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Nata

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Client:

LumCAT:

Luminaire: LM42D19090AT

Report No: GC2019031803

Voltage(V):

Test No:

Current(A):

LampCAT: LUMILEDS LUXEON 3030 2D(ROUND LES) Power (W): 12.3540

Lamp flux(lm): 2070.1

PF:

Number of Lamps: 1

Ballast type:

Length(mm): 190

Width(mm): 190

Phm Type: C

Height(mm): 0

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Photometric Results

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Lumens(lm): 1636.75, Efficiency(%): 79.07% , Luminous Efficacy(lm/W): 132.49

Central intensity(cd): 747.797, Maximum intensity(cd): 747.797

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=90.0

[C90/270]Total=90.0

Field angle(10%Imax): [C0/180]Total=149.8

[C90/270]Total=149.8

Maximum s/h(1/2): C0\_180=1.18 C90\_270=1.18

Maximum s/h(1/4): C0\_180=1.24 C90\_270=1.24

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 79.07%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 85.250%

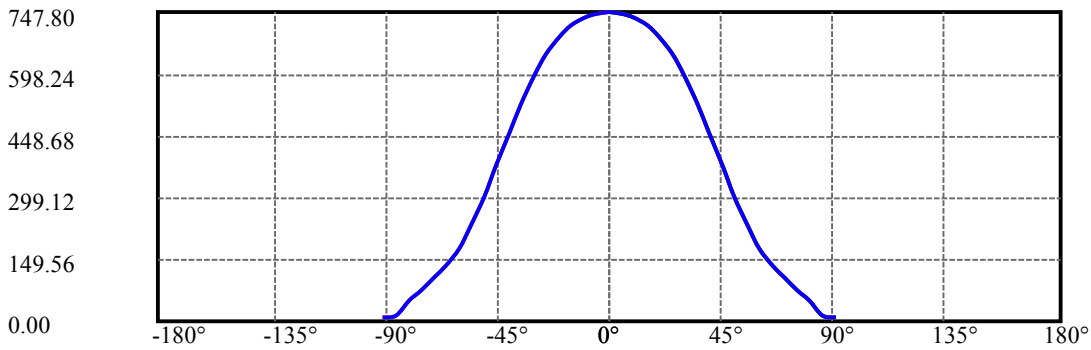
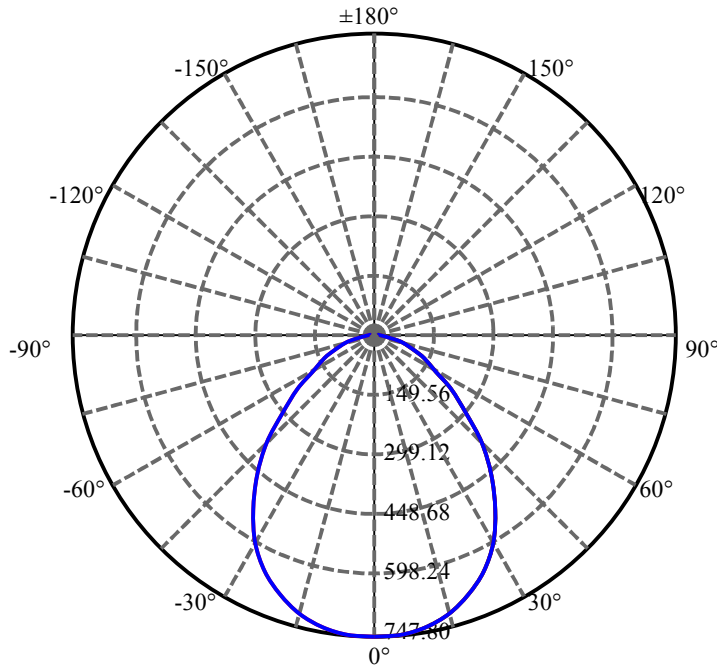
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	747.797	0.000	0	.000%	.000%
5.0	744.459	17.839	17.839	.862%	1.090%
10.0	733.214	52.861	70.7	2.554%	4.320%
15.0	713.256	85.804	156.504	4.145%	9.562%
20.0	685.838	115.305	271.809	5.570%	16.607%
25.0	644.442	139.522	411.331	6.740%	25.131%
30.0	592.235	156.503	567.833	7.560%	34.693%
35.0	526.587	164.754	732.588	7.959%	44.759%
40.0	454.339	163.660	896.248	7.906%	54.758%
45.0	373.929	153.361	1049.608	7.408%	64.128%
50.0	300.381	136.254	1185.863	6.582%	72.452%
55.0	230.184	115.362	1301.225	5.573%	79.501%
60.0	176.958	94.110	1395.335	4.546%	85.250%
65.0	136.506	76.204	1471.539	3.681%	89.906%
70.0	104.711	61.077	1532.616	2.950%	93.638%
75.0	74.299	46.790	1579.406	2.260%	96.497%
80.0	49.179	33.039	1612.445	1.596%	98.515%
85.0	16.077	17.732	1630.177	.857%	99.598%
90.0	7.928	6.573	1636.749	.318%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	567.83	27.43%	34.69%
0-40	896.25	43.30%	54.76%
0-60	1395.33	67.40%	85.25%
0-90	1630.18	78.75%	99.60%
0-120	1630.18	78.75%	99.60%
0-180	1636.75	79.07%	100.00%
60-90	328.95	15.89%	20.10%
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%
0-55.43	1309.40	63.25%	80.00%

