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Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

LumCAT: LN01D04524DA-N
Luminaire: 97.70.234.00
Report No: 200707-B009
Test No: 200707-C009
LampCAT: LUMINUS CXM-6-AC40
Lamp flux(lm): 985.0
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 36.0400
Current(A): 0.2800
Power (W): 10.0910
PF: 0.0000
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 882.48
Efficiency(%): 89.59%
Lumens(lm)/Power(W): 87.45
Central intensity(cd): 3974.625
Maximum intensity(cd): 3974.625
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=25.7
[C90/270]Total=25.7
Field angle(10%Imax): [C0/180]Total=41.2
[C90/270]Total=41.2
Maximum s/h(1/2): C0_180=0.44 C90_270=0.44
Maximum s/h(1/4): C0_180=0.40 C90_270=0.40
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 89.59%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.477%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3974.625	0.000	0	.000%	.000%
1.0	3970.406	3.802	3.802	.386%	.431%
2.0	3947.836	11.365	15.167	1.154%	1.719%
3.0	3909.023	18.791	33.958	1.908%	3.848%
4.0	3852.984	25.982	59.94	2.638%	6.792%
5.0	3761.930	32.759	92.698	3.326%	10.504%
6.0	3653.508	38.970	131.669	3.956%	14.920%
7.0	3503.602	44.424	176.093	4.510%	19.954%
8.0	3307.078	48.743	224.835	4.949%	25.478%
9.0	3081.375	51.775	276.61	5.256%	31.345%
10.0	2817.070	53.379	329.989	5.419%	37.393%
11.0	2522.531	53.354	383.343	5.417%	43.439%
12.0	2237.836	52.038	435.38	5.283%	49.336%
13.0	1937.813	49.554	484.935	5.031%	54.951%
14.0	1621.617	45.560	530.495	4.625%	60.114%
15.0	1357.109	40.893	571.388	4.152%	64.748%
16.0	1095.427	35.937	607.325	3.648%	68.820%
17.0	914.850	31.305	638.63	3.178%	72.368%
18.0	727.017	27.071	665.701	2.748%	75.435%
19.0	587.412	22.868	688.57	2.322%	78.027%
20.0	456.532	19.107	707.677	1.940%	80.192%
21.0	358.488	15.650	723.327	1.589%	81.965%
22.0	295.313	13.138	736.465	1.334%	83.454%
23.0	232.692	11.079	747.544	1.125%	84.710%
24.0	192.178	9.289	756.833	.943%	85.762%
25.0	153.710	7.865	764.698	.798%	86.653%
26.0	128.770	6.668	771.366	.677%	87.409%
27.0	109.673	5.834	777.199	.592%	88.070%
28.0	96.223	5.213	782.412	.529%	88.661%
29.0	84.403	4.726	787.138	.480%	89.196%
30.0	75.431	4.315	791.454	.438%	89.685%
31.0	67.992	3.991	795.445	.405%	90.137%
32.0	61.102	3.698	799.143	.375%	90.557%
33.0	55.828	3.445	802.588	.350%	90.947%
34.0	50.941	3.231	805.819	.328%	91.313%
35.0	46.772	3.035	808.854	.308%	91.657%
36.0	42.919	2.856	811.709	.290%	91.981%
37.0	39.938	2.702	814.412	.274%	92.287%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	36.886	2.564	816.976	.260%	92.577%
39.0	34.249	2.428	819.404	.247%	92.852%
40.0	32.154	2.316	821.72	.235%	93.115%
41.0	30.115	2.217	823.937	.225%	93.366%
42.0	28.139	2.116	826.054	.215%	93.606%
43.0	26.416	2.021	828.075	.205%	93.835%
44.0	24.827	1.934	830.009	.196%	94.054%
45.0	23.147	1.844	831.853	.187%	94.263%
46.0	21.811	1.758	833.611	.178%	94.462%
47.0	20.327	1.676	835.287	.170%	94.652%
48.0	19.027	1.591	836.878	.162%	94.833%
49.0	17.803	1.512	838.39	.154%	95.004%
50.0	16.580	1.434	839.824	.146%	95.166%
51.0	15.532	1.359	841.182	.138%	95.320%
52.0	14.660	1.296	842.478	.132%	95.467%
53.0	13.866	1.241	843.719	.126%	95.608%
54.0	13.127	1.190	844.908	.121%	95.743%
55.0	12.614	1.149	846.057	.117%	95.873%
56.0	12.108	1.117	847.174	.113%	95.999%
57.0	11.679	1.088	848.262	.110%	96.123%
58.0	11.299	1.063	849.325	.108%	96.243%
59.0	10.962	1.041	850.365	.106%	96.361%
60.0	10.610	1.019	851.384	.103%	96.476%
61.0	10.294	0.998	852.382	.101%	96.589%
62.0	10.005	0.978	853.36	.099%	96.700%
63.0	9.724	0.960	854.32	.097%	96.809%
64.0	9.457	0.941	855.261	.096%	96.916%
65.0	9.204	0.924	856.184	.094%	97.020%
66.0	8.972	0.907	857.091	.092%	97.123%
67.0	8.817	0.894	857.986	.091%	97.224%
68.0	8.972	0.901	858.887	.091%	97.327%
69.0	9.563	0.946	859.832	.096%	97.434%
70.0	10.434	1.027	860.859	.104%	97.550%
71.0	11.630	1.140	862	.116%	97.679%
72.0	13.008	1.281	863.281	.130%	97.824%
73.0	14.006	1.413	864.694	.143%	97.985%
74.0	14.871	1.518	866.212	.154%	98.157%
75.0	15.687	1.615	867.826	.164%	98.340%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	15.750	1.669	869.495	.169%	98.529%
77.0	15.420	1.662	871.157	.169%	98.717%
78.0	14.477	1.600	872.757	.162%	98.898%
79.0	13.226	1.488	874.246	.151%	99.067%
80.0	12.023	1.361	875.607	.138%	99.221%
81.0	10.392	1.212	876.819	.123%	99.359%
82.0	8.831	1.042	877.862	.106%	99.477%
83.0	7.165	0.870	878.731	.088%	99.575%
84.0	5.984	0.716	879.448	.073%	99.656%
85.0	5.168	0.609	880.056	.062%	99.725%
86.0	4.838	0.547	880.603	.056%	99.787%
87.0	4.507	0.511	881.115	.052%	99.845%
88.0	4.205	0.477	881.592	.048%	99.899%
89.0	4.022	0.451	882.043	.046%	99.951%
90.0	3.945	0.437	882.479	.044%	100.000%

