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## SHENZHEN TIANYA LIGHTING CO., LTD.

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LumCAT: 30W-C

Luminaire:

Report No:

Voltage(V): 120.1100

Test No:

Current(A): 0.2730

LampCAT:

Power (W): 29.6300

Lamp flux(lm)

PF: 0.9023

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

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## Photometric Results

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Lumens(lm): 2888.54

Lumens(lm)/Power(W): 97.49

Central intensity(cd): 859.125

Maximum intensity(cd): 878.554

Angle of maximum intensity: C=180.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=95.2

[C90/270]Total=95.4

Field angle(10%Imax): [C0/180]Total=227.6

[C90/270]Total=226.1

Maximum s/h(1/2): C0\_180=1.17 C90\_270=1.18

Maximum s/h(1/4): C0\_180=1.25 C90\_270=1.27

Up flux rate of LUM(%): 15.40%

Down flux rate of LUM(%): 84.60%

CIE Type : Semidirect lighting

Output flux ratio in  $\pi$  solid angle : 59.063%

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Equipment:  
Temperature(°C): 25.0

Date: 2016-3-3  
Humidity(%): 60.0%

Operator: Felix  
Distance(m): 12.78

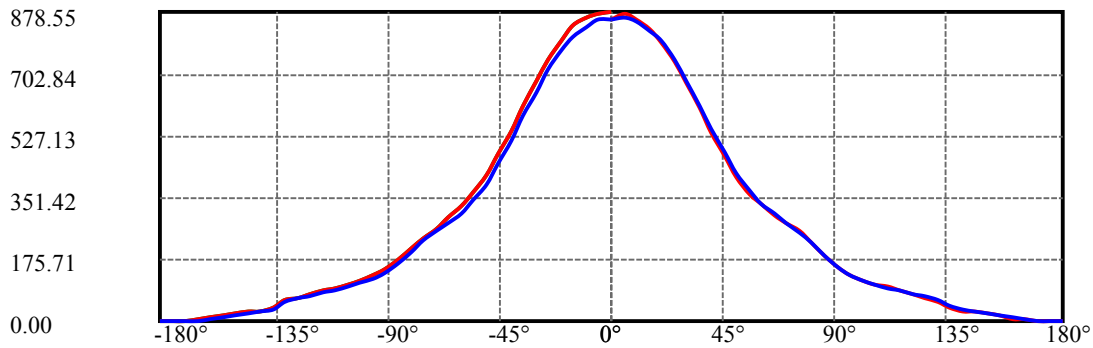
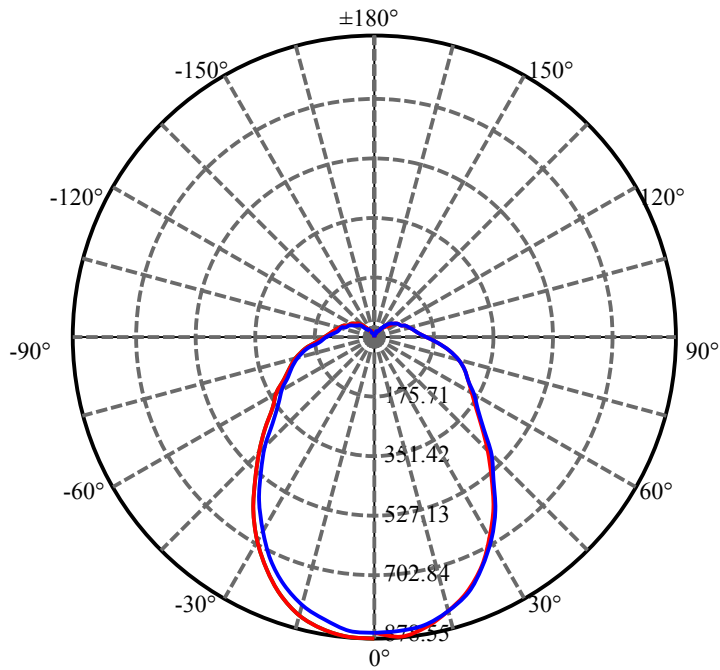
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)	Sum/Lum(%)
0.0	861.809	.000	.000	.000%	.000%	.000%
5.0	861.298	20.599	20.599	.713%	.713%	.713%
10.0	847.563	61.131	81.731	2.116%	2.829%	2.829%
15.0	821.175	98.988	180.719	3.427%	6.256%	6.256%
20.0	783.245	132.227	312.946	4.578%	10.834%	10.834%
25.0	730.958	158.812	471.758	5.498%	16.332%	16.332%
30.0	668.273	177.074	648.832	6.130%	22.462%	22.462%
35.0	600.261	186.801	835.632	6.467%	28.929%	28.929%
40.0	529.708	188.527	1024.159	6.527%	35.456%	35.456%
45.0	462.767	183.765	1207.924	6.362%	41.818%	41.818%
50.0	404.807	175.306	1383.230	6.069%	47.887%	47.887%
55.0	357.969	165.853	1549.082	5.742%	53.629%	53.629%
60.0	321.192	156.986	1706.068	5.435%	59.063%	59.063%
65.0	290.814	148.780	1854.848	5.151%	64.214%	64.214%
70.0	266.313	141.068	1995.916	4.884%	69.098%	69.098%
75.0	241.874	132.832	2128.748	4.599%	73.696%	73.696%
80.0	210.046	120.921	2249.669	4.186%	77.883%	77.883%
85.0	177.413	105.282	2354.951	3.645%	81.527%	81.527%
90.0	146.432	88.671	2443.623	3.070%	84.597%	84.597%
95.0	126.289	74.673	2518.296	2.585%	87.182%	87.182%
100.0	112.248	64.816	2583.112	2.244%	89.426%	89.426%
105.0	102.054	57.341	2640.453	1.985%	91.411%	91.411%
110.0	93.084	51.006	2691.459	1.766%	93.177%	93.177%
115.0	83.370	44.679	2736.138	1.547%	94.724%	94.724%
120.0	74.492	38.376	2774.515	1.329%	96.053%	96.053%
125.0	65.941	32.461	2806.975	1.124%	97.176%	97.176%
130.0	57.012	26.734	2833.709	.926%	98.102%	98.102%
135.0	36.950	18.986	2852.696	.657%	98.759%	98.759%
140.0	28.521	12.123	2864.818	.420%	99.179%	99.179%
145.0	24.307	8.814	2873.632	.305%	99.484%	99.484%
150.0	20.113	6.541	2880.173	.226%	99.710%	99.710%
155.0	15.113	4.458	2884.631	.154%	99.865%	99.865%
160.0	8.551	2.482	2887.113	.086%	99.951%	99.951%
165.0	3.378	.983	2888.096	.034%	99.985%	99.985%
170.0	1.633	.297	2888.393	.010%	99.995%	99.995%
175.0	1.469	.111	2888.504	.004%	99.999%	99.999%
180.0	1.490	.035	2888.540	.001%	100.000%	100.000%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-30	648.83	22.46%
0-40	1024.16	35.46%
0-60	1706.07	59.06%
0-90	2443.62	84.60%
0-120	2774.52	96.05%
0-180	2888.54	100.00%
60-90	894.54	30.97%
90-120	419.56	14.53%
90-130	478.76	16.57%
90-150	525.22	18.18%
90-180	533.55	18.47%
0-82.90	2310.83	80.00%

