

# 5000-301-M6

## BACKGROUND LUMINANCE SENSOR

### Applications

- RVR SYSTEMS AT AIRPORTS

### Features

- WEATHEPROOF SENSOR ENCLOSURE
- PROVEN IN ALL ENVIRONMENTS
- RANGE 3-50000 CD/SQR METRE
- 12.5 DEGREE FIELD OF VIEW
- CIE PHOTOPIC CORRECTED

### Description

The 5000-301 Background Luminance Sensor is an essential sensor used together with transmissometers or forward scatter meters in RVR assessment systems.

The optoelectronics assembly is mounted inside a weather proof sensor enclosure, with a glass front window and integral hood. The sensor is a high stability silicon photodiode, with a linear response over 7 orders of magnitude of light levels and the sensor characteristic is



compensated by a photopic correction filter, to ensure that the reading conforms to the CIE Photopic response within 3%, centred on 555 Nm.

The optoelectronic assembly is temperature controlled, and features a logarithmic characteristic to ensure accurate readings through the whole range of the sensor when used with a standard analogue to digital converter.

### Specifications

RANGE:	0-50000 Candela Per Sqr. Metre	
FIELD OF VIEW:	5 degrees.	
SPECTRAL RESPONSE:	Conformance to within 3% of the CIE Photopic response.	
ACCURACY	10% of reading	
CONNECTION:	RS-232/422 or RS-485	
MOUNTING	To side of Pole by universal mounting bracket.	
MTBF	23,000 Hours	
ANALOG OUTPUT	V=LOG(BL/3) [ LOG BASE 10] 3nit=0.0V 50,000 nit=4.22V. ***	
DIGITAL OUTPUT	Format: BL:xxxx[cr] 2400 Baud, 8 data bits no parity 1 stop bit.	
POWER SUPPLY:	M6-1: Low Power Window Heater	M6-2: High Power Window Heater
	+10-18VDC, AT 500 mA	+10-18VDC 2 amps max

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