

SPECIFICATION SHEET

SUBJECT

ULTRATHIN LED RECESSED LUMINAIRE (SQUARE)

CUSTOMER PROJECT

Project: _____
 Type: _____
 Cat. No.: _____

 Qty: _____
 Date: _____
 EEL Rep: _____



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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 locations approved and Energy Star rated. For Indoor use only.



**ULTRATHIN
4" LED RECESSED
LUMINAIRE
(SQUARE)**

SPECIFICATION FEATURES

Construction

Square 4" fixture with integral LEDs

Controls

Isolated driver factory installed inside connection box

Electrical

Ambient temperature -40°C to 40°C
 CRI:80
 IC-Rated
 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 by using the template provided and snap fixture in opening with attached spring clips.
 Clearance needed - 2" (50mm).

Beam Angle
120°

Finish

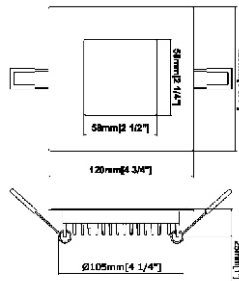
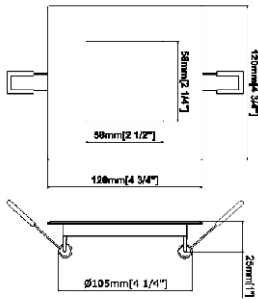
Standard - White
 Special Order - Brushed Nickel and Black

Compliance

cETLus and Energy Star

Warranty

5 years, 50,000+ hours



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

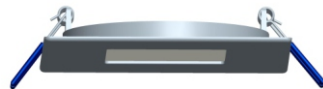
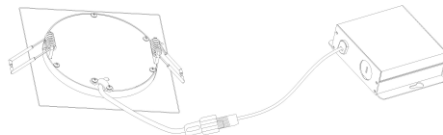
Dimensions

L 4-3/4" (120mm) x W 4-3/4" (120mm) x ID 3-15/16" (100mm)
 Cut out 4-1/8" (±1/8") (105 ± 3mm)
 Thickness 1/2" (12mm)

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













Dimensions

L 4-3/4" (120mm) x W 4-3/4" (120mm) x ID 3-15/16" (100mm)
 Cut out 4-1/8" (±1/4") (105 ± 6mm)
 Thickness 1" (25mm)





ORDERING CODE, ENERGY AND PERFORMANCE DATA

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

SHIPPING DATA

Model No.	Weight
UTLED-S9W-3KWH-SQ	0.31kg / 0.68lbs
UTLED-S9W-4KWH-SQ	0.31kg / 0.68lbs
UTLED-S12W-3KWH-SQ	0.39kg / 0.86lbs
UTLED-S12W-4KWH-SQ	0.39kg / 0.86lbs
UTLED-S9W-3KBN-SQ	0.31kg / 0.68lbs
UTLED-S9W-4KBN-SQ	0.31kg / 0.68lbs
UTLED-S12W-3KBN-SQ	0.39kg / 0.86lbs
UTLED-S12W-4KBN-SQ	0.39kg / 0.86lbs
UTLED-S9W-3KBK-SQ	0.31kg / 0.68lbs
UTLED-S9W-4KBK-SQ	0.31kg / 0.68lbs
UTLED-S12W-3KBK-SQ	0.39kg / 0.86lbs
UTLED-S12W-4KBK-SQ	0.39kg / 0.86lbs

