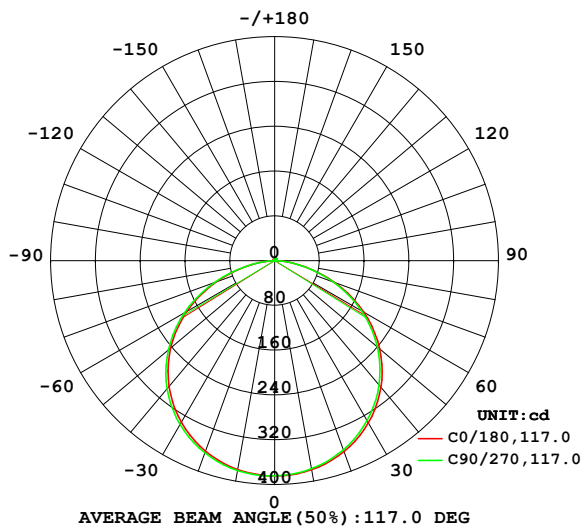


LUMINAIRE PHOTOMETRIC TEST REPORT

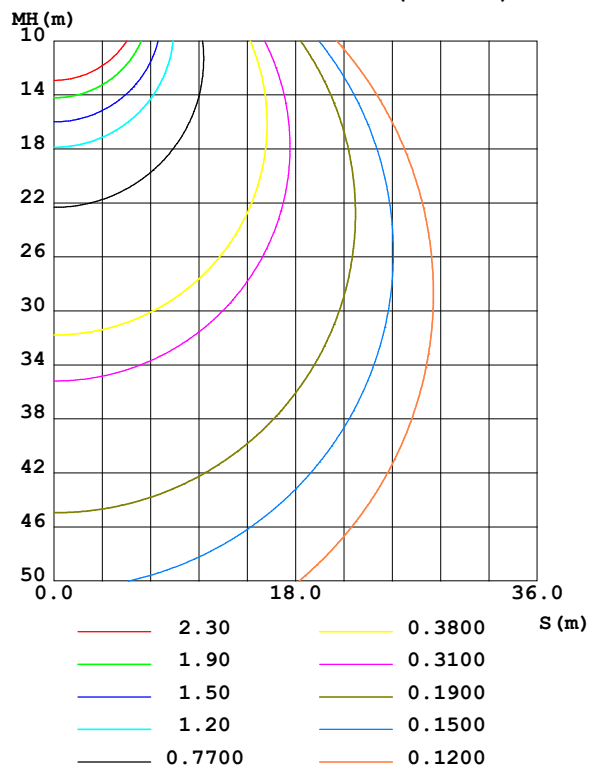
NAME: 2835 IP20	TYPE: 2835 160LED 24V	WEIGHT:
SPEC.: 202-00491-00	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*0.5	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 166.20 lm/W
MODEL	6500K	Imax (cd)	384.7	S/MH(C0/180)	1.29	
NOMINAL POWER(W)	7.2	LOR(%)	100.0	S/MH(C90/270)	1.31	
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	1162.6	□ UP,DN(C0-180)	0.7,49.1	
NOMINAL FLUX(lm)	14.533	CIE CLASS	DIRECT	□ UP,DN(C180-360)	0.6,49.6	
LAMPS INSIDE	80	□ up (%)	1.3	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	24	□ down (%)	98.7	CIBSE SHR MAX	1.35	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-03-18

□ Range: 0 - 180DEG
□ Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.450
Humidity:65.0%
Test Distance:5.749m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

°	C0	C45	C90	C135	C180	C225	C270	C315	°	□ zone	□ total	%lum, lamp
10	379.4	378.3	377.7	378.0	379.0	380.2	380.8	380.6	0- 10	36.46	36.46	3.14,3.14
20	362.8	360.7	359.5	359.9	361.9	364.1	365.3	364.9	10- 20	105.1	141.6	12.2,12.2
30	334.8	332.0	330.2	330.8	333.4	336.4	338.0	337.7	20- 30	161.2	302.8	26,26
40	295.5	292.3	290.1	290.7	293.6	296.9	299.0	298.8	30- 40	197.6	500.4	43,43
50	245.0	241.9	239.6	239.9	242.6	245.8	248.1	248.1	40- 50	208.6	709.0	61,61
60	183.9	181.5	179.4	179.2	180.9	183.6	185.8	186.3	50- 60	191.5	900.5	77.5,77.5
70	114.2	113.0	111.3	110.5	110.7	112.3	114.2	115.3	60- 70	146.6	1047	90.1,90.1
80	44.00	44.12	43.33	41.92	40.75	40.67	41.98	43.36	70- 80	81.07	1128	97,97
90	0.4344	1.550	1.238	1.235	0.3863	0.9710	0.8916	1.272	80- 90	19.19	1147	98.7,98.7
100	0.9902	0.9796	1.002	1.009	0.8631	0.8406	0.8608	0.8156	90-100	0.8098	1148	98.8,98.8
110	1.812	1.755	1.781	1.791	1.590	1.497	1.484	1.462	100-110	1.339	1150	98.9,98.9
120	2.622	2.512	2.537	2.561	2.347	2.176	2.156	2.146	110-120	1.987	1152	99,99
130	3.322	3.173	3.186	3.235	3.019	2.823	2.762	2.778	120-130	2.425	1154	99.3,99.3
140	3.878	3.723	3.712	3.806	3.557	3.382	3.271	3.325	130-140	2.561	1156	99.5,99.5
150	4.302	4.197	4.161	4.262	3.995	3.848	3.708	3.812	140-150	2.391	1159	99.7,99.7
160	4.645	4.580	4.639	4.616	4.403	4.286	4.229	4.268	150-160	1.961	1161	99.8,99.8
170	4.993	4.966	5.052	4.973	4.860	4.793	4.797	4.779	160-170	1.317	1162	100,100
180	5.346	5.330	5.390	5.349	5.343	5.325	5.385	5.346	170-180	0.4832	1163	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 626.02 lm