Zonal flux distribution table

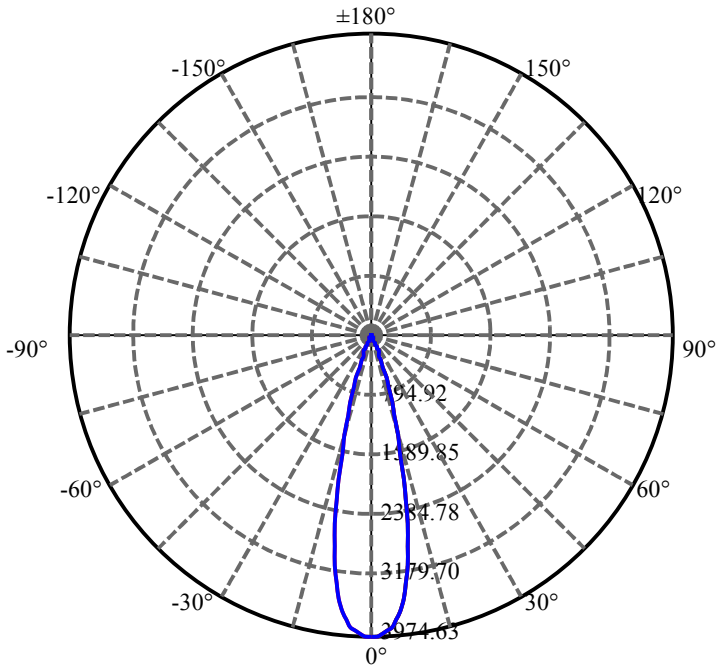
ZONAL LUMEN SUMMARY

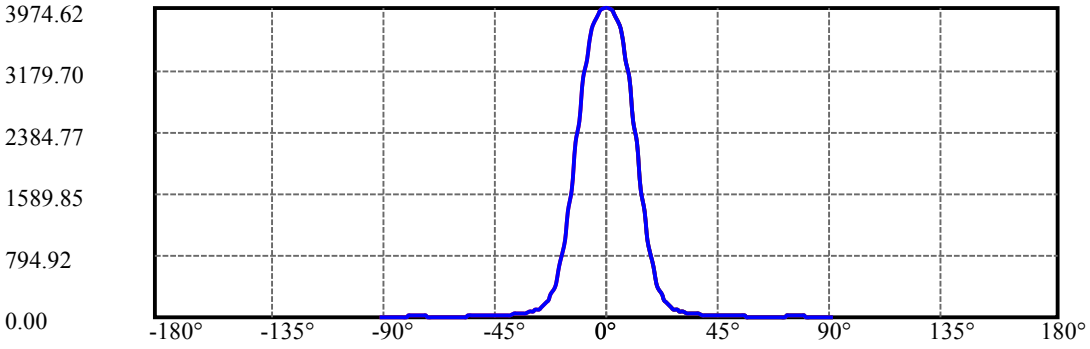
Zone	Lumens	%Lamp	%Fixt
0-30	791.45	80.35%	89.69%
0-40	821.72	83.42%	93.11%
0-60	851.38	86.43%	96.48%
0-90	882.04	89.55%	99.95%
0-120	882.04	89.55%	99.95%
0-180	882.48	89.59%	100.00%
60-90	31.68	3.22%	3.59%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-19.91	705.98	71.67%	80.00%

ZONAL LUMEN SUMMARY

0-10	329.99
10-20	377.69
20-30	83.78
30-40	30.27
40-50	18.10
50-60	11.56
60-70	9.48
70-80	14.75
80-90	6.44
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

Light Distribution Curve [Unit:cd]





C0(Max):

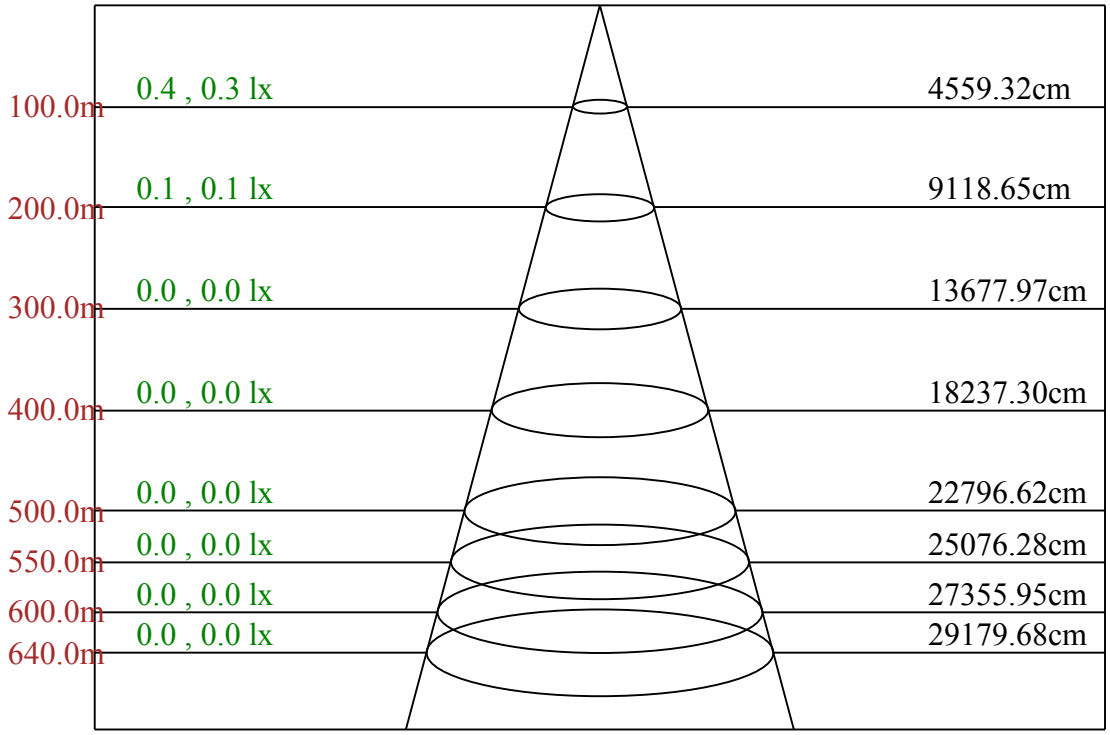
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:20.6 Right:20.6
:C90/270Left:20.6 Right:20.6

