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

Nata

LumCAT: LN01D04515DA-N
Luminaire: 97.70.234.00
Report No: 210624-B006
Test No: 210624-C006
LampCAT: Fortimo LED SLM 1201 G7N
Lamp flux(lm): 1175.3
Number of Lamps: 1
Length(mm): 570
Phm Type: C

Voltage(V): 39.5700
Current(A): 0.2520
Power (W): 9.9710
PF: 0.0000
Ballast type: DC
Width(mm): 45
Height(mm): 20

Photometric Results

Lumens(lm): 1018.06
Efficiency(%): 86.62%
Lumens(lm)/Power(W): 102.10
Central intensity(cd): 5726.672
Maximum intensity(cd): 5726.672
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=19.9
[C90/270]Total=19.9
Field angle(10%Imax): [C0/180]Total=39.7
[C90/270]Total=39.7
Maximum s/h(1/2): C0_180=0.34 C90_270=0.34
Maximum s/h(1/4): C0_180=0.35 C90_270=0.35
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 86.62%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.166%

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2021/6/24
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	5726.672	0.000	0	.000%	.000%
1.0	5688.352	5.462	5.462	.465%	.536%
2.0	5541.398	16.118	21.58	1.371%	2.120%
3.0	5319.141	25.975	47.555	2.210%	4.671%
4.0	5044.500	34.690	82.245	2.952%	8.079%
5.0	4688.508	41.871	124.116	3.562%	12.191%
6.0	4332.445	47.408	171.524	4.034%	16.848%
7.0	3994.945	51.688	223.212	4.398%	21.925%
8.0	3607.102	54.406	277.618	4.629%	27.269%
9.0	3225.305	55.373	332.991	4.711%	32.708%
10.0	2838.516	54.875	387.866	4.669%	38.098%
11.0	2443.219	52.775	440.642	4.490%	43.282%
12.0	2120.273	49.886	490.527	4.244%	48.182%
13.0	1799.086	46.513	537.04	3.957%	52.751%
14.0	1493.986	42.151	579.191	3.586%	56.891%
15.0	1286.381	38.170	617.361	3.248%	60.641%
16.0	1104.061	35.027	652.388	2.980%	64.081%
17.0	914.723	31.438	683.826	2.675%	67.169%
18.0	777.094	27.894	711.72	2.373%	69.909%
19.0	664.073	25.073	736.793	2.133%	72.372%
20.0	555.005	22.313	759.106	1.898%	74.564%
21.0	468.563	19.655	778.761	1.672%	76.494%
22.0	402.778	17.510	796.271	1.490%	78.214%
23.0	345.045	15.691	811.962	1.335%	79.755%
24.0	293.309	13.957	825.919	1.187%	81.126%
25.0	254.180	12.449	838.367	1.059%	82.349%
26.0	219.790	11.188	849.555	.952%	83.448%
27.0	190.371	10.035	859.59	.854%	84.434%
28.0	166.015	9.023	868.613	.768%	85.320%
29.0	145.786	8.158	876.771	.694%	86.121%
30.0	128.960	7.418	884.189	.631%	86.850%
31.0	115.059	6.791	890.979	.578%	87.517%
32.0	102.361	6.229	897.208	.530%	88.129%
33.0	92.524	5.741	902.95	.488%	88.693%
34.0	84.354	5.353	908.302	.455%	89.219%
35.0	76.247	4.988	913.29	.424%	89.708%
36.0	69.792	4.650	917.94	.396%	90.165%
37.0	64.505	4.380	922.32	.373%	90.595%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	59.667	4.145	926.465	.353%	91.003%
39.0	54.555	3.899	930.363	.332%	91.386%
40.0	50.836	3.676	934.039	.313%	91.747%
41.0	47.271	3.494	937.533	.297%	92.090%
42.0	43.566	3.300	940.833	.281%	92.414%
43.0	40.472	3.113	943.946	.265%	92.720%
44.0	37.744	2.952	946.898	.251%	93.010%
45.0	34.945	2.794	949.692	.238%	93.284%
46.0	32.428	2.635	952.326	.224%	93.543%
47.0	30.255	2.493	954.819	.212%	93.788%
48.0	28.216	2.364	957.183	.201%	94.020%
49.0	26.501	2.247	959.43	.191%	94.241%
50.0	24.848	2.141	961.571	.182%	94.451%
51.0	23.435	2.043	963.614	.174%	94.652%
52.0	22.324	1.964	965.577	.167%	94.844%
53.0	21.220	1.894	967.472	.161%	95.031%
54.0	20.109	1.822	969.293	.155%	95.209%
55.0	19.259	1.757	971.051	.150%	95.382%
56.0	18.422	1.703	972.753	.145%	95.549%
57.0	17.536	1.644	974.397	.140%	95.711%
58.0	16.861	1.591	975.988	.135%	95.867%
59.0	16.207	1.546	977.534	.132%	96.019%
60.0	15.525	1.499	979.033	.128%	96.166%
61.0	14.927	1.453	980.486	.124%	96.309%
62.0	14.442	1.415	981.902	.120%	96.448%
63.0	13.999	1.383	983.285	.118%	96.584%
64.0	13.711	1.360	984.644	.116%	96.717%
65.0	13.598	1.352	985.996	.115%	96.850%
66.0	13.662	1.360	987.356	.116%	96.984%
67.0	13.978	1.390	988.746	.118%	97.120%
68.0	14.463	1.441	990.187	.123%	97.262%
69.0	14.878	1.497	991.684	.127%	97.409%
70.0	15.560	1.563	993.247	.133%	97.562%
71.0	16.298	1.647	994.893	.140%	97.724%
72.0	16.938	1.728	996.622	.147%	97.894%
73.0	17.205	1.785	998.407	.152%	98.069%
74.0	17.304	1.814	1000.221	.154%	98.247%
75.0	17.480	1.838	1002.059	.156%	98.428%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	17.093	1.835	1003.894	.156%	98.608%
77.0	16.502	1.791	1005.686	.152%	98.784%
78.0	15.504	1.713	1007.399	.146%	98.952%
79.0	14.126	1.592	1008.991	.135%	99.109%
80.0	12.565	1.439	1010.43	.122%	99.250%
81.0	10.990	1.274	1011.704	.108%	99.375%
82.0	9.373	1.104	1012.808	.094%	99.484%
83.0	8.065	0.948	1013.756	.081%	99.577%
84.0	7.080	0.825	1014.581	.070%	99.658%
85.0	6.195	0.725	1015.305	.062%	99.729%
86.0	5.576	0.643	1015.949	.055%	99.792%
87.0	5.034	0.581	1016.529	.049%	99.849%
88.0	4.732	0.535	1017.064	.046%	99.902%
89.0	4.535	0.508	1017.572	.043%	99.952%
90.0	4.437	0.492	1018.064	.042%	100.000%

