



NATA LIGHTING CO.,LTD
www.nata.cn
Email:info@nata.cn
Tel:+86 0750-377 0000(10 lines) Fax:+86 0750-377 1111
Address:380JinOu Road,Gaoxin Zone,Jiang Men City,Guangdong,China

Nata

LumCAT: 3-1915-E
Luminaire: 92.76.323.00
Report No: GC2017031104
Test No: NT-0010
LampCAT: SLM 1205 G6 L13
Lamp flux(lm): 2757.0
Number of Lamps: 1
Length(mm): 79
Phm Type: C

Voltage(V): 36.5000
Current(A): 0.6000
Power (W): 21.9000
PF: 0.0000
Ballast type: DC
Width(mm): 79
Height(mm): 0

Photometric Results

Lumens(lm): 2485.59
Efficiency(%): 90.16%
Lumens(lm)/Power(W): 113.50
Central intensity(cd): 20065.300
Maximum intensity(cd): 20065.300
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=13.9
 [C90/270]Total=13.9
Field angle(10%Imax): [C0/180]Total=29.5
 [C90/270]Total=29.5
Maximum s/h(1/2): C0_180=0.24 C90_270=0.24
Maximum s/h(1/4): C0_180=0.25 C90_270=0.25
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.16%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.667%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	20065.305	0.000	0	.000%	.000%
1.0	19803.787	19.077	19.077	.692%	.767%
2.0	18827.912	55.448	74.524	2.011%	2.998%
3.0	17534.088	86.966	161.49	3.154%	6.497%
4.0	16011.089	112.286	273.777	4.073%	11.015%
5.0	13637.608	127.547	401.324	4.626%	16.146%
6.0	11827.698	133.827	535.151	4.854%	21.530%
7.0	9923.572	135.010	670.161	4.897%	26.962%
8.0	8168.856	129.484	799.645	4.697%	32.171%
9.0	6489.360	118.797	918.442	4.309%	36.951%
10.0	5155.481	105.382	1023.823	3.822%	41.190%
11.0	3997.301	91.455	1115.278	3.317%	44.870%
12.0	3225.479	78.955	1194.234	2.864%	48.046%
13.0	2658.742	69.831	1264.065	2.533%	50.856%
14.0	2279.060	63.203	1327.268	2.292%	53.398%
15.0	1916.789	57.602	1384.87	2.089%	55.716%
16.0	1694.636	52.917	1437.788	1.919%	57.845%
17.0	1512.537	49.944	1487.732	1.812%	59.854%
18.0	1379.300	47.680	1535.412	1.729%	61.772%
19.0	1287.012	46.388	1581.801	1.683%	63.639%
20.0	1209.520	45.693	1627.494	1.657%	65.477%
21.0	1149.440	45.297	1672.791	1.643%	67.299%
22.0	1112.986	45.464	1718.255	1.649%	69.129%
23.0	1078.300	45.979	1764.235	1.668%	70.978%
24.0	1051.385	46.563	1810.797	1.689%	72.852%
25.0	1028.006	47.281	1858.078	1.715%	74.754%
26.0	1005.736	48.007	1906.085	1.741%	76.685%
27.0	981.002	48.606	1954.691	1.763%	78.641%
28.0	956.584	49.056	2003.746	1.779%	80.614%
29.0	931.692	49.403	2053.149	1.792%	82.602%
30.0	909.126	49.702	2102.851	1.803%	84.602%
31.0	883.401	49.883	2152.734	1.809%	86.608%
32.0	833.740	49.194	2201.928	1.784%	88.588%
33.0	760.239	46.959	2248.887	1.703%	90.477%
34.0	665.756	43.155	2292.042	1.565%	92.213%
35.0	549.766	37.750	2329.792	1.369%	93.732%
36.0	430.837	31.223	2361.014	1.132%	94.988%
37.0	332.355	24.891	2385.905	.903%	95.989%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	223.997	18.570	2404.476	.674%	96.736%
39.0	136.265	12.297	2416.772	.446%	97.231%
40.0	68.084	7.127	2423.899	.259%	97.518%
41.0	38.347	3.790	2427.689	.137%	97.670%
42.0	28.505	2.429	2430.118	.088%	97.768%
43.0	24.768	1.973	2432.091	.072%	97.848%
44.0	22.050	1.767	2433.858	.064%	97.919%
45.0	19.105	1.582	2435.44	.057%	97.982%
46.0	16.600	1.396	2436.836	.051%	98.038%
47.0	14.865	1.251	2438.088	.045%	98.089%
48.0	13.922	1.164	2439.252	.042%	98.136%
49.0	13.585	1.130	2440.381	.041%	98.181%
50.0	13.303	1.121	2441.502	.041%	98.226%
51.0	13.028	1.114	2442.616	.040%	98.271%
52.0	12.814	1.109	2443.725	.040%	98.316%
53.0	12.594	1.105	2444.83	.040%	98.360%
54.0	12.346	1.099	2445.93	.040%	98.404%
55.0	12.174	1.095	2447.024	.040%	98.448%
56.0	12.002	1.092	2448.117	.040%	98.492%
57.0	11.837	1.090	2449.207	.040%	98.536%
58.0	11.693	1.088	2450.295	.039%	98.580%
59.0	11.576	1.088	2451.383	.039%	98.624%
60.0	11.438	1.087	2452.47	.039%	98.667%
61.0	11.342	1.087	2453.557	.039%	98.711%
62.0	11.232	1.088	2454.645	.039%	98.755%
63.0	11.135	1.088	2455.732	.039%	98.799%
64.0	11.025	1.087	2456.82	.039%	98.842%
65.0	10.956	1.088	2457.908	.039%	98.886%
66.0	10.922	1.092	2458.999	.040%	98.930%
67.0	10.860	1.095	2460.095	.040%	98.974%
68.0	10.777	1.096	2461.191	.040%	99.018%
69.0	10.695	1.095	2462.286	.040%	99.062%
70.0	10.653	1.096	2463.382	.040%	99.106%
71.0	10.598	1.098	2464.481	.040%	99.151%
72.0	10.571	1.101	2465.582	.040%	99.195%
73.0	10.543	1.104	2466.686	.040%	99.239%
74.0	10.536	1.108	2467.794	.040%	99.284%
75.0	10.530	1.113	2468.907	.040%	99.329%

