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Nata

LumCAT: 3-1550-A3
Luminaire: TE 2213407-1+92.76.365.00
Report No: GC2016092005
Test No: NT-0010
LampCAT: CREE CXA2530
Lamp flux(lm): 1684.0
Number of Lamps: 1
Length(mm): 78
Phm Type: C

Voltage(V): 34.8000
Current(A): 0.8000
Power (W): 17.4000
PF: 0.0000
Ballast type: AC
Width(mm): 78
Height(mm): 0

Photometric Results

Lumens(lm): 1531.26
Efficiency(%): 90.93%
Lumens(lm)/Power(W): 88.00
Central intensity(cd): 2525.265
Maximum intensity(cd): 2525.265
Angle of maximum intensity: $C=0.0$ $\gamma=0.0$
Beam Angle(50%Imax): [C0/180]Total=45.0
[C90/270]Total=45.0
Field angle(10%Imax): [C0/180]Total=73.9
[C90/270]Total=73.9
Maximum s/h(1/2): C0_180=0.71 C90_270=0.71
Maximum s/h(1/4): C0_180=0.74 C90_270=0.74
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.93%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.851%

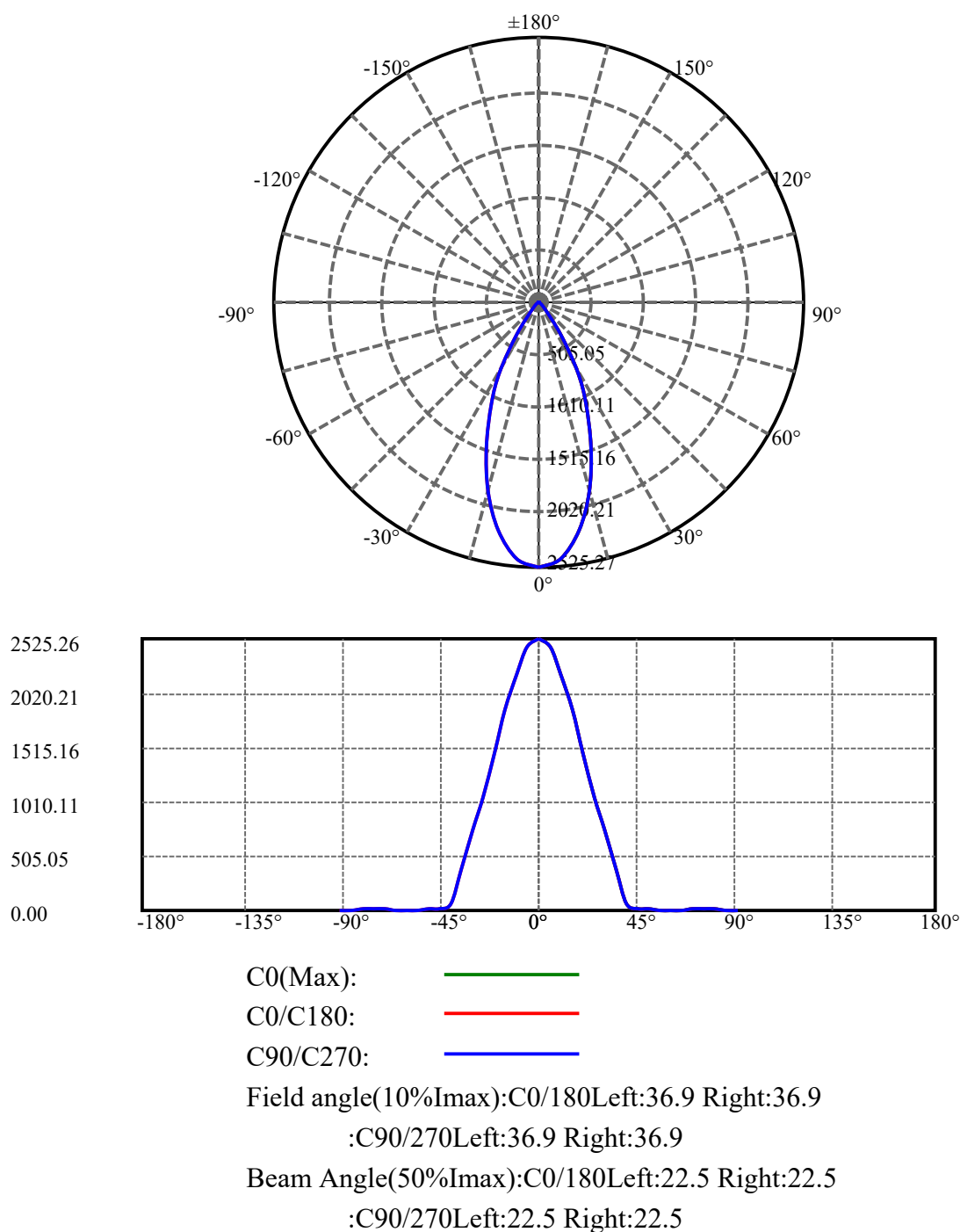
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2525.265	0.000	0	.000%	.000%
5.0	2447.051	59.443	59.443	3.530%	3.882%
10.0	2198.230	166.176	225.619	9.868%	14.734%
15.0	1867.066	241.151	466.77	14.320%	30.483%
20.0	1469.008	274.939	741.709	16.327%	48.438%
25.0	1056.797	264.910	1006.619	15.731%	65.738%
30.0	752.569	228.977	1235.596	13.597%	80.691%
35.0	369.232	165.193	1400.789	9.810%	91.479%
40.0	67.950	72.941	1473.73	4.331%	96.243%
45.0	9.494	14.339	1488.069	.852%	97.179%
50.0	7.990	3.533	1491.602	.210%	97.410%
55.0	7.481	3.364	1494.966	.200%	97.630%
60.0	7.199	3.393	1498.359	.201%	97.851%
65.0	7.673	3.615	1501.974	.215%	98.087%
70.0	11.280	4.799	1506.774	.285%	98.401%
75.0	14.518	6.743	1513.517	.400%	98.841%
80.0	14.827	7.852	1521.368	.466%	99.354%
85.0	7.612	6.097	1527.466	.362%	99.752%
90.0	6.263	3.799	1531.265	.226%	100.000%

