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

Nata

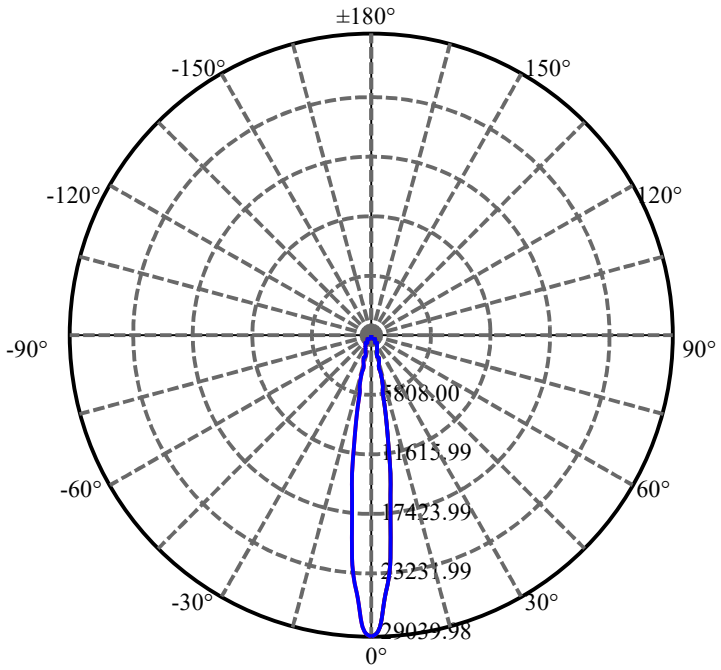
Client: NT
LumCAT: 2-2853-LM5
Luminaire: 92.70.121.00 LED HOLDER
Report No: 20251110-B018
Ballast type: DC

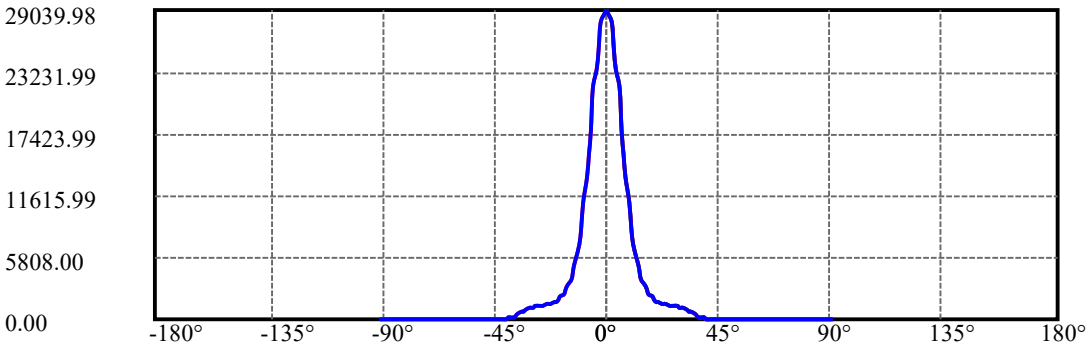
Test No: 20251110-C018	Voltage(V): 36.590
LampCAT: CITIZEN CLU038 LES14.5	Current(A): 0.709
Lamp flux(lm): 3662.0	Power (W): 25.940
Number of Lamps: 1	PF: 0.000
Length(mm): 85	Width(mm): 85
Phm Type: C	Height(mm): 51

Photometric Results

Lumens(lm): 3585.18, Efficiency(%): 97.90% , Luminous Efficacy(lm/W): 138.21
Central intensity(cd): 29039.980, Maximum intensity(cd): 29039.980
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=15.0
[C90/270]Total=15.0
Field angle(10%Imax): [C0/180]Total=32.0
[C90/270]Total=32.0
Maximum s/h(1/2): C0_180=0.26 C90_270=0.26
Maximum s/h(1/4): C0_180=0.27 C90_270=0.27
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 97.90%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 99.344%

Light Distribution Curve [Unit:cd]





C0(Max):

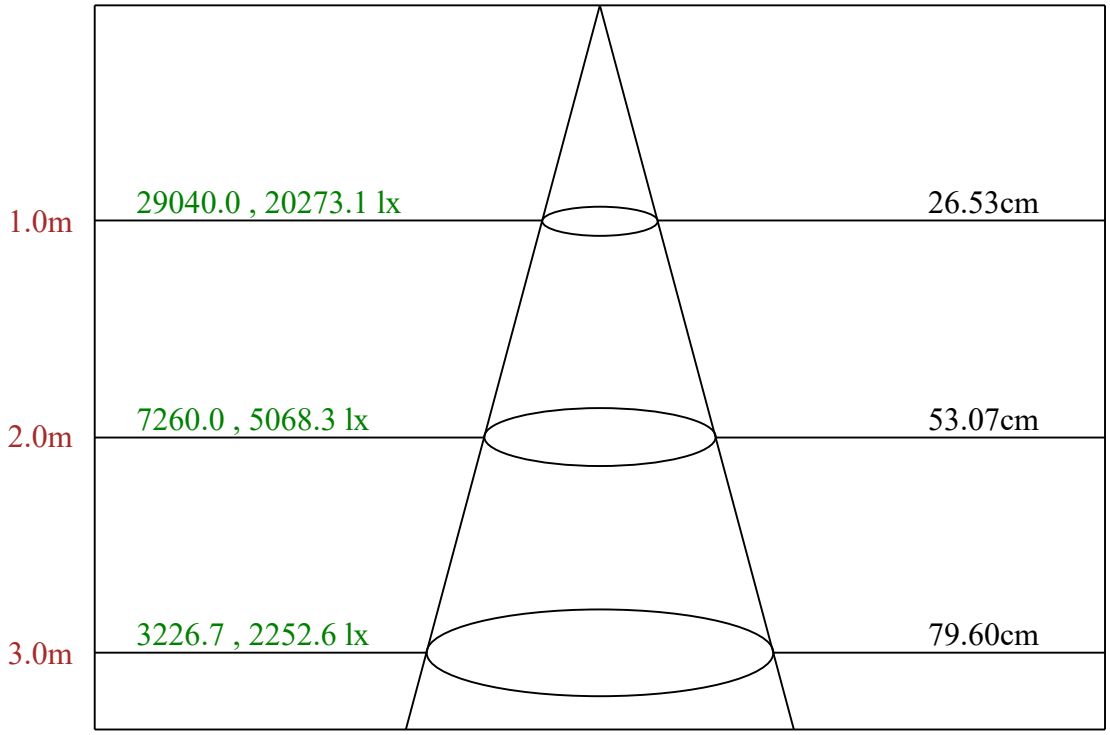
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:16.0 Right:16.0
:C90/270Left:16.0 Right:16.0

