
LumCAT: 4-2129-A
Luminaire: 92.76.323.00
Report No: NATA0100
Test No: GC2019061801
LampCAT: PHILIPS SLM 1205 G7
Lamp flux(lm): 1233.0
Number of Lamps: 1
Length(mm): 100
Phm Type: C

Voltage(V): 33.4100
Current(A): 0.2470
Power (W): 8.2500
PF: 1.0000
Ballast type: DC
Width(mm): 100
Height(mm): 0

Photometric Results

Lumens(lm): 1088.52
Efficiency(%): 88.28%
Lumens(lm)/Power(W): 131.94
Central intensity(cd): 2212.031
Maximum intensity(cd): 2212.031
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=37.8
 [C90/270]Total=37.8
Field angle(10%Imax): [C0/180]Total=72.0
 [C90/270]Total=72.0
Maximum s/h(1/2): C0_180=0.62 C90_270=0.62
Maximum s/h(1/4): C0_180=0.62 C90_270=0.62
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 88.28%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.644%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2212.031	0.000	0	.000%	.000%
1.0	2208.727	2.115	2.115	.172%	.194%
2.0	2202.047	6.331	8.446	.513%	.776%
3.0	2189.742	10.504	18.95	.852%	1.741%
4.0	2171.109	14.597	33.547	1.184%	3.082%
5.0	2144.180	18.564	52.111	1.506%	4.787%
6.0	2105.156	22.331	74.442	1.811%	6.839%
7.0	2060.578	25.857	100.299	2.097%	9.214%
8.0	2011.500	29.143	129.442	2.364%	11.892%
9.0	1952.719	32.128	161.57	2.606%	14.843%
10.0	1884.516	34.726	196.296	2.816%	18.033%
11.0	1816.383	36.980	233.275	2.999%	21.431%
12.0	1741.781	38.896	272.171	3.155%	25.004%
13.0	1654.453	40.305	312.476	3.269%	28.707%
14.0	1574.016	41.324	353.8	3.352%	32.503%
15.0	1489.781	42.061	395.861	3.411%	36.367%
16.0	1399.289	42.333	438.194	3.433%	40.256%
17.0	1279.575	41.717	479.911	3.383%	44.089%
18.0	1191.642	40.745	520.656	3.305%	47.832%
19.0	1095.933	39.799	560.455	3.228%	51.488%
20.0	996.504	38.297	598.753	3.106%	55.006%
21.0	899.346	36.404	635.157	2.952%	58.351%
22.0	821.925	34.590	669.746	2.805%	61.528%
23.0	759.881	33.191	702.937	2.692%	64.578%
24.0	700.657	31.933	734.87	2.590%	67.511%
25.0	652.282	30.763	765.633	2.495%	70.337%
26.0	609.047	29.774	795.406	2.415%	73.073%
27.0	567.028	28.773	824.179	2.334%	75.716%
28.0	527.604	27.714	851.893	2.248%	78.262%
29.0	495.042	26.755	878.648	2.170%	80.720%
30.0	463.380	25.877	904.526	2.099%	83.097%
31.0	433.631	24.963	929.488	2.025%	85.390%
32.0	409.324	24.150	953.638	1.959%	87.609%
33.0	381.502	23.298	976.936	1.890%	89.749%
34.0	340.720	21.857	998.792	1.773%	91.757%
35.0	283.753	19.394	1018.186	1.573%	93.539%
36.0	220.465	16.054	1034.241	1.302%	95.014%
37.0	159.982	12.408	1046.649	1.006%	96.154%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	98.831	8.639	1055.287	.701%	96.947%
39.0	49.120	5.050	1060.337	.410%	97.411%
40.0	23.505	2.533	1062.87	.205%	97.644%
41.0	14.597	1.357	1064.227	.110%	97.769%
42.0	11.412	0.945	1065.172	.077%	97.855%
43.0	9.563	0.777	1065.949	.063%	97.927%
44.0	7.868	0.658	1066.607	.053%	97.987%
45.0	6.209	0.541	1067.148	.044%	98.037%
46.0	5.590	0.461	1067.609	.037%	98.079%
47.0	5.442	0.439	1068.048	.036%	98.120%
48.0	5.344	0.436	1068.484	.035%	98.160%
49.0	5.245	0.435	1068.919	.035%	98.200%
50.0	5.161	0.434	1069.353	.035%	98.240%
51.0	5.105	0.434	1069.787	.035%	98.279%
52.0	5.048	0.436	1070.223	.035%	98.319%
53.0	4.985	0.436	1070.659	.035%	98.360%
54.0	4.929	0.437	1071.096	.035%	98.400%
55.0	4.887	0.438	1071.534	.036%	98.440%
56.0	4.845	0.440	1071.974	.036%	98.480%
57.0	4.809	0.441	1072.416	.036%	98.521%
58.0	4.774	0.443	1072.859	.036%	98.562%
59.0	4.753	0.445	1073.304	.036%	98.603%
60.0	4.711	0.447	1073.751	.036%	98.644%
61.0	4.683	0.448	1074.2	.036%	98.685%
62.0	4.690	0.452	1074.651	.037%	98.726%
63.0	4.669	0.455	1075.106	.037%	98.768%
64.0	4.641	0.457	1075.563	.037%	98.810%
65.0	4.620	0.458	1076.021	.037%	98.852%
66.0	4.598	0.460	1076.481	.037%	98.894%
67.0	4.598	0.462	1076.944	.038%	98.937%
68.0	4.584	0.465	1077.409	.038%	98.980%
69.0	4.577	0.467	1077.876	.038%	99.023%
70.0	4.556	0.469	1078.345	.038%	99.066%
71.0	4.556	0.471	1078.816	.038%	99.109%
72.0	4.549	0.473	1079.29	.038%	99.152%
73.0	4.760	0.487	1079.777	.039%	99.197%
74.0	5.196	0.523	1080.3	.042%	99.245%
75.0	5.337	0.557	1080.857	.045%	99.296%

