NATA LIGHTING CO.,LTD
www.nata.cn
Email:+86 0750-377 1111
Tel:www.nata.cn Fax:+86 0750-377 0000(10 lines)
Address:info@nata.cn

NT

Client: NT
LumCAT: 3-2384-L2
Luminaire: 92.70.412.00
Report No: 20241226-B009
Ballast type: AC

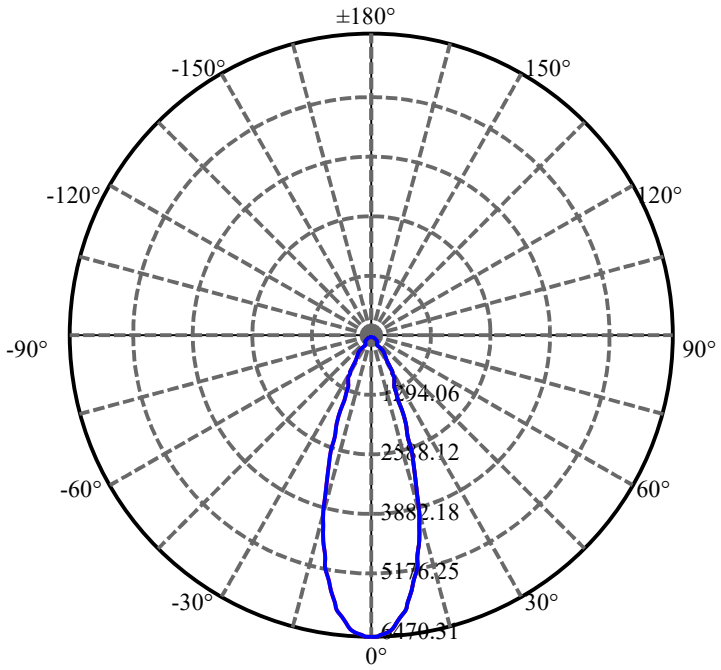
Test No: 20241226-C009	Voltage(V): 34.460
LampCAT: CITIZEN CLU038	Current(A): 0.451
Lamp flux(lm): 2649.0	Power (W): 15.541
Number of Lamps: 1	PF: 0.000
Length(mm): 85	Width(mm): 85
Phm Type: C	Height(mm): 52

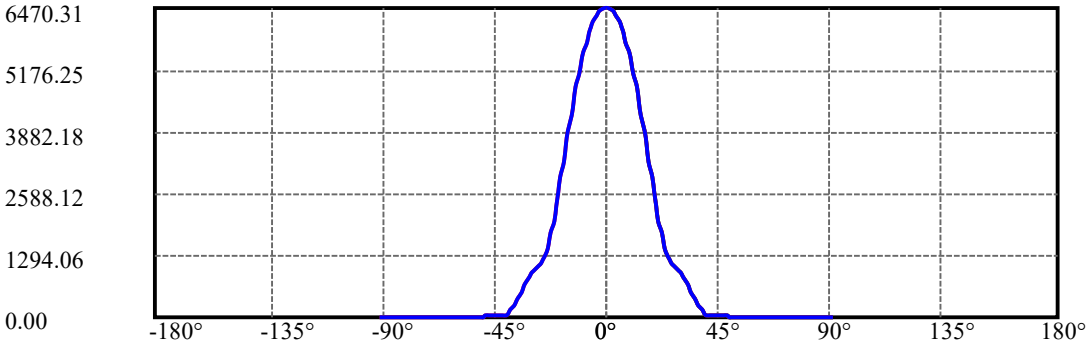
Photometric Results

Lumens(lm): 2572.58, Efficiency(%): 97.12% , Luminous Efficacy(lm/W): 165.54
Central intensity(cd): 6470.307, Maximum intensity(cd): 6470.307
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=34.0
[C90/270]Total=34.0
Field angle(10%Imax): [C0/180]Total=65.8
[C90/270]Total=65.8

Equipment: GMS1980	Date: 2024/12/26	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.65

