



**eBOOK.**

VERSION 2 | APR 2024

# LIGHT GUIDE

The evolution of exterior lighting you've  
been waiting for



**Discover more.**

INNOVATE | INTEGRATE | ILLUMINATE

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## Evolution not Revolution with TRT Light Guide.

Designed to help urban space designers and public lighting teams create environments that deliver a better 'user' experience, Light Guide technology takes away the discomfort glare and alters the perception of the environment a person is in.

Light Guide replaces the conventional light engine with a new low glare, comfortable light source that has been specifically designed to enhance user experience of the lit application and provide an effective alternative to direct lighting.

Discover more in each of our sections

# DISCOVER MORE.

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**Circa Curved Glass**



Light Guide technology provides the **perfect lighting solution** for areas such as **promenades, market squares, college campuses and town plazas.**

As the government strives to keep walking and cycling at the rates it has been in recent years, people need to feel comfortable and safe. Lighting is a big part of the solution however it can often create discomfort when the source luminance is bright.

Lighting options for areas where people walk, convene, and socialise are traditionally lit in a direct style with contemporary amenity luminaires that utilise diffusers, or indirect lighting, to reduce discomfort glare. Light Guide technology provides a solution that is an efficient alternative with a homogeneously lit, relatively low luminance light source that is more visually comfortable than alternative technologies and solutions. No point source or intense light sources are visible when the Light Guide is illuminated.

**Chalis**



**Circa Flat Glass**



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- FULL CUT OFF G6 FOR DARK SKIES - (FLAT GLASS OPTION)
- SIMPLY STYLED CONTEMPORARY FITTINGS
- WARM 3000K
- COMFORTABLE LOW GLARE AMBIENCE

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Certified by DarkSky.org

**TRT is committed to reducing obtrusive light and light trespass in order to protect the night sky from light pollution.**

The preservation of the dark sky is critical not only for the well-being of people and wildlife, but also for scientific and astronomical purposes.

The Circa Light Guide has achieved International Dark-Sky Association approval. It is compliant when using a colour temperature of 3000K or below when mounted horizontal to the carriageway/footway as this results in no upward light.

**DARKSKY APPROVED**

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- EXCELLENT UNIFORMITY
- LOW GLARE
- WARM 3000K
- VISUAL COMFORT WELCOMING AMBIENCE



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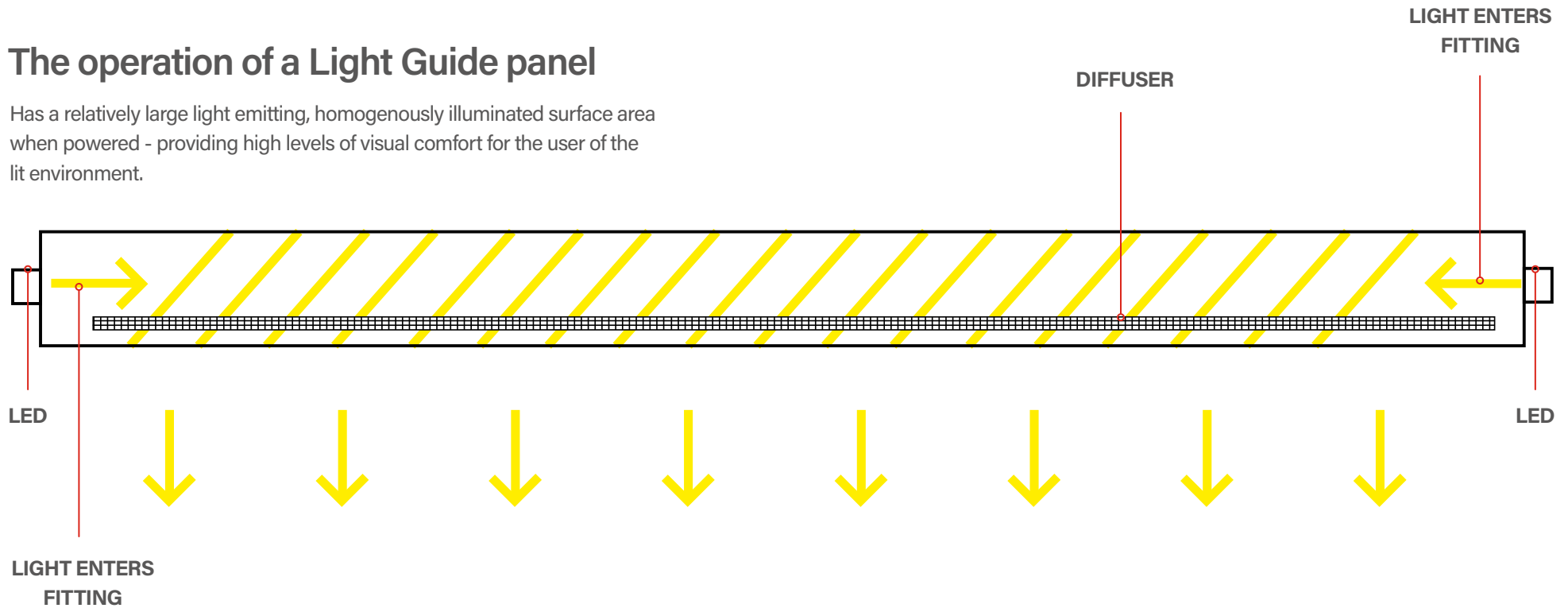
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## The operation of a Light Guide panel

