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

Nata

Client: NT
LumCAT: 3-3012-LM
Luminaire: BJB 47.360.2100
Report No: 20251118-B012
Ballast type: DC

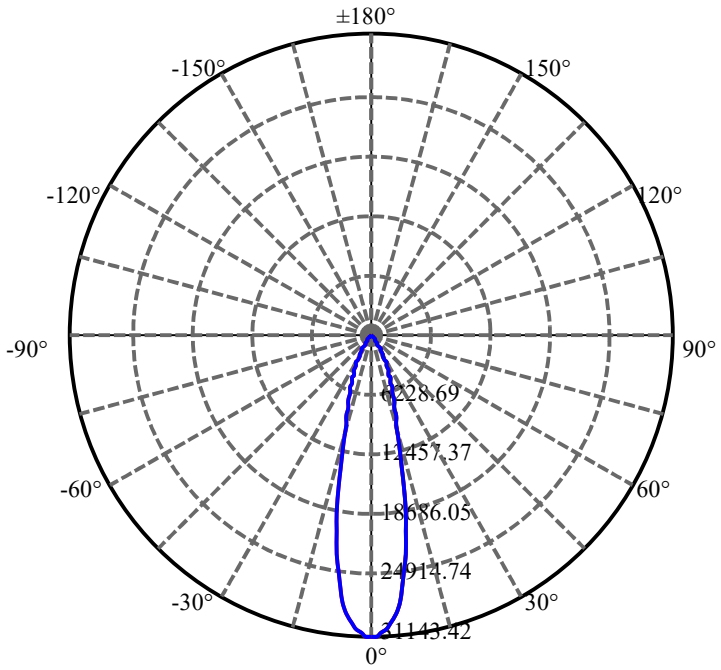
Test No: 20251118-C012	Voltage(V): 52.450
LampCAT: Bridgelux V22 LES22	Current(A): 1.192
Lamp flux(lm): 9340.0	Power (W): 62.520
Number of Lamps: 1	PF: 0.000
Length(mm): 85	Width(mm): 85
Phm Type: C	Height(mm): 51

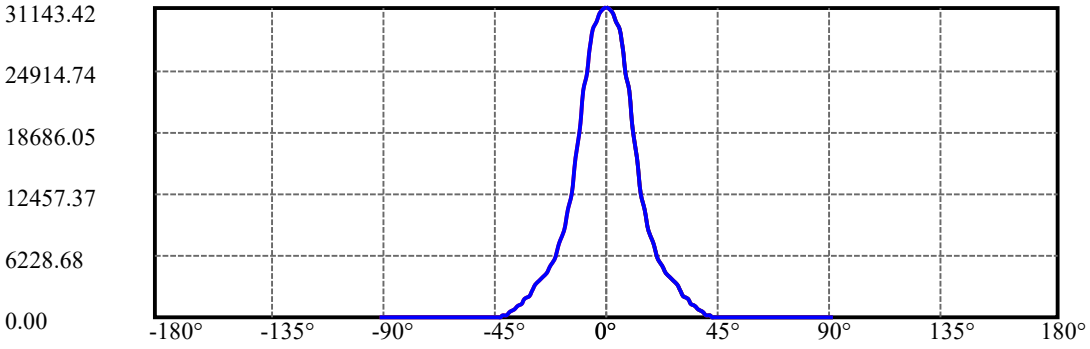
Photometric Results

Lumens(lm): 8450.08, Efficiency(%): 90.47% , Luminous Efficacy(lm/W): 135.16
Central intensity(cd): 31143.420, Maximum intensity(cd): 31143.420
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=24.4
[C90/270]Total=24.4
Field angle(10%Imax): [C0/180]Total=56.6
[C90/270]Total=56.6
Maximum s/h(1/2): C0_180=0.42 C90_270=0.42
Maximum s/h(1/4): C0_180=0.43 C90_270=0.43
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.47%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 99.342%

Equipment: GMS1980	Date: 2025/11/18	Operator: YZQ
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 9.28

Light Distribution Curve [Unit:cd]





C0(Max):

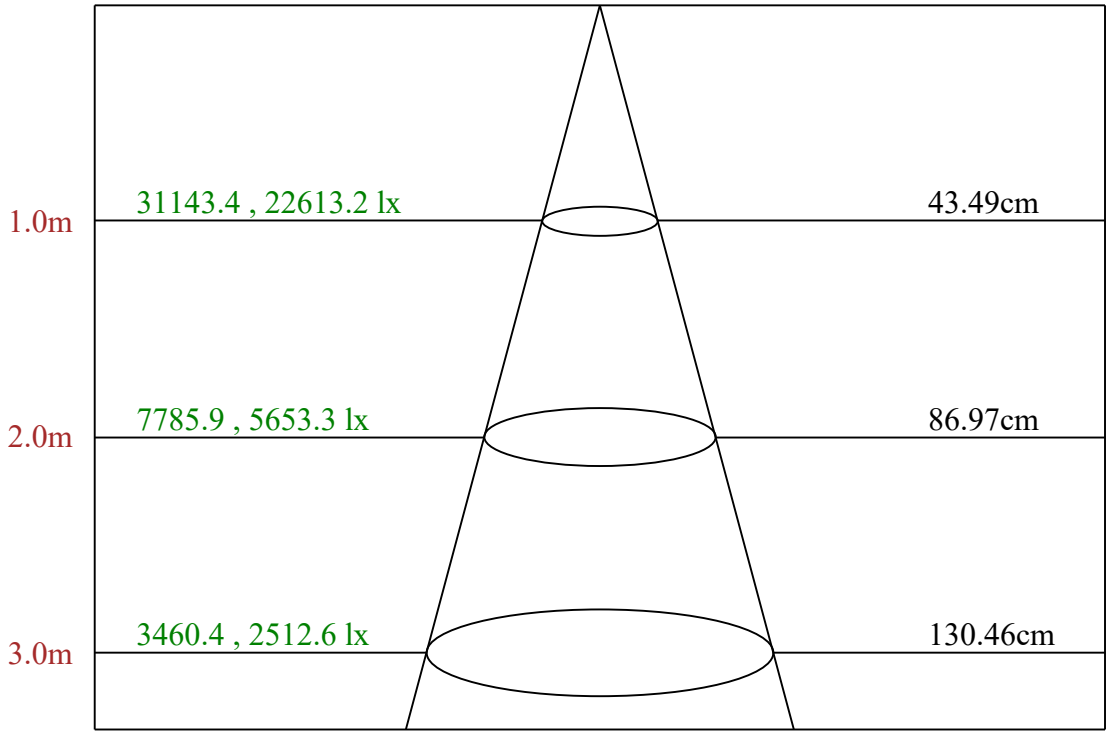
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:28.3 Right:28.3
:C90/270Left:28.3 Right:28.3