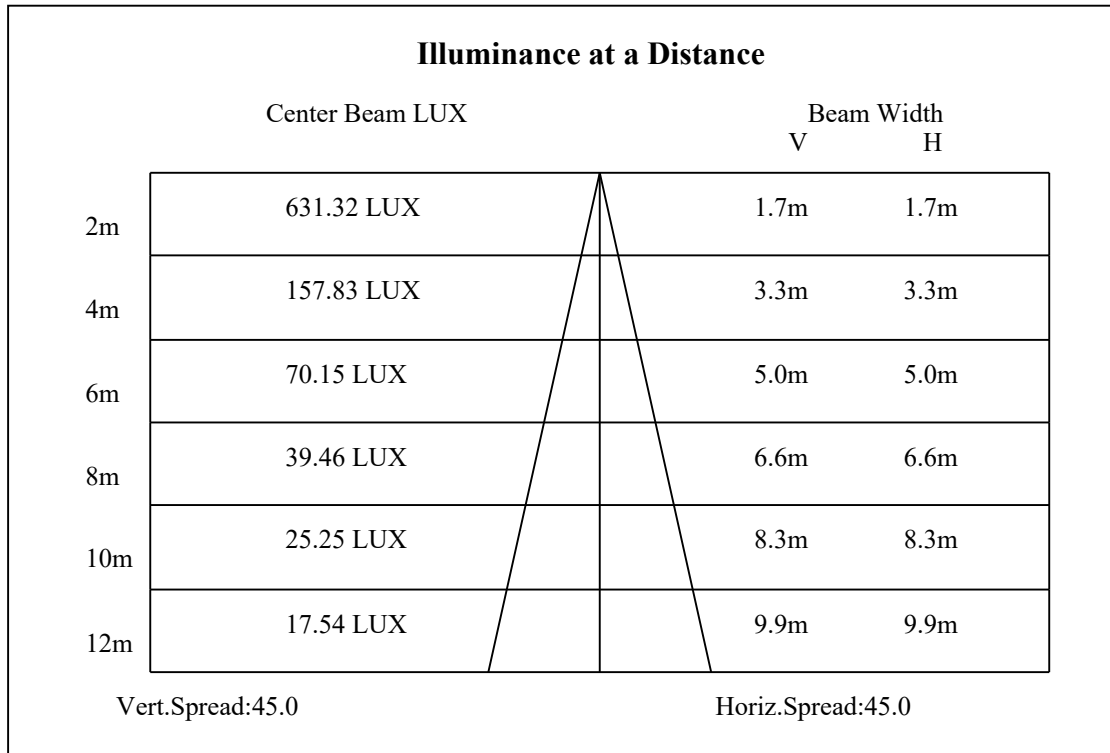
ZONAL LUMEN SUMMARY

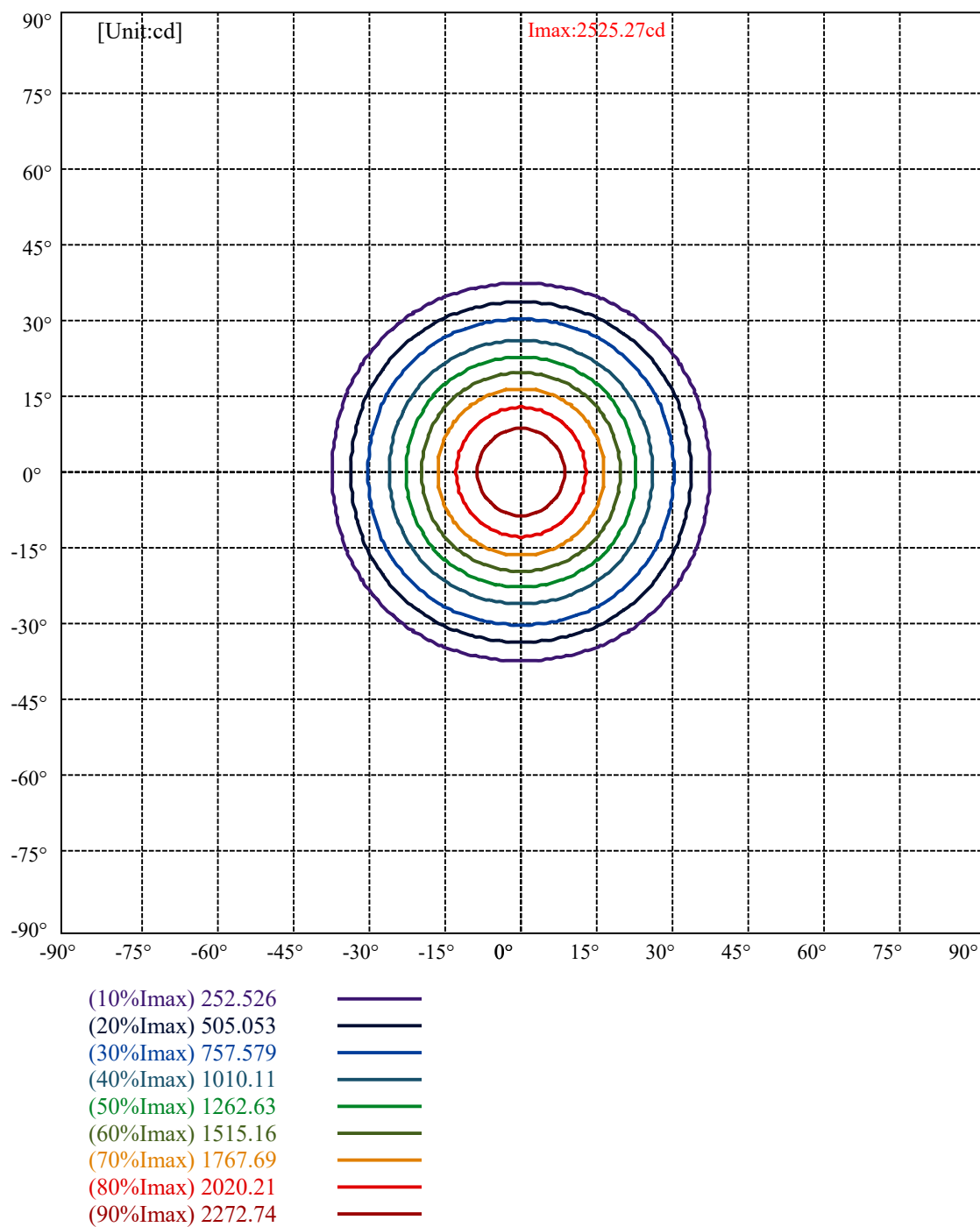
Zone	Lumens	%Lamp	%Fixt
0-30	1235.60	73.37%	80.69%
0-40	1473.73	87.51%	96.24%
0-60	1498.36	88.98%	97.85%
0-90	1527.47	90.70%	99.75%
0-120	1527.47	90.70%	99.75%
0-180	1531.26	90.93%	100.00%
60-90	32.50	1.93%	2.12%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-29.77	1225.01	72.74%	80.00%

