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

Nata

LumCAT: LN01D04524DA-N
Luminaire: 97.70.234.00
Report No: 210624-B005
Test No: 210624-C005
LampCAT: Fortimo LED SLM 1201 G7N
Lamp flux(lm): 1175.3
Number of Lamps: 1
Length(mm): 570
Phm Type: C

Voltage(V): 39.5500
Current(A): 0.2520
Power (W): 9.9660
PF: 0.0000
Ballast type: DC
Width(mm): 45
Height(mm): 20

Photometric Results

Lumens(lm): 1028.06
Efficiency(%): 87.47%
Lumens(lm)/Power(W): 103.16
Central intensity(cd): 3536.438
Maximum intensity(cd): 3536.438
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=28.6
[C90/270]Total=28.6
Field angle(10%Imax): [C0/180]Total=48.8
[C90/270]Total=48.8
Maximum s/h(1/2): C0_180=0.48 C90_270=0.48
Maximum s/h(1/4): C0_180=0.46 C90_270=0.46
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 87.47%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.202%

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	3536.438	0.000	0	.000%	.000%
1.0	3526.453	3.379	3.379	.288%	.329%
2.0	3497.625	10.082	13.461	.858%	1.309%
3.0	3447.633	16.611	30.072	1.413%	2.925%
4.0	3380.273	22.855	52.927	1.945%	5.148%
5.0	3296.109	28.721	81.648	2.444%	7.942%
6.0	3185.930	34.065	115.713	2.898%	11.256%
7.0	3052.266	38.720	154.434	3.294%	15.022%
8.0	2922.539	42.761	197.194	3.638%	19.181%
9.0	2771.578	46.148	243.342	3.926%	23.670%
10.0	2599.031	48.602	291.944	4.135%	28.398%
11.0	2436.680	50.317	342.261	4.281%	33.292%
12.0	2251.617	51.250	393.511	4.360%	38.277%
13.0	2033.578	50.854	444.365	4.327%	43.224%
14.0	1831.008	49.466	493.832	4.209%	48.035%
15.0	1615.971	47.322	541.153	4.026%	52.638%
16.0	1416.509	44.434	585.588	3.781%	56.961%
17.0	1234.111	41.277	626.865	3.512%	60.976%
18.0	1056.038	37.760	664.625	3.213%	64.649%
19.0	908.501	34.179	698.804	2.908%	67.973%
20.0	769.486	30.712	729.515	2.613%	70.961%
21.0	640.877	27.082	756.597	2.304%	73.595%
22.0	535.099	23.632	780.229	2.011%	75.894%
23.0	453.234	20.738	800.967	1.764%	77.911%
24.0	377.290	18.158	819.125	1.545%	79.677%
25.0	315.759	15.758	834.883	1.341%	81.210%
26.0	274.655	13.937	848.82	1.186%	82.565%
27.0	233.079	12.422	861.242	1.057%	83.774%
28.0	194.963	10.837	872.079	.922%	84.828%
29.0	168.947	9.521	881.6	.810%	85.754%
30.0	148.472	8.570	890.17	.729%	86.588%
31.0	129.038	7.723	897.893	.657%	87.339%
32.0	114.652	6.981	904.874	.594%	88.018%
33.0	103.015	6.413	911.287	.546%	88.642%
34.0	91.927	5.900	917.186	.502%	89.216%
35.0	82.870	5.429	922.615	.462%	89.744%
36.0	75.291	5.036	927.651	.428%	90.233%
37.0	68.562	4.692	932.343	.399%	90.690%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	62.585	4.378	936.72	.372%	91.116%
39.0	57.143	4.087	940.807	.348%	91.513%
40.0	52.488	3.824	944.63	.325%	91.885%
41.0	48.502	3.596	948.226	.306%	92.235%
42.0	44.761	3.388	951.615	.288%	92.564%
43.0	41.147	3.182	954.797	.271%	92.874%
44.0	38.173	2.994	957.791	.255%	93.165%
45.0	35.452	2.829	960.62	.241%	93.440%
46.0	32.632	2.663	963.283	.227%	93.699%
47.0	30.319	2.504	965.787	.213%	93.943%
48.0	28.273	2.369	968.155	.202%	94.173%
49.0	26.184	2.236	970.392	.190%	94.391%
50.0	24.314	2.105	972.497	.179%	94.596%
51.0	22.760	1.992	974.489	.169%	94.789%
52.0	21.305	1.891	976.379	.161%	94.973%
53.0	20.032	1.798	978.178	.153%	95.148%
54.0	18.942	1.718	979.895	.146%	95.315%
55.0	17.979	1.648	981.544	.140%	95.476%
56.0	17.177	1.589	983.132	.135%	95.630%
57.0	16.425	1.536	984.669	.131%	95.780%
58.0	15.764	1.489	986.157	.127%	95.924%
59.0	15.188	1.447	987.604	.123%	96.065%
60.0	14.646	1.409	989.013	.120%	96.202%
61.0	14.112	1.372	990.386	.117%	96.336%
62.0	13.697	1.340	991.726	.114%	96.466%
63.0	13.388	1.317	993.043	.112%	96.594%
64.0	13.106	1.300	994.343	.111%	96.721%
65.0	13.043	1.294	995.637	.110%	96.847%
66.0	13.268	1.313	996.95	.112%	96.974%
67.0	13.648	1.353	998.303	.115%	97.106%
68.0	14.280	1.415	999.718	.120%	97.243%
69.0	15.061	1.497	1001.215	.127%	97.389%
70.0	15.616	1.576	1002.791	.134%	97.542%
71.0	16.383	1.654	1004.444	.141%	97.703%
72.0	17.086	1.740	1006.185	.148%	97.872%
73.0	17.585	1.813	1007.998	.154%	98.049%
74.0	17.810	1.861	1009.859	.158%	98.230%
75.0	17.796	1.881	1011.74	.160%	98.413%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	17.726	1.886	1013.626	.160%	98.596%
77.0	17.072	1.855	1015.481	.158%	98.777%
78.0	16.066	1.774	1017.255	.151%	98.949%
79.0	14.618	1.649	1018.903	.140%	99.110%
80.0	13.036	1.491	1020.394	.127%	99.255%
81.0	11.384	1.321	1021.715	.112%	99.383%
82.0	9.366	1.125	1022.84	.096%	99.493%
83.0	7.896	0.938	1023.778	.080%	99.584%
84.0	6.813	0.801	1024.58	.068%	99.662%
85.0	6.279	0.715	1025.294	.061%	99.731%
86.0	5.470	0.642	1025.936	.055%	99.794%
87.0	5.077	0.577	1026.514	.049%	99.850%
88.0	4.767	0.539	1027.053	.046%	99.902%
89.0	4.549	0.511	1027.564	.043%	99.952%
90.0	4.451	0.493	1028.057	.042%	100.000%

