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LumCAT: 3-2031-M
Luminaire: 92.70.124.00
Report No: NATA0100
Test No: GC2019062815
LampCAT: TRIDONIC SLE 9MM G7
Lamp flux(lm): 1073.0
Number of Lamps: 1
Length(mm): 79
Phm Type: C

Voltage(V): 34.8500
Current(A): 0.2490
Power (W): 8.6780
PF: 0.0000
Ballast type: DC
Width(mm): 79
Height(mm): 0

Photometric Results

Lumens(lm): 955.96
Efficiency(%): 89.09%
Lumens(lm)/Power(W): 110.16
Central intensity(cd): 11509.880
Maximum intensity(cd): 11509.880
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=11.0
 [C90/270]Total=11.0
Field angle(10%Imax): [C0/180]Total=21.3
 [C90/270]Total=21.3
Maximum s/h(1/2): C0_180=0.19 C90_270=0.19
Maximum s/h(1/4): C0_180=0.20 C90_270=0.20
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 89.09%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.744%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2019/6/28
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	11509.875	0.000	0	.000%	.000%
1.0	11438.086	10.980	10.98	1.023%	1.149%
2.0	10582.594	31.606	42.586	2.946%	4.455%
3.0	9341.016	47.651	90.237	4.441%	9.439%
4.0	7870.852	57.614	147.851	5.369%	15.466%
5.0	6411.797	61.443	209.294	5.726%	21.894%
6.0	5112.070	60.561	269.855	5.644%	28.229%
7.0	3760.594	55.072	324.927	5.133%	33.990%
8.0	2862.000	47.397	372.324	4.417%	38.948%
9.0	2004.138	39.437	411.761	3.675%	43.073%
10.0	1346.280	30.320	442.081	2.826%	46.245%
11.0	1040.843	23.852	465.934	2.223%	48.740%
12.0	851.175	20.682	486.616	1.928%	50.903%
13.0	697.641	18.381	504.997	1.713%	52.826%
14.0	609.033	16.725	521.722	1.559%	54.576%
15.0	552.825	15.951	537.673	1.487%	56.244%
16.0	508.971	15.558	553.231	1.450%	57.872%
17.0	484.073	15.464	568.695	1.441%	59.489%
18.0	466.748	15.677	584.372	1.461%	61.129%
19.0	452.313	15.990	600.362	1.490%	62.802%
20.0	439.995	16.332	616.694	1.522%	64.510%
21.0	428.885	16.684	633.378	1.555%	66.256%
22.0	418.233	17.023	650.401	1.587%	68.036%
23.0	408.108	17.339	667.74	1.616%	69.850%
24.0	398.946	17.645	685.385	1.644%	71.696%
25.0	388.673	17.909	703.294	1.669%	73.569%
26.0	380.735	18.162	721.456	1.693%	75.469%
27.0	372.720	18.433	739.889	1.718%	77.398%
28.0	365.695	18.695	758.584	1.742%	79.353%
29.0	358.502	18.947	777.531	1.766%	81.335%
30.0	352.125	19.187	796.718	1.788%	83.342%
31.0	344.714	19.392	816.11	1.807%	85.371%
32.0	338.625	19.577	835.687	1.824%	87.419%
33.0	330.623	19.716	855.403	1.837%	89.481%
34.0	307.913	19.324	874.727	1.801%	91.503%
35.0	264.066	17.764	892.491	1.656%	93.361%
36.0	213.469	15.205	907.696	1.417%	94.951%
37.0	139.324	11.506	919.202	1.072%	96.155%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	80.754	7.346	926.548	.685%	96.923%
39.0	39.698	4.111	930.659	.383%	97.353%
40.0	19.863	2.077	932.736	.194%	97.571%
41.0	13.732	1.196	933.933	.111%	97.696%
42.0	10.378	0.876	934.809	.082%	97.788%
43.0	8.536	0.701	935.509	.065%	97.861%
44.0	7.791	0.616	936.126	.057%	97.925%
45.0	7.313	0.580	936.706	.054%	97.986%
46.0	6.975	0.559	937.265	.052%	98.044%
47.0	6.715	0.544	937.809	.051%	98.101%
48.0	6.455	0.532	938.342	.050%	98.157%
49.0	6.188	0.519	938.861	.048%	98.211%
50.0	5.963	0.507	939.367	.047%	98.264%
51.0	5.787	0.497	939.864	.046%	98.316%
52.0	5.583	0.488	940.352	.045%	98.367%
53.0	5.407	0.478	940.83	.045%	98.417%
54.0	5.238	0.469	941.3	.044%	98.466%
55.0	5.077	0.460	941.76	.043%	98.515%
56.0	4.908	0.451	942.211	.042%	98.562%
57.0	4.802	0.444	942.655	.041%	98.608%
58.0	4.662	0.438	943.093	.041%	98.654%
59.0	4.556	0.431	943.524	.040%	98.699%
60.0	4.451	0.426	943.949	.040%	98.744%
61.0	4.373	0.421	944.37	.039%	98.788%
62.0	4.296	0.418	944.788	.039%	98.831%
63.0	4.226	0.414	945.203	.039%	98.875%
64.0	4.155	0.411	945.614	.038%	98.918%
65.0	4.106	0.409	946.023	.038%	98.961%
66.0	4.036	0.406	946.429	.038%	99.003%
67.0	4.015	0.405	946.834	.038%	99.045%
68.0	3.952	0.404	947.237	.038%	99.088%
69.0	3.916	0.401	947.639	.037%	99.130%
70.0	3.895	0.401	948.04	.037%	99.172%
71.0	3.860	0.401	948.441	.037%	99.214%
72.0	3.818	0.399	948.84	.037%	99.255%
73.0	3.797	0.398	949.238	.037%	99.297%
74.0	3.769	0.398	949.636	.037%	99.339%
75.0	3.748	0.397	950.033	.037%	99.380%

