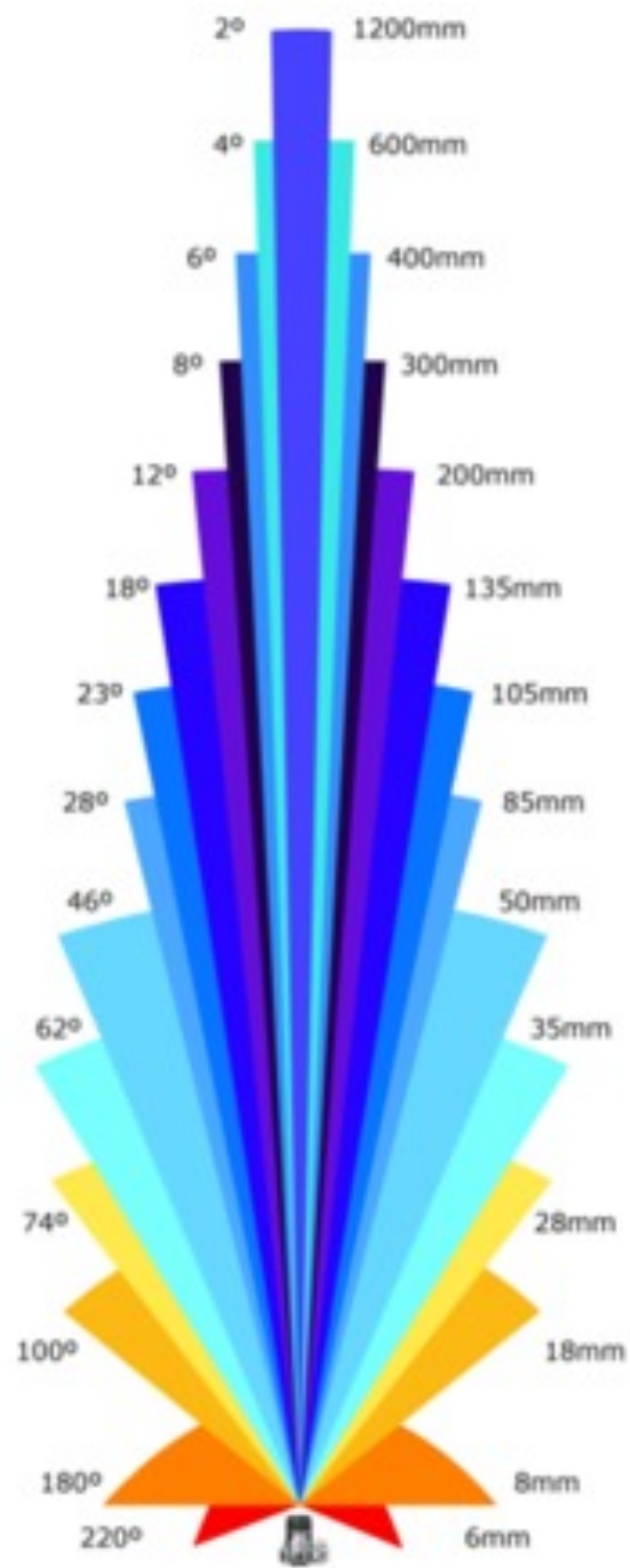


SIZES

- ☐ LESS THAN 21MM = EXTREME WIDE ANGLE
- ☐ 21-35MM = WIDE ANGLE
- ☐ 35-70MM = NORMAL
- ☐ 70-135MM = MEDIUM TELEPHOTO
- ☐ 135-300+MM = TELEPHOTO



