NATA LIGHTING CO.,LTD
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Address:380JinOu Road,Gaoxin Zone,Jiang Men City,Guangdong,China

Nata

Client: NT
LumCAT: 1-1706-LM
Luminaire: 92.70.121.00
Report No: 20251209-B026
Ballast type: DC

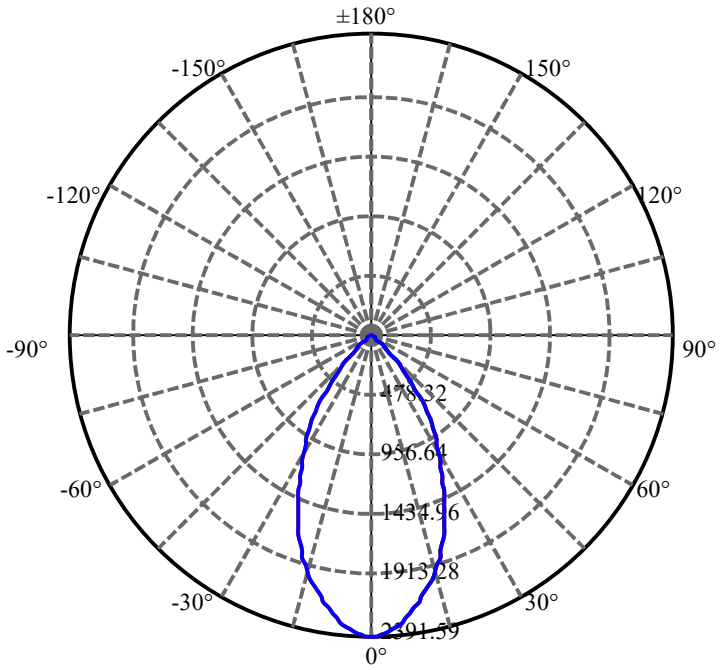
Test No: 20251209-C026	Voltage(V): 34.500
LampCAT: LUMINUS CXM-11(TC) GEN6 LES11	Current(A): 0.451
Lamp flux(lm): 2158.5	Power (W): 15.550
Number of Lamps: 1	PF: 0.000
Length(mm): 50	Width(mm): 50
Phm Type: C	Height(mm): 22

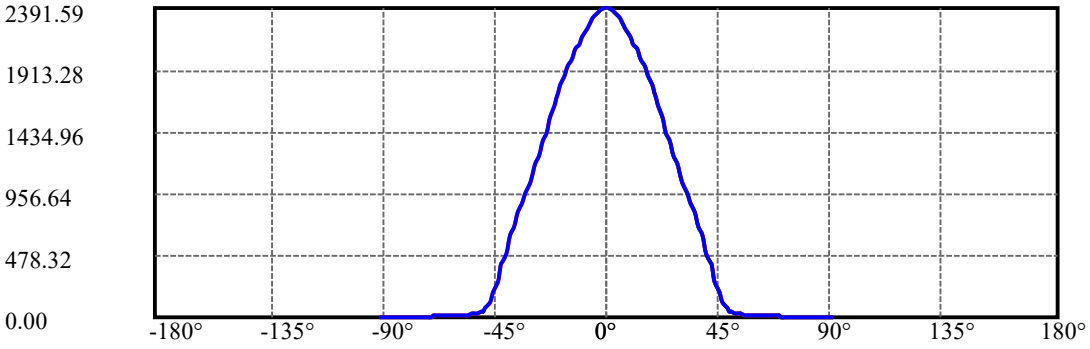
Photometric Results

Lumens(lm): 2088.07, Efficiency(%): 96.74% , Luminous Efficacy(lm/W): 134.28
Central intensity(cd): 2391.594, Maximum intensity(cd): 2391.594
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=55.6
[C90/270]Total=55.6
Field angle(10%Imax): [C0/180]Total=88.4
[C90/270]Total=88.4
Maximum s/h(1/2): C0_180=0.83 C90_270=0.83
Maximum s/h(1/4): C0_180=0.88 C90_270=0.88
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 96.74%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 99.020%

Equipment: GMS1980	Date: 2025/12/9	Operator: YZQ
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 9.28

Light Distribution Curve [Unit:cd]





C0(Max):

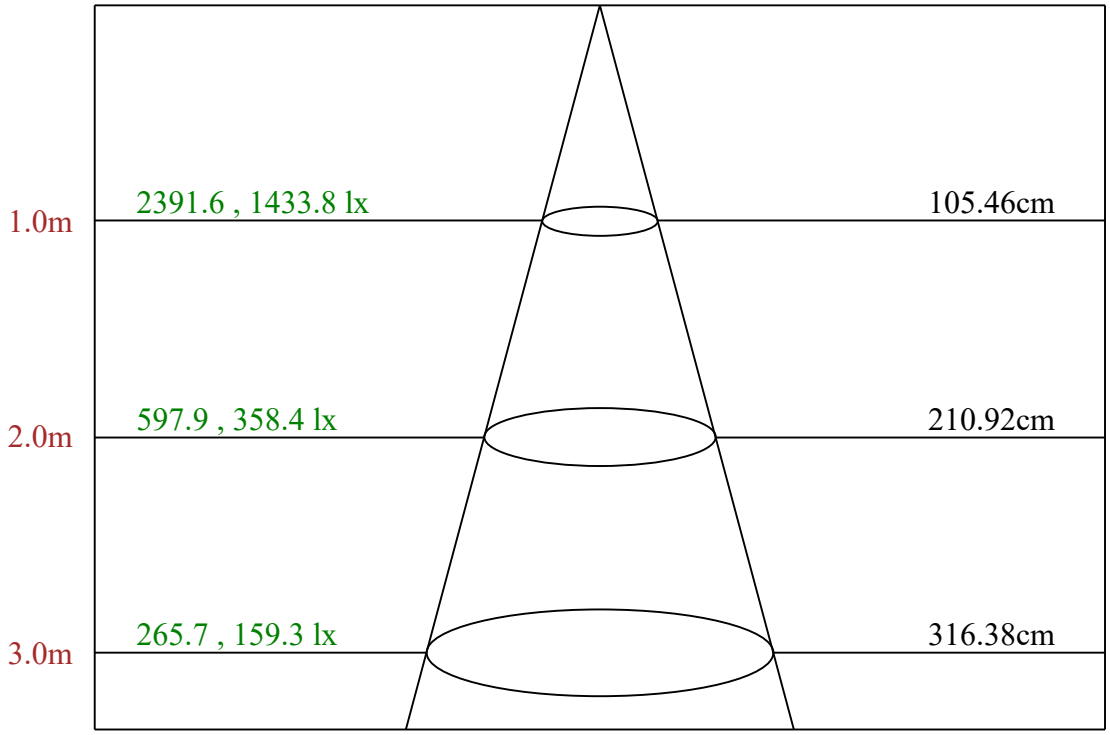
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:44.2 Right:44.2
:C90/270Left:44.2 Right:44.2

