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Nata

Client:

LumCAT: 3-2025-M

Luminaire: 92.70.135.00

Report No: NT2017122807

Test No: GC2017122807

LampCAT: NICHIA NVEWJ048Z-V1

Lamp flux(lm): 3051.0

Number of Lamps: 1

Length(mm): 78

Phm Type: C

Voltage(V): 43.4000

Current(A): 0.5000

Power (W): 21.7000

PF: 0.0000

Ballast type: DC

Width(mm): 78

Height(mm): 0

Photometric Results

Lumens(lm): 2696.00, Efficiency(%): 88.36% , Luminous Efficacy(lm/W): 124.24

Central intensity(cd): 4705.258, Maximum intensity(cd): 4705.258

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=43.0

[C90/270]Total=43.0

Field angle(10%Imax): [C0/180]Total=73.6

[C90/270]Total=73.6

Maximum s/h(1/2): C0_180=0.69 C90_270=0.69

Maximum s/h(1/4): C0_180=0.70 C90_270=0.70

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 89.20%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.608%

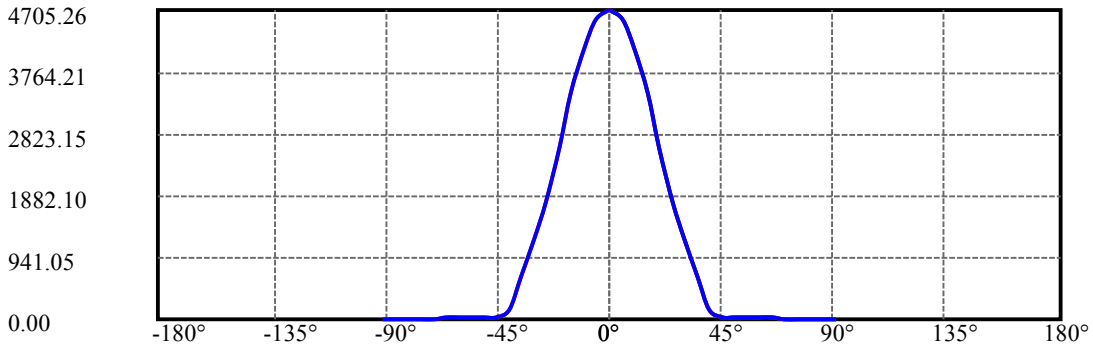
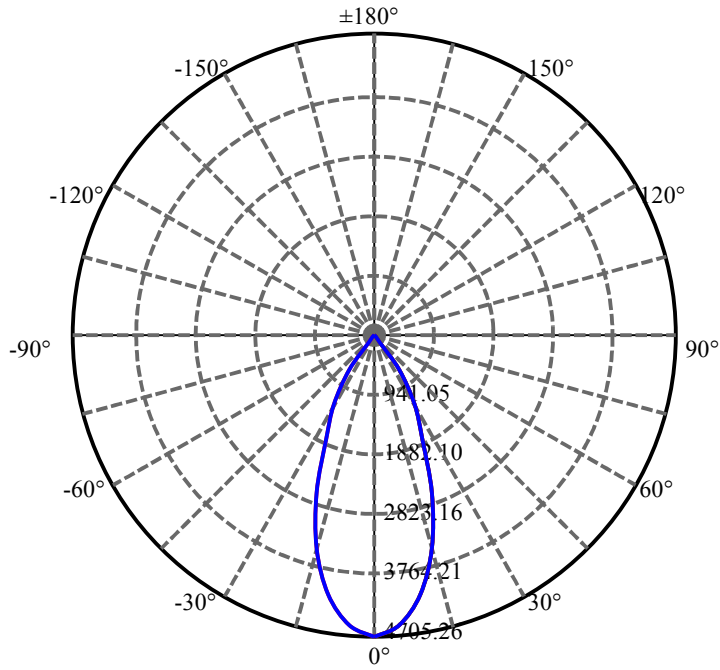
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4705.258	28.138	28.138	.922%	1.044%
5.0	4553.852	217.553	245.691	7.131%	9.113%
10.0	4120.903	392.240	637.931	12.856%	23.662%
15.0	3454.858	490.135	1128.066	16.065%	41.842%
20.0	2606.921	488.730	1616.796	16.019%	59.970%
25.0	1782.520	412.926	2029.722	13.534%	75.286%
30.0	1237.847	339.255	2368.977	11.119%	87.870%
35.0	653.375	205.420	2574.397	6.733%	95.490%
40.0	139.981	49.320	2623.718	1.617%	97.319%
45.0	23.950	9.283	2633	.304%	97.663%
50.0	19.407	8.149	2641.149	.267%	97.966%
55.0	17.322	7.778	2648.927	.255%	98.254%
60.0	15.918	7.556	2656.484	.248%	98.534%
65.0	14.824	7.364	2663.848	.241%	98.807%
70.0	14.046	7.235	2671.083	.237%	99.076%
75.0	13.496	7.145	2678.228	.234%	99.341%
80.0	13.337	7.200	2685.428	.236%	99.608%
85.0	12.980	7.088	2692.515	.232%	99.871%
90.0	12.711	3.484	2695.999	.114%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2368.98	77.65%	87.87%
0-40	2623.72	86.00%	97.32%
0-60	2656.48	87.07%	98.53%
0-90	2692.52	88.25%	99.87%
0-120	2692.52	88.25%	99.87%
0-180	2696.00	88.36%	100.00%
60-90	43.59	1.43%	1.62%
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%
0-26.87	2156.80	70.69%	80.00%

