



NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.cn
Tel:+86 750 3770000 Fax:+86 750 3771111
Address:380Jinou Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

Client:

LumCAT: 3-1882-L

Luminaire: 92.70.131.00

Report No: NT2018011021

Test No: GC2018011021

LampCAT: LUMINUS CXM-14

Lamp flux(lm): 2422.0

Number of Lamps: 1

Length(mm): 74

Phm Type: C

Voltage(V): 34.5000

Current(A): 0.6400

Power (W): 22.0800

PF: 0.0000

Ballast type: DC

Width(mm): 74

Height(mm): 0

Photometric Results

Lumens(lm): 2360.08, Efficiency(%): 97.44% , Luminous Efficacy(lm/W): 106.89

Central intensity(cd): 10544.950, Maximum intensity(cd): 10544.950

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=23.6

[C90/270]Total=23.6

Field angle(10%Imax): [C0/180]Total=43.4

[C90/270]Total=43.4

Maximum s/h(1/2): C0_180=0.40 C90_270=0.40

Maximum s/h(1/4): C0_180=0.38 C90_270=0.38

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 99.95%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.099%

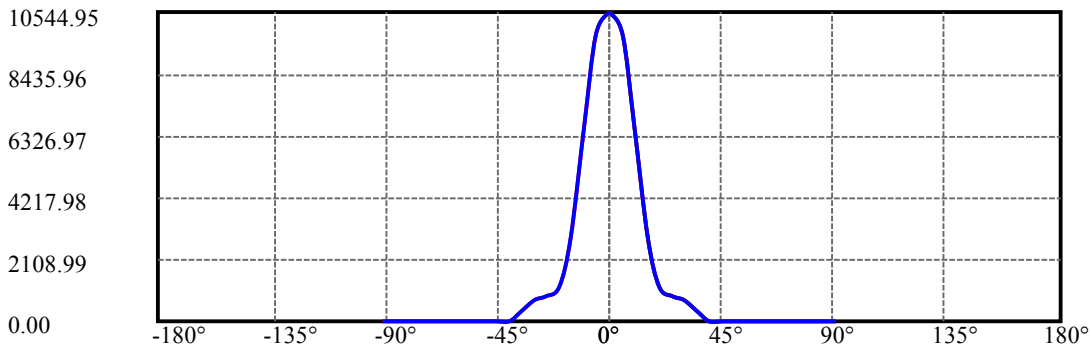
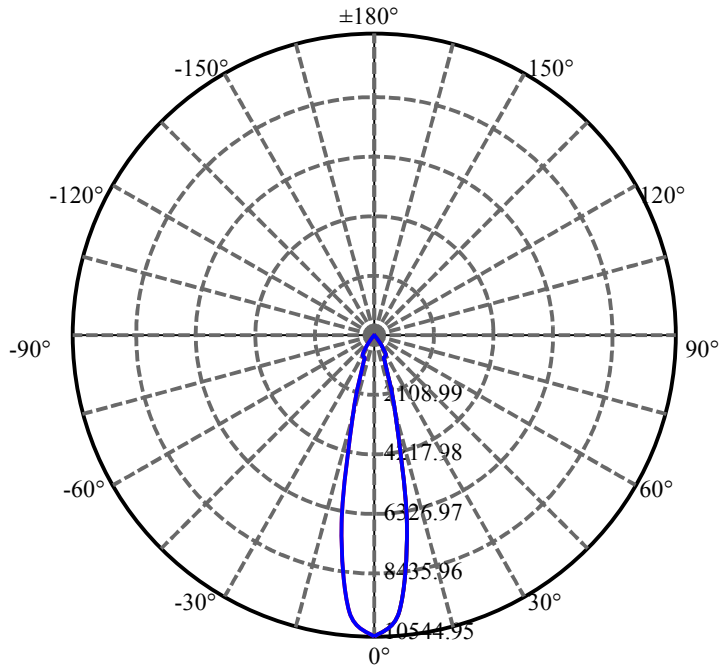
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	10544.952	63.061	63.061	2.604%	2.672%
5.0	9727.089	464.695	527.756	19.186%	22.362%
10.0	6669.876	634.859	1162.616	26.212%	49.262%
15.0	2859.010	405.603	1568.219	16.747%	66.448%
20.0	1156.783	216.867	1785.085	8.954%	75.637%
25.0	863.202	199.963	1985.049	8.256%	84.109%
30.0	740.309	202.896	2187.944	8.377%	92.706%
35.0	326.058	102.512	2290.456	4.233%	97.050%
40.0	28.478	10.034	2300.49	.414%	97.475%
45.0	18.017	6.983	2307.473	.288%	97.771%
50.0	15.258	6.407	2313.88	.265%	98.042%
55.0	14.060	6.313	2320.193	.261%	98.310%
60.0	13.193	6.263	2326.456	.259%	98.575%
65.0	12.691	6.304	2332.76	.260%	98.842%
70.0	11.920	6.140	2338.9	.253%	99.103%
75.0	11.465	6.071	2344.97	.251%	99.360%
80.0	11.218	6.055	2351.026	.250%	99.616%
85.0	11.080	6.050	2357.076	.250%	99.873%
90.0	10.956	3.003	2360.079	.124%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2187.94	90.34%	92.71%
0-40	2300.49	94.98%	97.48%
0-60	2326.46	96.06%	98.58%
0-90	2357.08	97.32%	99.87%
0-120	2357.08	97.32%	99.87%
0-180	2360.08	97.44%	100.00%
60-90	36.88	1.52%	1.56%
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%
0-22.57	1888.06	77.95%	80.00%