Beam Angle(50%Imax):C0/180Left:27.8 Right:27.8
:C90/270Left:27.8 Right:27.8

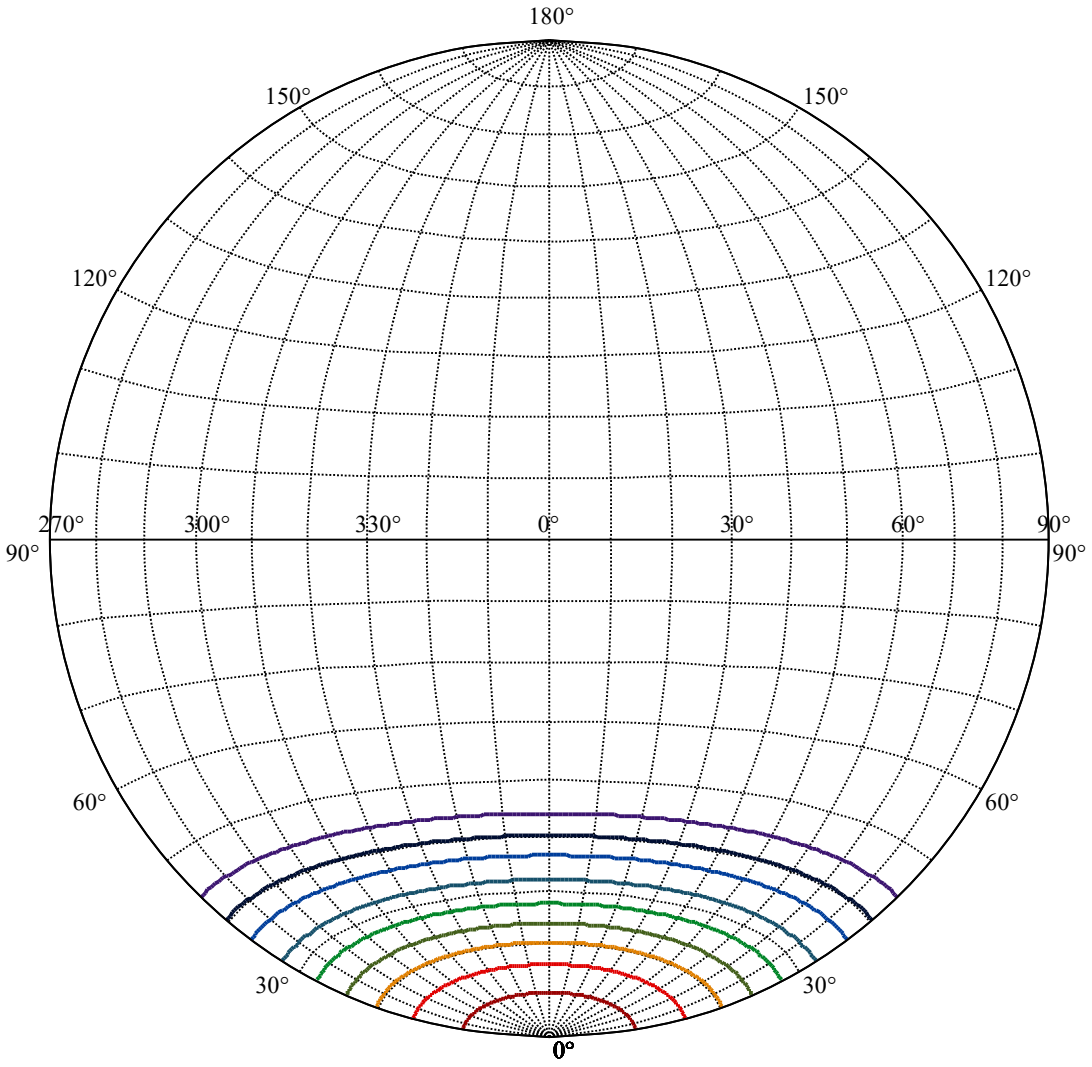
Lux distance Curve



Max , Ave

Beam angle of C0 plane 55.61

ISO candela diagram on circular web



House [Unit:cd] Road

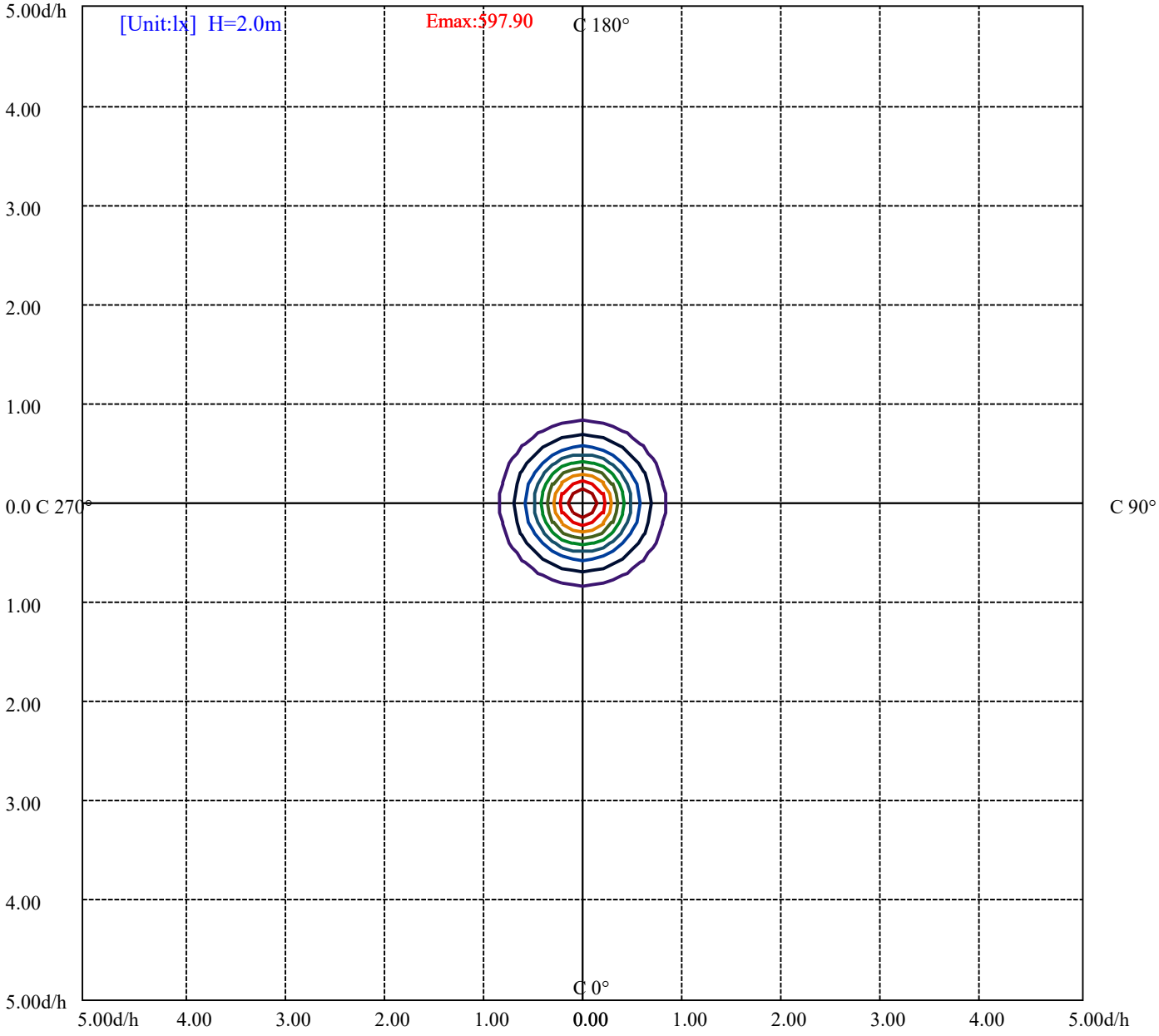
Imax:2391.59

(10%Imax) 239.159
(20%Imax) 478.319
(30%Imax) 717.478
(40%Imax) 956.638
(50%Imax) 1195.8
(60%Imax) 1434.96
(70%Imax) 1674.12
(80%Imax) 1913.28
(90%Imax) 2152.43

Equipment: GMS1980 Date: 2025/12/9 Operator: YZQ
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 9.28