Zonal flux distribution table

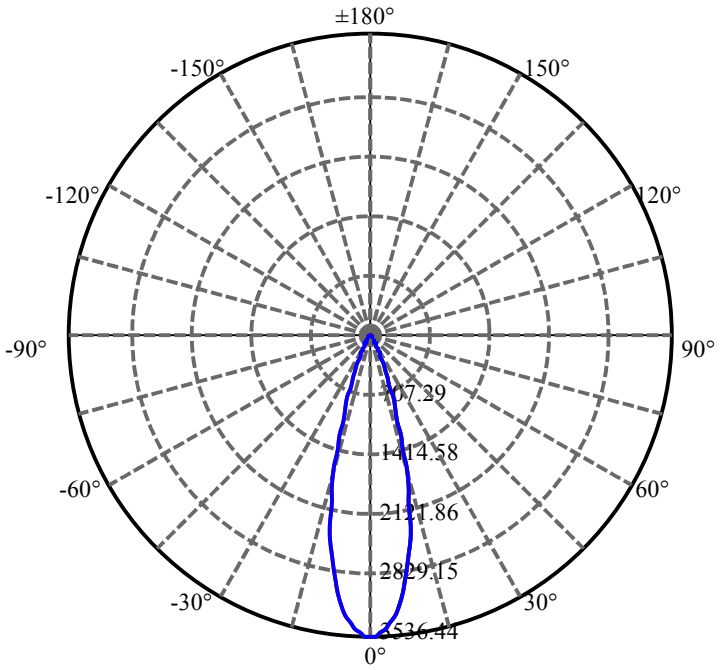
ZONAL LUMEN SUMMARY

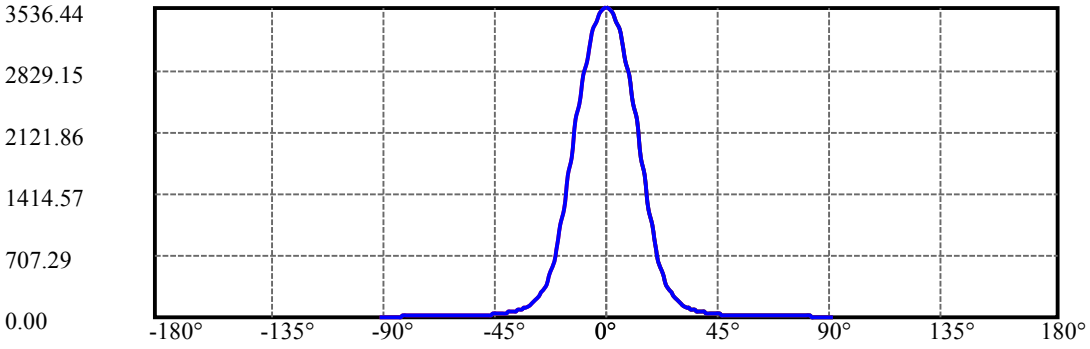
Zone	Lumens	%Lamp	%Fixt
0-30	890.17	75.74%	86.59%
0-40	944.63	80.37%	91.89%
0-60	989.01	84.15%	96.20%
0-90	1027.56	87.43%	99.95%
0-120	1027.56	87.43%	99.95%
0-180	1028.06	87.47%	100.00%
60-90	39.96	3.40%	3.89%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-24.21	822.45	69.98%	80.00%

ZONAL LUMEN SUMMARY

0-10	291.94
10-20	437.57
20-30	160.65
30-40	54.46
40-50	27.87
50-60	16.52
60-70	13.78
70-80	17.60
80-90	7.17
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):

