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Nata

Client:

LumCAT: 2-1652-A

Luminaire: 92.70.135.00+92.70.148.00

Report No: NT2018031213

Test No: nata-0100

LampCAT: LUMILEDS 1208

Lamp flux(lm): 2262.0

Number of Lamps: 1

Length(mm): 70

Phm Type: C

Voltage(V): 35.0000

Current(A): 0.5000

Power (W): 17.5000

PF: 0.0000

Ballast type: DC

Width(mm): 70

Height(mm):0

Photometric Results

Lumens(lm): 1947.29, Efficiency(%): 86.09% , Luminous Efficacy(lm/W): 111.27

Central intensity(cd): 3883.816, Maximum intensity(cd): 3883.816

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=38.2

[C90/270]Total=38.2

Field angle(10%Imax): [C0/180]Total=69.2

[C90/270]Total=69.2

Maximum s/h(1/2): C0_180=0.62 C90_270=0.62

Maximum s/h(1/4): C0_180=0.63 C90_270=0.63

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 87.03%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.223%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/3/9
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

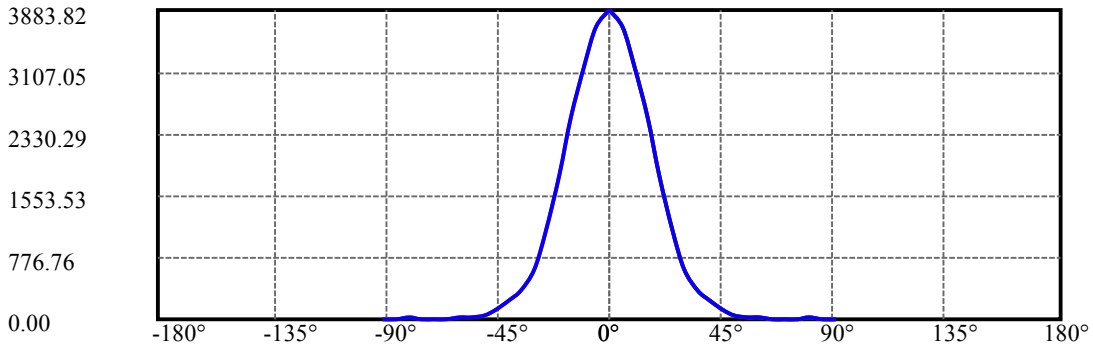
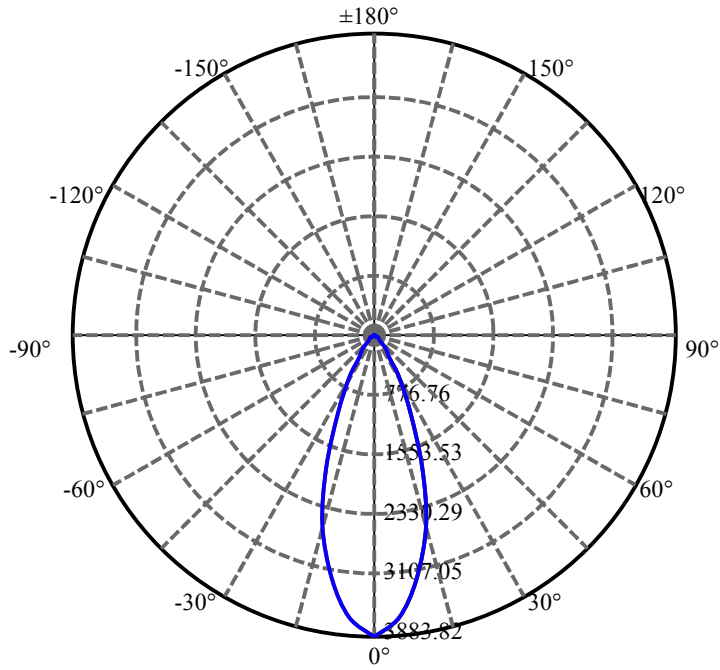
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3883.816	23.226	23.226	1.027%	1.193%
5.0	3659.668	174.834	198.06	7.729%	10.171%
10.0	3189.830	303.618	501.678	13.423%	25.763%
15.0	2537.412	359.979	861.657	15.914%	44.249%
20.0	1816.999	340.640	1202.297	15.059%	61.742%
25.0	1107.473	256.549	1458.846	11.342%	74.917%
30.0	635.709	174.228	1633.074	7.702%	83.864%
35.0	364.157	114.490	1747.565	5.061%	89.743%
40.0	230.514	81.218	1828.783	3.591%	93.914%
45.0	113.464	43.978	1872.761	1.944%	96.173%
50.0	56.550	23.745	1896.506	1.050%	97.392%
55.0	23.888	10.726	1907.232	.474%	97.943%
60.0	14.253	6.766	1913.997	.299%	98.290%
65.0	11.803	5.863	1919.861	.259%	98.591%
70.0	11.307	5.824	1925.685	.257%	98.890%
75.0	11.431	6.052	1931.737	.268%	99.201%
80.0	13.737	7.415	1939.152	.328%	99.582%
85.0	11.018	6.016	1945.169	.266%	99.891%
90.0	7.749	2.124	1947.293	.094%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1633.07	72.20%	83.86%
0-40	1828.78	80.85%	93.91%
0-60	1914.00	84.62%	98.29%
0-90	1945.17	85.99%	99.89%
0-120	1945.17	85.99%	99.89%
0-180	1947.29	86.09%	100.00%
60-90	37.94	1.68%	1.95%
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%
0-27.84	1557.83	68.87%	80.00%

