

# Standard L Probability Distribution Function

Wan-Li Wang (w.-l. Wang)<sup>1,2,3</sup>, Ying-Qi Xie (Y.-Q. Xie)<sup>3</sup>, Xiao-Min Ye (X.-M. Ye)<sup>4</sup>, Ling Luo (L. Luo)<sup>1</sup>

1. China Meteorological Administration, Wuhan Regional Climate Centre, Wuhan, China, zipcode, 430074.

2. School of Resource and Environmental Science of Wuhan University, Wuhan, China, zipcode, 430079.

3. College of Earth Science, Yunnan University, Kunming, China, zipcode, 650091.

4. Wunan Bureau of Quality and Technical Supervision, Wuhan, China, zipcode, 430015.

## Abstract

The cumulative distribution function(cdf) table is very important and also fundamental tool for any distribution theory, in fact, it is enable one to calculate the probability between  $a$  and  $b$  after cumulative distribution function is deduced, therefore, it is very easily and conveniently to obtain the probability between  $a$  and  $b$  using distribution function table, such as  $P(a \leq z \leq b) = F(b) - F(a)$ . L Distribution Function is newest and original distribution theory whose unique properties are illustrated as: its continuous random variable is limited, non-standard variable fall into interval of positive most amplitude and negative most amplitude(also including most amplitude ), but standard variable interval is between positive one (+1) and negative one (-1) (also including  $\pm 1$ ), standardized deviation is  $1/3$ ; the probability reaches 70% in the interval of  $(-1/3, +1/3)$ ; the probability is only 3% in the interval exceeding double standardized deviation  $2/3$ ; its distribution is more concentrated than Normal Distribution does around mean value; its coefficient of kurtosis is 0.24, in addition, there are different the scale parameter in two sides of mean value after the variable is standardized, two kinds of different the scale parameter is determined by the features of limited variable and by the boundary conditions of



Corresponding author: Wan-Li Wang (w.-l. Wang), (1961-), [orcid.org/0000-0002-4265-5158](https://orcid.org/0000-0002-4265-5158), Main research field: Climate Dynamics, Meteorology Dynamics and the L probability distribution function. China Meteorological Administration, Wuhan Regional Climate Centre, School of Resource and Environmental Science of Wuhan University.

PayPal and alipay account: [xiaowanw2002@yahoo.com](mailto:xiaowanw2002@yahoo.com).

Email: [xiaowanw2002@yahoo.com](mailto:xiaowanw2002@yahoo.com), [xiaowanw@aliyun.com.cn](mailto:xiaowanw@aliyun.com.cn), [642177543@qq.com](mailto:642177543@qq.com).

Mobile: 0086-18986211996; 0086-13658898898, Chinese ID 510102196102051614

distribution equations when continuous random variable is equal to maximum and minimum respectively .

**Keywords:** Cumulative distribution function (cdf) table, compute probability, application of probability, amount of probability, equipment of statistical calculating.

## 1. Introduction

The standardized L Distribution Function is showed as  $F(u) = \frac{1}{4} \int_{-1}^u \ln\left(\frac{1}{t}\right)^2 dt$ ,  $(-1 \leq u \leq 1)$ . In the

interval of  $(-1 \leq u \leq 0)$ , continuous random variable  $X$  is standardized  $(0, 1)$  variable as  $t = \frac{X - X_A}{X_A}$ ,

In the interval of  $(0 \leq u \leq 1)$ , the continuous random variable  $X$  is standardized  $(0, 1)$  variable as  $t = \frac{X - X_A}{X}$ . Here  $X$  denotes the continuous random variable,  $X_A$  is the averaged variable or mean.

Additionally, standardized  $(0, 1)$  variable may be also expressed as  $t = \frac{\theta}{\theta_M}$  in other way, there  $\theta$  is the

continuous random variable,  $\theta_M$  is maximum of amplitude. Generally, standardized  $(0, 1)$  variable is illustrated as  $t = \frac{X - \bar{X}}{\xi}$ , Here  $\bar{X}$  is parameter of the location,  $\xi$  is called scale-parameter,  $X$  denotes

the continuous random variable. in the interval of  $(-1 \leq u \leq 0)$ ,  $\xi$  scale-parameter is just equal to  $\bar{X}$  parameter of the location, thus standardized  $(0, 1)$  variable is presented as  $t = \frac{X - \bar{X}}{\bar{X}}$ , similarly, in the

interval of  $(0 \leq u \leq 1)$ ,  $\xi$  scale-parameter is just equal to the continuous random variable  $X$  itself, therefore, standardized  $(0, 1)$  variable becomes  $t = \frac{X - \bar{X}}{X}$ . For instance, in the interval of  $(-1 \leq u \leq 0)$ ,

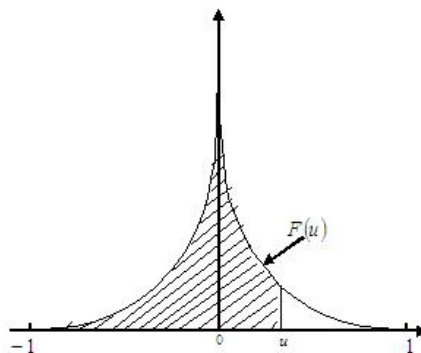
$\xi$  scale-parameter is just equal to the location parameter  $E$  (evaporation) when the Deficient of Precipitation Evaporation ( $P-E$ ) is studied, so standardized  $(0, 1)$  variable is changed into  $t = \frac{P-E}{E}$  as

well. In the same method, in the interval of  $(0 \leq u \leq 1)$ ,  $\xi$  scale-parameter is just equal to the continuous random variable  $P$  (precipitation) itself, obviously, at this time standardized  $(0, 1)$  variable

should be  $t = \frac{P-E}{P}$  in the context of same precondition. For studying this kind variable ( $X - \bar{X}$ ) of anomaly from mean (normal or expected state), parameter of the location is the mean (normal or expected state)  $\bar{X}$ , but  $\xi$  scale-parameter is divided into two situation to be considered, firstly, in the interval of  $(-1 \leq u \leq 0)$ ,  $\xi$  scale-parameter is just equal to the location parameter  $\bar{X}$  (the mean or normal or expected state), then, standardized (0, 1) variable is written as  $t = \frac{X - \bar{X}}{\bar{X}}$ ; secondly, in the interval of  $(0 \leq u \leq 1)$ ,  $\xi$  scale-parameter is just equal to the continuous random variable  $X$  itself, of course, the standardized (0, 1) variable is marked as  $t = \frac{X - \bar{X}}{X}$ . Finally, The L Distribution Function Table of 1% accuracy degree is formed when the standardized (0, 1) variable gets different value from 0 to 1 within 100 same interval; The L Distribution Function Table of 0.1% accuracy degree is formed when the standardized (0, 1) variable gets different value from 0 to 1 within 1000 same interval; the standardized (0, 1) variable is deal with using L'Hopital's Rule when it obtain 0 value. Bellow is formula of the standardized (0, 1) of The L Distribution Function

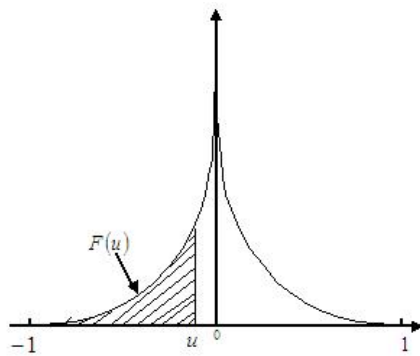
$$F(u) = \frac{1}{4} \left\{ \left[ u \ln \left( \frac{1}{u} \right)^2 + 2u \right] + 2 \right\}, \quad (-1 \leq u \leq 1)$$

