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Nata

Client: NT

LumCAT: 11-0161-S4

Luminaire: 69-0031-1

Report No: 20260803-B019

Ballast type: DC

Test No: 20260803-C019

Voltage(V): 22.110

LampCAT: LUXEON 2835*2

Current(A): 0.454

Lamp flux(lm): 1126.0

Power (W): 10.037

Number of Lamps: 1

PF: 0.000

Length(mm): 280

Width(mm): 40

Phm Type: C

Height(mm): 20

Photometric Results

Lumens(lm): 877.92, Efficiency(%): 77.97% , Luminous Efficacy(lm/W): 87.47

Central intensity(cd): 568.781, Maximum intensity(cd): 586.132

Angle of maximum intensity: C=0.0 γ =15.0

Beam Angle(50%Imax): [C0/180]Total=78.5

[C90/270]Total=77.5

Field angle(10%Imax): [C0/180]Total=94.9

[C90/270]Total=95.9

Maximum s/h(1/2): C0_180=1.30 C90_270=1.26

Maximum s/h(1/4): C0_180=1.19 C90_270=1.14

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 77.96%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.786%

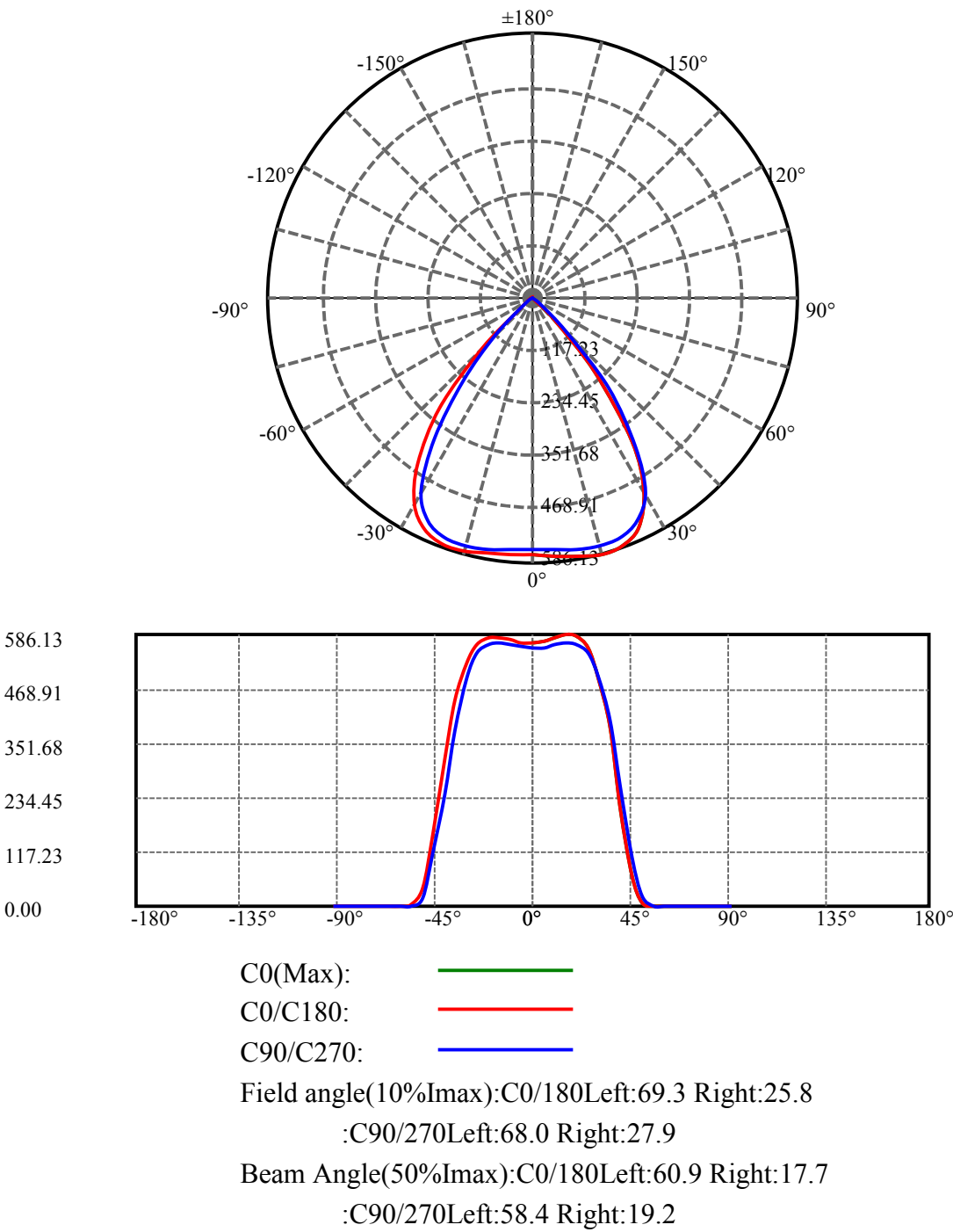
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	565.416	0.000	0	0.00%	0.00%
5.0	567.876	13.548	13.548	1.20%	1.54%
10.0	573.341	40.825	54.373	3.63%	6.19%
15.0	578.049	68.300	122.673	6.07%	13.97%
20.0	574.991	95.027	217.699	8.44%	24.80%
25.0	554.937	118.509	336.208	10.52%	38.30%
30.0	504.587	134.084	470.292	11.91%	53.57%
35.0	416.947	135.702	605.994	12.05%	69.03%
40.0	294.891	118.765	724.759	10.55%	82.55%
45.0	163.852	84.940	809.699	7.54%	92.23%
50.0	62.396	45.717	855.416	4.06%	97.44%
55.0	14.653	16.753	872.169	1.49%	99.35%
60.0	1.518	3.738	875.907	0.33%	99.77%
65.0	0.651	0.527	876.434	0.05%	99.83%
70.0	0.577	0.311	876.745	0.03%	99.87%
75.0	0.550	0.295	877.039	0.03%	99.90%
80.0	0.545	0.293	877.332	0.03%	99.93%
85.0	0.529	0.292	877.624	0.03%	99.97%
90.0	0.540	0.293	877.917	0.03%	100.00%

