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

Nata

LumCAT: LN01D03515DA-N
Luminaire: 97.70.272.00
Report No: 200623-B018
Test No: 200623-C018
LampCAT: BRIDGELUX V4HD LES5.2
Lamp flux(lm): 365.8
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 34.5300
Current(A): 0.1000
Power (W): 3.4530
PF: 0.0000
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 319.68
Efficiency(%): 87.40%
Lumens(lm)/Power(W): 92.58
Central intensity(cd): 2818.969
Maximum intensity(cd): 2818.969
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=16.3
[C90/270]Total=16.3
Field angle(10%Imax): [C0/180]Total=30.7
[C90/270]Total=30.7
Maximum s/h(1/2): C0_180=0.28 C90_270=0.28
Maximum s/h(1/4): C0_180=0.29 C90_270=0.29
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 87.40%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.278%

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2020/6/23
Humidity(%): 65.0%
Operator: NT07
Distance(m): 7.50

Nata LM01D03515DA

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2818.969	0.000	0	.000%	.000%
1.0	2793.727	2.686	2.686	.734%	.840%
2.0	2709.914	7.899	10.585	2.160%	3.311%
3.0	2568.938	12.625	23.21	3.452%	7.260%
4.0	2385.000	16.582	39.793	4.533%	12.448%
5.0	2173.781	19.612	59.404	5.362%	18.583%
6.0	1925.508	21.543	80.947	5.890%	25.321%
7.0	1674.773	22.347	103.294	6.109%	32.312%
8.0	1448.170	22.350	125.644	6.110%	39.303%
9.0	1199.482	21.458	147.102	5.866%	46.016%
10.0	983.355	19.754	166.856	5.400%	52.195%
11.0	827.283	18.092	184.948	4.946%	57.854%
12.0	661.205	16.271	201.219	4.448%	62.944%
13.0	506.595	13.859	215.078	3.789%	67.280%
14.0	396.436	11.559	226.637	3.160%	70.895%
15.0	307.934	9.670	236.307	2.644%	73.920%
16.0	231.841	7.909	244.216	2.162%	76.394%
17.0	180.246	6.417	250.633	1.754%	78.402%
18.0	139.437	5.271	255.904	1.441%	80.050%
19.0	113.393	4.399	260.303	1.203%	81.426%
20.0	92.911	3.776	264.079	1.032%	82.608%
21.0	76.788	3.259	267.337	.891%	83.627%
22.0	65.102	2.851	270.189	.780%	84.519%
23.0	55.688	2.534	272.723	.693%	85.312%
24.0	48.375	2.275	274.998	.622%	86.023%
25.0	42.680	2.070	277.069	.566%	86.671%
26.0	38.398	1.914	278.983	.523%	87.270%
27.0	34.657	1.787	280.77	.489%	87.829%
28.0	31.359	1.671	282.441	.457%	88.352%
29.0	28.484	1.566	284.007	.428%	88.841%
30.0	26.037	1.472	285.479	.402%	89.302%
31.0	23.527	1.379	286.858	.377%	89.733%
32.0	21.396	1.287	288.145	.352%	90.136%
33.0	19.624	1.208	289.354	.330%	90.514%
34.0	17.944	1.137	290.491	.311%	90.870%
35.0	16.516	1.070	291.561	.293%	91.204%
36.0	15.377	1.016	292.576	.278%	91.522%
37.0	14.337	0.969	293.545	.265%	91.825%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	13.444	0.927	294.473	.254%	92.115%
39.0	12.656	0.891	295.364	.244%	92.394%
40.0	11.841	0.854	296.218	.234%	92.661%
41.0	11.166	0.819	297.037	.224%	92.917%
42.0	10.484	0.787	297.824	.215%	93.164%
43.0	9.780	0.751	298.574	.205%	93.398%
44.0	9.183	0.716	299.29	.196%	93.622%
45.0	8.613	0.684	299.974	.187%	93.836%
46.0	8.079	0.653	300.627	.178%	94.040%
47.0	7.608	0.624	301.251	.171%	94.236%
48.0	7.221	0.599	301.85	.164%	94.423%
49.0	6.855	0.578	302.428	.158%	94.604%
50.0	6.546	0.559	302.987	.153%	94.779%
51.0	6.286	0.543	303.53	.148%	94.949%
52.0	6.012	0.528	304.058	.144%	95.114%
53.0	5.759	0.512	304.57	.140%	95.274%
54.0	5.520	0.497	305.067	.136%	95.429%
55.0	5.295	0.483	305.549	.132%	95.580%
56.0	5.098	0.470	306.019	.128%	95.727%
57.0	4.908	0.457	306.476	.125%	95.870%
58.0	4.718	0.445	306.922	.122%	96.009%
59.0	4.563	0.434	307.356	.119%	96.145%
60.0	4.402	0.424	307.779	.116%	96.278%
61.0	4.233	0.412	308.191	.113%	96.407%
62.0	4.064	0.400	308.591	.109%	96.532%
63.0	3.952	0.390	308.981	.107%	96.654%
64.0	3.818	0.381	309.362	.104%	96.773%
65.0	3.705	0.372	309.734	.102%	96.889%
66.0	3.621	0.366	310.1	.100%	97.004%
67.0	3.593	0.363	310.463	.099%	97.117%
68.0	3.649	0.367	310.829	.100%	97.232%
69.0	3.811	0.381	311.21	.104%	97.351%
70.0	4.134	0.408	311.618	.112%	97.479%
71.0	4.507	0.447	312.065	.122%	97.618%
72.0	4.880	0.488	312.553	.133%	97.771%
73.0	5.252	0.530	313.083	.145%	97.937%
74.0	5.618	0.571	313.654	.156%	98.116%
75.0	5.815	0.604	314.258	.165%	98.304%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	5.766	0.615	314.873	.168%	98.497%
77.0	5.555	0.604	315.476	.165%	98.686%
78.0	5.196	0.575	316.052	.157%	98.866%
79.0	4.781	0.536	316.588	.147%	99.033%
80.0	4.366	0.493	317.081	.135%	99.188%
81.0	3.980	0.451	317.533	.123%	99.329%
82.0	3.431	0.402	317.934	.110%	99.454%
83.0	2.827	0.340	318.275	.093%	99.561%
84.0	2.391	0.284	318.559	.078%	99.650%
85.0	1.976	0.238	318.797	.065%	99.724%
86.0	1.814	0.207	319.004	.057%	99.789%
87.0	1.645	0.189	319.194	.052%	99.848%
88.0	1.491	0.172	319.365	.047%	99.902%
89.0	1.420	0.160	319.525	.044%	99.952%
90.0	1.378	0.153	319.678	.042%	100.000%