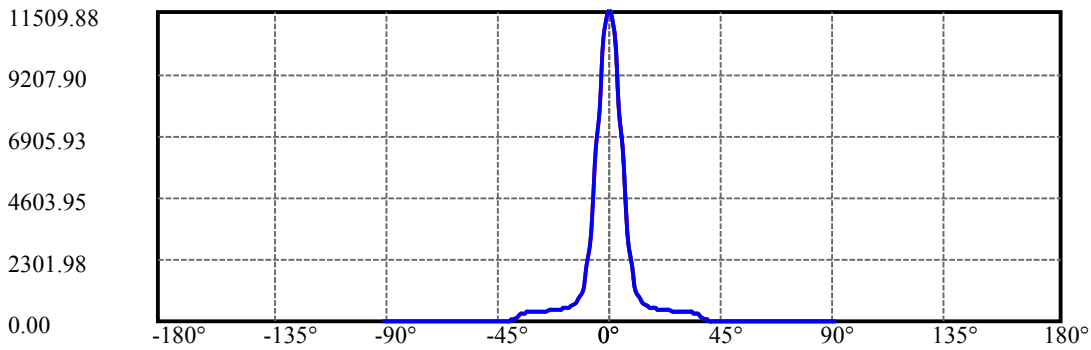
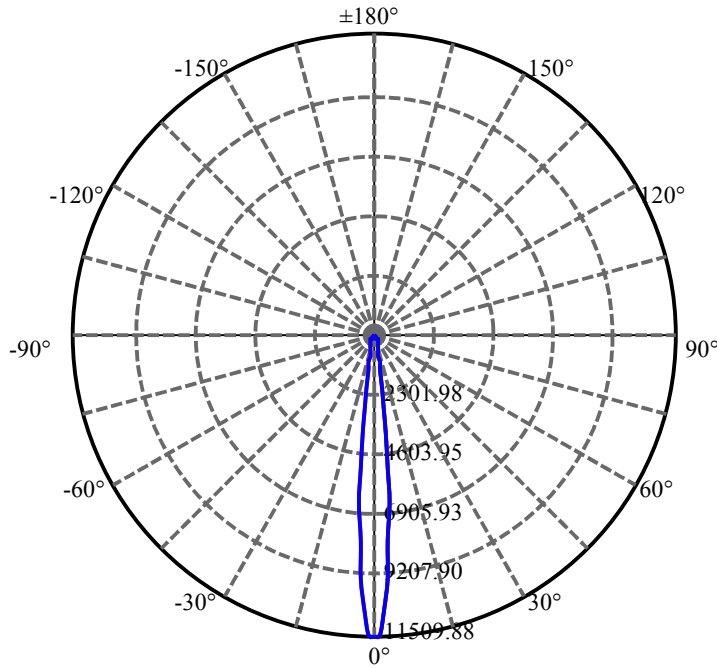
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	3.734	0.397	950.43	.037%	99.422%
77.0	3.713	0.397	950.827	.037%	99.463%
78.0	3.698	0.397	951.224	.037%	99.505%
79.0	3.698	0.397	951.621	.037%	99.546%
80.0	3.677	0.398	952.019	.037%	99.588%
81.0	3.656	0.397	952.416	.037%	99.629%
82.0	3.656	0.397	952.812	.037%	99.671%
83.0	3.642	0.397	953.209	.037%	99.712%
84.0	3.635	0.396	953.605	.037%	99.754%
85.0	3.621	0.396	954.001	.037%	99.795%
86.0	3.600	0.395	954.396	.037%	99.836%
87.0	3.565	0.392	954.788	.037%	99.877%
88.0	3.572	0.391	955.179	.036%	99.918%
89.0	3.558	0.391	955.57	.036%	99.959%
90.0	3.544	0.389	955.959	.036%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	796.72	74.25%	83.34%
0-40	932.74	86.93%	97.57%
0-60	943.95	87.97%	98.74%
0-90	955.57	89.06%	99.96%
0-120	955.57	89.06%	99.96%
0-180	955.96	89.09%	100.00%
60-90	12.05	1.12%	1.26%
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%
0-28.33	764.77	71.27%	80.00%

ZONAL LUMEN SUMMARY

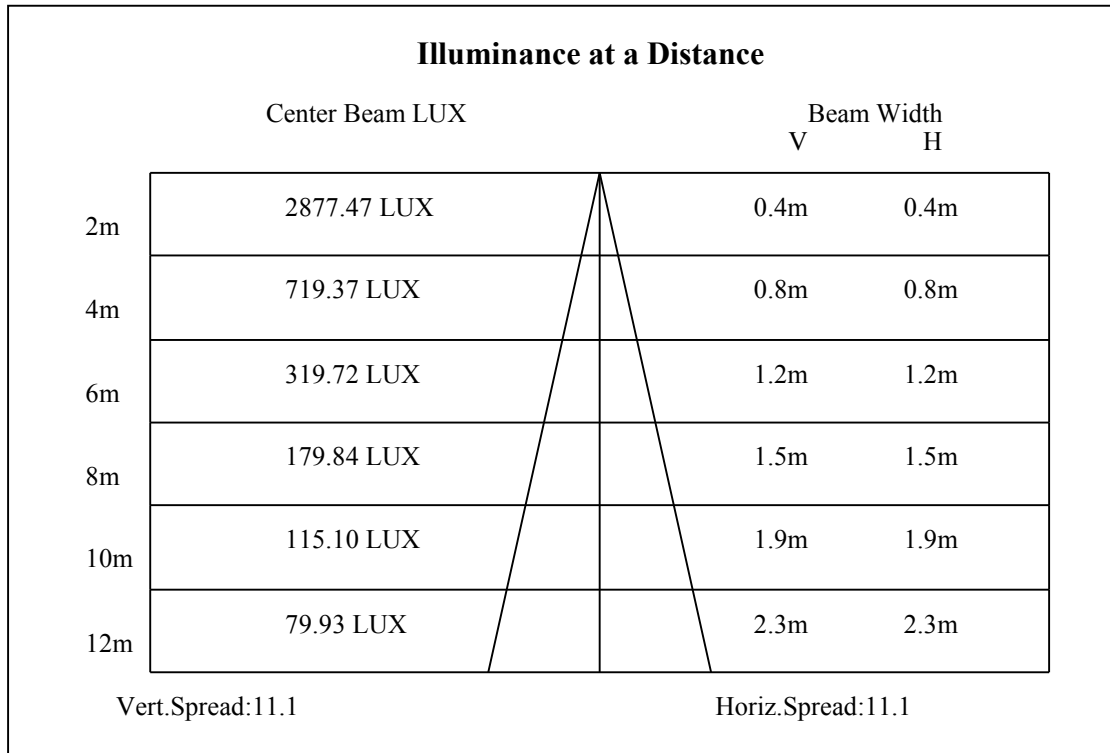
0-10	442.08
10-20	174.61
20-30	180.02
30-40	136.02
40-50	6.63
50-60	4.58
60-70	4.09
70-80	3.98
80-90	3.55
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