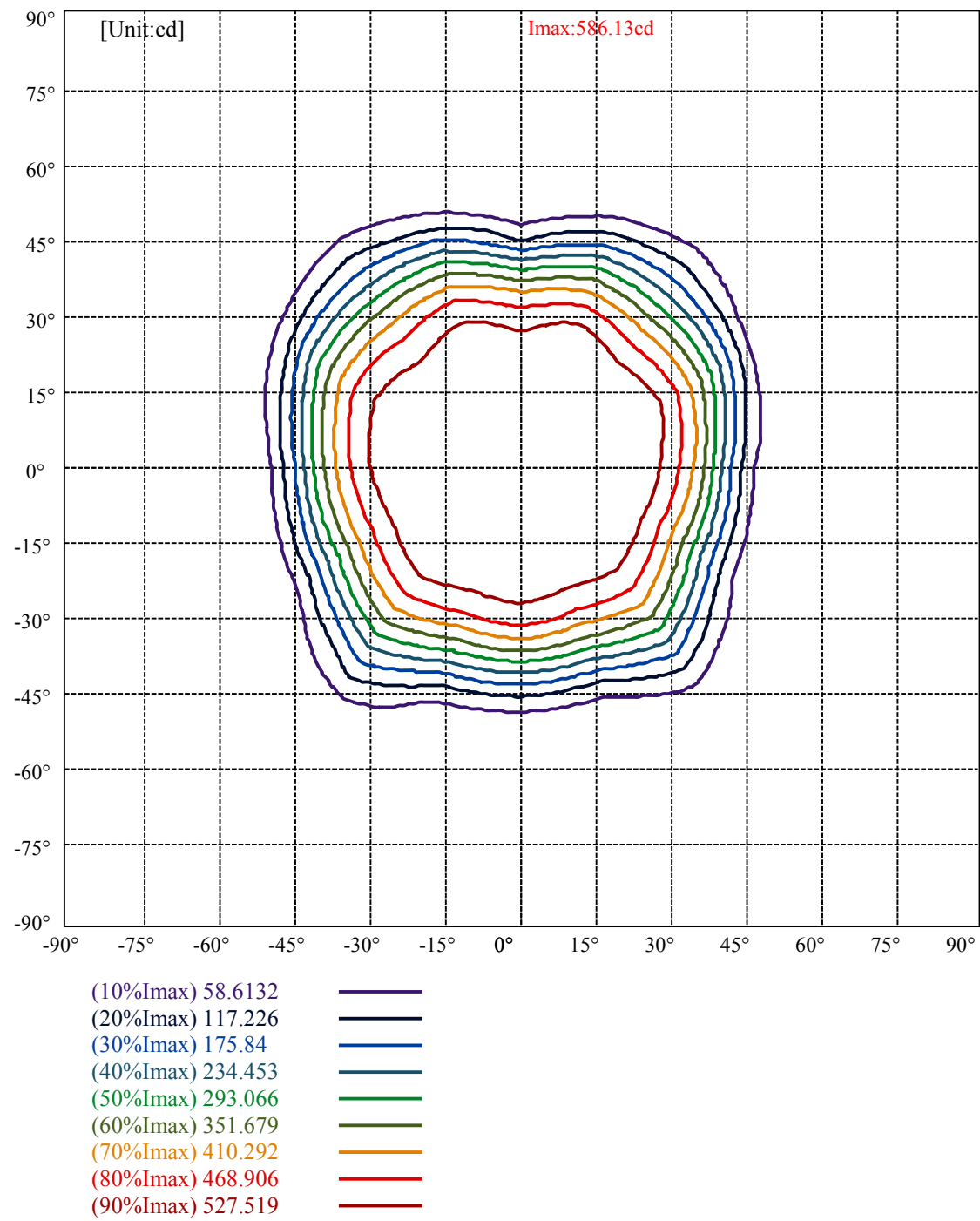
ZONAL LUMEN SUMMARY

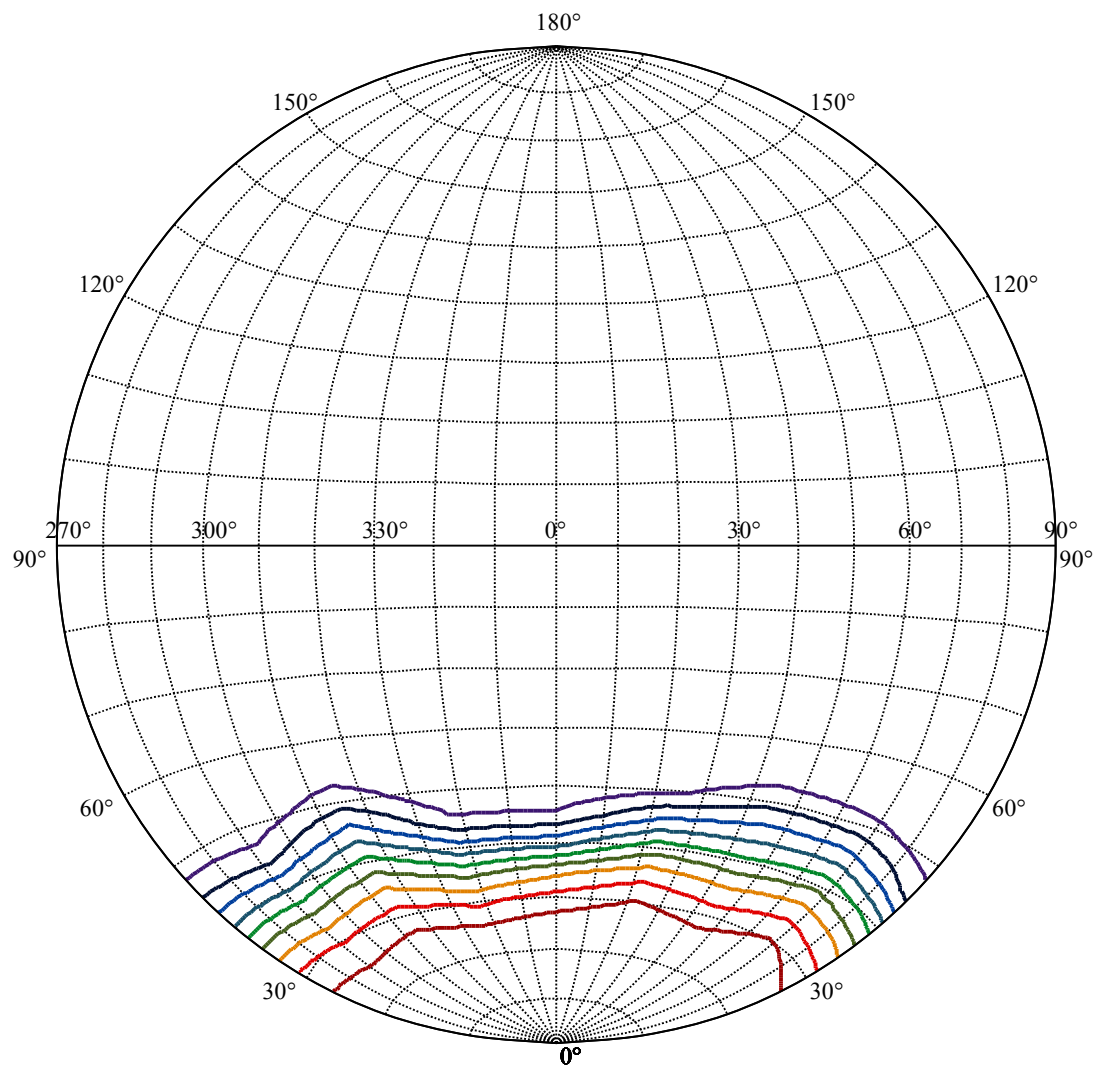
Zone	Lumens	%Lamp	%Fixt
0-30	470.29	41.77%	53.57%
0-40	724.76	64.37%	82.55%
0-60	875.91	77.79%	99.77%
0-90	877.62	77.94%	99.97%
0-120	877.62	77.94%	99.97%
0-180	877.92	77.97%	100.00%
60-90	1.72	0.15%	0.20%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-39.06	702.33	62.37%	80.00%

ZONAL LUMEN SUMMARY

0-10	54.37
10-20	163.33
20-30	252.59
30-40	254.47
40-50	130.66
50-60	20.49
60-70	0.84
70-80	0.59
80-90	0.29
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





