

## SPECIFICATION SHEET

### SUBJECT

ULTRATHIN 4" RECESSED LUMINAIRE

### CUSTOMER PROJECT

Project: \_\_\_\_\_  
Type: \_\_\_\_\_  
Cat. No.: \_\_\_\_\_  
Qty: \_\_\_\_\_  
Date: \_\_\_\_\_  
EEL Rep: \_\_\_\_\_

**EELighting**

solutions closer to nature

Telephone: 905 415 8878 Fax Number: 905 415 8872 Toll Free Telephone: 855 415 8878 Toll Free Fax: 855 415 8872



### DESCRIPTION

The UltraThin 4" Recessed Luminaire fits where no other recessed fixture can. This recessed luminaire is dimmable, IC air tight rated, wet location approved and Energy Star rated.



**ULTRATHIN  
4" LED RECESSED  
LUMINAIRE**

### SPECIFICATION FEATURES

#### Construction

Round 4" fixture with integral LEDs

#### Controls

Isolated driver factory installed inside connection box

#### Electrical

Ambient temperature -40°C to 40°C. CRI:80.  
120V dimmable / 277-347V non-dimmable.  
9 Watt equivalent to 50 Watt halogen  
12 Watt equivalent to 65 Watt halogen

#### Mounting

Cut hole in ceiling and snap fixture in opening with attached spring clips. Clearance needed - 2" (50mm)

#### Beam Angle

120°

#### Finish

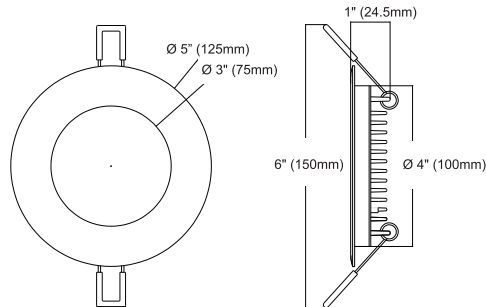
White, Brushed Nickel and Black Trim

#### Compliance

CETL and Energy Star

#### Warranty

5 years, 50,000+ hours



UTLED-S9W-3KWH / UTLED-S9W-3KBN / UTLED-S9W-3KBK  
UTLED-S9W-4KWH / UTLED-S9W-4KBN / UTLED-S9W-4KBK

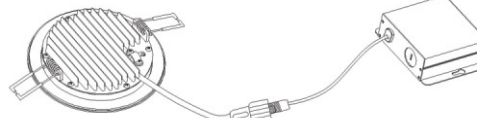
#### Dimensions

OD 4-15/16" (125mm) x ID 3-15/16" (100mm)  
Cut out 4-1/8" (±1/8") (105 ± 3mm)  
Thickness 1/2" (12mm)

UTLED-S12W-3KWH / UTLED-S12W-3KBN / UTLED-S12W-3KBK  
UTLED-S12W-4KWH / UTLED-S12W-4KBN / UTLED-S12W-4KBK

#### Dimensions

OD 4-15/16" (125mm) x ID 3-15/16" (100mm)  
Cut out 4-1/8" (±1/4") (105 ± 6mm)  
Thickness 1" (25mm)



[www.eelighting.ca](http://www.eelighting.ca)



**ORDERING CODE, ENERGY AND PERFORMANCE DATA**

	Model No.	Delivered Lumens (lm)	Input Watts (W)	Voltage (V)	Colour Temp. (K)	Certification	Type
	UTLED-S9W-3KWH UTLED-S9W-4KWH White	550 600	9 9	120V / 277-347V 120V / 277-347V	3000K 4000K		Standard Standard
	UTLED-S12W-3KWH UTLED-S12W-4KWH White	700 800	12 12	120V / 277-347V 120V / 277-347V	3000K 4000K		Standard Standard
	UTLED-S9W-3KBN UTLED-S9W-4KBN Brushed Nickel	550 600	9 9	120V / 277-347V 120V / 277-347V	3000K 4000K		Special Order Special Order
	UTLED-S12W-3KBN UTLED-S12W-4KBN Brushed Nickel	700 800	12 12	120V / 277-347V 120V / 277-347V	3000K 4000K		Special Order Special Order
	UTLED-S9W-3KBK UTLED-S9W-4KBK Black	550 600	9 9	120V / 277-347V 120V / 277-347V	3000K 4000K		Special Order Special Order
	UTLED-S12W-3KBK UTLED-S12W-4KBK Black	700 800	12 12	120V / 277-347V 120V / 277-347V	3000K 4000K		Special Order Special Order

