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LumCAT: 2-1777-L  
Luminaire: 92.70.131.00  
Report No: NATA0100  
Test No: GC2019120408  
LampCAT: TRIDONIC SLE G7 15MM  
Lamp flux(lm): 2031.7  
Number of Lamps: 1  
Length(mm): 0  
Phm Type: C

Voltage(V): 34.0800  
Current(A): 0.4470  
Power (W): 15.2300  
PF: 1.0000  
Ballast type: DC  
Width(mm): 0  
Height(mm): 0

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### Photometric Results

Lumens(lm): 1934.47  
Efficiency(%): 95.22%  
Lumens(lm)/Power(W): 127.02  
Central intensity(cd): 10571.770  
Maximum intensity(cd): 10571.770  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=18.1  
                                  [C90/270]Total=18.1  
Field angle(10%Imax): [C0/180]Total=41.0  
                                  [C90/270]Total=41.0  
Maximum s/h(1/2): C0\_180=0.31 C90\_270=0.31  
Maximum s/h(1/4): C0\_180=0.32 C90\_270=0.32  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 95.22%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 98.316%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	10571.766	0.000	0	.000%	.000%
1.0	10519.031	10.092	10.092	.497%	.522%
2.0	10397.813	30.022	40.113	1.478%	2.074%
3.0	10197.492	49.257	89.371	2.424%	4.620%
4.0	9868.430	67.167	156.538	3.306%	8.092%
5.0	9360.844	82.723	239.261	4.072%	12.368%
6.0	8505.352	93.892	333.153	4.621%	17.222%
7.0	7476.609	99.200	432.352	4.883%	22.350%
8.0	6440.273	99.600	531.953	4.902%	27.499%
9.0	5322.656	95.332	627.285	4.692%	32.427%
10.0	4394.672	87.938	715.223	4.328%	36.973%
11.0	3720.586	81.088	796.311	3.991%	41.164%
12.0	3133.336	74.923	871.235	3.688%	45.037%
13.0	2631.445	68.413	939.648	3.367%	48.574%
14.0	2283.820	62.915	1002.563	3.097%	51.826%
15.0	1976.203	58.484	1061.046	2.879%	54.849%
16.0	1721.109	54.176	1115.222	2.667%	57.650%
17.0	1502.016	50.193	1165.415	2.471%	60.245%
18.0	1339.523	46.851	1212.266	2.306%	62.667%
19.0	1181.566	43.862	1256.128	2.159%	64.934%
20.0	1103.379	41.821	1297.949	2.058%	67.096%
21.0	1012.802	40.635	1338.584	2.000%	69.196%
22.0	941.927	39.281	1377.865	1.933%	71.227%
23.0	888.834	38.414	1416.279	1.891%	73.213%
24.0	836.536	37.723	1454.002	1.857%	75.163%
25.0	793.216	37.057	1491.059	1.824%	77.078%
26.0	760.823	36.683	1527.742	1.806%	78.975%
27.0	729.886	36.471	1564.213	1.795%	80.860%
28.0	697.760	36.145	1600.358	1.779%	82.729%
29.0	673.193	35.868	1636.226	1.765%	84.583%
30.0	635.210	35.327	1671.552	1.739%	86.409%
31.0	574.854	33.674	1705.227	1.657%	88.150%
32.0	514.216	31.201	1736.427	1.536%	89.762%
33.0	453.909	28.521	1764.948	1.404%	91.237%
34.0	387.274	25.457	1790.405	1.253%	92.553%
35.0	319.289	21.943	1812.348	1.080%	93.687%
36.0	266.203	18.642	1830.991	.918%	94.651%
37.0	195.764	15.067	1846.057	.742%	95.430%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	143.023	11.308	1857.366	.557%	96.014%
39.0	93.171	8.062	1865.428	.397%	96.431%
40.0	52.657	5.086	1870.514	.250%	96.694%
41.0	33.616	3.072	1873.586	.151%	96.853%
42.0	28.111	2.243	1875.828	.110%	96.969%
43.0	24.813	1.960	1877.789	.096%	97.070%
44.0	22.423	1.783	1879.572	.088%	97.162%
45.0	20.855	1.663	1881.235	.082%	97.248%
46.0	19.814	1.590	1882.825	.078%	97.330%
47.0	19.104	1.548	1884.373	.076%	97.410%
48.0	18.295	1.512	1885.885	.074%	97.488%
49.0	17.529	1.471	1887.356	.072%	97.565%
50.0	16.840	1.433	1888.789	.071%	97.639%
51.0	16.256	1.400	1890.189	.069%	97.711%
52.0	15.659	1.369	1891.559	.067%	97.782%
53.0	15.188	1.342	1892.901	.066%	97.851%
54.0	14.695	1.317	1894.218	.065%	97.919%
55.0	14.302	1.294	1895.512	.064%	97.986%
56.0	14.070	1.282	1896.794	.063%	98.052%
57.0	13.823	1.275	1898.069	.063%	98.118%
58.0	13.598	1.268	1899.338	.062%	98.184%
59.0	13.521	1.268	1900.605	.062%	98.249%
60.0	13.535	1.278	1901.884	.063%	98.316%
61.0	13.409	1.286	1903.169	.063%	98.382%
62.0	13.268	1.285	1904.455	.063%	98.448%
63.0	12.867	1.271	1905.726	.063%	98.514%
64.0	12.038	1.222	1906.948	.060%	98.577%
65.0	11.517	1.166	1908.114	.057%	98.638%
66.0	11.081	1.128	1909.241	.055%	98.696%
67.0	10.856	1.103	1910.344	.054%	98.753%
68.0	10.659	1.090	1911.434	.054%	98.809%
69.0	10.540	1.081	1912.516	.053%	98.865%
70.0	10.448	1.078	1913.594	.053%	98.921%
71.0	10.350	1.075	1914.669	.053%	98.976%
72.0	10.252	1.071	1915.74	.053%	99.032%
73.0	10.174	1.068	1916.808	.053%	99.087%
74.0	10.104	1.066	1917.874	.052%	99.142%
75.0	10.013	1.063	1918.937	.052%	99.197%