Beam Angle(50%Imax):C0/180Left:12.8 Right:12.8
:C90/270Left:12.8 Right:12.8

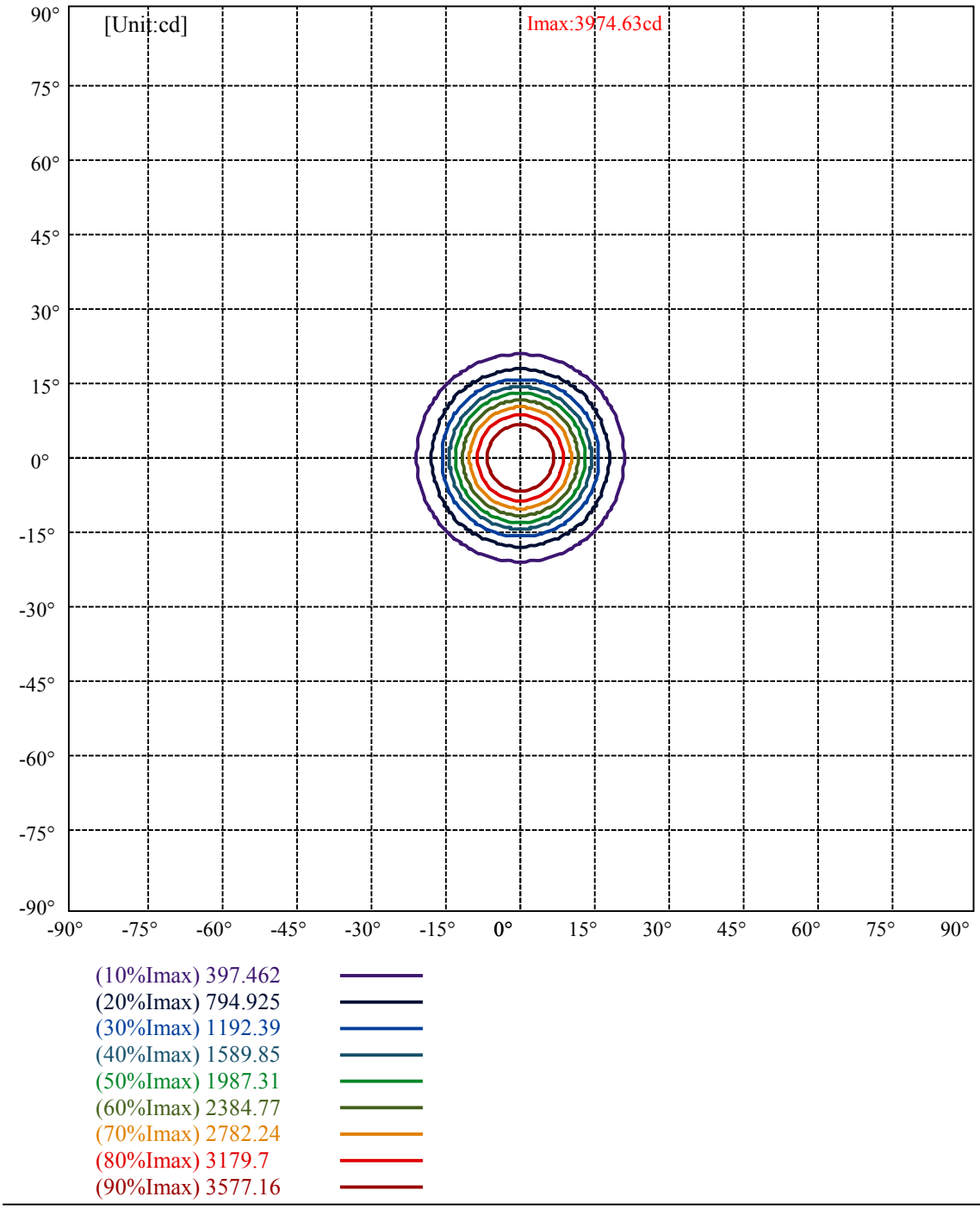
Lux distance Curve



Max , Ave

Beam angle of C0 plane 25.68

ISO-Intensity(V-H)