Zonal flux distribution table

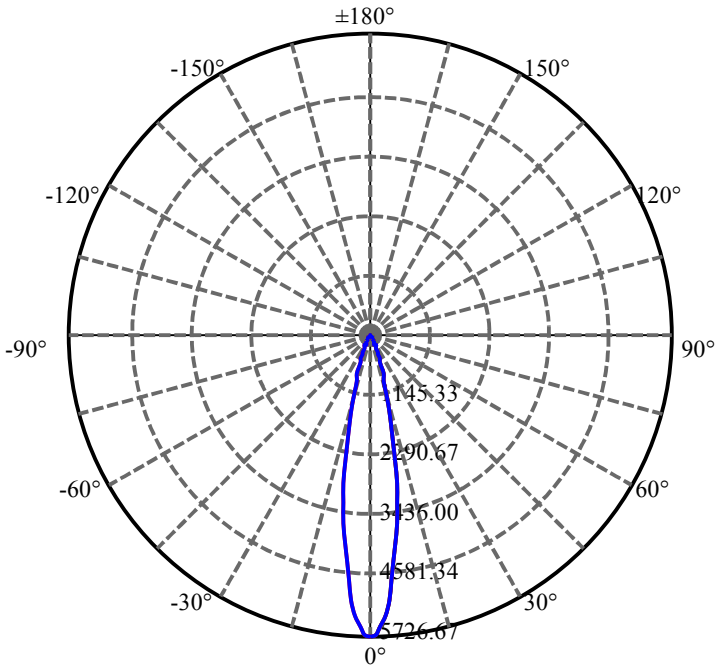
ZONAL LUMEN SUMMARY

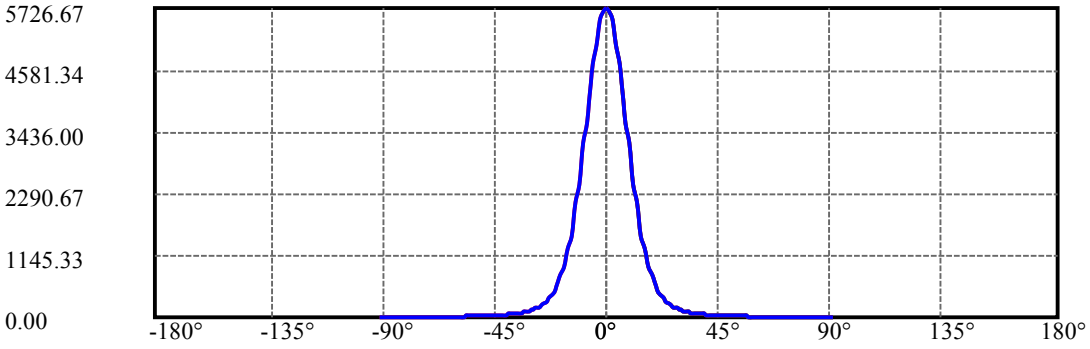
Zone	Lumens	%Lamp	%Fixt
0-30	884.19	75.23%	86.85%
0-40	934.04	79.47%	91.75%
0-60	979.03	83.30%	96.17%
0-90	1017.57	86.58%	99.95%
0-120	1017.57	86.58%	99.95%
0-180	1018.06	86.62%	100.00%
60-90	40.04	3.41%	3.93%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-23.18	814.45	69.29%	80.00%

ZONAL LUMEN SUMMARY

0-10	387.87
10-20	371.24
20-30	125.08
30-40	49.85
40-50	27.53
50-60	17.46
60-70	14.21
70-80	17.18
80-90	7.14
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):

