
Nata

LumCAT: 3-1943-M	
Luminaire: BJB 47.319.2131	
Report No: GC2017080818	Voltage(V): 0.0000
Test No: NT-0010	Current(A): 0.0000
LampCAT: CREE CXA1816	Power (W): 0.0000
Lamp flux(lm): 2010.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 86	Width(mm): 86
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1854.59
Efficiency(%): 92.27%
Lumens(lm)/Power(W): 0.00
Central intensity(cd): 7163.613
Maximum intensity(cd): 7163.613
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=24.7
[C90/270]Total=24.7
Field angle(10%Imax): [C0/180]Total=49.8
[C90/270]Total=49.8
Maximum s/h(1/2): C0_180=0.42 C90_270=0.42
Maximum s/h(1/4): C0_180=0.41 C90_270=0.41
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 92.27%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.663%

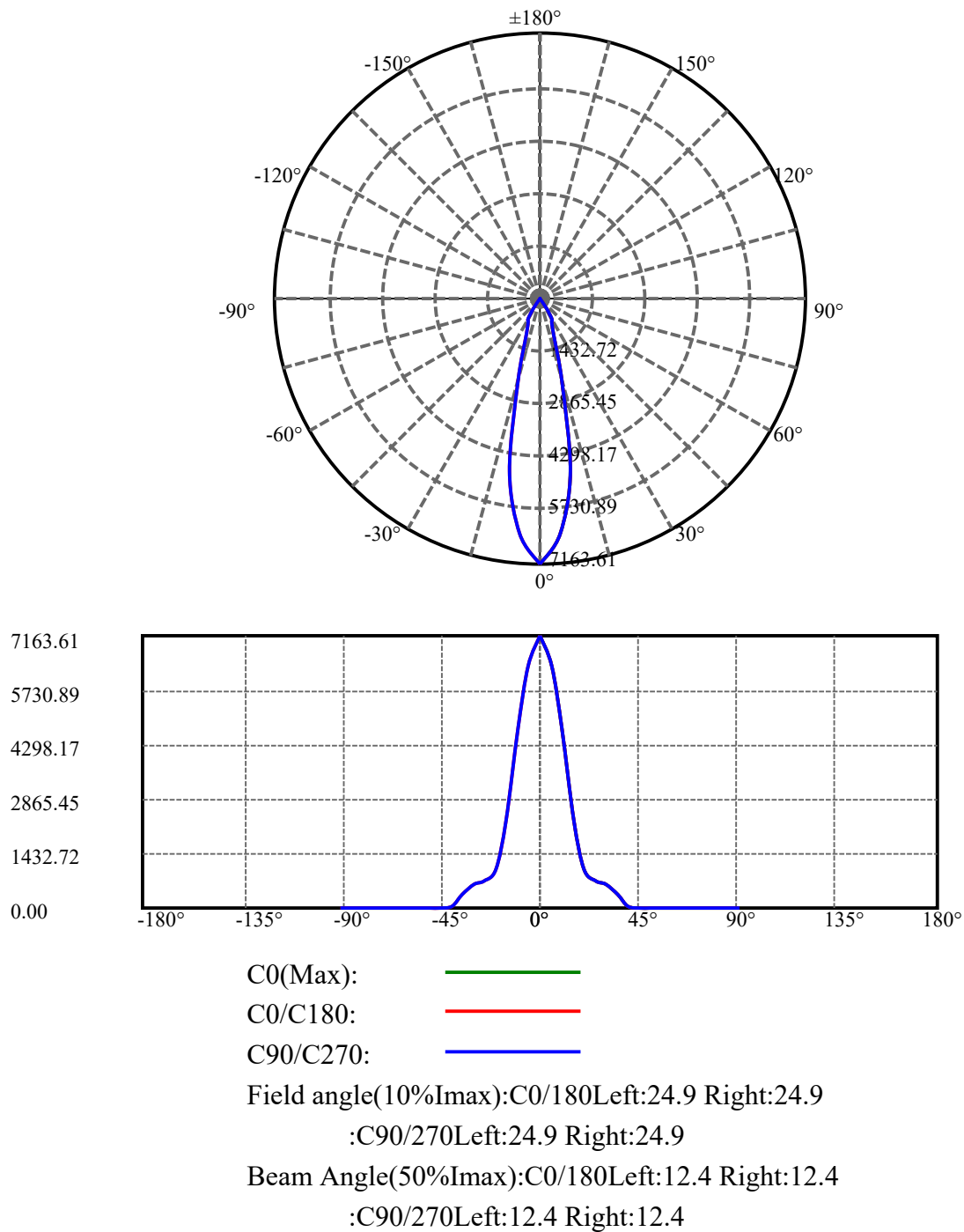
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7163.613	0.000	0	.000%	.000%
5.0	6373.152	161.828	161.828	8.051%	8.726%
10.0	4703.047	396.231	558.059	19.713%	30.091%
15.0	2317.472	416.452	974.511	20.719%	52.546%
20.0	1039.781	276.685	1251.196	13.765%	67.465%
25.0	708.146	183.325	1434.521	9.121%	77.350%
30.0	622.484	168.392	1602.913	8.378%	86.429%
35.0	356.949	144.228	1747.142	7.176%	94.206%
40.0	24.452	63.634	1810.776	3.166%	97.637%
45.0	11.304	6.621	1817.396	.329%	97.994%
50.0	9.802	4.265	1821.661	.212%	98.224%
55.0	9.002	4.088	1825.75	.203%	98.445%
60.0	8.487	4.042	1829.792	.201%	98.663%
65.0	8.202	4.057	1833.849	.202%	98.881%
70.0	8.014	4.106	1837.955	.204%	99.103%
75.0	7.847	4.146	1842.101	.206%	99.326%
80.0	7.715	4.164	1846.264	.207%	99.551%
85.0	7.617	4.166	1850.43	.207%	99.775%
90.0	7.589	4.164	1854.594	.207%	100.000%

