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Nata

LumCAT: 2-2186-M
Luminaire: 92.70.131.00
Report No: NATA0100
Test No: GC202002121
LampCAT: TRIDONIC SLE G7 15MM
Lamp flux(lm): 2582.0
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 34.6600
Current(A): 0.6000
Power (W): 20.7960
PF: 0.0000
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 2008.31
Efficiency(%): 77.78%
Lumens(lm)/Power(W): 96.57
Central intensity(cd): 13246.870
Maximum intensity(cd): 13246.870
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=17.8
 [C90/270]Total=17.8
Field angle(10%Imax): [C0/180]Total=41.6
 [C90/270]Total=41.6
Maximum s/h(1/2): C0_180=0.30 C90_270=0.30
Maximum s/h(1/4): C0_180=0.35 C90_270=0.35
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 77.78%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.805%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	13246.875	0.000	0	.000%	.000%
1.0	13140.703	12.626	12.626	.489%	.629%
2.0	12751.875	37.163	49.789	1.439%	2.479%
3.0	11845.688	58.829	108.619	2.278%	5.408%
4.0	11241.492	77.280	185.899	2.993%	9.256%
5.0	10362.164	92.938	278.837	3.599%	13.884%
6.0	9333.492	103.506	382.343	4.009%	19.038%
7.0	8297.789	109.437	491.78	4.238%	24.487%
8.0	7437.234	112.613	604.392	4.361%	30.095%
9.0	6552.563	113.380	717.772	4.391%	35.740%
10.0	5738.766	111.232	829.004	4.308%	41.279%
11.0	5130.211	108.603	937.607	4.206%	46.686%
12.0	4561.734	105.947	1043.554	4.103%	51.962%
13.0	3978.422	101.350	1144.904	3.925%	57.008%
14.0	3540.164	96.237	1241.142	3.727%	61.800%
15.0	3143.320	91.754	1332.895	3.554%	66.369%
16.0	2765.461	86.580	1419.476	3.353%	70.680%
17.0	2463.539	81.430	1500.905	3.154%	74.735%
18.0	2134.758	75.816	1576.721	2.936%	78.510%
19.0	1836.563	69.093	1645.814	2.676%	81.950%
20.0	1583.930	62.605	1708.419	2.425%	85.067%
21.0	1269.520	54.792	1763.211	2.122%	87.796%
22.0	1104.335	47.704	1810.914	1.848%	90.171%
23.0	890.395	41.855	1852.769	1.621%	92.255%
24.0	689.801	34.549	1887.318	1.338%	93.975%
25.0	498.354	27.016	1914.334	1.046%	95.320%
26.0	346.282	19.938	1934.272	.772%	96.313%
27.0	238.521	14.307	1948.579	.554%	97.026%
28.0	109.399	8.809	1957.387	.341%	97.464%
29.0	43.256	3.994	1961.381	.155%	97.663%
30.0	19.357	1.691	1963.072	.065%	97.747%
31.0	15.616	0.973	1964.045	.038%	97.796%
32.0	14.182	0.854	1964.899	.033%	97.838%
33.0	13.163	0.806	1965.704	.031%	97.878%
34.0	12.178	0.767	1966.471	.030%	97.917%
35.0	11.433	0.733	1967.205	.028%	97.953%
36.0	10.877	0.710	1967.915	.028%	97.988%
37.0	10.371	0.693	1968.608	.027%	98.023%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	9.963	0.679	1969.287	.026%	98.057%
39.0	9.633	0.669	1969.956	.026%	98.090%
40.0	9.338	0.662	1970.617	.026%	98.123%
41.0	9.113	0.657	1971.274	.025%	98.156%
42.0	8.909	0.655	1971.929	.025%	98.188%
43.0	8.726	0.653	1972.582	.025%	98.221%
44.0	8.599	0.654	1973.236	.025%	98.253%
45.0	8.480	0.656	1973.892	.025%	98.286%
46.0	8.374	0.659	1974.552	.026%	98.319%
47.0	8.297	0.663	1975.215	.026%	98.352%
48.0	8.227	0.668	1975.883	.026%	98.385%
49.0	8.149	0.672	1976.555	.026%	98.419%
50.0	8.079	0.677	1977.232	.026%	98.452%
51.0	8.037	0.682	1977.913	.026%	98.486%
52.0	7.995	0.688	1978.601	.027%	98.521%
53.0	7.952	0.694	1979.295	.027%	98.555%
54.0	7.924	0.700	1979.995	.027%	98.590%
55.0	7.875	0.705	1980.7	.027%	98.625%
56.0	7.833	0.710	1981.41	.027%	98.660%
57.0	7.819	0.716	1982.125	.028%	98.696%
58.0	7.784	0.722	1982.847	.028%	98.732%
59.0	7.755	0.726	1983.573	.028%	98.768%
60.0	7.734	0.732	1984.305	.028%	98.805%
61.0	7.720	0.738	1985.043	.029%	98.841%
62.0	7.720	0.744	1985.787	.029%	98.878%
63.0	7.699	0.750	1986.537	.029%	98.916%
64.0	7.678	0.755	1987.291	.029%	98.953%
65.0	7.664	0.759	1988.051	.029%	98.991%
66.0	7.671	0.765	1988.816	.030%	99.029%
67.0	7.643	0.770	1989.586	.030%	99.067%
68.0	7.629	0.774	1990.359	.030%	99.106%
69.0	7.636	0.779	1991.138	.030%	99.145%
70.0	7.643	0.785	1991.923	.030%	99.184%
71.0	7.643	0.790	1992.713	.031%	99.223%
72.0	7.629	0.794	1993.507	.031%	99.263%
73.0	7.636	0.798	1994.305	.031%	99.302%
74.0	7.643	0.803	1995.108	.031%	99.342%
75.0	7.636	0.807	1995.916	.031%	99.383%

