Brian Narveson / Photography

Presents

Night Photography

Agenda

- Equipment
- Preparing to shot
- Focus
- Camera Settings
- Twilight
- Night Photography
- Light Trails
- Sample Photos

Equipment

- DSLR or Cell phone with Manual Mode
 - Manual mode apps available for cell phones
- Tripod
- Wide angle lens as possible for composition
- Take all filters off of lens unless you are going for a special effect
- Headlamp and/or small flash light (red light is best)
- Flash light for focus and light painting
- Soft lint free cloth to remove moisture from lens
- Extra Batteries (long exposures drain batteries)
- Painters tape to freeze focus
- Water and snack
- Compass or Cell phone app.
- Clothing for temperature
- Bug Spray in summer
- Hand warmers in winter

Preparing to Shoot

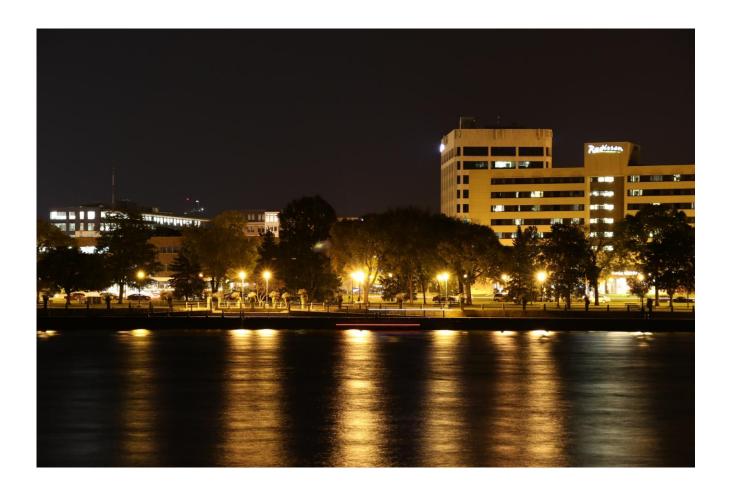
- Scout Location in daylight if possible
- Plan shoot based conditions
 - Do you want to capture stars in photo?
 - Shoot at least one hour after sunset
 - No or little moon?
 - What is the forecast?
 - Determine Sunset (ask Siri) 6:54 PM
 - Determine phase of moon (waxing crescent), rise time (1:11 PM) and set time (10:56) (ask Siri) all info for Tuesday Sept 26th, 2017.
 - Do you want to shoot by moonlight?
 - Do you want the moon in the photo?
 - Do you want color in the sky?
 - What do you want in focus?
 - Can you focus on it in the dark?

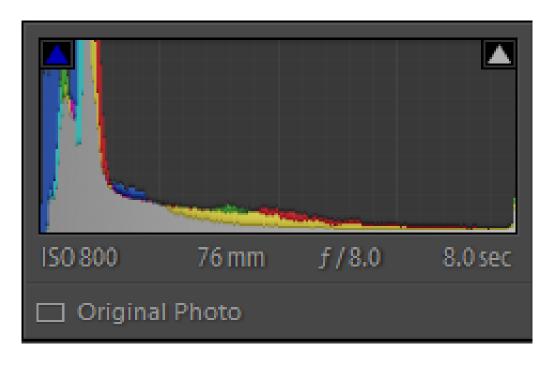
Focus

- Is there enough Light to use auto focus?
 - Yes
 - Use auto focus
 - Switch to Manual focus mode
 - Tape focus ring if necessary
 - Check focus with test shot or live view at 10X magnification
 - No
 - Set lens for manual focus
 - Put Camera in Auto mode
 - Turn on Live View, Magnify to 10X, locate what you want in focus with joy stick
 - If too dark shine flash light on focus target
 - If greater than 30 ft focus on any near by light at roughly the same distance
 - Manually focus and tape lens
 - Turn off Live View
 - Change camera to manual mode
 - Check with test shot at 10X

- There are many ways to set up for night photography I will talk about one that minimizes the amount and number of adjustments.
- Put Camera in Manual mode
- Rule of 8's (easy to remember)
 - Focus and Frame
 - Set ISO to 800
 - Set Aperture to f/8
 - Set Shutter Speed to 8 sec. (for urban environments, 16 for rural)
- Take a test shot, then check Camera for recommendation

• Photo and Histogram ISO800, f/8.0/8 seconds

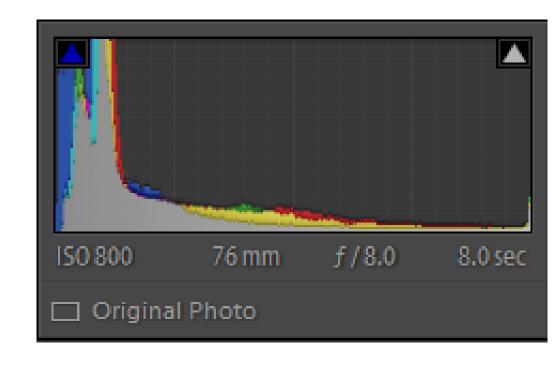




• Camera Recommendation



- Do not trust your eyes on the LCD display, everything will be very dark when you get home
- Treat Camera info as guideline not absolute
- Use the gray or white part of HISTOGRAM
- Even if HISTOGRAM is perfect, bracket shot



