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: 1-0927-M
Luminaire: 92.70.124.00

Report No: NATA0100	Voltage(V): 33.7500
Test No: GC2019092606	Current(A): 0.2970
LampCAT: BRIDGELUX V10B LES10	Power (W): 10.0000
Lamp flux(lm): 1460.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1072.48
Efficiency(%): 73.46%
Lumens(lm)/Power(W): 107.25
Central intensity(cd): 5457.797
Maximum intensity(cd): 5457.797
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=25.6
[C90/270]Total=25.6
Field angle(10%Imax): [C0/180]Total=41.7
[C90/270]Total=41.7
Maximum s/h(1/2): C0_180=0.43 C90_270=0.43
Maximum s/h(1/4): C0_180=0.42 C90_270=0.42
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 73.46%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.533%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5457.797	0.000	0	.000%	.000%
1.0	5443.172	5.216	5.216	.357%	.486%
2.0	5389.242	15.548	20.764	1.065%	1.936%
3.0	5298.188	25.561	46.324	1.751%	4.319%
4.0	5176.406	35.062	81.386	2.401%	7.589%
5.0	4989.164	43.732	125.118	2.995%	11.666%
6.0	4792.430	51.405	176.523	3.521%	16.459%
7.0	4546.758	57.968	234.491	3.970%	21.864%
8.0	4270.289	63.102	297.593	4.322%	27.748%
9.0	3974.555	66.820	364.413	4.577%	33.979%
10.0	3654.844	69.043	433.456	4.729%	40.416%
11.0	3320.648	69.700	503.156	4.774%	46.915%
12.0	2992.008	69.006	572.162	4.726%	53.349%
13.0	2653.031	66.992	639.154	4.589%	59.596%
14.0	2294.859	63.333	702.487	4.338%	65.501%
15.0	1990.336	58.829	761.316	4.029%	70.986%
16.0	1696.078	54.016	815.332	3.700%	76.023%
17.0	1381.416	47.925	863.257	3.283%	80.492%
18.0	1129.437	41.399	904.656	2.836%	84.352%
19.0	936.316	35.940	940.596	2.462%	87.703%
20.0	707.934	30.094	970.69	2.061%	90.509%
21.0	515.545	23.493	994.183	1.609%	92.699%
22.0	359.515	17.585	1011.768	1.204%	94.339%
23.0	250.812	12.806	1024.574	.877%	95.533%
24.0	123.546	8.185	1032.759	.561%	96.296%
25.0	55.266	4.066	1036.825	.278%	96.675%
26.0	25.263	1.901	1038.726	.130%	96.853%
27.0	16.608	1.024	1039.75	.070%	96.948%
28.0	14.154	0.779	1040.529	.053%	97.021%
29.0	12.621	0.701	1041.229	.048%	97.086%
30.0	11.510	0.652	1041.881	.045%	97.147%
31.0	10.575	0.615	1042.496	.042%	97.204%
32.0	9.780	0.583	1043.079	.040%	97.258%
33.0	9.162	0.558	1043.637	.038%	97.311%
34.0	8.634	0.539	1044.175	.037%	97.361%
35.0	8.163	0.522	1044.697	.036%	97.409%
36.0	7.784	0.508	1045.205	.035%	97.457%
37.0	7.488	0.498	1045.703	.034%	97.503%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	7.186	0.490	1046.193	.034%	97.549%
39.0	6.954	0.483	1046.675	.033%	97.594%
40.0	6.764	0.478	1047.154	.033%	97.638%
41.0	6.588	0.475	1047.629	.033%	97.683%
42.0	6.413	0.472	1048.102	.032%	97.727%
43.0	6.293	0.471	1048.572	.032%	97.771%
44.0	6.173	0.471	1049.043	.032%	97.815%
45.0	6.068	0.470	1049.513	.032%	97.858%
46.0	5.970	0.471	1049.984	.032%	97.902%
47.0	5.885	0.471	1050.455	.032%	97.946%
48.0	5.815	0.473	1050.928	.032%	97.990%
49.0	5.745	0.475	1051.403	.033%	98.035%
50.0	5.688	0.477	1051.88	.033%	98.079%
51.0	5.611	0.478	1052.358	.033%	98.124%
52.0	5.548	0.479	1052.837	.033%	98.168%
53.0	5.505	0.481	1053.317	.033%	98.213%
54.0	5.470	0.484	1053.801	.033%	98.258%
55.0	5.421	0.486	1054.287	.033%	98.304%
56.0	5.372	0.488	1054.775	.033%	98.349%
57.0	5.337	0.490	1055.265	.034%	98.395%
58.0	5.309	0.492	1055.757	.034%	98.441%
59.0	5.280	0.495	1056.252	.034%	98.487%
60.0	5.252	0.498	1056.75	.034%	98.533%
61.0	5.217	0.500	1057.249	.034%	98.580%
62.0	5.189	0.501	1057.751	.034%	98.627%
63.0	5.161	0.503	1058.254	.034%	98.673%
64.0	5.140	0.505	1058.76	.035%	98.721%
65.0	5.119	0.508	1059.267	.035%	98.768%
66.0	5.119	0.511	1059.778	.035%	98.816%
67.0	5.070	0.512	1060.29	.035%	98.863%
68.0	5.055	0.513	1060.803	.035%	98.911%
69.0	5.041	0.515	1061.318	.035%	98.959%
70.0	5.041	0.518	1061.836	.035%	99.007%
71.0	5.020	0.520	1062.356	.036%	99.056%
72.0	5.006	0.521	1062.878	.036%	99.105%
73.0	4.985	0.522	1063.4	.036%	99.153%
74.0	4.985	0.524	1063.924	.036%	99.202%
75.0	4.985	0.527	1064.451	.036%	99.251%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	4.985	0.529	1064.98	.036%	99.301%
77.0	4.971	0.531	1065.511	.036%	99.350%
78.0	4.957	0.531	1066.043	.036%	99.400%
79.0	4.957	0.533	1066.575	.036%	99.449%
80.0	4.943	0.534	1067.109	.037%	99.499%
81.0	4.936	0.534	1067.643	.037%	99.549%
82.0	4.936	0.535	1068.179	.037%	99.599%
83.0	4.929	0.536	1068.715	.037%	99.649%
84.0	4.943	0.538	1069.253	.037%	99.699%
85.0	4.929	0.539	1069.791	.037%	99.749%
86.0	4.915	0.538	1070.329	.037%	99.799%
87.0	4.908	0.538	1070.867	.037%	99.850%
88.0	4.908	0.538	1071.405	.037%	99.900%
89.0	4.908	0.538	1071.943	.037%	99.950%
90.0	4.908	0.538	1072.481	.037%	100.000%