**NOTE:**  
 • 120V dimmable / 277-347V non-dimmable  
 • Lumens are estimated

**OPTIONAL ACCESSORIES**

- UTLED-4-MP | Mounting Plate for 4" UltraThin models
- UTLED-JC-10 | Extension Cable 10ft for UltraThin models
- UTLED-JC-20 | Extension Cable 20ft for UltraThin models
- TRIM4BK | Face Plate in Black for 4 inch UltraThin
- TRIM4BN | Face Plate in Brushed Nickel for 4 inch UltraThin
- TRIM4CP | Face Plate in Copper for 4 inch UltraThin

**SHIPPING DATA**

Model No.	Gross Weight
UTLED-S9W-3KWH	0.44 kg / 1 lbs
UTLED-S9W-4KWH	0.44 kg / 1 lbs
UTLED-S12W-3KWH	0.53 kg / 1.2 lbs
UTLED-S12W-4KWH	0.53 kg / 1.2 lbs
UTLED-S9W-3KBN	0.44 kg / 1 lbs
UTLED-S9W-4KBN	0.44 kg / 1 lbs
UTLED-S12W-3KBN	0.53 kg / 1.2 lbs
UTLED-S12W-4KBN	0.53 kg / 1.2 lbs
UTLED-S9W-3KBK	0.44 kg / 1 lbs
UTLED-S9W-4KBK	0.44 kg / 1 lbs
UTLED-S12W-3KBK	0.53 kg / 1.2 lbs
UTLED-S12W-4KBK	0.53 kg / 1.2 lbs

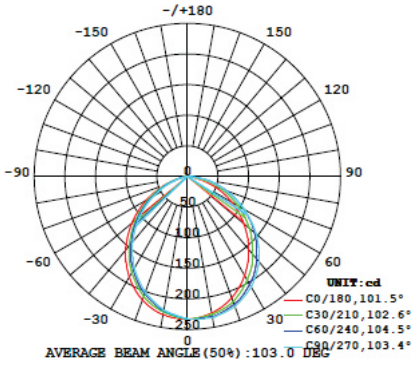


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**PHOTOMETRICS**



**UTLED-S9W-3K**

S/MH(C0/180) = 1.2  
 S/MH(C90/270) = 1.32  
 Lumens: 577.21  
 Nominal Power: 9 W  
 Efficacy: 70.5 lm/W

**Candlepower**

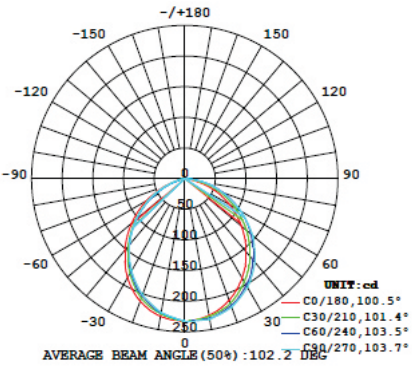
γ	C0	C45	C90	C135	C180	C225	C270	C315
5	230.9	232.2	233.5	234.1	234.1	234.2	234.2	234.2
10	226.5	229.6	231.3	232.9	233.1	233.4	233.7	233.7
15	219.9	227.0	230.3	232.7	232.5	232.4	231.9	231.9
20	211.0	219.5	226.2	232.9	234.7	205.6	201.6	202.4
25	199.8	211.0	217.3	234.7	203.5	193.5	187.6	190.0
30	186.7	199.7	208.5	203.5	189.9	178.9	173.6	175.4
35	171.8	186.3	196.3	189.4	174.3	162.5	156.5	159.0
40	155.5	172.2	182.2	173.9	156.9	145.3	139.4	142.0
45	138.2	155.2	164.6	154.4	139.2	126.7	120.7	123.0
50	120.1	138.2	147.0	134.8	118.4	108.2	102.0	104.1
55	101.6	119.9	127.0	112.9	98.05	88.36	82.76	84.53
60	82.93	101.8	107.0	91.72	77.46	69.08	63.94	65.42
65	64.26	82.85	86.23	70.50	56.92	50.14	44.91	46.28
70	45.34	64.45	65.48	48.00	37.32	32.18	26.28	28.11
75	25.24	46.37	47.19	25.94	19.11	15.32	13.14	11.06
80	7.476	25.65	28.91	9.822	0.7224	0.5187	0	0.474
85	0	5.428	0	0.0111	0	0	0	0