- How to make Adjustments
 - First Adjust Shutter Speed (Exposure Time)
 - Double if to dark (8 seconds to 16)
 - Half if to light (8 seconds to 4)
 - Do it again if still not right
 - Tweak to middle of range if adjustment was to much.
 - If you reach maximum exposure time for camera (usually 30 seconds) and exposure is still to dark
 - Increase Aperture (go to lower f/number) one or two increments at a time until HISTOGRAM is good (DO NOT GO BY LCD IMAGE)
 - If you reach maximum aperture (lowest f/number) then and only then increase the ISO until you have a good **HISTOGRAM**. Beware, every increase in ISO number increases noise.

Noise

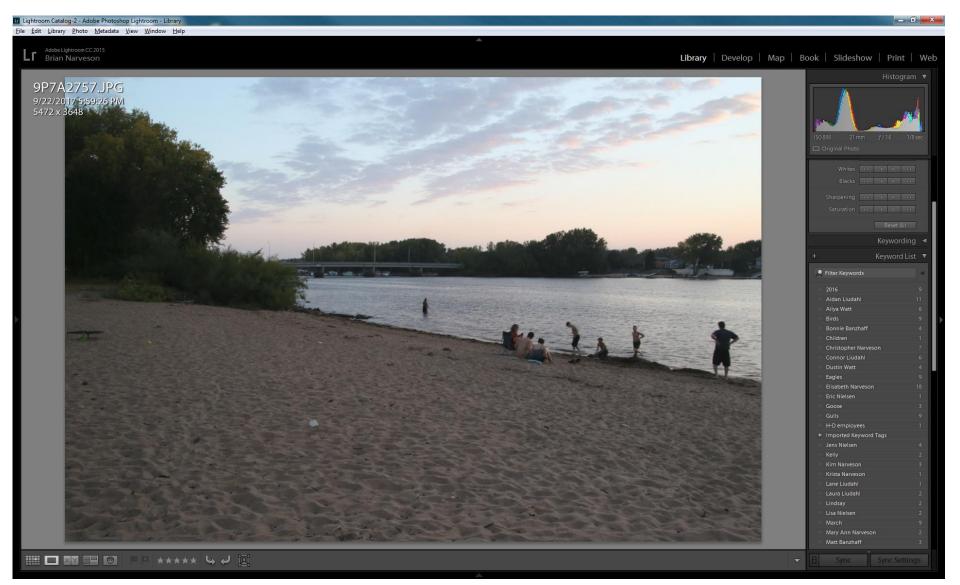
- **DO NOT** use *long exposure noise reduction* setting in camera, is pretty useless and wastes a lot of time in the field
- DO NOT use High ISO Noise Reduction setting in camera, it softens photo and post software does a much better job
- **Always** slightly over expose if you can't get perfect. Darkening a photo in post processing or area's of a photo has no consequences. Having to brighten a photo or area of a photo will bring out the noise. However, be careful not to blow out white area's. Use the HISTOGRAM.

Twilight

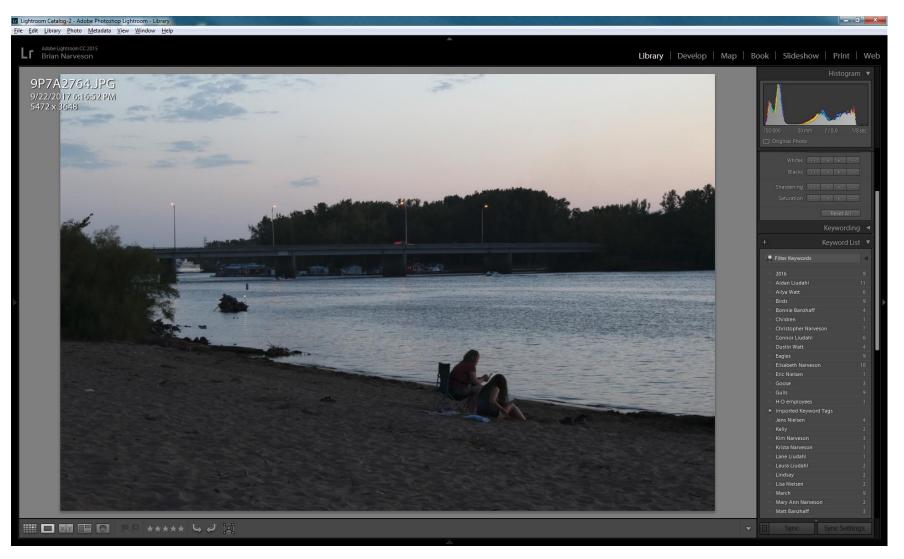
The Phases of Twilight facing North, South and East (add 15 minutes facing West

