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

Nata

LumCAT: NA01D020038BW
Luminaire:
Report No: 200406-B003
Test No: 200406-C003
LampCAT: CREE 3030-HE
Lamp flux(lm): 134.6
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 3.4300
Current(A): 0.2990
Power (W): 1.0260
PF: 0.0000
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 130.34
Efficiency(%): 96.82%
Lumens(lm)/Power(W): 127.04
Central intensity(cd): 200.995
Maximum intensity(cd): 200.995
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=37.7
[C90/270]Total=37.7
Field angle(10%Imax): [C0/180]Total=80.8
[C90/270]Total=80.8
Maximum s/h(1/2): C0_180=0.61 C90_270=0.61
Maximum s/h(1/4): C0_180=0.64 C90_270=0.64
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 96.82%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 92.358%

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2020/4/6
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	200.995	0.000	0	.000%	.000%
1.0	200.672	0.192	0.192	.143%	.147%
2.0	199.695	0.575	0.767	.427%	.588%
3.0	197.845	0.951	1.718	.706%	1.318%
4.0	195.588	1.317	3.035	.978%	2.328%
5.0	192.389	1.669	4.704	1.240%	3.609%
6.0	188.156	2.000	6.703	1.486%	5.143%
7.0	183.551	2.307	9.011	1.714%	6.913%
8.0	178.334	2.590	11.601	1.924%	8.900%
9.0	172.322	2.842	14.442	2.111%	11.081%
10.0	165.797	3.060	17.502	2.273%	13.428%
11.0	159.138	3.247	20.749	2.412%	15.919%
12.0	151.791	3.399	24.148	2.525%	18.527%
13.0	143.880	3.509	27.657	2.607%	21.219%
14.0	136.062	3.583	31.24	2.662%	23.968%
15.0	128.524	3.632	34.872	2.698%	26.755%
16.0	121.092	3.658	38.53	2.717%	29.561%
17.0	113.393	3.652	42.182	2.712%	32.362%
18.0	106.095	3.619	45.8	2.688%	35.139%
19.0	99.471	3.576	49.377	2.657%	37.883%
20.0	92.869	3.520	52.897	2.615%	40.584%
21.0	86.013	3.435	56.332	2.552%	43.219%
22.0	80.234	3.341	59.673	2.482%	45.782%
23.0	74.616	3.249	62.922	2.414%	48.275%
24.0	68.808	3.136	66.058	2.329%	50.681%
25.0	63.970	3.019	69.077	2.243%	52.997%
26.0	59.505	2.915	71.992	2.165%	55.233%
27.0	55.062	2.803	74.795	2.082%	57.384%
28.0	50.709	2.678	77.472	1.989%	59.438%
29.0	47.088	2.559	80.031	1.901%	61.401%
30.0	43.552	2.447	82.478	1.818%	63.279%
31.0	40.191	2.330	84.809	1.731%	65.067%
32.0	37.167	2.216	87.025	1.646%	66.767%
33.0	34.397	2.108	89.133	1.566%	68.385%
34.0	31.887	2.006	91.139	1.490%	69.924%
35.0	29.475	1.906	93.045	1.416%	71.386%
36.0	27.359	1.810	94.854	1.344%	72.774%
37.0	25.488	1.724	96.578	1.280%	74.096%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	23.801	1.645	98.223	1.222%	75.359%
39.0	22.029	1.564	99.788	1.162%	76.559%
40.0	20.609	1.487	101.275	1.105%	77.700%
41.0	19.322	1.422	102.696	1.056%	78.790%
42.0	18.091	1.359	104.056	1.010%	79.833%
43.0	16.938	1.298	105.353	.964%	80.829%
44.0	15.961	1.242	106.595	.922%	81.782%
45.0	15.047	1.192	107.787	.885%	82.696%
46.0	14.055	1.138	108.925	.845%	83.569%
47.0	13.268	1.087	110.012	.807%	84.403%
48.0	12.516	1.042	111.054	.774%	85.202%
49.0	11.756	0.997	112.051	.740%	85.967%
50.0	11.018	0.950	113	.705%	86.696%
51.0	10.399	0.906	113.906	.673%	87.391%
52.0	9.780	0.866	114.772	.643%	88.055%
53.0	9.183	0.825	115.597	.613%	88.688%
54.0	8.634	0.785	116.382	.583%	89.291%
55.0	8.135	0.749	117.131	.556%	89.865%
56.0	7.643	0.713	117.844	.530%	90.412%
57.0	7.221	0.680	118.524	.505%	90.933%
58.0	6.799	0.648	119.172	.482%	91.431%
59.0	6.420	0.618	119.79	.459%	91.905%
60.0	6.089	0.591	120.381	.439%	92.358%
61.0	5.730	0.564	120.945	.419%	92.791%
62.0	5.428	0.538	121.483	.399%	93.204%
63.0	5.175	0.516	121.998	.383%	93.599%
64.0	4.908	0.495	122.493	.368%	93.979%
65.0	4.648	0.473	122.966	.351%	94.342%
66.0	4.451	0.454	123.42	.337%	94.690%
67.0	4.226	0.436	123.856	.324%	95.025%
68.0	4.029	0.418	124.274	.311%	95.345%
69.0	3.860	0.402	124.677	.299%	95.654%
70.0	3.684	0.387	125.064	.288%	95.951%
71.0	3.544	0.374	125.438	.278%	96.238%
72.0	3.410	0.362	125.799	.269%	96.515%
73.0	3.305	0.351	126.151	.261%	96.785%
74.0	3.178	0.341	126.491	.253%	97.046%
75.0	3.080	0.331	126.822	.246%	97.300%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	2.988	0.322	127.144	.239%	97.547%
77.0	2.911	0.315	127.459	.234%	97.788%
78.0	2.827	0.307	127.766	.228%	98.024%
79.0	2.749	0.300	128.065	.223%	98.254%
80.0	2.679	0.293	128.358	.217%	98.478%
81.0	2.623	0.287	128.645	.213%	98.698%
82.0	2.552	0.281	128.925	.208%	98.914%
83.0	2.475	0.273	129.199	.203%	99.123%
84.0	2.370	0.264	129.463	.196%	99.326%
85.0	2.201	0.249	129.712	.185%	99.517%
86.0	1.793	0.218	129.93	.162%	99.685%
87.0	1.188	0.163	130.093	.121%	99.810%
88.0	0.802	0.109	130.202	.081%	99.894%
89.0	0.612	0.077	130.28	.058%	99.953%
90.0	0.506	0.061	130.341	.046%	100.000%