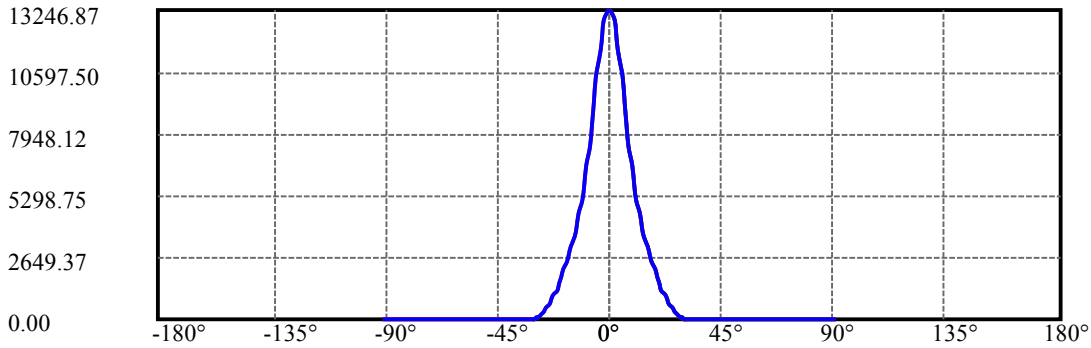
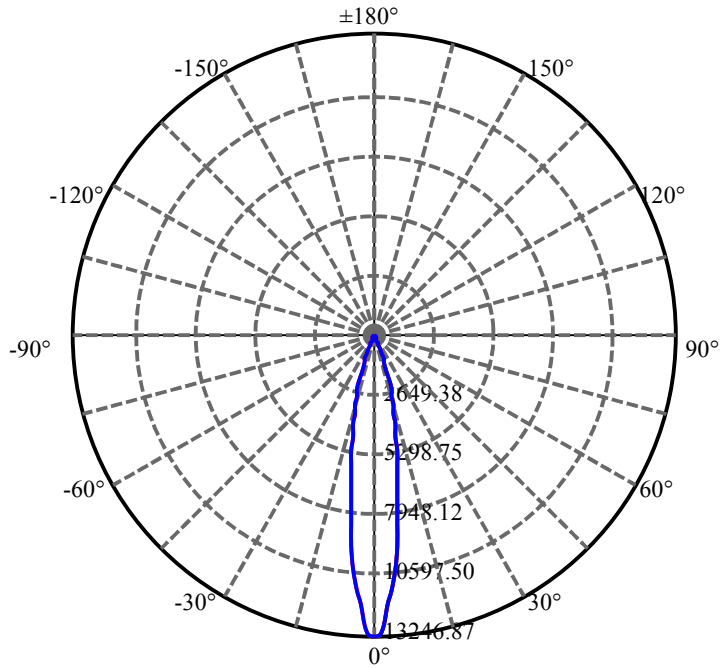
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	7.643	0.811	1996.727	.031%	99.423%
77.0	7.657	0.816	1997.542	.032%	99.464%
78.0	7.650	0.819	1998.362	.032%	99.504%
79.0	7.678	0.824	1999.185	.032%	99.545%
80.0	7.685	0.828	2000.014	.032%	99.587%
81.0	7.692	0.832	2000.845	.032%	99.628%
82.0	7.699	0.835	2001.68	.032%	99.670%
83.0	7.713	0.838	2002.518	.032%	99.711%
84.0	7.755	0.843	2003.361	.033%	99.753%
85.0	7.622	0.839	2004.2	.033%	99.795%
86.0	7.573	0.831	2005.03	.032%	99.837%
87.0	7.502	0.825	2005.855	.032%	99.878%
88.0	7.474	0.820	2006.676	.032%	99.918%
89.0	7.467	0.819	2007.495	.032%	99.959%
90.0	7.467	0.819	2008.314	.032%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1963.07	76.03%	97.75%
0-40	1970.62	76.32%	98.12%
0-60	1984.31	76.85%	98.80%
0-90	2007.49	77.75%	99.96%
0-120	2007.49	77.75%	99.96%
0-180	2008.31	77.78%	100.00%
60-90	23.92	0.93%	1.19%
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%
0-18.43	1606.65	62.23%	80.00%

ZONAL LUMEN SUMMARY

0-10	829.00
10-20	879.41
20-30	254.65
30-40	7.55
40-50	6.61
50-60	7.07
60-70	7.62
70-80	8.09
80-90	7.48
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



