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

NATA

LumCAT: 2-1285-N
Luminaire: 92.70.064.00

Report No: NATA0100	Voltage(V): 34.8000
Test No: GC2019032609	Current(A): 0.3000
LampCAT: BRIDGELUX V10	Power (W): 10.4400
Lamp flux(lm): 1520.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 57	Width(mm): 57
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1251.72
Efficiency(%): 82.35%
Lumens(lm)/Power(W): 119.90
Central intensity(cd): 2970.844
Maximum intensity(cd): 2970.844
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=33.5
[C90/270]Total=33.5
Field angle(10%Imax): [C0/180]Total=65.0
[C90/270]Total=65.0
Maximum s/h(1/2): C0_180=0.55 C90_270=0.55
Maximum s/h(1/4): C0_180=0.58 C90_270=0.58
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 82.35%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.915%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2970.844	0.000	0	.000%	.000%
1.0	2964.727	2.840	2.84	.187%	.227%
2.0	2947.430	8.486	11.326	.558%	.905%
3.0	2921.977	14.038	25.363	.924%	2.026%
4.0	2887.875	19.447	44.811	1.279%	3.580%
5.0	2831.344	24.604	69.415	1.619%	5.546%
6.0	2767.148	29.422	98.836	1.936%	7.896%
7.0	2686.078	33.848	132.684	2.227%	10.600%
8.0	2588.906	37.752	170.436	2.484%	13.616%
9.0	2478.586	41.069	211.506	2.702%	16.897%
10.0	2360.039	43.788	255.293	2.881%	20.395%
11.0	2233.688	45.901	301.194	3.020%	24.063%
12.0	2107.055	47.451	348.645	3.122%	27.853%
13.0	1973.180	48.422	397.067	3.186%	31.722%
14.0	1827.352	48.646	445.713	3.200%	35.608%
15.0	1701.141	48.441	494.154	3.187%	39.478%
16.0	1574.508	47.997	542.151	3.158%	43.313%
17.0	1454.906	47.176	589.328	3.104%	47.082%
18.0	1332.492	45.958	635.286	3.024%	50.753%
19.0	1224.907	44.494	679.779	2.927%	54.308%
20.0	1119.016	42.900	722.68	2.822%	57.735%
21.0	1035.394	41.369	764.049	2.722%	61.040%
22.0	961.453	40.127	804.176	2.640%	64.246%
23.0	888.968	38.827	843.003	2.554%	67.348%
24.0	825.300	37.480	880.483	2.466%	70.342%
25.0	769.324	36.258	916.741	2.385%	73.239%
26.0	712.526	34.979	951.72	2.301%	76.033%
27.0	651.811	33.379	985.099	2.196%	78.700%
28.0	589.859	31.436	1016.536	2.068%	81.211%
29.0	520.376	29.047	1045.583	1.911%	83.532%
30.0	458.388	26.426	1072.009	1.739%	85.643%
31.0	395.789	23.771	1095.779	1.564%	87.542%
32.0	325.448	20.663	1116.442	1.359%	89.193%
33.0	269.585	17.530	1133.972	1.153%	90.593%
34.0	210.101	14.517	1148.489	.955%	91.753%
35.0	152.234	11.253	1159.741	.740%	92.652%
36.0	105.884	8.219	1167.96	.541%	93.309%
37.0	76.521	5.949	1173.909	.391%	93.784%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	56.320	4.434	1178.343	.292%	94.138%
39.0	46.125	3.497	1181.84	.230%	94.418%
40.0	41.259	3.048	1184.887	.201%	94.661%
41.0	37.772	2.814	1187.702	.185%	94.886%
42.0	34.966	2.643	1190.344	.174%	95.097%
43.0	32.927	2.515	1192.859	.165%	95.298%
44.0	31.120	2.417	1195.277	.159%	95.491%
45.0	29.510	2.330	1197.607	.153%	95.677%
46.0	28.315	2.261	1199.868	.149%	95.858%
47.0	27.113	2.204	1202.073	.145%	96.034%
48.0	26.093	2.151	1204.224	.142%	96.206%
49.0	25.109	2.103	1206.326	.138%	96.374%
50.0	24.103	2.052	1208.378	.135%	96.538%
51.0	23.231	2.003	1210.381	.132%	96.698%
52.0	22.388	1.958	1212.338	.129%	96.854%
53.0	21.445	1.907	1214.245	.125%	97.006%
54.0	20.412	1.845	1216.09	.121%	97.154%
55.0	19.441	1.779	1217.869	.117%	97.296%
56.0	18.295	1.705	1219.574	.112%	97.432%
57.0	17.227	1.624	1221.198	.107%	97.562%
58.0	16.207	1.546	1222.744	.102%	97.685%
59.0	15.293	1.473	1224.217	.097%	97.803%
60.0	14.358	1.401	1225.618	.092%	97.915%
61.0	13.577	1.333	1226.951	.088%	98.022%
62.0	12.895	1.276	1228.226	.084%	98.123%
63.0	12.227	1.222	1229.448	.080%	98.221%
64.0	11.728	1.175	1230.624	.077%	98.315%
65.0	11.236	1.136	1231.76	.075%	98.406%
66.0	10.842	1.102	1232.862	.072%	98.494%
67.0	10.484	1.072	1233.934	.071%	98.579%
68.0	10.202	1.048	1234.982	.069%	98.663%
69.0	9.928	1.027	1236.009	.068%	98.745%
70.0	9.696	1.008	1237.017	.066%	98.826%
71.0	9.035	0.968	1237.985	.064%	98.903%
72.0	8.578	0.916	1238.901	.060%	98.976%
73.0	8.318	0.884	1239.784	.058%	99.047%
74.0	8.079	0.862	1240.646	.057%	99.116%
75.0	7.791	0.838	1241.485	.055%	99.183%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	7.587	0.816	1242.301	.054%	99.248%
77.0	7.369	0.797	1243.098	.052%	99.312%
78.0	7.144	0.777	1243.875	.051%	99.374%
79.0	6.968	0.758	1244.634	.050%	99.434%
80.0	6.764	0.740	1245.374	.049%	99.493%
81.0	6.539	0.719	1246.093	.047%	99.551%
82.0	6.363	0.700	1246.793	.046%	99.607%
83.0	6.180	0.682	1247.475	.045%	99.661%
84.0	5.998	0.663	1248.138	.044%	99.714%
85.0	5.829	0.645	1248.784	.042%	99.766%
86.0	5.639	0.627	1249.411	.041%	99.816%
87.0	5.428	0.606	1250.016	.040%	99.864%
88.0	5.203	0.582	1250.599	.038%	99.911%
89.0	5.084	0.564	1251.162	.037%	99.956%
90.0	5.006	0.553	1251.716	.036%	100.000%

