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LumCAT: T1088
Luminaire: 1560-E 15degree

Report No:	Voltage(V): 218.1000
Test No:	Current(A): 0.1290
LampCAT: LUMILEDS 1203 3000K RA 80	Power (W): 12.6000
Lamp flux(lm): 1184.0	PF: 0.4470
Number of Lamps: 1	Ballast type: KEDHO 300ma 12w
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1012.75
Efficiency(%): 85.54%
Lumens(lm)/Power(W): 83.69
Central intensity(cd): 7148.468
Maximum intensity(cd): 7148.468
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=16.4
[C90/270]Total=16.4
Field angle(10%Imax): [C0/180]Total=40.6
[C90/270]Total=40.6
Maximum s/h(1/2): C0_180=0.28 C90_270=0.28
Maximum s/h(1/4): C0_180=0.33 C90_270=0.33
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 89.07%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 94.639%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7148.468	42.749	42.749	3.611%	4.221%
5.0	5192.975	248.086	290.835	20.953%	28.717%
10.0	2675.686	254.680	545.515	21.510%	53.865%
15.0	1402.947	199.034	744.549	16.810%	73.517%
20.0	742.160	139.136	883.685	11.751%	87.256%
25.0	312.830	72.468	956.153	6.121%	94.411%
30.0	65.242	17.881	974.033	1.510%	96.177%
35.0	20.481	6.439	980.473	.544%	96.813%
40.0	13.103	4.617	985.089	.390%	97.269%
45.0	9.525	3.692	988.781	.312%	97.633%
50.0	7.873	3.306	992.087	.279%	97.960%
55.0	6.772	3.041	995.128	.257%	98.260%
60.0	6.056	2.875	998.002	.243%	98.544%
65.0	5.781	2.872	1000.874	.243%	98.827%
70.0	5.561	2.864	1003.739	.242%	99.110%
75.0	5.175	2.740	1006.479	.231%	99.381%
80.0	4.790	2.586	1009.064	.218%	99.636%
85.0	4.515	2.465	1011.53	.208%	99.879%
90.0	4.460	1.222	1012.752	.103%	100.000%

Zonal flux distribution table

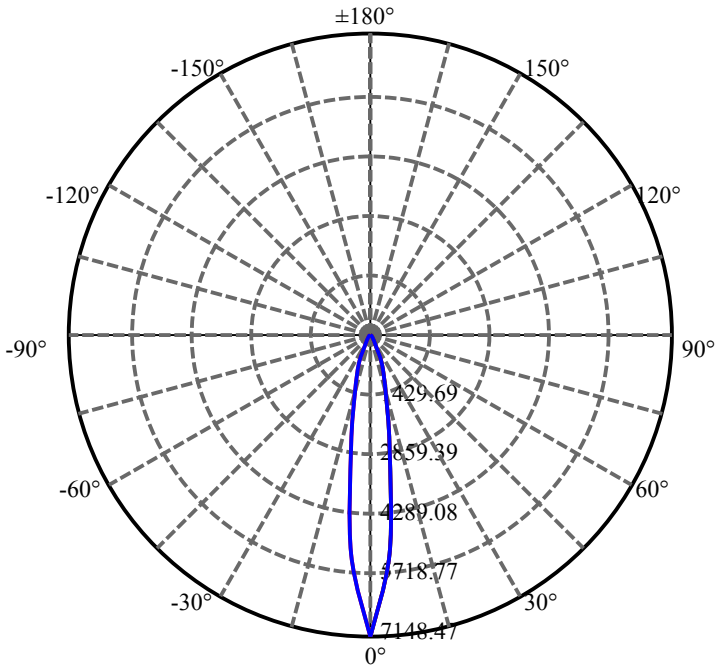
ZONAL LUMEN SUMMARY

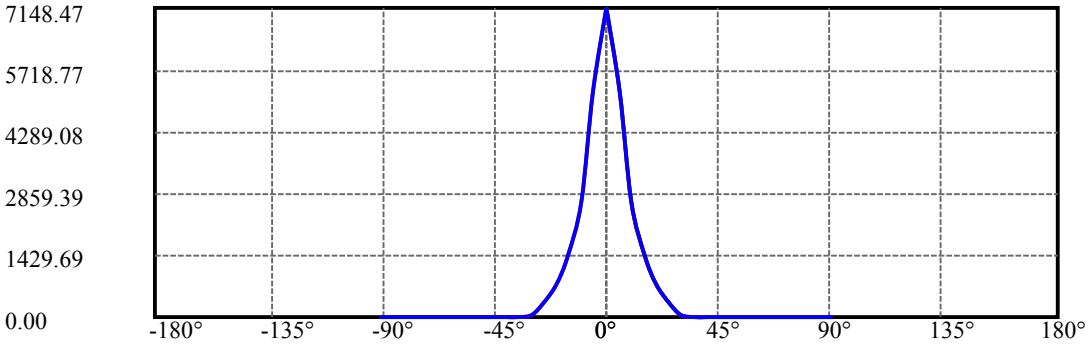
Zone	Lumens	%Lamp	%Fixt
0-30	974.03	82.27%	96.18%
0-40	985.09	83.20%	97.27%
0-60	998.00	84.29%	98.54%
0-90	1011.53	85.43%	99.88%
0-120	1011.53	85.43%	99.88%
0-180	1012.75	85.54%	100.00%
60-90	16.40	1.39%	1.62%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-17.36	810.20	68.43%	80.00%