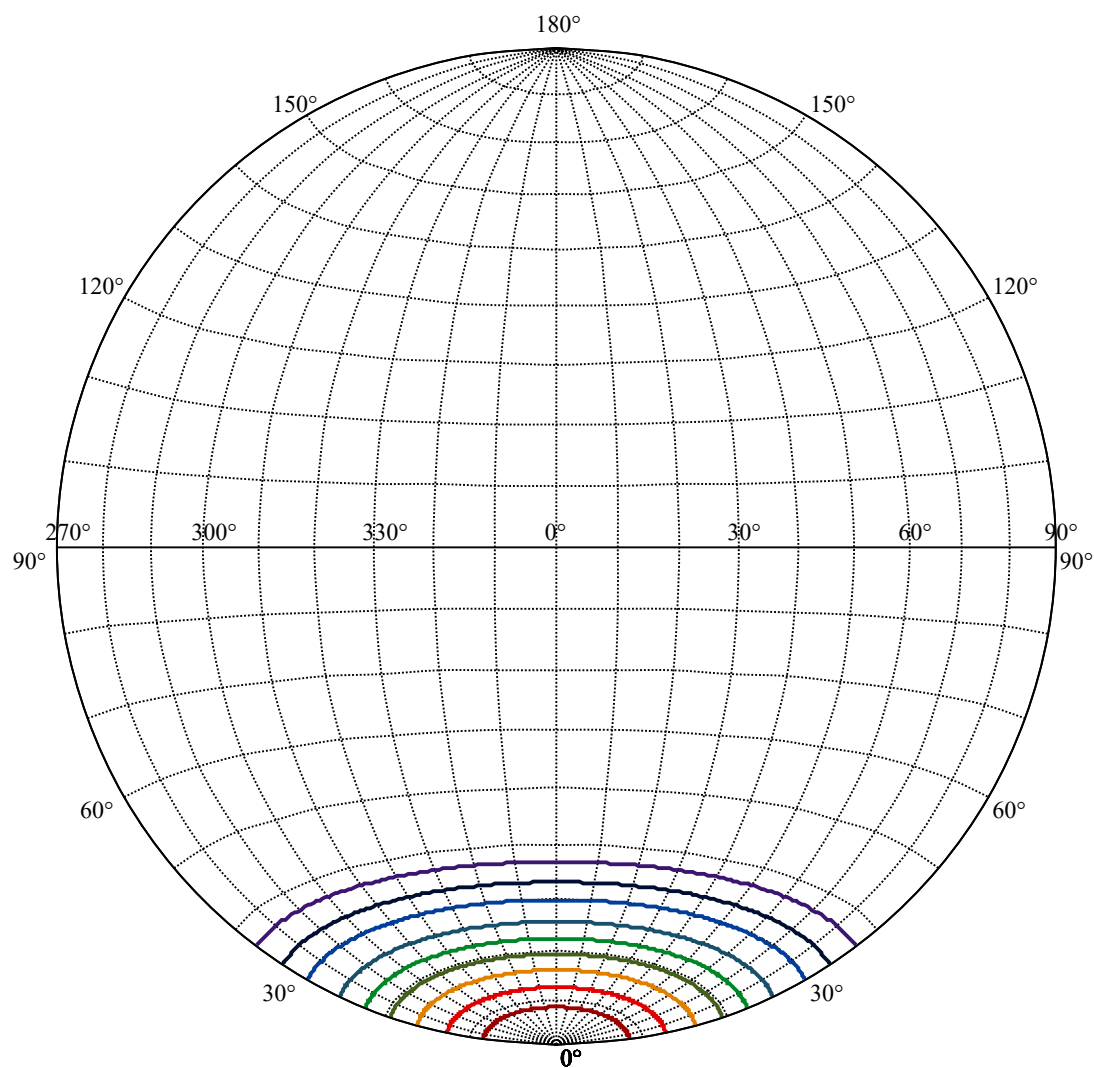
ZONAL LUMEN SUMMARY

0-10	225.62
10-20	516.09
20-30	493.89
30-40	238.13
40-50	17.87
50-60	6.76
60-70	8.41
70-80	14.59
80-90	6.10
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00









House

[Unit:cd]

