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

Nata

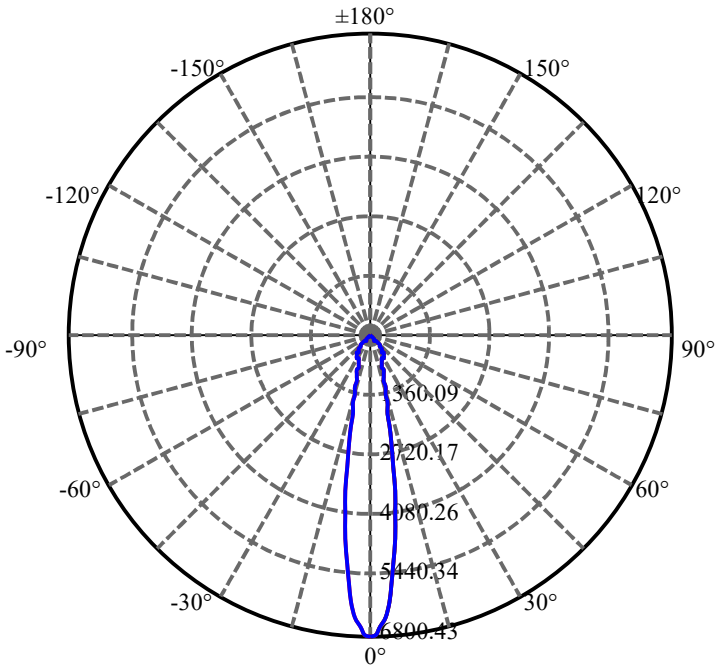
Client: NT
LumCAT: 1-1711-LM2
Luminaire: 92.70.481.00 LED HOLDER
Report No: 20251215-C004
Ballast type: DC

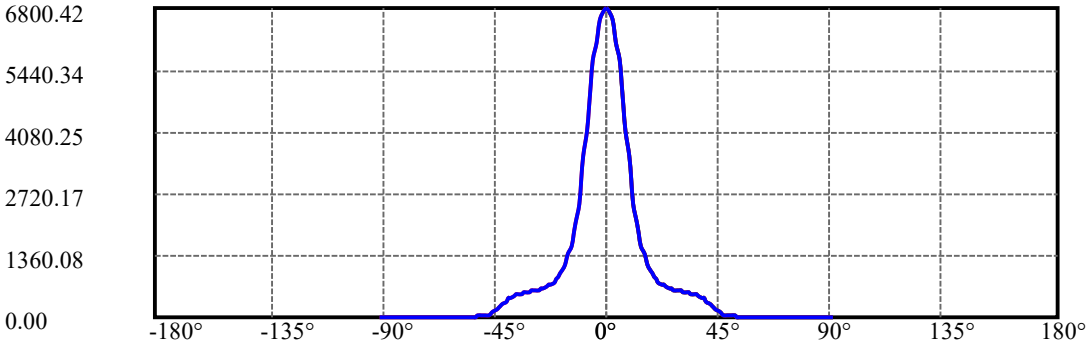
Test No: 20251215-C004	Voltage(V): 35.220
LampCAT: CITIZEN CLU028 LES9.8	Current(A): 0.364
Lamp flux(lm): 1652.6	Power (W): 12.820
Number of Lamps: 1	PF: 0.000
Length(mm): 50	Width(mm): 50
Phm Type: C	Height(mm): 22

Photometric Results

Lumens(lm): 1601.76, Efficiency(%): 96.93% , Luminous Efficacy(lm/W): 124.94
Central intensity(cd): 6800.425, Maximum intensity(cd): 6800.425
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=18.6
[C90/270]Total=18.6
Field angle(10%Imax): [C0/180]Total=47.2
[C90/270]Total=47.2
Maximum s/h(1/2): C0_180=0.32 C90_270=0.32
Maximum s/h(1/4): C0_180=0.32 C90_270=0.32
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 96.92%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 99.054%

Light Distribution Curve [Unit:cd]





C0(Max):

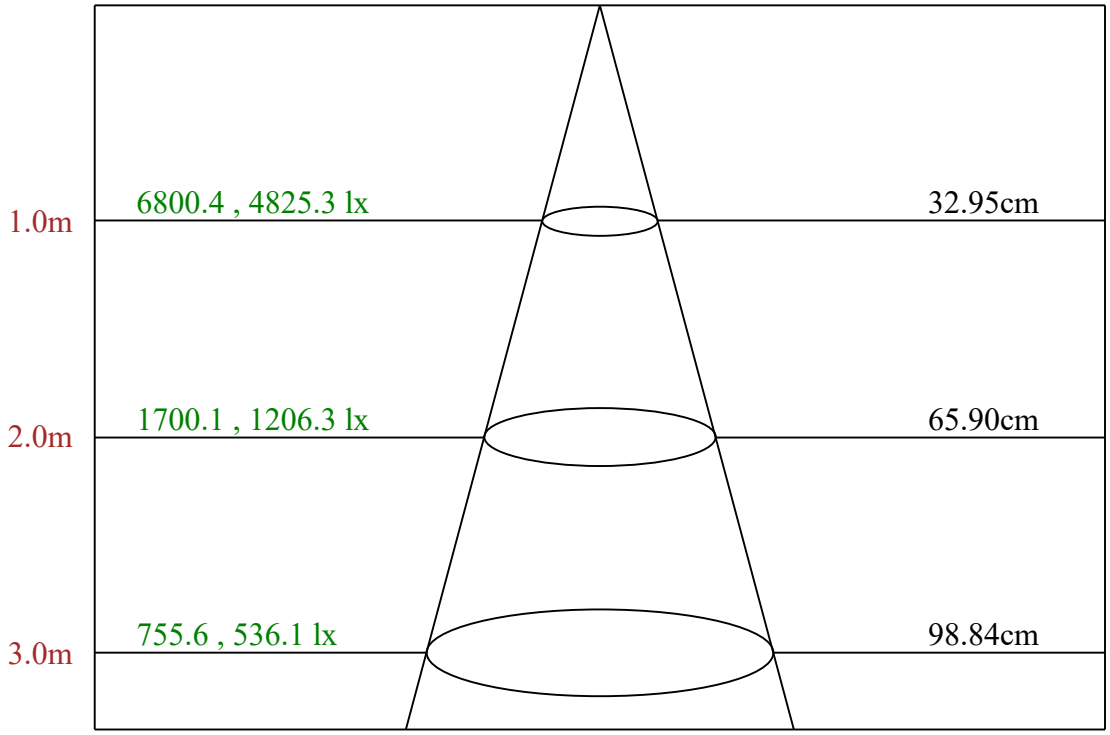
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:23.6 Right:23.6
:C90/270Left:23.6 Right:23.6