Has a relatively large light emitting, homogenously illuminated surface area when powered - providing high levels of visual comfort for the user of the lit environment.



LIGHT GUIDE TECHNOLOGY

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**Light Guide provides similar benefits to those of diffusers and indirect optics with improved efficiency and control. Paired with a sympathetic colour temperature of 3000K, the Circa and Chalis Light Guide luminaire ranges are the perfect solution to high pedestrian traffic areas.**

As TRT's Light Guide lanterns utilise the latest LED technology, the electronic control gear used to power them is the same as that used in standard LED luminaires. This means that the full range of LED luminaire features available across TRT products such as programmed dimming and connection to Central Management Systems (CMS) remains available.

Both the Chalis and Circa Light Guide luminaire ranges can accommodate a range of externally mounted NEMA and Zhaga Book 18 sockets to allow full CMS or individual NEMA photocell operation.

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### ELECTRICAL CHARACTERISTICS

TYPE	CIRCA ASY LG FLAT GLASS	CIRCA SYM LG FLAT GLASS	CIRCA ASY LG CURVED GLASS	CIRCA SYM LG CURVED GLASS
System Power	23-47W			
LED CCT	3000K			
LED CRI	>70			
Lumen Output	Up to 5,757lm	Up to 5,643lm	Up to 5,772lm	Up to 5,607lm
Lumen Maintenance	Projected L80 after 100,000 hours			
Drive Current	504-960mA			
Driver Output	Constant current output with AM dimming			
Power Factor (Full Load/Half Load)	0.95/0.90			
Operational Voltage	220-240VAC rms			
Operating Frequency	50/60Hz			
Inrush Current (Apk/50%- $\mu$ S)	54A/190 $\mu$ S			
Running Current (max)	200mA			
Surge Protection (COM/DIF)	10kV/6kV			
Additional Surge Protection (on request)	10kV/10kA			
Lighting Controls Options	NEMA 7, Zhaga book 18 (SR) socket, PND and CMS compatible			
Dimming Protocols	DALI			

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#### MECHANICAL CHARACTERISTICS

TYPE	CIRCA LG
Housing Material	High quality high pressure die cast LM6 aluminium components
Housing Finish	Chromate free pre-treatment, polyester powder coat, light grey (RAL9006), dark grey (RAL7022), black (RAL9005) or bespoke colours on request
Cover Material	Toughened safety glass
Lens Material	PMMA
Ingress Protection Rating	IP66
Weight	9.5kg
Wind Area	0.08m <sup>2</sup>
Impact Resistance Rating	IK08 cover/IK10 top
Mounting Methods	Post top 60mm or 76mm/side entry 34mm, 42mm, 60mm or 76mm
Mounting Inclination	Rotational freedom in 5°steps (+/- 10° to ensure the luminaire is mounted horizontal for IDA approval)

