



Industrial-Grade Reflectance Reference Targets

Application: Testing of LIDAR, ADAS and 3D Camera Systems



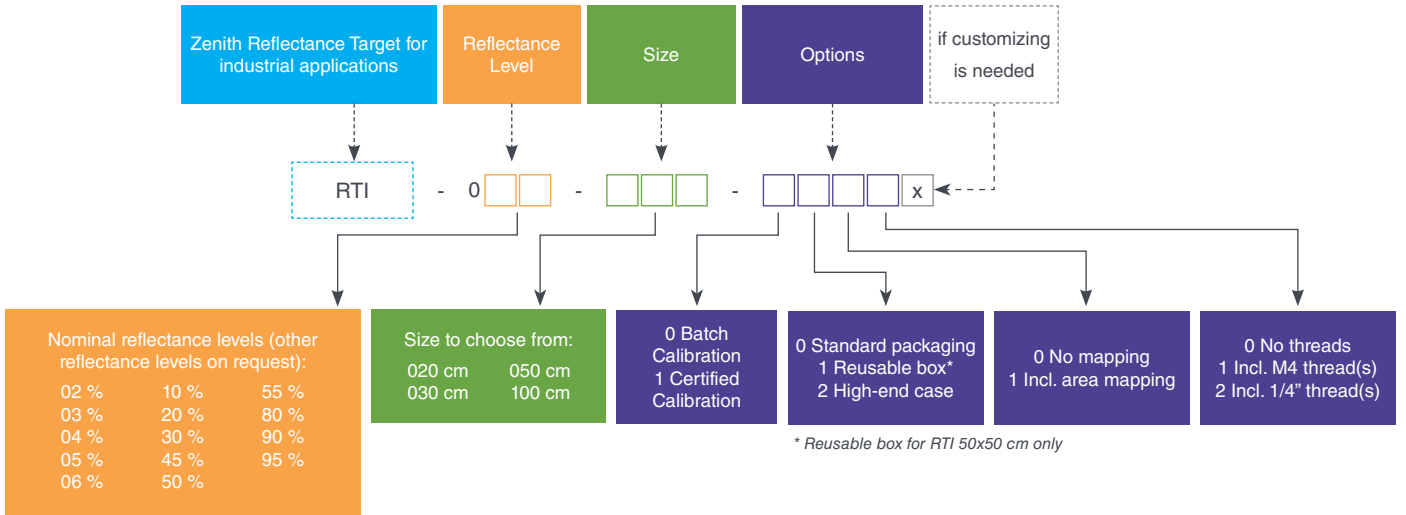
SphereOptics' Industrial-Grade Reflectance Targets (RTI) are available with greyscale reflectance levels from 1% to 95% and provide a more durable, higher uniformity and more accurate alternative to disposable grey-painted card, textile and paper standards. RTI targets are available in sizes from 20cm to 100cm square and offer stable, diffuse reflectance in a simpler, more robust and lower cost package compared to SphereOptics' Zenith-Lite targets.

RTI targets are used for testing the sensors used in ADAS (Advanced Driver Assistance Systems) sensors deployed in autonomous vehicles, such as LIDAR and 3D camera systems. RTI targets are also used to test hyperspectral and multispectral camera systems and field spectroradiometers used in remote sensing applications, and to test machine vision cameras.

High reflectance RTI targets are constructed using a thin foil of Zenith diffuse reflectance material that is laminated onto a rigid, aluminium-backed breadboard. RTI targets with a reflectance of 5% or less employ a sprayed-on coating. The overall thickness of the targets is 7-8mm.

Features	Application
<ul style="list-style-type: none"> · Reflectance type: highly diffuse (Lambertian) · Reflectance levels: 1.3% to 95% · Sizes: 20cm to 100cm (square) · Light weight · Uniform reflectance · Mounting: either M4 or 1/4" tapped threads · Optional calibration: 8°/H total hemispherical reflectance, 250-2450nm, NIST/PTB-traceable, either per batch or per target 	<ul style="list-style-type: none"> · ADAS smart sensor testing & calibration · LIDAR system test · ToF sensor calibration · Ground truthing for remote sensing · Calibration of spectral imagers · Testing of machine vision cameras

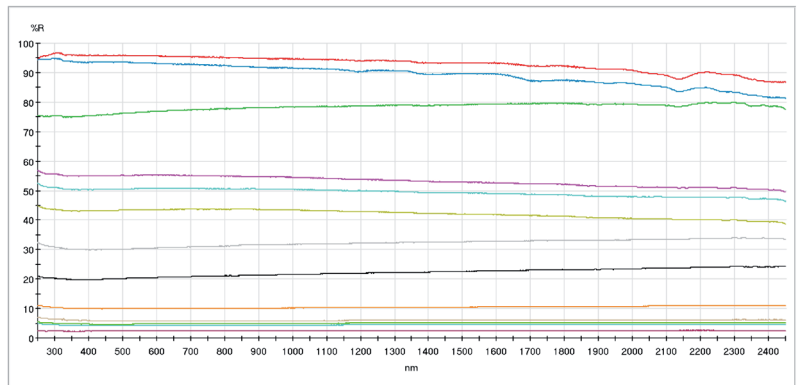
Please use the following nomenclature to request your quote and place your order:



Additional ordering options:

- High-end transportation & storage case
- Reusable box (for 50cm targets only)
- Uniformity mapping of target surface
- Additional, small witness target (50cm & 100cm targets only)
- Calibration of 8°/H total hemispherical reflectance (250-2450nm, NIST-traceable), either per batch or per target
- Threaded mounting holes, either M4 or 1/4"

Typical 8°/H reflectance factors



Performance Specifications:

Reflectance uniformity across the target (measured at 905nm):

- ±0.3% for reflectance levels of 1.3% to 5%
- ±0.5% for reflectance levels of 20% & 30%
- ±1% for reflectance level of 50%
- ±0.5% for reflectance levels of 80% to 95%

Actual reflectance levels in stock may vary from stated nominal values, please enquire if specific values are required.



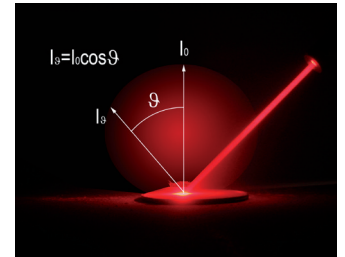
RTI-095-050-0200



RTI-090-020-0001



Packing for RTI-090-020-0001



RTI Reflectance Characteristics

Target Weights & Sizes

100 cm x 100 cm	8 kg
50 cm x 50 cm	2 kg
30 cm x 30 cm	1 kg
20 cm x 20 cm	0.5 kg

Standard Scope of Delivery

- RTI target with specified reflectance level
- Batch calibration (1nm step, 250nm to 2450nm)
- Standard shipping carton (cardboard box)



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