

# Learning Glass iC-LGE45 product overview & specifications

Model Part Number:	iC-LGE45
Model Title:	Learning Glass Europe, 45" Lightboard with Integrated Camera
Model description:	Learning Glass Europe 45-inch Lightboard, with integrated 4K camera, power supply, dimmers, adjustable legs
Features:	<p>Laser tested, low-iron tempered glass. Surface treated for improved scratch resistance and easier cleaning</p> <p>4K Camera with SONY IMX415 (1/2.8" ) image sensor</p> <p>Presenter lighting element built into frame (no need for external lights)</p> <p>Internal LED's designed for optimal illumination</p> <p>Internal LED's AND presenter lights have adjustable brightness control for different filming environments</p> <p>Designed to be easily transportable</p> <p>Working surface area: 99cm x 57cm (45inch/114cm diagonal)</p> <p>Adjustable height: Min 73cm, Max 83cm</p>
Installation time:	30 minutes



## 1. Introduction

We launched the iC-Learning Glass to enhance the user experience, with the goal to make using our lightboard easier than ever. Our purpose built, integrated, 4K camera (with Sony IMX415 image sensor), works seamlessly with the Learning Glass lightboard, making it easy to create powerful, engaging, lightboard content at the touch of a button. The iC-LGE45 Lightboard features our surface treated, smudge-free, safety glass, ensuring best clarity and optical performance. The working surface area is 99cm x 57cm, and at under 11kg, the unit is easily transportable.

Whether you are a teacher, trainer or business professional, this product can be used at home or in the office with minimal set-up time. At a width of 105cm it will rest comfortably on the average desk or table, and with a weight of 11kg is easily transportable. This Lightboard is ideal for users that are looking for a hassle free, 'plug and play' solution as there is no need to set-up and configure your own camera.

The Learning Glass uses best in-class components. Our LED's are a high quality, high density, silicone encased (waterproof) design. They have been tested with over a 100,000-hour lifespan with little to no degradation in performance. All of our Lightboard products have fitted external presenter lighting elements, designed to eliminate the need for any additional lighting whilst filming. This is extremely critical in avoiding light spillage and unwanted reflections. They produce a natural white light operating at 4000K. Both internal and external LED's have dimmer control units using pulse width modulation (PWM) to control brightness. These control units operate at extremely high frequency (12kHz) to avoid any 'flicker effect' that may occur with cameras operating at different frame rates and shutter speeds.

Assembly time is around 15 minutes and requires one person.

## 2. Lightboard Specifications

ELECTRICAL	
Colour Temperature	4000K
CRI Rating	90+
Max Brightness	<4
Viewing Angle	180°
Input Voltage Range	240V
Input Voltage Frequency	50-60Hz
Max Continuous Power	40W
MECHANICAL	
Dimensions with max height	105cm x 83cm x 3cm
Height Min/Max with Stand	73cm / 83cm
Frame Material	High Strength Aluminium
Glass Material	Diamond™ Tempered Glass
Weight (with/without camera attached)	11.5kg/11kg
Work Space (cm)	99cm x 57cm
Connectors	DC 2.1mm Barrel Jack
ENVIRONMENTAL	
Operation Temperature	-40°C to 85°C

Storage Temperature	-40°C to 105°C
Relative Humidity	40% to 95% Electrical

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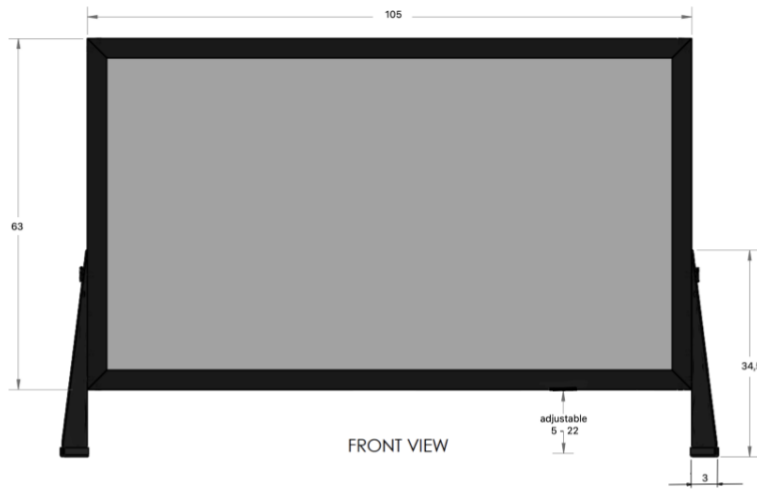
### 3. Camera Specifications