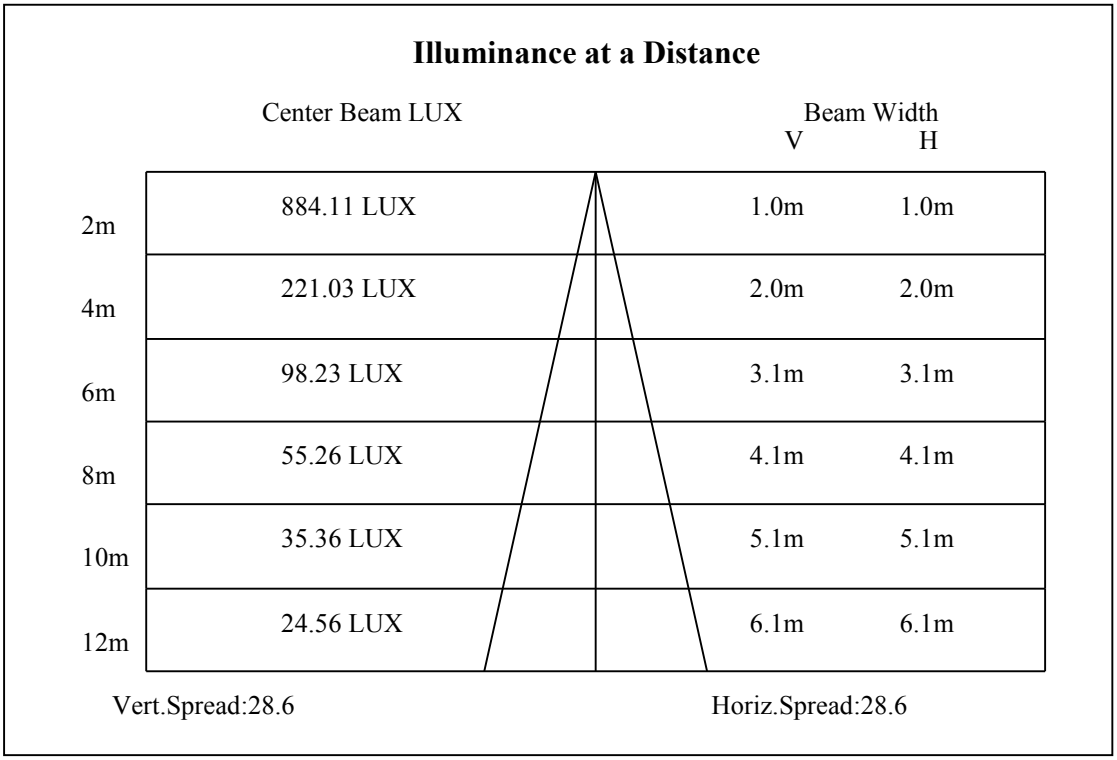
C0/C180:

C90/C270:

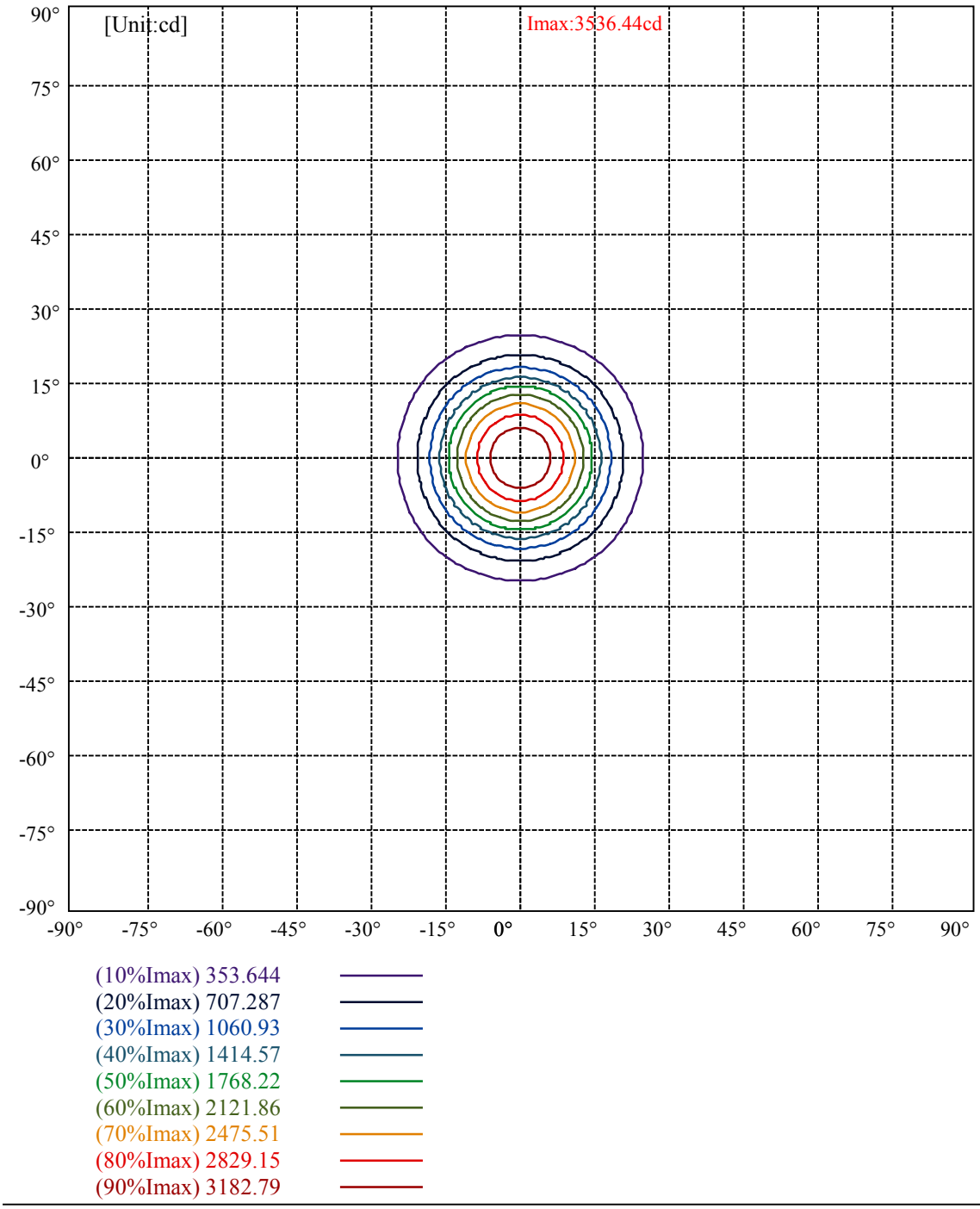
Field angle(10%Imax):C0/180Left:24.4 Right:24.4
:C90/270Left:24.4 Right:24.4

Beam Angle(50%Imax):C0/180Left:14.3 Right:14.3
:C90/270Left:14.3 Right:14.3

Lux distance Curve



ISO-Intensity(V-H)