Beam Angle(50%Imax):C0/180Left:7.5 Right:7.5
:C90/270Left:7.5 Right:7.5

Lux distance Curve

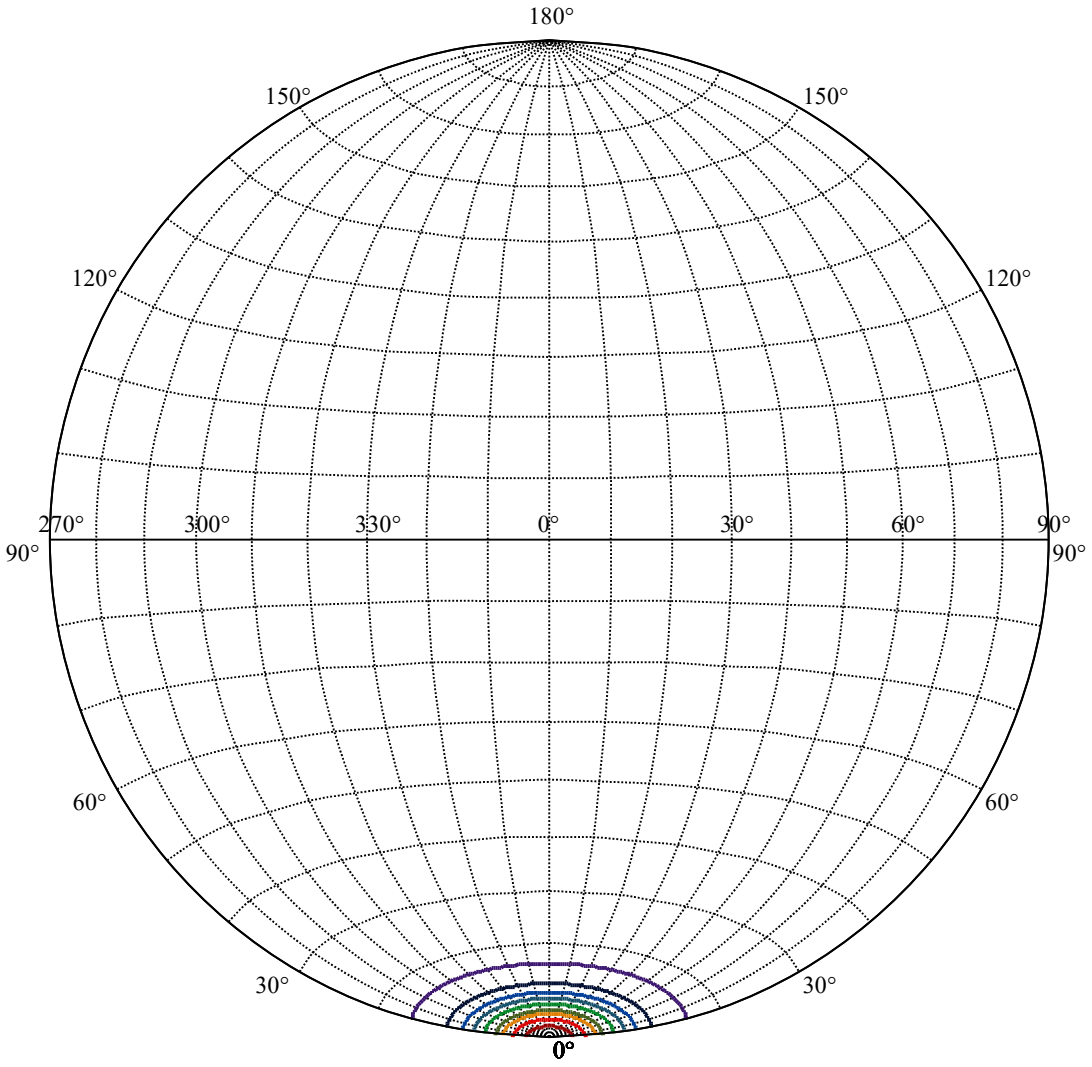


Max , Ave

Beam angle of C0 plane 15.11

Equipment: GMS1980	Date: 2025/11/10	Operator: YZQ
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 9.28