ZONAL LUMEN SUMMARY

0-10	545.51
10-20	338.17
20-30	90.35
30-40	11.06
40-50	7.00
50-60	5.92
60-70	5.74
70-80	5.33
80-90	2.47
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

Light Distribution Curve [Unit:cd]





C0(Max):

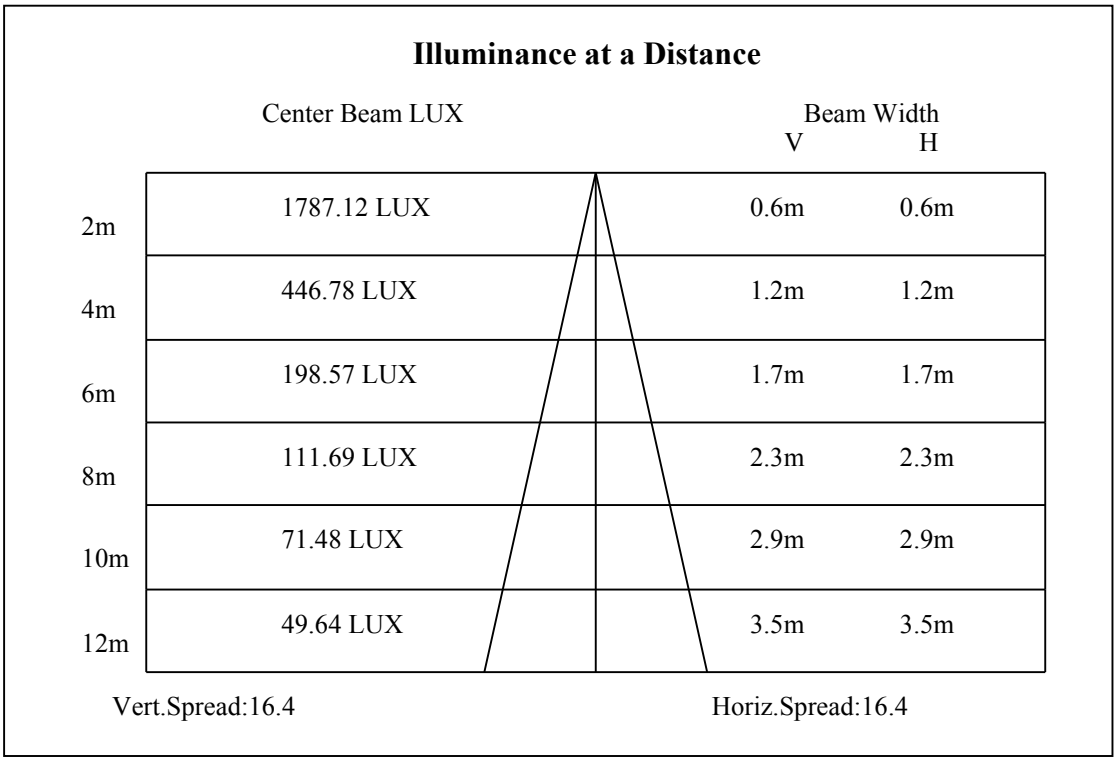
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:20.3 Right:20.3
:C90/270Left:20.3 Right:20.3