ZONAL LUMEN SUMMARY

0-10	70.70
10-20	201.11
20-30	296.02
30-40	328.41
40-50	289.61
50-60	209.47
60-70	137.28
70-80	79.83
80-90	17.73
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

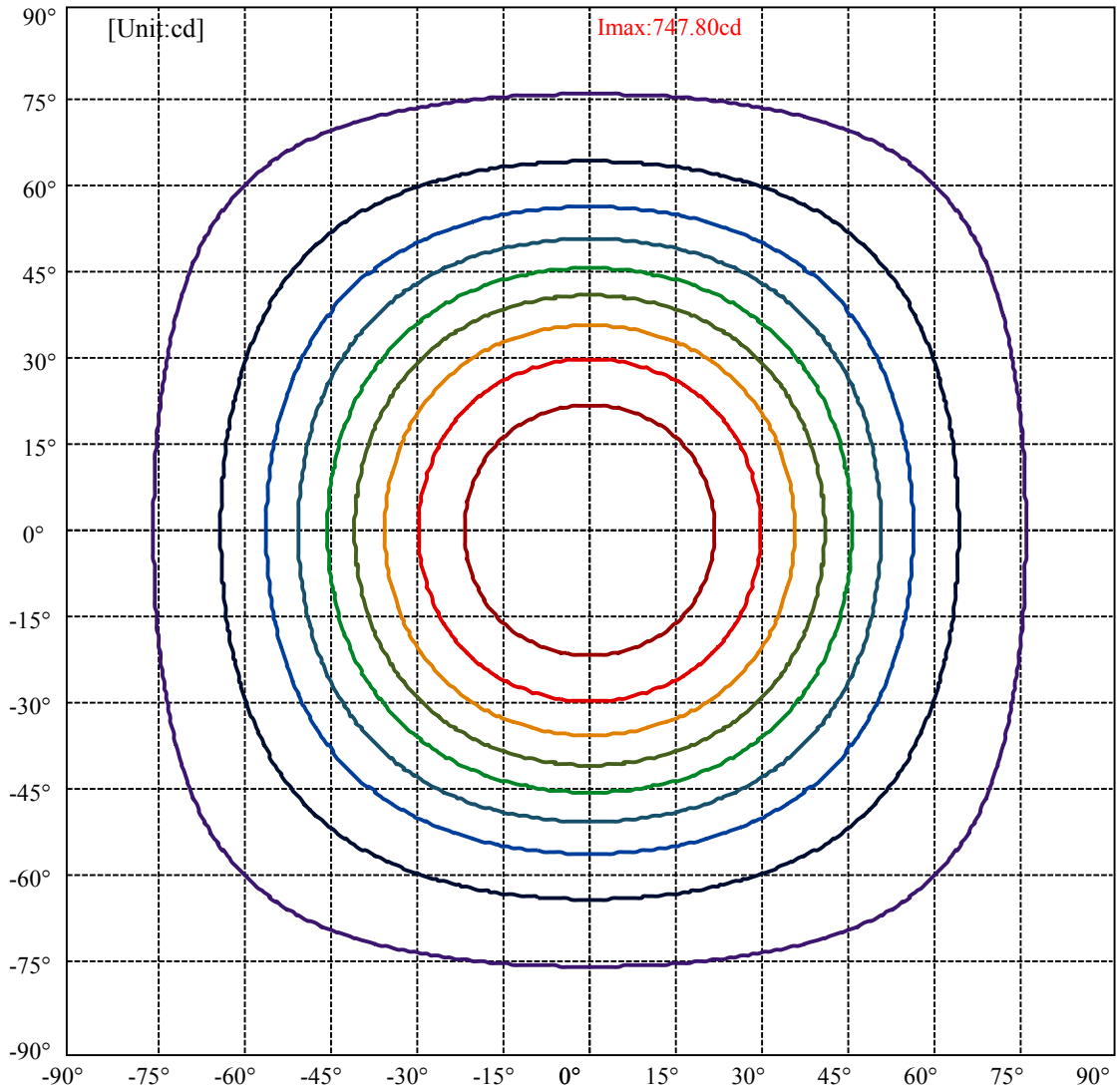


C0(Max): ———  
C0/C180: ———  
C90/C270: ———

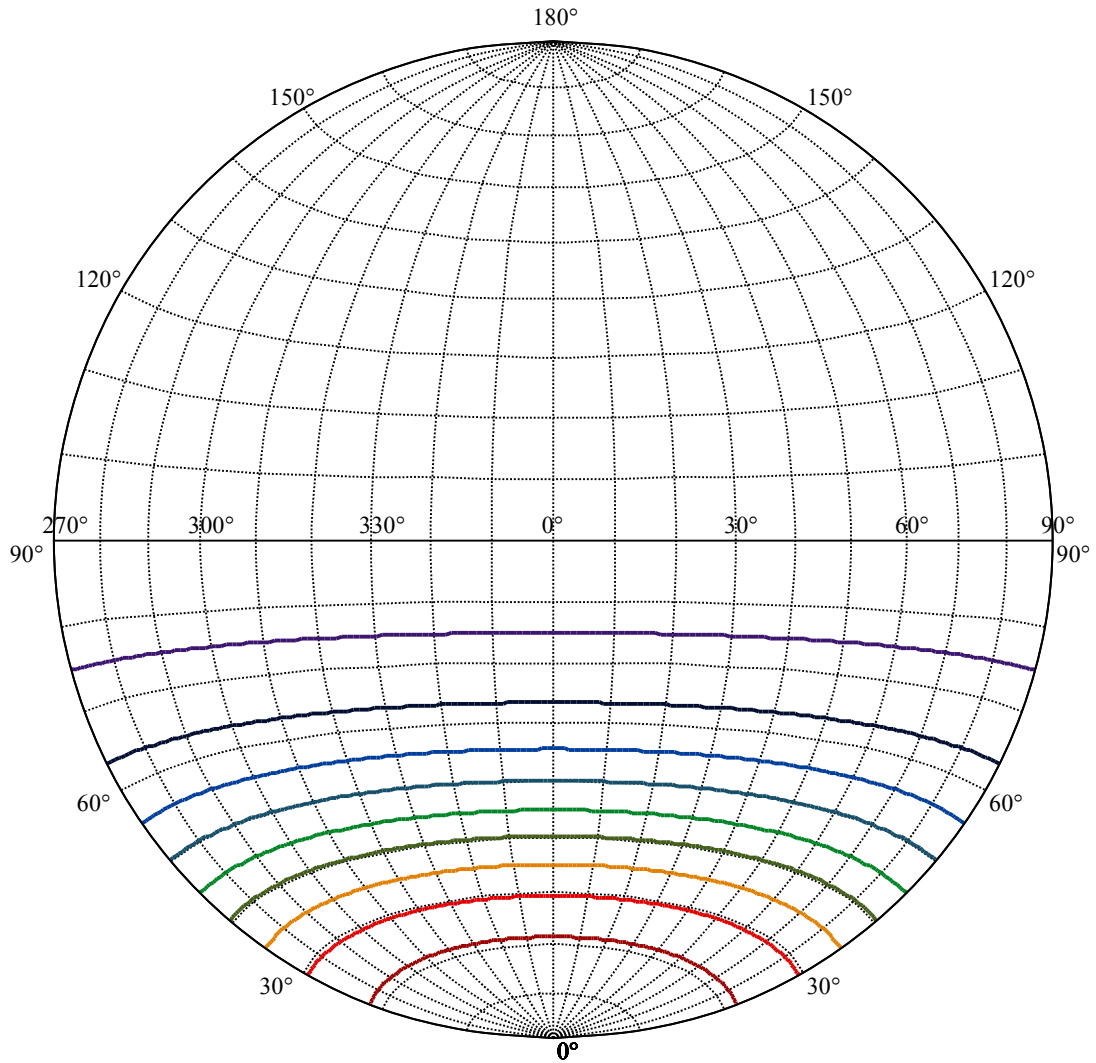
Field angle(10%Imax):C0/180Left:74.9 Right:74.9  
:C90/270Left:74.9 Right:74.9

Beam Angle(50%Imax):C0/180Left:45.0 Right:45.0  
:C90/270Left:45.0 Right:45.0





(10%Imax) 74.7797	—
(20%Imax) 149.559	—
(30%Imax) 224.339	—
(40%Imax) 299.119	—
(50%Imax) 373.898	—
(60%Imax) 448.678	—
(70%Imax) 523.458	—
(80%Imax) 598.237	—
(90%Imax) 673.017	—