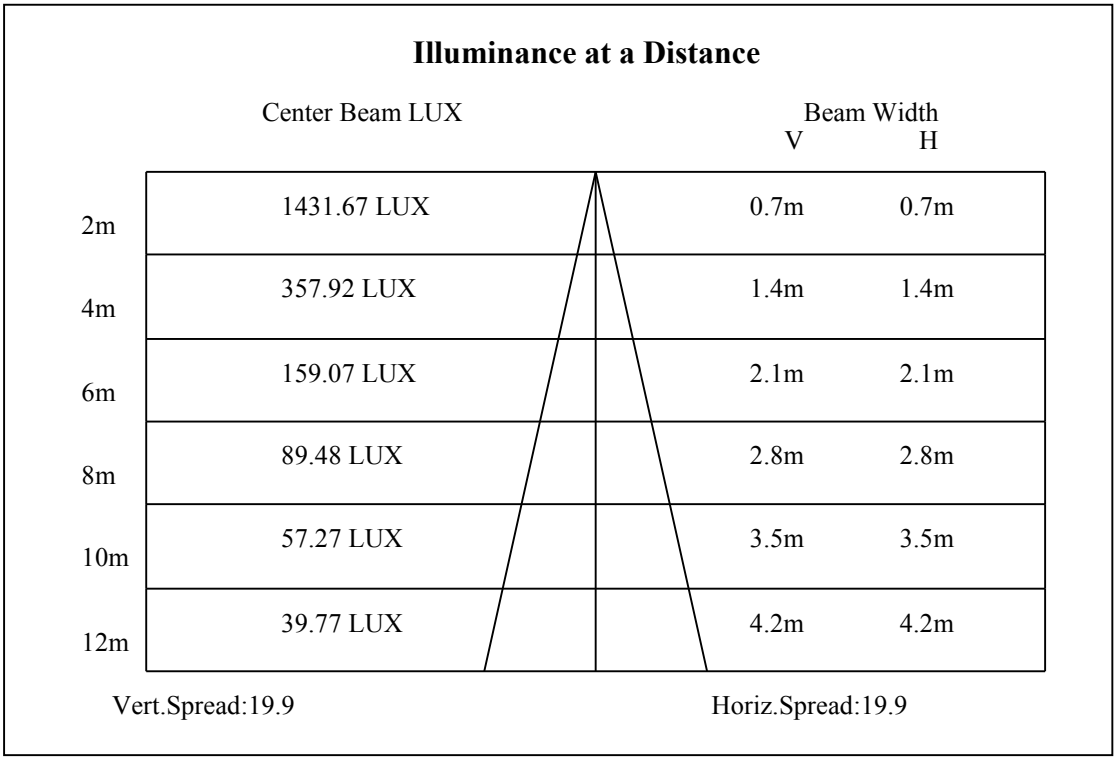
C0/C180:

C90/C270:

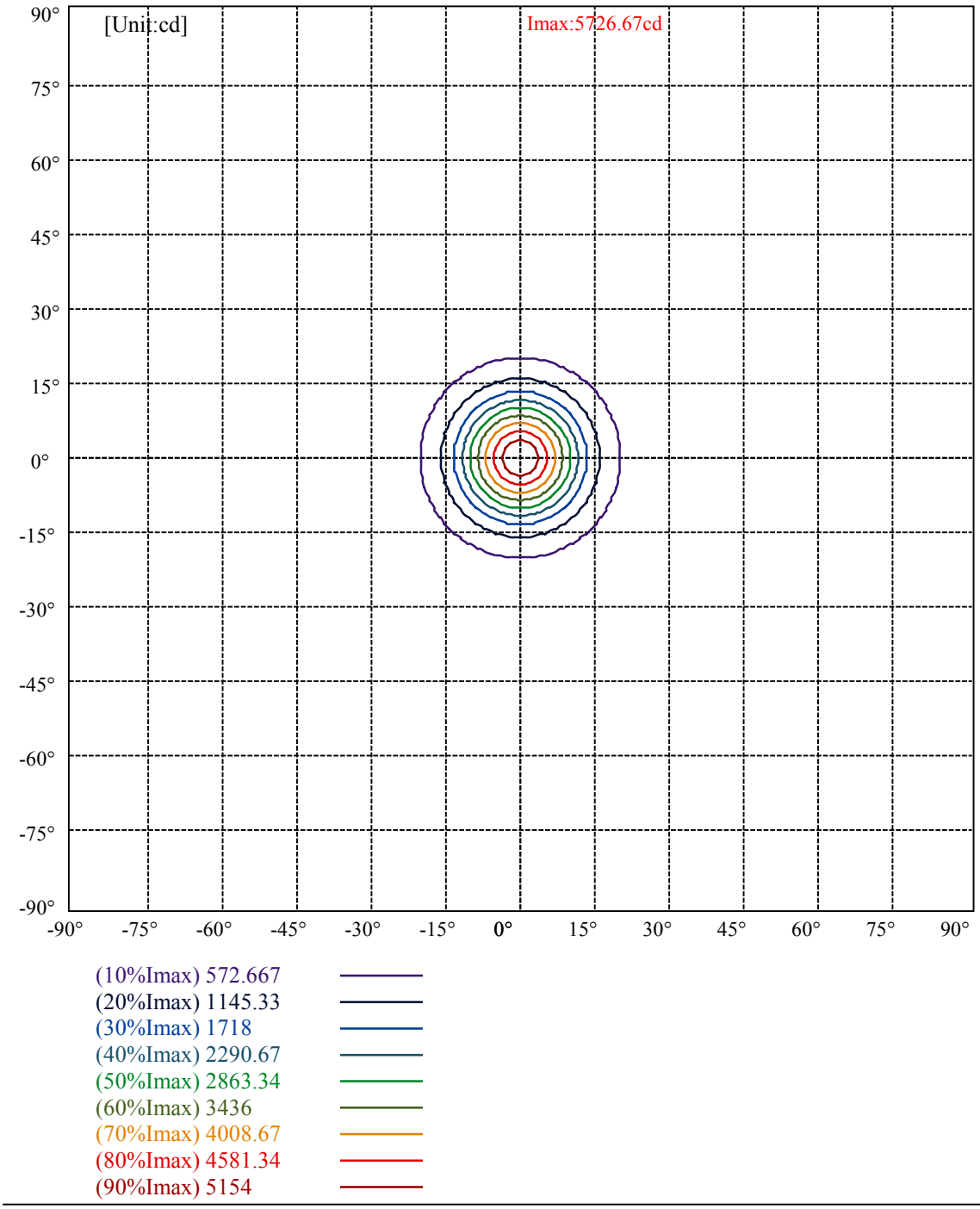
Field angle(10%Imax):C0/180Left:19.8 Right:19.8
:C90/270Left:19.8 Right:19.8

Beam Angle(50%Imax):C0/180Left:9.9 Right:9.9
:C90/270Left:9.9 Right:9.9

Lux distance Curve



ISO-Intensity(V-H)