**Zonal Lumen Summary**

γ	Φ zone	Φ total	Φ lum. lamp
0- 5	5.533	5.533	0.96,0.96
5- 10	16.38	21.91	3.8,3.8
10- 15	26.61	48.51	8.4,8.4
15- 20	35.76	84.27	14.6,14.6
20- 25	43.32	127.6	22.1,22.1
25- 30	49.51	177.3	30.7,30.7
30- 35	53.57	230.9	40.40
35- 40	55.46	286.3	49.6,49.6
40- 45	55.22	341.6	59.2,59.2
45- 50	52.92	394.4	68.3,68.3
50- 55	48.51	442.9	76.7,76.7
55- 60	42.51	485.4	84.1,84.1
60- 65	35.18	520.6	90.2,90.2
65- 70	26.79	547.4	94.8,94.8
70- 75	17.97	565.3	97.9,97.9
75- 80	9.412	574.7	99.6,99.6
80- 85	2.515	577.2	100,100
85- 90	0.0217	577.2	100,100

**Coefficient of Utilization**

ρ <sub>cc</sub>	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	
ρ <sub>fc</sub>	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization (CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.06	1.02	.98	1.03	.00	.97	.99	.96	.94	.95	.92	.91	.92	.90	.88	.86
2.0	.93	.87	.81	.91	.85	.80	.88	.83	.78	.84	.80	.77	.81	.78	.75	.73
3.0	.82	.74	.68	.81	.73	.68	.78	.72	.66	.75	.70	.65	.72	.68	.64	.62
4.0	.73	.65	.58	.72	.64	.58	.69	.63	.57	.67	.61	.56	.65	.60	.56	.54
5.0	.66	.57	.51	.64	.56	.50	.62	.55	.50	.60	.54	.49	.59	.53	.49	.47
6.0	.59	.51	.44	.58	.50	.44	.56	.49	.44	.55	.48	.43	.53	.47	.43	.41
7.0	.54	.45	.39	.53	.45	.39	.51	.44	.39	.50	.43	.39	.49	.43	.38	.36
8.0	.49	.41	.35	.48	.41	.35	.47	.40	.35	.46	.39	.35	.45	.39	.34	.33
9.0	.45	.37	.32	.45	.37	.32	.43	.36	.32	.42	.36	.31	.41	.36	.31	.29
10.0	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.29	.38	.33	.28	.27



**UTLED-S9W-4K**

S/MH(C0/180) = 1.20  
 S/MH(C90/270) = 1.30  
 Lumens: 571.29  
 Nominal Power: 9 W  
 Efficacy: 70.59 lm/W

**Candlepower**

γ	C0	C45	C90	C135	C180	C225	C270	C315
5	230.7	231.7	232.6	232.1	231.4	228.2	227.1	227.8
10	226.6	229.8	232.9	230.7	228.1	223.0	221.8	222.0
15	220.1	226.1	228.2	227.3	222.0	215.9	211.9	214.4
20	211.2	219.5	223.4	219.9	213.0	204.9	202.1	203.1
25	200.1	209.5	214.1	211.1	201.2	192.4	189.2	190.9
30	187.1	198.1	204.8	199.3	186.8	177.1	174.3	176.8
35	172.2	184.7	191.6	185.1	170.4	159.8	157.4	160.5
40	156.0	170.6	178.4	169.8	152.4	142.0	140.6	144.0
45	138.7	159.7	161.3	150.9	133.3	122.6	122.1	125.7
50	120.7	146.9	144.7	131.5	119.3	103.6	104.6	107.6
55	102.3	119.7	124.9	109.6	92.88	83.39	84.79	89.97
60	83.71	100.9	105.2	88.35	72.28	62.49	65.92	70.76
65	65.33	82.15	84.35	67.19	51.85	43.42	47.03	52.62
70	46.25	63.88	63.59	45.79	32.14	24.32	28.13	35.46
75	25.88	46.08	46.35	24.50	13.77	6.432	14.06	19.35
80	10.28	26.20	29.18	8.452	0.0000	1.537	0	6.809
85	0	5.904	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0

