L-Quad Enhance Filter (L-QEF) New Product Info.

Item's Name	Size	MAP in USD	Launch Time
L-Quad Enhance Filter	2"	$199.00	10th October 2023

1. L-Quad Enhance Filter Introduction：

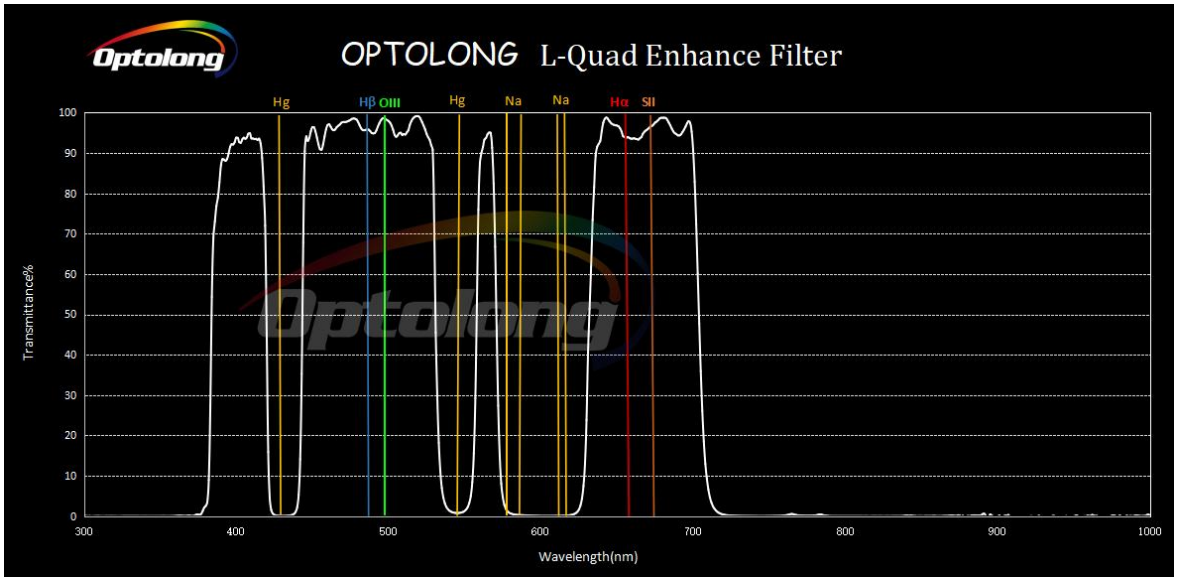
Introduction	L-Quad Enhance Filter is a quad bandpass light pollution suppression filter for colour cameras. It effectively suppresses the transmission of light pollution wavelengths, especially light pollution generated by artificial lighting (including mercury and sodium lamps), as well as the effects of natural skylight-induced effects on the shot, thus effectively enhancing the contrast and details of the celestial bodies, and making the objects more distinct and stereoscopic. This filter provides better color balance while improving resistance of light pollution. L-QEF can be used for both wide field astrophotography, such as the Milky Way in Summer and Winter, and deep sky objects such as nebulae, galaxies, star clusters, and so forth; It allows you to save a lot of time during the shooting process and get better results at the same time. The design of quad bandpass maximises the colour balance of nebulae, galaxies and other broadband spectral targets.
Advantages	▲Better suppression of starbursts; Higher contrast and more details of the celestial bodies; Better colour saturation; Better signal-to-noise ratio (SNR); ▲Near IR cut-off to 1000nm, reducing the effects of IR noise; ▲L-QEF has more than 90% transmittance of the nebula emission lines at H-Beta/OIII/H-Alpha/SII, with cut-off depth from OD2 to OD4, thus providing a significant increase in resistance to light pollution. L-QEF is good for night sky from Bortel 1 to Bortel 7 levels; (Bortel 8, Bortel 9 environments shall not be recommended, kindly chose Optolong other narrow-band filters, 3nm, 7nm type of filters are available.); ▲Suitable for wide range of deep sky targets: it covers most nebulae, galaxies, star clusters, reflected and emitted line signals astronomical objects with higher contrast and rich details while maintaining excellent colour balance. L-QEF is superior to other filters of the same type.

