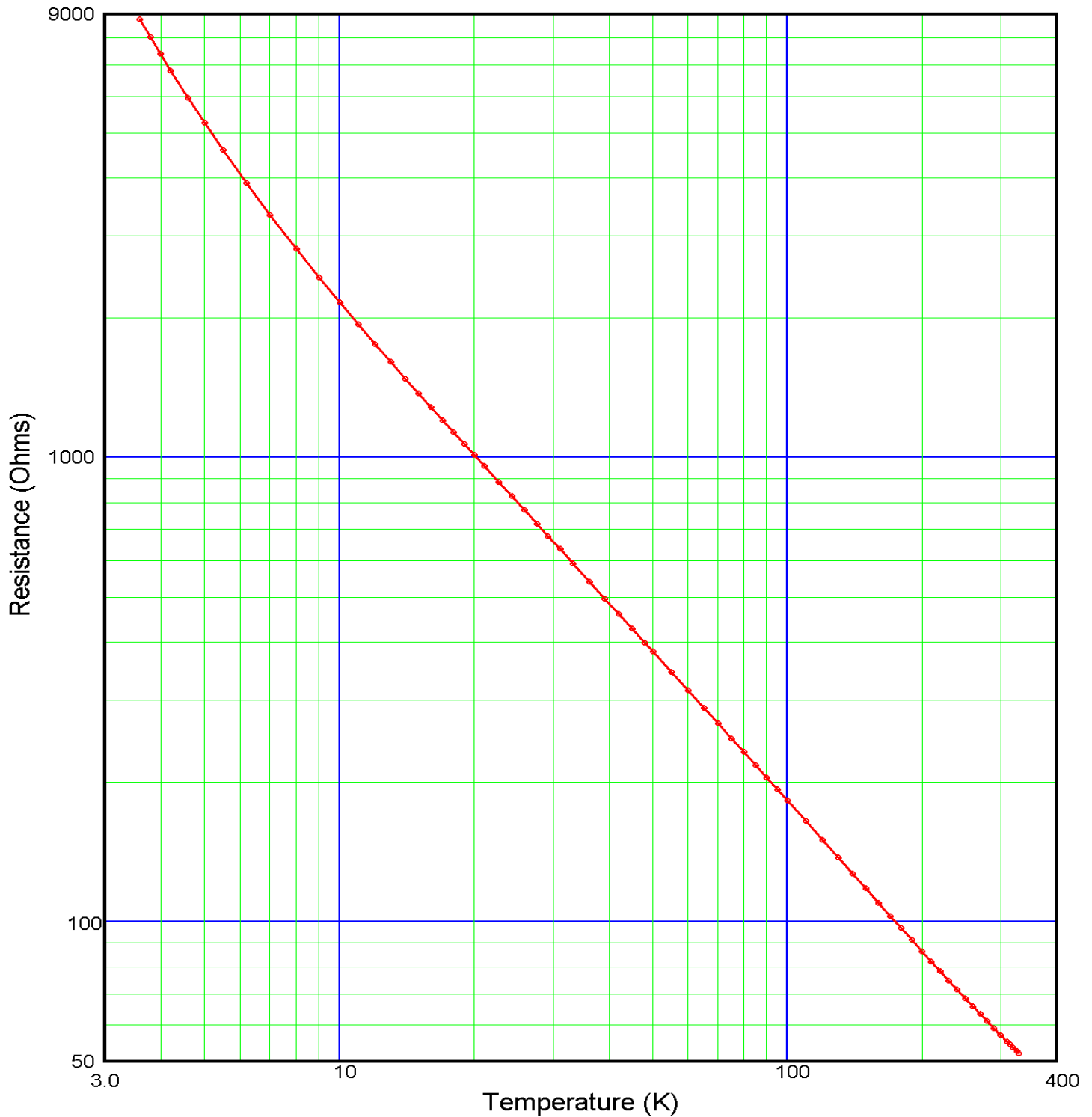


DATA PLOT

Calibration Report: 366516
Sensor Model: CX-1070-AA-4L
Sensor Type: Cernox Resistor
Temperature Range: 4.00K to 325K

Sales Order: 70589
Serial Number: X16462
Sensor Excitation: 2mV±50%



TEST DATA

Calibration Report: 366516
Sensor Model: CX-1070-AA-4L
Sensor Type: Cernox Resistor
Temperature Range: 4.00K to 325K