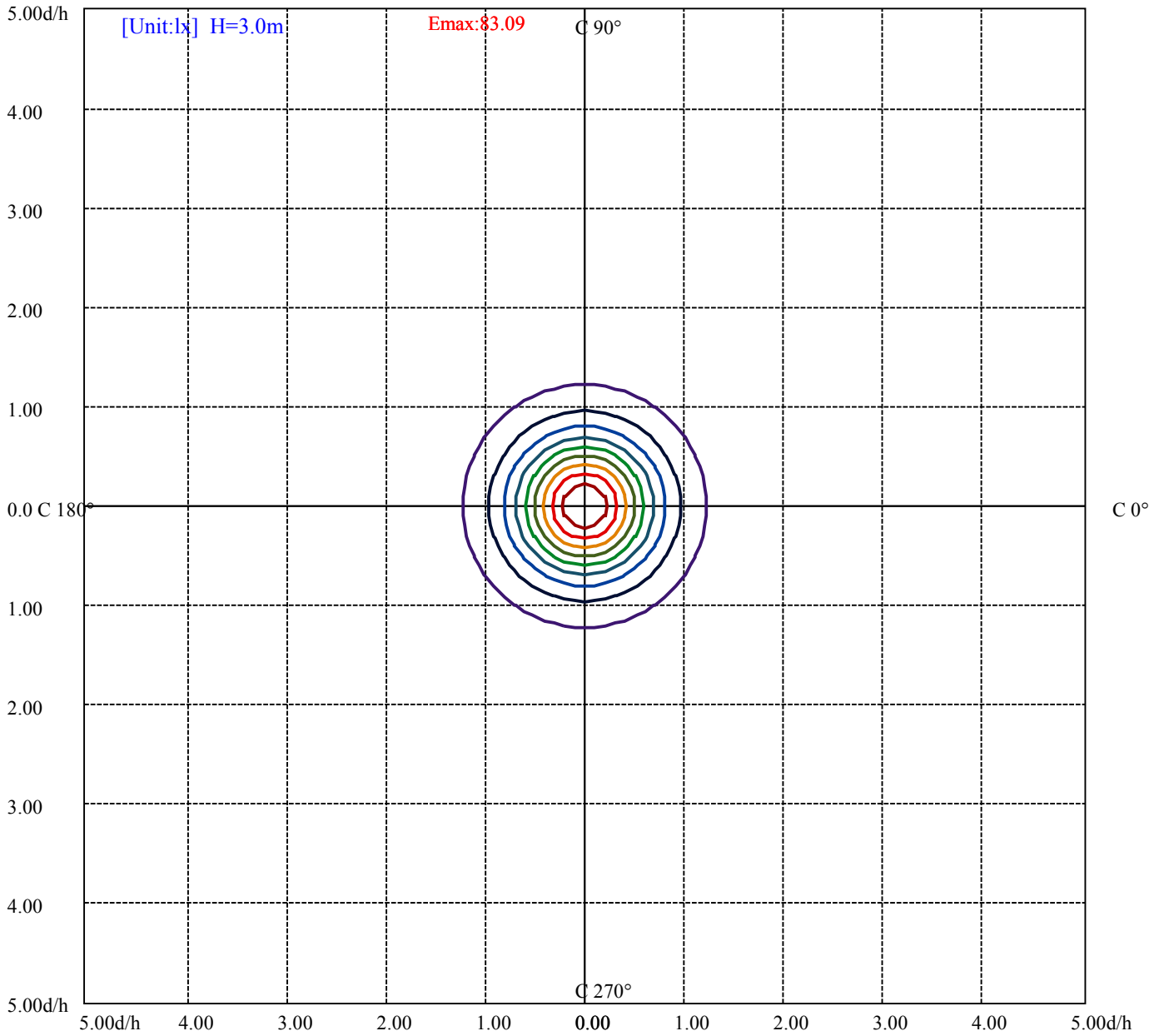


House

[Unit:cd]