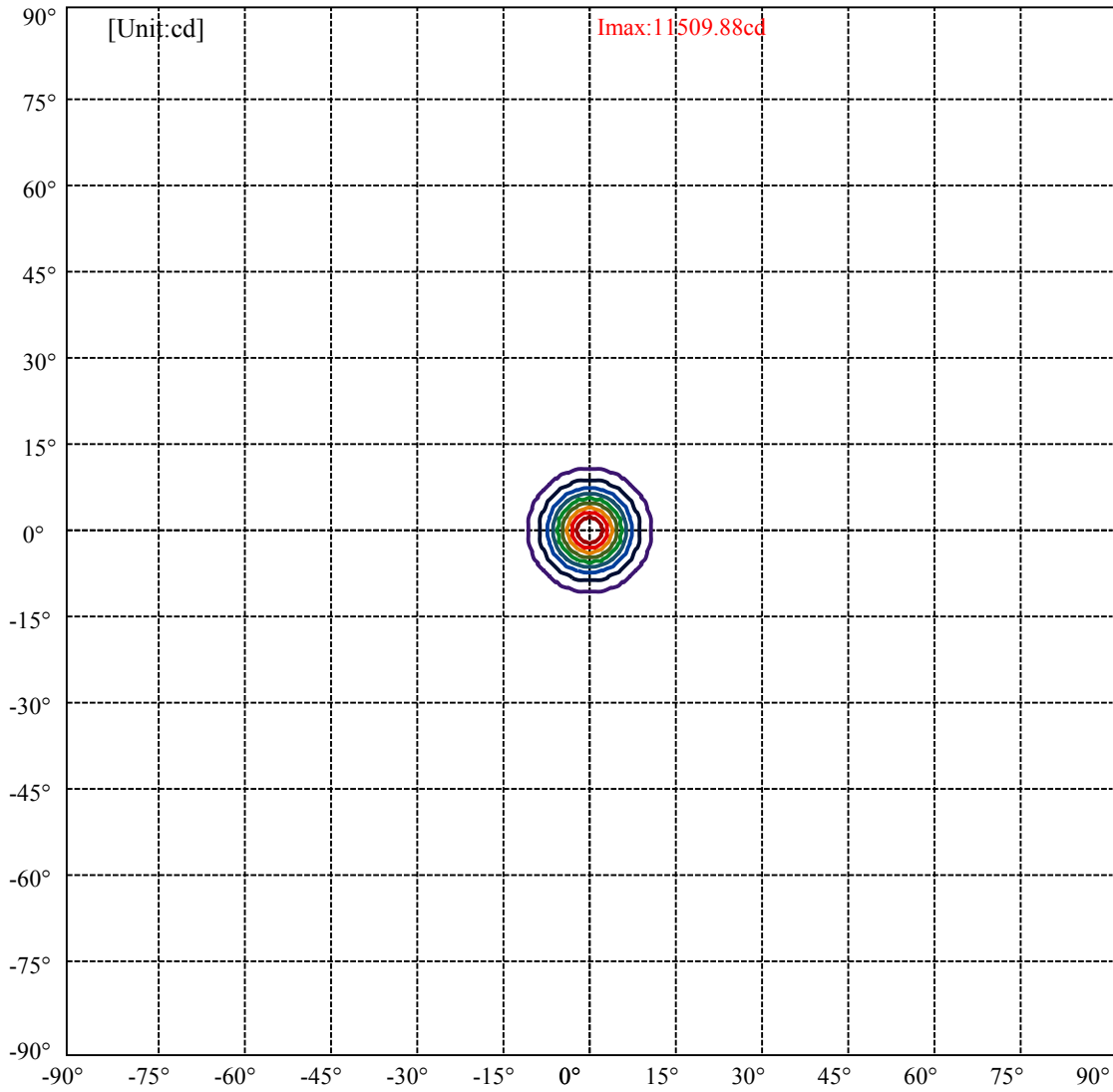


C0(Max): —————
C0/C180: —————
C90/C270: —————

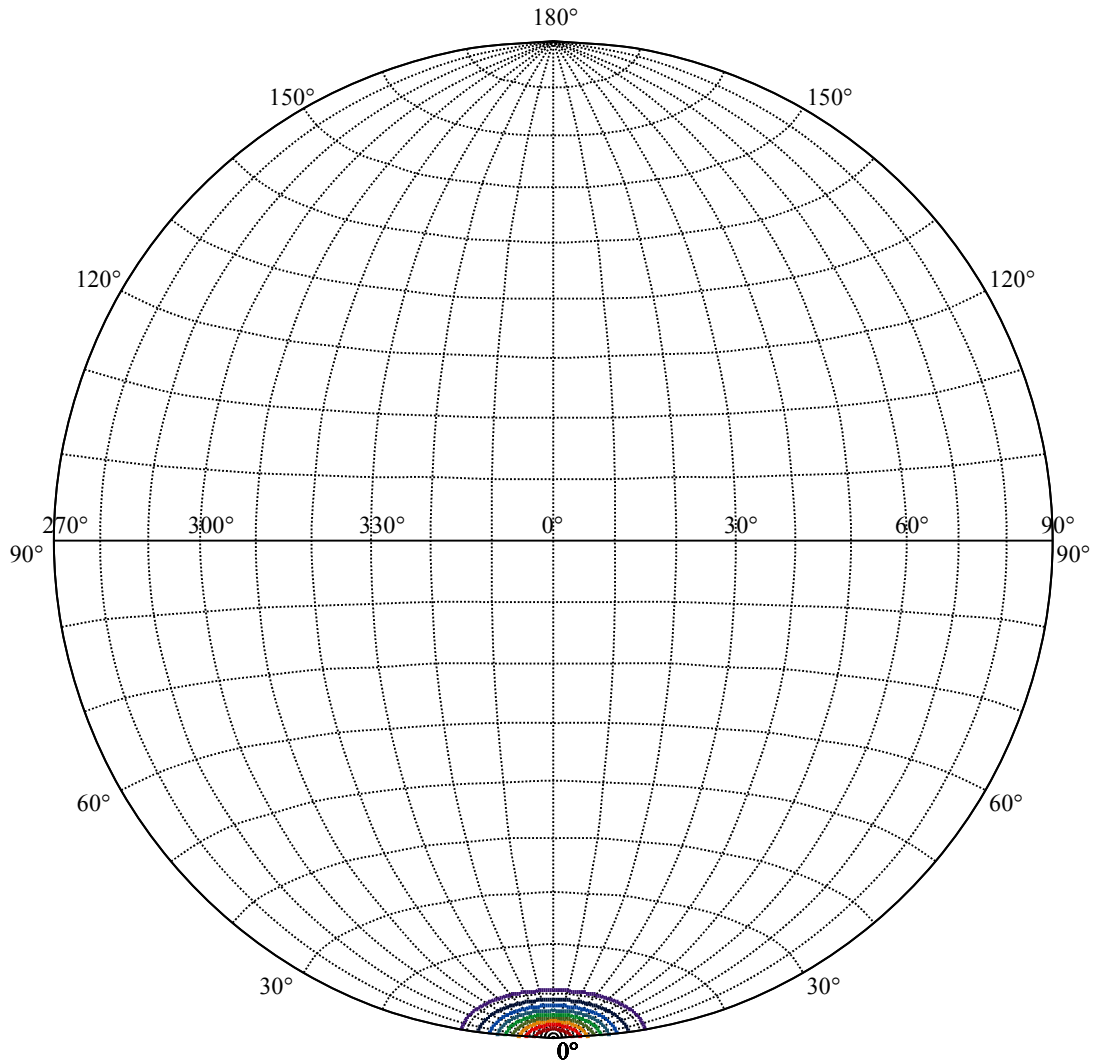
Field angle(10%Imax):C0/180Left:10.6 Right:10.6
:C90/270Left:10.6 Right:10.6

