

Calibration Report:

Temperature/Relative Humidity Sensor

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Summary

Calibration Date : 17 April 2003 Next Calibration Date : 17 April 2004

A collection, analysis and calibration of data from Temperature/Relative Humidity Sensors, LT411625 and LT418838 has been completed. The calibrations were performed by the calibration laboratory, Wyle Laboratories. These data were collected by Wyle Laboratories on April 17, 2003.

MANUFACTURER : Campbell Scientific
MODEL : CS500
SERIAL NUMBER : LT411625 and LT418838

The test data presented in data table format show the Temperature/Relative Humidity sensors output in VDC from select data points.

Both sensors scaling are from 0 – 1 VDC for 0 –100% RH and 0 – 1 VDC for –40 to 60 °C. Relative Humidity Accuracy is 2% @ 10% RH and 3% @ 90% RH + stability of 1% per year. Temperature accuracy is 0.5°C @ –40°C, 0.4°C @ 20°C and 0.6°C @ 60°C. Units were powered by 12 VDC.

Linear fits with Coefficients are provided on plots on the following pages.

REPORT OF CALIBRATION -- WYLE LABORATORIES

Unit Under Test:HUMIDITY/TEMPERATURE SENSOR

Mfg: CAMPBELL
Date: 04/17/03

Model:CS-500
Cal By: 6939

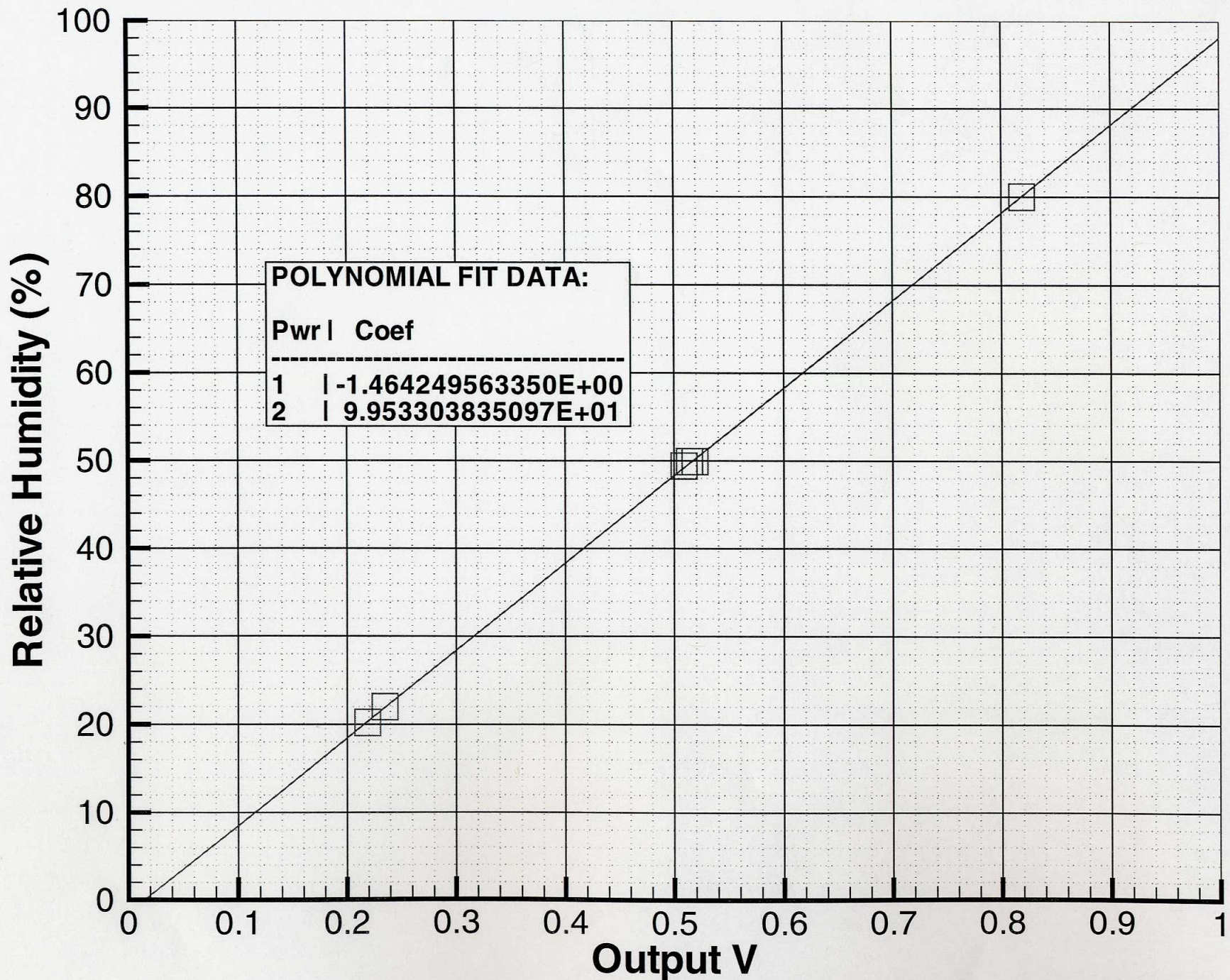
S/N:LT411625
WORK ORDER:470659

ECN:A021861

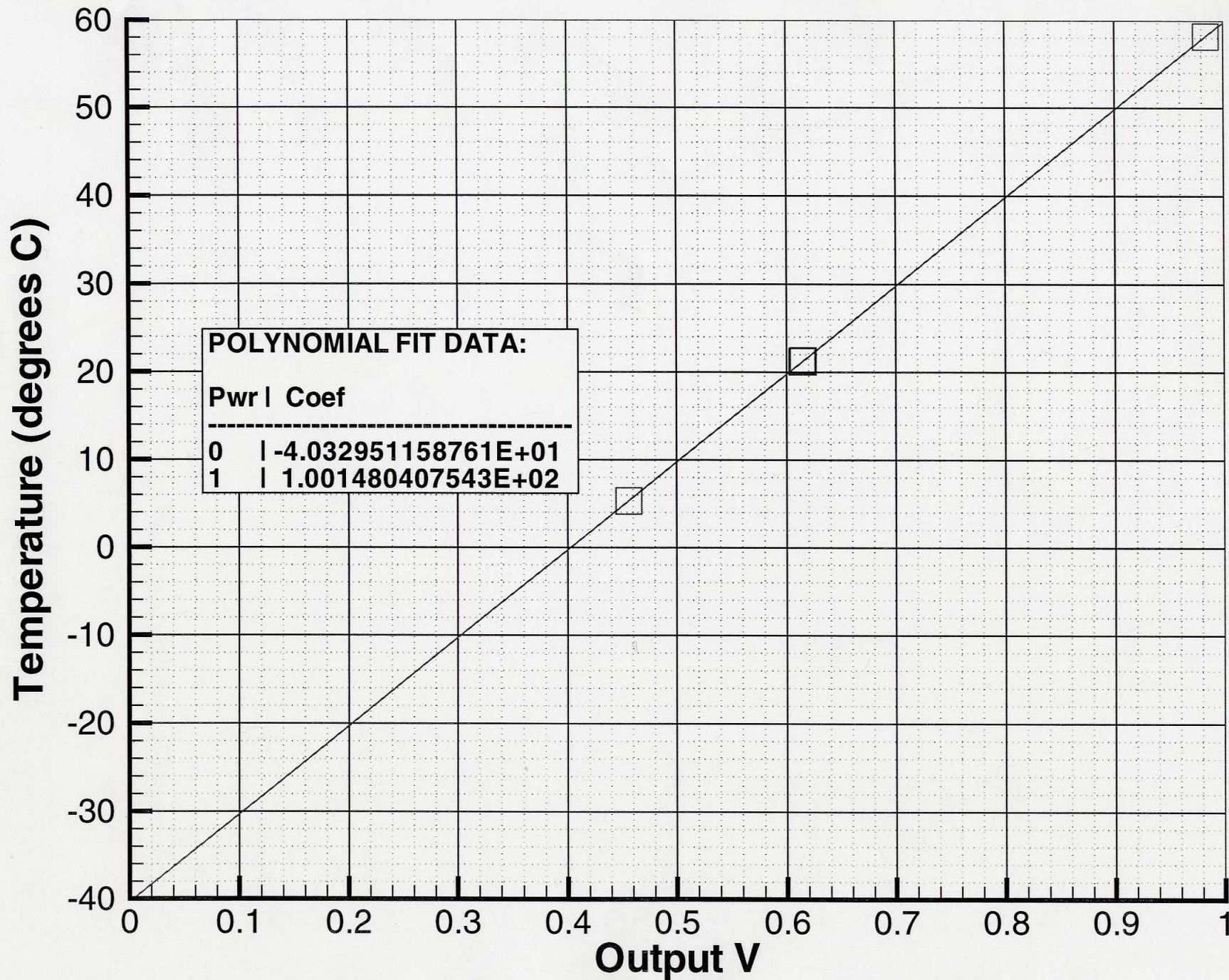
INDICATION STANDARD	INDICATION OF UUT	INDICATION STANDARD	INDICATION OF UUT
% RH	VDC	°C	VDC
20.2	0.219	21.2	0.614
49.9	0.514	21.2	0.615
80.0	0.819	21.2	0.614
49.4	0.509	5.3	0.456
22.0	0.235	58.2	0.984
49.9	0.519	21.3	0.615