Sales Order: 70589
Serial Number: X16462
Sensor Excitation: 2mV±50%

Index	Temperature (K)	Resistance (Ω)	Index	Temperature (K)	Resistance (Ω)
1	3.59776	8785.26	41	75.2875	248.116
2	3.79554	8045.73	42	80.2841	231.598
3	4.00148	7385.95	43	85.2813	217.110
4	4.21693	6806.18	44	90.2735	204.263
5	4.61192	5939.43	45	95.2757	192.727
6	5.00991	5260.33	46	100.271	182.411
7	5.51368	4592.66	47	110.254	164.676
8	6.21981	3900.12	48	120.233	149.939
9	7.02623	3329.10	49	130.229	137.507
10	8.03350	2816.31	50	140.223	126.932
11	9.04150	2442.13	51	150.218	117.803
12	10.0530	2157.23	52	160.215	109.852
13	11.0630	1933.00	53	170.209	102.881
14	12.0704	1752.17	54	180.208	96.7598
15	13.0726	1604.00	55	190.209	91.3039
16	14.0712	1479.44	56	200.210	86.4277
17	15.0676	1373.36	57	210.208	82.0663
18	16.0632	1281.75	58	220.197	78.1334
19	17.0590	1201.69	59	230.210	74.5826
20	18.0527	1131.00	60	240.211	71.3506
21	19.0476	1068.40	61	250.210	68.4064
22	20.0456	1011.89	62	260.216	65.7102
23	21.1415	956.563	63	270.209	63.2479
24	22.7330	885.844	64	280.222	60.9721
25	24.3203	824.808	65	290.212	58.8957
26	25.9643	769.802	66	300.229	56.9774
27	27.6557	720.047	67	310.238	55.1974
28	29.3240	676.767	68	315.244	54.3496
29	31.1788	634.175	69	320.254	53.5368
30	33.3102	591.248	70	326.257	52.6053
31	36.3205	539.487	71	330.250	52.0073
32	39.3086	496.100			
33	42.2776	459.170			
34	45.2589	427.100			
35	48.2489	398.978			
36	50.2388	382.159			
37	55.2473	345.377			
38	60.2631	314.727			
39	65.2776	289.003			
40	70.2888	267.101			



POLYNOMIAL EQUATION

Calibration Report: 366516
Sensor Model: CX-1070-AA-4L
Sensor Type: Cernox Resistor
Temperature Range: 4.00K to 325K

Sales Order: 70589
Serial Number: X16462
Sensor Excitation: 2mV±50%

Polynomial Type: Chebychev
Useful Range of Fit:

4.00K to 24.3K
7394. Ohms to 824.8 Ohms

Lower and Upper limits of Log(resistance) used in computing Chebychev coefficients:

ZL = 2.85736092321 ZU = 3.94375454074

Order	Coefficient	Std. Deviation of Coefficient	Ratio (Coeff./Std Dev.)
0	12.135727	2.0093E-04	60398.77
1	-11.326970	3.1087E-04	-36436.47
2	3.404081	3.0103E-04	11308.16
3	-0.699520	2.8349E-04	-2467.53
4	0.088301	2.7217E-04	324.43
5	-0.002733	2.6500E-04	-10.31
6	-0.001279	2.5794E-04	-4.96

$Z = \text{Log}(\text{resistance})$

$X = ((Z-ZL)-(ZU-Z))/(ZU-ZL)$

Temp. (K) = $\sum A_i \cdot \text{COS}(i \cdot \text{ARCCOS}(X))$, where $0 \leq i \leq 6$
and the A_i 's are the coefficients in the table above.



POLYNOMIAL EQUATION

Calibration Report: 366516
Sensor Model: CX-1070-AA-4L
Sensor Type: Cernox Resistor
Temperature Range: 4.00K to 325K

Sales Order: 70589
Serial Number: X16462
Sensor Excitation: 2mV±50%

Polynomial Type: Chebychev
Temp. (K) vs. Log(resistance)

	R Meas. (Ω)	T Meas. (K)	T Eq. (K)	T diff. (mK)
1	8785.258	3.59776	3.59761	0.15
2	8045.728	3.79554	3.79524	0.29
3	7385.951	4.00148	4.00271	-1.23
4	6806.180	4.21693	4.21656	0.37
5	5939.427	4.61192	4.61132	0.60
6	5260.327	5.00991	5.00940	0.51
7	4592.659	5.51368	5.51424	-0.56
8	3900.119	6.21981	6.22040	-0.59
9	3329.102	7.02623	7.02589	0.34
10	2816.314	8.03350	8.03317	0.33
11	2442.134	9.04150	9.04221	-0.71
12	2157.226	10.05302	10.05223	0.79
13	1932.997	11.06298	11.06278	0.21
14	1752.174	12.07040	12.07144	-1.05
15	1604.000	13.07258	13.07186	0.73
16	1479.442	14.07124	14.07125	-0.02
17	1373.361	15.06763	15.06788	-0.26
18	1281.753	16.06322	16.06306	0.16
19	1201.687	17.05900	17.05822	0.78
20	1131.002	18.05274	18.05435	-1.61
21	1068.401	19.04763	19.04655	1.08
22	1011.889	20.04558	20.04710	-1.52
23	956.5626	21.14151	21.14005	1.46
24	885.8436	22.73301	22.73263	0.38
25	824.8078	24.32031	24.32172	-1.41
26	769.8022	25.96435	25.96322	1.13
27	720.0471	27.65569	27.65605	-0.36