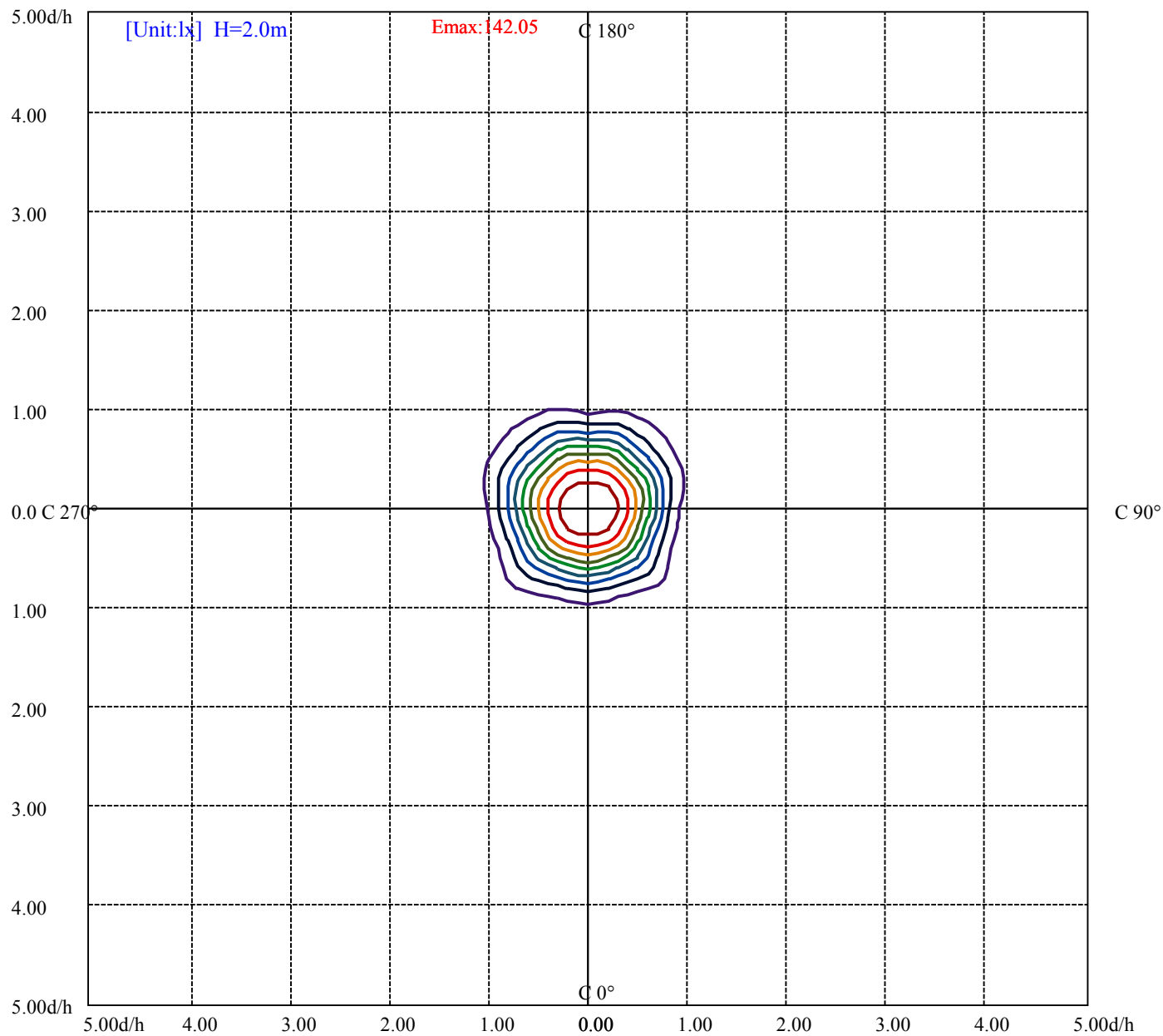


House

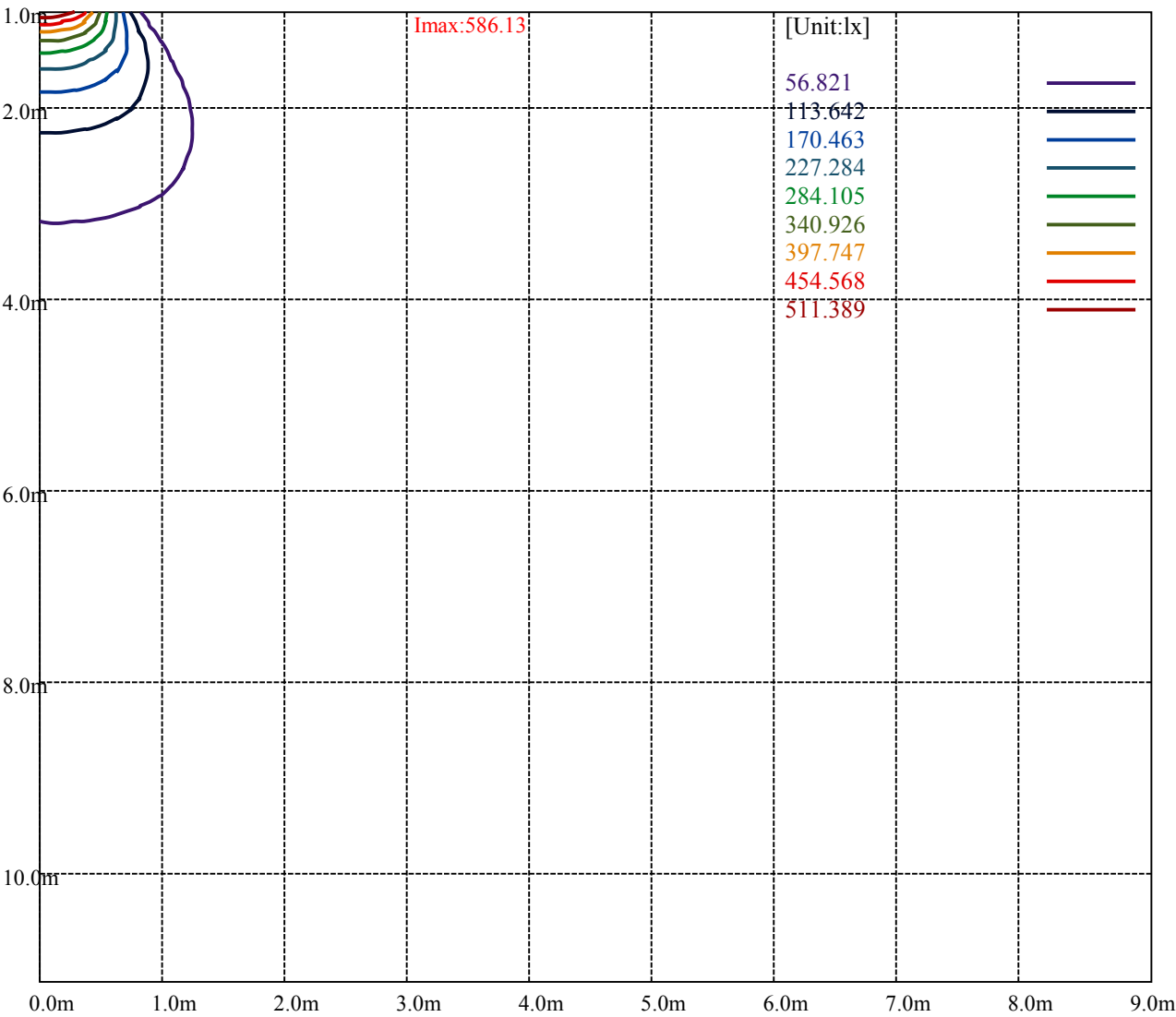
[Unit:cd]