## 2. Standard L Distribution Function Table I (1%) (Degree of Accuracy is 1 Percent)



$$F(u) = \frac{1}{4} \int_{-1}^u \ln\left(\frac{1}{t}\right)^2 dt \quad (0 \leq u \leq 1) \quad \text{Accuracy } 1\%$$

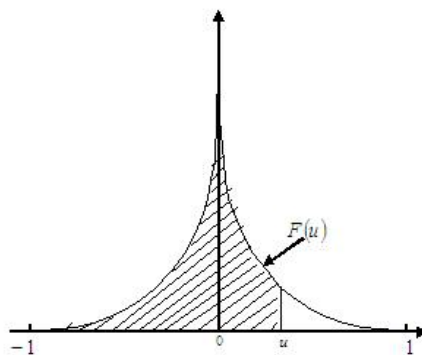
<i>u</i>	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	<i>u</i>
0.0	0.500000	0.528026	0.549120	0.567598	0.584378	0.599893	0.614402	0.628074	0.641029	0.653358	0.0
0.1	0.665129	0.676400	0.687216	0.697614	0.707628	0.717284	0.726607	0.735616	0.744332	0.752769	0.1
0.2	0.760944	0.768868	0.776554	0.784013	0.791254	0.798287	0.805120	0.811760	0.818215	0.824492	0.2
0.3	0.830596	0.836533	0.842309	0.847929	0.853398	0.858719	0.863897	0.868937	0.873841	0.878614	0.3
0.4	0.883258	0.887778	0.892173	0.896454	0.900616	0.904664	0.908602	0.912430	0.916153	0.919771	0.4
0.5	0.923287	0.926703	0.930021	0.933243	0.936370	0.939405	0.942349	0.945204	0.947971	0.950652	0.5
0.6	0.953248	0.955760	0.958191	0.960541	0.962812	0.965004	0.967120	0.969160	0.971125	0.973017	0.6
0.7	0.974836	0.976584	0.978261	0.979869	0.981409	0.982881	0.984286	0.985625	0.986900	0.988110	0.7
0.8	0.989257	0.9 <sup>2</sup> 03420	0.9 <sup>2</sup> 13649	0.9 <sup>2</sup> 23268	0.9 <sup>2</sup> 32284	0.9 <sup>2</sup> 40705	0.9 <sup>2</sup> 48538	0.9 <sup>2</sup> 55790	0.9 <sup>2</sup> 62467	0.9 <sup>2</sup> 68575	0.8
0.9	0.9 <sup>2</sup> 74122	0.9 <sup>2</sup> 79114	0.9 <sup>2</sup> 83555	0.9 <sup>2</sup> 87454	0.9 <sup>2</sup> 08144	0.9 <sup>2</sup> 36431	0.9 <sup>2</sup> 59456	0.9 <sup>2</sup> 77272	0.9 <sup>2</sup> 89933	0.9 <sup>2</sup> 74916	0.9
1.0	1.000000										1.0
<i>u</i>	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	<i>u</i>



$$F(u) = \frac{1}{4} \int_{-1}^u \ln\left(\frac{1}{t}\right)^2 dt \quad (-1 \leq u \leq 0) \quad \text{Accuracy } 1\%$$

<i>u</i>	0.09	0.08	0.07	0.06	0.05	0.04	0.03	0.02	0.01	0.00	<i>u</i>
-1.00										0.000000	-1.00
-0.9	0.0 <sup>2</sup> 25084	0.0 <sup>3</sup> 10067	0.0 <sup>2</sup> 22728	0.0 <sup>3</sup> 40544	0.0 <sup>2</sup> 63569	0.0 <sup>3</sup> 91856	0.0 <sup>2</sup> 12546	0.0 <sup>3</sup> 16445	0.0 <sup>2</sup> 20886	0.0 <sup>3</sup> 25878	-0.9
-0.8	0.0 <sup>2</sup> 31425	0.0 <sup>2</sup> 37533	0.0 <sup>2</sup> 44210	0.0 <sup>2</sup> 51462	0.0 <sup>2</sup> 59295	0.0 <sup>2</sup> 67716	0.0 <sup>2</sup> 76732	0.0 <sup>2</sup> 86351	0.0 <sup>2</sup> 96580	0.010743	-0.8
-0.7	0.011890	0.013100	0.014375	0.015714	0.017119	0.018591	0.020131	0.021739	0.023416	0.025164	-0.7
-0.6	0.026983	0.028875	0.030840	0.032880	0.034996	0.037188	0.039459	0.041809	0.044240	0.046752	-0.6
-0.5	0.049348	0.052029	0.054796	0.057651	0.060595	0.063630	0.066757	0.069979	0.073297	0.076713	-0.5
-0.4	0.080229	0.083847	0.087570	0.091398	0.095336	0.099384	0.103546	0.107825	0.112222	0.116742	-0.4
-0.3	0.121386	0.126159	0.131063	0.136103	0.141281	0.146602	0.152071	0.157691	0.163467	0.169404	-0.3
-0.2	0.175508	0.181785	0.188240	0.194880	0.201713	0.208746	0.215987	0.223446	0.231132	0.239056	-0.2
-0.1	0.247231	0.255668	0.264384	0.273394	0.282716	0.292372	0.302386	0.312784	0.323600	0.334871	-0.1
-0.0	0.346642	0.358971	0.371926	0.385598	0.400107	0.415623	0.432402	0.450880	0.471974	0.500000	-0.0
<i>u</i>	0.09	0.08	0.07	0.06	0.05	0.04	0.03	0.02	0.01	0.00	<i>u</i>

**3. Standard L Distribution Function Table II (0.1%) (Degree of Accuracy is 0.1 Percent)**



$$F(u) = \frac{1}{4} \int_{-1}^u \ln\left(\frac{1}{t}\right)^2 dt \quad (0 \leq u \leq 1) \quad \text{Accuracy } 0.1\%$$