2. L- Quad Enhance Filter Spectrum:

Based on the characteristics of celestial bodies' emission lines and light pollution emission lines, L-Quad Enhance filter effectively reduces the impact of light pollution and suppresses the background light of astronomical objects, thus effectively enhancing the contrast and details of the celestial bodies.

Using L-QEF filter can help you save a lot of time during the shooting process, yet obtaining incredible results.

Sbustrate	optical glass
Thickness	1.85mm
FWHM	Quad bandpass filter
Blocking range	300-1000nm
Blocking	OD2-OD4
Surface quality	60/40
Transmitted Wavefront RMS:	λ/4
Parallelism	30"



※This curve is only for reference. We will continue to optimize the product according to actual testing, and this curve is not used as the final product data.

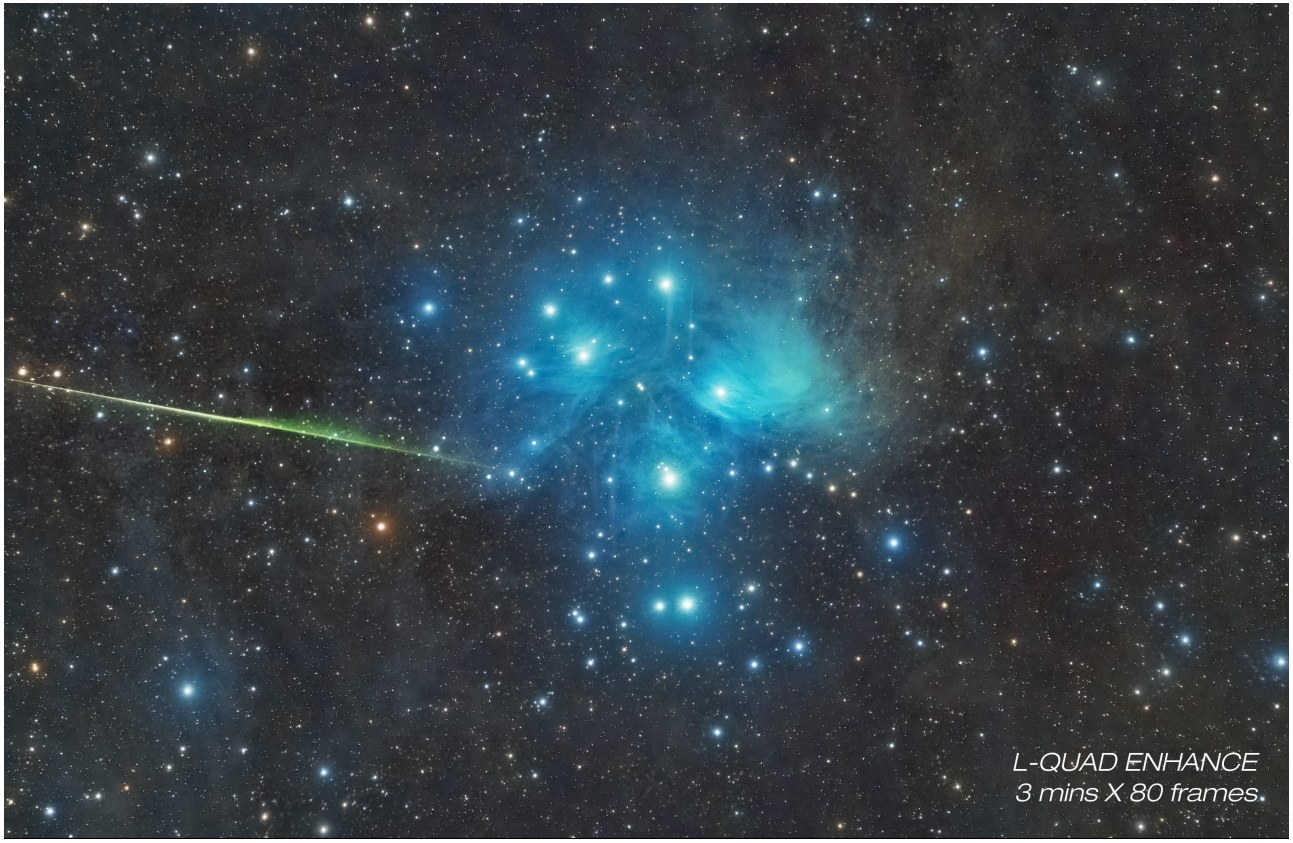
3. L-Quad Enhance Filter Size Available:

2"（M48×0.75）

4. Packing

Outer Box	silve box
Plastic Box	PP material
Lining	imported high pressure white EVA material

4.1 L-Quad Enhance Filter Performance:

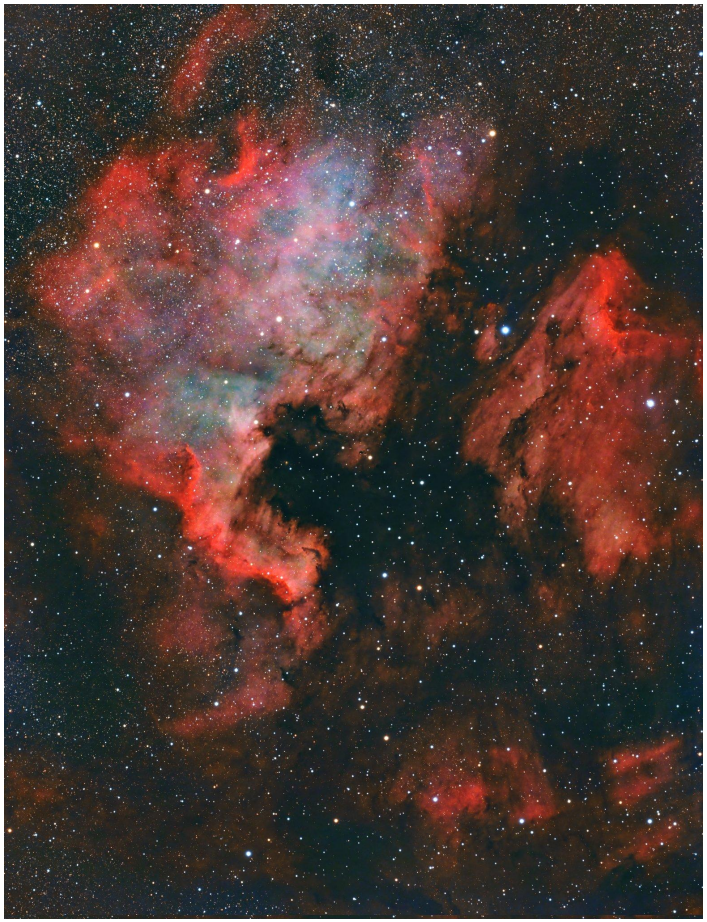


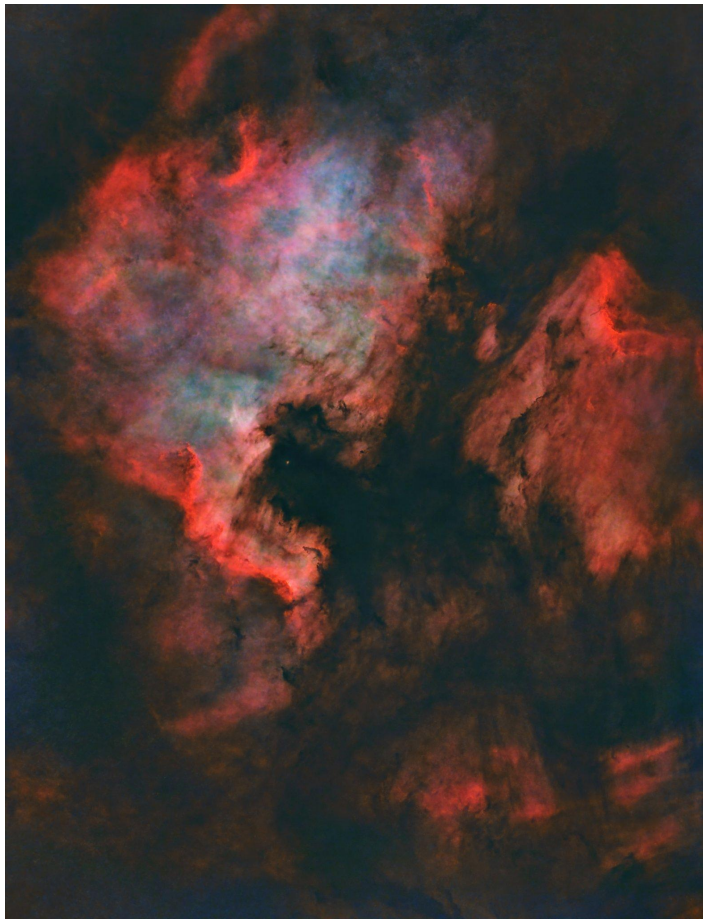
The seven sisters meet the Comet
Equipment：
Date /Location :
17-18, SEP, 2023
DanXiaShan STARHOUSE, China（Bortle 4）
Camea : ASI294MC Pro (cooled at 0C)
Gain : 120
Telescope: William Optics RedCat 51 (250mm f4.9)
Filter : Optolong L-QUAD ENHANCE 2-inch
Mount: iOptron SmartEQ PRO+
Guide: ASI120MM mini, ZWO OAG
controlled by ASIAIR plus
Exposure: 180s X 80frames
w Dark Frames, Bias Frames, flat Frames
process w PI,PS CC
Credit: Vincent Cheng