%lum = 53.8%

%lamp = 53.8%

Conical surface Flux(120deg): 900.51 lm

%lum = 77.5%

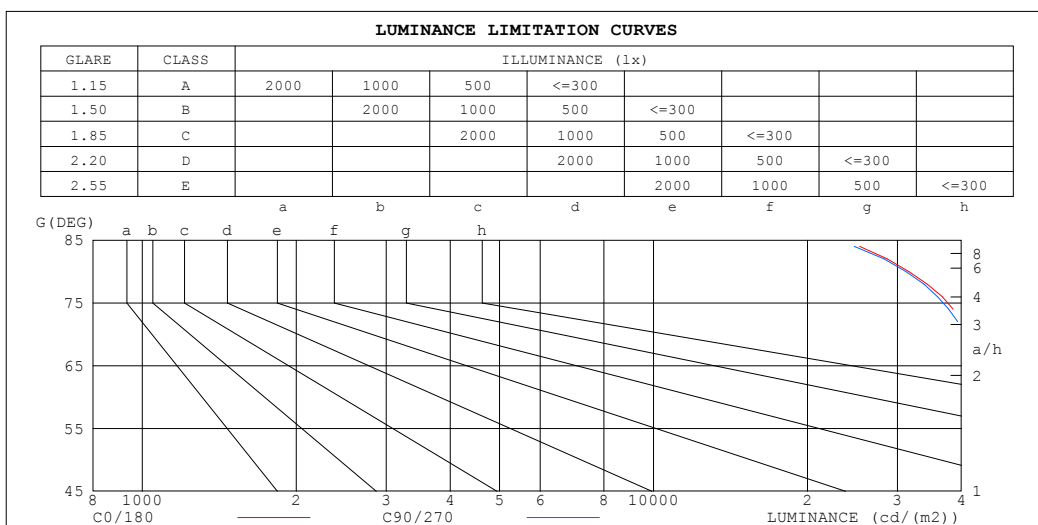
%lamp = 77.5%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-03-18

□ Range: 0 - 180DEG
□ Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.450
Humidity:65.0%
Test Distance:5.749m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

NAME: 2835 IP20	TYPE: 2835 160LED 24V	WEIGHT:
SPEC.: 202-00491-00	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*0.5	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	30359	29629
80	31615	31208
75	41084	40238
70	41657	40712
65	46317	45251
60	45907	44869
55	48240	47222
50	47570	46620
45	48815	47952