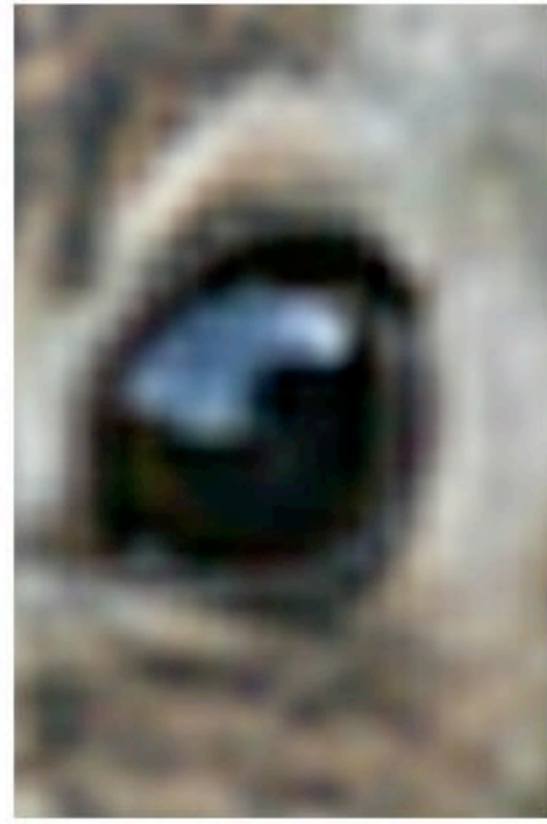
OPTICAL VS. DIGITAL ZOOM



Original



10x Optical

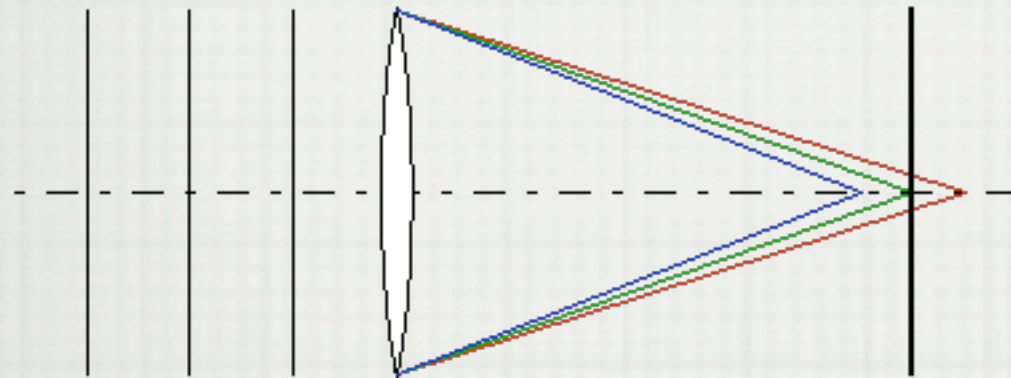


10x Digital

LENS DESIGN



CHROMATIC ABERRATION



BARREL DISTORTION



FILTERS

- ☐ UV- ULTRAVIOLET
- ☐ ND- NEUTRAL DENSITY
- ☐ POLARIZING
- ☐ STAR



UV

- CAMERAS OFTEN EXHIBIT A GREATER SENSITIVITY TO WHAT IS TO US INVISIBLE. THIS IS ESPECIALLY COMMON AT HIGH ALTITUDES, WHERE THE UV-ABSORBING ATMOSPHERE IS THINNER; AND OVER LONG DISTANCES. IT CAN SHOW UP AS A BLUISH COLOR CAST WITH COLOR FILM, OR IT CAN CAUSE A LOW-CONTRAST HAZE THAT DIMINISHES DETAILS, ESPECIALLY WHEN VIEWING FAR-AWAY OBJECTS, IN EITHER COLOR OR BLACK-AND-WHITE. ULTRAVIOLET FILTERS ABSORB UV LIGHT GENERALLY WITHOUT AFFECTING LIGHT IN THE VISIBLE REGION.

UV



ND

- WHEN IT IS DESIRABLE TO OBTAIN PROPER EXPOSURE WHEN CONFRONTED WITH TOO MUCH LIGHT INTENSITY. THIS WILL ABSORB LIGHT EVENLY THROUGHOUT THE VISIBLE SPECTRUM, EFFECTIVELY ALTERING EXPOSURE WITHOUT REQUIRING A CHANGE IN LENS OPENING AND WITHOUT INTRODUCING A COLOR SHIFT. PARTICULARLY FOR SHARPNESS OR DEPTH-OF-FIELD PURPOSES.

ND



POLARIZING



- POLARIZERS ALLOW COLOUR AND CONTRAST ENHANCEMENT, AS WELL AS REFLECTION CONTROL, USING OPTICAL PRINCIPLES DIFFERENT FROM ANY OTHER FILTER TYPES.

STAR



☐ AVAILABLE IN DIFFERENT POINT VARIATIONS