<b>u</b>	0.000	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009	<b>u</b>
<b>0.00</b>	0.500000	0.5039539	0.5072146	0.5102137	0.5130429	0.5157458	0.5183480	0.5208665	0.5233133	0.5256974	<b>0.00</b>
0.01	0.5280259	0.5303042	0.5325371	0.5347282	0.5368809	0.5389978	0.5410813	0.5431336	0.5451565	0.5471515	0.01
0.02	0.5491202	0.5510639	0.5529838	0.5548810	0.5567564	0.5586110	0.5604456	0.5622609	0.5640577	0.5658367	0.02
0.03	0.5675984	0.5693434	0.5710723	0.5727856	0.5744837	0.5761671	0.5778363	0.5794915	0.5811332	0.5827618	0.03
0.04	0.5843775	0.5859808	0.5875718	0.5891509	0.5907184	0.5922746	0.5938196	0.5953538	0.5968773	0.5983904	0.04
0.05	0.5998933	0.6013862	0.6028693	0.6043428	0.6058068	0.6072616	0.6087073	0.6101441	0.6115721	0.6129914	0.05
0.06	0.6144023	0.6158048	0.6171992	0.6185855	0.6199639	0.6213345	0.6226973	0.6240526	0.6254004	0.6267409	0.06
0.07	0.6280741	0.6294001	0.6307192	0.6320313	0.6333366	0.6346350	0.6359268	0.6372120	0.6384908	0.6397631	0.07
0.08	0.6410291	0.6422889	0.6435425	0.6447900	0.6460314	0.6472669	0.6484965	0.6497203	0.6509384	0.6521507	0.08
0.09	0.6533576	0.6545588	0.6557545	0.6569447	0.6581296	0.6593092	0.6604835	0.6616526	0.6628166	0.6639755	0.09
<b>0.10</b>	0.6651292	0.6662781	0.6674219	0.6685609	0.6696949	0.6708242	0.6719487	0.6730686	0.6741837	0.6752942	<b>0.10</b>
0.11	0.6764001	0.6775015	0.6785984	0.6796908	0.6807787	0.6818623	0.6829415	0.6840165	0.6850872	0.6861536	0.11
0.12	0.6872158	0.6882739	0.6893278	0.6903776	0.6914234	0.6924651	0.6935028	0.6945366	0.6955664	0.6965923	0.12
0.13	0.6976144	0.6986325	0.6996469	0.7006575	0.7016643	0.7026674	0.7036668	0.7046625	0.7056546	0.7066430	0.13
0.14	0.7076279	0.7086091	0.7095869	0.7105611	0.7115318	0.7124991	0.7134629	0.7144232	0.7153802	0.7163338	0.14
0.15	0.7172840	0.7182309	0.7191745	0.7201148	0.7210518	0.7219856	0.7229161	0.7238435	0.7247677	0.7256887	0.15
0.16	0.7266065	0.7275212	0.7284329	0.7293414	0.7302469	0.7311493	0.7320487	0.7329451	0.7338385	0.7347289	0.16
0.17	0.7356163	0.7365008	0.7373824	0.7382611	0.7391369	0.7400098	0.7408799	0.7417471	0.7426115	0.7434731	0.17
0.18	0.7443319	0.7451879	0.7460411	0.7468916	0.7477394	0.7485844	0.7494268	0.7502665	0.7511035	0.7519378	0.18
0.19	0.7527695	0.7535985	0.7544250	0.7552488	0.7560700	0.7568887	0.7577048	0.7585183	0.7593293	0.7601378	0.19
<b>0.20</b>	0.7609438	0.7617473	0.7625482	0.7633468	0.7641428	0.7649364	0.7657275	0.7665163	0.7673026	0.7680865	<b>0.20</b>
0.21	0.7688680	0.7696471	0.7704239	0.7711983	0.7719704	0.7727401	0.7735075	0.7742726	0.7750354	0.7757958	0.21
0.22	0.7765541	0.7773100	0.7780636	0.7788151	0.7795642	0.7803112	0.7810559	0.7817984	0.7825387	0.7832768	0.22

## Standard L Probability Distribution Function

0.23	0.7840127	0.7847465	0.7854781	0.7862075	0.7869348	0.7876599	0.7883830	0.7891039	0.7898227	0.7905394	0.23
0.24	0.7912540	0.7919665	0.7926769	0.7933853	0.7940916	0.7947959	0.7954981	0.7961983	0.7968965	0.7975926	0.24
0.25	0.7982868	0.7989789	0.7996691	0.8003573	0.8010435	0.8017277	0.8024100	0.8030903	0.8037686	0.8044451	0.25
0.26	0.8051196	0.8057922	0.8064628	0.8071316	0.8077984	0.8084634	0.8091264	0.8097876	0.8104470	0.8111044	0.26
0.27	0.8117600	0.8124137	0.8130656	0.8137157	0.8143639	0.8150103	0.8156549	0.8162977	0.8169386	0.8175778	0.27
0.28	0.8182152	0.8188508	0.8194846	0.8201166	0.8207469	0.8213754	0.8220022	0.8226272	0.8232505	0.8238720	0.28
0.29	0.8244918	0.8251099	0.8257262	0.8263409	0.8269538	0.8275650	0.8281746	0.8287824	0.8293886	0.8299931	0.29
<b>0.30</b>	0.8305959	0.8311971	0.8317966	0.8323944	0.8329906	0.8335851	0.8341780	0.8347693	0.8353589	0.8359470	<b>0.30</b>
0.31	0.8365334	0.8371181	0.8377013	0.8382829	0.8388629	0.8394413	0.8400181	0.8405933	0.8411669	0.8417390	0.31
0.32	0.8423095	0.8428784	0.8434458	0.8440116	0.8445759	0.8451386	0.8456998	0.8462595	0.8468176	0.8473742	0.32
0.33	0.8479293	0.8484829	0.8490350	0.8495855	0.8501346	0.8506821	0.8512282	0.8517728	0.8523158	0.8528575	0.33
0.34	0.8533976	0.8539363	0.8544735	0.8550093	0.8555435	0.8560764	0.8566078	0.8571377	0.8576662	0.8581932	0.34
0.35	0.8587189	0.8592431	0.8597658	0.8602872	0.8608071	0.8613257	0.8618428	0.8623585	0.8628728	0.8633857	0.35
0.36	0.8638972	0.8644074	0.8649161	0.8654235	0.8659295	0.8664341	0.8669373	0.8674392	0.8679397	0.8684389	0.36
0.37	0.8689367	0.8694331	0.8699282	0.8704220	0.8709144	0.8714055	0.8718952	0.8723837	0.8728707	0.8733565	0.37
0.38	0.8738410	0.8743241	0.8748059	0.8752864	0.8757656	0.8762435	0.8767202	0.8771955	0.8776695	0.8781422	0.38
0.39	0.8786137	0.8790838	0.8795527	0.8800203	0.8804867	0.8809517	0.8814155	0.8818781	0.8823394	0.8827994	0.39
<b>0.40</b>	0.8832581	0.8837157	0.8841719	0.8846270	0.8850808	0.8855333	0.8859846	0.8864347	0.8868836	0.8873312	<b>0.40</b>
0.41	0.8877776	0.8882228	0.8886668	0.8891095	0.8895511	0.8899914	0.8904306	0.8908685	0.8913052	0.8917408	0.41
0.42	0.8921751	0.8926083	0.8930402	0.8934710	0.8939006	0.8943290	0.8947563	0.8951824	0.8956073	0.8960310	0.42
0.43	0.8964536	0.8968750	0.8972952	0.8977143	0.8981322	0.8985490	0.8989646	0.8993791	0.8997925	0.9002047	0.43
0.44	0.9006157	0.9010256	0.9014344	0.9018421	0.9022486	0.9026540	0.9030583	0.9034615	0.9038635	0.9042644	0.44
0.45	0.9046642	0.9050629	0.9054605	0.9058570	0.9062524	0.9066467	0.9070398	0.9074319	0.9078229	0.9082128	0.45
0.46	0.9086016	0.9089893	0.9093760	0.9097615	0.9101460	0.9105294	0.9109117	0.9112930	0.9116732	0.9120523	0.46
0.47	0.9124303	0.9128073	0.9131832	0.9135581	0.9139319	0.9143046	0.9146763	0.9150470	0.9154165	0.9157851	0.47
0.48	0.9161526	0.9165191	0.9168845	0.9172489	0.9176122	0.9179745	0.9183358	0.9186961	0.9190553	0.9194135	0.48
0.49	0.9197707	0.9201269	0.9204820	0.9208362	0.9211893	0.9215414	0.9218925	0.9222426	0.9225916	0.9229397	0.49

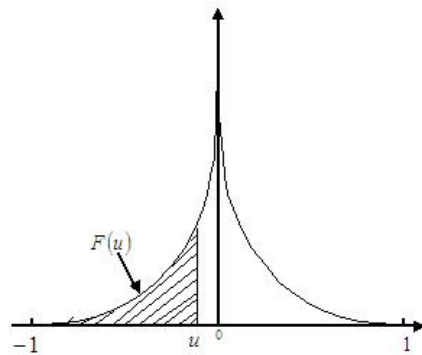
Standard L Probability Distribution Function