## ZONAL LUMEN SUMMARY

0-10	81.73
10-20	231.22
20-30	335.89
30-40	375.33
40-50	359.07
50-60	322.84
60-70	289.85
70-80	253.75
80-90	193.95
90-100	139.49
100-110	108.35
110-120	83.06
120-130	59.19
130-140	31.11
140-150	15.36
150-160	6.94
160-170	1.28
170-180	0.11



C180(Max): ———

C0/C180: ———

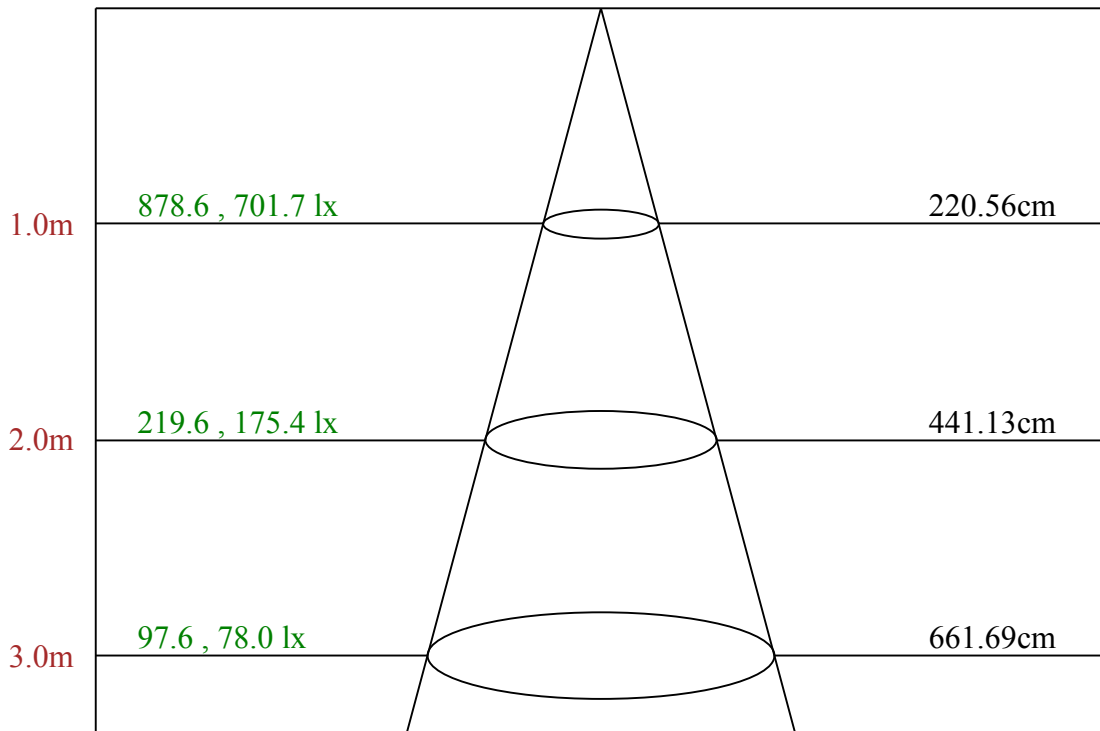
C90/C270: ———

Field angle(10%Imax):C0/180Left:114.0 Right:113.7

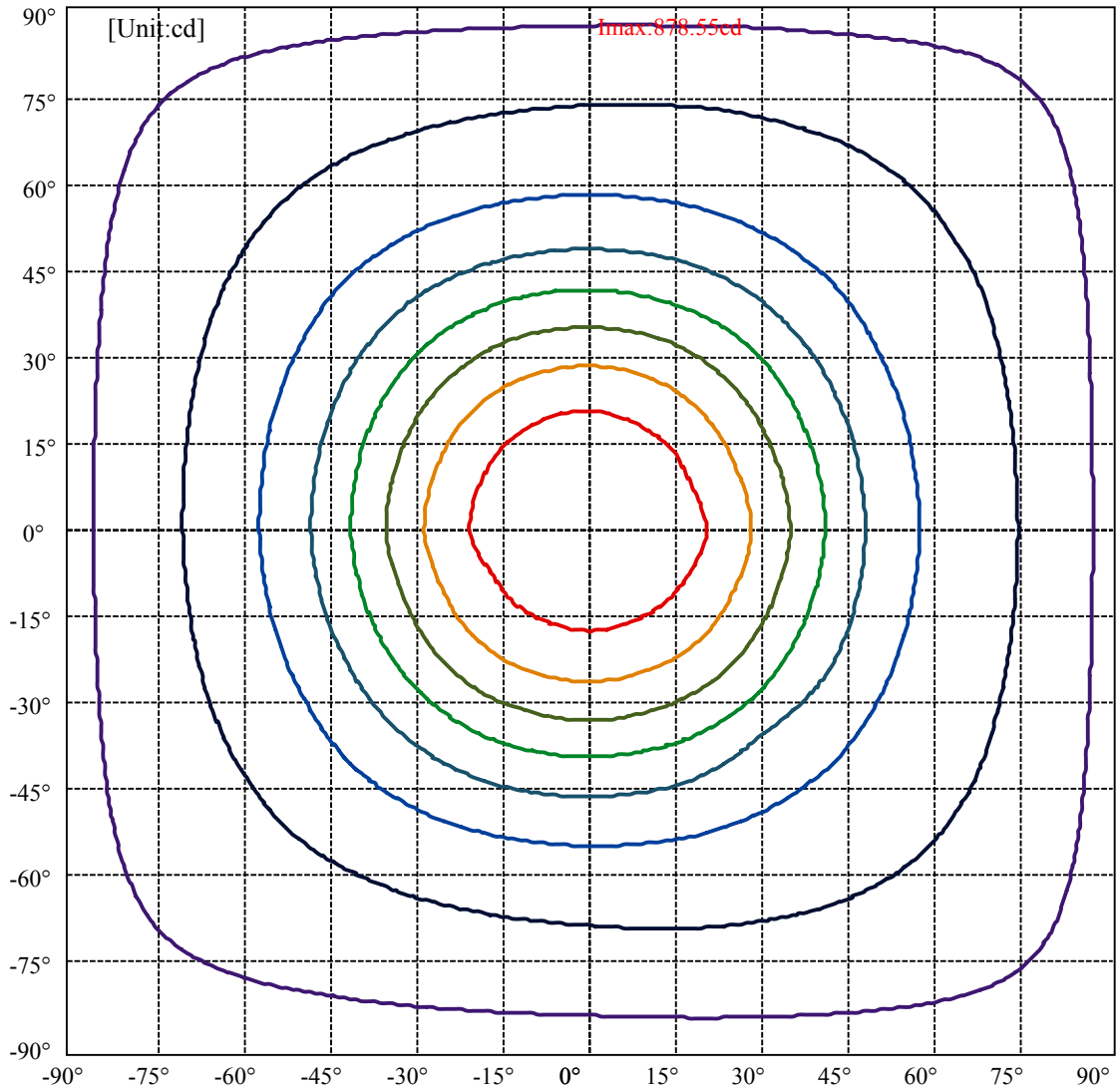
:C90/270Left:116.8 Right:109.4

Beam Angle(50%Imax):C0/180Left:47.9 Right:47.3

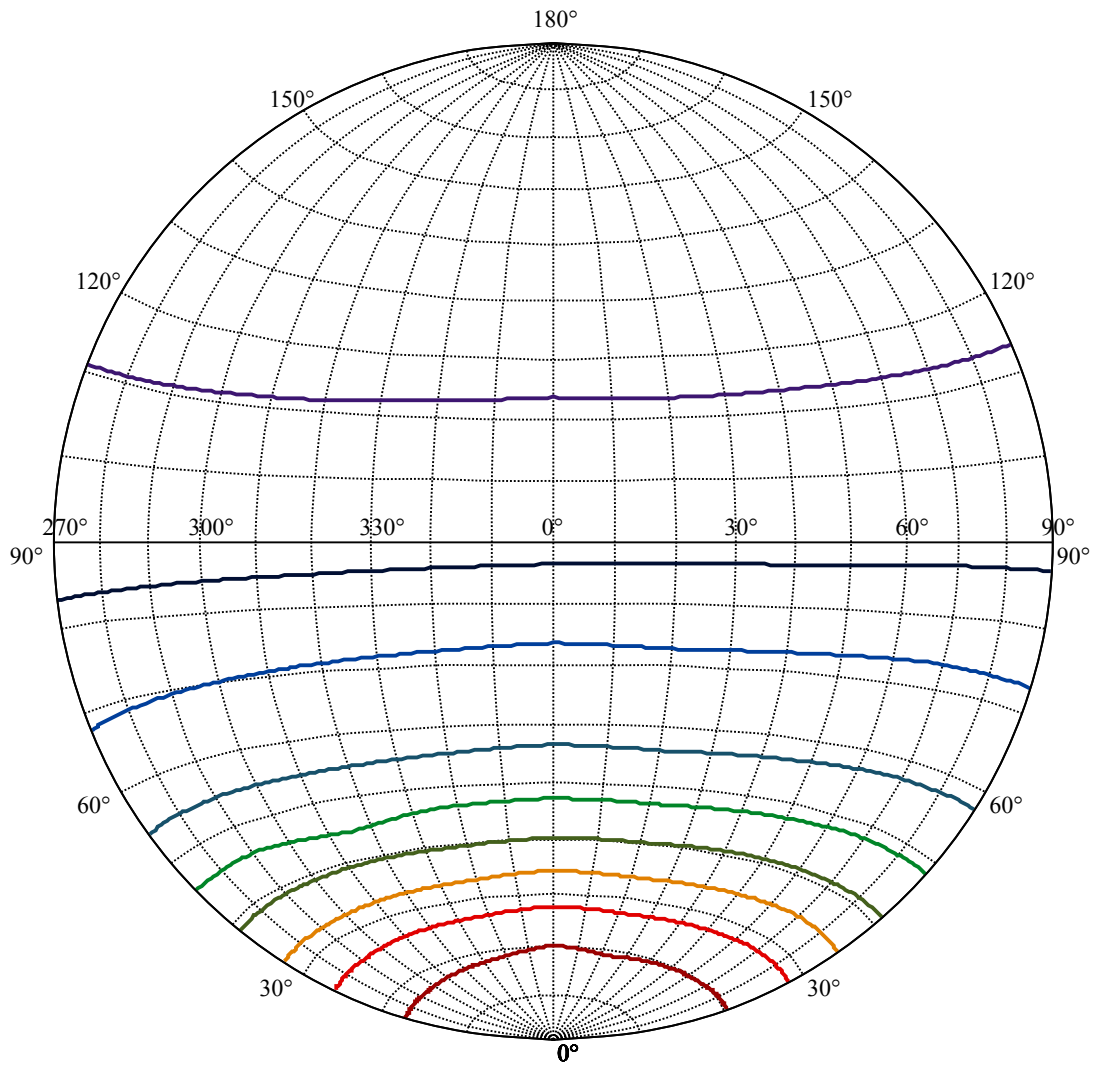
:C90/270Left:51.4 Right:44.0