Beam Angle(50%Imax):C0/180Left:12.2 Right:12.2
:C90/270Left:12.2 Right:12.2

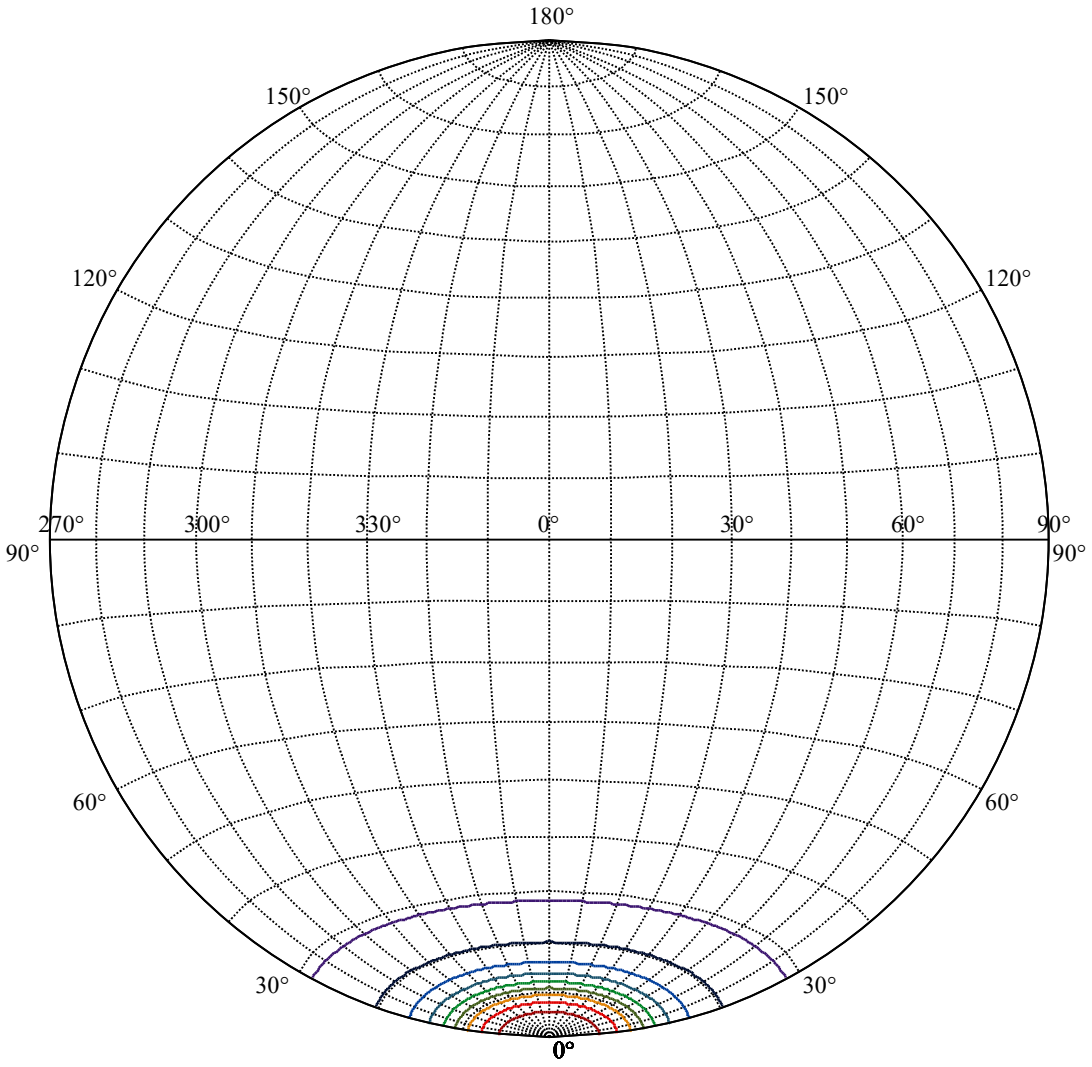
Lux distance Curve



Max , Ave

Beam angle of C0 plane 24.53

ISO candela diagram on circular web