ZONAL LUMEN SUMMARY

0-10	1162.62
10-20	622.47
20-30	402.86
30-40	112.55
40-50	13.39
50-60	12.58
60-70	12.44
70-80	12.13
80-90	6.05
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



C0(Max): —————

C0/C180: —————

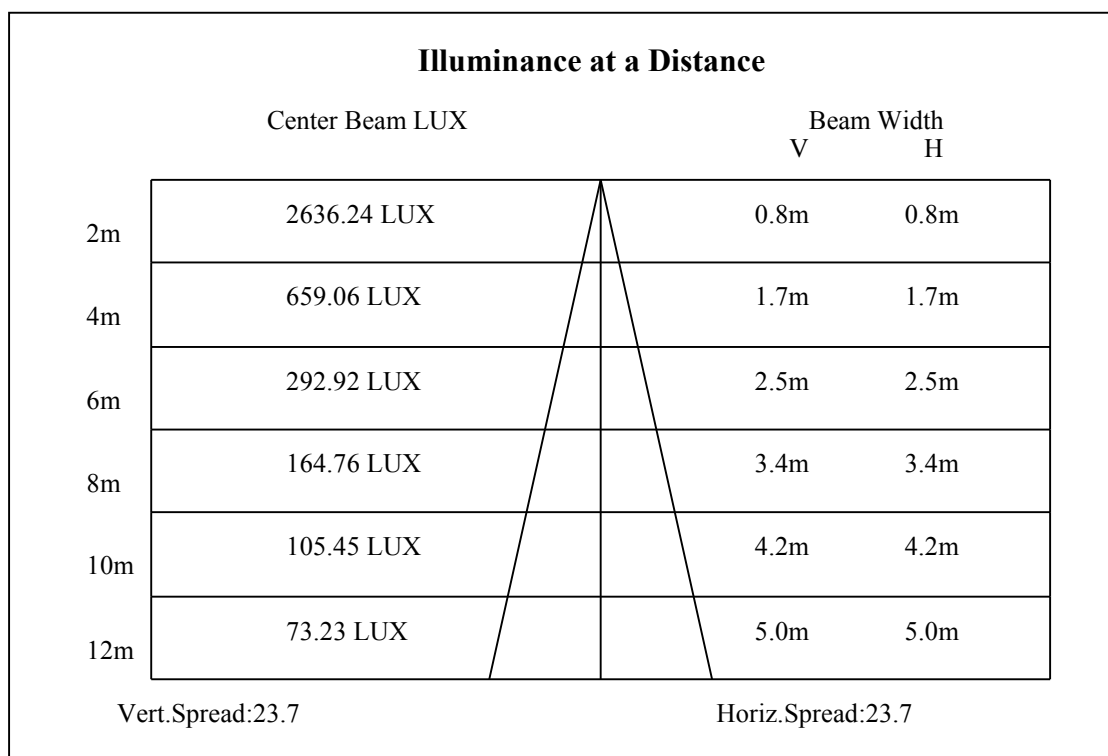
C90/C270: —————

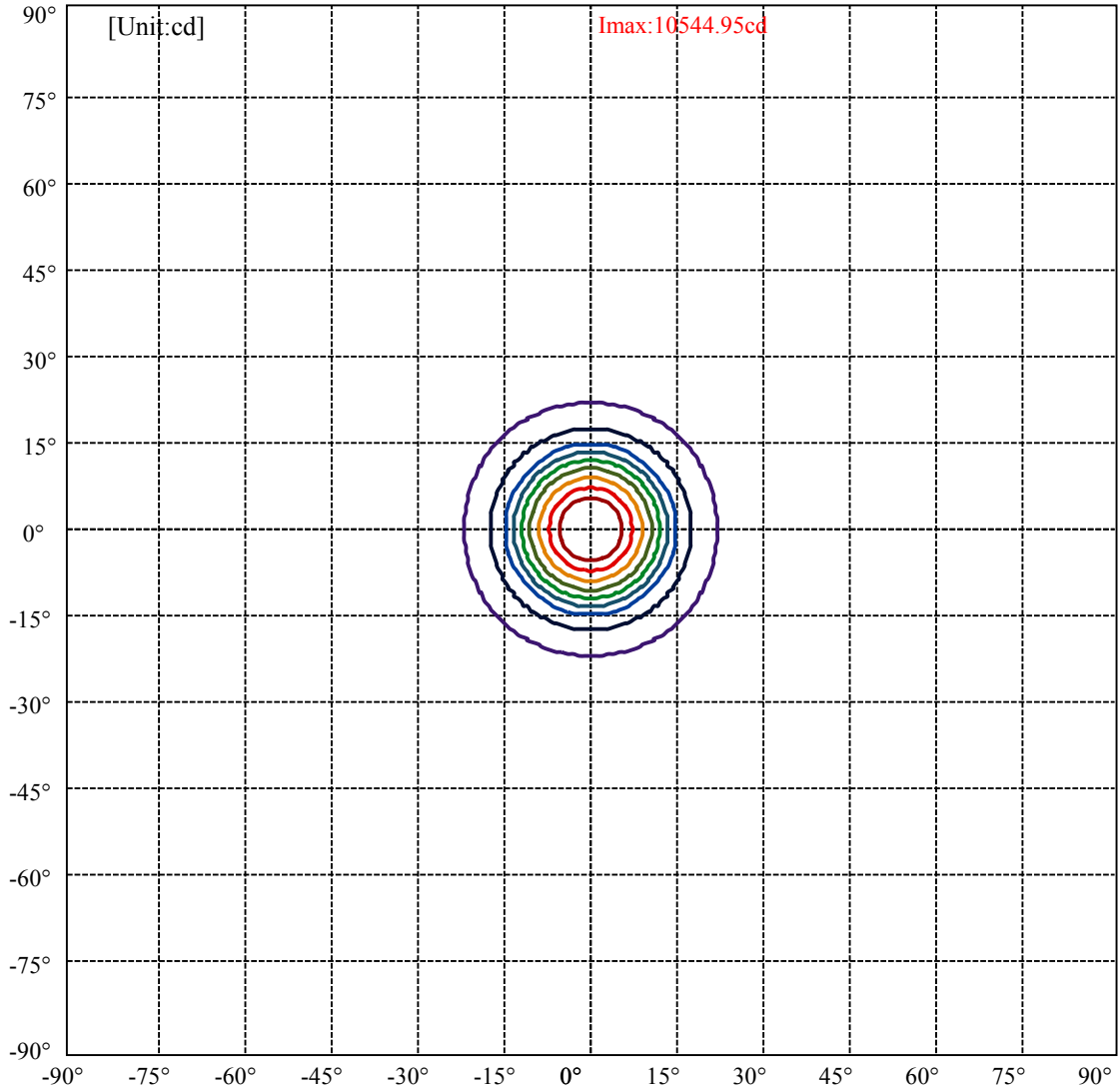
Field angle(10%Imax):C0/180Left:21.7 Right:21.7