NOTES:SCALING FOR THIS SENSOR IS 0 TO 1 VDC FOR 0 TO 100% RH AND 0 TO 1 VDC FOR -40 TO 60°C. RELATIVE HUMIDITY ACCURRACY IS 2%@ 10% RH AND 3%@ 90%RH + STABILITY OF 1% PER YEAR. TEMPERATURE ACCURACY IS 0.5°C@ -40°C 0.4°C@ 20°C AND 0.6°C@ 60°C.THIS UNIT WAS POWERED BY 12 VDC DURING THIS TEST. FACTORY RECOMMENDED PROBE REPLACEMENT IS EVERY TWO YEARS.

Relative Humidity (%) Linear Fit from Temp/RH sensor (S/N: LT411625)



Temperature (degrees C) Linear fit from Temp/RH Sensor (S/N: LT411625)



REPORT OF CALIBRATION - WYLE LABORATORIES

Unit Under Test:HUMIDITY/TEMPERATURE SENSOR

Mfg: CAMPBELL

Model:CS-500

S/N:LT418838

ECN:A021862

Date: 04/17/03

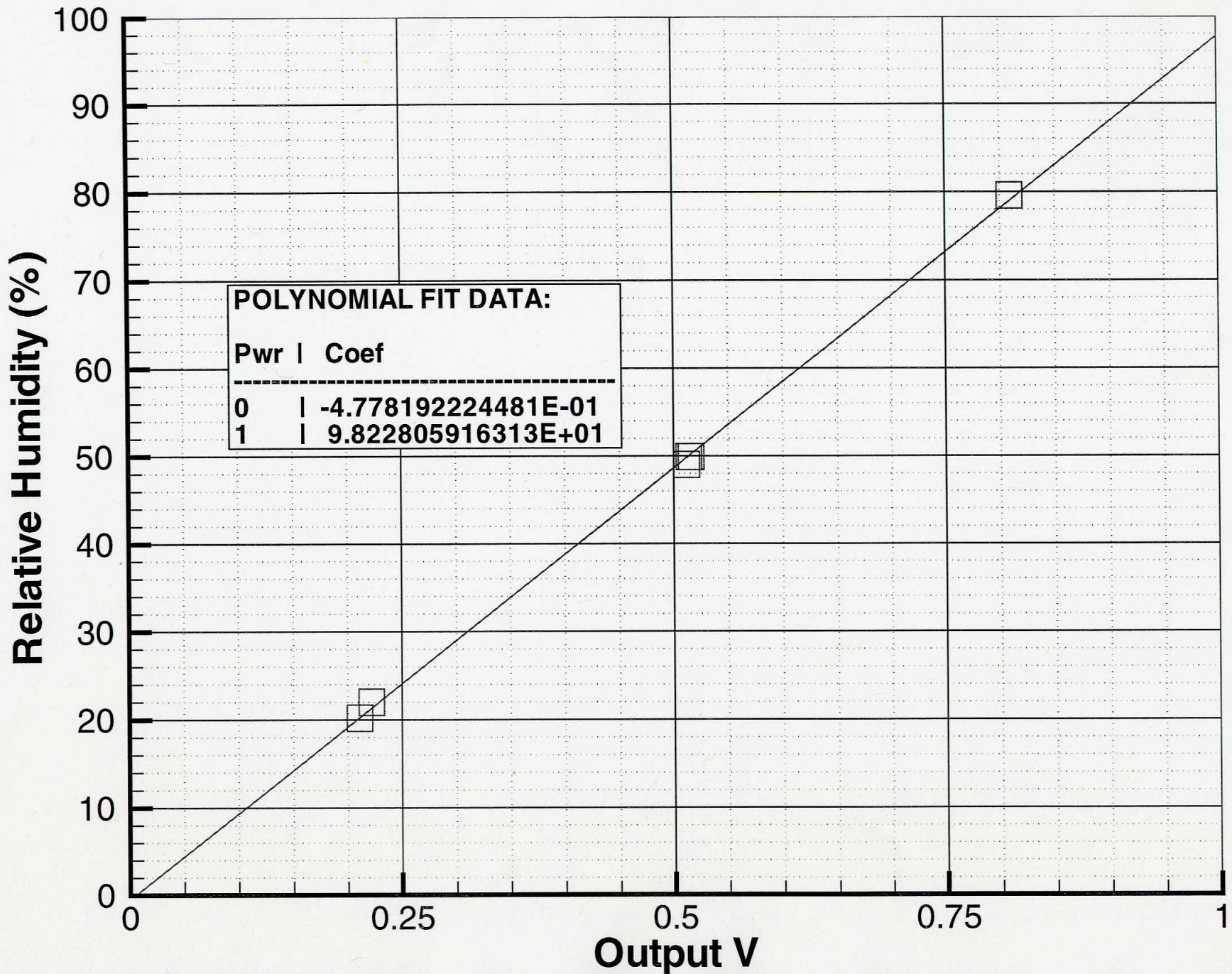
Cal By: 6939

WORK ORDER:470661

INDICATION STANDARD	INDICATION OF UUT	INDICATION STANDARD	INDICATION OF UUT
% RH	VDC	°C	VDC
20.2	0.211	21.2	0.613
49.9	0.514	21.2	0.616
79.6	0.809	21.2	0.614
49.0	0.512	5.3	0.459
22.0	0.222	58.0	0.982
49.9	0.516	21.3	0.616

NOTES:SCALING FOR THIS SENSOR IS 0 TO 1 VDC FOR 0 TO 100% RH AND 0 TO 1 VDC FOR -40 TO 60°C. RELATIVE HUMIDITY ACCURRACY IS 2%@ 10% RH AND 3%@ 90%RH + STABILITY OF 1% PER YEAR. TEMPERATURE ACCURACY IS 0.5°C@ -40°C 0.4°C@ 20°C AND 0.6°C@ 60°C.THIS UNIT WAS POWERED BY 12 VDC DURING THIS TEST. FACTORY RECOMMENDED PROBE REPLACEMENT IS EVERY TWO YEARS.

Relative Humidity (%) Linear Fit from Temp/RH sensor (S/N: LT418838)



Temperature (degrees C) Linear Fit from Temp/RH Sensor (S/N: LT418838)