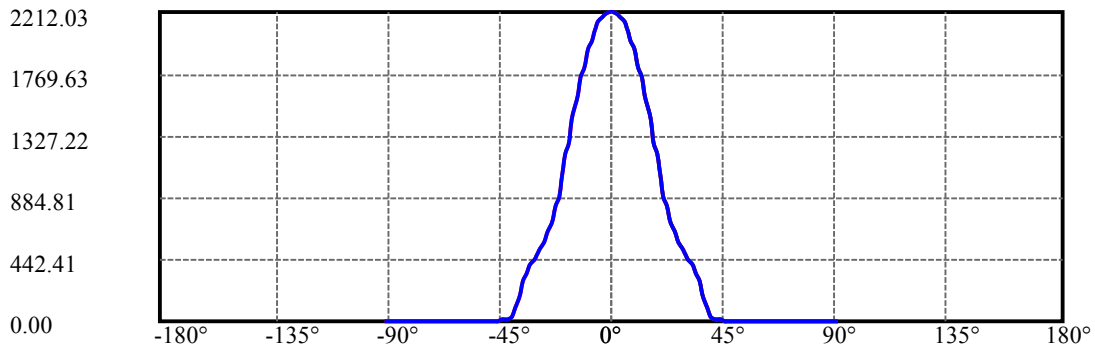
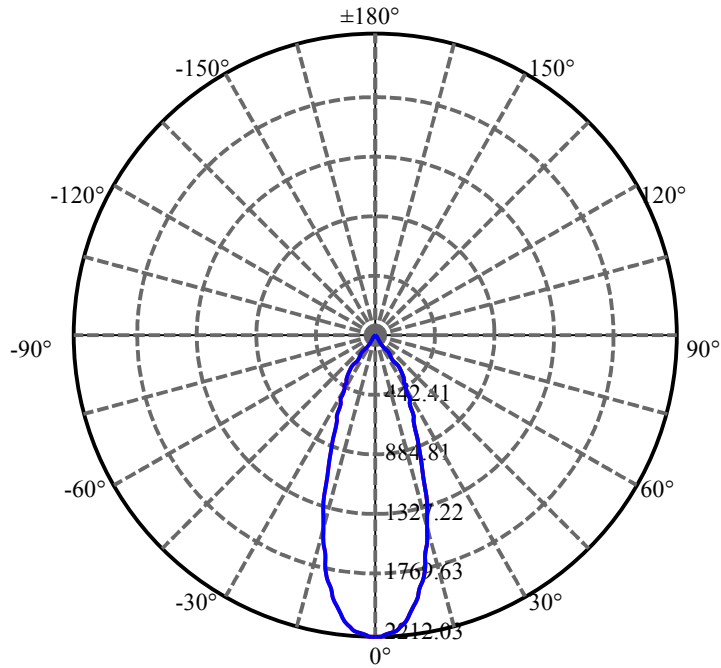
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	5.217	0.560	1081.417	.045%	99.348%
77.0	5.034	0.547	1081.963	.044%	99.398%
78.0	4.908	0.532	1082.496	.043%	99.447%
79.0	4.816	0.522	1083.018	.042%	99.495%
80.0	4.690	0.513	1083.531	.042%	99.542%
81.0	4.598	0.502	1084.033	.041%	99.588%
82.0	4.584	0.498	1084.531	.040%	99.634%
83.0	4.584	0.498	1085.029	.040%	99.680%
84.0	4.605	0.501	1085.53	.041%	99.726%
85.0	4.655	0.505	1086.035	.041%	99.772%
86.0	4.676	0.510	1086.545	.041%	99.819%
87.0	4.683	0.512	1087.058	.042%	99.866%
88.0	4.521	0.504	1087.562	.041%	99.912%
89.0	4.303	0.484	1088.045	.039%	99.957%
90.0	4.275	0.470	1088.516	.038%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	904.53	73.36%	83.10%
0-40	1062.87	86.20%	97.64%
0-60	1073.75	87.08%	98.64%
0-90	1088.05	88.24%	99.96%
0-120	1088.05	88.24%	99.96%
0-180	1088.52	88.28%	100.00%
60-90	14.74	1.20%	1.35%
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%
0-28.71	870.81	70.63%	80.00%

ZONAL LUMEN SUMMARY

0-10	196.30
10-20	402.46
20-30	305.77
30-40	158.34
40-50	6.48
50-60	4.40
60-70	4.59
70-80	5.19
80-90	4.51
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: —————