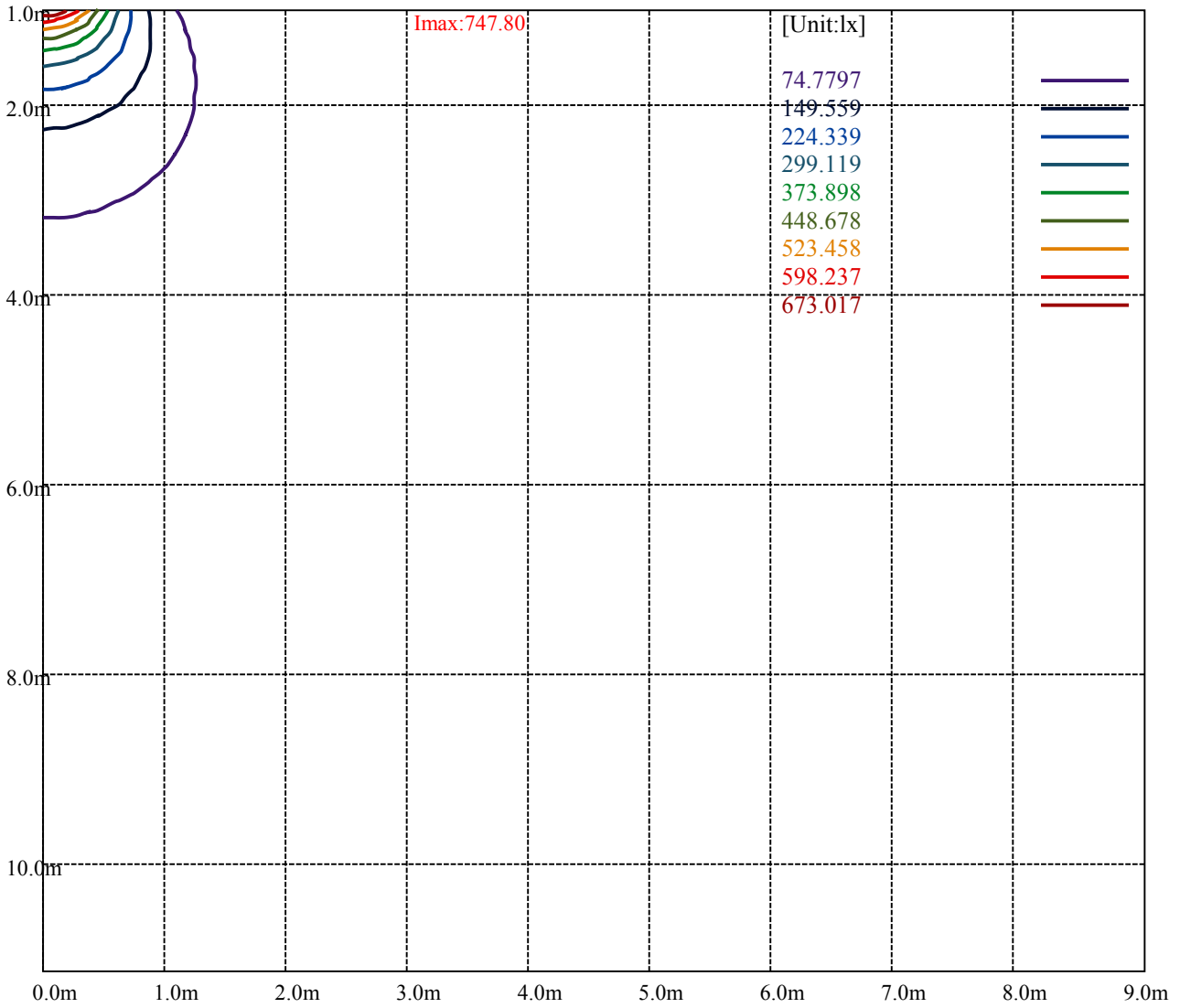
Road

<b>Imax:747.80</b>	
(10%Imax) 74.7797	—
(20%Imax) 149.559	—
(30%Imax) 224.339	—
(40%Imax) 299.119	—
(50%Imax) 373.898	—
(60%Imax) 448.678	—
(70%Imax) 523.458	—
(80%Imax) 598.237	—
(90%Imax) 673.017	—



(10%Emax) 8.308856	—
(20%Emax) 16.61767	—
(30%Emax) 24.92656	—
(40%Emax) 33.23544	—
(50%Emax) 41.54422	—
(60%Emax) 49.85311	—
(70%Emax) 58.162	—
(80%Emax) 66.47078	—
(90%Emax) 74.77967	—





Luminance Table

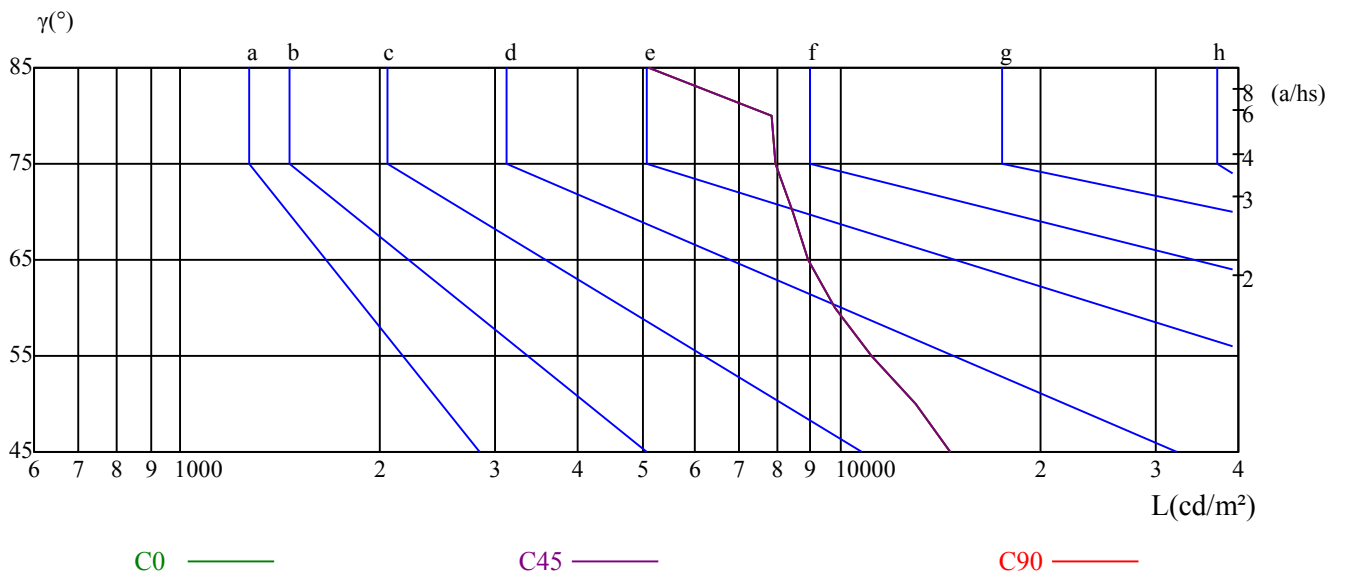
$\gamma$	45	50	55	60	65	70	75	80	85
C0	14649	12945	11117	9804	8947	8481	7952	7845	5110
C45	14649	12945	11117	9804	8947	8481	7952	7845	5110
C90	14649	12945	11117	9804	8947	8481	7952	7845	5110

