NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.com
Tel:+86-750-3770000 Fax:+86-750-3771111
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

LumCAT: 2-1258-N
Luminaire: 92.70.065.00+92.70.059.00

Report No: NATA0100	Voltage(V): 34.1000
Test No: GC20180712003	Current(A): 0.3000
LampCAT: BRIDGELUX V9 HD	Power (W): 10.2300
Lamp flux(lm): 1191.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 70	Width(mm): 70
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 941.25
Efficiency(%): 79.03%
Lumens(lm)/Power(W): 92.99
Central intensity(cd): 10608.130
Maximum intensity(cd): 10608.130
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=12.8
[C90/270]Total=12.8
Field angle(10%Imax): [C0/180]Total=23.3
[C90/270]Total=23.3
Maximum s/h(1/2): C0_180=0.22 C90_270=0.22
Maximum s/h(1/4): C0_180=0.21 C90_270=0.21
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 79.87%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.902%

Equipment: GMS1980	Date: 2018/7/20	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.42

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	10608.130	10.152	10.152	.852%	1.079%
2.0	10055.707	76.966	87.117	6.462%	9.255%
4.0	8456.457	129.371	216.489	10.862%	23.000%
6.0	5835.221	133.769	350.258	11.232%	37.212%
8.0	3265.602	99.674	449.932	8.369%	47.802%
10.0	1601.302	60.983	510.915	5.120%	54.281%
12.0	939.489	42.839	553.754	3.597%	58.832%
14.0	686.877	36.443	590.198	3.060%	62.704%
16.0	573.516	34.670	624.867	2.911%	66.387%
18.0	484.269	32.820	657.687	2.756%	69.874%
20.0	408.897	30.671	688.358	2.575%	73.132%
22.0	344.509	28.304	716.662	2.376%	76.139%
24.0	288.186	25.707	742.368	2.158%	78.871%
26.0	243.095	23.371	765.74	1.962%	81.354%
28.0	201.197	20.715	786.455	1.739%	83.554%
30.0	167.488	18.366	804.822	1.542%	85.506%
32.0	138.880	16.140	820.962	1.355%	87.221%
34.0	117.139	14.366	835.328	1.206%	88.747%
36.0	99.686	12.851	848.178	1.079%	90.112%
38.0	86.721	11.709	859.887	.983%	91.356%
40.0	75.455	10.637	870.524	.893%	92.486%
42.0	63.480	9.316	879.84	.782%	93.476%
44.0	53.157	8.098	887.938	.680%	94.336%
46.0	44.066	6.952	894.89	.584%	95.075%
48.0	36.151	5.892	900.782	.495%	95.701%
50.0	29.758	4.999	905.782	.420%	96.232%
52.0	24.941	4.310	910.092	.362%	96.690%
54.0	20.646	3.663	913.755	.308%	97.079%
56.0	17.143	3.117	916.872	.262%	97.410%
58.0	14.266	2.653	919.526	.223%	97.692%
60.0	11.906	2.261	921.787	.190%	97.932%
62.0	10.103	1.956	923.743	.164%	98.140%
64.0	8.823	1.739	925.482	.146%	98.325%
66.0	8.148	1.633	927.115	.137%	98.498%
68.0	7.667	1.559	928.674	.131%	98.664%
70.0	7.247	1.493	930.167	.125%	98.823%
72.0	6.882	1.435	931.603	.121%	98.975%
74.0	6.572	1.386	932.988	.116%	99.122%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	6.256	1.331	934.32	.112%	99.264%
78.0	5.932	1.273	935.592	.107%	99.399%
80.0	5.574	1.204	936.796	.101%	99.527%
82.0	5.182	1.125	937.922	.094%	99.647%
84.0	4.776	1.042	938.963	.087%	99.757%
86.0	4.411	0.965	939.929	.081%	99.860%
88.0	4.067	0.891	940.82	.075%	99.954%
90.0	3.909	0.429	941.249	.036%	100.000%