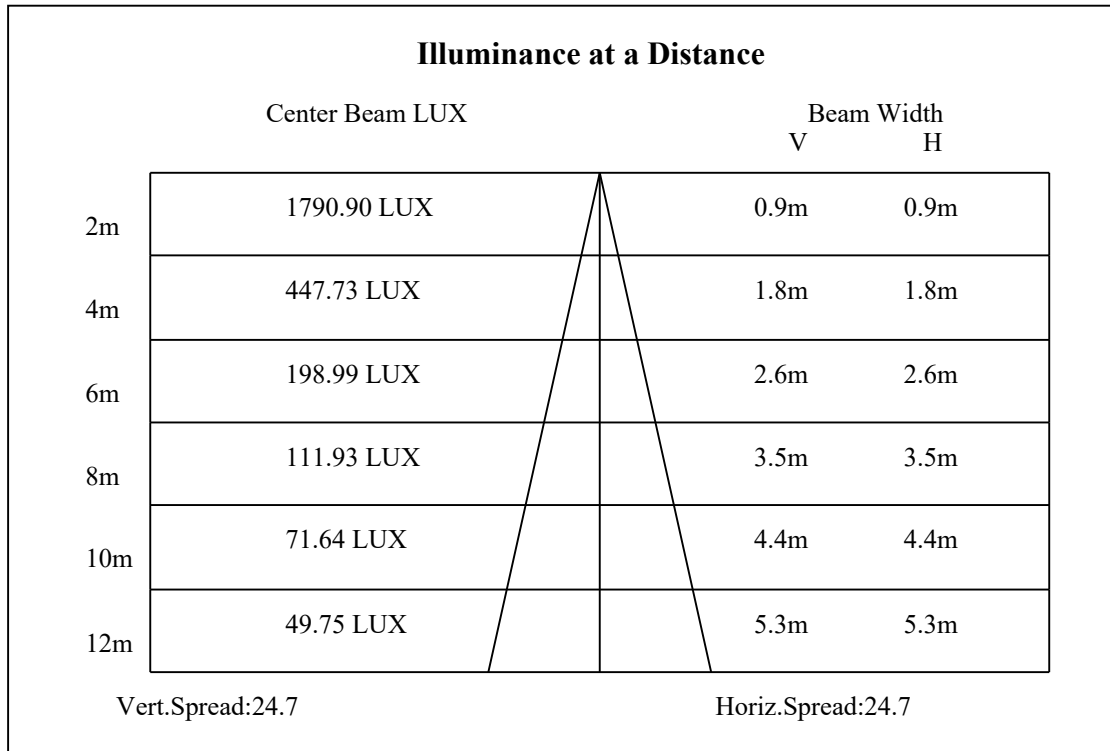
ZONAL LUMEN SUMMARY

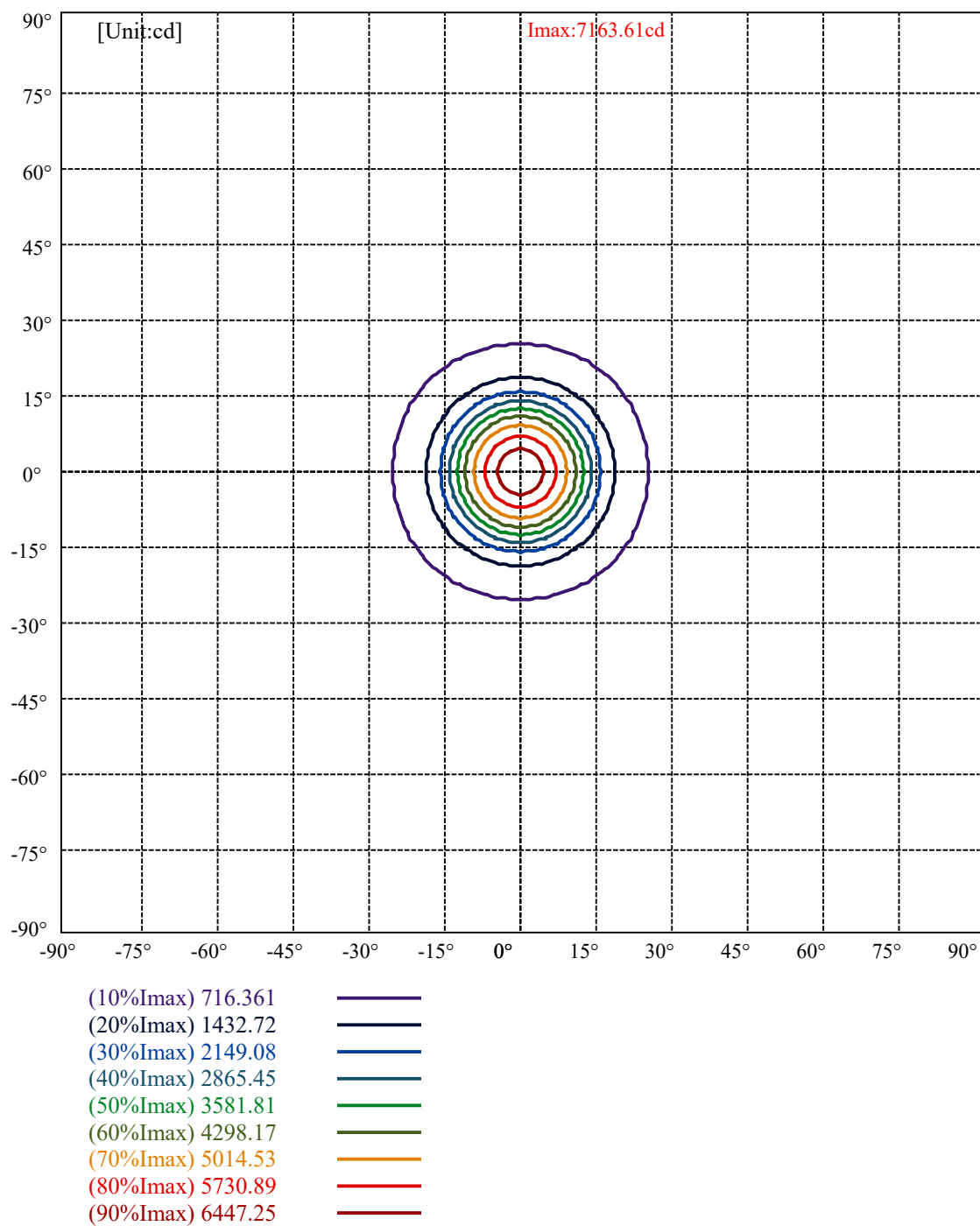
Zone	Lumens	%Lamp	%Fixt
0-30	1602.91	79.75%	86.43%
0-40	1810.78	90.09%	97.64%
0-60	1829.79	91.03%	98.66%
0-90	1850.43	92.06%	99.78%
0-120	1850.43	92.06%	99.78%
0-180	1854.59	92.27%	100.00%
60-90	24.68	1.23%	1.33%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-26.46	1483.68	73.81%	80.00%

