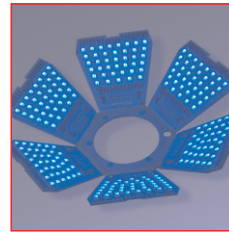


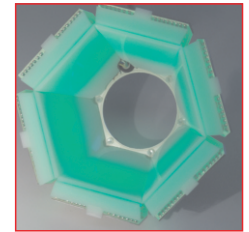
# CROSSFIRE-RGB

## Dome light

- >> colours of upper and lower sub-areas separately controllable (6 channels)
- >> optional each light field individually controllable (36 channels with JST connector option)
- >> angle of light fields can be defined
- >> for continuous, switched and pulsed operation (depending on type)



CROSSFIRE-RGB  
switched in blue



CROSSFIRE-RGB  
with diffuser

### Technical specifications



Housing	Aluminium, natural anodised
Diffuser (optional)	Acrylic material 060 3mm
Total weight	approx. 150g (with diffuser)
Operating / ambient temperature	max. 50°C recommended
IP protection class	-
Connector (depending on version)	6x JST connector (8-pin) / MR8 plug (8-pin) / Cable with open wire ends*
Supply voltage**	<b>24VDC type:</b> 24VDC
	<b>SC type:</b> For use in conjunction with a controller
Number of LEDs	240
LED lifetime	The LED lifetime of our lights is very high, but depends on many different factors such as ambient temperature, current load, and so on. Further information is available in the <b>Technical information LED lifetime</b> .

\* Cable not included in the scope of supply  
\*\* more information see section Operating modes

### Characteristics

Colour *	LED characteristics		typical characteristics per light		
	Wavelength (approx.)	Viewing angle	Current demand (24V type) ** / constant current max. (SC type) [mA]	Pulse current max. (SC type) *** [A]	Intensity **** [W/m <sup>2</sup> ]
RGB	red	120°	480 per colour max. 600 total	4,3 per colour	38
	green				38
	blue				60

\* other colours and types from UV to infrared on request  
\*\* stated current values of the 24V types should be considered approximate values  
\*\*\* depending on the strobe conditions, recommended maximum values for a flash time of 1ms  
\*\*\*\* approximately data measured in DC mode with angle of light fields of 60°; Measuring distance 10mm



#### Safety note!

LED light systems can produce very intense radiation, which may possibly damage the eyes on improper use. Do not look directly into the light beam with unprotected eyes! Use eye protection!

### Operating modes

#### 24VDC type / 12VDC type

The lights are designed depending on the version for continuous operation at 24VDC or 12VDC. The following operating modes are possible:

- DC operation at an appropriate power supply with 24VDC or 12VDC
- Switched operation with a matching power supply e.g. via PLC, opto-relay or controller (GS or SC series)
- Brightness-controlled operation via controller (GS or SC series) in conjunction with suitable power supply
- Pulsed mode via controller (GS or SC series) in conjunction with suitable power supply. The LED current can be increased in pulse mode up to a factor of 2 to 3.

#### SC type

For pulsed, switched or brightness-controlled operation, the lights are also available as optimized SC versions. They can be used in combination with our controllers of the GS and SC series and provide optimized and maximum current flow, especially in pulsed operation. We will assist you in selecting the right components.

technical changes reserved

#### Büchner Lichtsysteme GmbH

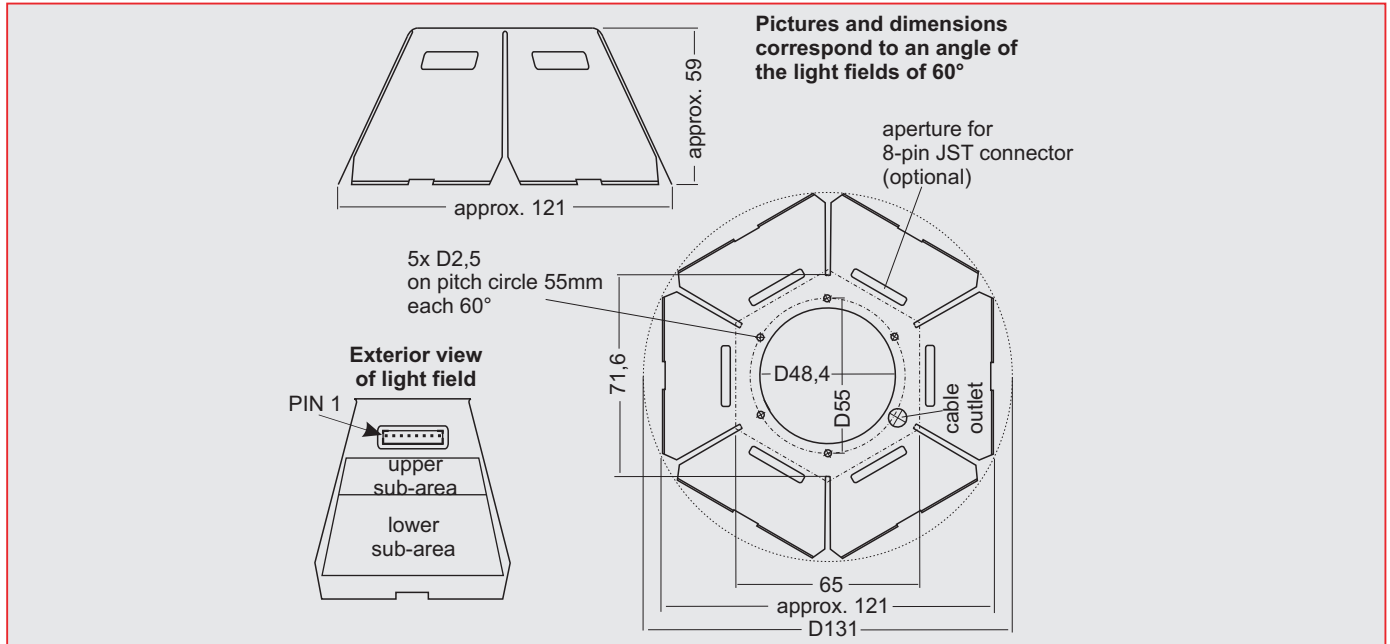
Uzstrasse 2      Tel.: +49 (0)8293 | 909 112      E-mail: info@buechner-lichtsysteme.de  
86465 Welden      Fax: +49 (0)8293 | 909 111      Web: www.buechner-lichtsysteme.de  
Germany      [www.imaging-light-technology.com](http://www.imaging-light-technology.com)