- Civil Twilight
 - 4-24 minutes after sunset
 - Shoot as you would in normal daylight
- Nautical Twilight
 - 24-48 minutes after sunset
 - Use night photography techniques
 - Start to see some stars but still some color in the ski
- Astronomical Twilight
 - 48-72 minutes after sunset
 - Use night photography techniques
 - Foreground object in silhouette
 - Little light in the sky, but horizon visible
 - Stars visible

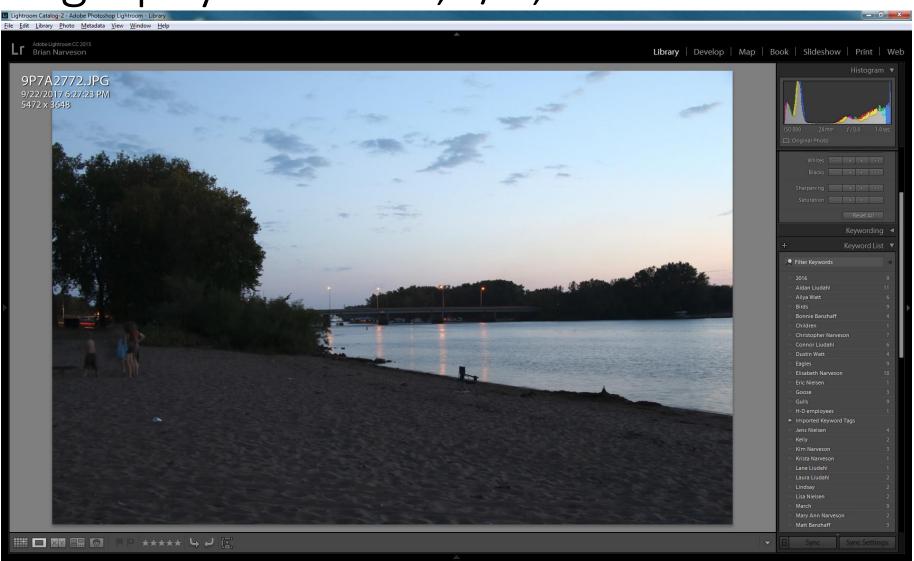
Sunset – shoot as you would in daylight



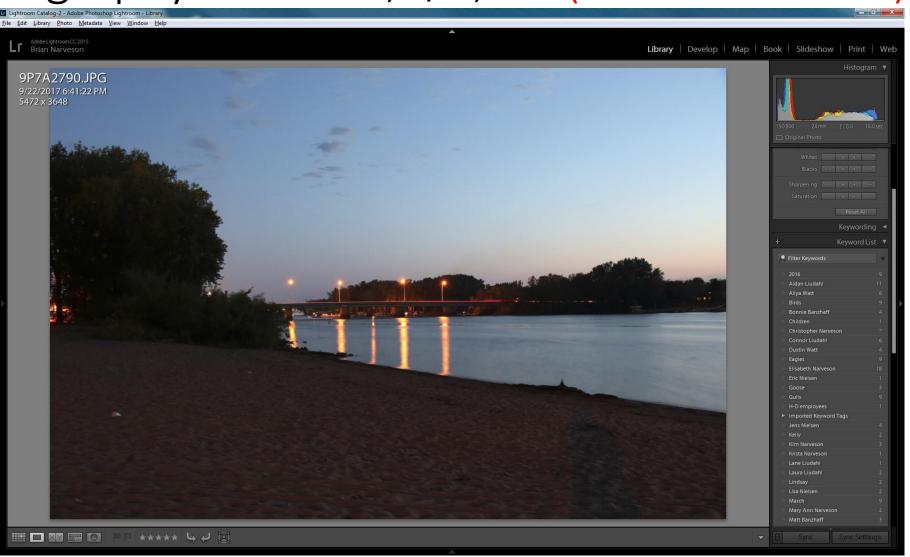
Civil – 15 minutes after Sunset, low light technique or start night photography 1SO-800, f/8, 1/8