Order of Fit = 6 RMS error of fit = .83 mK
Largest absolute error = -1.61 mK at data point no. 20



POLYNOMIAL EQUATION

Calibration Report: 366516
Sensor Model: CX-1070-AA-4L
Sensor Type: Cernox Resistor
Temperature Range: 4.00K to 325K

Sales Order: 70589
Serial Number: X16462
Sensor Excitation: 2mV±50%

Polynomial Type: Chebychev
Useful Range of Fit:

24.3K to 110.K
824.8 Ohms to 164.7 Ohms

Lower and Upper limits of Log(resistance) used in computing Chebychev coefficients:

ZL = 2.13832439931 ZU = 2.98071337863

Order	Coefficient	Std. Deviation of Coefficient	Ratio (Coeff./Std Dev.)
0	64.061592	1.1222E-03	57085.32
1	-52.898114	1.8274E-03	-28947.57
2	11.458197	1.6674E-03	6871.90
3	-1.637265	1.5245E-03	-1073.98
4	0.164574	1.4237E-03	115.60
5	-0.008032	1.4239E-03	-5.64

$Z = \text{Log}(\text{resistance})$

$X = ((Z-ZL)-(ZU-Z))/(ZU-ZL)$

Temp. (K) = $\sum A_i \cdot \text{COS}(i \cdot \text{ARCCOS}(X))$, where $0 \leq i \leq 5$
and the A_i 's are the coefficients in the table above.



POLYNOMIAL EQUATION

Calibration Report: 366516
Sensor Model: CX-1070-AA-4L
Sensor Type: Cernox Resistor
Temperature Range: 4.00K to 325K

Sales Order: 70589
Serial Number: X16462
Sensor Excitation: 2mV±50%

Polynomial Type: Chebychev
Temp. (K) vs. Log(resistance)

	R Meas. (Ω)	T Meas. (K)	T Eq. (K)	T diff. (mK)
23	956.5626	21.14005	21.14095	-0.91
24	885.8436	22.73263	22.73279	-0.17
25	824.8078	24.32172	24.32078	0.93
26	769.8022	25.96435	25.96157	2.78
27	720.0471	27.65569	27.65505	0.64
28	676.7675	29.32399	29.32404	-0.05
29	634.1748	31.17879	31.18138	-2.59
30	591.2478	33.31016	33.31449	-4.33
31	539.4868	36.32050	36.32142	-0.92
32	496.1001	39.30858	39.30711	1.47
33	459.1700	42.27761	42.27624	1.37
34	427.1001	45.25892	45.25539	3.53
35	398.9777	48.24885	48.24699	1.86
36	382.1591	50.23880	50.23861	0.18
37	345.3767	55.24725	55.24391	3.34
38	314.7272	60.26310	60.27247	-9.37
39	289.0035	65.27759	65.28270	-5.12
40	267.1011	70.28881	70.27784	10.97
41	248.1160	75.28753	75.29100	-3.47
42	231.5982	80.28413	80.29230	-8.16
43	217.1095	85.28135	85.27777	3.58
44	204.2635	90.27353	90.26241	11.12
45	192.7266	95.27568	95.27865	-2.98
46	182.4105	100.27096	100.27525	-4.29
47	164.6758	110.25430	110.25169	2.61
48	149.9391	120.23333	120.23707	-3.74
49	137.5069	130.22949	130.22777	1.72

Order of Fit = 5 RMS error of fit = 4.58 mK
Largest absolute error = 11.12 mK at data point no. 44



POLYNOMIAL EQUATION

Calibration Report: 366516
Sensor Model: CX-1070-AA-4L
Sensor Type: Cernox Resistor
Temperature Range: 4.00K to 325K

Sales Order: 70589
Serial Number: X16462
Sensor Excitation: 2mV±50%

Polynomial Type: Chebychev
Useful Range of Fit:

