NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.com
Tel:+86-750-3770000 Fax:+86-750-3771111
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

LumCAT: 1-0788-M
Luminaire: 92.70.124.00
Report No: NATA0100
Test No: GC2019062811
LampCAT: TRIDONIC SLE 9MM G7
Lamp flux(lm): 1073.0
Number of Lamps: 1
Length(mm): 46
Phm Type: C

Voltage(V): 34.8500
Current(A): 0.2490
Power (W): 8.6780
PF: 0.0000
Ballast type: DC
Width(mm): 46
Height(mm): 0

Photometric Results

Lumens(lm): 979.21
Efficiency(%): 91.26%
Lumens(lm)/Power(W): 112.84
Central intensity(cd): 1664.297
Maximum intensity(cd): 1664.297
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=35.9
[C90/270]Total=35.9
Field angle(10%Imax): [C0/180]Total=86.1
[C90/270]Total=86.1
Maximum s/h(1/2): C0_180=0.57 C90_270=0.57
Maximum s/h(1/4): C0_180=0.65 C90_270=0.65
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.26%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.795%

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2019/6/28
Humidity(%): 65.0%
Operator: NT07
Distance(m): 7.50

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1664.297	0.000	0	.000%	.000%
1.0	1660.008	1.591	1.591	.148%	.162%
2.0	1644.469	4.743	6.334	.442%	.647%
3.0	1615.219	7.796	14.13	.727%	1.443%
4.0	1579.219	10.693	24.822	.997%	2.535%
5.0	1537.734	13.409	38.231	1.250%	3.904%
6.0	1492.875	15.927	54.158	1.484%	5.531%
7.0	1441.758	18.215	72.373	1.698%	7.391%
8.0	1394.227	20.297	92.67	1.892%	9.464%
9.0	1340.648	22.165	114.835	2.066%	11.727%
10.0	1282.430	23.738	138.572	2.212%	14.151%
11.0	1228.852	25.093	163.665	2.339%	16.714%
12.0	1152.998	26.037	189.702	2.427%	19.373%
13.0	1107.879	26.831	216.533	2.501%	22.113%
14.0	1049.801	27.618	244.151	2.574%	24.934%
15.0	993.038	28.045	272.196	2.614%	27.798%
16.0	932.801	28.219	300.415	2.630%	30.679%
17.0	882.570	28.270	328.685	2.635%	33.566%
18.0	830.805	28.250	356.935	2.633%	36.451%
19.0	781.791	28.056	384.991	2.615%	39.317%
20.0	736.945	27.797	412.788	2.591%	42.155%
21.0	693.766	27.473	440.261	2.560%	44.961%
22.0	651.080	27.025	467.286	2.519%	47.721%
23.0	614.264	26.550	493.836	2.474%	50.432%
24.0	576.007	26.024	519.86	2.425%	53.090%
25.0	536.126	25.287	545.147	2.357%	55.672%
26.0	504.042	24.553	569.701	2.288%	58.180%
27.0	472.852	23.900	593.601	2.227%	60.621%
28.0	444.994	23.238	616.839	2.166%	62.994%
29.0	423.823	22.731	639.569	2.118%	65.315%
30.0	406.252	22.412	661.981	2.089%	67.604%
31.0	388.800	22.125	684.106	2.062%	69.863%
32.0	374.864	21.878	705.984	2.039%	72.098%
33.0	363.656	21.757	727.741	2.028%	74.319%
34.0	352.280	21.666	749.408	2.019%	76.532%
35.0	343.223	21.600	771.007	2.013%	78.738%
36.0	333.633	21.551	792.559	2.009%	80.939%
37.0	324.548	21.466	814.025	2.001%	83.131%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	312.075	21.250	835.275	1.980%	85.301%
39.0	290.925	20.582	855.857	1.918%	87.403%
40.0	270.879	19.594	875.45	1.826%	89.404%
41.0	235.842	18.044	893.494	1.682%	91.247%
42.0	203.857	15.975	909.469	1.489%	92.878%
43.0	167.238	13.746	923.216	1.281%	94.282%
44.0	135.991	11.445	934.661	1.067%	95.451%
45.0	103.549	9.206	943.866	.858%	96.391%
46.0	72.091	6.869	950.735	.640%	97.092%
47.0	46.702	4.725	955.46	.440%	97.575%
48.0	27.471	2.998	958.459	.279%	97.881%
49.0	16.165	1.792	960.25	.167%	98.064%
50.0	13.409	1.233	961.483	.115%	98.190%
51.0	11.377	1.049	962.532	.098%	98.297%
52.0	8.972	0.873	963.405	.081%	98.386%
53.0	6.940	0.692	964.097	.065%	98.457%
54.0	5.773	0.560	964.658	.052%	98.514%
55.0	5.386	0.498	965.156	.046%	98.565%
56.0	5.084	0.473	965.629	.044%	98.613%
57.0	4.887	0.456	966.085	.042%	98.660%
58.0	4.753	0.446	966.531	.042%	98.705%
59.0	4.662	0.440	966.971	.041%	98.750%
60.0	4.542	0.435	967.406	.041%	98.795%
61.0	4.437	0.428	967.834	.040%	98.839%
62.0	4.338	0.423	968.257	.039%	98.882%
63.0	4.261	0.418	968.675	.039%	98.924%
64.0	4.191	0.415	969.09	.039%	98.967%
65.0	4.113	0.411	969.501	.038%	99.009%
66.0	4.057	0.408	969.908	.038%	99.050%
67.0	3.994	0.405	970.313	.038%	99.092%
68.0	3.938	0.402	970.715	.037%	99.133%
69.0	3.881	0.399	971.114	.037%	99.173%
70.0	3.839	0.397	971.51	.037%	99.214%
71.0	3.790	0.394	971.905	.037%	99.254%
72.0	3.748	0.392	972.297	.037%	99.294%
73.0	3.713	0.390	972.687	.036%	99.334%
74.0	3.663	0.388	973.074	.036%	99.374%
75.0	3.635	0.386	973.46	.036%	99.413%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	3.614	0.385	973.845	.036%	99.452%
77.0	3.593	0.384	974.229	.036%	99.492%
78.0	3.565	0.383	974.612	.036%	99.531%
79.0	3.558	0.383	974.995	.036%	99.570%
80.0	3.544	0.383	975.378	.036%	99.609%
81.0	3.551	0.384	975.762	.036%	99.648%
82.0	3.523	0.384	976.145	.036%	99.687%
83.0	3.523	0.383	976.528	.036%	99.726%
84.0	3.523	0.384	976.912	.036%	99.766%
85.0	3.509	0.384	977.296	.036%	99.805%
86.0	3.495	0.383	977.678	.036%	99.844%
87.0	3.488	0.382	978.061	.036%	99.883%
88.0	3.488	0.382	978.443	.036%	99.922%
89.0	3.488	0.382	978.825	.036%	99.961%
90.0	3.488	0.382	979.207	.036%	100.000%