Max , Ave      Beam angle of C180plane95.60



(10%Imax) 175.548	—
(20%Imax) 263.321	—
(30%Imax) 351.095	—
(40%Imax) 438.869	—
(50%Imax) 526.643	—
(60%Imax) 614.416	—
(70%Imax) 702.19	—
(80%Imax) 789.964	—












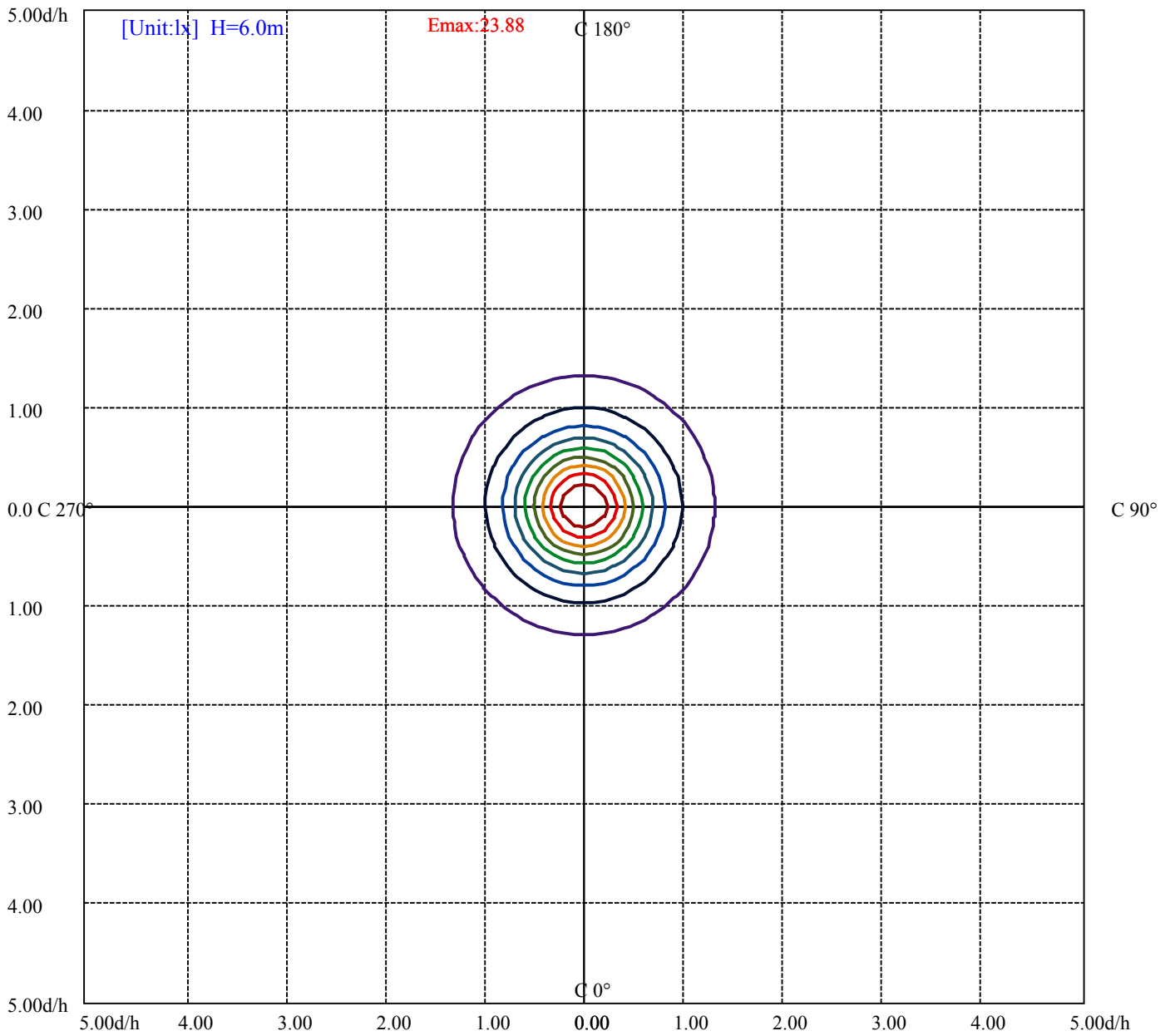
House

[Unit:cd]

