



Night Cityscape Photography

By Jonathan Neeld

Equipment – What's in my Bag?



Full Frame digital camera with large image sensor and high dynamic range.



Cable release or timer for longer exposure times (Camera timer is limited to 30 Seconds)



16-35mm f/4 Super wide-angle lens with good sharpness and minimal vignetting. (lens f number is not important).



Powerful Torch (Flash Light for US folks) with focusing beam. Use for Focusing and light painting.



Sturdy Tripod and ball head with rotating base (for panorama).



Leveling aid, either in camera or hot shoe level.

Safety & Planning

- ◇ Check out online city guides.
- ◇ Be aware of your surroundings.
- ◇ Ask the staff at the hotel about any areas you should avoid.
- ◇ Go out as a group if possible, if alone consider taking a group tour.
- ◇ Try and blend in and only take out what you need.
- ◇ Plan ahead and have the address or a route stored in your phone.
- ◇ Check the weather and take with you appropriate clothing and refreshments.
- ◇ Check for sunset & moon times, moon phase for the location with Photopills app or Photoephemeris.

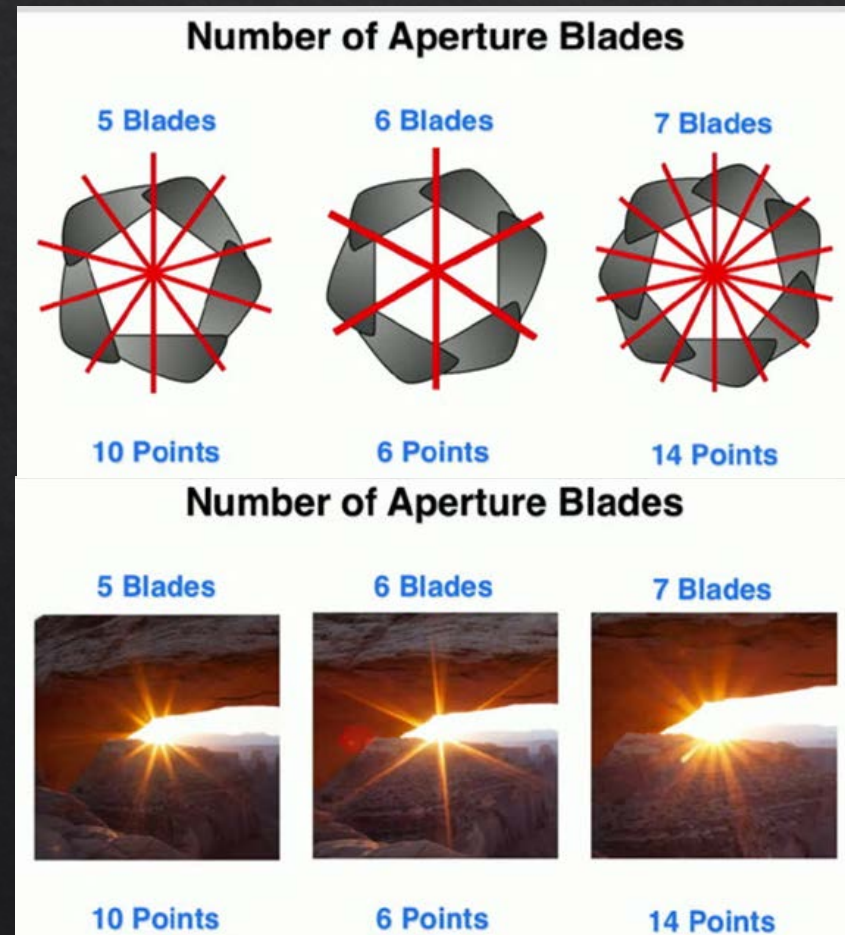
Top Tip: Always carry your tripod, don't pack it away.