Zonal flux distribution table

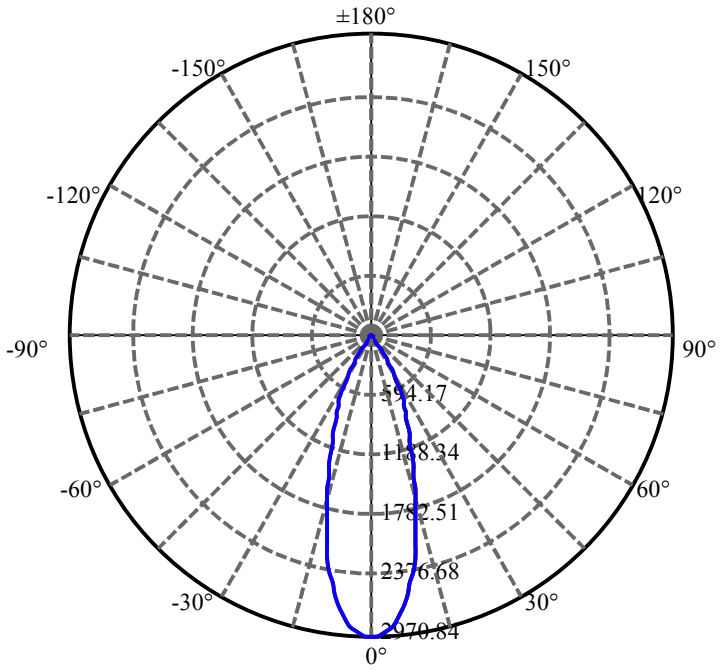
ZONAL LUMEN SUMMARY

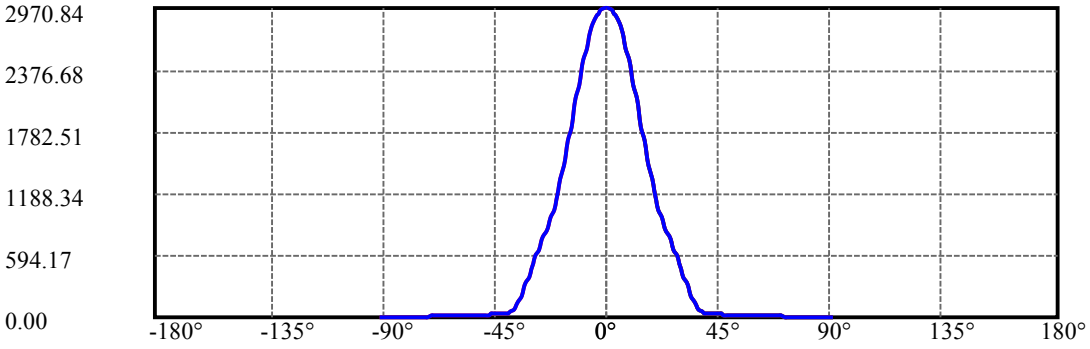
Zone	Lumens	%Lamp	%Fixt
0-30	1072.01	70.53%	85.64%
0-40	1184.89	77.95%	94.66%
0-60	1225.62	80.63%	97.92%
0-90	1251.16	82.31%	99.96%
0-120	1251.16	82.31%	99.96%
0-180	1251.72	82.35%	100.00%
60-90	26.95	1.77%	2.15%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-27.52	1001.37	65.88%	80.00%

ZONAL LUMEN SUMMARY

0-10	255.29
10-20	467.39
20-30	349.33
30-40	112.88
40-50	23.49
50-60	17.24
60-70	11.40
70-80	8.36
80-90	5.79
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:

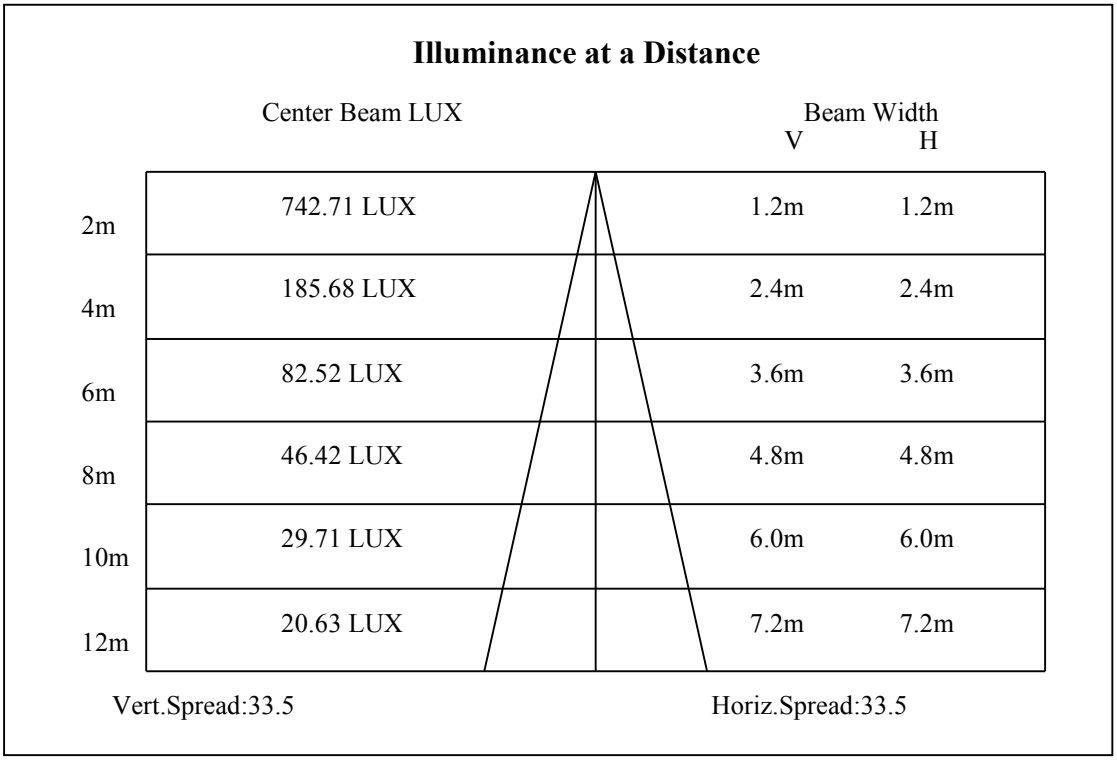
C90/C270:

Field angle(10%Imax):C0/180Left:32.5 Right:32.5
:C90/270Left:32.5 Right:32.5

Beam Angle(50%Imax):C0/180Left:16.7 Right:16.7
:C90/270Left:16.7 Right:16.7

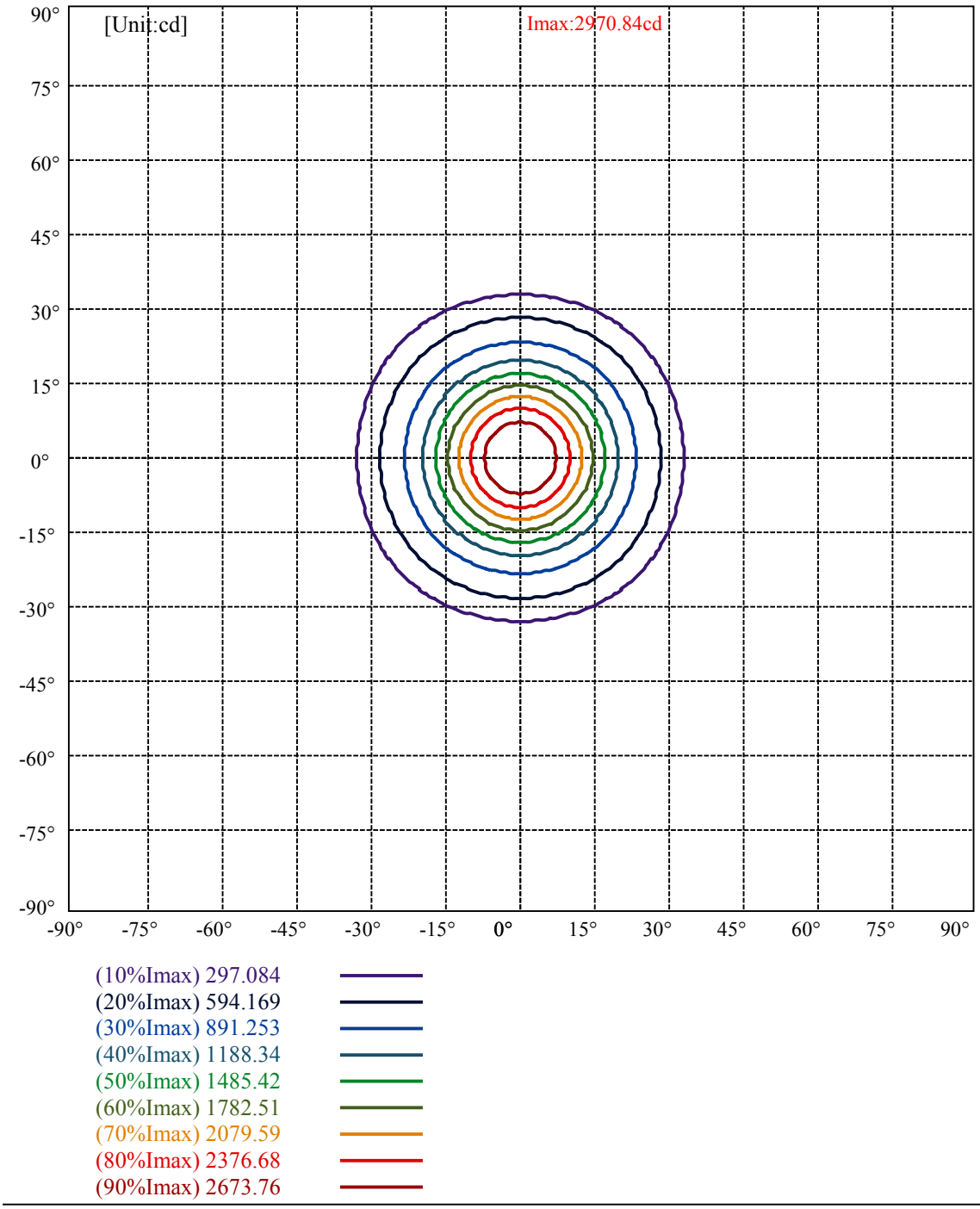
Equipment: GMS1980 Date: 2019/3/26 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

Lux distance Curve



Equipment: GMS1980 Date: 2019/3/26 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

ISO-Intensity(V-H)