:C90/270Left:21.7 Right:21.7

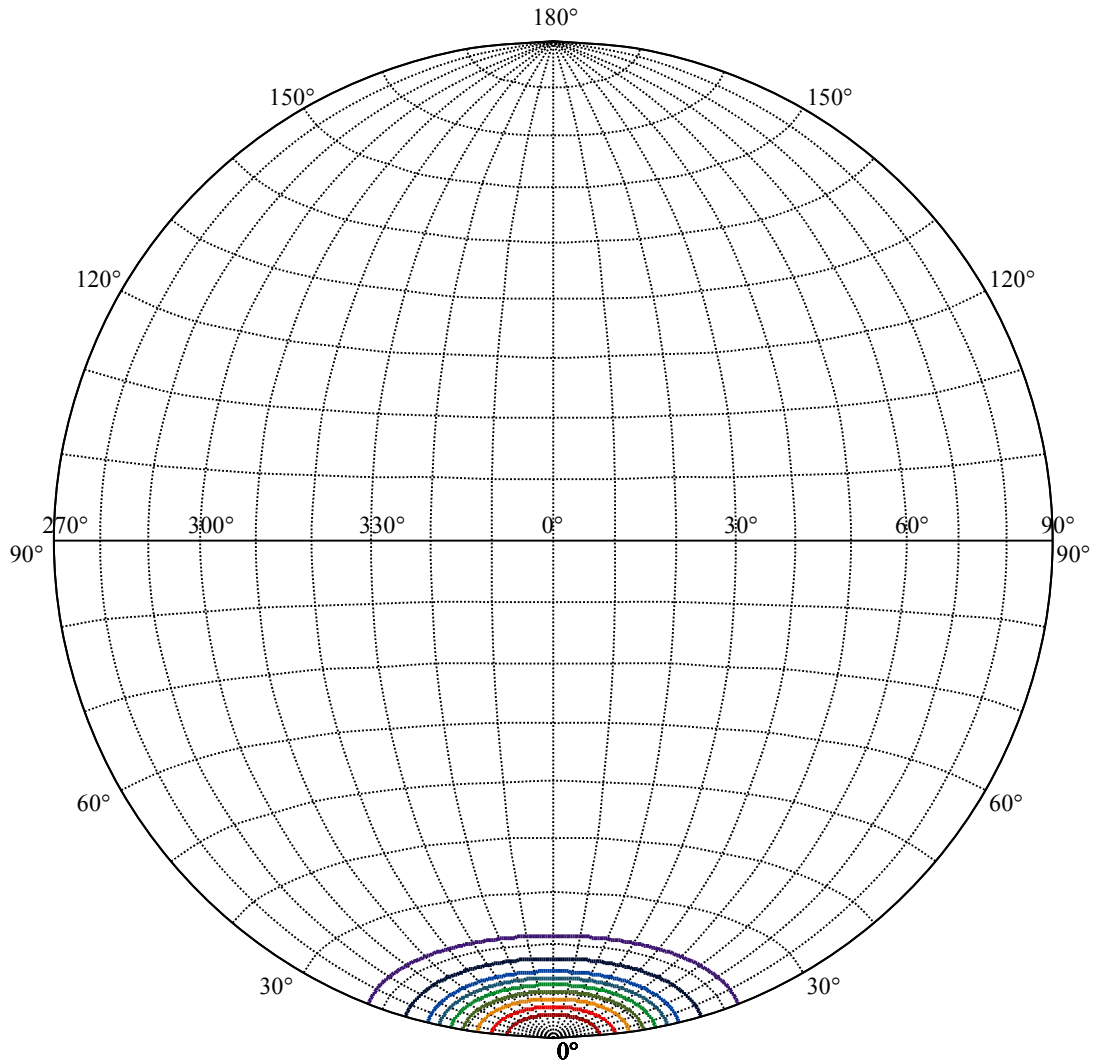
Beam Angle(50%Imax):C0/180Left:11.8 Right:11.8