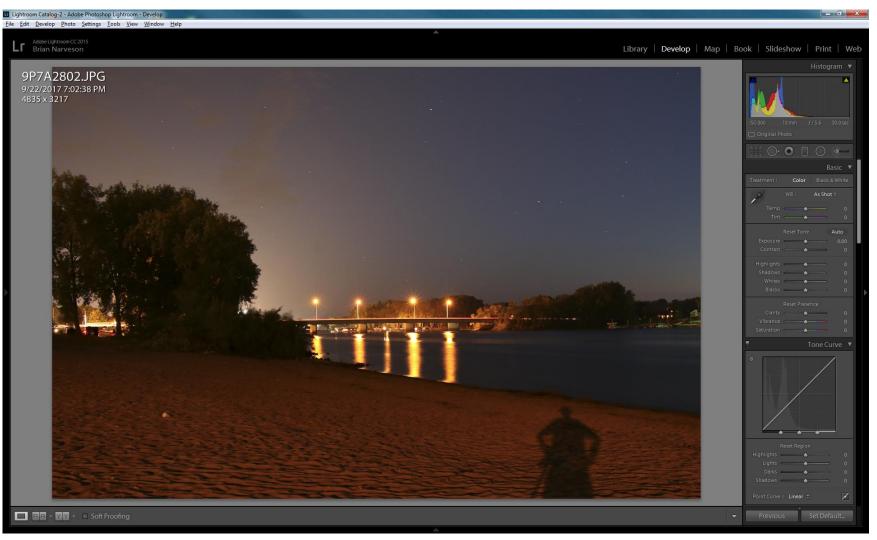
Nautical— 25 minutes after Sunset, night photography 1SO-800, f/8, 1



Nautical—40 minutes after Sunset, night photography 1SO-800, f/8, 10 (notice shadow)



Astonomical—60 minutes after Sunset, night photography 1SO-800, f/8, 30 (notice stars)

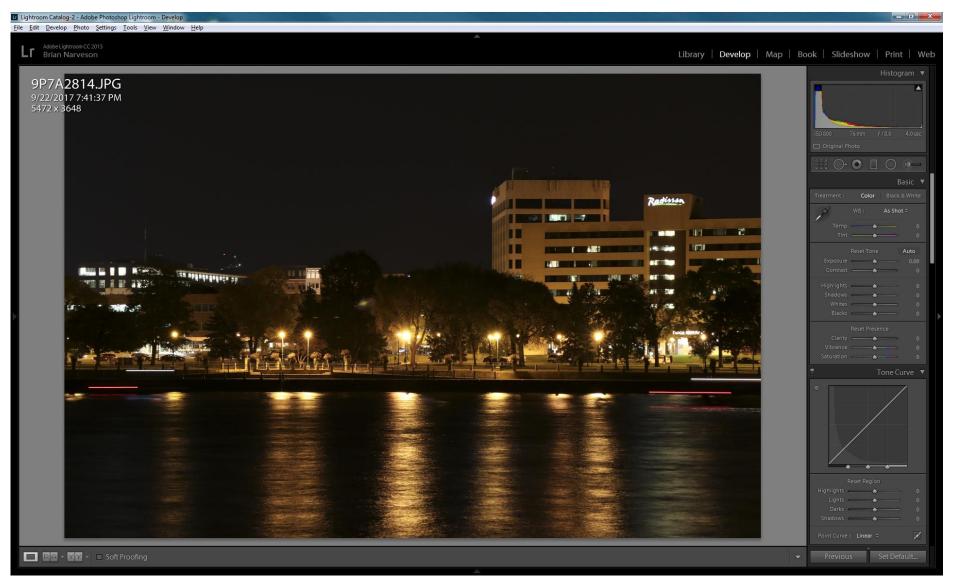


Urban Night

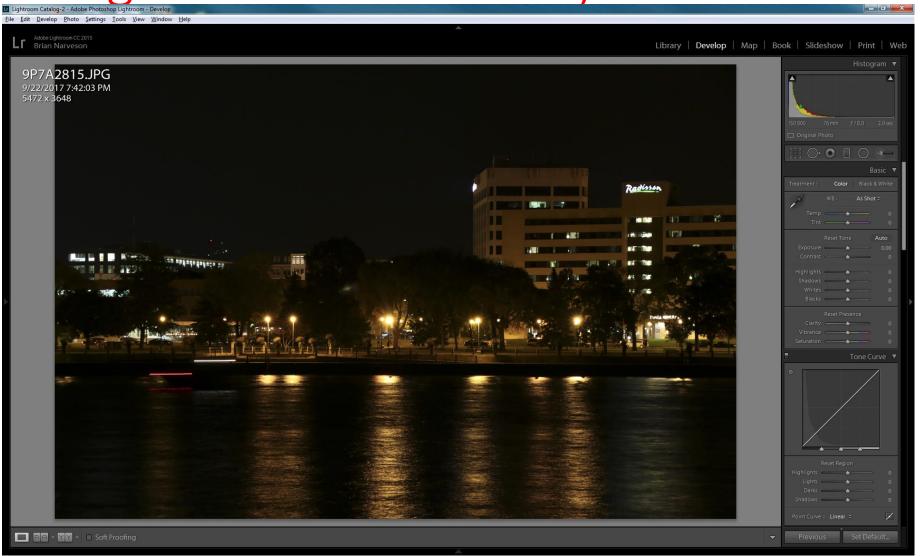
Night-1SO-800, f/8, 8 (no stars due to city lights)