Beam Angle(50%Imax):C0/180Left:5.5 Right:5.5
:C90/270Left:5.5 Right:5.5





(10%Imax) 1150.99	—
(20%Imax) 2301.98	—
(30%Imax) 3452.96	—
(40%Imax) 4603.95	—
(50%Imax) 5754.94	—
(60%Imax) 6905.93	—
(70%Imax) 8056.91	—
(80%Imax) 9207.9	—
(90%Imax) 10358.9	—



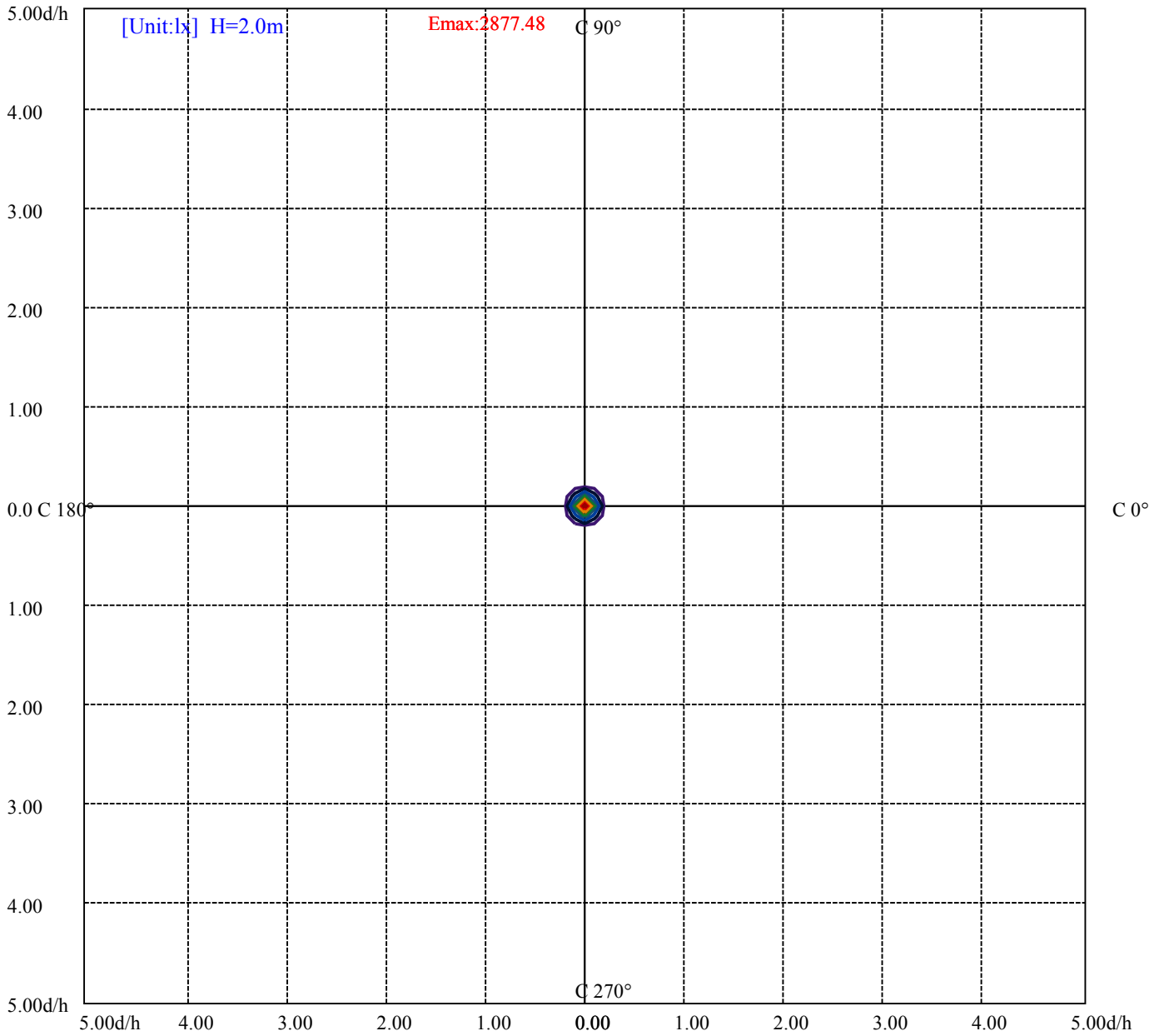
House

[Unit:cd]