Zonal flux distribution table

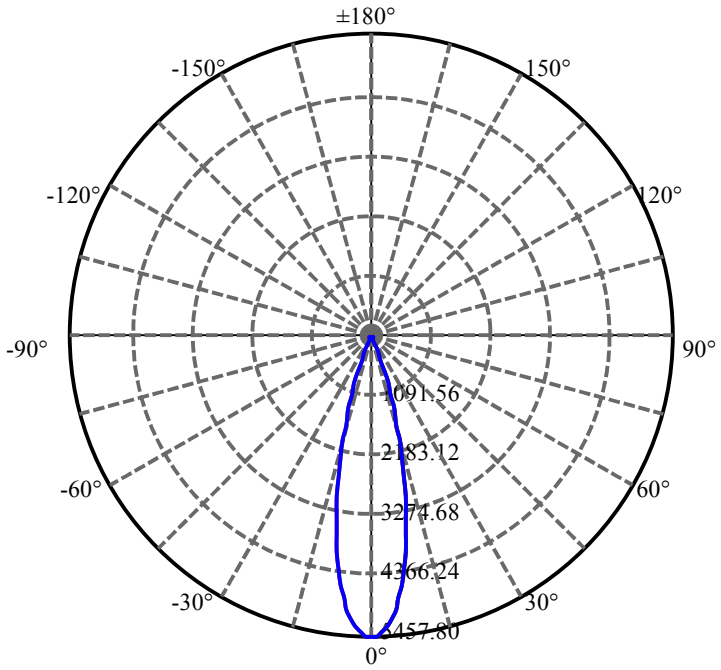
ZONAL LUMEN SUMMARY

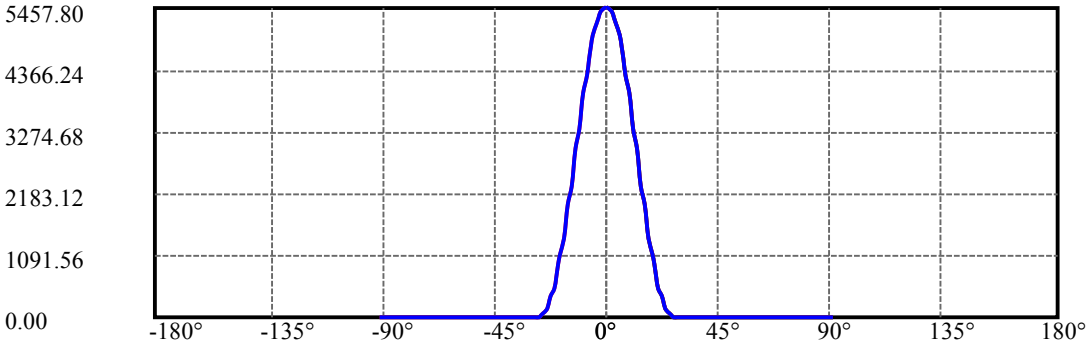
Zone	Lumens	%Lamp	%Fixt
0-30	1041.88	71.36%	97.15%
0-40	1047.15	71.72%	97.64%
0-60	1056.75	72.38%	98.53%
0-90	1071.94	73.42%	99.95%
0-120	1071.94	73.42%	99.95%
0-180	1072.48	73.46%	100.00%
60-90	15.69	1.07%	1.46%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-16.89	857.98	58.77%	80.00%

ZONAL LUMEN SUMMARY

0-10	433.46
10-20	537.23
20-30	71.19
30-40	5.27
40-50	4.73
50-60	4.87
60-70	5.09
70-80	5.27
80-90	4.83
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):

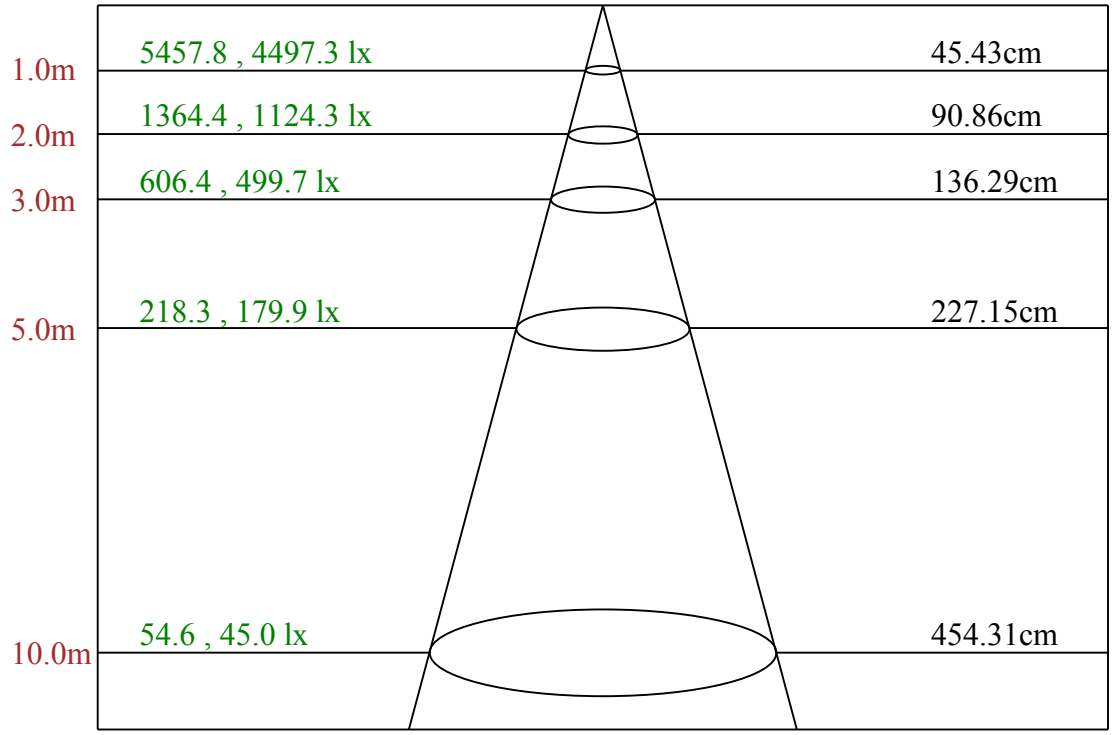
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:20.8 Right:20.8
:C90/270Left:20.8 Right:20.8