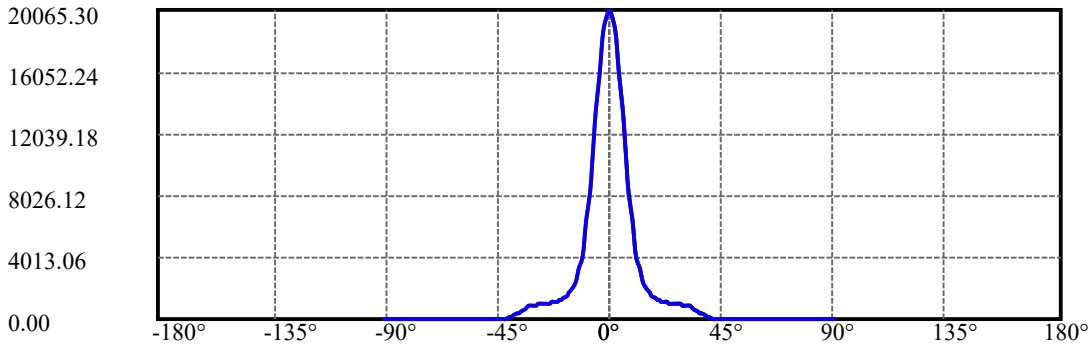
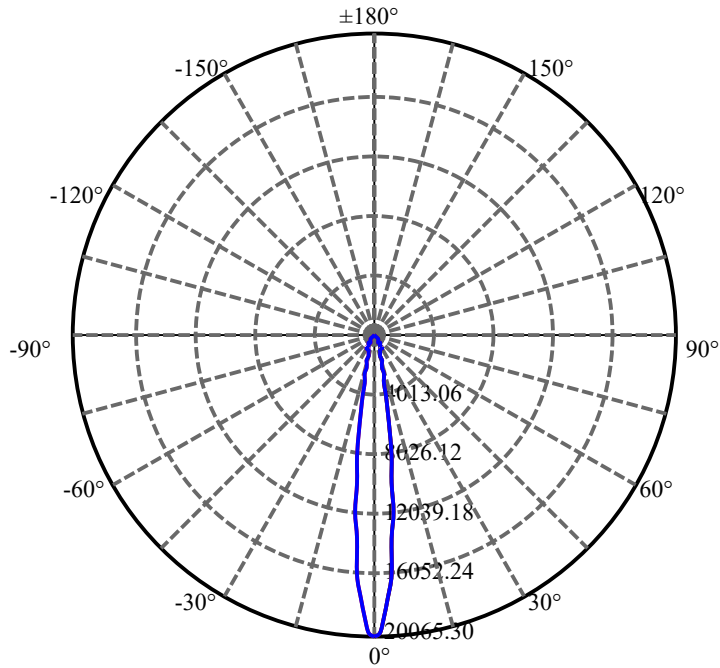
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	10.516	1.117	2470.024	.041%	99.374%
77.0	10.502	1.121	2471.145	.041%	99.419%
78.0	10.468	1.123	2472.267	.041%	99.464%
79.0	10.426	1.123	2473.39	.041%	99.509%
80.0	10.406	1.123	2474.513	.041%	99.554%
81.0	10.351	1.122	2475.635	.041%	99.599%
82.0	10.316	1.121	2476.756	.041%	99.644%
83.0	10.261	1.119	2477.875	.041%	99.689%
84.0	10.206	1.115	2478.99	.040%	99.734%
85.0	10.165	1.112	2480.102	.040%	99.779%
86.0	10.082	1.107	2481.208	.040%	99.824%
87.0	10.041	1.101	2482.31	.040%	99.868%
88.0	10.000	1.098	2483.407	.040%	99.912%
89.0	9.958	1.094	2484.501	.040%	99.956%
90.0	9.958	1.092	2485.593	.040%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2102.85	76.27%	84.60%
0-40	2423.90	87.92%	97.52%
0-60	2452.47	88.95%	98.67%
0-90	2484.50	90.12%	99.96%
0-120	2484.50	90.12%	99.96%
0-180	2485.59	90.16%	100.00%
60-90	33.12	1.20%	1.33%
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%
0-27.69	1988.48	72.12%	80.00%

ZONAL LUMEN SUMMARY

0-10	1023.82
10-20	603.67
20-30	475.36
30-40	321.05
40-50	17.60
50-60	10.97
60-70	10.91
70-80	11.13
80-90	9.99
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: —————

