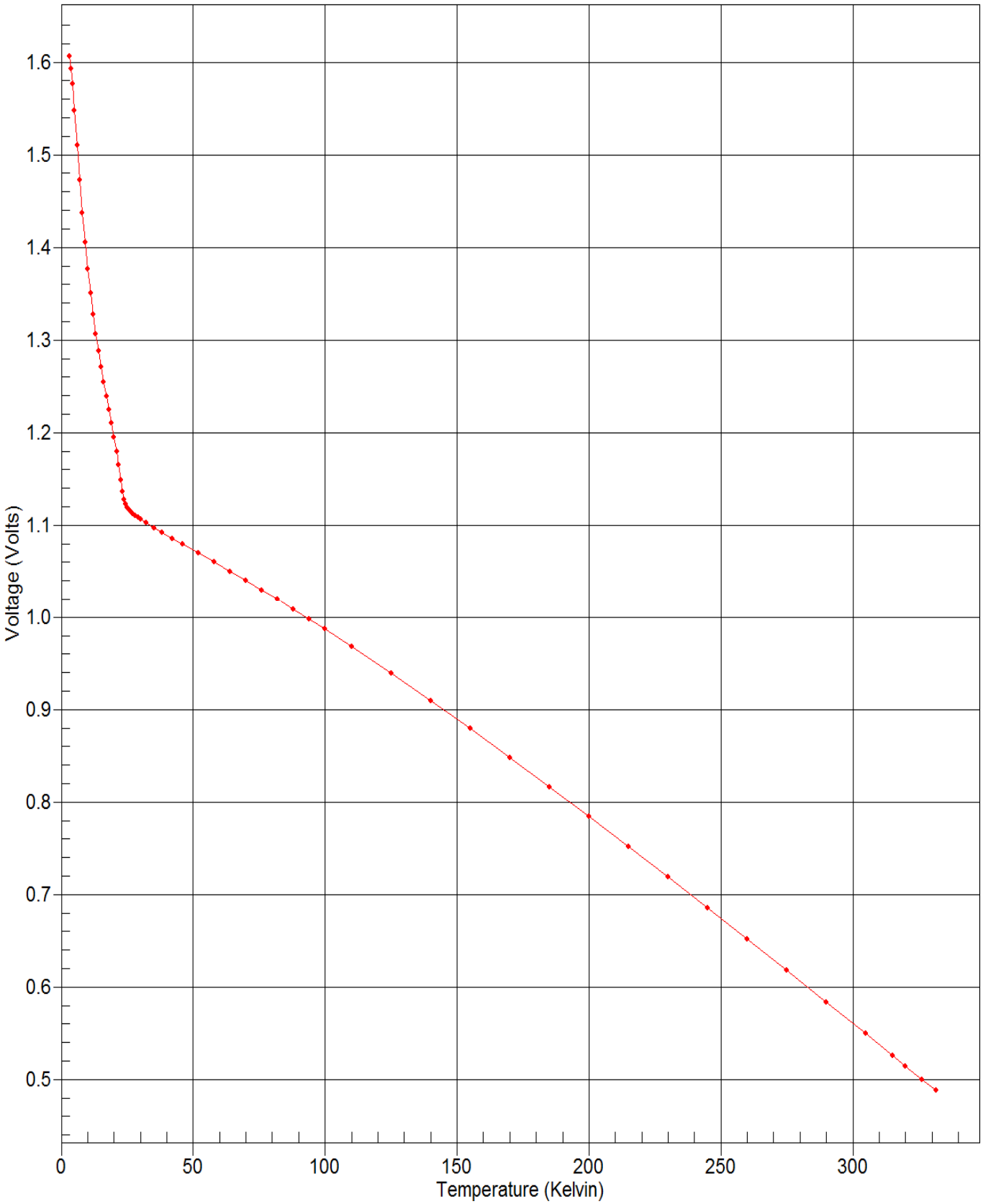
DATA PLOT

Calibration Report: 677812
Sensor Model: DT-670-SD-4L
Sensor Type: Silicon Diode

Sales Order: 74204
Serial Number: D6026345
Temperature Range: 4.00K to 325K



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F010-04-00_B 06/21/2011

TEST DATA

Calibration Report: 677812
Sensor Model: DT-670-SD-4L
Sensor Type: Silicon Diode

Sales Order: 74204
Serial Number: D6026345
Temperature Range: 4.00K to 325K

Index	Temp. (K)	Voltage (V)	Excitation	Index	Temp. (K)	Voltage (V)	Excitation
1	3.19903	1.60672	10μA±0.1%	36	42.1313	1.08574	10μA±0.1%
2	3.69917	1.59256	10μA±0.1%	37	46.1195	1.07941	10μA±0.1%
3	4.21081	1.57662	10μA±0.1%	38	52.1241	1.06979	10μA±0.1%
4	5.05547	1.54738	10μA±0.1%	39	58.1176	1.06008	10μA±0.1%
5	6.05508	1.51031	10μA±0.1%	40	64.1198	1.05021	10μA±0.1%
6	7.06610	1.47268	10μA±0.1%	41	70.1217	1.04016	10μA±0.1%
7	8.07283	1.43724	10μA±0.1%	42	76.1107	1.02994	10μA±0.1%
8	9.09019	1.40507	10μA±0.1%	43	82.1000	1.01953	10μA±0.1%
9	10.1062	1.37647	10μA±0.1%	44	88.1022	1.00891	10μA±0.1%
10	11.1238	1.35077	10μA±0.1%	45	94.0943	0.998120	10μA±0.1%
11	12.1328	1.32771	10μA±0.1%	46	100.086	0.987144	10μA±0.1%
12	13.1371	1.30689	10μA±0.1%	47	110.090	0.968434	10μA±0.1%
13	14.1327	1.28806	10μA±0.1%	48	125.075	0.939584	10μA±0.1%
14	15.1237	1.27076	10μA±0.1%	49	140.076	0.909843	10μA±0.1%
15	16.1082	1.25469	10μA±0.1%	50	155.065	0.879385	10μA±0.1%
16	17.0905	1.23940	10μA±0.1%	51	170.066	0.848276	10μA±0.1%
17	18.0721	1.22461	10μA±0.1%	52	185.053	0.816647	10μA±0.1%
18	19.0543	1.21000	10μA±0.1%	53	200.045	0.784528	10μA±0.1%
19	20.0379	1.19522	10μA±0.1%	54	215.048	0.751950	10μA±0.1%
20	21.0213	1.17960	10μA±0.1%	55	230.048	0.718990	10μA±0.1%
21	21.8148	1.16539	10μA±0.1%	56	245.044	0.685678	10μA±0.1%