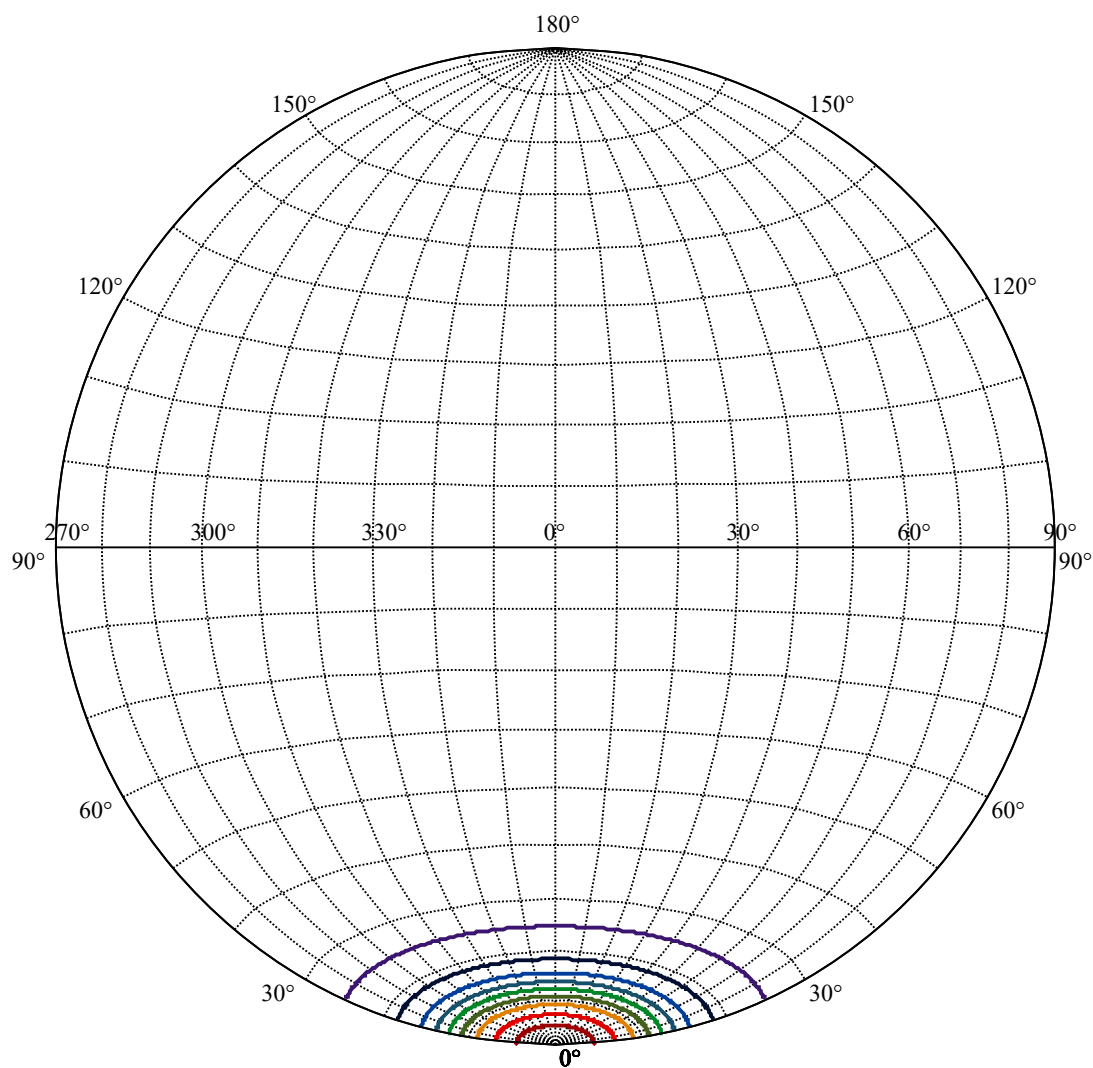
ZONAL LUMEN SUMMARY

0-10	558.06
10-20	693.14
20-30	351.72
30-40	207.86
40-50	10.89
50-60	8.13
60-70	8.16
70-80	8.31
80-90	4.17
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:7163.61

