IR rangefinder response curve (II) Exponential curve fitting Linearity evaluation 3.5 Sensor 1 (avgd.)  $d_m(v(d)) = \frac{21.6}{v(d) - 0.16}$ 3.0 Sensor 2 (avgd.) Linear fit region [H] 40 Sensor 3 (avgd.) Sensor output v [V] v 5.2 Fitted curve distance  $d_m$ 30  $v(d) = 21.6\frac{1}{d} + 0.16$ Reported 0.50.0 20 40 60 80 20 30 50 100 10 Actual distance d from sensor to wall [cm] Actual distance d [cm]