:C90/270Left:11.8 Right:11.8





(10%Imax) 1054.5	—
(20%Imax) 2108.99	—
(30%Imax) 3163.49	—
(40%Imax) 4217.98	—
(50%Imax) 5272.48	—
(60%Imax) 6326.97	—
(70%Imax) 7381.47	—
(80%Imax) 8435.96	—
(90%Imax) 9490.46	—



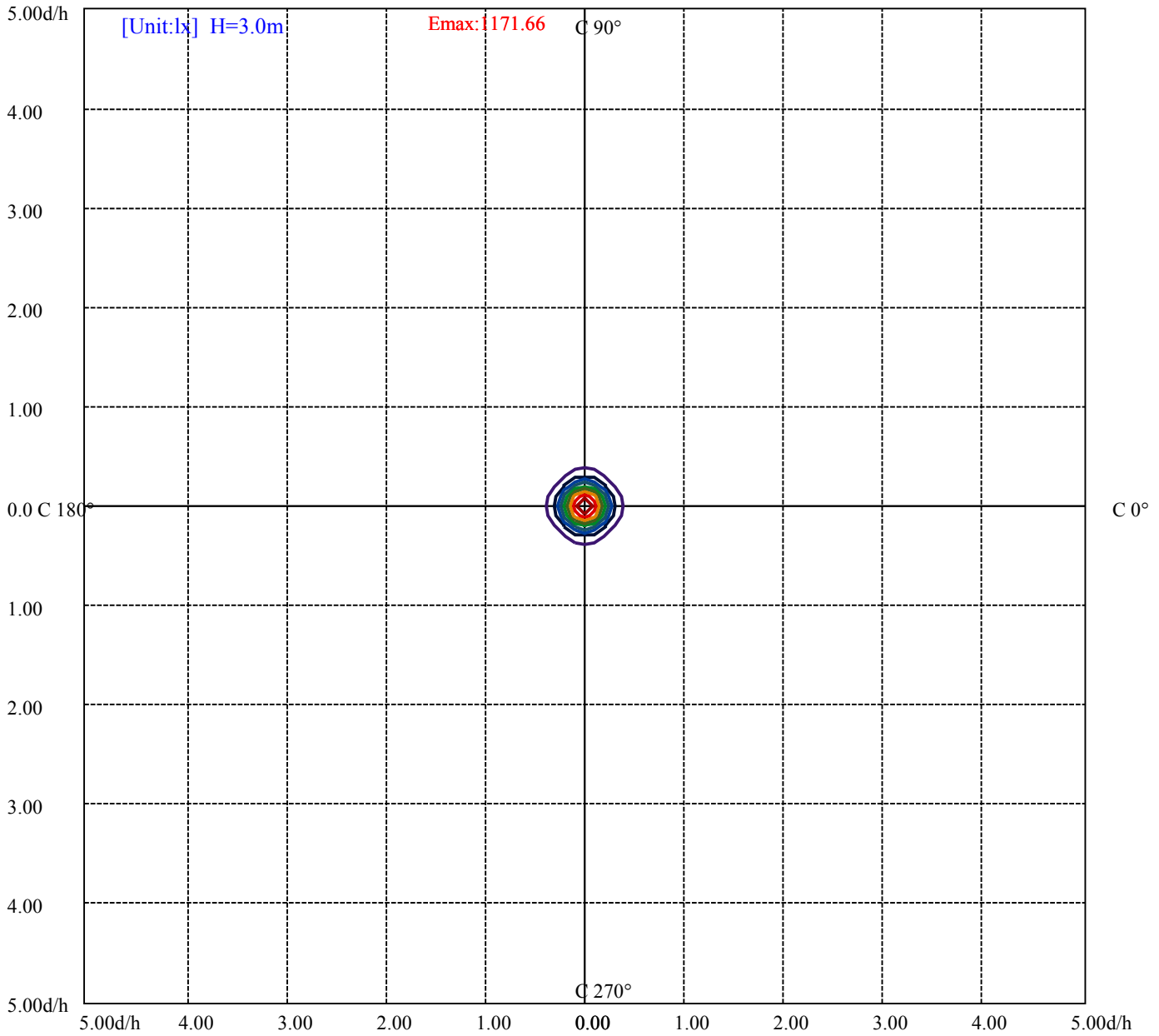
House

[Unit:cd]

