SOTEN LIGHTING LTD.
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SOTEN

LumCAT: G1067
Luminaire: 1-0809-S 24°
Report No:
Test No:
LampCAT: LUMILEDS-5050-3090*9
Lamp flux(lm): 3600.0
Number of Lamps: 1
Length(mm): 105
Phm Type: C

Voltage(V): 230.8000
Current(A): 0.1310
Power (W): 28.8400
PF: 0.9500
Ballast type: LC 30/500/54 FLXC SR SNC2
Width(mm): 105
Height(mm): 10

Photometric Results

Lumens(lm): 3439.89
Efficiency(%): 95.55%
Lumens(lm)/Power(W): 119.28
Central intensity(cd): 14032.620
Maximum intensity(cd): 14032.620
Angle of maximum intensity: C=270.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=21.0
[C90/270]Total=21.0
Field angle(10%Imax): [C0/180]Total=47.0
[C90/270]Total=47.0
Maximum s/h(1/2): C0_180=0.36 C90_270=0.36
Maximum s/h(1/4): C0_180=0.38 C90_270=0.52
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 95.55%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 99.956%



Equipment: GMS-1800
Temperature(°C): 25.0
Date: 2022/8/29
Humidity(%): 65.0%
Operator: New
Distance(m): 7.18

SOTEN G1067

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	14032.620	.000	.000	.000%	.000%
3.0	13163.750	117.093	117.093	3.253%	3.253%
6.0	10817.270	309.464	426.556	8.596%	11.849%
9.0	8303.603	410.492	837.048	11.403%	23.251%
12.0	5696.809	419.636	1256.684	11.657%	34.908%
15.0	3672.240	359.732	1616.416	9.993%	44.900%
18.0	2415.485	284.378	1900.794	7.899%	52.800%
21.0	1729.359	227.563	2128.357	6.321%	59.121%
24.0	1336.484	192.969	2321.327	5.360%	64.481%
27.0	1185.581	178.583	2499.910	4.961%	69.442%
30.0	1100.853	179.440	2679.350	4.984%	74.426%
33.0	1047.459	184.621	2863.971	5.128%	79.555%
36.0	969.482	187.897	3051.868	5.219%	84.774%
39.0	771.215	174.289	3226.157	4.841%	89.615%
42.0	429.673	128.276	3354.433	3.563%	93.179%
45.0	136.885	64.144	3418.577	1.782%	94.960%
48.0	9.844	17.506	3436.083	.486%	95.447%
51.0	1.443	1.412	3437.494	.039%	95.486%
54.0	1.185	.343	3437.837	.010%	95.495%
57.0	.979	.293	3438.131	.008%	95.504%
60.0	.825	.253	3438.384	.007%	95.511%
63.0	.722	.223	3438.607	.006%	95.517%
66.0	.670	.207	3438.814	.006%	95.523%
69.0	.567	.188	3439.002	.005%	95.528%
72.0	.464	.160	3439.162	.004%	95.532%
75.0	.412	.138	3439.300	.004%	95.536%
78.0	.361	.124	3439.423	.003%	95.540%
81.0	.361	.117	3439.540	.003%	95.543%
84.0	.361	.118	3439.658	.003%	95.546%
87.0	.361	.118	3439.776	.003%	95.549%
90.0	.361	.119	3439.895	.003%	95.553%