<b>0.50</b>	0.9232868	0.9236329	0.9239780	0.9243220	0.9246651	0.9250072	0.9253483	0.9256884	0.9260276	0.9263657	<b>0.50</b>
0.51	0.9267029	0.9270390	0.9273742	0.9277085	0.9280417	0.9283740	0.9287053	0.9290357	0.9293650	0.9296934	0.51
0.52	0.9300209	0.9303474	0.9306729	0.9309975	0.9313211	0.9316437	0.9319654	0.9322862	0.9326060	0.9329248	0.52
0.53	0.9332427	0.9335597	0.9338757	0.9341908	0.9345050	0.9348182	0.9351305	0.9354418	0.9357522	0.9360617	0.53
0.54	0.9363703	0.9366779	0.9369846	0.9372904	0.9375952	0.9378992	0.9382022	0.9385043	0.9388055	0.9391058	0.54
0.55	0.9394052	0.9397036	0.9400012	0.9402978	0.9405936	0.9408884	0.9411824	0.9414754	0.9417676	0.9420588	0.55
0.56	0.9423492	0.9426386	0.9429272	0.9432149	0.9435017	0.9437876	0.9440726	0.9443568	0.9446400	0.9449224	0.56
0.57	0.9452039	0.9454845	0.9457643	0.9460431	0.9463211	0.9465983	0.9468745	0.9471499	0.9474244	0.9476981	0.57
0.58	0.9479709	0.9482428	0.9485139	0.9487841	0.9490535	0.9493220	0.9495896	0.9498564	0.9501223	0.9503874	0.58
0.59	0.9506517	0.9509151	0.9511776	0.9514393	0.9517002	0.9519602	0.9522194	0.9524777	0.9527352	0.9529919	0.59
<b>0.60</b>	0.9532477	0.9535027	0.9537568	0.9540102	0.9542627	0.9545144	0.9547652	0.9550152	0.9552644	0.9555128	<b>0.60</b>
0.61	0.9557604	0.9560071	0.9562530	0.9564981	0.9567424	0.9569859	0.9572286	0.9574704	0.9577114	0.9579517	0.61
0.62	0.9581911	0.9584297	0.9586675	0.9589045	0.9591407	0.9593761	0.9596107	0.9598445	0.9600775	0.9603098	0.62
0.63	0.9605412	0.9607718	0.9610016	0.9612307	0.9614589	0.9616864	0.9619130	0.9621389	0.9623640	0.9625883	0.63
0.64	0.9628119	0.9630346	0.9632566	0.9634778	0.9636982	0.9639179	0.9641367	0.9643548	0.9645721	0.9647889	0.64
0.65	0.9650044	0.9652195	0.9654337	0.9656472	0.9658599	0.9660718	0.9662830	0.9664934	0.9667031	0.9669120	0.65
0.66	0.9671201	0.9673275	0.9675341	0.9677400	0.9679451	0.9681494	0.9683530	0.9685560	0.9687580	0.9689594	0.66
0.67	0.9691600	0.9693599	0.9695590	0.9697573	0.9699550	0.9701519	0.9703480	0.9705434	0.9707381	0.9709320	0.67
0.68	0.9711252	0.9713177	0.9715094	0.9717004	0.9718907	0.9720802	0.9722690	0.9724571	0.9726445	0.9728311	0.68
0.69	0.9730170	0.9732021	0.9733866	0.9735703	0.9737533	0.9739356	0.9741172	0.9742980	0.9744781	0.9746575	0.69
<b>0.70</b>	0.9748362	0.9750142	0.9751915	0.9753680	0.9755439	0.9757190	0.9758934	0.9760672	0.9762402	0.9764125	<b>0.70</b>
0.71	0.9765841	0.9767550	0.9769251	0.9770946	0.9772634	0.9774315	0.9775989	0.9777656	0.9779316	0.9780969	0.71
0.72	0.9782614	0.9784254	0.9785886	0.9787511	0.9789129	0.9790741	0.9792345	0.9793943	0.9795533	0.9797117	0.72
0.73	0.9798694	0.9800264	0.9801828	0.9803384	0.9804934	0.9806476	0.9808013	0.9809542	0.9811064	0.9812580	0.73
0.74	0.9814089	0.9815591	0.9817086	0.9818575	0.9820057	0.9821532	0.9823002	0.9824463	0.9825918	0.9827366	0.74
0.75	0.9828807	0.9830243	0.9831671	0.9833093	0.9834508	0.9835917	0.9837319	0.9838714	0.9840102	0.9841485	0.75