NT Nata 1-1706-LM

ISO illuminance diagram

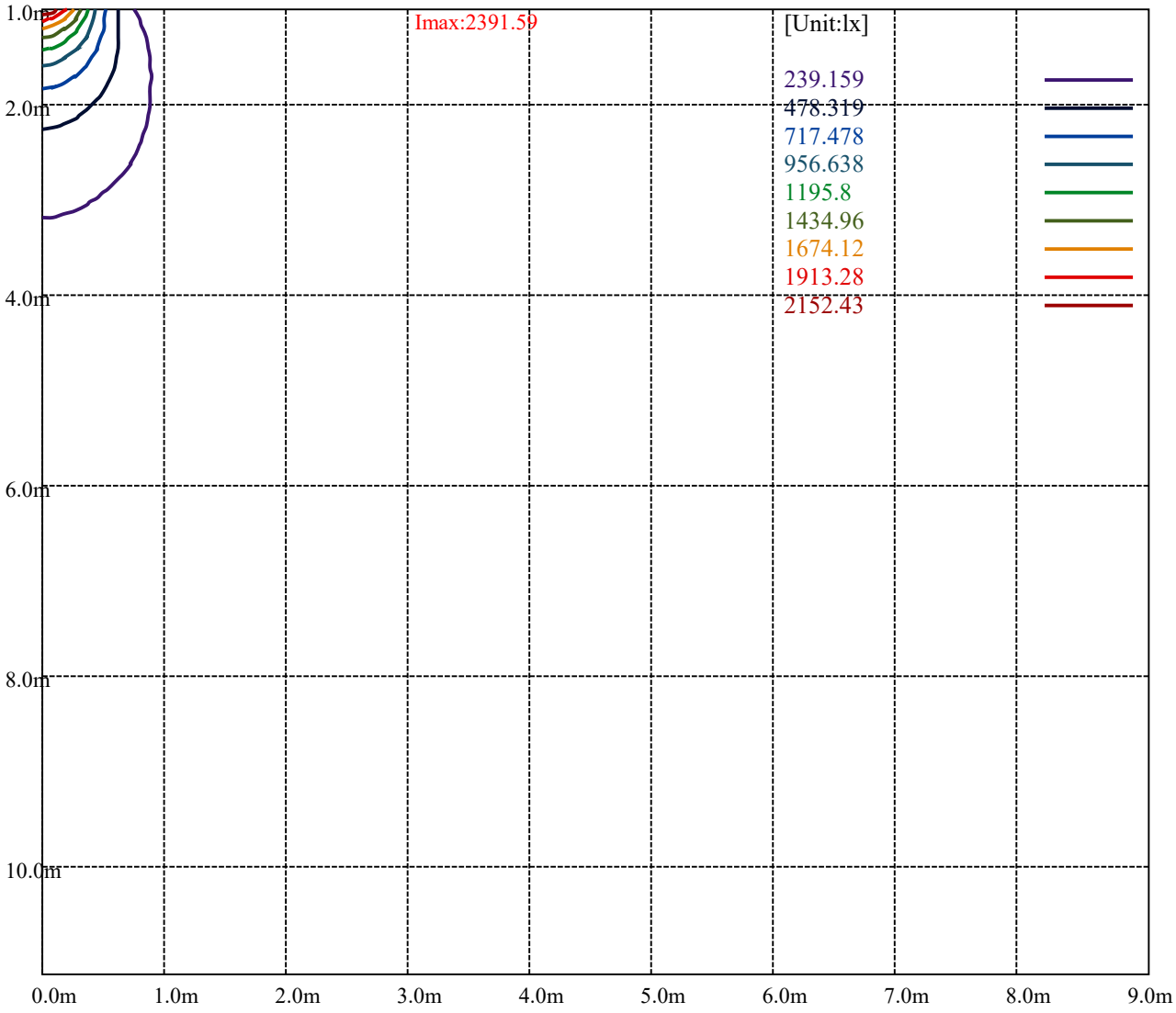


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2025/12/9
Humidity(%): 60.0%

Operator: YZQ
Distance(m): 9.28

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2025/12/9
Humidity(%): 60.0%

Operator: YZQ
Distance(m): 9.28

NT Nata 1-1706-LM

Luminance Limitting Curve(no luminous side)

Luminance Table

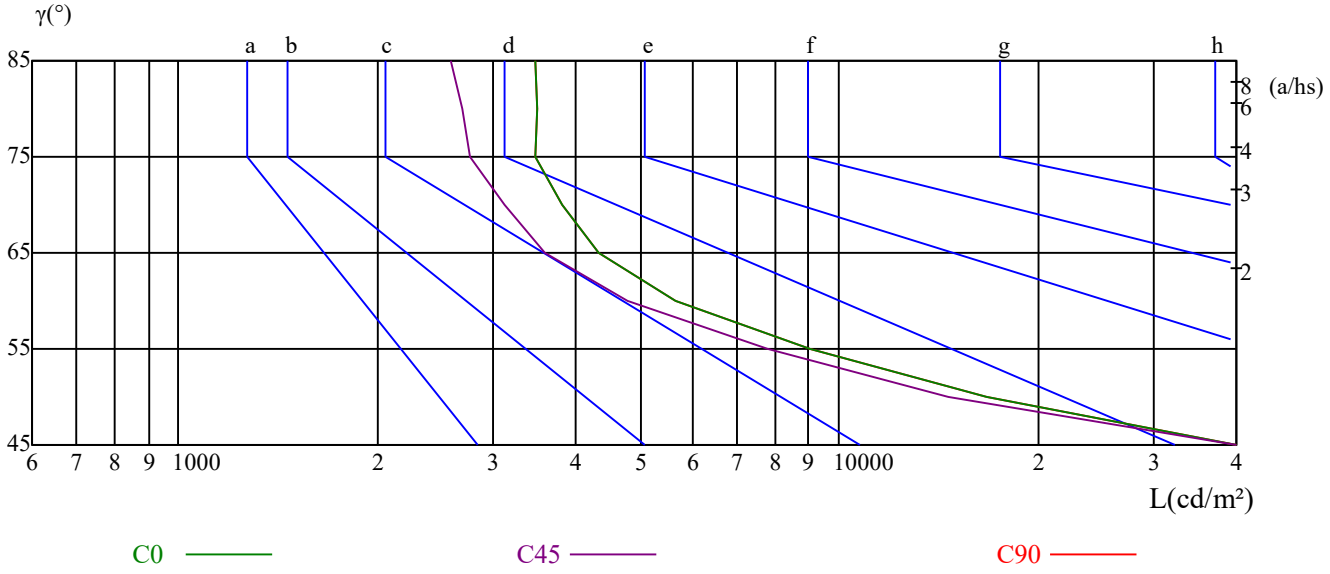
γ	45	50	55	60	65	70	75	80	85
C0	73704	16690	9050	5659	4320	3819	3476	3483	3466
C45	65424	14609	7803	4800	3596	3113	2764	2688	2576
C90	73704	16690	9050	5659	4320	3819	3476	3483	3466