ISO candela diagram on circular web



House [Unit:cd] Road

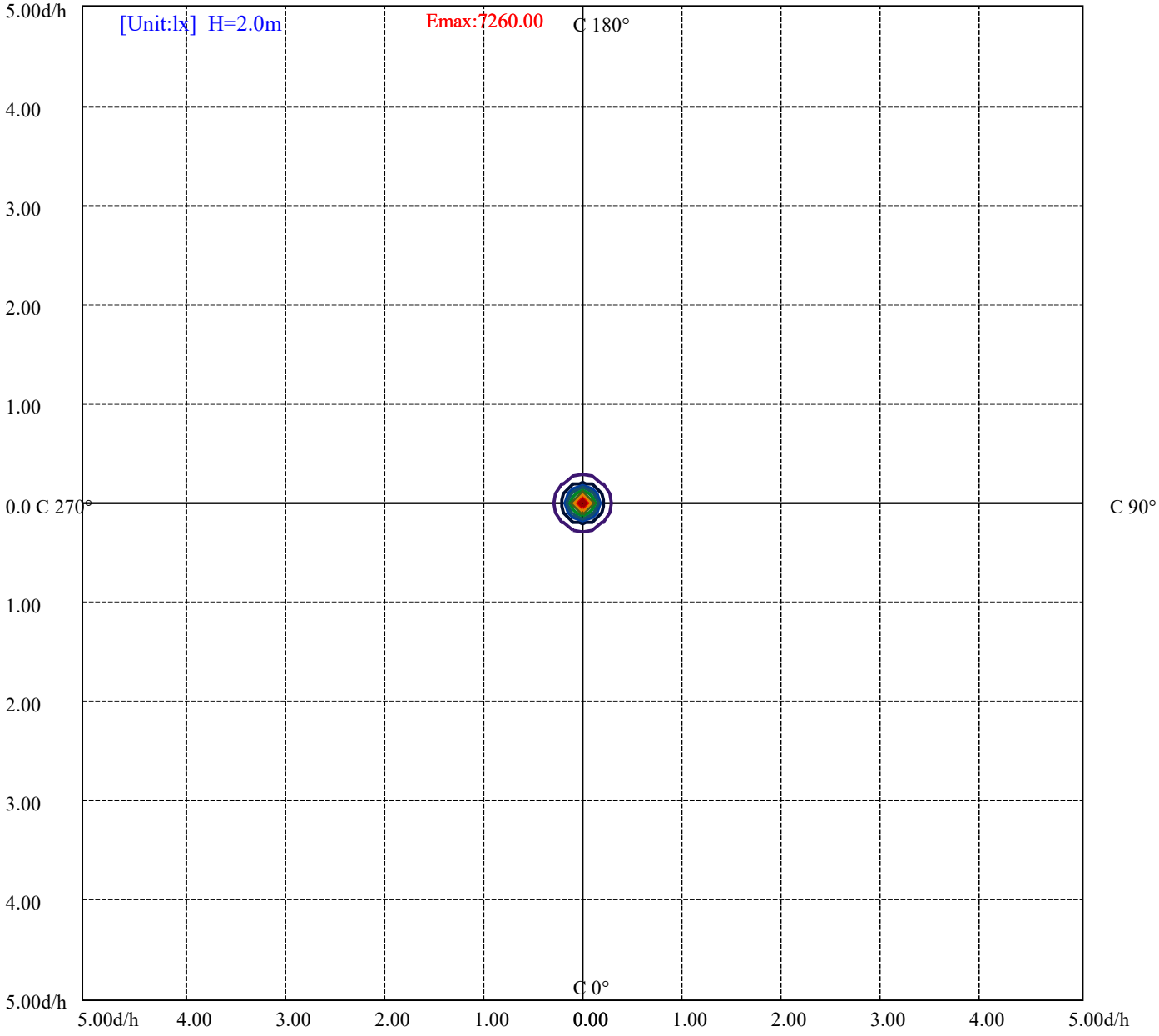
Imax:29039.98

(10%Imax) 2904
(20%Imax) 5808
(30%Imax) 8712
(40%Imax) 11616
(50%Imax) 14520
(60%Imax) 17424
(70%Imax) 20328
(80%Imax) 23232
(90%Imax) 26136

Equipment: GMS1980 Date: 2025/11/10 Operator: YZQ
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 9.28