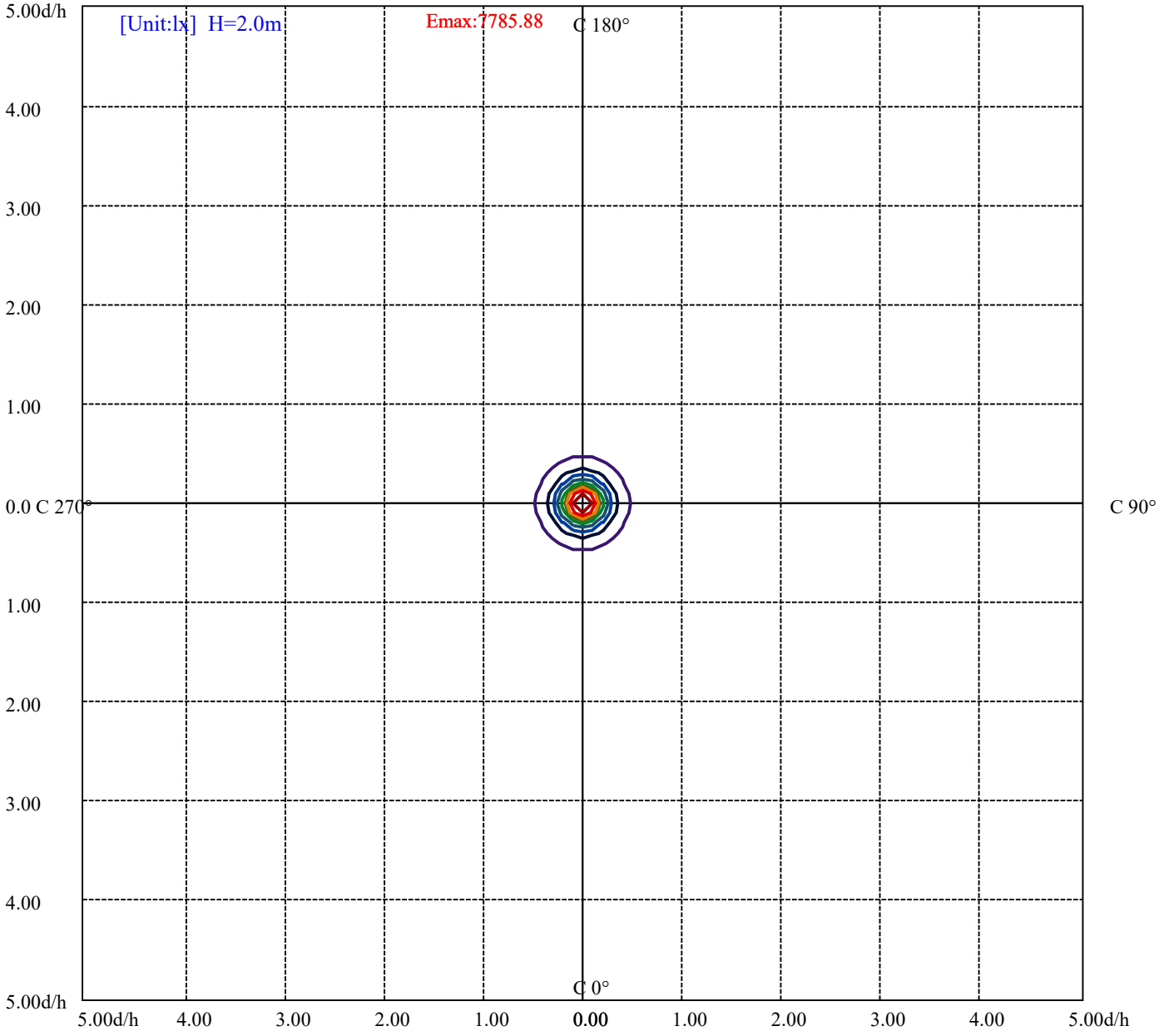
House [Unit:cd] Road

Imax:31143.42

(10%Imax) 3114.34
(20%Imax) 6228.68
(30%Imax) 9343.03
(40%Imax) 12457.4
(50%Imax) 15571.7
(60%Imax) 18686.1
(70%Imax) 21800.4
(80%Imax) 24914.7
(90%Imax) 28029.1