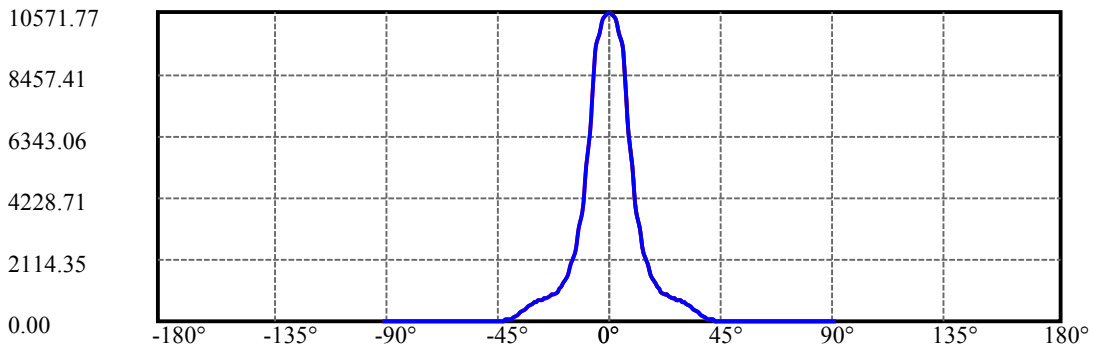
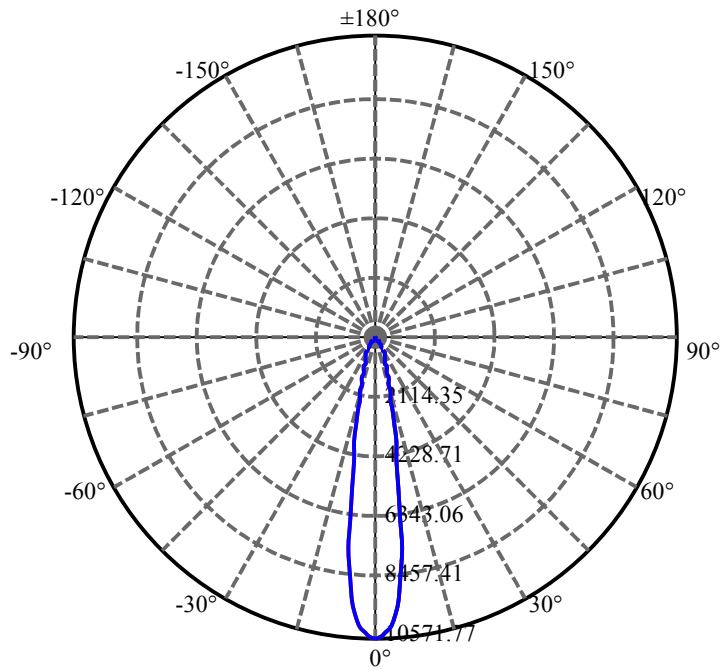
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	9.963	1.060	1919.997	.052%	99.252%
77.0	9.893	1.059	1921.056	.052%	99.307%
78.0	9.837	1.056	1922.112	.052%	99.361%
79.0	9.759	1.053	1923.165	.052%	99.416%
80.0	9.703	1.049	1924.214	.052%	99.470%
81.0	9.668	1.048	1925.262	.052%	99.524%
82.0	9.605	1.045	1926.307	.051%	99.578%
83.0	9.563	1.042	1927.349	.051%	99.632%
84.0	9.506	1.039	1928.388	.051%	99.686%
85.0	9.422	1.033	1929.421	.051%	99.739%
86.0	9.359	1.027	1930.447	.051%	99.792%
87.0	9.232	1.017	1931.465	.050%	99.845%
88.0	9.176	1.008	1932.473	.050%	99.897%
89.0	9.091	1.001	1933.474	.049%	99.949%
90.0	9.056	0.995	1934.469	.049%	100.000%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1671.55	82.28%	86.41%
0-40	1870.51	92.07%	96.69%
0-60	1901.88	93.61%	98.32%
0-90	1933.47	95.17%	99.95%
0-120	1933.47	95.17%	99.95%
0-180	1934.47	95.22%	100.00%
60-90	32.87	1.62%	1.70%
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%
0-26.54	1547.58	76.17%	80.00%

## ZONAL LUMEN SUMMARY

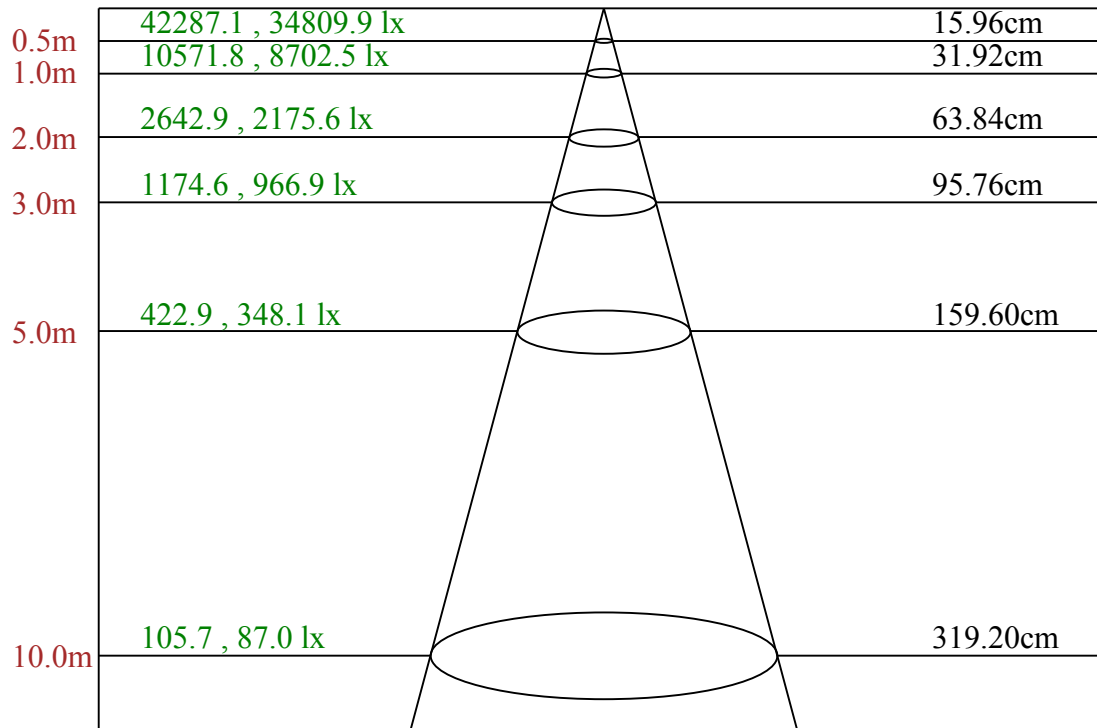
0-10	715.22
10-20	582.73
20-30	373.60
30-40	198.96
40-50	18.28
50-60	13.09
60-70	11.71
70-80	10.62
80-90	9.26
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