22	22.6086	1.14866	10μA±0.1%	57	260.032	0.652056	10μA±0.1%
23	23.2159	1.13617	10μA±0.1%	58	275.046	0.618074	10μA±0.1%
24	23.8202	1.12751	10μA±0.1%	59	290.048	0.583843	10μA±0.1%
25	24.4245	1.12246	10μA±0.1%	60	305.039	0.549398	10μA±0.1%
26	25.0306	1.11925	10μA±0.1%	61	315.048	0.526269	10μA±0.1%
27	25.6320	1.11689	10μA±0.1%	62	320.042	0.514698	10μA±0.1%
28	26.4479	1.11434	10μA±0.1%	63	326.327	0.500103	10μA±0.1%
29	27.2601	1.11222	10μA±0.1%	64	331.515	0.488038	10μA±0.1%
30	28.0752	1.11033	10μA±0.1%				
31	29.0912	1.10816	10μA±0.1%				
32	30.1034	1.10614	10μA±0.1%				
33	32.1180	1.10237	10μA±0.1%				
34	35.1339	1.09710	10μA±0.1%				
35	38.1389	1.09213	10μA±0.1%				

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Calibration Data Uncertainty

The uncertainties of the measured calibration data for Lake Shore's sensors are summarized in the table below. The values given are the combined uncertainty of the temperature measurement and the resistance or voltage measurement expressed as an equivalent temperature uncertainty in millikelvin (mK). Note that the values are the calibration uncertainty only and do not include the stability of the temperature sensor. The uncertainty analysis has followed the guidelines for determining measurement uncertainty as outlined in the ISO Guide to the Expression of Uncertainty in Measurement, NIST Technical Note 1297, and ANSI/NCSL Z540-2-1997. Since the uncertainty varies with temperature due to the variation of the sensor sensitivity and excitation, the table gives typical values at several different temperatures throughout the range of the calibration. The uncertainty is based on an approximate 95% confidence level with a coverage factor k = 2.