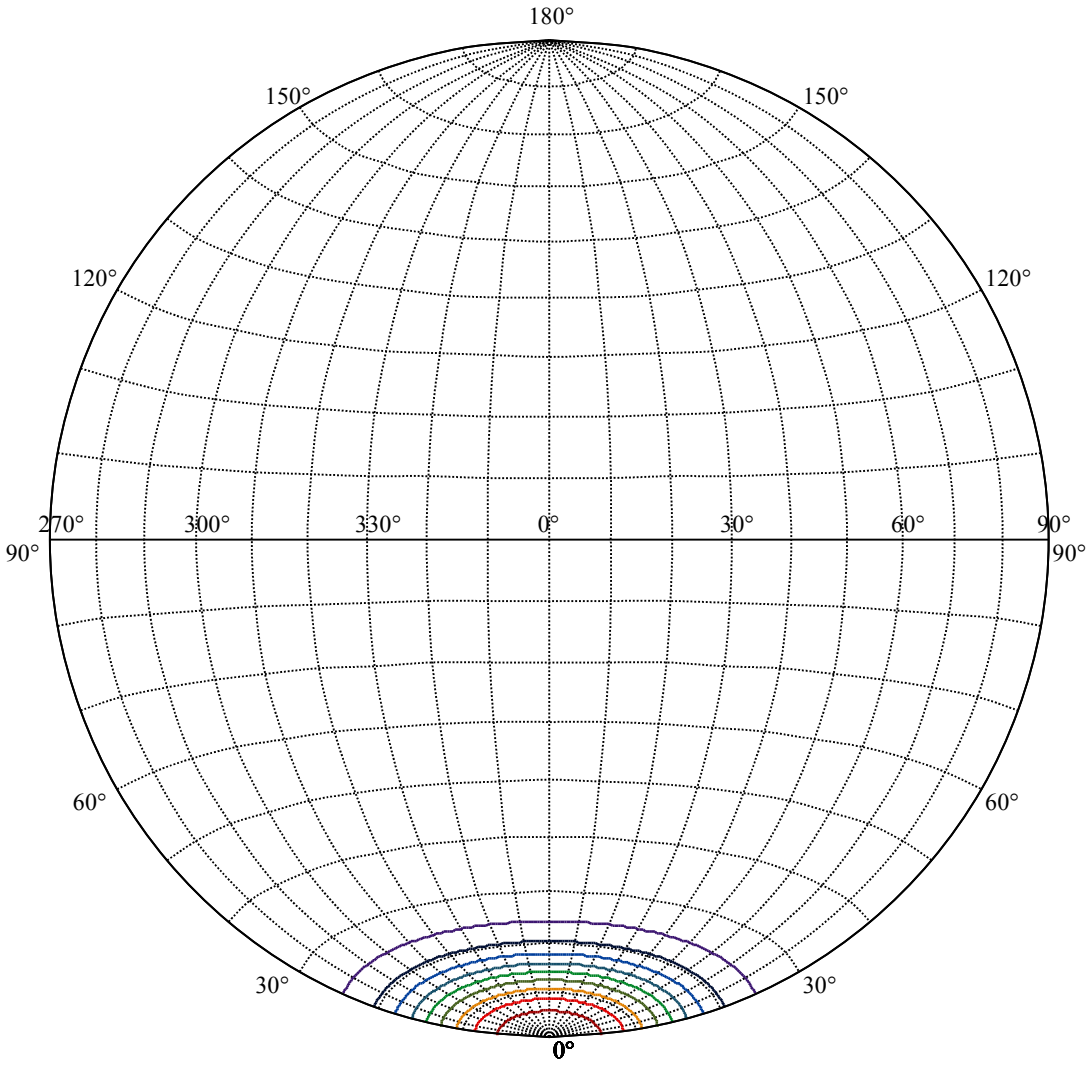


Equipment: GMS1980
Temperature(°C): 25.0

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

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:3536.44

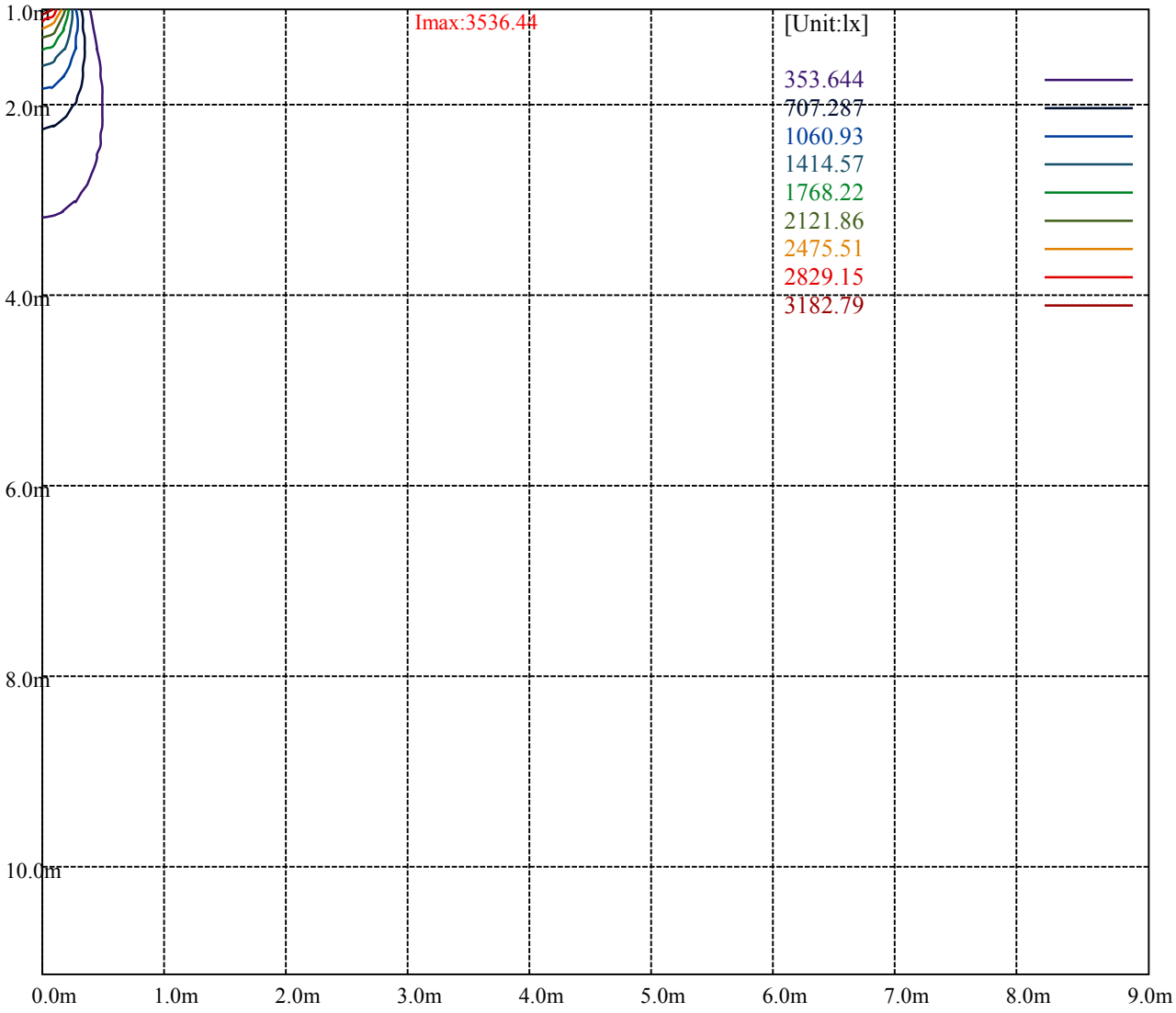
(10%Imax) 353.644
(20%Imax) 707.287
(30%Imax) 1060.93
(40%Imax) 1414.57
(50%Imax) 1768.22
(60%Imax) 2121.86
(70%Imax) 2475.51
(80%Imax) 2829.15
(90%Imax) 3182.79