**Zonal Lumen Summary**

γ	Φ zone	Φ total	Φ lum. lamp
0- 5	5.522	5.522	0.97,0.97
5- 10	16.34	21.86	3.83,3.83
10- 15	26.32	48.38	8.47,8.47
15- 20	35.61	83.99	14.7,14.7
20- 25	43.28	127.3	22.3,22.3
25- 30	49.15	176.4	30.9,30.9
30- 35	53.09	229.5	40.2,40.2
35- 40	54.89	284.4	49.8,49.8
40- 45	54.62	329.0	59.2,59.2
45- 50	52.24	391.3	68.5,68.5
50- 55	47.98	429.2	76.9,76.9
55- 60	42.02	481.3	84.2,84.2
60- 65	34.71	516.0	90.2,90.2
65- 70	26.30	542.3	94.9,94.9
70- 75	17.37	559.6	98.98
75- 80	9.089	569.7	99.6,99.6
80- 85	2.533	571.3	100,100
85- 90	0.0228	571.3	100,100

**Coefficient of Utilization**

ρ <sub>cc</sub>	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	
ρ <sub>fc</sub>	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization (CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.06	1.02	.98	1.03	.00	.97	.99	.96	.94	.95	.92	.91	.92	.90	.88	.86
2.0	.93	.87	.81	.91	.85	.80	.88	.83	.78	.84	.80	.77	.81	.78	.75	.73
3.0	.82	.75	.68	.81	.74	.68	.78	.72	.66	.75	.70	.65	.72	.68	.64	.62
4.0	.73	.65	.58	.72	.64	.58	.69	.63	.57	.67	.61	.56	.65	.60	.56	.54
5.0	.66	.57	.51	.64	.56	.50	.62	.55	.50	.60	.54	.49	.59	.53	.49	.47
6.0	.59	.51	.44	.58	.50	.44	.57	.49	.44	.55	.48	.43	.53	.48	.43	.41
7.0	.54	.45	.39	.53	.45	.39	.52	.44	.39	.50	.44	.39	.49	.43	.38	.37
8.0	.49	.41	.35	.49	.41	.35	.47	.40	.35	.46	.40	.35	.45	.39	.35	.33
9.0	.45	.37	.32	.45	.37	.32	.44	.37	.32	.42	.36	.31	.41	.36	.31	.30
10.0	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.29	.38	.33	.29	.27





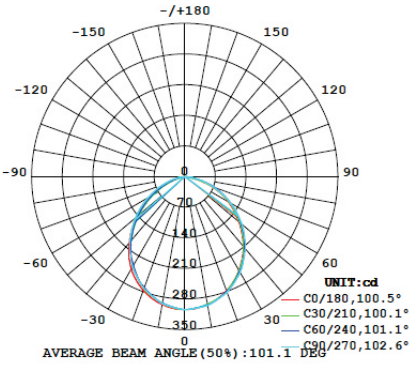


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### PHOTOMETRICS



### UTLED-S12W-3K

S/MH(C0/180) = 1.21  
S/MH(C90/270) = 1.24  
Lumens: 739.38  
Nominal Power: 12 W  
Efficacy: 67.11 lm/W