4.2 L-Quad Enhance Filter Performance:

IC1287
Lights: 39x300s
Telescope: Sky-Watcher 250/1000 + GPU Coma Corrector
Camera: Omegon veTEC 571C V4
Filters: New Optolong Astronomy Filter broadband filter L-QEF
Mount: Skywatcher AZ-EQ6 GT
Processing: DeepSkyStacker, PixInsight, Photoshop CC
Credit: Tommaso Massimo Stella

4.3 L-Quad Enhance Filter Performance





NGC 7000 (left) and the Pelican Nebula (right) imaged with the new Optolong Quad enhance filter for OSC.
Also used, Starfield 60Q telescope, QHY268C camera and iOptron HEM15 strainwave mount.
5hr 30min total.
Imaged under 80% Moon.
Credit: Shawn Nielsen （VisibleDark）

4.4 L-Quad Enhance Filter Performance

Here is my latest edit of NGC253 also goes by the name of The Sculptor Galaxy or by the name The Silver Dollar Galaxy. It is estimated to be about 45,000 light years across and 11.4 million light years away from Earth.

This image was taken with the new Optolong Filter User L-Quad Enhance Filter. This filter is excellent. The first thing you notice and really stands out after you open up the package is the build quality of the filter, it is second to none. You can see that the manufacturing and QC process has been to the highest standard.
But as you can see in the image it's the results that truly matters and I have found that this filter is capable of doing what it states, providing excellent image quality in light polluted areas.
Processing the image was easy too. There are no halos around bright stars thus far. I have imaged other targets but with only a limited amount of subs, such as M17 and NGC2070, however with the limited time I have had on those targets it's shown to be promising.
I am yet to image some more difficult targets such as The Orion Nebula but I am keen to do so ASAP.
The image was taken in a bortle 5 location with the moon out over two nights of the 4th and 5th of October 2023