Light Distribution Curve [Unit:cd]





C0(Max):

C0/C180:

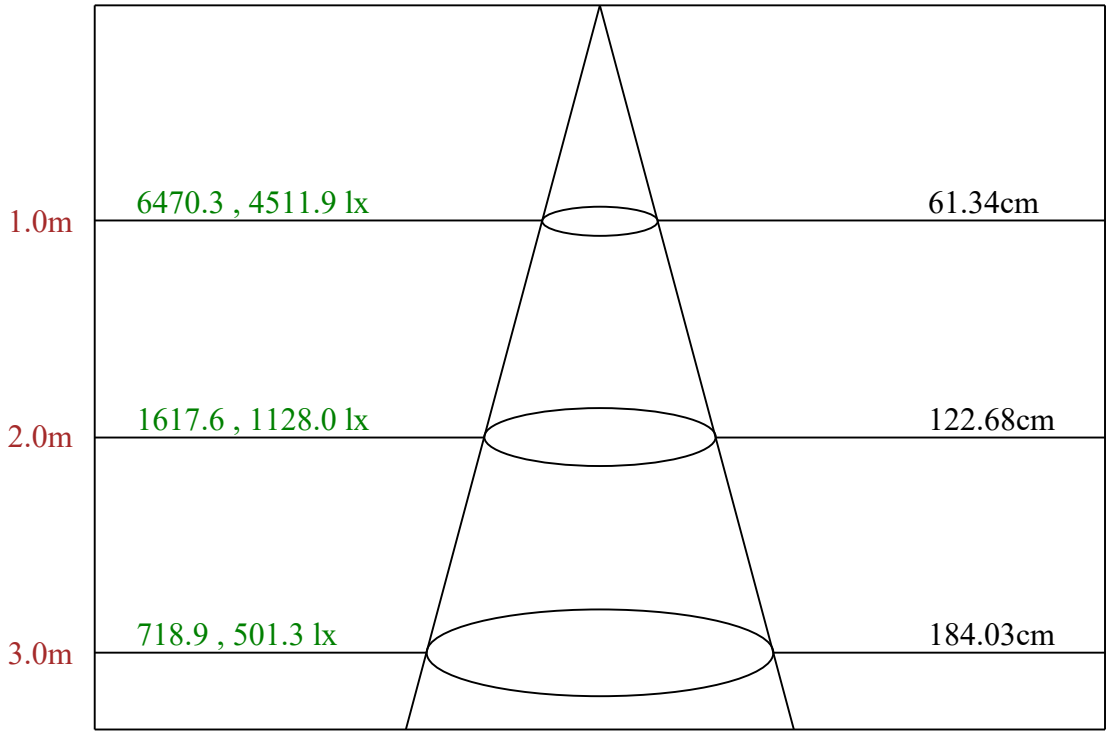
C90/C270:

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2024/12/26
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.65