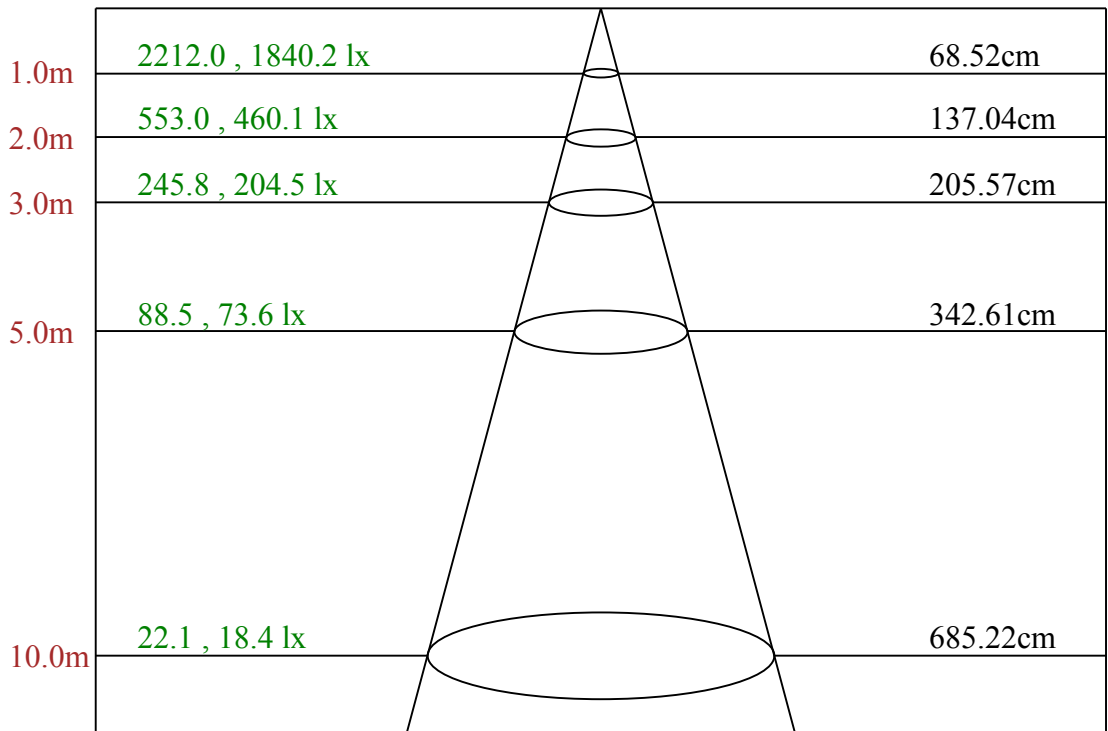
C90/C270: —————

Field angle(10%Imax):C0/180Left:36.0 Right:36.0

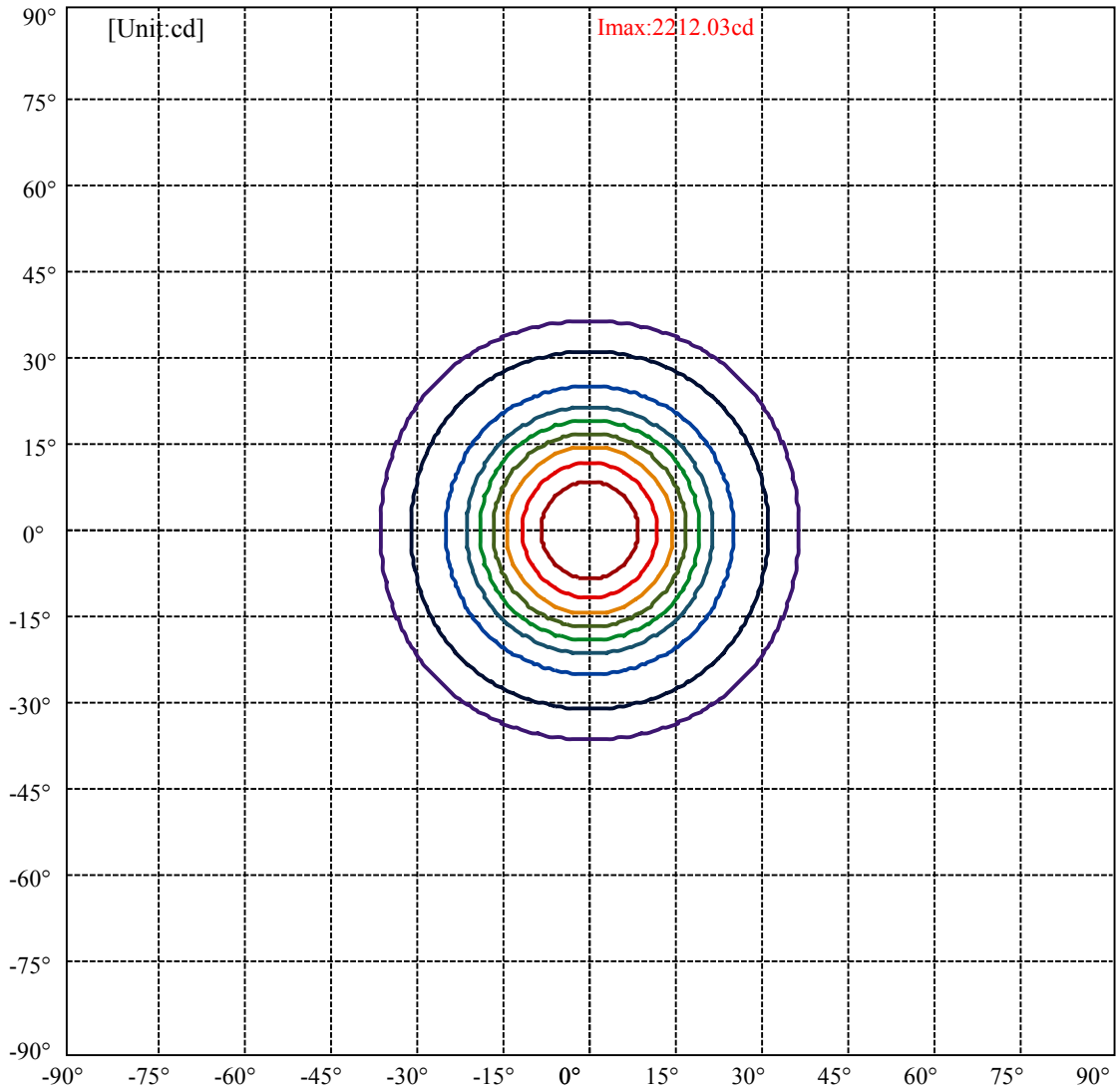
:C90/270Left:36.0 Right:36.0

Beam Angle(50%Imax):C0/180Left:18.9 Right:18.9

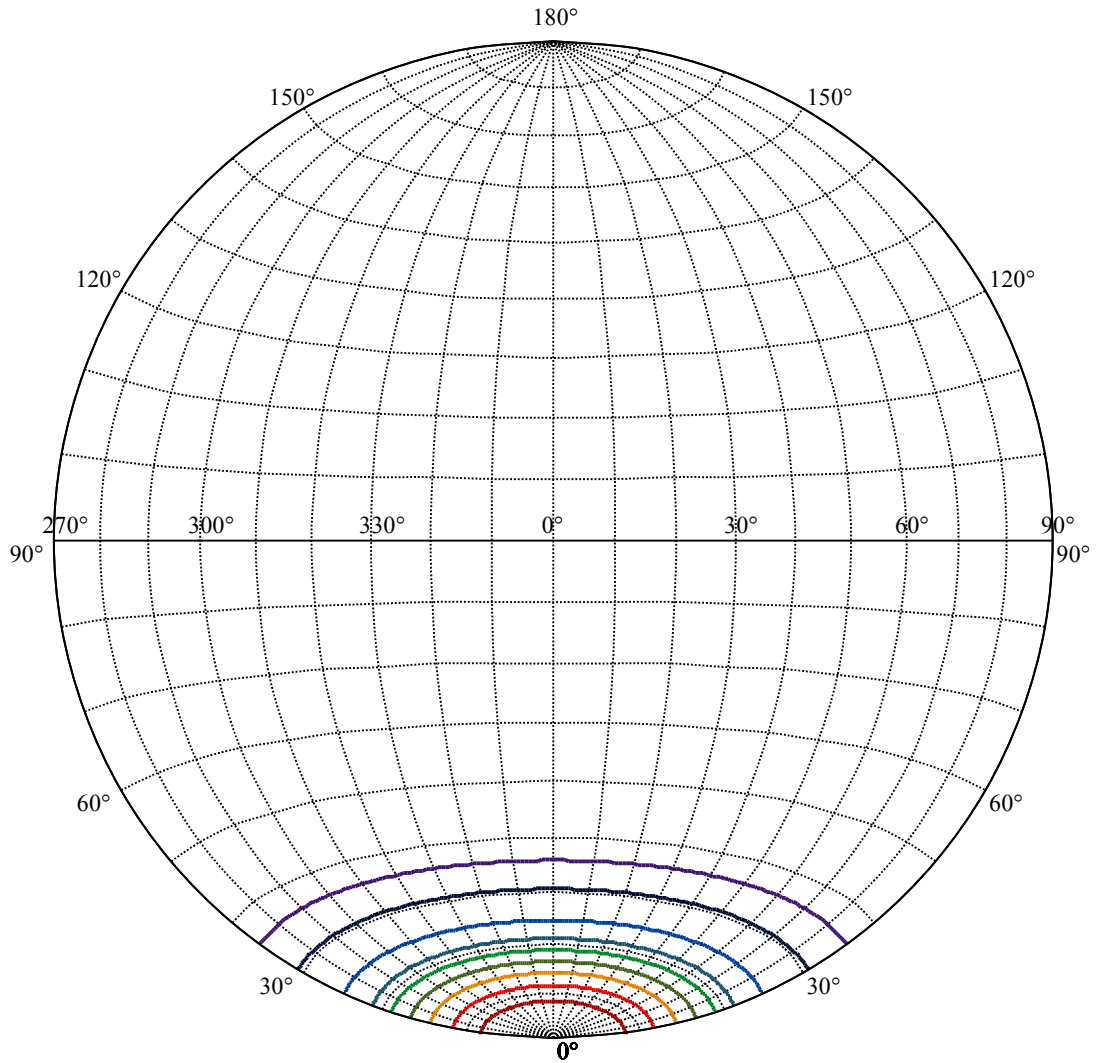
:C90/270Left:18.9 Right:18.9