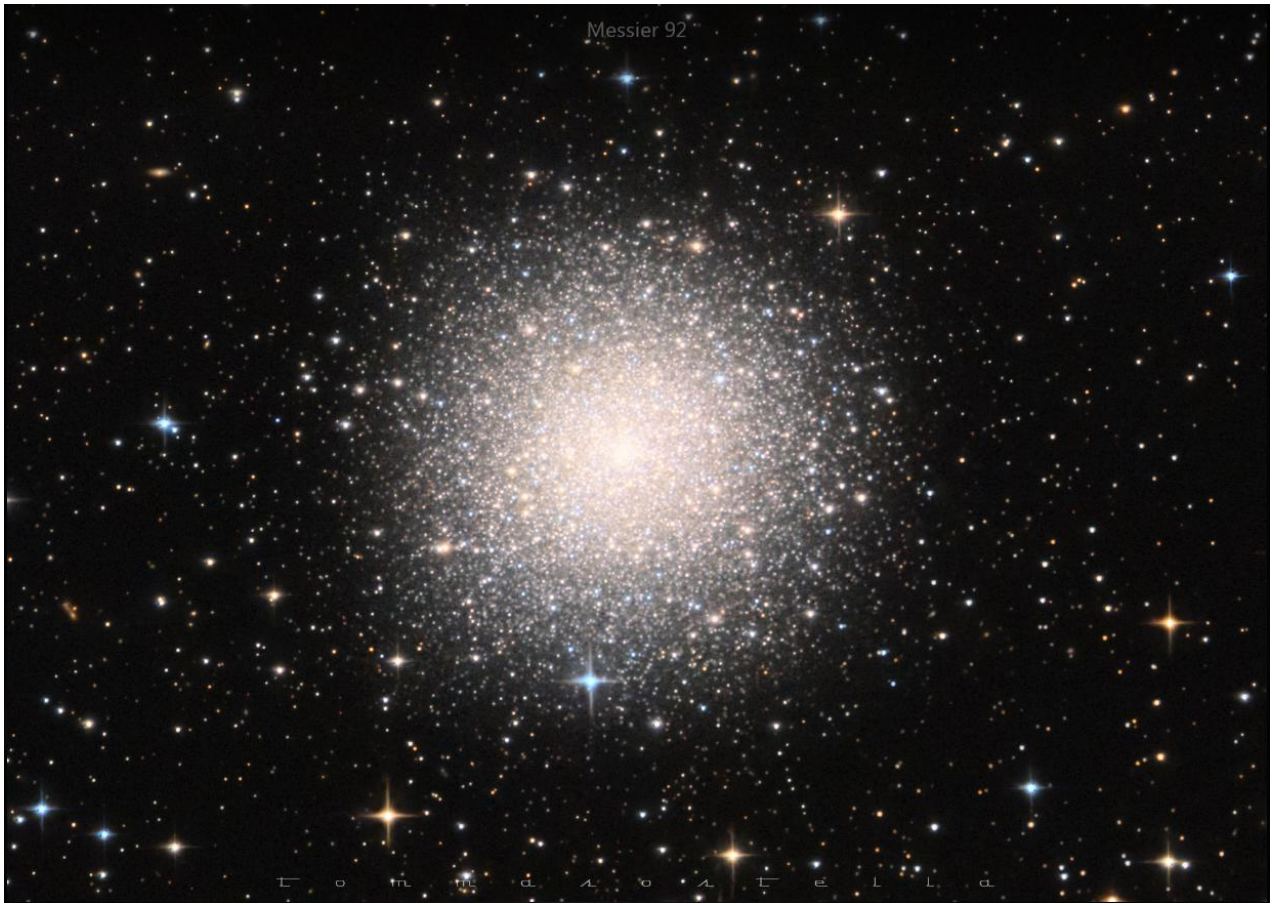
Celestron EdgeHD8 at f7
ZWO ASI2600MC Pro, gain 101, -10c
154 x 180sec subs, cropped
30 x darks
30 x flats
30 x flat darks
Stacked and Processed with PixInsight
Bortle 5, backyard Auckland, New Zealand
Link to a better resolution https://astrob.in/w2vmjo/0/
Credit: First Person View Astro (Frank Arapovic) （New Zealand）

4.5 L-Quad Enhance Filter Performance

Double Cluster
The moon is so bright. Star colours are nice.
Filter: Optolong L-QEF