Beam Angle(50%Imax):C0/180Left:12.8 Right:12.8
:C90/270Left:12.8 Right:12.8

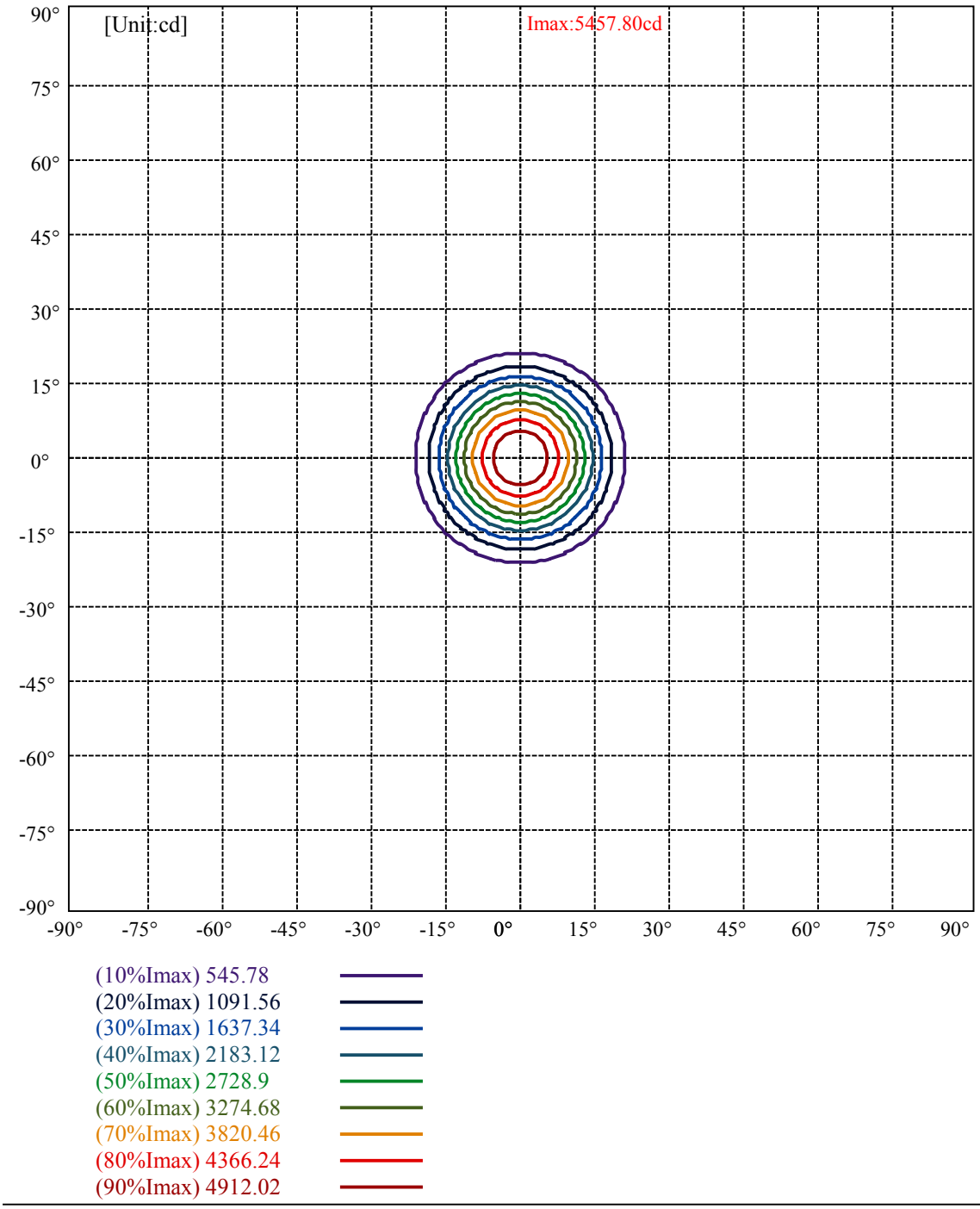
Lux distance Curve



Max , Ave

Beam angle of C0 plane 25.60

ISO-Intensity(V-H)



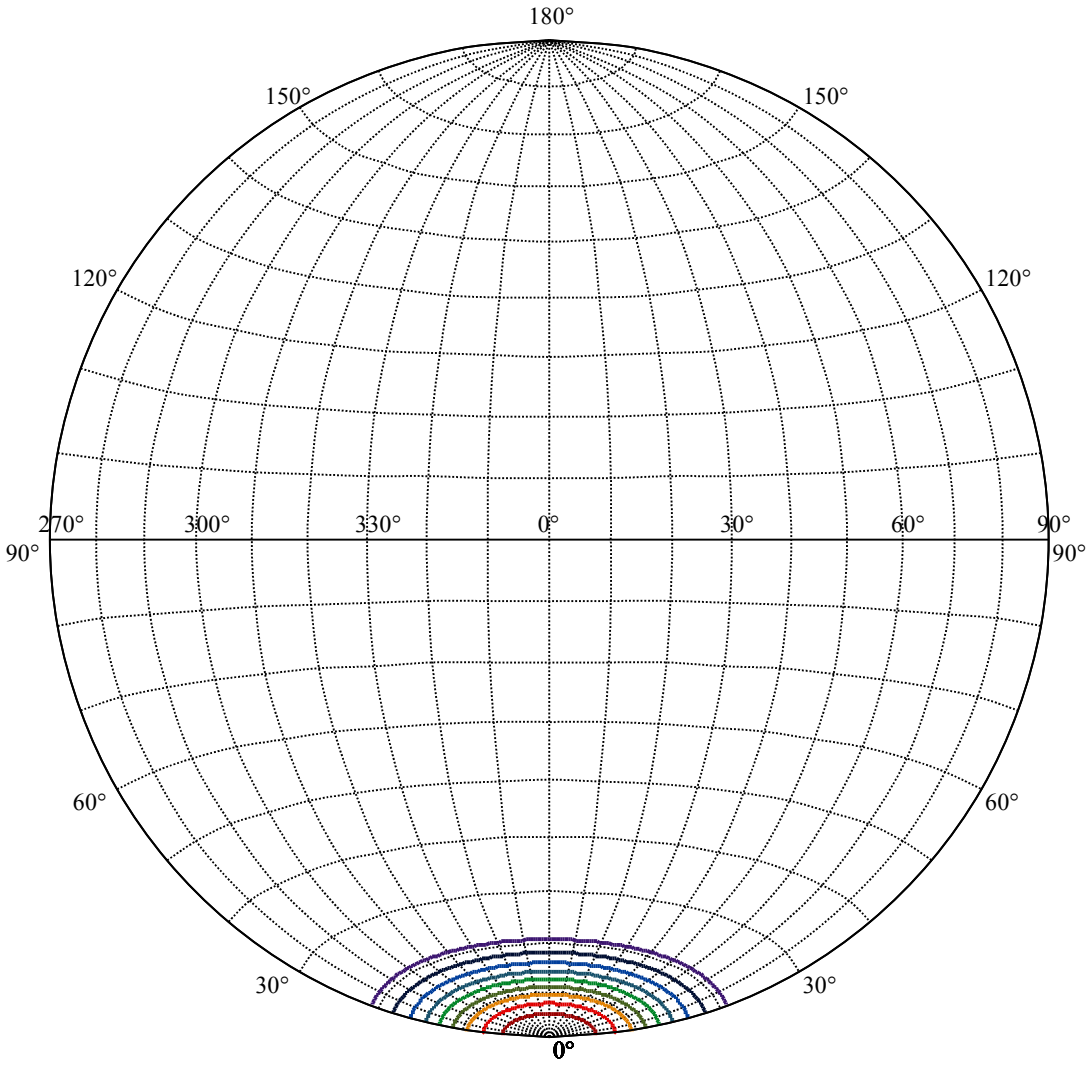
(10%Imax) 545.78
(20%Imax) 1091.56
(30%Imax) 1637.34
(40%Imax) 2183.12
(50%Imax) 2728.9
(60%Imax) 3274.68
(70%Imax) 3820.46
(80%Imax) 4366.24
(90%Imax) 4912.02