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
8395	8395	8395	9184	9184	9184	20898	20898	20898

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: 2025/12/9
Humidity(%): 60.0%

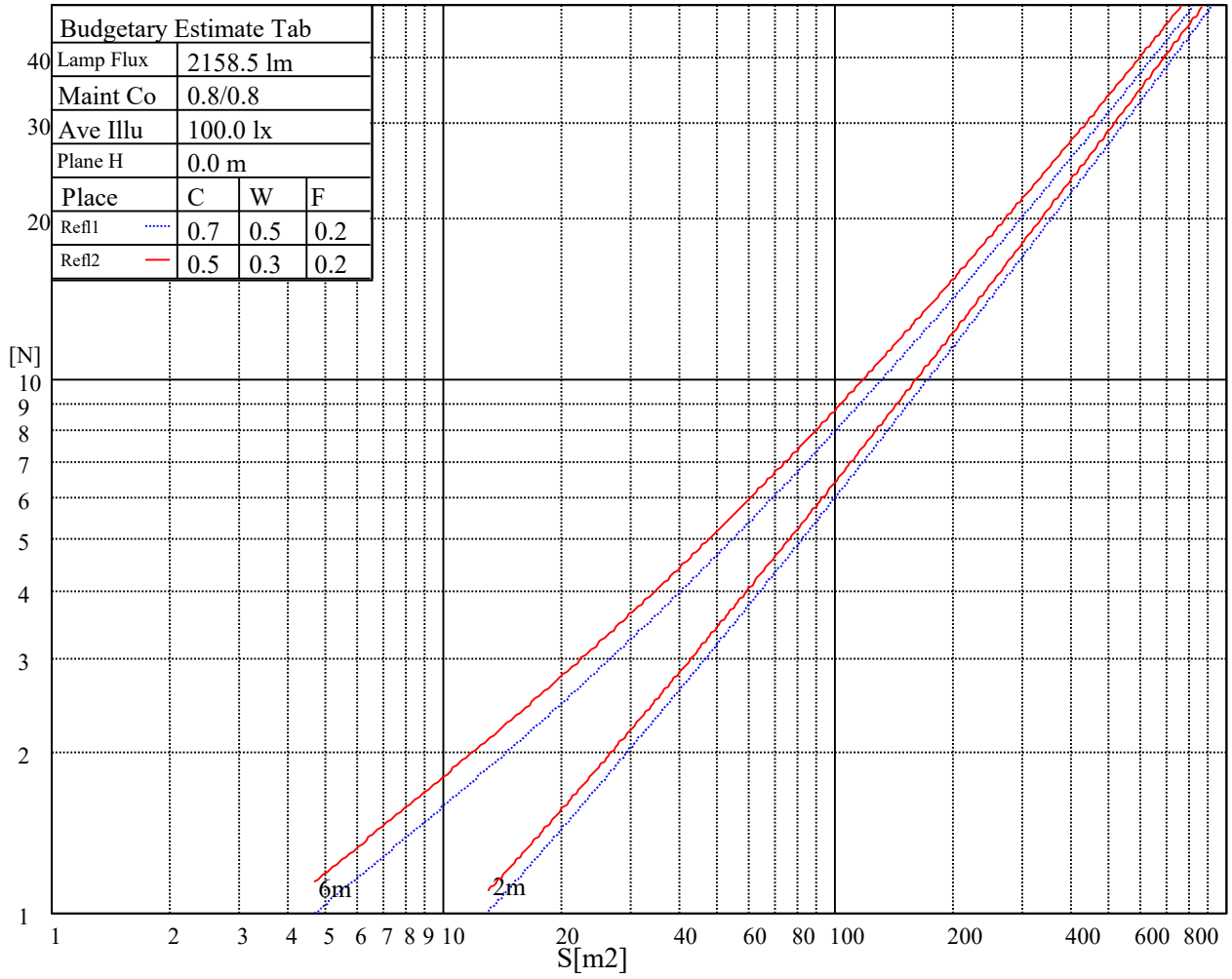
Operator: YZQ
Distance(m): 9.28

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	24.28	25.29	24.64	25.60	25.92	23.81	24.83	24.18	25.14	25.45
	3H	24.09	24.99	24.48	25.33	25.67	23.63	24.53	24.02	24.86	25.21
	4H	24.00	24.83	24.40	25.18	25.55	23.54	24.37	23.94	24.72	25.09
	6H	23.92	24.68	24.34	25.06	25.46	23.46	24.22	23.88	24.60	25.00
	8H	23.86	24.58	24.28	24.97	25.37	23.40	24.12	23.82	24.51	24.91
	12H	23.80	24.48	24.22	24.88	25.29	23.34	24.02	23.76	24.42	24.83
4H	2H	23.99	24.82	24.39	25.17	25.54	23.52	24.35	23.92	24.71	25.08
	3H	23.77	24.46	24.20	24.86	25.27	23.31	24.00	23.74	24.39	24.81
	4H	23.71	24.30	24.15	24.73	25.18	23.25	23.85	23.69	24.27	24.72
	6H	23.59	24.11	24.06	24.57	25.02	23.13	23.66	23.61	24.11	24.56
	8H	23.54	24.03	24.03	24.49	24.96	23.09	23.58	23.57	24.03	24.51
	12H	23.51	23.96	24.00	24.41	24.93	23.05	23.50	23.54	23.96	24.48
8H	4H	23.52	24.00	24.00	24.46	24.93	23.06	23.54	23.54	24.00	24.48
	6H	23.39	23.79	23.89	24.27	24.78	22.93	23.33	23.44	23.81	24.33
	8H	23.39	23.73	23.93	24.25	24.75	22.94	23.28	23.47	23.80	24.30
	12H	23.36	23.63	23.91	24.14	24.67	22.92	23.18	23.46	23.70	24.22
12H	4H	23.46	23.91	23.95	24.37	24.89	23.01	23.46	23.50	23.91	24.43
	6H	23.38	23.71	23.91	24.23	24.73	22.92	23.26	23.45	23.78	24.28
	8H	23.34	23.61	23.89	24.13	24.65	22.89	23.16	23.44	23.68	24.20