ZONAL LUMEN SUMMARY

0-10	501.68
10-20	700.62
20-30	430.78
30-40	195.71
40-50	67.72
50-60	17.49
60-70	11.69
70-80	13.47
80-90	6.02
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



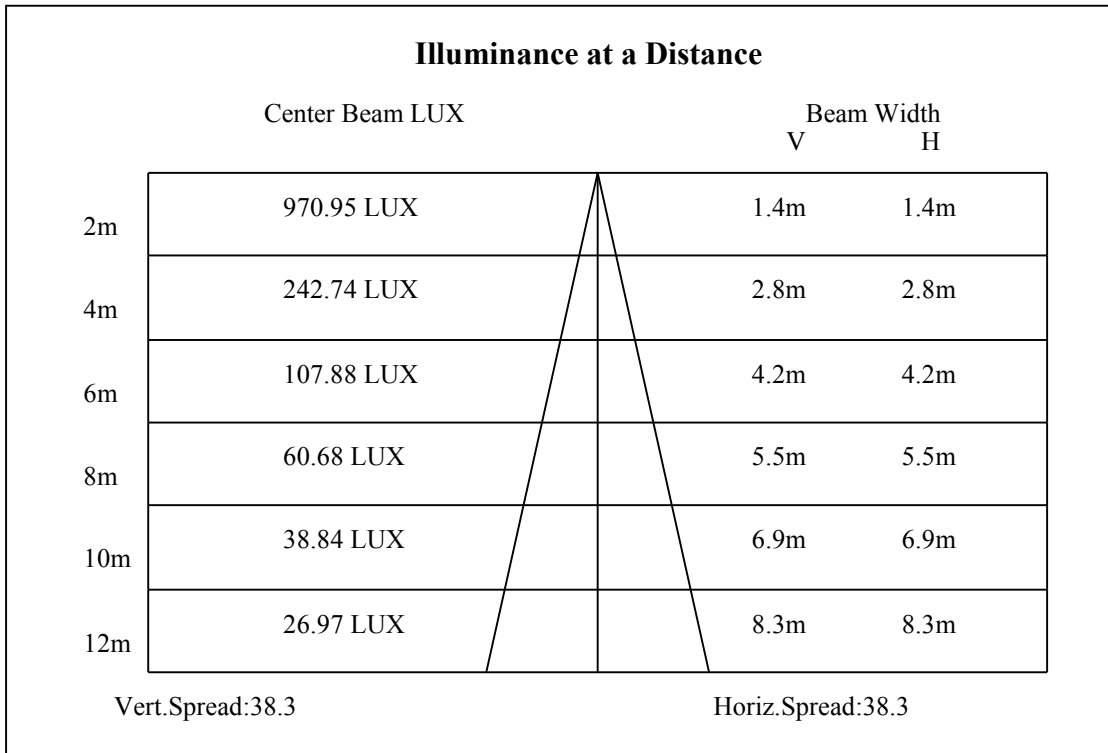