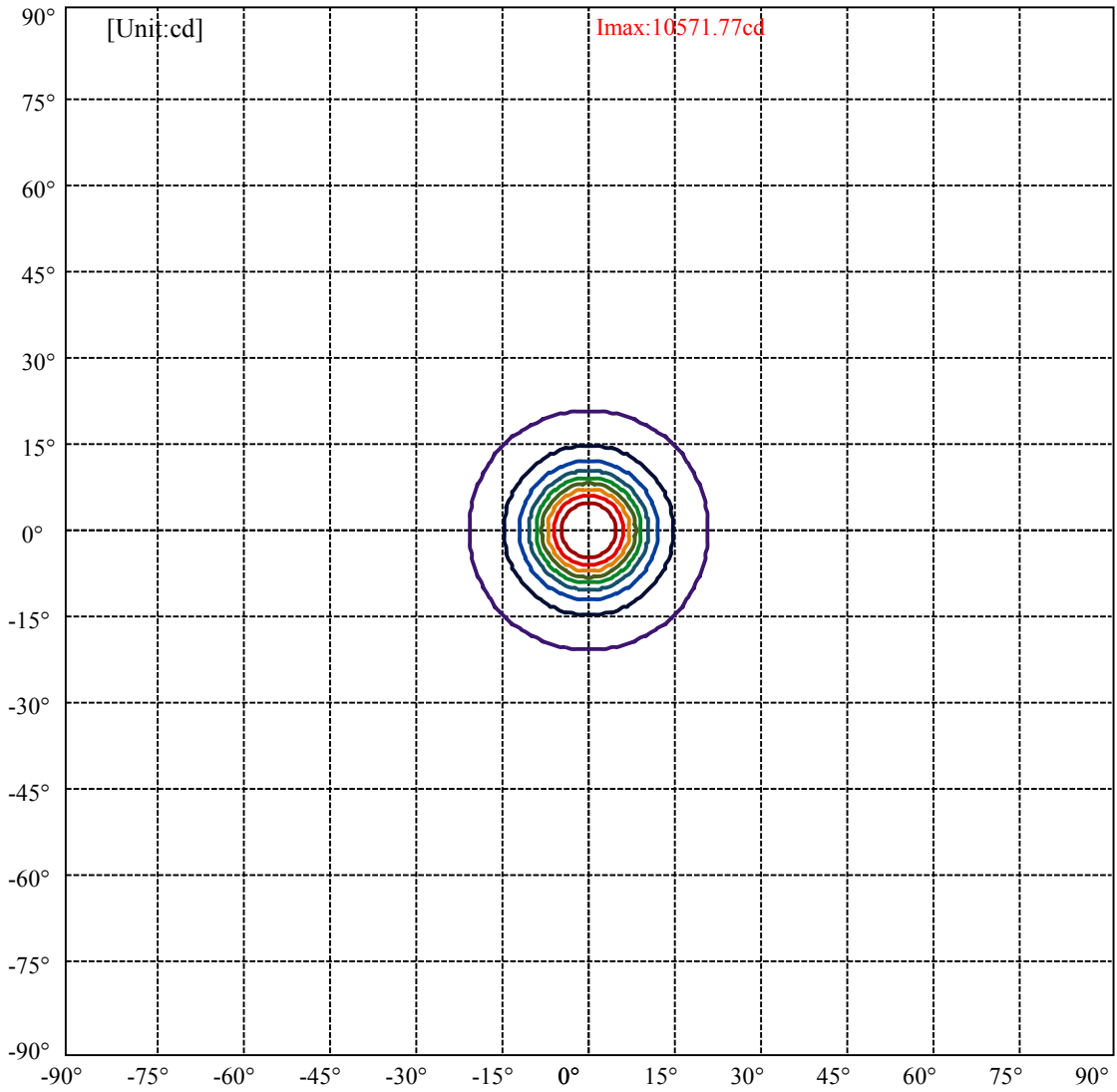
C0(Max): —————  
C0/C180: —————  
C90/C270: —————