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2019/9/26
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:5457.80

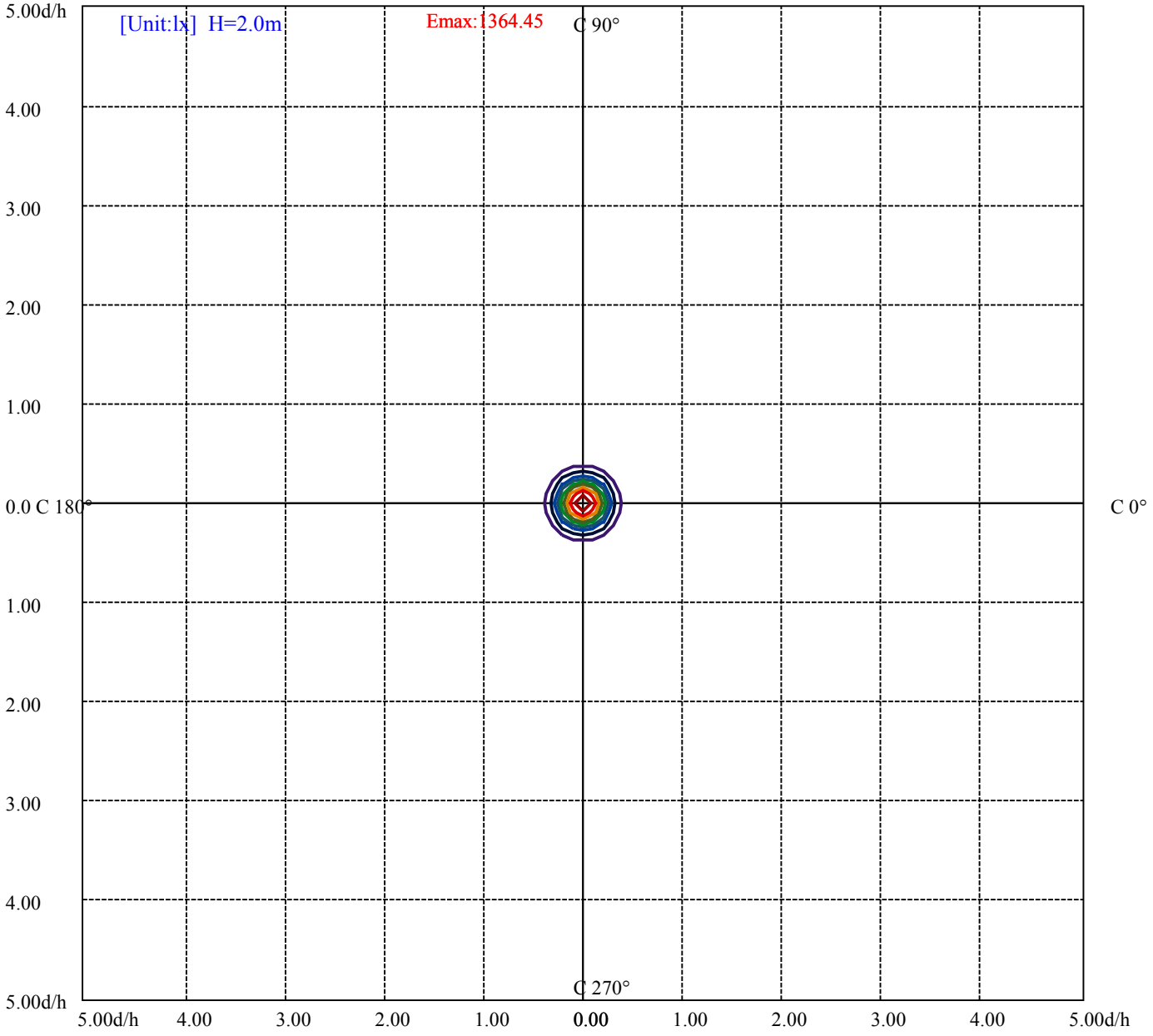
(10%Imax) 545.78
(20%Imax) 1091.56
(30%Imax) 1637.34
(40%Imax) 2183.12
(50%Imax) 2728.9
(60%Imax) 3274.68
(70%Imax) 3820.46
(80%Imax) 4366.24
(90%Imax) 4912.02

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2019/9/26
Humidity(%): 65.0%