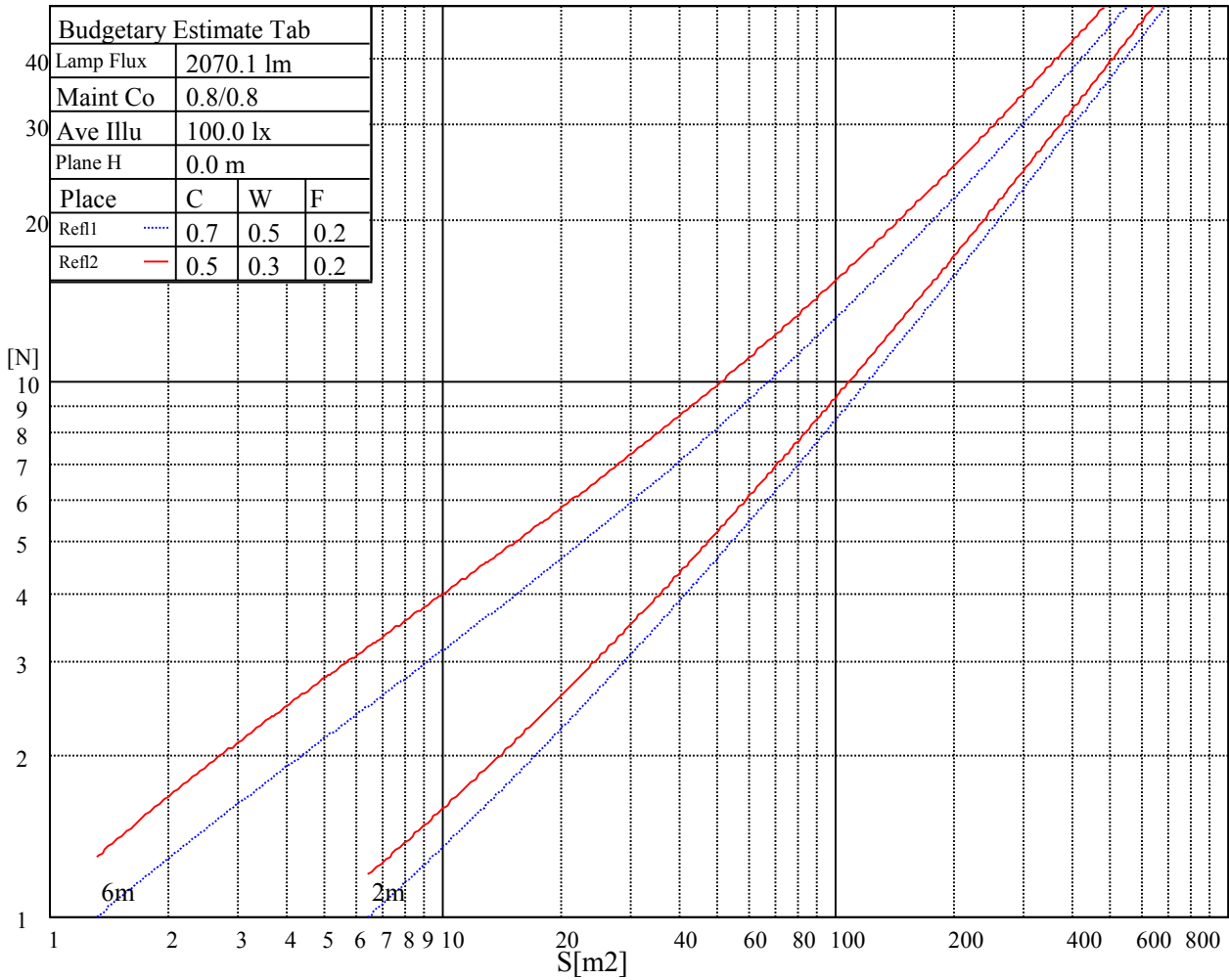
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
8947	8947	8947	7952	7952	7952	5110	5110	5110

Glare Table

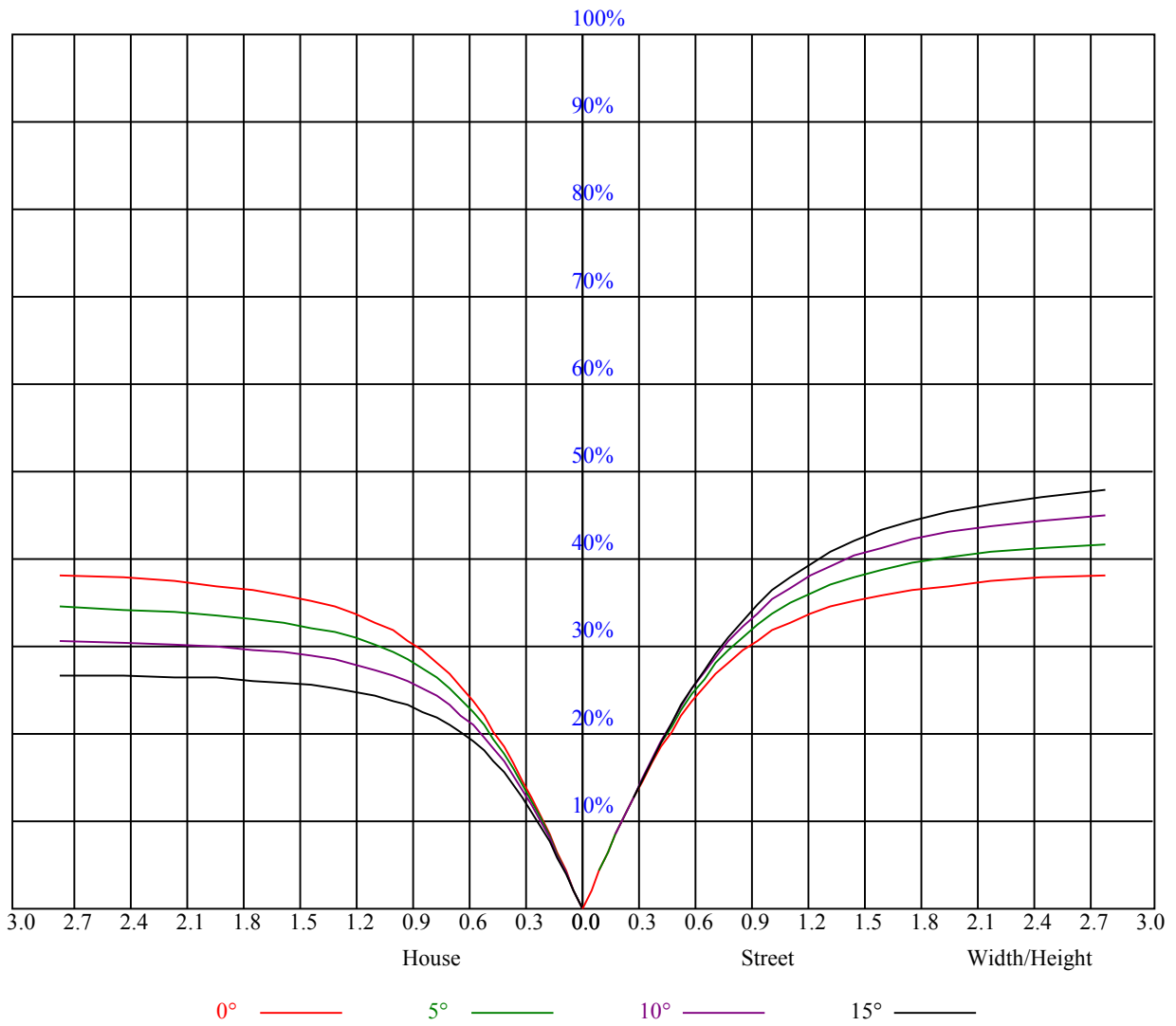
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