Beam Angle(50%Imax):C0/180Left:9.3 Right:9.3
:C90/270Left:9.3 Right:9.3

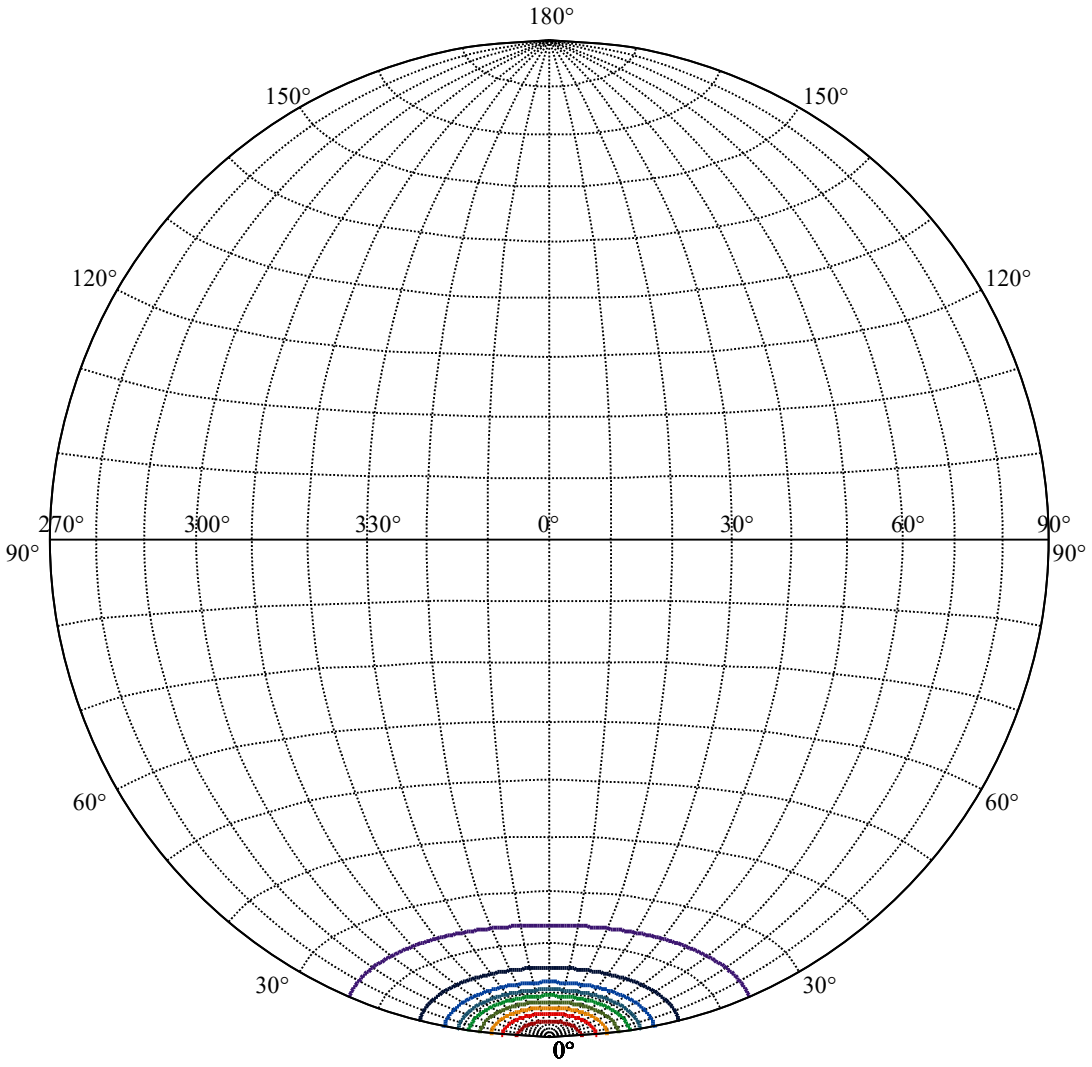
Lux distance Curve



Max , Ave

Beam angle of C0 plane 18.71

ISO candela diagram on circular web