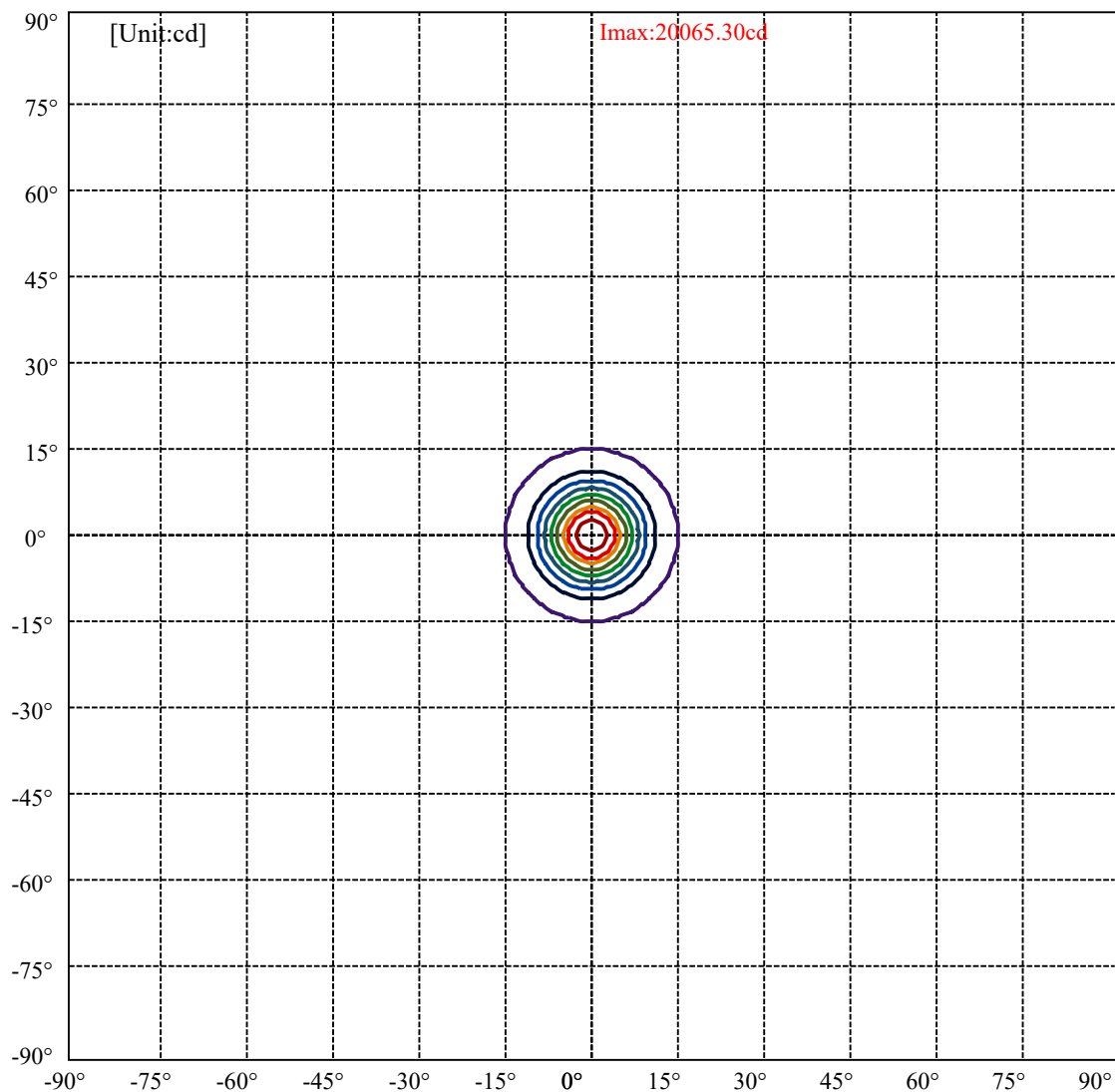
C90/C270: —————

Field angle(10%Imax):C0/180Left:14.8 Right:14.8

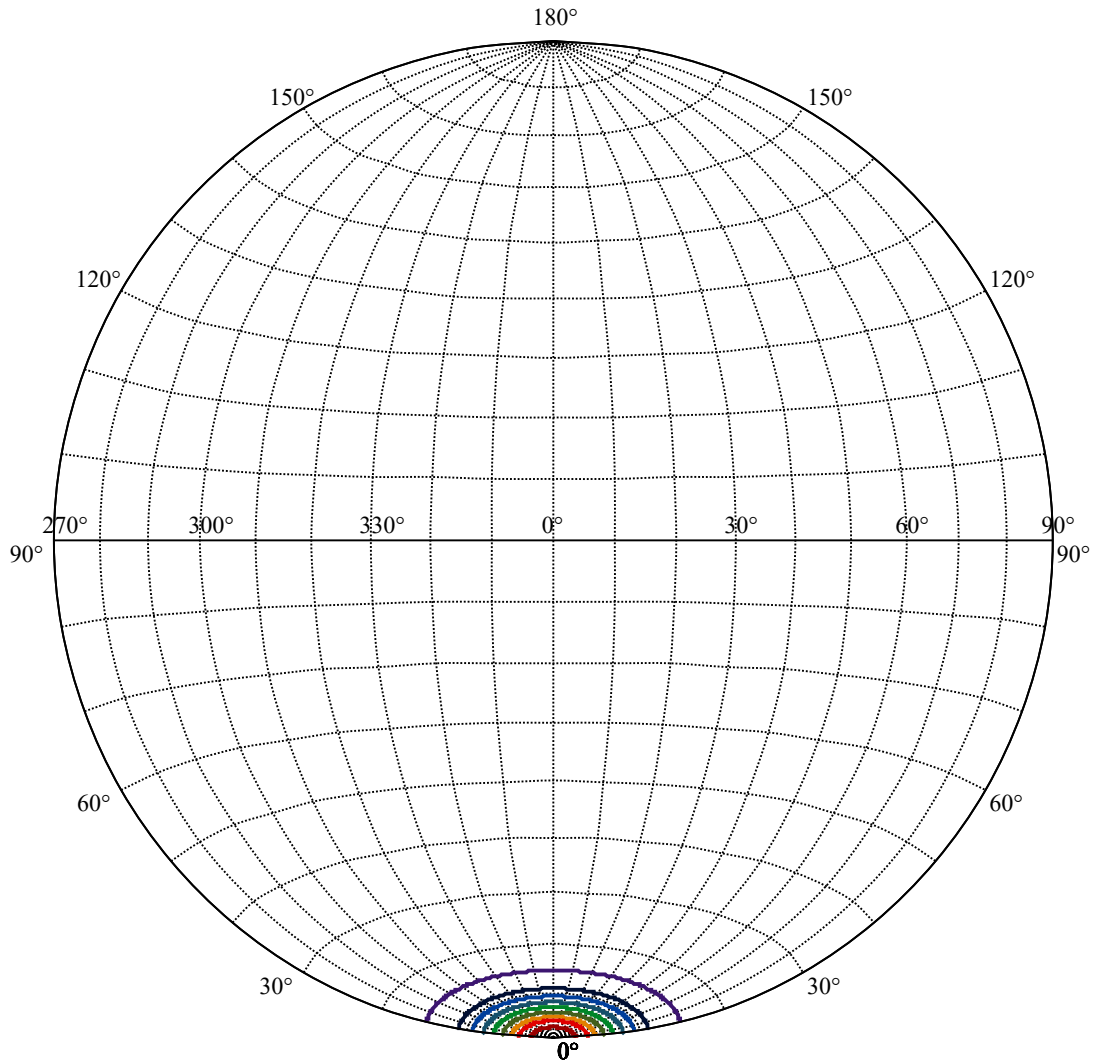
:C90/270Left:14.8 Right:14.8

Beam Angle(50%Imax):C0/180Left:6.9 Right:6.9

:C90/270Left:6.9 Right:6.9



(10%Imax) 2006.53	—
(20%Imax) 4013.06	—
(30%Imax) 6019.59	—
(40%Imax) 8026.12	—
(50%Imax) 10032.7	—
(60%Imax) 12039.2	—
(70%Imax) 14045.7	—
(80%Imax) 16052.2	—
(90%Imax) 18058.8	—



