

Absolute Reflectance Specifications for V-700 Series UV-visible and Near Infrared NIR Spectrophotometers

Wavelength range	250 - 850 nm (ARV-913)
	250 - 2200 nm (ARN-914)
	250 -1600 nm (ARN-915i)
Angle of incidence	Absolute reflectance measurement: 5 - 60°
	Relative reflectance measurement: Vertical incidence
Incidence angle	2.5°
Sample size	Absolute reflectance sample holder
	Minimum 20 mm (height) x 20 mm (width) x 1 mm (depth); Maximum 70 mm (height) x 100 mm (width) x 10 mm (depth)
	Relative reflectance sample holder
	Minimum 20 mm (height) x 20 mm (width) x 0.5 mm (depth); Maximum 70 mm (height) x 100 mm (width) x 10 mm (depth)
Light beam	Position of absolute reflectance sample window
	10 mm (height) x 3 mm (width)
	Position of relative reflectance sample window
	10 mm (height) x 3 mm (width)
Detector	60 mm-dia. integrating sphere
	Photomultiplier tube (ARV-913/ARN-914/ARN-915i)
	PbS photoconductive detector (ARN-914)
	InGaAs photodiode detector (ARN-915i)
Suggested Bandwidth	UV: 5 nm; NIR 20 nm
Absolute reflectance measurement accuracy	± 1.5% (angle of incidence 6°)
100% line flatness	± 1% (bandwidth: UV 5 nm; NIR 20 nm; after instrument baseline correction)

Wavelength range	250 - 850 nm (ARSV-918)	
	250 - 2000 nm (ARSN-919)	
	250 -1600 nm (ARSN-920i)	
Angle of incidence	Absolute reflectance measurement: 5 - 60°; Transmittance measurement: 0 - 60°	
	Relative reflectance measurement: Vertical incidence	
Setting of angle of incidence	Sample stage: 0.1°; Detector stage: 1°	
Sample size	Absolute reflectance sample holder	
	Minimum 20 mm (height) x 20 mm (width) x 1 mm (depth)	
	Maximum 70 mm (height) x 100 mm (width) x 10 mm (depth)	
	Relative reflectance sample holder	
	Minimum 20 mm (height) x 20 mm (width) x 0.5 mm (depth)	
	Maximum 70 mm (height) x 100 mm (width) x 10 mm (depth)	
Light beam	Position of absolute reflectance sample window	
	10 mm (height) x 3 mm (width) (no aperture)	
	3 mm dia. (aperture dia. 3 mm)	
	2 mm dia. (aperture dia. 2 mm)	
	1 mm dia. (aperture dia. 1 mm)	
	Position of relative reflectance sample window	
	10 mm (height) x 3 mm (width) (no aperture)	
	9 mm (height) x 3 mm (width) (aperture dia. 3 mm)	
	7 mm (height) x 3 mm (width) (aperture dia. 2 mm)	
	6 mm (height) x 3 mm (width) (aperture dia. 1 mm)	
	Detector	60 mm-dia. integrating sphere
		Photomultiplier tube (ARSV-916/ARSN-917/ARSN-918i)
PbS photoconductive detector (ARSN-917)		
InGaAs photodiode detector (ARSN-918i)		
Recommended SBW	UV: 5 nm	
	NIR: 20 nm	
Absolute reflectance measurement accuracy	± 1.5% (angle of incidence 6°)	
100% line flatness	± 1% (bandwidth: UV 5 nm; NIR 20 nm; after instrument baseline correction)	