C0(Max): —————

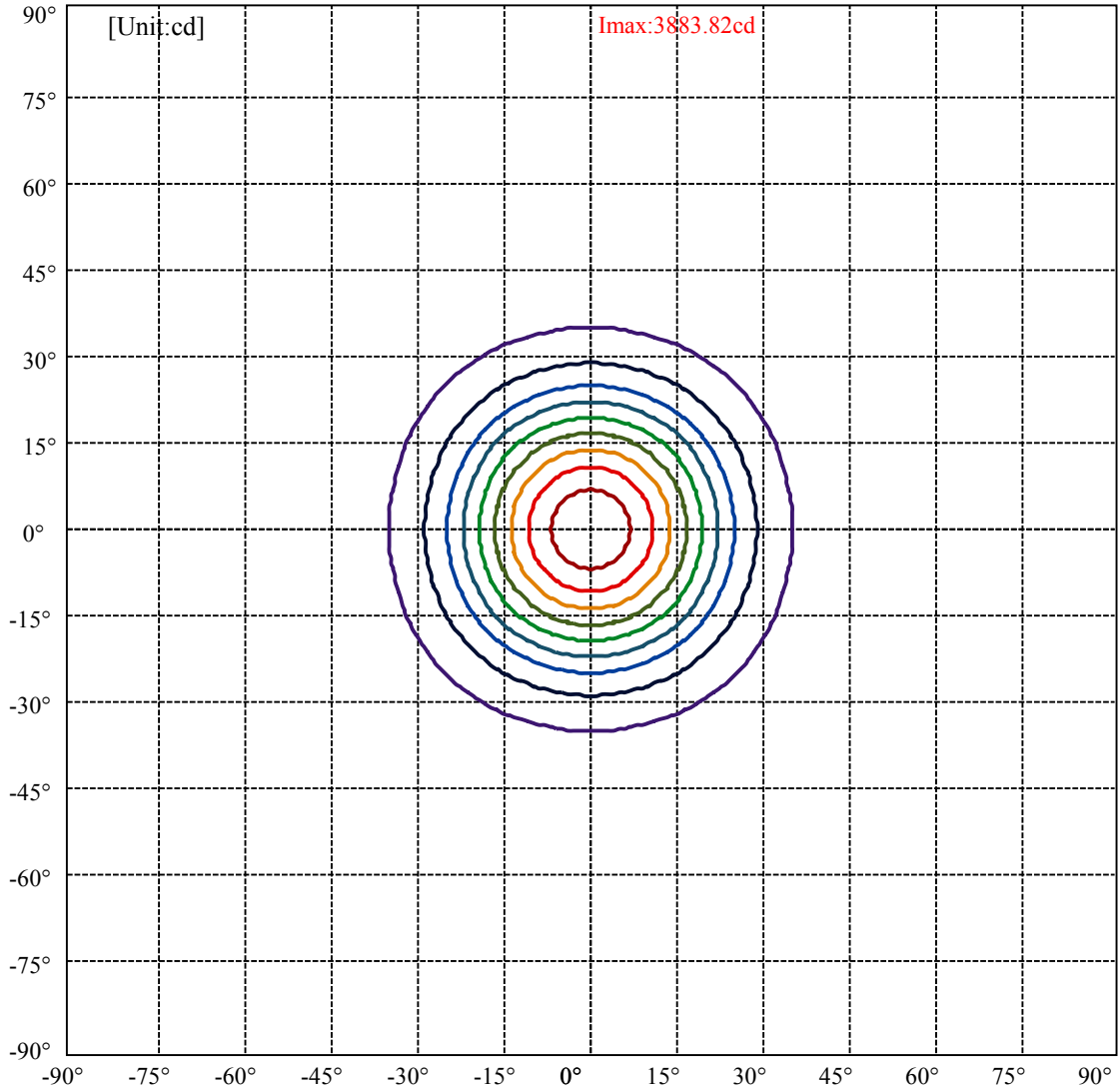
C0/C180: —————

C90/C270: —————

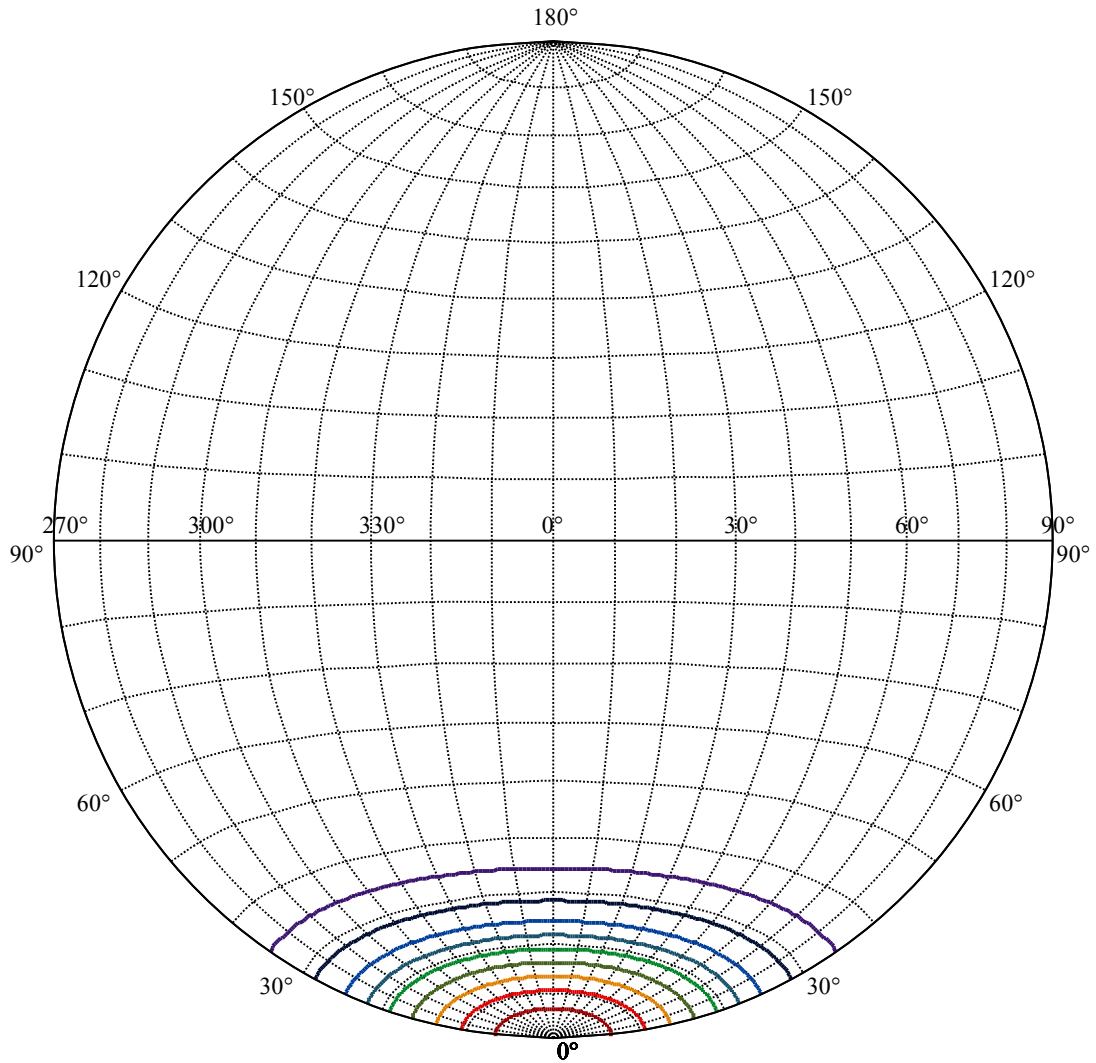
Field angle(10%Imax):C0/180Left:34.6 Right:34.6
:C90/270Left:34.6 Right:34.6

