

Hyperspectral radiance data for the scene Souto Roof Tiles (Nascimento, S.M.C, Amano, K., & Foster, D.H. (2015). Spatial distributions of local illumination color in natural scenes. Vision Research doi:10.1016/j.visres.2015.07.005).

Location name	Souto, Braga, Portugal
Scene description	Roof of a rural farm house
Geographic reference points	Scene Latitude Approx. 41.581522° Longitude approx. -8.383093°
Date of acquisition	8 June 2003
Acquisition times	19:53
Viewing geometry	Visual angle of scene from camera: 6.9 × 5.3 deg
	Distance of the camera to flat reference: 10.25 m
Matlab Files	Souto_Roof_Tiles.mat
BMP Files	Souto_Roof_Tiles.bmp unedited
How to load data	In Matlab, if hyperspectral image files are in working directory, then Matlab command >> load ('Souto_Roof_Tiles.mat') loads hyperspectral image data into memory with name 'hsi', same for every scene
What the data represent	Array 'hsi' has size 1024 × 1344 × 33. It represents a set of 33 greyscale images of size 1344 (H) × 1024 (V) pixels sampled at wavelengths 400, 410, ..., 720 nm, with each pixel value representing spectral radiance in $W m^{-2} sr^{-1} nm^{-1}$
Postprocessing	See Section 2.1. Hyperspectral system, in Nascimento, S.M.C, Amano, K., & Foster, D.H. (2015). Spatial distributions of local illumination color in natural scenes. Vision Research doi:10.1016/j.visres.2015.07.005.
Matlab version	R2014b (8.4.0.150421).
More details	See Nascimento, S.M.C, Amano, K., & Foster, D.H. (2015). Spatial distributions of local illumination color in natural scenes. Vision Research doi:10.1016/j.visres.2015.07.005.
Usage and citation	These data are for personal use only. If you use these hyperspectral images or the colour images rendered from them in any published work arising from these data, please cite the source publication in full: Nascimento, S.M.C, Amano, K., & Foster, D.H. (2015). Spatial distributions of local illumination color in natural scenes. Vision Research doi:10.1016/j.visres.2015.07.005.
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