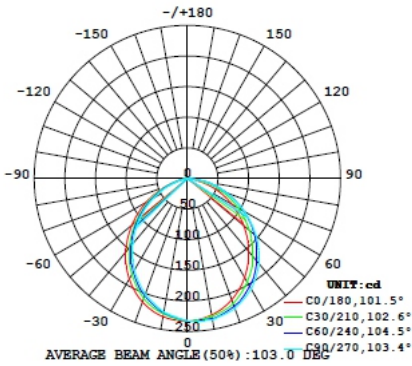


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PHOTOMETRICS



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

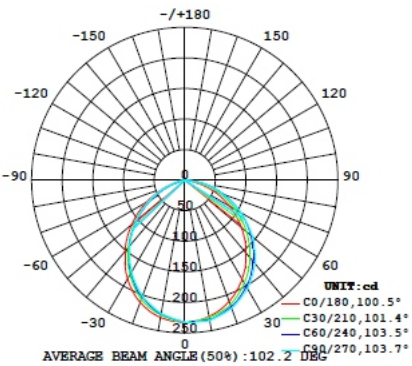
γ	C0	C45	C90	C135	C180	C225	C270	C315
5	230.9	232.2	232.5	232.1	232.1	228.6	227.2	227.8
10	226.5	230.6	234.3	232.3	229.1	223.4	221.7	221.7
15	219.9	227.0	230.3	229.7	223.5	216.4	211.6	213.9
20	211.0	219.5	226.2	222.9	214.7	205.6	201.6	202.4
25	199.8	211.0	217.3	214.7	203.5	193.5	187.6	190.0
30	186.7	199.7	208.5	202.5	189.9	178.9	173.6	175.4
35	171.8	184.3	195.3	189.4	174.3	162.5	156.5	159.0
40	155.5	172.2	182.2	172.9	156.9	145.3	139.4	142.0
45	139.2	155.2	164.6	154.4	138.2	126.7	120.7	123.0
50	120.1	148.2	147.0	134.8	118.4	108.2	102.0	104.1
55	101.6	119.8	127.0	112.9	99.05	88.36	82.76	84.53
60	82.92	101.8	107.0	91.72	77.46	69.08	63.54	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	37.33	32.18	28.28	28.11
75	25.94	46.27	47.19	25.94	19.11	16.32	13.14	11.06
80	7.476	25.65	28.91	9.822	0.7224	5.157	0	3.474
85	0	5.428	0	0.0111	0	0	0	0

Zonal Lumen Summary

γ	Φ zone	Φ total	lum, lam
0- 5	5.522	5.522	0.96, 0.96
5- 10	16.38	21.91	3.6, 3.6
10- 15	26.61	48.51	8.4, 8.4
15- 20	35.76	84.27	14.6, 14.6
20- 25	43.52	127.8	22.1, 22.1
25- 30	49.51	177.3	30.7, 30.7
30- 35	53.57	230.9	40.4, 40.4
35- 40	55.46	286.3	49.6, 49.6
40- 45	55.22	341.6	59.2, 59.2
45- 50	52.82	394.4	68.3, 68.3
50- 55	49.51	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	94.9, 94.9
70- 75	17.87	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

ρcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	
ρw	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	.00	.97	.99	.96	.94	.95	.93	.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	229.7	232.9	232.3	229.1	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	218.3	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	188.2	190.9
30	187.1	198.1	204.8	199.3	186.8	177.1	174.3	176.5
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	153.7	161.5	150.7	133.1	122.6	122.1	125.7
50	120.7	136.9	144.7	131.5	112.3	102.6	102.6	107.6
55	102.3	118.7	124.9	109.6	92.88	83.38	84.79	88.97
60	82.71	100.8	105.2	88.35	72.29	63.49	65.93	70.76
65	65.33	82.15	84.35	67.19	51.85	43.42	47.03	52.62
70	46.25	63.88	63.52	45.79	32.14	24.32	28.13	35.46
75	25.88	46.08	46.35	24.50	13.77	6.422	14.06	19.35
80	10.28	24.20	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	lum, lam
0- 5	5.522	5.522	0.97, 0.97
5- 10	16.34	21.86	2.83, 2.83
10- 15	26.52	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	49.9, 49.8
40- 45	54.62	339.0	59.3, 59.3
45- 50	52.24	391.3	68.5, 68.5
50- 55	47.98	439.2	76.9, 76.9
55- 60	42.02	481.3	84.2, 84.2
60- 65	34.71	516.0	90.3, 90.3
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	2.523	571.3	100, 100
85- 90	0.0228	571.3	100, 100

Coefficient of Utilization

ρcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	
ρw	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	.00	.97	.99	.96	.94	.95	.93	.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	.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	.66	.57	.51	.65	.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	.48	.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