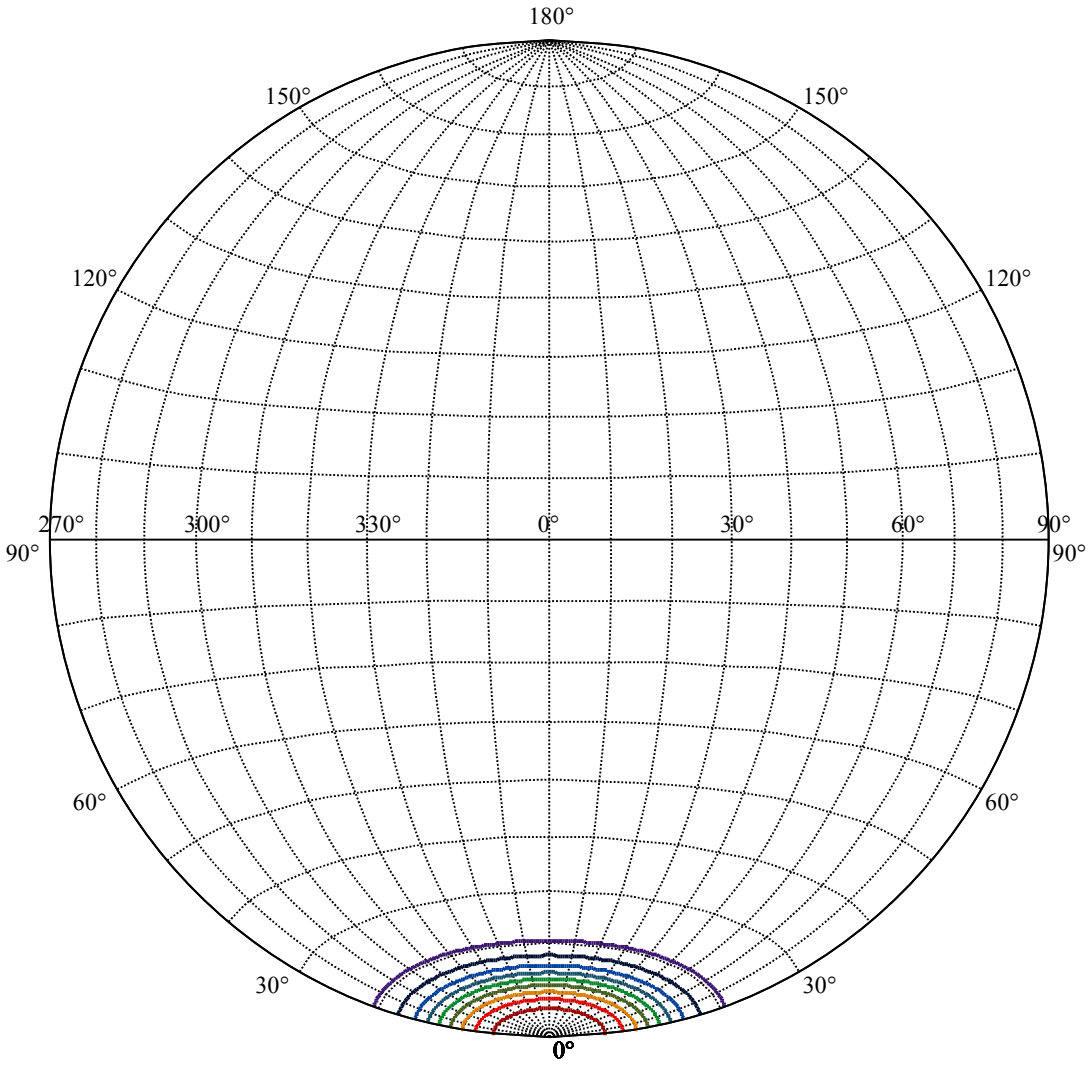
(10%Imax) 397.462
(20%Imax) 794.925
(30%Imax) 1192.39
(40%Imax) 1589.85
(50%Imax) 1987.31
(60%Imax) 2384.77
(70%Imax) 2782.24
(80%Imax) 3179.7
(90%Imax) 3577.16

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/7/7
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:3974.63

(10%Imax) 397.462
(20%Imax) 794.925
(30%Imax) 1192.39
(40%Imax) 1589.85
(50%Imax) 1987.31
(60%Imax) 2384.77
(70%Imax) 2782.24
(80%Imax) 3179.7
(90%Imax) 3577.16

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/7/7
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

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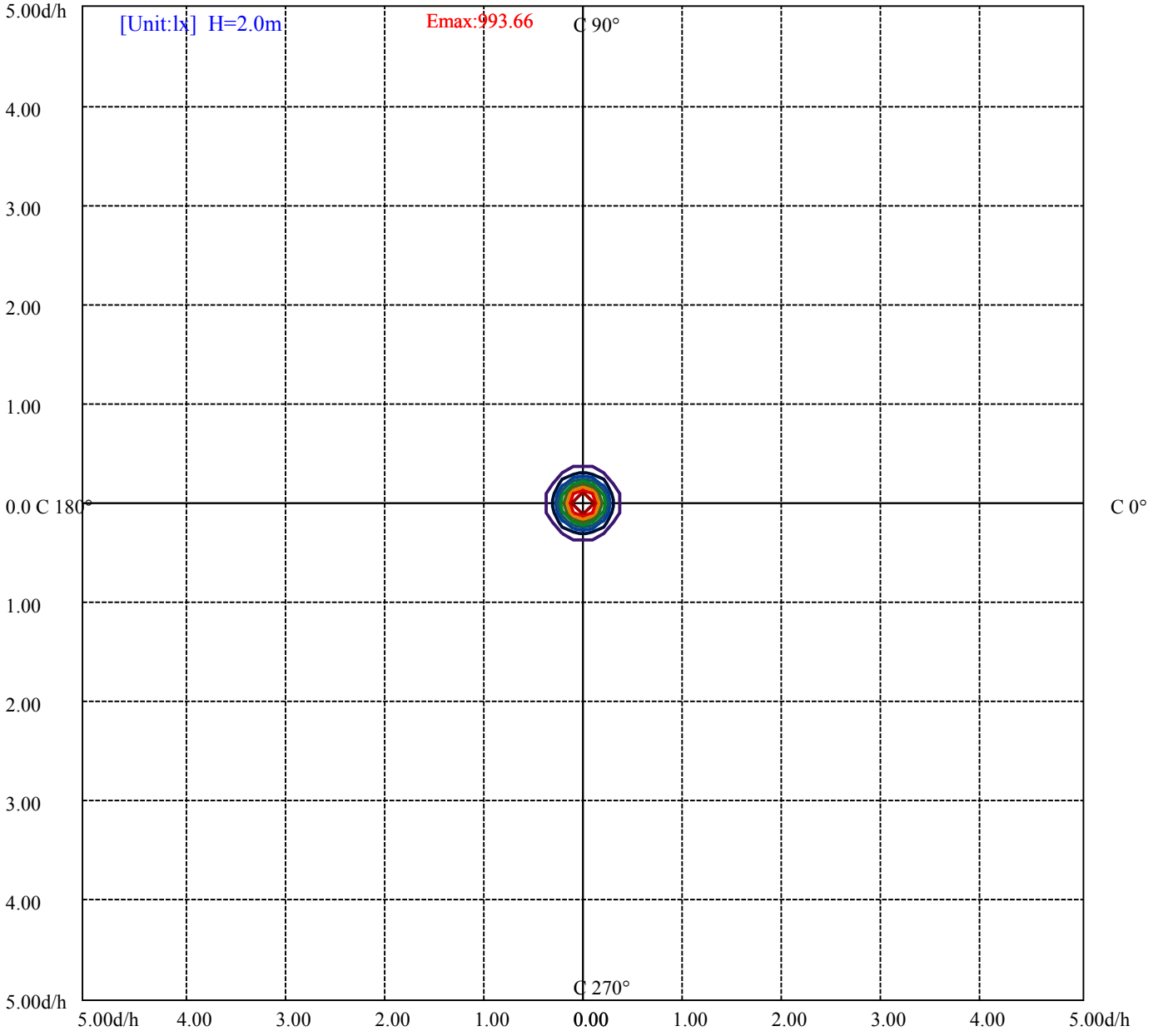
ISO illuminance diagram