Lux distance Curve

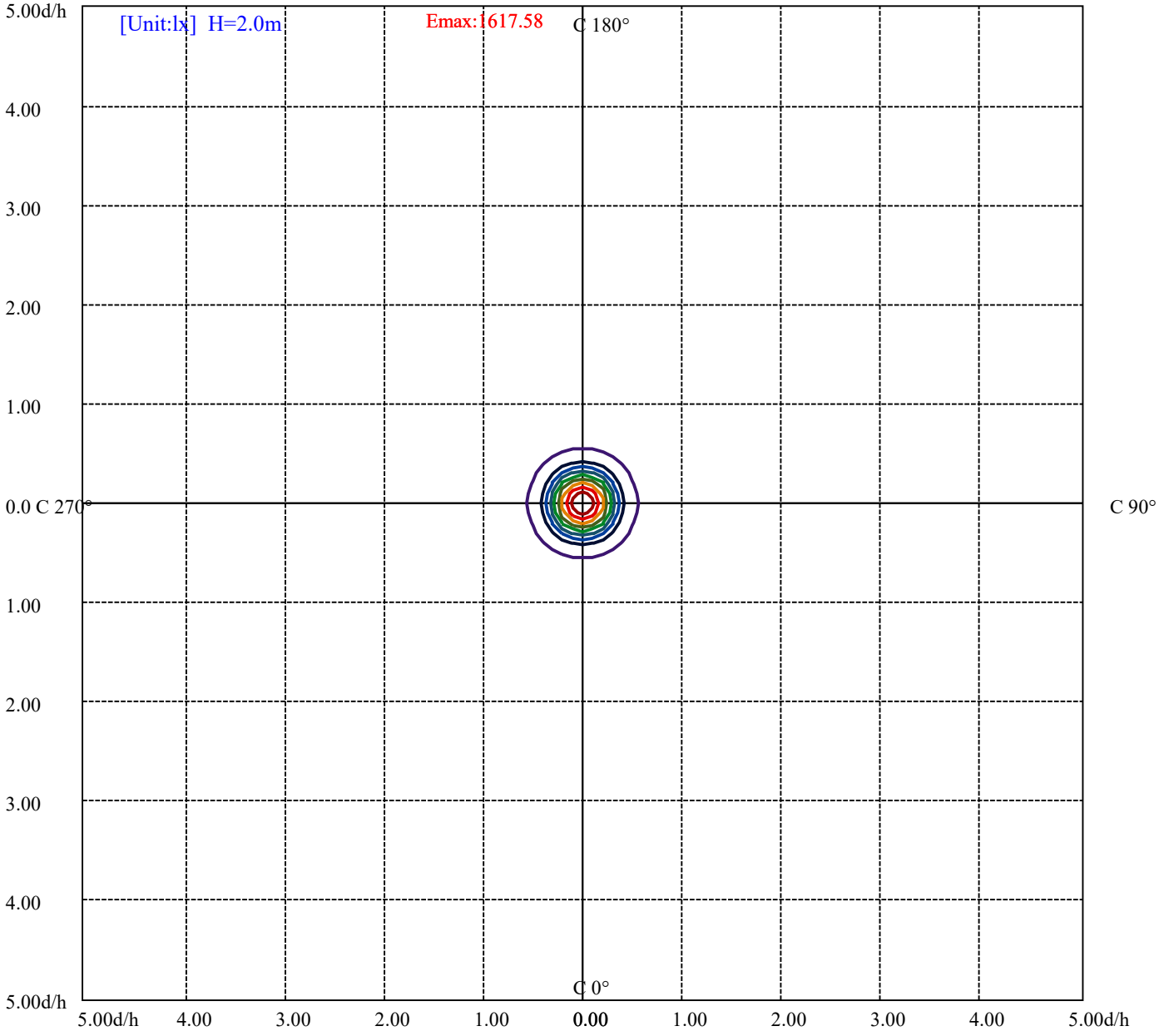


Max , Ave

Beam angle of C0 plane 34.10

NT NT 3-2384-L2

ISO illuminance diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2024/12/26
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.65

NT NT 3-2384-L2

Luminance Limitting Curve(no luminous side)