Lens Selection and Star Bursts

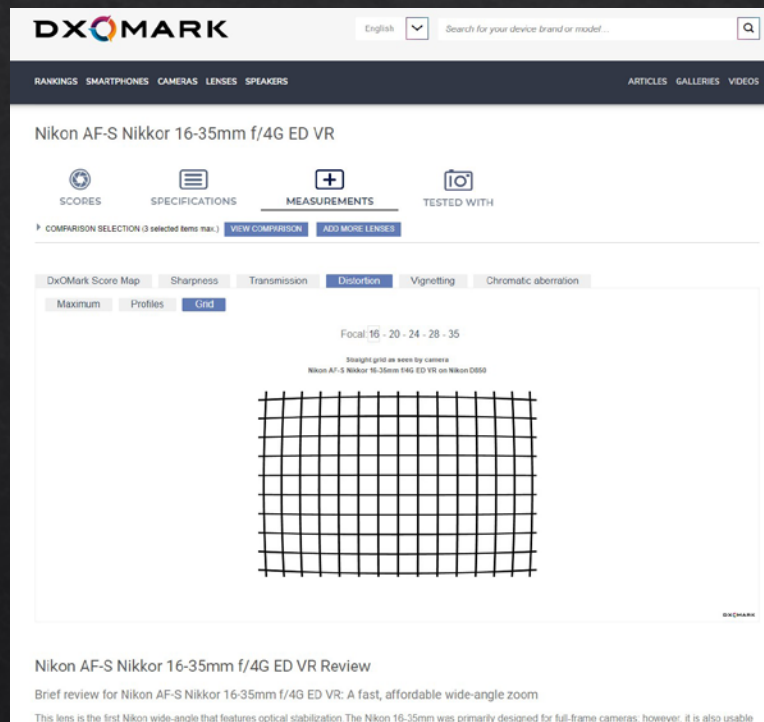
When selecting a lens and you want star patterns on your streetlights, the number of iris blades and the blade shape can change the result.

Also, to get the best results an aperture of F11 to F16 is advised.



Lens Technical Data

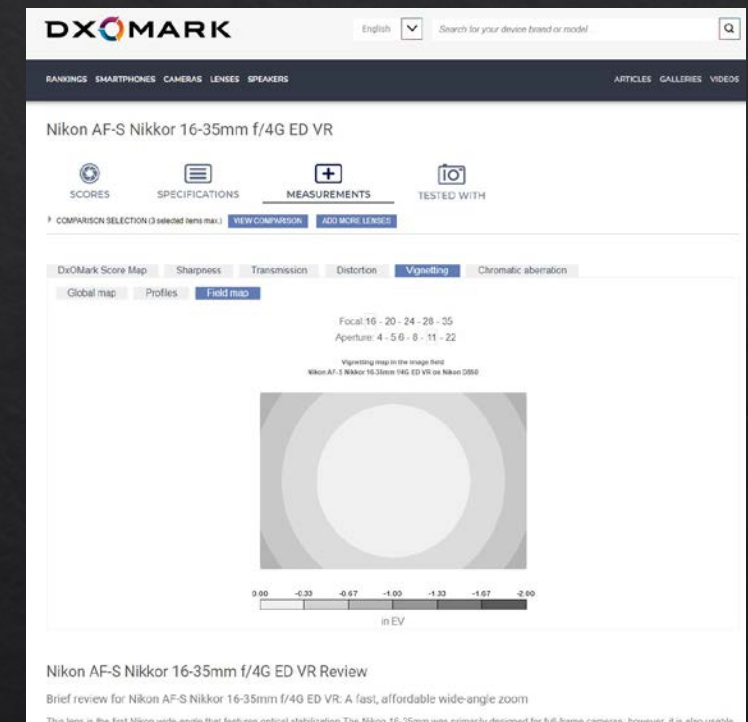
When selecting or purchasing a lens check out the qualities of a particular lens like distortion, sharpness and vignetting check out Dxomark at different F stops.



Distortion Map



Sharpness Map



Vignetting Map

www.dxomark.com/category/lens-reviews

Aperture & Depth of Field

APERTURE

F/1.4

F/2.0

F/2.8

F/4.0

F/5.6

F/8.0

F/11

F/16



DEPTH OF FIELD

Shallower
Depth
of field



f/2.8

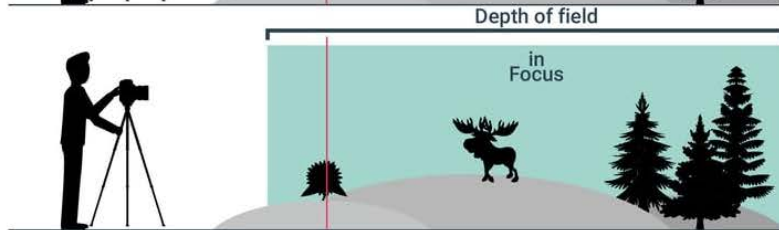
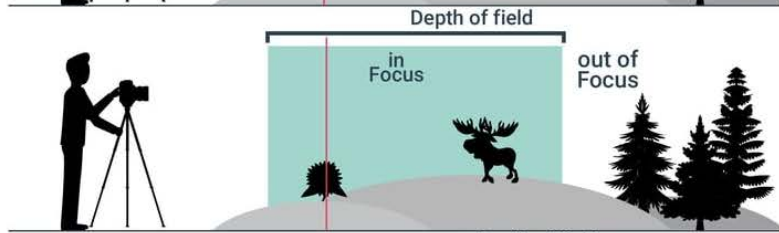
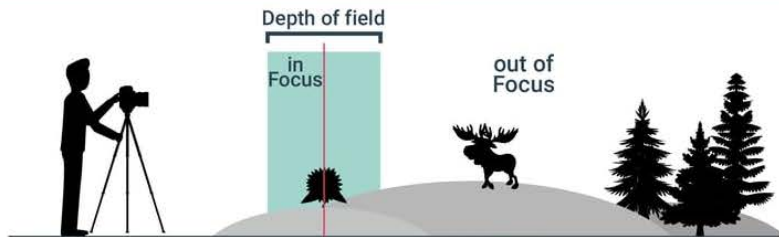