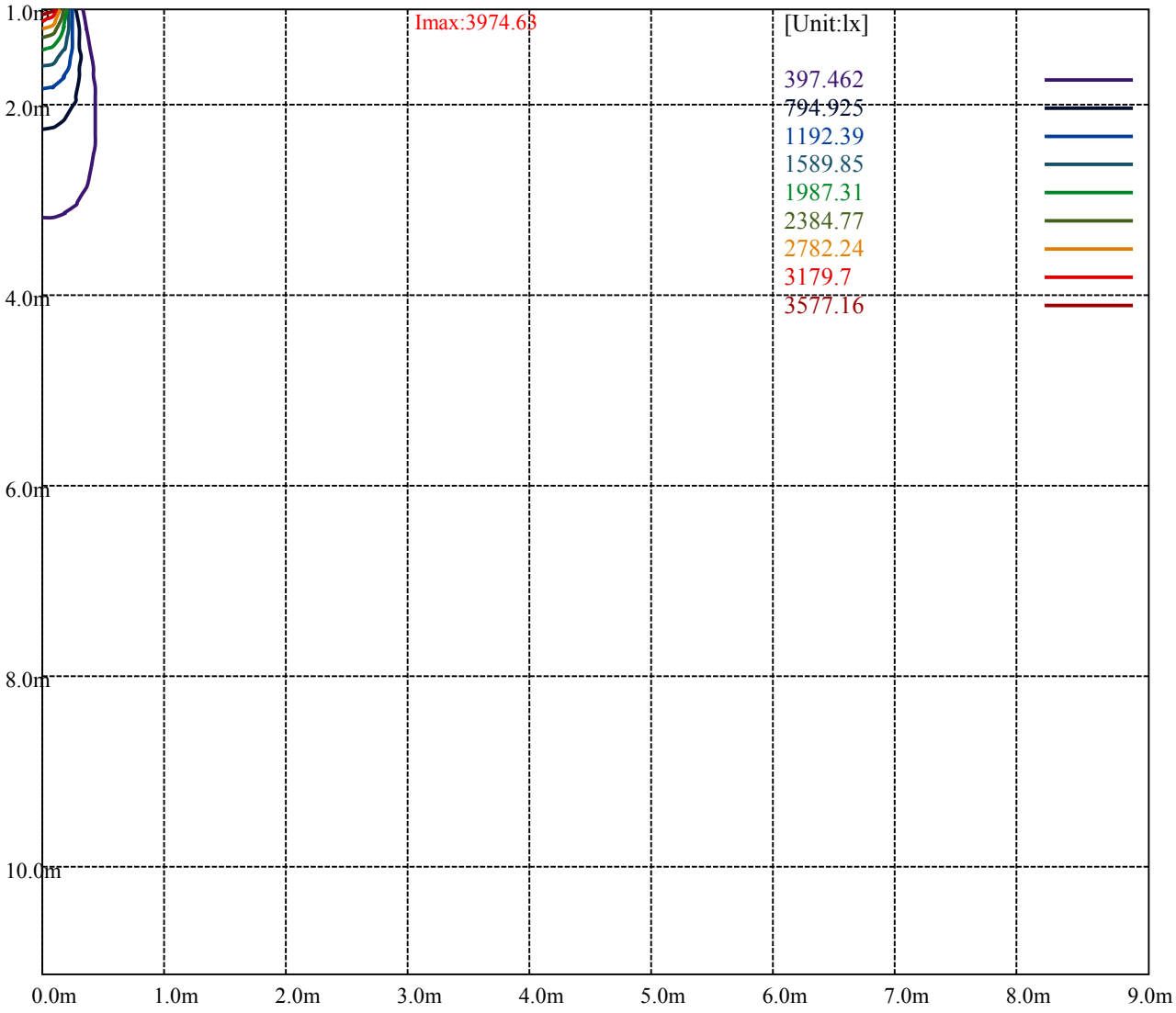
(10%Emax) 99.3655
(20%Emax) 198.7312
(30%Emax) 298.0975
(40%Emax) 397.4625
(50%Emax) 496.8275
(60%Emax) 596.1925
(70%Emax) 695.56
(80%Emax) 794.925
(90%Emax) 894.29

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/7/7
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/7/7
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

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Luminance Limitting Curve(no luminous side)

Luminance Table

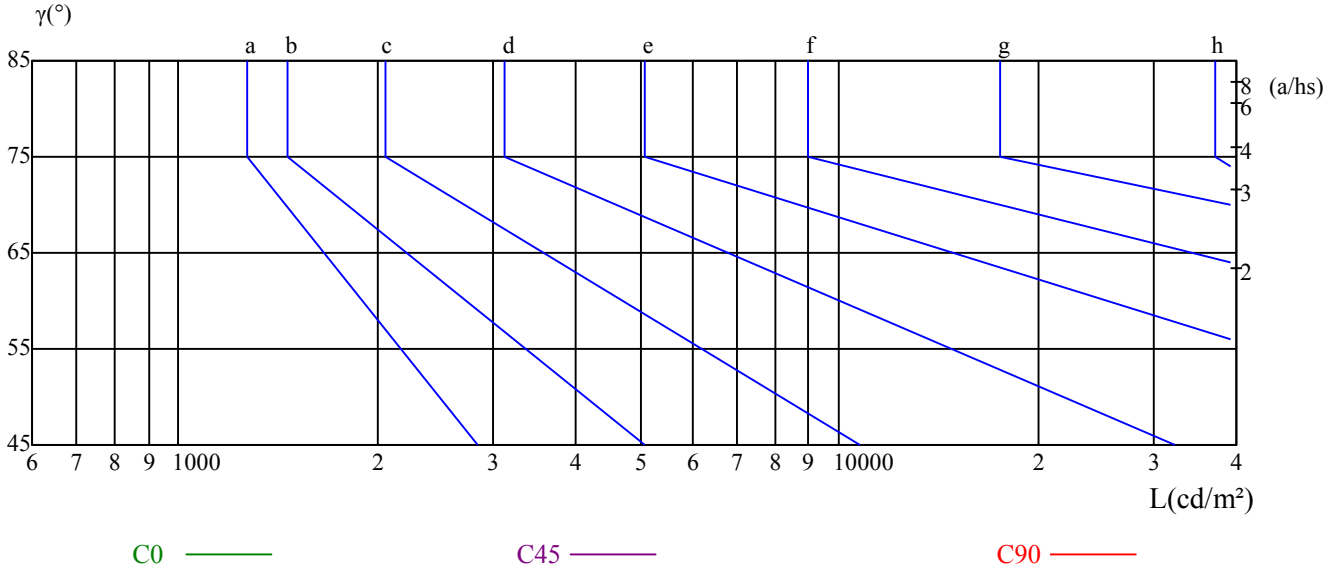
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