Luminance Table

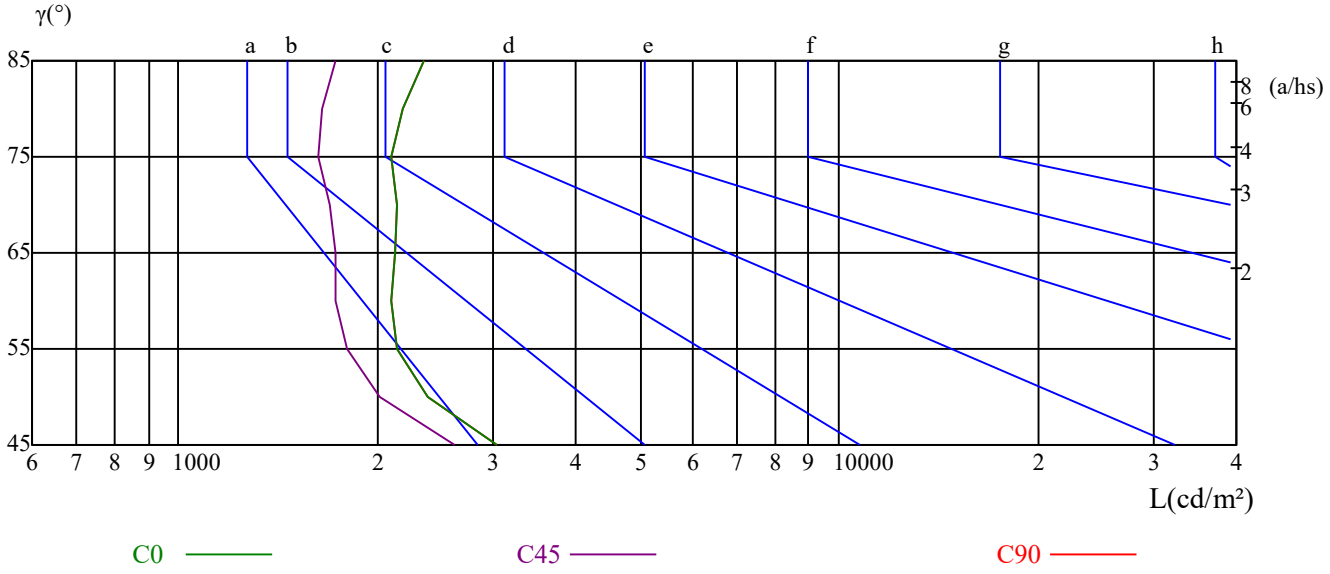
γ	45	50	55	60	65	70	75	80	85
C0	3039	2377	2140	2102	2133	2138	2103	2183	2356
C45	2626	2023	1794	1733	1727	1697	1633	1652	1729
C90	3039	2377	2140	2102	2133	2138	2103	2183	2356

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4931	4931	4931	6905	6905	6905	18831	18831	18831