110.K to 325.K
164.7 Ohms to 52.80 Ohms

Lower and Upper limits of Log(resistance) used in computing Chebychev coefficients:

ZL = 1.71606402371 ZU = 2.28494162496

Order	Coefficient	Std. Deviation of Coefficient	Ratio (Coeff./Std Dev.)
0	193.105818	4.1508E-03	46522.25
1	-114.394258	6.4083E-03	-17851.08
2	19.064362	5.7493E-03	3315.95
3	-2.970599	5.6065E-03	-529.85
4	0.568021	5.6216E-03	101.04
5	-0.117535	5.5801E-03	-21.06
6	0.028208	5.3752E-03	5.25

$Z = \text{Log}(\text{resistance})$

$X = ((Z-ZL)-(ZU-Z))/(ZU-ZL)$

Temp. (K) = $\sum A_i \cdot \text{COS}(i \cdot \text{ARCCOS}(X))$, where $0 \leq i \leq 6$
and the A_i 's are the coefficients in the table above.



POLYNOMIAL EQUATION

Calibration Report: 366516
Sensor Model: CX-1070-AA-4L
Sensor Type: Cernox Resistor
Temperature Range: 4.00K to 325K

Sales Order: 70589
Serial Number: X16462
Sensor Excitation: 2mV±50%

Polynomial Type: Chebychev
Temp. (K) vs. Log(resistance)

	R Meas. (Ω)	T Meas. (K)	T Eq. (K)	T diff. (mK)
45	192.7266	95.27865	95.28402	-5.36
46	182.4105	100.27525	100.26672	8.53
47	164.6758	110.25169	110.24789	3.81
48	149.9391	120.23333	120.24187	-8.54
49	137.5069	130.22949	130.24329	-13.80
50	126.9317	140.22274	140.21457	8.17
51	117.8033	150.21787	150.20153	16.34
52	109.8521	160.21504	160.20957	5.48
53	102.8810	170.20948	170.22711	-17.63
54	96.75976	180.20802	180.19711	10.91
55	91.30387	190.20917	190.20533	3.84
56	86.42773	200.21022	200.22647	-16.25
57	82.06630	210.20848	210.21789	-9.42
58	78.13344	220.19695	220.21535	-18.40
59	74.58257	230.20983	230.19122	18.61
60	71.35058	240.21101	240.19069	20.32
61	68.40638	250.20984	250.19083	19.01
62	65.71021	260.21590	260.21539	0.52
63	63.24792	270.20923	270.20869	0.53
64	60.97206	280.22233	280.26621	-43.88
65	58.89568	290.21202	290.23173	-19.71
66	56.97745	300.22854	300.20326	25.28
67	55.19735	310.23773	310.20441	33.32
68	54.34958	315.24445	315.24853	-4.08
69	53.53682	320.25395	320.26920	-15.26
70	52.60535	326.25716	326.26033	-3.17
71	52.00727	330.24963	330.24880	0.83

Order of Fit = 6 RMS error of fit = 16.47 mK
Largest absolute error = -43.88 mK at data point no. 64



INTERPOLATION TABLE

Calibration Report: 366516
 Sensor Model: CX-1070-AA-4L
 Sensor Type: Cernox Resistor
 Temperature Range: 4.00K to 325K