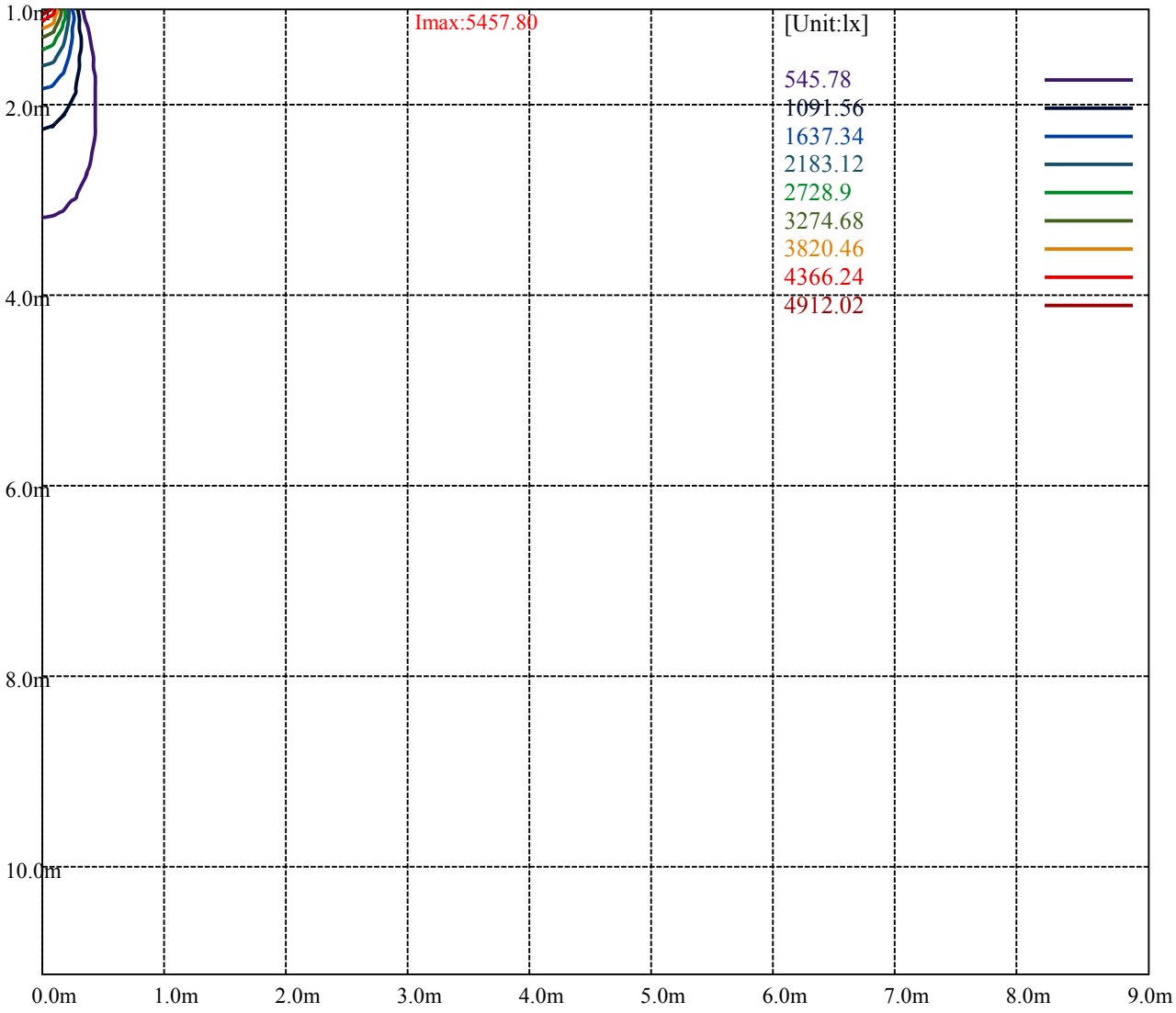
Operator: NT07
Distance(m): 7.50

ISO illuminance diagram



Equipment: GMS1980	Date: 2019/9/26	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 65.0%	Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2019/9/26
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Luminance Limitting Curve(no luminous side)

Luminance Table

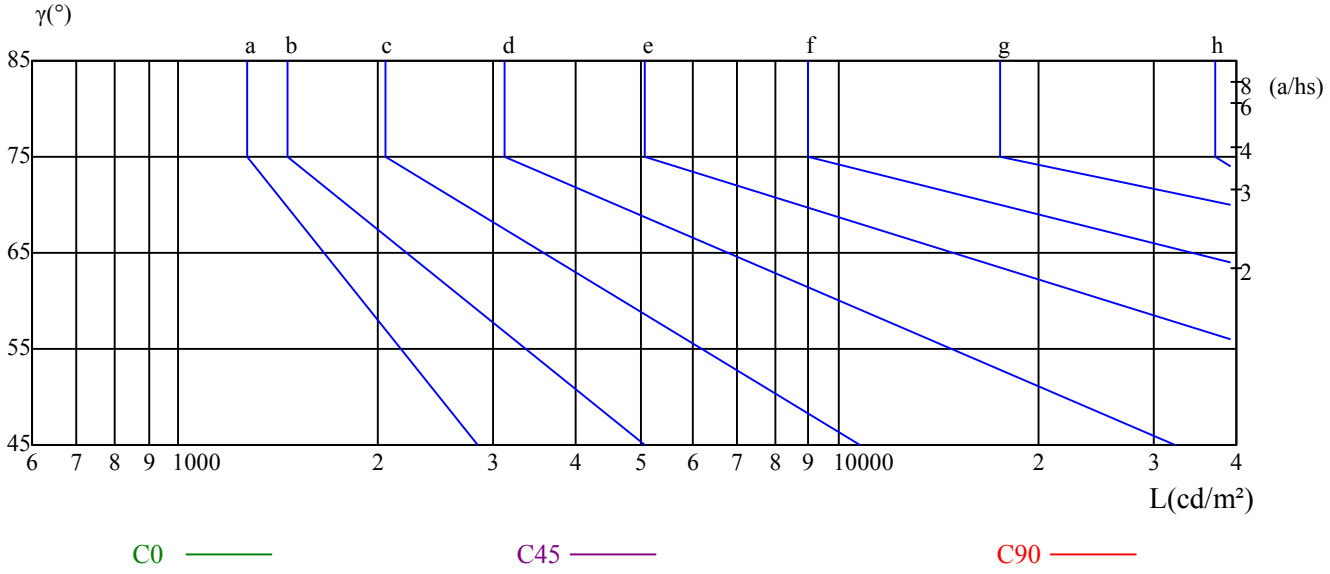
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