### Candlepower

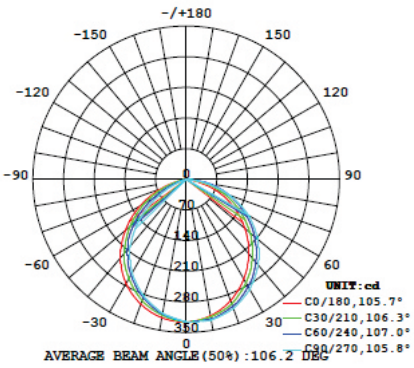
γ	C0	C45	C90	C135	C180	C225	C270	C315
5	302.6	301.7	301.9	301.9	302.7	300.1	299.9	300.5
10	297.5	297.3	299.4	298.0	297.4	293.8	295.3	295.3
15	289.4	290.7	290.7	291.8	288.8	284.9	284.1	287.9
20	278.2	279.1	282.1	280.6	277.2	270.7	273.0	275.1
25	264.1	266.2	267.7	268.6	262.6	255.0	256.1	261.4
30	247.5	250.0	253.4	253.1	244.8	236.0	239.1	244.4
35	228.4	231.4	234.2	234.7	223.7	214.1	217.5	224.9
40	207.4	211.9	215.1	215.1	199.2	191.0	196.0	204.9
45	184.9	189.2	192.8	190.4	172.0	165.0	171.7	181.6
50	161.5	166.8	170.6	164.7	144.4	139.1	147.4	158.8
55	137.7	142.9	145.4	134.2	116.3	111.7	122.4	134.6
60	113.8	119.3	120.2	104.5	88.09	85.06	97.51	111.1
65	89.78	94.48	93.85	75.38	60.37	59.16	73.73	87.33
70	62.08	67.77	67.50	47.01	33.95	34.91	48.94	64.60
75	31.26	38.34	44.45	19.14	10.43	12.64	30.69	42.90
80	5.674	13.29	21.40	5.751	0	3.656	11.44	19.61
85	0	0	0	0	0	0	0	2.342

### Zonal Lumen Summary

γ	φ zone	φ total	lum,lm
0- 5	7.233	7.233	0.99,0.99
5- 10	21.38	28.61	3.87,3.87
10- 15	34.68	63.29	8.56,8.56
15- 20	46.53	109.8	14.9,14.9
20- 25	56.56	166.4	22.5,22.5
25- 30	64.28	230.7	31.2,31.2
30- 35	69.44	300.1	40.6,40.6
35- 40	71.74	371.8	50.3,50.3
40- 45	71.28	443.1	59.9,59.9
45- 50	68.05	511.2	69.1,69.1
50- 55	62.31	573.5	77.6,77.6
55- 60	54.35	627.8	84.9,84.9
60- 65	44.67	672.5	91.91
65- 70	33.48	706.0	95.5,95.5
70- 75	21.34	727.3	98.4,98.4
75- 80	9.896	737.2	99.7,99.7
80- 85	2.157	739.4	100,100
85- 90	0.0162	739.4	100,100

### Coefficient of Utilization

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio									Coefficients of Utilization(CU)						
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.06	1.02	.99	1.04	1.00	.97	.99	.97	.94	.96	.93	.91	.92	.90	.88	.86
2.0	.93	.87	.82	.91	.86	.81	.88	.83	.79	.85	.81	.77	.82	.78	.75	.73
3.0	.83	.75	.69	.81	.74	.68	.78	.72	.67	.75	.70	.66	.73	.68	.65	.63
4.0	.73	.65	.59	.72	.64	.58	.70	.63	.58	.67	.62	.57	.65	.60	.56	.54
5.0	.66	.57	.51	.65	.57	.51	.63	.56	.50	.61	.55	.50	.59	.54	.49	.47
6.0	.60	.51	.45	.59	.51	.45	.57	.50	.44	.55	.49	.44	.54	.48	.43	.41
7.0	.54	.46	.40	.53	.45	.40	.52	.45	.39	.50	.44	.39	.49	.43	.39	.37
8.0	.50	.41	.36	.49	.41	.35	.48	.40	.35	.46	.40	.35	.45	.39	.35	.33
9.0	.46	.38	.32	.45	.37	.32	.44	.37	.32	.43	.36	.32	.42	.36	.32	.30
10.0	.42	.34	.29	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.29	.27