NT Nata 2-2853-LM5

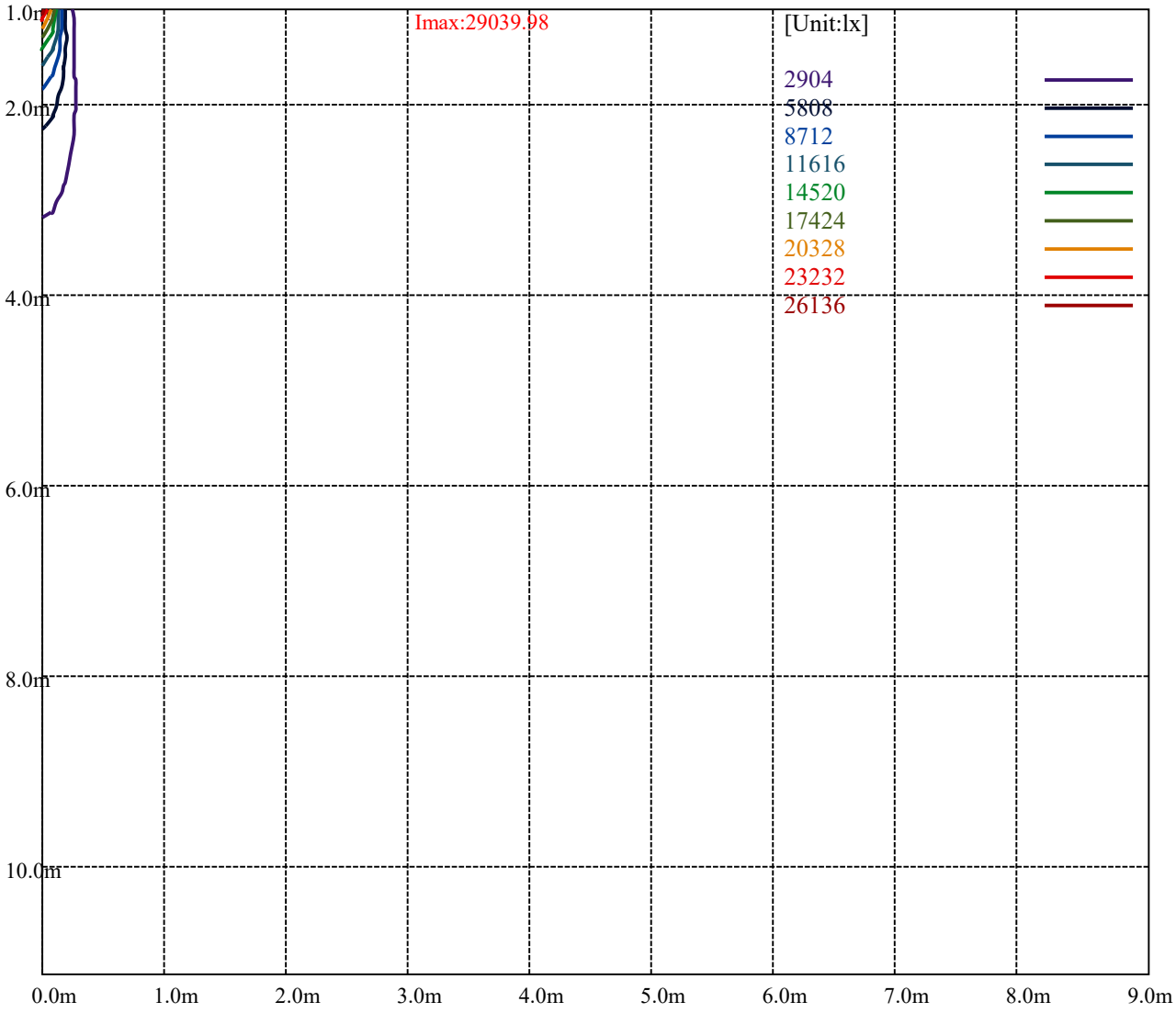
ISO illuminance diagram



(10%Emax) 725.9975
(20%Emax) 1451.998
(30%Emax) 2177.995
(40%Emax) 2904
(50%Emax) 3630
(60%Emax) 4356
(70%Emax) 5081.975
(80%Emax) 5807.975
(90%Emax) 6533.975

Equipment: GMS1980 Date: 2025/11/10 Operator: YZQ
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 9.28

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2025/11/10
Humidity(%): 60.0%

Operator: YZQ
Distance(m): 9.28

NT Nata 2-2853-LM5

Luminance Limitting Curve(no luminous side)

Luminance Table

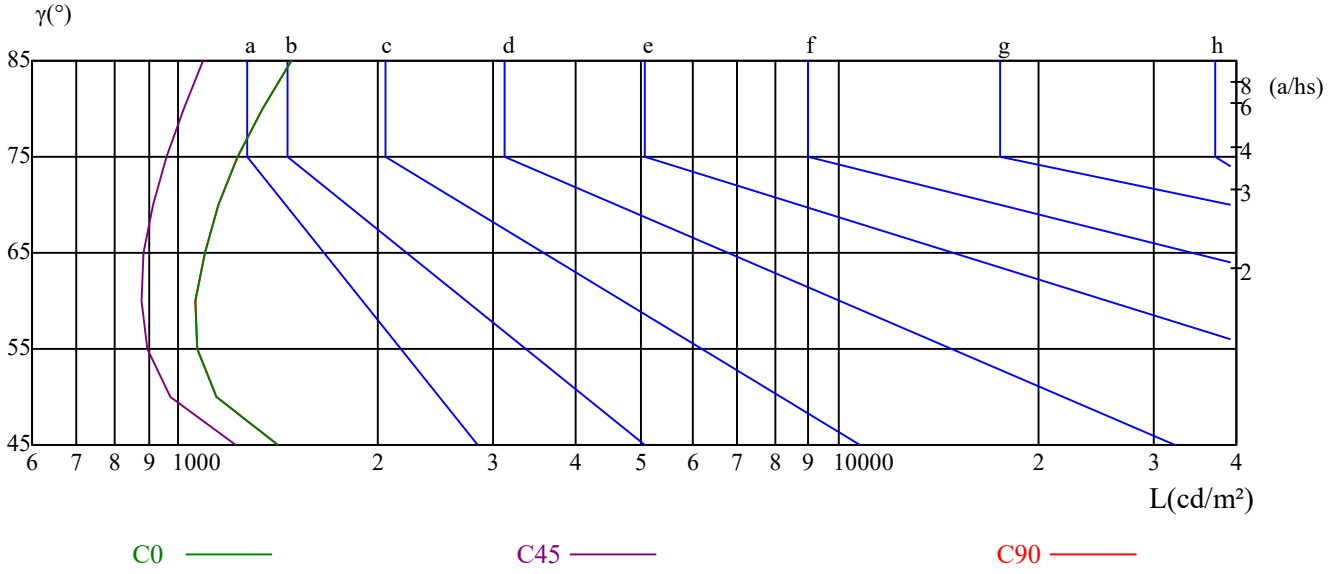
γ	45	50	55	60	65	70	75	80	85
C0	1414	1138	1067	1064	1095	1148	1232	1345	1482
C45	1224	970	896	878	888	913	957	1019	1088
C90	1414	1138	1067	1064	1095	1148	1232	1345	1482