(10%Imax) 716.361

(20%Imax) 1432.72

(30%Imax) 2149.08

(40%Imax) 2865.45

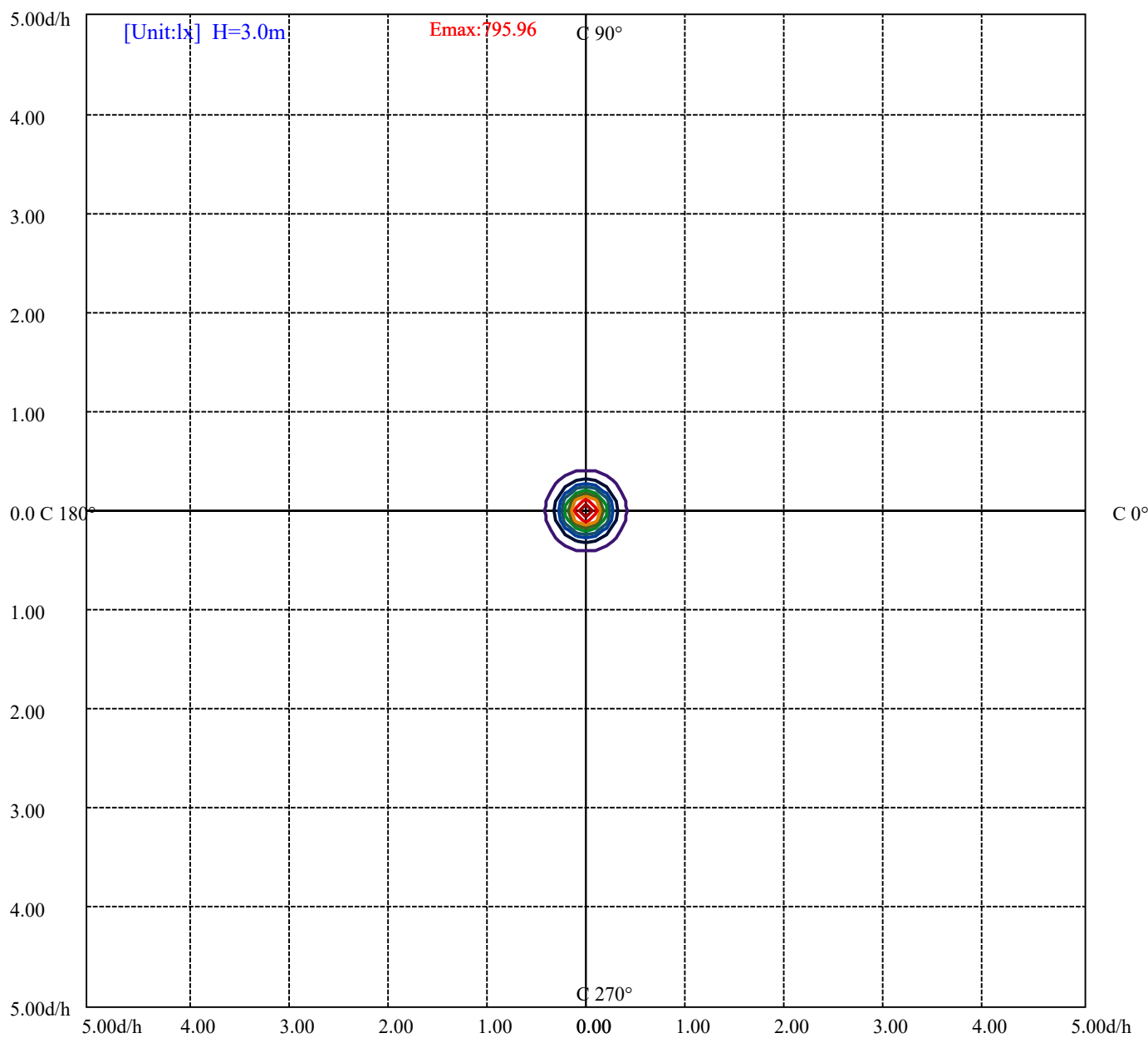
(50%Imax) 3581.81

(60%Imax) 4298.17

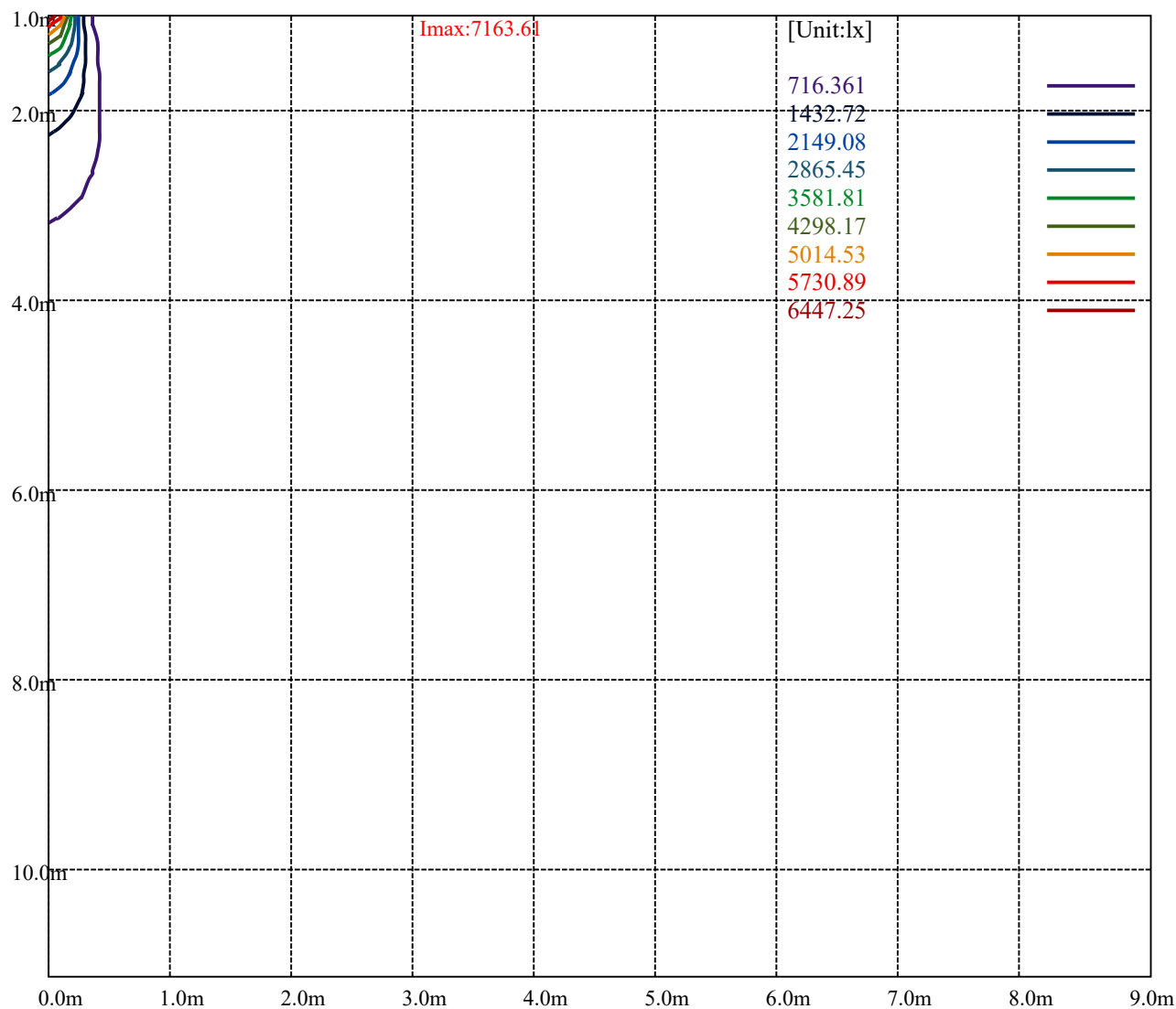
(70%Imax) 5014.53

(80%Imax) 5730.89

(90%Imax) 6447.25



(10%E _{max}) 79.59544	—
(20%E _{max}) 159.1911	—
(30%E _{max}) 238.7867	—
(40%E _{max}) 318.3822	—