T (K)	Uncertainty (± mK)												
	GR	Cernox (CX)					RX			Platinum		RF-800	Diode
		1010	1030	1050	1070	1080	102A	103A	202A	100 Ω	25 Ω	27 Ω	
1.4	4	4	4	4			4	4	4			5	7
4.2	4	4	4	4	4		4	6	5			5	5
10	4	5	5	4	4		10	15	12			7	6
20	8	10	9	8	8	8	35	35	28	9	10	13	9
30	9	13	11	9	9	9	76	61	46	9	9	14	31
50	11	18	14	12	12	11				10	10	13	37
100	20	29	22	17	16	14				11	12	12	32
300		78	60	46	45	36				24	24	25	35
400		124	94	74	72	60				45	45	45	49
500										51	51		54

Polynomial Fit Uncertainty

When a sensor is used to measure temperature, a polynomial fit to the measured calibration data is often used to convert the sensor resistance (R) or voltage (V) to a temperature (T). How well the polynomial represents the sensor calibration data is another source of uncertainty when using the sensor. In the polynomials provided with this set of calibration data, the standard deviation of the fit can be used as an estimate of this additional temperature uncertainty. The standard deviation of fit is determined from the following equation:

$$\sigma_{fit}^{\,2} = \frac{\sum_{i=1}^{N} (T_i - T_{icalc})^2}{N-n} = \frac{N}{N-n}(\Delta T_{RMS})^2$$

where

σ_{fit} = standard deviation of the fit
T_i = measured temperature for point i
T_{icalc} = the temperature calculated from the polynomial equation for point i
N = number of data points in fit range
n = number of fit coefficients
ΔT_{RMS} = root mean square deviation of fit

A value of ΔT_{RMS} is given for each range of fit.

POLYNOMIAL EQUATION

Calibration Report: 677812 Sales Order: 74204
Sensor Model: DT-670-SD-4L Serial Number: D6026345
Sensor Type: Silicon Diode Temperature Range: 4.00K to 325K

Polynomial Type: Chebychev
Useful Range of Fit:

4.00 K	to	25.0 K
1.583 Volts	to	1.119 Volts

Lower and Upper limits of Voltage used in computing Chebychev coefficients:
ZL = 1.114342175 ZU = 1.606716961

Order	Coefficient	Std. Deviation of Coefficient	Ratio (Coeff./Std Dev.)
0	12.710867	3.6333E-03	3498.48
1	-10.841478	5.4859E-03	-1976.26
2	1.762998	5.1396E-03	343.02
3	-0.257591	5.2089E-03	-49.45
4	-0.155495	5.2038E-03	-29.88
5	-0.102087	5.1261E-03	-19.92
6	0.182701	4.9784E-03	36.70
7	-0.206362	4.8490E-03	-42.56
8	0.170413	4.7550E-03	35.84
9	-0.126508	4.7441E-03	-26.67
10	0.085692	4.8545E-03	17.65
11	-0.059251	5.0520E-03	-11.73
12	0.041269	5.1152E-03	8.07
13	-0.024413	4.9592E-03	-4.92
14	0.018884	4.7289E-03	3.99

Z = Voltage

k = ((Z-ZL)-(ZU-Z))/(ZU-ZL)

Temp. (K) = ΣA_i* COS(i * ARCCOS(k)), where 0 <= i <= 14
and the A_i's are the coefficients in the table above.