Road

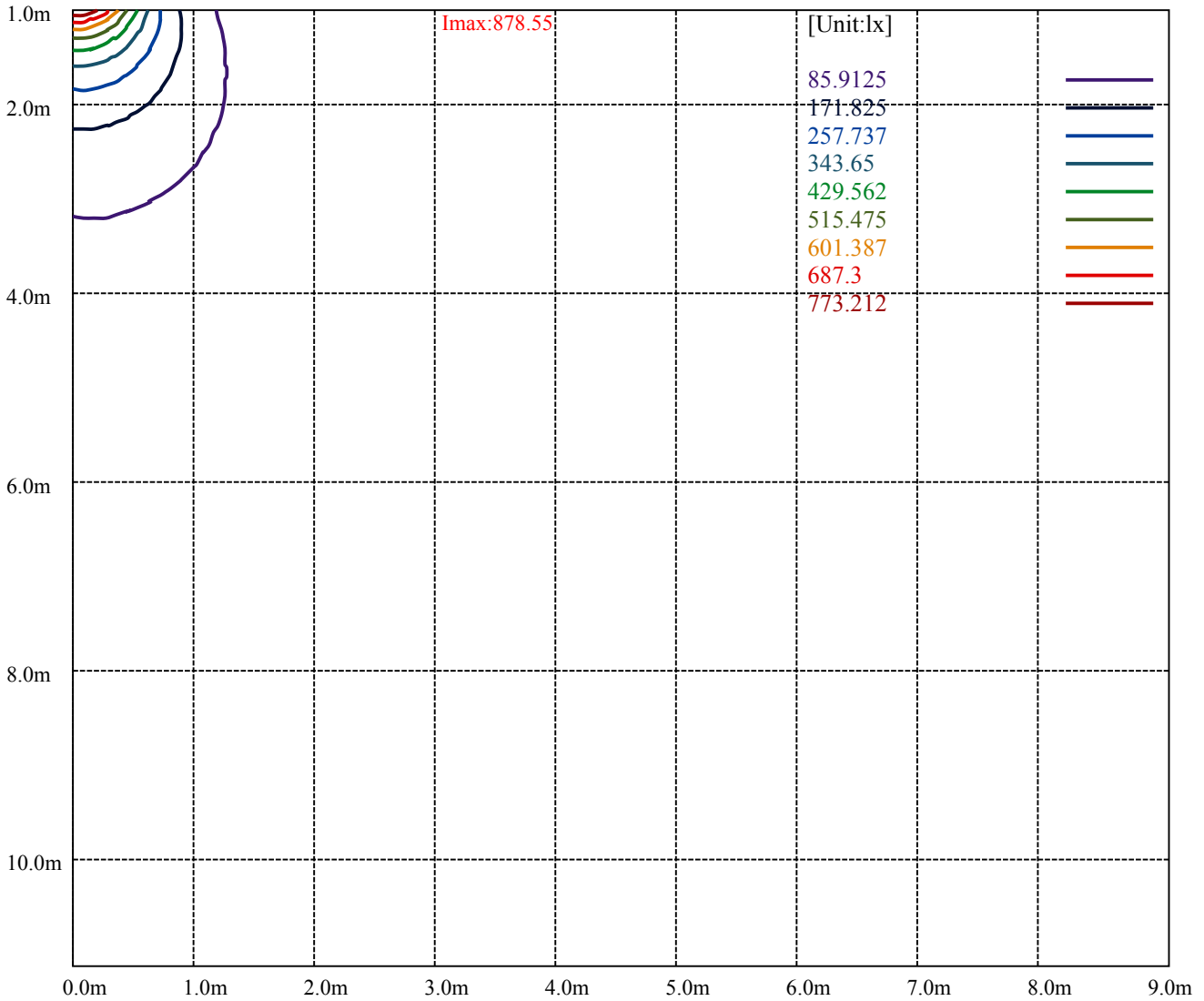
**Imax:878.55**

(10%Imax) 87.8554	
(20%Imax) 175.711	
(30%Imax) 263.566	
(40%Imax) 351.422	
(50%Imax) 439.277	
(60%Imax) 527.132	
(70%Imax) 614.988	
(80%Imax) 702.843	
(90%Imax) 790.698	



- (10%Emax) 2.387814
- (20%Emax) 4.775639
- (30%Emax) 7.163445
- (40%Emax) 9.55125
- (50%Emax) 11.93908
- (60%Emax) 14.32689
- (70%Emax) 16.71469
- (80%Emax) 19.10253
- (90%Emax) 21.49033





Luminance Table

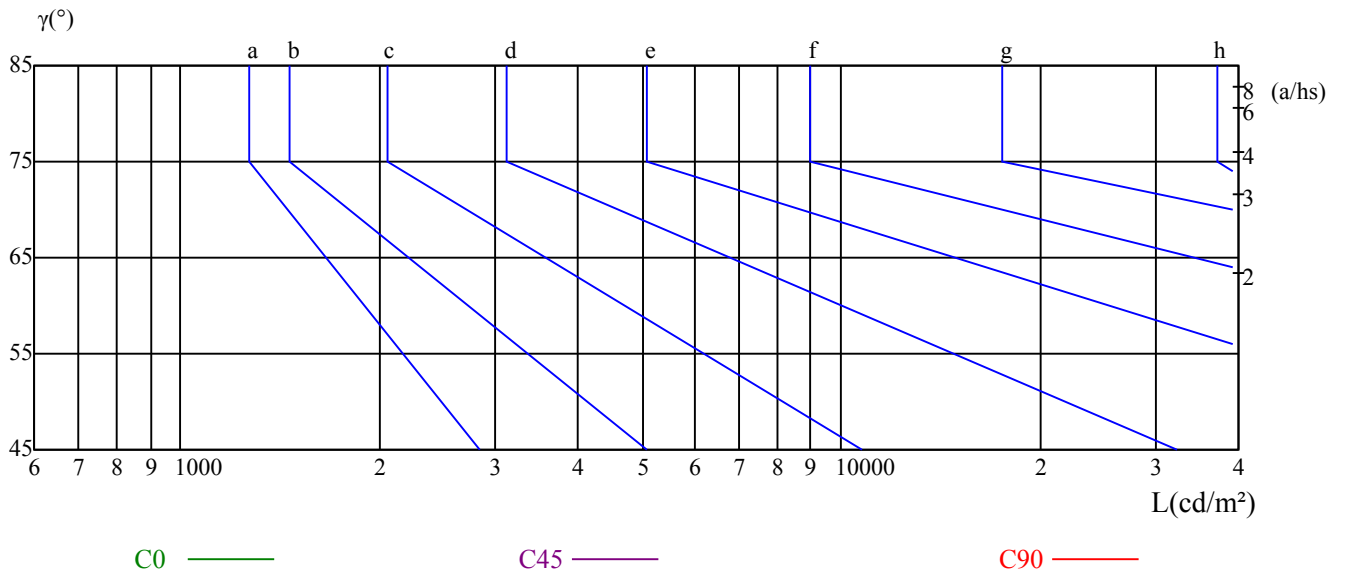
$\gamma$	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