(50%E _{max}) 397.9767	—
(60%E _{max}) 477.5722	—
(70%E _{max}) 557.1677	—
(80%E _{max}) 636.7634	—
(90%E _{max}) 716.3589	—



Luminance Table

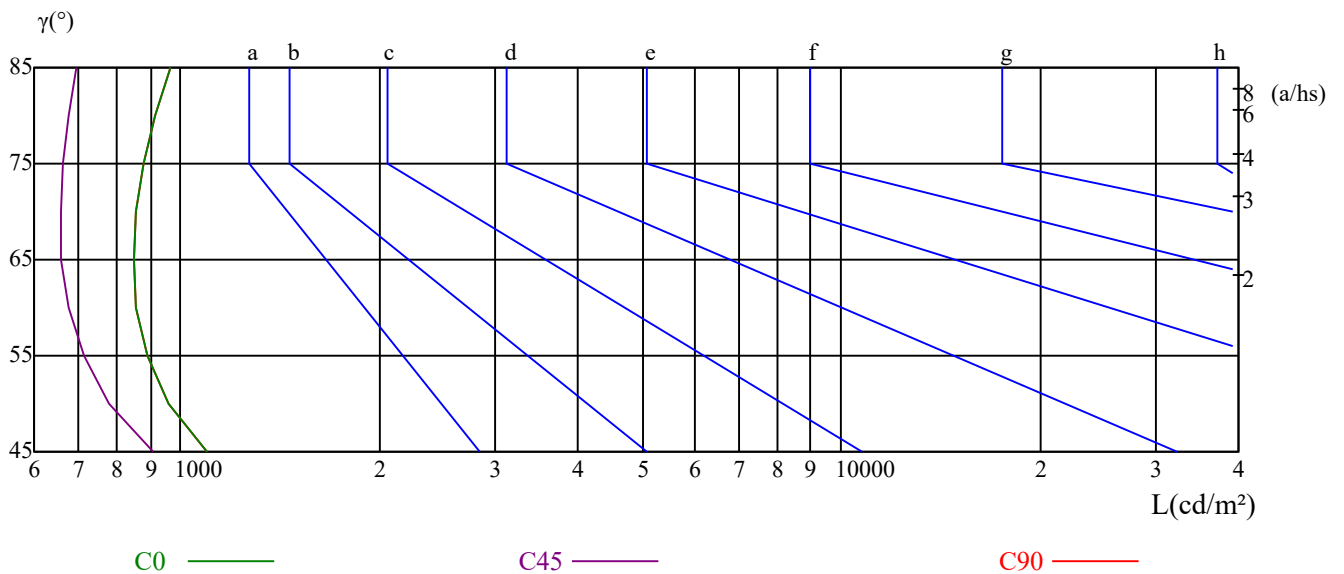
γ	45	50	55	60	65	70	75	80	85
C0	1100	957	888	854	847	858	879	913	963
C45	910	780	714	675	660	658	662	675	697
C90	1100	957	888	854	847	858	879	913	963