Zonal flux distribution table

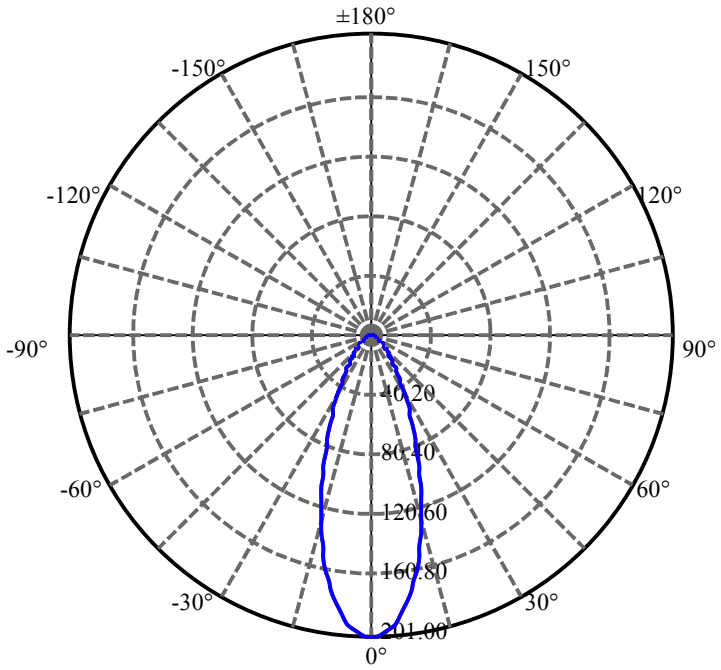
ZONAL LUMEN SUMMARY

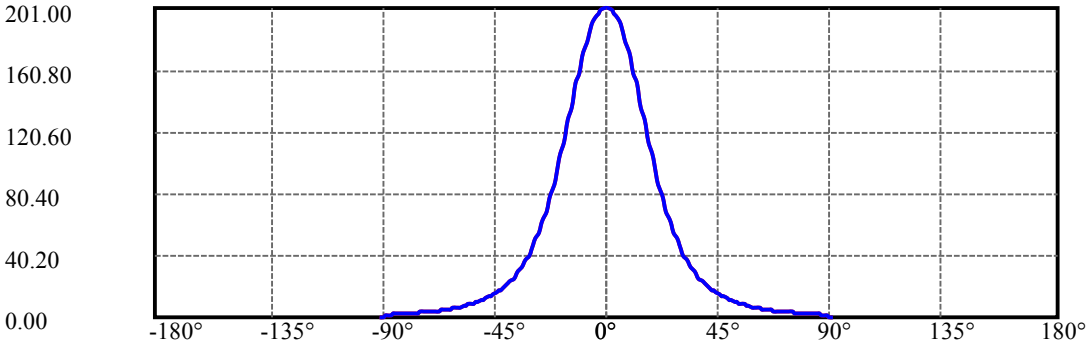
Zone	Lumens	%Lamp	%Fixt
0-30	82.48	61.27%	63.28%
0-40	101.27	75.23%	77.70%
0-60	120.38	89.42%	92.36%
0-90	130.28	96.78%	99.95%
0-120	130.28	96.78%	99.95%
0-180	130.34	96.82%	100.00%
60-90	10.49	7.79%	8.05%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-42.17	104.27	77.46%	80.00%

ZONAL LUMEN SUMMARY

0-10	17.50
10-20	35.39
20-30	29.58
30-40	18.80
40-50	11.73
50-60	7.38
60-70	4.68
70-80	3.29
80-90	1.92
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:

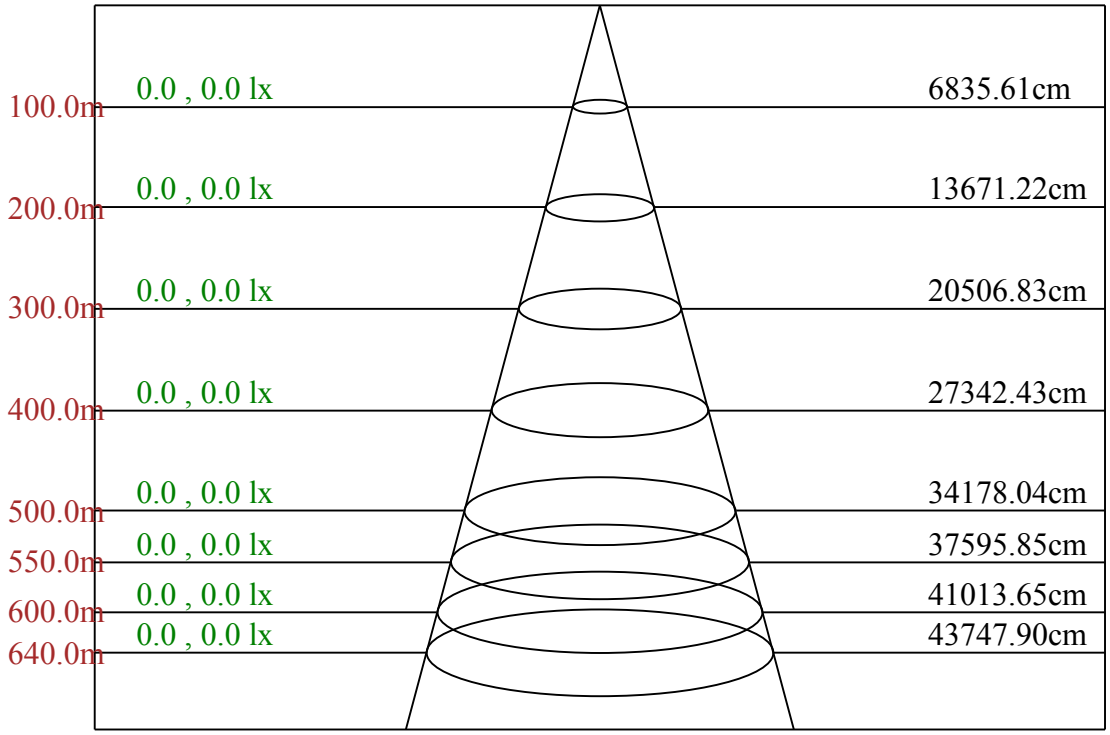
C90/C270:

Field angle(10%Imax):C0/180Left:40.4 Right:40.4
:C90/270Left:40.4 Right:40.4

Beam Angle(50%Imax):C0/180Left:18.8 Right:18.8
:C90/270Left:18.8 Right:18.8

Equipment: GMS1980 Date: 2020/4/6 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.50

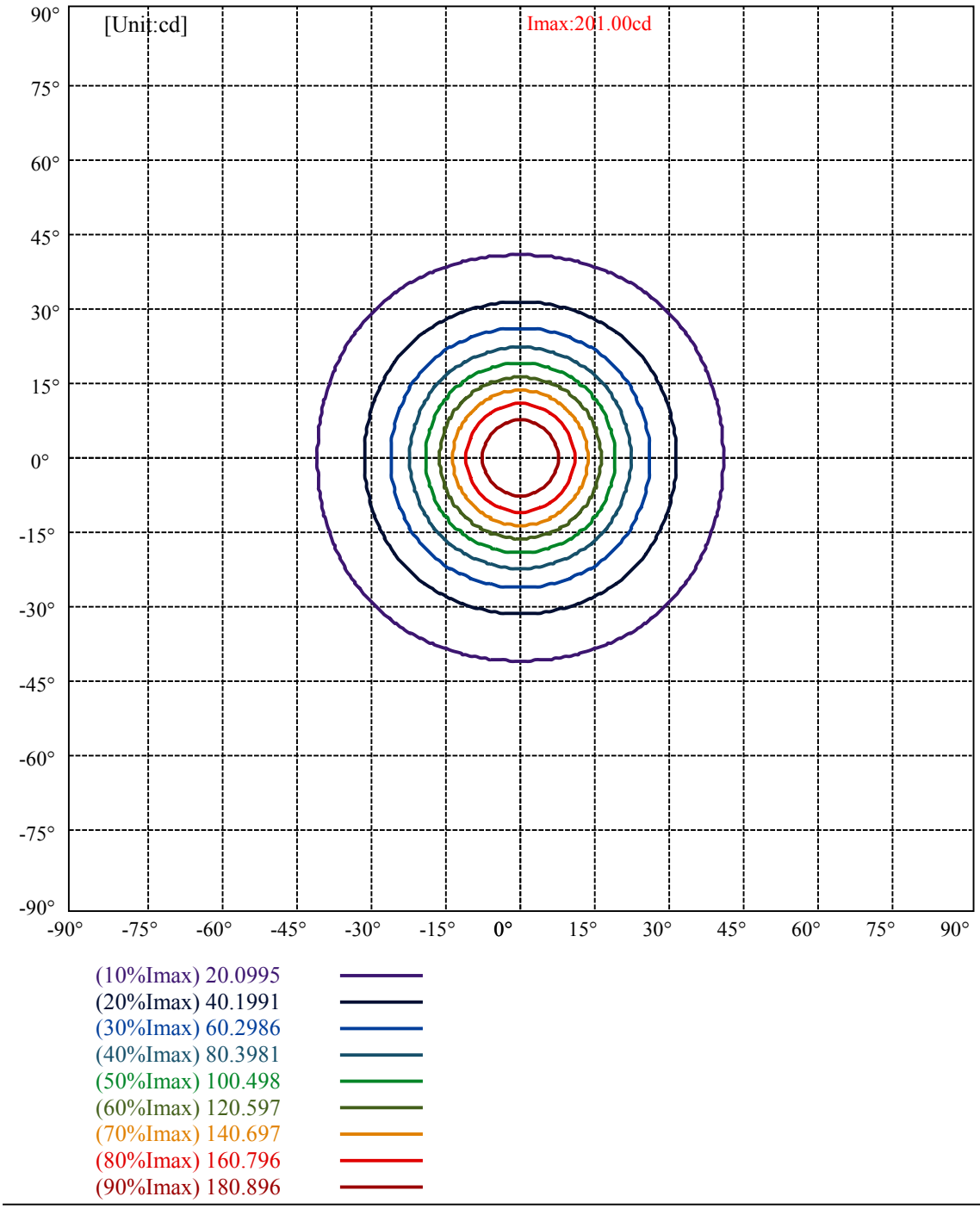
Lux distance Curve



Max , Ave

Beam angle of C0 plane 37.74

ISO-Intensity(V-H)