Road

Imax:2525.27

(10%Imax) 252.526

(20%Imax) 505.053

(30%Imax) 757.579

(40%Imax) 1010.11

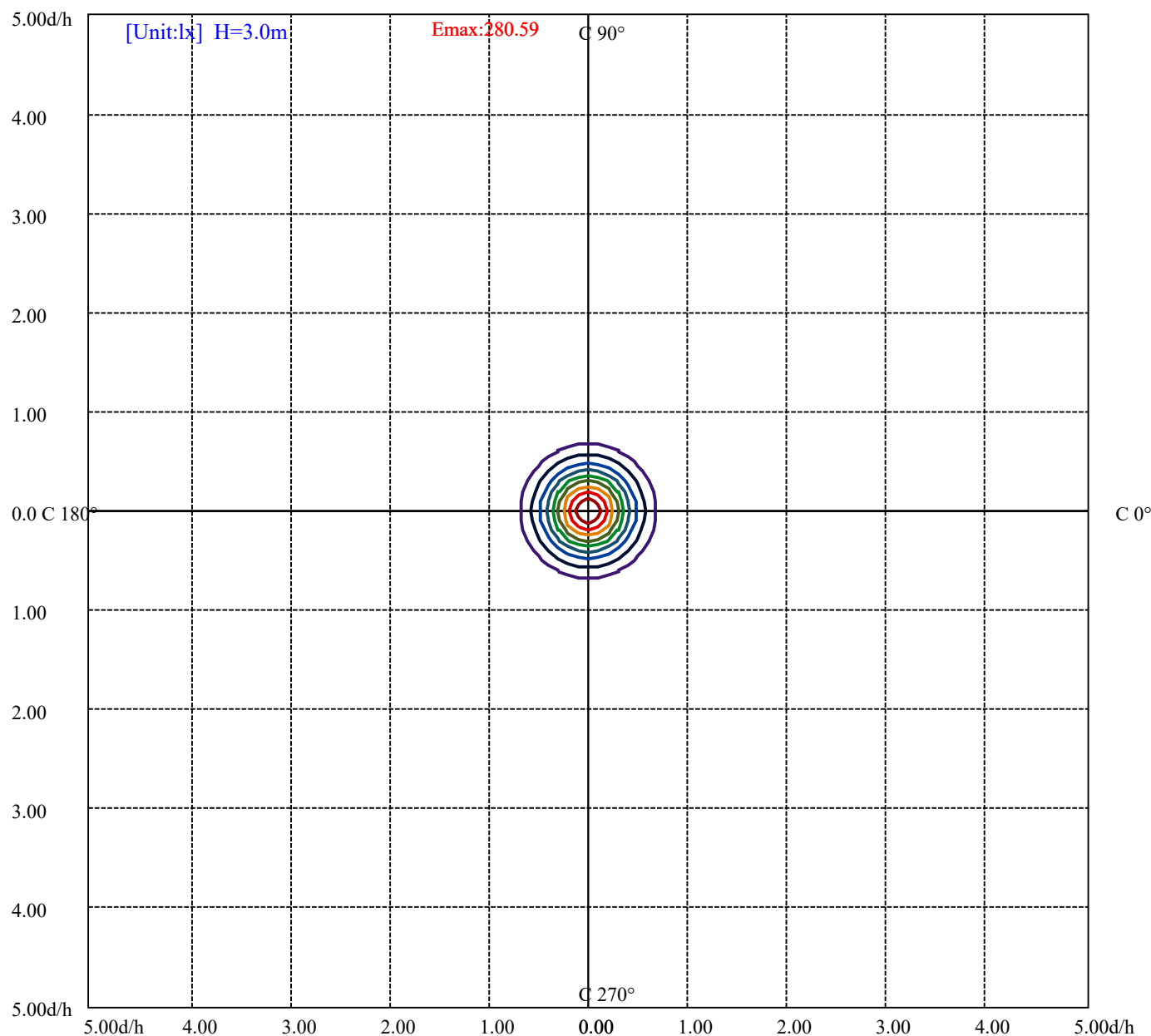
(50%Imax) 1262.63

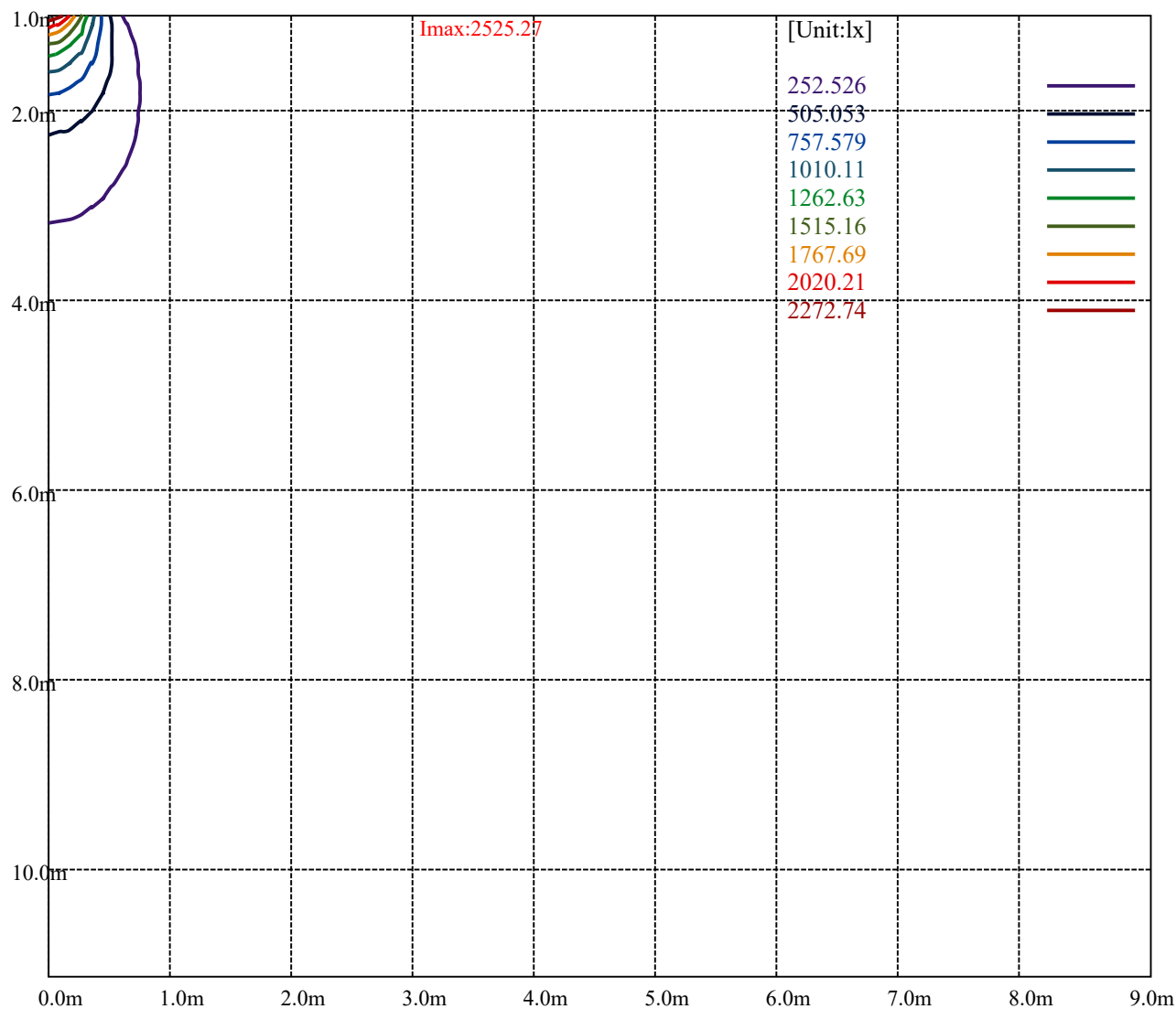
(60%Imax) 1515.16

(70%Imax) 1767.69

(80%Imax) 2020.21