Zonal flux distribution table

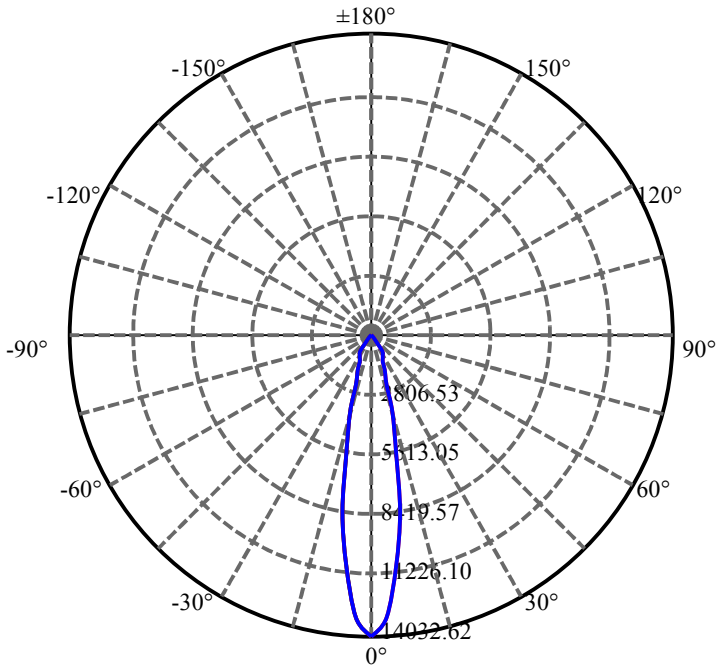
ZONAL LUMEN SUMMARY

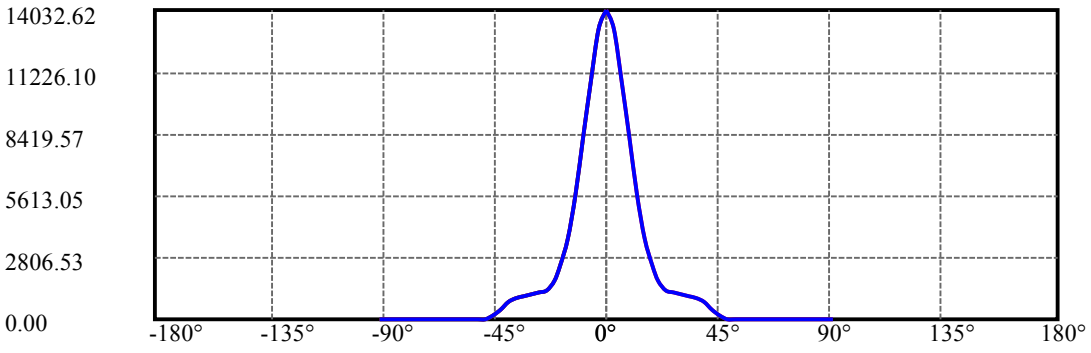
Zone	Lumens	%Lamp	%Fixt
0-30	2679.35	74.43%	77.89%
0-40	3226.16	89.62%	93.79%
0-60	3438.38	95.51%	99.96%
0-90	3439.78	95.55%	100.00%
0-120	3439.78	95.55%	100.00%
0-180	3439.90	95.55%	100.00%
60-90	1.65	0.05%	0.05%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-31.18	2751.92	76.44%	80.00%

ZONAL LUMEN SUMMARY

0-10	837.05
10-20	1063.75
20-30	778.56
30-40	546.81
40-50	209.93
50-60	2.30
60-70	0.62
70-80	0.42
80-90	0.35
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

Light Distribution Curve [Unit:cd]