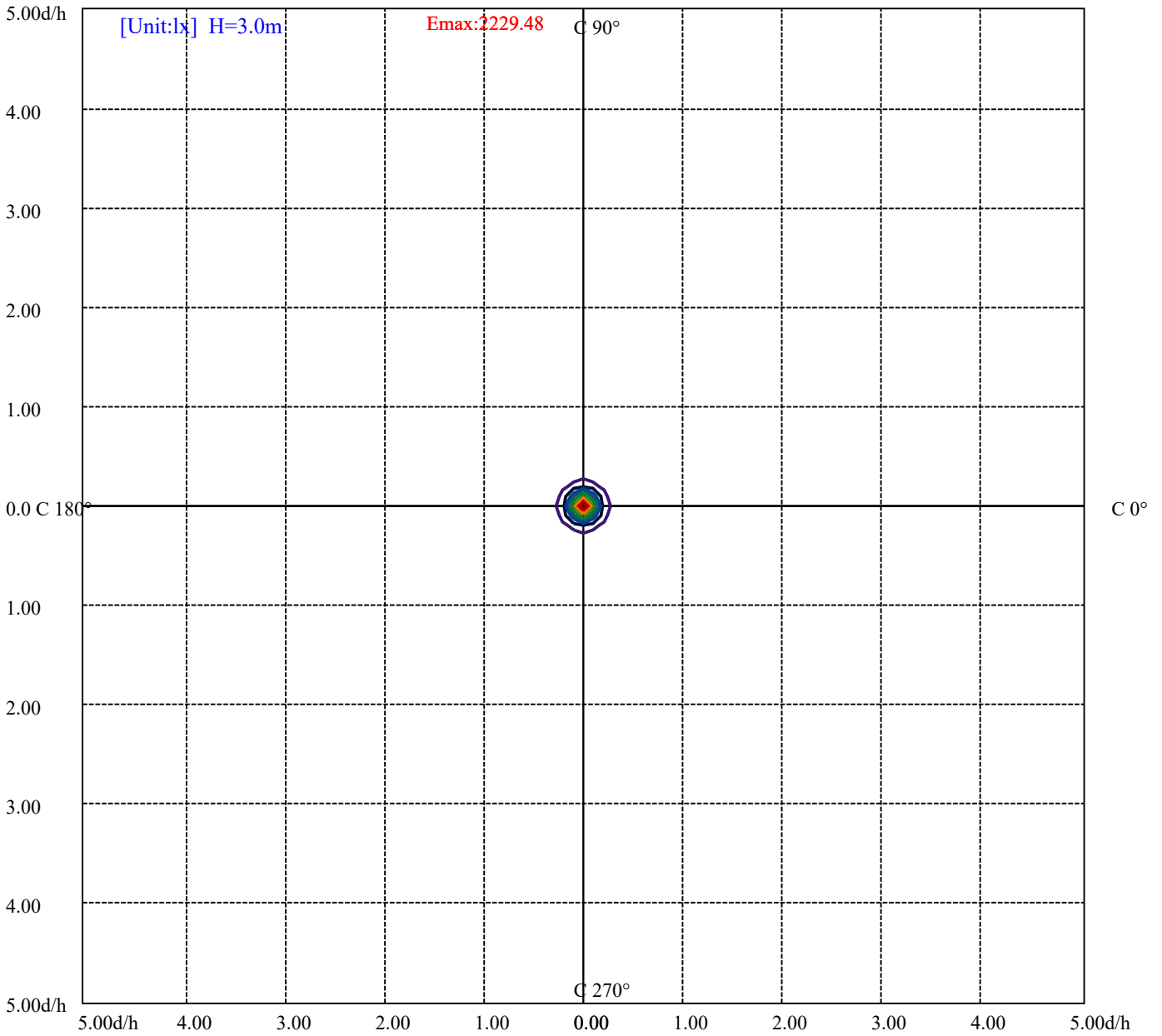
House

[Unit:cd]