Sales Order: 70589
 Serial Number: X16462
 Sensor Excitation: 2mV±50%

Temp (K)	Res. (Ω)	dR/dT (Ω/K)	dlogR/dlogT	Temp (K)	Res. (Ω)	dR/dT (Ω/K)	dlogR/dlogT
4.000	7393.90	-2938.0	-1.5894	37.00	528.996	-15.170	-1.0610
4.200	6847.91	-2535.7	-1.5552	38.00	514.235	-14.363	-1.0614
4.400	6374.70	-2207.0	-1.5234	39.00	500.249	-13.618	-1.0617
4.600	5961.27	-1936.0	-1.4939	40.00	486.979	-12.930	-1.0621
4.800	5597.25	-1710.7	-1.4670	42.00	462.380	-11.699	-1.0627
5.000	5274.59	-1521.4	-1.4422	44.00	440.071	-10.635	-1.0633
5.200	4986.74	-1361.3	-1.4195	46.00	419.749	-9.7080	-1.0639
5.400	4728.53	-1224.4	-1.3983	48.00	401.163	-8.8957	-1.0644
5.600	4495.66	-1107.2	-1.3792	50.00	384.102	-8.1809	-1.0649
5.800	4284.62	-1005.5	-1.3611	52.00	368.385	-7.5479	-1.0654
6.000	4092.60	-916.73	-1.3440	54.00	353.864	-6.9843	-1.0658
6.500	3680.67	-740.27	-1.3073	56.00	340.407	-6.4820	-1.0664
7.000	3344.81	-609.57	-1.2757	58.00	327.902	-6.0310	-1.0668
7.500	3065.83	-510.52	-1.2489	60.00	316.253	-5.6251	-1.0672
8.000	2830.62	-433.57	-1.2254	65.00	290.347	-4.7720	-1.0683
8.500	2629.54	-372.92	-1.2055	70.00	268.235	-4.0979	-1.0694
9.000	2455.74	-324.07	-1.1877	75.00	249.147	-3.5563	-1.0706
9.500	2303.96	-284.31	-1.1723	77.35	241.050	-3.3380	-1.0711
10.00	2170.28	-251.44	-1.1586	80.00	232.505	-3.1148	-1.0717
10.50	2051.60	-224.04	-1.1466	85.00	217.871	-2.7502	-1.0729
11.00	1945.53	-200.90	-1.1359	90.00	204.903	-2.4457	-1.0742
11.50	1850.12	-181.23	-1.1265	95.00	193.335	-2.1887	-1.0755
12.00	1763.83	-164.33	-1.1180	100.0	182.951	-1.9706	-1.0771
12.50	1685.40	-149.74	-1.1105	105.0	173.577	-1.7835	-1.0789
13.00	1613.78	-137.02	-1.1038	110.0	165.076	-1.6202	-1.0796
13.50	1548.11	-125.90	-1.0979	115.0	157.340	-1.4779	-1.0802
14.00	1487.67	-116.09	-1.0925	120.0	150.266	-1.3545	-1.0817
14.50	1431.83	-107.41	-1.0878	125.0	143.770	-1.2461	-1.0834
15.00	1380.10	-99.688	-1.0835	130.0	137.786	-1.1493	-1.0844
15.50	1332.01	-92.787	-1.0797	135.0	132.260	-1.0628	-1.0848
16.00	1287.19	-86.590	-1.0763	140.0	127.143	-0.98533	-1.0850
16.50	1245.31	-81.009	-1.0733	145.0	122.393	-0.91566	-1.0848
17.00	1206.09	-75.961	-1.0707	150.0	117.975	-0.85276	-1.0842
17.50	1169.28	-71.382	-1.0683	155.0	113.856	-0.79583	-1.0834
18.00	1134.64	-67.212	-1.0663	160.0	110.008	-0.74416	-1.0823
18.50	1102.00	-63.407	-1.0644	165.0	106.406	-0.69715	-1.0810
19.00	1071.18	-59.922	-1.0629	170.0	103.029	-0.65426	-1.0795
19.50	1042.03	-56.724	-1.0615	175.0	99.8576	-0.61502	-1.0778
20.00	1014.42	-53.781	-1.0603	180.0	96.8738	-0.57905	-1.0759
21.00	963.316	-48.555	-1.0585	185.0	94.0623	-0.54598	-1.0738
22.00	917.058	-44.073	-1.0573	190.0	91.4096	-0.51552	-1.0715
23.00	874.961	-40.216	-1.0571	195.0	88.9032	-0.48740	-1.0691
24.00	836.467	-36.845	-1.0572	200.0	86.5321	-0.46138	-1.0664
25.00	801.137	-33.876	-1.0571	205.0	84.2862	-0.43726	-1.0635
26.00	768.599	-31.253	-1.0572	210.0	82.1566	-0.41486	-1.0604
27.00	738.533	-28.924	-1.0574	215.0	80.1350	-0.39402	-1.0571
28.00	710.668	-26.845	-1.0577	220.0	78.2140	-0.37460	-1.0537
29.00	684.771	-24.982	-1.0580	225.0	76.3869	-0.35646	-1.0500
30.00	660.641	-23.307	-1.0584	230.0	74.6474	-0.33951	-1.0461
31.00	638.104	-21.793	-1.0587	235.0	72.9900	-0.32364	-1.0420
32.00	617.008	-20.421	-1.0591	240.0	71.4094	-0.30876	-1.0377
33.00	597.220	-19.174	-1.0595	245.0	69.9009	-0.29479	-1.0332
34.00	578.622	-18.038	-1.0599	250.0	68.4601	-0.28167	-1.0286
35.00	561.111	-16.998	-1.0603	255.0	67.0829	-0.26932	-1.0238
36.00	544.597	-16.045	-1.0606	260.0	65.7657	-0.25770	-1.0188