NT Nata 3-3012-LM

ISO illuminance diagram



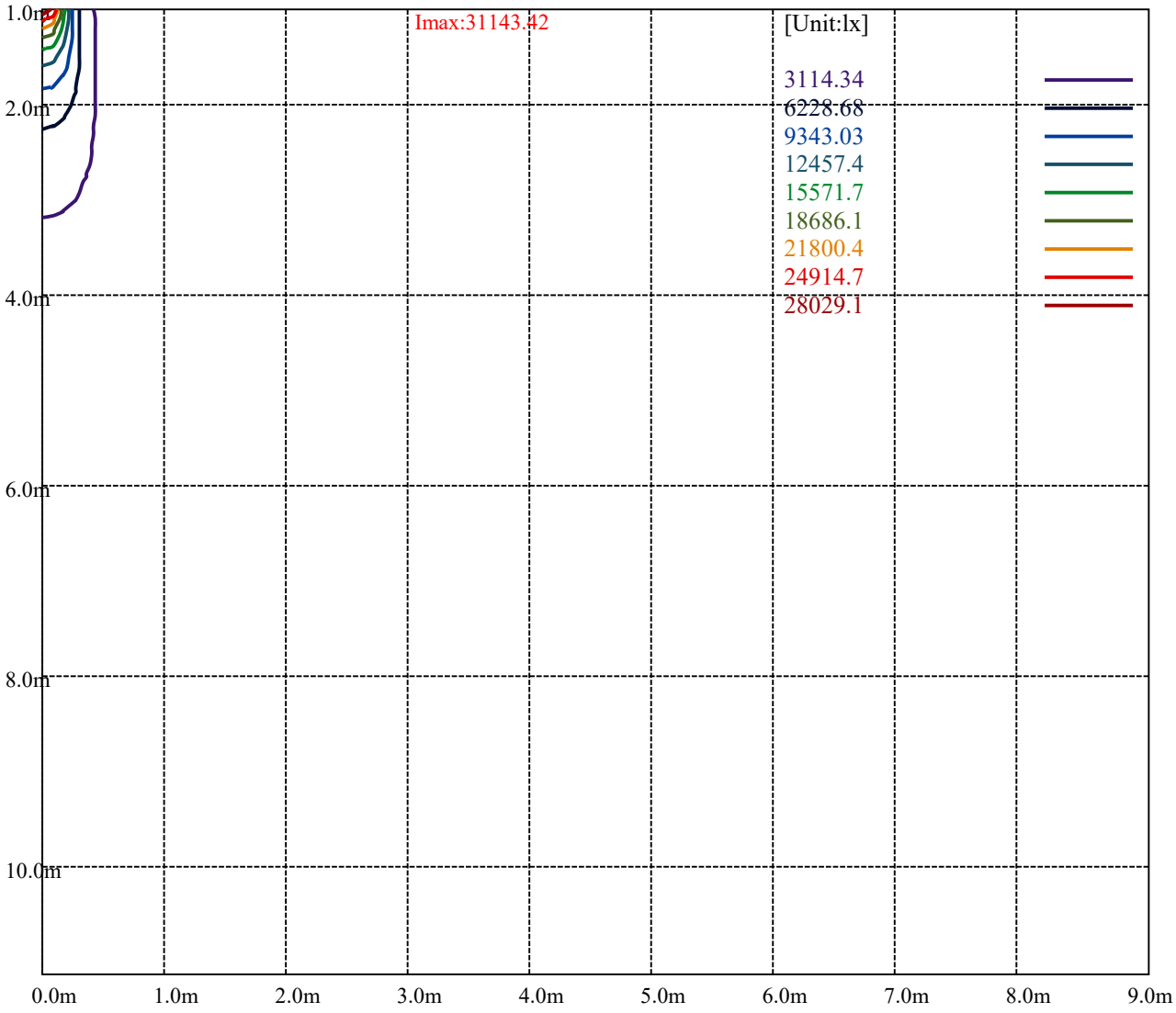
(10%Emax) 778.585
(20%Emax) 1557.17
(30%Emax) 2335.755
(40%Emax) 3114.35
(50%Emax) 3892.925
(60%Emax) 4671.5
(70%Emax) 5450.1
(80%Emax) 6228.675
(90%Emax) 7007.275

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2025/11/18
Humidity(%): 60.0%

Operator: YZQ
Distance(m): 9.28

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2025/11/18
Humidity(%): 60.0%

Operator: YZQ
Distance(m): 9.28

NT Nata 3-3012-LM

Luminance Limitting Curve(no luminous side)

Luminance Table

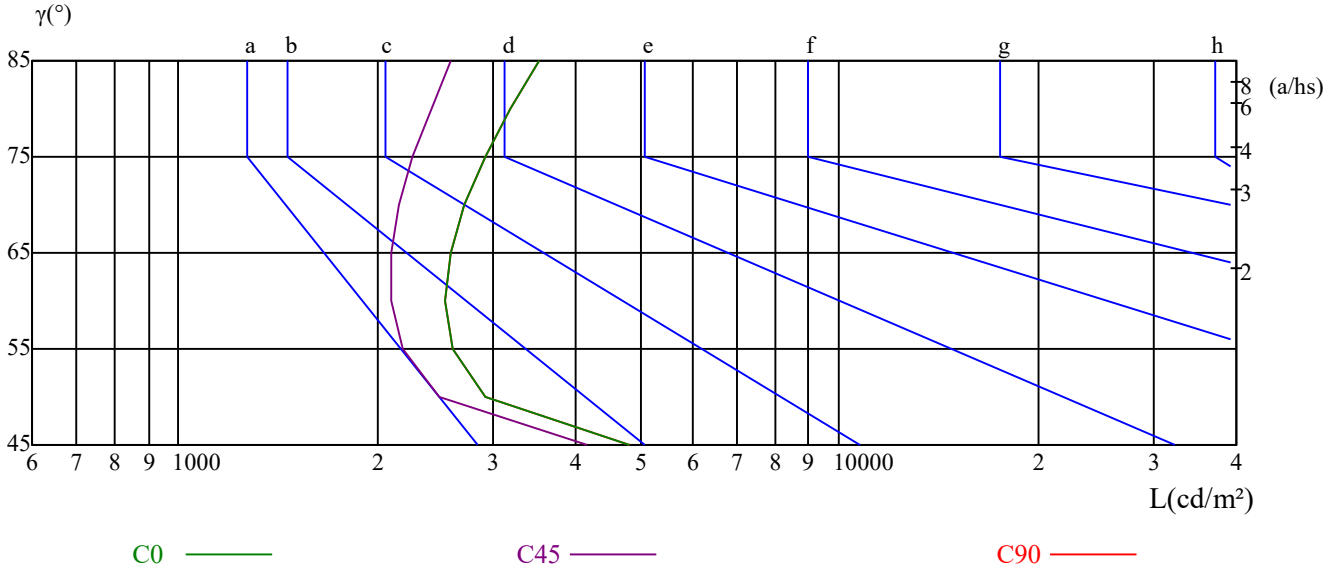
γ	45	50	55	60	65	70	75	80	85
C0	4817	2918	2608	2540	2585	2714	2911	3184	3520
C45	4170	2488	2189	2097	2097	2158	2263	2412	2585
C90	4817	2918	2608	2540	2585	2714	2911	3184	3520