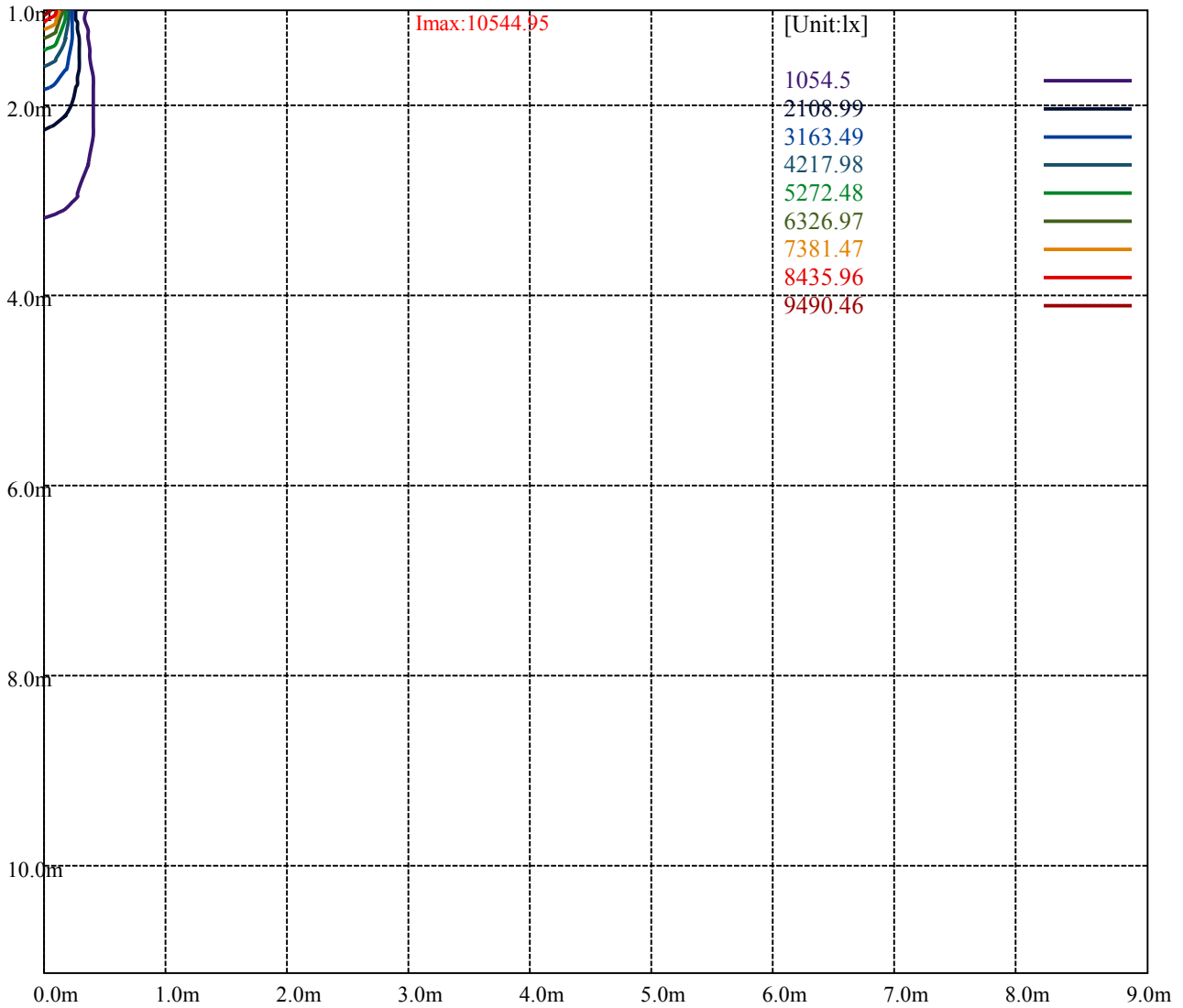
Road

Imax:10544.95

(10%Imax) 1054.5	—
(20%Imax) 2108.99	—
(30%Imax) 3163.49	—
(40%Imax) 4217.98	—
(50%Imax) 5272.48	—
(60%Imax) 6326.97	—
(70%Imax) 7381.47	—
(80%Imax) 8435.96	—
(90%Imax) 9490.46	—



(10%Emax) 117.1656	—
(20%Emax) 234.3322	—
(30%Emax) 351.4978	—
(40%Emax) 468.6634	—
(50%Emax) 585.8289	—
(60%Emax) 702.9955	—
(70%Emax) 820.1611	—
(80%Emax) 937.3267	—
(90%Emax) 1054.492	—



Luminance Table

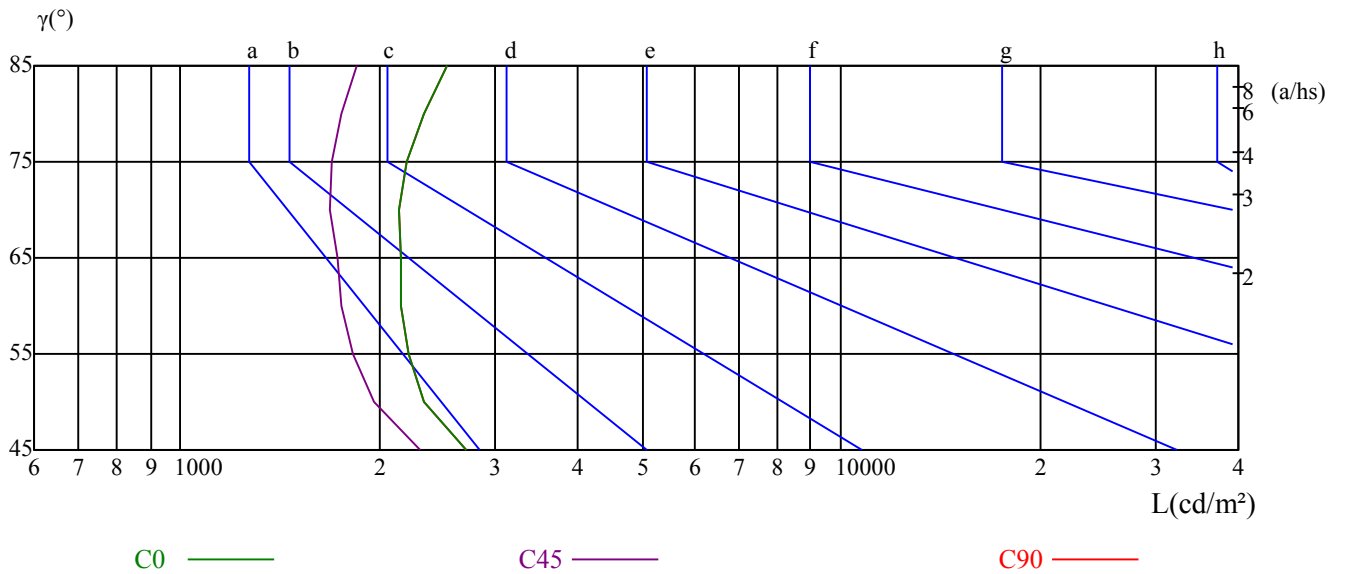
γ	45	50	55	60	65	70	75	80	85
C0	2711	2339	2213	2151	2162	2144	2203	2331	2527
C45	2312	1964	1830	1749	1729	1682	1692	1749	1846
C90	2711	2339	2213	2151	2162	2144	2203	2331	2527