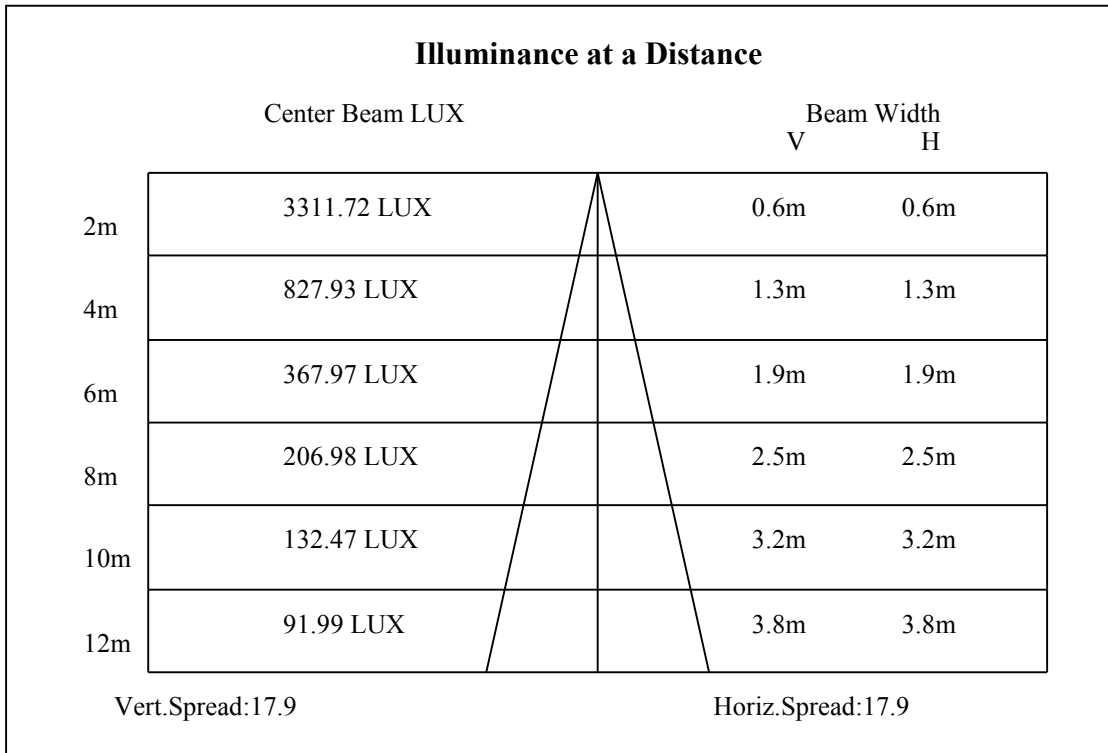
C0(Max): ———

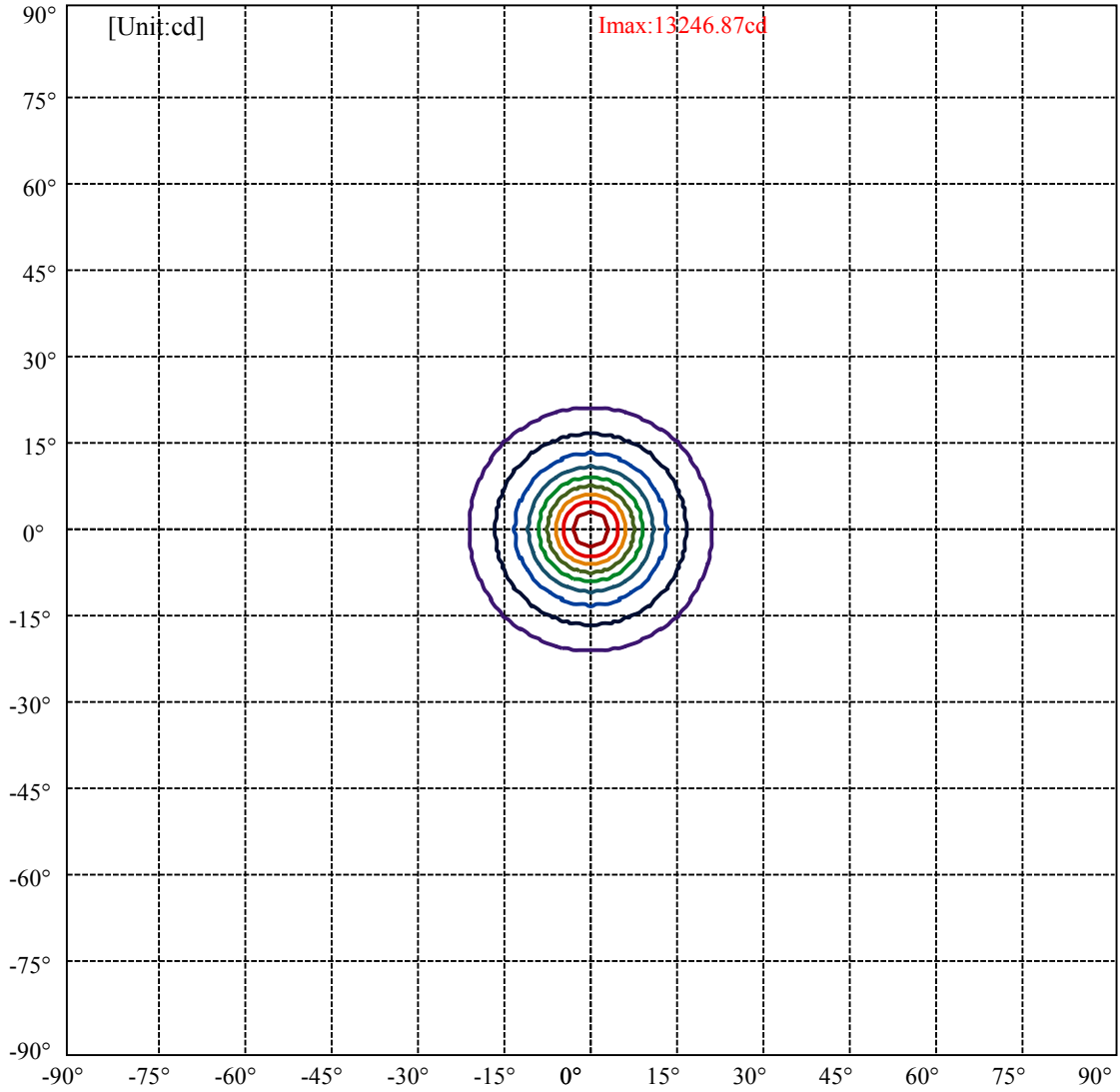
C0/C180: ———

C90/C270: ———

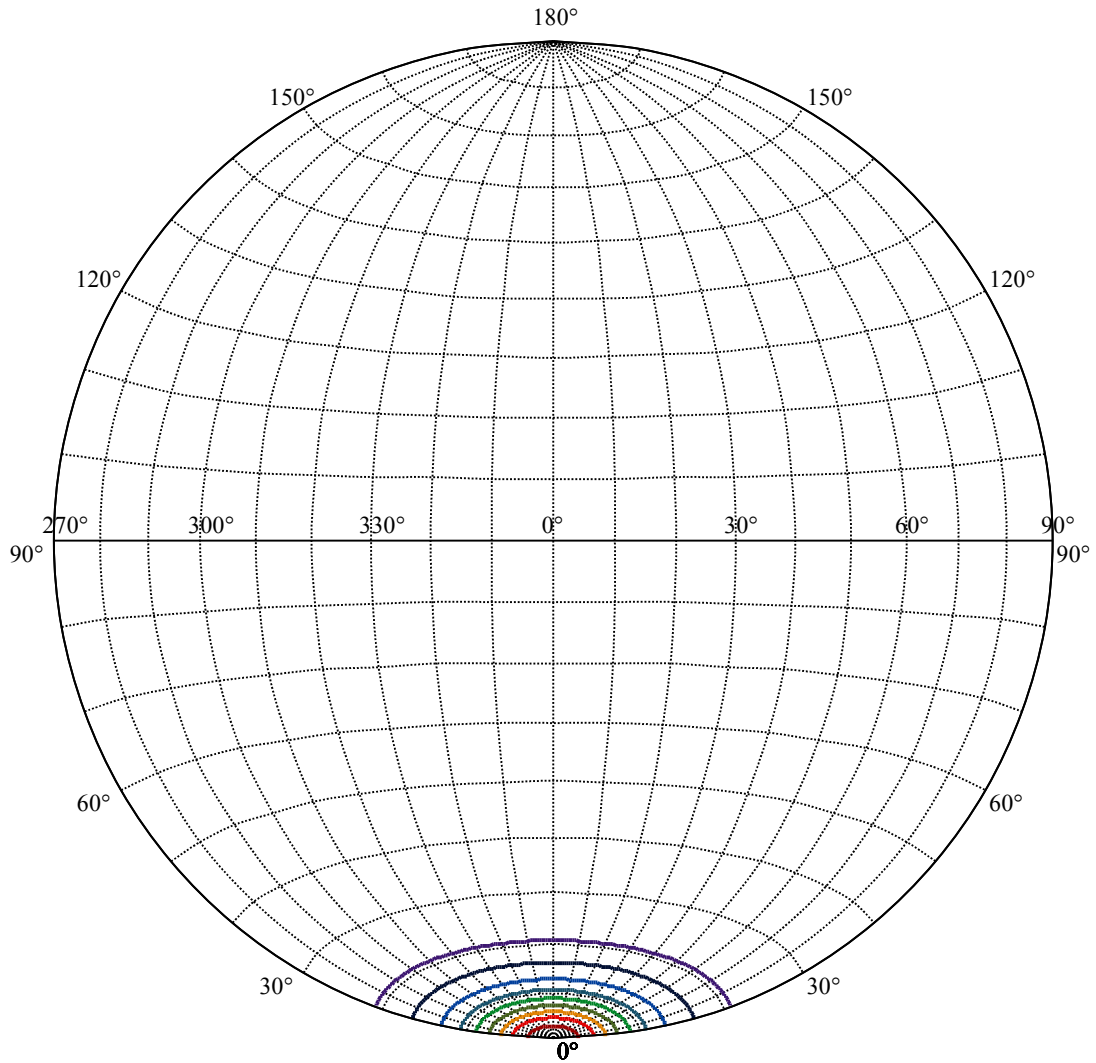
Field angle(10%Imax):C0/180Left:20.8 Right:20.8
:C90/270Left:20.8 Right:20.8

