## **EMVA 1288 IMAGING PERFORMANCE**

## FLIRBLACKFLY®S BFS-U3-28S5

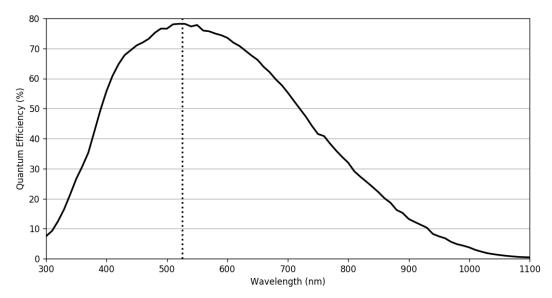
Measurements are taken based on guidelines in the EMVA 1288 standard; the full definition can be found at EMVA.org. Camera settings are: maximum bit depth, 16-bit pixel format, and ISP disabled. The center wavelength is 525 nm unless otherwise noted. Results are captured at room temperature (20°C).

| BFS-U3-28S5M    |                        | BFS-U3-28S5C           |  |  |
|-----------------|------------------------|------------------------|--|--|
| Resolution      | 1936 x 1464            | 1936 x 1464            |  |  |
| Sensor          | Sony IMX421, CMOS, 2/3 | Sony IMX421, CMOS, 2/3 |  |  |
| Pixel Size (μm) | 4.5                    | 4.5                    |  |  |
| Firmware        | 1901.0.154.0           | 1901.0.154.0           |  |  |
| ADC             | 12-bit                 | 12-bit                 |  |  |

| Conversion Gain                        | High  | Low   | High  | Low   |
|--|-------|-------|-------|-------|
| Quantum Efficiency Mono (% at 530 nm)  | 76    | 77    | N/A   | N/A   |
| Quantum Efficiency Blue (% at 460 nm)  | N/A   | N/A   | 54    | 55    |
| Quantum Efficiency Green (% at 530 nm) | N/A   | N/A   | 68    | 69    |
| Quantum Efficiency Red (% at 625 nm)   | N/A   | N/A   | 63    | 65    |
| Temporal Dark Noise (Read Noise) (e-)  | 2.65  | 6.03  | 2.68  | 6.06  |
| Temporal Dark Noise (Read Noise) (DN)  | 15.36 | 15.07 | 15.30 | 15.02 |
| Signal to Noise Ratio Maximum (dB)     | 40.39 | 44.02 | 40.45 | 44.04 |
| Signal to Noise Ratio Maximum (Bits)   | 6.71  | 7.31  | 6.72  | 7.31  |
| Absolute Sensitivity Threshold (γ)     | 4.16  | 8.44  | 4.67  | 9.49  |
| Absolute Sensitivity Threshold (e-)    | 3.15  | 6.53  | 3.18  | 6.56  |
| Saturation Capacity (Well Depth) (e-)  | 10940 | 25219 | 11103 | 25332 |
| Saturation Capacity (Well Depth) (γ)   | 14441 | 32566 | 16314 | 36662 |
| Dynamic Range (dB)                     | 70.81 | 71.73 | 70.87 | 71.74 |
| Dynamic Range (Bits)                   | 11.76 | 11.91 | 11.77 | 11.92 |
| Gain (e-/ADU)                          | 0.17  | 0.40  | 0.17  | 0.40  |



## BFS-U3-28S5M



## BFS-U3-28S5C