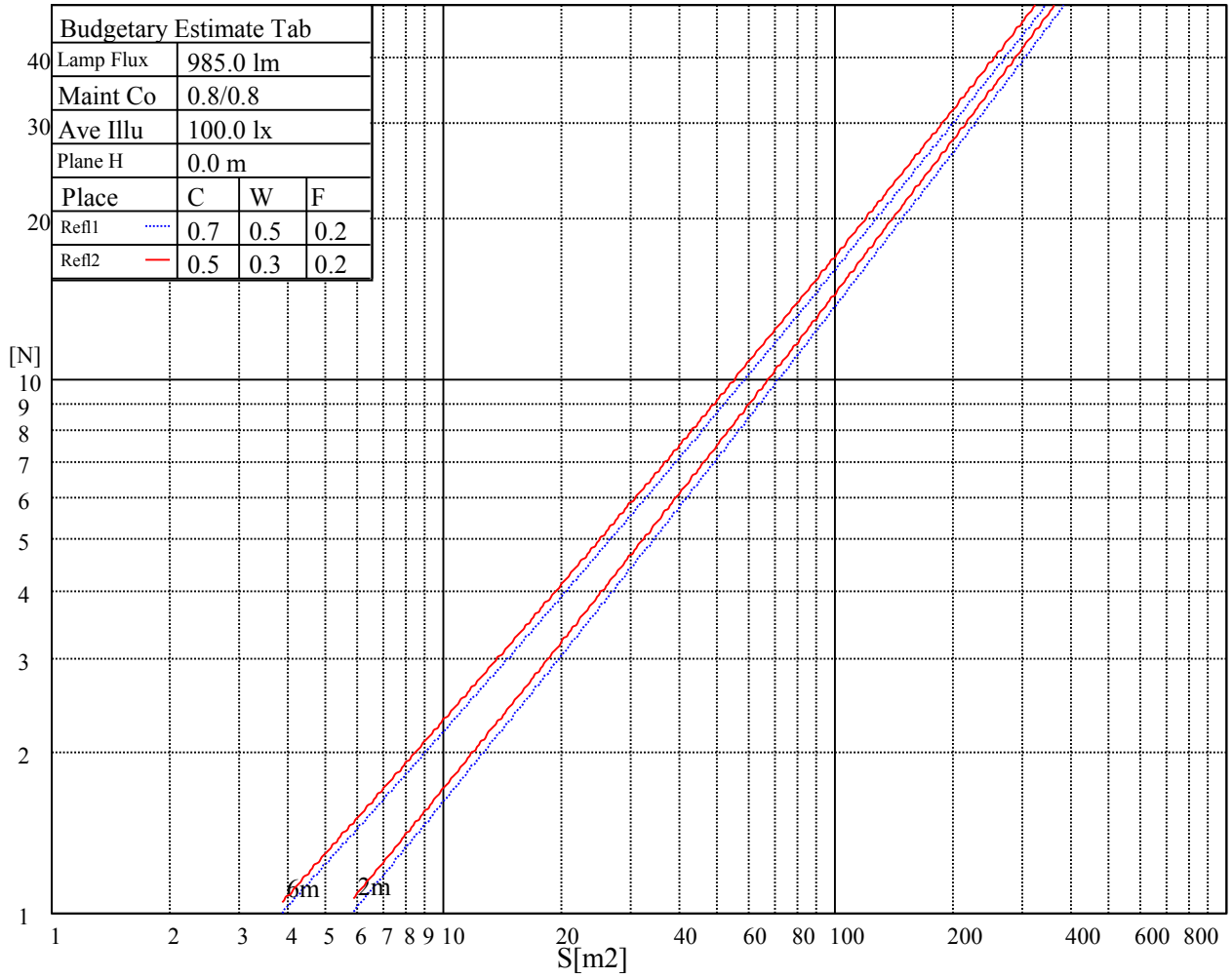
Glare Table

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 Limitting Curve



Budgetary Estimate Table

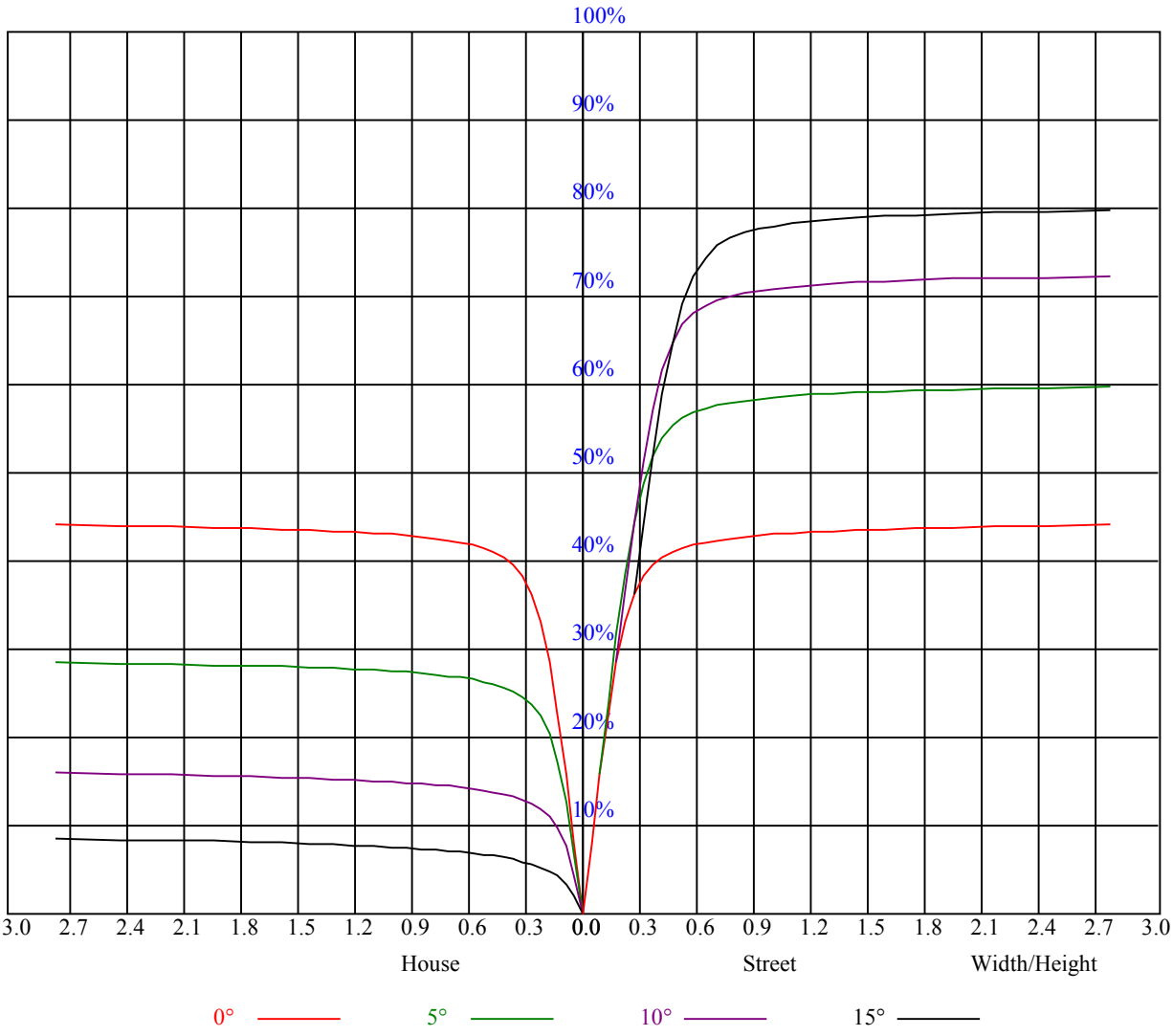


Equipment: GMS1980 Date: 2020/7/7 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.50

Utilization factor table for indoor luminaire

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	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	1.07	1.07	1.07	1.04	1.04	1.04	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91	0.90
1	1.00	0.98	0.96	0.98	0.97	0.95	0.95	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.87	0.85
2	0.95	0.92	0.89	0.93	0.91	0.88	0.91	0.88	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	0.84	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	0.84	0.80	0.77	0.83	0.79	0.77	0.81	0.78	0.76	0.80	0.77	0.75	0.79	0.77	0.75	0.74
6	0.81	0.77	0.74	0.80	0.77	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	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.71	0.75	0.72	0.70	0.69
8	0.76	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.69	0.73	0.71	0.69	0.68
9	0.74	0.70	0.68	0.73	0.70	0.67	0.73	0.70	0.67	0.72	0.69	0.67	0.71	0.69	0.67	0.66
10	0.72	0.68	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.70	0.67	0.65	0.70	0.67	0.65	0.64

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2020/7/7	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 65.0%	Distance(m): 7.50

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	3967.31	3969.56	3952.69	3924.56	3874.50	3791.25	3688.88	3534.75	3364.88
45.0	3975.19	3990.38	3988.13	3970.69	3921.19	3827.81	3713.63	3557.81	3330.56
90.0	3985.31	4006.13	4002.19	3981.94	3915.00	3796.31	3674.81	3472.88	3175.31
135.0	3970.69	3993.75	3994.88	3976.88	3946.50	3858.19	3753.56	3600.00	3384.00