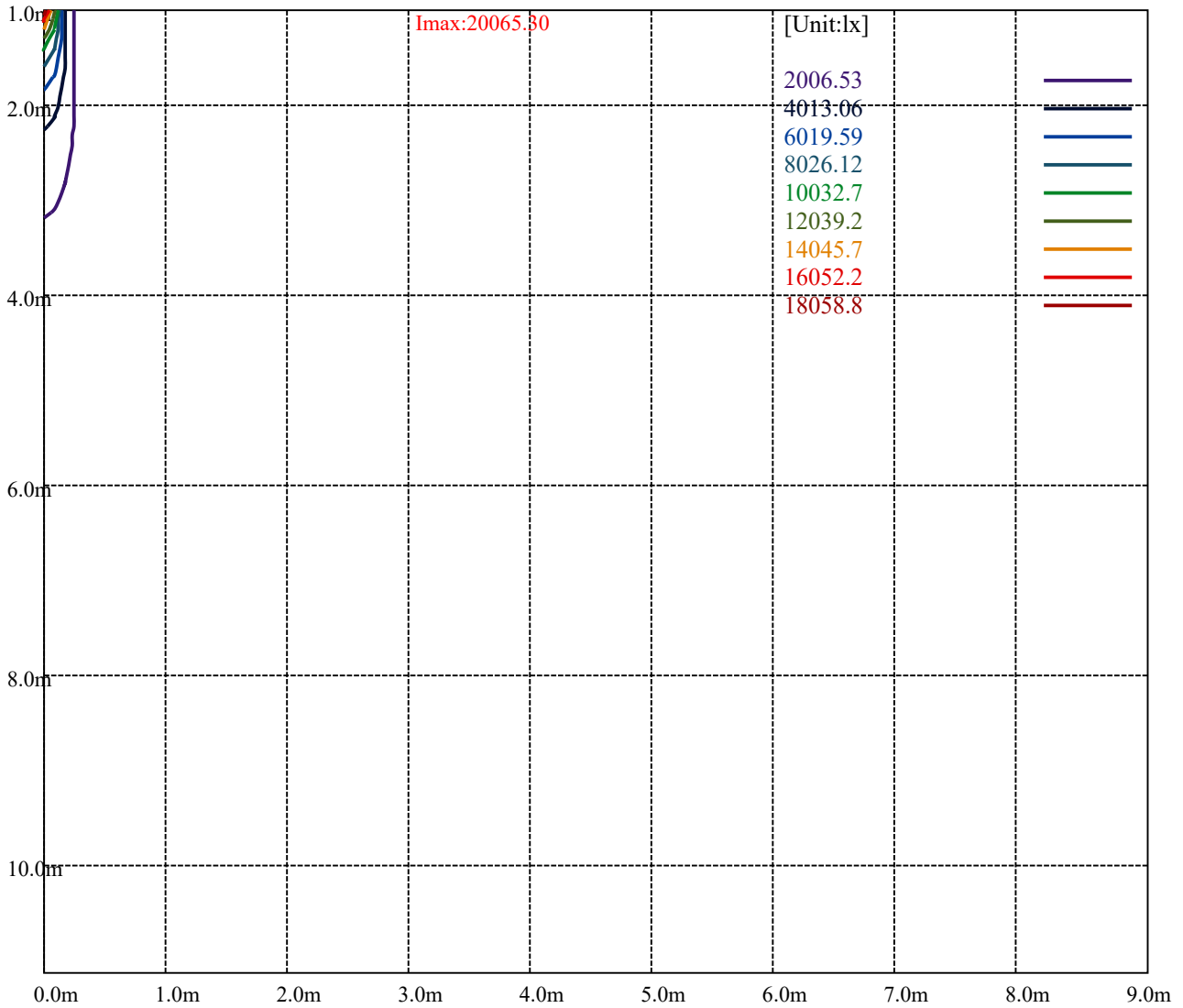
Road

Imax:20065.30

(10%Imax)	2006.53	—
(20%Imax)	4013.06	—
(30%Imax)	6019.59	—
(40%Imax)	8026.12	—
(50%Imax)	10032.7	—
(60%Imax)	12039.2	—
(70%Imax)	14045.7	—
(80%Imax)	16052.2	—
(90%Imax)	18058.8	—



- (10%Emax) 222.9478
- (20%Emax) 445.8944
- (30%Emax) 668.8422
- (40%Emax) 891.79
- (50%Emax) 1114.733
- (60%Emax) 1337.689
- (70%Emax) 1560.633
- (80%Emax) 1783.578
- (90%Emax) 2006.522



Luminance Table

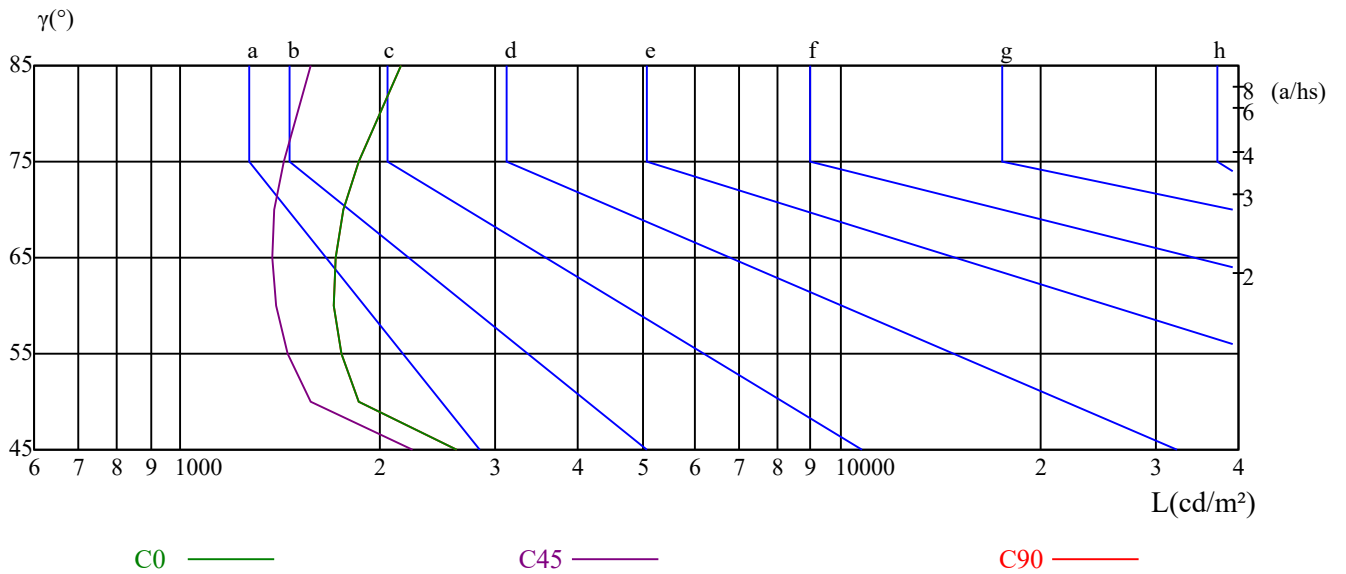
γ	45	50	55	60	65	70	75	80	85
C0	2624	1864	1754	1710	1715	1764	1866	1999	2151
C45	2244	1570	1455	1395	1375	1387	1437	1503	1572
C90	2624	1864	1754	1710	1715	1764	1866	1999	2151