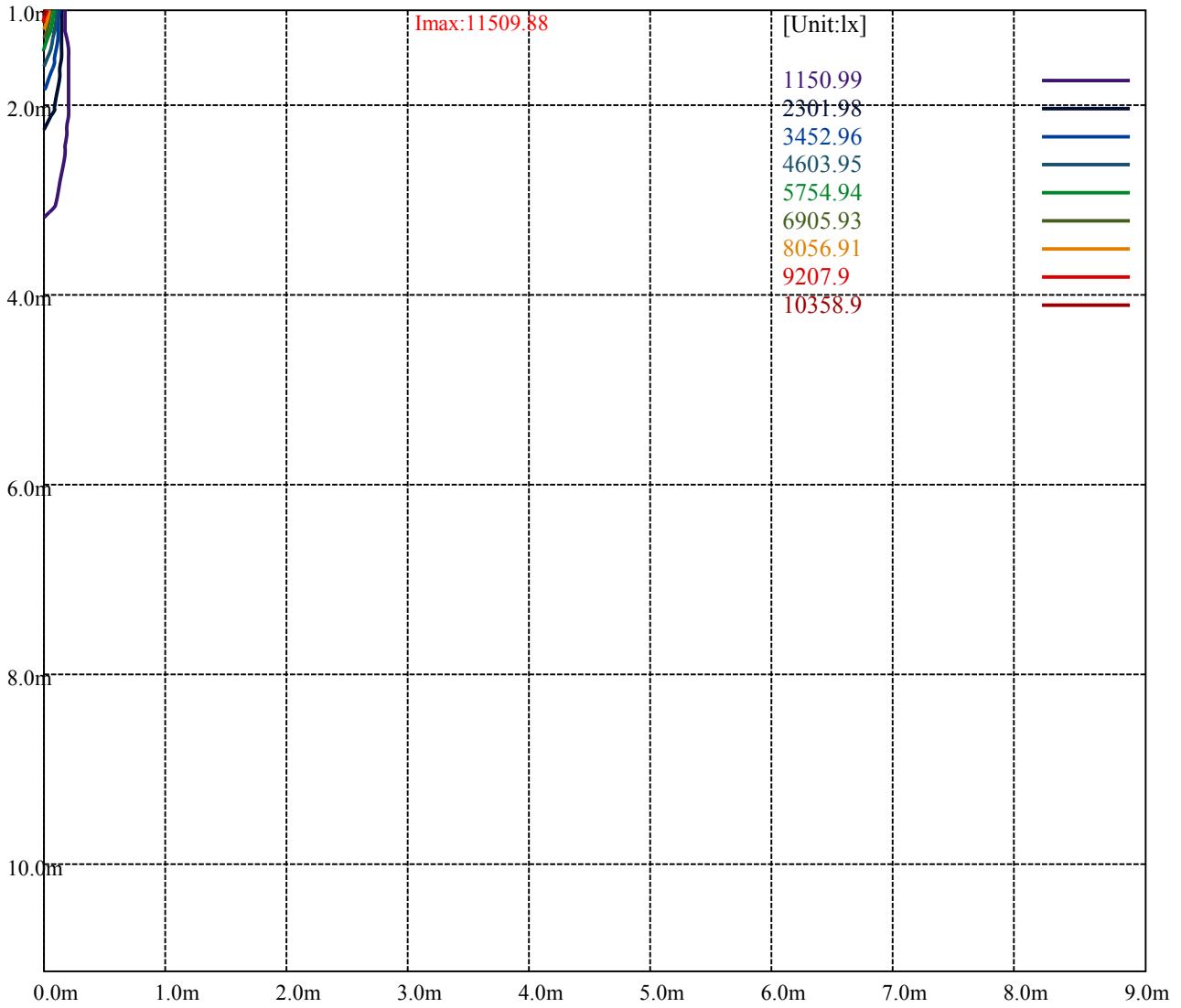
Road

Imax:11509.88

(10%Imax)	1150.99	—
(20%Imax)	2301.98	—
(30%Imax)	3452.96	—
(40%Imax)	4603.95	—
(50%Imax)	5754.94	—
(60%Imax)	6905.93	—
(70%Imax)	8056.91	—
(80%Imax)	9207.9	—
(90%Imax)	10358.9	—



(10%Emax) 287.7475	—
(20%Emax) 575.4925	—
(30%Emax) 863.24	—
(40%Emax) 1150.988	—
(50%Emax) 1438.733	—
(60%Emax) 1726.48	—
(70%Emax) 2014.228	—
(80%Emax) 2301.972	—
(90%Emax) 2589.725	—



Luminance Table

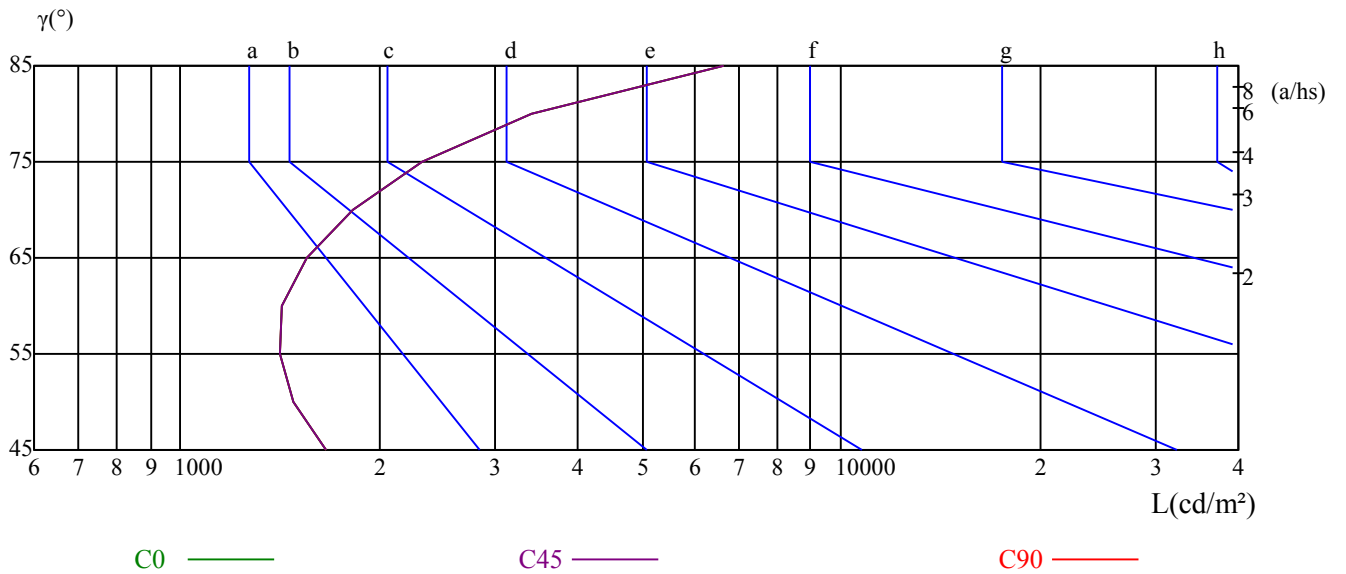
γ	45	50	55	60	65	70	75	80	85
C0	1657	1486	1418	1426	1557	1825	2320	3393	6657
C45	1657	1486	1418	1426	1557	1825	2320	3393	6657
C90	1657	1486	1418	1426	1557	1825	2320	3393	6657