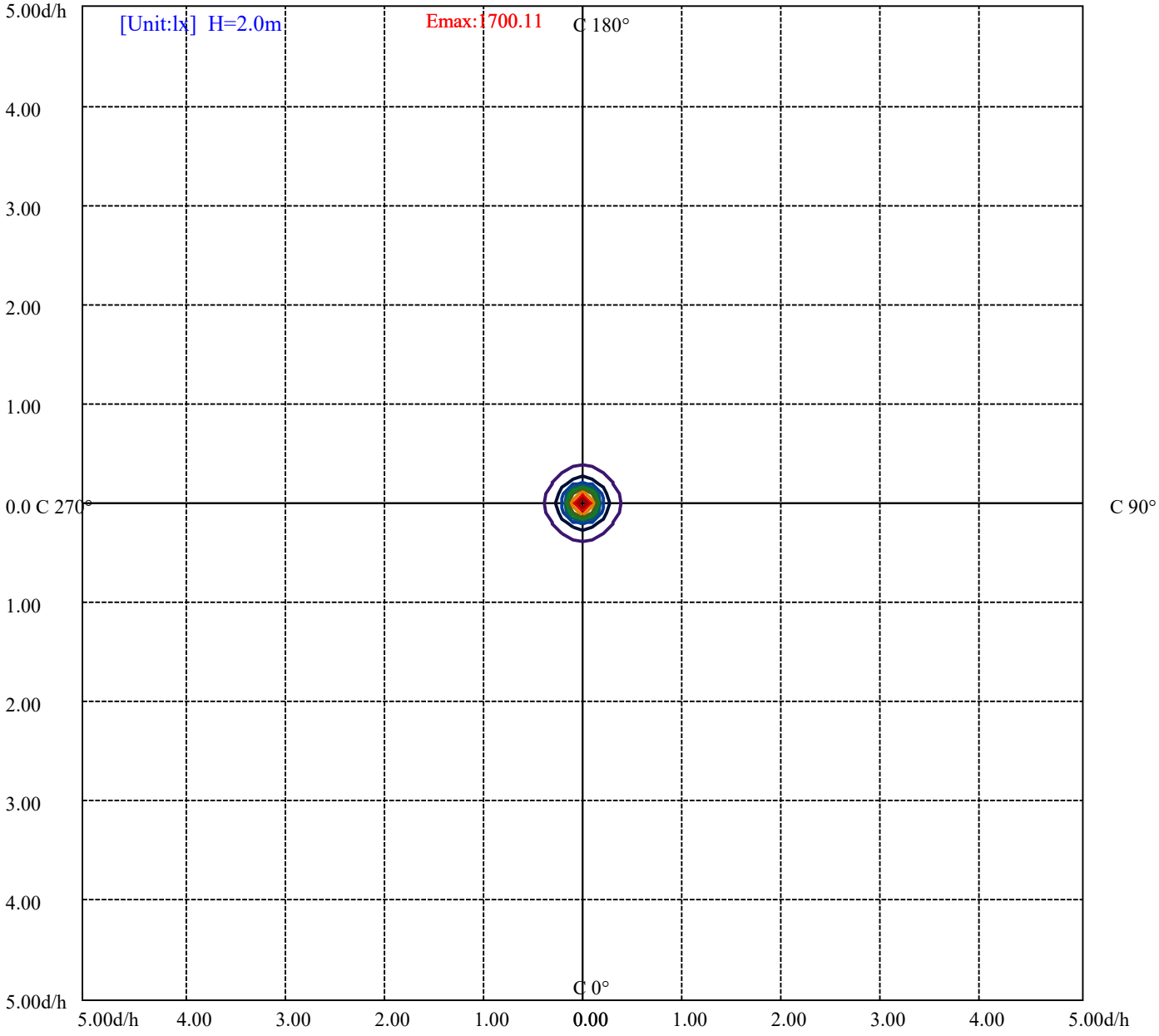
House [Unit:cd] Road

Imax:6800.43

(10%Imax) 680.042
(20%Imax) 1360.08
(30%Imax) 2040.13
(40%Imax) 2720.17
(50%Imax) 3400.21
(60%Imax) 4080.25
(70%Imax) 4760.3
(80%Imax) 5440.34
(90%Imax) 6120.38