Road

Imax:586.13	
(10%Imax) 58.5423	
(20%Imax) 117.085	
(30%Imax) 175.627	
(40%Imax) 234.169	
(50%Imax) 292.711	
(60%Imax) 351.254	
(70%Imax) 409.796	
(80%Imax) 468.338	
(90%Imax) 526.881	



(10%Emax)	14.20525	
(20%Emax)	28.4105	
(30%Emax)	42.61575	
(40%Emax)	56.821	
(50%Emax)	71.02625	
(60%Emax)	85.2315	
(70%Emax)	99.43675	
(80%Emax)	113.642	
(90%Emax)	127.8473	



Luminance Table

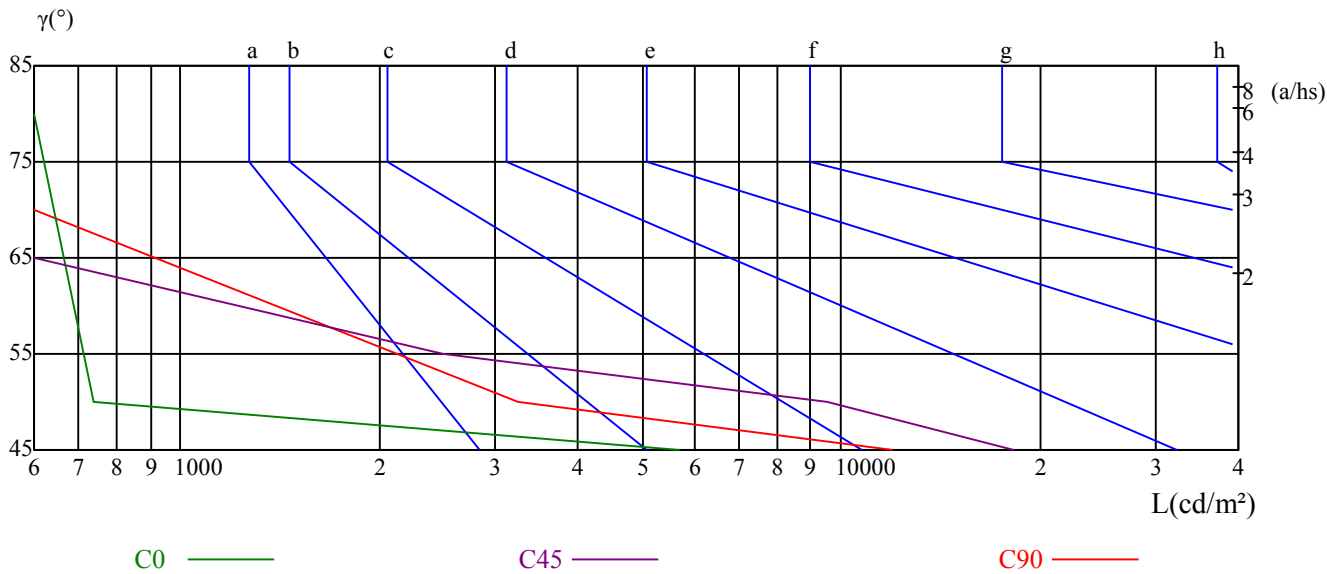
γ	45	50	55	60	65	70	75	80	85
C0	5700	737	0	0	0	0	0	68	77
C45	18268	9523	2506	0	77	73	0	0	93
C90	11970	3250	0	0	0	129	0	217	334