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5912	5912	5912	9429	9429	9429	27660	27660	27660

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

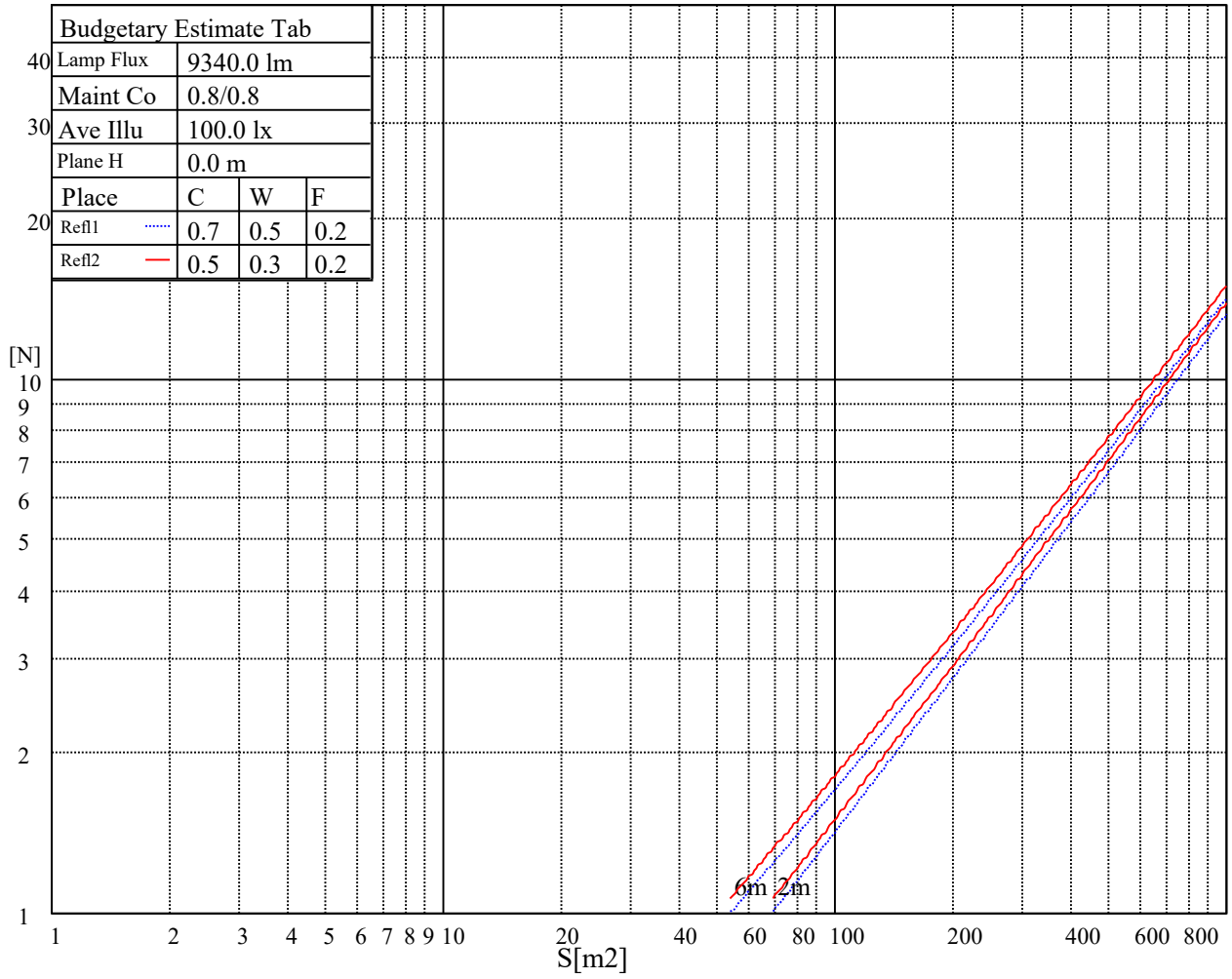
Date: 2025/11/18
Humidity(%): 60.0%

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	18.13	19.02	18.49	19.34	19.65	17.31	18.21	17.67	18.52	18.84
	3H	17.94	18.73	18.32	19.07	19.42	17.13	17.93	17.52	18.26	18.61
	4H	17.86	18.59	18.26	18.95	19.32	17.06	17.79	17.46	18.15	18.52
	6H	17.81	18.49	18.23	18.87	19.27	17.03	17.70	17.45	18.08	18.48
	8H	17.78	18.42	18.20	18.80	19.21	17.00	17.64	17.42	18.02	18.43
	12H	17.75	18.36	18.18	18.75	19.17	16.98	17.59	17.41	17.99	18.40
4H	2H	17.80	18.54	18.20	18.89	19.26	16.99	17.73	17.39	18.08	18.45
	3H	17.59	18.21	18.01	18.60	19.02	16.79	17.40	17.21	17.80	18.22
	4H	17.55	18.09	17.99	18.51	18.96	16.77	17.30	17.20	17.72	18.17
	6H	17.50	17.97	17.97	18.42	18.88	16.73	17.20	17.20	17.65	18.11
	8H	17.50	17.94	17.99	18.40	18.87	16.75	17.19	17.24	17.65	18.12
	12H	17.54	17.94	18.03	18.39	18.91	16.81	17.21	17.30	17.66	18.19
8H	4H	17.37	17.81	17.86	18.27	18.74	16.59	17.03	17.08	17.49	17.96
	6H	17.34	17.70	17.85	18.18	18.69	16.59	16.95	17.10	17.43	17.94
	8H	17.43	17.72	17.97	18.25	18.75	16.70	17.00	17.24	17.52	18.02
	12H	17.52	17.74	18.06	18.26	18.78	16.83	17.05	17.37	17.57	18.09
12H	4H	17.33	17.73	17.82	18.18	18.70	16.55	16.95	17.04	17.40	17.92
	6H	17.35	17.64	17.88	18.16	18.66	16.60	16.89	17.14	17.42	17.92
	8H	17.41	17.63	17.96	18.15	18.68	16.70	16.92	17.24	17.44	17.96
Variation with the observer position at spacings:											
S = 1.0H		6.1/-10.4					6.1/-10.4				
S = 1.5H		8.7/-8.5					8.7/-8.5				
S = 2.0H		10.5/-7.1					10.5/-7.1				
Standard tables:		BK1					BK1				
Uncorrected UGR		-2.0					-2.0				