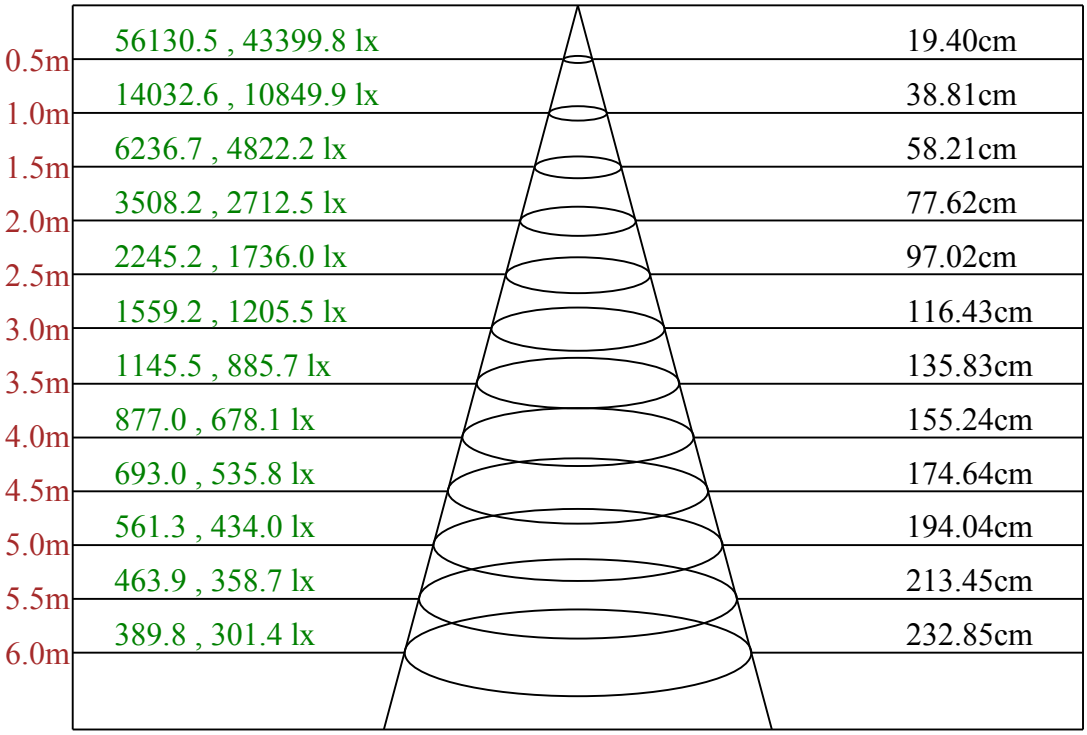


C270(Max):

C0/C180:

C90/C270:

Lux distance Curve



Max , Ave

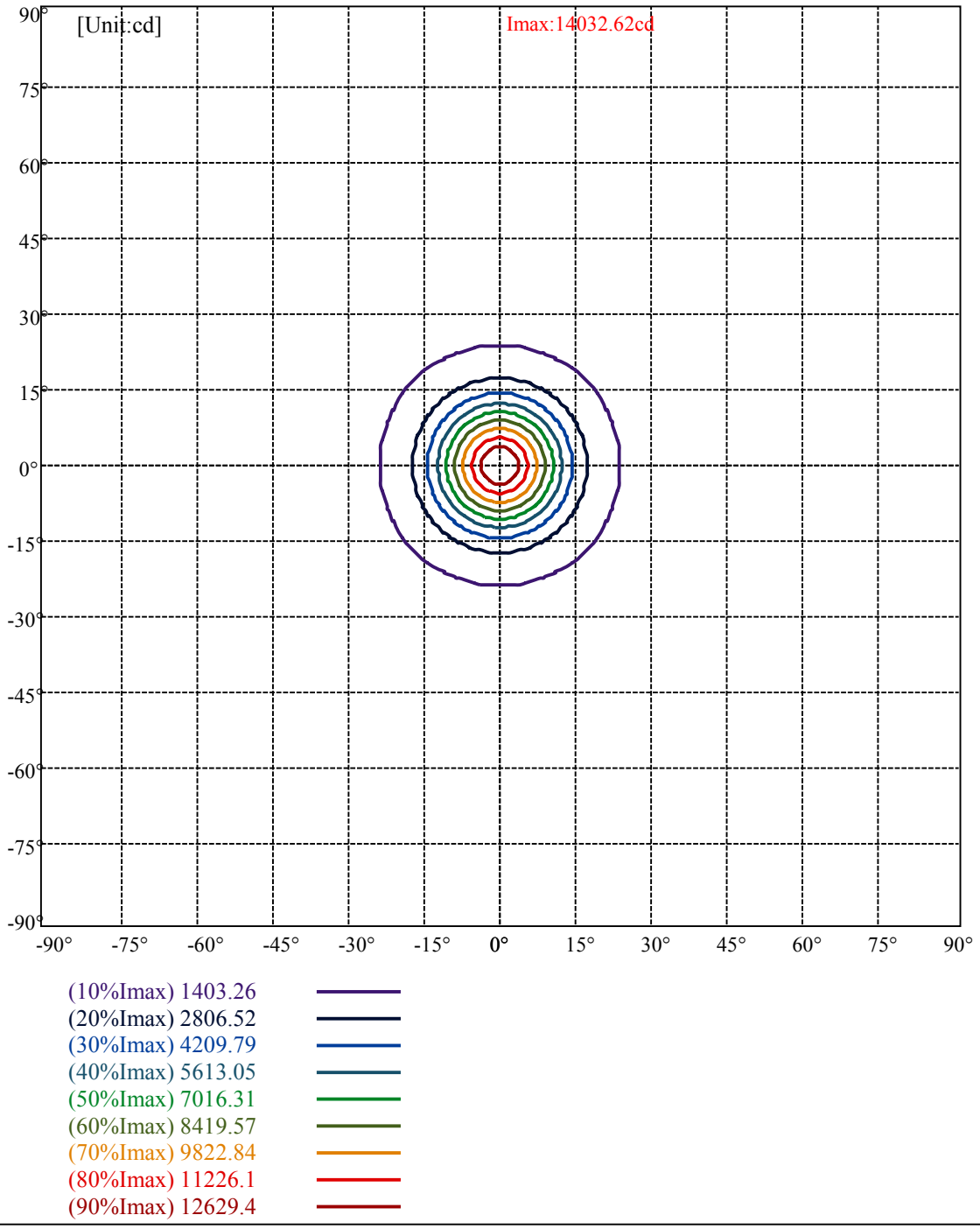
Beam angle of C270plane21.96

Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2022/8/29
Humidity(%): 65.0%

Operator: New
Distance(m): 7.18

ISO-Intensity(V-H)