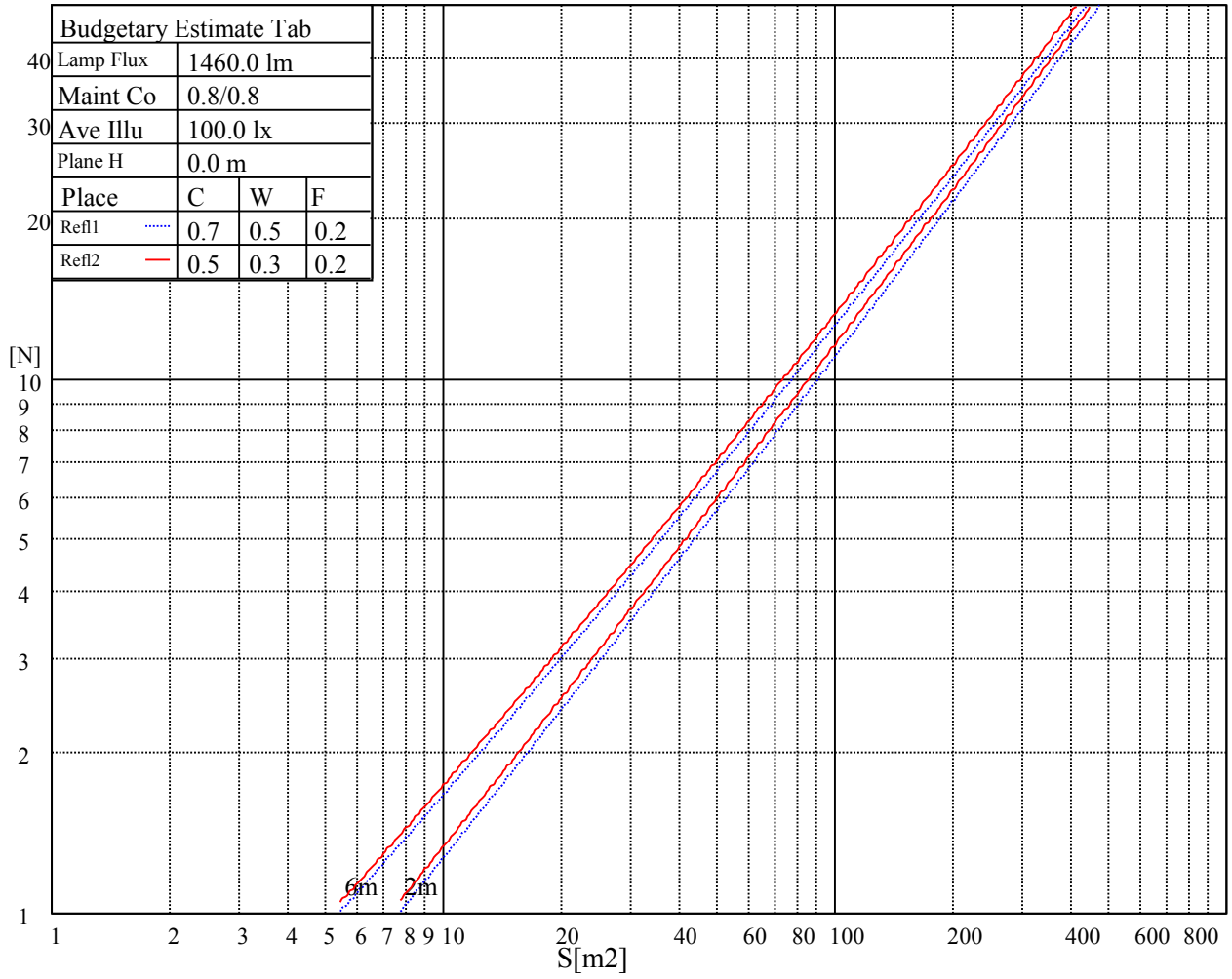
Glare Table

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



Budgetary Estimate Table

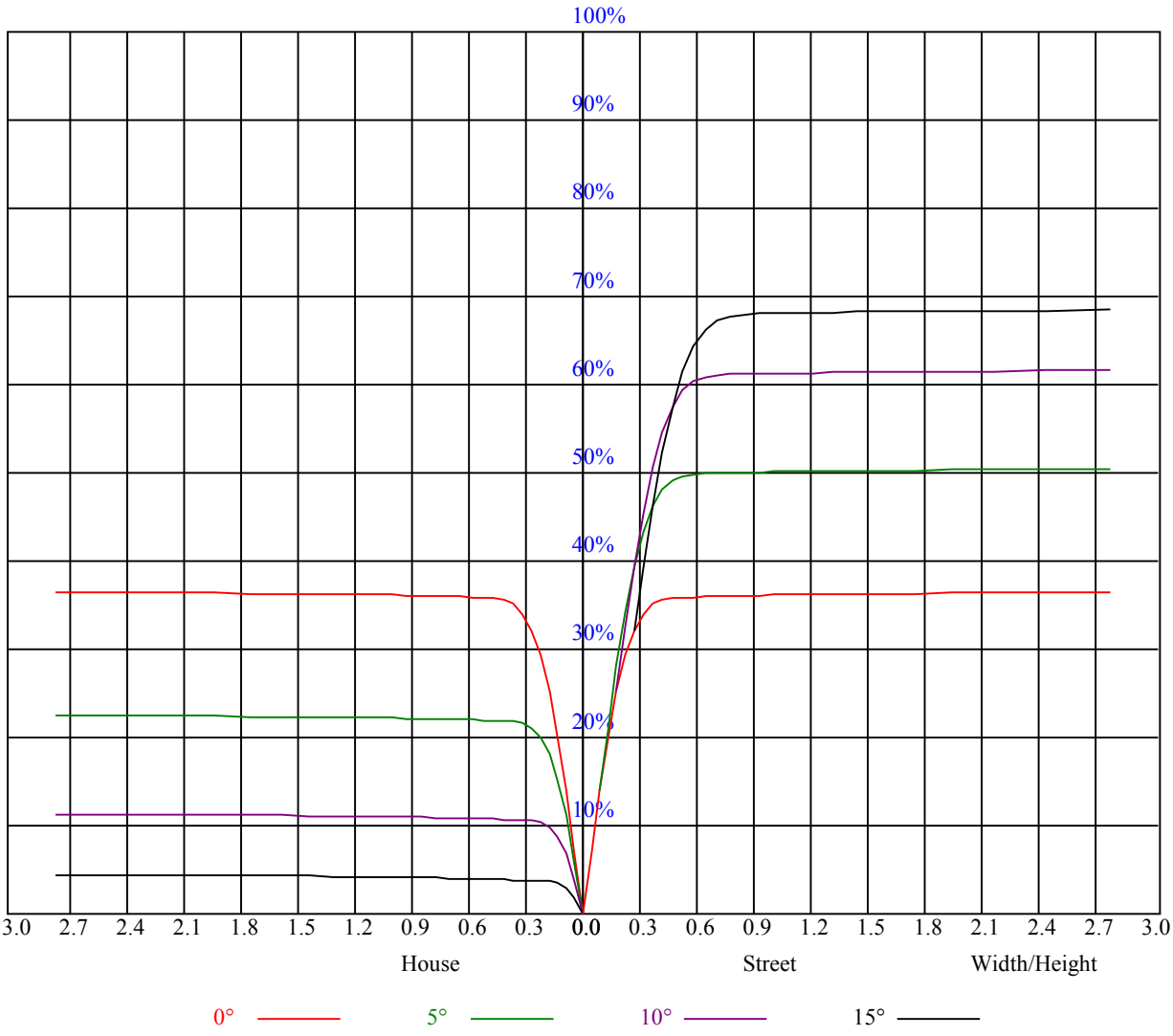


Equipment: GMS1980 Date: 2019/9/26 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.50

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	0.87	0.87	0.87	0.85	0.85	0.85	0.82	0.82	0.82	0.78	0.78	0.78	0.75	0.75	0.75	0.73
1	0.83	0.82	0.80	0.81	0.80	0.79	0.78	0.77	0.77	0.76	0.75	0.74	0.73	0.73	0.72	0.71
2	0.79	0.77	0.75	0.78	0.76	0.74	0.76	0.74	0.73	0.74	0.72	0.71	0.72	0.71	0.70	0.69
3	0.76	0.74	0.72	0.75	0.73	0.71	0.73	0.72	0.70	0.72	0.70	0.69	0.70	0.69	0.68	0.67
4	0.74	0.71	0.69	0.73	0.70	0.68	0.71	0.69	0.68	0.70	0.68	0.67	0.69	0.67	0.66	0.65
5	0.71	0.68	0.66	0.71	0.68	0.66	0.69	0.67	0.65	0.68	0.66	0.65	0.67	0.66	0.64	0.64
6	0.69	0.66	0.64	0.69	0.66	0.64	0.68	0.65	0.64	0.67	0.65	0.63	0.66	0.64	0.63	0.62
7	0.67	0.64	0.62	0.67	0.64	0.62	0.66	0.64	0.62	0.65	0.63	0.62	0.65	0.63	0.61	0.61
8	0.66	0.63	0.61	0.65	0.63	0.61	0.65	0.62	0.60	0.64	0.62	0.60	0.63	0.61	0.60	0.59
9	0.64	0.61	0.59	0.64	0.61	0.59	0.63	0.61	0.59	0.63	0.60	0.59	0.62	0.60	0.59	0.58
10	0.62	0.60	0.58	0.62	0.60	0.58	0.62	0.59	0.58	0.61	0.59	0.58	0.61	0.59	0.58	0.57

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2019/9/26	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	5466.38	5443.88	5380.31	5292.56	5141.81	4954.50	4757.63	4501.69	4250.25
45.0	5450.63	5450.63	5420.25	5350.50	5266.13	5092.88	4912.88	4709.25	4439.25
90.0	5462.44	5455.13	5418.00	5347.69	5240.25	5080.50	4896.56	4650.19	4372.88
135.0	5451.75	5466.38	5445.00	5394.94	5313.38	5165.44	5000.63	4791.38	4532.63
180.0	5466.38	5452.88	5416.88	5327.44	5209.31	5064.19	4844.25	4582.69	4327.88