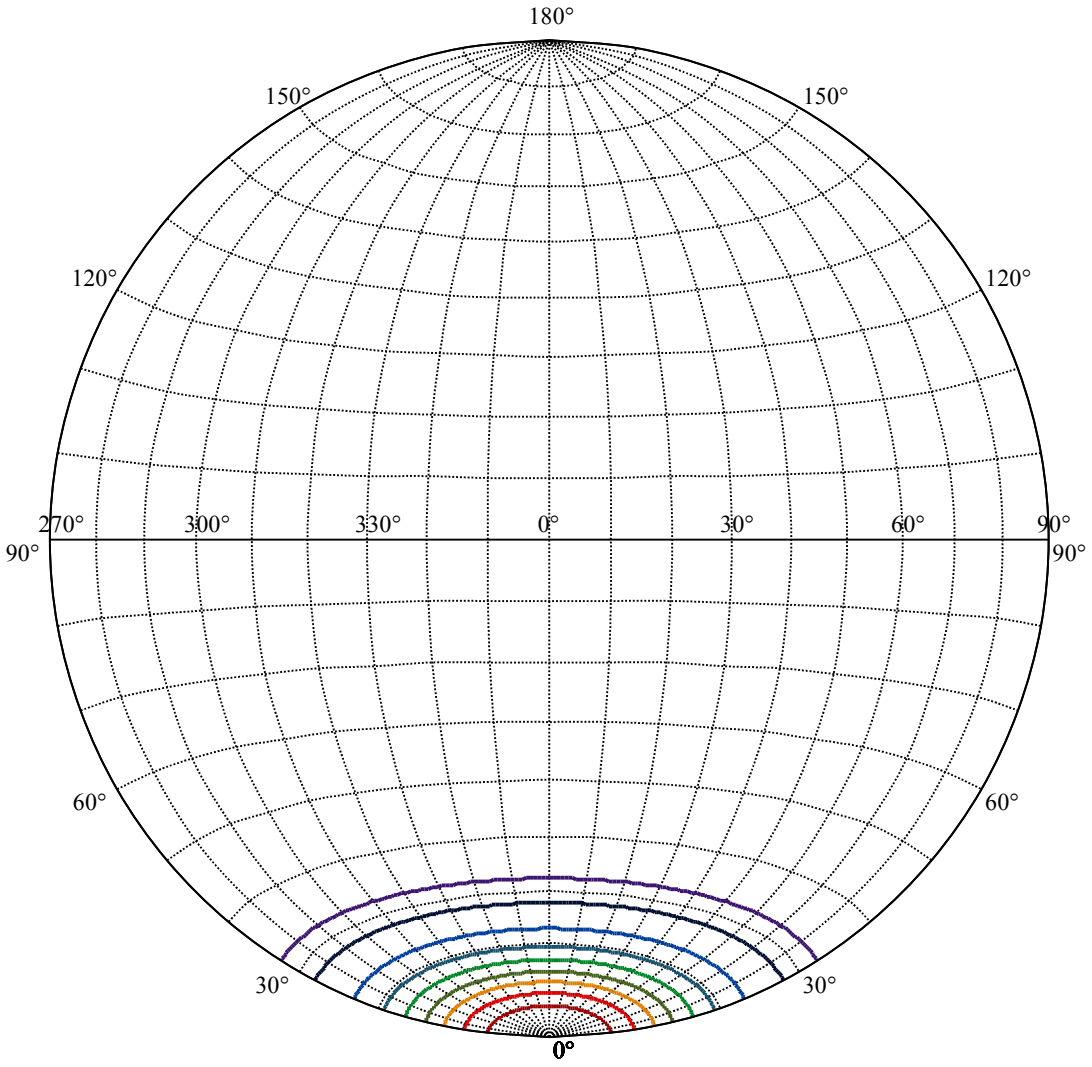


Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/3/26
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:2970.84

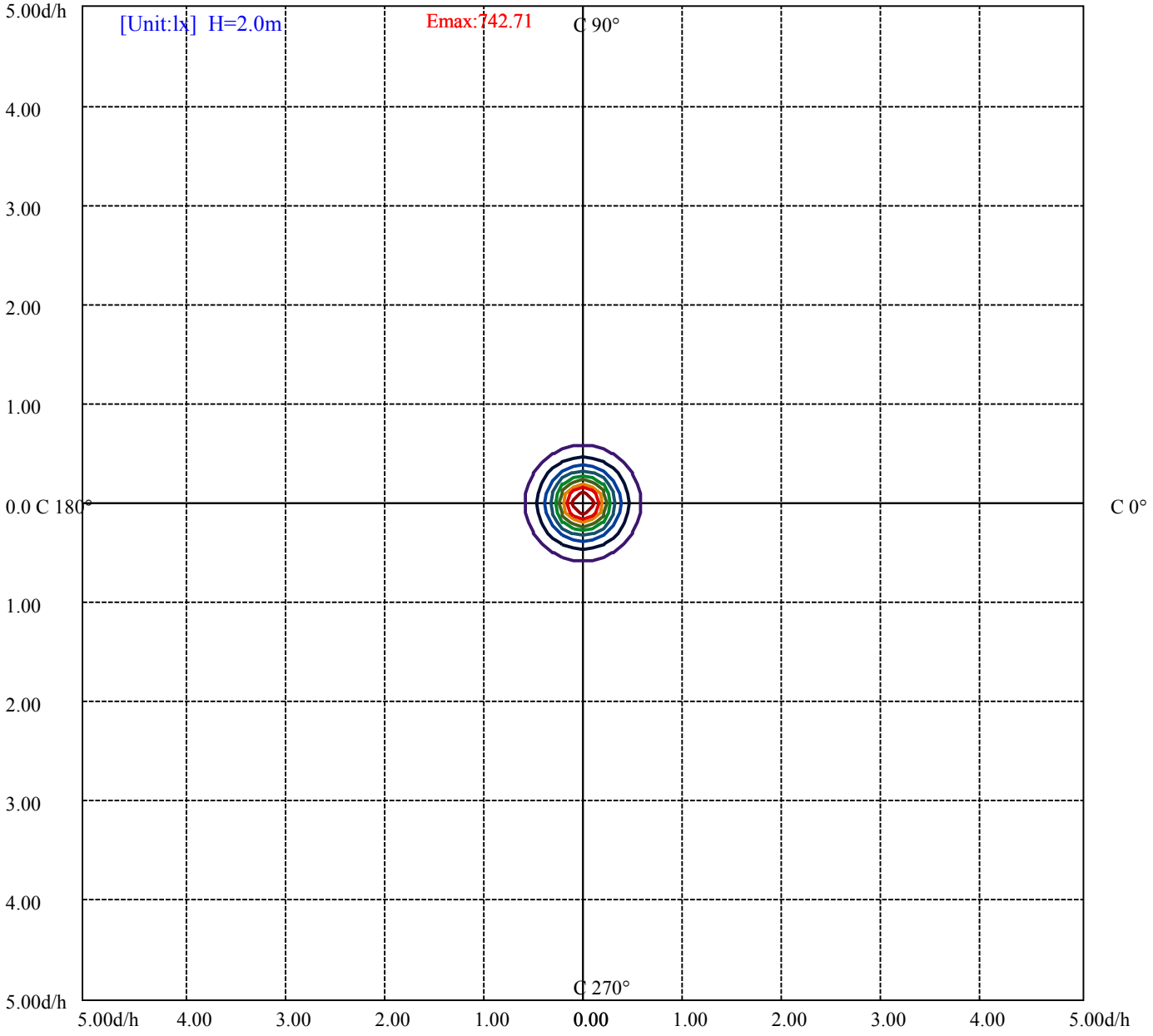
(10%Imax) 297.084
(20%Imax) 594.169
(30%Imax) 891.253
(40%Imax) 1188.34
(50%Imax) 1485.42
(60%Imax) 1782.51
(70%Imax) 2079.59
(80%Imax) 2376.68
(90%Imax) 2673.76

Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/3/26
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO illuminance diagram