ZONAL LUMEN SUMMARY

0-10	637.93
10-20	978.87
20-30	752.18
30-40	254.74
40-50	17.43
50-60	15.33
60-70	14.60
70-80	14.35
80-90	7.09
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: —————

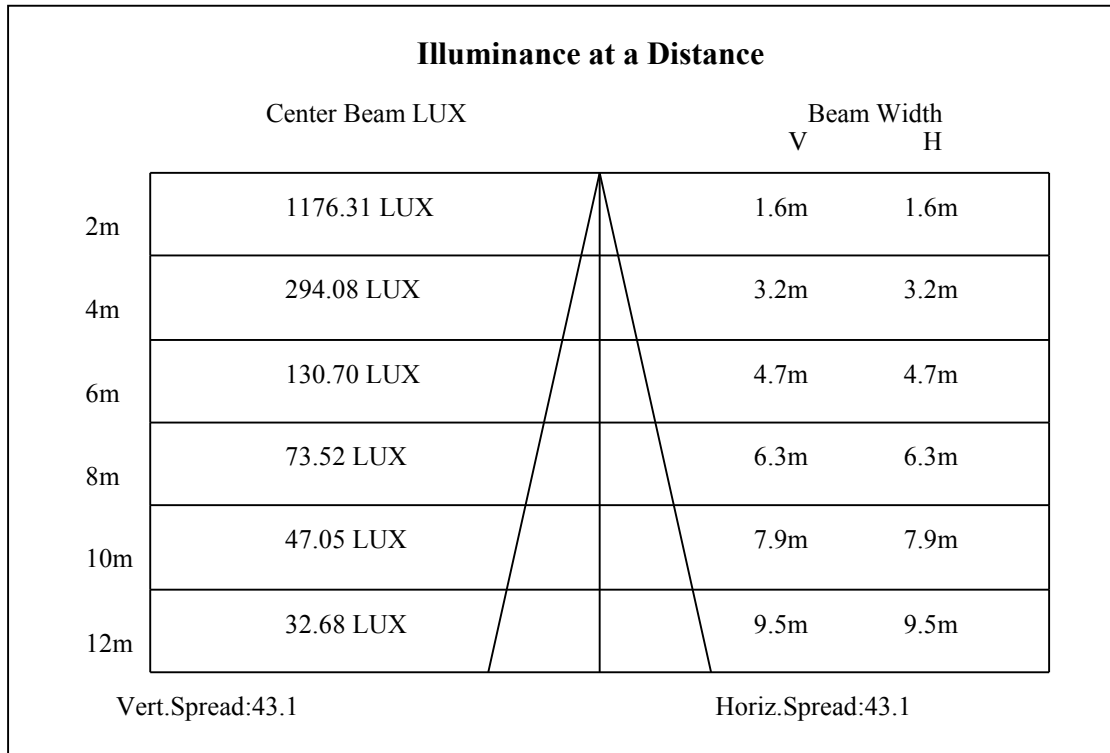
C90/C270: —————

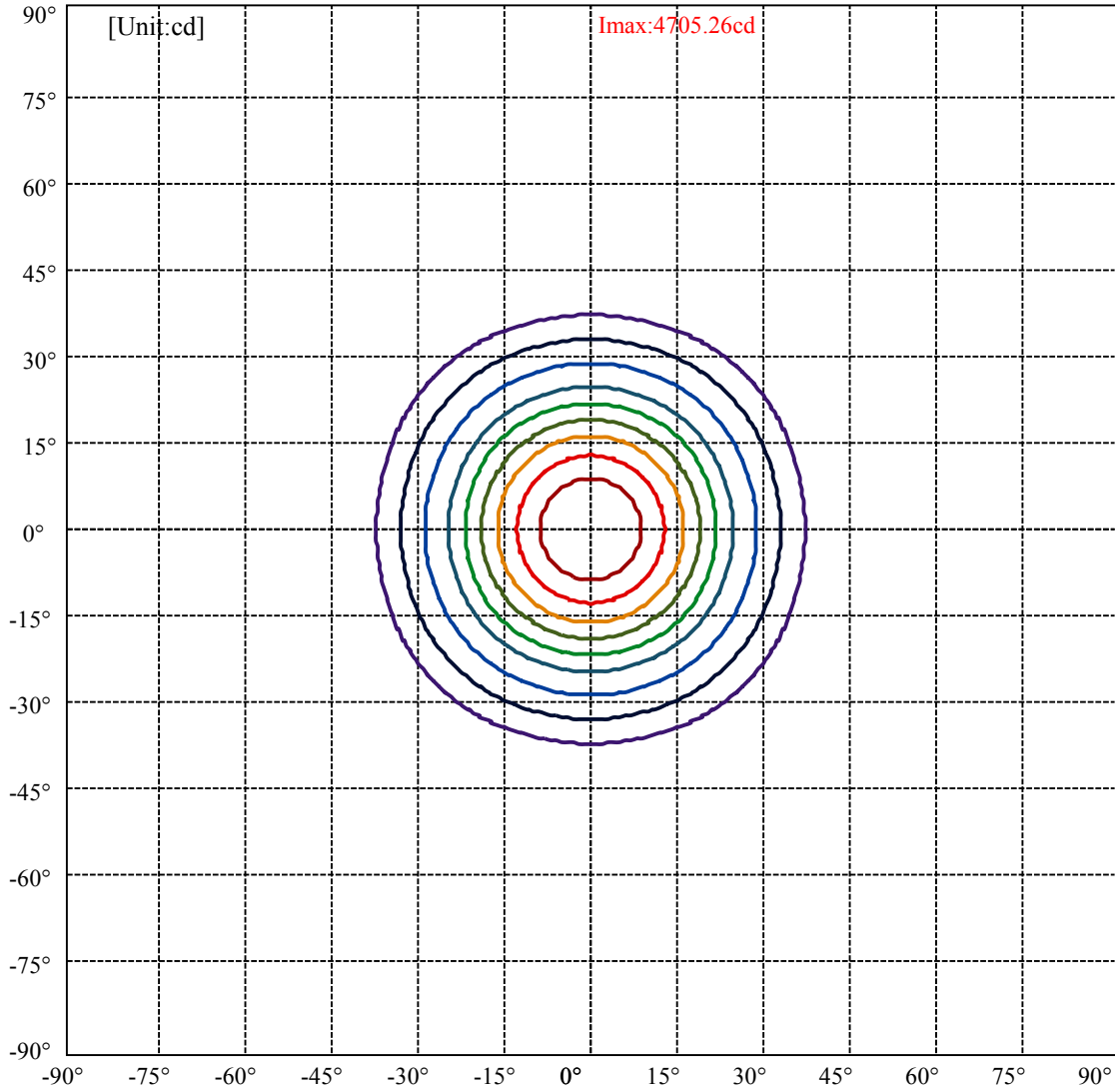
Field angle(10%Imax):C0/180Left:36.8 Right:36.8