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### ELECTRICAL CHARACTERISTICS

TYPE	CHALIS SYM LG	CHALIS ASY LG
System Power	23-47W	
LED CCT	3000K	
LED CRI	>70	
Lumen Output	Up to 4,749lm	Up to 4,808lm
Lumen Maintenance	Projected L80 after 100,000 hours	
Drive Current	504-960mA	
Driver Output	Constant current output with AM dimming	
Power Factor (Full Load/Half Load)	0.95/0.90	
Operational Voltage	220-240VAC rms	
Operating Frequency	50/60Hz	
Inrush Current (Apk/50%- $\mu$ S)	54A/190 $\mu$ S	
Running Current (max)	200mA	
Surge Protection (COM/DIF)	10kV/6kV	
Additional Surge Protection (on request)	10kV/10kA	
Lighting Controls Options	NEMA 3, 7, Miniature photocell, Zhaga book 18 (SR) socket, PND and CMS compatible	
Dimming Protocols	DALI	

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#### MECHANICAL CHARACTERISTICS

TYPE	CHALIS LG
Housing Material	High quality high pressure die cast LM6 aluminium components
Housing Finish	Chromate free pre-treatment, polyester powder coat light grey (RAL9006), dark grey (RAL7022), black (RAL9005) or bespoke colours on request
Bowl Material	UV stabilised polycarbonate
Lens Material	PMMA
Ingress Protection Rating	IP66
Weight	8kg
Wind Area	0.14m <sup>2</sup>
Impact Resistance Rating	IK10 bowl/IK08 top
Mounting Methods	Post top 76mm

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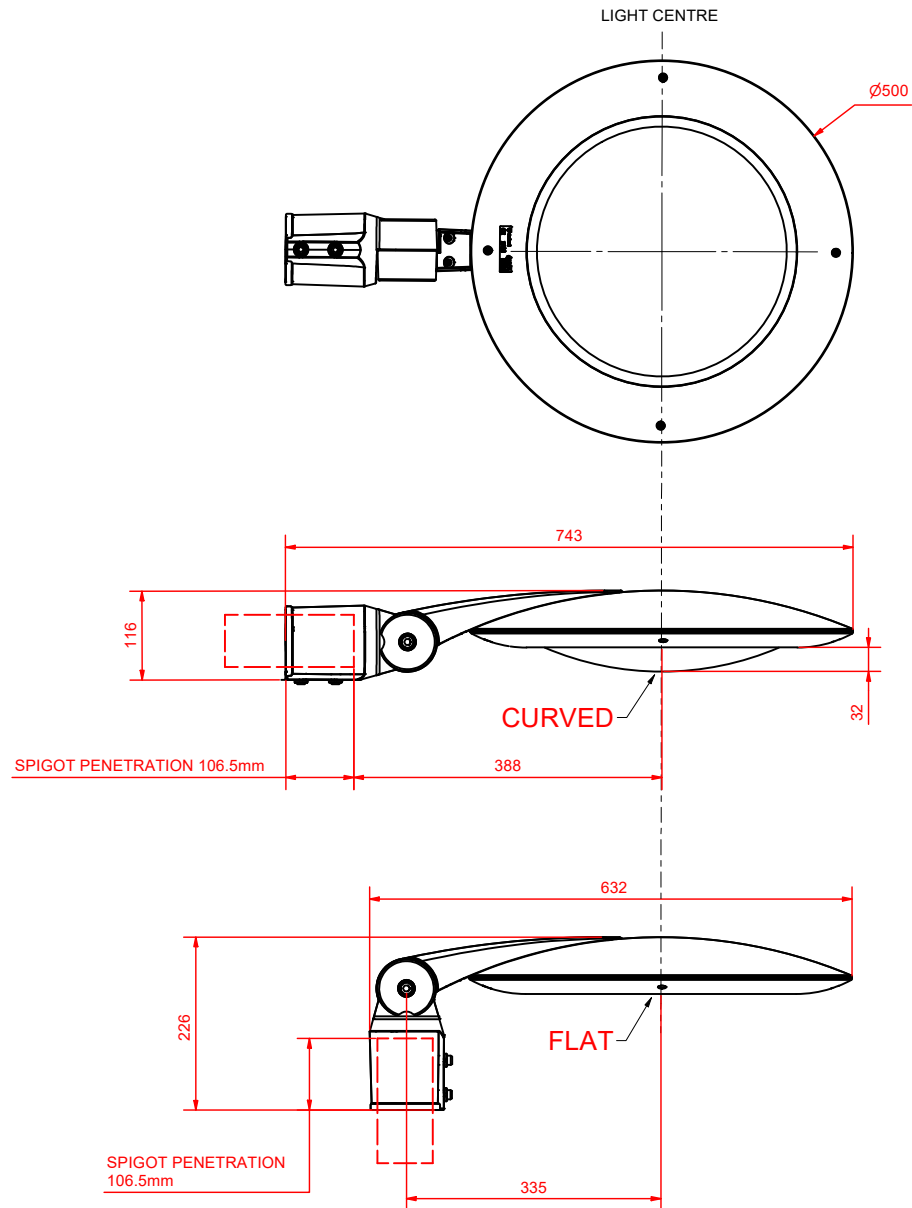
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## DIMENSIONS