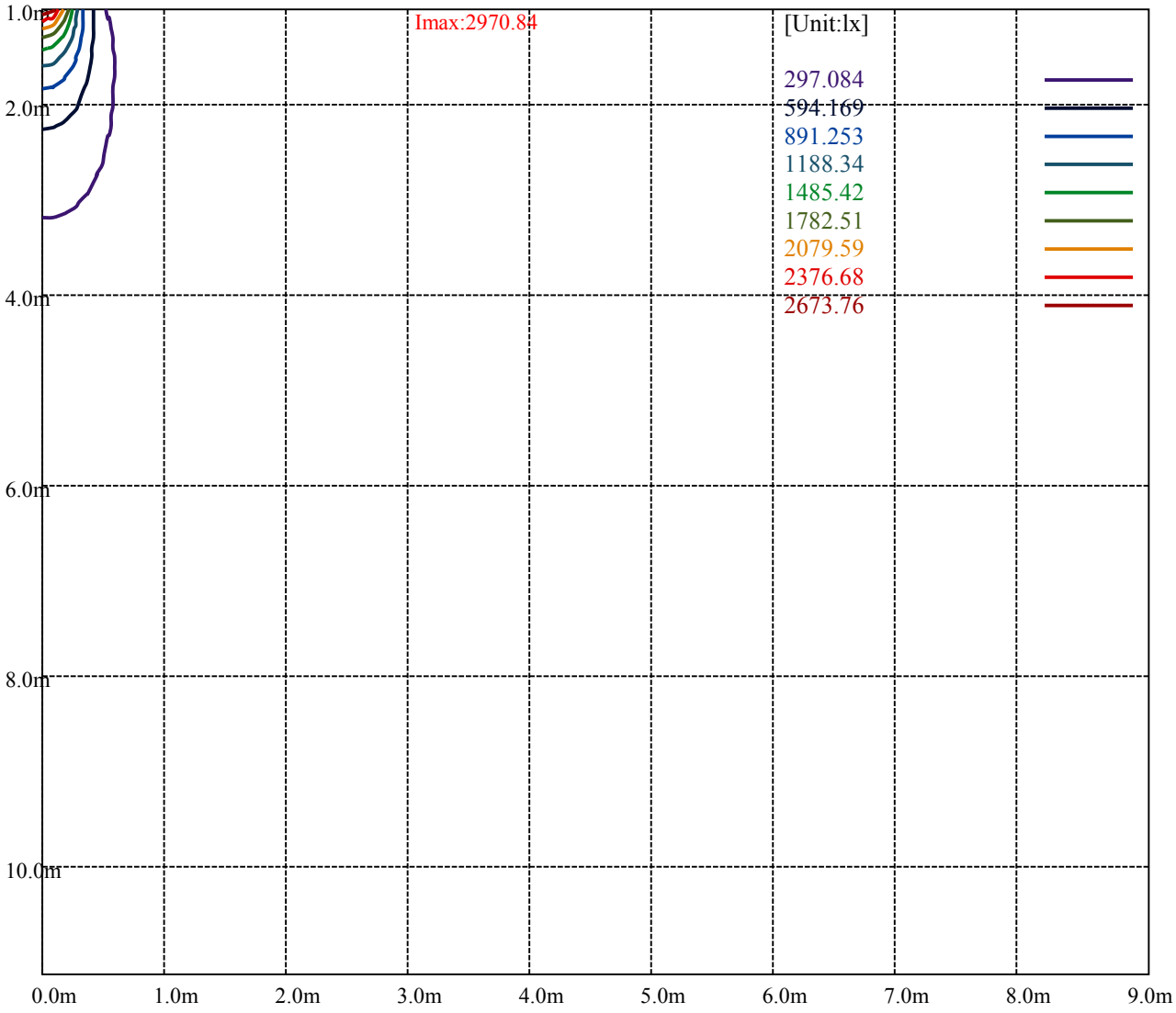


Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/3/26
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/3/26
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Luminance Limitting Curve(no luminous side)

Luminance Table

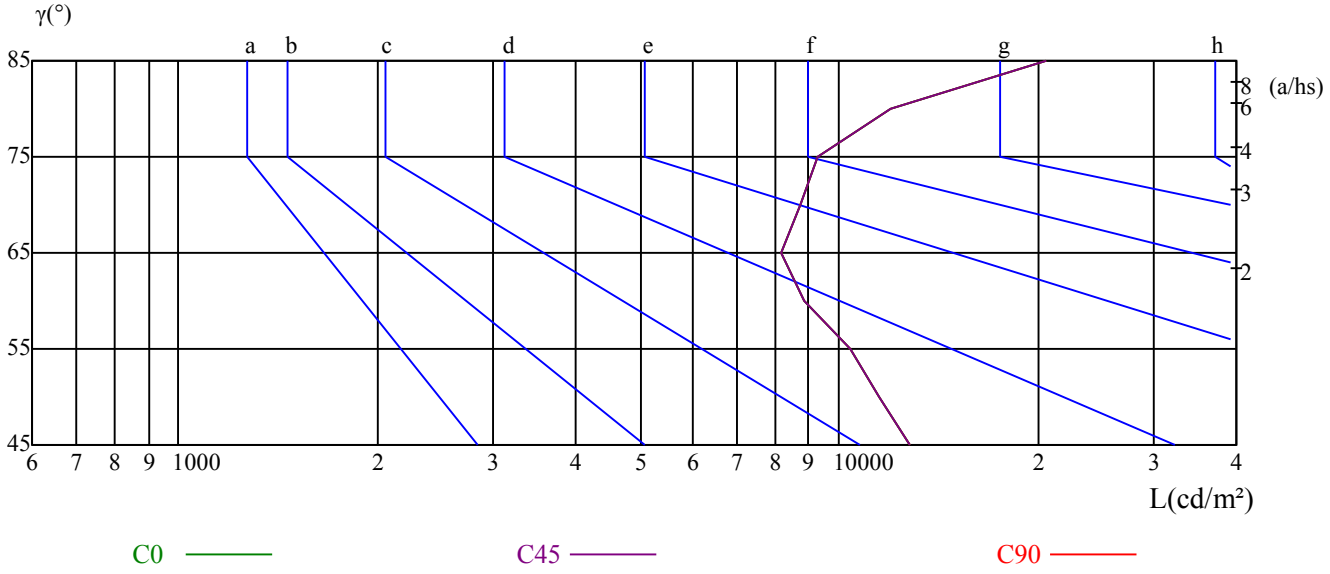
γ	45	50	55	60	65	70	75	80	85
C0	12845	11541	10432	8838	8183	8726	9265	11989	20585
C45	12845	11541	10432	8838	8183	8726	9265	11989	20585
C90	12845	11541	10432	8838	8183	8726	9265	11989	20585