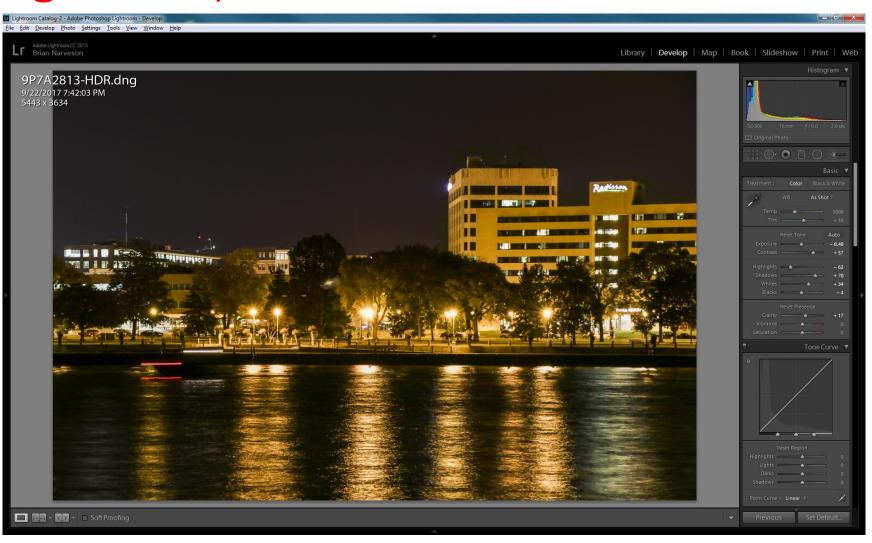
Night-1SO-800, f/8, 4 (no stars due to city lights)



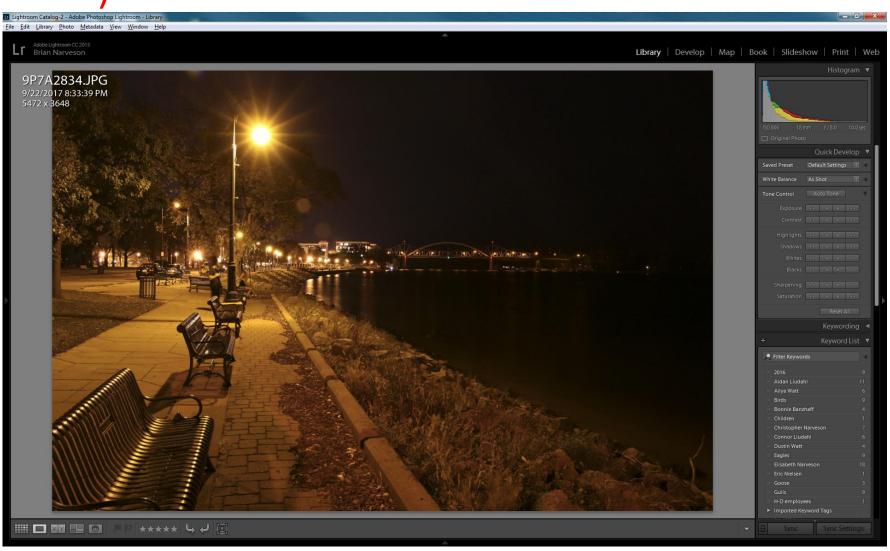
Night-1SO-800, f/8, 2 (Histogram to far left but looked great on LCD screen)



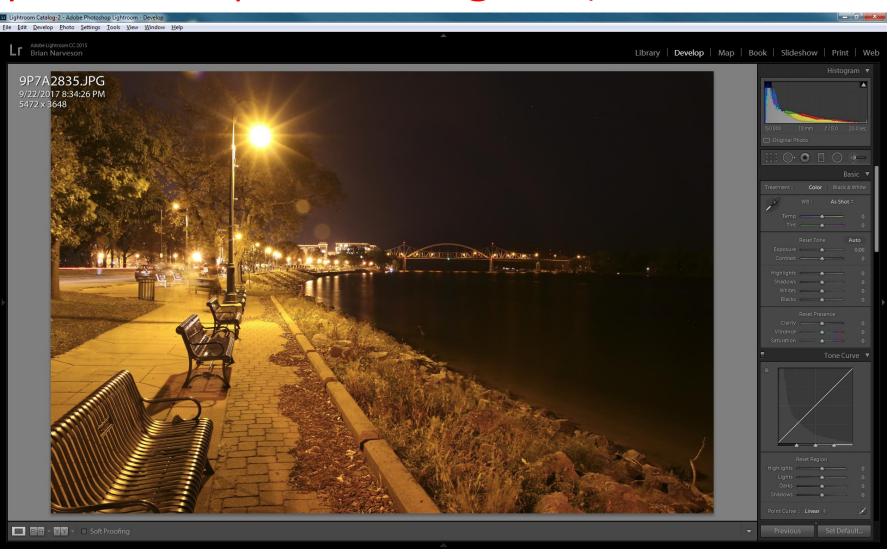
Night-1SO-800, f/8, 2,4,8 HDR Merge (Notice boat light trail)