Zonal flux distribution table

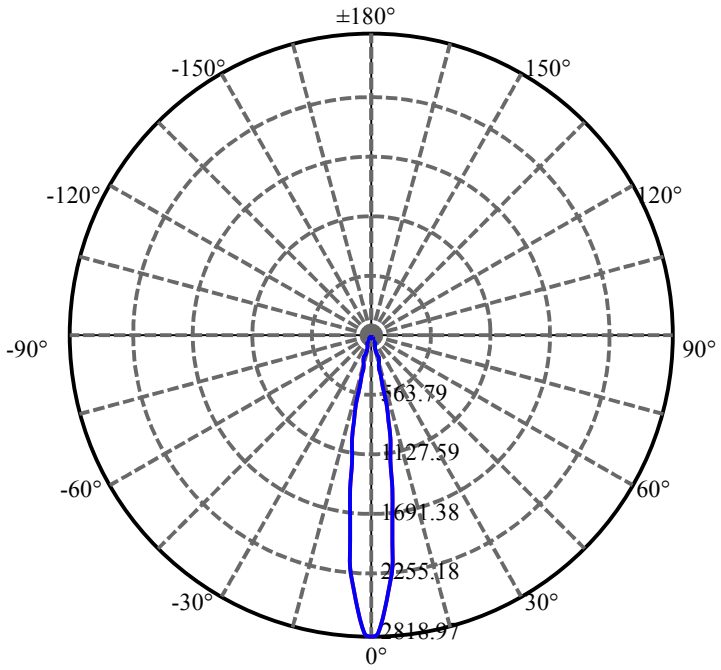
ZONAL LUMEN SUMMARY

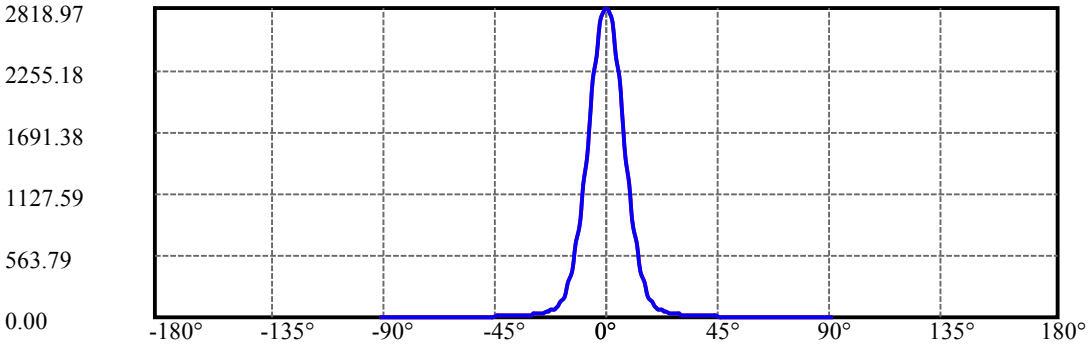
Zone	Lumens	%Lamp	%Fixt
0-30	285.48	78.05%	89.30%
0-40	296.22	80.98%	92.66%
0-60	307.78	84.14%	96.28%
0-90	319.53	87.35%	99.95%
0-120	319.53	87.35%	99.95%
0-180	319.68	87.40%	100.00%
60-90	12.17	3.33%	3.81%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-17.97	255.74	69.92%	80.00%

ZONAL LUMEN SUMMARY

0-10	166.86
10-20	97.22
20-30	21.40
30-40	10.74
40-50	6.77
50-60	4.79
60-70	3.84
70-80	5.46
80-90	2.44
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]





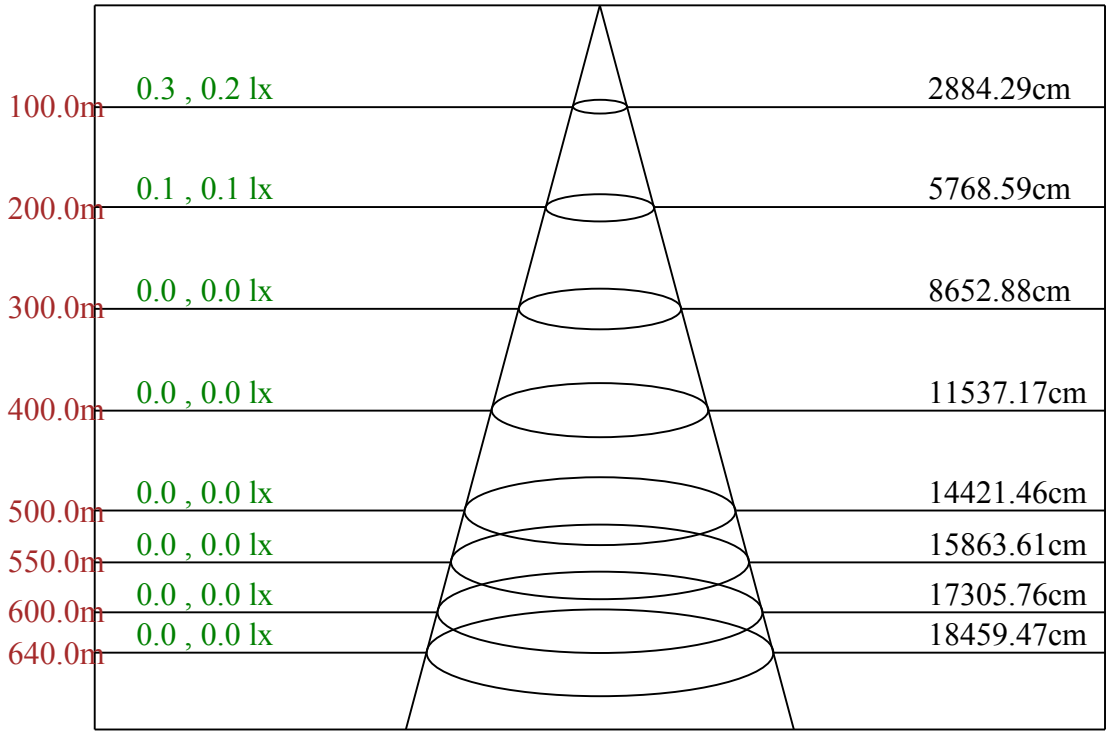
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:15.3 Right:15.3
:C90/270Left:15.3 Right:15.3