NT Nata 1-1711-LM2

ISO illuminance diagram



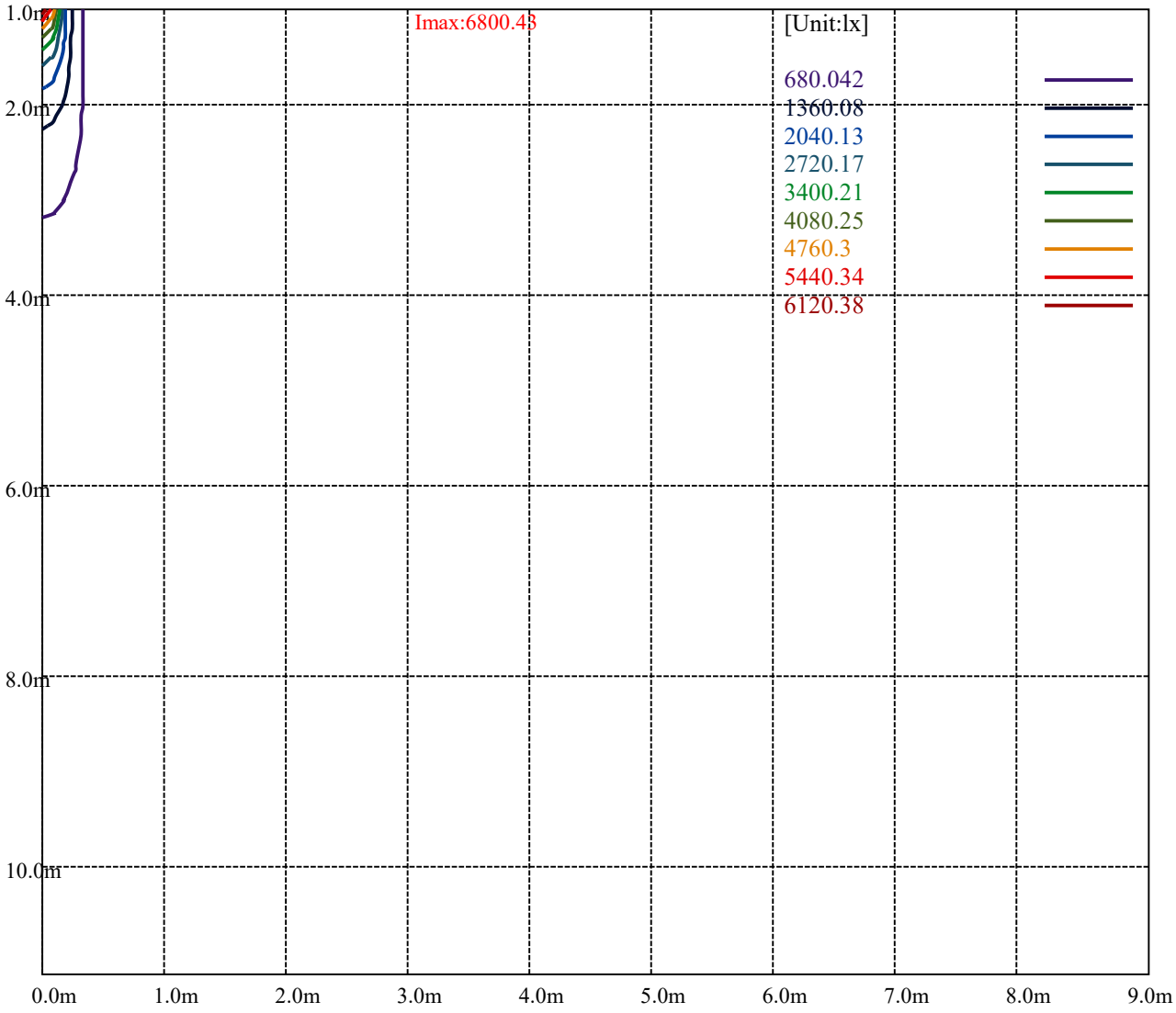
(10%Emax) 170.0105
(20%Emax) 340.02
(30%Emax) 510.0325
(40%Emax) 680.0425
(50%Emax) 850.0525
(60%Emax) 1020.063
(70%Emax) 1190.073
(80%Emax) 1360.083
(90%Emax) 1530.095

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2025/12/15
Humidity(%): 60.0%

Operator: YZQ
Distance(m): 9.28

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2025/12/15
Humidity(%): 60.0%

Operator: YZQ
Distance(m): 9.28

NT Nata 1-1711-LM2

Luminance Limitting Curve(no luminous side)

Luminance Table

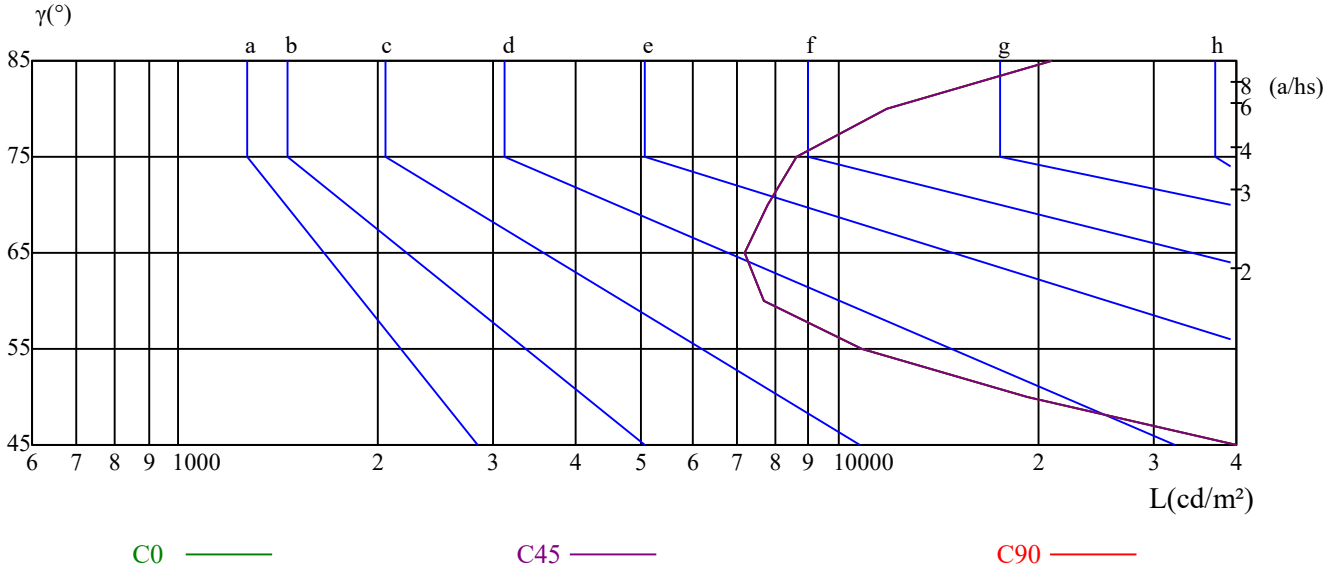
γ	45	50	55	60	65	70	75	80	85
C0	75374	19278	10844	7676	7208	7787	8626	11786	21043
C45	75374	19278	10844	7676	7208	7787	8626	11786	21043
C90	75374	19278	10844	7676	7208	7787	8626	11786	21043