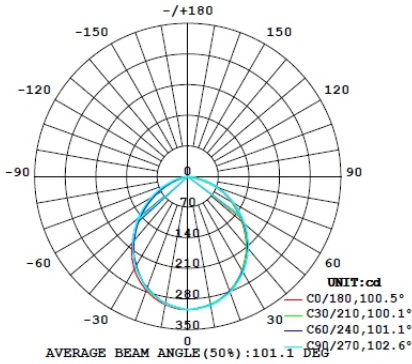


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PHOTOMETRICS



UTLED-S12W-3K

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

Candlepower

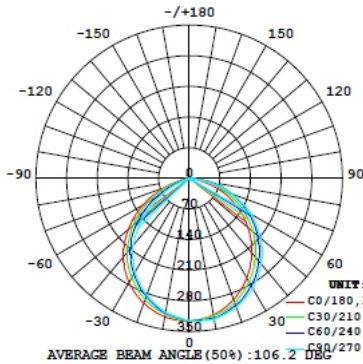
y	C0	C45	C90	C135	C180	C225	C270	C315
5	302.6	301.7	301.9	301.9	302.7	300.1	299.9	300.5
10	297.5	297.3	299.4	298.0	297.4	293.8	295.3	295.3
15	289.4	290.7	290.7	291.8	288.8	284.9	284.1	287.9
20	278.2	279.1	282.1	280.6	277.2	270.7	273.0	275.1
25	244.1	246.2	247.7	248.6	242.6	235.0	236.1	241.4
30	247.5	250.0	253.4	252.1	244.8	236.0	239.1	244.4
35	228.4	231.4	234.2	234.7	222.7	214.1	217.5	224.9
40	207.4	211.9	216.1	215.1	198.2	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	49.94	64.60
75	31.25	35.34	44.45	19.14	10.43	12.64	30.63	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
90	0	0	0	0	0	0	0	0

Zonal Lumen Summary

y	Φ zone	Φ total	lum, lam
0- 5	7.233	7.233	0.95, 0.95
5- 10	21.38	28.61	3.87, 3.87
10- 15	34.68	42.28	8.56, 8.54
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	95.4, 98.4
75- 80	9.896	735.2	95.7, 99.7
80- 85	2.167	739.4	100, 100
85- 90	0.0162	739.4	100, 100

Coefficient of Utilization

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	
pφc	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

y	C0	C45	C90	C135	C180	C225	C270	C315
5	222.7	224.4	226.2	226.0	225.0	220.2	218.2	218.8
10	216.6	221.5	226.9	224.7	221.2	213.5	211.0	210.6
15	207.3	216.1	225.6	220.8	212.9	204.2	207.7	209.9
20	205.1	205.4	214.4	211.7	202.7	200.3	204.4	204.7
25	201.1	202.9	202.3	201.4	200.7	205.2	206.2	209.3
30	202.8	208.3	200.1	207.6	205.0	207.3	208.0	209.3
35	249.3	240.7	272.9	271.0	256.1	237.1	223.6	223.0
40	221.9	242.1	255.5	254.4	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	213.1	208.4	181.9	162.8	137.4	146.6
55	149.6	172.9	190.4	178.0	152.8	132.1	102.4	113.6
60	123.5	148.3	163.7	147.2	121.9	101.0	67.25	81.00
65	97.04	121.9	133.3	113.8	90.51	68.01	35.08	48.25
70	68.99	95.86	102.8	76.81	59.34	37.76	2.789	21.72
75	38.98	68.99	70.45	37.88	28.66	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	0.4988	0	0	0	0
90	0	0	0	0	0	0	0	0

Zonal Lumen Summary

y	Φ zone	Φ total	lum, lam
0- 5	7.741	7.741	0.94, 0.94
5- 10	22.91	30.65	3.79, 3.73
10- 15	37.23	67.88	8.26, 8.26
15- 20	50.10	118.0	14.4, 14.4
20- 25	61.56	179.1	21.8, 21.5
25- 30	69.92	249.1	30.2, 30.2
30- 35	76.18	325.2	39.6, 39.6
35- 40	79.52	404.8	49.3, 49.3
40- 45	79.86	484.6	59.59
45- 50	76.95	561.6	68.4, 68.4
50- 55	70.94	632.5	77.77
55- 60	61.90	694.4	84.5, 84.5
60- 65	50.43	744.9	90.7, 90.7
65- 70	37.07	781.9	95.2, 95.2
70- 75	22.50	805.4	98.89
75- 80	12.40	817.8	99.5, 99.5
80- 85	3.651	821.5	100, 100
85- 90	0.0590	821.5	100, 100

Coefficient of Utilization

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	
pφc	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	.52	.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	.33	.28	.38	.32	.28	.27