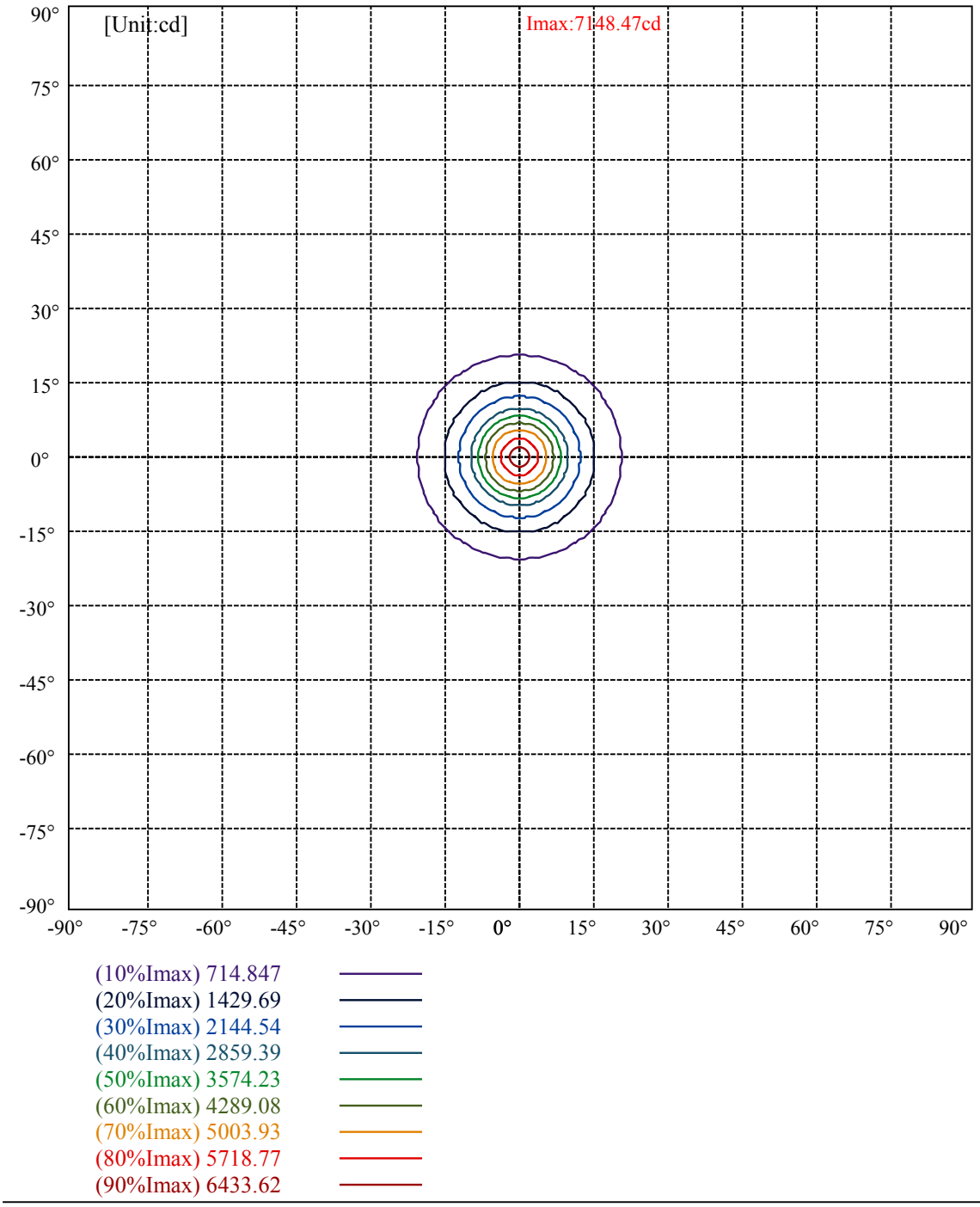
Beam Angle(50%Imax):C0/180Left:8.2 Right:8.2
:C90/270Left:8.2 Right:8.2

Lux distance Curve



Equipment: gms1980 Date: 2017/2/10 Operator: NT03
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.42

ISO-Intensity(V-H)