Beam Angle(50%Imax):C0/180Left:19.1 Right:19.1
:C90/270Left:19.1 Right:19.1





(10%Imax) 388.382	—
(20%Imax) 776.763	—
(30%Imax) 1165.14	—
(40%Imax) 1553.53	—
(50%Imax) 1941.91	—
(60%Imax) 2330.29	—
(70%Imax) 2718.67	—
(80%Imax) 3107.05	—
(90%Imax) 3495.43	—












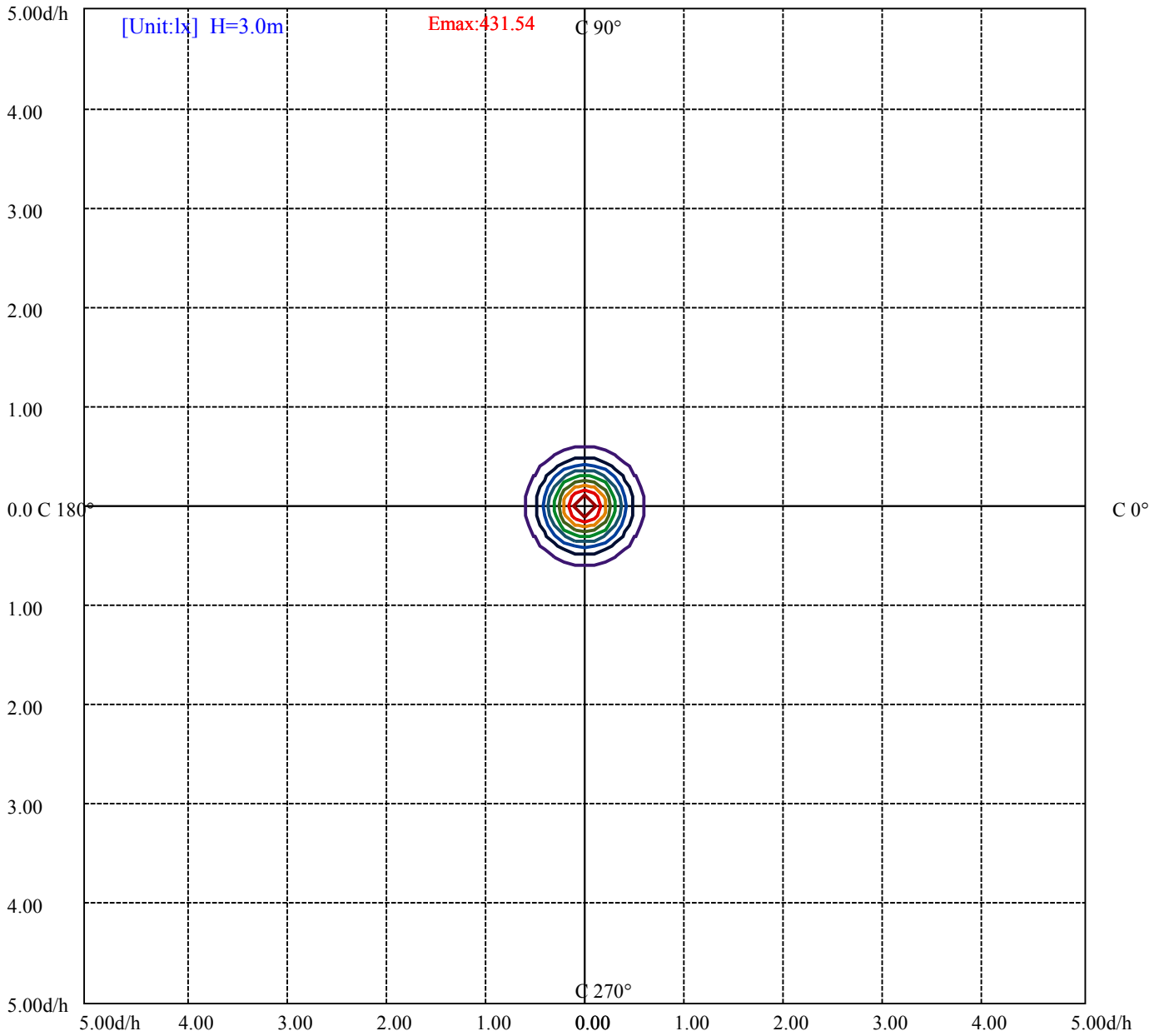
House

[Unit:cd]