Beam Angle(50%Imax):C0/180Left:8.2 Right:8.2
:C90/270Left:8.2 Right:8.2

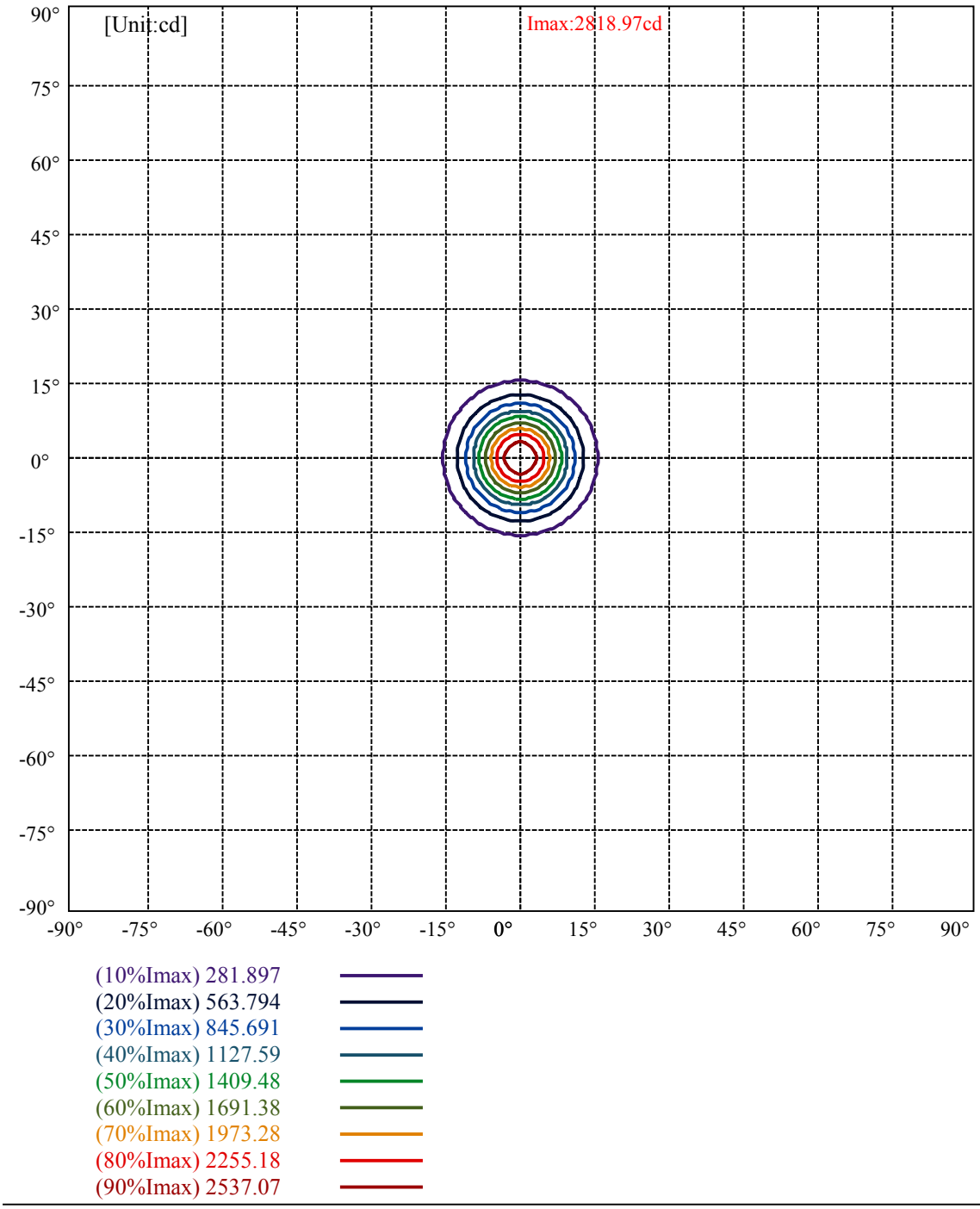
Lux distance Curve



Max , Ave

Beam angle of C0 plane 16.41

ISO-Intensity(V-H)