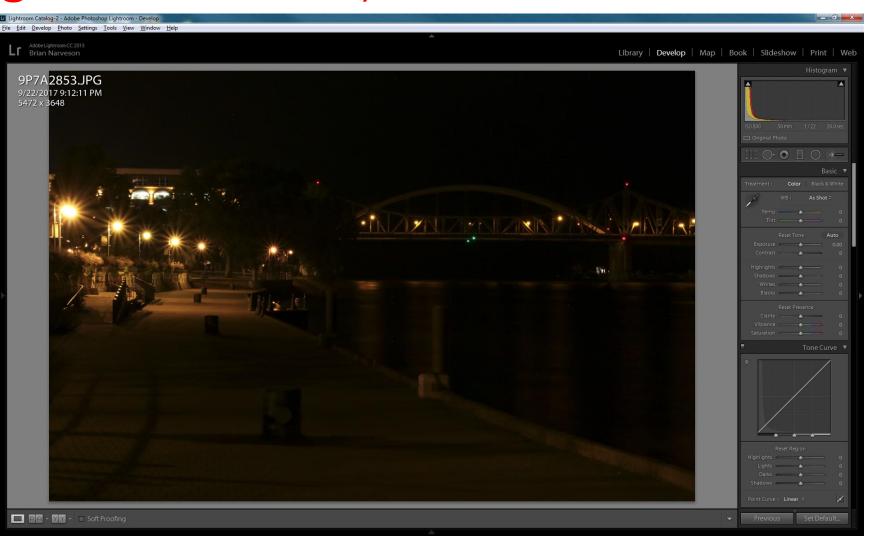
Night-1SO-800, f/8, 10 (I like it, Histogram push to far left)



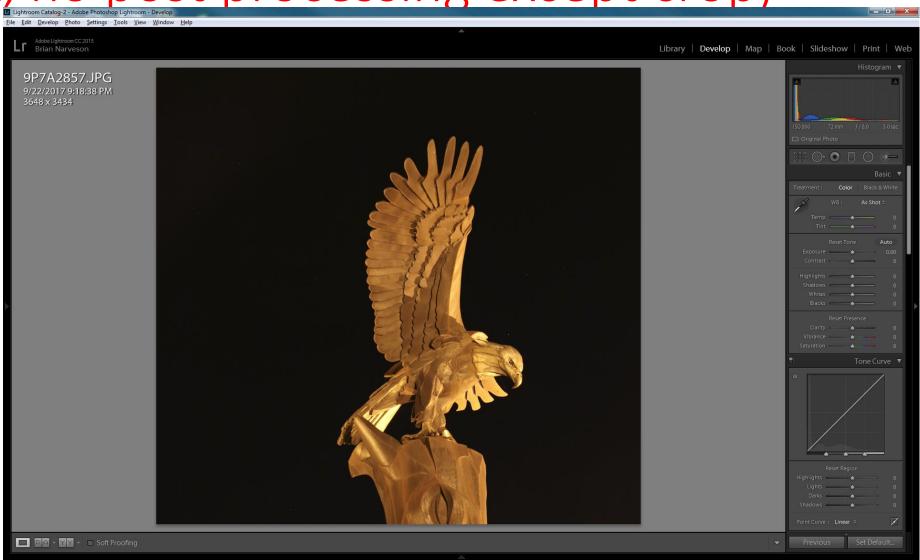
Night-1SO-800, f/8, 20 (Lights blow out, but barely shows up on histogram)



Night-1SO-800, f/22, 20 (f/22 and underexpose gives great star burst)



Night-1SO-800, f/8, 5 (Only existing light in the park, no post processing except crop)