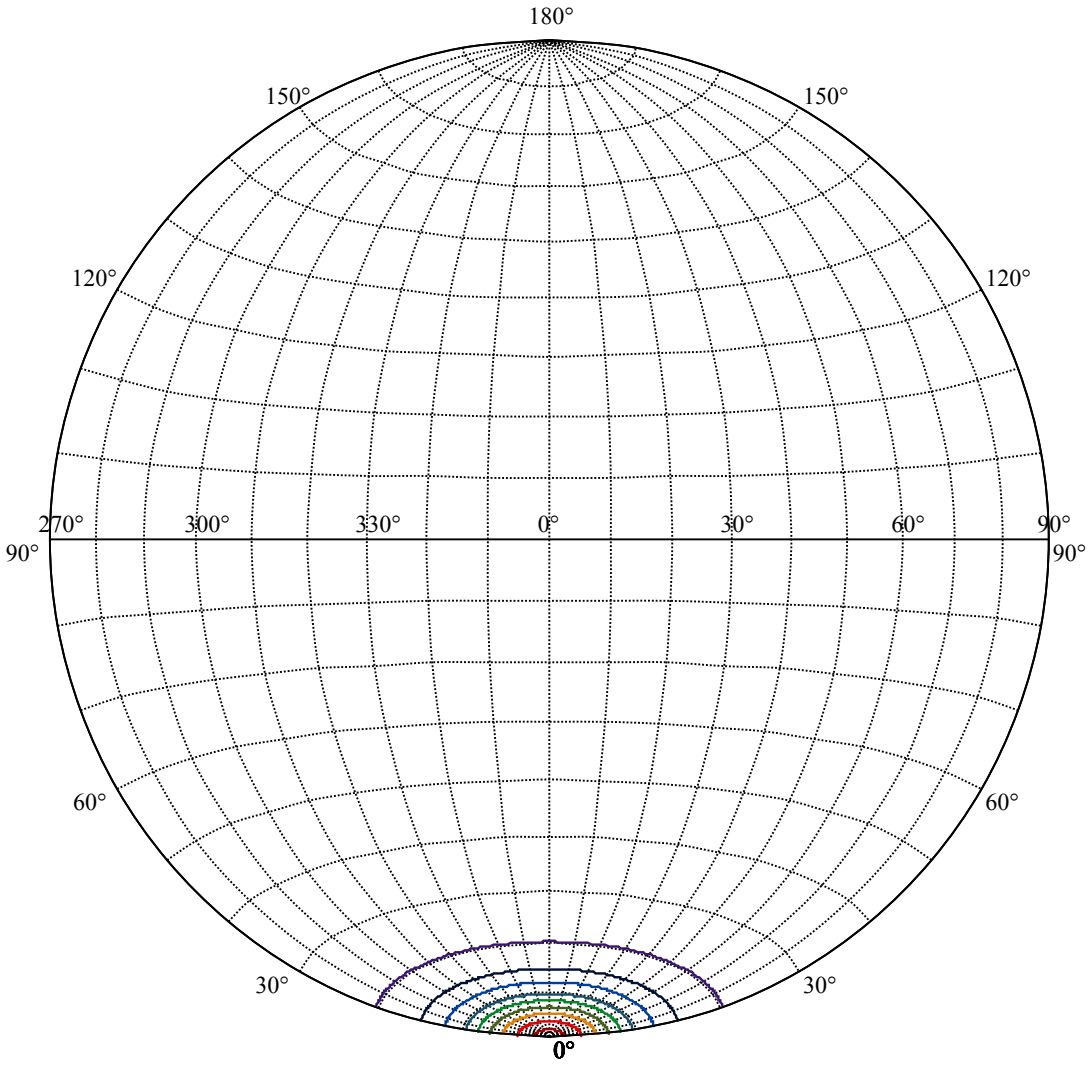


Equipment: gms1980
Temperature(°C): 25.0

Date: 2017/2/10
Humidity(%): 60.0%

Operator: NT03
Distance(m): 7.42

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:7148.47

(10%Imax) 714.847
(20%Imax) 1429.69
(30%Imax) 2144.54
(40%Imax) 2859.39
(50%Imax) 3574.23
(60%Imax) 4289.08
(70%Imax) 5003.93
(80%Imax) 5718.77
(90%Imax) 6433.62

Equipment: gms1980	Date: 2017/2/10	Operator: NT03
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.42