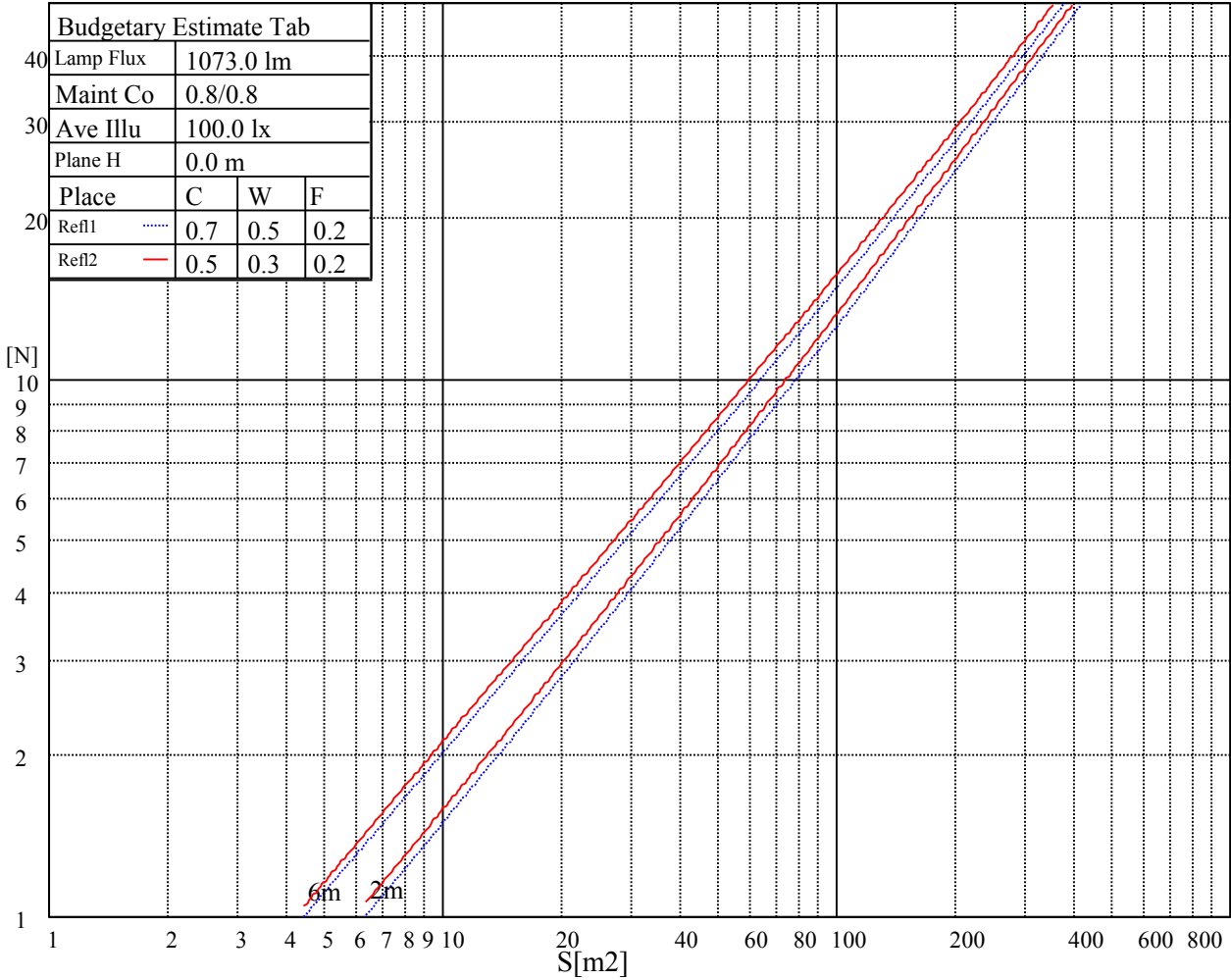
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1557	1557	1557	2320	2320	2320	6657	6657	6657