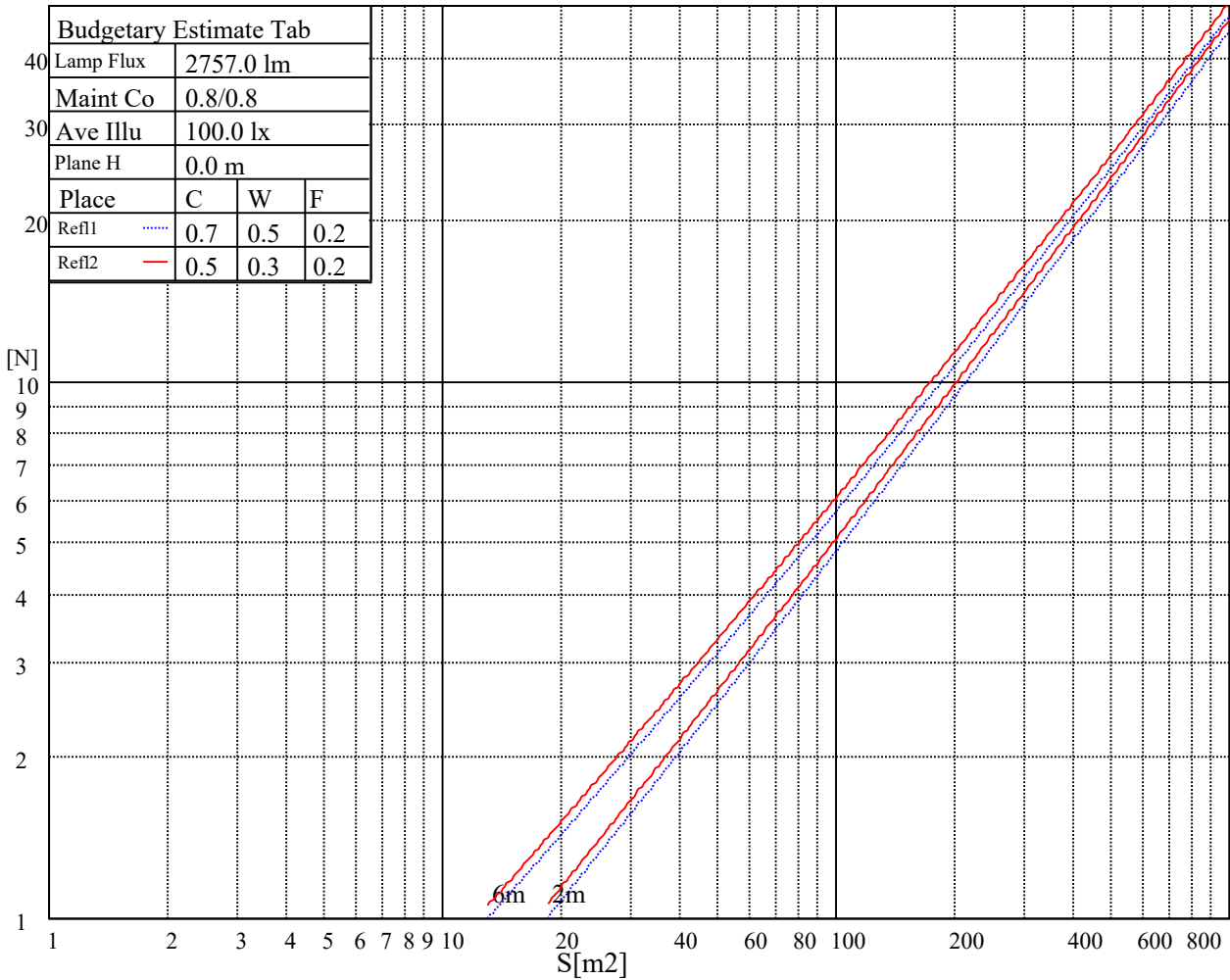
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4261	4261	4261	6687	6687	6687	19170	19170	19170

Glare Table

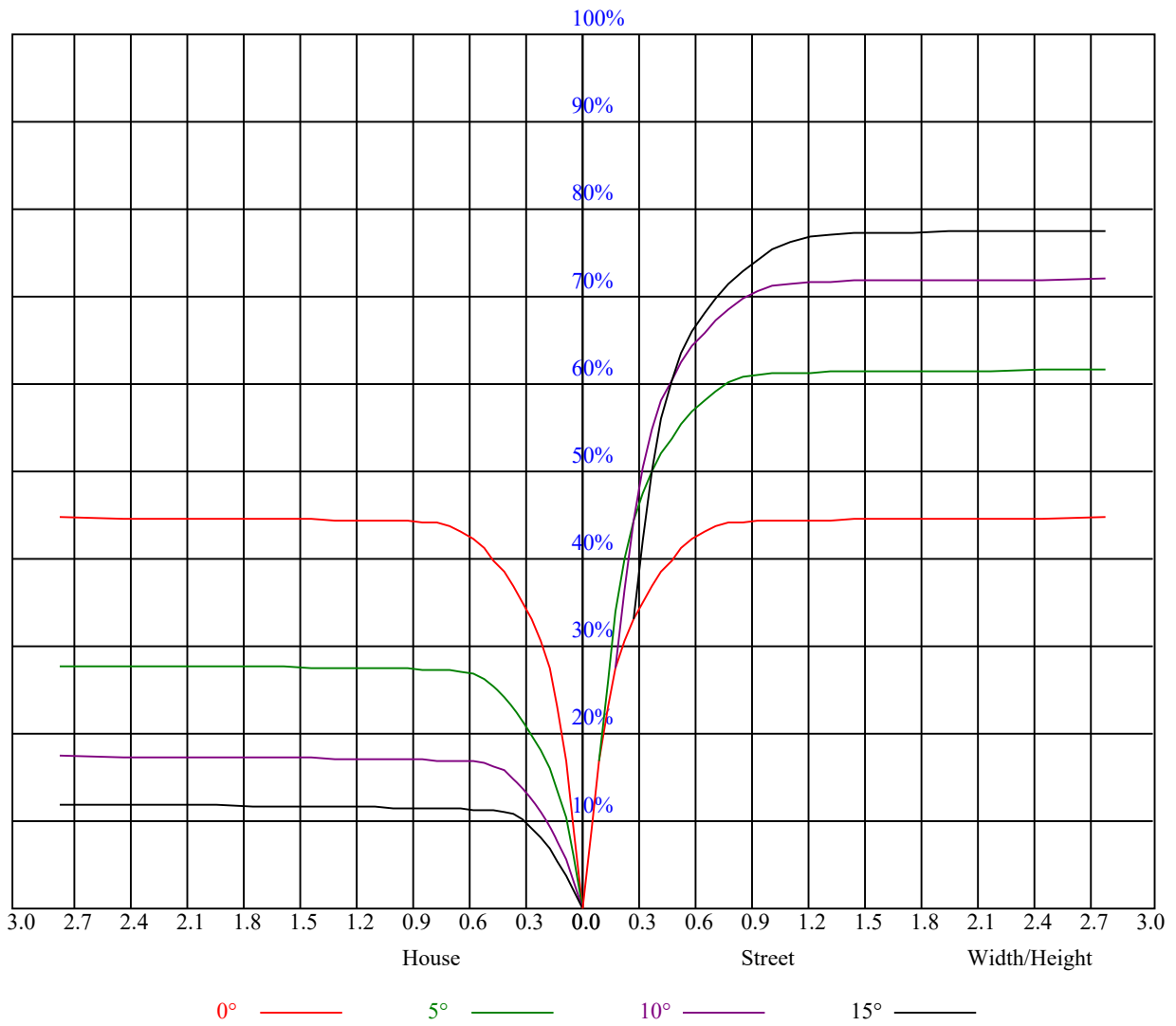
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.07	1.07	1.07	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	1.01	0.99	0.98	0.99	0.98	0.96	0.96	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.88	0.86
2	0.96	0.93	0.91	0.94	0.92	0.90	0.92	0.89	0.88	0.89	0.87	0.86	0.87	0.85	0.84	0.83
3	0.91	0.88	0.85	0.90	0.87	0.84	0.88	0.85	0.83	0.86	0.84	0.82	0.84	0.82	0.81	0.79
4	0.87	0.84	0.81	0.86	0.83	0.80	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.78	0.76
5	0.84	0.80	0.77	0.83	0.79	0.77	0.82	0.78	0.76	0.80	0.78	0.75	0.79	0.77	0.75	0.74
6	0.81	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.73	0.78	0.75	0.73	0.77	0.74	0.72	0.71
7	0.78	0.74	0.71	0.77	0.74	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.74	0.72	0.70	0.69
8	0.75	0.71	0.69	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.68	0.72	0.70	0.68	0.67
9	0.73	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.71	0.68	0.66	0.65
10	0.71	0.67	0.64	0.70	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.69	0.66	0.64	0.63