Zonal flux distribution table

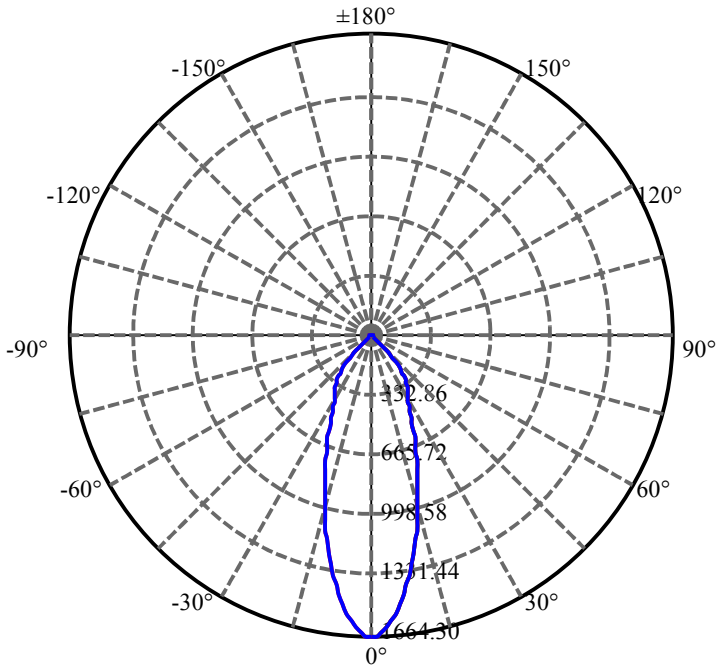
ZONAL LUMEN SUMMARY

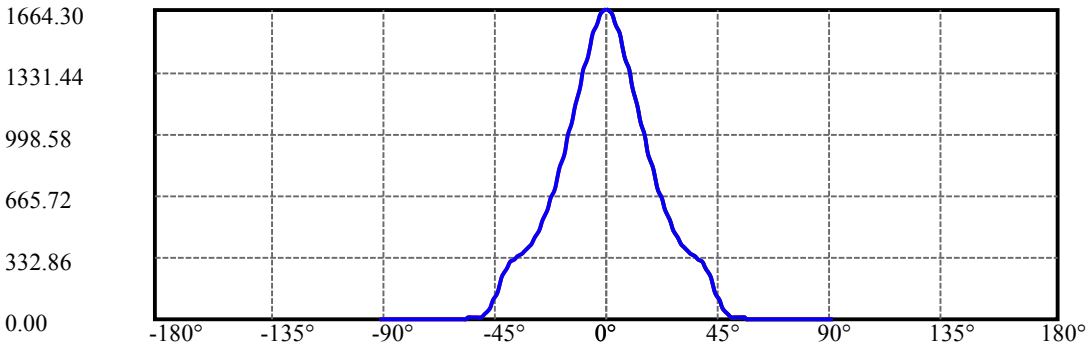
Zone	Lumens	%Lamp	%Fixt
0-30	661.98	61.69%	67.60%
0-40	875.45	81.59%	89.40%
0-60	967.41	90.16%	98.79%
0-90	978.83	91.22%	99.96%
0-120	978.83	91.22%	99.96%
0-180	979.21	91.26%	100.00%
60-90	11.85	1.10%	1.21%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-35.57	783.37	73.01%	80.00%

ZONAL LUMEN SUMMARY

0-10	138.57
10-20	274.22
20-30	249.19
30-40	213.47
40-50	86.03
50-60	5.92
60-70	4.10
70-80	3.87
80-90	3.45
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):

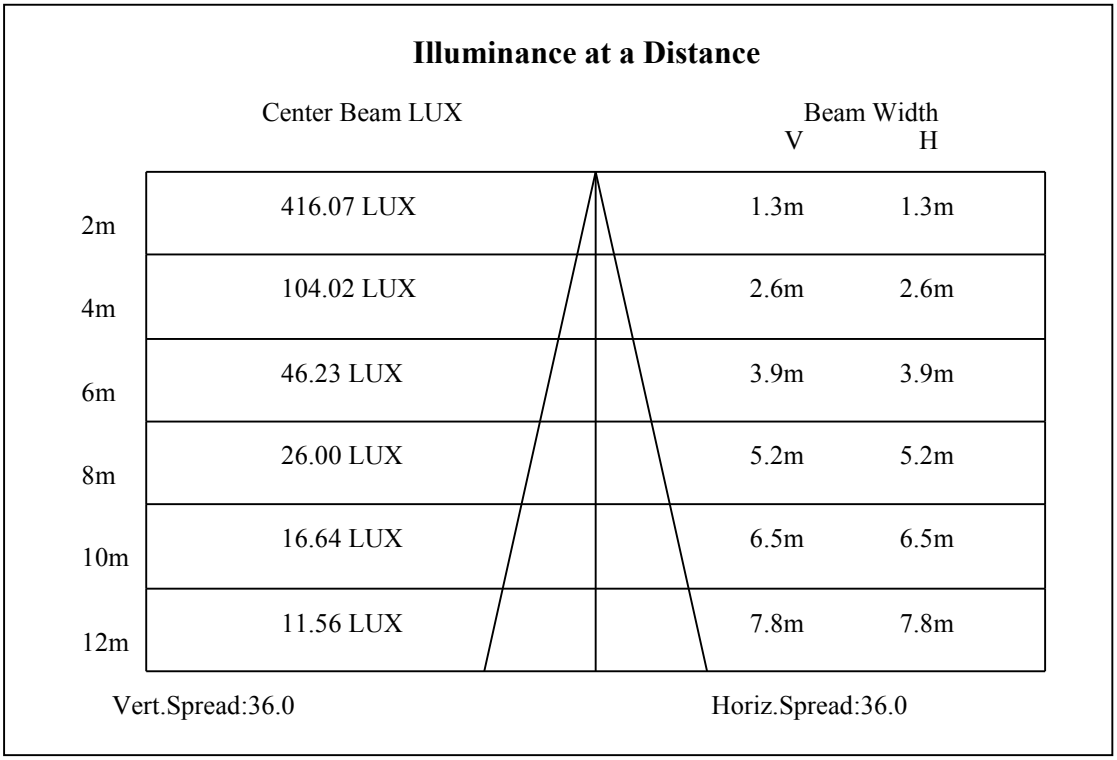
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:43.0 Right:43.0
:C90/270Left:43.0 Right:43.0

