

Datasheet // FlexLite series

QUANTUM FLEX 100 patent pending wireless technology

48V DC

The Stogger Quantum Flex enables you to light channel box letters and illuminated structures in a new ground-breaking way. You no longer need to worry about wiring! The patent pending system enables the Quantum Flex to be powered wirelessly through the PowerBoard, thus giving you unlimited design freedom.

Key Features

- Screwable wireless LED module
- Patent pending technology
- Beam angle of approx. 100 degrees
- Dramatically reducing LED assembly time
- Superior lens design, ensuring even square light distribution
- Cutting edge 48V high voltage, low current LED
- Industry leading efficiency >95%
- Ultra-high light output up to 147 lm/W
- Perfect for (thin) light boxes
- Temperature compensated light output to further extend life span



Technical specifications

Product code	Colour	CRI (Ra)	Voltage	Power	Current	Beam angle	Lum. flux	Weight/piece ¹⁾
P-13-2101	5700 K	>80	48V DC	1.1 W	23 mA	98 °	147 lm/W	2 gram
P-13-2102	3000 K	>80	48V DC	1.1 W	23 mA	98 °	119 lm/W	2 gram
P-13-2103	6500 K	>80	48V DC	1.1 W	23 mA	98 °	147 lm/W	2 gram
P-13-2104	2700 K	>80	48V DC	1.1 W	23 mA	98 °	119 lm/W	2 gram
P-13-2105	4000 K	>80	48V DC	1.1 W	23 mA	98 °	119 lm/W	2 gram

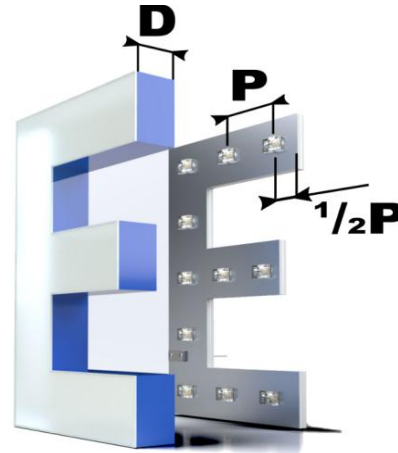
¹⁾ Weight including screw

LED lifetime	TM21 life span: reported L70: > 54,000 hours @ 85°C
Dice technology	InGaN technology
Operating & storage temperature	-40 to 100 °C
Maximum amount of Quantum Flex LEDs	250/m ²
Maximum Torque for screw fixation	23 Ncm
Minimum advised LED pitch distance	60 mm

Pitch

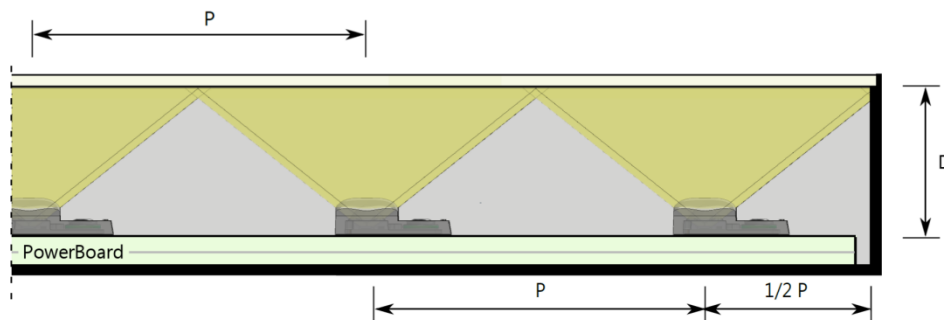
Due to the ultra-high light output up to 147 lumen combined with our special lens design, a very large pitch between the LEDs is possible. Our Quantum Flex allows to use up to 60% less LED modules, compared to traditional cabled LED modules. To estimate the number of Quantums to use, first define the light box depth. Then, find the pitch using below table.

Depth D (mm)	Pitch P (mm)	Quantums per m ²	Light output (lm/m ²) ¹⁾
30	65	237	4300
40	80	156	2400
50	100	100	1500
60	120	69	1080
70	140	51	780
80	160	39	580
90	180	31	450
100	200	25	370
110	220	21	300
120	240	17	250
130	260	15	215
140	280	13	185
150	300	12	160
200	400	7	90



¹⁾ Use our SignController with PWM dimming if output exceeds your needs. Exact pitch may vary depending on box geometry.

¹⁾ Output may vary depending on transparent material and thickness.



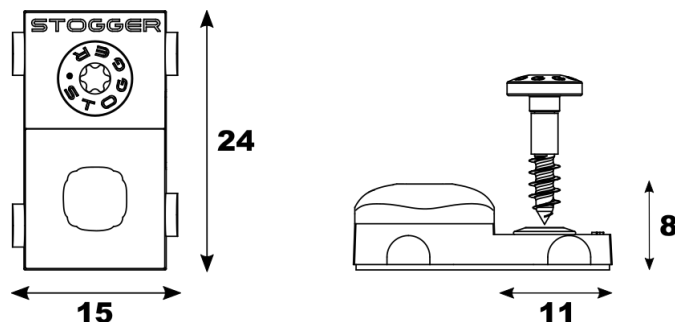
Light output measurement

The light output was measured in the below measurement set-up. The rated light output is measured on the acrylate opal surface. This plate has a thickness of 5 mm.





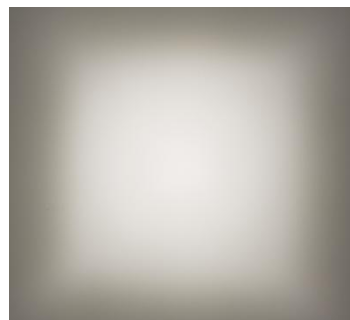
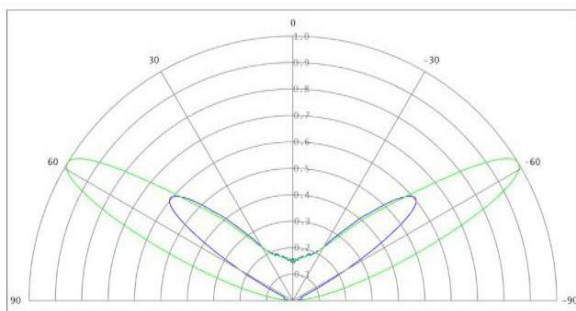
Dimensions



(All dimensions are in mm)

Lens diagram and lighting image

A superior batwing lens design, ensures an even and square light distribution.



PowerSupply

Stogger guarantees 5-year good operation using 48V MeanWell power supplies from the HLG-xxx-48 series. We have CE-certified our wireless lighting system with these power supplies.

Maximum PowerSupply load: 100 Watt PSU = 100x Quantum Flex / 240 Watt PSU = 240x Quantum Flex

Safe and easy installation conform CE-legislation

To conform CE-legislation, we advise to use the Stogger SignFuse or SignController. Both have fast-acting, self-resettable solid-state fuses, which prevents overload and greatly reduces fire risks. The SignFuse or SignController is installed between the Power Supply and the PowerBoard. By using our wireless lighting system with these systems, the installed system conforms the CE-legislation.

Energy label