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
8183	8183	8183	9265	9265	9265	20585	20585	20585

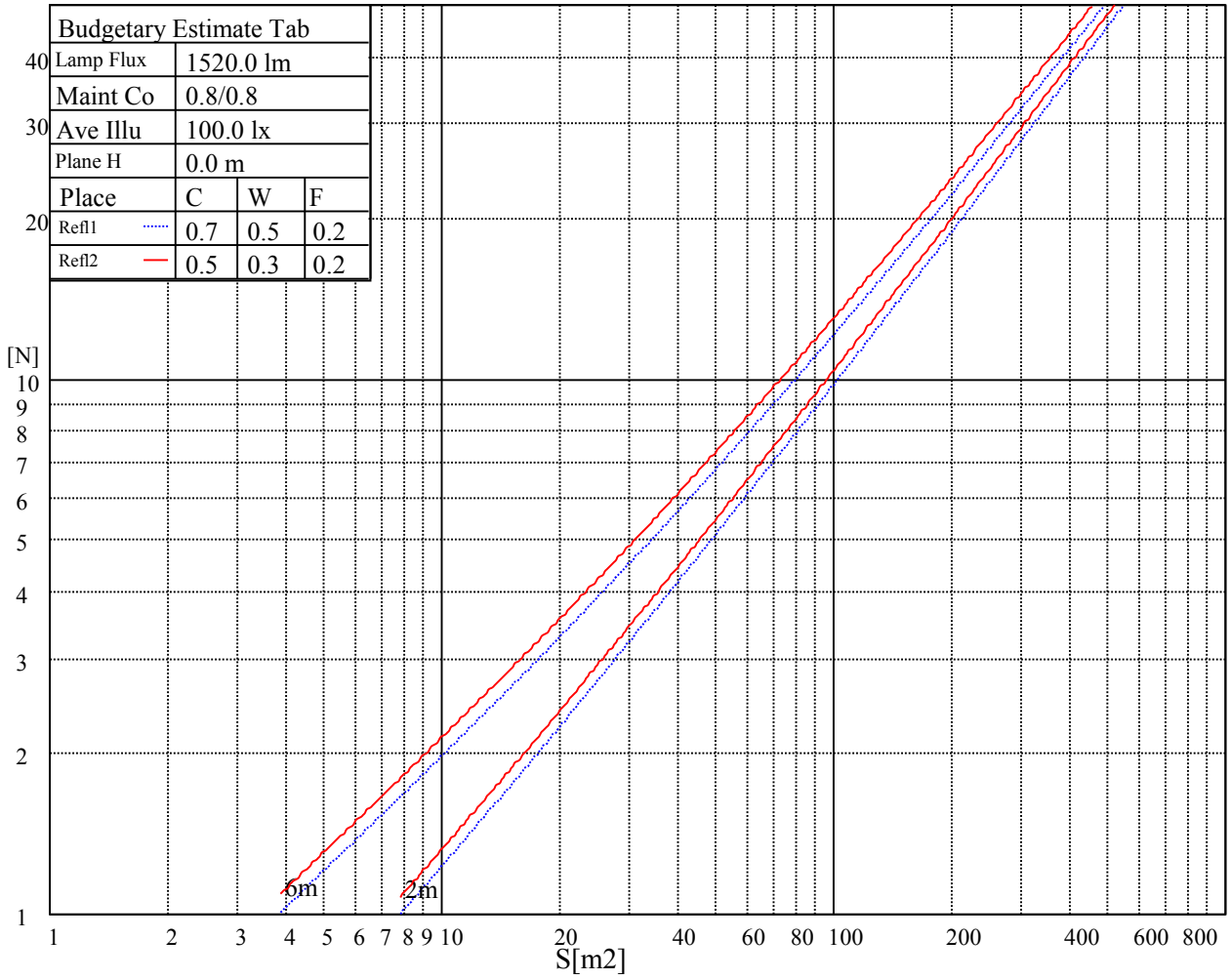
Glare Table

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

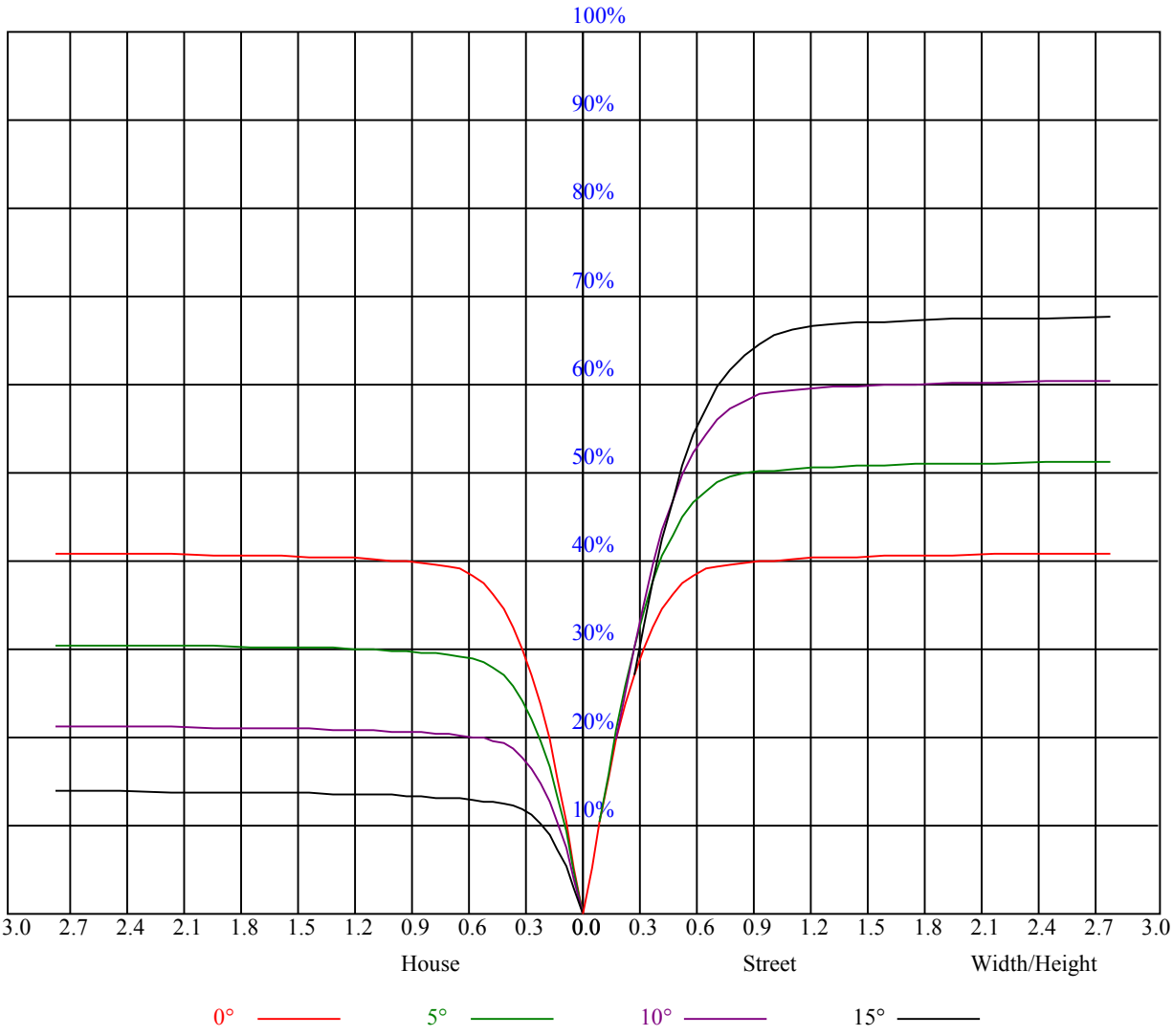


Equipment: GMS1980 Date: 2019/3/26 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

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	0.98	0.98	0.98	0.96	0.96	0.96	0.91	0.91	0.91	0.88	0.88	0.88	0.84	0.84	0.84	0.82
1	0.92	0.90	0.88	0.90	0.88	0.87	0.87	0.85	0.84	0.83	0.82	0.81	0.81	0.80	0.79	0.78
2	0.86	0.83	0.81	0.85	0.82	0.80	0.82	0.80	0.78	0.80	0.78	0.76	0.77	0.76	0.75	0.73
3	0.81	0.78	0.75	0.80	0.77	0.74	0.78	0.75	0.73	0.76	0.74	0.72	0.74	0.72	0.71	0.69
4	0.77	0.73	0.70	0.76	0.72	0.69	0.74	0.71	0.69	0.73	0.70	0.68	0.71	0.69	0.67	0.66
5	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.70	0.67	0.64	0.68	0.66	0.64	0.63
6	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.66	0.63	0.61	0.60
7	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.58	0.63	0.60	0.58	0.57
8	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.59	0.56	0.62	0.58	0.56	0.61	0.58	0.56	0.55
9	0.61	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.54	0.59	0.56	0.54	0.59	0.56	0.53	0.52
10	0.59	0.54	0.52	0.58	0.54	0.52	0.58	0.54	0.51	0.57	0.54	0.51	0.56	0.53	0.51	0.50

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2019/3/26	Operator: NT07
Temperature(°C): 10.0	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	2971.69	2972.25	2962.69	2951.44	2932.88	2895.19	2852.44	2797.31	2718.00
45.0	2970.00	2968.31	2955.94	2927.81	2904.19	2855.81	2789.44	2720.81	2644.31
90.0	2971.13	2956.50	2932.31	2894.06	2845.69	2772.00	2692.69	2587.50	2471.06
135.0	2970.56	2966.06	2939.06	2907.00	2865.94	2793.38	2719.69	2633.06	2522.81