Zonal flux distribution table

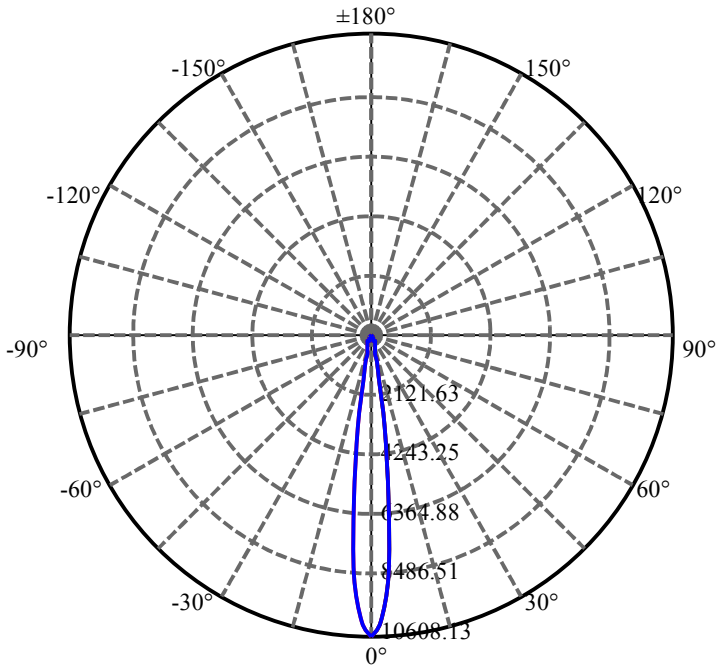
ZONAL LUMEN SUMMARY

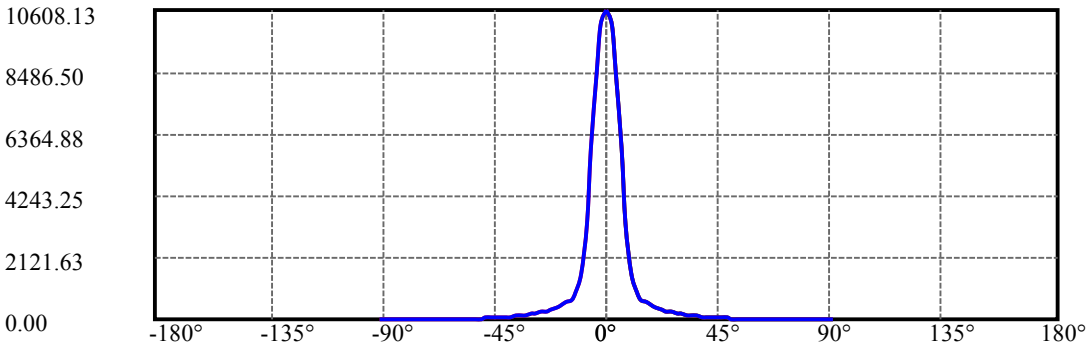
Zone	Lumens	%Lamp	%Fixt
0-30	804.82	67.58%	85.51%
0-40	870.52	73.09%	92.49%
0-60	921.79	77.40%	97.93%
0-90	940.82	78.99%	99.95%
0-120	940.82	78.99%	99.95%
0-180	941.25	79.03%	100.00%
60-90	21.29	1.79%	2.26%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-24.91	753.00	63.22%	80.00%

ZONAL LUMEN SUMMARY

0-10	510.92
10-20	177.44
20-30	116.46
30-40	65.70
40-50	35.26
50-60	16.01
60-70	8.38
70-80	6.63
80-90	4.02
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

Light Distribution Curve [Unit:cd]





C0(Max):

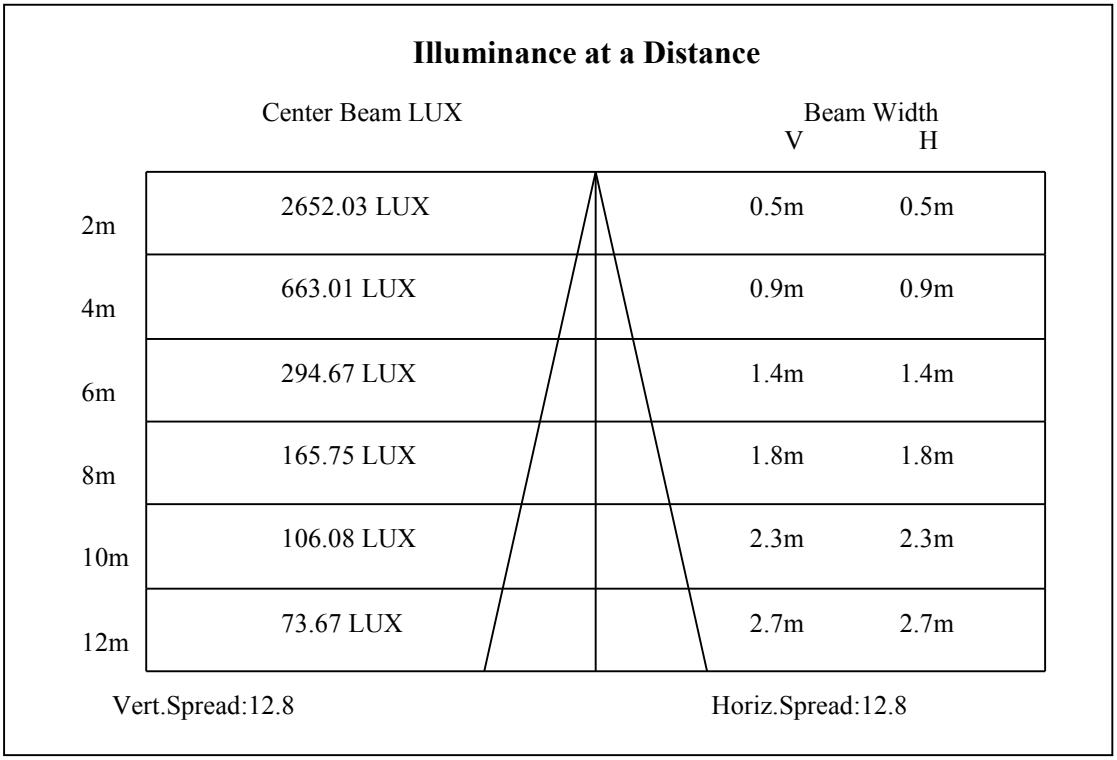
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:11.6 Right:11.6
:C90/270Left:11.6 Right:11.6