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

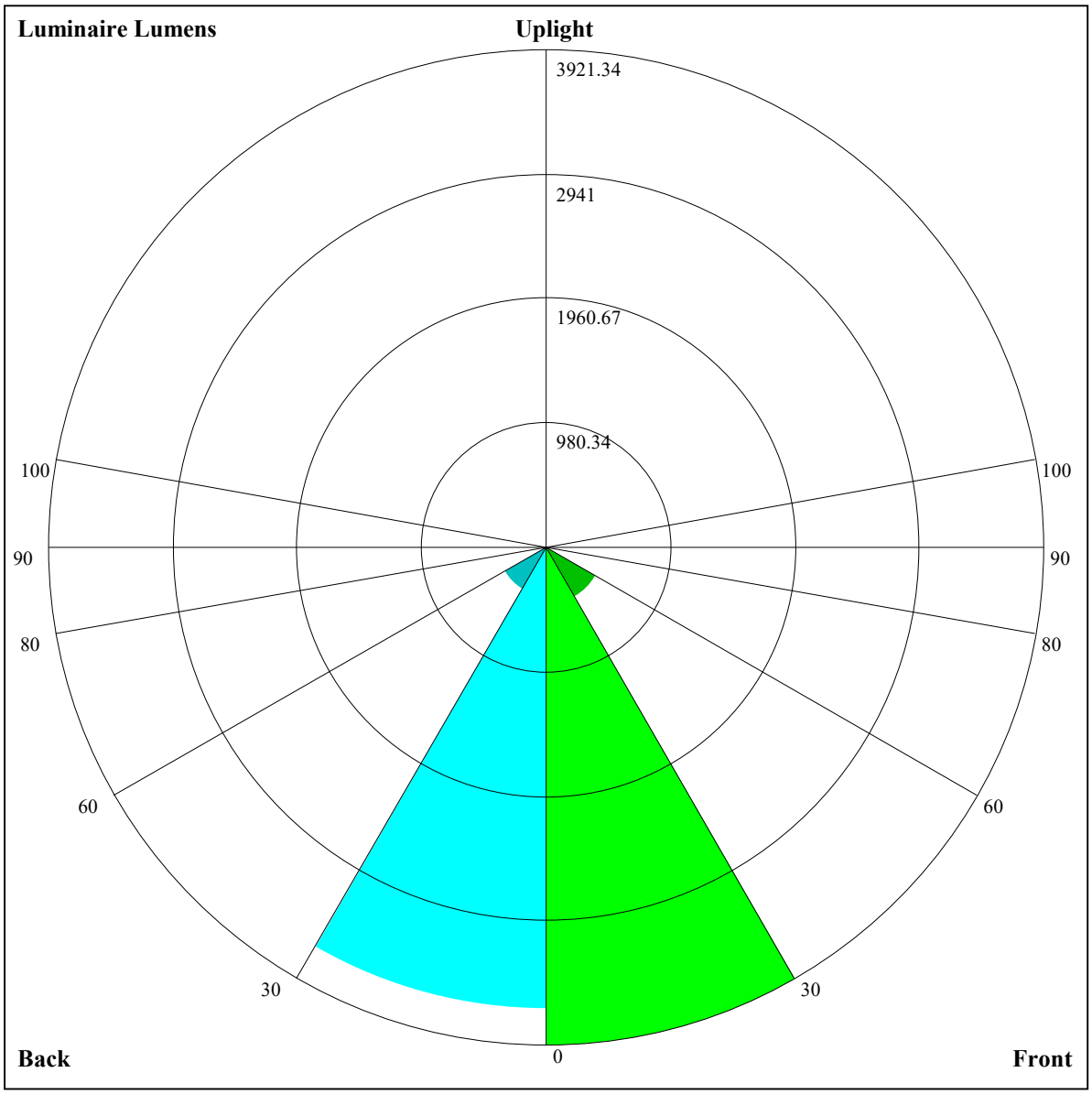
Budgetary Estimate Table



Equipment: GMS1980	Date: 2025/11/18	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	1.08	1.08	1.08	1.05	1.05	1.05	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	1.02	1.00	0.98	1.00	0.98	0.96	0.96	0.95	0.93	0.93	0.92	0.91	0.90	0.89	0.88	0.87
2	0.96	0.93	0.91	0.95	0.92	0.90	0.92	0.90	0.88	0.89	0.87	0.86	0.87	0.85	0.84	0.83
3	0.92	0.88	0.85	0.90	0.87	0.84	0.88	0.85	0.83	0.86	0.84	0.82	0.84	0.82	0.81	0.79
4	0.87	0.83	0.80	0.86	0.83	0.80	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.76
5	0.84	0.80	0.76	0.83	0.79	0.76	0.81	0.78	0.76	0.80	0.77	0.75	0.79	0.76	0.74	0.73
6	0.80	0.76	0.73	0.80	0.76	0.73	0.78	0.75	0.72	0.77	0.74	0.72	0.76	0.74	0.71	0.70
7	0.77	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.71	0.69	0.74	0.71	0.69	0.68
8	0.74	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.67	0.71	0.69	0.66	0.65
9	0.72	0.68	0.65	0.71	0.67	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.63
10	0.69	0.65	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.61



Luminaire Lumens:
FL=3921.34,FM=449.79,FH=18.38,FVH=9.5
BL=3631,BM=387.27,BH=18.22,BVH=9.47
UL=0,UH=0

BUG Rating:B4-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	31128.36	31266.15	31317.82	31231.70	30990.57	30430.80	29690.18	28734.27	27485.55
45.0	30947.51	31136.97	31197.25	31145.58	30947.51	30594.42	29982.98	28889.28	27718.07
90.0	31223.09	31180.03	30947.51	30585.81	30034.65	29044.29	27916.14	26684.65	24867.55
135.0	31274.76	31326.43	31205.86	30938.90	30491.08	29853.80	28699.82	27545.83	25918.19
180.0	31128.36	30732.21	30249.95	29552.39	28355.34	27166.91	25840.69	24368.06	22197.88
225.0	30947.51	30611.65	29982.98	29233.75	27967.81	26744.93	25367.04	23360.48	19950.19
270.0	31223.09	31128.36	30964.73	30465.25	29862.42	29052.90	28036.71	26486.58	25100.07
315.0	31274.76	31162.80	30809.72	30267.17	29517.94	28518.97	26960.23	25530.66	23928.86
360.0	31128.36	31266.15	31317.82	31231.70	30990.57	30430.80	29690.18	28734.27	27485.55

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	26081.82	24135.54	22395.95	16864.65	16864.65	15069.08	12912.68	11201.51	9662.57