POLYNOMIAL EQUATION

Calibration Report: 677812
Sensor Model: DT-670-SD-4L
Sensor Type: Silicon Diode

Sales Order: 74204
Serial Number: D6026345
Temperature Range: 4.00K to 325K

Polynomial Type: Chebychev
Temp. (K) vs. Voltage

	V Meas. (V)	T Meas. (K)	T Eq. (K)	T diff. (mK)
1	1.606717	3.19903	3.19964	-0.61
2	1.592556	3.69917	3.69610	3.07
3	1.576622	4.21081	4.21613	-5.33
4	1.547376	5.05547	5.04882	6.65
5	1.510313	6.05508	6.06424	-9.16
6	1.472684	7.06610	7.05513	10.97
7	1.437238	8.07283	8.07945	-6.63
8	1.405071	9.09019	9.09502	-4.83
9	1.376470	10.10617	10.09735	8.82
10	1.350774	11.12379	11.11961	4.18
11	1.327711	12.13279	12.14096	-8.17
12	1.306887	13.13709	13.14467	-7.58
13	1.288061	14.13269	14.12927	3.43
14	1.270762	15.12367	15.11388	9.78
15	1.254689	16.10819	16.10203	6.16
16	1.239396	17.09047	17.09627	-5.80
17	1.224612	18.07213	18.08400	-11.87
18	1.210004	19.05433	19.05970	-5.37
19	1.195218	20.03789	20.02657	11.32
20	1.179605	21.02128	21.00559	15.69
21	1.165385	21.81481	21.82574	-10.92
22	1.148655	22.60857	22.63318	-24.61
23	1.136172	23.21592	23.18928	26.64
24	1.127515	23.82022	23.80304	17.18
25	1.122464	24.42450	24.44203	-17.53
26	1.119246	25.03061	25.04811	-17.51
27	1.116886	25.63201	25.63291	-0.90
28	1.114342	26.44794	26.43502	12.92

Order of Fit = 14 RMS error of fit = 11.66 mK
Largest absolute error = 26.64 mK at data point no. 23

POLYNOMIAL EQUATION

Calibration Report: 677812 | Sales Order: 74204
Sensor Model: DT-670-SD-4L | Serial Number: D6026345
Sensor Type: Silicon Diode | Temperature Range: 4.00K to 325K

Polynomial Type: Chebychev
Useful Range of Fit:

25.0 K	to	88.1 K
1.119 Volts	to	1.009 Volts

Lower and Upper limits of Voltage used in computing Chebychev coefficients:
ZL = 0.987143613 ZU = 1.127514543

Order	Coefficient	Std. Deviation of Coefficient	Ratio (Coeff./Std Dev.)
0	60.108579	7.9331E-03	7576.92
1	-39.924594	1.4048E-02	-2842.07
2	1.042524	1.3278E-02	78.52
3	1.500516	9.5430E-03	157.24
4	0.841304	6.9088E-03	121.77
5	0.327828	3.1837E-03	102.97
6	0.067967	3.6154E-03	18.80
7	-0.019079	6.7340E-03	-2.83
8	-0.056860	9.5096E-03	-5.98
9	-0.016952	1.0310E-02	-1.64
10	-0.032908	1.0551E-02	-3.12
11	-0.001167	8.2602E-03	-0.14
12	-0.017705	5.8018E-03	-3.05

Z = Voltage

k = ((Z-ZL)-(ZU-Z))/(ZU-ZL)

Temp. (K) = ΣA_i* COS(i * ARCCOS(k)), where 0 <= i <= 12
and the A_i's are the coefficients in the table above.