Glare Table

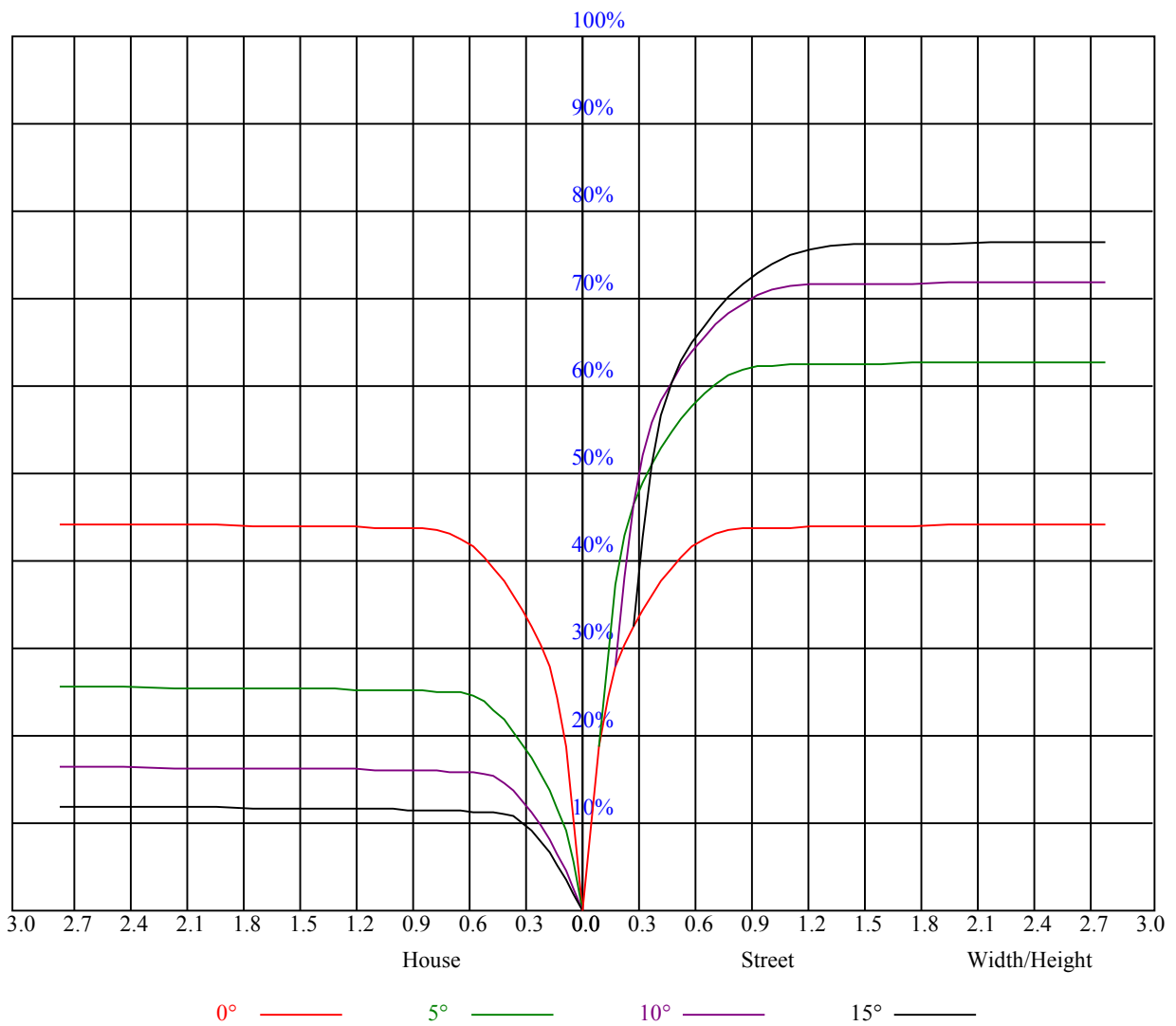
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.06	1.06	1.06	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	1.00	0.98	0.97	0.98	0.97	0.95	0.95	0.93	0.92	0.91	0.90	0.89	0.88	0.88	0.87	0.85
2	0.95	0.92	0.90	0.94	0.91	0.89	0.91	0.89	0.87	0.88	0.86	0.85	0.86	0.84	0.83	0.82
3	0.91	0.87	0.84	0.89	0.86	0.84	0.87	0.85	0.82	0.85	0.83	0.81	0.83	0.81	0.80	0.79
4	0.87	0.83	0.80	0.86	0.82	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.81	0.79	0.77	0.76
5	0.83	0.79	0.77	0.83	0.79	0.76	0.81	0.78	0.76	0.80	0.77	0.75	0.79	0.76	0.74	0.73
6	0.80	0.76	0.74	0.80	0.76	0.73	0.79	0.75	0.73	0.77	0.75	0.72	0.76	0.74	0.72	0.71
7	0.78	0.74	0.71	0.77	0.73	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	0.67	0.73	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.66	0.71	0.68	0.66	0.65
10	0.71	0.67	0.65	0.71	0.67	0.65	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	11191.50	11992.50	11694.38	10991.25	9478.13	7886.25	6626.25	4995.00	3830.63
45.0	11790.00	11705.63	11013.75	9748.13	8420.63	6845.63	5366.25	4140.00	3060.00
90.0	11138.63	10914.75	9786.38	8314.31	6768.56	5463.00	4260.38	2955.94	2108.81
135.0	11919.38	11205.00	9939.38	8409.38	6980.63	5495.63	4308.75	3099.38	2863.13
180.0	11191.50	10668.38	9425.81	7850.25	6257.25	4958.44	3808.13	2554.31	1810.69
225.0	11790.00	11134.69	10229.63	8777.81	7224.19	5860.13	4649.06	3305.25	2404.13
270.0	11138.63	11868.75	11379.38	10260.00	8960.63	7374.38	5827.50	4590.00	3487.50
315.0	11919.38	12015.00	11192.06	10377.00	8876.81	7410.94	6050.25	4444.88	3331.13
360.0	11191.50	11992.50	11694.38	10991.25	9478.13	7886.25	6626.25	4995.00	3830.63
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2902.50	1794.94	1315.13	1026.00	799.31	683.44	603.56	536.63	503.44
45.0	2007.56	1432.69	1086.19	873.00	705.38	618.19	559.69	511.88	487.13
90.0	1504.13	1072.46	870.02	733.11	636.75	557.38	517.05	485.16	470.59
135.0	1563.75	1159.31	933.19	777.94	649.69	577.69	531.56	493.31	470.81
180.0	1079.61	997.99	823.22	701.61	607.78	543.99	504.51	477.84	459.28
225.0	1730.25	1097.61	950.40	781.82	660.09	583.09	536.06	504.28	478.97
270.0	2863.13	1668.38	1234.69	999.56	774.56	669.38	596.25	536.06	505.13
315.0	2382.19	1546.88	1113.92	916.37	747.56	639.11	573.92	526.61	497.25
360.0	2902.50	1794.94	1315.13	1026.00	799.31	683.44	603.56	536.63	503.44
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	482.63	464.06	450.56	441.56	430.31	419.63	410.06	398.81	389.81
45.0	469.69	455.63	441.00	430.31	419.06	408.94	397.69	388.69	380.25
90.0	456.13	444.32	432.73	420.24	409.84	400.16	391.11	380.76	374.01
135.0	456.19	443.81	433.69	424.69	415.69	406.69	396.56	388.13	380.25
180.0	447.53	436.95	428.96	418.11	407.08	398.14	389.36	378.28	370.35
225.0	461.53	448.76	436.22	423.11	414.45	403.59	395.49	387.68	379.46
270.0	484.88	463.50	447.19	437.63	426.38	415.13	407.81	396.00	388.69
315.0	475.43	461.48	449.61	435.43	423.06	412.59	403.48	391.05	383.06
360.0	482.63	464.06	450.56	441.56	430.31	419.63	410.06	398.81	389.81
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	380.81	373.50	366.19	360.00	351.00	345.94	341.44	335.25	321.75
45.0	370.69	365.06	359.44	353.25	344.81	339.19	334.13	324.56	288.56
90.0	367.09	359.61	351.34	345.15	339.30	331.71	312.53	270.28	209.81
135.0	372.38	365.06	357.19	350.44	342.56	335.81	326.81	284.63	221.34
180.0	363.49	356.91	350.33	344.19	337.05	330.30	321.02	280.69	231.24
225.0	371.81	366.30	357.58	351.06	345.60	339.08	333.62	310.84	253.91
270.0	381.38	372.94	366.19	360.00	351.56	345.94	340.31	330.75	297.56
315.0	374.12	366.19	359.78	352.91	345.83	341.04	335.14	326.31	288.34
360.0	380.81	373.50	366.19	360.00	351.00	345.94	341.44	335.25	321.75
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	289.13	210.94	142.54	83.98	35.44	18.56	14.40	10.52	8.83
45.0	253.80	166.22	101.36	50.46	19.63	15.19	10.97	8.66	7.71
90.0	138.04	84.26	35.10	17.38	13.84	9.73	8.33	7.65	7.37
135.0	164.08	100.24	45.06	19.52	14.79	10.91	8.61	7.93	7.20
180.0	164.93	92.98	52.09	21.94	14.74	10.58	8.21	7.37	7.09
225.0	186.81	127.91	66.09	27.06	17.61	12.71	9.45	8.21	7.65
270.0	284.63	170.78	101.36	52.14	23.01	16.59	11.81	9.34	8.61
315.0	226.35	161.27	102.43	45.11	19.86	15.58	11.25	8.61	7.88
360.0	289.13	210.94	142.54	83.98	35.44	18.56	14.40	10.52	8.83