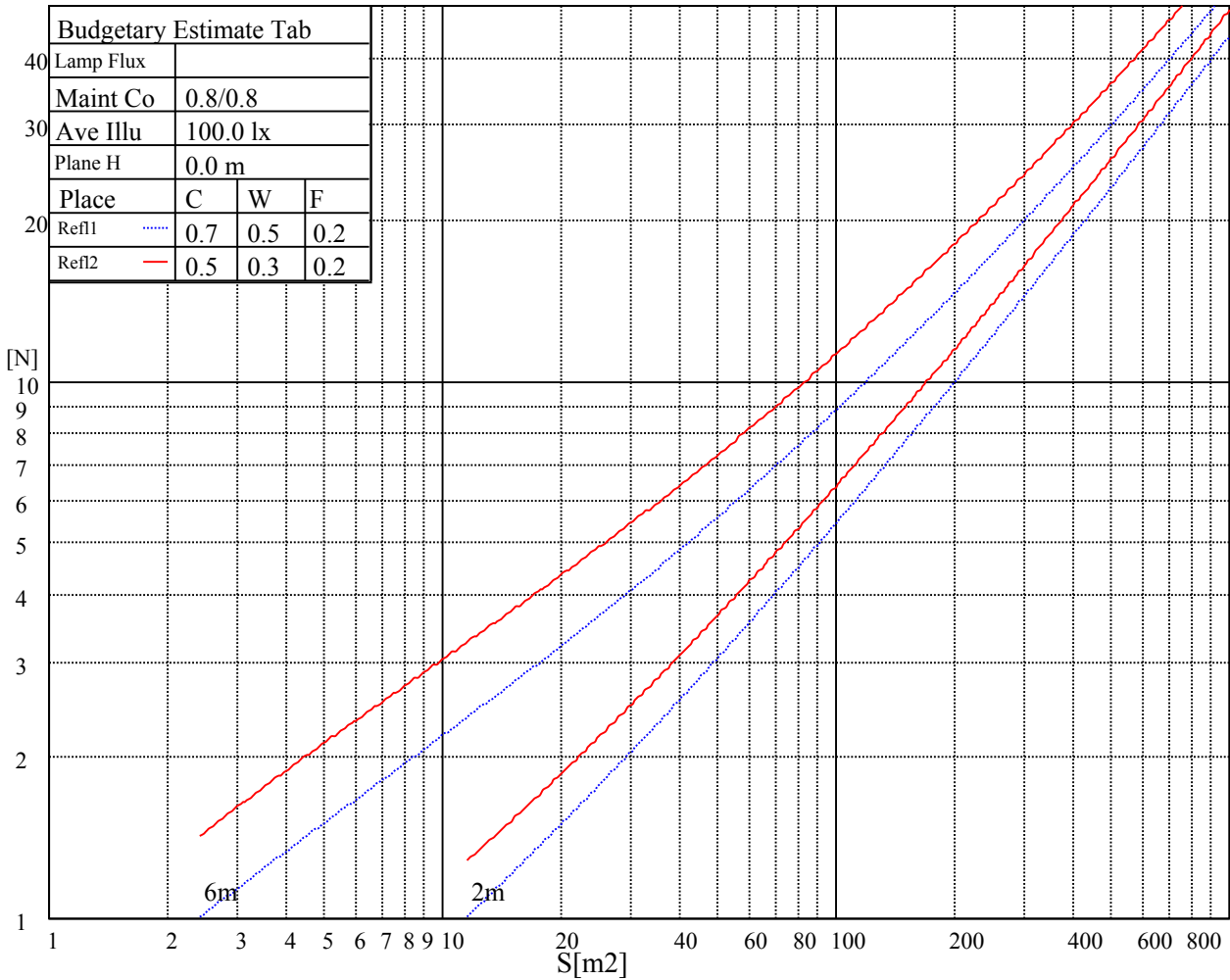
L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