Field angle(10%Imax):C0/180Left:20.5 Right:20.5  
:C90/270Left:20.5 Right:20.5

Beam Angle(50%Imax):C0/180Left:9.0 Right:9.0  
:C90/270Left:9.0 Right:9.0

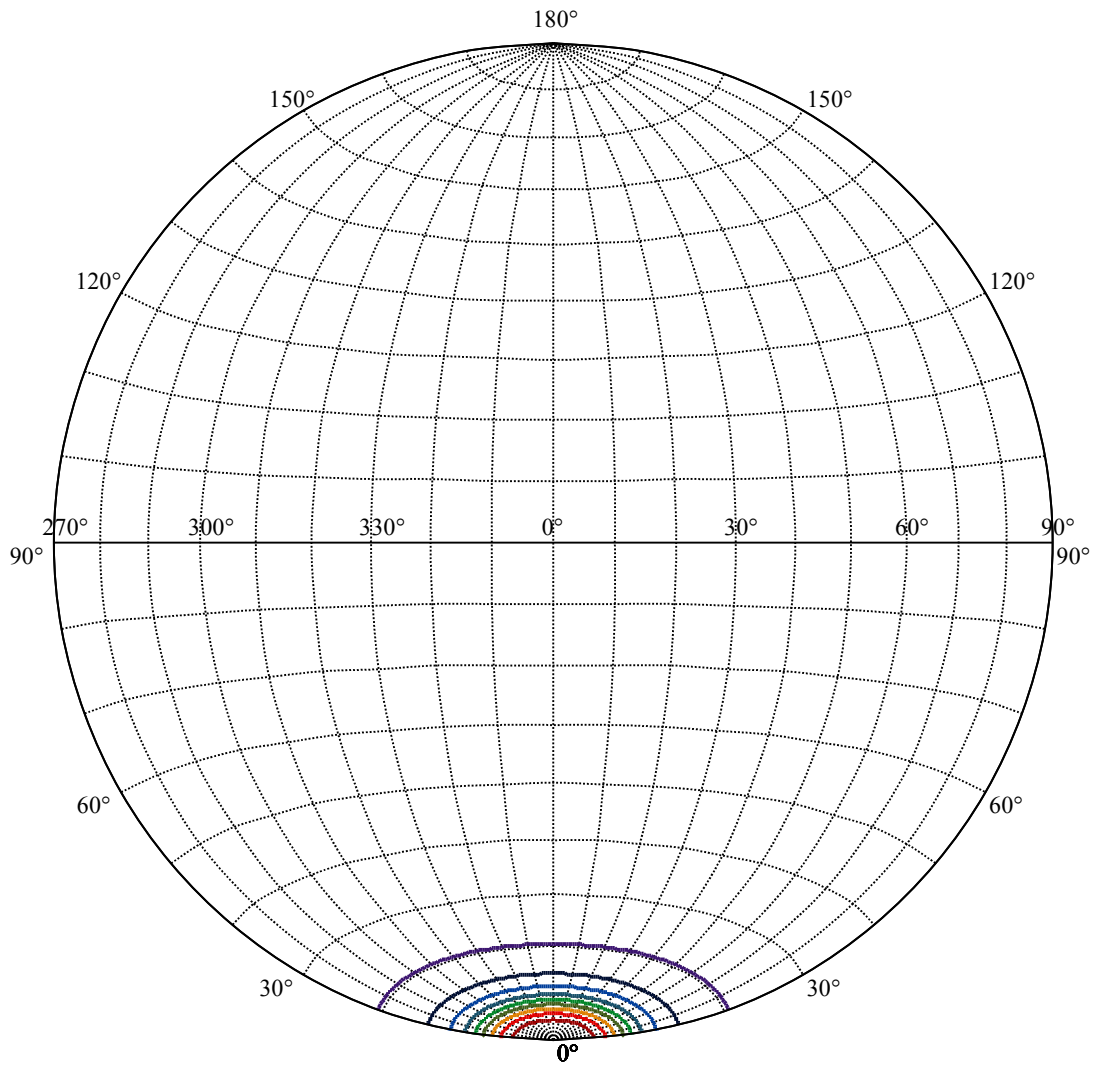


Max , Ave      Beam angle of C0 plane 18.14



(10%Imax) 1057.18	—
(20%Imax) 2114.35	—
(30%Imax) 3171.53	—
(40%Imax) 4228.71	—
(50%Imax) 5285.88	—
(60%Imax) 6343.06	—
(70%Imax) 7400.24	—
(80%Imax) 8457.41	—
(90%Imax) 9514.59	—





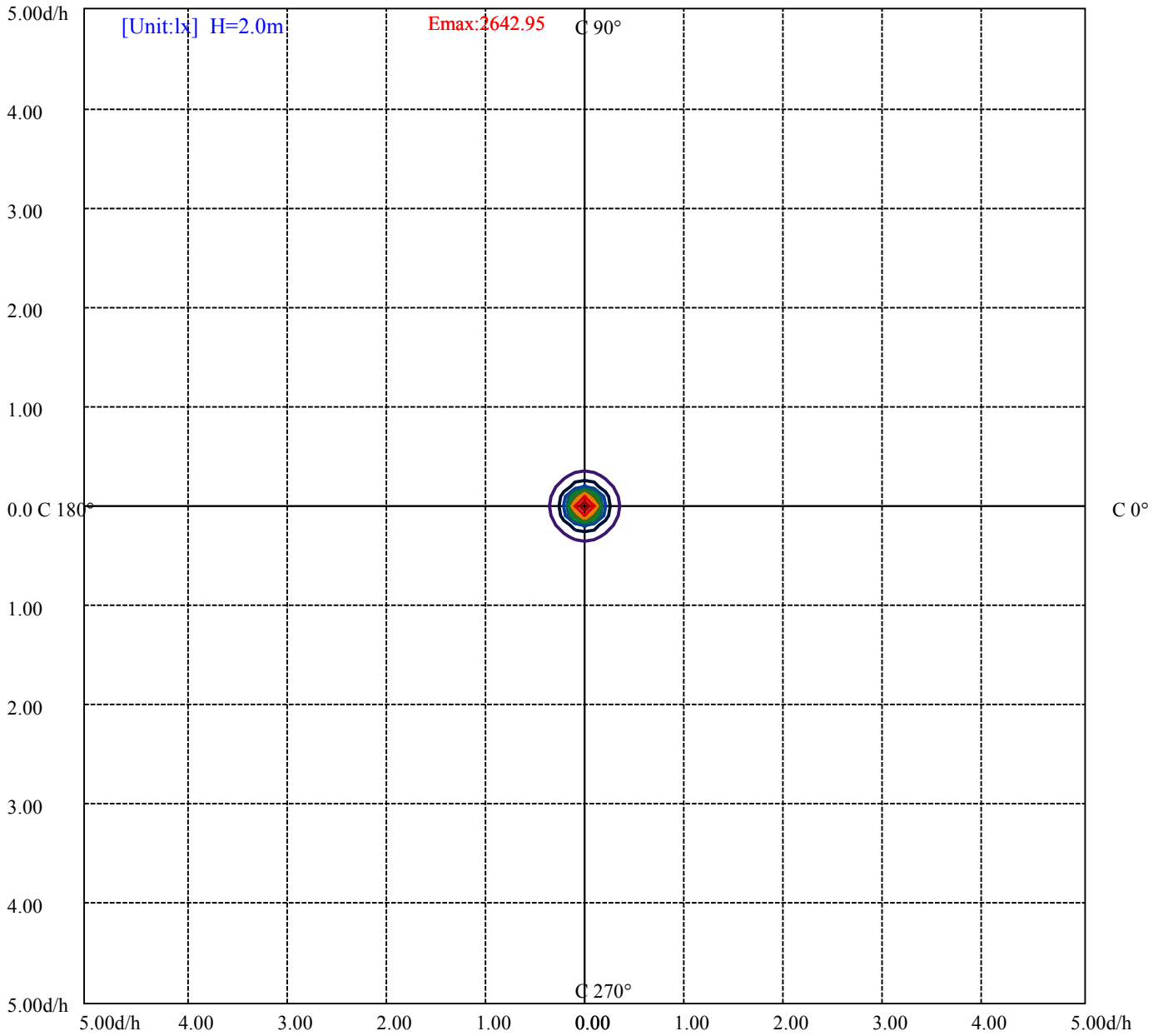
House

[Unit:cd]