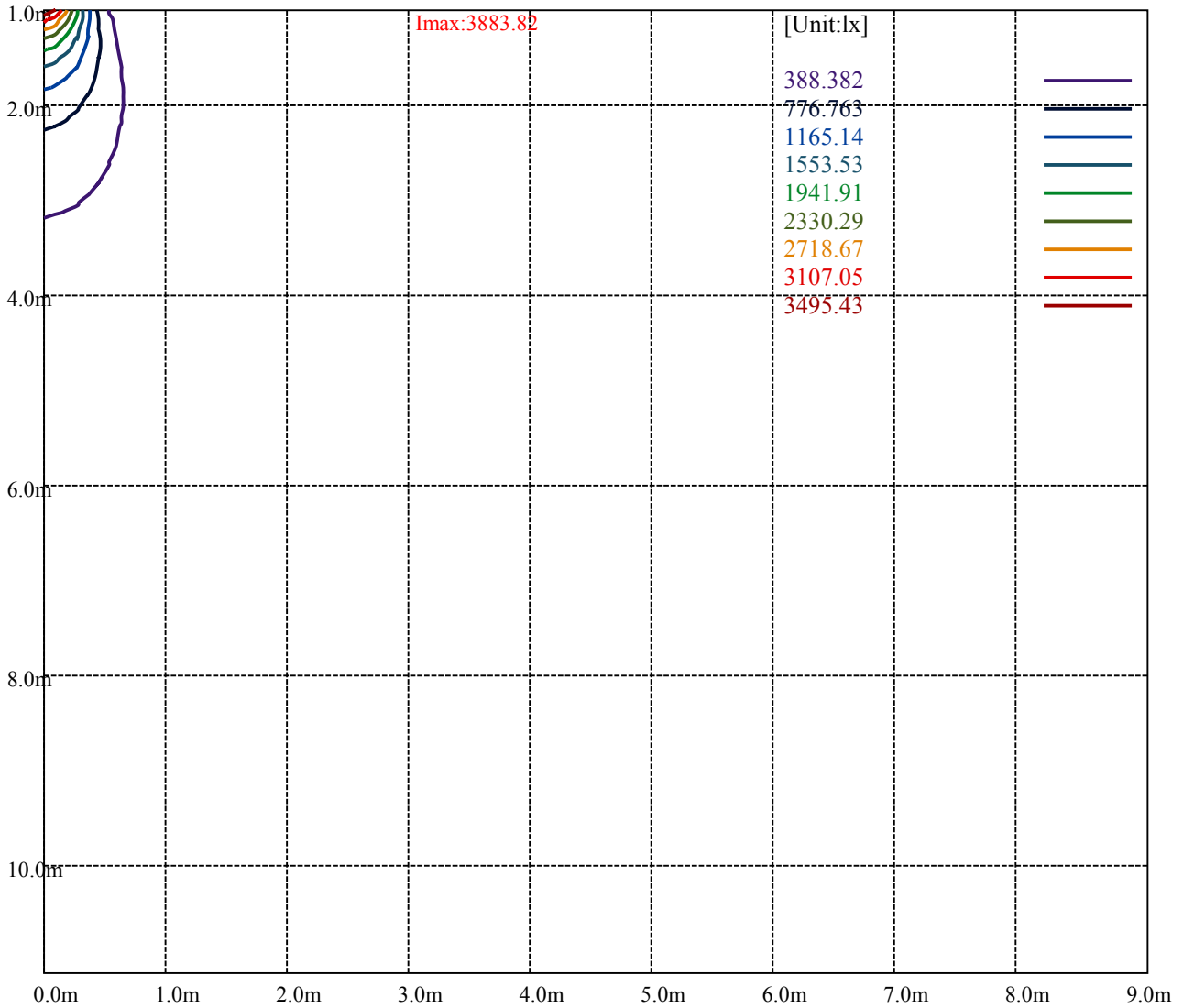
Road

Imax:3883.82

(10%Imax)	388.382	
(20%Imax)	776.763	
(30%Imax)	1165.14	
(40%Imax)	1553.53	
(50%Imax)	1941.91	
(60%Imax)	2330.29	
(70%Imax)	2718.67	
(80%Imax)	3107.05	
(90%Imax)	3495.43	



- (10%Emax) 43.15345 ———
- (20%Emax) 86.30689 ———
- (30%Emax) 129.46 ———
- (40%Emax) 172.6133 ———
- (50%Emax) 215.7667 ———
- (60%Emax) 258.9211 ———
- (70%Emax) 302.0744 ———
- (80%Emax) 345.2278 ———
- (90%Emax) 388.3811 ———



Luminance Table

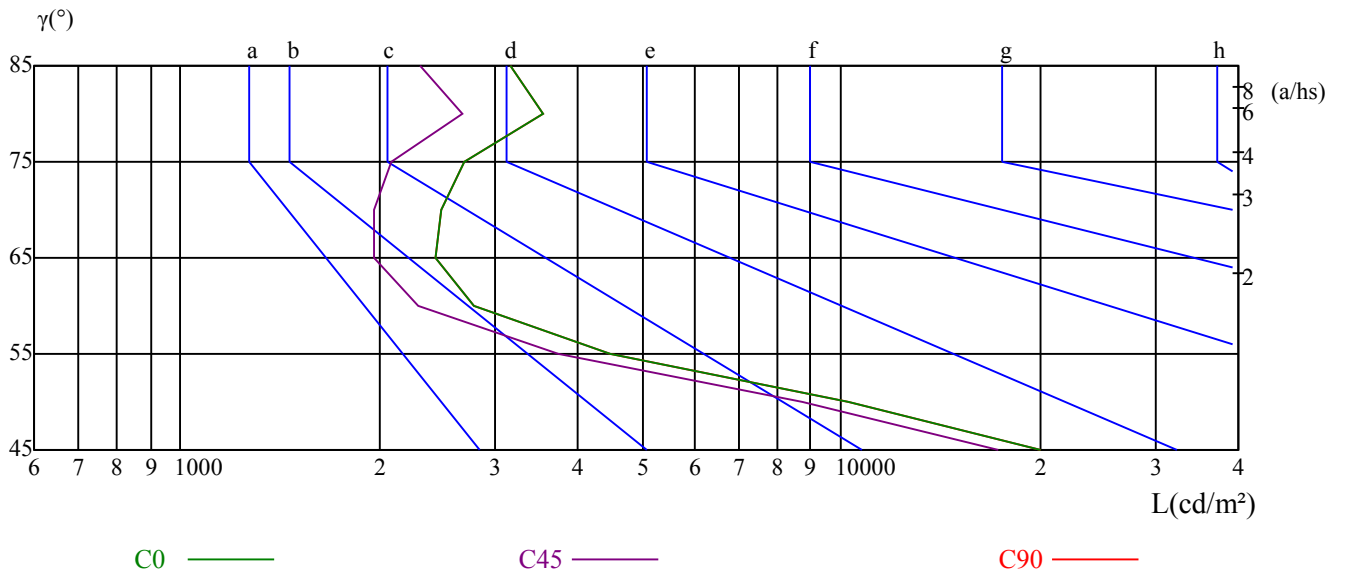
γ	45	50	55	60	65	70	75	80	85
C0	20108	10265	4479	2785	2427	2474	2694	3537	3152
C45	17337	8718	3745	2291	1961	1960	2088	2672	2312
C90	20108	10265	4479	2785	2427	2474	2694	3537	3152