Max , Ave Beam angle of C0 plane 37.82



(10%Imax) 221.203	—
(20%Imax) 442.406	—
(30%Imax) 663.609	—
(40%Imax) 884.813	—
(50%Imax) 1106.02	—
(60%Imax) 1327.22	—
(70%Imax) 1548.42	—
(80%Imax) 1769.63	—
(90%Imax) 1990.83	—



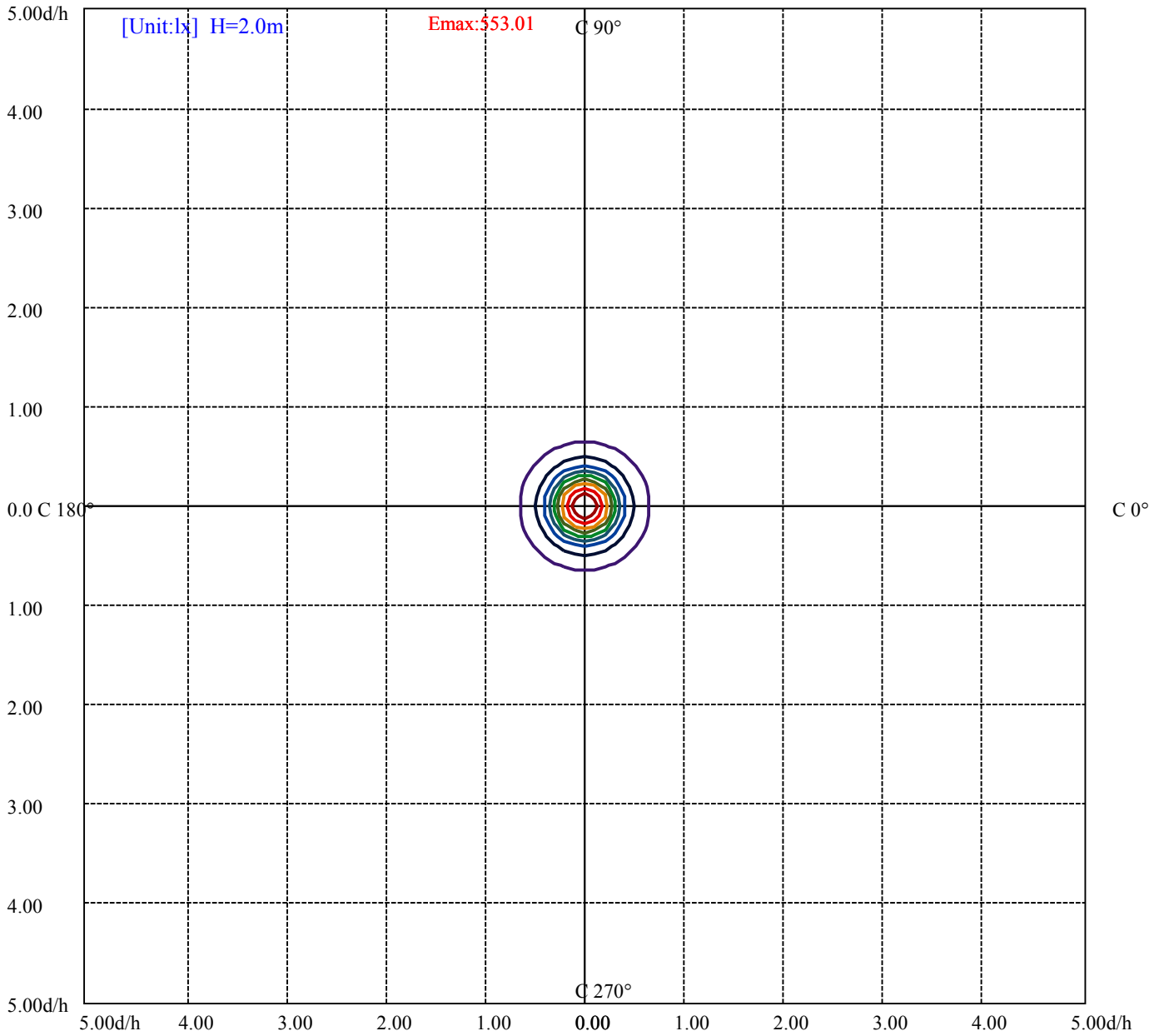
House

[Unit:cd]