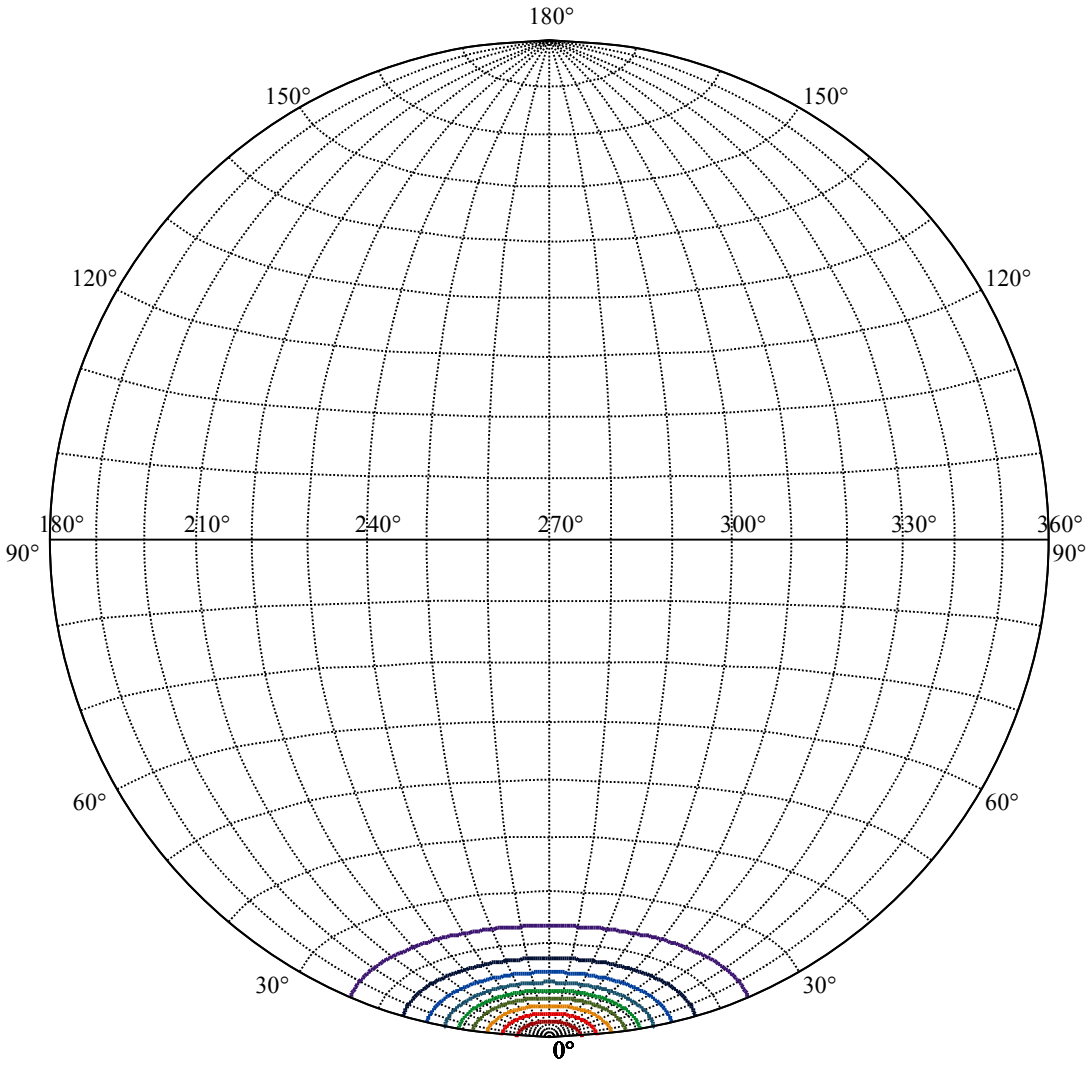


Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2022/8/29
Humidity(%): 65.0%