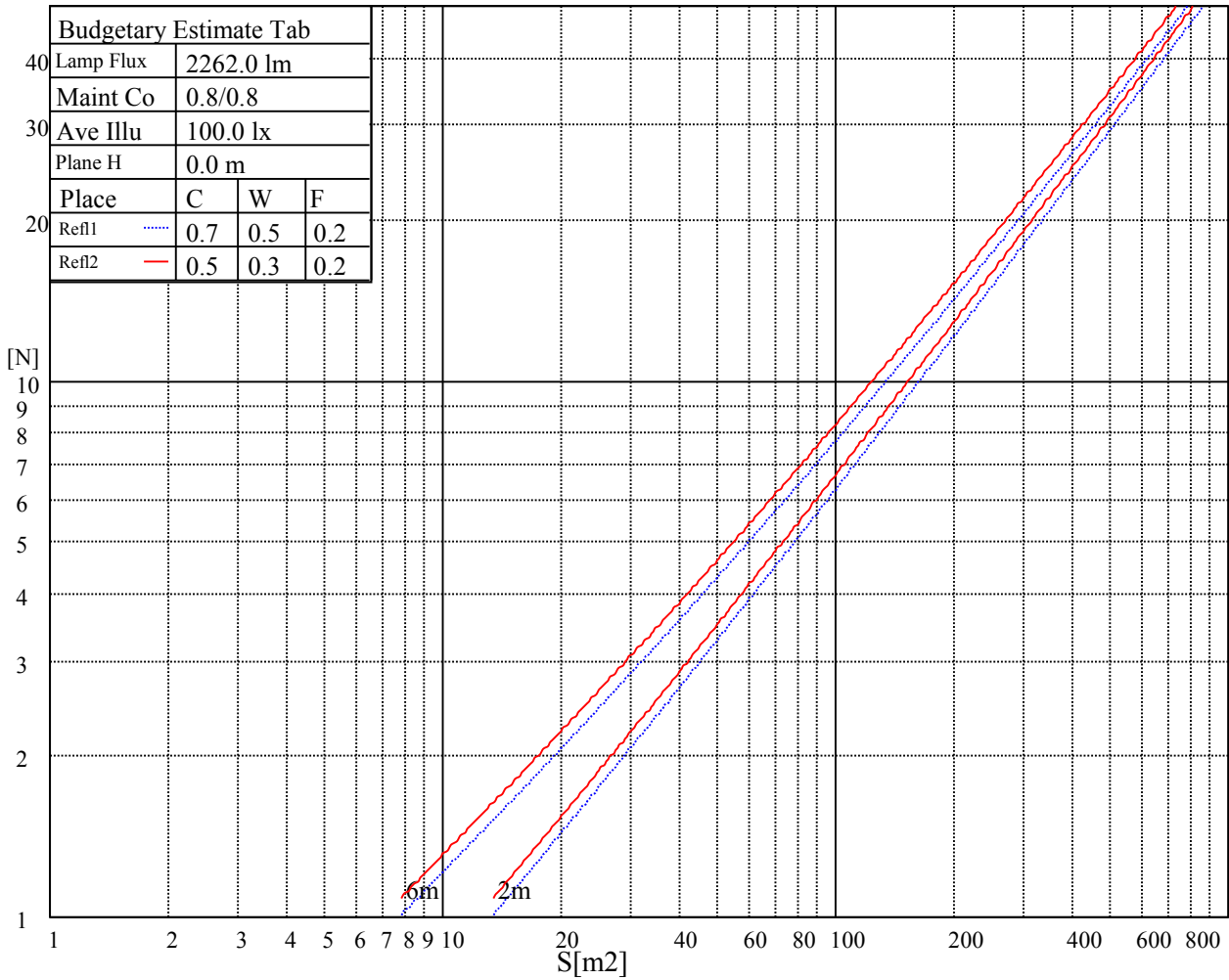
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5700	5700	5700	9014	9014	9014	25800	25800	25800