POLYNOMIAL EQUATION

Calibration Report: 677812
Sensor Model: DT-670-SD-4L
Sensor Type: Silicon Diode

Sales Order: 74204
Serial Number: D6026345
Temperature Range: 4.00K to 325K

Polynomial Type: Chebychev
Temp. (K) vs. Voltage

	V Meas. (V)	T Meas. (K)	T Eq. (K)	T diff. (mK)
24	1.127515	23.80304	23.81945	0.76
25	1.122464	24.44203	24.43216	-7.66
26	1.119246	25.04811	25.01805	12.55
27	1.116886	25.63201	25.62739	4.61
28	1.114342	26.44794	26.45544	-7.49
29	1.112220	27.26009	27.26963	-9.54
30	1.110326	28.07517	28.07969	-4.52
31	1.108159	29.09120	29.08799	3.22
32	1.106139	30.10343	30.09475	8.68
33	1.102369	32.11801	32.11036	7.66
34	1.097103	35.13386	35.14055	-6.70
35	1.092133	38.13890	38.14723	-8.33
36	1.085744	42.13134	42.12530	6.04
37	1.079408	46.11952	46.11439	5.13
38	1.069793	52.12413	52.13127	-7.14
39	1.060083	58.11762	58.11550	2.12
40	1.050210	64.11984	64.11689	2.95
41	1.040160	70.12171	70.12606	-4.35
42	1.029944	76.11073	76.10775	2.99
43	1.019535	82.10003	82.10129	-1.26
44	1.008913	88.10219	88.10185	0.34
45	0.9981198	94.09427	94.09432	-0.05
46	0.9871436	100.08635	100.08635	0.00

Order of Fit = 12 RMS error of fit = 5.97 mK
Largest absolute error = 12.55 mK at data point no. 26

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POLYNOMIAL EQUATION

Calibration Report: 677812 | Sales Order: 74204
Sensor Model: DT-670-SD-4L | Serial Number: D6026345
Sensor Type: Silicon Diode | Temperature Range: 4.00K to 325K

Polynomial Type: Chebychev
Useful Range of Fit:

88.1 K	to	325. K
1.009 Volts	to	0.5032 Volts

Lower and Upper limits of Voltage used in computing Chebychev coefficients:
ZL = 0.4880379159 ZU = 1.029943761

Order	Coefficient	Std. Deviation of Coefficient	Ratio (Coeff./Std Dev.)
0	208.066780	9.8908E-05	2103631.98
1	-126.710986	1.4334E-04	-883998.68
2	-3.987130	1.4104E-04	-28269.17
3	-0.912505	1.4505E-04	-6291.12
4	-0.250581	1.4360E-04	-1745.01
5	-0.077423	1.3706E-04	-564.88
6	-0.017629	1.3212E-04	-133.43
7	-0.002012	1.3182E-04	-15.27
8	0.000943	1.3370E-04	7.06
9	0.000428	1.3358E-04	3.20
10	0.000605	1.3195E-04	4.58

Z = Voltage

k = ((Z-ZL)-(ZU-Z))/(ZU-ZL)

Temp. (K) = ΣA_i* COS(i * ARCCOS(k)), where 0 <= i <= 10
and the A_i's are the coefficients in the table above.

POLYNOMIAL EQUATION

Calibration Report: 677812
Sensor Model: DT-670-SD-4L
Sensor Type: Silicon Diode

Sales Order: 74204
Serial Number: D6026345
Temperature Range: 4.00K to 325K

Polynomial Type: Chebychev
Temp. (K) vs. Voltage

	V Meas. (V)	T Meas. (K)	T Eq. (K)	T diff. (mK)
42	1.029944	76.10775	76.11049	0.24
43	1.019535	82.10129	82.10064	-0.61
44	1.008913	88.10185	88.10204	0.15
45	0.9981198	94.09427	94.09391	0.36
46	0.9871436	100.08635	100.08628	0.08
47	0.9684337	110.09026	110.09041	-0.14
48	0.9395842	125.07534	125.07575	-0.41
49	0.9098428	140.07577	140.07533	0.43
50	0.8793847	155.06546	155.06538	0.08
51	0.8482755	170.06554	170.06572	-0.18
52	0.8166465	185.05295	185.05316	-0.21
53	0.7845275	200.04465	200.04444	0.21
54	0.7519496	215.04850	215.04839	0.11
55	0.7189904	230.04751	230.04756	-0.05
56	0.6856785	245.04387	245.04408	-0.21
57	0.6520562	260.03200	260.03187	0.13
58	0.6180744	275.04556	275.04540	0.17
59	0.5838428	290.04840	290.04876	-0.36
60	0.5493975	305.03878	305.03825	0.53
61	0.5262692	315.04761	315.04841	-0.80
62	0.5146976	320.04242	320.04183	0.59
63	0.5001033	326.32719	326.32732	-0.13
64	0.4880379	331.51549	331.51549	0.01