Intensity data(cd)

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	20123.11	20001.99	19110.08	17871.31	16307.71	14006.35	12095.89	10257.01	8330.03
45.0	19968.96	20354.35	20128.62	19335.81	18295.24	16186.58	14369.72	12662.97	10295.55
90.0	20227.72	20480.98	20057.05	19159.63	17871.31	15856.24	13978.82	10755.82	10047.24
135.0	19941.43	20238.73	19968.96	19049.51	17975.91	16054.45	14011.85	12299.60	9943.19
180.0	20123.11	19721.20	18697.15	17177.60	15520.40	13461.29	10791.60	9392.62	7465.65
225.0	19968.96	19055.02	17529.96	15652.53	13791.63	10600.01	9698.18	7789.38	6286.34
270.0	20227.72	19467.94	17865.80	16203.10	14336.69	12112.41	9976.22	8230.93	6502.16
315.0	19941.43	19110.08	17265.69	15823.21	13989.83	10823.54	9699.29	8000.25	6480.69
360.0	20123.11	20001.99	19110.08	17871.31	16307.71	14006.35	12095.89	10257.01	8330.03
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	6606.77	5274.40	4068.67	3308.89	2818.89	2264.47	1973.22	1724.92	1538.83
45.0	8335.54	6915.08	5142.27	4030.13	3231.81	2796.87	2189.59	1873.02	1657.20
90.0	8047.04	6261.56	4910.48	3739.98	2950.47	2469.28	2080.03	1829.52	1617.56
135.0	8208.91	6601.26	4866.99	3809.90	3072.15	2791.36	2100.40	1835.58	1635.79
180.0	5959.30	4544.36	3519.76	2908.08	2469.83	2067.37	1826.22	1636.28	1480.47
225.0	4844.96	3747.14	3078.75	2550.21	2195.65	1895.04	1668.21	1507.44	1381.37
270.0	5043.17	4013.61	3198.78	2807.88	2279.89	1963.31	1744.74	1566.91	1393.48
315.0	4869.19	3886.43	3192.72	2648.76	2251.26	1984.78	1751.89	1583.42	1427.61
360.0	6606.77	5274.40	4068.67	3308.89	2818.89	2264.47	1973.22	1724.92	1538.83
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1411.65	1320.25	1237.12	1186.47	1146.82	1107.18	1079.66	1055.43	1028.45
45.0	1499.74	1377.51	1259.69	1190.87	1140.22	1094.52	1066.99	1043.87	1021.30
90.0	1455.69	1345.03	1261.89	1187.02	1142.42	1096.06	1069.58	1046.51	1025.70
135.0	1462.30	1346.68	1254.74	1180.41	1133.61	1093.42	1067.54	1041.67	1019.64
180.0	1322.45	1231.06	1161.14	1096.39	1077.12	1050.64	1025.21	1003.02	984.57
225.0	1272.90	1210.69	1161.69	1097.60	1079.22	1053.89	1028.73	1005.33	984.90
270.0	1293.83	1221.15	1156.18	1118.75	1088.47	1060.39	1036.16	1015.79	992.67
315.0	1315.85	1243.72	1183.71	1138.02	1096.01	1070.30	1037.21	1012.43	988.65
360.0	1411.65	1320.25	1237.12	1186.47	1146.82	1107.18	1079.66	1055.43	1028.45
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1000.93	970.64	944.77	918.34	893.57	864.94	801.07	701.42	588.55
45.0	998.72	978.35	948.62	927.15	904.03	881.45	850.62	770.24	665.63
90.0	1003.40	980.33	955.39	929.41	907.71	885.20	838.78	761.15	653.79
135.0	1002.58	982.21	956.33	935.96	917.24	893.57	847.32	767.49	646.91
180.0	963.60	940.36	917.74	895.16	875.45	819.57	727.24	628.41	521.16
225.0	956.44	933.54	910.96	891.09	856.73	772.06	661.83	552.22	439.79
270.0	965.14	938.71	913.94	893.01	859.43	779.05	685.45	578.64	440.45
315.0	957.21	928.53	905.79	882.88	853.04	774.09	669.60	566.48	441.83
360.0	1000.93	970.64	944.77	918.34	893.57	864.94	801.07	701.42	588.55
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	479.54	367.78	284.09	136.26	68.05	35.68	31.27	25.55	21.36
45.0	560.47	450.36	313.27	287.39	120.63	55.88	30.01	27.42	24.67
90.0	535.53	425.70	314.43	185.26	101.85	44.71	31.55	28.74	25.82
135.0	540.65	427.24	303.36	229.25	107.03	44.76	34.30	30.34	25.60
180.0	385.89	282.27	188.07	99.21	43.00	34.19	29.18	22.46	20.59
225.0	299.62	200.07	115.51	46.91	36.12	31.27	23.51	21.31	19.10
270.0	329.24	289.60	143.75	54.67	35.13	31.66	24.67	21.75	20.32
315.0	315.75	215.82	129.49	51.15	32.87	28.63	23.56	20.59	18.94
360.0	479.54	367.78	284.09	136.26	68.05	35.68	31.27	25.55	21.36