Glare Table

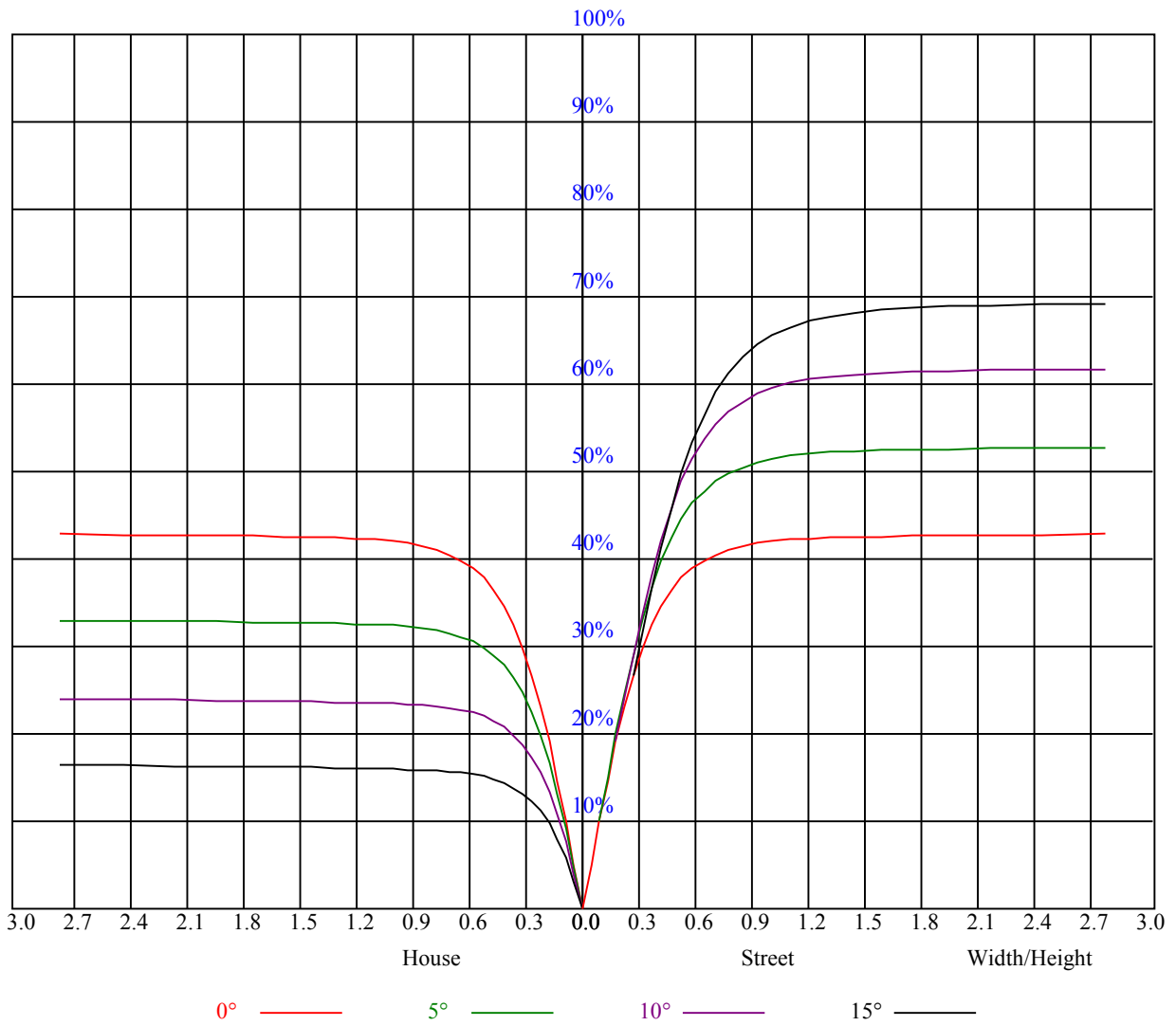
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