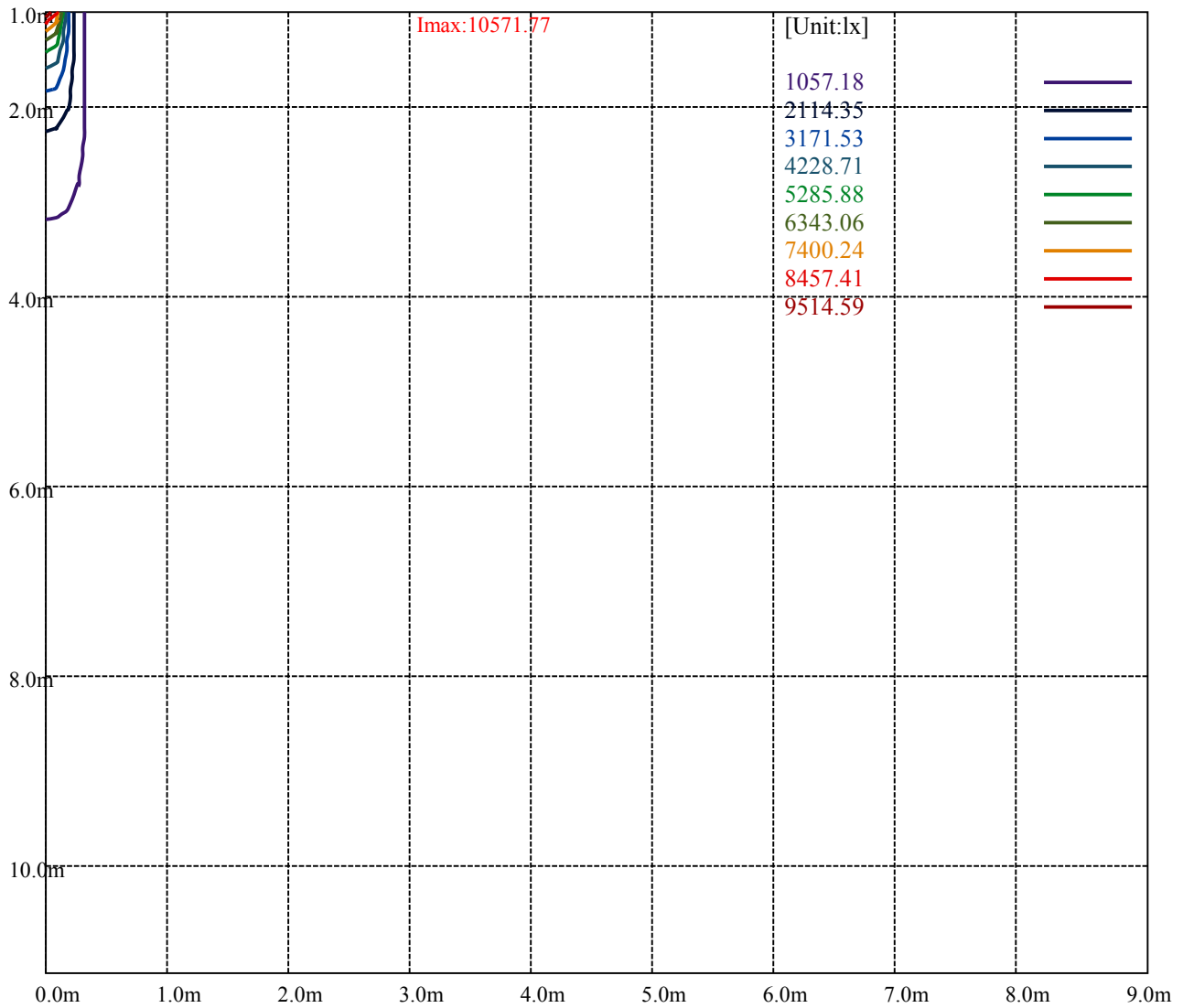
Road

**Imax:10571.77**

(10%Imax) 1057.18	—
(20%Imax) 2114.35	—
(30%Imax) 3171.53	—
(40%Imax) 4228.71	—
(50%Imax) 5285.88	—
(60%Imax) 6343.06	—
(70%Imax) 7400.24	—
(80%Imax) 8457.41	—
(90%Imax) 9514.59	—



(10%Emax) 264.295	—
(20%Emax) 528.5875	—
(30%Emax) 792.8825	—
(40%Emax) 1057.175	—
(50%Emax) 1321.47	—
(60%Emax) 1585.762	—
(70%Emax) 1850.057	—
(80%Emax) 2114.353	—
(90%Emax) 2378.645	—



Luminance Table

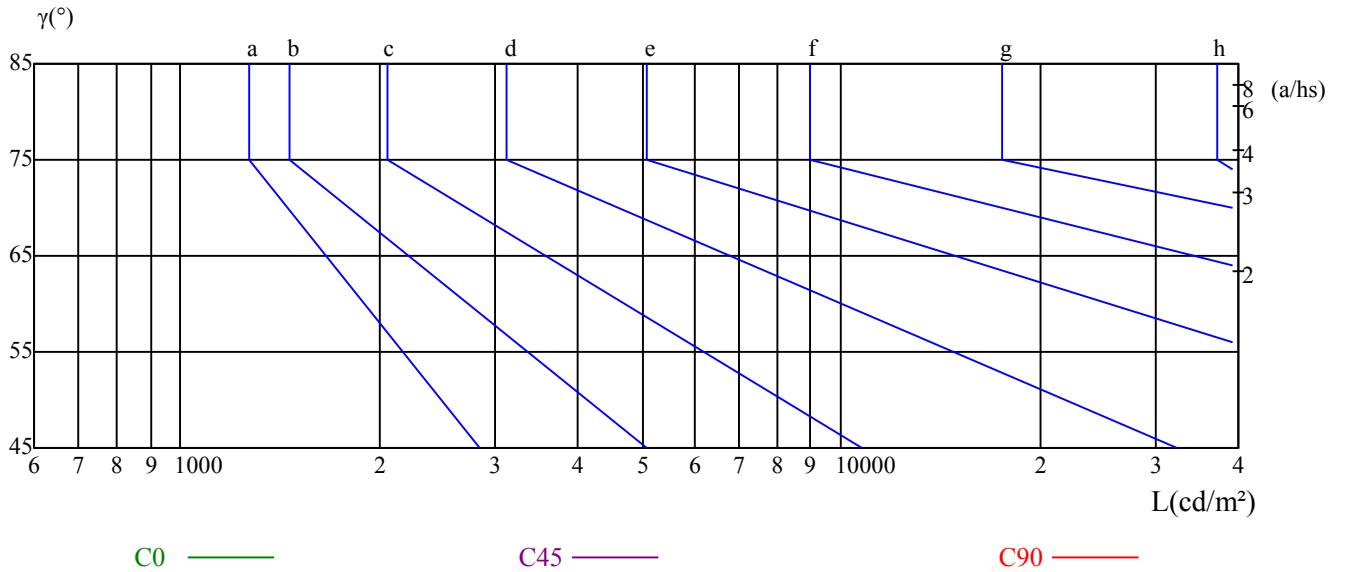
$\gamma$	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