Beam Angle(50%Imax):C0/180Left:8.9 Right:8.9
:C90/270Left:8.9 Right:8.9





(10%Imax) 1324.69	—
(20%Imax) 2649.37	—
(30%Imax) 3974.06	—
(40%Imax) 5298.75	—
(50%Imax) 6623.44	—
(60%Imax) 7948.12	—
(70%Imax) 9272.81	—
(80%Imax) 10597.5	—
(90%Imax) 11922.2	—



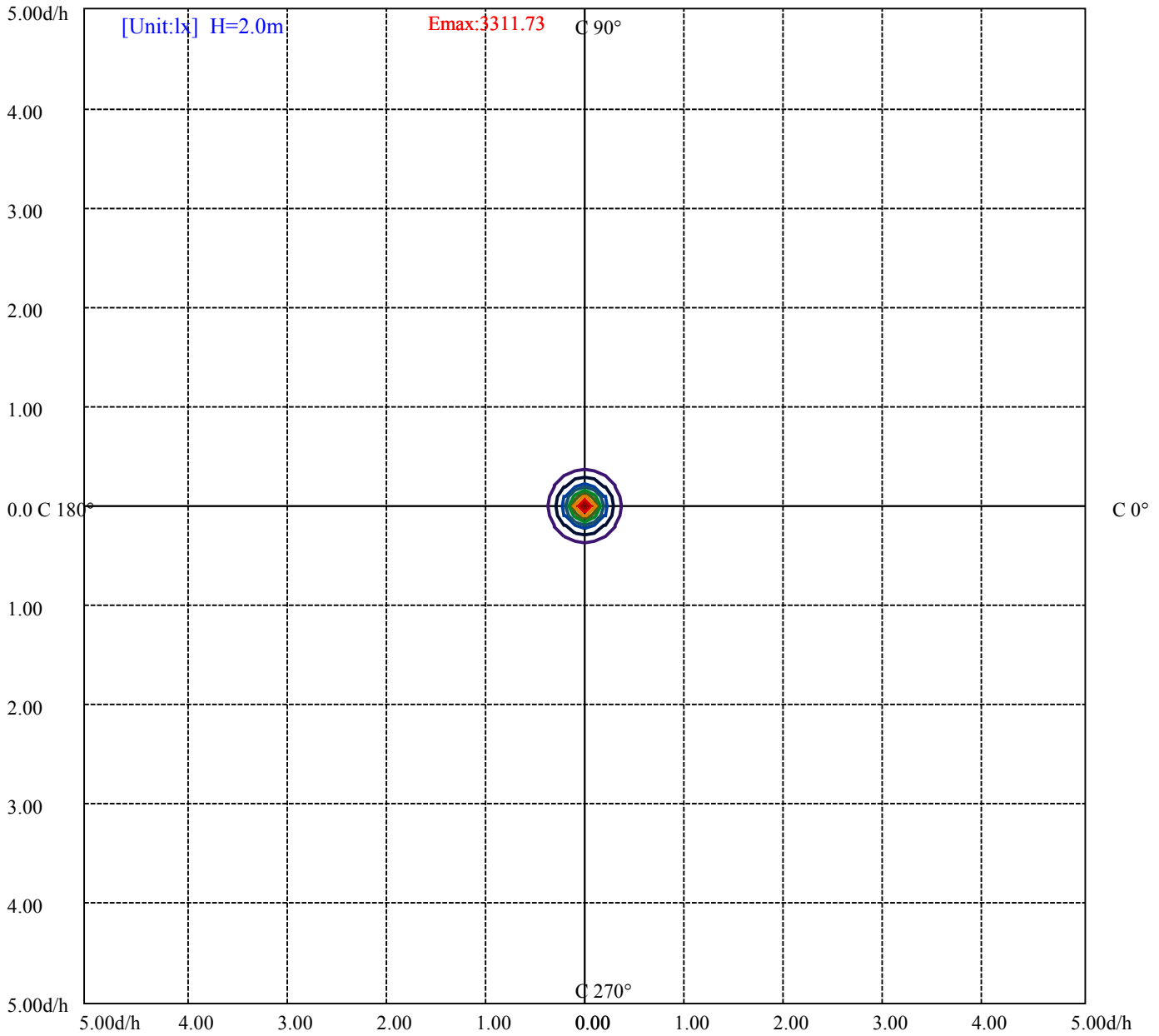
House

[Unit:cd]