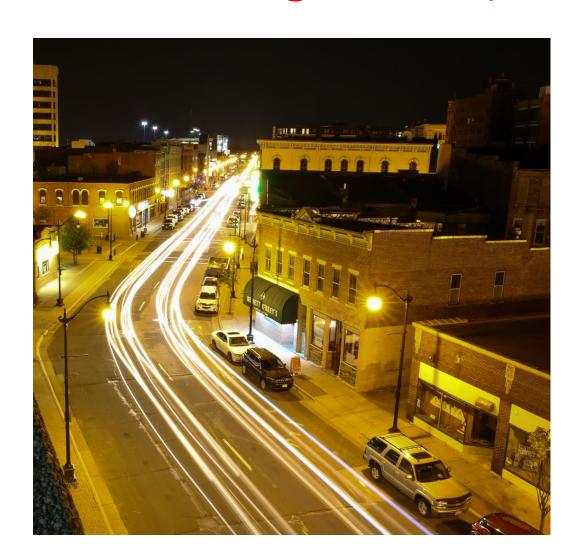


Light Trails

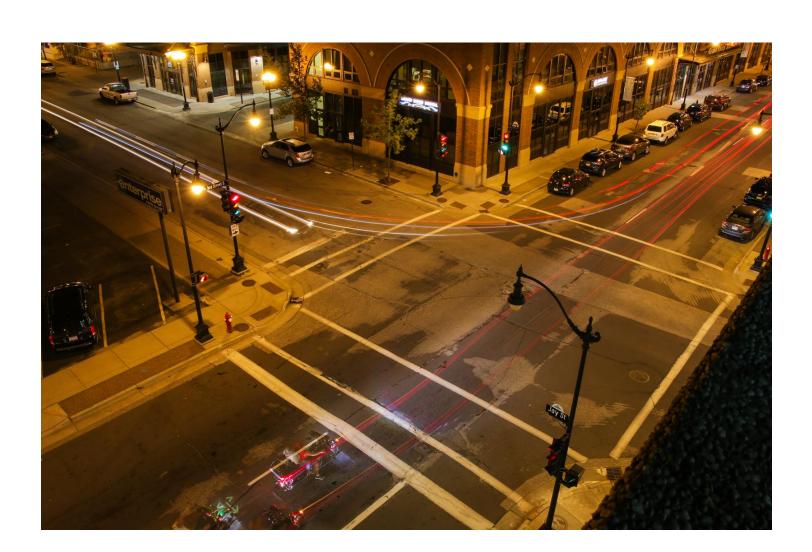
Light Trails

- Focus for depth of field
- Exposure
 - Exposure time 30 seconds
 - ISO 100
 - Aperture f/16
- If under exposed (to dark) increase ISO
- If over exposed (to bright) increase aperture (larger f/number)
- If not enough traffic take multiple exposures and merge in star trails or Photoshop

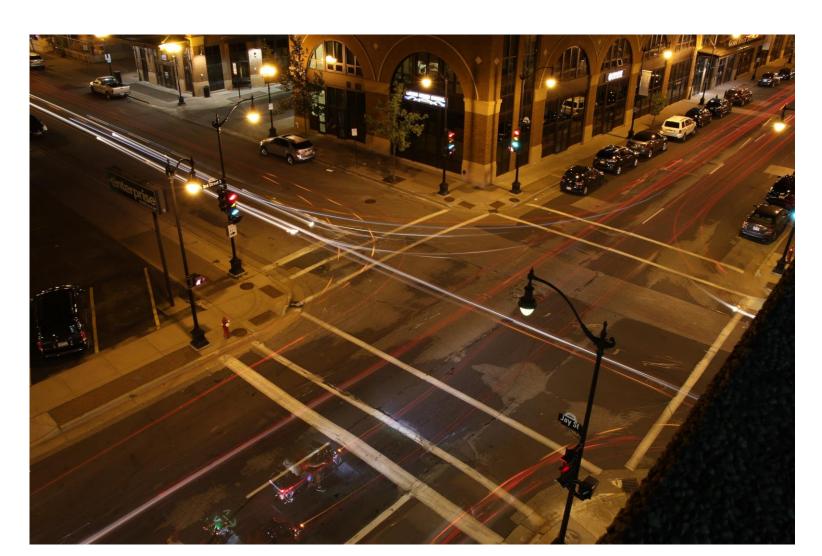
Light Trails—1SO-200, f/16, 30 (Single photo, over exposed, darkened in Lightroom)



Light Trails—1SO-100, f/16, 30 (Single photo, notice motorcycles



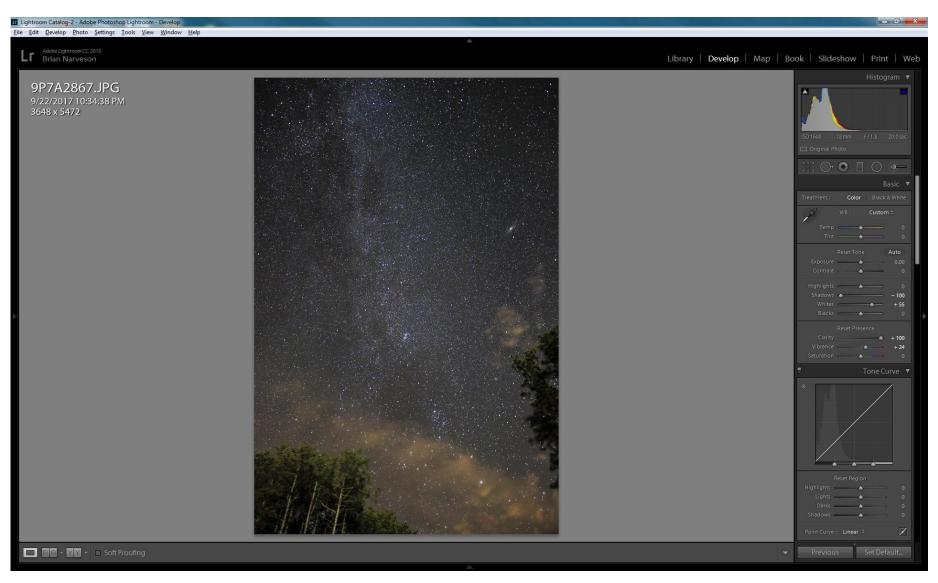
Light Trails—1SO-100, f/16, 30 (Multiple photos merged in star trails)