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

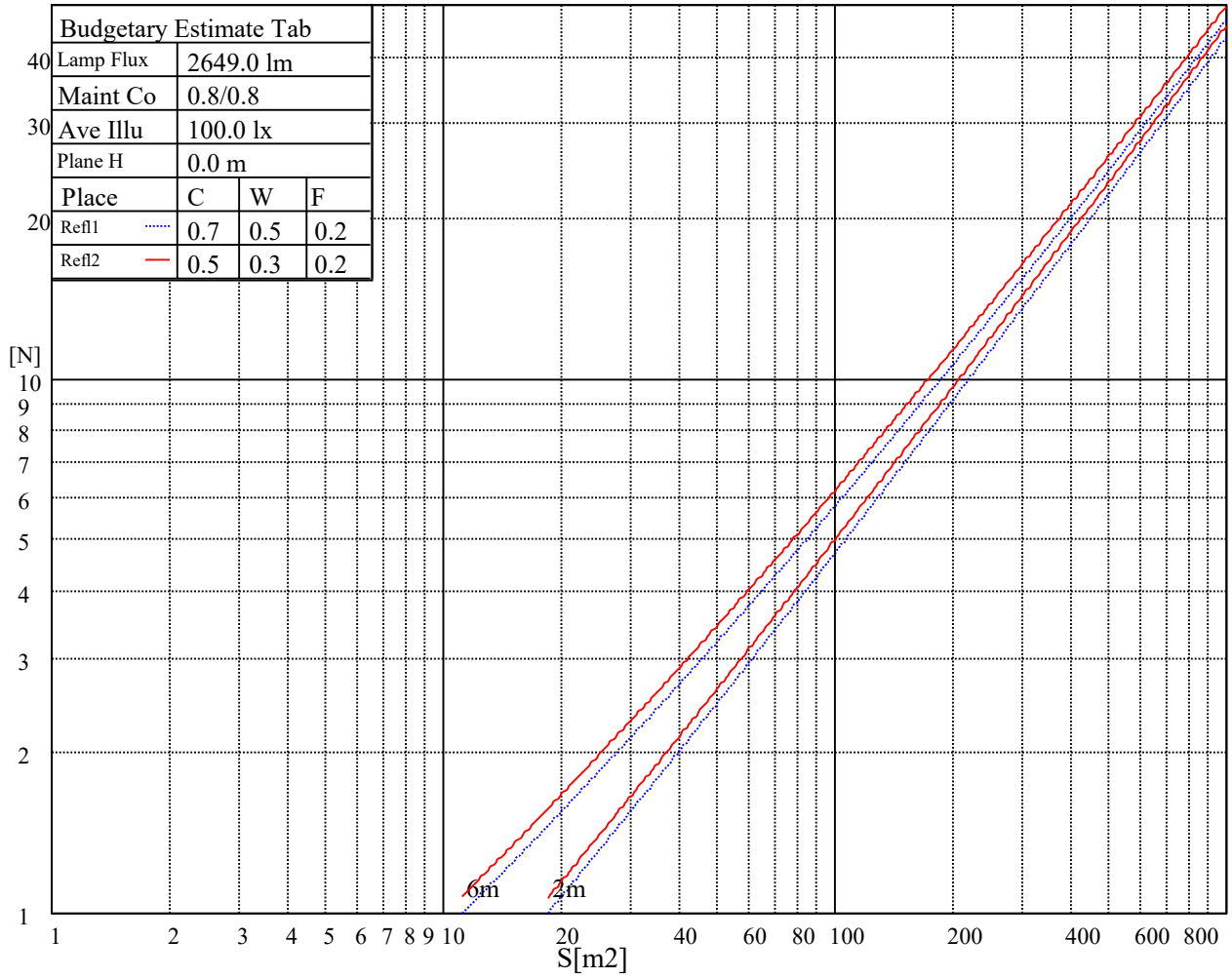


Illumination assessment according UGR											
Rf of Ceiling		70	70	50	50	30	70	70	50	50	30
Rf of Wall		50	30	50	30	30	50	30	50	30	30
Rf of Floor		20	20	20	20	20	20	20	20	20	20
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	14.12	15.04	14.48	15.35	15.67	14.33	15.26	14.69	15.57	15.88
	3H	14.13	14.95	14.52	15.29	15.64	14.32	15.15	14.71	15.49	15.83
	4H	14.19	14.95	14.59	15.31	15.68	14.37	15.14	14.78	15.49	15.86
	6H	14.33	15.03	14.75	15.41	15.81	14.51	15.20	14.92	15.58	15.98
	8H	14.41	15.08	14.84	15.46	15.87	14.58	15.25	15.00	15.63	16.04
	12H	14.53	15.15	14.95	15.55	15.97	14.69	15.31	15.11	15.71	16.13
4H	2H	13.88	14.64	14.28	15.00	15.36	14.09	14.85	14.49	15.20	15.57
	3H	13.95	14.60	14.38	14.99	15.41	14.14	14.78	14.57	15.18	15.60
	4H	14.14	14.69	14.58	15.12	15.57	14.31	14.86	14.75	15.29	15.74
	6H	14.37	14.86	14.84	15.31	15.76	14.52	15.01	14.99	15.46	15.92
	8H	14.56	15.01	15.04	15.47	15.94	14.70	15.15	15.19	15.61	16.09
	12H	14.80	15.22	15.29	15.67	16.19	14.93	15.35	15.42	15.81	16.33
8H	4H	14.08	14.53	14.57	14.99	15.47	14.24	14.69	14.73	15.15	15.63
	6H	14.43	14.80	14.94	15.28	15.79	14.57	14.94	15.08	15.42	15.93
	8H	14.77	15.08	15.31	15.60	16.10	14.90	15.21	15.44	15.73	16.23
	12H	15.15	15.39	15.70	15.91	16.43	15.27	15.51	15.82	16.02	16.55
12H	4H	14.06	14.48	14.55	14.93	15.46	14.22	14.64	14.71	15.09	15.61
	6H	14.50	14.80	15.03	15.33	15.83	14.63	14.94	15.17	15.47	15.96
	8H	14.85	15.08	15.39	15.60	16.13	14.97	15.21	15.52	15.73	16.25