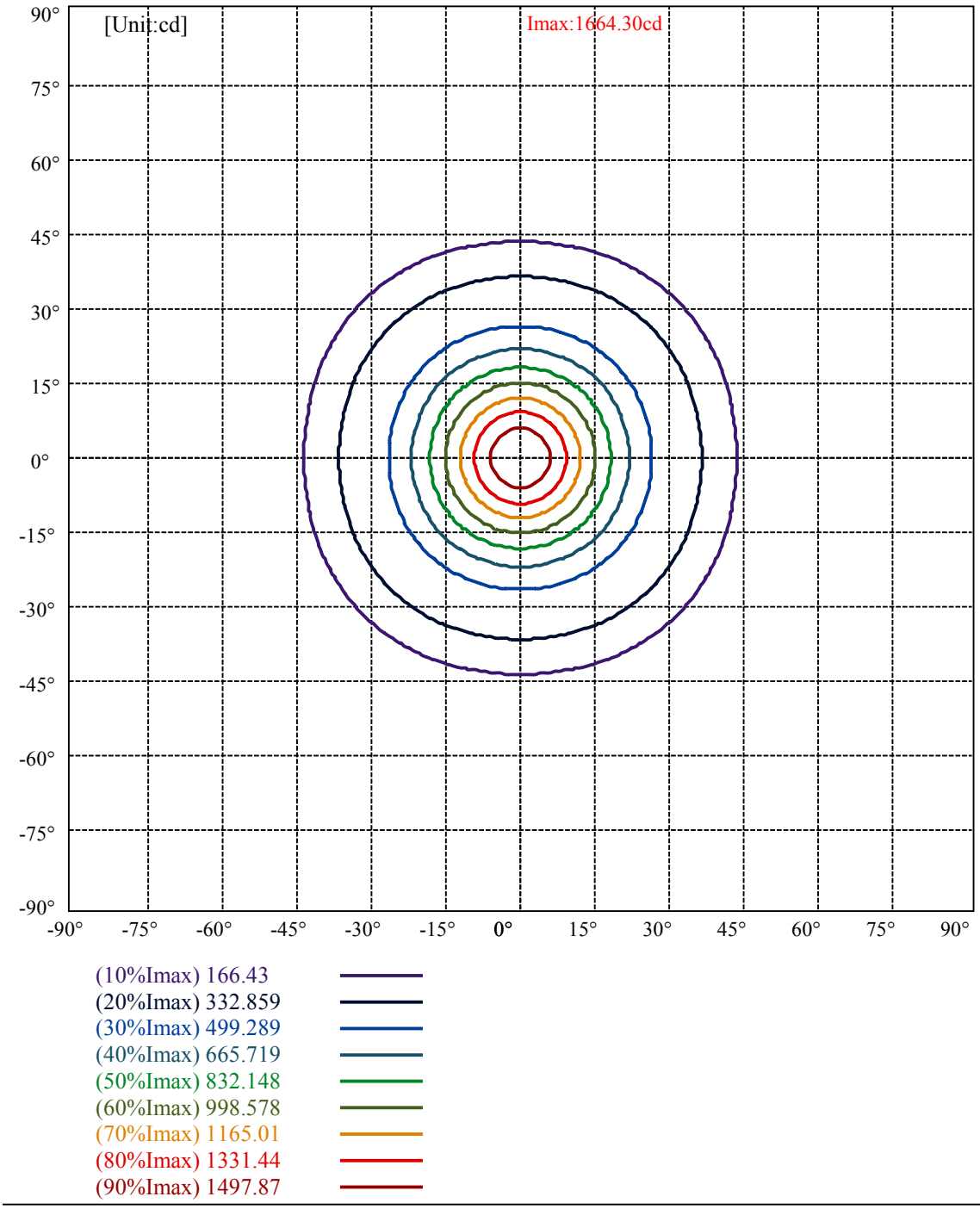
Beam Angle(50%Imax):C0/180Left:18.0 Right:18.0
:C90/270Left:18.0 Right:18.0

Lux distance Curve



Equipment: GMS1980 Date: 2019/6/28 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.50

ISO-Intensity(V-H)