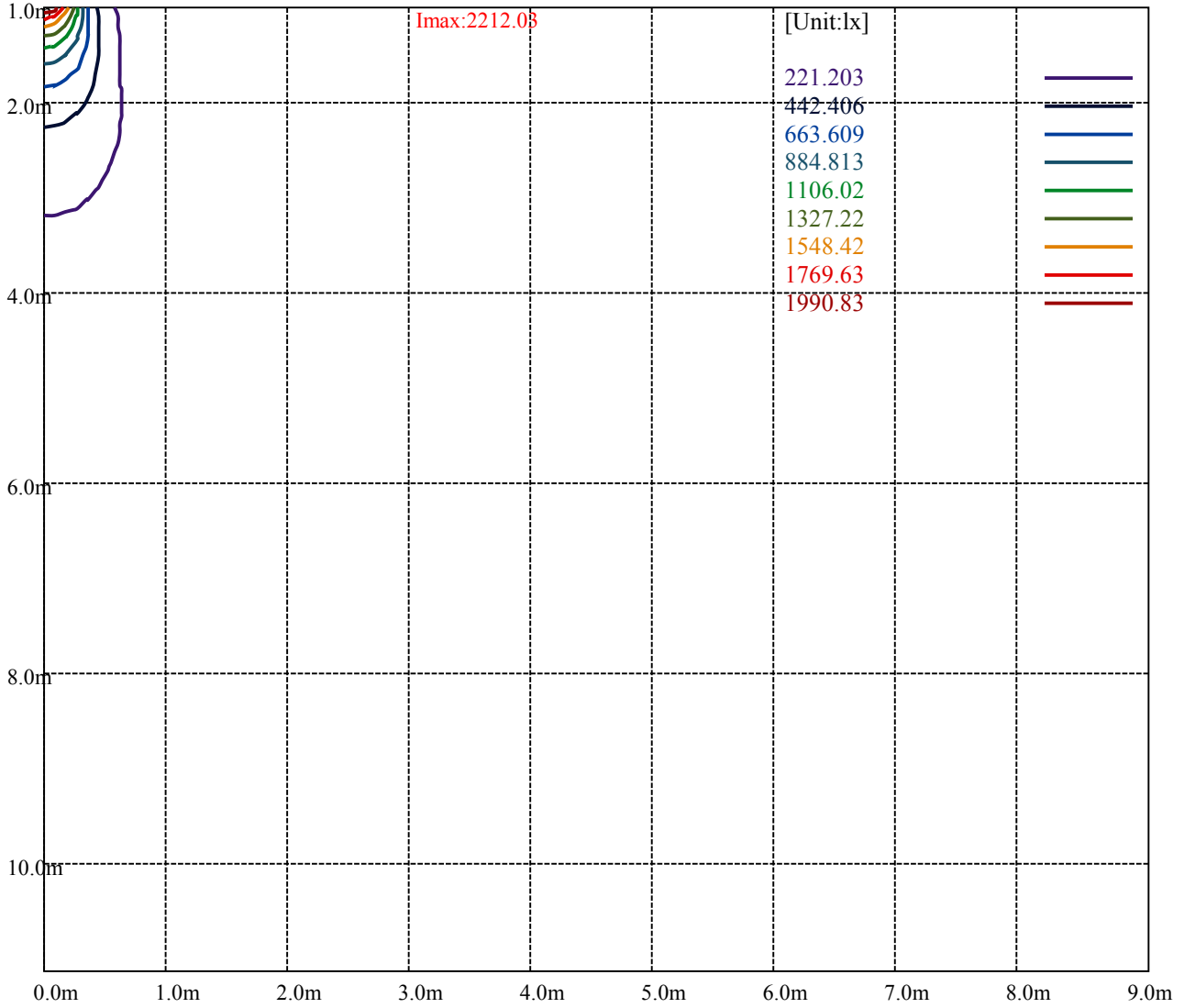
Road

I_{max}:2212.03

(10%I _{max}) 221.203	—
(20%I _{max}) 442.406	—
(30%I _{max}) 663.609	—
(40%I _{max}) 884.813	—
(50%I _{max}) 1106.02	—
(60%I _{max}) 1327.22	—
(70%I _{max}) 1548.42	—
(80%I _{max}) 1769.63	—
(90%I _{max}) 1990.83	—



(10%Emax) 55.30075	—
(20%Emax) 110.6015	—
(30%Emax) 165.9023	—
(40%Emax) 221.203	—
(50%Emax) 276.505	—
(60%Emax) 331.805	—
(70%Emax) 387.105	—
(80%Emax) 442.405	—
(90%Emax) 497.7075	—



Luminance Table

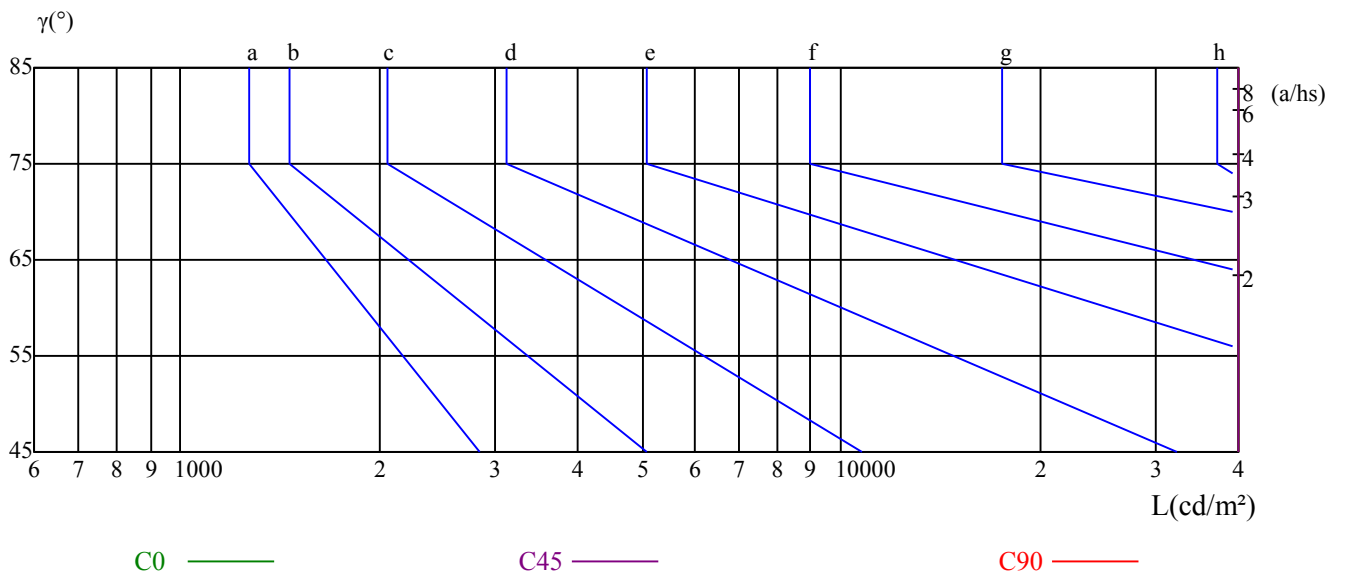
γ	45	50	55	60	65	70	75	80	85
C0	87803	80290	85197	94219	109307	133216	206195	270077	534065
C45	87803	80290	85197	94219	109307	133216	206195	270077	534065
C90	87803	80290	85197	94219	109307	133216	206195	270077	534065