(90%Imax) 2272.74





Luminance Table

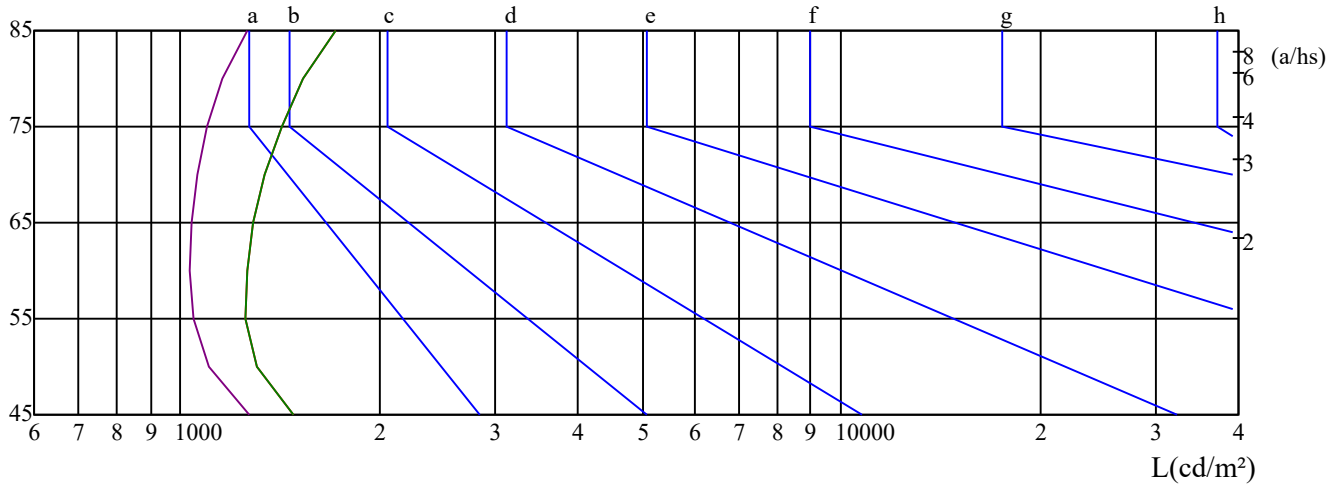
γ	45	50	55	60	65	70	75	80	85
C0	1483	1302	1258	1263	1290	1340	1420	1534	1719
C45	1275	1102	1048	1035	1038	1058	1098	1157	1259
C90	1483	1302	1258	1263	1290	1340	1420	1534	1719