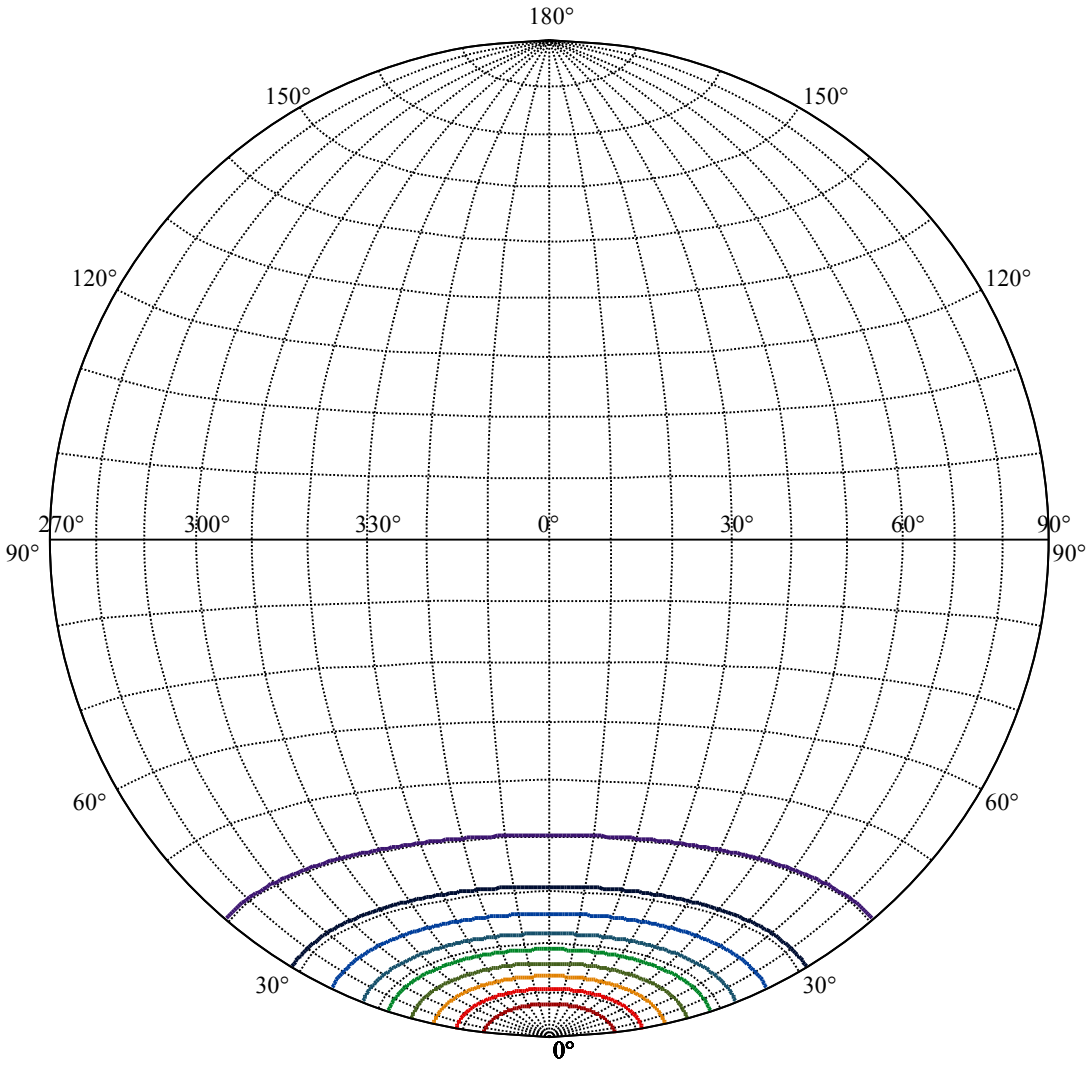


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/4/6
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:201.00

(10%Imax) 20.0995
(20%Imax) 40.1991
(30%Imax) 60.2986
(40%Imax) 80.3981
(50%Imax) 100.498
(60%Imax) 120.597
(70%Imax) 140.697
(80%Imax) 160.796
(90%Imax) 180.896

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/4/6
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

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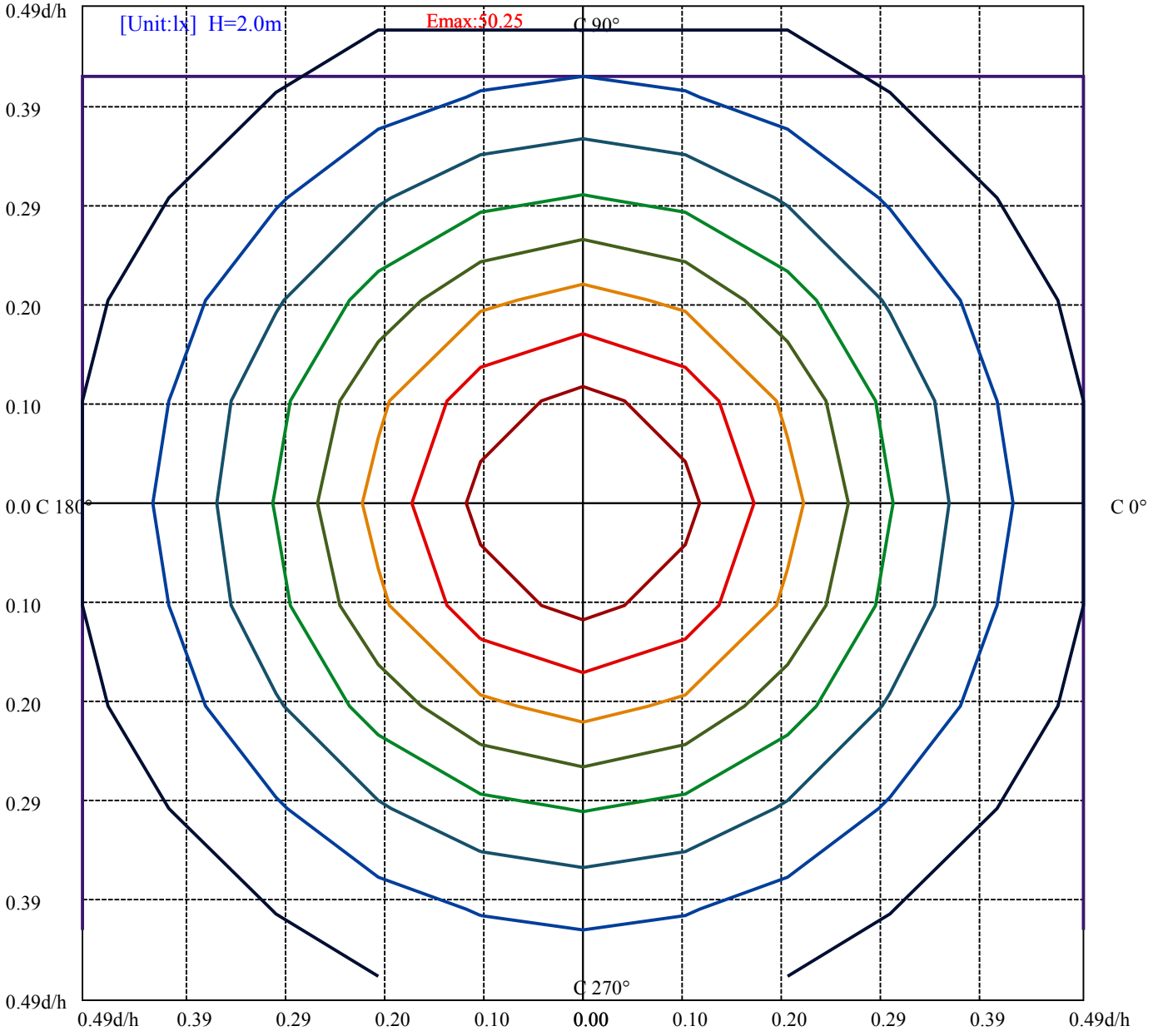
ISO illuminance diagram