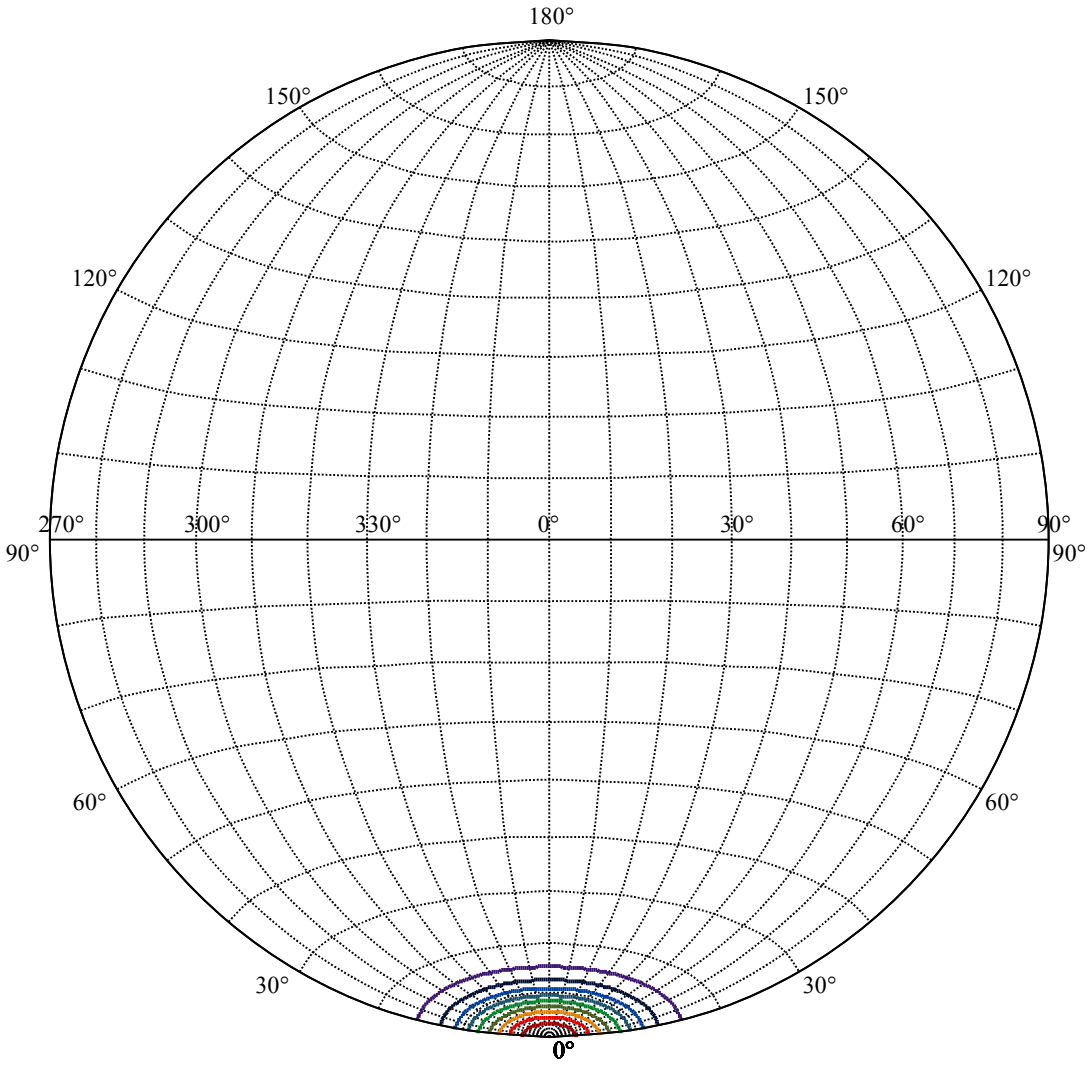


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/6/23
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:2818.97

(10%Imax) 281.897
(20%Imax) 563.794
(30%Imax) 845.691
(40%Imax) 1127.59
(50%Imax) 1409.48
(60%Imax) 1691.38
(70%Imax) 1973.28
(80%Imax) 2255.18
(90%Imax) 2537.07

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/6/23
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

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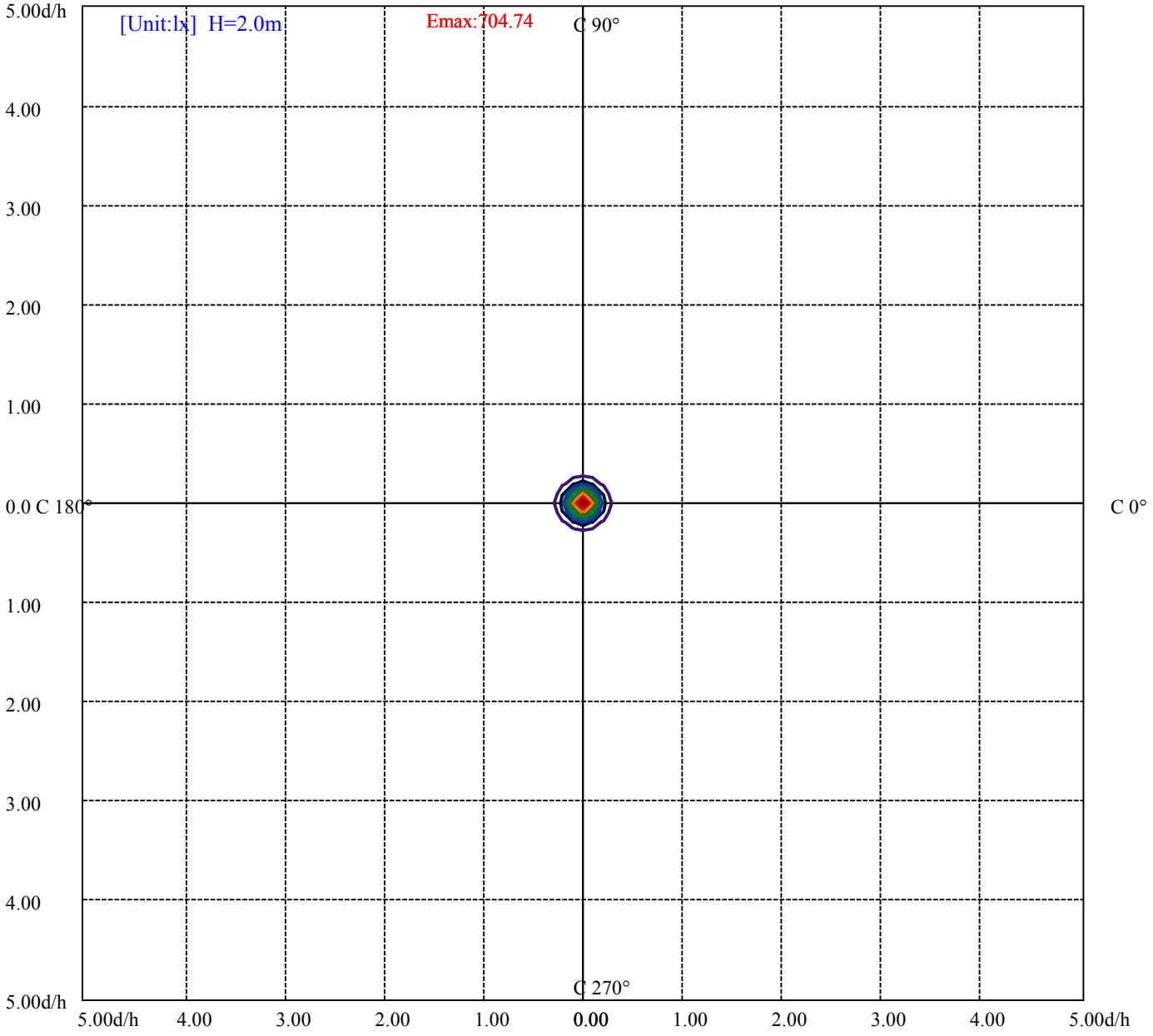
ISO illuminance diagram