225.0	5450.63	5424.19	5347.69	5230.13	5087.81	4869.56	4655.25	4371.75	4073.63
270.0	5462.44	5445.00	5366.81	5263.31	5124.94	4897.69	4682.81	4456.13	4157.44
315.0	5451.75	5407.31	5319.00	5178.94	5027.63	4788.56	4589.44	4311.00	4008.38
360.0	5466.38	5443.88	5380.31	5292.56	5141.81	4954.50	4757.63	4501.69	4250.25

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3940.88	3605.63	3305.25	2988.00	2593.13	2278.69	1982.25	1667.25	1371.94
45.0	4148.44	3863.81	3527.44	3169.13	2850.19	2518.88	2176.31	1855.69	1553.63
90.0	4100.06	3767.06	3425.63	3110.63	2790.56	2387.25	2084.63	1807.88	1505.81
135.0	4240.69	3956.63	3615.75	3301.88	2934.00	2569.50	2251.69	1926.56	1626.75
180.0	4017.38	3675.38	3364.88	3013.31	2693.25	2337.19	2006.44	1734.19	1476.56
225.0	3788.44	3445.88	3092.63	2765.81	2447.44	2071.69	1789.31	1526.06	1108.69
270.0	3841.31	3547.13	3210.75	2886.19	2526.75	2178.56	1888.31	1576.69	1292.63
315.0	3719.25	3377.25	3022.88	2701.13	2388.94	2017.13	1743.75	1474.31	1115.33
360.0	3940.88	3605.63	3305.25	2988.00	2593.13	2278.69	1982.25	1667.25	1371.94

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1140.75	923.06	676.13	501.19	349.88	297.00	103.28	46.80	22.22
45.0	1294.88	1064.81	798.75	614.25	433.13	300.94	154.41	80.94	33.58
90.0	1111.73	997.88	767.81	559.97	400.84	250.09	149.96	66.60	25.71
135.0	1366.31	1132.31	867.94	672.19	491.06	315.00	225.68	100.24	39.54
180.0	1096.03	960.24	758.19	530.10	375.02	245.03	133.65	56.87	25.48
225.0	1000.13	800.04	596.53	413.55	273.60	164.64	76.84	29.81	17.94
270.0	1072.13	861.75	627.75	460.69	313.88	297.00	84.94	36.11	19.74
315.0	953.55	750.43	570.38	372.43	238.73	136.80	59.63	24.75	17.89
360.0	1140.75	923.06	676.13	501.19	349.88	297.00	103.28	46.80	22.22