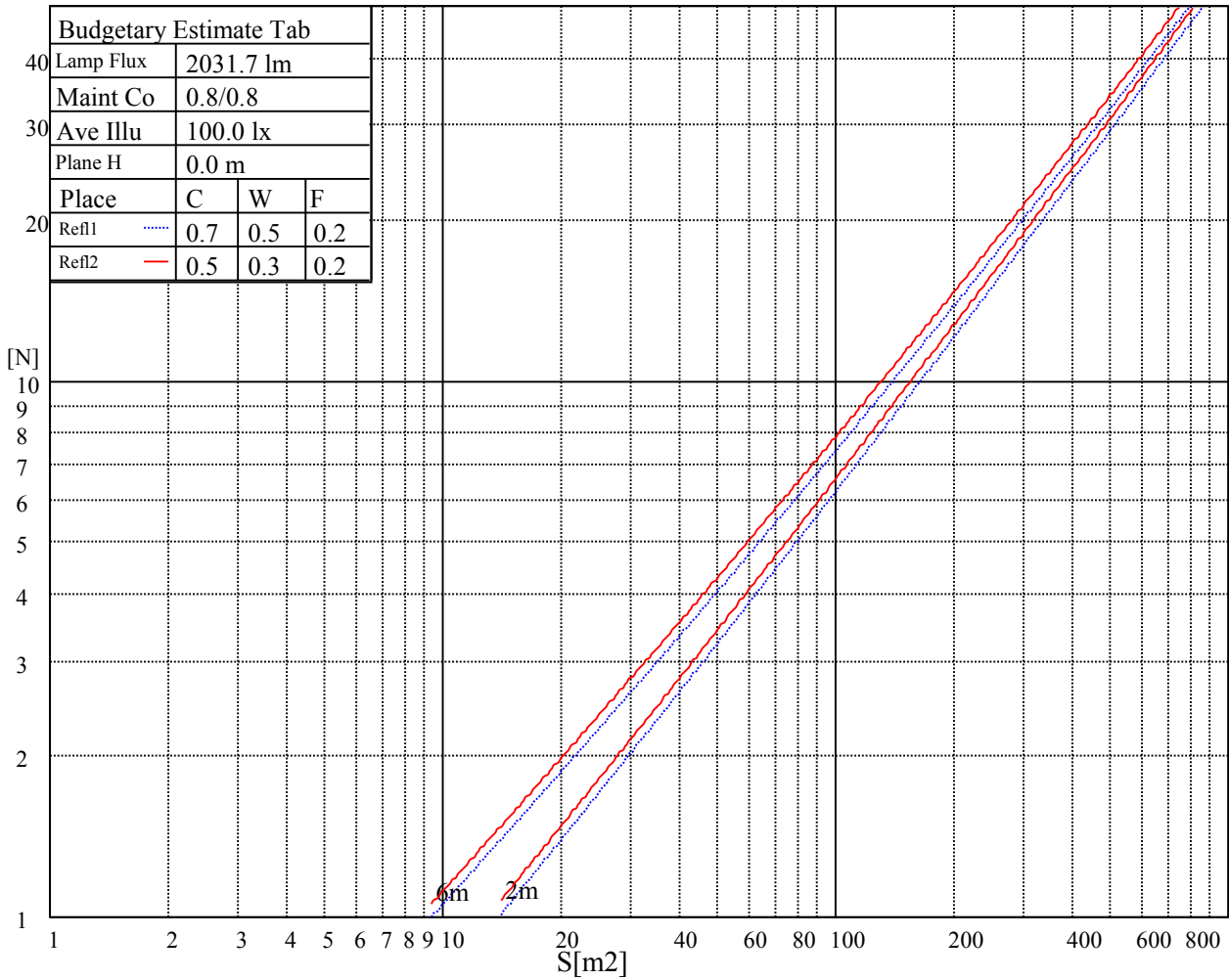
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