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3098	3098	3098	4886	4886	4886	14562	14562	14562

Glare Table

Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

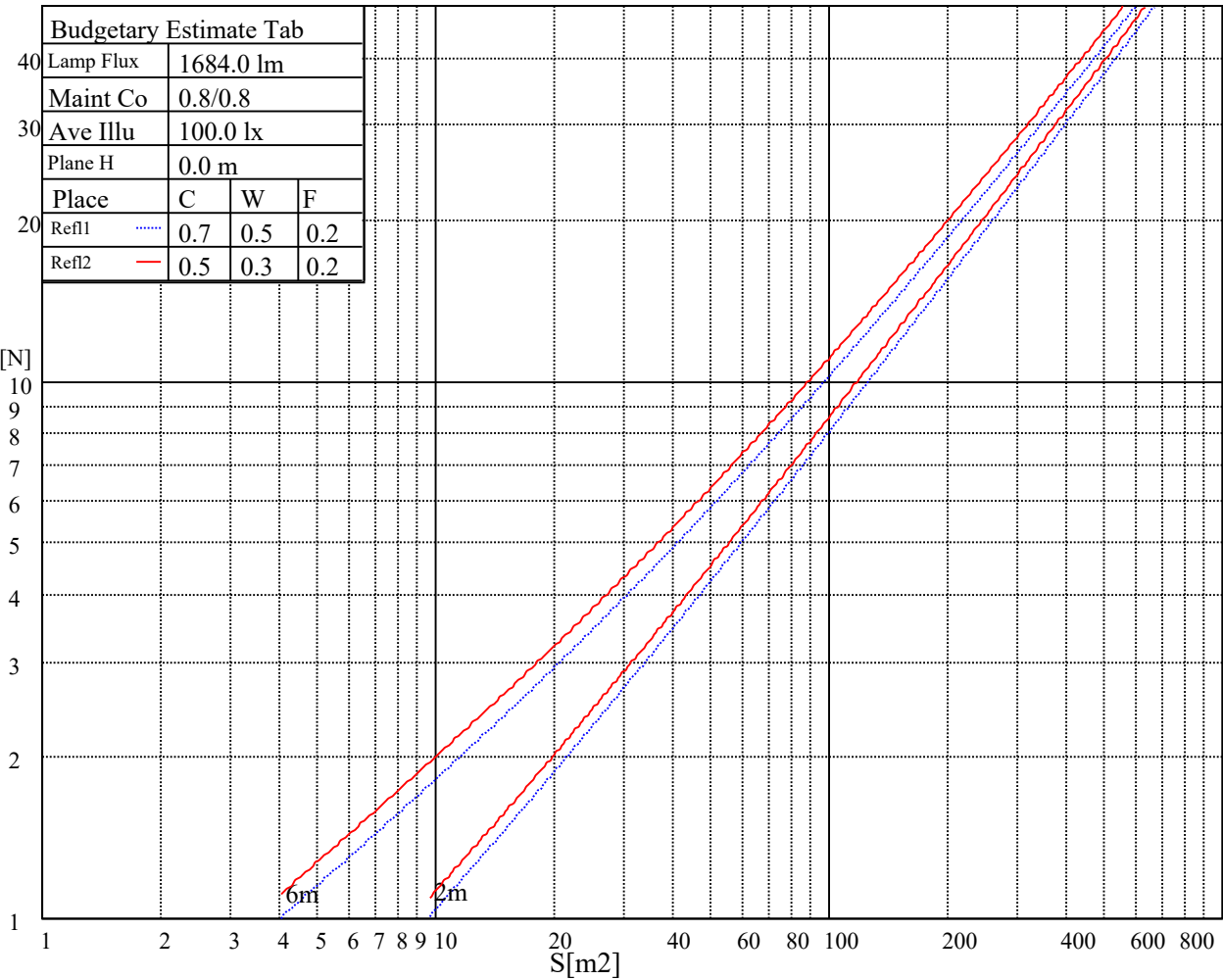
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