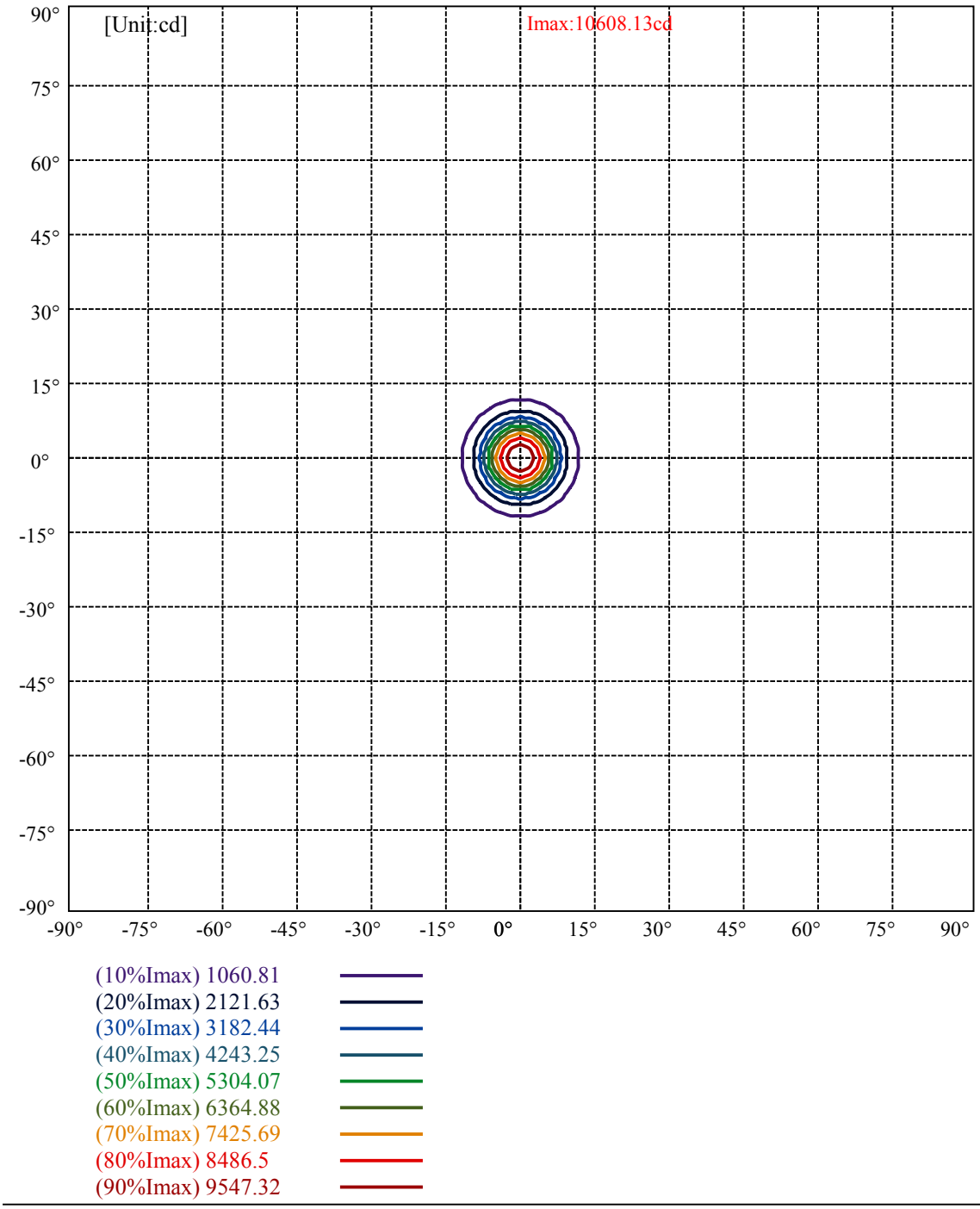
Beam Angle(50%Imax):C0/180Left:6.4 Right:6.4
:C90/270Left:6.4 Right:6.4

Lux distance Curve



Equipment: GMS1980 Date: 2018/7/20 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.42

ISO-Intensity(V-H)



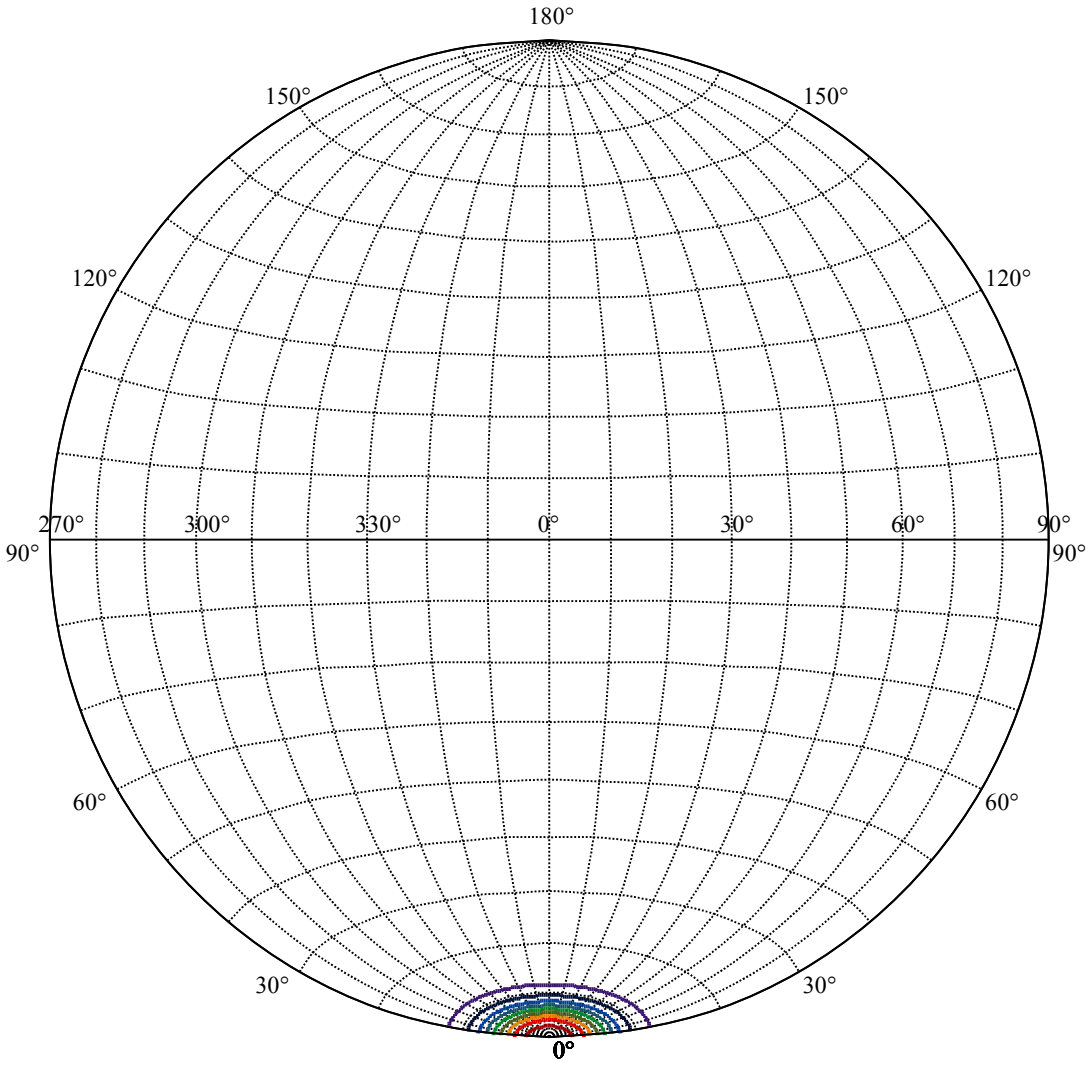
(10%Imax) 1060.81
(20%Imax) 2121.63
(30%Imax) 3182.44
(40%Imax) 4243.25
(50%Imax) 5304.07
(60%Imax) 6364.88
(70%Imax) 7425.69
(80%Imax) 8486.5
(90%Imax) 9547.32