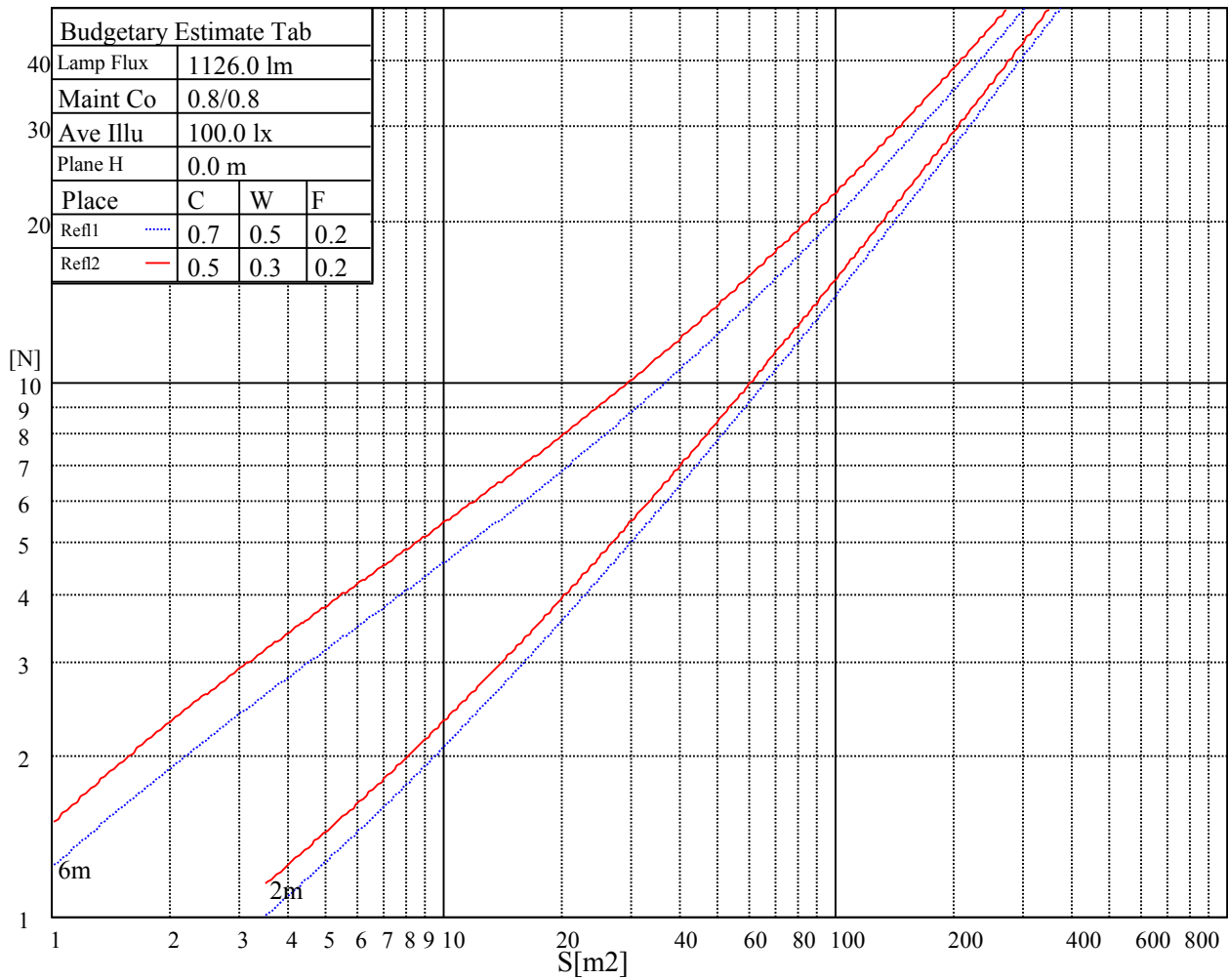
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	63	76	88	0	51	520	303	390

Glare Table

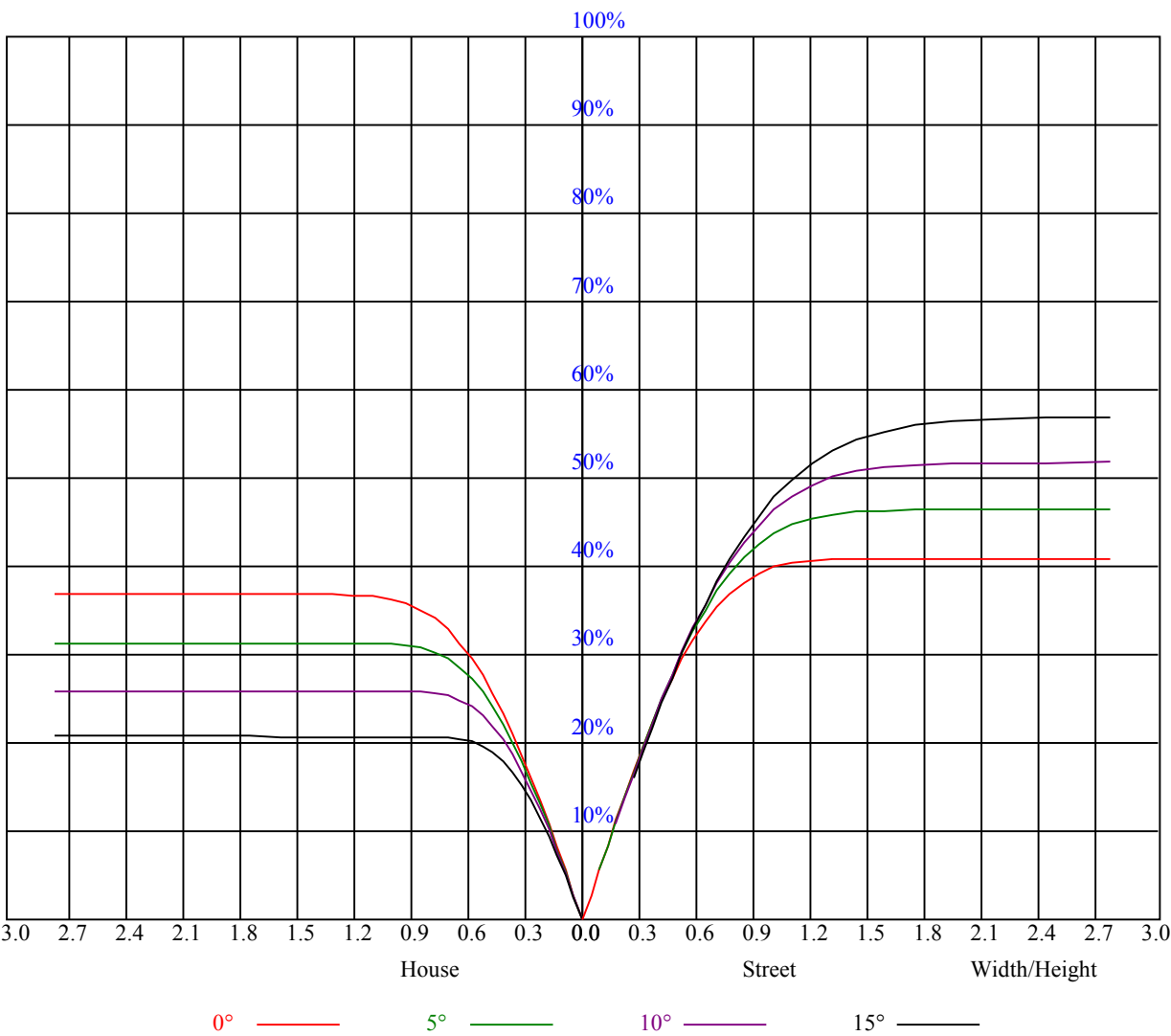
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