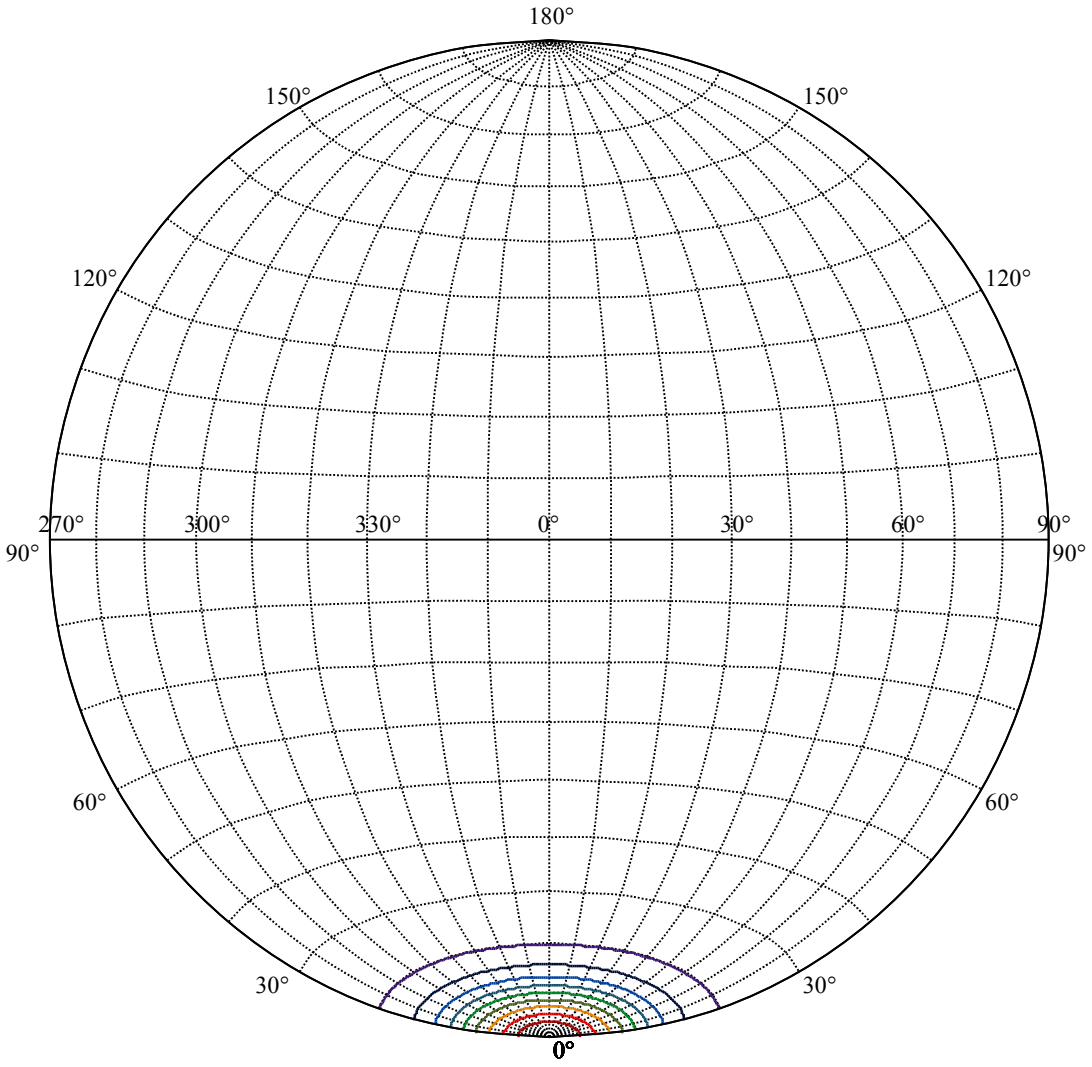


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2021/6/24
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web