:C90/270Left:36.8 Right:36.8

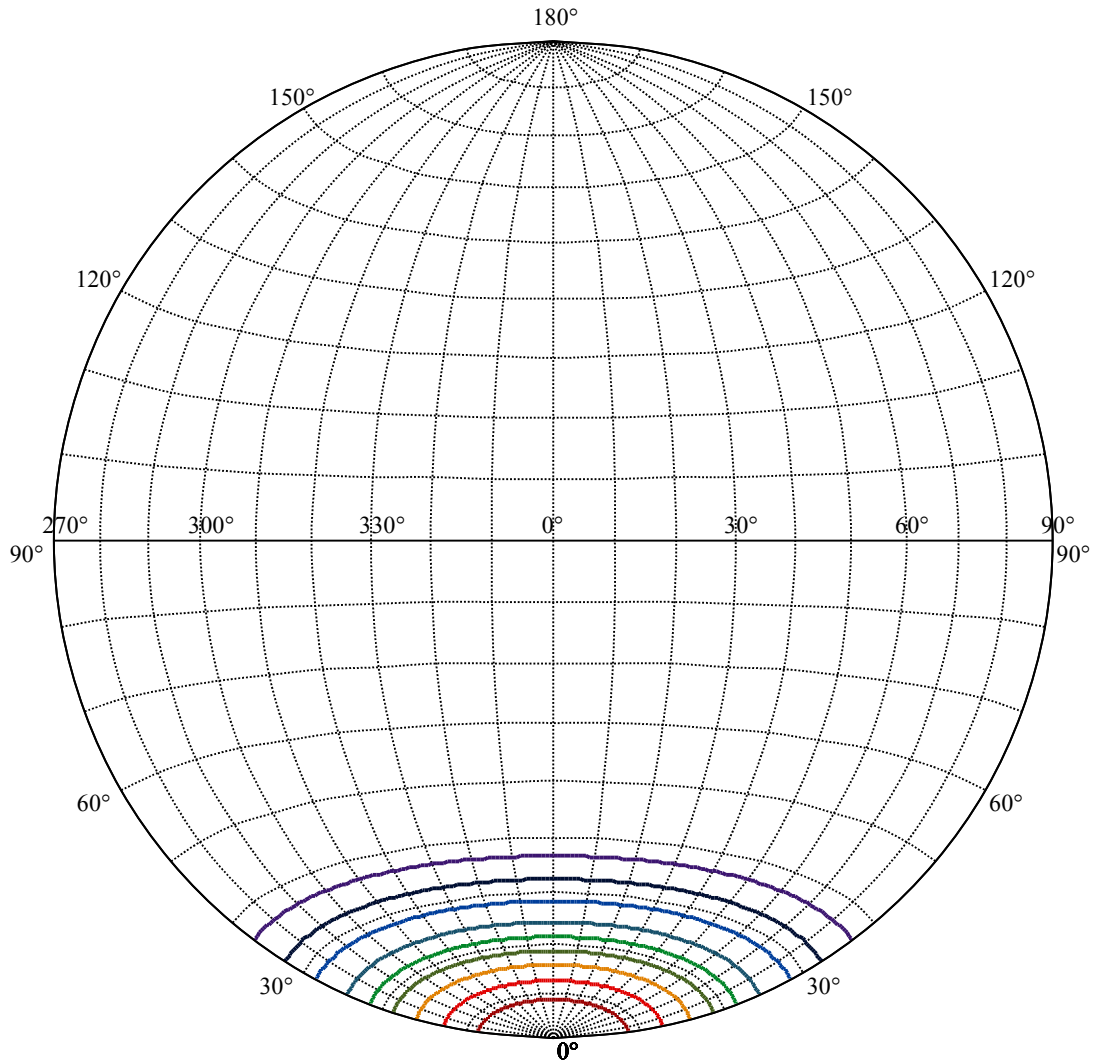
Beam Angle(50%Imax):C0/180Left:21.5 Right:21.5