Equipment: GMS1980
Temperature(°C): 25.0

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

Operator: NT07
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

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

Operator: NT07
Distance(m): 7.50

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Luminance Limitting Curve(no luminous side)

Luminance Table

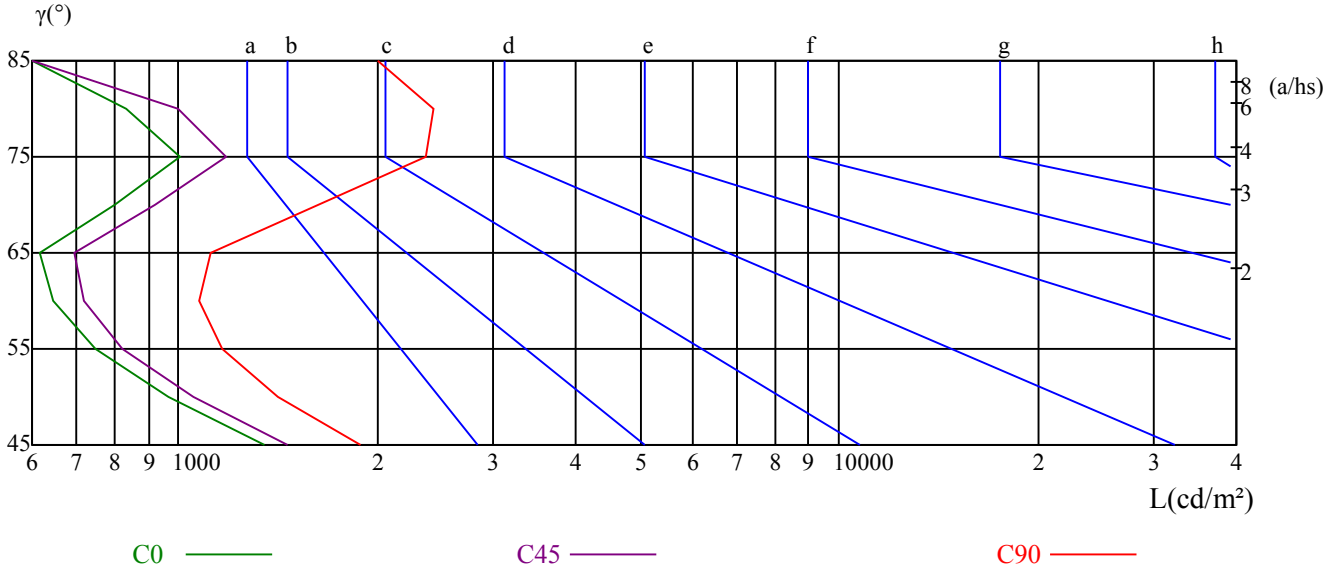
γ	45	50	55	60	65	70	75	80	85
C0	1353	964	748	645	616	801	1008	831	462
C45	1460	1050	823	719	697	922	1183	1001	576
C90	1888	1416	1164	1077	1119	1624	2370	2441	2005

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1203	1203	1203	2681	2681	2681	2809	2809	2809