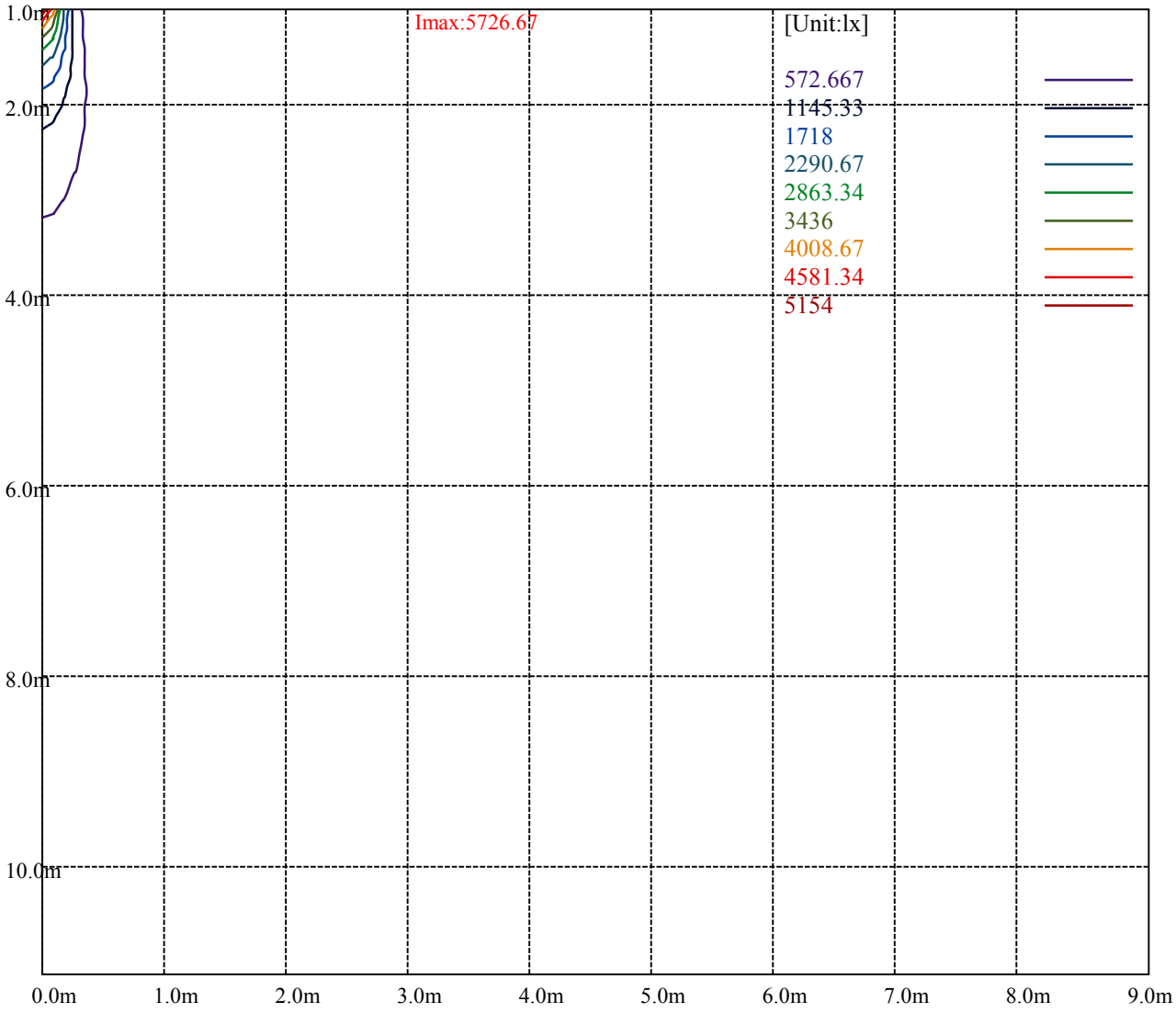


House [Unit:cd] Road

Imax:5726.67

(10%Imax) 572.667
(20%Imax) 1145.33
(30%Imax) 1718
(40%Imax) 2290.67
(50%Imax) 2863.34
(60%Imax) 3436
(70%Imax) 4008.67
(80%Imax) 4581.34
(90%Imax) 5154

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2021/6/24
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Nata LN01D04515DA-N

Luminance Limitting Curve(no luminous side)

Luminance Table

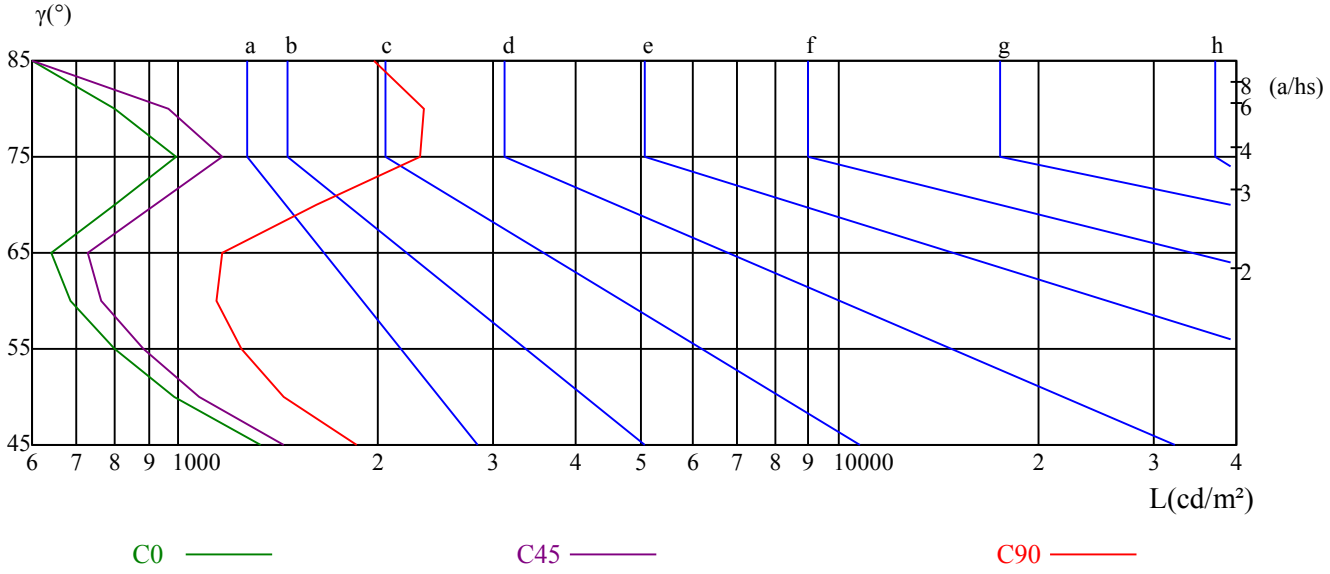
γ	45	50	55	60	65	70	75	80	85
C0	1334	985	801	684	642	799	990	801	456
C45	1439	1073	882	763	726	918	1162	965	568
C90	1861	1447	1247	1141	1167	1618	2328	2353	1978

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1254	1254	1254	2633	2633	2633	2771	2771	2771