180.0	3967.31	3958.88	3938.06	3882.38	3826.13	3740.63	3615.19	3443.06	3246.19
225.0	3975.19	3940.88	3888.56	3828.94	3752.44	3660.19	3562.31	3424.50	3248.44
270.0	3985.31	3953.81	3903.19	3850.31	3784.50	3694.50	3611.81	3502.69	3360.94
315.0	3970.69	3949.88	3915.00	3856.50	3803.63	3726.56	3607.88	3493.13	3346.31
360.0	3967.31	3969.56	3952.69	3924.56	3874.50	3791.25	3688.88	3534.75	3364.88

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3135.38	2868.19	2598.19	2310.19	1961.44	1690.88	1432.69	1139.06	934.88
45.0	3061.13	2788.31	2459.25	2160.00	1830.38	1521.56	1274.06	1027.13	817.31
90.0	2931.75	2595.94	2221.88	1959.75	1672.88	1254.94	1108.29	905.46	732.99
135.0	3126.94	2851.31	2516.06	2216.25	1886.06	1576.13	1320.75	1065.38	843.19
180.0	2980.69	2684.81	2400.19	2084.63	1810.69	1517.06	1105.20	1028.59	837.28
225.0	3067.88	2824.31	2545.88	2280.38	2014.31	1689.75	1439.44	1100.14	955.24
270.0	3195.56	3015.00	2775.94	2535.75	2244.94	1941.75	1679.06	1398.38	1148.63
315.0	3151.69	2908.69	2662.88	2355.75	2081.81	1780.88	1497.38	1099.29	1049.29
360.0	3135.38	2868.19	2598.19	2310.19	1961.44	1690.88	1432.69	1139.06	934.88

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	759.38	593.44	459.56	365.63	285.19	250.14	183.54	153.73	128.76
45.0	654.19	523.69	403.31	322.88	290.25	205.88	167.40	143.33	123.53
90.0	556.26	445.78	358.26	275.29	225.39	187.14	155.14	130.95	114.58
135.0	670.50	548.44	410.63	330.19	290.25	213.02	172.35	147.09	123.86
180.0	619.48	508.33	406.35	303.24	253.24	208.46	169.65	140.01	120.32
225.0	782.89	637.09	486.34	391.56	315.39	242.16	203.23	163.97	132.19
270.0	954.56	782.44	601.31	484.88	389.25	303.75	286.88	189.96	151.65
315.0	818.89	660.09	526.50	394.26	313.54	250.99	199.24	160.65	135.28
360.0	759.38	593.44	459.56	365.63	285.19	250.14	183.54	153.73	128.76