:C90/270Left:21.5 Right:21.5





(10%Imax) 470.526	—
(20%Imax) 941.052	—
(30%Imax) 1411.58	—
(40%Imax) 1882.1	—
(50%Imax) 2352.63	—
(60%Imax) 2823.15	—
(70%Imax) 3293.68	—
(80%Imax) 3764.21	—
(90%Imax) 4234.73	—



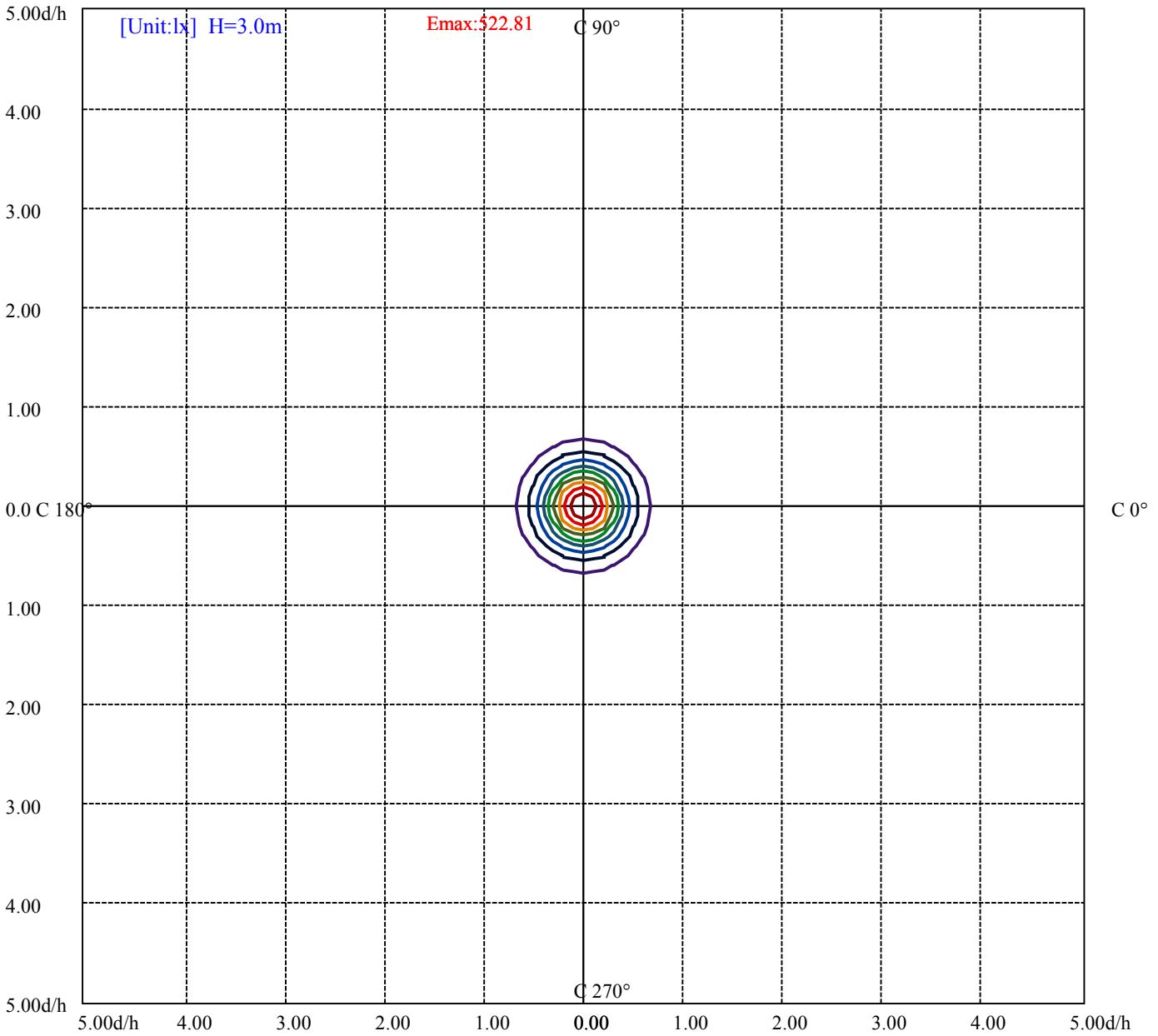
House

[Unit:cd]