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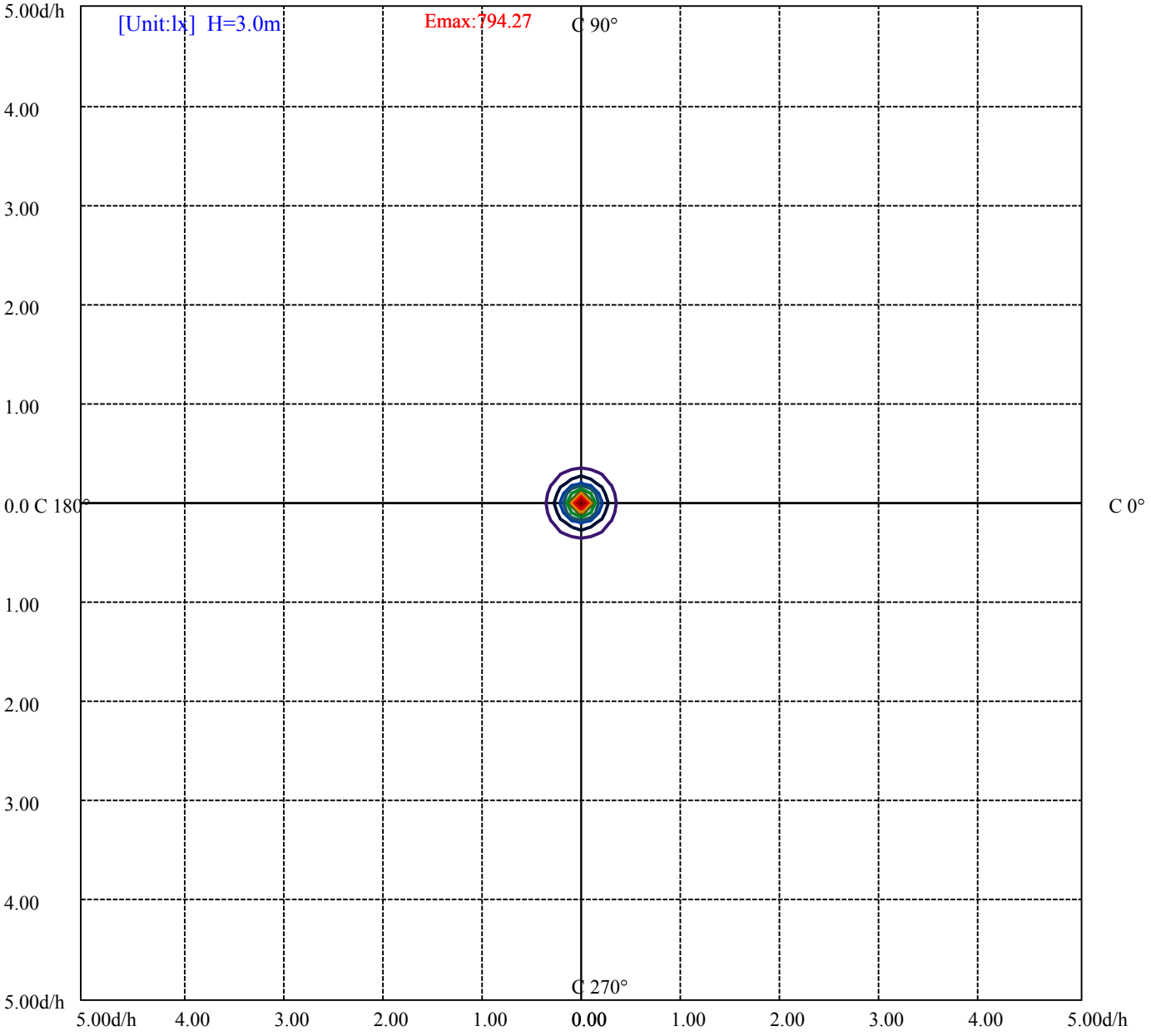
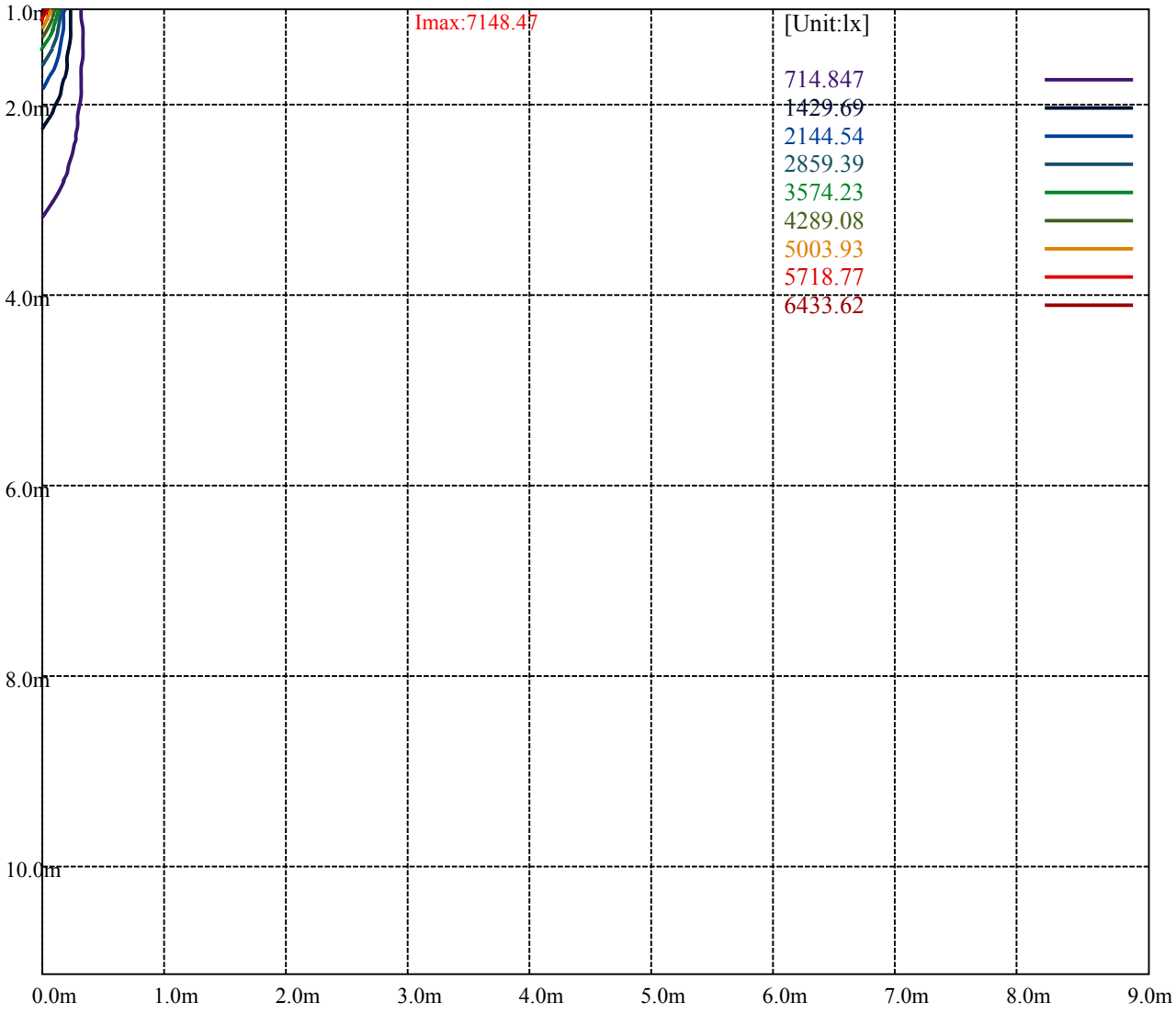
ISO illuminance diagram