Image Sensor	SONY IMX415 (1/2.8" )
Max. Resolution	3840(H) *2160 (V)
Sensitivity	1000mV/Lux-sec
Pixel Size	1.45μmx1.45μm
Compression format	MJPEG / YUY2 (YUYV)
Resolution & frame	3840x2160@ 30fps MJPEG / 2592x1944@ 30fps MJPEG 2048x1536@ 30fps MJPEG / 1600x1200@ 30fps MJPEG 1920x1080@ 30fps MJPEG/ 1280x960@30fps MJPE 1280x720@ 30fps MJPEG / 800 x 600@ 30fps MJPEG 640x480@ 30fps MJPEG / 320x240@ 30fps MJPEG 3840x2160@ 1fps YUY2 / 2592x1944@ 1fps YUY2 2048x1536@ 3fps YUY2 /1600x1200@ 5fps YUY2 1920x1080@ 5fps YUY2/1280x960@5fps YUY2 1280x720@ 5fps YUY2 / 800 x 600@ 20fps YUY2 640x480@ 30fps YUY2 / 320x240@ 30fps YUY2
Center definition	1000LW/PH (Center)
S/N Ratio	30dB
Sensitivity	0.65V/lux-sec@550nm
Minimum illumination	0.2lux
Shutter Type	Electronic rolling shutter / Frame exposure
Connecting Port type	USB2.0 High Speed
AEC	Support
AEB	Support
AGC	Support

Auto Focus	Support
Adjustable parameters	Brightness, Contrast, Hue, Saturation, Sharpness, Gamma, White balance, Exposure
Lens Parameter	Size: 1/2.5, FOV: 94.5Degree IR filter: 650±10nm
Power supply& connector	USB BUS POWER 4P-2.0mm socket
Power Voltage	DC5V
Power Current	200mA
Board Size	38mm × 38mm
Storage Temperature	-20°C to 70°C
Work Temperature	0°C to 60°C
USB Cable	1M
Operating System support	Win XP/Vista/Win7/Win8 / Linux with UVC (above linux-2.6.26) MAC-OS X 10.4.8 or later/Android 4.0 or above with UVC

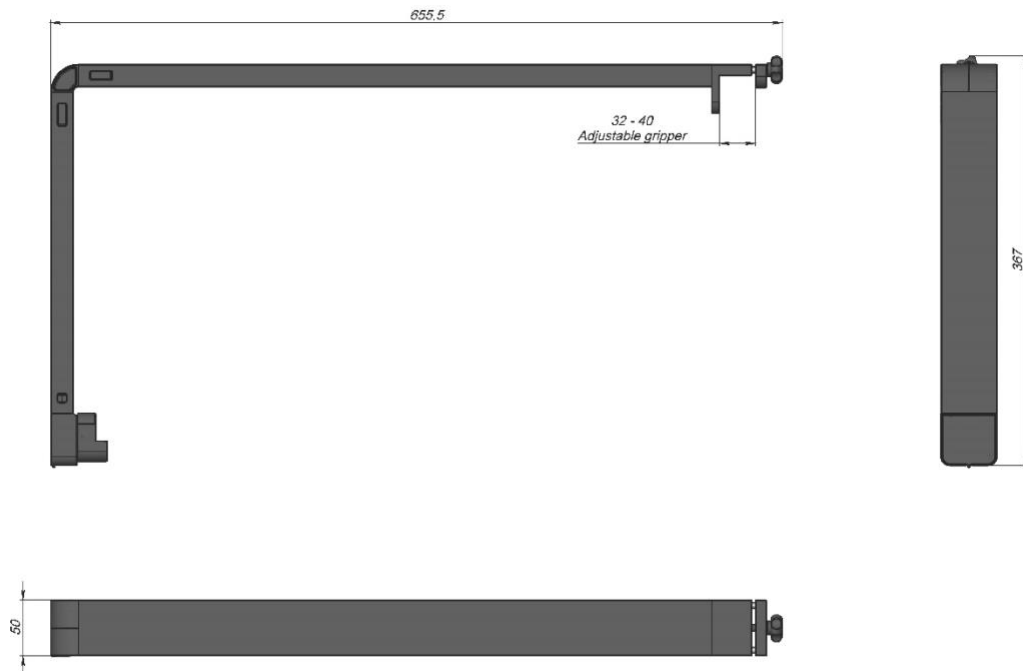
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## 4. Lightboard Dimensions



Dimensions in centimetres

## 5. Camera Dimensions



Dimensions in millimetres

## 6. Wiring Block Diagram

### Learning Glass LightGlass Wiring Diagram