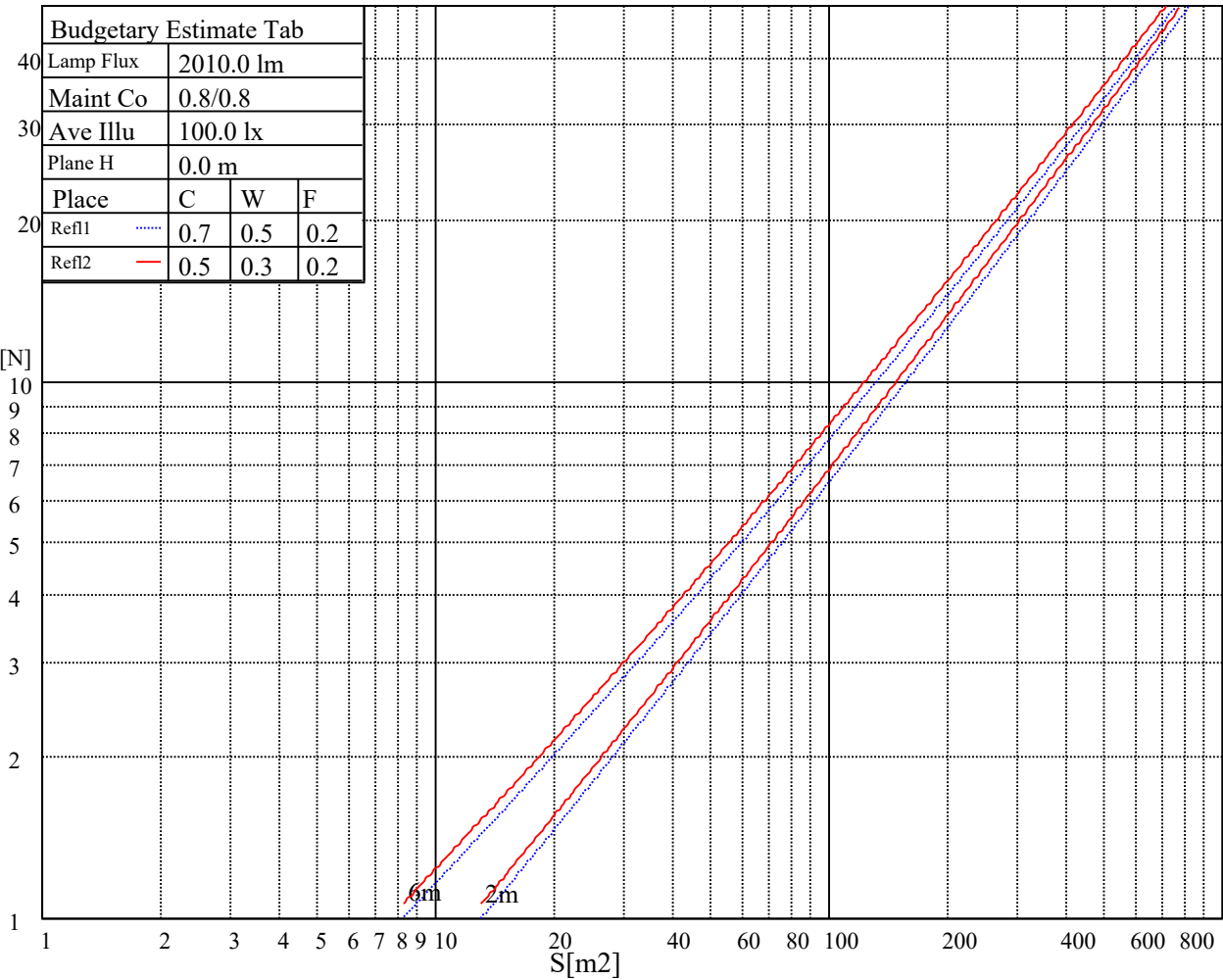
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2686	2686	2686	4196	4196	4196	12097	12097	12097