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2503	2503	2503	3989	3989	3989	11642	11642	11642

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: 2025/11/10
Humidity(%): 60.0%

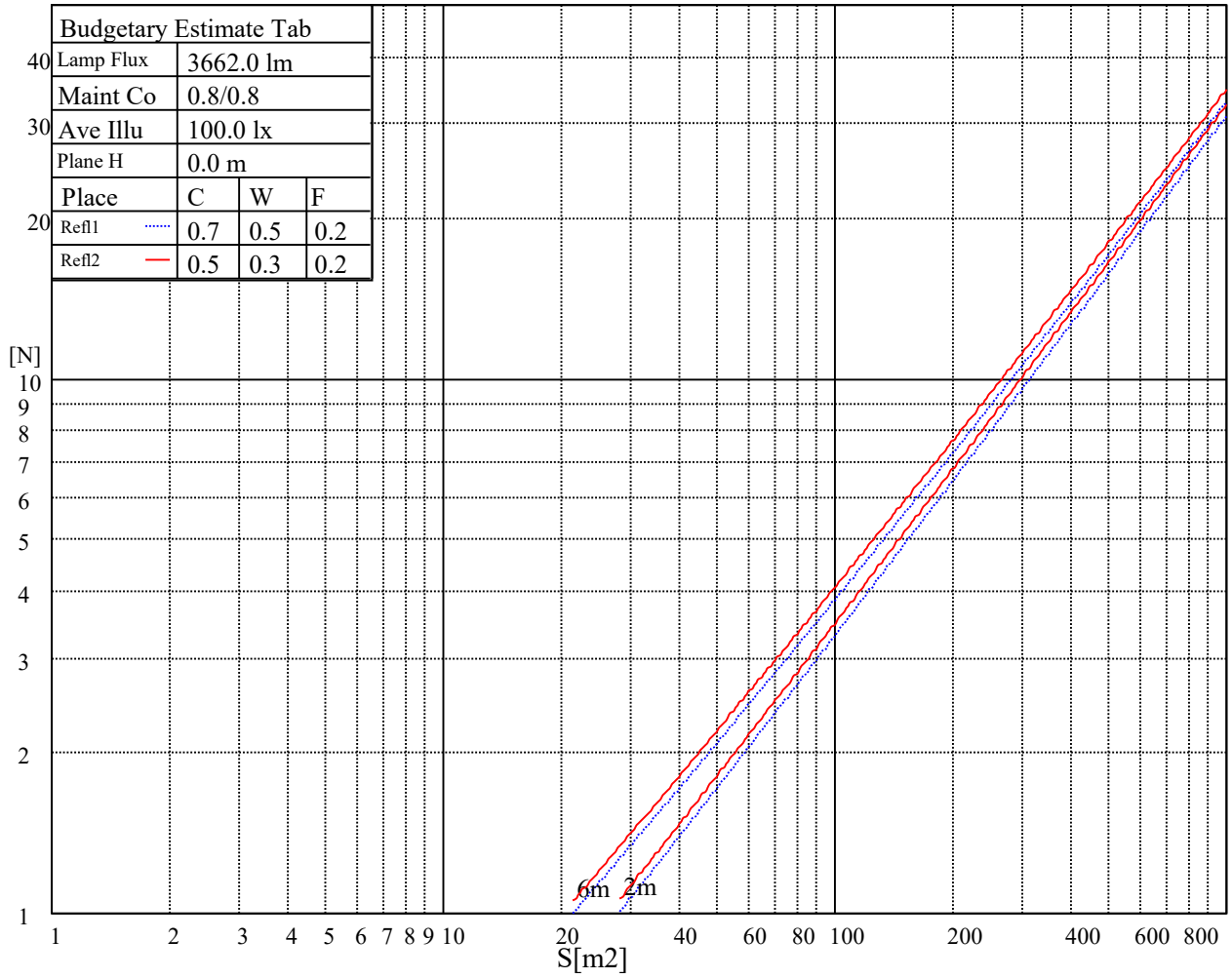
Operator: YZQ
Distance(m): 9.28

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	15.97	16.87	16.33	17.18	17.49	15.85	16.74	16.21	17.05	17.37
	3H	15.77	16.57	16.16	16.90	17.25	15.65	16.45	16.04	16.78	17.13
	4H	15.68	16.42	16.09	16.77	17.14	15.56	16.30	15.97	16.65	17.02
	6H	15.63	16.30	16.05	16.68	17.08	15.51	16.18	15.93	16.56	16.96
	8H	15.58	16.22	16.00	16.61	17.02	15.46	16.10	15.89	16.49	16.90
	12H	15.55	16.15	15.97	16.55	16.96	15.43	16.03	15.85	16.43	16.85
4H	2H	15.64	16.38	16.04	16.73	17.10	15.52	16.25	15.92	16.61	16.98
	3H	15.41	16.03	15.84	16.43	16.85	15.29	15.91	15.72	16.31	16.73
	4H	15.37	15.90	15.81	16.33	16.78	15.25	15.78	15.69	16.21	16.66
	6H	15.29	15.76	15.77	16.21	16.67	15.17	15.64	15.65	16.10	16.55
	8H	15.28	15.72	15.77	16.18	16.65	15.17	15.60	15.65	16.06	16.53
	12H	15.30	15.70	15.79	16.15	16.67	15.18	15.58	15.67	16.03	16.56
8H	4H	15.18	15.61	15.67	16.07	16.55	15.06	15.49	15.55	15.95	16.43
	6H	15.12	15.47	15.63	15.95	16.47	15.00	15.36	15.51	15.84	16.35
	8H	15.19	15.48	15.72	16.00	16.50	15.07	15.36	15.61	15.89	16.39
	12H	15.24	15.46	15.79	15.98	16.50	15.13	15.35	15.68	15.87	16.39
12H	4H	15.13	15.53	15.62	15.98	16.51	15.01	15.41	15.50	15.86	16.39
	6H	15.12	15.41	15.66	15.94	16.43	15.00	15.30	15.54	15.82	16.32
	8H	15.16	15.38	15.71	15.90	16.42	15.05	15.27	15.59	15.78	16.31