Order of Fit = 10 RMS error of fit = 0.34 mK
Largest absolute error = -0.80 mK at data point no. 61

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INTERPOLATION TABLE

Calibration Report: 677812 Sales Order: 74204
Sensor Model: DT-670-SD-4L Serial Number: D6026345
Sensor Type: Silicon Diode Temperature Range: 4.00K to 325K

Temp (K)	Volts (V)	dV/dT (mV/K)	Temp (K)	Volts (V)	dV/dT (mV/K)
4.000	1.58337	-31.396	37.00	1.09399	-1.6440
4.200	1.57697	-32.551	38.00	1.09236	-1.6248
4.400	1.57035	-33.648	39.00	1.09074	-1.6099
4.600	1.56352	-34.594	40.00	1.08914	-1.5988
4.800	1.55652	-35.390	42.00	1.08595	-1.5882
5.000	1.54938	-36.035	44.00	1.08278	-1.5881
5.200	1.54212	-36.542	46.00	1.07960	-1.5919
5.400	1.53477	-36.943	48.00	1.07641	-1.5979
5.600	1.52735	-37.242	50.00	1.07321	-1.6039
5.800	1.51988	-37.437	52.00	1.06999	-1.6097
6.000	1.51238	-37.530	54.00	1.06677	-1.6159
6.500	1.49364	-37.362	56.00	1.06353	-1.6229
7.000	1.47510	-36.679	58.00	1.06027	-1.6309
7.500	1.45704	-35.494	60.00	1.05700	-1.6395
8.000	1.43969	-33.824	65.00	1.04875	-1.6637
8.500	1.42327	-31.897	70.00	1.04037	-1.6894
9.000	1.40777	-30.100	75.00	1.03185	-1.7158
9.500	1.39314	-28.438	77.35	1.02781	-1.7286
10.00	1.37931	-26.914	80.00	1.02321	-1.7428
10.50	1.36621	-25.526	85.00	1.01443	-1.7691
11.00	1.35376	-24.276	90.00	1.00551	-1.7955
11.50	1.34191	-23.136	95.00	0.996472	-1.8213
12.00	1.33062	-22.040	100.0	0.987303	-1.8462
12.50	1.31986	-20.993	105.0	0.978012	-1.8700
13.00	1.30961	-20.016	110.0	0.968605	-1.8929
13.50	1.29983	-19.118	115.0	0.959085	-1.9148
14.00	1.29048	-18.321	120.0	0.949459	-1.9355
14.50	1.28150	-17.616	125.0	0.939732	-1.9552
15.00	1.27285	-16.978	130.0	0.929909	-1.9738
15.50	1.26451	-16.420	135.0	0.919995	-1.9915
16.00	1.25641	-15.977	140.0	0.909995	-2.0084
16.50	1.24851	-15.627	145.0	0.899913	-2.0244
17.00	1.24078	-15.321	150.0	0.889753	-2.0395
17.50	1.23318	-15.076	155.0	0.879519	-2.0538
18.00	1.22569	-14.926	160.0	0.869216	-2.0674
18.50	1.21824	-14.863	165.0	0.858846	-2.0804
19.00	1.21081	-14.871	170.0	0.848413	-2.0928
19.50	1.20335	-14.987	175.0	0.837919	-2.1047
20.00	1.19580	-15.269	180.0	0.827367	-2.1160
21.00	1.17996	-16.622	185.0	0.816759	-2.1269
22.00	1.16167	-20.515	190.0	0.806098	-2.1374
23.00	1.14031	-20.242	195.0	0.795386	-2.1475
24.00	1.12571	-9.1940	200.0	0.784624	-2.1573
25.00	1.11938	-4.5114	205.0	0.773814	-2.1667
26.00	1.11567	-3.1334	210.0	0.762957	-2.1759
27.00	1.11287	-2.5416	215.0	0.752056	-2.1847
28.00	1.11049	-2.2393	220.0	0.741111	-2.1932
29.00	1.10835	-2.0660	225.0	0.730124	-2.2016
30.00	1.10634	-1.9539	230.0	0.719095	-2.2096
31.00	1.10443	-1.8757	235.0	0.708027	-2.2175
32.00	1.10258	-1.8159	240.0	0.696921	-2.2251
33.00	1.10079	-1.7697	245.0	0.685776	-2.2326
34.00	1.09904	-1.7297	250.0	0.674596	-2.2397
35.00	1.09733	-1.6959	255.0	0.663379	-2.2468
36.00	1.09565	-1.6677	260.0	0.652128	-2.2536