Glare Table

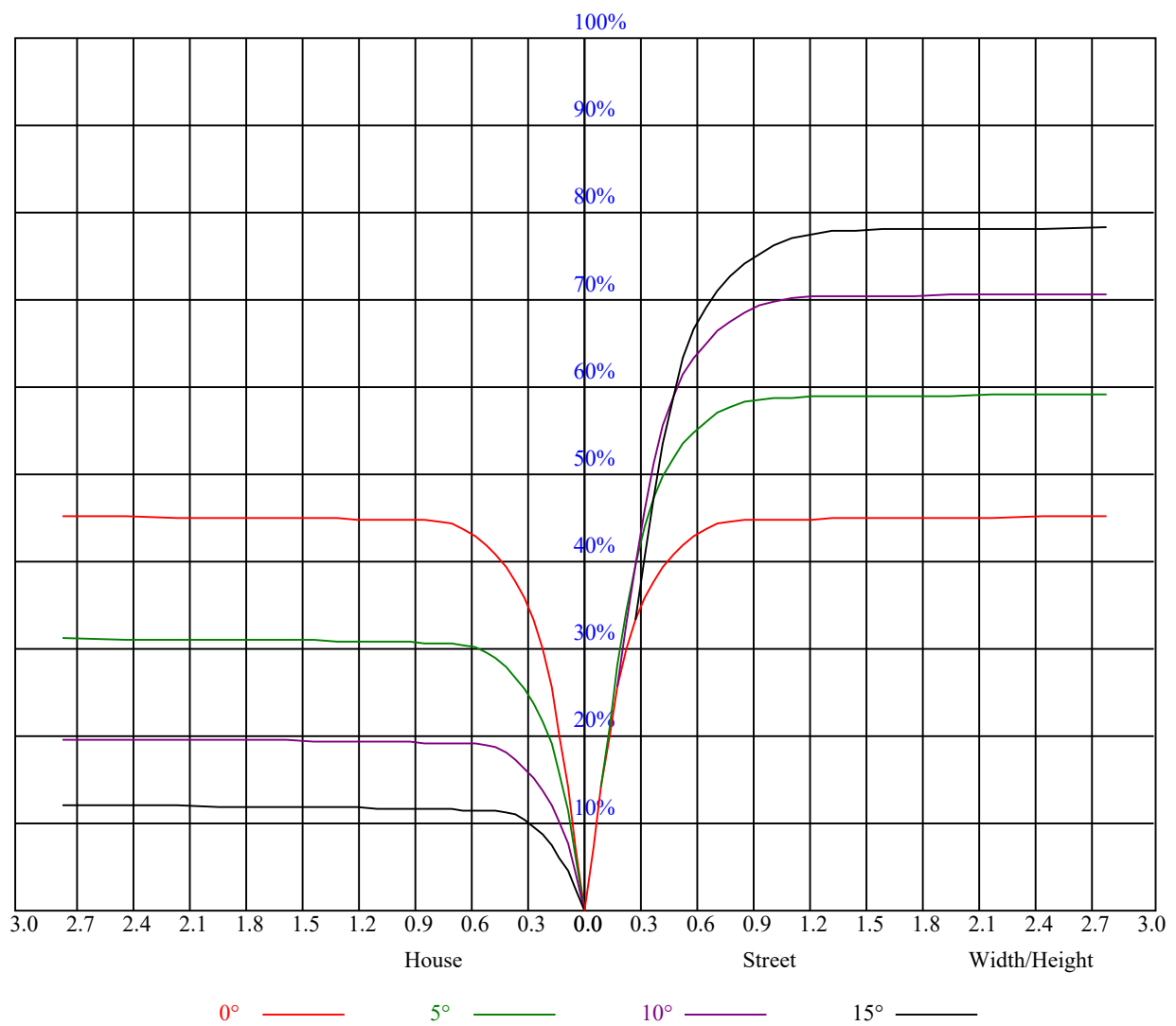
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