### UTLED-S12W-4K

S/MH(C0/180) = 1.21  
S/MH(C90/270) = 1.31  
Lumens: 821.53  
Nominal Power: 12 W  
Efficacy: 74.26 lm/W

### Candlepower

γ	C0	C45	C90	C135	C180	C225	C270	C315
5	322.7	324.4	326.2	326.0	325.0	320.3	318.3	318.8
10	316.6	321.5	326.9	324.7	321.2	313.5	311.0	310.6
15	307.3	316.1	320.6	320.8	319.9	304.2	297.7	299.9
20	295.1	305.4	314.4	311.7	309.7	290.3	284.4	284.7
25	280.1	292.5	302.3	301.4	290.7	275.3	266.2	268.3
30	262.8	278.3	290.1	287.6	275.0	257.3	248.0	249.3
35	243.3	260.7	272.8	271.0	256.1	237.1	223.6	228.0
40	221.9	242.1	255.5	253.4	234.0	215.7	199.3	205.1
45	199.0	219.9	234.3	231.5	209.3	190.1	168.3	176.0
50	174.9	197.7	212.1	208.4	181.9	162.8	137.4	146.6
55	149.6	172.9	188.4	178.0	152.8	132.1	102.4	113.6
60	123.5	148.3	163.7	147.2	121.9	101.0	87.38	81.00
65	97.04	121.9	134.3	114.9	90.51	68.01	35.08	48.35
70	68.99	95.86	102.8	76.81	59.34	37.76	2.789	21.72
75	38.99	66.99	70.45	37.88	29.66	10.95	1.394	2.163
80	14.65	41.39	38.10	13.99	3.608	3.080	0	0
85	0	9.920	0	0.4889	0	0	0	0
90	0	0	0	0	0	0	0	0

### Zonal Lumen Summary

γ	φ zone	φ total	lum,lm
0- 5	7.741	7.741	0.94,0.94
5- 10	22.91	30.65	3.73,3.73
10- 15	37.23	67.88	8.26,8.26
15- 20	50.10	118.0	14.4,14.4
20- 25	61.16	179.1	21.8,21.8
25- 30	69.92	249.1	30.3,30.3
30- 35	76.19	325.3	39.6,39.6
35- 40	79.52	404.8	49.2,49.2
40- 45	79.86	484.6	59.59
45- 50	76.95	561.6	69.4,69.4
50- 55	70.94	632.5	77.77
55- 60	61.90	694.4	84.5,84.5
60- 65	50.42	744.9	90.7,90.7
65- 70	37.07	781.9	95.2,95.2
70- 75	23.50	805.4	98.98
75- 80	12.40	817.8	99.5,99.5
80- 85	2.651	821.5	100,100
85- 90	0.0590	821.5	100,100

### Coefficient of Utilization

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio									Coefficients of Utilization(CU)						
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.06	1.02	.98	1.03	1.00	.97	.99	.96	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.93	.87	.81	.91	.85	.80	.88	.83	.79	.84	.80	.77	.81	.78	.75	.73
3.0	.82	.74	.68	.81	.73	.68	.78	.72	.67	.75	.70	.65	.72	.68	.64	.62
4.0	.73	.65	.58	.72	.64	.58	.69	.63	.57	.67	.61	.56	.65	.60	.56	.54
5.0	.65	.57	.50	.64	.56	.50	.62	.55	.50	.60	.54	.49	.59	.53	.49	.47
6.0	.59	.50	.44	.58	.50	.44	.56	.49	.44	.55	.48	.43	.53	.47	.43	.41
7.0	.54	.45	.39	.53	.45	.39	.51	.44	.39	.50	.43	.38	.49	.43	.38	.36
8.0	.49	.41	.35	.48	.40	.35	.47	.40	.35	.46	.39	.35	.45	.39	.34	.32
9.0	.45	.37	.32	.44	.37	.32	.43	.36	.31	.42	.36	.31	.41	.35	.31	.29
10.0	.42	.34	.29	.41	.34	.29	.40	.33	.28	.39	.32	.28	.38	.32	.28	.27