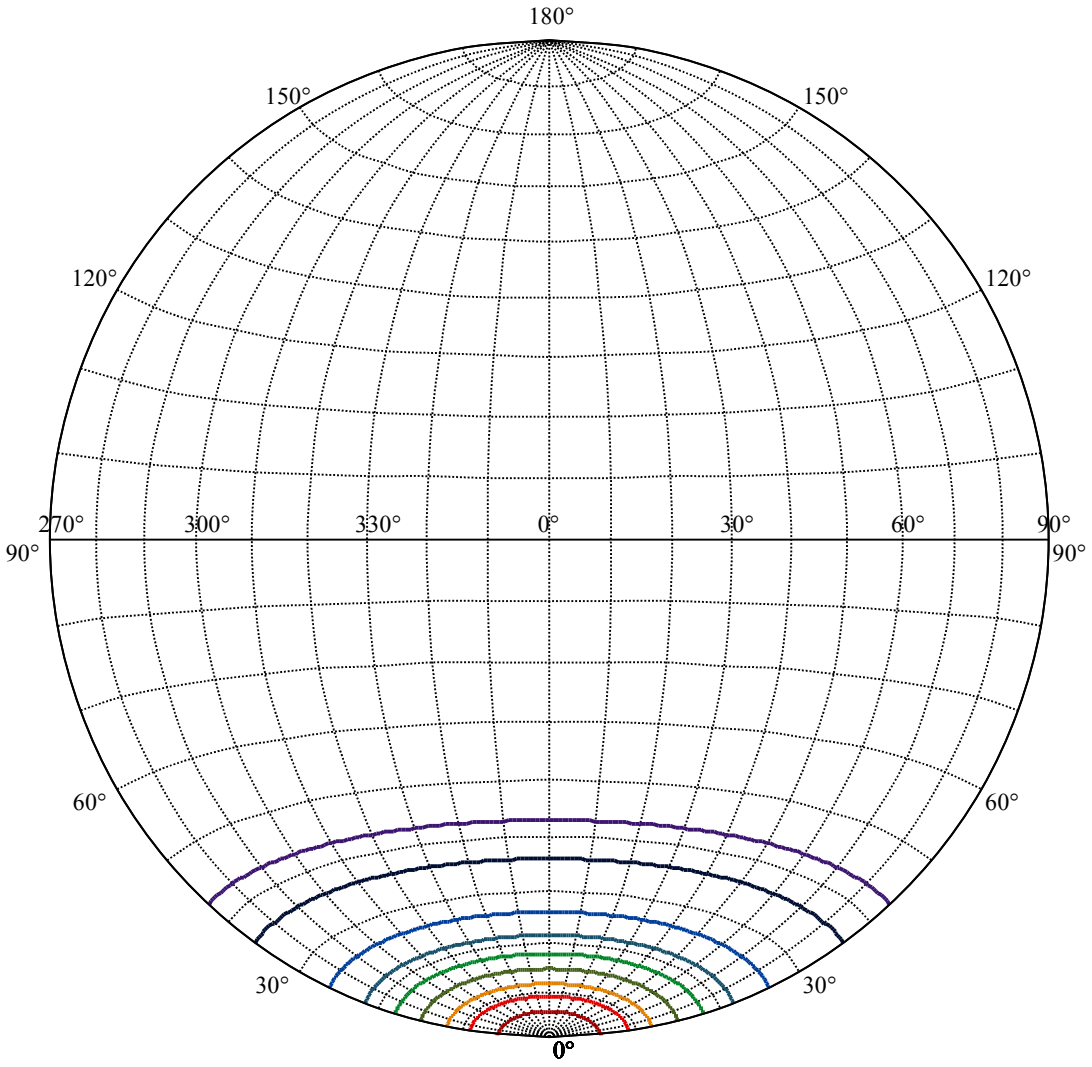


Equipment: GMS1980
Temperature(°C): 25.0

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

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



House [Unit:cd] Road

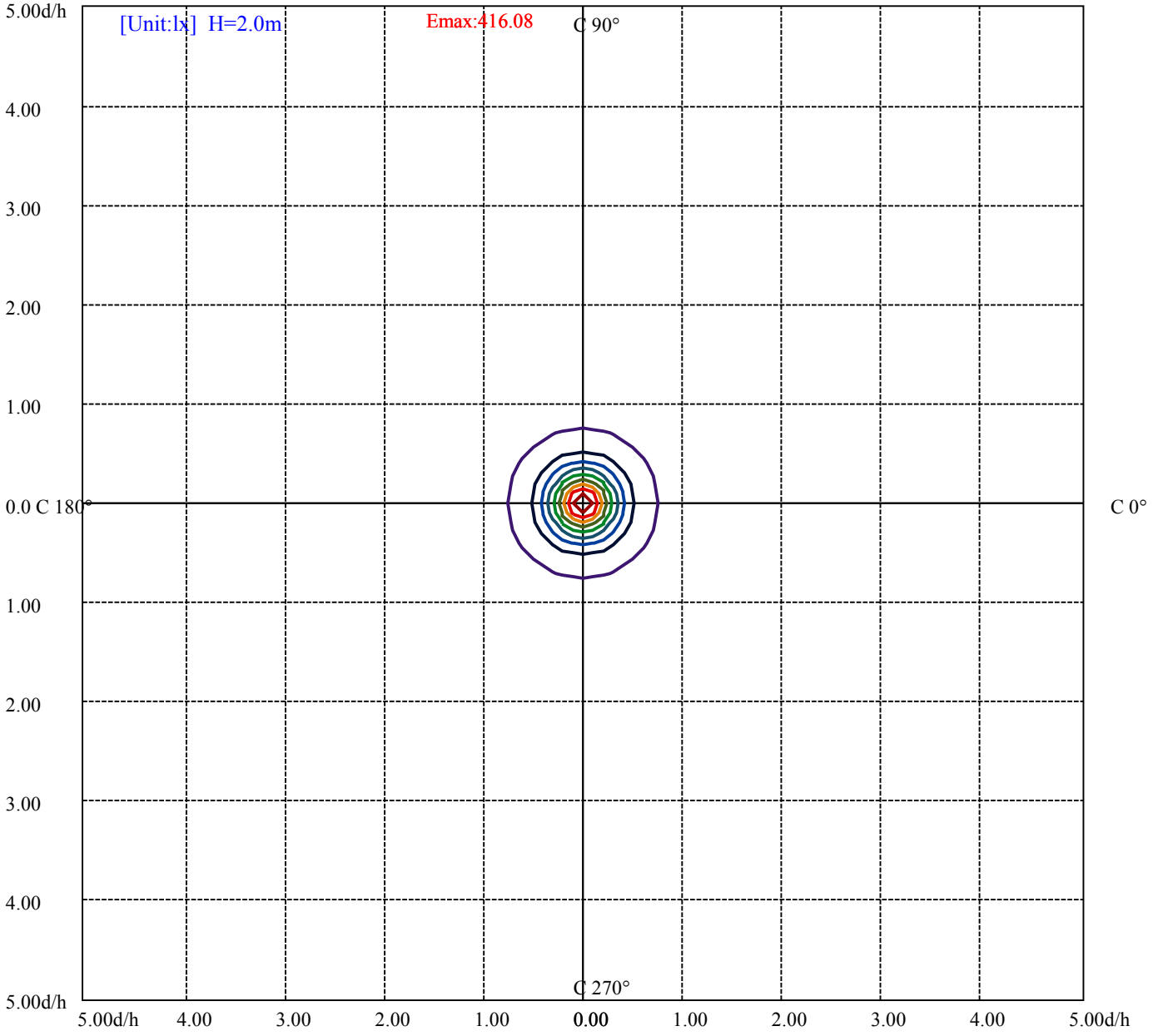
Imax:1664.30

(10%Imax) 166.43
(20%Imax) 332.859
(30%Imax) 499.289
(40%Imax) 665.719
(50%Imax) 832.148
(60%Imax) 998.578
(70%Imax) 1165.01
(80%Imax) 1331.44
(90%Imax) 1497.87

Equipment: GMS1980 Date: 2019/6/28 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.50