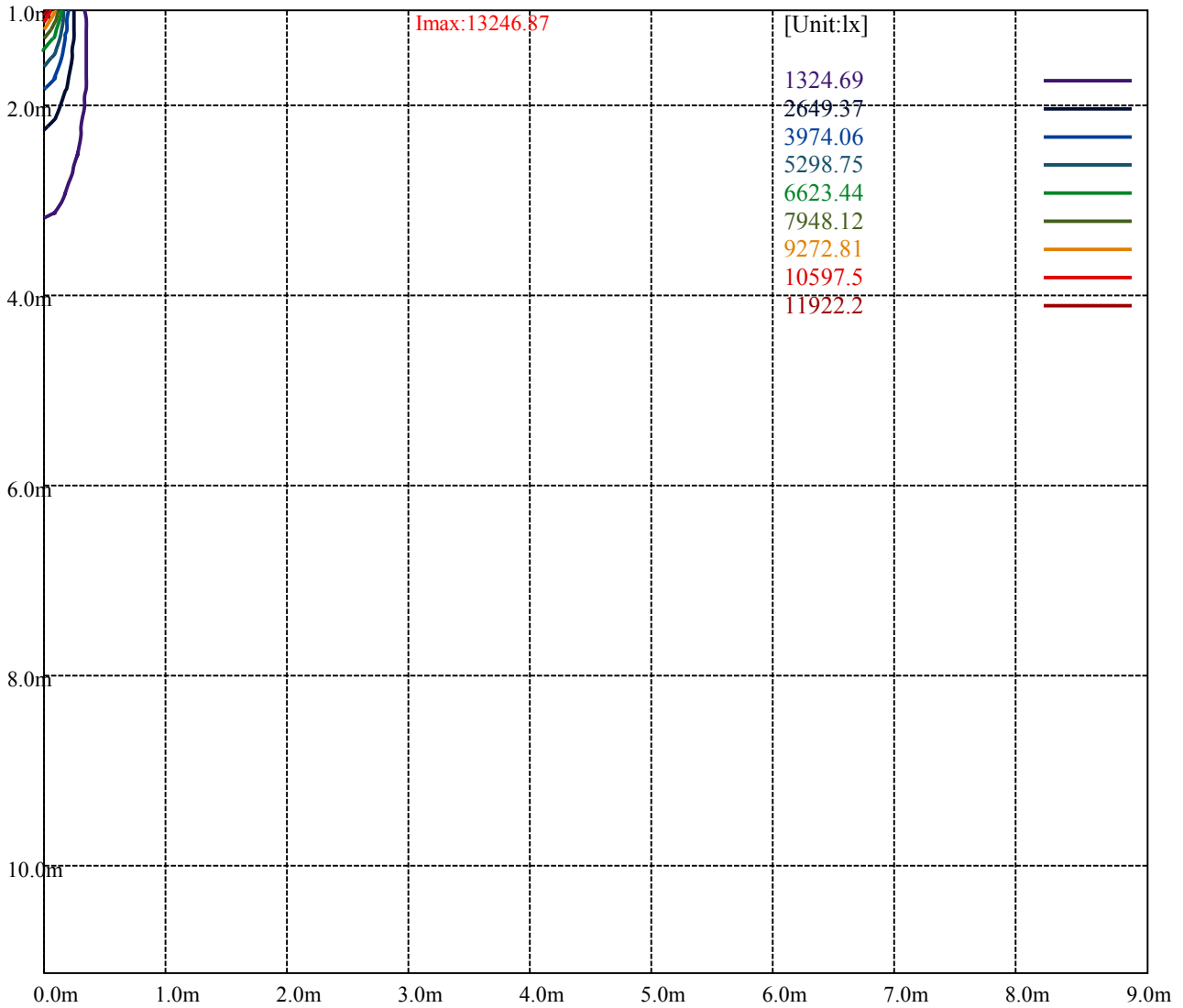
Road

Imax:13246.87

(10%Imax) 1324.69	—
(20%Imax) 2649.37	—
(30%Imax) 3974.06	—
(40%Imax) 5298.75	—
(50%Imax) 6623.44	—
(60%Imax) 7948.12	—
(70%Imax) 9272.81	—
(80%Imax) 10597.5	—
(90%Imax) 11922.2	—



(10%Emax) 331.1725	—
(20%Emax) 662.3425	—
(30%Emax) 993.515	—
(40%Emax) 1324.685	—
(50%Emax) 1655.858	—
(60%Emax) 1987.03	—
(70%Emax) 2318.2	—
(80%Emax) 2649.375	—
(90%Emax) 2980.55	—



Luminance Table

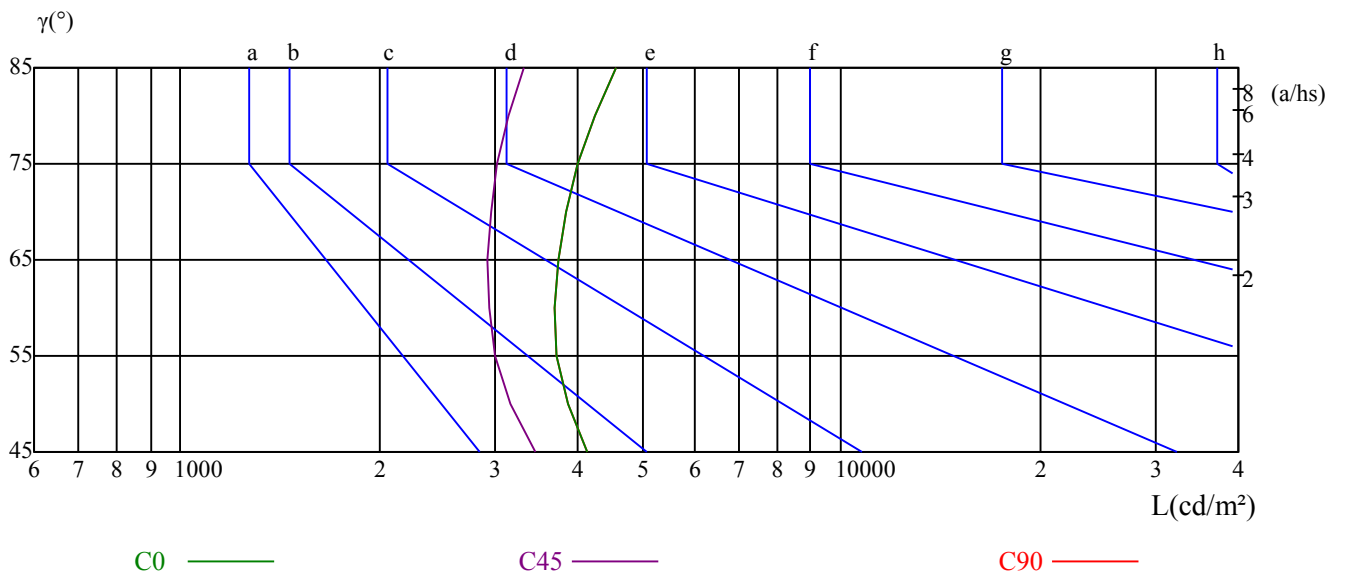
γ	45	50	55	60	65	70	75	80	85
C0	4126	3855	3707	3678	3726	3839	3986	4232	4579
C45	3438	3165	2998	2929	2920	2957	3015	3139	3321
C90	4126	3855	3707	3678	3726	3839	3986	4232	4579