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/7/20
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:10608.13

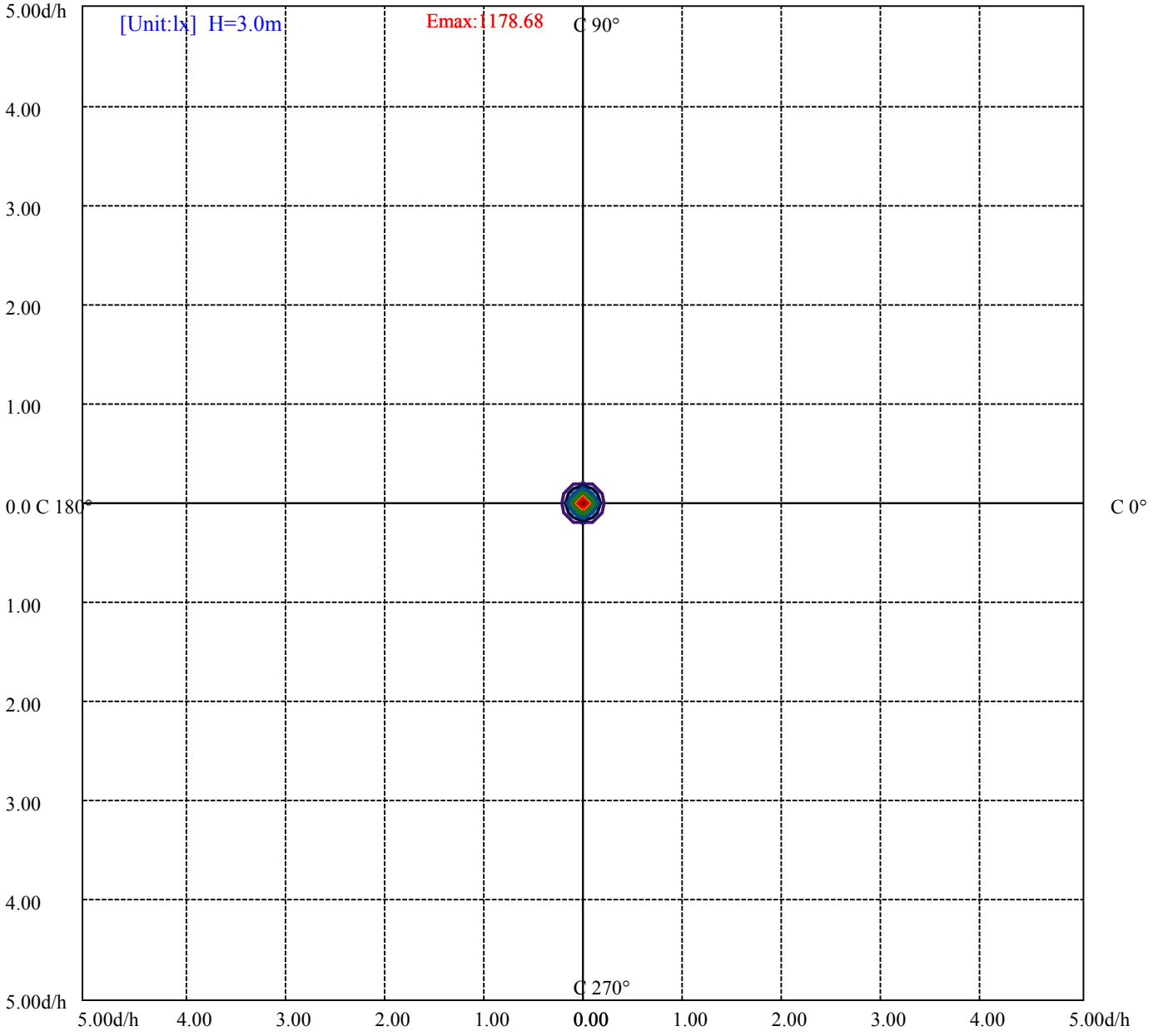
(10%Imax) 1060.81
(20%Imax) 2121.63
(30%Imax) 3182.44
(40%Imax) 4243.25
(50%Imax) 5304.07
(60%Imax) 6364.88
(70%Imax) 7425.69
(80%Imax) 8486.5
(90%Imax) 9547.32