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	110.36	97.26	85.61	77.40	69.69	63.06	57.88	52.88	48.38
45.0	104.63	92.93	83.59	73.74	65.93	60.13	54.34	49.44	45.79
90.0	100.29	89.27	79.09	70.54	64.01	57.71	52.48	48.15	44.61
135.0	106.03	93.77	82.91	74.25	66.88	59.79	54.84	49.95	45.73
180.0	103.50	91.41	80.89	72.28	65.76	59.51	54.56	49.61	45.96
225.0	115.14	99.56	84.15	76.33	68.74	60.19	55.69	50.96	46.35
270.0	123.81	106.59	92.48	82.52	73.52	65.81	60.13	54.56	49.56
315.0	113.63	99.00	86.51	76.39	69.41	62.61	56.70	51.98	47.81
360.0	110.36	97.26	85.61	77.40	69.69	63.06	57.88	52.88	48.38

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	44.89	42.08	38.14	35.66	33.47	31.22	29.19	27.56	25.82
45.0	42.30	39.43	36.73	34.31	32.34	30.49	28.29	26.72	25.48
90.0	40.61	37.86	35.38	32.57	30.49	28.63	26.61	24.75	23.18
135.0	42.41	39.49	36.17	33.92	31.78	29.53	27.62	25.93	24.13
180.0	41.74	38.87	36.34	33.53	31.50	29.59	27.62	25.88	24.36
225.0	42.53	39.49	36.51	33.86	31.89	29.81	28.18	26.44	24.75
270.0	45.62	42.19	38.48	35.83	33.64	31.39	29.36	27.62	25.99
315.0	43.26	40.11	37.35	34.31	32.12	30.26	28.24	26.44	24.92
360.0	44.89	42.08	38.14	35.66	33.47	31.22	29.19	27.56	25.82

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	24.13	22.84	21.21	19.86	18.73	17.21	16.14	15.24	14.29
45.0	23.51	22.22	21.04	19.52	18.17	17.16	15.92	15.08	14.40
90.0	21.54	20.25	18.73	17.38	16.31	15.19	14.29	13.50	12.88
135.0	22.50	21.15	19.69	18.51	17.21	16.03	15.13	14.29	13.50
180.0	22.73	21.43	19.97	18.79	17.49	16.31	15.36	14.51	13.73
225.0	23.40	22.05	20.53	19.35	18.17	16.76	15.75	14.79	13.95
270.0	24.13	22.67	21.04	19.74	18.39	17.27	16.09	15.13	14.23
315.0	23.23	21.88	20.42	19.07	17.94	16.71	15.58	14.74	13.95
360.0	24.13	22.84	21.21	19.86	18.73	17.21	16.14	15.24	14.29

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	13.67	13.11	12.49	12.09	11.76	11.42	11.08	10.80	10.41
45.0	13.56	13.05	12.54	12.04	11.64	11.25	10.86	10.52	10.24
90.0	12.26	11.87	11.48	11.08	10.74	10.46	10.18	9.90	9.68
135.0	12.88	12.43	11.87	11.53	11.14	10.80	10.46	10.18	9.84
180.0	13.05	12.54	12.15	11.81	11.42	11.14	10.80	10.41	10.13
225.0	13.16	12.60	12.04	11.59	11.14	10.74	10.46	10.07	9.79
270.0	13.33	12.71	12.21	11.76	11.36	11.03	10.58	10.29	10.07
315.0	13.11	12.60	12.09	11.53	11.19	10.86	10.46	10.18	9.90
360.0	13.67	13.11	12.49	12.09	11.76	11.42	11.08	10.80	10.41

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	10.13	9.84	9.56	9.34	9.06	8.83	8.61	8.44	8.21
45.0	9.90	9.62	9.34	9.06	8.78	8.55	8.33	8.10	7.88
90.0	9.39	9.17	8.94	8.78	9.11	11.76	17.16	22.33	27.68
135.0	9.62	9.28	9.06	8.83	8.61	8.38	8.21	8.04	7.82
180.0	9.90	9.56	9.28	9.06	8.83	8.61	8.38	8.16	7.99
225.0	9.51	9.28	9.00	8.78	8.55	8.38	8.10	7.99	7.76
270.0	9.79	9.51	9.28	9.06	8.89	8.78	9.45	12.32	17.78
315.0	9.56	9.39	9.17	8.89	8.72	8.49	8.27	8.10	7.93
360.0	10.13	9.84	9.56	9.34	9.06	8.83	8.61	8.44	8.21

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	7.99	7.82	7.65	7.48	7.31	7.09	6.86	6.64	6.41
45.0	7.71	7.48	7.31	7.09	6.92	6.75	6.53	6.30	6.13
90.0	33.86	37.63	40.84	43.09	42.30	39.49	34.76	29.64	24.98
135.0	7.59	7.37	7.20	6.98	6.81	6.64	6.47	6.30	6.08
180.0	7.76	7.54	7.37	7.20	6.92	6.75	6.58	6.36	6.13
225.0	7.59	7.43	7.26	7.03	6.86	6.69	6.47	6.24	6.08
270.0	23.85	29.25	33.98	39.43	41.91	43.14	41.57	37.91	34.20
315.0	7.71	7.54	7.37	7.20	6.98	6.81	6.58	6.41	6.19
360.0	7.99	7.82	7.65	7.48	7.31	7.09	6.86	6.64	6.41

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	6.13	5.96	5.68	5.46	5.23	5.01	4.73	4.44	4.16
45.0	5.85	5.57	5.34	5.12	4.84	4.56	4.33	4.11	3.94
90.0	19.63	13.56	7.20	5.51	5.12	4.73	4.16	3.94	3.88
135.0	5.85	5.63	5.40	5.12	4.89	4.56	4.22	3.99	3.94
180.0	5.91	5.68	5.46	5.23	5.06	4.84	4.44	4.22	4.11
225.0	5.85	5.63	5.40	5.18	4.95	4.73	4.50	4.28	4.05
270.0	27.96	22.89	17.33	10.97	6.24	5.51	5.18	4.44	4.16
315.0	5.96	5.74	5.51	5.29	5.01	4.78	4.50	4.22	3.94
360.0	6.13	5.96	5.68	5.46	5.23	5.01	4.73	4.44	4.16

Intensity data(cd)

C/γ(°)	90.0
0.0	4.11
45.0	3.94
90.0	3.83
135.0	3.88
180.0	4.05
225.0	3.94
270.0	3.94
315.0	3.88
360.0	4.11