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7208	7208	7208	8626	8626	8626	21043	21043	21043

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: 2025/12/15
Humidity(%): 60.0%

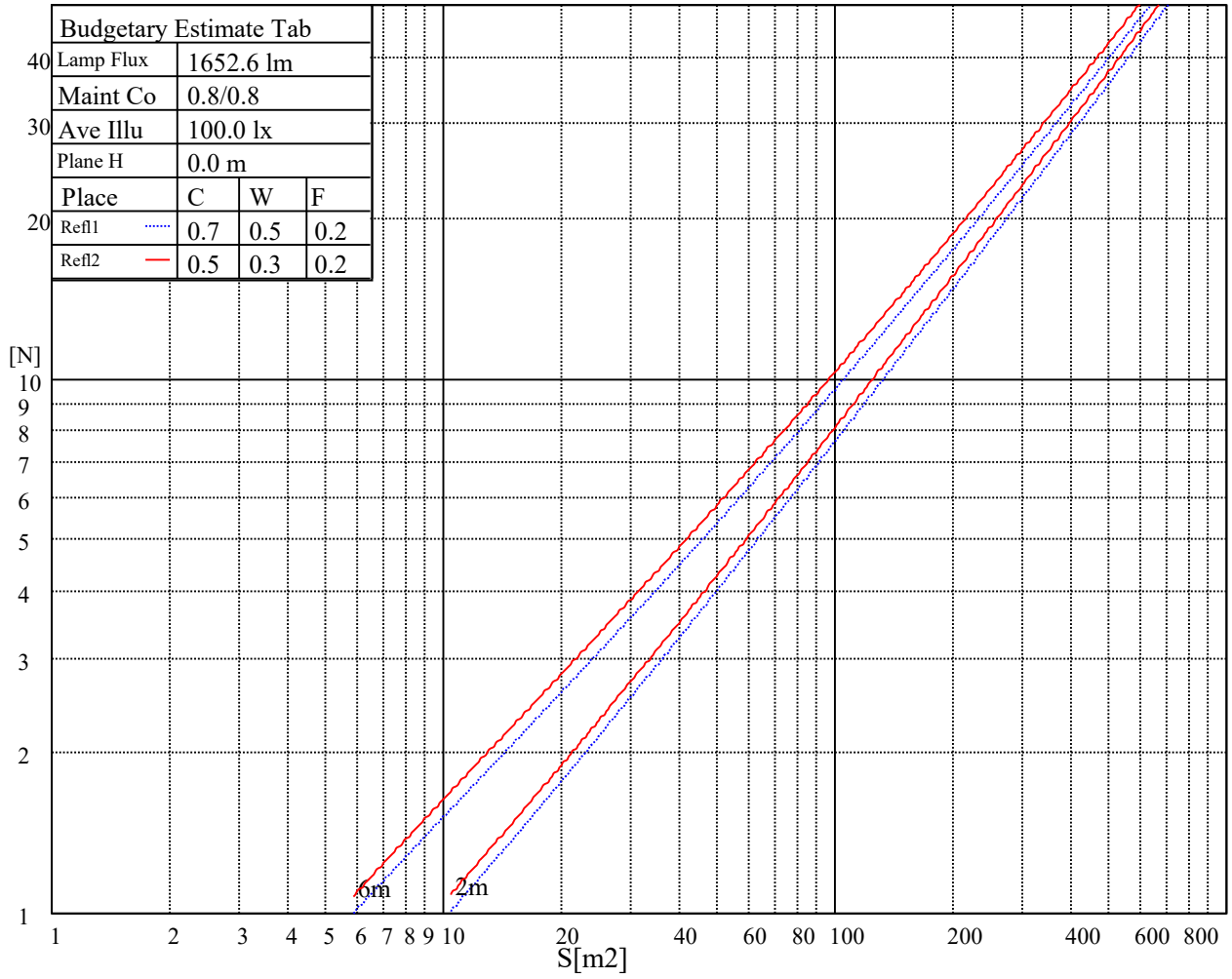
Operator: YZQ
Distance(m): 9.28

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	24.78	25.77	25.14	26.08	26.40	24.22	25.21	24.58	25.52	25.83
	3H	24.60	25.48	24.98	25.81	26.16	24.04	24.92	24.43	25.26	25.60
	4H	24.51	25.32	24.91	25.68	26.05	23.96	24.77	24.36	25.13	25.50
	6H	24.45	25.20	24.87	25.57	25.97	23.92	24.66	24.33	25.03	25.43
	8H	24.40	25.11	24.83	25.50	25.91	23.87	24.58	24.29	24.97	25.37
	12H	24.37	25.04	24.80	25.44	25.86	23.85	24.52	24.27	24.91	25.33
4H	2H	24.48	25.29	24.88	25.65	26.02	23.92	24.73	24.32	25.09	25.45
	3H	24.27	24.95	24.70	25.34	25.76	23.72	24.40	24.15	24.79	25.21
	4H	24.23	24.81	24.67	25.23	25.68	23.69	24.27	24.12	24.69	25.14
	6H	24.14	24.65	24.61	25.11	25.56	23.62	24.13	24.09	24.58	25.04
	8H	24.13	24.60	24.61	25.06	25.54	23.62	24.09	24.10	24.55	25.03
	12H	24.15	24.59	24.64	25.04	25.56	23.65	24.09	24.14	24.54	25.06
8H	4H	24.04	24.52	24.53	24.98	25.45	23.51	23.98	23.99	24.44	24.92
	6H	23.97	24.36	24.48	24.84	25.35	23.46	23.85	23.96	24.33	24.84
	8H	24.03	24.36	24.56	24.88	25.38	23.54	23.87	24.07	24.39	24.89
	12H	24.10	24.36	24.64	24.87	25.40	23.63	23.88	24.17	24.40	24.92
12H	4H	24.00	24.44	24.49	24.89	25.41	23.46	23.90	23.95	24.35	24.87
	6H	23.97	24.30	24.50	24.82	25.32	23.46	23.79	23.99	24.31	24.81
	8H	24.01	24.26	24.55	24.78	25.30	23.52	23.78	24.06	24.29	24.82

Variation with the observer position at spacings:		
S = 1.0H	3.7/-10.8	3.7/-10.8
S = 1.5H	5.9/-9.8	5.9/-9.8
S = 2.0H	7.7/-8.6	7.7/-8.6
Standard tables:	BK0	BK0
Uncorrected UGR	5.0	5.0