Variation with the observer position at spacings:		
S = 1.0H	3.8/-12.0	3.8/-12.0
S = 1.5H	6.5/-12.2	6.5/-12.2
S = 2.0H	8.5/-11.5	8.5/-11.5
Standard tables:	BK0	BK0
Uncorrected UGR	4.4	4.4

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

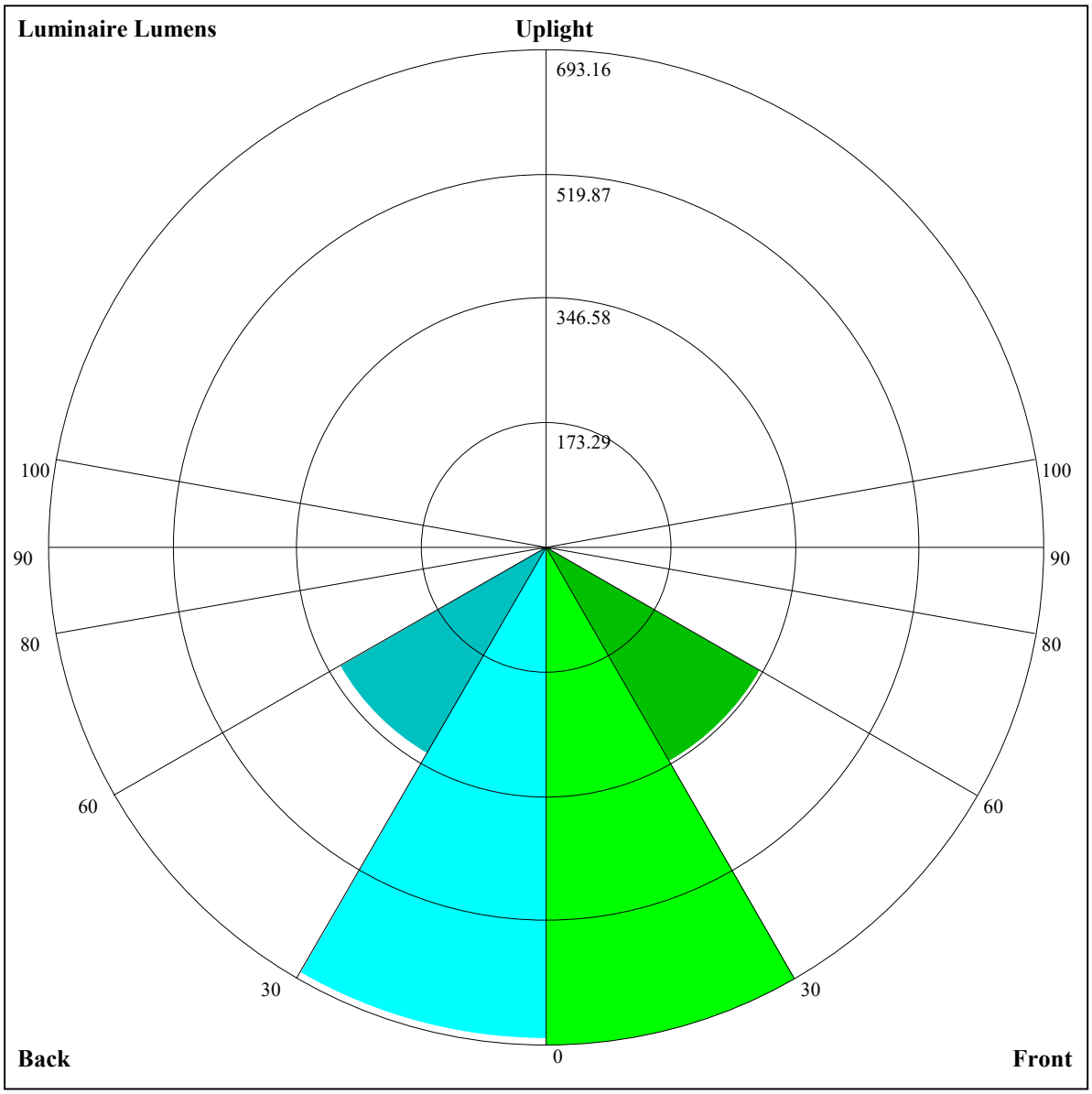
Budgetary Estimate Table



Equipment: GMS1980 Date: 2025/12/9 Operator: YZQ
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 9.28