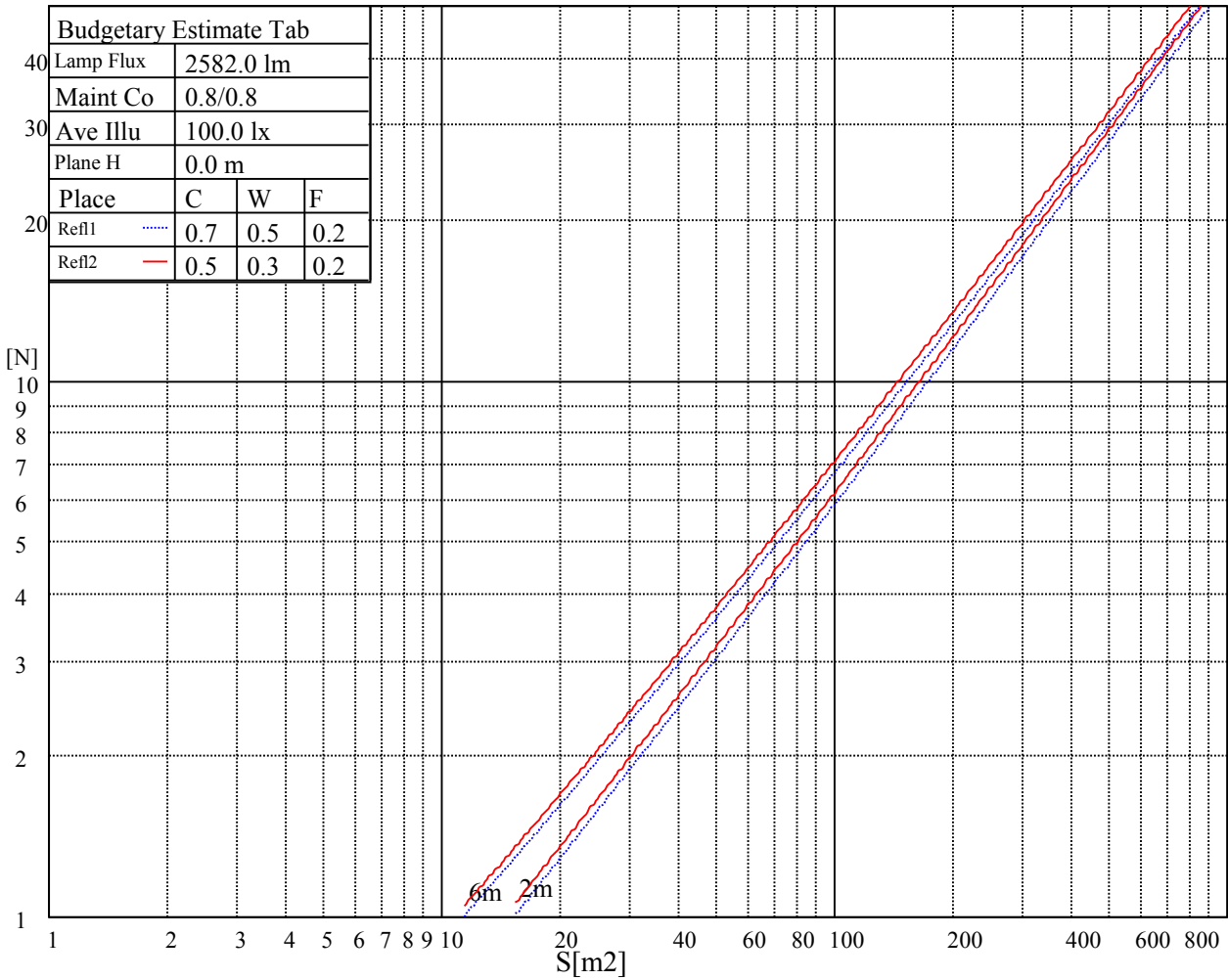
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
11184	11184	11184	17870	17870	17870	53424	53424	53424