45.0	26374.62	24927.83	22886.83	20975.00	18184.76	15782.06	13534.37	11295.29	9986.29
90.0	23248.52	19889.91	16847.43	16249.77	13983.13	11728.55	10400.61	9405.94	8592.98
135.0	24411.12	22792.10	20415.23	18236.43	15859.56	13680.77	11958.40	10356.60	9383.46
180.0	20182.71	17917.79	15627.04	13103.78	11527.81	10063.80	9194.00	8410.32	7471.63
225.0	16992.11	16419.42	14250.96	12462.28	11095.58	9800.36	8958.12	8140.86	7399.38
270.0	23481.04	21104.18	18916.77	15902.62	13758.28	12035.91	10709.68	9512.64	8685.90
315.0	21655.33	16640.74	16640.74	14333.63	12395.11	10906.12	9559.23	8729.91	7944.51
360.0	26081.82	24135.54	22395.95	16864.65	16864.65	15069.08	12912.68	11201.51	9662.57

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	8791.05	8065.07	7192.69	6559.72	5837.19	5327.37	4876.97	4494.61	4117.41
45.0	9047.60	8306.98	7428.57	6782.69	6179.86	5645.92	5051.71	4646.95	4388.59
90.0	7669.79	6980.84	6349.60	5788.96	5298.09	4757.27	4399.01	4042.48	3789.30
135.0	8617.01	7859.17	7006.59	6360.71	5671.76	5198.11	4776.13	4345.53	4345.53
180.0	6808.52	6222.92	5688.98	5094.76	4681.40	4354.15	4354.15	3751.40	3481.85
225.0	6570.06	5996.51	5484.97	4922.61	4548.86	4170.80	3909.00	3635.14	3349.23
270.0	7910.84	7187.44	6377.93	5809.55	5310.06	4862.24	4405.82	4405.82	4101.04
315.0	7197.00	6381.46	5793.27	5287.76	4740.04	4383.51	4089.85	3841.83	3521.47
360.0	8791.05	8065.07	7192.69	6559.72	5837.19	5327.37	4876.97	4494.61	4117.41

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	3863.36	3603.28	3334.59	2990.12	2705.93	2423.46	1714.79	1714.79	1517.41
45.0	4388.59	3720.40	3432.77	3089.15	2807.55	2521.63	2173.71	1898.14	1634.61
90.0	3441.38	3155.46	2873.86	2596.56	2035.06	1702.56	1702.56	1450.32	1156.40
135.0	4054.54	3469.80	3177.86	2894.53	2607.75	2241.75	1964.45	1706.09	1445.15
180.0	3195.94	2914.33	2533.69	2227.97	1875.74	1613.94	1368.51	1079.15	862.13
225.0	2980.64	2690.42	2397.62	1709.02	1709.02	1520.85	1283.16	1058.22	794.79
270.0	3542.14	3257.95	2876.44	2584.50	2293.42	1943.78	1677.67	1436.54	1211.77
315.0	3245.89	2879.89	2599.14	2313.23	1693.26	1693.26	1448.60	1217.46	945.41
360.0	3863.36	3603.28	3334.59	2990.12	2705.93	2423.46	1714.79	1714.79	1517.41