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	1.12	1.12	1.12	1.07	1.07	1.07	1.03	1.03	1.03	0.99	0.99	0.99	0.97
1	1.07	1.04	1.02	1.05	1.02	1.00	1.01	0.99	0.97	0.97	0.96	0.94	0.94	0.93	0.92	0.90
2	0.99	0.95	0.92	0.97	0.94	0.91	0.94	0.91	0.89	0.91	0.89	0.87	0.89	0.87	0.85	0.83
3	0.92	0.87	0.83	0.91	0.86	0.83	0.88	0.84	0.81	0.86	0.83	0.80	0.84	0.81	0.79	0.77
4	0.86	0.80	0.76	0.85	0.80	0.76	0.83	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.72
5	0.80	0.74	0.70	0.79	0.74	0.70	0.78	0.73	0.69	0.76	0.72	0.69	0.74	0.71	0.68	0.66
6	0.75	0.69	0.65	0.74	0.69	0.65	0.73	0.68	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.62
7	0.70	0.64	0.60	0.70	0.64	0.60	0.68	0.63	0.60	0.67	0.63	0.59	0.66	0.62	0.59	0.58
8	0.66	0.60	0.56	0.66	0.60	0.56	0.65	0.59	0.56	0.64	0.59	0.56	0.63	0.58	0.55	0.54
9	0.62	0.56	0.53	0.62	0.56	0.52	0.61	0.56	0.52	0.60	0.55	0.52	0.59	0.55	0.52	0.51
10	0.59	0.53	0.49	0.58	0.53	0.49	0.58	0.53	0.49	0.57	0.52	0.49	0.56	0.52	0.49	0.47



Luminaire Lumens:
FL=693.16,FM=345.05,FH=7.73,FVH=2.46
BL=684.74,BM=332.14,BH=7.65,BVH=2.46
UL=0,UH=0

BUG Rating:B2-U0-G0

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	2399.34	2398.48	2393.32	2383.84	2368.34	2341.65	2314.95	2282.22	2253.80
45.0	2386.43	2395.04	2395.90	2390.73	2381.26	2365.76	2347.67	2324.42	2293.42
90.0	2390.73	2389.01	2381.26	2361.45	2340.78	2318.39	2284.81	2255.53	2223.66
135.0	2389.87	2391.59	2384.70	2370.93	2353.70	2330.45	2305.48	2271.03	2242.61
180.0	2399.34	2392.46	2378.68	2362.31	2335.62	2310.64	2284.81	2247.78	2216.77
225.0	2386.43	2373.51	2351.98	2329.59	2302.89	2276.20	2238.30	2204.72	2171.13
270.0	2390.73	2386.43	2376.09	2360.59	2334.76	2309.78	2281.36	2249.50	2215.05
315.0	2389.87	2381.26	2364.04	2347.67	2325.28	2293.42	2263.28	2229.69	2187.49
360.0	2399.34	2398.48	2393.32	2383.84	2368.34	2341.65	2314.95	2282.22	2253.80

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2222.80	2182.33	2146.16	2111.71	2076.40	2030.76	1992.00	1954.97	1913.64
45.0	2262.42	2229.69	2198.69	2155.63	2116.88	2079.85	2040.23	1987.70	1944.64
90.0	2190.94	2146.16	2109.13	2074.68	2024.73	1979.95	1936.89	1889.52	1831.82
135.0	2202.13	2171.99	2140.13	2097.93	2062.62	2025.59	1990.28	1943.78	1904.16
180.0	2186.63	2140.99	2108.26	2062.62	2027.31	1991.14	1953.25	1904.16	1861.97
225.0	2133.24	2085.87	2047.98	2000.62	1958.42	1917.08	1864.55	1797.38	1709.11
270.0	2171.99	2134.96	2096.21	2047.98	2006.64	1955.83	1915.36	1872.30	1817.18
315.0	2155.63	2122.04	2077.26	2043.68	2007.51	1960.14	1923.11	1881.77	1836.99
360.0	2222.80	2182.33	2146.16	2111.71	2076.40	2030.76	1992.00	1954.97	1913.64

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1860.24	1707.64	1707.64	1692.48	1613.51	1551.51	1477.36	1417.94	1361.53
45.0	1900.72	1840.44	1784.46	1728.48	1651.84	1591.55	1517.49	1457.21	1398.65
90.0	1710.57	1710.57	1651.58	1589.49	1508.97	1444.89	1383.15	1321.06	1241.66
135.0	1863.69	1819.77	1757.76	1701.79	1639.78	1559.69	1496.82	1433.10	1354.73
180.0	1817.18	1767.24	1715.56	1641.50	1580.36	1518.35	1444.29	1386.59	1315.11
225.0	1709.11	1638.32	1577.00	1517.41	1459.79	1393.31	1342.84	1292.64	1233.65
270.0	1768.10	1717.29	1663.03	1588.11	1524.38	1464.96	1404.68	1330.62	1274.64
315.0	1714.10	1714.10	1653.13	1589.92	1508.36	1444.12	1383.15	1306.24	1243.21
360.0	1860.24	1707.64	1707.64	1692.48	1613.51	1551.51	1477.36	1417.94	1361.53

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1290.05	1234.68	1179.82	1112.82	1060.72	1011.81	965.13	908.72	858.86
45.0	1346.12	1277.22	1224.69	1176.46	1127.38	1068.82	1026.62	987.00	943.94
90.0	1180.68	1122.12	1068.38	1015.59	952.90	907.69	851.97	809.77	763.53
135.0	1291.86	1214.36	1158.38	1104.12	1049.01	994.75	931.89	887.11	842.32
180.0	1260.00	1206.60	1140.29	1088.62	1038.67	992.17	933.61	887.11	835.43
225.0	1188.26	1141.67	1088.11	1045.31	1004.31	953.24	908.38	855.33	781.96
270.0	1217.80	1150.63	1097.23	1044.70	982.70	934.47	889.69	838.02	792.38
315.0	1169.57	1110.76	1053.66	1000.70	938.69	893.65	852.23	810.72	748.46
360.0	1290.05	1234.68	1179.82	1112.82	1060.72	1011.81	965.13	908.72	858.86