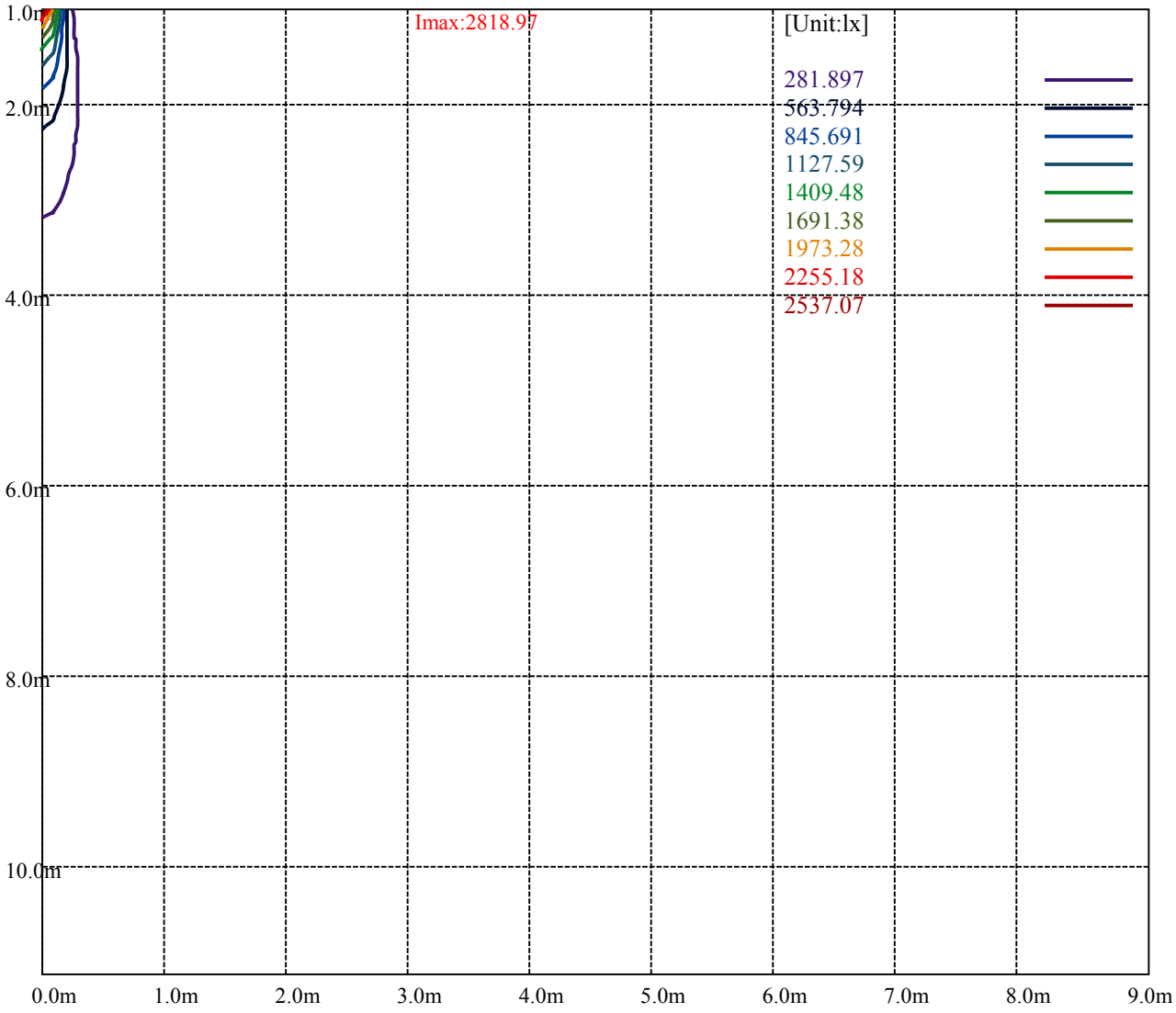
(10%Emax) 70.474
(20%Emax) 140.9483
(30%Emax) 211.4223
(40%Emax) 281.8975
(50%Emax) 352.37
(60%Emax) 422.845
(70%Emax) 493.32
(80%Emax) 563.7925
(90%Emax) 634.2675

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/6/23
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/6/23
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

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Luminance Limitting Curve(no luminous side)

Luminance Table

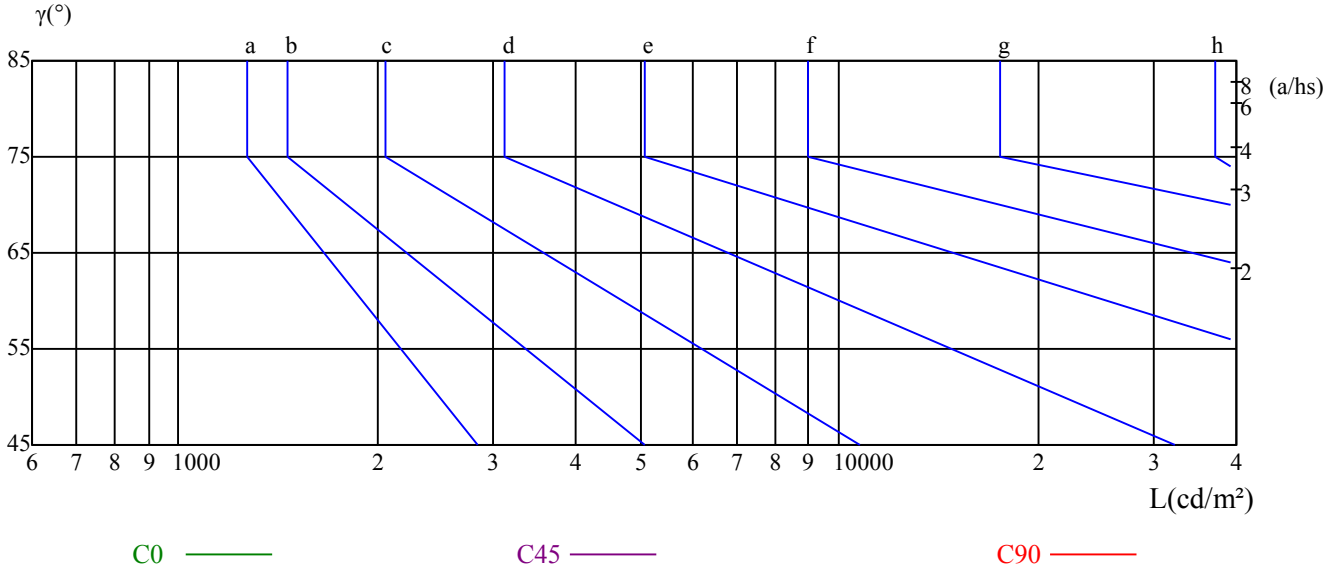
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