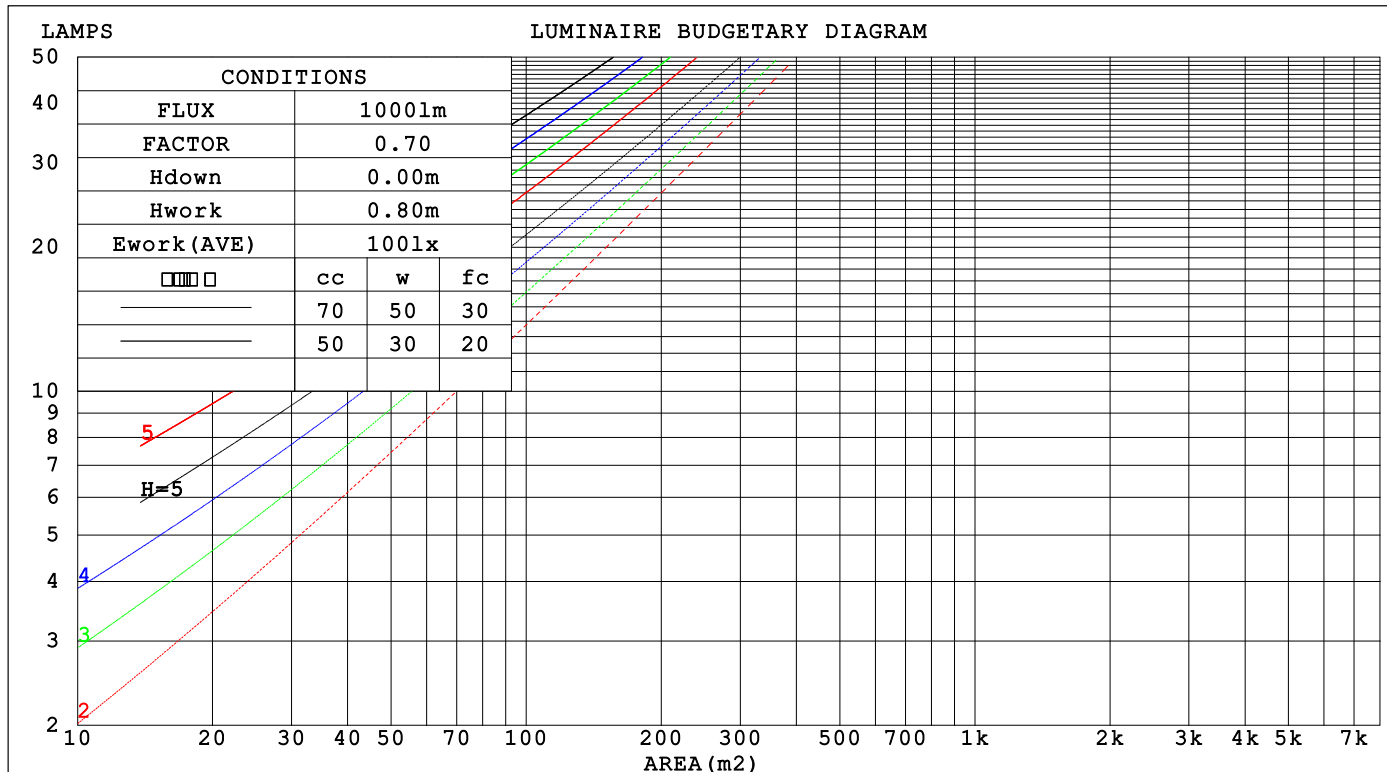
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2022-03-18

☐ Range: 0 - 180DEG
☐ Interval: 2.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.450
Humidity: 65.0%
Test Distance: 5.749m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: 2835 IP20	TYPE: 2835 160LED 24V	WEIGHT:
SPEC.: 202-00491-00	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*0.5	Shielding Angle:

□cc	80%			70%			50%			30%			10%			0
□w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
□fc	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	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	.99
1.0	1.04	.99	.95	1.01	.97	.94	.97	.93	.91	.93	.90	.88	.89	.87	.85	.82
2.0	.90	.83	.77	.88	.82	.76	.84	.79	.74	.81	.76	.72	.78	.74	.71	.68
3.0	.79	.71	.64	.77	.70	.63	.74	.67	.62	.71	.65	.61	.68	.64	.60	.57
4.0	.70	.61	.54	.68	.60	.54	.66	.58	.53	.63	.57	.52	.61	.55	.51	.49
5.0	.62	.53	.46	.61	.52	.46	.59	.51	.45	.57	.50	.45	.55	.49	.44	.42
6.0	.56	.47	.40	.55	.46	.40	.53	.45	.40	.51	.44	.39	.49	.43	.39	.37
7.0	.51	.42	.36	.50	.41	.35	.48	.40	.35	.46	.40	.35	.45	.39	.34	.32
8.0	.46	.37	.32	.45	.37	.31	.44	.36	.31	.43	.36	.31	.41	.35	.31	.29
9.0	.42	.34	.28	.42	.34	.28	.40	.33	.28	.39	.33	.28	.38	.32	.28	.26
10.0	.39	.31	.26	.38	.31	.26	.37	.30	.25	.36	.30	.25	.35	.29	.25	.23



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-03-18

□ Range: 0 - 180DEG
□ Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.450
Humidity:65.0%
Test Distance:5.749m [K=1.0000]
Remarks:

WEC AND CCEC

NAME: 2835 IP20	TYPE: 2835 160LED 24V	WEIGHT:
SPEC.: 202-00491-00	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*0.5	Shielding Angle:

<input type="checkbox"/> cc	80%	70%	50%	30%	10%	0
<input type="checkbox"/> w	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
<input type="checkbox"/> fc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio					Wall Exitance Coefficients(WEC)
0.0						
1.0	.309 .176 .056	.302 .172 .055	.288 .165 .053	.275 .159 .051	.263 .153 .049	
2.0	.292 .160 .049	.286 .157 .049	.273 .152 .047	.262 .147 .046	.251 .142 .045	
3.0	.271 .144 .043	.265 .142 .043	.254 .138 .042	.244 .134 .041	.235 .130 .040	
4.0	.250 .130 .038	.245 .128 .038	.235 .125 .037	.226 .121 .037	.218 .118 .036	
5.0	.231 .118 .034	.227 .116 .034	.218 .114 .033	.210 .111 .033	.202 .108 .032	
6.0	.215 .108 .031	.210 .106 .031	.203 .104 .030	.195 .102 .030	.189 .099 .029	
7.0	.200 .099 .028	.196 .098 .028	.189 .096 .028	.182 .094 .027	.176 .092 .027	
8.0	.186 .091 .026	.183 .090 .025	.177 .088 .025	.171 .087 .025	.165 .085 .025	
9.0	.175 .084 .024	.172 .084 .023	.166 .082 .023	.161 .081 .023	.156 .079 .023	
10.0	.164 .079 .022	.161 .078 .022	.156 .077 .022	.152 .075 .021	.147 .074 .021	