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 RHOFC=20 CU															
0	1.10	1.10	1.10	1.07	1.07	1.07	1.03	1.03	1.03	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.03	1.01	1.00	1.01	1.00	0.98	0.98	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88
2	0.98	0.95	0.92	0.96	0.93	0.91	0.93	0.91	0.89	0.91	0.89	0.87	0.88	0.87	0.85	0.84
3	0.93	0.89	0.86	0.92	0.88	0.86	0.89	0.87	0.84	0.87	0.85	0.83	0.85	0.83	0.82	0.80
4	0.89	0.85	0.81	0.88	0.84	0.81	0.86	0.83	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.77
5	0.85	0.81	0.77	0.84	0.80	0.77	0.82	0.79	0.76	0.81	0.78	0.76	0.80	0.77	0.75	0.74
6	0.81	0.77	0.74	0.81	0.77	0.74	0.79	0.76	0.73	0.78	0.75	0.73	0.77	0.74	0.72	0.71
7	0.78	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.70	0.69
8	0.75	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.66
9	0.73	0.68	0.66	0.72	0.68	0.66	0.72	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.65	0.64
10	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.63	0.62



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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	7198.53	6331.48	4737.06	2278.38	1008.41	692.86	621.07	362.29	20.98
45.0	7142.33	6133.92	4290.74	1759.15	877.63	676.17	614.39	296.07	17.31
90.0	7141.21	6122.79	4081.49	1569.93	929.77	698.59	601.93	204.63	16.64
135.0	7172.38	6604.73	4895.11	2453.12	1051.26	715.68	623.85	387.89	22.04
180.0	7198.53	6362.09	4719.81	2232.74	994.27	692.31	613.61	335.75	20.59
225.0	7142.33	6634.78	5162.80	3025.78	1109.97	736.60	636.38	475.77	36.84
270.0	7141.21	6637.57	5219.01	3094.23	1336.75	762.98	645.56	522.01	41.40
315.0	7172.38	6157.85	4518.35	2126.45	1010.19	689.97	623.08	271.19	19.81
360.0	7198.53	6331.48	4737.06	2278.38	1008.41	692.86	621.07	362.29	20.98
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	11.07	9.74	8.96	8.51	8.13	8.01	7.79	7.74	7.57
45.0	10.69	9.57	8.85	8.46	8.13	8.01	7.85	7.68	7.62
90.0	10.63	9.63	8.85	8.40	8.18	7.96	7.85	7.74	7.62
135.0	11.46	9.91	9.07	8.51	8.29	8.01	7.85	7.74	7.62
180.0	11.07	9.68	8.96	8.46	8.18	7.96	7.74	7.62	7.57
225.0	12.30	10.02	9.13	8.51	8.24	8.07	7.90	7.74	7.62
270.0	12.30	10.18	9.24	8.57	8.24	8.07	7.96	7.74	7.68
315.0	10.91	9.68	8.96	8.46	8.24	8.01	7.85	7.74	7.62
360.0	11.07	9.74	8.96	8.51	8.13	8.01	7.79	7.74	7.57
C/γ(°)	90.0								
0.0	7.51								
45.0	7.62								
90.0	7.62								
135.0	7.57								
180.0	7.51								
225.0	7.62								
270.0	7.62								
315.0	7.62								
360.0	7.51								