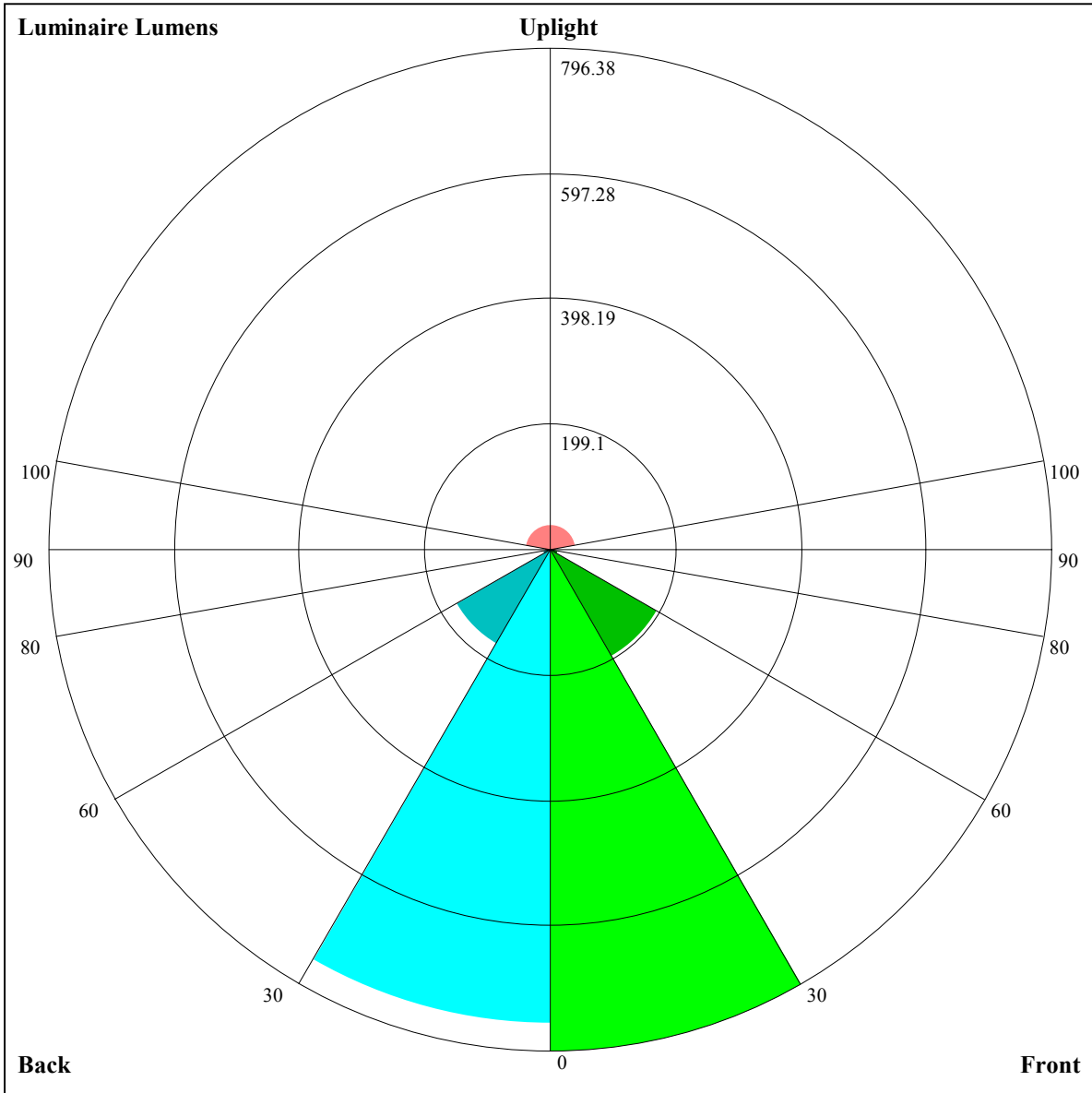
Luminance Limiting Curve





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	1.04	1.04	1.04	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.87
1	0.96	0.93	0.91	0.94	0.92	0.90	0.90	0.89	0.87	0.87	0.86	0.84	0.84	0.83	0.82	0.80
2	0.90	0.87	0.84	0.89	0.85	0.83	0.86	0.83	0.81	0.83	0.81	0.79	0.81	0.79	0.78	0.76
3	0.85	0.81	0.78	0.84	0.80	0.77	0.82	0.79	0.76	0.80	0.77	0.75	0.78	0.76	0.74	0.72
4	0.81	0.76	0.73	0.80	0.76	0.73	0.78	0.75	0.72	0.76	0.73	0.71	0.75	0.72	0.70	0.69
5	0.77	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.73	0.70	0.68	0.72	0.69	0.67	0.66
6	0.73	0.69	0.66	0.73	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.63
7	0.70	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.60
8	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.59	0.65	0.62	0.59	0.64	0.61	0.59	0.58
9	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.56
10	0.62	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.61	0.57	0.55	0.60	0.57	0.54	0.54





Luminaire Lumens:

FL=796.38,FM=194.38,FH=12.48,FVH=5.96

BL=751.44,BM=174.24,BH=12.39,BVH=5.93

UL=8.45,UH=40.23

BUG Rating:B2-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	3864.96	3751.54	3356.24	2741.81	2070.67	1303.18	751.52	427.79	279.14
45.0	3887.53	3717.41	3290.17	2687.30	1947.90	1193.07	698.67	395.30	280.79
90.0	3896.89	3646.94	3170.70	2508.92	1768.96	1069.20	617.84	352.64	214.44
135.0	3885.88	3661.80	3229.61	2561.22	1815.21	1134.16	648.56	362.27	240.54
180.0	3864.96	3558.30	3007.18	2249.05	1567.46	929.90	503.11	306.44	178.11
225.0	3887.53	3618.86	3109.03	2419.73	1713.91	1022.18	572.09	340.19	201.73
270.0	3896.89	3670.61	3225.20	2604.17	1862.56	1131.96	667.83	374.93	241.20
315.0	3885.88	3651.89	3130.51	2527.09	1789.33	1076.13	626.05	353.68	208.17
360.0	3864.96	3751.54	3356.24	2741.81	2070.67	1303.18	751.52	427.79	279.14

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	136.48	71.52	30.89	15.64	12.28	11.56	11.23	15.09	11.84
45.0	120.96	63.09	26.81	14.87	12.06	11.45	11.29	11.07	10.57
90.0	112.81	56.32	22.74	13.93	11.56	11.12	11.18	18.33	11.12
135.0	114.85	57.59	24.67	14.15	11.62	11.12	11.07	10.90	10.90
180.0	91.39	45.75	18.77	13.16	11.45	11.18	10.63	10.96	10.41
225.0	104.22	47.57	21.09	13.82	11.78	11.34	13.38	19.05	11.34
270.0	115.95	56.60	23.73	14.37	11.84	11.29	11.29	11.12	10.52
315.0	111.05	53.96	22.41	14.09	11.84	11.40	11.40	13.38	11.45
360.0	136.48	71.52	30.89	15.64	12.28	11.56	11.23	15.09	11.84

C/γ(°)	90.0
0.0	7.76
45.0	7.76
90.0	7.71
135.0	7.71
180.0	7.76
225.0	7.76
270.0	7.76
315.0	7.76
360.0	7.76