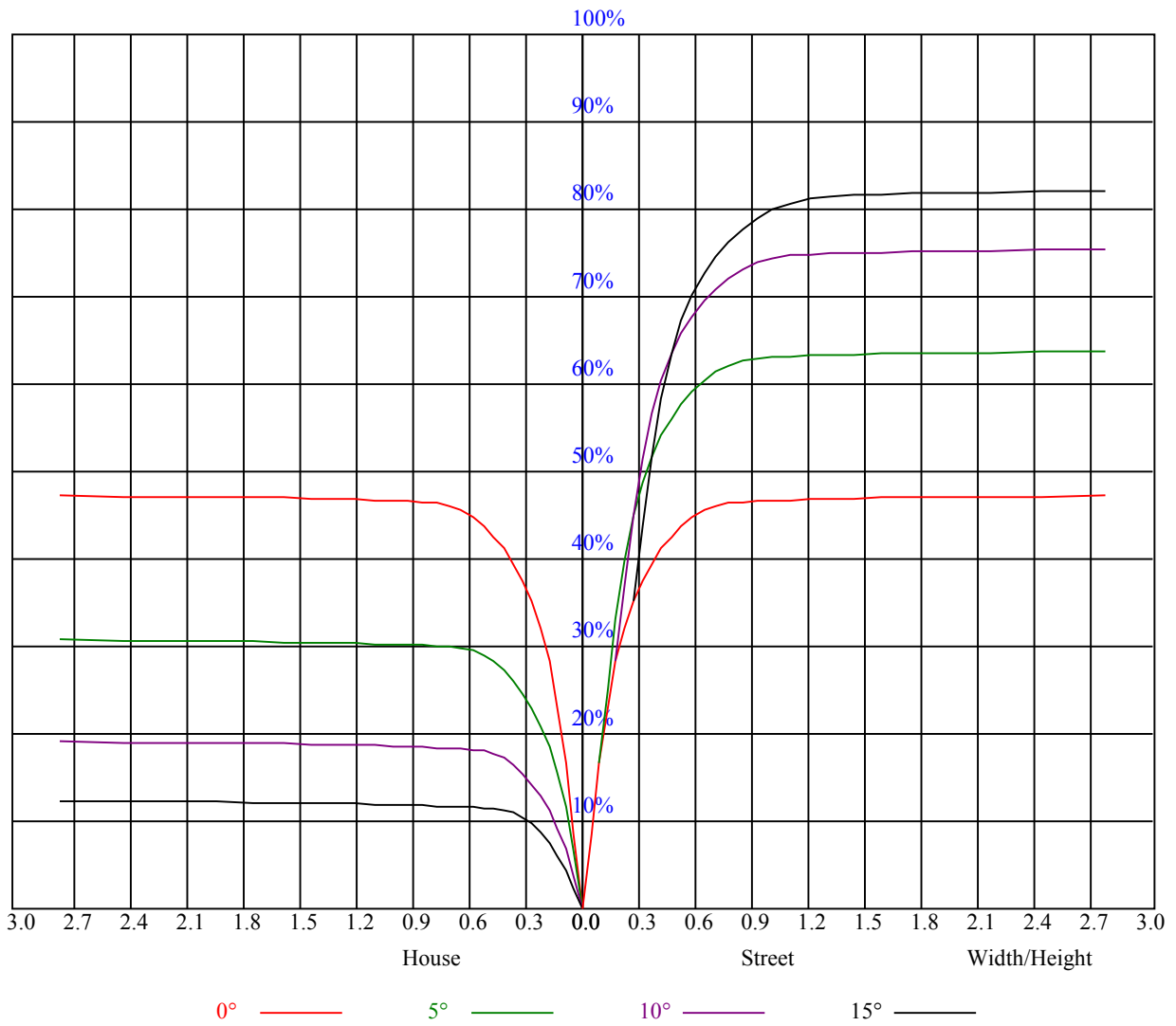
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance 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	1.13	1.13	1.13	1.11	1.11	1.11	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.95
1	1.07	1.05	1.03	1.05	1.03	1.01	1.01	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91
2	1.01	0.98	0.95	0.99	0.97	0.94	0.96	0.94	0.92	0.94	0.92	0.90	0.91	0.90	0.88	0.87
3	0.96	0.92	0.89	0.95	0.91	0.89	0.93	0.90	0.87	0.90	0.88	0.86	0.88	0.86	0.85	0.83
4	0.92	0.88	0.85	0.91	0.87	0.84	0.89	0.86	0.83	0.87	0.85	0.82	0.86	0.83	0.81	0.80
5	0.88	0.84	0.81	0.87	0.83	0.80	0.86	0.82	0.80	0.84	0.81	0.79	0.83	0.80	0.78	0.77
6	0.85	0.80	0.77	0.84	0.80	0.77	0.83	0.79	0.77	0.82	0.78	0.76	0.80	0.78	0.76	0.75
7	0.82	0.77	0.74	0.81	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.73	0.78	0.75	0.73	0.72
8	0.79	0.75	0.72	0.78	0.74	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.71	0.70
9	0.76	0.72	0.69	0.76	0.72	0.69	0.75	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.69	0.68
10	0.74	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.67	0.72	0.69	0.67	0.66



## 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	10531.69	10580.63	10555.88	10409.63	10249.88	9923.06	9228.38	8368.88	7282.13
45.0	10588.50	10635.19	10586.81	10445.06	10246.50	9921.94	9303.75	8466.19	7420.50
90.0	10596.94	10564.88	10460.25	10288.13	9997.31	9595.69	8922.38	7869.38	6750.56
135.0	10569.94	10521.00	10378.13	10224.00	9966.38	9621.00	8917.31	8055.00	6996.94
180.0	10531.69	10388.81	10180.69	9948.94	9483.75	8825.63	7828.88	6591.94	5537.25
225.0	10588.50	10420.88	10244.25	9960.19	9432.00	8679.38	7618.50	6478.88	5581.69
270.0	10596.94	10534.50	10377.56	10156.50	9783.00	9141.75	8060.06	7039.13	6075.00
315.0	10569.94	10506.38	10398.94	10147.50	9788.63	9178.31	8163.56	6943.50	5878.13
360.0	10531.69	10580.63	10555.88	10409.63	10249.88	9923.06	9228.38	8368.88	7282.13
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	5868.00	4871.81	4094.44	3416.06	2862.56	2475.00	2113.31	1833.75	1579.50
45.0	5963.63	4915.13	4081.50	3337.31	2846.25	2486.81	2128.50	1882.69	1626.19
90.0	5625.56	4489.31	3794.06	3240.56	2691.56	2341.13	2043.56	1756.69	1517.06
135.0	5649.19	4723.88	3970.13	3246.75	2757.38	2381.63	2026.13	1783.69	1539.56
180.0	4651.88	3789.56	3241.13	2795.06	2331.00	2022.75	1776.94	1552.50	1379.81
225.0	4823.44	4002.19	3453.19	2980.69	2486.25	2160.56	1892.81	1647.56	1457.44
270.0	5047.31	4332.38	3704.63	3121.88	2636.44	2280.94	1983.94	1725.75	1522.69
315.0	4952.25	4033.13	3425.63	2928.38	2440.13	2121.75	1844.44	1586.25	1393.88
360.0	5868.00	4871.81	4094.44	3416.06	2862.56	2475.00	2113.31	1833.75	1579.50
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1392.19	1262.25	1144.69	1050.19	981.56	925.31	865.69	822.94	785.81
45.0	1410.19	1266.19	1141.88	1040.06	968.63	909.56	856.69	808.88	774.00
90.0	1347.19	1114.31	1091.25	997.76	923.46	867.60	816.75	777.60	747.23
135.0	1343.81	1207.13	1091.25	996.75	928.13	874.69	820.13	778.50	747.00
180.0	1255.50	1116.45	1055.14	974.76	908.89	860.01	813.49	773.89	744.86
225.0	1324.69	1120.05	1109.59	1025.16	953.83	899.78	847.97	803.93	771.92
270.0	1383.19	1253.81	1157.63	1069.31	996.19	939.38	883.13	833.63	797.06
315.0	1259.44	1112.34	1035.62	948.43	874.74	834.36	788.46	746.38	718.71
360.0	1392.19	1262.25	1144.69	1050.19	981.56	925.31	865.69	822.94	785.81
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	750.38	718.88	696.38	661.50	601.31	546.19	474.75	414.00	345.38
45.0	741.38	712.69	689.06	663.75	602.44	545.06	483.19	414.56	344.81
90.0	722.36	694.86	678.15	645.41	583.26	529.43	471.94	399.43	339.24
135.0	713.81	678.94	658.69	622.13	564.75	506.25	452.81	388.69	326.25
180.0	717.58	686.25	649.01	597.77	536.91	468.73	409.89	348.58	273.21
225.0	742.33	710.10	678.32	633.43	572.74	501.69	441.73	369.51	297.11
270.0	765.00	729.56	706.50	669.94	604.69	546.75	482.63	414.00	344.81
315.0	686.25	650.81	629.44	587.76	532.74	469.63	414.34	349.43	283.50
360.0	750.38	718.88	696.38	661.50	601.31	546.19	474.75	414.00	345.38
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	291.38	214.88	162.90	108.90	65.03	38.14	28.24	25.37	22.61
45.0	290.25	212.57	152.61	104.29	61.82	35.38	25.71	23.01	20.14
90.0	280.35	216.28	161.94	107.38	58.44	40.78	35.33	31.67	29.59
135.0	290.25	203.23	155.53	108.96	58.73	35.83	31.11	27.84	24.86
180.0	215.89	161.38	105.75	60.53	33.53	25.26	22.50	19.46	17.44
225.0	236.31	172.97	119.70	69.98	36.39	26.10	23.57	19.80	17.72
270.0	297.00	212.18	158.46	103.95	59.34	34.65	28.74	25.65	23.51
315.0	228.21	172.63	127.29	81.39	47.98	32.79	29.70	25.71	23.51
360.0	291.38	214.88	162.90	108.90	65.03	38.14	28.24	25.37	22.61