1-0788-M

ISO illuminance diagram

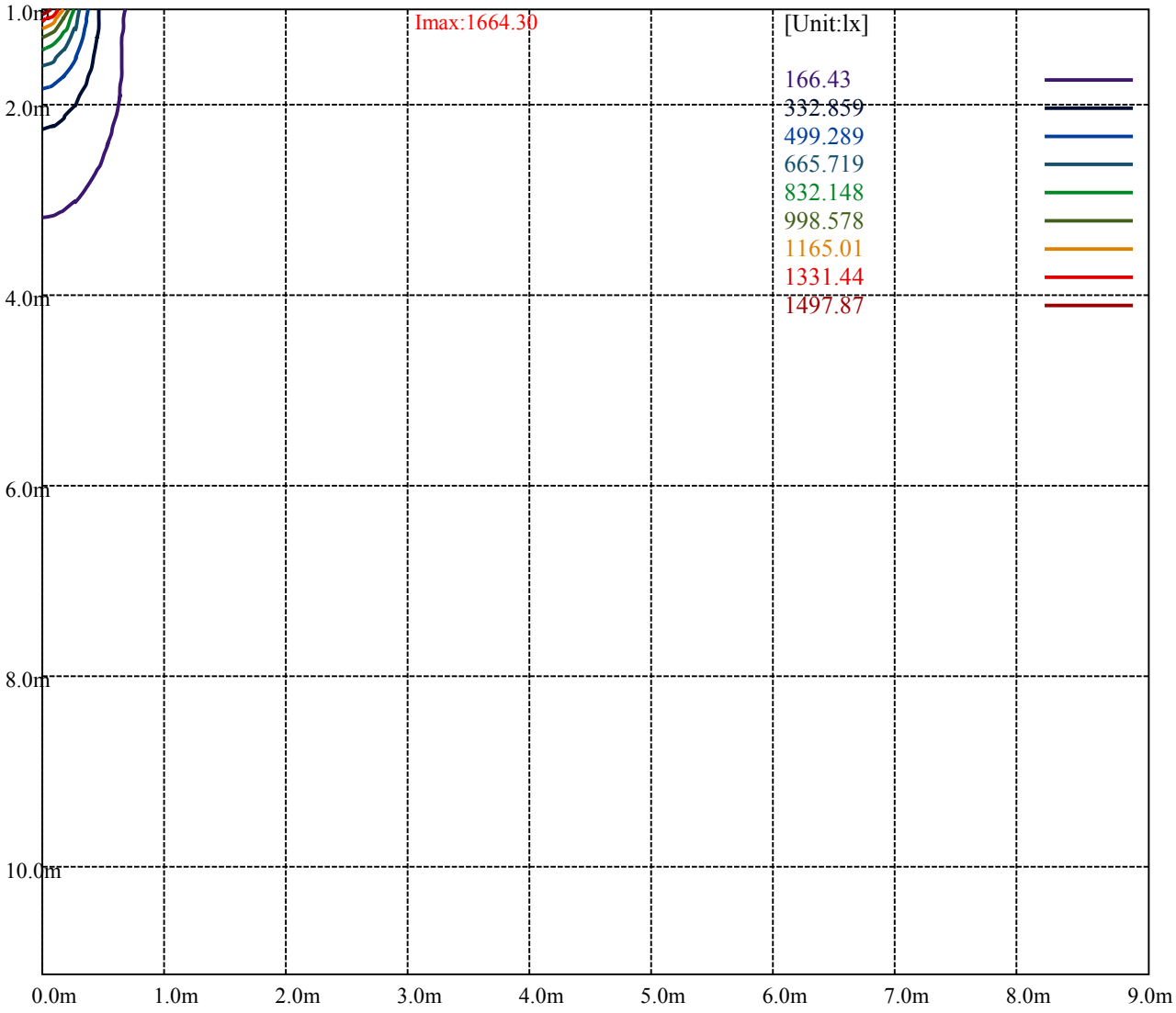


Equipment: GMS1980
Temperature(°C): 25.0

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

Operator: NT07
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

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

Operator: NT07
Distance(m): 7.50

Luminance Limitting Curve(no luminous side)

Luminance Table

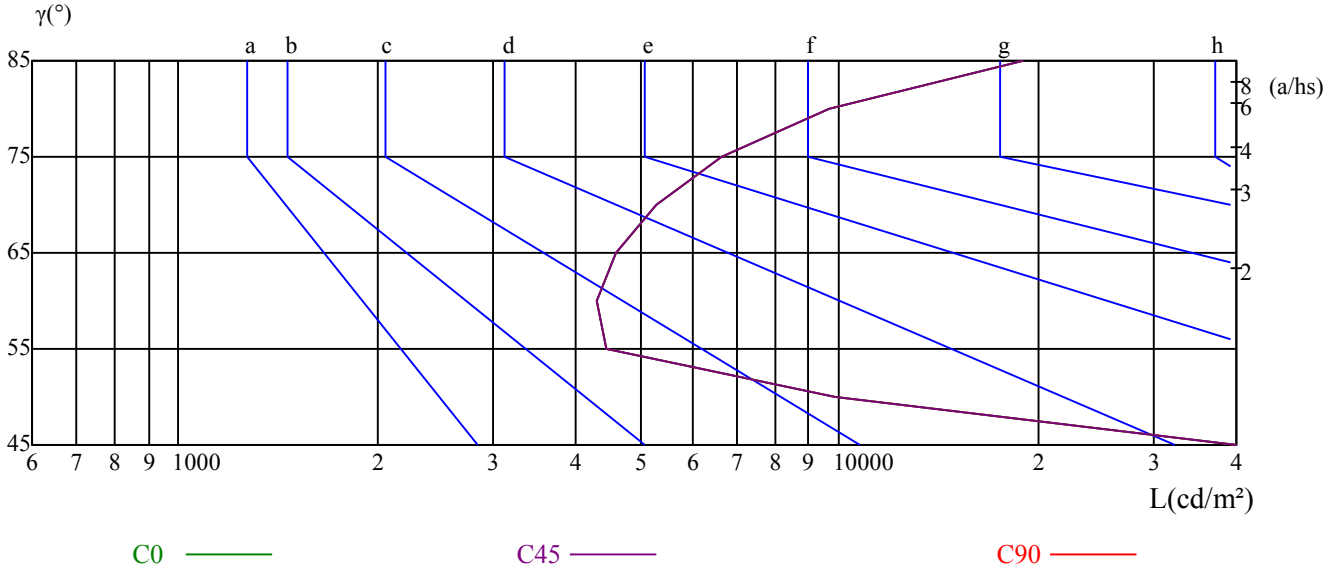
γ	45	50	55	60	65	70	75	80	85
C0	69206	9858	4438	4293	4600	5305	6638	9644	19025
C45	69206	9858	4438	4293	4600	5305	6638	9644	19025
C90	69206	9858	4438	4293	4600	5305	6638	9644	19025