(10%Emax) 79.42678
(20%Emax) 158.8533
(30%Emax) 238.28
(40%Emax) 317.7067
(50%Emax) 397.1333
(60%Emax) 476.5611
(70%Emax) 555.9878
(80%Emax) 635.4144
(90%Emax) 714.8411

Equipment: gms1980
Temperature(°C): 25.0
Date: 2017/2/10
Humidity(%): 60.0%
Operator: NT03
Distance(m): 7.42

Space ISO Lux diagram



Equipment: gms1980
Temperature(°C): 25.0

Date: 2017/2/10
Humidity(%): 60.0%

Operator: NT03
Distance(m): 7.42

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Luminance Limitting Curve(no luminous side)

Luminance Table

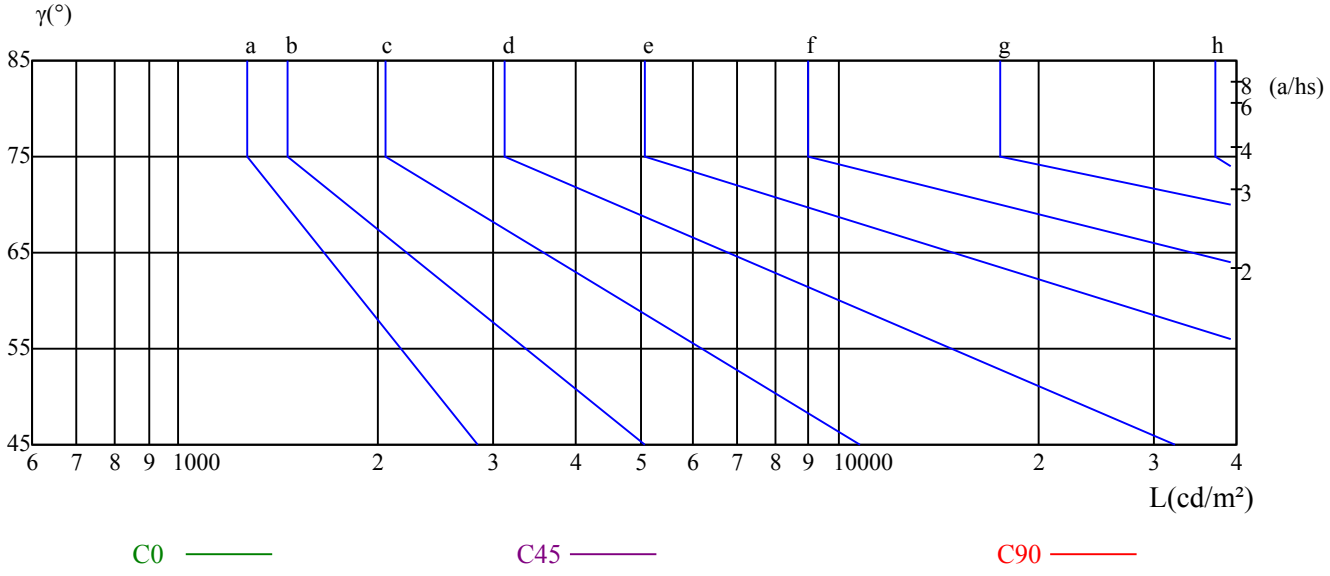
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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	0	0	0	0	0	0	0	0

