

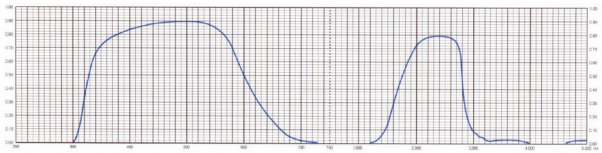
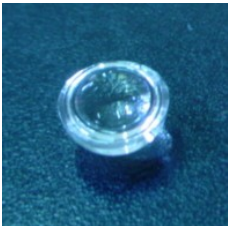

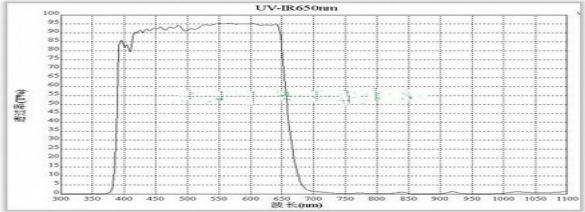


SQM lens comparisons

Half-ball vs cone, IR filters, lens holders

Due to light leakages in the original Golden Dragon (GD) lens and holder, a new (BK7 half ball) lens and (UVIR650) IRfilter design was made in 2013 and introduced in the SQM-LU-DL-V model in 2015. This design is intended to maintain a similar field of view and spectral response with the added benefit of reducing IR leakage around the lens and into the sensor.