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4600	4600	4600	6638	6638	6638	19025	19025	19025

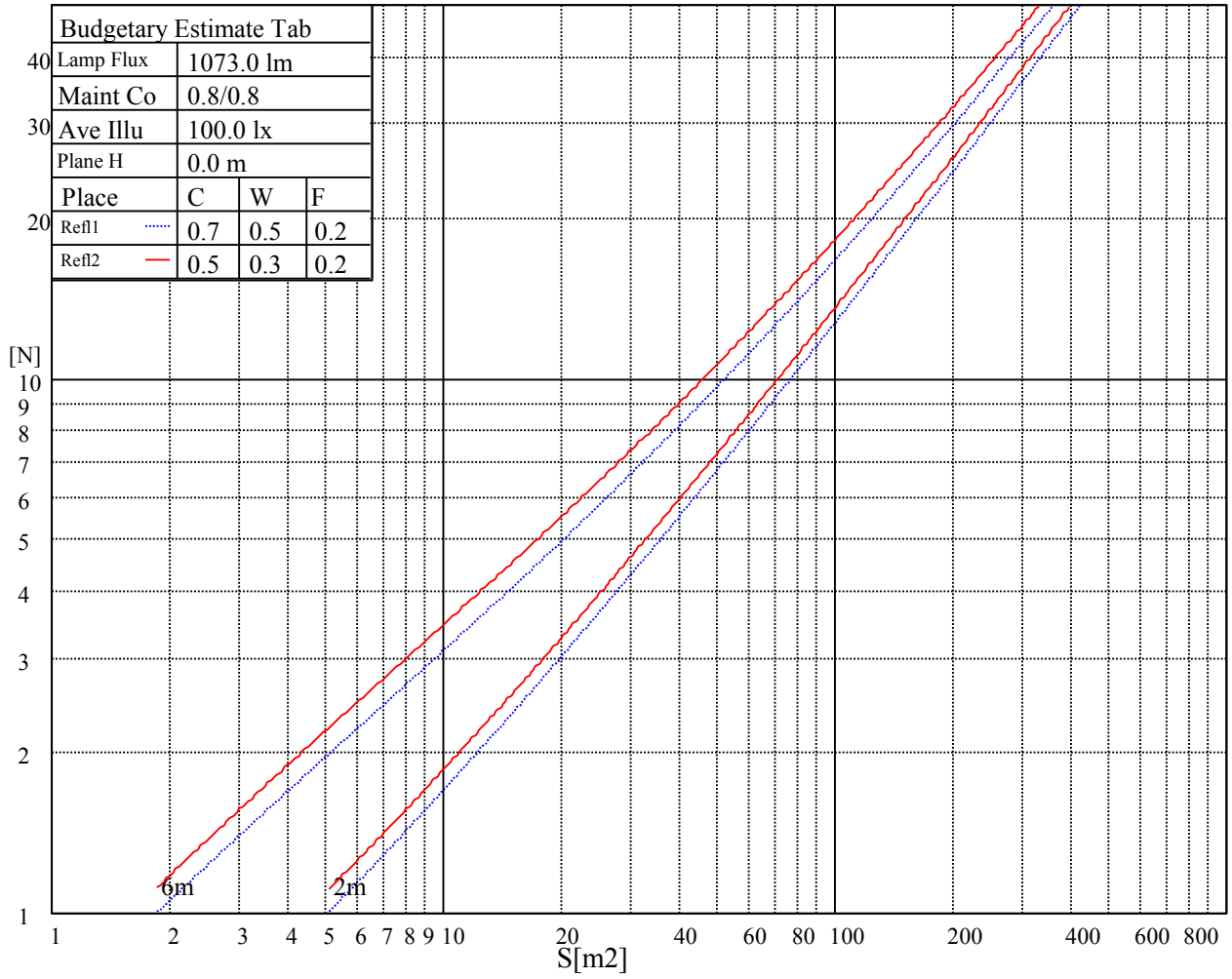
Glare Table

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

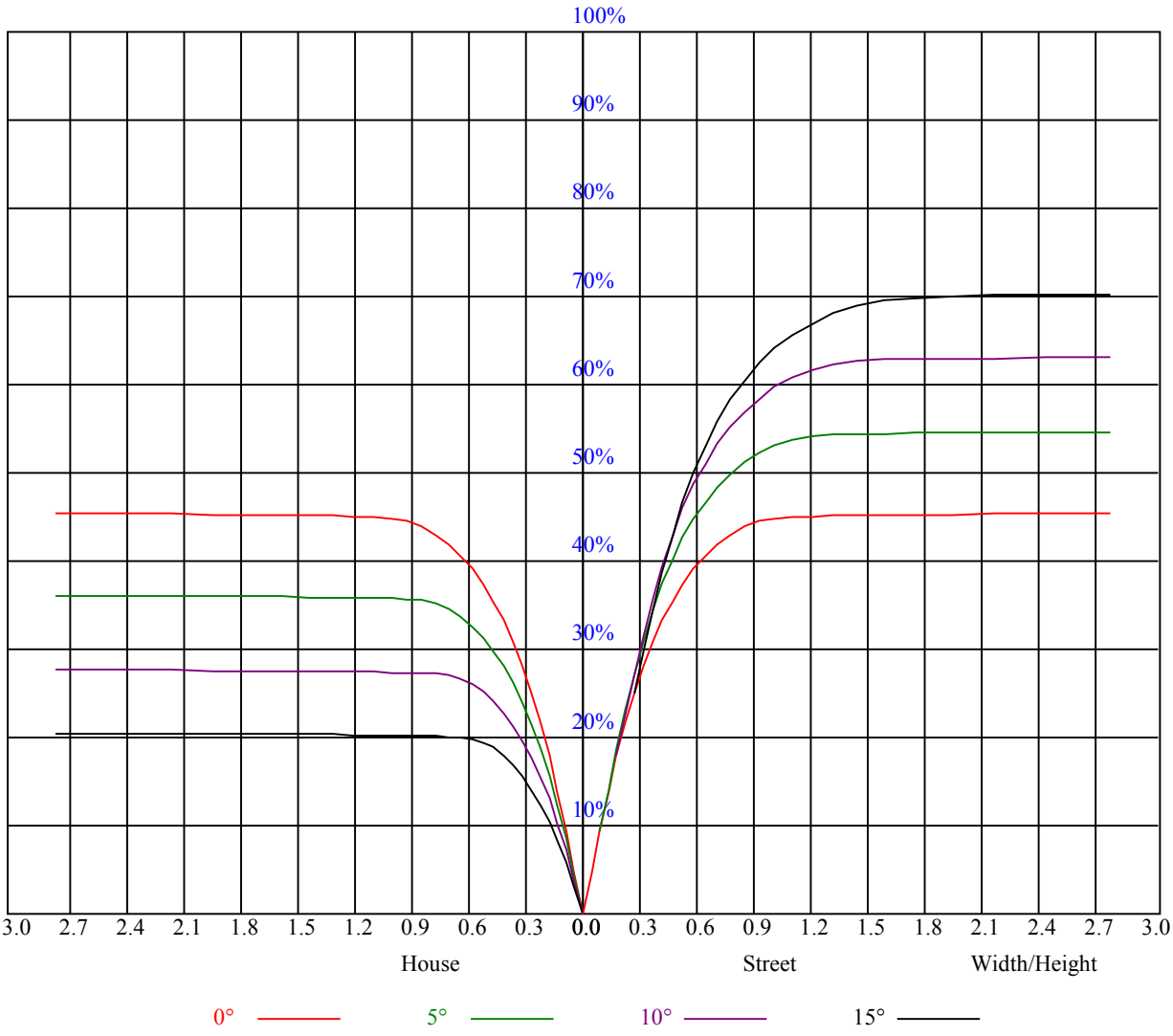


Equipment: GMS1980 Date: 2019/6/28 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.50

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	1.09	1.09	1.09	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.01	0.99	0.96	0.99	0.97	0.95	0.95	0.94	0.92	0.92	0.90	0.89	0.89	0.88	0.87	0.85
2	0.94	0.90	0.87	0.92	0.89	0.86	0.89	0.87	0.84	0.87	0.84	0.82	0.84	0.82	0.81	0.79
3	0.88	0.83	0.79	0.86	0.82	0.79	0.84	0.80	0.77	0.82	0.79	0.76	0.80	0.77	0.75	0.74
4	0.82	0.77	0.73	0.81	0.76	0.73	0.79	0.75	0.72	0.77	0.74	0.71	0.75	0.72	0.70	0.69
5	0.77	0.71	0.68	0.76	0.71	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.71	0.68	0.65	0.64
6	0.72	0.67	0.63	0.71	0.66	0.63	0.70	0.66	0.62	0.69	0.65	0.62	0.68	0.64	0.61	0.60
7	0.68	0.62	0.59	0.67	0.62	0.59	0.66	0.62	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.56
8	0.64	0.59	0.55	0.64	0.58	0.55	0.63	0.58	0.55	0.62	0.58	0.54	0.61	0.57	0.54	0.53
9	0.61	0.55	0.52	0.60	0.55	0.52	0.59	0.55	0.52	0.59	0.54	0.51	0.58	0.54	0.51	0.50
10	0.58	0.52	0.49	0.57	0.52	0.49	0.56	0.52	0.49	0.56	0.52	0.49	0.55	0.51	0.48	0.47

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2019/6/28	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	1662.75	1664.44	1654.31	1630.69	1596.94	1553.06	1506.94	1460.25	1413.00
45.0	1666.13	1663.31	1652.06	1628.44	1591.31	1549.69	1510.31	1459.13	1412.44
90.0	1664.44	1656.56	1639.13	1606.50	1573.88	1535.63	1492.88	1436.63	1386.56
135.0	1664.44	1662.75	1647.56	1622.81	1590.75	1548.00	1500.75	1456.88	1411.31