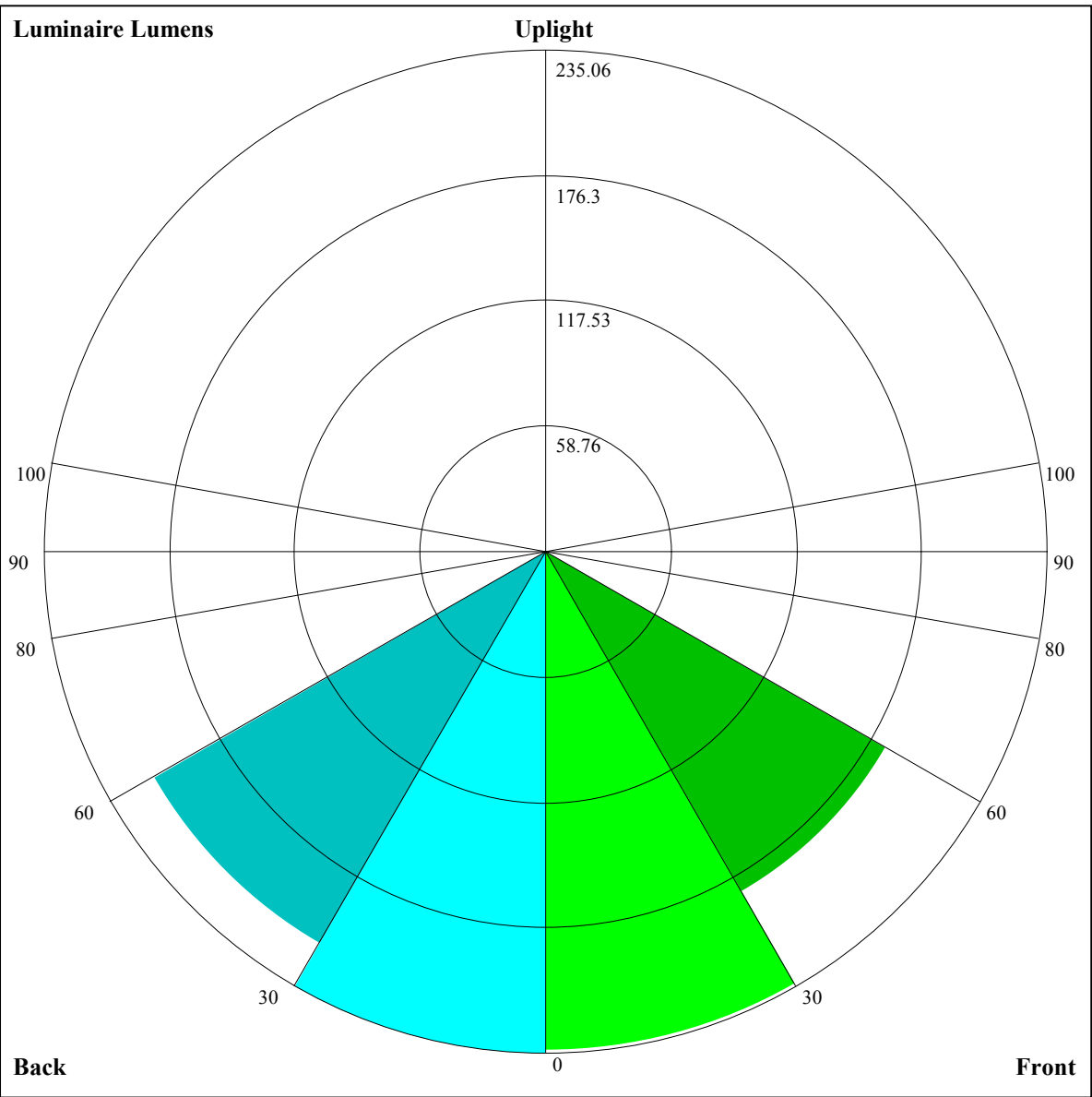
Luminance Limiting Curve





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	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	0.93	0.93	0.93	0.91	0.91	0.91	0.87	0.87	0.87	0.83	0.83	0.83	0.80	0.80	0.80	0.78
1	0.86	0.83	0.82	0.84	0.82	0.80	0.81	0.79	0.78	0.78	0.77	0.75	0.75	0.74	0.73	0.72
2	0.79	0.75	0.72	0.77	0.74	0.71	0.75	0.72	0.70	0.72	0.70	0.68	0.70	0.68	0.67	0.66
3	0.72	0.68	0.65	0.71	0.67	0.64	0.69	0.66	0.63	0.67	0.64	0.62	0.65	0.63	0.61	0.60
4	0.67	0.62	0.58	0.66	0.61	0.58	0.64	0.60	0.57	0.62	0.59	0.56	0.61	0.58	0.56	0.54
5	0.62	0.56	0.53	0.61	0.56	0.52	0.59	0.55	0.52	0.58	0.54	0.51	0.57	0.53	0.51	0.50
6	0.57	0.52	0.48	0.56	0.51	0.48	0.55	0.51	0.47	0.54	0.50	0.47	0.53	0.49	0.47	0.45
7	0.53	0.47	0.44	0.52	0.47	0.44	0.51	0.47	0.43	0.50	0.46	0.43	0.49	0.46	0.43	0.42
8	0.49	0.44	0.40	0.49	0.43	0.40	0.48	0.43	0.40	0.47	0.43	0.40	0.46	0.42	0.39	0.38
9	0.46	0.40	0.37	0.45	0.40	0.37	0.44	0.40	0.37	0.44	0.40	0.37	0.43	0.39	0.36	0.35
10	0.43	0.37	0.34	0.42	0.37	0.34	0.42	0.37	0.34	0.41	0.37	0.34	0.40	0.36	0.34	0.33





Luminaire Lumens:

FL=234.09,FM=183.72,FH=0.63,FVH=0.29

BL=235.06,BM=212.4,BH=0.77,BVH=0.29

UL=0,UH=0

BUG Rating:B1-U0-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	568.78	573.35	580.55	586.13	582.49	558.54	490.40	386.72	212.70
22.5	570.22	571.57	576.99	583.68	585.45	571.57	529.51	448.25	324.09
45.0	567.17	569.88	576.74	582.83	580.46	559.05	503.52	418.46	308.68
67.5	562.18	564.04	569.20	575.72	578.85	569.80	533.57	452.65	336.19
90.0	556.25	558.37	563.79	569.20	565.40	545.17	496.75	400.18	260.01
112.5	567.51	566.50	569.80	575.38	577.33	568.61	536.11	471.70	362.77
135.0	562.52	563.79	567.09	572.08	570.47	556.76	512.92	451.98	359.72
157.5	568.70	567.68	571.07	576.23	579.45	571.83	544.40	487.86	391.88