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

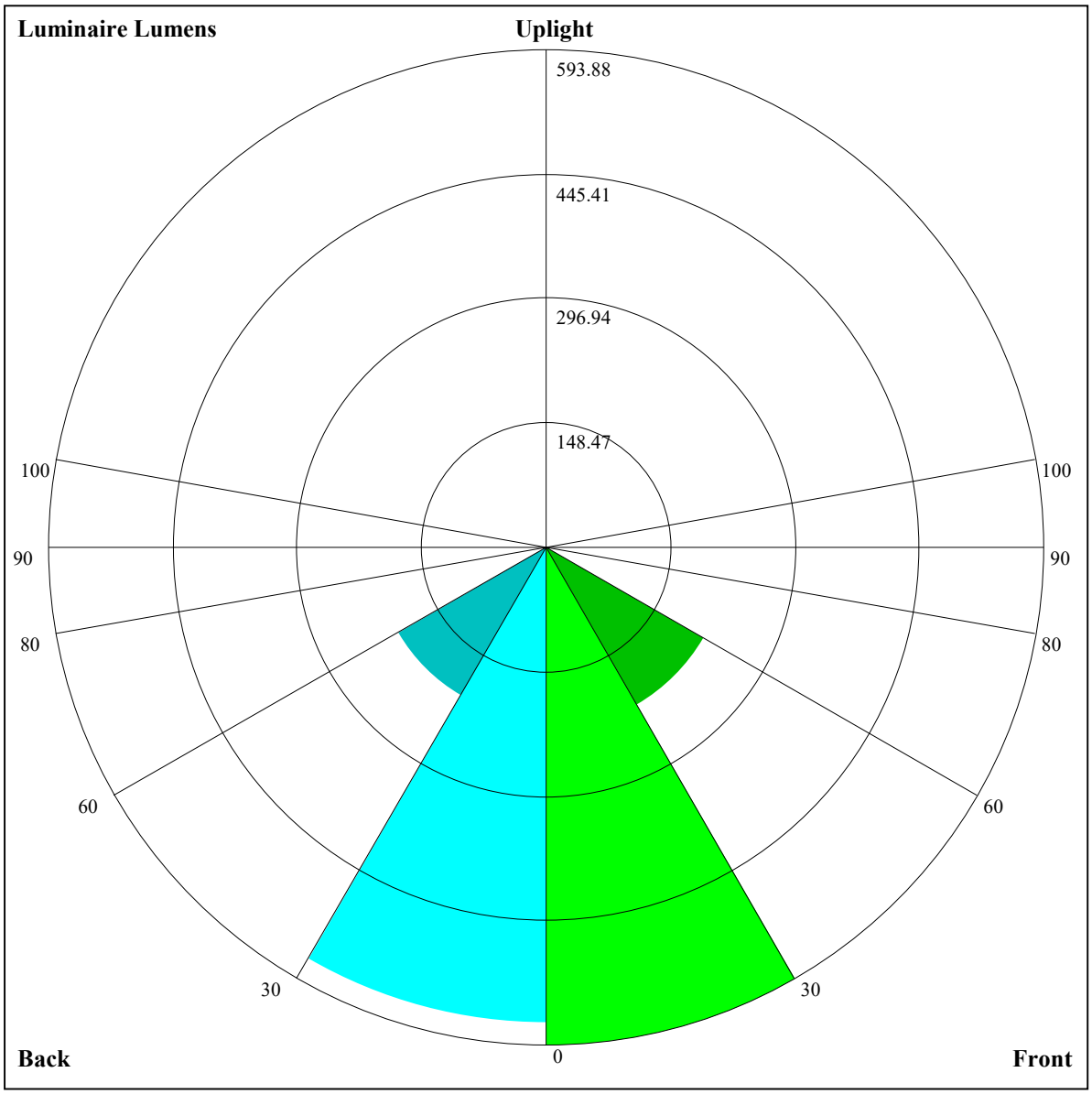
Budgetary Estimate Table



Equipment: GMS1980 Date: 2025/12/15 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	1.13	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	1.02	1.02	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92
2	1.01	0.98	0.95	1.00	0.96	0.94	0.97	0.94	0.92	0.94	0.92	0.90	0.91	0.89	0.88	0.86
3	0.95	0.91	0.88	0.94	0.90	0.87	0.92	0.88	0.85	0.89	0.87	0.84	0.87	0.85	0.83	0.81
4	0.90	0.85	0.82	0.89	0.85	0.81	0.87	0.83	0.80	0.85	0.82	0.79	0.83	0.81	0.78	0.77
5	0.85	0.80	0.77	0.85	0.80	0.76	0.83	0.79	0.76	0.81	0.78	0.75	0.80	0.77	0.74	0.73
6	0.81	0.76	0.72	0.80	0.76	0.72	0.79	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.69
7	0.77	0.72	0.69	0.77	0.72	0.68	0.76	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.67	0.66
8	0.74	0.69	0.65	0.73	0.69	0.65	0.72	0.68	0.65	0.71	0.68	0.65	0.71	0.67	0.64	0.63
9	0.71	0.66	0.62	0.70	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.61
10	0.68	0.63	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.59	0.66	0.62	0.59	0.58



Luminaire Lumens:
FL=593.88,FM=216.72,FH=5.66,FVH=2.03
BL=567.63,BM=204.24,BH=5.58,BVH=2.03
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	6816.36	6815.50	6717.32	6494.27	6233.34	5897.47	5400.57	4949.31	4450.69
45.0	6744.88	6818.08	6812.05	6688.04	6500.30	6223.86	5869.06	5333.40	4857.16
90.0	6831.86	6780.19	6597.62	6353.04	6019.76	5609.84	5022.51	4516.14	3984.78
135.0	6808.61	6845.64	6793.97	6607.95	6352.18	6013.73	5593.48	4994.09	4480.83
180.0	6816.36	6718.18	6531.31	6258.31	5807.05	5373.87	4890.75	4368.87	3713.51
225.0	6744.88	6580.39	6260.03	5920.73	5511.66	5051.79	4421.40	3895.22	3257.95
270.0	6831.86	6797.41	6638.95	6420.21	6136.88	5689.93	5262.78	4669.43	4169.94
315.0	6808.61	6656.18	6447.77	6175.64	5744.18	5330.82	4869.22	4239.69	3726.43
360.0	6816.36	6815.50	6717.32	6494.27	6233.34	5897.47	5400.57	4949.31	4450.69

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3929.67	3296.70	2823.91	2403.65	1705.57	1705.57	1491.92	1318.64	1149.85