## Standard L Probability Distribution Function

0.76	0.9842860	0.9844229	0.9845591	0.9846947	0.9848296	0.9849639	0.9850975	0.9852305	0.9853628	0.9854944	0.76
0.77	0.9856254	0.9857558	0.9858855	0.9860146	0.9861430	0.9862707	0.9863979	0.9865243	0.9866502	0.9867754	0.77
0.78	0.9868999	0.9870238	0.9871471	0.9872697	0.9873917	0.9875131	0.9876338	0.9877539	0.9878733	0.9879921	0.78
0.79	0.9881103	0.9882279	0.9883448	0.9884611	0.9885767	0.9886917	0.9888061	0.9889199	0.9890330	0.9891455	0.79
<b>0.80</b>	0.9892574	0.9893687	0.9894793	0.9895893	0.9896987	0.9898075	0.9899156	0.9 <sup>2</sup> 002315	0.9 <sup>2</sup> 013006	0.9 <sup>2</sup> 023635	<b>0.80</b>
0.81	0.9 <sup>2</sup> 034202	0.9 <sup>2</sup> 044707	0.9 <sup>2</sup> 055151	0.9 <sup>2</sup> 065532	0.9 <sup>2</sup> 075853	0.9 <sup>2</sup> 086112	0.9 <sup>2</sup> 096310	0.9 <sup>2</sup> 106446	0.9 <sup>2</sup> 116521	0.9 <sup>2</sup> 126536	0.81
0.82	0.9 <sup>2</sup> 136488	0.9 <sup>2</sup> 146381	0.9 <sup>2</sup> 156212	0.9 <sup>2</sup> 165982	0.9 <sup>2</sup> 175692	0.9 <sup>2</sup> 185341	0.9 <sup>2</sup> 194929	0.9 <sup>2</sup> 204457	0.9 <sup>2</sup> 213924	0.9 <sup>2</sup> 223331	0.82
0.83	0.9 <sup>2</sup> 232677	0.9 <sup>2</sup> 241964	0.9 <sup>2</sup> 251190	0.9 <sup>2</sup> 260356	0.9 <sup>2</sup> 269462	0.9 <sup>2</sup> 278508	0.9 <sup>2</sup> 287495	0.9 <sup>2</sup> 296421	0.9 <sup>2</sup> 305288	0.9 <sup>2</sup> 314095	0.83
0.84	0.9 <sup>2</sup> 322842	0.9 <sup>2</sup> 331530	0.9 <sup>2</sup> 340159	0.9 <sup>2</sup> 348728	0.9 <sup>2</sup> 357238	0.9 <sup>2</sup> 365688	0.9 <sup>2</sup> 374079	0.9 <sup>2</sup> 382412	0.9 <sup>2</sup> 390685	0.9 <sup>2</sup> 398899	0.84
0.85	0.9 <sup>2</sup> 407055	0.9 <sup>2</sup> 415151	0.9 <sup>2</sup> 423189	0.9 <sup>2</sup> 431168	0.9 <sup>2</sup> 439088	0.9 <sup>2</sup> 446950	0.9 <sup>2</sup> 454754	0.9 <sup>2</sup> 462499	0.9 <sup>2</sup> 470186	0.9 <sup>2</sup> 477814	0.85
0.86	0.9 <sup>2</sup> 485384	0.9 <sup>2</sup> 492896	0.9 <sup>2</sup> 500350	0.9 <sup>2</sup> 507746	0.9 <sup>2</sup> 515084	0.9 <sup>2</sup> 522365	0.9 <sup>2</sup> 529587	0.9 <sup>2</sup> 536752	0.9 <sup>2</sup> 543859	0.9 <sup>2</sup> 550908	0.86
0.87	0.9 <sup>2</sup> 557900	0.9 <sup>2</sup> 564834	0.9 <sup>2</sup> 571711	0.9 <sup>2</sup> 578531	0.9 <sup>2</sup> 585293	0.9 <sup>2</sup> 591998	0.9 <sup>2</sup> 598646	0.9 <sup>2</sup> 605237	0.9 <sup>2</sup> 611771	0.9 <sup>2</sup> 618248	0.87
0.88	0.9 <sup>2</sup> 624668	0.9 <sup>2</sup> 631032	0.9 <sup>2</sup> 637338	0.9 <sup>2</sup> 643588	0.9 <sup>2</sup> 649781	0.9 <sup>2</sup> 655918	0.9 <sup>2</sup> 661998	0.9 <sup>2</sup> 668022	0.9 <sup>2</sup> 673989	0.9 <sup>2</sup> 679900	0.88
0.89	0.9 <sup>2</sup> 685755	0.9 <sup>2</sup> 691553	0.9 <sup>2</sup> 697296	0.9 <sup>2</sup> 702982	0.9 <sup>2</sup> 708613	0.9 <sup>2</sup> 714187	0.9 <sup>2</sup> 719706	0.9 <sup>2</sup> 725169	0.9 <sup>2</sup> 730576	0.9 <sup>2</sup> 735927	0.89
<b>0.90</b>	0.9 <sup>2</sup> 741223	0.9 <sup>2</sup> 746463	0.9 <sup>2</sup> 751648	0.9 <sup>2</sup> 756778	0.9 <sup>2</sup> 761852	0.9 <sup>2</sup> 766870	0.9 <sup>2</sup> 771834	0.9 <sup>2</sup> 776742	0.9 <sup>2</sup> 781595	0.9 <sup>2</sup> 786393	<b>0.90</b>
0.91	0.9 <sup>2</sup> 791136	0.9 <sup>2</sup> 795824	0.9 <sup>2</sup> 800457	0.9 <sup>2</sup> 805036	0.9 <sup>2</sup> 809559	0.9 <sup>2</sup> 814028	0.9 <sup>2</sup> 818442	0.9 <sup>2</sup> 822802	0.9 <sup>2</sup> 827107	0.9 <sup>2</sup> 831358	0.91
0.92	0.9 <sup>2</sup> 835554	0.9 <sup>2</sup> 839696	0.9 <sup>2</sup> 843784	0.9 <sup>2</sup> 847817	0.9 <sup>2</sup> 851796	0.9 <sup>2</sup> 855721	0.9 <sup>2</sup> 859592	0.9 <sup>2</sup> 863409	0.9 <sup>2</sup> 867173	0.9 <sup>2</sup> 870882	0.92
0.93	0.9 <sup>2</sup> 874537	0.9 <sup>2</sup> 878139	0.9 <sup>2</sup> 881687	0.9 <sup>2</sup> 885181	0.9 <sup>2</sup> 888622	0.9 <sup>2</sup> 892009	0.9 <sup>2</sup> 895343	0.9 <sup>2</sup> 898623	0.9 <sup>3</sup> 018500	0.9 <sup>3</sup> 050236	0.93
0.94	0.9 <sup>3</sup> 081440	0.9 <sup>3</sup> 112112	0.9 <sup>3</sup> 142252	0.9 <sup>3</sup> 171862	0.9 <sup>3</sup> 200941	0.9 <sup>3</sup> 229491	0.9 <sup>3</sup> 257512	0.9 <sup>3</sup> 285004	0.9 <sup>3</sup> 311968	0.9 <sup>3</sup> 338405	0.94
0.95	0.9 <sup>3</sup> 364316	0.9 <sup>3</sup> 389698	0.9 <sup>3</sup> 414556	0.9 <sup>3</sup> 438889	0.9 <sup>3</sup> 462697	0.9 <sup>3</sup> 485981	0.9 <sup>3</sup> 508741	0.9 <sup>3</sup> 530978	0.9 <sup>3</sup> 552693	0.9 <sup>3</sup> 573886	0.95
0.96	0.9 <sup>3</sup> 594557	0.9 <sup>3</sup> 614708	0.9 <sup>3</sup> 634338	0.9 <sup>3</sup> 653449	0.9 <sup>3</sup> 672040	0.9 <sup>3</sup> 690113	0.9 <sup>3</sup> 707668	0.9 <sup>3</sup> 724705	0.9 <sup>3</sup> 741225	0.9 <sup>3</sup> 757228	0.96
0.97	0.9 <sup>3</sup> 772716	0.9 <sup>3</sup> 787688	0.9 <sup>3</sup> 802145	0.9 <sup>3</sup> 816087	0.9 <sup>3</sup> 829516	0.9 <sup>3</sup> 842431	0.9 <sup>3</sup> 854834	0.9 <sup>3</sup> 866724	0.9 <sup>3</sup> 878103	0.9 <sup>3</sup> 888970	0.97
0.98	0.9 <sup>3</sup> 899327	0.9 <sup>4</sup> 091729	0.9 <sup>4</sup> 185096	0.9 <sup>4</sup> 273371	0.9 <sup>4</sup> 356559	0.9 <sup>4</sup> 434666	0.9 <sup>4</sup> 507697	0.9 <sup>4</sup> 575657	0.9 <sup>4</sup> 638551	0.9 <sup>4</sup> 696385	0.98
0.99	0.9 <sup>4</sup> 749162	0.9 <sup>4</sup> 796890	0.9 <sup>4</sup> 839572	0.9 <sup>4</sup> 877213	0.9 <sup>4</sup> 9098194	0.9 <sup>4</sup> 9373955	0.9 <sup>4</sup> 9599465	0.9 <sup>4</sup> 9774774	0.9 <sup>5</sup> 899933	0.9 <sup>5</sup> 749910	0.99
1.0	1.0000000										1.0
<b>u</b>	0.000	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009	<b>u</b>



$$F(u) = \frac{1}{4} \int_{-1}^u \ln\left(\frac{1}{t}\right)^2 dt \quad (-1 \leq u \leq 0) \quad \text{Accuracy } 0.1\%$$