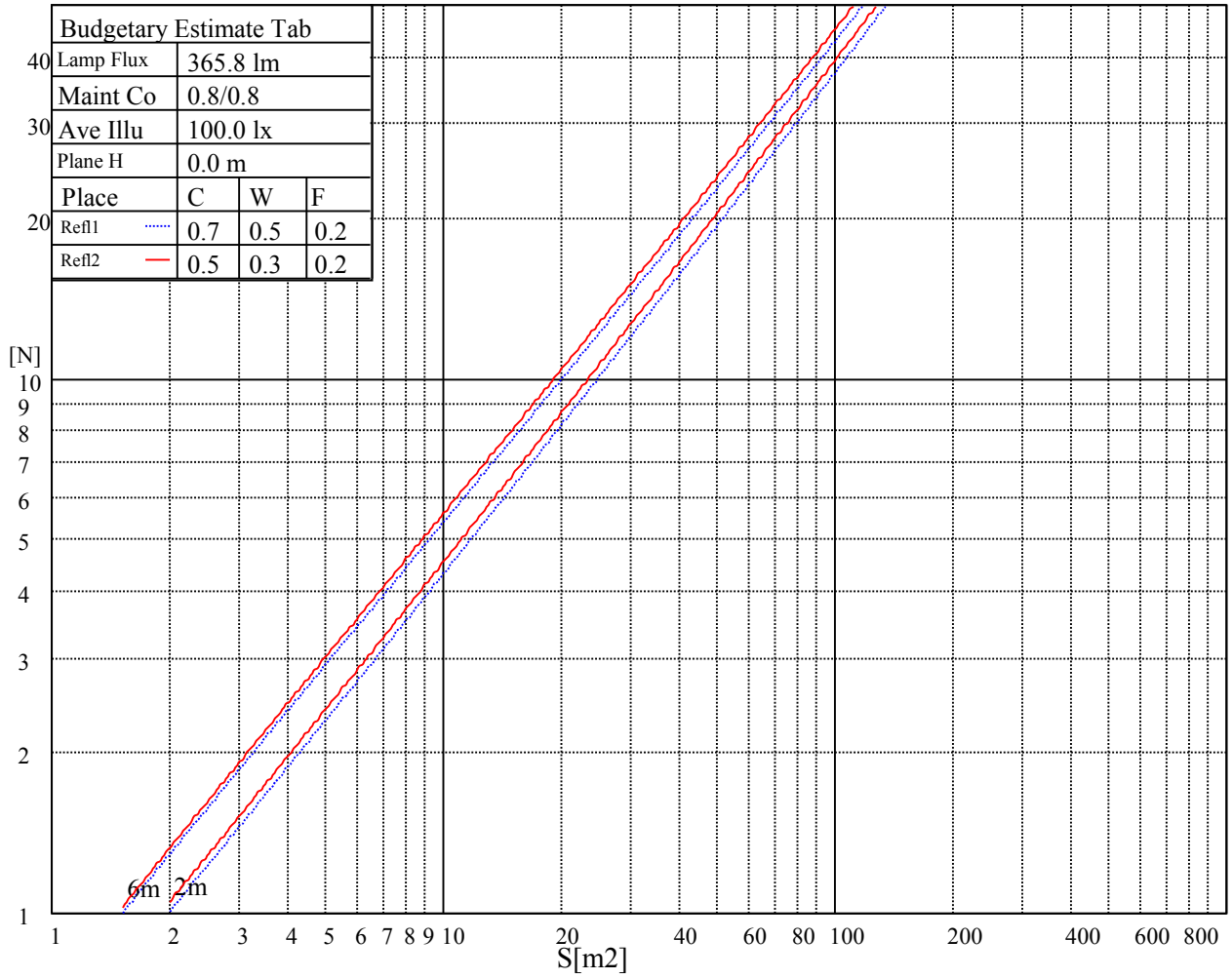


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/6/23
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Budgetary Estimate Table