Street Level Light Trails—1SO-100, f/16, 30 (Multiple photos merged in star trails)



Same night, but a different Tutorial

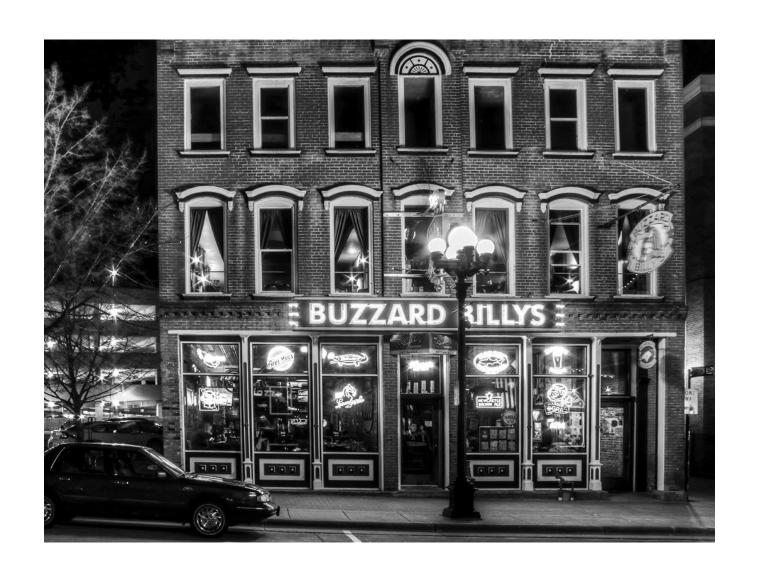


Sample Images

Night-1SO-800, f/18 (depth of field), 3.2 seconds



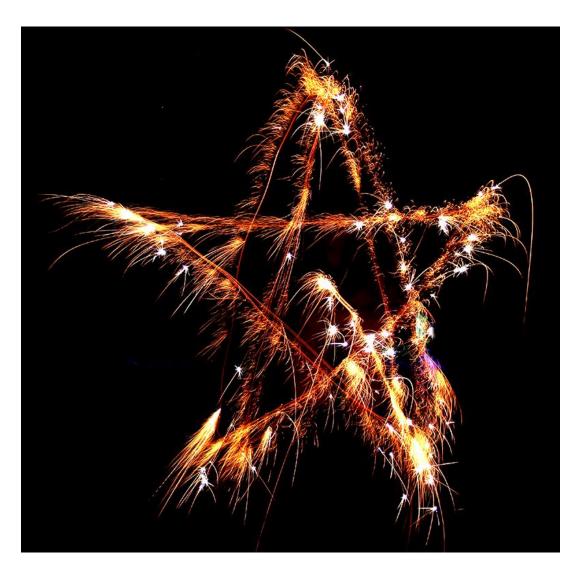
Night-1SO-800, f/18, 3.2 seconds



Night with light painting, 2 merged images—1SO-800, f/6.3, 20 seconds (barn)



Light painting with sparklers, 1SO-400, f/4.5, 10 seconds



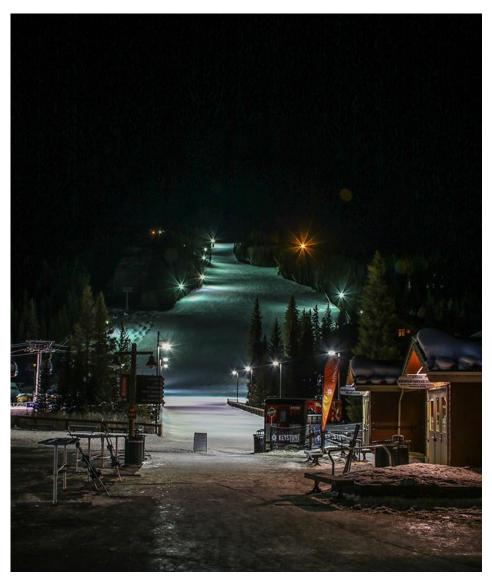
Working with the Wizard, 1SO-800, f/8, 30 seconds



Night with zoom effect, 1SO-800, f/18, 3.2 seconds



Night 1SO-400, f/9, 3.2 seconds



You can also try it in doors

