of opening	Opening angle plane $\alpha$
<b>A</b>	Numeric value of the $I_{max}$ angle	I	$0^\circ \div 20^\circ$
		M	$21^\circ \div 45^\circ$
		W	$46^\circ \div 75^\circ$
		EW	over $75^\circ$

### CIRCULAR OPTICS

PERFORMANCE IN LIGHTING identifies those optics that generate a luminous emission with a symmetry of revolution about the A axis as circular optics. The opening angle of the beam is generally constant in all planes. The reflectors generating these optics generally have a circular opening.

#### EXAMPLE

**Circular optic code: C/xx**

where:

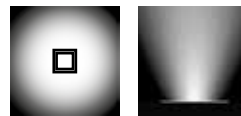
C = Circular

xx = the abbreviated name of the opening angle

For example: C/I - C/M - C/W - C/MW - C/EW

Multiple optics within the same range of opening will be distinguished by inserting the numerical value of the beam opening at the end.

For example: C/W46 - C/W50



CIRCULAR OPTIC NAME		
Mandatory indications		Additional indications
Type of optic	Type of opening	Opening angle
<b>C</b>	I	$0^\circ \div 20^\circ$
	M	$21^\circ \div 45^\circ$
	IW	$46^\circ \div 60^\circ$
	MW	$61^\circ \div 75^\circ$
	EW	over $75^\circ$