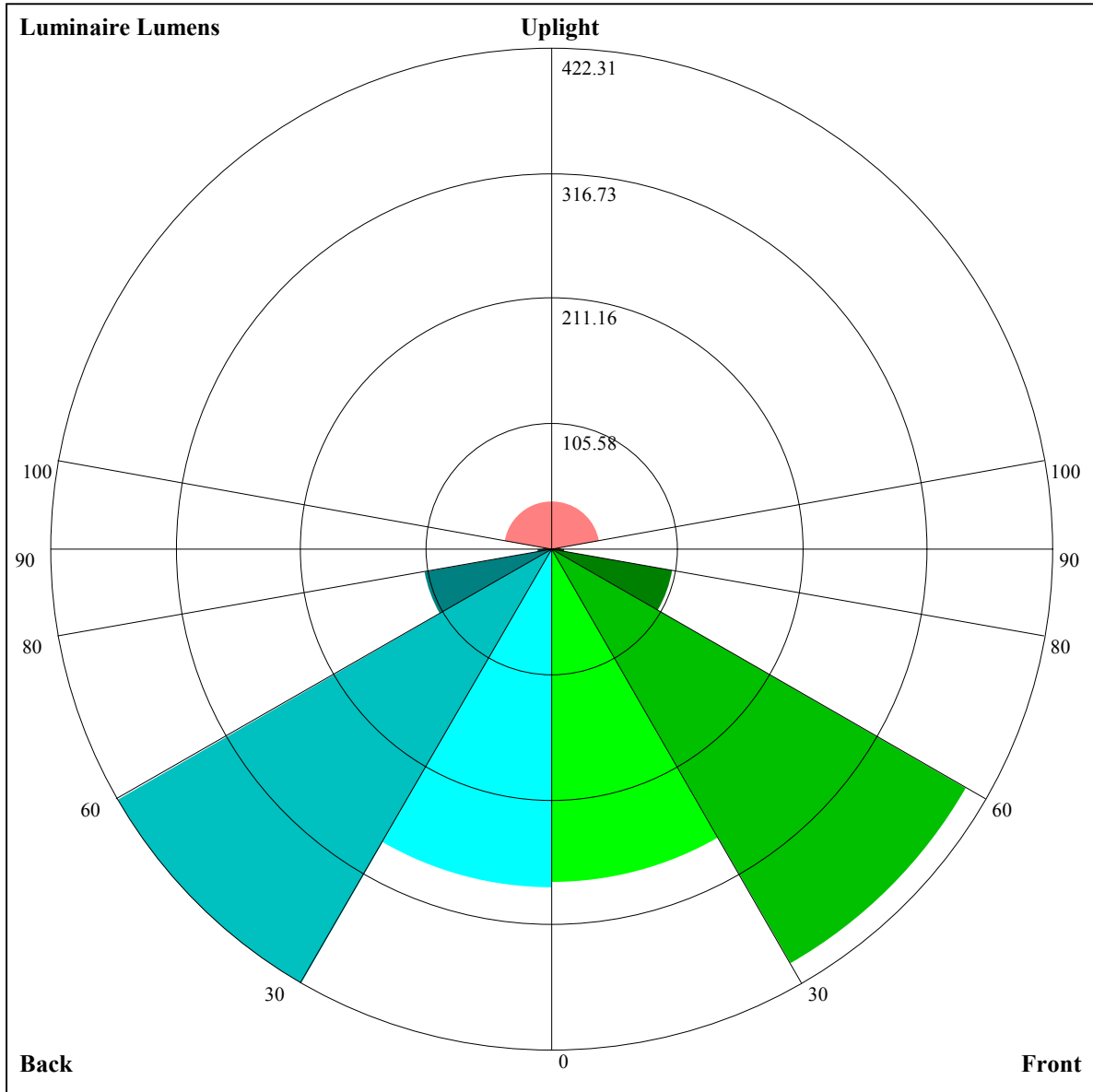
Luminance Limiting Curve





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	0.94	0.94	0.94	0.92	0.92	0.92	0.88	0.88	0.88	0.84	0.84	0.84	0.81	0.81	0.81	0.79
1	0.83	0.80	0.78	0.82	0.79	0.76	0.78	0.76	0.74	0.75	0.73	0.72	0.72	0.71	0.70	0.68
2	0.74	0.69	0.65	0.72	0.68	0.64	0.70	0.66	0.63	0.67	0.64	0.61	0.65	0.62	0.60	0.58
3	0.66	0.60	0.55	0.65	0.59	0.55	0.62	0.58	0.54	0.60	0.56	0.53	0.58	0.55	0.52	0.50
4	0.59	0.53	0.48	0.58	0.52	0.47	0.56	0.51	0.47	0.54	0.50	0.46	0.53	0.49	0.46	0.44
5	0.53	0.47	0.42	0.52	0.46	0.42	0.51	0.45	0.41	0.49	0.44	0.41	0.48	0.44	0.40	0.39
6	0.48	0.42	0.37	0.48	0.41	0.37	0.46	0.41	0.37	0.45	0.40	0.36	0.44	0.39	0.36	0.34
7	0.44	0.38	0.33	0.44	0.37	0.33	0.42	0.37	0.33	0.41	0.36	0.33	0.40	0.36	0.32	0.31
8	0.41	0.34	0.30	0.40	0.34	0.30	0.39	0.34	0.30	0.38	0.33	0.29	0.37	0.33	0.29	0.28
9	0.37	0.31	0.27	0.37	0.31	0.27	0.36	0.31	0.27	0.35	0.30	0.27	0.34	0.30	0.27	0.25
10	0.35	0.29	0.25	0.34	0.29	0.25	0.34	0.28	0.25	0.33	0.28	0.24	0.32	0.28	0.24	0.23





Luminaire Lumens:

FL=281.46,FM=404.19,FH=104.15,FVH=11.26

BL=286.45,BM=422.31,BH=109.89,BVH=12.84

UL=8.65,UH=41.16

BUG Rating:B1-U2-G1

Nata

Intensity data(cd)

<b>C/γ(°)</b>	<b>0.0</b>	<b>5.0</b>	<b>10.0</b>	<b>15.0</b>	<b>20.0</b>	<b>25.0</b>	<b>30.0</b>	<b>35.0</b>	<b>40.0</b>
<b>0.0</b>	749.43	744.80	730.05	708.30	676.04	629.52	573.03	508.94	439.24
<b>45.0</b>	746.40	743.26	731.98	711.82	684.74	643.77	593.29	527.17	457.96
<b>90.0</b>	745.74	744.80	737.15	721.96	698.89	665.80	624.51	564.66	490.61