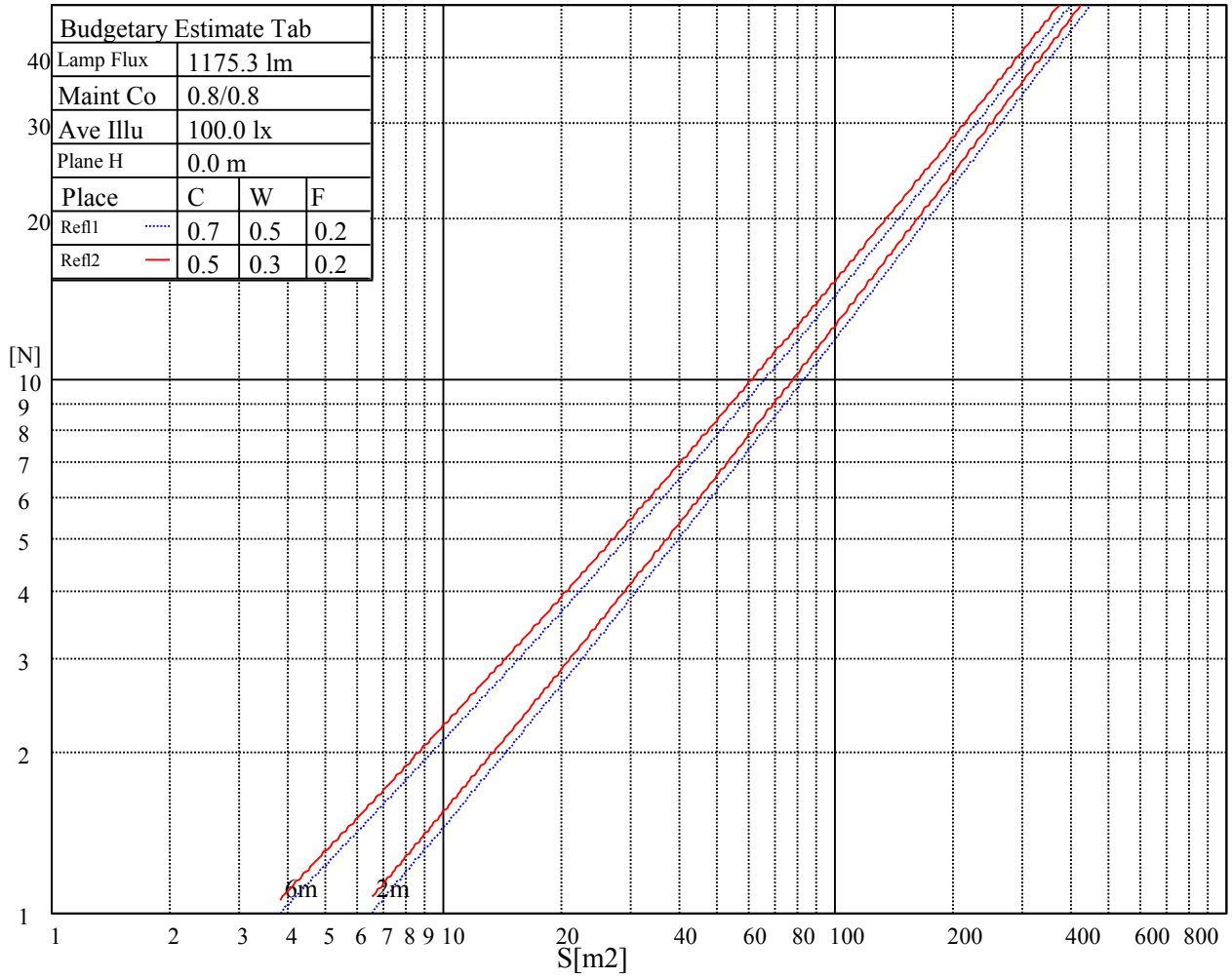
Glare Table

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

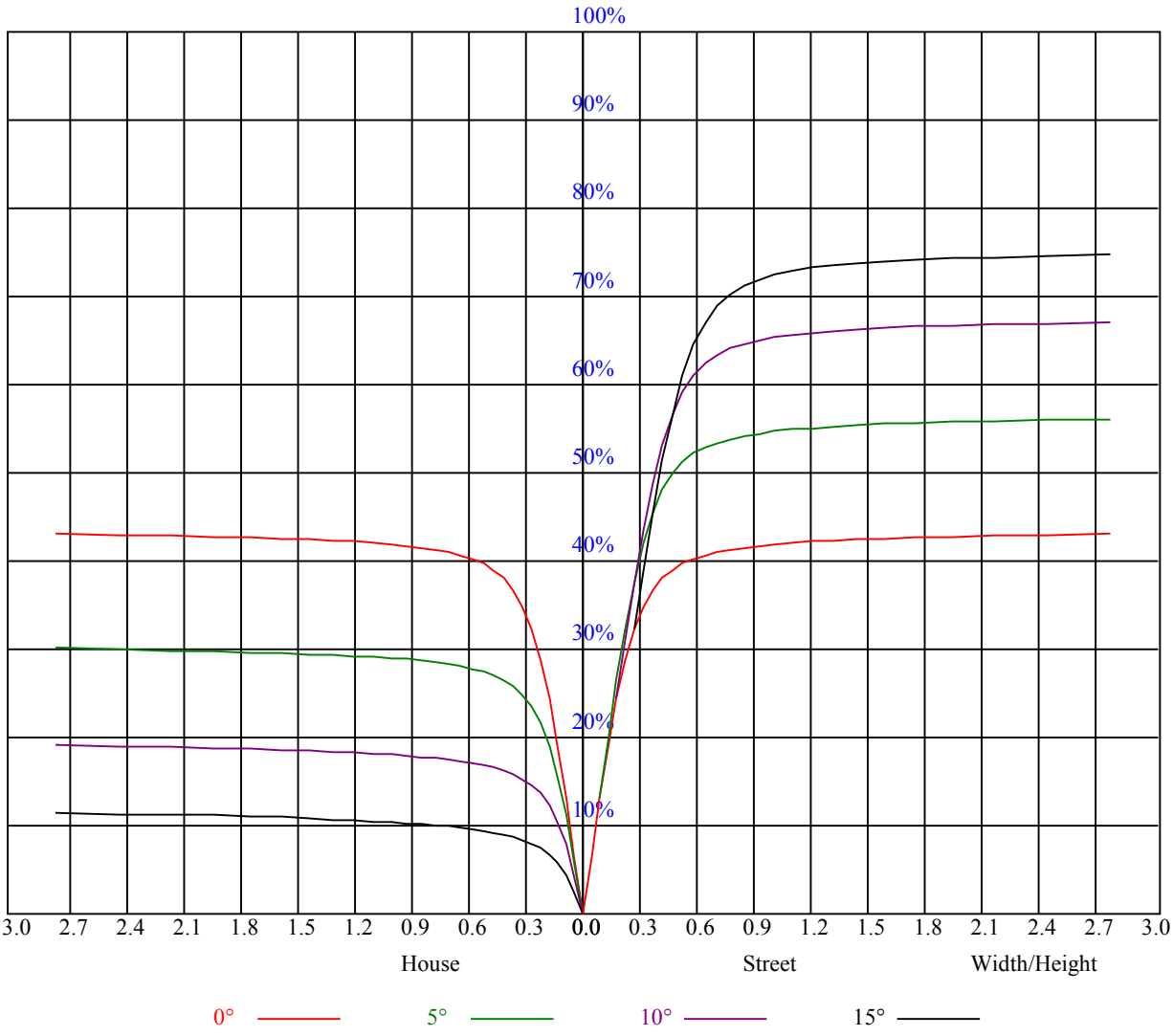


Equipment: GMS1980
Temperature(°C): 25.0
Date: 2021/6/24
Humidity(%): 65.0%
Operator: NT07
Distance(m): 7.50

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	0.97	0.95	0.93	0.95	0.94	0.92	0.92	0.90	0.89	0.89	0.88	0.86	0.86	0.85	0.84	0.82
2	0.92	0.89	0.86	0.90	0.87	0.85	0.87	0.85	0.83	0.85	0.83	0.81	0.83	0.81	0.80	0.78
3	0.87	0.83	0.80	0.86	0.82	0.80	0.84	0.81	0.78	0.81	0.79	0.77	0.80	0.78	0.76	0.75
4	0.83	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.74	0.78	0.76	0.74	0.77	0.75	0.73	0.72
5	0.79	0.75	0.72	0.78	0.75	0.72	0.77	0.74	0.71	0.76	0.73	0.70	0.74	0.72	0.70	0.69
6	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.68	0.73	0.70	0.68	0.72	0.69	0.67	0.66
7	0.73	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.65	0.64
8	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.63	0.68	0.65	0.63	0.62
9	0.68	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.66	0.63	0.61	0.60
10	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.64	0.61	0.59	0.58

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	3520.69	3544.88	3552.19	3535.31	3505.50	3453.19	3358.69	3264.75	3162.94
45.0	3545.44	3557.25	3538.13	3501.00	3440.81	3374.44	3282.19	3168.56	3052.69
90.0	3546.56	3535.88	3509.44	3447.00	3381.19	3297.94	3184.31	3049.31	2913.75
135.0	3533.06	3520.69	3475.69	3415.50	3320.44	3210.75	3124.13	2979.56	2861.44
180.0	3520.69	3472.31	3403.69	3324.38	3225.38	3114.00	2956.50	2781.56	2624.63
225.0	3545.44	3513.38	3466.69	3389.63	3307.50	3205.69	3051.56	2910.94	2769.19
270.0	3546.56	3532.50	3510.00	3480.75	3424.50	3335.63	3237.19	3101.63	2965.50
315.0	3533.06	3534.75	3525.19	3487.50	3436.88	3377.25	3292.88	3161.81	3030.19
360.0	3520.69	3544.88	3552.19	3535.31	3505.50	3453.19	3358.69	3264.75	3162.94

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3011.63	2873.25	2731.50	2554.88	2358.00	2173.50	1956.94	1755.00	1533.38