180.0	1662.75	1653.19	1634.63	1598.63	1557.56	1518.19	1477.69	1424.25	1375.88
225.0	1666.13	1659.38	1641.38	1606.50	1570.50	1527.19	1475.44	1425.94	1378.13
270.0	1663.31	1664.44	1647.00	1621.13	1585.69	1543.50	1498.50	1446.75	1401.19
315.0	1664.44	1656.00	1639.69	1607.06	1567.13	1526.63	1480.50	1424.25	1375.31
360.0	1662.75	1664.44	1654.31	1630.69	1596.94	1553.06	1506.94	1460.25	1413.00

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1352.25	1305.00	1254.38	1194.75	1132.31	1085.63	1017.56	956.81	906.19
45.0	1358.44	1297.69	1243.13	1185.75	1114.88	1060.31	1005.75	938.25	888.75
90.0	1331.44	1267.88	1210.50	1110.26	1089.90	1027.18	969.86	912.71	864.84
135.0	1354.50	1302.19	1247.63	1181.81	1115.44	1058.63	995.63	934.31	884.25
180.0	1326.94	1261.69	1208.25	1119.66	1091.98	1023.24	966.71	916.54	860.85
225.0	1326.94	1269.00	1215.00	1119.77	1099.74	1036.41	978.08	925.59	874.07
270.0	1344.94	1288.13	1236.94	1191.38	1117.13	1064.81	1020.94	947.81	901.13
315.0	1329.75	1267.88	1215.00	1120.61	1101.66	1042.20	989.78	930.38	880.48
360.0	1352.25	1305.00	1254.38	1194.75	1132.31	1085.63	1017.56	956.81	906.19

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	852.19	807.19	758.25	713.25	674.44	638.44	591.75	558.00	523.69
45.0	838.69	786.38	737.44	697.50	652.50	615.94	577.13	539.44	507.94
90.0	811.91	760.56	719.33	673.37	631.46	596.76	562.11	520.09	489.43
135.0	830.25	785.25	738.56	694.13	653.63	616.50	572.63	537.75	504.56
180.0	807.64	763.65	715.78	670.56	632.25	591.47	555.69	518.34	484.03
225.0	817.54	773.33	730.97	685.63	643.28	605.98	571.73	529.93	498.21
270.0	858.94	803.25	754.88	718.88	671.63	633.38	597.94	554.06	520.88
315.0	829.29	774.73	740.36	696.83	649.46	615.66	579.09	531.39	503.61
360.0	852.19	807.19	758.25	713.25	674.44	638.44	591.75	558.00	523.69