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

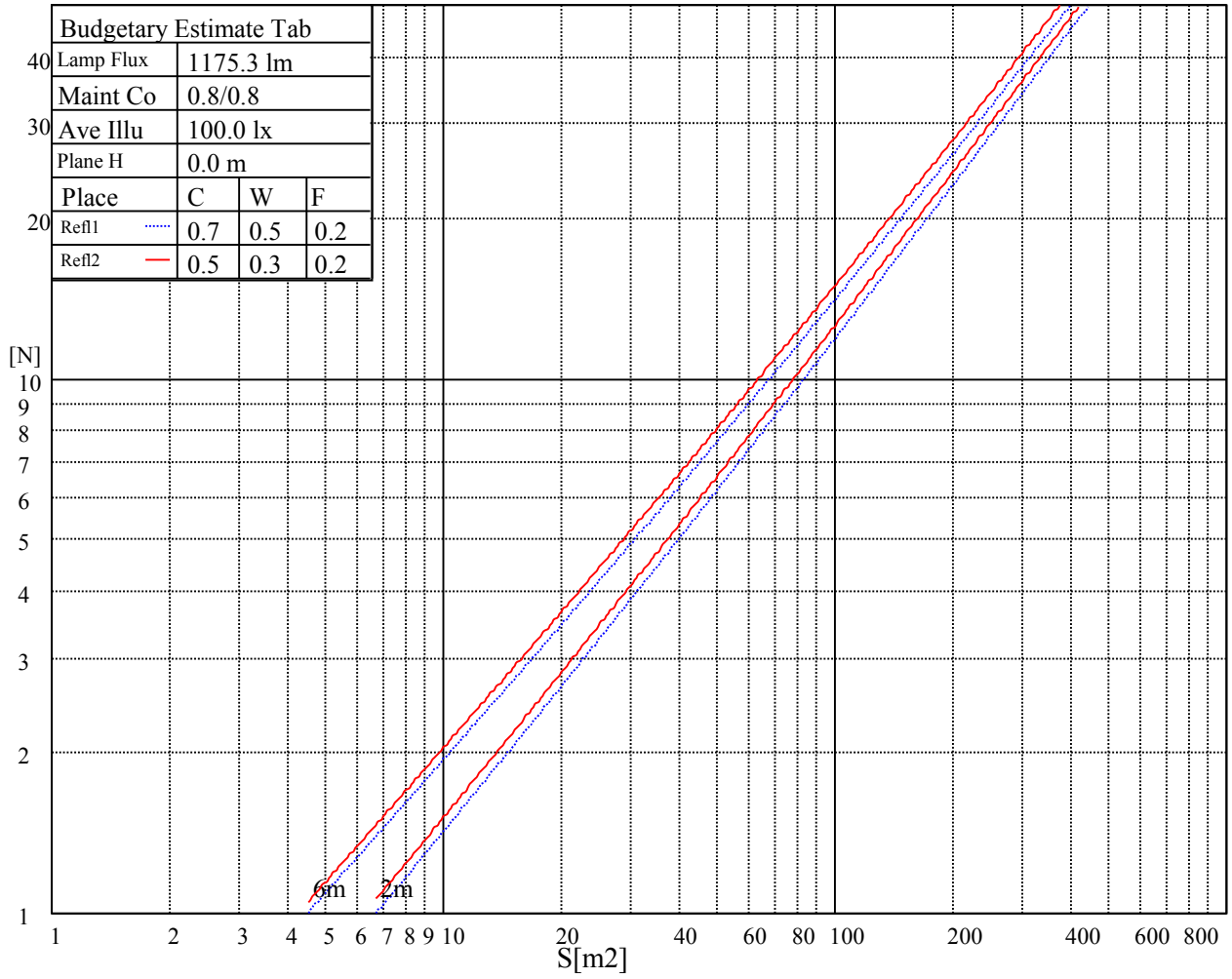


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2021/6/24
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Budgetary Estimate Table