<input type="checkbox"/> cc	80%	70%	50%	30%	10%	0
<input type="checkbox"/> w	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
<input type="checkbox"/> fc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio					Ceiling Cavity Exitance Coefficients(CCEC)
0.0	.200 .200 .200	.171 .171 .171	.117 .117 .117	.067 .067 .067	.021 .021 .021	
1.0	.190 .166 .144	.163 .143 .124	.111 .098 .086	.064 .057 .050	.021 .018 .016	
2.0	.182 .142 .108	.156 .122 .093	.107 .085 .065	.062 .049 .038	.020 .016 .012	
3.0	.175 .125 .084	.150 .107 .073	.103 .075 .051	.059 .044 .030	.019 .014 .010	
4.0	.167 .111 .068	.144 .096 .059	.099 .067 .042	.057 .039 .025	.018 .013 .008	
5.0	.160 .101 .057	.137 .087 .050	.095 .061 .035	.055 .036 .021	.018 .012 .007	
6.0	.153 .093 .049	.131 .080 .043	.091 .056 .030	.053 .033 .018	.017 .011 .006	
7.0	.146 .086 .043	.126 .074 .038	.087 .052 .027	.050 .031 .016	.016 .010 .005	
8.0	.140 .080 .039	.120 .069 .034	.083 .049 .024	.048 .029 .014	.016 .009 .005	
9.0	.134 .075 .036	.115 .065 .031	.080 .046 .022	.046 .027 .013	.015 .009 .004	
10.0	.128 .071 .033	.110 .061 .029	.076 .043 .020	.045 .026 .012	.014 .008 .004	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-03-18

☐ Range: 0 - 180DEG
☐ Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.450
Humidity:65.0%
Test Distance:5.749m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

NAME: 2835 IP20					TYPE: 2835 160LED 24V			WEIGHT:			
SPEC.: 202-00491-00					DIM.:			SERIAL No.:			
MFR.:					SUR.: 0.01*0.5			Shielding Angle:			
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Room dimensions		Viewed crosswise					Viewed endwise				
x = 2H y = 2H	25.7	27.3	26.0	27.5	27.7	25.7	27.2	25.9	27.4	27.6	
	27.3	28.7	27.6	28.9	29.2	27.2	28.6	27.5	28.8	29.1	
	27.9	29.2	28.2	29.5	29.8	27.8	29.1	28.1	29.4	29.7	
	28.2	29.5	28.6	29.8	30.1	28.1	29.4	28.5	29.7	30.0	
	28.3	29.5	28.7	29.8	30.2	28.2	29.4	28.6	29.7	30.1	
	28.4	29.5	28.7	29.8	30.2	28.3	29.4	28.6	29.7	30.1	
4H	2H	26.4	27.7	26.7	28.0	28.2	26.3	27.6	26.6	27.9	28.2
	3H	28.1	29.2	28.4	29.6	29.9	28.0	29.1	28.4	29.5	29.8
	4H	28.8	29.8	29.2	30.2	30.5	28.7	29.7	29.1	30.1	30.5
	6H	29.3	30.2	29.7	30.6	31.0	29.2	30.1	29.6	30.5	30.9
	8H	29.4	30.3	29.8	30.7	31.1	29.3	30.2	29.7	30.6	31.0
	12H	29.5	30.3	29.9	30.7	31.1	29.4	30.2	29.8	30.6	

CIE Pub.117, 1163 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.5)
Area: 0.008 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-03-18

☐ Range: 0 - 180DEG
☐ Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.450
Humidity:65.0%
Test Distance:5.749m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

NAME: 2835 IP20	TYPE: 2835 160LED 24V	WEIGHT:
SPEC.: 202-00491-00	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*0.5	Shielding Angle:

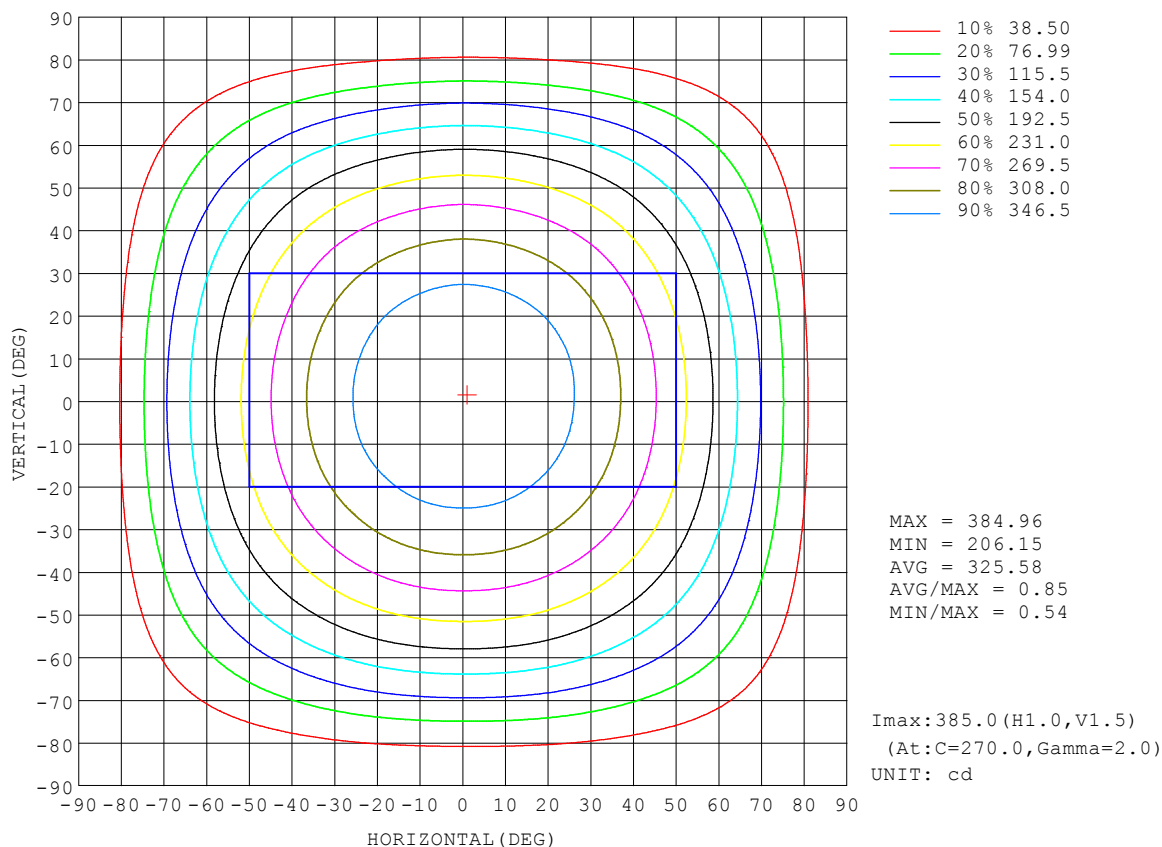
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	57	45	38	56	45	38	54	44	37	31
0.80	67	55	47	66	54	47	64	54	47	40
1.00	75	64	56	74	63	56	71	65	56	48
1.25	82	72	64	81	71	64	78	69	63	56
1.50	87	77	70	86	76	70	82	74	69	61
2.00	94	86	79	92	84	78	89	82	77	69
2.50	98	90	84	96	89	83	92	86	81	73
3.00	102	95	89	99	93	88	95	90	86	77
4.00	106	100	95	103	98	94	99	95	91	82
5.00	108	103	99	106	101	98	101	97	94	85
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2022-03-18

☐ Range: 0 - 180DEG
☐ Interval: 2.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.450
Humidity: 65.0%
Test Distance: 5.749m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: 2835 IP20	TYPE: 2835 160LED 24V	WEIGHT:
SPEC.: 202-00491-00	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*0.5	Shielding Angle:

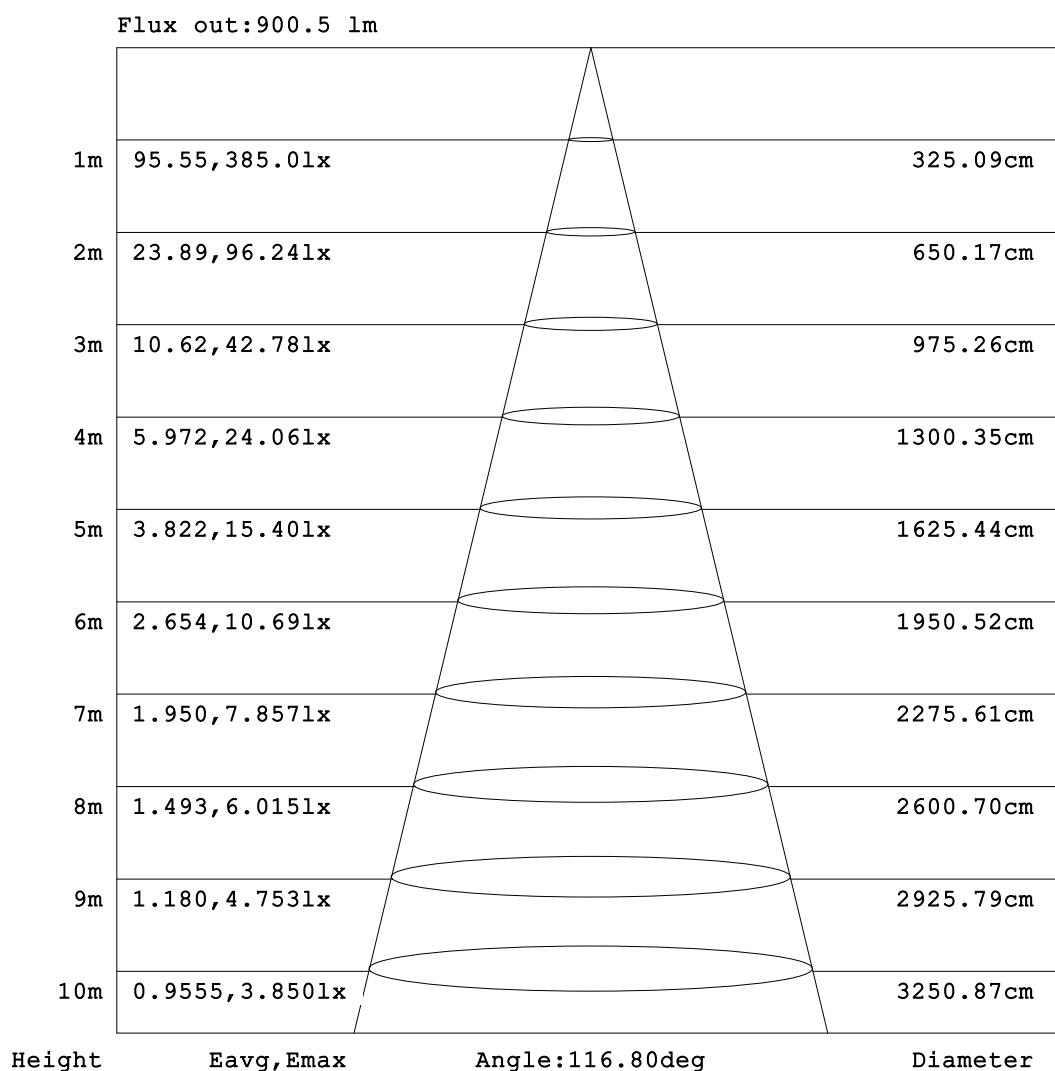


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2022-03-18

☐ Range: 0 - 180DEG
☐ Interval: 2.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.450
Humidity: 65.0%
Test Distance: 5.749m [K=1.0000]
Remarks:

AAI Figure

NAME: 2835 IP20	TYPE: 2835 160LED 24V	WEIGHT:
SPEC.: 202-00491-00	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*0.5	Shielding Angle:



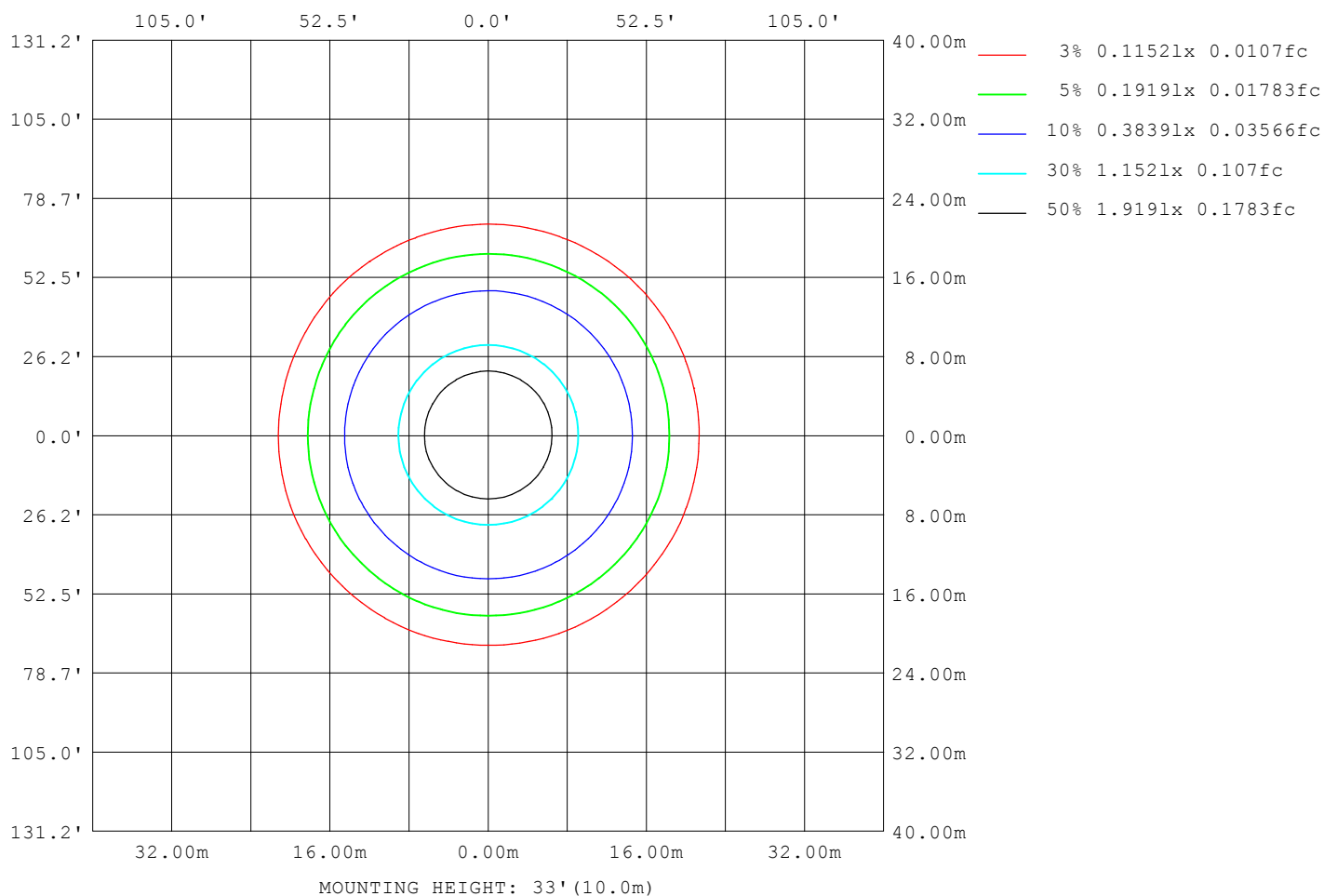
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-03-18