<b>u</b>	0.009	0.008	0.007	0.006	0.005	0.004	0.003	0.002	0.001	0.000	<b>u</b>
<b>-1.00</b>										0.0000000	<b>-1.00</b>
<b>-0.99</b>	0.0 <sup>2</sup> 250083	0.0 <sup>2</sup> 100066	0.0 <sup>2</sup> 225225	0.0 <sup>2</sup> 400534	0.0 <sup>2</sup> 626044	0.0 <sup>2</sup> 901805	0.0 <sup>2</sup> 122787	0.0 <sup>2</sup> 160428	0.0 <sup>2</sup> 203110	0.0 <sup>2</sup> 250838	<b>-0.99</b>
-0.98	0.0 <sup>2</sup> 303615	0.0 <sup>2</sup> 361449	0.0 <sup>2</sup> 424343	0.0 <sup>2</sup> 492303	0.0 <sup>2</sup> 565334	0.0 <sup>2</sup> 643441	0.0 <sup>2</sup> 726629	0.0 <sup>2</sup> 814904	0.0 <sup>2</sup> 908271	0.0 <sup>2</sup> 100673	-0.98
-0.97	0.0 <sup>2</sup> 111030	0.0 <sup>2</sup> 121897	0.0 <sup>2</sup> 133276	0.0 <sup>2</sup> 145166	0.0 <sup>2</sup> 157569	0.0 <sup>2</sup> 170484	0.0 <sup>2</sup> 183913	0.0 <sup>2</sup> 197855	0.0 <sup>2</sup> 212312	0.0 <sup>2</sup> 227284	-0.97
-0.96	0.0 <sup>2</sup> 242772	0.0 <sup>2</sup> 258775	0.0 <sup>2</sup> 275295	0.0 <sup>2</sup> 292332	0.0 <sup>2</sup> 309887	0.0 <sup>2</sup> 327960	0.0 <sup>2</sup> 346551	0.0 <sup>2</sup> 365662	0.0 <sup>2</sup> 385292	0.0 <sup>2</sup> 405443	-0.96
-0.95	0.0 <sup>2</sup> 426114	0.0 <sup>2</sup> 447307	0.0 <sup>2</sup> 469022	0.0 <sup>2</sup> 491259	0.0 <sup>2</sup> 514019	0.0 <sup>2</sup> 537303	0.0 <sup>2</sup> 561111	0.0 <sup>2</sup> 585444	0.0 <sup>2</sup> 610302	0.0 <sup>2</sup> 635685	-0.95
-0.94	0.0 <sup>2</sup> 661595	0.0 <sup>2</sup> 688032	0.0 <sup>2</sup> 714996	0.0 <sup>2</sup> 742488	0.0 <sup>2</sup> 770509	0.0 <sup>2</sup> 799059	0.0 <sup>2</sup> 828138	0.0 <sup>2</sup> 857748	0.0 <sup>2</sup> 887888	0.0 <sup>2</sup> 918560	-0.94
-0.93	0.0 <sup>2</sup> 949764	0.0 <sup>2</sup> 981500	0.0 <sup>2</sup> 101377	0.0 <sup>2</sup> 104657	0.0 <sup>2</sup> 107991	0.0 <sup>2</sup> 111378	0.0 <sup>2</sup> 114819	0.0 <sup>2</sup> 118313	0.0 <sup>2</sup> 121861	0.0 <sup>2</sup> 125463	-0.93
-0.92	0.0 <sup>2</sup> 129118	0.0 <sup>2</sup> 132827	0.0 <sup>2</sup> 136591	0.0 <sup>2</sup> 140408	0.0 <sup>2</sup> 144279	0.0 <sup>2</sup> 148204	0.0 <sup>2</sup> 152183	0.0 <sup>2</sup> 156216	0.0 <sup>2</sup> 160304	0.0 <sup>2</sup> 164446	-0.92
-0.91	0.0 <sup>2</sup> 168642	0.0 <sup>2</sup> 172893	0.0 <sup>2</sup> 177198	0.0 <sup>2</sup> 181558	0.0 <sup>2</sup> 185972	0.0 <sup>2</sup> 190441	0.0 <sup>2</sup> 194964	0.0 <sup>2</sup> 199543	0.0 <sup>2</sup> 204176	0.0 <sup>2</sup> 208864	-0.91
-0.90	0.0 <sup>2</sup> 213607	0.0 <sup>2</sup> 218405	0.0 <sup>2</sup> 223258	0.0 <sup>2</sup> 228166	0.0 <sup>2</sup> 233129	0.0 <sup>2</sup> 238148	0.0 <sup>2</sup> 243222	0.0 <sup>2</sup> 248352	0.0 <sup>2</sup> 253537	0.0 <sup>2</sup> 258777	-0.90
<b>-0.89</b>	0.0 <sup>2</sup> 264072	0.0 <sup>2</sup> 269424	0.0 <sup>2</sup> 274831	0.0 <sup>2</sup> 280294	0.0 <sup>2</sup> 285813	0.0 <sup>2</sup> 291387	0.0 <sup>2</sup> 297018	0.0 <sup>2</sup> 302704	0.0 <sup>2</sup> 308447	0.0 <sup>2</sup> 314245	<b>-0.89</b>
-0.88	0.0 <sup>2</sup> 320100	0.0 <sup>2</sup> 326011	0.0 <sup>2</sup> 331978	0.0 <sup>2</sup> 338002	0.0 <sup>2</sup> 344082	0.0 <sup>2</sup> 350219	0.0 <sup>2</sup> 356412	0.0 <sup>2</sup> 362662	0.0 <sup>2</sup> 368968	0.0 <sup>2</sup> 375332	-0.88

## Standard L Probability Distribution Function

-0.87	0.0 <sup>2</sup> 381752	0.0 <sup>2</sup> 388229	0.0 <sup>2</sup> 394763	0.0 <sup>2</sup> 401354	0.0 <sup>2</sup> 408002	0.0 <sup>2</sup> 414707	0.0 <sup>2</sup> 421469	0.0 <sup>2</sup> 428289	0.0 <sup>2</sup> 435166	0.0 <sup>2</sup> 442100	-0.87
-0.86	0.0 <sup>2</sup> 449092	0.0 <sup>2</sup> 456141	0.0 <sup>2</sup> 463248	0.0 <sup>2</sup> 470413	0.0 <sup>2</sup> 477635	0.0 <sup>2</sup> 484916	0.0 <sup>2</sup> 492254	0.0 <sup>2</sup> 499650	0.0 <sup>2</sup> 507104	0.0 <sup>2</sup> 514616	-0.86
-0.85	0.0 <sup>2</sup> 522186	0.0 <sup>2</sup> 529814	0.0 <sup>2</sup> 537501	0.0 <sup>2</sup> 545246	0.0 <sup>2</sup> 553050	0.0 <sup>2</sup> 560912	0.0 <sup>2</sup> 568832	0.0 <sup>2</sup> 576811	0.0 <sup>2</sup> 584849	0.0 <sup>2</sup> 592945	-0.85
-0.84	0.0 <sup>2</sup> 601101	0.0 <sup>2</sup> 609315	0.0 <sup>2</sup> 617588	0.0 <sup>2</sup> 625921	0.0 <sup>2</sup> 634312	0.0 <sup>2</sup> 642762	0.0 <sup>2</sup> 651272	0.0 <sup>2</sup> 659841	0.0 <sup>2</sup> 668470	0.0 <sup>2</sup> 677158	-0.84
-0.83	0.0 <sup>2</sup> 685905	0.0 <sup>2</sup> 694712	0.0 <sup>2</sup> 703579	0.0 <sup>2</sup> 712505	0.0 <sup>2</sup> 721492	0.0 <sup>2</sup> 730538	0.0 <sup>2</sup> 739644	0.0 <sup>2</sup> 748810	0.0 <sup>2</sup> 758036	0.0 <sup>2</sup> 767323	-0.83
-0.82	0.0 <sup>2</sup> 776669	0.0 <sup>2</sup> 786076	0.0 <sup>2</sup> 795543	0.0 <sup>2</sup> 805071	0.0 <sup>2</sup> 814659	0.0 <sup>2</sup> 824308	0.0 <sup>2</sup> 834018	0.0 <sup>2</sup> 843788	0.0 <sup>2</sup> 853619	0.0 <sup>2</sup> 863512	-0.82
-0.81	0.0 <sup>2</sup> 873465	0.0 <sup>2</sup> 883479	0.0 <sup>2</sup> 893554	0.0 <sup>2</sup> 903690	0.0 <sup>2</sup> 913888	0.0 <sup>2</sup> 924147	0.0 <sup>2</sup> 934468	0.0 <sup>2</sup> 944849	0.0 <sup>2</sup> 955293	0.0 <sup>2</sup> 965798	-0.81
-0.80	0.0 <sup>2</sup> 976365	0.0 <sup>2</sup> 986994	0.0 <sup>2</sup> 997685	0.0100844	0.0101925	0.0103013	0.0104107	0.0105207	0.0106313	0.0107426	-0.80
<b>-0.79</b>	0.0108545	0.0109670	0.0110801	0.0111939	0.0113083	0.0114233	0.0115389	0.0116552	0.0117721	0.0118897	<b>-0.79</b>
-0.78	0.0120078	0.0121267	0.0122461	0.0123662	0.0124869	0.0126083	0.0127303	0.0128529	0.0129762	0.0131001	-0.78
-0.77	0.0132246	0.0133498	0.0134757	0.0136021	0.0137293	0.0138570	0.0139854	0.0141145	0.0142442	0.0143746	-0.77
-0.76	0.0145056	0.0146372	0.0147695	0.0149025	0.0150361	0.0151704	0.0153053	0.0154409	0.0155771	0.0157140	-0.76
-0.75	0.0158515	0.0159898	0.0161286	0.0162681	0.0164083	0.0165492	0.0166907	0.0168329	0.0169757	0.0171192	-0.75
-0.74	0.0172634	0.0174082	0.0175537	0.0176999	0.0178468	0.0179943	0.0181425	0.0182914	0.0184409	0.0185911	-0.74
-0.73	0.0187420	0.0188936	0.0190458	0.0191987	0.0193523	0.0195066	0.0196616	0.0198172	0.0199736	0.0201306	-0.73
-0.72	0.0202883	0.0204467	0.0206057	0.0207655	0.0209259	0.0210871	0.0212489	0.0214114	0.0215746	0.0217385	-0.72
-0.71	0.0219031	0.0220684	0.0222344	0.0224011	0.0225685	0.0227366	0.0229054	0.0230749	0.0232450	0.0234159	-0.71
-0.70	0.0235875	0.0237598	0.0239328	0.0241066	0.0242810	0.0244561	0.0246320	0.0248085	0.0249858	0.0251638	-0.70
<b>-0.69</b>	0.0253425	0.0255219	0.0257020	0.0258828	0.0260644	0.0262467	0.0264297	0.0266134	0.0267979	0.0269830	<b>-0.69</b>
-0.68	0.0271689	0.0273555	0.0275429	0.0277310	0.0279198	0.0281093	0.0282996	0.0284905	0.0286823	0.0288748	-0.68
-0.67	0.0290680	0.0292619	0.0294566	0.0296520	0.0298481	0.0300450	0.0302427	0.0304410	0.0306401	0.0308400	-0.67
-0.66	0.0310406	0.0312420	0.0314441	0.0316470	0.0318506	0.0320549	0.0322600	0.0324659	0.0326725	0.0328799	-0.66
-0.65	0.0330880	0.0332969	0.0335066	0.0337170	0.0339282	0.0341401	0.0343528	0.0345663	0.0347805	0.0349956	-0.65
-0.64	0.0352113	0.0354279	0.0356452	0.0358633	0.0360821	0.0363018	0.0365222	0.0367434	0.0369654	0.0371881	-0.64
-0.63	0.0374117	0.0376360	0.0378611	0.0380870	0.0383136	0.0385411	0.0387693	0.0389984	0.0392282	0.0394588	-0.63
-0.62	0.0396902	0.0399225	0.0401555	0.0403893	0.0406239	0.0408593	0.0410955	0.0413325	0.0415703	0.0418089	-0.62