INTERPOLATION TABLE

Calibration Report: 366516
Sensor Model: CX-1070-AA-4L
Sensor Type: Cernox Resistor
Temperature Range: 4.00K to 325K

Sales Order: 70589
Serial Number: X16462
Sensor Excitation: 2mV±50%

<u>Temp (K)</u>	<u>Res. (Ω)</u>	<u>dR/dT (Ω/K)</u>	<u>dlogR/dlogT</u>	<u>Temp (K)</u>	<u>Res. (Ω)</u>	<u>dR/dT (Ω/K)</u>	<u>dlogR/dlogT</u>
265.0	64.5048	-0.24674	-1.0137	285.0	59.9648	-0.20870	-0.99191
270.0	63.2972	-0.23640	-1.0084	290.0	58.9421	-0.20045	-0.98622
273.15	62.5624	-0.23019	-1.0050	295.0	57.9596	-0.19263	-0.98046
275.0	62.1398	-0.22664	-1.0030	300.0	57.0151	-0.18523	-0.97463
280.0	61.0299	-0.21742	-0.99751	305.0	56.1066	-0.17821	-0.96875
				310.0	55.2324	-0.17155	-0.96283
				315.0	54.3906	-0.16522	-0.95688
				320.0	53.5796	-0.15922	-0.95091
				325.0	52.7979	-0.15351	-0.94493



THERMAL CYCLE TESTING

Sensor Model: CX-1070-AA-4L
Sensor Type: Cernox Resistor

Serial Number: X16462

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

Room Temperature:	56.0 Ω
Liquid Nitrogen:	241 Ω
Liquid Helium:	6830 Ω

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

Recommended Operating Parameters:

For sensors calibrated by LSCI the current to the sensor is adjusted to maintain the sensor output voltage at the values listed below. In order to minimize possible self-heating errors, we suggest that these same guidelines be followed in using the sensor:

Above 1K:	1 to 3 mV
0.1 to 1K:	0.1 mV
Below 0.1K:	0.03 mV

Lead Identification:

White:	I+ and V+
Black:	I- and V-

To avoid possible damage to the sensor, do not exceed 1 Volt and do not exceed 100 mA current.



BREAKPOINTS 340 FORMAT

Calibration Report: 366516
Sensor Model: CX-1070-AA-4L
Sensor Type: Cernox Resistor
Temperature Range: 4.00K to 325K

Sales Order: 70589
Serial Number: X16462

Name: CX-1070-AA-4L

Serial number: X16462

Format: 4 ;Log Ohms/Kelvin

Limit: 325.

Coefficient: 1 ;Negative

Point 1: 1.72260,325.000
Point 2: 1.72964,319.500
Point 3: 1.73617,314.500
Point 4: 1.74286,309.500
Point 5: 1.74969,304.500

Point 56: 2.33002, 86.500
Point 57: 2.34369, 84.000
Point 58: 2.35776, 81.500
Point 59: 2.36934, 79.500
Point 60: 2.38119, 77.500

Point 111: 3.28228, 11.150
Point 112: 3.30265, 10.700
Point 113: 3.32404, 10.250
Point 114: 3.34661, 9.800
Point 115: 3.37049, 9.350

Point 6: 1.75668,299.500
Point 7: 1.76384,294.500
Point 8: 1.77115,289.500
Point 9: 1.77864,284.500
Point 10: 1.78630,279.500

Point 61: 2.39335, 75.500
Point 62: 2.40583, 73.500
Point 63: 2.41864, 71.500
Point 64: 2.43182, 69.500
Point 65: 2.44538, 67.500

Point 116: 3.39298, 8.950
Point 117: 3.41670, 8.550
Point 118: 3.44191, 8.150
Point 119: 3.46872, 7.750
Point 120: 3.49375, 7.400

Point 11: 1.79415,274.500
Point 12: 1.80218,269.500
Point 13: 1.81041,264.500
Point 14: 1.81884,259.500
Point 15: 1.82747,254.500

Point 66: 2.45933, 65.500
Point 67: 2.47372, 63.500
Point 68: 2.48856, 61.500
Point 69: 2.50466, 59.400
Point 70: 2.51892, 57.600

Point 121: 3.52030, 7.050
Point 122: 3.54867, 6.700
Point 123: 3.57907, 6.350
Point 124: 3.61376, 5.980
Point 125: 3.64623, 5.660

Point 16: 1.83632,249.500
Point 17: 1.84538,244.500
Point 18: 1.85468,239.500
Point 19: 1.86421,234.500
Point 20: 1.87398,229.500