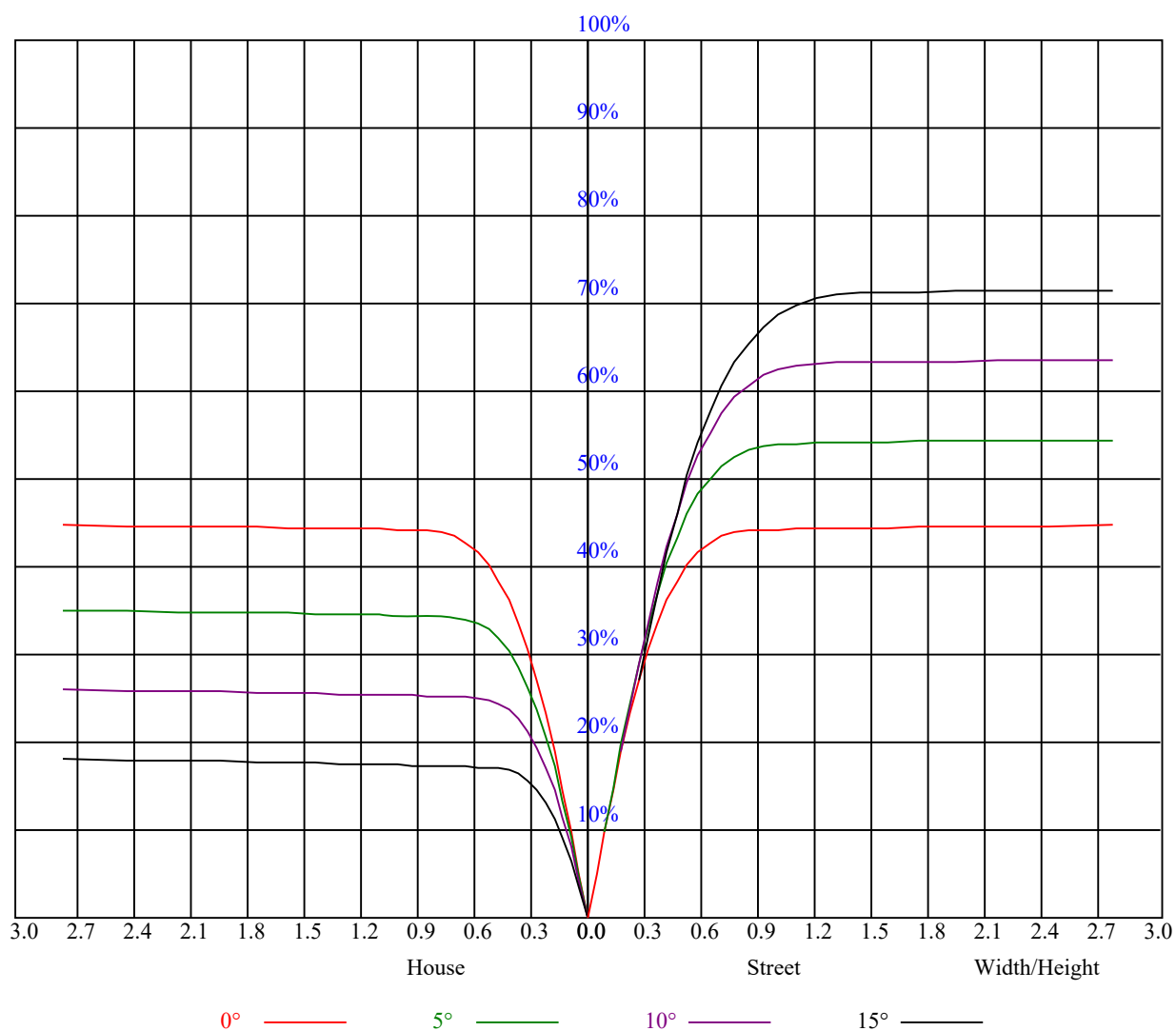
C0 ———

C45 ———

C90 ———



RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.08	1.08	1.08	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.01	0.99	0.97	0.99	0.97	0.95	0.95	0.94	0.92	0.92	0.90	0.89	0.89	0.88	0.87	0.85
2	0.94	0.91	0.88	0.93	0.90	0.87	0.90	0.87	0.85	0.87	0.85	0.83	0.85	0.83	0.81	0.80
3	0.89	0.84	0.81	0.87	0.83	0.80	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.78	0.77	0.75
4	0.83	0.79	0.75	0.82	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.74	0.72	0.71
5	0.79	0.74	0.70	0.78	0.73	0.70	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.68	0.67
6	0.75	0.70	0.66	0.74	0.69	0.66	0.73	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.64	0.63
7	0.71	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.61	0.67	0.64	0.61	0.60
8	0.67	0.62	0.59	0.67	0.62	0.59	0.66	0.62	0.58	0.65	0.61	0.58	0.64	0.61	0.58	0.57
9	0.64	0.59	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.55	0.61	0.58	0.55	0.54
10	0.61	0.56	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.59	0.55	0.53	0.59	0.55	0.53	0.51



Intensity data(cd)									Appendix Page: 14 Total:14		
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	2513.32	2475.89	2270.53	1943.49	1585.62	1141.87	823.09	479.54	120.90		
22.5	2534.80	2478.09	2248.50	1919.82	1527.82	1088.47	814.83	417.33	86.93		
45.0	2532.59	2458.82	2187.94	1836.13	1400.63	1031.43	730.76	311.73	56.76		
67.5	2529.29	2474.23	2241.35	1911.56	1522.86	1090.67	799.97	414.02	87.32		
90.0	2527.64	2435.70	2169.22	1818.51	1397.33	1019.15	722.73	299.73	49.99		
112.5	2523.23	2456.62	2216.57	1871.37	1490.93	1071.40	772.99	398.61	76.47		
135.0	2518.28	2415.87	2135.64	1787.68	1386.87	999.33	694.54	309.47	35.95		
157.5	2521.58	2432.94	2187.94	1848.24	1464.50	1052.68	749.32	370.53	59.08		
180.0	2516.08	2396.61	2112.51	1770.06	1365.40	974.61	662.00	282.77	26.32		
202.5	2534.80	2434.04	2167.57	1836.13	1386.32	1022.84	712.93	317.51	47.62		