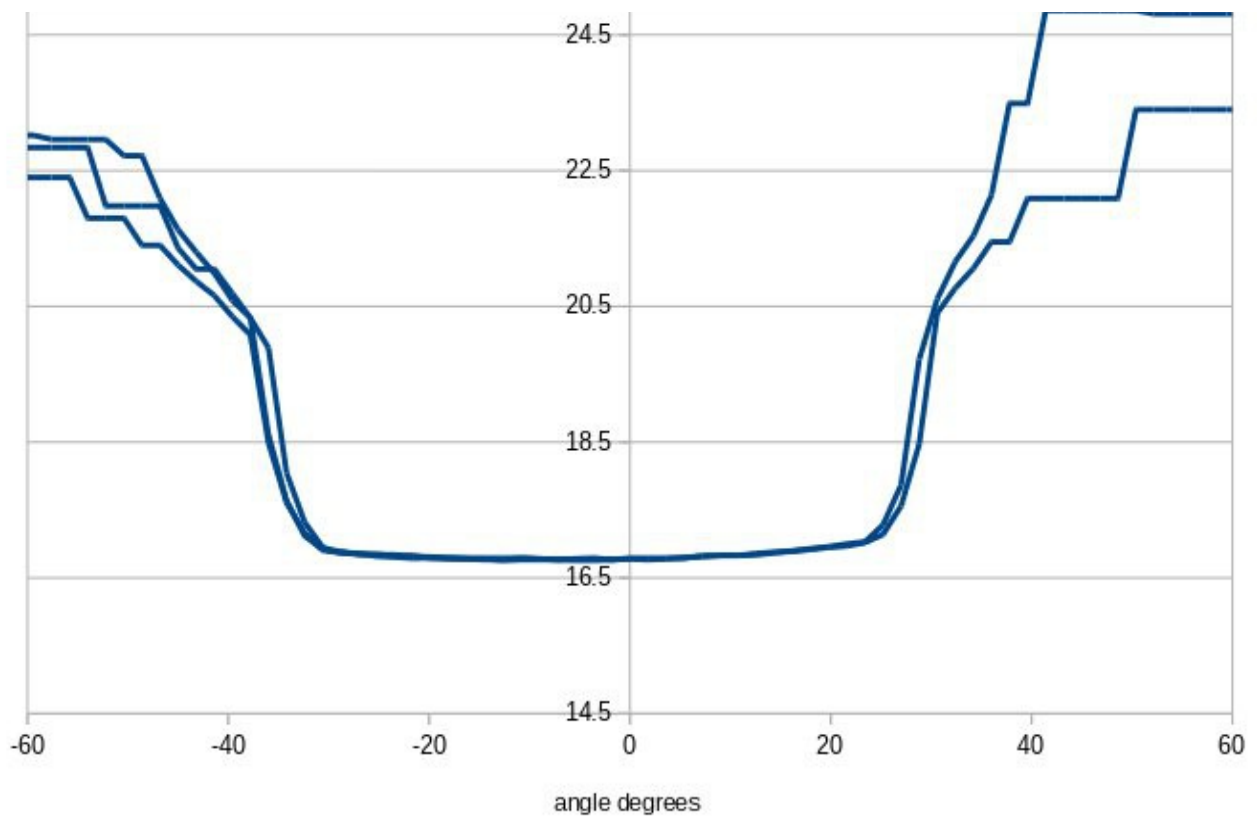
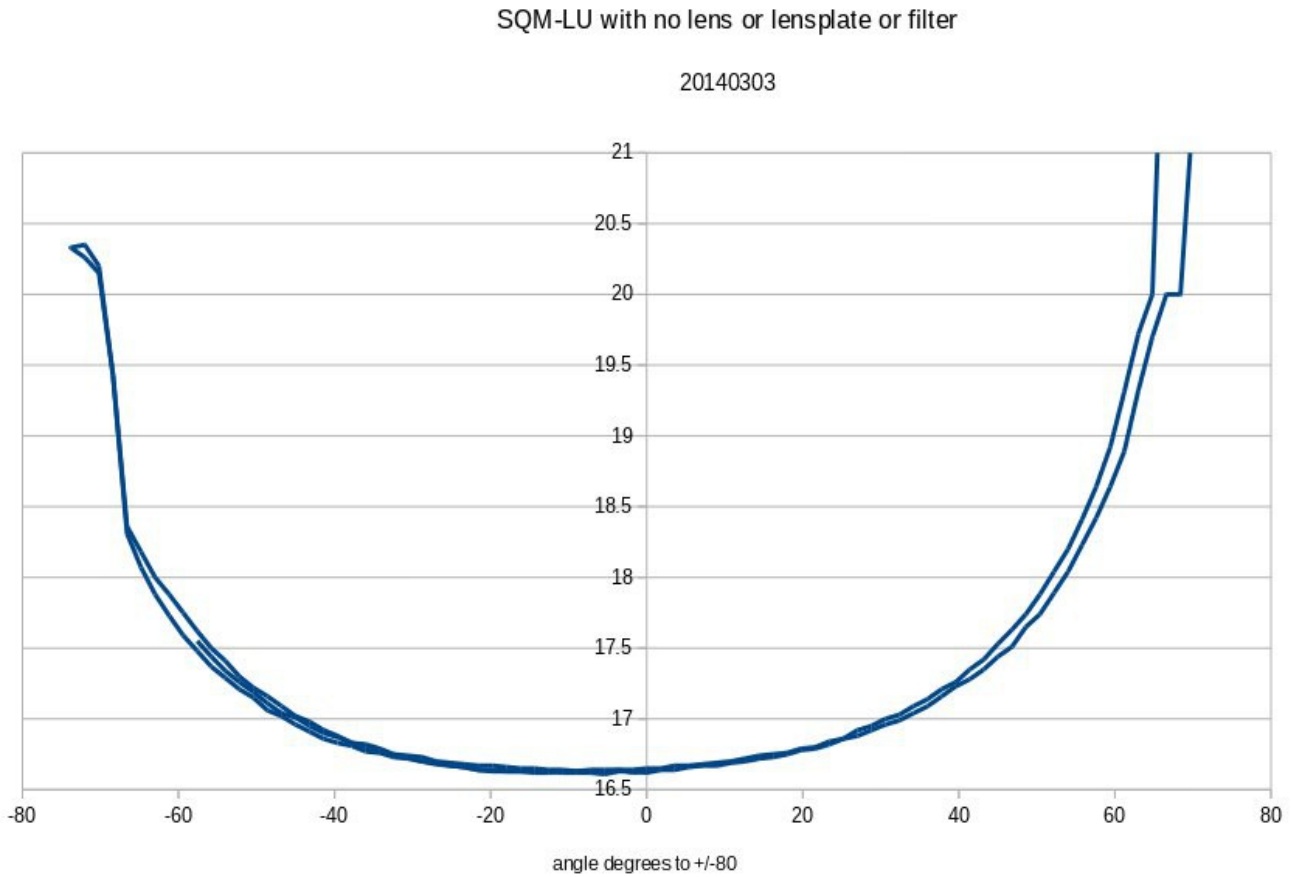
The table below shows the mechanical parts and filter properties discussed here:

	Lens	Holder	Filter
Original			
New			

Unihedron

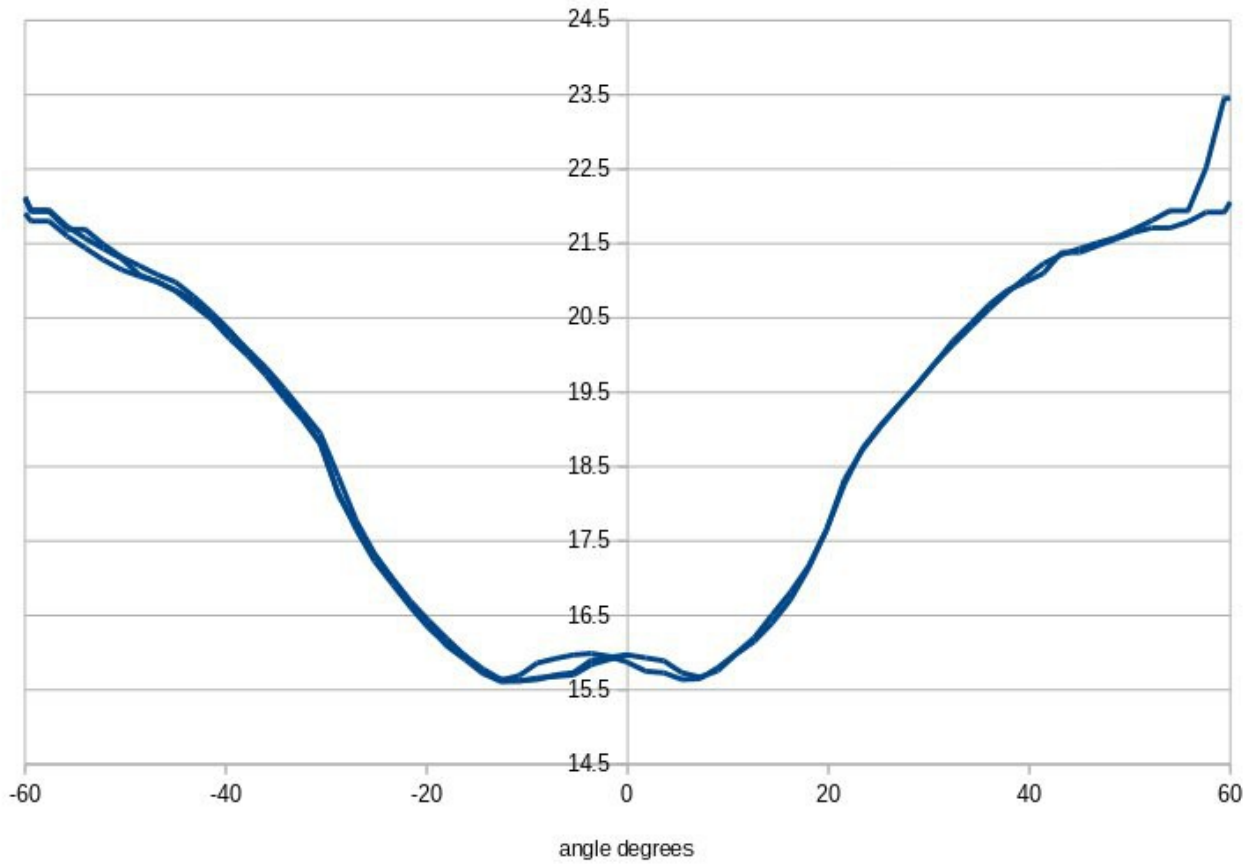
Angular response

Tests with various lens configurations are shown below.