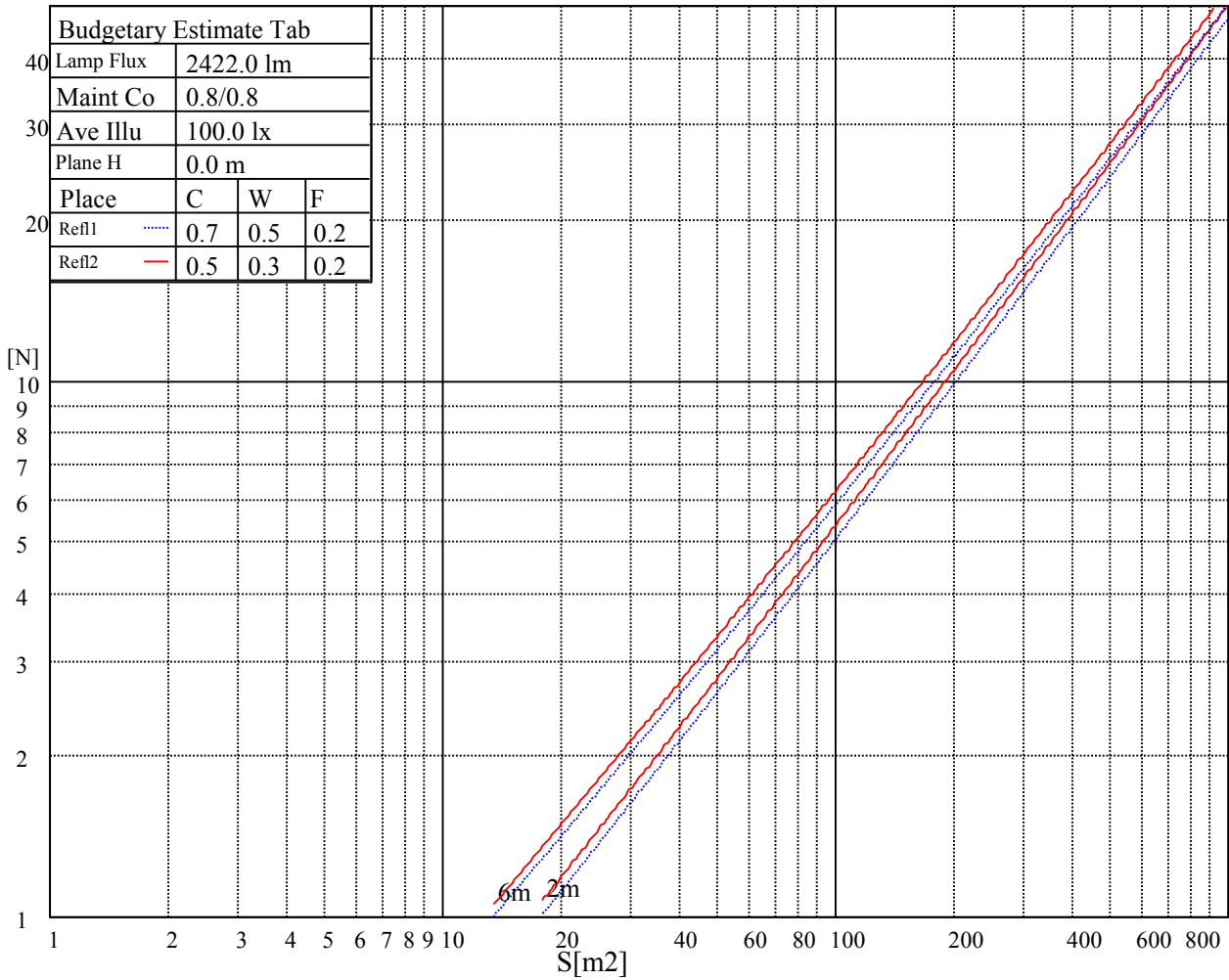
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5484	5484	5484	8090	8090	8090	23216	23216	23216