## CIRCA LIGHT GUIDE



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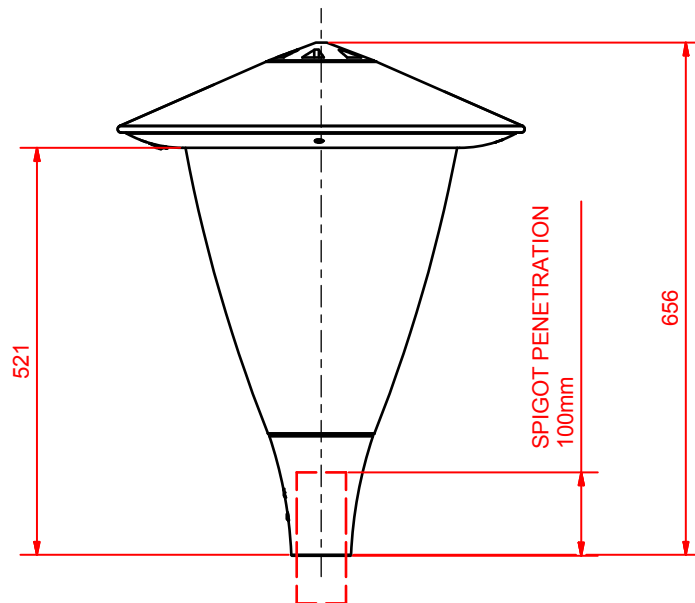
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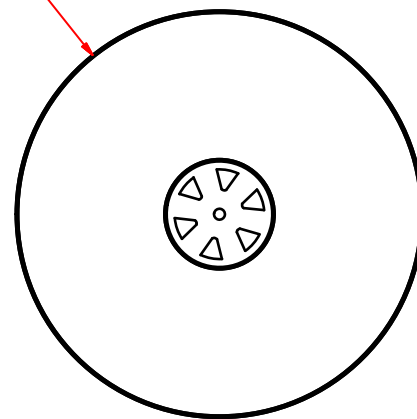
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Step 1: Select Product Variant	Step 2: Select Power Level	Step 3: Select Distribution	Step 4: Select LED CCT	Step 5: Select Paint Colour	Step 6: Select Cover Type	Step 7: Select Mounting	Step 8: Select Accessories
<b>CIL</b> (Standard Circa Light Guide)	25 30 35 39	<b>ASY =</b> Asymmetric  <b>SYM =</b> Symmetric	<b>3K =</b> 3000K	<b>LG =</b> Light grey  <b>DG =</b> Dark grey  <b>B =</b> Black	<b>FG =</b> Flat glass  <b>CG =</b> Curved glass	<b>76UK =</b> 76mm UK pivot with stainless steel inserts  <b>U76 =</b> 76mm UK pivot with stainless steel inserts and 42mm extruder	<b>NEM7 =</b> 7 pin NEMA socket  <b>NEM7C =</b> 7 pin NEMA socket with 35/18 NEMA photocell  <b>XMARC1.5 =</b> Xm of Arctic 1.5mm <sup>2</sup> cable  <b>ZB18 =</b> Zhaga Book 18 socket
<b>CILP</b> (Circa Light Guide with PowerSet)	42 45 47						
<b>CILC</b> (Circa Light Guide with Constant Light Output (CLO))	23 27 32 35						
<b>CILPC</b> (Circa Light Guide with PowerSet & Constant Light Output (CLO))	38 41 42						