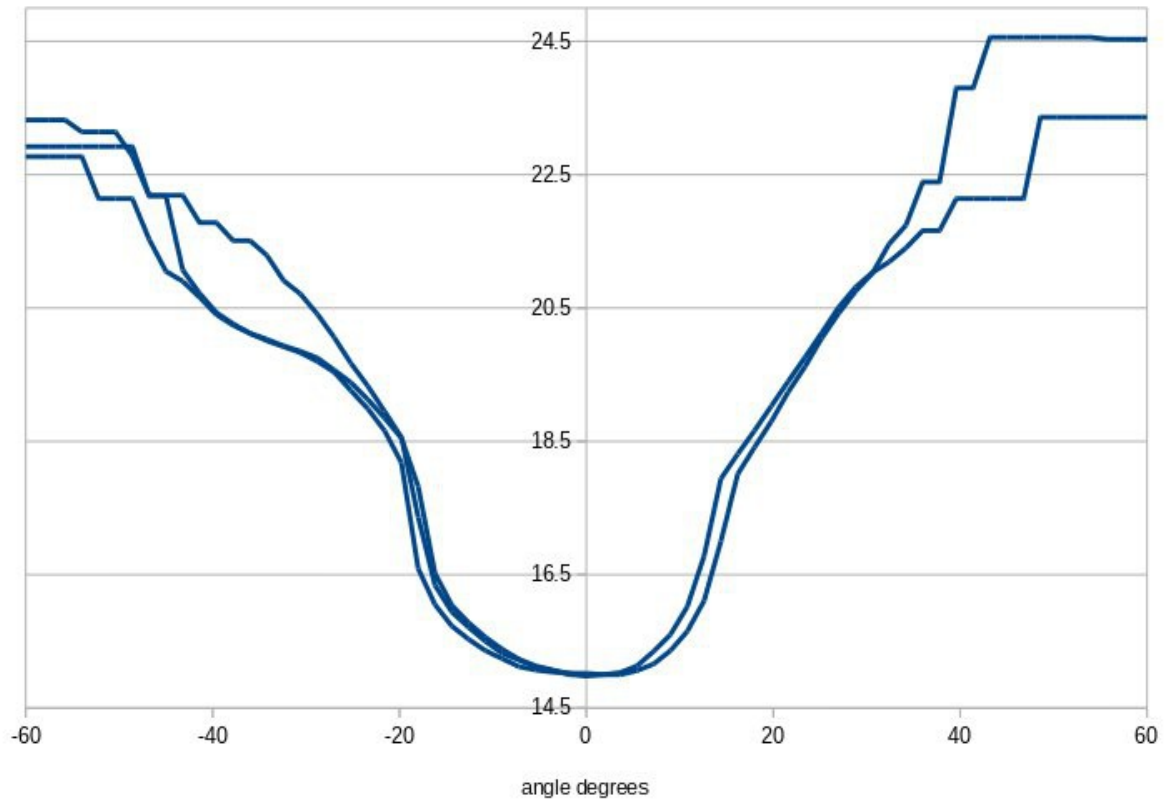
SQM-LU with original golden-dragon lens and Newport IR filter

20140303



SQM-LU with new filter and halfball lens

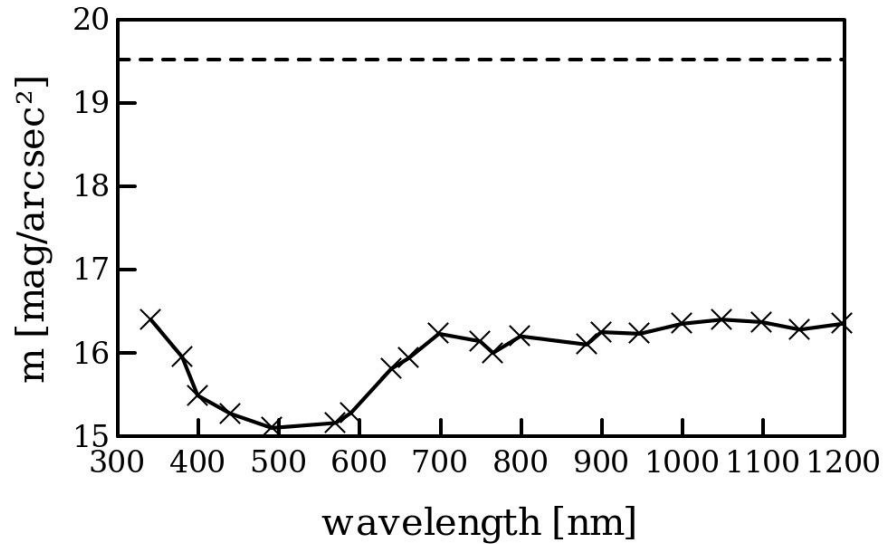
2014-03-03



Spectral response

Some preliminary tests performed by Dr. Mauro Pravettoni of SUPSI, Switzerland show the different spectral profile. I suspect that the scaling is due to the test setup since both “old” (HOYA CM500 with GD lens) and “new” (half-ball lens with UVIR650 filter) have been calibrated to the same reading.

old model



new model