Variation with the observer position at spacings:		
S = 1.0H	6.3/-10.9	6.3/-10.9
S = 1.5H	8.9/-8.9	8.9/-8.9
S = 2.0H	10.8/-7.5	10.8/-7.5
Standard tables:	BK1	BK1
Uncorrected UGR	-4.5	-4.5

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

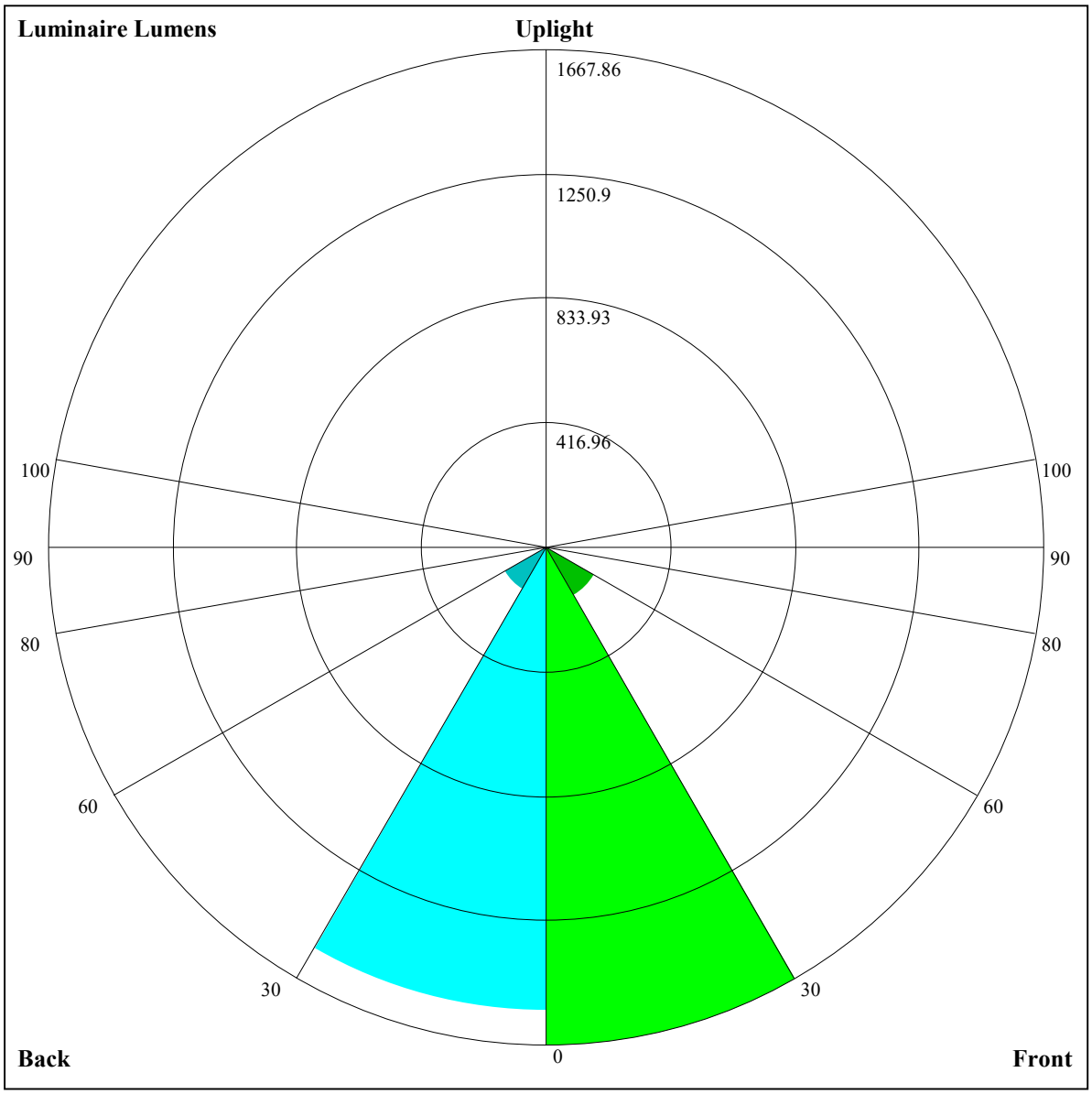
Budgetary Estimate Table



Equipment: GMS1980 Date: 2025/11/10 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	1.17	1.17	1.17	1.14	1.14	1.14	1.09	1.09	1.09	1.04	1.04	1.04	1.00	1.00	1.00	0.98
1	1.10	1.08	1.07	1.08	1.07	1.05	1.04	1.03	1.02	1.01	1.00	0.99	0.98	0.97	0.96	0.94
2	1.05	1.02	1.00	1.04	1.01	0.99	1.00	0.98	0.96	0.98	0.96	0.94	0.95	0.94	0.93	0.91
3	1.01	0.97	0.94	0.99	0.96	0.93	0.97	0.94	0.92	0.95	0.92	0.91	0.93	0.91	0.89	0.88
4	0.97	0.93	0.90	0.96	0.92	0.89	0.94	0.91	0.88	0.92	0.89	0.87	0.90	0.88	0.86	0.85
5	0.93	0.89	0.86	0.92	0.89	0.86	0.91	0.88	0.85	0.89	0.87	0.84	0.88	0.86	0.84	0.83
6	0.90	0.86	0.83	0.89	0.85	0.83	0.88	0.85	0.82	0.87	0.84	0.82	0.86	0.83	0.81	0.80
7	0.87	0.83	0.80	0.87	0.83	0.80	0.86	0.82	0.80	0.85	0.81	0.79	0.84	0.81	0.79	0.78
8	0.85	0.81	0.78	0.84	0.80	0.78	0.83	0.80	0.77	0.82	0.79	0.77	0.82	0.79	0.77	0.76
9	0.82	0.78	0.76	0.82	0.78	0.75	0.81	0.78	0.75	0.80	0.77	0.75	0.80	0.77	0.75	0.74
10	0.80	0.76	0.74	0.80	0.76	0.73	0.79	0.76	0.73	0.78	0.75	0.73	0.78	0.75	0.73	0.72



Luminaire Lumens:
FL=1667.86,FM=182.8,FH=7.75,FVH=4.01
BL=1552.3,BM=164.48,BH=7.73,BVH=4
UL=0,UH=0

BUG Rating:B3-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	29535.17	29776.30	29268.20	28260.61	26736.32	24195.83	16927.52	16927.52	16199.82
45.0	28510.36	29423.21	29741.85	29449.05	28338.12	26831.05	24893.38	21913.69	19295.69
90.0	29423.21	29724.63	29268.20	28260.61	26744.93	24256.11	17089.42	17089.42	15675.36
135.0	28691.21	29483.50	29716.02	29207.92	28140.05	26564.08	23868.58	21353.92	18589.52
180.0	29535.17	28441.46	26908.56	24893.38	21758.67	19045.95	16152.37	13379.35	10296.32
225.0	28510.36	26607.14	24488.63	16918.05	16918.05	15529.82	12662.07	9709.94	7667.21
270.0	29423.21	28536.19	27115.24	24617.81	22137.60	19416.25	16591.57	13043.49	10563.28
315.0	28691.21	27390.82	25065.62	20716.64	17101.48	17101.48	13526.70	10914.73	8737.66
360.0	29535.17	29776.30	29268.20	28260.61	26736.32	24195.83	16927.52	16927.52	16199.82