Glare Table

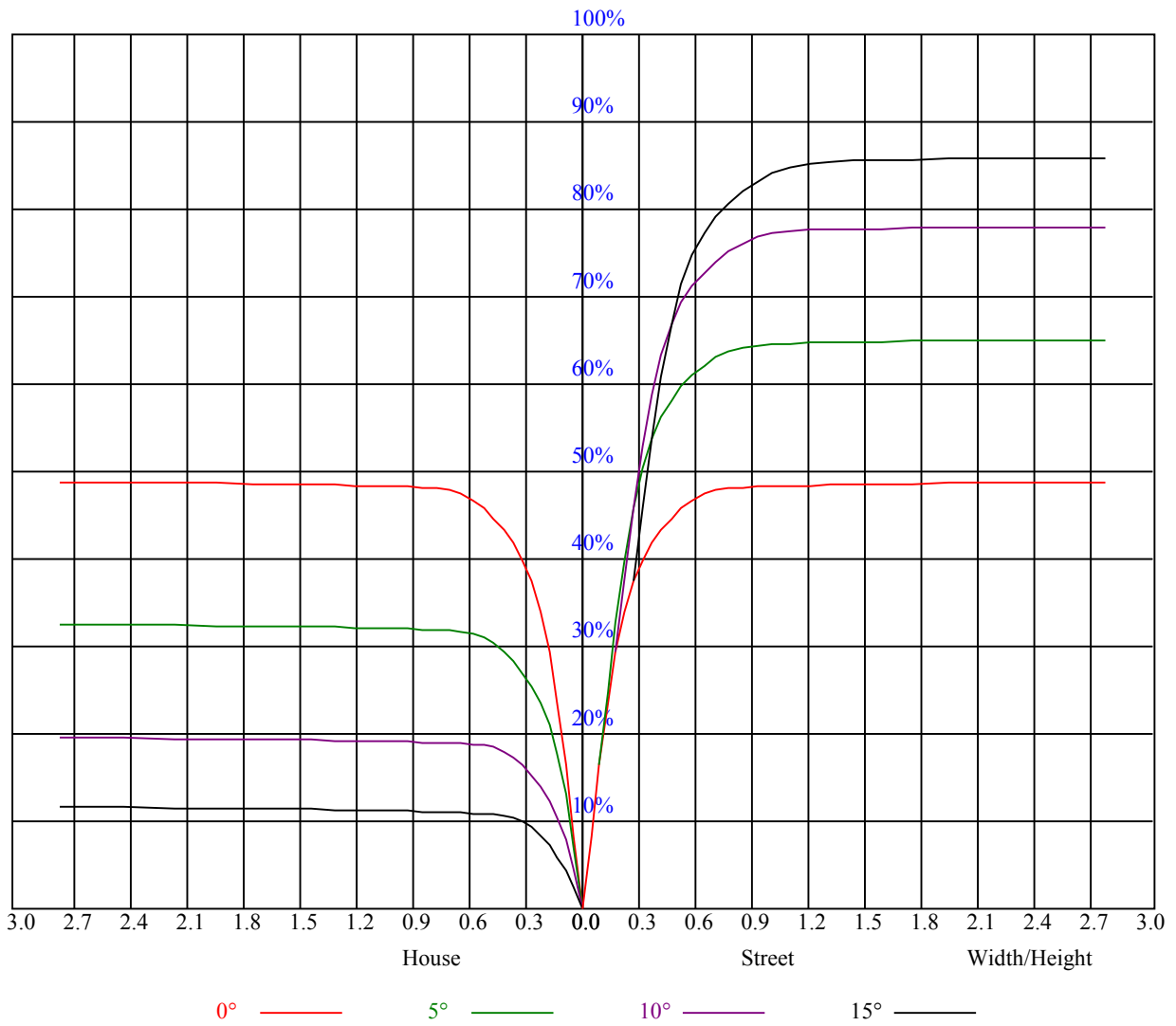
Glare	Quality	Service Values Illuminance(lx)							
		a	b	c	d	e	f	g	h
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