Glare Table

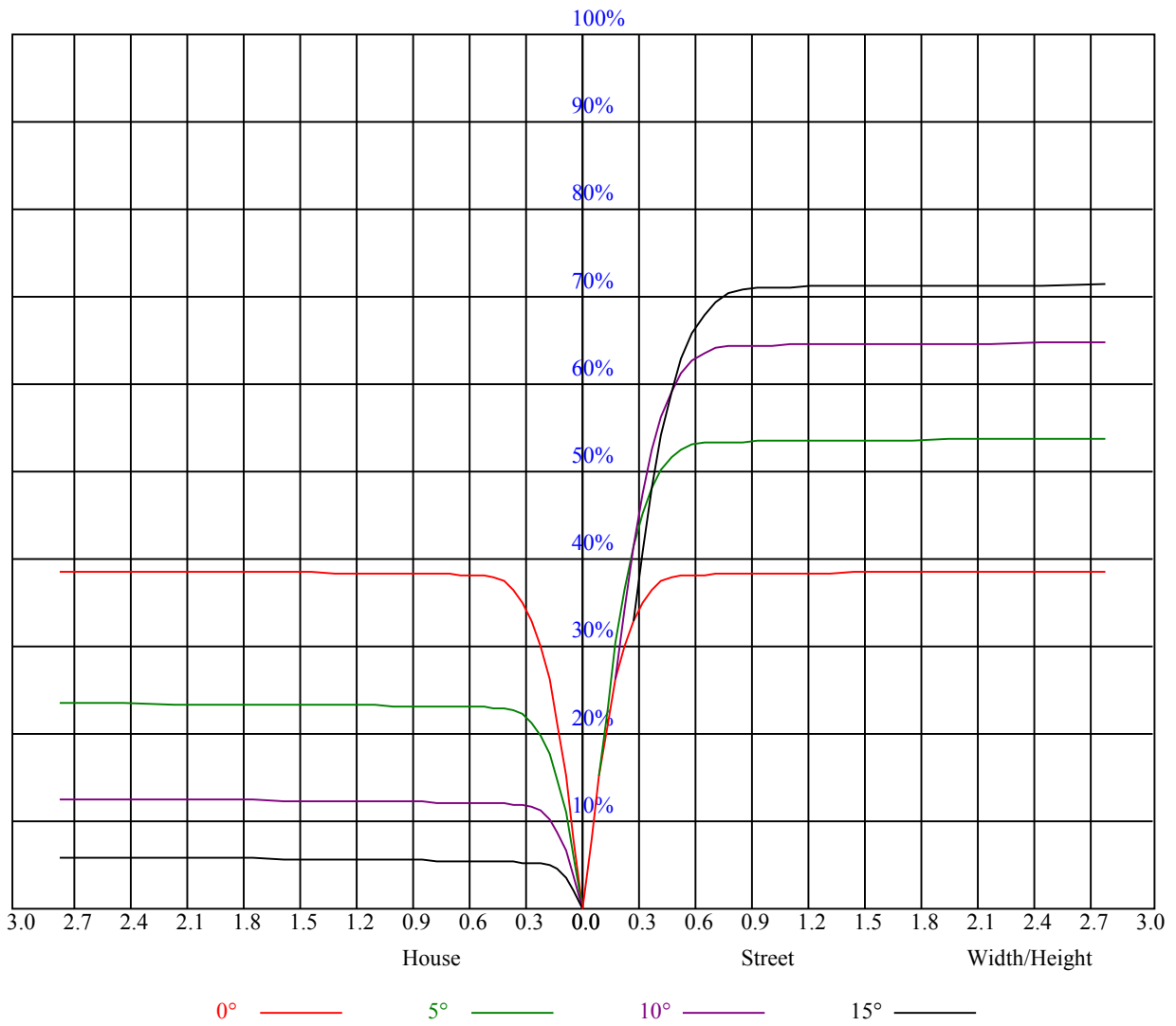
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.93	0.93	0.93	0.90	0.90	0.90	0.86	0.86	0.86	0.83	0.83	0.83	0.79	0.79	0.79	0.78
1	0.88	0.86	0.85	0.86	0.85	0.84	0.83	0.82	0.81	0.80	0.79	0.79	0.78	0.77	0.76	0.75
2	0.84	0.82	0.80	0.83	0.81	0.79	0.80	0.79	0.77	0.78	0.77	0.76	0.76	0.75	0.74	0.73
3	0.81	0.78	0.76	0.80	0.77	0.75	0.78	0.76	0.74	0.76	0.74	0.73	0.74	0.73	0.72	0.71
4	0.78	0.75	0.73	0.77	0.74	0.72	0.75	0.73	0.71	0.74	0.72	0.71	0.73	0.71	0.70	0.69
5	0.75	0.72	0.70	0.75	0.72	0.70	0.73	0.71	0.69	0.72	0.70	0.69	0.71	0.69	0.68	0.67
6	0.73	0.70	0.68	0.72	0.70	0.68	0.71	0.69	0.67	0.70	0.68	0.67	0.70	0.68	0.66	0.65
7	0.71	0.68	0.66	0.70	0.68	0.66	0.70	0.67	0.65	0.69	0.67	0.65	0.68	0.66	0.65	0.64
8	0.69	0.66	0.64	0.69	0.66	0.64	0.68	0.65	0.64	0.67	0.65	0.63	0.67	0.65	0.63	0.62
9	0.67	0.64	0.62	0.67	0.64	0.62	0.66	0.64	0.62	0.66	0.64	0.62	0.65	0.63	0.62	0.61
10	0.66	0.63	0.61	0.65	0.63	0.61	0.65	0.62	0.61	0.64	0.62	0.61	0.64	0.62	0.60	0.60



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	13230.00	13275.00	13027.50	12560.63	11784.38	10918.13	9849.38	8803.13	7897.50
45.0	13246.88	13252.50	12920.63	12290.63	11576.25	10614.38	9562.50	8595.00	7678.13
90.0	13258.13	13033.13	12583.13	11071.13	10963.69	10060.88	9126.00	7965.00	7100.44
135.0	13252.50	13156.88	12723.75	12048.75	11295.00	10440.00	9315.00	8398.13	7520.63
180.0	13230.00	12926.25	12436.88	11194.31	10774.69	9892.69	8865.00	7833.94	6986.81
225.0	13246.88	13038.75	12588.75	11153.81	10832.06	10040.06	9133.88	7915.50	7175.25
270.0	13258.13	13252.50	12915.00	12296.25	11548.13	10569.38	9523.13	8611.88	7740.00
315.0	13252.50	13190.63	12819.38	12150.00	11157.75	10361.81	9293.06	8259.75	7399.13
360.0	13230.00	13275.00	13027.50	12560.63	11784.38	10918.13	9849.38	8803.13	7897.50
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	6952.50	6114.38	5473.13	4955.63	4241.25	3780.00	3414.38	2947.50	2868.75
45.0	6654.38	5917.50	5276.25	4640.63	4083.75	3645.00	3206.25	2863.13	2523.94
90.0	6324.75	5478.75	4884.19	4364.44	3796.88	3384.00	3019.50	2614.50	2356.88
135.0	6536.25	5827.50	5197.50	4573.13	4027.50	3594.38	3161.25	2857.50	2475.56
180.0	6228.56	5392.13	4812.75	4299.19	3734.44	3326.63	2962.69	2594.25	2258.44
225.0	6398.44	5460.75	4940.44	4403.25	3869.44	3400.31	3027.38	2648.25	2340.56
270.0	6727.50	6007.50	5360.63	4719.38	4151.25	3695.63	3245.63	2880.00	2517.75
315.0	6598.13	5711.63	5096.81	4538.25	3922.88	3495.38	3109.50	2718.56	2366.44
360.0	6952.50	6114.38	5473.13	4955.63	4241.25	3780.00	3414.38	2947.50	2868.75
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2289.38	1988.44	1713.38	1483.31	1233.00	1023.75	803.81	596.25	427.50
45.0	2200.50	1937.81	1661.63	1396.69	1181.81	953.44	731.81	561.94	406.69
90.0	2044.13	1724.06	1520.44	1109.36	1056.99	834.53	652.67	463.89	304.88
135.0	2217.94	1878.19	1594.13	1392.75	1118.81	915.19	720.56	507.94	359.44
180.0	1978.31	1689.75	1456.88	1119.21	964.91	773.89	573.02	398.42	271.80
225.0	2031.75	1747.13	1513.13	1122.02	1045.13	821.36	636.19	448.82	294.08
270.0	2227.50	1926.56	1650.38	1419.75	1172.81	940.50	748.13	546.75	384.19
315.0	2088.56	1800.56	1561.50	1113.08	1061.21	860.51	652.22	462.83	321.69
360.0	2289.38	1988.44	1713.38	1483.31	1233.00	1023.75	803.81	596.25	427.50
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	285.75	147.09	68.01	24.81	16.76	15.24	14.01	12.88	11.98
45.0	284.06	131.63	56.76	22.33	15.13	13.89	12.99	11.87	11.25
90.0	191.08	103.78	31.78	16.59	15.02	13.44	12.60	11.81	11.14
135.0	294.19	115.26	47.70	18.00	15.41	14.12	13.16	12.21	11.48
180.0	168.98	71.83	25.54	16.37	14.57	13.44	12.54	11.64	11.08
225.0	183.83	97.82	28.97	17.49	15.75	14.06	12.99	12.15	11.31
270.0	298.69	118.97	54.39	21.09	16.09	14.63	13.50	12.38	11.59
315.0	201.60	88.82	32.91	18.17	16.20	14.63	13.50	12.49	11.64
360.0	285.75	147.09	68.01	24.81	16.76	15.24	14.01	12.88	11.98
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	11.36	10.74	10.24	9.84	9.51	9.28	9.06	8.83	8.66
45.0	10.80	10.24	9.84	9.56	9.28	9.06	8.89	8.72	8.55
90.0	10.58	10.18	9.79	9.51	9.23	9.00	8.83	8.66	8.55
135.0	10.91	10.46	10.07	9.73	9.45	9.23	9.00	8.83	8.72
180.0	10.58	10.13	9.84	9.56	9.17	9.06	8.89	8.66	8.55
225.0	10.69	10.24	9.79	9.51	9.23	8.94	8.72	8.55	8.49
270.0	11.03	10.46	10.01	9.62	9.39	9.11	8.89	8.72	8.61
315.0	11.08	10.52	10.13	9.73	9.45	9.23	9.00	8.83	8.66
360.0	11.36	10.74	10.24	9.84	9.51	9.28	9.06	8.83	8.66