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INTERPOLATION TABLE

Calibration Report: 677812
Sensor Model: DT-670-SD-4L
Sensor Type: Silicon Diode

Sales Order: 74204
Serial Number: D6026345
Temperature Range: 4.00K to 325K

Temp (K)	Volts (V)	dV/dT (mV/K)
265.0	0.640844	-2.2602
270.0	0.629527	-2.2666
273.15	0.622381	-2.2706
275.0	0.618178	-2.2729
280.0	0.606798	-2.2789
285.0	0.595390	-2.2845
290.0	0.583954	-2.2898
295.0	0.572492	-2.2951
300.0	0.561003	-2.3004
305.0	0.549487	-2.3060
310.0	0.537944	-2.3110
315.0	0.526379	-2.3147
320.0	0.514796	-2.3191
325.0	0.503188	-2.3237

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Sensor Model: DT-670-SD-4L Serial Number: D6026345
Sensor Type: Silicon Diode

This sensor was tested for repeatability through rapid thermal cycles from room temperature into liquid helium. During this test, the following four lead voltage values were recorded:

Approximately 305 K:	0.550 V
Liquid Nitrogen:	1.028 V
Liquid Helium:	1.577 V

The nitrogen and helium values were recorded in OPEN dewars, so precision comparisons with calibration values or other thermal cycle test values should not be made.

Recommended Operating Parameters:

For diode sensors calibrated by LSCI, the current is maintained at the constant values listed on the Test Data page. In order to minimize calibration offsets due to the nonlinear voltage-current relationship in the diode sensor, these same guidelines should be followed in using the sensor.

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F010-04-00_B 06/21/2011

BREAKPOINTS 340 FORMAT

Calibration Report: 677812 Sales Order: 74204
Sensor Model: DT-670-SD-4L Serial Number: D6026345
Sensor Type: Silicon Diode Temperature Range: 4.00K to 325K

Name: DT-670-SD-4L
Serial number: D6026345
Format: 2 ;Volts/Kelvin
Limit: 325.0
Coefficient: 1 ;Negative