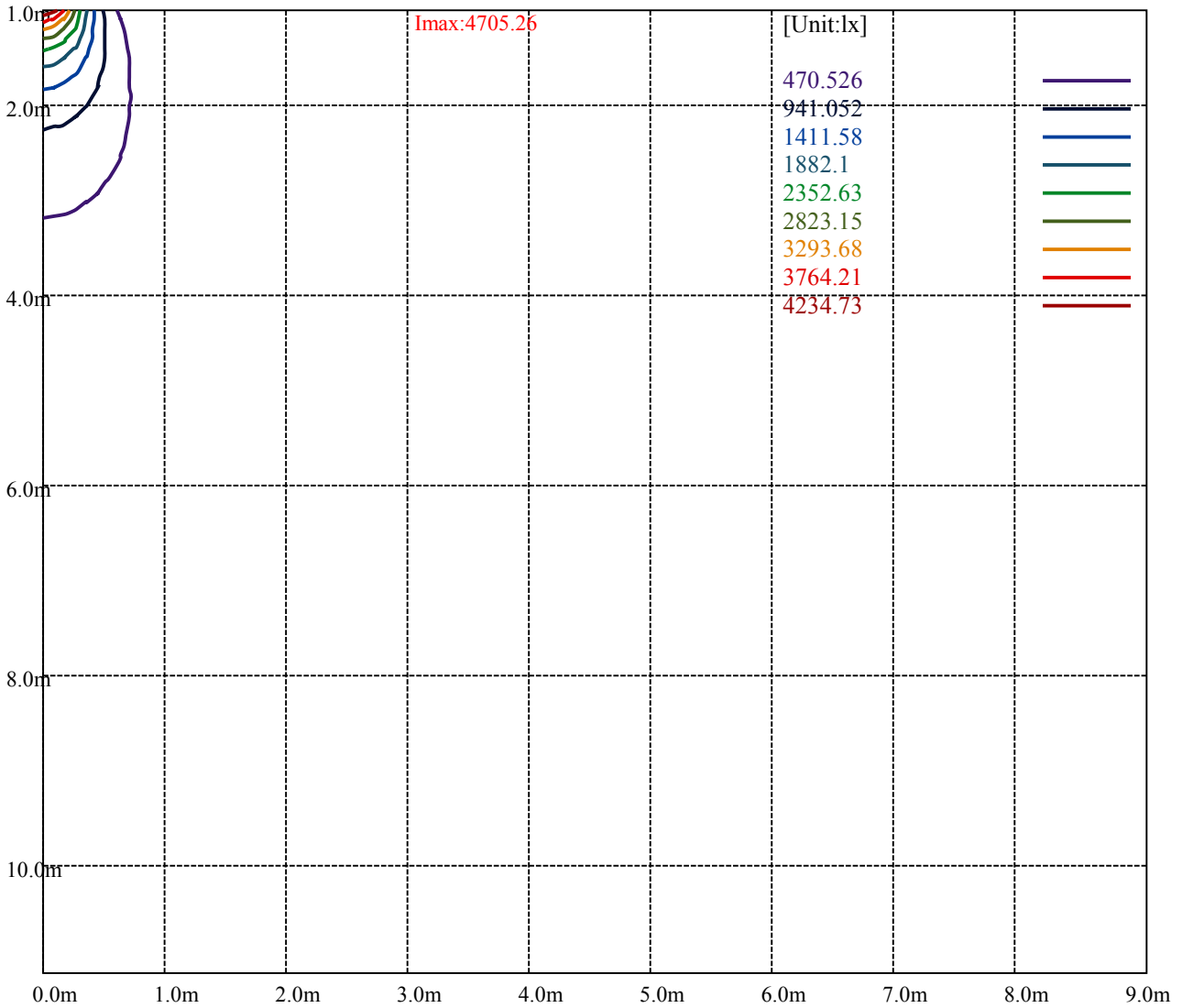
Road

Imax:4705.26

(10%Imax)	470.526	—
(20%Imax)	941.052	—
(30%Imax)	1411.58	—
(40%Imax)	1882.1	—
(50%Imax)	2352.63	—
(60%Imax)	2823.15	—
(70%Imax)	3293.68	—
(80%Imax)	3764.21	—
(90%Imax)	4234.73	—



(10%Emax) 52.28056	—
(20%Emax) 104.5612	—
(30%Emax) 156.8422	—
(40%Emax) 209.1222	—
(50%Emax) 261.4033	—
(60%Emax) 313.6833	—
(70%Emax) 365.9644	—
(80%Emax) 418.2444	—
(90%Emax) 470.5255	—



Luminance Table

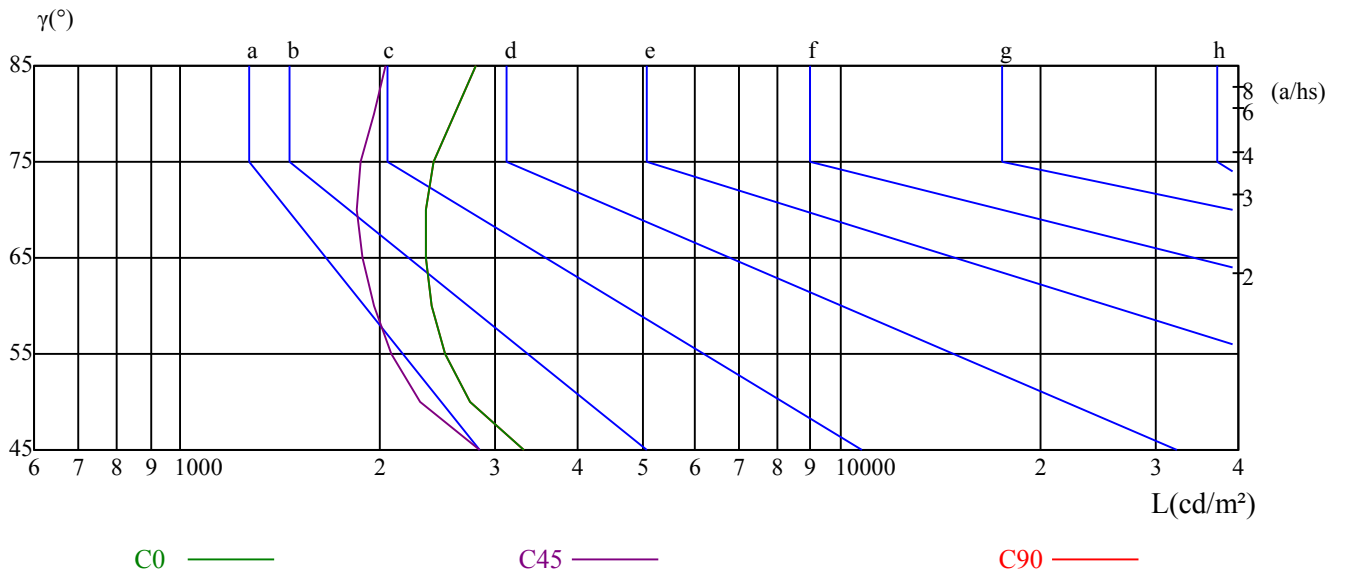
γ	45	50	55	60	65	70	75	80	85
C0	3315	2742	2519	2404	2346	2355	2424	2601	2792
C45	2839	2313	2092	1964	1884	1854	1869	1957	2043
C90	3315	2742	2519	2404	2346	2355	2424	2601	2792