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	16.71	14.63	12.99	11.87	10.80	9.96	9.34	8.78	8.21
45.0	18.00	14.74	13.16	11.81	10.74	10.01	9.34	8.72	8.27
90.0	17.21	13.95	12.32	11.31	10.46	9.56	9.00	8.55	8.04
135.0	19.13	15.08	13.28	12.09	11.03	10.18	9.62	8.94	8.49
180.0	16.43	14.12	12.60	11.48	10.69	9.90	9.23	8.78	8.33
225.0	15.08	13.56	12.09	11.19	10.35	9.51	9.00	8.55	8.04
270.0	15.30	13.67	12.38	11.31	10.35	9.68	9.00	8.49	8.04
315.0	15.02	13.50	12.15	11.03	10.18	9.45	8.78	8.27	7.88
360.0	16.71	14.63	12.99	11.87	10.80	9.96	9.34	8.78	8.21

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	7.82	7.48	7.14	6.92	6.69	6.53	6.36	6.24	6.13
45.0	7.88	7.59	7.26	7.03	6.86	6.64	6.47	6.36	6.24
90.0	7.71	7.43	7.14	6.92	6.75	6.58	6.41	6.30	6.19
135.0	8.10	7.76	7.43	7.20	6.98	6.81	6.58	6.41	6.30
180.0	7.93	7.65	7.37	7.09	6.86	6.69	6.53	6.41	6.24
225.0	7.71	7.43	7.09	6.92	6.69	6.53	6.41	6.24	6.13
270.0	7.65	7.37	7.09	6.81	6.69	6.53	6.30	6.24	6.13
315.0	7.48	7.20	6.98	6.75	6.58	6.41	6.24	6.13	6.02
360.0	7.82	7.48	7.14	6.92	6.69	6.53	6.36	6.24	6.13

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	6.02	5.96	5.85	5.79	5.68	5.63	5.57	5.51	5.46
45.0	6.13	6.02	5.96	5.91	5.85	5.79	5.68	5.63	5.57
90.0	6.08	5.96	5.91	5.85	5.74	5.74	5.63	5.57	5.51
135.0	6.19	6.08	6.02	5.91	5.79	5.74	5.68	5.63	5.57
180.0	6.13	6.02	5.91	5.85	5.79	5.74	5.63	5.57	5.51
225.0	6.02	5.96	5.85	5.79	5.74	5.68	5.63	5.51	5.51
270.0	6.02	5.91	5.85	5.74	5.68	5.63	5.57	5.51	5.51
315.0	5.96	5.85	5.74	5.68	5.68	5.57	5.51	5.46	5.40
360.0	6.02	5.96	5.85	5.79	5.68	5.63	5.57	5.51	5.46

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	5.46	5.40	5.34	5.29	5.29	5.29	5.23	5.23	5.18
45.0	5.57	5.51	5.46	5.40	5.40	5.34	5.34	5.34	5.29
90.0	5.46	5.46	5.40	5.34	5.34	5.29	5.29	5.29	5.23
135.0	5.51	5.46	5.40	5.40	5.34	5.34	5.29	5.23	5.23
180.0	5.46	5.40	5.34	5.34	5.29	5.29	5.23	5.18	5.12
225.0	5.46	5.40	5.34	5.29	5.29	5.23	5.23	5.18	5.18
270.0	5.46	5.40	5.34	5.34	5.29	5.29	5.23	5.18	5.18
315.0	5.40	5.34	5.34	5.29	5.23	5.18	5.18	5.12	5.12
360.0	5.46	5.40	5.34	5.29	5.29	5.29	5.23	5.23	5.18

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	5.12	5.12	5.12	5.12	5.06	5.06	5.01	5.01	5.01
45.0	5.23	5.23	5.18	5.23	5.18	5.12	5.12	5.12	5.12
90.0	5.18	5.18	5.18	5.12	5.12	5.06	5.06	5.06	5.01
135.0	5.18	5.18	5.12	5.12	5.06	5.06	5.06	5.06	5.01
180.0	5.12	5.12	5.06	5.06	5.01	5.01	5.01	5.01	5.01
225.0	5.18	5.12	5.12	5.12	5.06	5.06	5.06	5.06	5.01
270.0	5.18	5.12	5.12	5.12	5.06	5.06	5.01	5.01	5.06
315.0	5.12	5.06	5.06	5.06	5.01	5.01	5.01	5.01	4.95
360.0	5.12	5.12	5.12	5.12	5.06	5.06	5.01	5.01	5.01

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	4.95	4.95	4.95	4.95	4.95	4.95	4.89	4.89	4.89
45.0	5.12	5.06	5.06	5.06	5.01	5.06	5.01	5.01	5.01
90.0	5.06	5.01	5.01	5.01	5.01	5.01	5.01	4.95	4.95
135.0	5.01	4.95	5.01	5.01	5.01	4.95	4.95	4.95	4.95
180.0	4.95	4.95	4.95	4.95	4.95	4.89	4.89	4.95	4.89
225.0	5.01	5.01	4.95	5.01	5.01	5.01	4.95	4.95	4.95
270.0	5.01	5.01	5.01	4.95	5.01	4.95	5.01	5.01	4.95
315.0	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95
360.0	4.95	4.95	4.95	4.95	4.95	4.95	4.89	4.89	4.89

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	4.89	4.89	4.89	4.89	4.89	4.89	4.89	4.89	4.89
45.0	5.01	5.01	5.01	5.01	4.95	4.95	4.89	4.95	4.95
90.0	4.95	4.95	4.95	4.95	4.95	4.89	4.89	4.89	4.89
135.0	4.95	4.95	4.89	4.95	4.89	4.89	4.95	4.89	4.89
180.0	4.89	4.89	4.89	4.89	4.89	4.89	4.89	4.89	4.89
225.0	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95
270.0	4.95	4.95	4.95	4.95	5.01	4.95	4.89	4.89	4.89
315.0	4.89	4.89	4.89	4.95	4.89	4.89	4.89	4.89	4.89
360.0	4.89	4.89	4.89	4.89	4.89	4.89	4.89	4.89	4.89

Intensity data(cd)

C/γ(°)	90.0
0.0	4.89
45.0	4.95
90.0	4.89
135.0	4.89
180.0	4.89
225.0	4.95
270.0	4.89
315.0	4.89
360.0	4.89