225.0	2532.59	2448.36	2213.27	1911.56	1515.70	1084.06	796.67	405.77	79.78		
247.5	2529.29	2430.19	2167.02	1835.03	1416.05	1021.85	707.14	299.12	49.55		
270.0	2527.64	2461.57	2225.38	1940.19	1534.42	1093.42	769.69	416.23	86.00		
292.5	2523.23	2437.90	2178.03	1848.79	1461.20	1034.07	724.65	353.85	55.33		
315.0	2518.28	2464.88	2250.16	1928.08	1564.70	1123.15	801.62	447.61	101.47		
337.5	2521.58	2451.11	2200.05	1866.41	1483.77	1059.78	758.18	383.91	67.72		
360.0	2513.32	2475.89	2270.53	1943.49	1585.62	1141.87	823.09	479.54	120.90		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	10.74	8.48	7.38	7.05	6.83	6.77	6.77	7.05	6.50		
22.5	9.80	7.82	7.32	6.99	6.77	6.72	6.83	6.88	6.50		
45.0	8.64	7.65	7.21	6.94	6.83	7.43	7.82	7.82	6.50		
67.5	9.74	7.87	7.38	7.05	6.88	7.76	8.75	8.92	6.61		
90.0	9.25	7.76	7.38	7.05	7.05	9.52	11.12	10.74	6.66		
112.5	9.86	8.20	7.54	7.21	7.16	10.96	13.82	13.93	6.66		
135.0	9.19	7.98	7.54	7.27	8.42	12.77	15.69	13.98	6.77		
157.5	9.08	8.15	7.71	7.38	7.65	12.72	17.23	17.23	7.05		
180.0	8.64	7.93	7.60	7.38	9.86	16.35	21.64	19.99	7.27		
202.5	9.41	8.04	7.65	7.49	9.47	18.22	26.26	27.58	8.53		
225.0	9.97	8.31	7.71	7.49	8.31	17.18	25.71	27.80	13.05		
247.5	9.14	7.87	7.54	7.32	8.75	15.31	21.25	22.41	9.86		
270.0	9.47	7.98	7.54	7.27	7.49	12.00	15.47	16.41	9.41		
292.5	8.86	7.82	7.38	7.16	7.43	11.12	14.92	15.91	7.05		
315.0	10.30	8.04	7.49	7.16	7.05	8.53	10.74	11.73	6.77		
337.5	9.80	7.93	7.32	6.99	6.83	7.10	8.26	8.86	6.61		
360.0	10.74	8.48	7.38	7.05	6.83	6.77	6.77	7.05	6.50		
C/γ(°)	90.0										
0.0	6.22										
22.5	6.33										
45.0	6.28										
67.5	6.28										
90.0	6.22										
112.5	6.22										
135.0	6.22										
157.5	6.28										
180.0	6.22										
202.5	6.33										
225.0	6.33										
247.5	6.28										
270.0	6.28										
292.5	6.22										
315.0	6.28										
337.5	6.22										
360.0	6.22										