180.0	2971.69	2955.38	2933.44	2895.75	2853.00	2794.50	2714.06	2621.25	2523.94
225.0	2970.00	2961.56	2941.31	2915.44	2868.19	2817.00	2746.13	2643.19	2545.31
270.0	2971.13	2968.88	2959.88	2942.44	2913.19	2859.75	2805.75	2735.44	2642.63
315.0	2970.56	2968.88	2954.81	2941.88	2919.94	2863.13	2817.00	2750.06	2643.19
360.0	2971.69	2972.25	2962.69	2951.44	2932.88	2895.19	2852.44	2797.31	2718.00

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2616.19	2514.38	2385.00	2261.81	2113.88	1964.81	1832.06	1686.94	1554.19
45.0	2506.50	2393.44	2290.50	2143.69	2000.81	1888.31	1738.13	1609.31	1513.13
90.0	2358.00	2225.81	2092.50	1967.63	1842.75	1689.19	1569.94	1454.06	1330.31
135.0	2411.44	2306.25	2180.81	2061.00	1922.06	1786.50	1669.50	1543.50	1424.25
180.0	2399.63	2271.38	2150.44	2013.75	1892.81	1758.94	1628.44	1513.69	1401.75
225.0	2436.19	2295.00	2169.00	2041.88	1918.13	1761.75	1640.81	1528.88	1411.31
270.0	2536.88	2430.56	2302.88	2175.75	2030.63	1879.88	1750.50	1602.56	1465.88
315.0	2563.88	2443.50	2298.38	2190.94	2064.38	1889.44	1779.75	1657.13	1538.44
360.0	2616.19	2514.38	2385.00	2261.81	2113.88	1964.81	1832.06	1686.94	1554.19

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1440.56	1334.25	1213.31	1119.94	1047.94	956.25	888.19	839.25	772.88
45.0	1381.50	1282.50	1186.31	1077.75	997.31	929.81	855.56	802.13	748.13
90.0	1187.44	1113.58	1003.89	928.63	860.68	789.36	743.96	686.98	621.56
135.0	1319.63	1218.94	1109.25	1026.00	951.75	871.31	808.31	751.50	697.50
180.0	1274.06	1117.24	1083.54	982.91	914.46	855.34	795.71	737.44	686.93
225.0	1301.63	1185.19	1107.73	1022.06	953.66	886.28	829.52	770.51	719.55
270.0	1355.06	1253.81	1135.69	1045.13	964.69	893.25	817.88	763.31	704.25
315.0	1400.06	1293.75	1112.40	1080.73	1001.14	930.15	863.27	803.48	749.42
360.0	1440.56	1334.25	1213.31	1119.94	1047.94	956.25	888.19	839.25	772.88