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	13412.17	10282.62	8232.14	6651.87	5458.27	4329.26	3641.17	3109.82	2603.45
45.0	16565.74	13835.78	10675.24	8565.34	6920.47	5396.18	4491.94	4491.94	3096.04
90.0	12931.63	9881.31	7910.92	6485.66	5282.59	4380.93	3566.25	3075.37	2630.14
135.0	15084.50	12432.05	10072.41	7704.15	6265.97	5129.21	4466.10	4466.10	2959.11
180.0	8272.53	6662.12	5396.18	4431.65	4431.65	3009.06	2506.13	2200.41	1967.03
225.0	6124.83	4789.99	4044.21	3397.46	2894.53	2414.85	2132.38	1710.05	1710.05
270.0	8505.05	6481.27	5275.61	4362.76	4362.76	3002.17	2603.45	2222.80	1989.42
315.0	6681.15	5487.55	4561.78	3675.62	3142.55	2632.73	2316.67	2072.96	1696.53
360.0	13412.17	10282.62	8232.14	6651.87	5458.27	4329.26	3641.17	3109.82	2603.45

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2291.70	1717.03	1717.03	1686.20	1559.95	1481.41	1417.34	1365.67	1318.39
45.0	2680.09	2355.42	2054.87	1874.88	1729.34	1615.67	1508.88	1439.12	1383.15
90.0	2323.56	1911.91	1716.17	1716.17	1585.87	1503.97	1435.16	1370.06	1330.70
135.0	2568.14	2267.58	1990.28	1820.63	1687.15	1562.27	1486.49	1422.76	1364.20
180.0	1747.43	1622.56	1528.69	1436.54	1381.43	1339.23	1303.92	1266.03	1242.77
225.0	1590.09	1502.08	1429.65	1363.17	1324.85	1290.31	1255.43	1231.32	1206.60
270.0	1813.74	1680.26	1555.38	1477.02	1415.87	1367.65	1318.56	1286.70	1257.41
315.0	1696.53	1588.37	1503.97	1436.89	1384.70	1332.77	1297.03	1266.72	1232.78
360.0	2291.70	1717.03	1717.03	1686.20	1559.95	1481.41	1417.34	1365.67	1318.39

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1287.21	1259.74	1233.82	1203.68	1161.05	1081.56	974.09	810.55	665.26
45.0	1340.95	1297.89	1267.75	1241.05	1210.91	1172.16	1072.26	959.45	836.30
90.0	1288.76	1258.36	1232.87	1205.83	1139.43	1046.08	933.61	803.92	634.61
135.0	1329.75	1287.56	1259.14	1233.30	1203.16	1131.68	1036.95	920.69	790.65
180.0	1218.66	1194.55	1131.68	1043.84	934.47	782.04	641.67	457.37	457.37
225.0	1171.73	1106.45	1008.19	888.40	724.60	596.03	468.48	341.98	199.02
270.0	1225.55	1199.72	1145.46	1024.03	908.64	789.79	619.28	479.77	445.32
315.0	1206.52	1166.39	1065.20	951.78	788.50	650.19	512.66	381.50	236.14
360.0	1287.21	1259.74	1233.82	1203.68	1161.05	1081.56	974.09	810.55	665.26