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 Limitting Curve

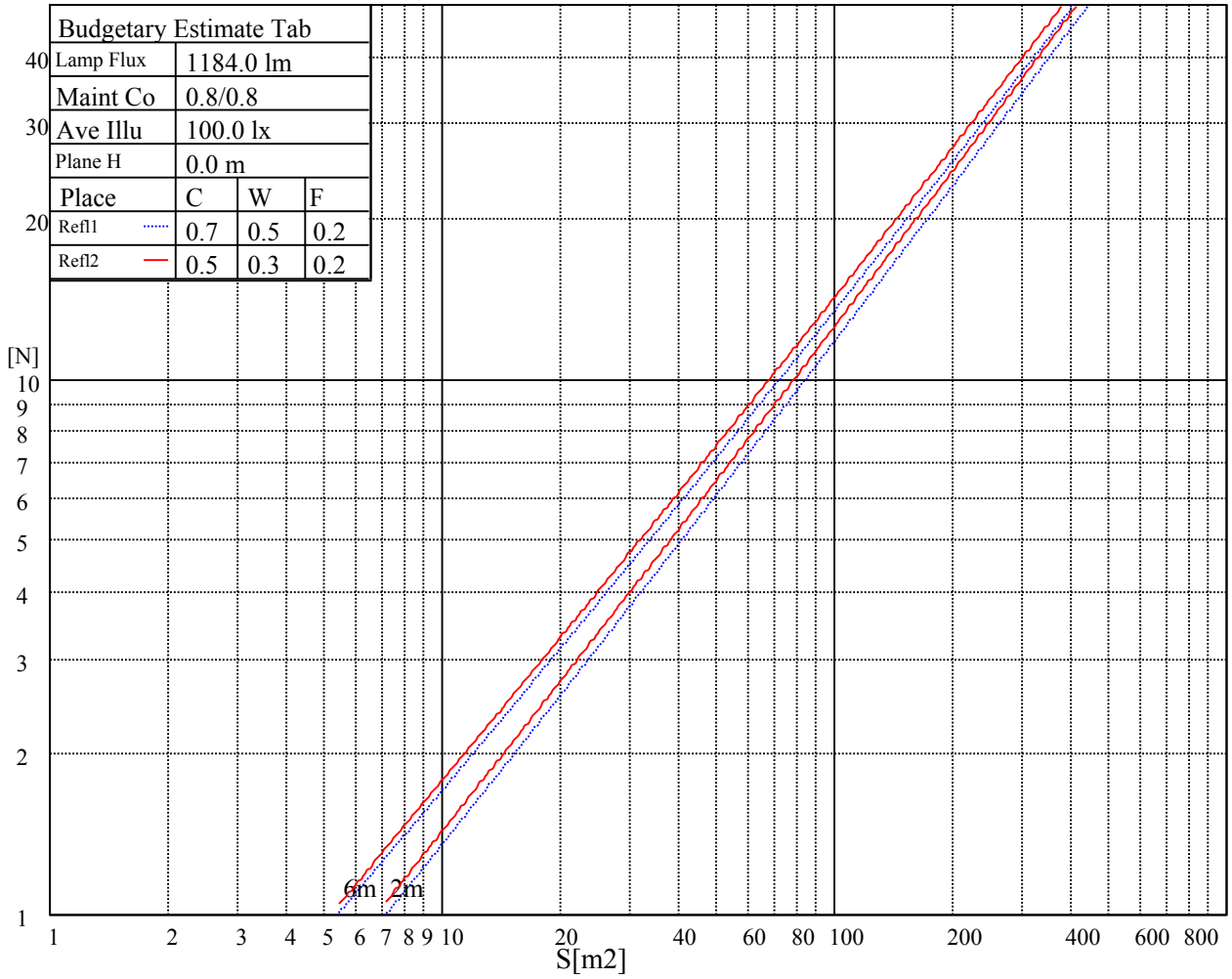


Equipment: gms1980
Temperature(°C): 25.0

Date: 2017/2/10
Humidity(%): 60.0%

Operator: NT03
Distance(m): 7.42

Budgetary Estimate Table

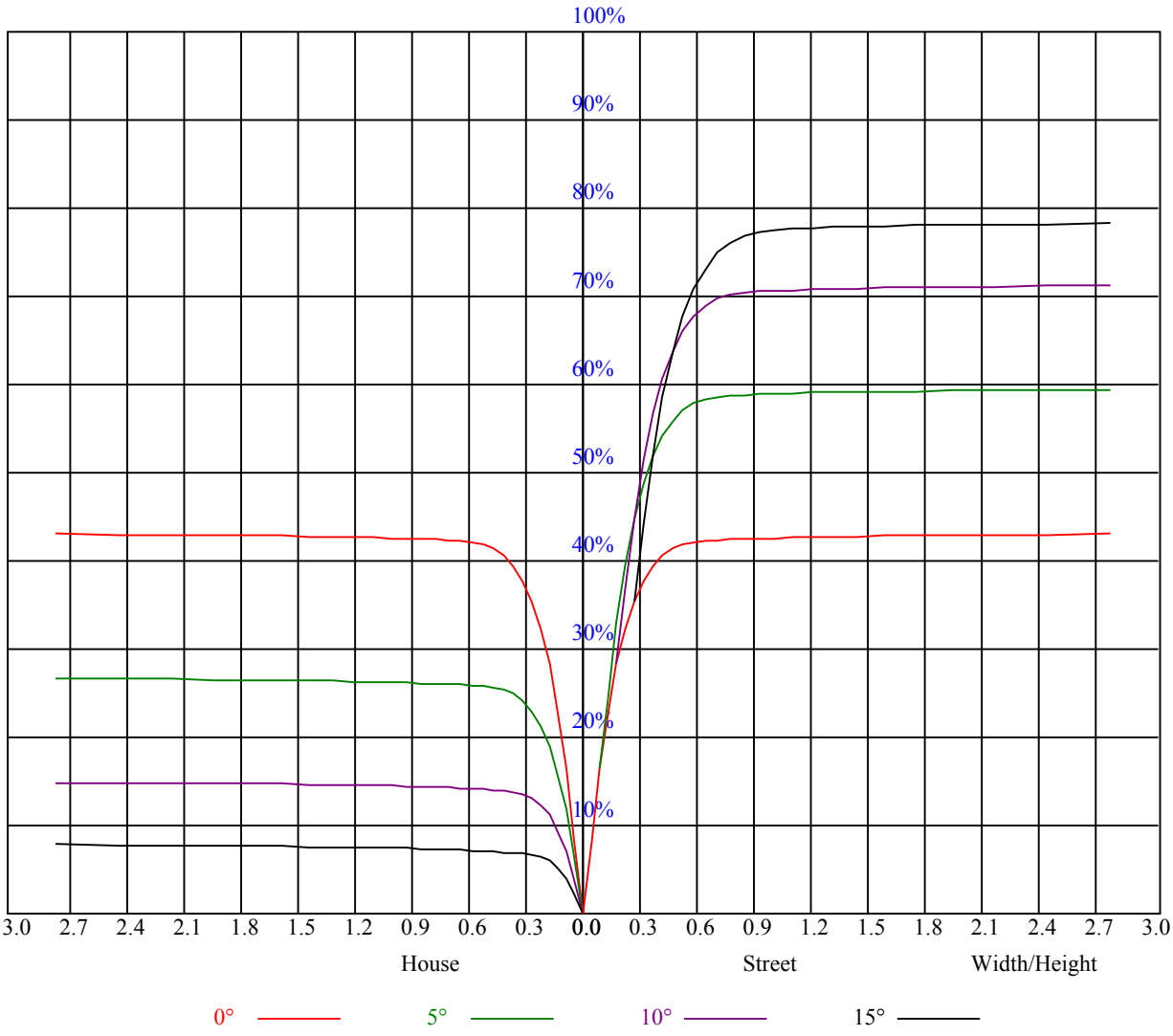


Equipment: gms1980 Date: 2017/2/10 Operator: NT03
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.42

Utilization factor table for indoor luminaire

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	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	0.96	0.93	0.90	0.94	0.91	0.89	0.90	0.88	0.86	0.87	0.85	0.84	0.84	0.82	0.81	0.79
2	0.92	0.88	0.85	0.90	0.87	0.84	0.87	0.84	0.82	0.85	0.82	0.80	0.82	0.80	0.79	0.77
3	0.88	0.84	0.81	0.87	0.83	0.80	0.85	0.82	0.79	0.82	0.80	0.78	0.80	0.78	0.77	0.75
4	0.85	0.81	0.78	0.84	0.80	0.77	0.82	0.79	0.76	0.81	0.78	0.76	0.79	0.77	0.75	0.74
5	0.82	0.78	0.75	0.82	0.78	0.75	0.80	0.77	0.74	0.79	0.76	0.74	0.77	0.75	0.73	0.72
6	0.80	0.76	0.73	0.79	0.76	0.73	0.78	0.75	0.72	0.77	0.74	0.72	0.76	0.74	0.72	0.71
7	0.78	0.74	0.71	0.77	0.74	0.71	0.76	0.73	0.71	0.75	0.73	0.70	0.75	0.72	0.70	0.69
8	0.76	0.72	0.70	0.76	0.72	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.73	0.71	0.69	0.68
9	0.74	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.68	0.73	0.70	0.68	0.72	0.69	0.68	0.67
10	0.73	0.69	0.67	0.73	0.69	0.67	0.72	0.69	0.67	0.71	0.69	0.67	0.71	0.68	0.66	0.66

Coefficient Utilization Curve



Equipment: gms1980	Date: 2017/2/10	Operator: NT03
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.42

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	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10
22.5	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10
45.0	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10
67.5	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10
90.0	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10
112.5	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10
135.0	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10
157.5	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10
180.0	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10
202.5	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10
225.0	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10
247.5	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10
270.0	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10
292.5	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10
315.0	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10
337.5	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10
360.0	7148.47	5192.97	2675.69	1402.95	742.16	312.83	65.24	20.48	13.10

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51
22.5	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51
45.0	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51
67.5	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51
90.0	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51
112.5	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51
135.0	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51
157.5	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51
180.0	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51
202.5	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51
225.0	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51
247.5	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51
270.0	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51
292.5	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51
315.0	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51
337.5	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51
360.0	9.52	7.87	6.77	6.06	5.78	5.56	5.18	4.79	4.51

C/γ(°)	90.0
0.0	4.46
22.5	4.46
45.0	4.46
67.5	4.46
90.0	4.46
112.5	4.46
135.0	4.46
157.5	4.46
180.0	4.46
202.5	4.46
225.0	4.46
247.5	4.46
270.0	4.46
292.5	4.46
315.0	4.46
337.5	4.46
360.0	4.46