Point 71: 2.53362, 55.800
Point 72: 2.54880, 54.000
Point 73: 2.56449, 52.200
Point 74: 2.58072, 50.400
Point 75: 2.59753, 48.600

Point 126: 3.67906, 5.360
Point 127: 3.71450, 5.060
Point 128: 3.75042, 4.780
Point 129: 3.78939, 4.500
Point 130: 3.82891, 4.240

Point 21: 1.88401,224.500
Point 22: 1.89431,219.500
Point 23: 1.90487,214.500
Point 24: 1.91572,209.500
Point 25: 1.92574,205.000

Point 76: 2.61497, 46.800
Point 77: 2.63106, 45.200
Point 78: 2.64769, 43.600
Point 79: 2.66495, 42.000
Point 80: 2.68287, 40.400

Point 131: 3.86524, 4.020
Point 132: 3.86887, 4.000

Point 26: 1.93600,200.500
Point 27: 1.94652,196.000
Point 28: 1.95731,191.500
Point 29: 1.96838,187.000
Point 30: 1.97974,182.500

Point 81: 2.70032, 38.900
Point 82: 2.71844, 37.400
Point 83: 2.73730, 35.900
Point 84: 2.75694, 34.400
Point 85: 2.77608, 33.000

Point 31: 1.99141,178.000
Point 32: 2.00339,173.500
Point 33: 2.01570,169.000
Point 34: 2.02837,164.500
Point 35: 2.04140,160.000

Point 86: 2.79601, 31.600
Point 87: 2.81684, 30.200
Point 88: 2.83707, 28.900
Point 89: 2.85820, 27.600
Point 90: 2.88035, 26.300

Point 36: 2.05481,155.500
Point 37: 2.06708,151.500
Point 38: 2.07968,147.500
Point 39: 2.09263,143.500
Point 40: 2.10595,139.500

Point 91: 2.90180, 25.100
Point 92: 2.92428, 23.900
Point 93: 2.94792, 22.700
Point 94: 2.97074, 21.600
Point 95: 2.99475, 20.500

Point 41: 2.11966,135.500
Point 42: 2.13377,131.500
Point 43: 2.14832,127.500
Point 44: 2.16331,123.500
Point 45: 2.17879,119.500

Point 96: 3.01314, 19.700
Point 97: 3.02861, 19.050
Point 98: 3.04464, 18.400
Point 99: 3.06129, 17.750
Point 100: 3.07725, 17.150

Point 46: 2.19476,115.500
Point 47: 2.20921,112.000
Point 48: 2.22409,108.500
Point 49: 2.23946,105.000
Point 50: 2.25533,101.500

Point 101: 3.09382, 16.550
Point 102: 3.11105, 15.950
Point 103: 3.12901, 15.350
Point 104: 3.14618, 14.800
Point 105: 3.16406, 14.250

Point 51: 2.26702, 99.000
Point 52: 2.27897, 96.500
Point 53: 2.29123, 94.000
Point 54: 2.30381, 91.500
Point 55: 2.31674, 89.000

Point 106: 3.18273, 13.700
Point 107: 3.20228, 13.150
Point 108: 3.22090, 12.650
Point 109: 3.24036, 12.150
Point 110: 3.26079, 11.650



BREAKPOINTS 91C/93C/330 FORMAT

Calibration Report: 366516
 Sensor Model: CX-1070-AA-4L
 Sensor Type: Cernox Resistor
 Temperature Range: 4.00K to 325K

Sales Order: 70589
 Serial Number: X16462

Interpolation Method: Lagrangian
 Limit: 325. (Kelvin)
 Format: 4 (Log Ohms/Kelvin)
 Number of Breakpoints: 48

No.	Units	Temperature (K)	No.	Units	Temperature (K)
1	1.72262	325.0	26	2.79029	32.0
2	1.72388	324.0	27	2.84193	28.6
3	1.73552	315.0	28	2.89282	25.6
4	1.75599	300.0	29	2.94399	22.9
5	1.77790	285.0	30	2.99485	20.5
6	1.80138	270.0	31	3.04721	18.3
7	1.82661	255.0	32	3.09811	16.4
8	1.85376	240.0	33	3.14943	14.7
9	1.88302	225.0	34	3.20053	13.2
10	1.91464	210.0	35	3.25052	11.9
11	1.94892	195.0	36	3.30271	10.7
12	1.98621	180.0	37	3.35189	9.7
13	2.02697	165.0	38	3.40181	8.8
14	2.07179	150.0	39	3.45188	8.0
15	2.12143	135.0	40	3.50127	7.3
16	2.17686	120.0	41	3.54881	6.7
17	2.23949	105.0	42	3.60238	6.1
18	2.31155	90.0	43	3.65279	5.6
19	2.39646	75.0	44	3.69782	5.2
20	2.48111	62.5	45	3.74798	4.8
21	2.52788	56.5	46	3.78967	4.5
22	2.58445	50.0	47	3.85192	4.1
23	2.63314	45.0	48	3.86887	4.0
24	2.68636	40.1			
25	2.73736	35.9			