Credit: Astrodoc Ron Brecher（Canada）

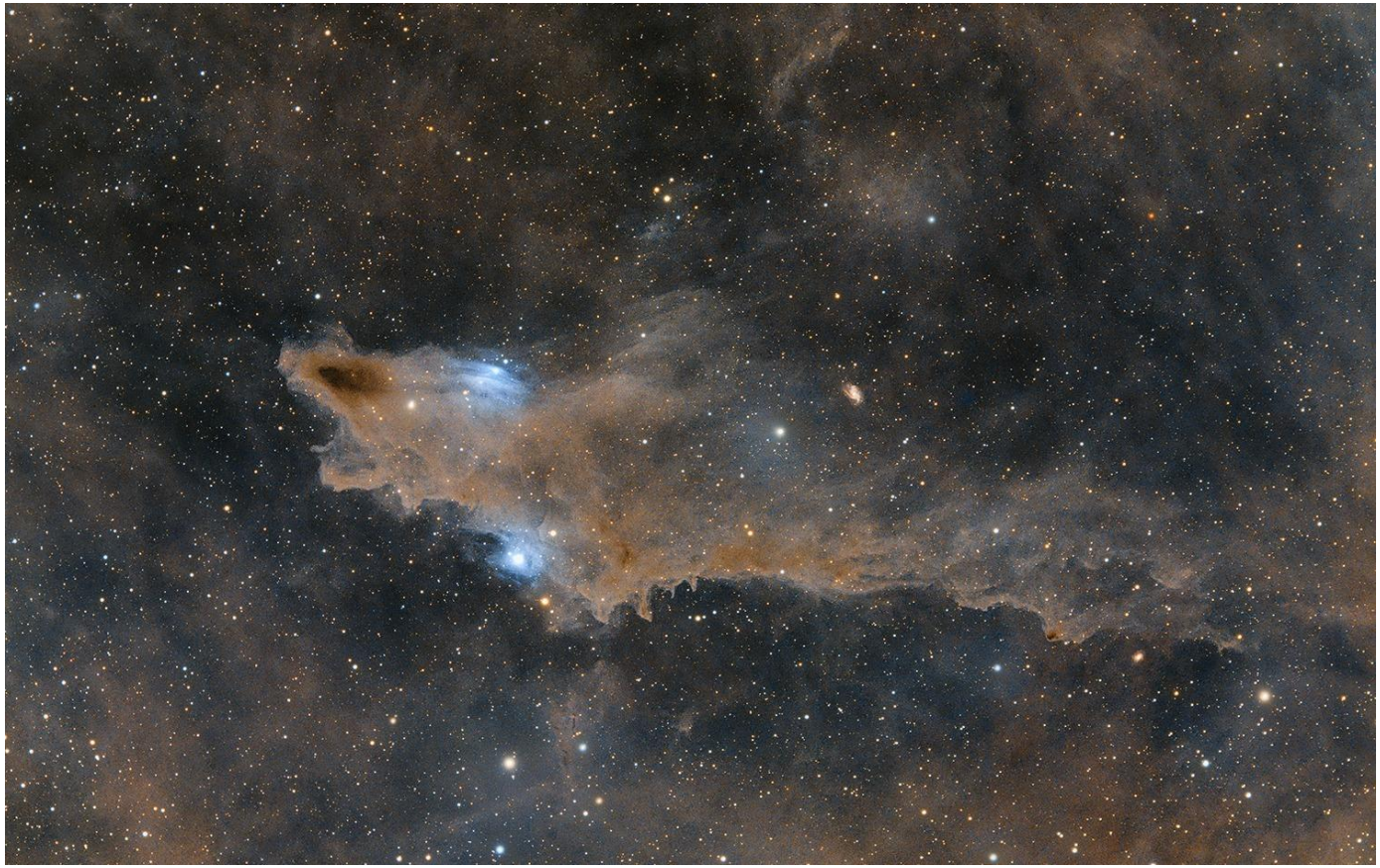
4.6 L-Quad Enhance Filter Performance



The globular star cluster (M92)
Date: 2023-07-23
Location: Valle degli Ulivi (Taranto-Italy)
SKY: SQM 19.85
Lights: 41x180s BIN2
Telescope: Sky-Watcher 250/1000 + GPU Coma Corrector
Camera: Omegon veTEC 571C V4
Filters: New Optolong Astronomy Filter broadband filter L-QEF
Mount: Skywatcher AZ-EQ6 GT
Processing: DeepSkyStacker, PixInsight, Photoshop CC
The performance of the filters is very good.

Credit: Tommaso Massimo Stella (Italy)

4.7 L-Quad Enhance Filter Performance



LDN 1235 Shark Nebula
Testing the new Optolong filter for colour cameras
Sharpstar 76PH telescope
Camera ZWO ASI 2600MC
Optolong L-Quad Enhance Filter (L-QEF)
11 hours of exposure
Credit: Andrea Maggi (Italy)

5. More testimonial of L-Quad Enhance Filter :

Stay Tuned!

Review Optolong Web:
https://optolong.com/cms/index/index.html

●About color: due to the influence of ambient light, color difference of the display and flash photography, the color of the product may have some color difference. Detailed color is in accordana with the final product.

●About coating: the interference filter will show different colors under different light, which is a normal phenomenon. Please refer to the material object.

●About the style: in order to improve the product, the change of design/appearance/parameters has not been updated in time. Please see the subject produce.

●About the description: the series of this product have the same material, technology and design, different sizes only, please note.