# CROSSFIRE-RGB

## Dome light

### Dimensions



### PIN assignment connector

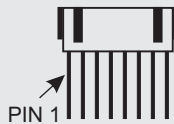
#### JST connector (for separated control of light fields and sub-areas)

For connection by JST connectors two types of cable are available.  
A version with 8 loose strands and a ribbon cable variant.

View of the JST connector of a light field from outside



View of the JST plug from above



#### Single strands

PIN	Function	Colour
1	- red (bottom)	red
2	- red (top)	orange
3	- green (bottom)	green
4	- green (top)	yellow
5	- blue (bottom)	blue
6	- blue (top)	grey
7	+	brown
8	+	brown

#### Ribbon cable

PIN	Function	Colour
1	- red (bottom)	brown
2	- red (top)	red
3	- green (bottom)	orange
4	- green (top)	yellow
5	- blue (bottom)	green
6	- blue (top)	blue
7	+	violet
8	+	grey

#### Cable/MR8 versions (for bus operation of all 6 light fields together)

View of solder side MR8 plug (male)



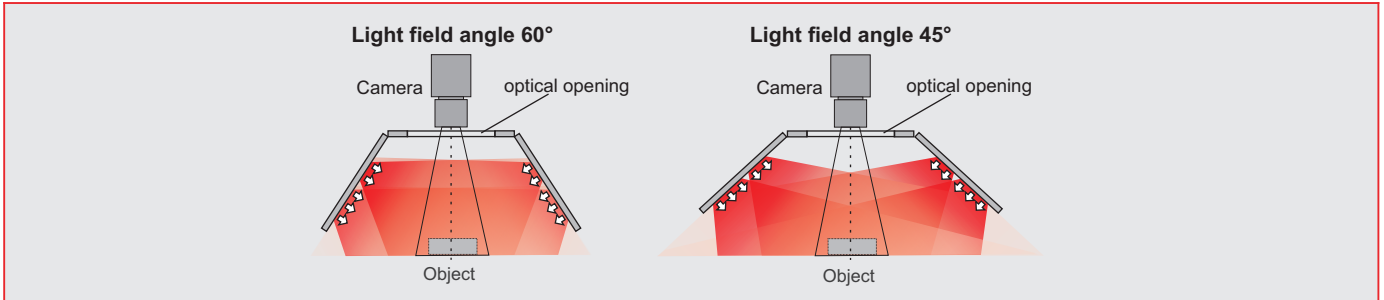
#### Cable

Function	Colour
- red (bottom)	red
- red (top)	rose
- green (bottom)	green
- green (top)	yellow
- blue (bottom)	blue
- blue (top)	grey
+	brown
+	white

#### MR8 plug

PIN	Function	Colour
8	- red (bottom)	red
6	- red (top)	rose
3	- green (bottom)	green
4	- green (top)	yellow
7	- blue (bottom)	blue
5	- blue (top)	grey
2	+	brown
1	+	white

### Application notes



### Technical notes

The 3 single colours of the RGB LEDs (red, green, blue) can be controlled separately on each colour channel of the supply cable. Furthermore, the individual colour channels are further divided into two sub-channels for the upper and lower sub-areas, whereby a colour mixture for the two sub-areas can be performed independently. In addition to these features, when using the JST connector option, the individual light fields can be controlled separately to ensure a high level of flexibility. Both connection options are available in the two versions, 24VDC type and SC type.

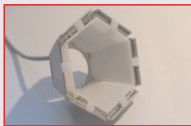
#### Operation of the RGB version directly at 24V

By switching on and off the ground lines of the 3 single colors (RGB), the individual colors can be activated and mixed.

#### Continuous/pulsed operation of the RGB version with SC4, SC6 or GS 420

When using 3-channel operation with the listed controllers, any colour mixture can be realised by setting a particular current to the 3 channels (RGB), both in continuous and pulsed operation.

### Accessories



#### Diffusers

Through the use of different diffusers, the optical characteristics of the illumination can be changed.

More information can be found in the **Technical information Front materials**.