Equipment: GMS1980
Temperature(°C): 25.0

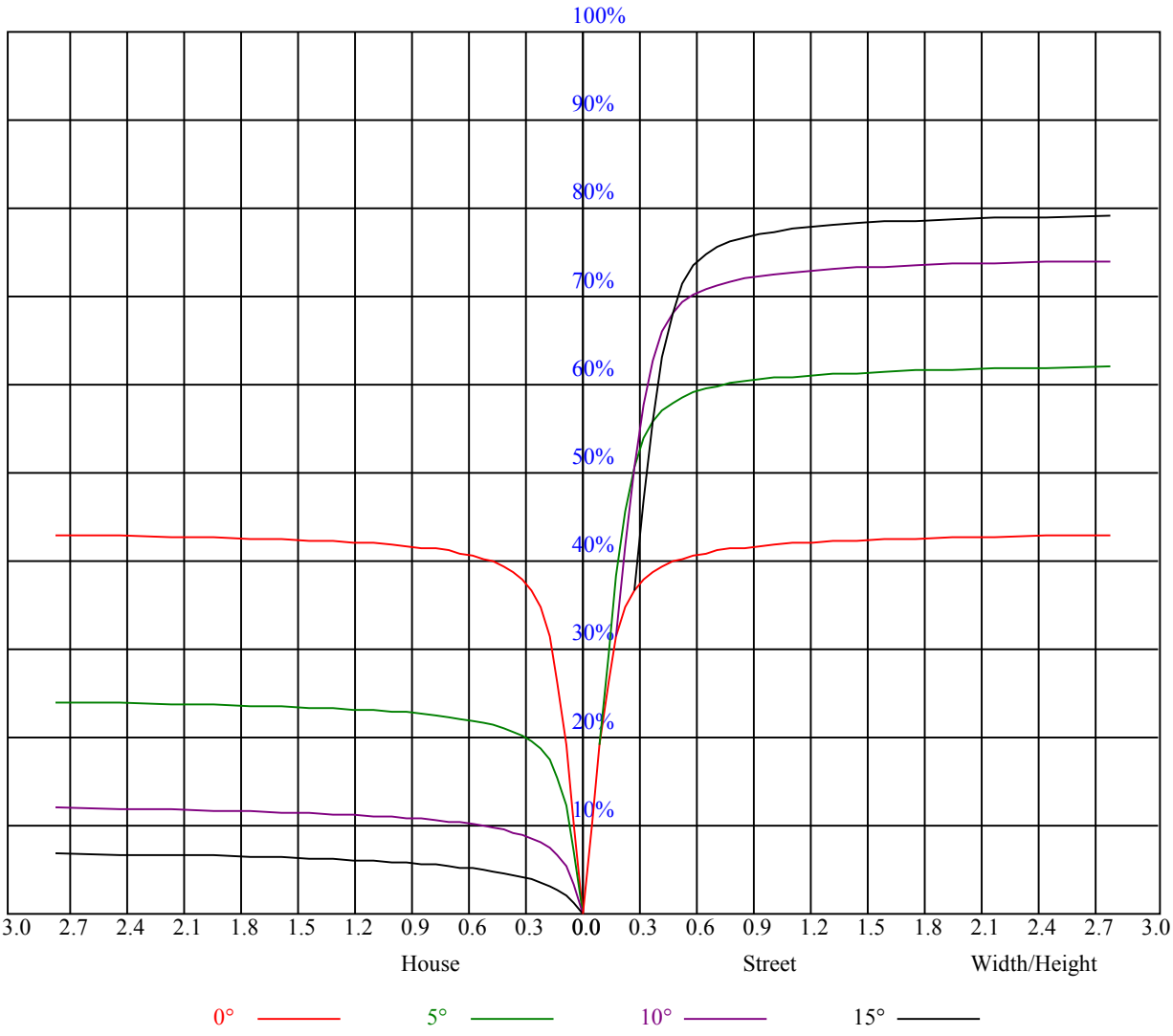
Date: 2020/6/23
Humidity(%): 65.0%

Operator: NT07
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	1.04	1.04	1.04	1.02	1.02	1.02	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.87
1	0.98	0.96	0.95	0.96	0.95	0.93	0.93	0.91	0.90	0.90	0.89	0.88	0.87	0.86	0.85	0.84
2	0.93	0.91	0.88	0.92	0.89	0.87	0.89	0.87	0.85	0.87	0.85	0.84	0.84	0.83	0.82	0.81
3	0.90	0.86	0.84	0.88	0.85	0.83	0.86	0.84	0.82	0.84	0.82	0.80	0.82	0.81	0.79	0.78
4	0.86	0.83	0.80	0.85	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	0.80	0.77	0.81	0.79	0.76	0.80	0.78	0.76	0.79	0.77	0.75	0.74
6	0.81	0.78	0.75	0.81	0.77	0.75	0.79	0.77	0.74	0.78	0.76	0.74	0.77	0.75	0.73	0.73
7	0.79	0.76	0.73	0.79	0.75	0.73	0.78	0.75	0.73	0.77	0.74	0.72	0.76	0.74	0.72	0.71
8	0.77	0.74	0.71	0.77	0.74	0.71	0.76	0.73	0.71	0.75	0.73	0.71	0.75	0.72	0.71	0.70
9	0.76	0.72	0.70	0.75	0.72	0.70	0.75	0.72	0.70	0.74	0.71	0.69	0.73	0.71	0.69	0.68
10	0.74	0.71	0.69	0.74	0.71	0.69	0.73	0.70	0.68	0.73	0.70	0.68	0.72	0.70	0.68	0.67

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2020/6/23	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	2823.75	2775.94	2664.56	2490.19	2298.38	2074.50	1778.06	1550.25	1331.44
45.0	2831.63	2737.13	2580.75	2397.94	2160.00	1924.31	1657.13	1398.94	1189.13
90.0	2796.19	2703.94	2562.19	2333.81	2111.63	1877.06	1613.25	1362.94	1101.49
135.0	2824.31	2804.06	2717.44	2607.19	2394.56	2162.25	1967.63	1684.13	1465.88
180.0	2823.75	2823.75	2759.06	2633.06	2454.75	2257.31	2006.44	1751.06	1527.19
225.0	2831.63	2867.06	2850.75	2769.75	2647.69	2477.25	2215.13	1989.00	1753.31
270.0	2796.19	2844.56	2835.00	2774.25	2646.56	2463.19	2262.94	2012.63	1784.25
315.0	2824.31	2793.38	2709.56	2545.31	2366.44	2154.38	1903.50	1649.25	1432.69
360.0	2823.75	2775.94	2664.56	2490.19	2298.38	2074.50	1778.06	1550.25	1331.44

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1083.38	898.31	731.81	566.44	426.38	325.69	284.06	179.66	135.28
45.0	990.00	766.13	609.19	477.56	356.06	291.94	203.06	165.43	122.57
90.0	914.57	747.23	599.18	444.21	356.01	267.02	202.89	162.23	131.91
135.0	1258.31	1009.13	831.38	672.19	501.75	393.75	307.13	248.51	176.12
180.0	1233.00	1053.11	869.46	703.35	524.48	409.28	318.49	238.78	180.90
225.0	1501.88	1108.86	1061.33	853.82	671.68	534.32	404.66	313.76	236.93
270.0	1537.31	1299.38	1103.63	917.44	713.81	570.38	449.44	326.81	287.44
315.0	1077.41	984.71	812.31	654.64	502.59	379.13	293.74	219.54	170.83
360.0	1083.38	898.31	731.81	566.44	426.38	325.69	284.06	179.66	135.28

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	108.62	87.69	72.73	62.61	53.49	47.03	41.74	37.46	34.43
45.0	103.05	89.27	72.96	60.98	54.79	47.08	41.51	37.97	34.03
90.0	104.29	87.53	74.70	62.21	54.73	48.66	43.14	38.59	35.16
135.0	142.59	115.31	93.99	77.96	64.69	54.73	48.04	41.74	37.35
180.0	142.65	112.22	92.36	74.81	61.76	53.27	46.13	40.89	37.18
225.0	183.26	148.95	123.58	99.11	83.08	70.09	57.88	50.91	45.11
270.0	197.10	158.79	123.86	102.99	86.51	70.99	61.37	53.16	47.14
315.0	133.93	107.38	89.10	73.63	61.76	53.66	47.19	40.73	36.79
360.0	108.62	87.69	72.73	62.61	53.49	47.03	41.74	37.46	34.43