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	709.88	655.88	578.25	517.50	456.75	378.56	316.69	285.75	180.28
45.0	677.81	618.75	559.13	487.13	417.38	353.81	284.06	217.41	163.01
90.0	573.24	508.56	436.11	387.39	331.99	257.34	213.19	165.83	120.26
135.0	637.31	575.44	505.13	446.63	378.00	311.63	289.69	190.18	134.89
180.0	620.16	555.19	484.48	415.80	355.44	287.49	223.88	171.39	125.83
225.0	663.75	601.48	519.75	457.99	393.08	315.06	254.03	196.20	138.04
270.0	649.13	590.06	526.50	468.56	409.50	345.38	289.13	225.73	180.90
315.0	683.21	613.52	553.67	486.11	424.18	354.32	286.03	228.32	174.66
360.0	709.88	655.88	578.25	517.50	456.75	378.56	316.69	285.75	180.28

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	130.11	91.24	60.75	48.09	41.79	37.52	34.59	32.51	30.60
45.0	115.26	83.31	60.58	48.26	43.20	39.09	35.55	33.53	31.61
90.0	85.33	65.76	53.21	46.69	42.69	39.21	36.62	34.14	32.12
135.0	97.65	69.69	48.38	42.86	39.04	36.00	33.75	32.12	30.43
180.0	81.62	58.95	46.86	41.29	37.58	35.21	32.85	31.05	29.53
225.0	94.05	66.66	48.71	42.75	38.36	35.61	33.41	31.61	29.93
270.0	125.66	91.74	68.46	50.51	44.55	40.61	37.13	34.93	33.02
315.0	117.39	84.83	63.62	48.54	42.86	38.93	35.83	33.53	31.73
360.0	130.11	91.24	60.75	48.09	41.79	37.52	34.59	32.51	30.60

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	29.03	27.79	26.66	25.71	24.69	23.79	23.06	22.33	21.49
45.0	29.76	28.63	27.62	26.55	25.59	24.75	23.91	23.18	22.22
90.0	30.54	29.14	27.68	26.61	25.48	24.24	23.23	22.22	21.09
135.0	28.86	27.84	26.83	26.04	25.03	24.08	23.23	22.16	21.04
180.0	28.01	26.94	25.82	24.92	24.08	23.06	22.16	21.26	20.42
225.0	28.80	27.79	26.49	25.59	24.75	23.68	22.95	22.22	21.21
270.0	31.05	29.59	28.18	26.83	25.59	24.53	23.46	22.61	21.71
315.0	30.04	28.80	27.62	26.49	25.65	24.69	23.85	23.12	22.39
360.0	29.03	27.79	26.66	25.71	24.69	23.79	23.06	22.33	21.49

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	20.70	19.86	18.68	17.66	16.76	15.75	14.79	14.01	13.16
45.0	21.15	20.14	18.90	17.72	16.76	15.86	14.74	13.95	13.28
90.0	19.97	18.96	17.78	16.88	15.86	15.02	14.23	13.44	12.66
135.0	20.03	18.90	17.83	16.65	15.64	14.79	13.78	13.11	12.49
180.0	19.18	18.28	17.33	16.26	15.36	14.57	13.73	13.05	12.49
225.0	20.25	19.29	18.06	17.10	15.98	14.91	14.12	13.28	12.66
270.0	20.70	19.80	18.62	17.61	16.59	15.69	14.74	13.95	13.28
315.0	21.32	20.31	19.18	17.94	16.71	15.75	14.74	13.84	13.16
360.0	20.70	19.86	18.68	17.66	16.76	15.75	14.79	14.01	13.16

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	12.54	11.93	11.42	11.03	10.58	10.29	10.07	9.96	9.23
45.0	12.54	11.98	11.48	11.08	10.63	10.35	10.13	10.13	8.94
90.0	12.09	11.64	11.14	10.74	10.35	10.07	9.79	9.39	8.89
135.0	11.81	11.25	10.86	10.52	10.18	9.90	9.56	9.28	8.94
180.0	11.76	11.42	10.97	10.58	10.35	10.07	9.73	9.39	8.94
225.0	11.98	11.53	10.97	10.63	10.35	10.13	9.90	9.73	8.83
270.0	12.66	12.09	11.64	11.19	10.80	10.52	10.24	9.90	9.39
315.0	12.43	11.98	11.42	10.97	10.63	10.29	10.01	9.79	9.11
360.0	12.54	11.93	11.42	11.03	10.58	10.29	10.07	9.96	9.23

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	8.66	8.44	8.21	7.88	7.76	7.48	7.31	7.14	6.98
45.0	8.66	8.38	8.16	7.88	7.65	7.43	7.14	6.98	6.81
90.0	8.44	8.16	7.93	7.65	7.43	7.20	6.98	6.81	6.53
135.0	8.44	8.21	7.99	7.65	7.43	7.26	6.98	6.75	6.64
180.0	8.49	8.21	7.99	7.76	7.54	7.31	7.09	6.92	6.69
225.0	8.55	8.33	7.99	7.76	7.54	7.31	7.09	6.92	6.64
270.0	8.78	8.49	8.27	7.93	7.71	7.54	7.31	7.14	6.92
315.0	8.61	8.33	8.10	7.82	7.65	7.43	7.26	7.09	6.92
360.0	8.66	8.44	8.21	7.88	7.76	7.48	7.31	7.14	6.98

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	6.75	6.58	6.41	6.24	6.08	5.91	5.74	5.40	5.23
45.0	6.53	6.36	6.19	6.02	5.79	5.63	5.46	5.23	5.12
90.0	6.30	6.13	5.91	5.74	5.57	5.34	5.12	5.06	4.95
135.0	6.36	6.24	6.08	5.91	5.74	5.57	5.34	5.18	5.06
180.0	6.53	6.36	6.13	5.96	5.85	5.63	5.34	5.23	5.12
225.0	6.47	6.30	6.08	5.91	5.74	5.57	5.34	5.18	5.06
270.0	6.69	6.41	6.30	6.02	5.85	5.63	5.51	5.12	5.01
315.0	6.69	6.53	6.36	6.19	6.02	5.85	5.57	5.23	5.12
360.0	6.75	6.58	6.41	6.24	6.08	5.91	5.74	5.40	5.23

Intensity data(cd)

C/γ(°)	90.0
0.0	5.18
45.0	4.95
90.0	4.95
135.0	4.95
180.0	5.01
225.0	5.01
270.0	4.95
315.0	5.06
360.0	5.18