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	801.93	741.13	661.30	595.42	531.18	451.78	389.43	314.85	256.89
45.0	885.38	835.43	777.74	696.78	629.61	549.52	484.93	434.12	434.12
90.0	696.70	635.90	575.87	497.85	441.10	382.28	327.08	260.94	210.90
135.0	785.49	710.56	650.28	586.55	506.46	444.46	444.46	310.80	256.29
180.0	777.74	696.78	627.89	565.88	487.52	441.01	441.01	281.52	228.73
225.0	719.26	656.48	591.29	511.54	447.39	386.76	326.82	255.51	203.33
270.0	737.26	678.70	607.22	546.94	488.38	443.60	443.60	294.96	243.80
315.0	693.77	637.19	578.63	504.91	446.27	373.06	316.74	260.77	196.52
360.0	801.93	741.13	661.30	595.42	531.18	451.78	389.43	314.85	256.89

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	203.15	153.64	100.84	69.24	48.74	40.13	35.48	32.04	28.42
45.0	275.23	219.77	166.98	121.17	79.14	60.54	52.45	46.33	41.60
90.0	164.92	113.50	80.43	56.06	43.66	37.03	33.24	29.71	25.40
135.0	191.18	143.73	102.31	67.43	40.30	31.69	28.59	25.84	22.48
180.0	178.27	122.63	85.69	60.02	45.73	39.27	35.57	31.86	28.07
225.0	144.94	106.53	78.45	61.14	55.55	50.55	45.47	39.44	34.79
270.0	194.63	140.80	103.26	66.14	47.97	39.18	33.76	29.80	26.01
315.0	148.64	106.70	71.22	41.34	31.86	28.68	26.01	22.56	19.81
360.0	203.15	153.64	100.84	69.24	48.74	40.13	35.48	32.04	28.42

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	25.06	21.19	18.43	15.76	14.47	13.61	12.57	11.88	11.11
45.0	37.12	31.17	27.04	22.82	20.07	18.08	16.71	15.50	14.12
90.0	21.96	19.20	16.28	14.55	13.35	12.40	11.71	10.94	10.33
135.0	19.72	17.05	14.64	12.40	11.20	10.51	9.90	9.30	8.96
180.0	23.77	20.67	18.17	15.76	14.81	13.52	12.57	11.63	10.59
225.0	30.66	26.96	23.42	21.53	19.89	18.00	16.45	14.98	13.43
270.0	21.62	18.60	15.93	13.78	12.31	11.28	10.42	9.73	9.04
315.0	17.22	14.21	12.40	11.20	10.51	9.99	9.39	8.96	8.61
360.0	25.06	21.19	18.43	15.76	14.47	13.61	12.57	11.88	11.11

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	10.51	9.65	9.21	8.78	8.35	7.92	7.58	7.41	7.06
45.0	12.83	11.88	10.85	9.99	9.39	8.96	8.53	8.10	7.66
90.0	9.65	9.21	8.70	8.44	8.01	7.75	7.41	7.23	7.06
135.0	8.44	8.01	7.75	7.32	7.15	6.98	6.89	6.72	6.54
180.0	9.82	9.30	8.96	8.44	8.18	7.84	7.58	7.32	7.15
225.0	12.31	11.20	10.25	9.73	9.30	8.61	8.10	7.58	7.06
270.0	8.53	7.92	7.66	7.32	7.06	6.89	6.72	6.54	6.37
315.0	8.27	7.84	7.58	7.41	7.15	7.06	6.80	6.80	6.63
360.0	10.51	9.65	9.21	8.78	8.35	7.92	7.58	7.41	7.06

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	6.80	6.37	6.11	6.03	5.86	5.77	5.68	5.51	5.34
45.0	7.32	6.80	6.37	6.11	6.03	5.86	5.68	5.60	5.43
90.0	6.54	6.29	6.11	6.03	5.77	5.60	5.51	5.43	5.25
135.0	6.46	6.20	5.94	5.77	5.77	5.60	5.43	5.43	5.25
180.0	6.80	6.29	6.20	6.11	5.94	5.86	5.77	5.60	5.51
225.0	6.63	6.37	6.20	6.03	5.86	5.68	5.51	5.43	5.25
270.0	6.20	6.03	5.86	5.68	5.60	5.43	5.34	5.17	5.08
315.0	6.37	6.11	5.86	5.77	5.60	5.51	5.43	5.34	5.17
360.0	6.80	6.37	6.11	6.03	5.86	5.77	5.68	5.51	5.34

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	5.25	5.08	4.91	4.82	4.56	4.39	4.22	4.22	3.96
45.0	5.25	5.17	4.99	4.82	4.65	4.39	4.22	4.05	3.96
90.0	5.17	4.99	4.82	4.74	4.56	4.22	4.05	3.79	3.70
135.0	5.17	4.99	4.91	4.82	4.65	4.39	4.22	4.13	3.96
180.0	5.34	5.25	5.08	4.99	4.82	4.39	4.39	4.22	3.88
225.0	5.17	4.99	4.82	4.74	4.31	4.22	4.13	3.88	3.62
270.0	4.99	4.91	4.74	4.65	4.48	4.22	4.05	3.88	3.70
315.0	5.08	4.91	4.82	4.65	4.39	4.22	4.13	3.96	3.88
360.0	5.25	5.08	4.91	4.82	4.56	4.39	4.22	4.22	3.96

Intensity data(cd)

C/γ(°)	90.0
0.0	3.96
45.0	3.79
90.0	3.62
135.0	3.70
180.0	3.70
225.0	3.62
270.0	3.62
315.0	3.79
360.0	3.96