Variation with the observer position at spacings:		
S = 1.0H	5.8/-5.7	5.8/-5.7
S = 1.5H	8.0/-4.4	8.0/-4.4
S = 2.0H	9.4/-3.6	9.4/-3.6
Standard tables:	BK2	BK2
Uncorrected UGR	-3.6	-3.6

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25

Budgetary Estimate Table



Equipment: GMS1980 Date: 2024/12/26 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.65

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	1.16	1.16	1.16	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	1.08	1.06	1.04	1.06	1.04	1.03	1.02	1.01	0.99	0.99	0.98	0.96	0.95	0.95	0.94	0.92
2	1.02	0.99	0.96	1.01	0.97	0.95	0.97	0.95	0.93	0.95	0.93	0.91	0.92	0.90	0.89	0.87
3	0.97	0.93	0.89	0.95	0.92	0.89	0.93	0.90	0.87	0.91	0.88	0.86	0.89	0.86	0.85	0.83
4	0.92	0.87	0.84	0.91	0.87	0.83	0.89	0.85	0.82	0.87	0.84	0.81	0.85	0.83	0.81	0.79
5	0.88	0.83	0.79	0.87	0.82	0.79	0.85	0.81	0.78	0.84	0.80	0.78	0.82	0.79	0.77	0.76
6	0.84	0.79	0.75	0.83	0.78	0.75	0.82	0.78	0.75	0.80	0.77	0.74	0.79	0.76	0.74	0.72
7	0.80	0.75	0.72	0.79	0.75	0.72	0.78	0.74	0.71	0.77	0.74	0.71	0.76	0.73	0.71	0.69
8	0.77	0.72	0.69	0.76	0.72	0.68	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.68	0.67
9	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.72	0.68	0.65	0.71	0.68	0.65	0.64
10	0.71	0.66	0.63	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.63	0.62

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	6468.55	6439.87	6396.57	6331.02	6243.82	6108.64	5988.08	5851.72	5690.20
45.0	6476.74	6478.50	6465.04	6436.95	6374.33	6297.66	6197.59	6075.86	5888.01
90.0	6480.84	6470.89	6442.80	6388.96	6288.30	6179.45	6012.66	5849.38	5663.28
135.0	6455.09	6474.99	6478.50	6463.28	6407.10	6339.80	6237.97	6137.31	6015.59
180.0	6468.55	6483.18	6479.67	6457.43	6397.74	6326.34	6223.93	6112.73	5983.98
225.0	6476.74	6459.77	6412.95	6349.75	6266.06	6126.78	5986.33	5820.12	5623.49
270.0	6480.84	6466.79	6438.70	6388.37	6293.57	6190.57	6067.09	5919.61	5710.68
315.0	6455.09	6404.76	6340.39	6255.53	6149.60	6000.37	5861.67	5711.85	5548.58
360.0	6468.55	6439.87	6396.57	6331.02	6243.82	6108.64	5988.08	5851.72	5690.20

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	5462.55	5261.23	4984.42	4740.38	4481.13	4144.04	3859.62	3563.49	3188.36
45.0	5706.00	5498.25	5264.16	5006.66	4657.86	4367.01	4074.98	3710.97	3425.38
90.0	5450.26	5156.48	4894.88	4619.82	4336.58	3981.34	3692.83	3402.56	3116.38
135.0	5830.66	5652.16	5443.24	5203.29	4859.18	4552.52	4224.21	3880.10	3433.57
180.0	5782.08	5584.86	5357.79	5100.29	4742.72	4424.94	4104.83	3783.54	3342.86
225.0	5343.75	5096.20	4831.68	4557.79	4204.90	3924.58	3642.50	3293.70	3013.97
270.0	5522.24	5315.07	5033.58	4793.05	4477.61	4210.75	3963.20	3706.29	3371.54
315.0	5328.53	5134.24	4868.55	4636.80	4389.83	4060.93	3774.76	3475.71	3079.51
360.0	5462.55	5261.23	4984.42	4740.38	4481.13	4144.04	3859.62	3563.49	3188.36