45.0	2912.06	2757.94	2608.88	2442.38	2222.44	2032.31	1840.50	1623.38	1413.56
90.0	2756.81	2591.44	2432.25	2248.31	2068.88	1856.81	1641.38	1454.63	1221.75
135.0	2725.88	2539.69	2369.81	2183.63	1940.06	1745.44	1557.00	1335.94	1170.56
180.0	2461.50	2239.88	2054.25	1862.44	1639.69	1423.69	1116.96	1057.78	892.69
225.0	2593.69	2403.00	2222.44	2002.50	1776.94	1578.94	1369.13	1110.04	1009.58
270.0	2816.44	2657.25	2496.38	2315.81	2076.19	1879.31	1682.44	1444.50	1265.06
315.0	2894.63	2729.81	2577.94	2403.00	2186.44	1958.06	1763.44	1550.81	1366.31
360.0	3011.63	2873.25	2731.50	2554.88	2358.00	2173.50	1956.94	1755.00	1533.38

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1323.56	1154.25	978.19	818.44	691.88	583.31	471.94	398.81	336.94
45.0	1233.56	1050.19	887.06	753.75	615.94	524.81	435.38	361.13	308.25
90.0	1071.17	923.18	791.38	644.23	545.34	461.64	391.61	318.32	269.61
135.0	1017.00	860.06	718.88	606.38	495.00	413.44	348.75	293.06	287.44
180.0	757.46	624.60	525.54	432.45	356.51	301.89	252.23	212.85	184.44
225.0	833.79	726.19	618.64	495.28	429.47	365.23	294.75	259.09	224.61
270.0	1099.69	932.63	782.44	666.00	556.88	475.31	398.25	334.69	287.44
315.0	1112.06	996.92	853.76	710.49	589.78	500.23	425.42	348.13	298.52
360.0	1323.56	1154.25	978.19	818.44	691.88	583.31	471.94	398.81	336.94

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	286.31	234.06	202.67	177.02	151.26	134.33	120.09	106.76	95.34
45.0	285.19	223.03	188.72	163.91	142.09	124.59	112.50	101.81	88.82
90.0	230.12	193.73	164.76	144.00	125.49	110.76	99.68	89.33	81.34
135.0	210.83	180.28	157.84	139.84	120.38	108.62	97.48	86.12	78.58
180.0	161.33	137.98	122.85	110.25	97.09	88.26	80.66	72.56	66.83
225.0	192.71	166.50	147.60	129.71	116.27	103.61	92.81	84.43	76.33
270.0	241.09	205.71	179.78	158.46	136.41	121.56	108.90	95.23	86.12
315.0	257.06	218.42	187.37	164.59	143.33	125.49	111.99	99.17	89.61
360.0	286.31	234.06	202.67	177.02	151.26	134.33	120.09	106.76	95.34