## Standard L Probability Distribution Function

-0.61	0.0420483	0.0422886	0.0425296	0.0427714	0.0430141	0.0432576	0.0435018	0.0437470	0.0439929	0.0442396	-0.61
-0.60	0.0444872	0.0447356	0.0449848	0.0452348	0.0454856	0.0457373	0.0459898	0.0462432	0.0464973	0.0467523	-0.60
<b>-0.59</b>	0.0470081	0.0472648	0.0475223	0.0477806	0.0480398	0.0482998	0.0485607	0.0488224	0.0490849	0.0493483	<b>-0.59</b>
-0.58	0.0496126	0.0498777	0.0501436	0.0504104	0.0506780	0.0509465	0.0512159	0.0514861	0.0517572	0.0520291	-0.58
-0.57	0.0523019	0.0525756	0.0528501	0.0531255	0.0534017	0.0536789	0.0539569	0.0542357	0.0545155	0.0547961	-0.57
-0.56	0.0550776	0.0553600	0.0556432	0.0559274	0.0562124	0.0564983	0.0567851	0.0570728	0.0573614	0.0576508	-0.56
-0.55	0.0579412	0.0582324	0.0585246	0.0588176	0.0591116	0.0594064	0.0597022	0.0599988	0.0602964	0.0605948	-0.55
-0.54	0.0608942	0.0611945	0.0614957	0.0617978	0.0621008	0.0624048	0.0627096	0.0630154	0.0633221	0.0636297	-0.54
-0.53	0.0639383	0.0642478	0.0645582	0.0648695	0.0651818	0.0654950	0.0658092	0.0661243	0.0664403	0.0667573	-0.53
-0.52	0.0670752	0.0673940	0.0677138	0.0680346	0.0683563	0.0686789	0.0690025	0.0693271	0.0696526	0.0699791	-0.52
-0.51	0.0703066	0.0706350	0.0709643	0.0712947	0.0716260	0.0719583	0.0722915	0.0726258	0.0729610	0.0732971	-0.51
-0.50	0.0736343	0.0739724	0.0743116	0.0746517	0.0749928	0.0753349	0.0756780	0.0760221	0.0763671	0.0767132	-0.50
<b>-0.49</b>	0.0770603	0.0774084	0.0777574	0.0781075	0.0784586	0.0788107	0.0791638	0.0795180	0.0798731	0.0802293	<b>-0.49</b>
-0.48	0.0805865	0.0809447	0.0813039	0.0816642	0.0820255	0.0823878	0.0827511	0.0831155	0.0834809	0.0838474	-0.48
-0.47	0.0842149	0.0845835	0.0849530	0.0853237	0.0856954	0.0860681	0.0864419	0.0868168	0.0871927	0.0875697	-0.47
-0.46	0.0879477	0.0883268	0.0887070	0.0890883	0.0894706	0.0898540	0.0902385	0.0906240	0.0910107	0.0913984	-0.46
-0.45	0.0917872	0.0921771	0.0925681	0.0929602	0.0933533	0.0937476	0.0941430	0.0945395	0.0949371	0.0953358	-0.45
-0.44	0.0957356	0.0961365	0.0965385	0.0969417	0.0973460	0.0977514	0.0981579	0.0985656	0.0989744	0.0993843	-0.44
-0.43	0.0997953	0.1002075	0.1006209	0.1010354	0.1014510	0.1018678	0.1022857	0.1027048	0.1031250	0.1035464	-0.43
-0.42	0.1039690	0.1043927	0.1048176	0.1052437	0.1056710	0.1060994	0.1065290	0.1069598	0.1073917	0.1078249	-0.42
-0.41	0.1082592	0.1086948	0.1091315	0.1095694	0.1100086	0.1104489	0.1108905	0.1113332	0.1117772	0.1122224	-0.41
-0.40	0.1126688	0.1131164	0.1135653	0.1140154	0.1144667	0.1149192	0.1153730	0.1158281	0.1162843	0.1167419	-0.40
<b>-0.39</b>	0.1172006	0.1176606	0.1181219	0.1185845	0.1190483	0.1195133	0.1199797	0.1204473	0.1209162	0.1213863	<b>-0.39</b>
-0.38	0.1218578	0.1223305	0.1228045	0.1232798	0.1237565	0.1242344	0.1247136	0.1251941	0.1256759	0.1261590	-0.38
-0.37	0.1266435	0.1271293	0.1276163	0.1281048	0.1285945	0.1290856	0.1295780	0.1300718	0.1305669	0.1310633	-0.37
-0.36	0.1315611	0.1320603	0.1325608	0.1330627	0.1335659	0.1340705	0.1345765	0.1350839	0.1355926	0.1361028	-0.36