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/7/20
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

ISO illuminance diagram

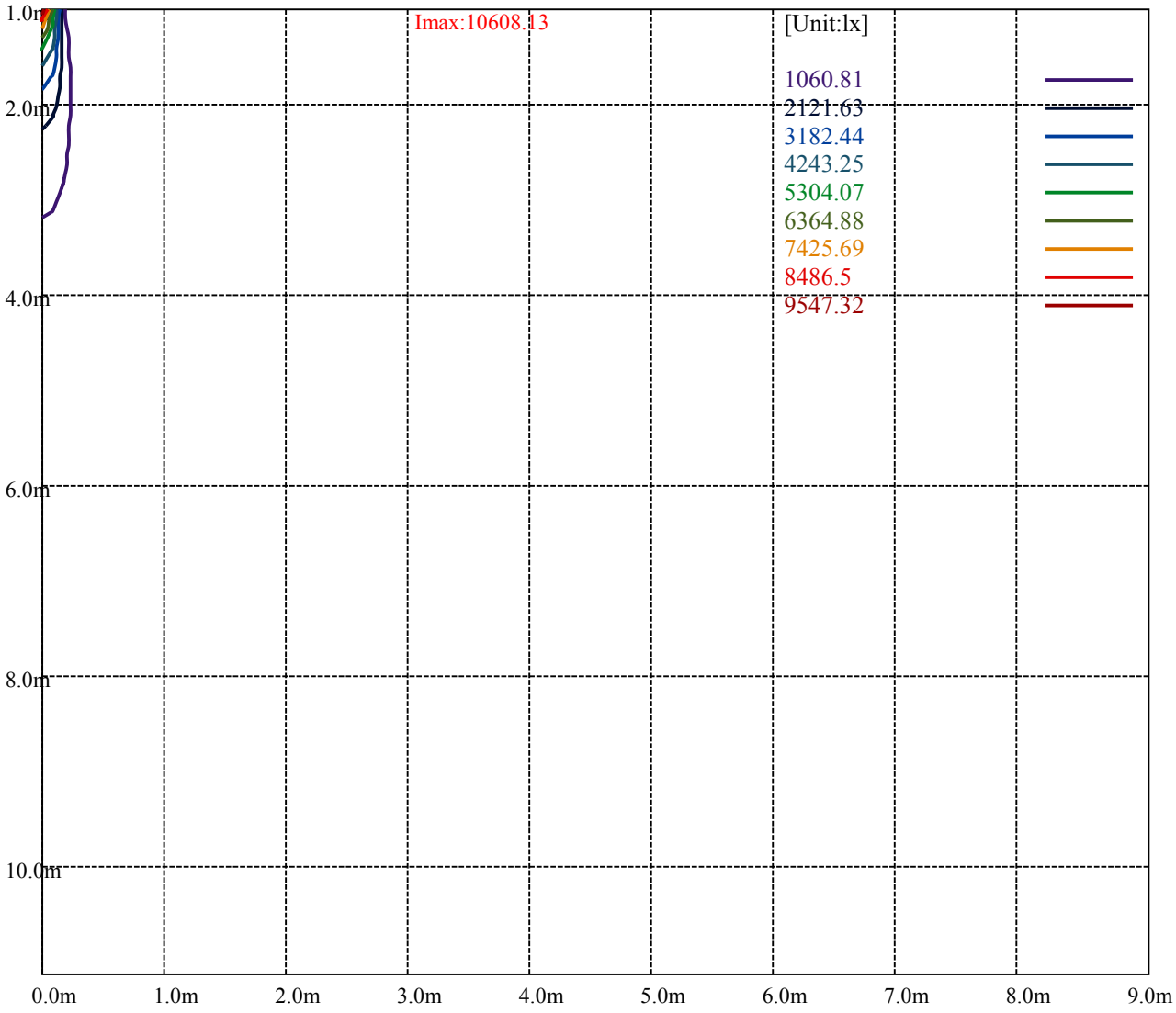


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/7/20
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/7/20
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

Luminance Limitting Curve(no luminous side)