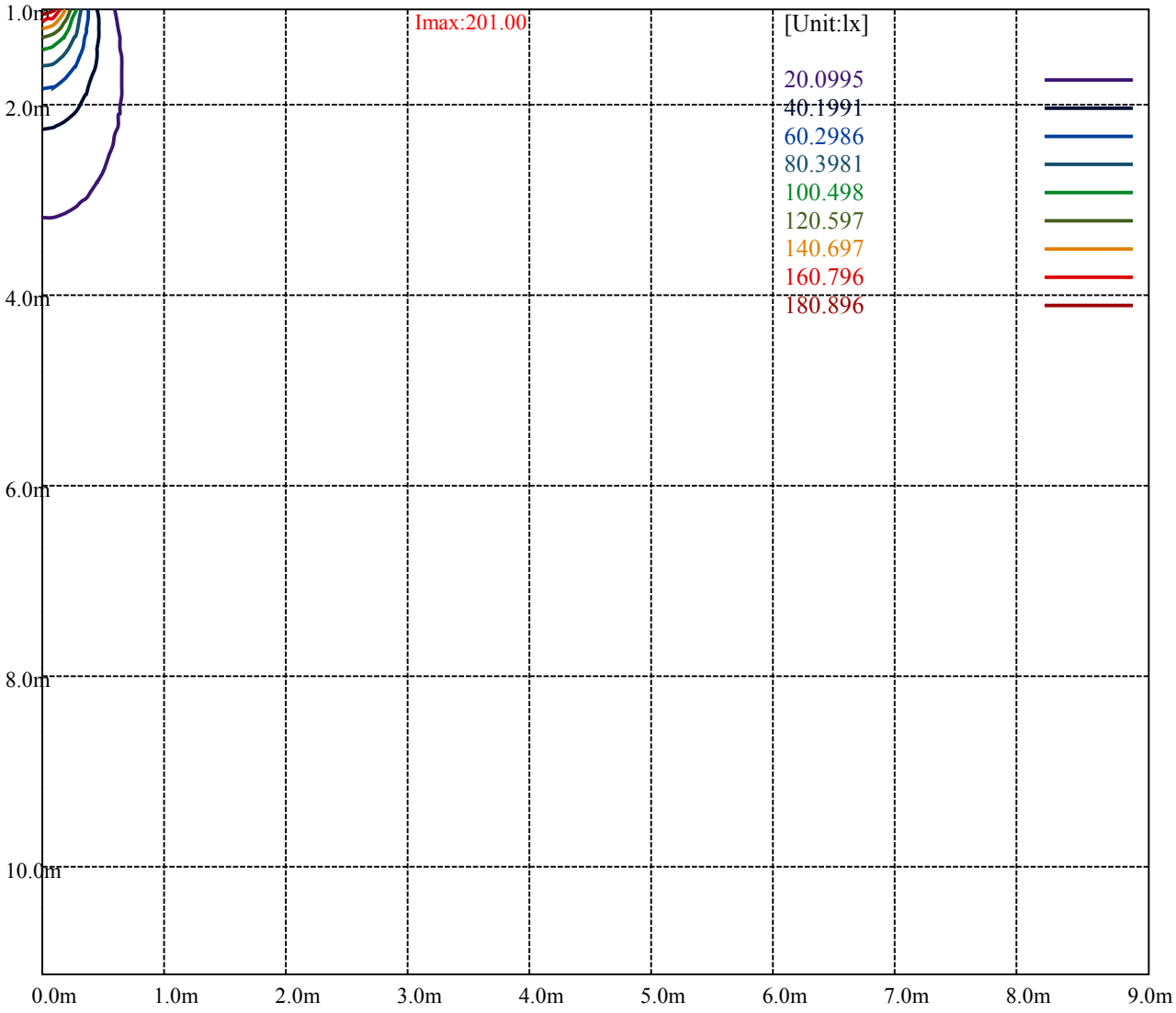


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/4/6
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/4/6
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

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Luminance Limitting Curve(no luminous side)

Luminance Table

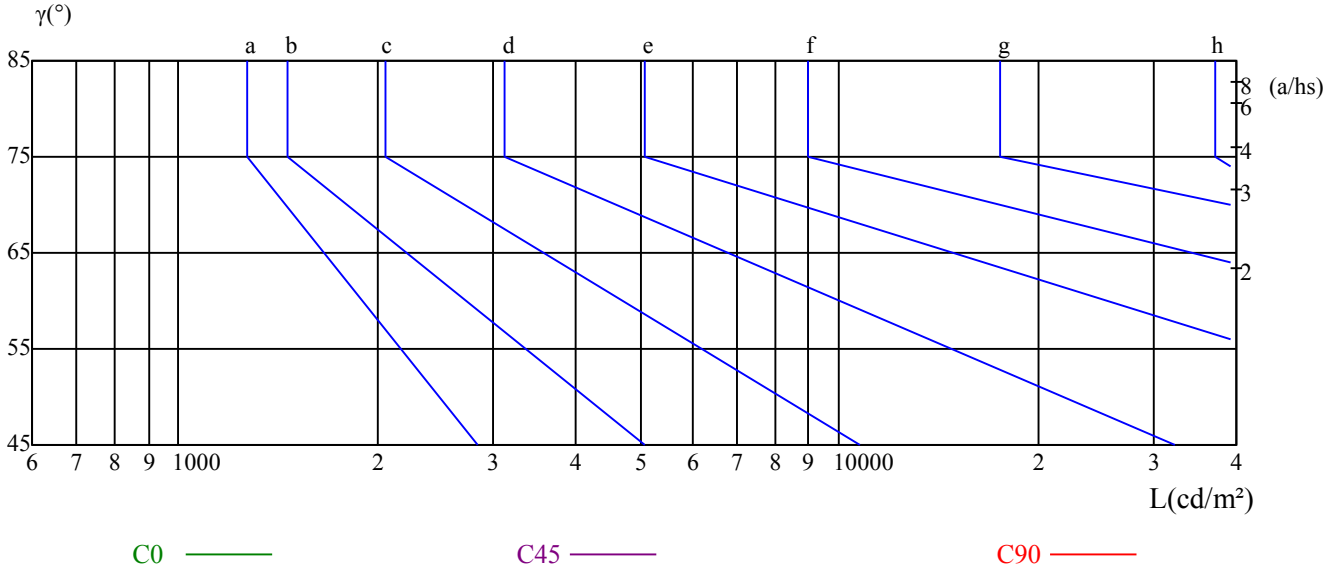
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

