Uncooled Systems - Target Detection and Recognition range

The following tables are showing the detection and recognition ranges for the following conditions

- **Sensor size – 23.5 μm**
- **NETD – 50 mK (At Detector level)**
- **Atmospheric transmittance losses of 0.9 db/Km**
- **NATO target (2.3mx2.3m), $\Delta T=2.00^{O}C$**
- **Human Target (1.8mx0.5m), $\Delta T=2.00^{O}C$**

50% probability target detection criteria: 0.75 cycles for detection, 3 cycles for recognition

Human Target (1.8mx0.5m)

Optics Focal length (mm)	Detection Range (m)	Recognition Range (m)
8	215	54
25	673	168
50	1,346	336
75	2,018	505
100	2,691	673
125	3,364	841
150	4,037	1,009
175	4,710	1,177
200	5,383	1,346
225	6,055	1,514
250	6,728	1,682

NATO Target (2.3mx2.3m)

Optics Focal length (mm)	Detection Range (m)	Recognition Range (m)
8	522	130
25	1,631	408
50	3,262	816
75	4,894	1,223
100	6,525	1,631
125	7,900	2,039
150	8,300	2,447
175	8,564	2,855
200	8,897	3,262
225	9,176	3,670
250	9,411	4,078

63A Clipper Street, Coquitlam, B. C. V3K 6X2 Canada Tel: 604-516-6667 Fax: 604-516-6618
E-mail: info@cantronics.com Website: www.cantronics.com