Luminance Table

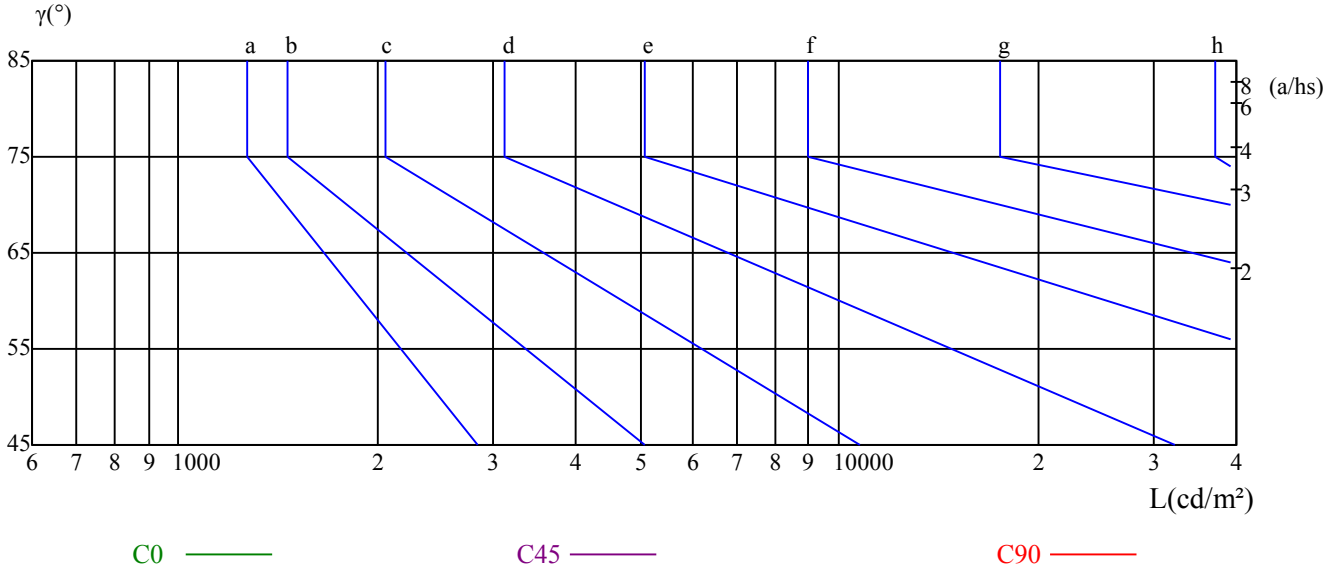
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