Point 1: 9.06000e-02,500.000	Point 56: 1.12401, 24.200
Point 2: .110239,491.000	Point 57: 1.12570, 24.000
Point 3: .136555,479.500	Point 58: 1.12772, 23.800
Point 4: .179181,461.500	Point 59: 1.13016, 23.600
Point 5: .265393,425.500	Point 60: 1.13306, 23.400
Point 6: .349522,390.000	Point 61: 1.13644, 23.200
Point 7: .452797,346.000	Point 62: 1.14232, 22.900
Point 8: .503215,325.000	Point 63: 1.15966, 22.100
Point 9: .546048,306.500	Point 64: 1.16957, 21.600
Point 10: .582831,290.500	Point 65: 1.18003, 21.000
Point 11: .618200,275.000	Point 66: 1.19279, 20.200
Point 12: .651023,260.500	Point 67: 1.20712, 19.250
Point 13: .682448,246.500	Point 68: 1.22865, 17.800
Point 14: .712481,233.000	Point 69: 1.24228, 16.900
Point 15: .740033,220.500	Point 70: 1.25400, 16.150
Point 16: .766239,208.500	Point 71: 1.26448, 15.500
Point 17: .791107,197.000	Point 72: 1.27452, 14.900
Point 18: .814651,186.000	Point 73: 1.28413, 14.350
Point 19: .836885,175.500	Point 74: 1.29414, 13.800
Point 20: .857825,165.500	Point 75: 1.30366, 13.300
Point 21: .877483,156.000	Point 76: 1.31362, 12.800
Point 22: .895876,147.000	Point 77: 1.32406, 12.300
Point 23: .913022,138.500	Point 78: 1.33503, 11.800
Point 24: .928939,130.500	Point 79: 1.34654, 11.300
Point 25: .943650,123.000	Point 80: 1.35862, 10.800
Point 26: .958146,115.500	Point 81: 1.37131, 10.300
Point 27: .971455,108.500	Point 82: 1.38334, 9.850
Point 28: .984547,101.500	Point 83: 1.39595, 9.400
Point 29: .994657, 96.000	Point 84: 1.40923, 8.950
Point 30: 1.00282, 91.500	Point 85: 1.42321, 8.500
Point 31: 1.01089, 87.000	Point 86: 1.43795, 8.050
Point 32: 1.01884, 82.500	Point 87: 1.45520, 7.550
Point 33: 1.02669, 78.000	Point 88: 1.47688, 6.950
Point 34: 1.03443, 73.500	Point 89: 1.53779, 5.320
Point 35: 1.04206, 69.000	Point 90: 1.55729, 4.780
Point 36: 1.04959, 64.500	Point 91: 1.57176, 4.360
Point 37: 1.05800, 59.400	Point 92: 1.58279, 4.020
Point 38: 1.06613, 54.400	Point 93: 1.58337, 4.000
Point 39: 1.07514, 48.800	Point 94: 1.59690, 3.580
Point 40: 1.09041, 39.200	Point 95: 1.60756, 3.180
Point 41: 1.09415, 36.900	Point 96: 1.62125, 2.620
Point 42: 1.09732, 35.000	Point 97: 1.62945, 2.260
Point 43: 1.10025, 33.300	Point 98: 1.63516, 1.980
Point 44: 1.10294, 31.800	Point 99: 1.63943, 1.740
Point 45: 1.10537, 30.500	Point 100: 1.64261, 1.530
Point 46: 1.10752, 29.400	Point 101: 1.64430, 1.400
Point 47: 1.10939, 28.500	
Point 48: 1.11117, 27.700	
Point 49: 1.11286, 27.000	
Point 50: 1.11446, 26.400	
Point 51: 1.11597, 25.900	
Point 52: 1.11735, 25.500	
Point 53: 1.11892, 25.100	
Point 54: 1.12032, 24.800	
Point 55: 1.12197, 24.500	

Note: Breakpoints outside of the calibration range were added from the standard curve. These extra points conform to reduced accuracy specifications and are added as a convenience to the customer.

BREAKPOINTS 91C/93C/330 FORMAT

Calibration Report: 677812 Sales Order: 74204
Sensor Model: DT-670-SD-4L Serial Number: D6026345
Sensor Type: Silicon Diode Temperature Range: 4.00K to 325K

Interpolation Method: Straight Line
Limit: 325.0 (Kelvin)
Format: 2 (Volts/Kelvin)
Number of Breakpoints: 36

No.	Units	Temperature (K)	No.	Units	Temperature (K)
1	0.147030	475.0	21	1.11287	27.0
2	0.218700	445.0	22	1.11567	26.0
3	0.326000	400.0	23	1.11938	25.0
4	0.490260	330.0	24	1.12571	24.0
5	0.503300	325.0	25	1.14031	23.0
6	0.572530	295.0	26	1.16167	22.0
7	0.640930	265.0	27	1.17996	21.0
8	0.708120	235.0	28	1.26407	15.5
9	0.773920	205.0	29	1.30895	13.0
10	0.827440	180.0	30	1.36520	10.5
11	0.869270	160.0	31	1.43815	8.0
12	0.910080	140.0	32	1.57846	4.2
13	0.949550	120.0	33	1.58337	4.0
14	0.978060	105.0	34	1.59237	3.8
15	1.00558	90.0	35	1.63785	1.9
16	1.03192	75.0	36	1.64411	1.4
17	1.05707	60.0			
18	1.09562	36.0			
19	1.10434	31.0			
20	1.11044	28.0			

Note: Breakpoints outside of the calibration range were added from the standard curve. These extra points conform to reduced accuracy specifications and are added as a convenience to the customer.