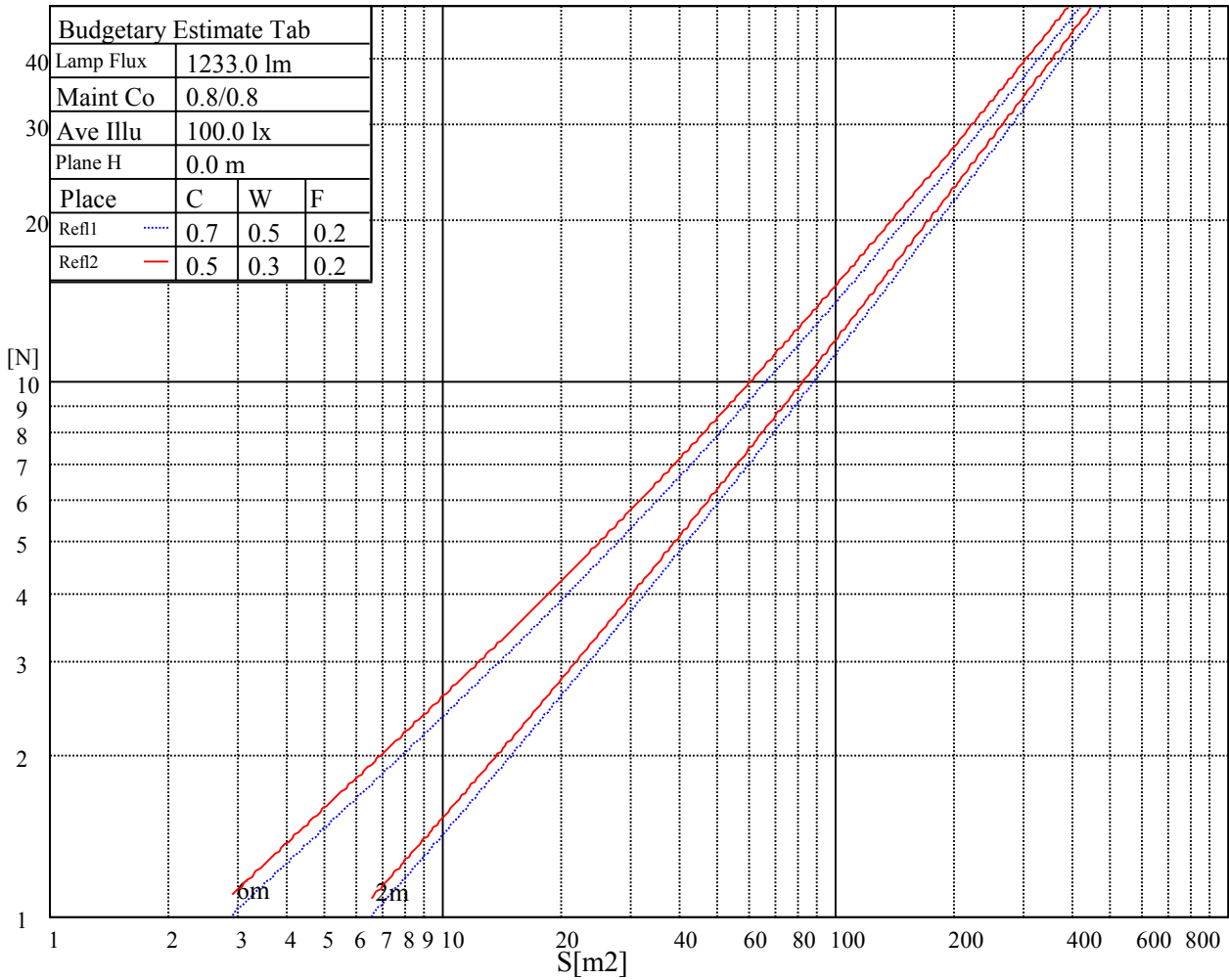
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
109307	109307	109307	206195	206195	206195	534065	534065	534065