Temperature for Resistance Decades:

Res. (Ohms)	Temp. (K)
100	174.769
1000	20.272



BREAKPOINTS 234 FORMAT

Calibration Report: 366516
 Sensor Model: CX-1070-AA-4L
 Sensor Type: Cernox Resistor
 Temperature Range: 4.00K to 325K

Sales Order: 70589
 Serial Number: X16462

Maximum Temperature Error:

1.4 - 10K: 0.006K
 10 - 20K: 0.015K
 20 - 40K: 0.015K
 40 - 100K: 0.013K
 > 100K: 0.067K

BP #	Temp. (K)	Res. (Ω)	Log10 Res.	BP #	Temp. (K)	Res. (Ω)	Log10 Res.
1	311.633	54.95409	1.740	46	44.337	436.5158	2.640
2	297.176	57.54399	1.760	47	42.457	457.0882	2.660
3	283.605	60.25596	1.780	48	40.656	478.6301	2.680
4	270.856	63.09573	1.800	49	38.931	501.1872	2.700
5	258.826	66.06934	1.820	50	37.279	524.8075	2.720
6	247.464	69.18310	1.840	51	35.694	549.5409	2.740
7	236.704	72.44360	1.860	52	34.177	575.4399	2.760
8	226.495	75.85776	1.880	53	32.724	602.5596	2.780
9	216.795	79.43282	1.900	54	31.331	630.9573	2.800
10	207.574	83.17638	1.920	55	29.998	660.6934	2.820
11	198.783	87.09636	1.940	56	28.720	691.8310	2.840
12	190.405	91.20108	1.960	57	27.497	724.4360	2.860
13	182.412	95.49926	1.980	58	26.325	758.5776	2.880
14	174.767	100.0000	2.000	59	25.203	794.3282	2.900
15	167.463	104.7129	2.020	60	24.128	831.7638	2.920
16	160.485	109.6478	2.040	61	23.099	870.9636	2.940
17	153.807	114.8154	2.060	62	22.116	912.0108	2.960
18	147.409	120.2264	2.080	63	21.173	954.9926	2.980
19	141.282	125.8925	2.100	64	20.271	1000.000	3.000
20	135.409	131.8257	2.120	65	18.588	1096.478	3.040
21	129.780	138.0384	2.140	66	17.051	1202.264	3.080
22	124.378	144.5440	2.160	67	15.650	1318.257	3.120
23	119.201	151.3561	2.180	68	14.374	1445.440	3.160
24	114.230	158.4893	2.200	69	13.215	1584.893	3.200
25	109.459	165.9587	2.220	70	12.161	1737.801	3.240
26	104.887	173.7801	2.240	71	11.204	1905.461	3.280
27	100.501	181.9701	2.260	72	10.335	2089.296	3.320
28	96.290	190.5461	2.280	73	9.546	2290.868	3.360
29	92.256	199.5262	2.300	74	8.831	2511.886	3.400
30	88.387	208.9296	2.320	75	8.181	2754.229	3.440
31	84.672	218.7762	2.340	76	7.592	3019.952	3.480
32	81.112	229.0868	2.360	77	7.056	3311.311	3.520
33	77.699	239.8833	2.380	78	6.568	3630.781	3.560
34	74.431	251.1886	2.400	79	6.125	3981.072	3.600
35	71.297	263.0268	2.420	80	5.721	4365.158	3.640
36	68.292	275.4229	2.440	81	5.353	4786.301	3.680
37	65.410	288.4032	2.460	82	5.018	5248.075	3.720
38	62.646	301.9952	2.480	83	4.711	5754.399	3.760
39	60.004	316.2278	2.500	84	4.430	6309.573	3.800
40	57.470	331.1311	2.520	85	4.172	6918.310	3.840
41	55.041	346.7369	2.540	86	3.936	7585.776	3.880
42	52.714	363.0781	2.560	87	3.719	8317.638	3.920
43	50.483	380.1894	2.580				
44	48.346	398.1072	2.600				
45	46.299	416.8694	2.620				