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2889.31	2586.75	2285.36	1998.02	1680.24	1470.14	1148.04	1148.04	1088.99
45.0	3083.61	2817.33	2555.74	2240.89	2002.70	1788.51	1604.75	1428.59	1321.50
90.0	2775.78	2508.92	2247.91	1945.35	1734.08	1519.30	1388.80	1162.73	1162.73
135.0	3082.44	2740.08	2327.50	2018.50	1678.48	1454.93	1277.60	1128.37	1045.86
180.0	3011.63	2678.63	2267.81	1957.64	1693.70	1423.91	1268.24	1152.95	1050.54
225.0	2674.54	2409.43	2154.86	1917.84	1667.95	1509.94	1382.95	1152.78	1152.78
270.0	3113.46	2848.93	2579.15	2247.91	2004.45	1787.34	1564.95	1426.25	1317.99
315.0	2760.56	2441.62	2131.45	1845.27	1539.20	1153.01	1153.01	1107.25	1017.18
360.0	2889.31	2586.75	2285.36	1998.02	1680.24	1470.14	1148.04	1148.04	1088.99

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1022.74	959.01	918.74	870.87	779.87	690.04	593.30	467.83	367.17
45.0	1231.37	1152.95	1071.02	1015.42	952.80	849.22	754.41	626.25	520.91
90.0	1111.52	1052.41	1001.96	921.38	833.13	732.64	624.38	485.39	375.42
135.0	984.99	937.59	893.11	862.68	819.96	756.75	653.75	560.70	459.46
180.0	989.09	940.52	901.31	855.07	794.79	713.45	622.15	504.52	410.30
225.0	1100.98	1039.01	982.18	885.33	790.64	688.17	557.43	455.19	355.88
270.0	1212.06	1137.74	1075.70	1001.96	928.23	834.00	702.91	592.89	481.70
315.0	963.05	920.38	874.03	823.94	734.11	645.03	545.66	416.27	313.80
360.0	1022.74	959.01	918.74	870.87	779.87	690.04	593.30	467.83	367.17

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	270.73	183.41	93.75	50.62	35.05	31.66	28.09	25.87	23.70
45.0	417.32	318.42	295.01	190.72	84.51	64.32	55.07	49.16	44.18
90.0	273.07	184.58	100.01	63.32	47.11	41.90	37.57	33.01	30.14
135.0	330.13	304.96	304.96	68.65	37.28	26.74	23.58	21.77	20.37
180.0	316.08	316.08	124.30	56.42	33.12	27.39	23.82	22.06	20.66
225.0	242.40	164.27	102.18	59.52	48.98	42.55	37.57	32.01	28.68
270.0	374.02	297.94	297.94	97.67	61.80	45.30	39.27	34.70	29.67
315.0	220.92	141.33	68.88	37.75	27.92	24.64	21.89	19.90	18.79
360.0	270.73	183.41	93.75	50.62	35.05	31.66	28.09	25.87	23.70

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	22.53	21.48	20.42	19.72	19.14	18.43	18.08	17.67	17.44
45.0	39.80	35.70	33.12	31.25	28.85	27.10	25.22	23.99	23.06
90.0	27.92	25.87	23.82	22.41	21.30	20.37	19.37	18.79	18.26
135.0	19.31	18.38	17.67	17.15	16.74	16.21	15.86	15.51	15.22
180.0	19.72	18.73	17.97	17.44	16.91	16.50	15.98	15.68	15.27
225.0	25.93	23.94	22.06	20.78	19.49	18.67	17.97	17.32	16.91
270.0	27.21	24.93	23.35	22.06	20.95	19.84	19.08	18.49	17.97
315.0	17.79	17.21	16.68	16.15	15.86	15.57	15.27	15.10	14.92
360.0	22.53	21.48	20.42	19.72	19.14	18.43	18.08	17.67	17.44