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	484.88	457.31	436.50	415.69	397.69	384.19	370.69	359.44	350.44
45.0	474.19	447.75	426.38	409.50	389.81	376.31	363.94	350.44	341.44
90.0	461.48	433.35	413.55	397.24	380.81	366.58	355.95	344.08	335.87
135.0	472.50	446.06	423.56	407.25	388.13	374.63	361.69	349.88	340.88
180.0	455.91	430.59	409.89	393.58	379.24	364.44	354.60	345.32	335.98
225.0	470.25	442.29	422.72	405.34	389.42	376.20	366.19	354.99	346.05
270.0	489.38	456.75	434.81	415.69	396.56	382.50	372.38	361.13	351.00
315.0	474.24	445.84	423.17	405.73	388.74	374.06	363.83	352.97	344.14
360.0	484.88	457.31	436.50	415.69	397.69	384.19	370.69	359.44	350.44

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	340.31	331.31	321.19	300.38	285.75	251.38	215.16	183.32	153.00
45.0	333.00	323.44	313.88	295.31	286.88	238.22	203.57	168.13	138.38
90.0	326.31	317.36	303.58	282.66	252.62	224.94	194.18	152.27	119.59
135.0	331.88	323.44	312.19	294.75	285.19	238.73	207.00	169.31	139.61
180.0	326.93	319.39	303.58	277.59	253.69	222.19	190.46	155.14	120.43
225.0	334.63	325.24	311.96	288.00	259.03	231.98	202.05	163.86	133.82
270.0	342.00	333.00	318.94	302.06	284.06	248.63	217.46	182.98	149.85
315.0	334.01	323.21	311.29	286.65	259.82	230.68	200.98	162.90	133.26
360.0	340.31	331.31	321.19	300.38	285.75	251.38	215.16	183.32	153.00

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	114.58	85.61	60.13	36.62	19.01	14.74	12.83	10.24	7.76
45.0	104.91	71.72	49.05	28.91	16.93	14.06	11.87	9.51	7.09
90.0	89.66	61.48	37.01	22.89	15.02	12.66	10.46	8.04	6.41
135.0	109.52	72.34	49.61	28.24	16.59	13.50	11.36	8.78	6.69
180.0	90.34	64.58	37.18	21.66	14.57	12.43	10.35	8.27	6.36
225.0	102.21	69.75	41.85	23.96	14.91	12.71	10.80	8.49	6.81
270.0	114.24	82.01	56.53	33.86	16.93	13.89	12.15	9.73	7.43
315.0	102.94	69.24	42.24	23.63	15.36	13.28	11.19	8.72	6.98
360.0	114.58	85.61	60.13	36.62	19.01	14.74	12.83	10.24	7.76

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	6.02	5.40	5.23	5.06	4.89	4.84	4.67	4.56	4.44
45.0	5.91	5.51	5.01	4.89	4.78	4.67	4.56	4.44	4.39
90.0	5.68	5.46	4.95	4.78	4.67	4.56	4.50	4.39	4.28
135.0	5.46	5.12	4.95	4.84	4.73	4.67	4.50	4.44	4.33
180.0	5.57	5.34	4.95	4.78	4.61	4.56	4.50	4.33	4.28
225.0	5.68	5.23	5.01	4.84	4.73	4.61	4.50	4.39	4.28
270.0	5.91	5.34	5.12	4.95	4.84	4.73	4.56	4.50	4.39
315.0	5.96	5.68	5.46	4.95	4.78	4.67	4.56	4.44	4.33
360.0	6.02	5.40	5.23	5.06	4.89	4.84	4.67	4.56	4.44

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	4.39	4.28	4.16	4.11	4.05	3.99	3.94	3.88	3.83
45.0	4.28	4.22	4.11	4.11	3.99	3.94	3.88	3.83	3.77
90.0	4.22	4.16	4.11	3.99	3.99	3.94	3.88	3.83	3.83
135.0	4.28	4.16	4.11	4.05	3.99	3.94	3.88	3.83	3.77
180.0	4.22	4.11	4.05	3.99	3.94	3.88	3.88	3.83	3.77
225.0	4.22	4.16	4.11	4.05	3.99	3.94	3.83	3.83	3.77
270.0	4.28	4.22	4.16	4.11	3.99	3.94	3.88	3.88	3.83
315.0	4.22	4.22	4.11	4.05	3.99	3.94	3.88	3.83	3.77
360.0	4.39	4.28	4.16	4.11	4.05	3.99	3.94	3.88	3.83

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	3.77	3.71	3.66	3.60	3.60	3.60	3.54	3.54	3.54
45.0	3.77	3.71	3.66	3.66	3.60	3.60	3.54	3.54	3.49
90.0	3.77	3.77	3.71	3.71	3.66	3.66	3.60	3.60	3.60
135.0	3.77	3.71	3.66	3.66	3.60	3.60	3.60	3.54	3.54
180.0	3.71	3.66	3.60	3.60	3.60	3.54	3.54	3.54	3.49
225.0	3.71	3.71	3.66	3.60	3.60	3.54	3.54	3.54	3.54
270.0	3.77	3.77	3.71	3.66	3.66	3.66	3.60	3.60	3.60
315.0	3.71	3.66	3.66	3.60	3.60	3.54	3.54	3.54	3.54
360.0	3.77	3.71	3.66	3.60	3.60	3.60	3.54	3.54	3.54

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	3.54	3.54	3.49	3.54	3.49	3.49	3.49	3.49	3.49
45.0	3.54	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49
90.0	3.60	3.60	3.54	3.60	3.54	3.49	3.49	3.49	3.49
135.0	3.54	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49
180.0	3.54	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49
225.0	3.49	3.49	3.54	3.49	3.49	3.49	3.49	3.49	3.49
270.0	3.60	3.60	3.60	3.60	3.60	3.54	3.49	3.49	3.49
315.0	3.54	3.49	3.54	3.49	3.49	3.49	3.49	3.49	3.49
360.0	3.54	3.54	3.49	3.54	3.49	3.49	3.49	3.49	3.49

Intensity data(cd)

C/γ(°)	90.0
0.0	3.49
45.0	3.49
90.0	3.49
135.0	3.49
180.0	3.49
225.0	3.49
270.0	3.49
315.0	3.49
360.0	3.49