45.0	4213.00	3697.15	3197.66	2628.42	2237.44	1918.80	1655.28	1401.23	1241.91
90.0	3463.77	2853.19	2425.18	1694.81	1694.81	1476.67	1305.73	1136.68	1028.25
135.0	3957.23	3443.96	2829.94	2401.07	2033.34	1681.12	1466.68	1261.72	1137.71
180.0	3207.14	2733.48	2229.69	1900.72	1638.92	1387.45	1236.75	1111.01	995.61
225.0	2792.04	2384.70	1700.06	1700.06	1492.86	1325.71	1157.86	1047.20	956.95
270.0	3674.76	3189.91	2627.56	2240.03	1923.11	1672.51	1426.21	1268.61	1141.15
315.0	3223.50	2761.90	2015.26	1690.50	1690.50	1485.28	1279.55	1149.25	1038.85
360.0	3929.67	3296.70	2823.91	2403.65	1705.57	1705.57	1491.92	1318.64	1149.85

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1047.11	958.84	869.37	817.87	779.54	733.73	706.86	683.69	659.06
45.0	1117.90	1015.42	912.94	848.35	794.10	738.98	703.67	674.39	645.97
90.0	940.41	852.66	795.22	749.75	710.48	669.31	642.01	621.43	603.60
135.0	1036.09	949.97	868.16	815.63	772.57	737.26	701.95	676.98	658.89
180.0	914.66	852.66	802.71	757.07	725.20	700.23	670.95	652.86	634.78
225.0	881.42	808.22	760.86	722.71	686.11	661.91	641.58	621.17	607.48
270.0	1031.78	919.83	847.49	772.57	723.48	683.87	645.11	620.14	597.75
315.0	924.57	854.12	783.51	740.62	703.24	666.56	643.99	625.91	613.68
360.0	1047.11	958.84	869.37	817.87	779.54	733.73	706.86	683.69	659.06

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	642.44	626.60	613.51	597.66	585.26	575.36	565.02	549.61	535.14
45.0	627.89	610.67	598.61	587.41	577.94	570.19	563.30	555.55	544.35
90.0	583.71	570.88	560.29	547.54	536.09	522.14	509.48	493.72	480.02
135.0	645.11	629.61	617.56	605.50	596.03	588.27	573.63	558.99	544.35
180.0	621.00	606.36	594.30	580.52	569.33	557.27	539.19	526.27	508.18
225.0	594.13	584.49	576.56	568.04	556.93	543.49	531.18	518.69	494.58
270.0	581.39	563.30	550.38	539.19	527.13	515.07	505.60	491.82	478.04
315.0	599.90	589.65	581.30	573.20	561.84	552.79	538.41	521.02	507.93
360.0	642.44	626.60	613.51	597.66	585.26	575.36	565.02	549.61	535.14