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	17.15	16.85	16.68	16.50	16.39	16.33	16.21	16.09	16.04
45.0	22.06	21.24	20.60	20.01	19.43	19.14	18.73	18.38	18.02
90.0	17.67	17.26	16.91	16.56	16.39	16.21	15.98	15.92	15.86
135.0	14.98	14.75	14.46	14.34	14.16	14.05	13.93	13.87	13.81
180.0	15.04	14.81	14.57	14.46	14.34	14.22	14.05	13.99	13.87
225.0	16.50	16.21	15.98	15.86	15.80	15.68	15.63	15.57	15.51
270.0	17.50	17.15	16.85	16.62	16.39	16.21	16.04	15.86	15.80
315.0	14.81	14.69	14.63	14.63	14.57	14.63	14.57	14.63	14.69
360.0	17.15	16.85	16.68	16.50	16.39	16.33	16.21	16.09	16.04

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	15.92	15.80	15.57	15.39	15.16	14.98	14.69	14.46	14.16
45.0	17.67	17.50	17.15	16.80	16.44	16.04	15.68	15.39	14.92
90.0	15.68	15.51	15.33	15.22	15.04	14.86	14.63	14.28	13.99
135.0	13.75	13.69	13.64	13.64	13.52	13.46	13.40	13.40	13.28
180.0	13.87	13.81	13.75	13.69	13.58	13.52	13.46	13.40	13.23
225.0	15.51	15.39	15.10	14.98	14.86	14.63	14.34	14.10	13.87
270.0	15.63	15.51	15.39	15.22	15.04	14.86	14.69	14.40	14.16
315.0	14.69	14.63	14.51	14.40	14.28	14.16	14.05	13.87	13.69
360.0	15.92	15.80	15.57	15.39	15.16	14.98	14.69	14.46	14.16

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	13.87	13.64	13.28	12.99	12.76	12.58	12.47	12.35	12.23
45.0	14.51	14.10	13.69	13.34	12.99	12.70	12.52	12.47	12.35
90.0	13.69	13.40	13.17	12.87	12.70	12.52	12.47	12.41	12.35
135.0	13.17	12.99	12.87	12.70	12.58	12.41	12.29	12.23	12.11
180.0	13.05	12.99	12.82	12.64	12.47	12.35	12.29	12.23	12.11
225.0	13.46	13.28	13.11	12.87	12.64	12.58	12.47	12.41	12.35
270.0	13.87	13.58	13.34	13.11	12.87	12.64	12.52	12.41	12.29
315.0	13.40	13.17	12.99	12.76	12.52	12.35	12.29	12.17	12.11
360.0	13.87	13.64	13.28	12.99	12.76	12.58	12.47	12.35	12.23

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	12.17	12.06	12.06	11.94	11.88	11.82	11.76	11.70	11.59
45.0	12.29	12.23	12.11	12.00	11.94	11.88	11.70	11.65	11.59
90.0	12.23	12.17	12.06	12.00	11.88	11.76	11.70	11.59	11.53
135.0	12.06	11.94	11.88	11.88	11.76	11.70	11.65	11.65	11.53
180.0	12.06	12.00	11.94	11.82	11.82	11.70	11.65	11.59	11.47
225.0	12.35	12.23	12.17	12.06	11.94	11.82	11.70	11.70	11.41
270.0	12.23	12.11	12.00	11.94	11.82	11.76	11.70	11.65	11.47
315.0	12.00	12.00	11.94	11.88	11.82	11.76	11.70	11.65	11.41
360.0	12.17	12.06	12.06	11.94	11.88	11.82	11.76	11.70	11.59

Intensity data(cd)

C/γ(°)	90.0
0.0	11.53
45.0	11.41
90.0	11.47
135.0	11.41
180.0	11.41
225.0	11.41
270.0	11.41
315.0	11.41
360.0	11.53