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	7.82	7.26	6.98	6.75	6.41	6.13	5.96	5.74	5.57
45.0	7.31	6.98	6.75	6.47	6.19	6.02	5.79	5.63	5.46
90.0	7.09	6.81	6.53	6.30	6.08	5.85	5.68	5.51	5.29
135.0	6.92	6.64	6.41	6.19	5.91	5.68	5.57	5.34	5.18
180.0	6.86	6.53	6.30	6.08	5.85	5.68	5.51	5.29	5.18
225.0	7.37	7.14	6.81	6.53	6.30	6.02	5.91	5.68	5.51
270.0	7.59	7.26	7.03	6.69	6.41	6.19	5.96	5.74	5.57
315.0	7.54	7.20	6.92	6.64	6.36	6.13	5.91	5.74	5.51
360.0	7.82	7.26	6.98	6.75	6.41	6.13	5.96	5.74	5.57
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	5.40	5.23	5.01	4.89	4.78	4.67	4.56	4.44	4.39
45.0	5.29	5.12	4.95	4.84	4.67	4.61	4.50	4.44	4.33
90.0	5.12	4.95	4.84	4.73	4.61	4.50	4.39	4.33	4.22
135.0	5.01	4.89	4.73	4.61	4.50	4.44	4.33	4.28	4.22
180.0	5.01	4.84	4.73	4.61	4.50	4.39	4.33	4.22	4.16
225.0	5.34	5.18	5.01	4.89	4.73	4.56	4.44	4.33	4.28
270.0	5.40	5.23	5.01	4.95	4.78	4.67	4.56	4.50	4.39
315.0	5.34	5.18	5.01	4.89	4.73	4.61	4.50	4.44	4.39
360.0	5.40	5.23	5.01	4.89	4.78	4.67	4.56	4.44	4.39
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	4.33	4.22	4.16	4.11	4.11	3.99	3.99	3.94	3.94
45.0	4.28	4.16	4.16	4.05	3.99	3.99	3.94	3.88	3.88
90.0	4.16	4.11	4.05	3.99	3.99	3.94	3.88	3.88	3.83
135.0	4.16	4.11	4.05	3.99	3.99	3.88	3.83	3.88	3.83
180.0	4.11	4.05	3.99	3.94	3.94	3.88	3.88	3.83	3.77
225.0	4.16	4.11	4.05	3.99	3.94	3.88	3.88	3.83	3.83
270.0	4.33	4.28	4.22	4.11	4.11	4.05	3.99	3.99	3.94
315.0	4.28	4.22	4.16	4.11	4.05	3.99	3.94	3.94	3.88
360.0	4.33	4.22	4.16	4.11	4.11	3.99	3.99	3.94	3.94
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	3.88	3.83	3.77	3.77	3.77	3.77	3.71	3.71	3.71
45.0	3.83	3.83	3.77	3.77	3.71	3.71	3.71	3.71	3.66
90.0	3.83	3.77	3.77	3.77	3.71	3.71	3.71	3.71	3.71
135.0	3.77	3.77	3.77	3.71	3.71	3.66	3.66	3.66	3.66
180.0	3.77	3.71	3.71	3.71	3.66	3.71	3.66	3.66	3.60
225.0	3.77	3.77	3.77	3.71	3.71	3.66	3.66	3.66	3.66
270.0	3.88	3.88	3.83	3.83	3.83	3.77	3.77	3.77	3.77
315.0	3.83	3.83	3.77	3.71	3.71	3.71	3.71	3.71	3.66
360.0	3.88	3.83	3.77	3.77	3.77	3.77	3.71	3.71	3.71
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	3.66	3.66	3.66	3.66	3.60	3.60	3.60	3.60	3.60
45.0	3.66	3.66	3.60	3.60	3.60	3.60	3.60	3.54	3.54
90.0	3.71	3.71	3.66	3.71	3.66	3.60	3.54	3.54	3.54
135.0	3.60	3.66	3.66	3.60	3.60	3.60	3.54	3.60	3.54
180.0	3.60	3.60	3.60	3.60	3.60	3.54	3.54	3.54	3.54
225.0	3.66	3.60	3.60	3.60	3.60	3.60	3.54	3.54	3.54
270.0	3.71	3.71	3.77	3.71	3.71	3.66	3.60	3.60	3.60
315.0	3.66	3.66	3.60	3.60	3.60	3.60	3.54	3.60	3.54
360.0	3.66	3.66	3.66	3.66	3.60	3.60	3.60	3.60	3.60

Intensity data(cd)

C/γ(°)	90.0
0.0	3.54
45.0	3.54
90.0	3.54
135.0	3.54
180.0	3.54
225.0	3.54
270.0	3.54
315.0	3.54
360.0	3.54