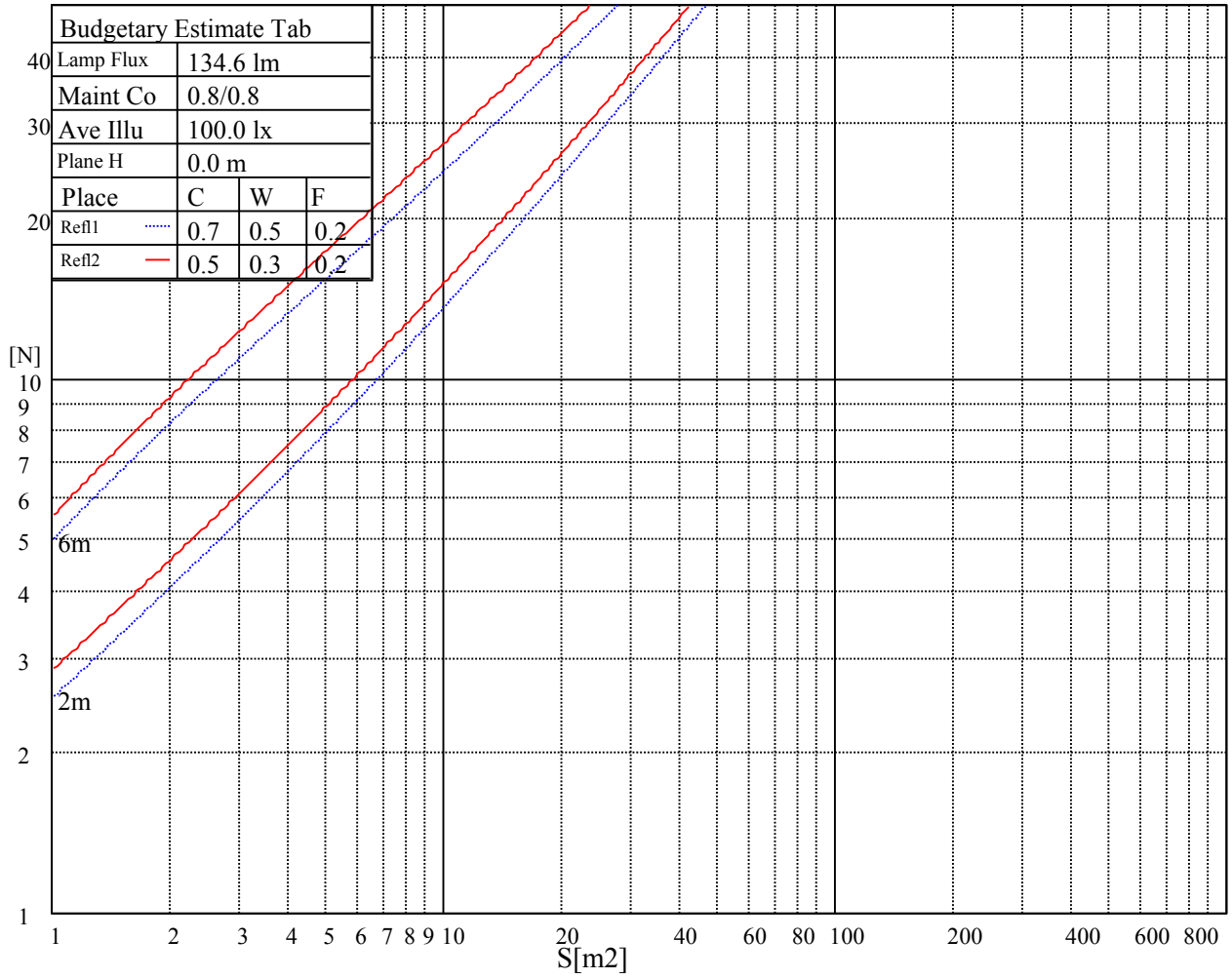


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/4/6
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Budgetary Estimate Table