<b>135.0</b>	749.81	749.10	740.73	722.29	701.09	662.44	614.87	551.39	474.53
<b>180.0</b>	749.04	746.01	735.72	715.35	689.91	649.39	598.85	538.62	467.10
<b>225.0</b>	746.40	744.69	734.62	717.94	692.50	653.69	603.58	539.50	467.21
<b>270.0</b>	745.74	741.06	728.56	707.81	676.64	637.39	583.38	511.58	438.74
<b>315.0</b>	749.81	741.94	726.91	700.59	666.90	613.55	546.38	470.84	399.32
<b>360.0</b>	749.43	744.80	730.05	708.30	676.04	629.52	573.03	508.94	439.24
<b>C/γ(°)</b>	<b>45.0</b>	<b>50.0</b>	<b>55.0</b>	<b>60.0</b>	<b>65.0</b>	<b>70.0</b>	<b>75.0</b>	<b>80.0</b>	<b>85.0</b>
<b>0.0</b>	365.19	299.40	232.06	179.81	139.51	108.13	76.80	51.04	14.81
<b>45.0</b>	374.05	293.29	221.82	167.98	127.29	96.46	67.66	42.94	13.65
<b>90.0</b>	407.25	318.94	236.19	177.23	135.27	103.29	73.61	52.14	17.95
<b>135.0</b>	388.15	318.61	254.58	198.81	155.09	123.27	87.93	60.62	22.96
<b>180.0</b>	385.23	308.37	237.46	182.57	140.45	108.79	78.13	52.80	19.27
<b>225.0</b>	383.69	310.35	233.83	178.44	137.70	104.22	73.45	49.33	15.58
<b>270.0</b>	351.37	270.38	203.38	156.09	119.42	90.51	65.02	41.57	13.27
<b>315.0</b>	336.51	283.71	222.15	174.75	137.31	103.01	71.79	43.00	11.12
<b>360.0</b>	365.19	299.40	232.06	179.81	139.51	108.13	76.80	51.04	14.81
<b>C/γ(°)</b>	<b>90.0</b>								
<b>0.0</b>	8.59								
<b>45.0</b>	8.37								
<b>90.0</b>	7.38								
<b>135.0</b>	7.05								
<b>180.0</b>	7.16								
<b>225.0</b>	7.71								
<b>270.0</b>	8.15								
<b>315.0</b>	9.03								
<b>360.0</b>	8.59								