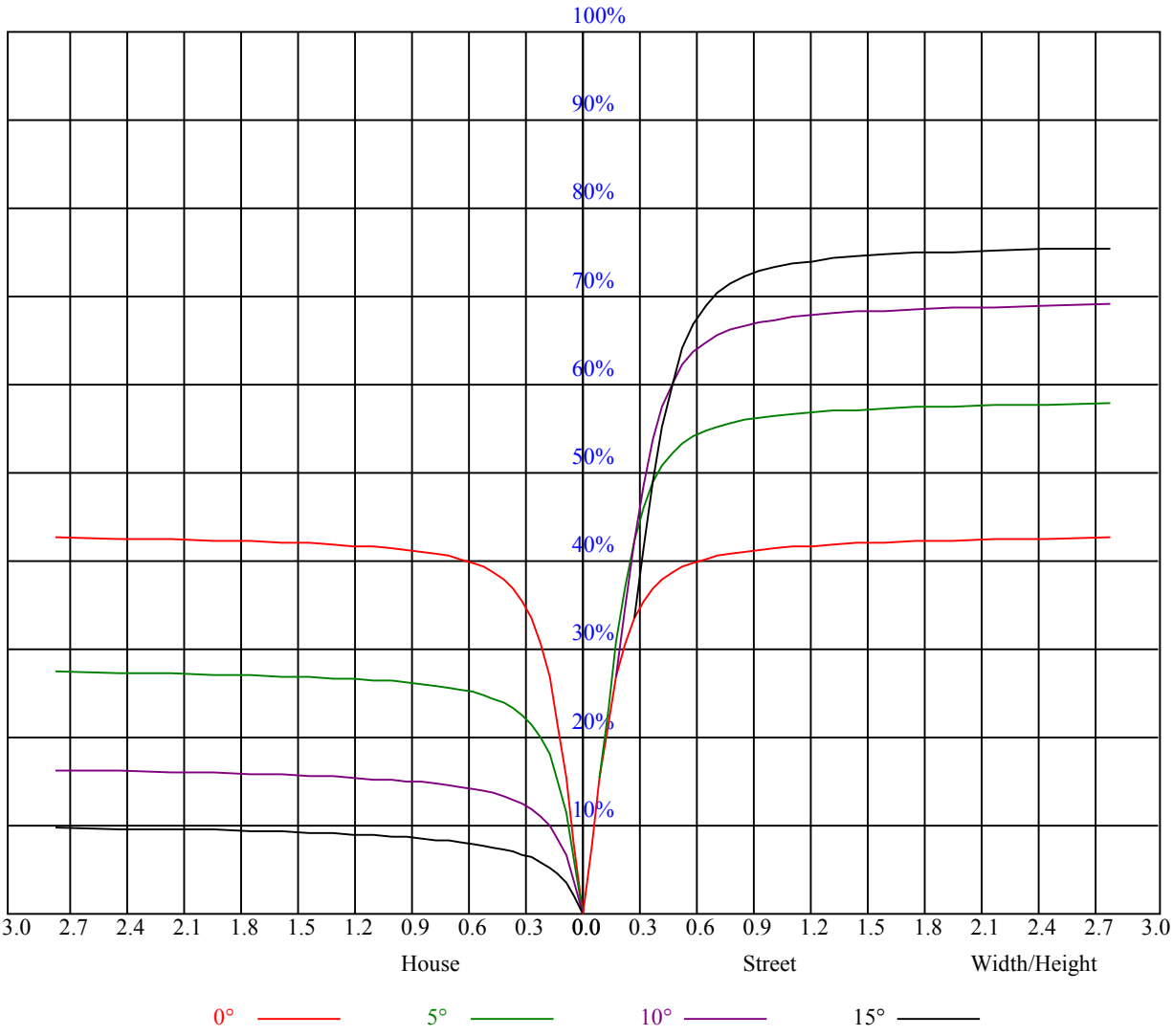


Equipment: GMS1980 Date: 2021/6/24 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.50

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	1.03	1.03	1.03	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.87
1	0.97	0.95	0.93	0.95	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.84	0.84	0.82
2	0.91	0.88	0.86	0.90	0.87	0.85	0.87	0.85	0.83	0.85	0.83	0.81	0.82	0.81	0.80	0.78
3	0.87	0.83	0.81	0.86	0.83	0.80	0.84	0.81	0.79	0.82	0.79	0.78	0.80	0.78	0.76	0.75
4	0.83	0.79	0.76	0.82	0.79	0.76	0.81	0.78	0.75	0.79	0.76	0.74	0.77	0.75	0.74	0.72
5	0.80	0.76	0.73	0.79	0.76	0.73	0.78	0.75	0.72	0.76	0.74	0.72	0.75	0.73	0.71	0.70
6	0.77	0.73	0.70	0.76	0.73	0.70	0.75	0.72	0.70	0.74	0.71	0.69	0.73	0.71	0.69	0.68
7	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.71	0.69	0.67	0.66
8	0.72	0.68	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.69	0.67	0.65	0.64
9	0.70	0.66	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.68	0.65	0.63	0.68	0.65	0.63	0.62
10	0.68	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.67	0.64	0.62	0.66	0.63	0.62	0.61

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2021/6/24	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	5758.88	5705.44	5501.81	5236.31	4924.13	4507.88	4182.75	3840.75	3436.31
45.0	5718.38	5589.56	5298.75	4988.25	4662.00	4311.56	3947.06	3583.13	3159.56
90.0	5690.81	5572.69	5328.56	4988.25	4649.63	4291.31	3917.81	3570.19	3177.56
135.0	5738.63	5701.50	5590.69	5409.56	5149.69	4797.00	4431.38	4105.13	3724.31
180.0	5758.88	5733.56	5641.88	5471.44	5209.88	4851.56	4521.94	4161.38	3783.38
225.0	5718.38	5778.56	5742.56	5623.88	5441.63	5128.88	4758.19	4447.69	4096.69
270.0	5690.81	5745.38	5718.38	5591.81	5378.63	5059.69	4713.19	4403.25	4031.44
315.0	5738.63	5680.13	5508.56	5243.63	4940.44	4560.19	4187.25	3848.06	3447.56
360.0	5758.88	5705.44	5501.81	5236.31	4924.13	4507.88	4182.75	3840.75	3436.31

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3022.88	2661.19	2270.81	1958.06	1646.44	1378.13	1173.38	974.81	807.75
45.0	2737.69	2381.63	2010.38	1724.63	1452.94	1221.19	1040.06	884.81	722.25
90.0	2820.94	2431.69	2073.38	1791.00	1516.50	1119.26	1097.10	940.95	759.43
135.0	3333.38	2976.19	2570.63	2234.81	1894.50	1608.19	1385.44	1188.56	983.25
180.0	3419.44	2990.25	2571.19	2226.38	1918.13	1585.13	1356.75	1107.96	979.99
225.0	3742.31	3308.06	2883.94	2518.31	2131.31	1801.69	1560.94	1342.69	1093.33
270.0	3634.31	3254.63	2841.19	2498.06	2133.00	1807.31	1559.81	1338.75	1102.50
315.0	3091.50	2704.50	2324.25	2010.94	1699.88	1431.00	1117.58	1053.96	869.29
360.0	3022.88	2661.19	2270.81	1958.06	1646.44	1378.13	1173.38	974.81	807.75

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	682.88	579.38	473.63	403.31	345.38	285.19	259.65	210.94	180.84
45.0	612.56	520.31	426.94	362.25	308.81	287.44	222.02	194.01	170.38
90.0	661.44	566.94	478.58	405.73	350.78	299.76	257.57	226.46	196.09
135.0	842.06	719.44	592.88	506.81	435.94	372.38	317.25	286.31	237.77
180.0	792.06	667.18	561.21	454.16	384.24	326.53	273.66	230.57	199.63
225.0	931.50	795.32	666.28	558.96	478.97	397.46	343.13	297.17	255.21
270.0	945.56	814.50	677.25	585.00	507.38	433.69	371.25	322.31	284.63
315.0	748.69	649.52	563.29	472.28	410.74	357.92	301.95	265.67	233.78
360.0	682.88	579.38	473.63	403.31	345.38	285.19	259.65	210.94	180.84

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	155.98	137.87	120.94	108.73	97.31	87.75	80.66	73.80	67.95
45.0	148.28	131.06	117.28	103.78	93.54	84.99	77.68	71.21	65.25
90.0	173.42	151.65	133.20	119.48	107.78	95.18	86.85	79.43	71.72
135.0	209.98	183.21	159.19	141.08	123.86	110.64	99.62	90.90	80.38
180.0	171.28	150.47	130.78	114.75	103.11	92.19	83.14	76.50	70.82
225.0	222.86	191.59	166.28	147.21	131.29	113.29	103.22	93.71	83.70
270.0	238.22	205.43	181.07	158.06	139.05	124.48	110.42	99.68	89.38
315.0	202.95	176.85	157.56	138.60	124.54	110.36	98.61	89.61	80.78
360.0	155.98	137.87	120.94	108.73	97.31	87.75	80.66	73.80	67.95