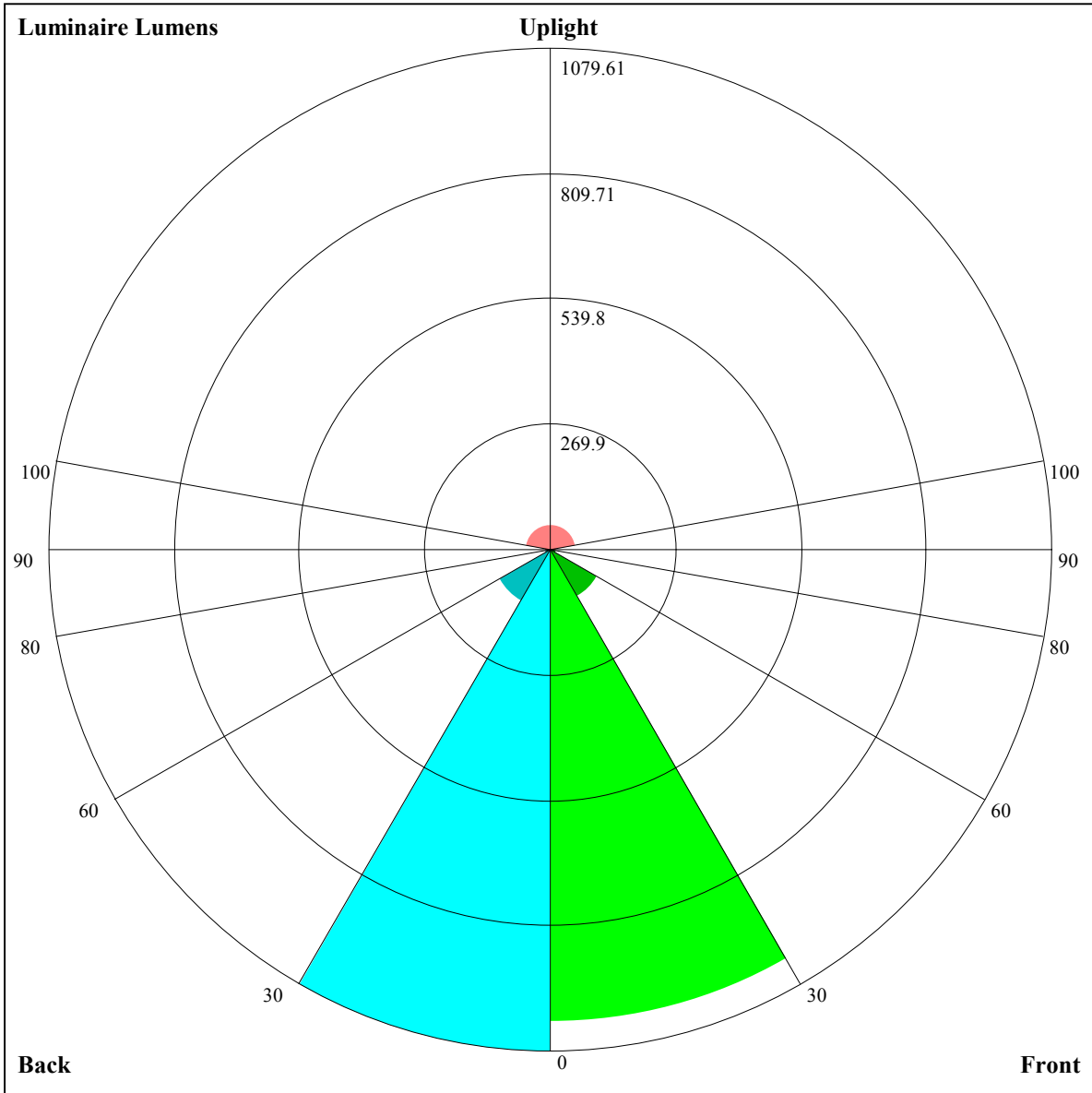
Luminance Limiting Curve





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	1.19	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	1.09	1.06	1.04	1.07	1.04	1.02	1.03	1.01	0.99	0.99	0.98	0.96	0.96	0.94	0.93	0.91
2	1.04	1.00	0.97	1.02	0.99	0.96	0.99	0.96	0.94	0.96	0.94	0.92	0.93	0.92	0.90	0.88
3	1.00	0.95	0.92	0.98	0.94	0.91	0.96	0.92	0.90	0.93	0.91	0.88	0.91	0.89	0.87	0.86
4	0.96	0.91	0.88	0.95	0.91	0.87	0.93	0.89	0.86	0.91	0.88	0.85	0.89	0.86	0.84	0.83
5	0.92	0.88	0.84	0.91	0.87	0.84	0.90	0.86	0.83	0.88	0.85	0.83	0.87	0.84	0.82	0.81
6	0.89	0.85	0.82	0.89	0.84	0.81	0.87	0.84	0.81	0.86	0.83	0.80	0.85	0.82	0.80	0.79
7	0.87	0.82	0.79	0.86	0.82	0.79	0.85	0.81	0.79	0.84	0.81	0.78	0.83	0.80	0.78	0.77
8	0.84	0.80	0.77	0.84	0.80	0.77	0.83	0.79	0.77	0.82	0.79	0.76	0.81	0.78	0.76	0.75
9	0.82	0.78	0.75	0.82	0.78	0.75	0.81	0.77	0.75	0.80	0.77	0.74	0.79	0.76	0.74	0.73
10	0.80	0.76	0.73	0.80	0.76	0.73	0.79	0.75	0.73	0.78	0.75	0.73	0.78	0.75	0.73	0.72





Luminaire Lumens:

FL=1015.39,FM=117.07,FH=12.51,FVH=6.05

BL=1079.61,BM=126.16,BH=12.34,BVH=6.06

UL=11.95,UH=56.89

BUG Rating:B3-U2-G0

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	10565.32	9827.57	6713.58	2776.49	1172.70	871.54	750.42	314.92	25.88
45.0	10575.78	9675.61	6217.52	2373.48	1120.40	842.36	712.43	282.99	26.15
90.0	10477.23	9338.67	5964.26	2323.38	1091.33	829.42	685.89	263.28	29.57
135.0	10561.47	9956.40	7312.59	3566.00	1282.81	866.04	763.63	382.09	29.23
180.0	10565.32	9688.83	6707.52	3098.57	1092.04	847.43	734.07	309.53	24.61
225.0	10575.78	9945.94	7107.78	3294.02	1076.24	894.83	783.29	386.83	31.60
270.0	10477.23	10169.47	7239.92	3193.27	1320.25	910.08	785.10	421.18	37.44
315.0	10561.47	9214.24	6095.84	2246.85	1098.49	843.90	707.64	247.64	23.34
360.0	10565.32	9827.57	6713.58	2776.49	1172.70	871.54	750.42	314.92	25.88
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	18.50	15.36	14.04	13.21	12.88	11.95	11.40	11.12	10.96
45.0	17.78	14.92	13.98	13.21	12.77	12.06	11.51	11.23	11.12
90.0	20.76	17.18	15.42	14.09	13.21	12.22	11.56	11.29	11.12
135.0	16.63	14.37	13.43	12.77	12.33	11.73	11.40	11.23	11.12
180.0	16.74	14.31	13.27	12.61	12.06	11.56	11.29	11.07	11.01
225.0	17.67	14.87	13.65	12.72	12.33	11.73	11.45	11.29	11.12
270.0	20.04	16.96	15.20	13.93	13.27	12.28	11.67	11.34	11.12
315.0	16.02	14.09	13.49	12.99	12.66	11.84	11.45	11.18	11.07
360.0	18.50	15.36	14.04	13.21	12.88	11.95	11.40	11.12	10.96
C/γ(°)	90.0								
0.0	10.90								
45.0	11.01								
90.0	10.96								
135.0	10.96								
180.0	10.85								
225.0	11.07								
270.0	11.01								
315.0	10.90								
360.0	10.90								