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	86.68	78.02	71.38	64.86	59.12	54.73	50.29	46.29	43.14
45.0	81.17	75.32	67.73	61.71	57.49	52.31	48.04	45.11	41.29
90.0	73.63	67.05	61.59	56.36	51.58	47.76	44.21	40.28	37.41
135.0	71.89	65.36	59.63	55.13	50.46	46.80	43.03	39.60	36.79
180.0	61.76	56.19	52.71	48.54	44.33	41.68	38.87	35.33	33.24
225.0	69.24	63.79	58.89	53.49	49.67	46.29	43.09	39.43	36.84
270.0	77.96	70.76	62.94	57.54	52.93	48.26	44.10	40.84	37.41
315.0	79.99	72.00	65.81	59.51	54.34	50.18	46.46	42.30	39.26
360.0	86.68	78.02	71.38	64.86	59.12	54.73	50.29	46.29	43.14

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	40.16	36.90	34.43	32.06	29.64	27.45	25.65	23.79	22.22
45.0	38.48	36.00	33.13	31.05	29.03	26.94	25.26	23.74	22.05
90.0	34.76	32.01	29.48	27.51	25.37	23.51	21.99	20.42	19.29
135.0	33.86	31.11	28.91	26.89	24.64	23.01	21.54	20.08	18.90
180.0	31.05	28.29	26.72	24.98	23.34	21.77	20.53	19.35	18.39
225.0	34.43	31.61	29.59	27.62	25.65	23.91	22.33	21.09	20.03
270.0	34.37	31.56	29.31	27.17	25.03	23.12	21.54	20.25	18.90
315.0	36.51	33.58	30.99	28.91	26.78	24.81	23.23	21.71	20.48
360.0	40.16	36.90	34.43	32.06	29.64	27.45	25.65	23.79	22.22

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	20.93	19.74	18.79	17.83	17.04	16.37	15.64	15.02	14.46
45.0	20.76	19.74	18.79	17.78	17.10	16.37	15.69	15.13	14.57
90.0	18.11	17.16	16.48	15.86	15.19	14.74	14.34	13.89	13.67
135.0	17.94	17.04	16.20	15.58	14.96	14.46	13.95	13.44	13.11
180.0	17.49	16.71	16.14	15.47	14.91	14.40	13.95	13.39	12.99
225.0	18.96	18.00	17.21	16.37	15.75	15.13	14.63	13.89	13.44
270.0	17.94	17.10	16.26	15.64	15.13	14.57	14.06	13.78	13.44
315.0	19.41	18.34	17.55	16.88	16.03	15.47	14.91	14.34	13.89
360.0	20.93	19.74	18.79	17.83	17.04	16.37	15.64	15.02	14.46

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	14.01	13.44	12.99	12.60	12.21	11.76	11.42	11.08	10.74
45.0	14.06	13.50	13.05	12.66	12.26	11.87	11.53	11.19	10.80
90.0	13.61	13.89	14.68	16.37	18.68	21.54	24.86	26.21	27.79
135.0	12.83	12.49	12.32	12.38	12.60	12.88	13.61	15.36	17.04
180.0	12.54	12.09	11.76	11.48	11.14	10.74	10.41	10.13	9.84
225.0	12.99	12.43	12.04	11.64	11.31	10.91	10.63	10.24	9.96
270.0	13.50	13.78	14.63	16.26	18.11	21.49	24.53	25.93	28.13
315.0	13.56	13.22	12.88	12.77	12.88	13.05	13.50	14.79	16.76
360.0	14.01	13.44	12.99	12.60	12.21	11.76	11.42	11.08	10.74

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	10.41	10.07	9.79	9.45	9.17	8.89	8.61	8.27	7.99
45.0	10.52	10.24	9.90	9.51	9.23	8.94	8.61	8.27	7.93
90.0	30.26	32.68	33.47	33.58	34.59	32.85	30.66	27.45	23.96
135.0	17.72	17.94	18.62	19.24	18.56	17.66	16.26	13.95	11.87
180.0	9.51	9.23	8.94	8.61	8.27	7.93	7.65	7.37	7.03
225.0	9.68	9.34	9.06	8.78	8.44	8.21	7.88	7.54	7.26
270.0	30.38	32.51	33.69	33.30	33.13	32.40	30.15	27.34	23.85
315.0	18.23	18.68	19.01	19.91	20.42	19.69	18.73	16.76	14.40
360.0	10.41	10.07	9.79	9.45	9.17	8.89	8.61	8.27	7.99

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	7.76	7.48	7.14	6.86	6.47	6.13	5.74	5.40	5.01
45.0	7.65	7.31	6.98	6.64	6.30	5.91	5.57	5.18	4.89
90.0	20.59	14.85	11.42	7.71	6.75	5.40	4.95	4.61	4.33
135.0	9.51	7.88	7.09	6.75	6.13	5.12	4.73	4.44	4.28
180.0	6.75	6.41	6.08	5.79	5.40	4.95	4.61	4.44	4.44
225.0	6.98	6.64	6.30	5.91	5.63	5.29	4.95	4.67	4.56
270.0	19.24	14.63	10.01	7.65	6.86	5.40	4.95	4.61	4.39
315.0	12.60	9.73	8.16	7.20	6.69	5.57	5.12	4.78	4.50
360.0	7.76	7.48	7.14	6.86	6.47	6.13	5.74	5.40	5.01

Intensity data(cd)

C/γ(°)	90.0
0.0	4.78
45.0	4.67
90.0	4.28
135.0	4.28
180.0	4.39
225.0	4.61
270.0	4.28
315.0	4.33
360.0	4.78