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	481.14	343.35	224.42	109.20	52.53	32.90	27.13	18.86	14.04
45.0	698.51	528.85	459.10	459.10	147.09	57.18	34.79	28.68	21.27
90.0	494.84	366.09	245.18	120.82	56.06	33.59	26.78	19.81	13.52
135.0	646.84	465.99	465.99	304.95	90.77	46.16	33.41	24.97	18.17
180.0	295.90	96.71	47.54	31.17	25.49	19.12	13.09	11.45	10.85
225.0	107.91	44.78	30.49	24.54	16.79	12.57	11.28	10.76	10.16
270.0	445.32	114.28	53.74	32.98	27.04	18.60	13.78	11.80	11.11
315.0	137.44	68.55	38.32	28.16	21.27	15.85	12.23	11.54	11.02
360.0	481.14	343.35	224.42	109.20	52.53	32.90	27.13	18.86	14.04

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	11.88	11.28	10.59	10.08	9.65	9.21	8.96	8.78	8.61
45.0	14.12	11.97	11.28	10.59	10.16	9.56	9.30	8.96	8.70
90.0	12.06	11.45	10.94	10.25	9.73	9.39	9.04	8.78	8.61
135.0	13.09	12.06	11.54	10.94	10.25	9.73	9.39	9.13	8.87
180.0	10.42	9.90	9.47	9.13	8.87	8.61	8.44	8.35	8.27
225.0	9.82	9.39	9.04	8.78	8.70	8.44	8.35	8.18	8.18
270.0	10.59	10.08	9.56	9.21	8.96	8.78	8.61	8.44	8.27
315.0	10.51	9.99	9.56	9.21	9.04	8.78	8.61	8.44	8.35
360.0	11.88	11.28	10.59	10.08	9.65	9.21	8.96	8.78	8.61

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	8.44	8.27	8.18	8.10	8.01	7.92	7.92	7.84	7.84
45.0	8.61	8.44	8.35	8.18	8.10	8.01	8.01	7.92	7.84
90.0	8.44	8.27	8.18	8.10	8.01	7.92	7.84	7.84	7.75
135.0	8.61	8.53	8.35	8.18	8.10	8.10	7.92	7.84	7.84
180.0	8.10	8.10	8.01	8.01	7.84	7.84	7.75	7.75	7.66
225.0	8.01	7.92	7.92	7.84	7.84	7.84	7.75	7.75	7.66
270.0	8.27	8.10	8.01	8.01	7.92	7.84	7.75	7.75	7.66
315.0	8.18	8.10	8.10	7.92	7.92	7.75	7.75	7.75	7.66
360.0	8.44	8.27	8.18	8.10	8.01	7.92	7.92	7.84	7.84

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	7.75	7.75	7.66	7.66	7.58	7.58	7.58	7.58	7.58
45.0	7.75	7.75	7.75	7.66	7.66	7.66	7.58	7.58	7.58
90.0	7.66	7.75	7.58	7.66	7.58	7.58	7.49	7.49	7.49
135.0	7.75	7.75	7.66	7.66	7.66	7.58	7.58	7.49	7.58
180.0	7.66	7.66	7.58	7.58	7.58	7.58	7.58	7.49	7.49
225.0	7.66	7.66	7.66	7.58	7.58	7.58	7.58	7.49	7.49
270.0	7.66	7.66	7.66	7.58	7.58	7.49	7.58	7.49	7.49
315.0	7.66	7.58	7.58	7.58	7.58	7.49	7.41	7.49	7.49
360.0	7.75	7.75	7.66	7.66	7.58	7.58	7.58	7.58	7.58

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	7.49	7.58	7.49	7.49	7.49	7.49	7.49	7.49	7.49
45.0	7.58	7.58	7.58	7.58	7.49	7.58	7.49	7.49	7.49
90.0	7.41	7.49	7.41	7.41	7.41	7.41	7.41	7.41	7.41
135.0	7.58	7.49	7.49	7.49	7.49	7.41	7.41	7.41	7.41
180.0	7.49	7.49	7.41	7.41	7.49	7.41	7.41	7.41	7.41
225.0	7.58	7.49	7.49	7.49	7.49	7.49	7.49	7.41	7.41
270.0	7.49	7.49	7.49	7.41	7.49	7.41	7.41	7.41	7.41
315.0	7.49	7.49	7.41	7.41	7.41	7.41	7.41	7.41	7.41
360.0	7.49	7.58	7.49	7.49	7.49	7.49	7.49	7.49	7.49

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	7.49	7.41	7.41	7.41	7.41	7.41	7.41	7.32	7.41
45.0	7.49	7.49	7.49	7.41	7.41	7.32	7.32	7.32	7.32
90.0	7.41	7.41	7.41	7.32	7.32	7.32	7.32	7.32	7.23
135.0	7.32	7.32	7.32	7.41	7.32	7.32	7.32	7.32	7.32
180.0	7.41	7.41	7.41	7.32	7.32	7.32	7.32	7.41	7.32
225.0	7.49	7.41	7.32	7.32	7.32	7.32	7.32	7.32	7.32
270.0	7.41	7.41	7.32	7.32	7.32	7.32	7.23	7.32	7.23
315.0	7.32	7.32	7.32	7.32	7.23	7.23	7.32	7.23	7.23
360.0	7.49	7.41	7.41	7.41	7.41	7.41	7.41	7.32	7.41

Intensity data(cd)

C/γ(°)	90.0
0.0	7.41
45.0	7.32
90.0	7.23
135.0	7.23
180.0	7.32
225.0	7.32
270.0	7.32
315.0	7.23
360.0	7.41