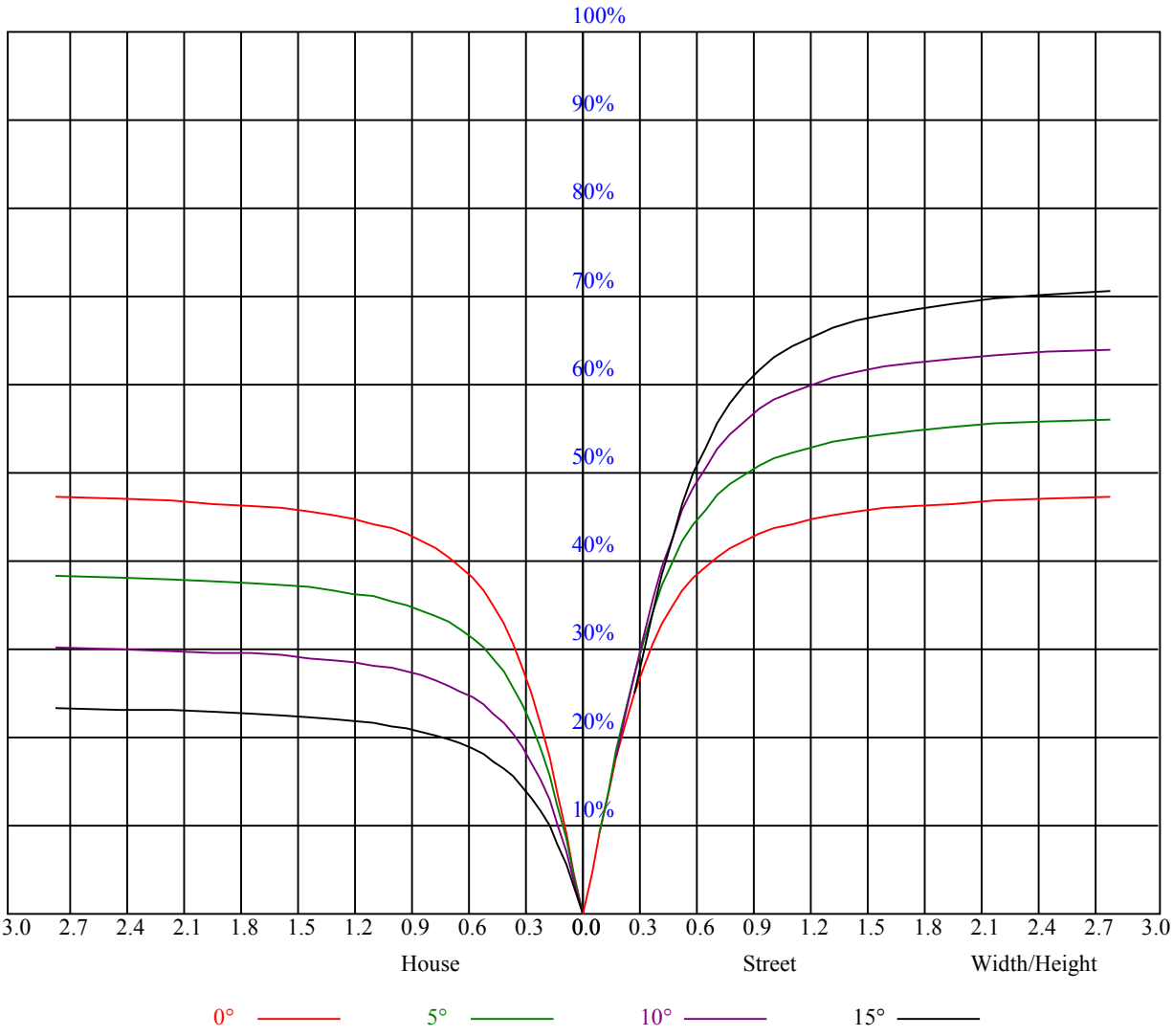


Equipment: GMS1980 Date: 2020/4/6 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.50

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	1.15	1.15	1.15	1.13	1.13	1.13	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.97
1	1.05	1.02	1.00	1.03	1.00	0.98	0.99	0.97	0.95	0.95	0.94	0.92	0.92	0.91	0.89	0.88
2	0.96	0.92	0.88	0.95	0.91	0.87	0.92	0.88	0.85	0.89	0.86	0.83	0.86	0.83	0.81	0.80
3	0.89	0.83	0.79	0.88	0.83	0.78	0.85	0.81	0.77	0.83	0.79	0.76	0.80	0.77	0.75	0.73
4	0.83	0.77	0.72	0.82	0.76	0.72	0.79	0.74	0.71	0.77	0.73	0.70	0.75	0.72	0.69	0.67
5	0.77	0.71	0.66	0.76	0.70	0.66	0.74	0.69	0.65	0.73	0.68	0.65	0.71	0.67	0.64	0.62
6	0.72	0.66	0.61	0.71	0.65	0.61	0.70	0.65	0.61	0.68	0.64	0.60	0.67	0.63	0.60	0.58
7	0.68	0.62	0.57	0.67	0.61	0.57	0.66	0.61	0.57	0.65	0.60	0.56	0.64	0.59	0.56	0.55
8	0.64	0.58	0.54	0.63	0.58	0.54	0.62	0.57	0.53	0.61	0.57	0.53	0.60	0.56	0.53	0.51
9	0.61	0.55	0.51	0.60	0.54	0.50	0.59	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.49
10	0.58	0.52	0.48	0.57	0.51	0.48	0.56	0.51	0.48	0.56	0.51	0.47	0.55	0.50	0.47	0.46

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2020/4/6	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	200.42	199.24	197.83	195.64	192.71	189.28	184.84	179.55	174.43
45.0	201.49	199.41	196.82	193.11	189.45	185.29	179.04	173.64	167.79
90.0	200.64	198.51	195.75	191.98	187.65	183.09	177.98	171.23	165.09
135.0	201.43	201.15	199.41	197.10	194.68	190.18	185.79	181.41	174.60
180.0	200.42	200.53	199.86	198.34	196.59	193.89	189.34	185.06	180.11
225.0	201.49	202.89	203.57	203.51	202.39	200.64	197.83	193.89	190.29
270.0	200.64	202.05	203.01	203.12	202.89	201.43	199.29	196.43	192.54
315.0	201.43	201.60	201.32	199.97	198.34	195.30	191.14	187.20	181.80
360.0	200.42	199.24	197.83	195.64	192.71	189.28	184.84	179.55	174.43

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	168.30	161.33	154.86	148.11	139.28	131.85	124.48	116.10	108.28
45.0	160.31	153.34	146.36	138.04	129.88	122.57	114.81	108.23	101.25
90.0	158.68	150.19	143.16	135.96	128.64	119.87	113.34	106.14	99.96
135.0	168.30	162.73	154.41	147.54	140.29	131.34	124.20	117.28	109.13
180.0	173.36	167.29	160.99	152.44	145.29	138.15	129.88	123.86	116.04
225.0	185.68	178.99	173.03	166.44	157.78	150.36	143.38	135.23	127.35
270.0	187.37	182.36	176.74	169.88	162.11	154.97	146.36	137.59	130.33
315.0	176.57	170.16	163.58	155.93	147.77	139.39	131.74	124.31	114.81
360.0	168.30	161.33	154.86	148.11	139.28	131.85	124.48	116.10	108.28

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	101.70	94.67	88.03	82.18	76.05	70.99	65.70	60.58	56.48
45.0	93.88	87.92	81.68	75.32	69.92	65.25	60.24	55.74	51.86
90.0	92.87	85.84	80.04	73.86	68.91	63.56	59.18	54.68	50.40
135.0	102.21	95.68	88.59	82.74	77.40	71.44	66.09	61.65	56.81
180.0	107.49	101.87	95.85	87.92	82.86	77.63	70.76	66.66	62.21
225.0	120.60	113.29	106.43	99.00	91.80	85.61	79.09	73.24	68.18
270.0	122.23	115.37	107.72	100.24	93.88	87.08	80.44	74.87	70.14
315.0	107.78	101.14	94.61	86.85	81.06	75.38	68.96	64.35	59.96
360.0	101.70	94.67	88.03	82.18	76.05	70.99	65.70	60.58	56.48