f/5.6



More Depth
of field

f/11



The aperture setting is the most important concepts to understand when photographing large cityscape scene.

To obtain sharp focus from the front to the back of the image an aperture of f/11 would be recommend.

Focusing at Night

Focusing at night is highly dependent on the sensitivity of the camera's focusing system, typically they use "Phase Detection" which is dependent upon light to look for contrast in the image and then adjust to gain clear definition between elements.

Many different methods or functions in modern camera to assist, experiment and see what works for you.

My method:

- Turn on "Live View" using the rear display screen.
- Start with Auto focus on a bright subject that is 1/3 the way into the scene. You can use a Torch (Flash Light) to further illuminate an object in the scene to help acquire focus.
- Zoom into the Live View image to check the sharpness.
- Turn OFF Autofocus on the camera body.
- Manually adjust focus if needed.
- Capture an image and check the result for sharpness.
- Now you are ready to Bracket the scene.

Don't forget to turn autofocus back ON and repeat this process if you adjust the lens focal length or position/composition.



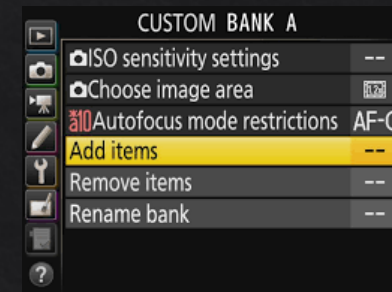
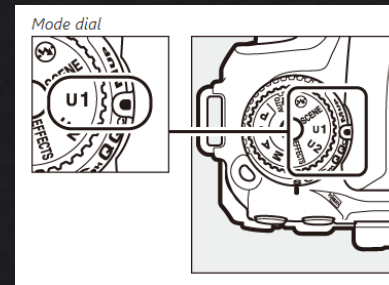
What's Your Settings?

General Camera settings:

- ◇ File format - RAW – More data and no profiling
- ◇ ISO - 200 – Use a low setting to keep the noise down and the exposure time reasonable, make sure “Auto” setting is OFF.
- ◇ Mode – Aperture Priority – Fix the aperture, start at f/11
- ◇ Release Mode – Timer release function set to 5 Seconds
- ◇ Stability Feature VR – OFF as we will be on a tripod
- ◇ Focus Mode – Auto, check adjust and then disable.
- ◇ Bracket Exposure Mode – 3 Frames at 2 stop exposure internals (-2.0, 0.0, +2.0)
- ◇ Exposure Metering Mode – Matrix Metering (full area).



Top Tip: See if you can save these in your camera as a “Custom User Settings” that can be recalled quickly. Dependent on the model, Nikon refer to these as U1 and U2 on the mode dial or “Custom Bank” in the menu.



Aperture Priority



f/4 gives faster shutter speed but a shallow depth of field.

Result: Not sharp in the distance, no water smoothing.



f/11 gives a slow shutter speed and a deeper depth of field.

Result: Everything sharp, water and cloud smoothing.

Dynamic Range at Night

Main problem with exposure at night is the extended dynamic range due to the bright lights and dark shadows. The camera will try to balance the exposure but will lose data in the highlights or shadows. Blending 2 exposures can resolve this problem.



+2 Exposure Compensation for shadow details



-2 Exposure Compensation for highlight detail

Blended Exposures



Resultant Blended Image giving a more detailed and balanced exposure in the shadows and highlights.

The increased amount of data in a blended image gives a High Dynamic Range (HDR). This extended data has to be controlled and sometimes can lead to an over processed image.

Cologne Germany –
Dom Cathedral, River Rhein,
Hohenzollern Bridge known for
the thousands of padlocks
attached to the structure.

I hope this presentation has inspired you to explore and capture Cityscape at night.



Thank You

www.jneeldphotography.com