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	522.22	500.00	473.39	430.08	388.65	343.35	294.52	231.66	182.74
45.0	529.71	517.66	496.13	465.99	435.85	435.85	323.46	263.69	216.16
90.0	453.76	425.94	393.73	355.76	305.03	263.78	222.01	181.28	135.72
135.0	527.99	496.99	461.68	434.12	434.12	315.28	266.54	216.76	171.46
180.0	482.35	438.43	438.43	388.31	303.83	242.85	195.40	149.93	108.16
225.0	465.30	429.30	389.51	336.55	291.08	235.71	191.10	148.81	99.81
270.0	467.71	452.21	434.12	434.12	342.84	292.46	251.55	212.20	170.77
315.0	489.41	453.84	417.76	376.94	321.39	274.63	228.13	182.40	128.92
360.0	522.22	500.00	473.39	430.08	388.65	343.35	294.52	231.66	182.74

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	136.76	94.73	54.00	33.93	24.20	21.10	17.65	15.33	12.83
45.0	159.75	117.64	80.78	52.36	34.02	29.45	26.87	24.20	20.75
90.0	102.48	66.74	47.97	38.84	34.36	31.00	27.56	23.08	19.72
135.0	116.43	80.18	45.56	31.09	24.46	21.70	19.38	17.22	14.64
180.0	65.36	41.85	25.84	21.36	19.29	16.62	14.64	12.83	11.54
225.0	67.69	45.21	33.33	28.51	25.84	23.17	20.32	16.88	14.55
270.0	124.10	92.23	64.93	46.42	36.26	32.81	29.19	25.15	21.36
315.0	90.85	60.28	40.48	30.49	27.90	24.89	21.70	19.38	16.53
360.0	136.76	94.73	54.00	33.93	24.20	21.10	17.65	15.33	12.83

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	11.28	9.90	8.87	8.61	8.27	7.84	7.32	7.06	6.72
45.0	18.00	15.76	13.78	11.88	10.85	9.65	8.78	8.10	7.32
90.0	16.45	13.78	11.63	10.16	8.96	7.92	7.15	6.54	6.29
135.0	12.92	11.20	9.99	9.13	8.35	7.75	7.23	6.54	6.20
180.0	10.33	9.90	9.56	9.04	8.61	8.18	7.84	7.32	6.98
225.0	12.83	11.37	10.33	9.39	8.70	8.10	7.49	7.23	6.89
270.0	17.74	15.33	13.09	11.02	9.82	8.87	8.18	7.66	7.32
315.0	14.73	13.52	12.49	11.02	9.90	9.13	8.18	7.75	7.41
360.0	11.28	9.90	8.87	8.61	8.27	7.84	7.32	7.06	6.72

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	6.54	6.20	6.03	5.94	5.68	5.60	5.34	5.17	4.99
45.0	6.89	6.63	6.37	6.11	5.94	5.77	5.68	5.51	5.34
90.0	6.11	6.03	6.03	5.94	5.86	5.86	6.03	5.86	5.60
135.0	6.03	5.94	5.86	5.77	5.68	5.60	5.51	5.34	5.08
180.0	6.63	6.29	6.11	5.86	5.60	5.34	5.25	4.99	4.82
225.0	6.63	6.46	6.20	6.11	5.94	5.77	5.51	5.34	5.08
270.0	7.06	6.72	6.54	6.29	6.11	5.94	5.86	5.77	5.60
315.0	6.89	6.54	6.20	5.94	5.68	5.51	5.34	5.17	4.91
360.0	6.54	6.20	6.03	5.94	5.68	5.60	5.34	5.17	4.99

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	4.82	4.65	4.48	4.39	4.39	4.31	4.22	4.13	4.13
45.0	5.17	4.91	4.65	4.56	4.39	4.39	4.22	4.22	4.13
90.0	5.43	5.17	4.99	4.91	4.82	4.65	4.65	4.48	4.48
135.0	4.91	4.74	4.39	4.31	4.31	4.31	4.22	4.13	4.05
180.0	4.65	4.48	4.39	4.31	4.22	4.22	4.13	4.13	4.05
225.0	4.82	4.65	4.48	4.48	4.39	4.31	4.31	4.13	4.05
270.0	5.43	5.25	5.08	4.91	4.82	4.65	4.48	4.48	4.39
315.0	4.74	4.48	4.31	4.31	4.22	4.13	4.05	3.96	3.88
360.0	4.82	4.65	4.48	4.39	4.39	4.31	4.22	4.13	4.13

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	4.05	3.96	3.96	3.88	3.79	3.79	3.70	3.62	3.53
45.0	4.05	4.05	3.96	3.96	3.88	3.70	3.62	3.44	3.44
90.0	4.31	4.22	4.05	3.88	3.70	3.62	3.44	3.36	3.27
135.0	3.96	3.96	3.96	3.88	3.79	3.62	3.62	3.53	3.44
180.0	3.96	3.96	3.88	3.88	3.70	3.62	3.62	3.53	3.27
225.0	4.05	4.05	3.96	3.62	3.53	3.53	3.44	3.36	3.19
270.0	4.22	4.22	4.05	3.79	3.70	3.53	3.36	3.27	3.19
315.0	3.88	3.79	3.70	3.70	3.62	3.53	3.44	3.27	3.19
360.0	4.05	3.96	3.96	3.88	3.79	3.79	3.70	3.62	3.53

Intensity data(cd)

C/γ(°)	90.0
0.0	3.27
45.0	3.27
90.0	3.19
135.0	3.19
180.0	3.19
225.0	3.19
270.0	3.27
315.0	3.10
360.0	3.27