

1.1.1.7.2 LED Irradiance and Dosage Sensors

100nW/cm² to 15W/cm²

**Features**

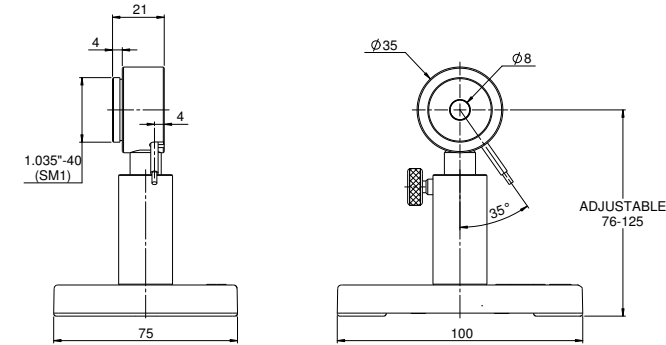
- Measure irradiance in W/cm² and dosage in J/cm²
- Cosine corrected
- 200nm to 850nm
- Ø2.75mm and Ø8mm aperture
- For lasers and LEDs



Model	PD300RM-UV	PD300RM-8W	PD300RM-UVA
Detector Type	Silicon	Silicon	Silicon
Input Port Aperture mm	Ø8	Ø8	Ø 2.75
Spectral Range nm	200-850	350-850	350-450
Functions	Irradiance [W/cm²] Dosage [J/cm²]	Irradiance [W/cm²] Dosage [J/cm²]	Irradiance [W/cm²] Dosage [J/cm²]
Irradiance Range	100nW/cm² – 250mW/cm²	1µW/cm² – 8W/cm² <sup>(d)</sup>	1.5µW/cm² – 15W/cm² <sup>(d)</sup>
Irradiance Scales	300mW/cm² to 300nW/cm² (7 scales), Auto ranging	30W/cm² to 30µW/cm² (7 scales), Auto ranging	30W/cm² to 30µW/cm² (7 scales), Auto ranging
Resolution nW/cm²	0.1	10	10
Maximum Irradiance	200nm-400nm, 250mW/cm² 400nm-550nm, 100mW/cm² 550nm-850nm, 40mW/cm²	350nm-650nm, 8W/cm² 650nm-850nm, 4W/cm²	350nm-450nm, 15W/cm²
Dosage Sample Rate	500 samples per second	500 samples per second	500 samples per second
Calibration Uncertainty <sup>(a)</sup>	±3.4%, 400-850nm	±3.4%, 400-850nm	±3.6%, 350-400nm ±3.4%, 400-450nm
Deviation from Flatness Accuracy	N.A.	N.A.	±3%, 350-400nm, 400-450nm
% error vs Wavelength nm <sup>(c)</sup>	±10%, 200-250nm	±5%, 350-400nm	±6%, 350-400nm
	±7.5%, 250-300nm	±4%, 400-850nm <sup>(a)</sup>	±5%, 400-450nm <sup>(b)</sup>
	±5%, 300-400nm		
	±4%, 400-850nm <sup>(a)</sup>		
Thermal Coefficient %/°C	-0.03	-0.03	-0.03
Damage Threshold W/cm²	10	50 <sup>(d)</sup>	50 <sup>(d)</sup>
Max Pulse Energy (for laser ns pulse) µJ	0.4	20	20
Noise Level nW/cm²	5	45	65
Response Time with Meter s	0.2	0.2	0.2
Linearity %	±0.5	±0.5	±0.5
f²/2 Cosine Correction Factor Accuracy	5%	5%	6.5% <sup>(f)</sup>
Size	Ø35 x 21mm see drawing	Ø35 x 21mm see drawing	Ø35 x 21mm see drawing
Weight	110g	110g	110g
Compatible Meter	StarBright and StarLite with or without StarLab, Juno+, Juno-RS	StarBright and StarLite with or without StarLab, Juno+, Juno-RS	StarBright and StarLite with or without StarLab, Juno+, Juno-RS
Compliance	CE, UKCA, China RoHS	CE, UKCA, China RoHS	CE, UKCA, China RoHS
Version			
Part number	7Z02479	7Z02480	7Z02492

Notes: (a) Accuracy given for lasers. Accuracy for LEDs depends on peak wavelength and bandwidth. Contact Ophir for more details.  
(b) Applicable to lasers and LEDs, includes deviation from flatness.  
(c) Accuracy includes uncertainty of NIST calibrated reference.  
(d) Do not exceed 30 seconds of continuous exposure at > 5W/cm².  
(e) For calibration uncertainty of wavelengths outside of this range see table on page 24.  
(f) Up to 70 degrees.

PD300RM-UV / PD300RM-8W



PD300RM-UVA