☐ Range: 0 - 180DEG
☐ Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.450
 Humidity:65.0%
 Test Distance:5.749m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

NAME: 2835 IP20	TYPE: 2835 160LED 24V	WEIGHT:
SPEC.: 202-00491-00	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*0.5	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2022-03-18

☐ Range: 0 - 180DEG
☐ Interval: 2.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.450
Humidity: 65.0%
Test Distance: 5.749m [K=1.0000]
Remarks:

LED Avg.L Report

NAME: 2835 IP20	TYPE: 2835 160LED 24V	WEIGHT:
SPEC.: 202-00491-00	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*0.5	Shielding Angle:

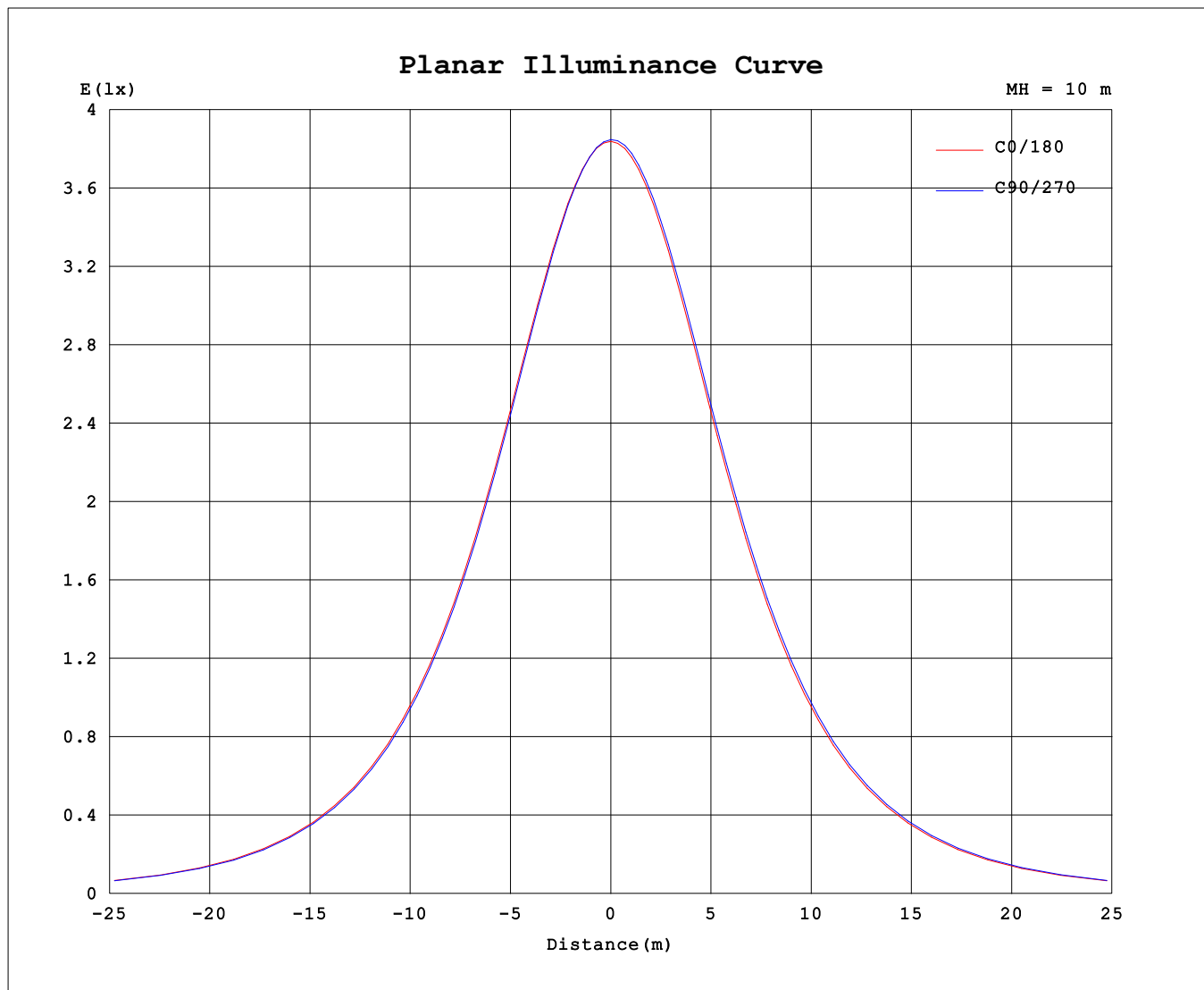
AvgL	cd/m2
L_0~180 (65) av	43836
L_0~180 (75) av	36885
L_0~180 (85) av	21315
L_90~270 (65) av	43925
L_90~270 (75) av	37038
L_90~270 (85) av	21723
L_45 (65) av	43939
L_45 (75) av	36984
L_45 (85) av	22302