**Example**

Product	Power (W)	Distribution	LED CCT	Paint Colour	Cover Type	Pivot	Accessories
<b>CIL</b>	25	<b>ASY</b>	<b>3K</b>	<b>LG</b>	<b>FG</b>	<b>76UK</b>	<b>8MARC1.5</b>

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Step 1: Select Product Variant	Step 2: Select Power Level	Step 3: Select Distribution	Step 4: Select LED CCT	Step 5: Select Paint Colour	Step 6: Select Cover Type	Step 7: Select Mounting	Step 8: Select Accessories
<b>CHL</b> (Standard Chalis Light Guide)	25 30 35 39 42	<b>ASY =</b> Asymmetric  <b>SYM =</b> Symmetric	<b>3K =</b> 3000K	<b>LG =</b> Light grey  <b>DG =</b> Dark grey  <b>B =</b> Black	<b>PB =</b> Polycarbonate bowl	<b>76UK =</b> 76mm UK pivot with stainless steel inserts	<b>MC10 =</b> 35/18 Minicell
<b>CHLP</b> (Chalis Light Guide with PowerSet)	45 47						<b>NEM3 =</b> 3 in NEMA socket
<b>CHLC</b> (Chalis Light Guide with Constant Light Output (CLO))	23 27 32 35						<b>NEM7 =</b> 7 pin NEMA socket
<b>CHLPC</b> (Chalis Light Guide with PowerSet & Constant Light Output (CLO))	38 41 42						<b>NEM3C =</b> 3 pin NEMA socket with 35/18 NEMA photocell  <b>NEM7C =</b> 7 pin NEMA socket with 35/18 NEMA photocell  <b>XMARC1.5 =</b> Xm of Arctic 1.5mm <sup>2</sup> cable  <b>ZB18 =</b> Zhaga Book 18 socket

**Example**

Product	Power (W)	Distribution	LED CCT	Paint Colour	Cover Type	Pivot	Accessories
<b>CIL</b>	25	<b>ASY</b>	<b>3K</b>	<b>LG</b>	<b>PB</b>	<b>76UK</b>	<b>MC10, 8MARC1.5</b>

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For more information

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[www.trtlighting.co.uk](http://www.trtlighting.co.uk)

TRT Lighting evolved from Thorlux Lighting in 2012 as a specialist division of the FW Thorpe Group with a core focus on developing innovative lighting products for streets, roads and tunnels using only LED technology.

**Culture of transparency** – we provide clear, honest information designed to be useful so clients have a clear understanding of what can be expected from the product and the company.

**Sustainability** – we are a CO<sub>2</sub> neutral supplier with strong roots in British manufacturing dating back to 1936.

**Locally supported** – we manufacture our luminaires in Redditch, Worcestershire and are proud members of the official Made in Britain campaign and their Green Growth programme.

WORKING WITH TRT



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