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	63.23	58.95	54.23	50.85	47.70	44.44	41.34	38.87	36.17
45.0	59.96	55.97	52.37	48.15	45.06	42.30	38.98	36.56	34.43
90.0	66.04	60.92	56.64	51.47	47.76	44.27	40.56	37.18	34.48
135.0	74.31	68.34	63.11	57.09	52.82	48.99	44.55	41.34	38.36
180.0	64.69	60.47	56.64	52.31	49.11	46.13	42.98	40.11	37.74
225.0	76.73	70.65	64.29	59.74	55.74	51.08	48.15	44.66	41.40
270.0	80.44	73.63	68.18	60.64	56.36	52.65	47.42	44.04	41.23
315.0	72.96	67.11	61.88	56.19	52.14	48.32	44.55	41.01	38.14
360.0	63.23	58.95	54.23	50.85	47.70	44.44	41.34	38.87	36.17

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	33.69	31.67	29.59	27.84	26.10	24.53	23.34	22.28	21.04
45.0	32.12	30.04	28.35	26.72	25.37	24.13	22.84	21.83	20.81
90.0	31.78	29.25	27.23	25.37	23.79	22.33	21.09	20.03	19.13
135.0	35.27	32.46	30.09	27.79	25.93	24.13	22.67	21.43	20.19
180.0	35.16	33.02	30.88	28.86	27.17	25.59	24.08	22.95	21.83
225.0	38.76	36.00	33.19	31.50	29.59	27.39	26.16	24.86	23.63
270.0	37.58	34.54	32.40	29.59	27.62	25.88	23.91	22.78	21.71
315.0	35.21	32.46	30.32	28.07	26.44	24.81	23.40	22.44	21.43
360.0	33.69	31.67	29.59	27.84	26.10	24.53	23.34	22.28	21.04

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	20.14	19.35	18.28	17.49	16.82	16.14	15.41	14.79	14.12
45.0	19.74	18.90	18.17	17.27	16.59	15.98	15.19	14.57	14.01
90.0	18.06	17.33	16.71	15.86	15.36	14.91	14.40	14.06	14.06
135.0	19.13	18.28	17.55	16.65	16.03	15.41	14.68	14.18	13.67
180.0	20.64	19.74	18.90	18.06	17.21	16.54	15.86	15.13	14.57
225.0	22.39	21.43	20.36	19.35	18.56	17.66	16.99	16.20	15.53
270.0	20.48	19.58	18.73	17.89	17.21	16.59	15.92	15.36	14.96
315.0	20.31	19.46	18.68	17.72	17.10	16.43	15.75	15.13	14.63
360.0	20.14	19.35	18.28	17.49	16.82	16.14	15.41	14.79	14.12

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	13.61	13.05	12.49	12.09	11.64	11.19	10.86	10.52	10.07
45.0	13.39	12.88	12.38	11.87	11.48	11.08	10.69	10.35	9.96
90.0	14.34	15.30	17.04	19.24	22.16	25.26	26.61	28.41	30.54
135.0	13.22	12.77	12.49	12.32	12.32	12.49	12.83	13.61	15.36
180.0	13.95	13.44	12.94	12.38	11.93	11.53	11.08	10.69	10.41
225.0	14.91	14.23	13.61	13.11	12.60	12.04	11.59	11.19	10.86
270.0	14.51	14.40	14.57	15.19	16.65	18.84	21.60	24.64	26.44
315.0	14.06	13.61	13.28	13.11	13.05	13.28	13.78	15.08	16.76
360.0	13.61	13.05	12.49	12.09	11.64	11.19	10.86	10.52	10.07

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	9.68	9.34	8.94	8.55	8.33	7.93	7.54	7.31	7.09
45.0	9.56	9.23	8.83	8.44	8.16	7.88	7.54	7.26	6.98
90.0	33.24	33.69	33.47	33.75	31.95	29.31	25.93	22.39	17.61
135.0	16.59	17.16	17.33	17.94	18.11	17.72	16.65	14.74	12.94
180.0	9.96	9.62	9.23	8.89	8.49	8.16	7.82	7.54	7.26
225.0	10.35	9.96	9.56	9.17	8.83	8.55	8.21	7.93	7.65
270.0	28.18	30.43	32.51	33.98	33.98	34.59	33.58	31.16	28.52
315.0	17.94	18.23	18.56	19.13	18.90	17.89	16.76	14.68	12.49
360.0	9.68	9.34	8.94	8.55	8.33	7.93	7.54	7.31	7.09

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	6.75	6.53	6.19	5.91	5.63	5.34	4.89	4.61	4.50
45.0	6.69	6.36	6.02	5.74	5.40	5.06	4.78	4.61	4.50
90.0	13.39	9.62	7.43	6.58	5.29	4.89	4.56	4.39	4.33
135.0	11.14	8.55	7.26	6.81	6.13	5.23	4.89	4.61	4.39
180.0	6.98	6.75	6.47	6.19	5.85	5.46	5.06	4.78	4.50
225.0	7.37	7.09	6.81	6.47	6.24	5.91	5.51	5.18	4.89
270.0	25.03	21.54	16.93	12.09	8.66	7.09	5.68	5.06	4.73
315.0	10.58	8.55	7.43	6.86	6.36	5.63	4.89	4.61	4.44
360.0	6.75	6.53	6.19	5.91	5.63	5.34	4.89	4.61	4.50

Intensity data(cd)

C/γ(°)	90.0
0.0	4.44
45.0	4.50
90.0	4.28
135.0	4.28
180.0	4.33
225.0	4.78
270.0	4.56
315.0	4.33
360.0	4.44