Glare Table

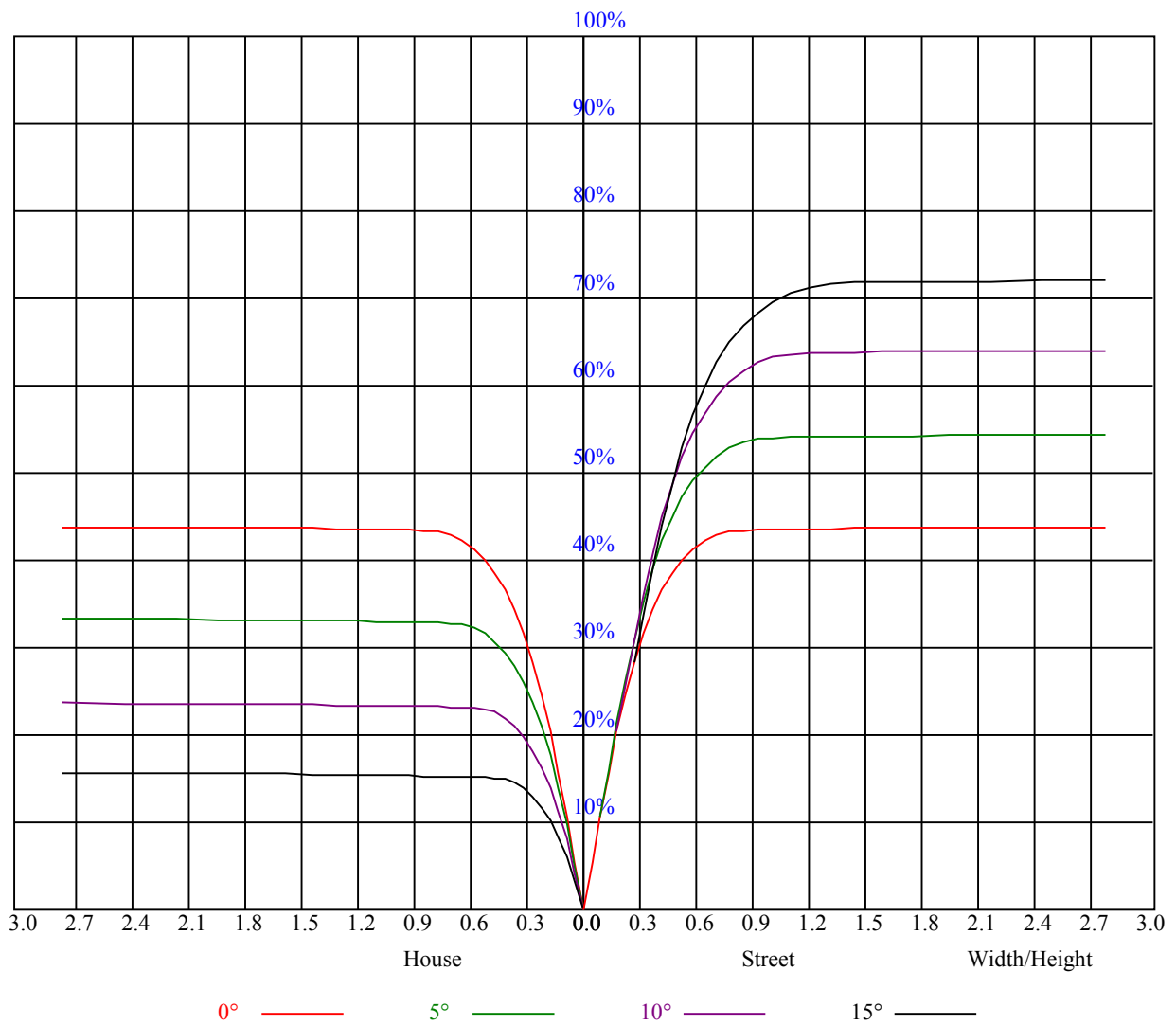
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.05	1.05	1.05	1.03	1.03	1.03	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.88
1	0.98	0.96	0.94	0.96	0.95	0.93	0.93	0.91	0.90	0.90	0.88	0.87	0.87	0.86	0.85	0.83
2	0.92	0.89	0.86	0.91	0.88	0.85	0.88	0.86	0.84	0.85	0.83	0.82	0.83	0.81	0.80	0.79
3	0.87	0.83	0.80	0.86	0.82	0.79	0.84	0.81	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.74
4	0.82	0.78	0.75	0.81	0.77	0.74	0.80	0.76	0.73	0.78	0.75	0.73	0.76	0.74	0.72	0.71
5	0.78	0.74	0.70	0.77	0.73	0.70	0.76	0.72	0.69	0.74	0.71	0.69	0.73	0.70	0.68	0.67
6	0.74	0.70	0.66	0.74	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.64
7	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.68	0.65	0.62	0.67	0.64	0.62	0.61
8	0.68	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	0.59	0.57	0.63	0.59	0.56	0.62	0.59	0.56	0.55
10	0.62	0.57	0.54	0.61	0.57	0.54	0.61	0.57	0.54	0.60	0.57	0.54	0.60	0.56	0.54	0.53



Intensity data(cd)

C/ γ ($^{\circ}$)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	2207.81	2216.81	2219.06	2216.81	2210.63	2188.69	2149.31	2108.25	2062.69
45.0	2212.88	2220.19	2220.19	2214.56	2206.13	2186.44	2156.63	2121.19	2076.75
90.0	2214.00	2210.06	2202.75	2194.88	2175.75	2151.56	2118.94	2075.63	2030.63
135.0	2213.44	2205.56	2193.19	2177.44	2159.44	2136.94	2099.81	2060.44	2016.56
180.0	2207.81	2193.75	2179.69	2158.88	2135.81	2102.63	2062.13	2017.13	1959.75
225.0	2212.88	2198.81	2187.00	2163.38	2135.25	2102.06	2062.69	2005.88	1950.75
270.0	2214.00	2208.94	2202.19	2189.25	2168.44	2138.63	2090.25	2045.25	1994.63
315.0	2213.44	2215.69	2212.31	2202.75	2177.44	2146.50	2101.50	2050.88	2000.25
360.0	2207.81	2216.81	2219.06	2216.81	2210.63	2188.69	2149.31	2108.25	2062.69
C/ γ ($^{\circ}$)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1998.56	1944.56	1884.94	1808.44	1726.31	1649.81	1560.94	1477.13	1378.69
45.0	2022.19	1965.94	1907.44	1845.56	1758.38	1685.25	1607.63	1508.63	1427.06
90.0	1980.00	1910.25	1843.88	1775.25	1686.38	1609.31	1530.00	1438.88	1341.00
135.0	1960.88	1895.63	1828.13	1747.69	1661.63	1582.31	1492.88	1409.63	1315.13
180.0	1899.56	1824.19	1741.50	1663.88	1578.94	1490.06	1405.69	1320.19	1120.44
225.0	1890.56	1803.38	1730.25	1653.19	1563.75	1473.75	1389.94	1291.50	1110.66
270.0	1923.75	1862.44	1793.25	1711.13	1626.19	1545.75	1454.63	1369.13	1268.44
315.0	1946.25	1869.75	1801.69	1729.13	1634.06	1555.88	1476.56	1379.25	1275.19
360.0	1998.56	1944.56	1884.94	1808.44	1726.31	1649.81	1560.94	1477.13	1378.69
C/ γ ($^{\circ}$)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1276.88	1180.69	1071.56	964.13	878.06	813.94	736.31	688.50	649.13
45.0	1334.81	1227.38	1117.13	1014.19	909.00	824.06	761.06	702.56	654.19
90.0	1247.06	1109.48	1034.66	929.19	840.38	774.90	712.41	658.41	613.01
135.0	1206.00	1110.94	1006.31	906.19	830.81	771.75	708.19	663.75	619.31
180.0	1107.62	1010.93	908.83	822.15	759.54	701.21	650.87	608.63	565.71
225.0	1086.30	982.97	897.92	815.29	750.49	703.01	658.13	604.46	566.33
270.0	1159.88	1065.94	963.00	870.19	804.38	750.38	691.88	648.56	606.38
315.0	1114.59	1079.16	972.62	873.45	802.74	739.80	686.42	643.39	598.33
360.0	1276.88	1180.69	1071.56	964.13	878.06	813.94	736.31	688.50	649.13
C/ γ ($^{\circ}$)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	597.38	556.31	527.63	488.25	456.19	434.81	409.50	389.81	346.50
45.0	606.38	565.88	532.69	502.88	460.13	431.44	412.31	384.75	341.44
90.0	572.63	527.85	494.72	464.23	435.94	406.58	389.14	354.38	291.77
135.0	573.19	533.81	499.50	464.06	429.75	407.25	387.56	348.75	285.75
180.0	530.55	494.10	460.07	430.59	406.74	383.18	344.36	293.34	221.96
225.0	530.38	493.43	461.53	434.76	411.02	387.28	341.55	281.81	222.64
270.0	564.19	525.38	493.88	460.13	432.00	412.31	380.25	331.88	289.69
315.0	561.54	524.08	490.33	462.15	437.29	411.75	387.34	341.04	270.28
360.0	597.38	556.31	527.63	488.25	456.19	434.81	409.50	389.81	346.50
C/ γ ($^{\circ}$)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	284.06	213.02	150.19	80.61	37.63	16.26	13.39	11.25	9.00
45.0	297.56	249.53	156.04	101.48	49.61	20.98	15.08	11.59	10.35
90.0	234.17	175.28	112.67	57.21	21.94	15.30	12.21	9.90	8.61
135.0	221.74	161.27	105.64	46.46	19.69	14.91	10.69	9.51	8.55
180.0	163.01	107.21	53.21	19.35	13.44	10.80	8.66	7.76	6.02
225.0	152.04	91.13	45.45	18.00	13.11	10.46	9.06	7.48	6.92
270.0	203.01	135.62	82.29	34.03	16.65	14.57	10.97	9.84	7.14
315.0	208.13	146.81	85.16	35.83	15.98	13.50	11.25	9.17	6.36
360.0	284.06	213.02	150.19	80.61	37.63	16.26	13.39	11.25	9.00