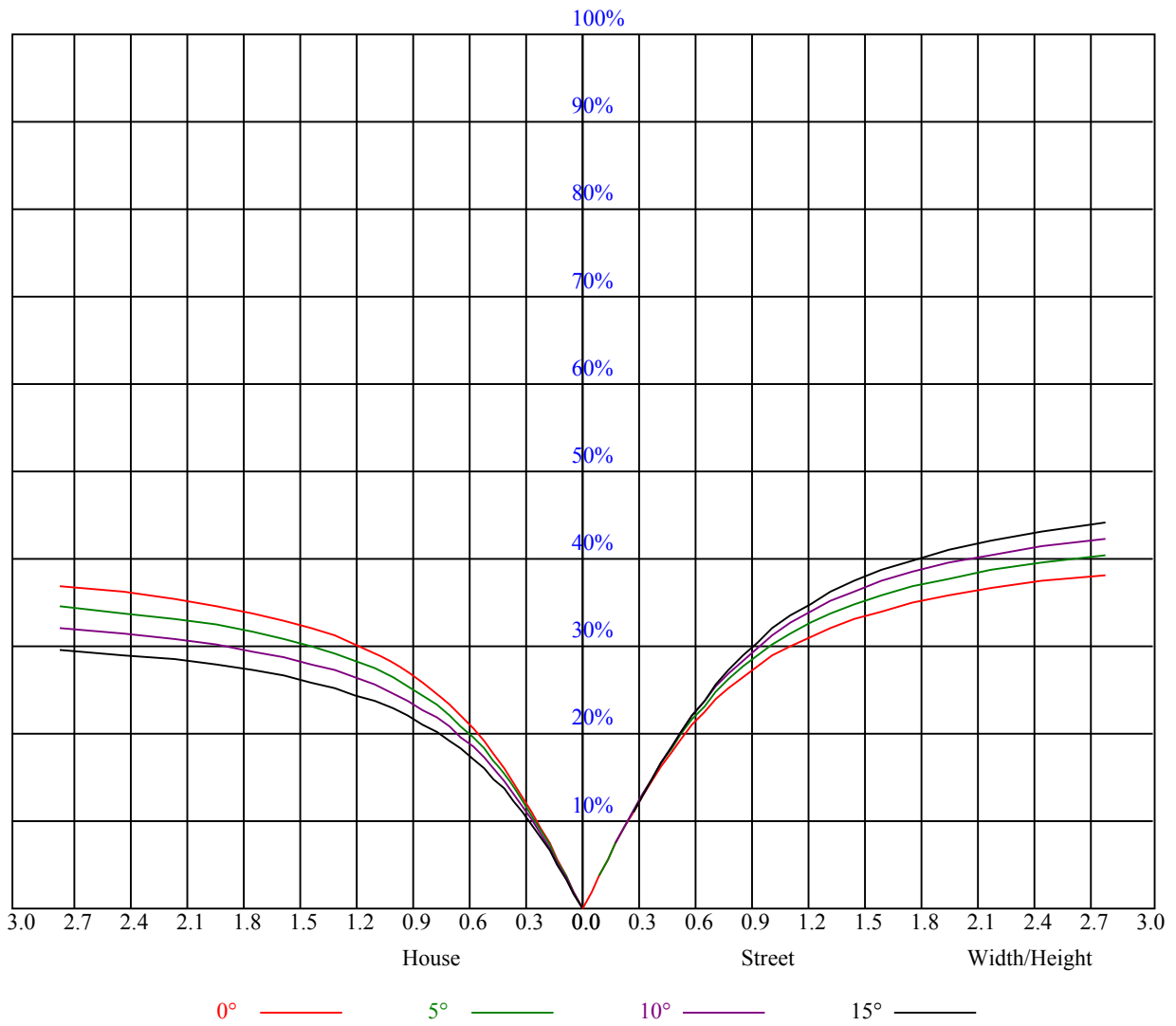
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





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 RHOF=20 CU															
0	1.15	1.15	1.15	1.11	1.11	1.11	1.03	1.03	1.03	0.95	0.95	0.95	0.88	0.88	0.88	0.85
1	0.97	0.92	0.88	0.93	0.89	0.85	0.86	0.83	0.79	0.80	0.77	0.74	0.74	0.71	0.69	0.66
2	0.84	0.77	0.70	0.81	0.74	0.68	0.75	0.69	0.64	0.69	0.65	0.61	0.64	0.60	0.57	0.54
3	0.74	0.65	0.58	0.71	0.63	0.57	0.66	0.59	0.54	0.61	0.55	0.51	0.56	0.52	0.48	0.45
4	0.65	0.56	0.49	0.63	0.54	0.48	0.58	0.51	0.46	0.54	0.48	0.43	0.50	0.45	0.41	0.38
5	0.58	0.49	0.42	0.56	0.48	0.41	0.52	0.45	0.39	0.49	0.43	0.38	0.45	0.40	0.36	0.33
6	0.52	0.43	0.37	0.51	0.42	0.36	0.47	0.40	0.35	0.44	0.38	0.33	0.41	0.36	0.32	0.29
7	0.48	0.39	0.33	0.46	0.38	0.32	0.43	0.36	0.31	0.40	0.34	0.29	0.38	0.32	0.28	0.26
8	0.43	0.35	0.29	0.42	0.34	0.29	0.40	0.33	0.28	0.37	0.31	0.26	0.35	0.29	0.25	0.23
9	0.40	0.32	0.26	0.39	0.31	0.26	0.36	0.30	0.25	0.34	0.28	0.24	0.32	0.27	0.23	0.21
10	0.37	0.29	0.24	0.36	0.28	0.23	0.34	0.27	0.23	0.32	0.26	0.22	0.30	0.25	0.21	0.19