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	19.10	16.90	15.25	13.82	13.43	13.16	12.88	12.66	12.44
45.0	21.86	18.28	14.70	13.98	13.54	13.27	12.99	12.77	12.55
90.0	23.07	18.88	16.30	13.98	13.60	13.32	13.05	12.83	12.61
135.0	23.12	19.66	15.64	14.20	13.82	13.49	13.16	12.94	12.72
180.0	16.57	14.87	14.09	13.65	13.38	13.10	12.88	12.66	12.44
225.0	17.40	14.65	14.15	13.76	13.54	13.27	13.05	12.88	12.72
270.0	15.86	14.92	14.59	14.15	13.82	13.54	13.27	13.05	12.77
315.0	15.86	14.65	14.20	13.82	13.54	13.27	12.94	12.72	12.50
360.0	19.10	16.90	15.25	13.82	13.43	13.16	12.88	12.66	12.44
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	12.22	12.06	11.84	11.67	11.56	11.45	11.29	11.23	11.12
45.0	12.28	12.11	11.89	11.78	11.62	11.51	11.34	11.29	11.18
90.0	12.33	12.11	11.95	11.78	11.67	11.56	11.40	11.29	11.18
135.0	12.44	12.28	12.11	11.89	11.73	11.62	11.51	11.34	11.29
180.0	12.22	12.06	11.95	11.78	11.62	11.51	11.40	11.29	11.12
225.0	12.50	12.33	12.22	12.00	11.84	11.67	11.56	11.51	11.34
270.0	12.50	12.33	12.17	12.00	11.89	11.78	11.62	11.56	11.51
315.0	12.28	12.11	11.89	11.78	11.62	11.51	11.40	11.23	11.12
360.0	12.22	12.06	11.84	11.67	11.56	11.45	11.29	11.23	11.12
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	11.01	10.85	10.79	10.74	10.68	10.63	10.57	10.52	10.46
45.0	11.07	10.96	10.96	10.90	10.85	10.79	10.79	10.74	10.68
90.0	11.07	11.01	10.90	10.85	10.74	10.68	10.57	10.57	10.46
135.0	11.12	11.01	10.96	10.90	10.79	10.74	10.63	10.57	10.52
180.0	11.07	10.96	10.85	10.74	10.68	10.63	10.57	10.52	10.46
225.0	11.29	11.18	11.07	11.18	11.18	10.85	10.68	10.63	10.52
270.0	11.40	11.29	11.23	11.23	11.18	11.18	11.12	11.12	11.18
315.0	11.07	10.96	10.90	10.85	10.79	10.74	10.63	10.57	10.52
360.0	11.01	10.85	10.79	10.74	10.68	10.63	10.57	10.52	10.46
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	10.41	10.35	10.35	10.30	10.24	10.24	10.19	10.19	10.19
45.0	10.57	10.52	10.46	10.41	10.35	10.35	10.30	10.30	10.30
90.0	10.41	10.35	10.30	10.30	10.30	10.24	10.19	10.19	10.19
135.0	10.52	10.46	10.41	10.41	10.35	10.30	10.24	10.19	10.13
180.0	10.41	10.35	10.30	10.24	10.19	10.19	10.19	10.13	10.13
225.0	10.46	10.41	10.41	10.35	10.35	10.30	10.24	10.24	10.24
270.0	11.29	11.45	11.62	11.84	11.95	12.06	12.06	11.95	11.84
315.0	10.52	10.46	10.46	10.41	10.41	10.35	10.35	10.24	10.24
360.0	10.41	10.35	10.35	10.30	10.24	10.24	10.19	10.19	10.19
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	10.13	10.13	10.13	10.08	10.02	10.02	10.02	9.97	9.91
45.0	10.24	10.30	10.30	10.30	10.24	10.24	10.24	10.19	10.02
90.0	10.19	10.13	10.13	10.13	10.08	10.02	10.02	10.02	9.97
135.0	10.13	10.13	10.08	10.08	10.08	10.02	10.02	10.08	10.02
180.0	10.08	10.08	10.08	10.02	10.02	10.02	10.02	9.91	9.91
225.0	10.24	10.24	10.19	10.19	10.19	10.13	10.02	9.97	10.02
270.0	11.62	11.34	11.01	10.74	10.63	10.13	10.02	9.97	9.97
315.0	10.19	10.19	10.19	10.13	10.08	10.08	9.97	9.91	9.86
360.0	10.13	10.13	10.13	10.08	10.02	10.02	10.02	9.97	9.91

Intensity data(cd)

C/ γ (°)	90.0
0.0	9.91
45.0	10.02
90.0	9.97
135.0	9.91
180.0	9.91
225.0	10.02
270.0	9.97
315.0	9.97
360.0	9.91