## Standard L Probability Distribution Function

-0.35	0.1366143	0.1371272	0.1376415	0.1381572	0.1386743	0.1391929	0.1397128	0.1402342	0.1407569	0.1412811	-0.35
-0.34	0.1418068	0.1423338	0.1428623	0.1433922	0.1439236	0.1444565	0.1449907	0.1455265	0.1460637	0.1466024	-0.34
-0.33	0.1471425	0.1476841	0.1482272	0.1487718	0.1493179	0.1498654	0.1504145	0.1509650	0.1515171	0.1520707	-0.33
-0.32	0.1526258	0.1531824	0.1537405	0.1543002	0.1548614	0.1554241	0.1559884	0.1565542	0.1571216	0.1576906	-0.32
-0.31	0.1582610	0.1588331	0.1594067	0.1599819	0.1605587	0.1611371	0.1617171	0.1622987	0.1628819	0.1634666	-0.31
-0.30	0.1640530	0.1646411	0.1652307	0.1658220	0.1664149	0.1670094	0.1676056	0.1682034	0.1688029	0.1694041	-0.30
<b>-0.29</b>	0.1700069	0.1706114	0.1712176	0.1718254	0.1724350	0.1730462	0.1736591	0.1742738	0.1748901	0.1755082	<b>-0.29</b>
-0.28	0.1761280	0.1767495	0.1773728	0.1779978	0.1786246	0.1792531	0.1798834	0.1805154	0.1811492	0.1817848	-0.28
-0.27	0.1824222	0.1830614	0.1837023	0.1843451	0.1849897	0.1856361	0.1862843	0.1869344	0.1875863	0.1882400	-0.27
-0.26	0.1888956	0.1895530	0.1902124	0.1908736	0.1915366	0.1922016	0.1928684	0.1935372	0.1942078	0.1948804	-0.26
-0.25	0.1955549	0.1962314	0.1969097	0.1975900	0.1982723	0.1989565	0.1996427	0.2003309	0.2010211	0.2017132	-0.25
-0.24	0.2024074	0.2031035	0.2038017	0.2045019	0.2052041	0.2059084	0.2066147	0.2073231	0.2080335	0.2087460	-0.24
-0.23	0.2094606	0.2101773	0.2108961	0.2116170	0.2123401	0.2130652	0.2137925	0.2145219	0.2152535	0.2159873	-0.23
-0.22	0.2167232	0.2174613	0.2182016	0.2189441	0.2196888	0.2204358	0.2211849	0.2219364	0.2226900	0.2234459	-0.22
-0.21	0.2242042	0.2249646	0.2257274	0.2264925	0.2272599	0.2280296	0.2288017	0.2295761	0.2303529	0.2311320	-0.21
-0.20	0.2319135	0.2326974	0.2334837	0.2342725	0.2350636	0.2358572	0.2366532	0.2374518	0.2382527	0.2390562	-0.20
<b>-0.19</b>	0.2398622	0.2406707	0.2414817	0.2422952	0.2431113	0.2439300	0.2447512	0.2455750	0.2464015	0.2472305	<b>-0.19</b>
-0.18	0.2480622	0.2488965	0.2497335	0.2505732	0.2514156	0.2522606	0.2531084	0.2539589	0.2548121	0.2556681	-0.18
-0.17	0.2565269	0.2573885	0.2582529	0.2591201	0.2599902	0.2608631	0.2617389	0.2626176	0.2634992	0.2643837	-0.17
-0.16	0.2652711	0.2661615	0.2670549	0.2679513	0.2688507	0.2697531	0.2706586	0.2715671	0.2724788	0.2733935	-0.16
-0.15	0.2743113	0.2752323	0.2761565	0.2770839	0.2780144	0.2789482	0.2798852	0.2808255	0.2817691	0.2827160	-0.15
-0.14	0.2836662	0.2846198	0.2855768	0.2865371	0.2875009	0.2884682	0.2894389	0.2904131	0.2913908	0.2923721	-0.14
-0.13	0.2933569	0.2943454	0.2953375	0.2963332	0.2973326	0.2983357	0.2993425	0.3003531	0.3013675	0.3023856	-0.13
-0.12	0.3034077	0.3044336	0.3054634	0.3064972	0.3075349	0.3085766	0.3096224	0.3106722	0.3117261	0.3127842	-0.12
-0.11	0.3138464	0.3149128	0.3159835	0.3170584	0.3181377	0.3192213	0.3203092	0.3214016	0.3224985	0.3235999	-0.11
-0.10	0.3247058	0.3258163	0.3269314	0.3280512	0.3291758	0.3303051	0.3314391	0.3325781	0.3337219	0.3348707	-0.10

-0.09	0.3360245	0.3371834	0.3383474	0.3395165	0.3406908	0.3418704	0.3430553	0.3442455	0.3454412	0.3466424	-0.09
-0.08	0.3478492	0.3490616	0.3502796	0.3515035	0.3527331	0.3539686	0.3552100	0.3564575	0.3577111	0.3589709	-0.08
-0.07	0.3602369	0.3615092	0.3627879	0.3640732	0.3653650	0.3666635	0.3679687	0.3692808	0.3705998	0.3719259	-0.07
-0.06	0.3732591	0.3745996	0.3759474	0.3773027	0.3786635	0.3800361	0.3814145	0.3828008	0.3841951	0.3855977	-0.06
-0.05	0.3870086	0.3884279	0.3898559	0.3912927	0.3927384	0.3941932	0.3956572	0.3971307	0.3986138	0.4001067	-0.05
-0.04	0.4016096	0.4031227	0.4046462	0.4061804	0.4077254	0.4092816	0.4108491	0.4124282	0.4140192	0.4156225	-0.04
-0.03	0.4172382	0.4188668	0.4205085	0.4221637	0.4238329	0.4255163	0.4272144	0.4289277	0.4306566	0.4324016	-0.03
-0.02	0.4341633	0.4359423	0.4377391	0.4395544	0.4413890	0.4432436	0.4451190	0.4470162	0.4489361	0.4508798	-0.02
-0.01	0.4528485	0.4548435	0.4568664	0.4589187	0.4610022	0.4631191	0.4652718	0.4674629	0.4696958	0.4719741	-0.01
-0.00	0.4743026	0.4766867	0.4791335	0.4816520	0.4842542	0.4869571	0.4897863	0.4927854	0.4960461	0.5000000	-0.00
<b>u</b>	0.009	0.008	0.007	0.006	0.005	0.004	0.003	0.002	0.001	0.000	<b>u</b>

## References

- [1]. w.-l. Wang, y.-q. Xie, L Probability Distribution Function and A Theoretical Standard of Relative Dry and Wet Index, journal of AnHui agricultural sciences,2014 ,No21,Page7145-7148,7150.July-2014.
- [2]. w.-l. Wang, y.-l. Liu, s.-m. Cai, y.-q. Xie, x.-w. Wang ,L Probability Distribution Function and One Self-Comparison Theoretical Standard of Dry and Wet Index, 2015 ,No28,Page173-178.Oct-2015.
- [3]. w.-l. Wang etc, L Probability Distribution Function applied in “the Rule of 0.6 Hydrographic Survey”, 2010 annual conference of Chinese Society for Environmental Science, page 4033-4038.
- [4]. w.-l. Wang ,w.-g. Wang, Variance analysis of geostrophic-static equilibrium process and L probability distribution function,journal of Yunnan university,2006,28(5): page418-424, Sept-2006.
- [5]. Wang w.-l.,Wang w.-g., Deng n.-s., One Candidate Mechanism of Low-Frequency Oscillation-Coriolis Parameter Variance 6, Associated with Latitude, EMS Annual Meeting Abstracts, Vol. 8, EMS2011-67-1, 2011, 11th EMS / 10th ECAM or [http://presentations.copernicus.org/EMS2011-67\\_presentation.pdf](http://presentations.copernicus.org/EMS2011-67_presentation.pdf)