SHENZHEN TIANYA LIGHTING CO., LTD. 30W-C

Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	859.12	874.15	857.98	830.88	792.51	736.84	674.63	608.02	532.42
22.5	859.29	857.66	847.37	821.57	781.90	730.14	666.30	599.85	529.97
45.0	858.63	860.43	848.35	825.00	787.12	733.24	671.85	605.89	538.46
67.5	858.63	859.45	851.94	826.63	790.06	738.63	677.57	612.91	539.61
90.0	859.29	860.59	851.78	826.63	794.96	742.39	679.53	611.77	543.03
112.5	861.08	858.96	851.61	828.27	795.94	745.16	680.34	615.69	545.16
135.0	864.02	862.06	854.72	829.90	794.14	741.73	682.96	613.73	545.97
157.5	865.33	867.45	853.74	827.45	794.47	742.88	679.85	612.26	541.73
180.0	878.55	874.47	860.92	838.23	797.08	744.02	684.10	613.73	540.59
202.5	859.29	857.17	844.43	815.70	776.84	728.67	664.02	594.63	525.40
225.0	858.63	855.70	841.82	812.59	773.90	723.45	657.65	590.38	517.40
247.5	858.63	855.04	837.08	809.00	767.86	717.41	653.08	584.18	514.14
270.0	859.29	857.33	835.94	809.16	767.37	714.63	650.79	582.22	510.87
292.5	861.08	857.00	836.10	807.37	767.37	714.14	651.28	580.42	512.99
315.0	862.72	860.76	840.02	811.45	772.27	719.20	655.20	587.44	517.07
337.5	865.33	862.55	847.21	818.96	778.14	722.79	663.20	591.04	520.50
360.0	859.12	874.15	857.98	830.88	792.51	736.84	674.63	608.02	532.42
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	467.44	407.36	361.64	330.29	302.05	280.01	256.66	221.88	185.47
22.5	462.22	404.58	358.70	323.76	296.82	275.44	253.88	222.54	186.62
45.0	468.58	411.28	362.46	328.50	298.46	276.74	255.52	221.39	185.64
67.5	474.95	418.30	369.15	331.60	302.38	280.66	256.66	221.56	188.09
90.0	479.36	417.81	370.46	333.89	303.52	278.70	253.56	221.56	187.11
112.5	479.36	417.48	370.30	330.29	299.76	273.15	247.52	215.52	184.17
135.0	478.22	418.46	367.36	327.36	294.05	267.60	243.11	213.39	180.58
157.5	474.95	412.26	364.58	324.74	292.74	263.84	237.56	207.19	178.13
180.0	473.65	414.05	365.07	326.70	292.25	263.03	236.58	206.54	176.82
202.5	456.01	399.68	350.87	311.52	278.37	249.97	222.70	195.43	168.49
225.0	452.09	394.13	347.11	306.62	273.97	245.23	220.58	191.84	163.11
247.5	450.30	391.19	343.68	305.15	273.80	247.35	221.88	193.15	163.60
270.0	447.36	388.26	344.01	307.27	275.76	254.37	229.88	197.07	164.90
292.5	448.34	390.87	347.76	311.52	284.74	261.88	237.56	204.25	170.29
315.0	433.48	392.17	349.72	318.05	289.31	268.74	245.07	210.94	175.03
337.5	457.97	399.03	354.62	321.80	295.03	274.29	251.27	216.50	180.58
360.0	467.44	407.36	361.64	330.29	302.05	280.01	256.66	221.88	185.47
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	150.70	129.64	115.59	104.33	96.00	84.90	74.94	66.12	56.00
22.5	151.02	128.98	113.64	102.53	93.88	84.57	75.27	66.12	57.31
45.0	152.49	129.80	114.29	102.86	94.21	84.90	75.76	67.27	58.78
67.5	154.13	129.64	113.80	103.35	94.04	85.06	76.25	68.08	59.59
90.0	153.15	130.62	114.29	103.84	94.04	84.90	77.06	68.57	60.25
112.5	150.86	128.98	114.13	103.35	93.88	85.39	76.90	69.23	60.90
135.0	150.21	128.49	113.96	103.02	94.21	85.39	76.74	69.06	61.55
157.5	149.39	128.17	113.96	103.84	95.35	86.21	77.06	68.90	60.57
180.0	148.09	128.66	114.78	104.17	95.35	85.88	77.23	67.92	58.61
202.5	140.90	123.92	110.53	101.88	92.57	82.29	73.80	64.65	56.00
225.0	138.29	121.47	109.88	100.74	90.94	81.47	72.33	63.84	55.02
247.5	136.17	119.68	108.41	99.10	89.80	80.00	71.84	63.19	54.04
270.0	137.15	119.84	107.76	98.61	89.64	79.51	71.51	62.86	51.92
292.5	139.92	121.80	108.41	99.27	90.12	80.17	71.35	62.53	52.90
315.0	143.02	123.76	110.04	100.08	91.43	80.66	71.68	62.86	54.53
337.5	147.43	127.19	112.49	101.88	93.88	82.61	72.17	63.84	54.21
360.0	150.70	129.64	115.59	104.33	96.00	84.90	74.94	66.12	56.00

Intensity data(cd)

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	35.92	29.06	25.14	20.41	14.86	8.16	3.10	1.47	1.31
22.5	37.39	29.39	25.14	21.06	16.00	9.31	4.25	1.80	1.63
45.0	38.04	29.55	25.31	20.90	16.49	9.96	4.57	1.96	1.47
67.5	41.63	29.88	25.14	21.06	16.82	10.29	4.41	1.96	1.47
90.0	44.74	30.20	25.31	21.55	17.14	11.10	4.41	1.80	1.47
112.5	42.45	29.88	25.31	21.23	16.98	10.61	4.57	1.80	1.47
135.0	39.51	30.20	25.31	21.23	16.49	10.45	4.41	1.63	1.47
157.5	39.18	29.72	25.14	21.06	16.16	9.80	3.76	1.63	1.47
180.0	40.33	29.39	24.98	20.74	15.51	8.98	3.76	1.80	1.47
202.5	34.45	27.76	23.51	19.43	14.04	7.67	2.61	1.47	1.47
225.0	33.47	26.94	22.69	18.94	13.71	7.02	2.29	1.47	1.63
247.5	32.82	26.45	22.69	18.45	13.55	6.53	2.12	1.47	1.47
270.0	32.49	26.29	22.69	18.61	13.06	6.37	2.12	1.47	1.47
292.5	32.00	26.61	23.18	18.78	13.39	6.37	2.45	1.47	1.47
315.0	33.14	27.10	23.35	18.94	13.55	6.86	2.29	1.47	1.31
337.5	33.63	27.92	24.00	19.43	14.04	7.35	2.94	1.47	1.47
360.0	35.92	29.06	25.14	20.41	14.86	8.16	3.10	1.47	1.31
C/γ(°)	180.0								
0.0	1.47								
22.5	1.47								
45.0	1.63								
67.5	1.47								
90.0	1.47								
112.5	1.47								
135.0	1.47								
157.5	1.47								
180.0	1.47								
202.5	1.47								
225.0	1.63								
247.5	1.47								
270.0	1.47								
292.5	1.47								
315.0	1.47								
337.5	1.47								
360.0	1.47								