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	52.48	47.93	44.66	41.51	38.03	35.44	32.96	30.54	28.29
45.0	48.43	44.49	41.46	38.53	35.33	32.85	30.66	28.46	26.33
90.0	46.97	43.76	39.88	37.07	34.43	31.50	29.31	27.28	25.20
135.0	52.82	48.66	44.83	41.46	38.08	34.88	32.51	30.32	27.73
180.0	57.43	53.04	49.22	45.28	42.02	38.64	35.55	33.08	30.49
225.0	63.56	57.99	53.94	50.12	46.24	42.58	39.60	36.39	33.47
270.0	63.39	58.84	55.29	50.63	46.52	43.71	39.83	36.68	34.37
315.0	55.41	50.96	47.42	43.82	40.89	37.74	34.76	32.34	29.93
360.0	52.48	47.93	44.66	41.51	38.03	35.44	32.96	30.54	28.29

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	26.49	24.64	23.12	21.54	20.08	19.01	17.89	16.82	15.92
45.0	24.64	22.95	21.49	20.08	18.79	17.61	16.54	15.53	14.68
90.0	23.34	21.88	20.31	18.96	17.89	16.65	15.69	14.74	13.84
135.0	25.93	24.30	22.61	21.04	19.69	18.34	17.10	16.14	15.19
180.0	28.35	26.44	24.75	22.78	21.26	19.97	18.73	17.38	16.43
225.0	31.05	28.63	26.66	24.64	22.89	21.49	20.14	18.68	17.49
270.0	31.39	29.19	27.23	24.92	23.29	21.83	20.19	19.01	17.89
315.0	27.68	25.88	24.24	22.28	20.98	19.69	18.45	17.21	16.26
360.0	26.49	24.64	23.12	21.54	20.08	19.01	17.89	16.82	15.92

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	15.13	14.12	13.44	12.71	11.93	11.25	10.63	10.01	9.39
45.0	14.01	12.99	12.32	11.76	10.97	10.29	9.84	9.17	8.61
90.0	13.05	12.38	11.59	10.97	10.35	9.68	9.17	8.66	8.10
135.0	14.34	13.44	12.60	11.87	11.19	10.46	9.84	9.28	8.66
180.0	15.47	14.29	13.50	12.77	11.98	11.19	10.58	9.90	9.34
225.0	16.54	15.30	14.46	13.56	12.71	11.87	11.25	10.52	9.90
270.0	16.59	15.64	14.68	13.78	12.88	12.15	11.36	10.74	10.07
315.0	15.24	14.29	13.56	12.71	12.04	11.25	10.52	9.96	9.39
360.0	15.13	14.12	13.44	12.71	11.93	11.25	10.63	10.01	9.39

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	8.89	8.38	7.93	7.48	7.03	6.69	6.36	5.96	5.68
45.0	8.16	7.65	7.20	6.86	6.47	6.13	5.85	5.51	5.29
90.0	7.65	7.20	6.81	6.47	6.08	5.74	5.46	5.18	4.84
135.0	8.21	7.82	7.20	6.86	6.47	6.08	5.74	5.46	5.18
180.0	8.72	8.21	7.71	7.26	6.81	6.36	6.08	5.63	5.34
225.0	9.23	8.66	8.16	7.71	7.20	6.81	6.47	6.02	5.68
270.0	9.45	8.89	8.38	7.88	7.48	7.03	6.58	6.24	5.85
315.0	8.78	8.27	7.76	7.26	6.86	6.53	6.19	5.85	5.57
360.0	8.89	8.38	7.93	7.48	7.03	6.69	6.36	5.96	5.68

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	5.40	5.12	4.89	4.73	4.50	4.28	4.11	3.88	3.71
45.0	5.01	4.78	4.56	4.39	4.16	3.99	3.83	3.71	3.54
90.0	4.73	4.56	4.28	4.16	3.88	3.77	3.60	3.49	3.38
135.0	4.89	4.61	4.39	4.16	3.99	3.77	3.66	3.49	3.32
180.0	5.06	4.78	4.50	4.33	4.11	3.88	3.71	3.49	3.38
225.0	5.46	5.12	4.84	4.61	4.39	4.16	3.99	3.83	3.71
270.0	5.57	5.23	4.95	4.67	4.44	4.22	4.05	3.83	3.66
315.0	5.29	5.06	4.78	4.56	4.33	4.16	3.94	3.77	3.66
360.0	5.40	5.12	4.89	4.73	4.50	4.28	4.11	3.88	3.71

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	3.60	3.49	3.38	3.26	3.21	3.09	3.04	2.98	2.93
45.0	3.43	3.32	3.21	3.15	3.04	2.98	2.93	2.87	2.87
90.0	3.15	3.09	2.93	2.81	2.70	2.53	2.42	2.31	2.14
135.0	3.26	3.15	3.04	2.93	2.93	2.87	2.81	2.70	2.64
180.0	3.26	3.15	3.04	2.93	2.87	2.76	2.70	2.70	2.64
225.0	3.54	3.49	3.32	3.26	3.09	3.04	2.93	2.81	2.76
270.0	3.49	3.32	3.21	3.15	2.98	2.98	2.87	2.76	2.70
315.0	3.54	3.43	3.32	3.15	3.09	3.04	2.93	2.87	2.76
360.0	3.60	3.49	3.38	3.26	3.21	3.09	3.04	2.98	2.93

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	2.93	2.81	2.70	2.53	2.42	1.80	0.96	0.73	0.56
45.0	2.81	2.76	2.64	2.48	2.19	1.41	0.84	0.68	0.51
90.0	2.03	1.97	1.91	1.91	1.86	1.24	0.79	0.68	0.51
135.0	2.59	2.53	2.48	2.36	2.14	1.91	1.29	0.79	0.62
180.0	2.53	2.48	2.42	2.25	2.14	1.97	1.29	0.84	0.62
225.0	2.76	2.64	2.59	2.53	2.31	2.08	1.58	0.96	0.73
270.0	2.59	2.53	2.48	2.42	2.31	2.08	1.69	1.01	0.73
315.0	2.76	2.70	2.59	2.48	2.25	1.86	1.07	0.73	0.62
360.0	2.93	2.81	2.70	2.53	2.42	1.80	0.96	0.73	0.56

Intensity data(cd)

C/γ(°)	90.0
0.0	0.45
45.0	0.51
90.0	0.45
135.0	0.51
180.0	0.51
225.0	0.62
270.0	0.56
315.0	0.45
360.0	0.45