The Pixel 3’s Night Sight is pretty great with moving subjects too

When I reviewed Google’s Night Sight camera mode for Pixel phones, I had high praise for it, but the one area where it seemed likely to struggle was with moving subjects. Night Sight works by taking a series of exposures over the course of up to six seconds and then combining them for a brighter, cleaner image than would otherwise be possible. Those exposures are usually long enough to turn fast-moving things like cars into blurs, and my conclusion then was that Night Sight needs more or less stationary subjects to be effective.

I take that back.

On a recent outing to a Bear Grillz performance, I did what any self-respecting phone geek would do and I tested out the Pixel 3 XL’s Night Sight in a truly challenging environment. There was a hyperactive lights show accompanying the music, with spotlights alternating in color, direction, and intensity by the moment. People were jumping around, smoke lingered from fog machines, and I had no right to expect to get any sort of useful photos out of the exercise. But the Pixel defied my expectations yet again. I only needed to make the lightest of edits in Google Photos to darken the scene, and all the colors you see here are as the camera produced them.



Shot with Night Sight on Pixel 3 XL. Cropped and edited to increase contrast and darken shadows in Google Photos.

Google’s camera system is smart enough to detect motion in the frame and it responds by reducing the time of each Night Sight exposure. Even with lightning-fast exposures, though, merely splicing them together would result in a mess, as neither the people nor the lights in the club were ever still. It seems that the camera is picking a key frame for an object or person’s position and then working around that. Huawei’s P20 Pro night mode did a similar thing last year, albeit to a less dramatic effect. Having read all of Google’s blogs and academic papers on the creation of Night Sight, I’m still at a loss as to precisely what’s happening between the act of snapping a bunch of exposures and producing an image with perfectly frozen spotlights, such as I was able to take multiple times.



Shot with Night Sight on Pixel 3 XL. Cropped and edited to increase contrast and darken shadows in Google Photos.

Stretching these photos out onto a 32-inch 4K monitor at home quickly exposes their graininess and lack of sharpness, so they're far from perfect, but that doesn't detract from the achievement here. The ability to capture those spotlights *and* retain their color is shockingly impressive and a new benchmark for smartphone photography. Sharing these shots in a braggy tweet or Instagram post will inevitably incite a hubbub of queries as to what camera you took them with.



Shot with Night Sight on Pixel 3 XL. Cropped and edited to increase contrast and darken shadows in Google Photos.

Going into 2019, most phone companies will be touting 5G capabilities, new notchless screens, and other peripheral niceties, but the thing that will make the best ones truly stand out will once again be the camera. I feel encouraged about the prospects for improvement on that front, as Samsung is rumored to be preparing its own version of Night Sight, Huawei will have another year of refining its own night mode, and smaller players like OnePlus are also richly aware of the need to step up their imaging game.

Photography by Vlad Savov / The Verge

https://www.theverge.com/2019/2/3/18209098/pixel-3-night-sight-camera-moving-objects