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	1272.40	984.76	769.04	516.97	346.02	212.11	117.12	60.20	53.48
45.0	1377.12	1081.73	866.44	665.78	482.35	438.43	249.31	86.81	66.74
90.0	937.14	737.78	550.73	340.94	205.05	109.54	68.46	61.49	50.55
135.0	1132.54	903.47	701.95	479.77	437.57	437.57	87.32	69.67	61.92
180.0	656.31	465.13	465.13	149.33	82.85	63.99	56.32	47.19	32.47
225.0	601.80	426.98	241.73	130.64	66.40	59.68	52.27	43.58	30.74
270.0	942.22	739.84	548.66	461.68	461.68	92.32	57.53	49.52	43.15
315.0	742.00	554.77	381.33	200.57	101.88	58.13	51.15	43.92	37.63
360.0	1272.40	984.76	769.04	516.97	346.02	212.11	117.12	60.20	53.48

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	47.37	40.82	30.14	28.07	26.44	24.89	23.60	22.91	22.13
45.0	58.39	50.90	35.31	29.45	27.64	25.66	24.63	23.77	22.91
90.0	38.75	27.82	26.09	24.11	22.99	22.30	21.62	20.93	20.41
135.0	49.86	34.62	27.47	25.75	24.03	23.17	22.39	21.79	21.01
180.0	27.64	25.49	24.11	23.08	22.48	21.96	21.27	20.67	20.15
225.0	29.02	27.21	25.84	24.80	24.03	23.34	22.56	21.53	20.93
270.0	36.00	27.82	26.09	24.54	23.25	22.56	21.96	21.36	20.58
315.0	27.99	26.44	24.89	23.42	22.65	22.05	21.44	20.75	20.24
360.0	47.37	40.82	30.14	28.07	26.44	24.89	23.60	22.91	22.13

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	21.53	20.93	20.41	20.07	19.81	19.46	19.29	19.12	18.86
45.0	22.22	21.53	20.84	20.50	20.07	19.81	19.46	19.20	19.03
90.0	19.89	19.55	19.20	18.95	18.77	18.60	18.43	18.26	18.17
135.0	20.50	19.98	19.55	19.29	19.03	18.77	18.60	18.43	18.26
180.0	19.72	19.46	19.20	19.03	18.77	18.60	18.52	18.34	18.26
225.0	20.32	19.89	19.63	19.29	18.95	18.77	18.52	18.34	18.17
270.0	20.07	19.63	19.38	19.03	18.86	18.60	18.43	18.34	18.17
315.0	19.81	19.55	19.20	19.03	18.77	18.52	18.43	18.26	18.08
360.0	21.53	20.93	20.41	20.07	19.81	19.46	19.29	19.12	18.86

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	18.69	18.60	18.43	18.34	18.26	18.26	18.17	18.08	18.00
45.0	18.86	18.69	18.52	18.43	18.34	18.17	18.17	18.08	18.00
90.0	18.08	18.00	17.91	17.83	17.74	17.74	17.65	17.65	17.65
135.0	18.17	18.00	18.00	17.83	17.83	17.74	17.65	17.65	17.65
180.0	18.17	18.08	18.00	17.91	17.91	17.83	17.83	17.83	17.74
225.0	18.08	18.00	17.83	17.83	17.74	17.74	17.74	17.65	17.65
270.0	18.08	18.00	17.91	17.83	17.74	17.74	17.65	17.57	17.57
315.0	18.00	17.91	17.83	17.83	17.74	17.65	17.57	17.57	17.48
360.0	18.69	18.60	18.43	18.34	18.26	18.26	18.17	18.08	18.00

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	18.00	17.91	17.91	17.91	17.91	17.91	17.91	17.83	17.83
45.0	18.00	17.91	17.91	17.91	17.83	17.74	17.83	17.83	17.83
90.0	17.57	17.57	17.57	17.57	17.48	17.57	17.48	17.57	17.57
135.0	17.57	17.57	17.48	17.48	17.48	17.40	17.40	17.48	17.40
180.0	17.74	17.74	17.65	17.65	17.74	17.65	17.65	17.65	17.65
225.0	17.65	17.65	17.65	17.57	17.57	17.57	17.57	17.57	17.57
270.0	17.57	17.57	17.48	17.48	17.48	17.48	17.48	17.48	17.48
315.0	17.57	17.48	17.48	17.48	17.48	17.40	17.40	17.40	17.40
360.0	18.00	17.91	17.91	17.91	17.91	17.91	17.91	17.83	17.83

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	17.83	17.83	17.83	17.74	17.57	17.31	17.40	17.31	17.48
45.0	17.83	17.83	17.83	17.83	17.83	17.48	17.22	17.14	17.14
90.0	17.65	17.74	17.74	17.83	17.74	17.22	17.14	17.05	17.05
135.0	17.40	17.40	17.40	17.40	17.40	17.40	17.14	17.14	17.14
180.0	17.65	17.65	17.65	17.48	17.31	17.31	17.31	17.48	17.31
225.0	17.57	17.57	17.31	17.22	17.22	17.14	17.14	17.14	17.14
270.0	17.48	17.48	17.48	17.22	17.14	17.14	17.14	17.14	17.05
315.0	17.40	17.31	17.14	17.14	17.14	17.14	17.14	17.05	17.05
360.0	17.83	17.83	17.83	17.74	17.57	17.31	17.40	17.31	17.48

Intensity data(cd)

C/γ(°)	90.0
0.0	17.48
45.0	17.14
90.0	17.14
135.0	17.14
180.0	17.22
225.0	17.14
270.0	17.05
315.0	17.05
360.0	17.48