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	32.06	28.80	26.49	24.58	22.05	20.36	19.07	17.33	16.09
45.0	31.22	28.63	25.54	23.29	21.26	19.07	17.44	16.14	14.79
90.0	31.89	29.19	26.33	23.79	21.77	19.69	17.94	16.65	15.36
135.0	33.41	30.26	27.56	25.37	22.73	20.81	19.13	17.44	16.20
180.0	33.86	30.49	28.07	25.88	23.29	21.43	19.86	18.06	16.82
225.0	39.66	35.44	32.06	28.74	25.82	23.46	21.15	19.35	17.55
270.0	41.79	37.80	34.14	31.16	28.07	25.31	23.01	20.81	18.84
315.0	33.36	30.26	27.68	25.48	23.23	21.04	19.41	17.78	16.48
360.0	32.06	28.80	26.49	24.58	22.05	20.36	19.07	17.33	16.09

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	15.30	14.18	13.44	12.71	11.93	11.31	10.63	9.90	9.34
45.0	13.95	13.16	12.32	11.59	10.86	10.13	9.56	8.94	8.27
90.0	14.12	13.28	12.54	11.81	10.86	10.18	9.56	8.83	8.27
135.0	15.24	14.18	13.33	12.54	11.81	11.14	10.46	9.84	9.23
180.0	15.81	14.68	14.01	13.22	12.32	11.76	11.14	10.29	9.79
225.0	16.03	14.85	13.84	12.88	12.09	11.48	10.58	10.01	9.45
270.0	17.33	16.09	14.57	13.67	12.88	12.04	11.25	10.52	9.79
315.0	15.24	14.29	13.50	12.83	11.98	11.31	10.69	9.90	9.34
360.0	15.30	14.18	13.44	12.71	11.93	11.31	10.63	9.90	9.34

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	8.78	8.21	7.82	7.43	7.03	6.69	6.41	6.13	5.85
45.0	7.82	7.37	6.98	6.69	6.41	6.13	5.91	5.63	5.40
90.0	7.82	7.31	6.92	6.64	6.30	6.02	5.85	5.63	5.40
135.0	8.66	8.16	7.71	7.31	6.98	6.64	6.41	6.13	5.85
180.0	9.17	8.49	8.04	7.65	7.26	6.92	6.64	6.30	6.08
225.0	8.72	8.21	7.71	7.14	6.81	6.53	6.24	5.96	5.74
270.0	9.11	8.61	7.93	7.48	6.98	6.64	6.30	6.08	5.79
315.0	8.83	8.27	7.76	7.43	7.09	6.81	6.53	6.24	5.96
360.0	8.78	8.21	7.82	7.43	7.03	6.69	6.41	6.13	5.85

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	5.63	5.40	5.23	5.06	4.84	4.67	4.50	4.33	4.16
45.0	5.23	5.01	4.84	4.67	4.50	4.33	4.16	4.05	3.88
90.0	5.18	4.95	4.78	4.67	4.44	4.33	4.22	4.05	3.88
135.0	5.63	5.40	5.18	4.95	4.78	4.61	4.44	4.28	4.11
180.0	5.79	5.51	5.34	5.12	4.95	4.78	4.61	4.44	4.28
225.0	5.46	5.29	5.06	4.89	4.67	4.50	4.39	4.22	4.05
270.0	5.51	5.34	5.12	4.89	4.78	4.61	4.44	4.28	4.11
315.0	5.74	5.46	5.23	5.01	4.78	4.67	4.44	4.22	4.05
360.0	5.63	5.40	5.23	5.06	4.84	4.67	4.50	4.33	4.16

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	4.05	3.88	3.77	3.71	3.54	3.43	3.32	3.26	3.15
45.0	3.77	3.66	3.54	3.43	3.38	3.21	3.09	3.04	2.93
90.0	3.83	3.71	3.66	3.66	4.11	5.18	6.86	8.72	10.35
135.0	3.99	3.83	3.71	3.60	3.49	3.38	3.32	3.21	3.09
180.0	4.11	3.99	3.83	3.71	3.60	3.54	3.43	3.32	3.21
225.0	3.94	3.77	3.71	3.60	3.49	3.43	3.26	3.21	3.09
270.0	3.99	3.88	3.77	3.71	3.71	3.66	3.99	5.23	7.20
315.0	3.94	3.83	3.66	3.54	3.43	3.38	3.21	3.09	3.04
360.0	4.05	3.88	3.77	3.71	3.54	3.43	3.32	3.26	3.15

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	3.09	3.15	3.21	3.21	3.15	2.93	2.76	2.53	2.36
45.0	2.87	2.76	2.70	2.59	2.53	2.42	2.36	2.25	2.19
90.0	12.04	13.78	15.08	15.47	14.34	13.16	11.93	10.41	9.00
135.0	2.98	2.87	2.76	2.70	2.59	2.53	2.42	2.36	2.25
180.0	3.09	3.04	2.93	2.87	2.81	2.70	2.59	2.53	2.42
225.0	2.98	2.87	2.81	2.76	2.70	2.64	2.59	2.53	2.42
270.0	9.06	10.74	12.71	14.29	15.41	15.53	14.46	13.33	12.04
315.0	2.93	2.81	2.76	2.64	2.59	2.53	2.48	2.31	2.25
360.0	3.09	3.15	3.21	3.21	3.15	2.93	2.76	2.53	2.36

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	2.25	2.14	2.08	1.97	1.91	1.86	1.63	1.52	1.52
45.0	2.08	2.03	1.91	1.80	1.74	1.52	1.41	1.35	1.29
90.0	7.71	4.95	2.42	2.08	1.97	1.63	1.41	1.35	1.35
135.0	2.14	2.08	1.97	1.86	1.74	1.63	1.58	1.46	1.41
180.0	2.36	2.25	2.19	2.08	1.97	1.91	1.74	1.58	1.46
225.0	2.36	2.31	2.25	2.14	2.03	1.91	1.80	1.63	1.46
270.0	10.74	9.56	7.82	5.29	2.64	2.36	2.08	1.58	1.46
315.0	2.19	2.14	1.97	1.91	1.80	1.69	1.52	1.46	1.41
360.0	2.25	2.14	2.08	1.97	1.91	1.86	1.63	1.52	1.52

Intensity data(cd)

C/γ(°)	90.0
0.0	1.46
45.0	1.35
90.0	1.29
135.0	1.35
180.0	1.46
225.0	1.41
270.0	1.35
315.0	1.35
360.0	1.46