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	8.55	8.44	8.38	8.27	8.16	8.10	8.10	8.04	7.99
45.0	8.44	8.38	8.27	8.21	8.10	8.10	7.99	7.99	7.93
90.0	8.44	8.33	8.27	8.21	8.16	8.04	8.04	7.99	7.93
135.0	8.61	8.49	8.38	8.33	8.21	8.16	8.10	8.04	8.04
180.0	8.44	8.33	8.27	8.21	8.16	8.04	8.04	7.99	7.93
225.0	8.38	8.27	8.16	8.10	8.04	7.99	7.93	7.93	7.88
270.0	8.44	8.38	8.33	8.21	8.16	8.10	8.04	7.99	7.93
315.0	8.55	8.38	8.33	8.27	8.21	8.10	8.04	7.99	7.99
360.0	8.55	8.44	8.38	8.27	8.16	8.10	8.10	8.04	7.99
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	7.93	7.88	7.88	7.82	7.82	7.76	7.76	7.71	7.71
45.0	7.93	7.88	7.82	7.82	7.76	7.71	7.71	7.71	7.71
90.0	7.93	7.88	7.82	7.82	7.76	7.76	7.76	7.76	7.82
135.0	7.99	7.93	7.93	7.88	7.82	7.82	7.76	7.76	7.76
180.0	7.93	7.88	7.82	7.82	7.76	7.76	7.71	7.71	7.71
225.0	7.82	7.82	7.76	7.76	7.71	7.71	7.71	7.65	7.65
270.0	7.93	7.88	7.82	7.82	7.82	7.76	7.76	7.76	7.76
315.0	7.93	7.88	7.82	7.82	7.76	7.76	7.71	7.71	7.65
360.0	7.93	7.88	7.88	7.82	7.82	7.76	7.76	7.71	7.71
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	7.71	7.71	7.65	7.65	7.59	7.65	7.65	7.59	7.59
45.0	7.71	7.65	7.65	7.65	7.59	7.59	7.59	7.59	7.59
90.0	7.76	7.76	7.76	7.76	7.76	7.76	7.82	7.88	7.93
135.0	7.71	7.71	7.65	7.71	7.65	7.59	7.59	7.59	7.59
180.0	7.71	7.65	7.59	7.65	7.65	7.59	7.59	7.59	7.59
225.0	7.65	7.59	7.59	7.59	7.59	7.54	7.54	7.54	7.54
270.0	7.71	7.76	7.76	7.71	7.71	7.71	7.71	7.76	7.76
315.0	7.65	7.59	7.65	7.65	7.59	7.59	7.59	7.59	7.54
360.0	7.71	7.71	7.65	7.65	7.59	7.65	7.65	7.59	7.59
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	7.54	7.59	7.54	7.54	7.54	7.54	7.54	7.54	7.54
45.0	7.59	7.54	7.54	7.54	7.54	7.54	7.48	7.54	7.54
90.0	7.99	8.04	8.10	8.10	8.10	8.21	8.16	8.27	8.27
135.0	7.59	7.54	7.54	7.54	7.54	7.54	7.54	7.54	7.54
180.0	7.54	7.54	7.54	7.54	7.54	7.54	7.54	7.48	7.54
225.0	7.48	7.54	7.48	7.48	7.48	7.48	7.48	7.48	7.48
270.0	7.76	7.76	7.82	7.82	7.88	7.88	7.93	8.04	8.04
315.0	7.54	7.54	7.59	7.54	7.54	7.54	7.54	7.54	7.54
360.0	7.54	7.59	7.54	7.54	7.54	7.54	7.54	7.54	7.54
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	7.54	7.54	7.54	7.54	7.54	7.54	7.59	7.54	7.43
45.0	7.48	7.54	7.48	7.54	7.48	7.54	7.54	7.48	7.48
90.0	8.38	8.38	8.49	8.72	8.16	7.93	7.48	7.43	7.48
135.0	7.54	7.54	7.54	7.54	7.54	7.48	7.48	7.48	7.43
180.0	7.48	7.48	7.54	7.54	7.48	7.48	7.48	7.48	7.48
225.0	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48
270.0	8.10	8.10	8.10	8.16	7.71	7.54	7.48	7.48	7.48
315.0	7.54	7.54	7.54	7.54	7.59	7.59	7.48	7.43	7.48
360.0	7.54	7.54	7.54	7.54	7.54	7.54	7.59	7.54	7.43

Intensity data(cd)

C/γ(°)	90.0
0.0	7.48
45.0	7.48
90.0	7.43
135.0	7.48
180.0	7.48
225.0	7.43
270.0	7.48
315.0	7.48
360.0	7.48