## Intensity data(cd)

C/ $\gamma$ (°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	20.81	19.41	18.90	18.23	16.99	16.59	15.98	15.19	14.79
45.0	17.94	16.71	15.92	15.24	14.46	13.89	13.56	13.16	12.83
90.0	27.17	25.99	25.26	23.79	22.73	21.54	20.42	19.35	18.68
135.0	23.29	22.73	22.05	21.21	20.59	20.03	19.35	18.45	18.06
180.0	16.65	15.69	15.13	14.46	13.95	13.50	13.16	12.94	12.71
225.0	16.82	15.81	15.13	14.57	14.01	13.50	13.16	12.83	12.54
270.0	21.77	20.59	19.74	18.84	17.89	17.16	16.65	16.09	15.41
315.0	22.39	21.60	20.70	20.03	19.63	18.51	17.78	17.27	16.48
360.0	20.81	19.41	18.90	18.23	16.99	16.59	15.98	15.19	14.79
C/ $\gamma$ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	14.23	13.61	13.22	12.71	12.26	11.98	11.81	11.59	11.48
45.0	12.60	12.43	12.26	12.15	11.98	11.87	11.76	11.59	11.42
90.0	17.89	17.33	17.27	16.99	16.65	16.76	16.93	16.88	16.71
135.0	17.33	16.71	16.48	16.26	15.86	15.75	15.92	15.53	15.24
180.0	12.49	12.26	12.09	11.93	11.76	11.64	11.59	11.42	11.48
225.0	12.32	12.09	11.93	11.81	11.70	11.53	11.53	11.36	11.25
270.0	14.91	14.51	14.06	13.73	13.44	13.22	12.94	12.71	12.49
315.0	15.81	15.47	15.24	15.02	15.13	15.41	15.81	16.20	16.09
360.0	14.23	13.61	13.22	12.71	12.26	11.98	11.81	11.59	11.48
C/ $\gamma$ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	11.36	11.25	11.14	10.97	10.74	10.58	10.41	10.29	10.18
45.0	11.31	11.14	11.03	10.91	10.74	10.63	10.46	10.35	10.29
90.0	15.92	14.18	12.83	11.70	11.25	11.03	10.86	10.74	10.58
135.0	14.51	12.66	11.76	11.08	10.91	10.74	10.69	10.58	10.52
180.0	11.48	11.48	11.36	11.08	10.74	10.35	10.24	10.18	10.13
225.0	11.14	10.97	10.86	10.74	10.63	10.46	10.41	10.35	10.24
270.0	12.26	11.98	11.64	11.31	11.14	10.97	10.86	10.74	10.58
315.0	14.96	12.66	11.53	10.86	10.69	10.52	10.41	10.35	10.29
360.0	11.36	11.25	11.14	10.97	10.74	10.58	10.41	10.29	10.18
C/ $\gamma$ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	10.13	9.96	9.90	9.79	9.73	9.68	9.62	9.56	9.51
45.0	10.18	10.13	10.07	9.96	9.90	9.84	9.79	9.73	9.73
90.0	10.46	10.35	10.18	10.07	10.01	9.84	9.79	9.68	9.62
135.0	10.41	10.35	10.35	10.29	10.24	10.18	10.13	10.07	9.96
180.0	10.01	9.96	9.90	9.79	9.79	9.73	9.68	9.56	9.45
225.0	10.18	10.13	10.07	10.01	9.96	9.90	9.84	9.79	9.79
270.0	10.46	10.35	10.29	10.18	10.07	10.01	9.96	9.90	9.84
315.0	10.18	10.18	10.07	10.01	10.01	9.96	9.90	9.79	9.73
360.0	10.13	9.96	9.90	9.79	9.73	9.68	9.62	9.56	9.51
C/ $\gamma$ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	9.51	9.45	9.45	9.39	9.34	9.34	9.28	9.17	9.11
45.0	9.68	9.68	9.62	9.68	9.62	9.56	9.34	9.28	9.23
90.0	9.62	9.51	9.51	9.45	9.39	9.34	9.28	9.17	9.11
135.0	9.84	9.73	9.62	9.51	9.39	9.34	9.17	9.17	9.06
180.0	9.45	9.39	9.39	9.34	9.28	9.23	9.11	9.11	9.00
225.0	9.79	9.79	9.79	9.68	9.51	9.34	9.28	9.23	9.11
270.0	9.79	9.68	9.62	9.56	9.45	9.39	9.23	9.17	9.11
315.0	9.68	9.62	9.51	9.45	9.39	9.34	9.17	9.11	9.00
360.0	9.51	9.45	9.45	9.39	9.34	9.34	9.28	9.17	9.11

Intensity data(cd)

C/γ(°)	90.0
0.0	9.06
45.0	9.11
90.0	9.06
135.0	9.00
180.0	9.00
225.0	9.11
270.0	9.06
315.0	9.06
360.0	9.06