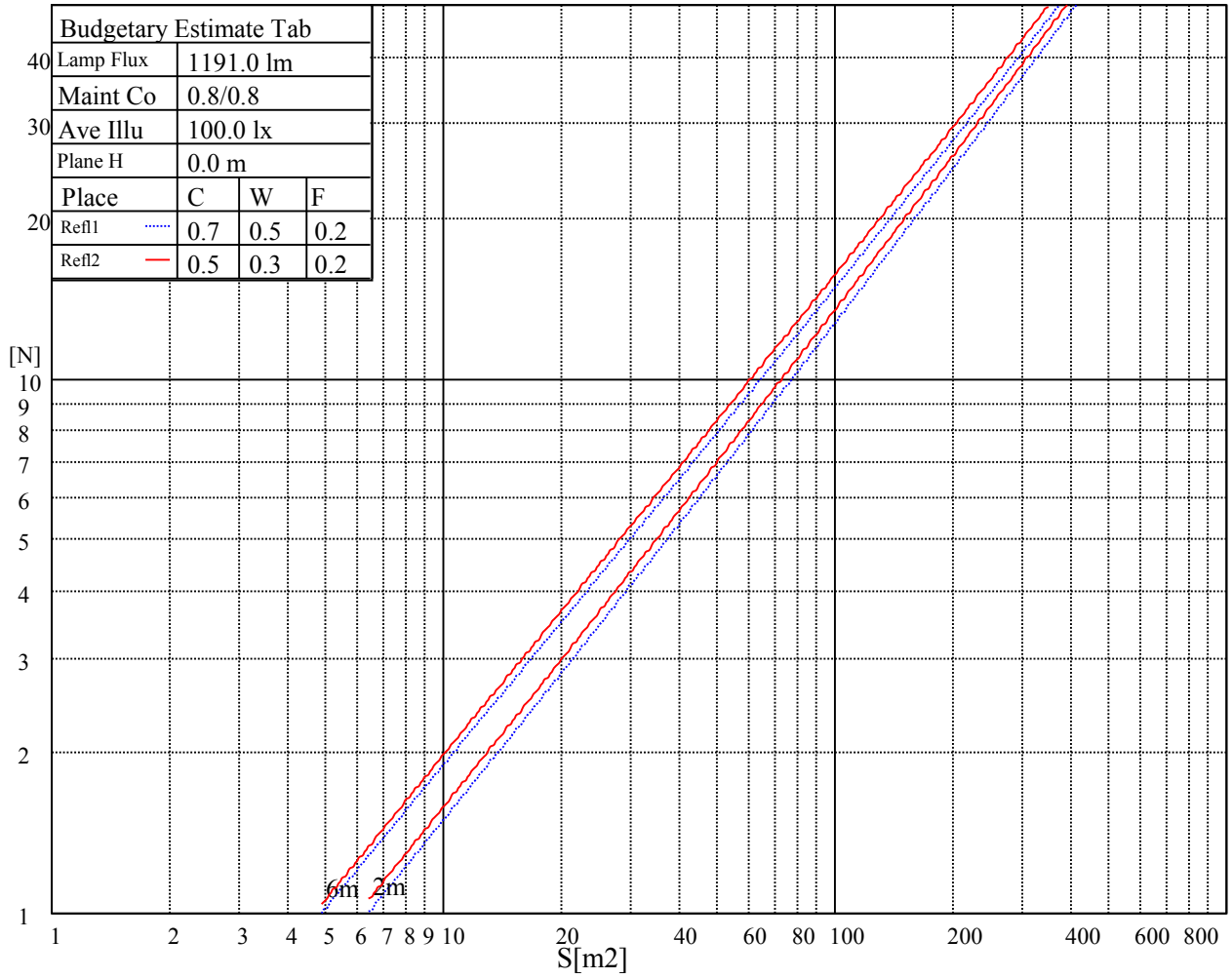
Glare Table

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



Budgetary Estimate Table

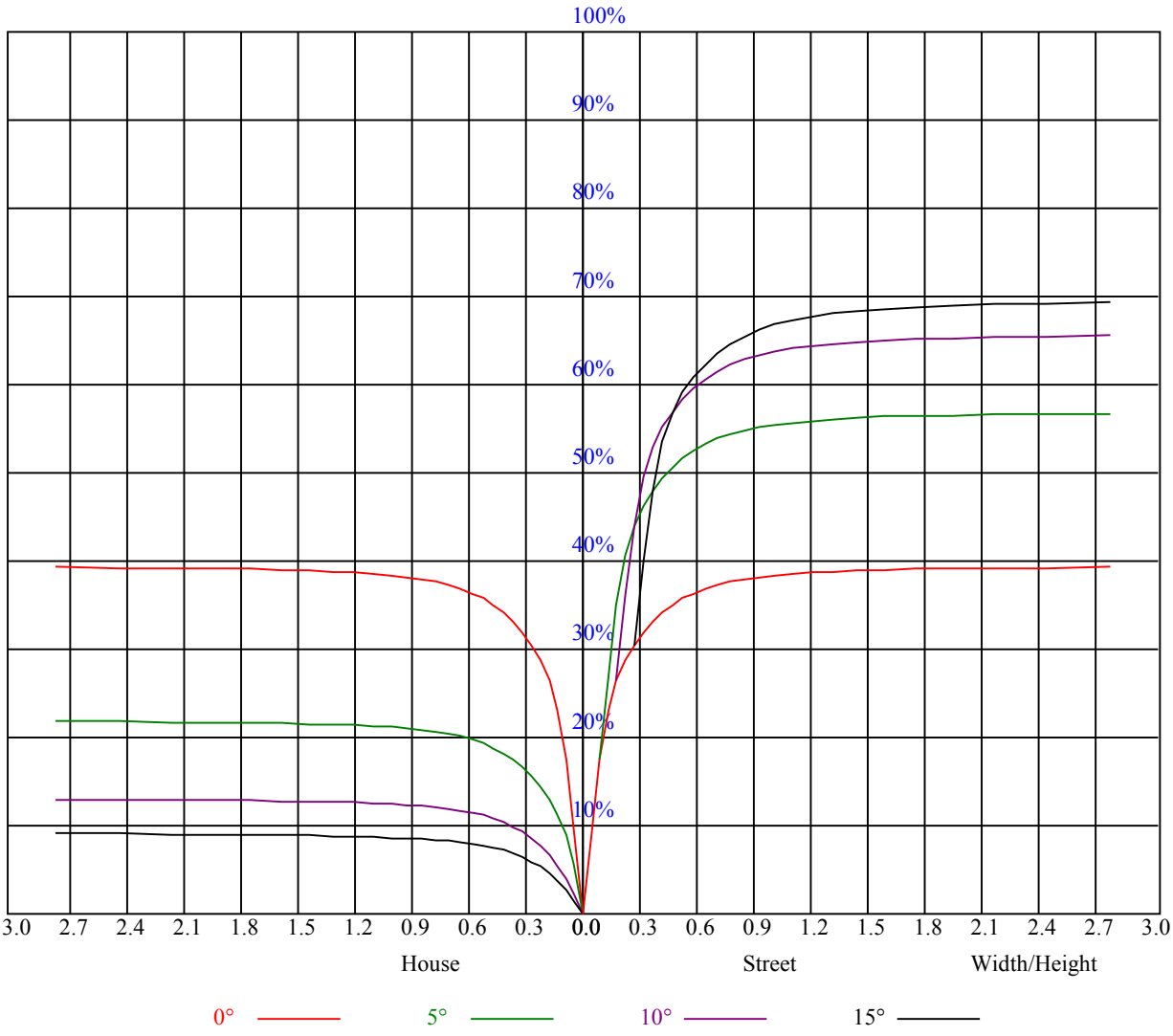


Equipment: GMS1980	Date: 2018/7/20	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.42

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	0.95	0.95	0.95	0.93	0.93	0.93	0.89	0.89	0.89	0.85	0.85	0.85	0.82	0.82	0.82	0.80
1	0.89	0.87	0.85	0.87	0.85	0.84	0.84	0.82	0.81	0.81	0.80	0.79	0.78	0.77	0.76	0.75
2	0.84	0.81	0.79	0.83	0.80	0.78	0.80	0.78	0.77	0.78	0.76	0.75	0.76	0.75	0.73	0.72
3	0.81	0.77	0.75	0.79	0.77	0.74	0.77	0.75	0.73	0.76	0.74	0.72	0.74	0.72	0.71	0.70
4	0.77	0.74	0.71	0.77	0.73	0.71	0.75	0.72	0.70	0.73	0.71	0.69	0.72	0.70	0.69	0.68
5	0.75	0.71	0.69	0.74	0.71	0.68	0.73	0.70	0.68	0.71	0.69	0.67	0.70	0.68	0.67	0.66
6	0.72	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.70	0.67	0.65	0.69	0.66	0.65	0.64
7	0.70	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.68	0.65	0.63	0.67	0.65	0.63	0.62
8	0.68	0.65	0.63	0.68	0.65	0.62	0.67	0.64	0.62	0.66	0.64	0.62	0.66	0.63	0.62	0.61
9	0.67	0.63	0.61	0.66	0.63	0.61	0.66	0.63	0.61	0.65	0.62	0.61	0.64	0.62	0.60	0.60
10	0.65	0.62	0.60	0.65	0.62	0.60	0.64	0.61	0.60	0.64	0.61	0.59	0.63	0.61	0.59	0.59