180.0	568.78	569.46	573.94	578.43	578.18	565.06	525.53	445.63	318.08
202.5	570.22	573.10	579.61	582.58	577.58	555.15	495.06	401.45	276.35
225.0	567.17	569.29	574.62	579.78	577.84	558.45	517.83	439.87	344.74
247.5	562.18	566.33	572.76	577.41	568.87	538.31	476.86	371.23	242.24
270.0	556.25	559.05	564.46	568.95	565.48	544.57	492.10	378.76	240.38
292.5	567.51	572.34	577.92	579.11	567.17	529.25	464.93	360.14	228.19
315.0	562.52	566.50	573.86	578.18	572.59	549.48	497.94	416.09	313.42
337.5	568.70	574.79	581.05	583.08	572.25	537.38	455.96	340.17	198.82
360.0	568.78	573.35	580.55	586.13	582.49	558.54	490.40	386.72	212.70

C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	67.29	6.43	0.85	0.59	0.59	0.51	0.51	0.51	0.51
22.5	180.11	45.71	5.33	0.85	0.68	0.59	0.59	0.51	0.51
45.0	199.67	104.70	27.00	1.10	0.68	0.59	0.51	0.59	0.51
67.5	203.22	81.85	10.66	1.02	0.68	0.59	0.59	0.59	0.59
90.0	104.70	22.34	1.69	0.76	0.59	0.59	0.51	0.59	0.59
112.5	232.25	94.20	16.00	1.27	0.76	0.68	0.59	0.59	0.51
135.0	242.16	140.59	56.54	5.59	0.76	0.59	0.51	0.51	0.51
157.5	263.99	124.84	27.93	2.12	0.68	0.59	0.51	0.51	0.51
180.0	158.19	38.43	2.37	0.68	0.59	0.51	0.51	0.51	0.51
202.5	138.05	34.03	2.62	0.68	0.59	0.51	0.51	0.51	0.51
225.0	236.74	139.49	55.86	5.50	0.76	0.59	0.59	0.59	0.59
247.5	113.67	26.58	1.69	0.68	0.59	0.59	0.51	0.59	0.59
270.0	116.04	17.69	1.35	0.76	0.59	0.59	0.59	0.51	0.51
292.5	93.87	16.00	1.18	0.68	0.68	0.59	0.59	0.59	0.51
315.0	203.56	97.84	22.51	1.44	0.59	0.59	0.59	0.51	0.51
337.5	68.14	7.62	0.85	0.59	0.59	0.51	0.59	0.51	0.51
360.0	67.29	6.43	0.85	0.59	0.59	0.51	0.51	0.51	0.51

C/ γ (°)	90.0
0.0	0.51
22.5	0.51
45.0	0.59
67.5	0.59
90.0	0.51
112.5	0.59
135.0	0.51
157.5	0.51
180.0	0.51
202.5	0.51
225.0	0.59
247.5	0.59
270.0	0.51
292.5	0.59
315.0	0.51
337.5	0.51
360.0	0.51