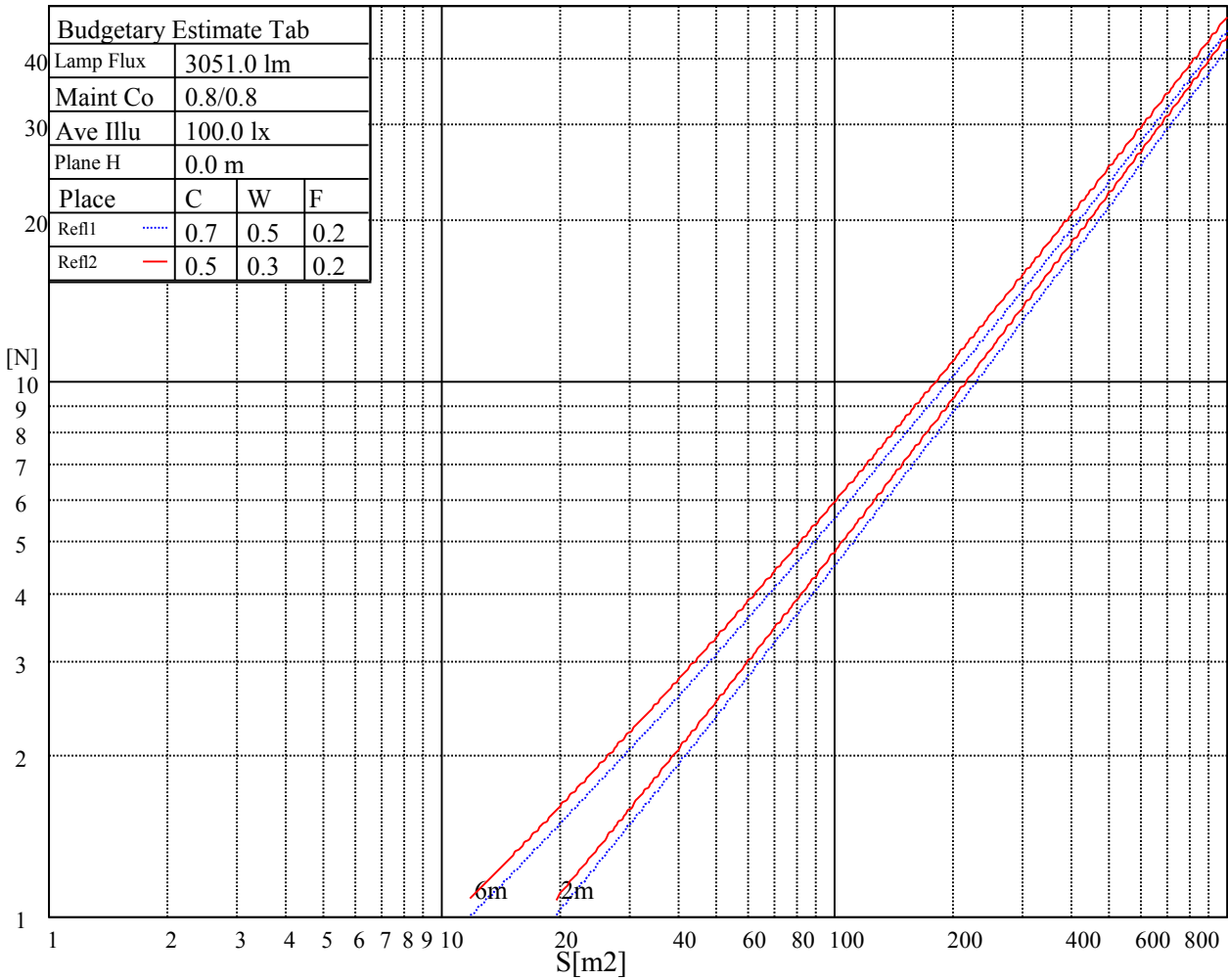
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5765	5765	5765	8571	8571	8571	24478	24478	24478