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2018/7/20	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.42

Intensity data(cd)

C/γ(°)	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0
0.0	10498.70	10626.44	9879.87	7577.41	4803.12	2551.31	1299.88	806.58	644.71
45.0	10628.64	10644.05	9577.61	7147.42	4616.48	2208.31	1117.09	750.42	595.16
90.0	10689.75	10268.02	8654.32	5985.18	3133.81	1321.35	832.84	640.14	552.38
135.0	10615.42	10069.26	8445.65	5971.42	3049.57	1513.50	848.97	654.07	554.42
180.0	10498.70	9087.06	6985.56	4043.34	2044.24	1068.98	762.09	614.65	520.61
225.0	10628.64	9582.57	7232.21	4572.98	2299.16	1061.05	823.20	643.11	547.04
270.0	10689.75	10031.28	8316.82	5425.81	2930.65	1456.79	885.31	684.35	581.95
315.0	10615.42	10136.98	8559.62	5958.20	3247.78	1629.12	946.53	701.69	591.86
360.0	10498.70	10626.44	9879.87	7577.41	4803.12	2551.31	1299.88	806.58	644.71

C/γ(°)	18.0	20.0	22.0	24.0	26.0	28.0	30.0	32.0	34.0
0.0	536.80	456.42	386.50	325.93	279.69	225.51	187.58	153.94	130.37
45.0	507.07	431.09	358.42	296.75	250.89	209.05	175.41	146.17	121.40
90.0	466.99	389.52	330.50	278.26	232.28	196.55	161.81	133.40	113.53
135.0	470.18	394.20	335.29	280.24	238.28	197.87	164.23	137.64	114.90
180.0	436.98	368.99	310.46	259.92	221.11	181.25	151.02	126.85	107.64
225.0	459.83	387.87	324.72	272.14	227.00	189.28	158.51	130.98	112.20
270.0	497.71	421.73	355.11	295.10	248.14	203.60	169.30	140.89	117.55
315.0	498.59	421.35	355.06	297.14	247.37	206.46	172.05	141.16	119.53
360.0	536.80	456.42	386.50	325.93	279.69	225.51	187.58	153.94	130.37

C/γ(°)	36.0	38.0	40.0	42.0	44.0	46.0	48.0	50.0	52.0
0.0	108.46	93.10	81.21	70.42	59.35	50.32	41.84	34.19	28.68
45.0	103.95	90.29	79.06	66.29	55.99	46.36	38.32	31.82	26.48
90.0	96.95	84.24	74.49	62.16	50.60	42.78	34.74	28.13	23.95
135.0	98.22	86.27	74.93	61.99	52.14	42.61	35.18	29.07	24.22
180.0	92.60	81.10	68.88	57.15	48.23	39.42	32.48	27.09	22.57
225.0	96.24	83.74	71.57	60.45	49.55	41.18	33.36	27.36	23.23
270.0	100.59	87.87	77.13	64.36	54.29	44.38	36.28	29.90	24.94
315.0	100.48	87.15	76.36	65.02	55.11	45.48	37.00	30.50	25.44
360.0	108.46	93.10	81.21	70.42	59.35	50.32	41.84	34.19	28.68

C/γ(°)	54.0	56.0	58.0	60.0	62.0	64.0	66.0	68.0	70.0
0.0	23.67	19.82	16.41	13.65	11.34	9.63	8.59	7.98	7.54
45.0	22.02	18.33	15.25	12.66	10.85	9.19	8.37	7.82	7.43
90.0	19.88	16.46	13.82	11.67	9.80	8.64	8.04	7.60	7.21
135.0	20.15	16.46	13.76	11.51	9.91	8.70	8.09	7.65	7.27
180.0	18.44	15.36	12.72	10.57	9.19	8.31	7.87	7.43	7.05
225.0	19.16	15.80	13.21	11.07	9.36	8.48	7.93	7.43	7.05
270.0	20.70	17.18	14.37	11.89	10.08	8.70	8.09	7.65	7.21
315.0	21.14	17.73	14.59	12.22	10.30	8.92	8.20	7.76	7.21
360.0	23.67	19.82	16.41	13.65	11.34	9.63	8.59	7.98	7.54

C/γ(°)	72.0	74.0	76.0	78.0	80.0	82.0	84.0	86.0	88.0
0.0	7.10	6.77	6.44	6.17	5.84	5.51	5.01	4.68	4.29
45.0	7.05	6.72	6.44	6.11	5.78	5.34	4.96	4.57	4.18
90.0	6.83	6.50	6.17	5.84	5.45	5.12	4.68	4.40	4.07
135.0	6.88	6.55	6.22	5.89	5.56	5.07	4.68	4.35	3.96
180.0	6.66	6.39	6.06	5.73	5.34	4.90	4.51	4.13	3.85
225.0	6.77	6.44	6.17	5.84	5.40	5.07	4.68	4.29	3.96
270.0	6.88	6.61	6.28	5.95	5.62	5.23	4.84	4.40	4.07
315.0	6.88	6.61	6.28	5.95	5.62	5.23	4.84	4.46	4.13
360.0	7.10	6.77	6.44	6.17	5.84	5.51	5.01	4.68	4.29

Intensity data(cd)

C/γ(°)	90.0
0.0	3.96
45.0	3.91
90.0	3.91
135.0	3.91
180.0	3.91
225.0	3.91
270.0	3.91
315.0	3.85
360.0	3.96