

CODEL

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TunnelTech 601 - Luminance Monitor

The TunnelTech 601 Luminance photometer monitors the average luminance of a tunnel entrance and its surroundings.

The photometer monitors the average luminance within a 20 degree angle over a standard range of 0-6,500 cd/m².

Other Luminance ranges are available on request.



✓ Compliant with Commission Internationale de l'Eclairage, (C.I.E.), publication 88,2004

✓ Calibrated using standards traceable to UK National Physical Laboratory

✓ Metal/glass encased Silicon photodiode, V1 filtered to human spectral response

✓ Measurement of tunnel entrance luminance - 0-6,500 cd/m²

✓ Rugged Aluminium housing to IP66

✓ Accuracy +/-1%

ISO 9001:2015

Quality Certification

ISO 14001:2015

Environmental Certification

Monitoring Solutions

**TunnelTech**

www.codel.co.uk

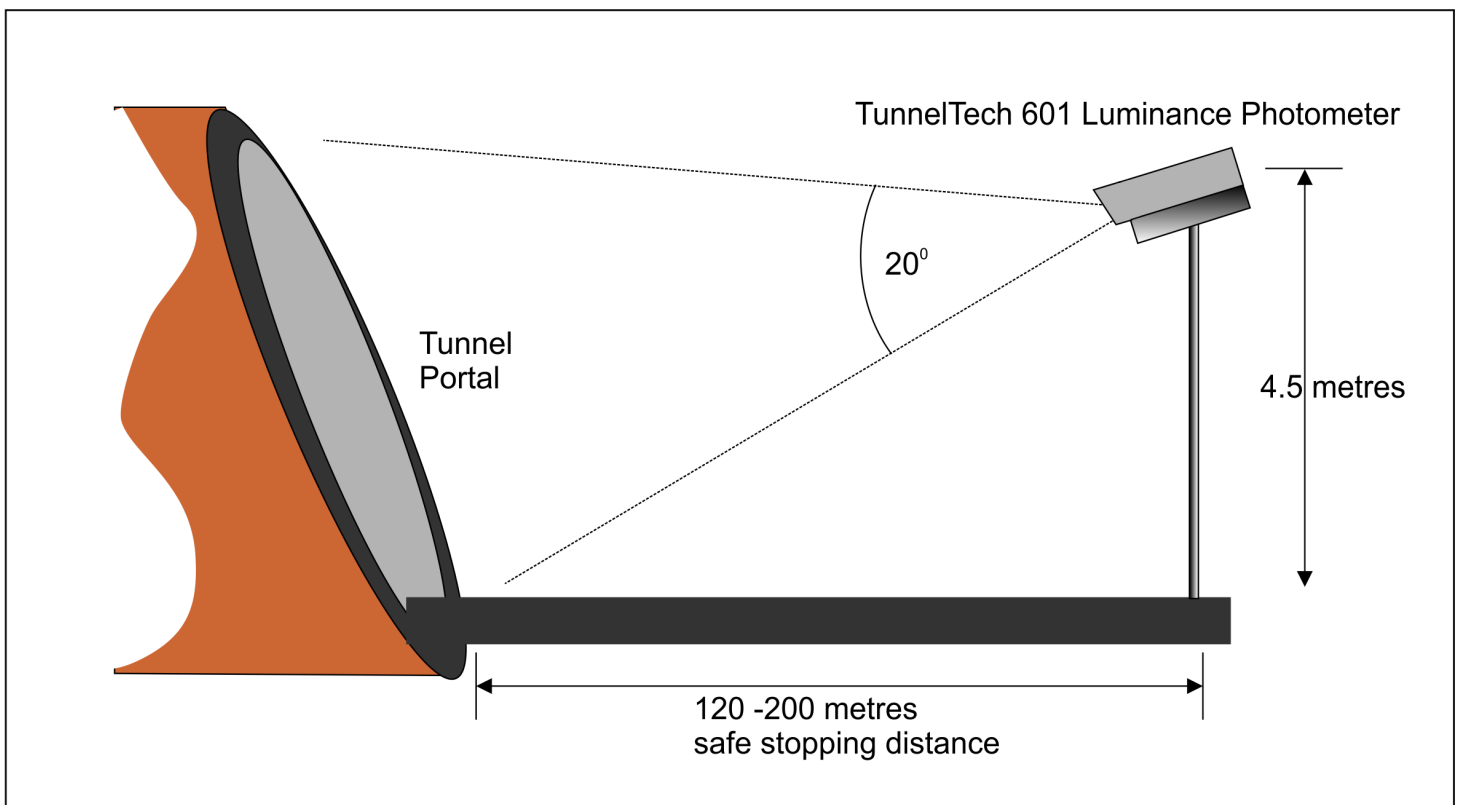
The TunnelTech 601 Luminance photometer monitors the average luminance of a tunnel entrance and its surroundings. In accordance with Commission Internationale de l'Eclairage, (C.I.E.), publication 88, 2004 recommendations, the photometer monitors the average luminance within a 20 degree angle over a standard range of 0 - 6,500 cd/m².

The detector is a metal/glass encased silicon diode photocell which is filtered to give a response that mimics the performance of the human eye. The detector is perfectly linear within its measuring range and has an instantaneous response to changing light levels.

According to CIE recommendations luminance should be monitored as the luminance contained within is in a Conical field view subtending an angle of 20°.

The purpose of monitoring the luminance at the portal is to adjust the level of light intensity inside the road tunnel to the light intensity outside so that drivers do not have to adjust their eyes quickly or become affected by the "black hole" effect where they decelerate rapidly and become a hazard to other road users.

The TunnelTech 601 Luminance photometer has a 4-20 mA output to export data to tunnel lighting control systems. The sensor is housed in a rugged aluminium enclosure which has an IP66 rating and has an internal thermostatically controlled heater. The enclosure may be fitted with an optional wash/wipe system that cleans the window automatically. It is equipped with 5 litre capacity fluid container; the customer supplies the on/off switching.



Technical Specification

Sensor Unit

Measurements	Luminance
Units	candela/metre squared - cd/m ²
Photodetector	metal/glass encased silicon diode photocell
Measurement range (typical*)	0 - 6500
Accuracy	+/- 1% (-25°C to +75°C)
Ambient Temperature	-20°C to +50°C
Power supply	220VAC or 24VDC
Construction	Corrosion resistant epoxy coated aluminium housing sealed to IP66

Compliances

EMC	EN61326-1:2006 & EN50270:2006 directive compliant
Low Voltage	73/23/EEC directive compliant

Communications & Outputs

Analogue outputs	1 x 4-20mA current outputs as standard,
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Calibration

Calibration	Traceable to NPL Standard Luminant A
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Optional Items

Wash/wipe kit	Wiper unit, wash bottle
Mounting equipment	Pan and tilt facility

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