

# GRAFLEX....INTENSICON

## INTENSICON with 5X NITE★TEL CATADIOPTRIC ZOOM LENS

### Optical Specifications

|                 |                                    |                |                          |
|-----------------|------------------------------------|----------------|--------------------------|
| Range:          | 5X                                 | Free Aperture: | 178mm (7")               |
| Format:         | 16mm                               | Construction:  | Catadioptric             |
| Focus Range:    | 30M to Infinity                    |                |                          |
| Transmission:   | Exceeds 80% (.45 thru .90 microns) |                |                          |
| Focal Length:   | 300mm (WA)                         | 1500mm (Tele)  | 4500mm (3X-Day Extender) |
| Aperture:       | f1.7                               | f8.6           | f25.8                    |
| Horizontal FOV: | 2.43°                              | .485°          | .162°                    |
| Magnification:  | 16.3X                              | 81.6X          | 244.4X                   |

NOTE: For more information refer to NITE★TEL Data Sheets.

### Performance Data

| Intensicon w/Cat Zoom Adjusted Range Performance Data (Km) @ Day Channel |       |       |       |        |        |        |
|--------------------------------------------------------------------------|-------|-------|-------|--------|--------|--------|
| Target Data                                                              | 300mm | 600mm | 900mm | 1200mm | 1500mm | 4500mm |
| Man, Detect, 0.8cy                                                       | 11.31 | 19.88 | 26.2  | 30.69  | 33.0   | 33.0   |
| Man, Recognize, 2.0cy                                                    | 4.89  | 9.29  | 13.23 | 16.75  | 19.88  | 33.0   |
| Man, Identify, 6.4cy                                                     | 1.58  | 3.12  | 4.6   | 6.03   | 7.42   | 18.94  |
| Vehicle, Detect, 0.8cy                                                   | 19.88 | 30.69 | 33.0  | 33.0   | 33.0   | 33.0   |
| Vehicle, Recognize, 2.0cy                                                | 6.41  | 11.96 | 16.75 | 20.84  | 24.31  | 33.0   |
| Vehicle, Identify, 6.4cy                                                 | 3.12  | 6.03  | 8.76  | 11.31  | 13.69  | 29.72  |

| Intensicon w/Cat Zoom Adjusted Range Performance Data (Meters) @ Night Channel |              |           |          |          |          |           |
|--------------------------------------------------------------------------------|--------------|-----------|----------|----------|----------|-----------|
|                                                                                | Overcast     | Starlight | 1/4 Moon | 1/2 Moon | 3/4 Moon | Full Moon |
| 300mm                                                                          | Starlight    | Starlight | 1/4 Moon | 1/2 Moon | 3/4 Moon | Full Moon |
| Man Target, Detect, .8cy                                                       | 1701         | 2390      | 2555     | 2605     | 2654     | 2654      |
| Vehicle Target, Detect, .8cy                                                   | 3344         | 4664      | 4977     | 5071     | 5165     | 5165      |
| Man Target, Recognize, .2.0cy                                                  | 688          | 970       | 1038     | 1059     | 1079     | 1079      |
| Vehicle Target, Recognize, 3.0cy                                               | 915          | 1038      | 1380     | 1407     | 1434     | 1434      |
| 900mm                                                                          | Oc Starlight | Starlight | 1/4 Moon | 1/2 Moon | 3/4 Moon | Full Moon |
| Man Target, Detect, .8cy                                                       | 1125         | 6231      | 12305    | 14762    | 16251    | 16628     |
| Vehicle Target, Detect, .8cy                                                   | 2225         | 11656     | 21339    | 24732    | 26627    | 27087     |
| Man Target, Recognize, .2.0cy                                                  | 453          | 2595      | 5362     | 6567     | 7326     | 7522      |
| Vehicle Target, Recognize, 3.0cy                                               | 603          | 3429      | 7015     | 8551     | 9512     | 9759      |
| 1500mm                                                                         | Oc Starlight | Starlight | 1/4 Moon | 1/2 Moon | 3/4 Moon | Full Moon |
| Man Target, Detect, .8cy                                                       | 306          | 5758      | 14474    | 19763    | 24079    | 26510     |
| Vehicle Target, Detect, .8cy                                                   | 610          | 10828     | 24351    | 30575    | 33000    | 33000     |
| Man Target, Recognize, .2.0cy                                                  | 123          | 2390      | 6422     | 9222     | 11811    | 13446     |
| Vehicle Target, Recognize, 3.0cy                                               | 163          | 3160      | 8368     | 11882    | 15050    | 17007     |

Note: Night Data assumes 30% Contrast, 50% Probability. Day Data assumes Clean, Dry Air 99%/Km Transmission. Night Data based on use of 3<sup>rd</sup> Gen Omni IV Image Intensifier.

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**Always on Target**

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