Glare Table

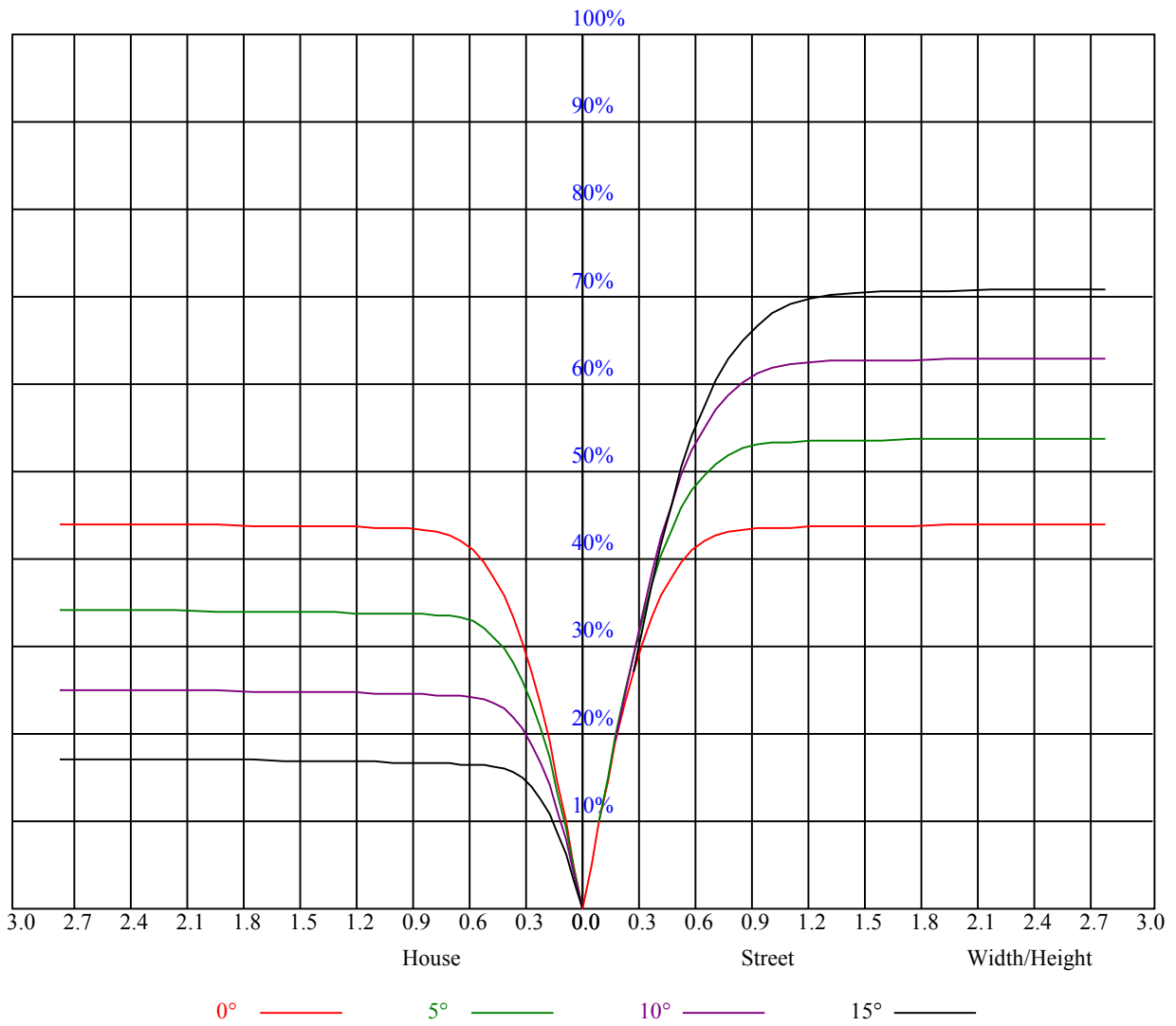
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