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2022-03-18

☐ Range: 0 - 180DEG
☐ Interval: 2.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.450
Humidity: 65.0%
Test Distance: 5.749m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2022-03-18

☐ Range: 0 - 180DEG
☐ Interval: 2.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.450
Humidity: 65.0%
Test Distance: 5.749m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 2835 IP20	TYPE: 2835 160LED 24V	WEIGHT:
SPEC.: 202-00491-00	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.01*0.5	Shielding Angle:

Table--1

UNIT: cd

C (DEG) □ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385			
5	384	384	383	383	383	383	383	383	384	384	384	384	384	384	384	384			
10	379	379	378	378	378	378	378	378	379	380	380	381	381	381	381	380			
15	374	374	373	372	372	372	372	373	374	374	375	376	376	376	376	375			
20	363	362	361	360	359	360	360	361	362	363	364	365	365	365	365	364			
25	353	352	351	350	349	349	350	351	352	353	354	355	356	356	355	354			
30	335	334	332	331	330	331	331	332	333	335	336	337	338	338	338	336			
35	320	319	317	317	315	316	316	317	319	320	322	323	324	324	324	322			
40	296	294	292	291	290	291	291	292	294	295	297	298	299	299	299	297			
45	277	275	273	272	271	272	272	273	274	276	278	279	280	280	280	278			
50	245	244	242	241	240	240	240	241	243	244	246	247	248	248	248	247			
55	222	221	219	218	217	217	217	218	219	220	222	223	224	224	225	223			
60	184	184	182	181	179	180	179	180	181	181	184	184	186	186	186	185			
65	157	157	155	155	153	153	152	153	154	154	156	156	158	158	159	158			
70	114	115	113	113	111	112	110	111	111	110	112	112	114	114	115	114			
75	85.2	85.8	84.6	84.7	83.3	83.4	82.1	82.3	81.7	81.0	82.7	82.5	84.4	84.2	85.7	84.8			
80	44.0	44.7	44.1	44.4	43.3	43.3	41.9	41.7	40.7	40.0	40.7	40.5	42.0	42.0	43.4	43.3			
85	21.2	22.0	21.6	21.6	20.6	20.7	19.9	19.6	17.7	18.0	18.6	18.2	19.0	19.3	20.5	20.5			
90	0.43	1.64	1.55	1.49	1.24	1.33	1.23	1.19	0.39	0.91	0.97	0.85	0.89	0.93	1.27	1.32			
95	0.59	0.59	0.66	0.69	0.69	0.70	0.69	0.63	0.54	0.54	0.61	0.62	0.60	0.61	0.59	0.52			
100	0.99	0.97	0.98	0.99	1.00	1.00	1.01	1.01	0.86	0.84	0.84	0.85	0.86	0.84	0.82	0.81			
105	1.31	1.26	1.28	1.29	1.30	1.31	1.32	1.31	1.14	1.10	1.09	1.09	1.08	1.07	1.06	1.06			
110	1.81	1.74	1.76	1.77	1.78	1.78	1.79	1.78	1.59	1.51	1.50	1.49	1.48	1.47	1.46	1.47			
115	2.14	2.05	2.07	2.07	2.09	2.09	2.10	2.10	1.90	1.80	1.78	1.77	1.76	1.75	1.74	1.75			
120	2.62	2.51	2.51	2.52	2.54	2.54	2.56	2.57	2.35	2.24	2.18	2.17	2.16	2.15	2.15	2.18			
125	2.92	2.80	2.79	2.80	2.81	2.83	2.85	2.86	2.63	2.52	2.44	2.43	2.41	2.41	2.41	2.46			
130	3.32	3.21	3.17	3.18	3.19	3.22	3.24	3.27	3.02	2.92	2.82	2.78	2.76	2.77	2.78	2.86			
135	3.56	3.46	3.40	3.40	3.41	3.46	3.48	3.52	3.25	3.16	3.06	3.01	2.98	2.99	3.00	3.11			
140	3.88	3.79	3.72	3.71	3.71	3.79	3.81	3.84	3.56	3.47	3.38	3.32	3.27	3.29	3.32	3.44			
145	4.06	3.99	3.92	3.88	3.90	3.99	4.01	4.03	3.75	3.65	3.58	3.52	3.45	3.47	3.52	3.64			
150	4.30	4.25	4.20	4.14	4.16	4.27	4.26	4.27											