Intensity data(cd)

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	7.26	6.02	5.63	5.46	5.34	5.23	5.18	5.12	5.06
45.0	6.41	5.68	5.51	5.40	5.29	5.18	5.12	5.06	5.01
90.0	6.53	5.51	5.40	5.34	5.29	5.18	5.12	5.06	5.01
135.0	6.47	5.63	5.51	5.40	5.29	5.23	5.18	5.12	5.06
180.0	5.57	5.40	5.29	5.23	5.18	5.12	5.06	5.01	4.89
225.0	5.57	5.40	5.29	5.23	5.12	5.06	5.01	4.95	4.89
270.0	6.02	5.51	5.40	5.29	5.18	5.12	5.06	5.01	4.95
315.0	5.85	5.57	5.51	5.40	5.29	5.18	5.12	5.06	5.01
360.0	7.26	6.02	5.63	5.46	5.34	5.23	5.18	5.12	5.06
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	5.01	4.89	4.89	4.84	4.78	4.78	4.73	4.67	4.73
45.0	4.95	4.95	4.84	4.84	4.78	4.78	4.73	4.73	4.73
90.0	4.89	4.89	4.84	4.78	4.78	4.78	4.73	4.73	4.67
135.0	5.01	4.95	4.89	4.89	4.84	4.78	4.78	4.73	4.73
180.0	4.89	4.84	4.84	4.78	4.78	4.73	4.73	4.67	4.67
225.0	4.84	4.78	4.73	4.73	4.67	4.67	4.61	4.56	4.61
270.0	4.89	4.84	4.84	4.78	4.78	4.73	4.67	4.67	4.67
315.0	4.95	4.95	4.89	4.84	4.78	4.78	4.73	4.73	4.73
360.0	5.01	4.89	4.89	4.84	4.78	4.78	4.73	4.67	4.73
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	4.67	4.67	4.61	4.61	4.61	4.61	4.56	4.56	4.56
45.0	4.73	4.67	4.67	4.61	4.61	4.61	4.61	4.61	4.61
90.0	4.67	4.61	4.61	4.61	4.61	4.56	4.56	4.50	4.56
135.0	4.73	4.67	4.61	4.61	4.61	4.56	4.56	4.56	4.50
180.0	4.67	4.61	4.61	4.61	4.61	4.61	4.61	4.56	4.56
225.0	4.56	4.56	4.50	4.50	4.50	4.50	4.44	4.44	4.44
270.0	4.67	4.67	4.67	4.61	4.61	4.61	4.61	4.61	4.61
315.0	4.67	4.67	4.67	4.61	4.61	4.61	4.67	4.61	4.61
360.0	4.67	4.67	4.61	4.61	4.61	4.61	4.56	4.56	4.56
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	4.56	4.56	4.84	5.96	5.01	4.56	4.56	4.56	4.56
45.0	4.56	4.56	4.50	4.56	4.56	4.50	4.50	4.50	4.50
90.0	4.50	4.50	4.50	4.44	4.50	4.50	4.50	4.44	4.44
135.0	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.44	4.44
180.0	4.56	4.56	4.84	4.78	4.84	4.84	4.78	4.89	4.78
225.0	4.44	4.44	4.39	4.44	4.39	4.44	4.39	4.39	4.39
270.0	4.61	4.61	4.95	4.73	4.67	4.61	4.56	4.56	4.56
315.0	4.67	6.36	9.06	9.28	9.28	8.33	7.48	6.75	5.85
360.0	4.56	4.56	4.84	5.96	5.01	4.56	4.56	4.56	4.56
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	4.61	4.61	4.61	4.61	4.61	4.67	4.67	4.67	4.33
45.0	4.50	4.50	4.56	4.56	4.61	4.67	4.78	4.56	4.33
90.0	4.50	4.50	4.50	4.56	4.56	4.50	4.56	4.44	4.28
135.0	4.44	4.44	4.44	4.44	4.44	4.44	4.50	4.50	4.33
180.0	4.84	4.89	4.73	4.73	4.84	4.84	4.84	4.39	4.28
225.0	4.39	4.39	4.39	4.39	4.39	4.44	4.44	4.39	4.28
270.0	4.61	4.61	4.61	4.61	4.67	4.67	4.61	4.56	4.33
315.0	4.89	4.73	4.84	4.95	5.12	5.18	5.06	4.67	4.28
360.0	4.61	4.61	4.61	4.61	4.61	4.67	4.67	4.67	4.33

Intensity data(cd)

C/γ(°)	90.0
0.0	4.28
45.0	4.28
90.0	4.33
135.0	4.28
180.0	4.28
225.0	4.28
270.0	4.22
315.0	4.28
360.0	4.28