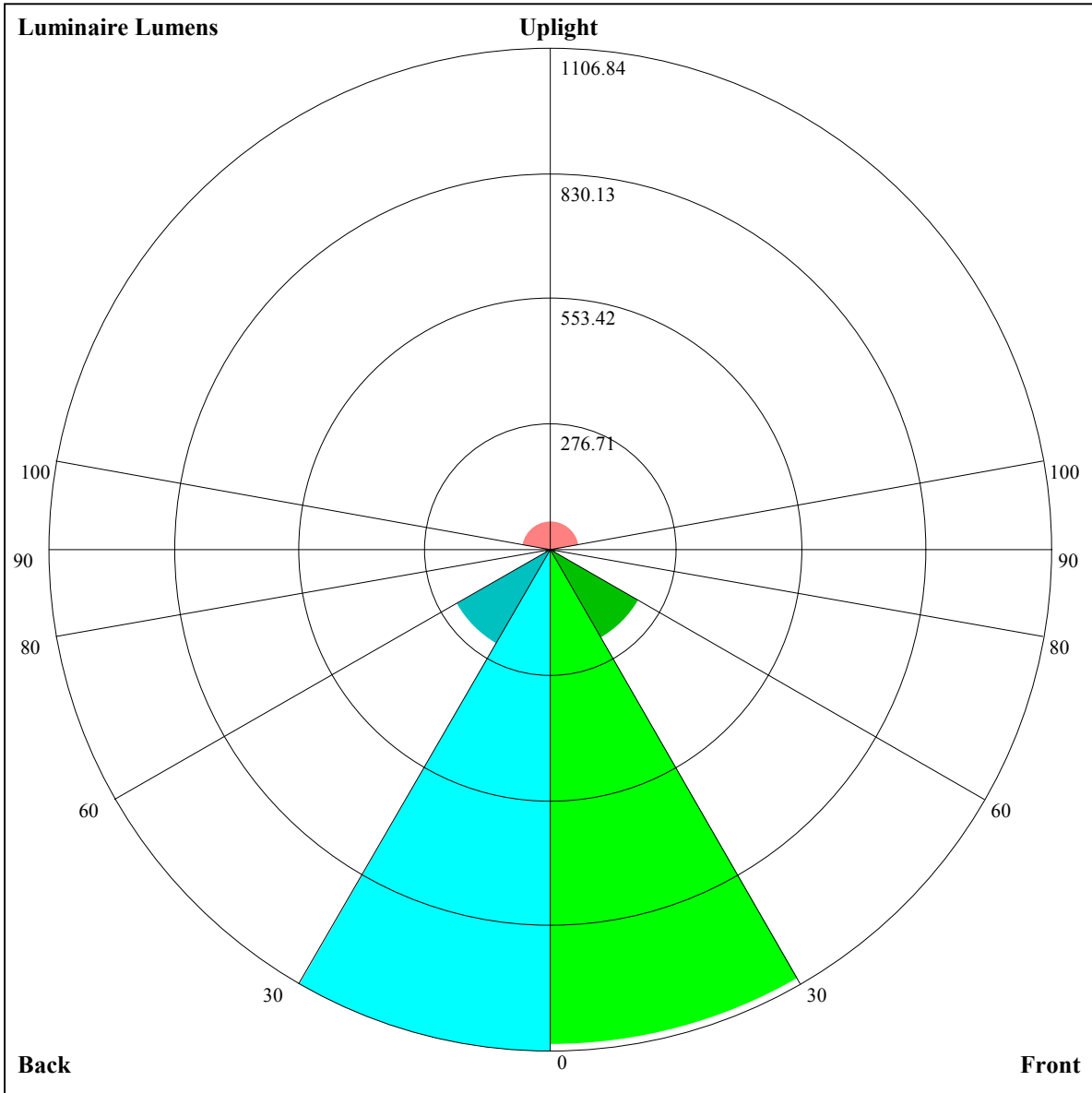
Luminance Limiting Curve





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	1.06	1.06	1.06	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	0.98	0.96	0.94	0.96	0.94	0.93	0.93	0.91	0.90	0.90	0.88	0.87	0.86	0.85	0.84	0.83
2	0.93	0.89	0.86	0.91	0.88	0.85	0.88	0.86	0.84	0.86	0.84	0.82	0.83	0.82	0.80	0.79
3	0.88	0.84	0.80	0.87	0.83	0.80	0.84	0.81	0.79	0.82	0.80	0.77	0.80	0.78	0.76	0.75
4	0.83	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.74	0.79	0.76	0.73	0.77	0.75	0.73	0.71
5	0.79	0.75	0.71	0.79	0.74	0.71	0.77	0.73	0.70	0.76	0.72	0.70	0.74	0.71	0.69	0.68
6	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.67	0.73	0.69	0.67	0.71	0.69	0.66	0.65
7	0.72	0.68	0.65	0.72	0.68	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.62
8	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.61	0.67	0.64	0.61	0.66	0.63	0.61	0.60
9	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.58	0.57
10	0.64	0.60	0.57	0.64	0.59	0.57	0.63	0.59	0.57	0.62	0.59	0.56	0.62	0.59	0.56	0.55





Luminaire Lumens:

FL=1092.08,FM=224.17,FH=14.5,FVH=7.12

BL=1106.84,BM=239.33,BH=14.64,BVH=7.04

UL=13.87,UH=66

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	4704.02	4557.02	4105.56	3437.72	2647.11	1804.75	1329.06	697.56	151.96
45.0	4715.03	4548.21	4070.87	3413.50	2537.55	1700.69	1260.24	610.02	66.67
90.0	4697.96	4494.80	4006.45	3301.73	2404.86	1648.39	1078.89	496.83	44.82
135.0	4704.02	4604.92	4169.97	3545.08	2657.02	1832.28	1360.99	688.76	306.66
180.0	4704.02	4540.50	4108.86	3432.77	2617.38	1777.77	1082.57	637.94	80.71
225.0	4715.03	4580.14	4178.23	3496.63	2652.62	1808.05	1304.29	703.35	131.09
270.0	4697.96	4601.06	4277.33	3612.25	2816.69	1936.33	1403.39	828.60	280.79
315.0	4704.02	4504.16	4049.95	3399.18	2522.13	1751.89	1083.34	563.94	57.15
360.0	4704.02	4557.02	4105.56	3437.72	2647.11	1804.75	1329.06	697.56	151.96

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	23.07	18.88	16.90	15.58	14.65	13.87	13.49	13.87	13.21
45.0	21.53	18.55	16.74	15.42	14.48	13.82	13.32	13.27	13.05
90.0	21.14	18.61	16.74	15.58	14.53	13.82	13.32	12.99	12.83
135.0	24.61	20.10	17.84	16.30	15.09	14.20	13.54	13.16	12.88
180.0	24.22	20.10	17.78	16.24	14.98	14.20	13.54	13.10	12.88
225.0	25.88	19.82	17.67	16.13	15.03	14.20	13.60	13.27	12.94
270.0	27.58	20.04	17.73	16.30	15.09	14.26	13.65	13.27	12.94
315.0	23.56	19.16	17.18	15.80	14.76	13.98	13.49	13.76	13.10
360.0	23.07	18.88	16.90	15.58	14.65	13.87	13.49	13.87	13.21

C/γ(°)	90.0
0.0	12.72
45.0	12.72
90.0	12.72
135.0	12.72
180.0	12.66
225.0	12.72
270.0	12.72
315.0	12.72
360.0	12.72