Operator: New
Distance(m): 7.18

ISO candela diagram on circular web



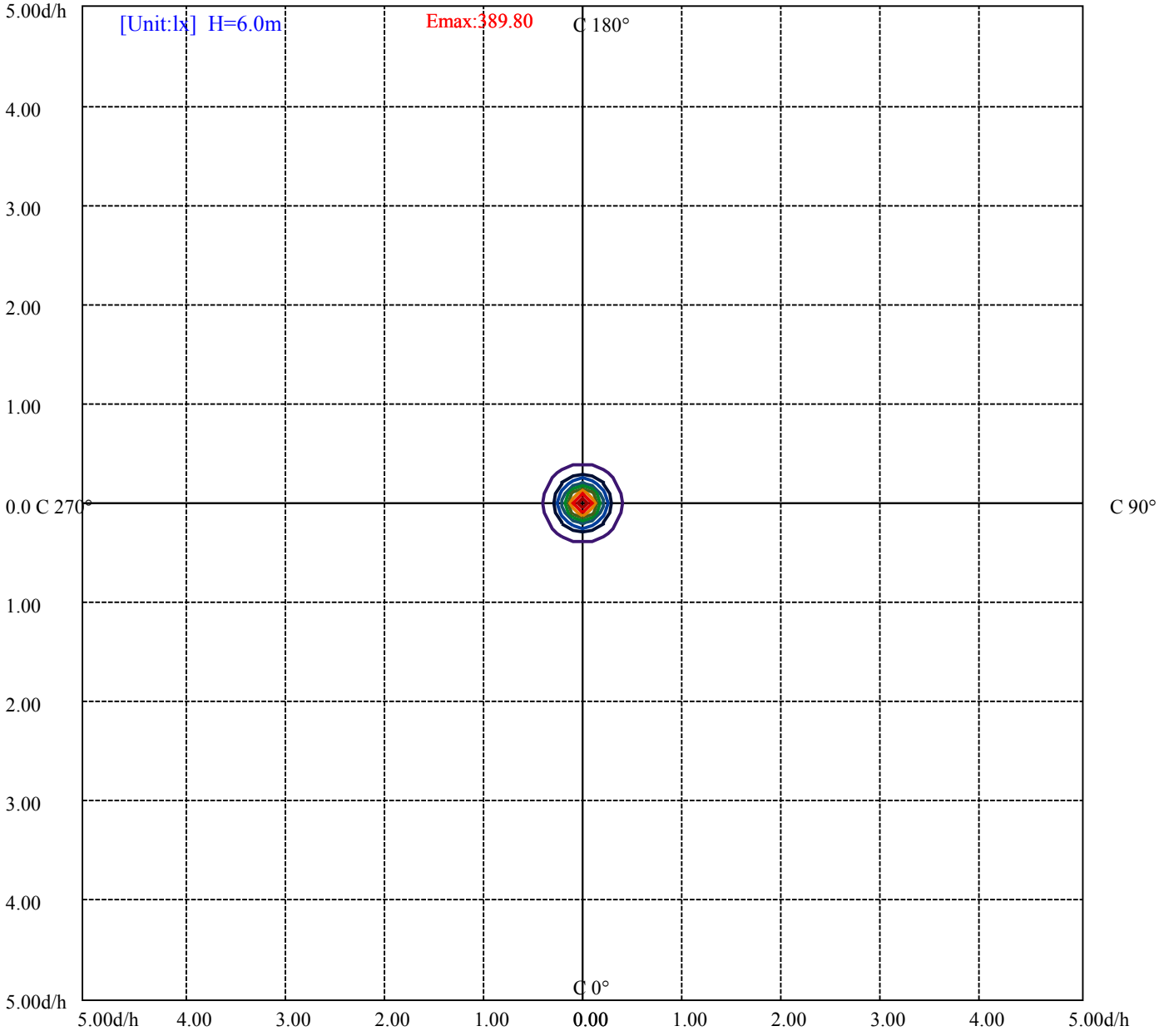
House [Unit:cd] Road

Imax:14032.62

(10%Imax) 1403.26
(20%Imax) 2806.52
(30%Imax) 4209.79
(40%Imax) 5613.05
(50%Imax) 7016.31
(60%Imax) 8419.57
(70%Imax) 9822.84
(80%Imax) 11226.1
(90%Imax) 12629.4

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ISO illuminance diagram



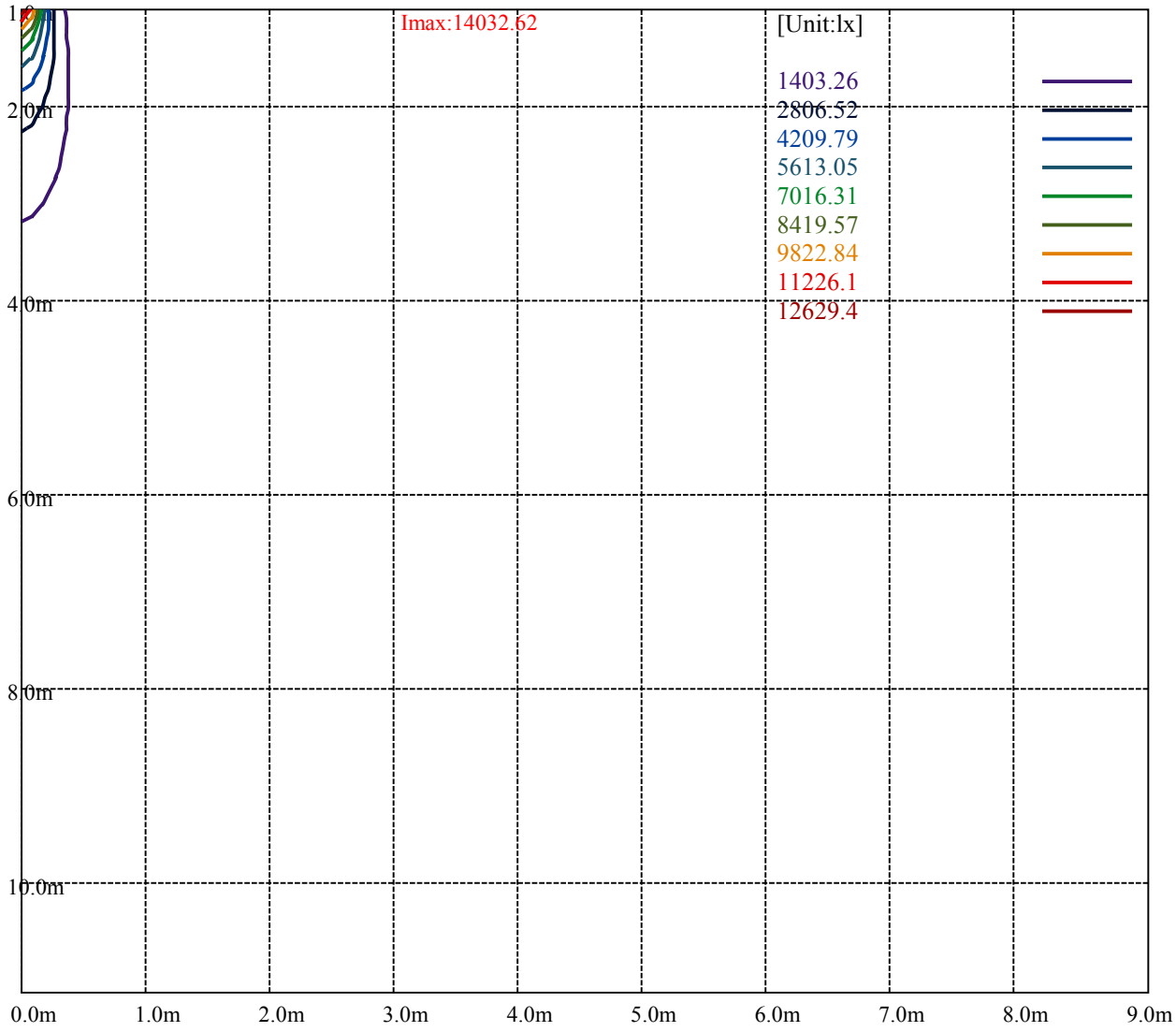
(10%Emax) 38.97945
(20%Emax) 77.95889
(30%Emax) 116.9381
(40%Emax) 155.9175
(50%Emax) 194.8969
(60%Emax) 233.8764
(70%Emax) 272.8558
(80%Emax) 311.8361
(90%Emax) 350.8139

Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2022/8/29
Humidity(%): 65.0%

Operator: New
Distance(m): 7.18

Space ISO Lux diagram



Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2022/8/29
Humidity(%): 65.0%

Operator: New
Distance(m): 7.18

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Luminance Limitting Curve(no luminous side)

Luminance Table

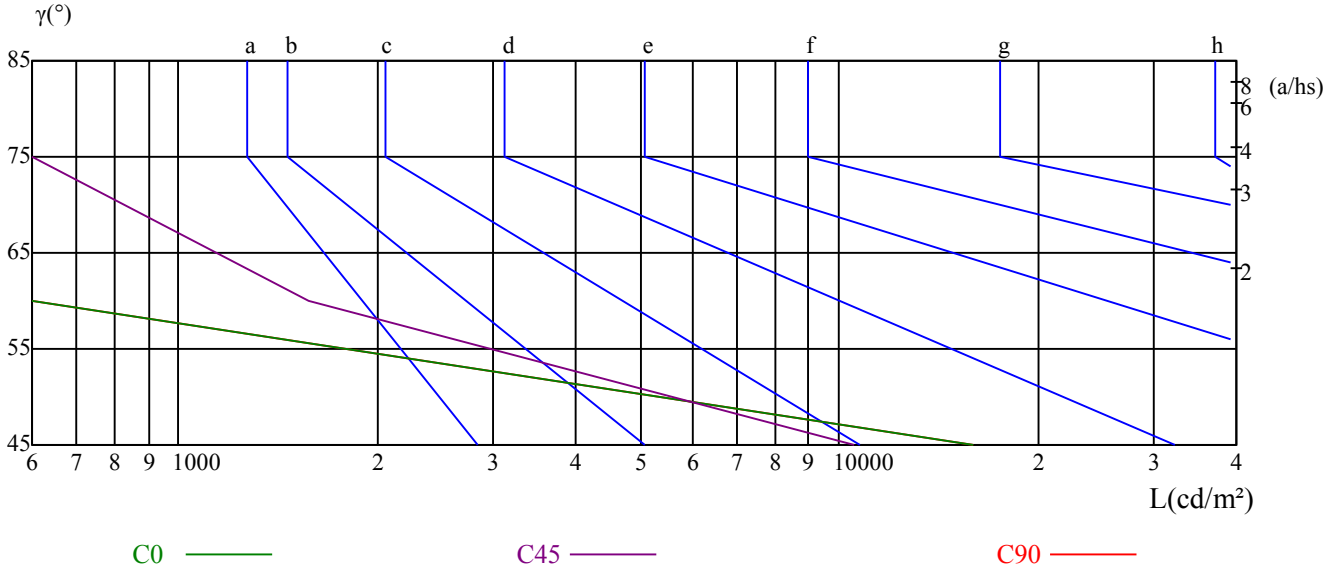
γ	45	50	55	60	65	70	75	80	85
C0	16032	0	0	128	0	0	107	0	0
C45	10528	0	0	1577	0	0	228	0	0
C90	16032	0	0	128	0	0	107	0	0

L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
1471	1261	1750	144	144	578	429	349	375

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

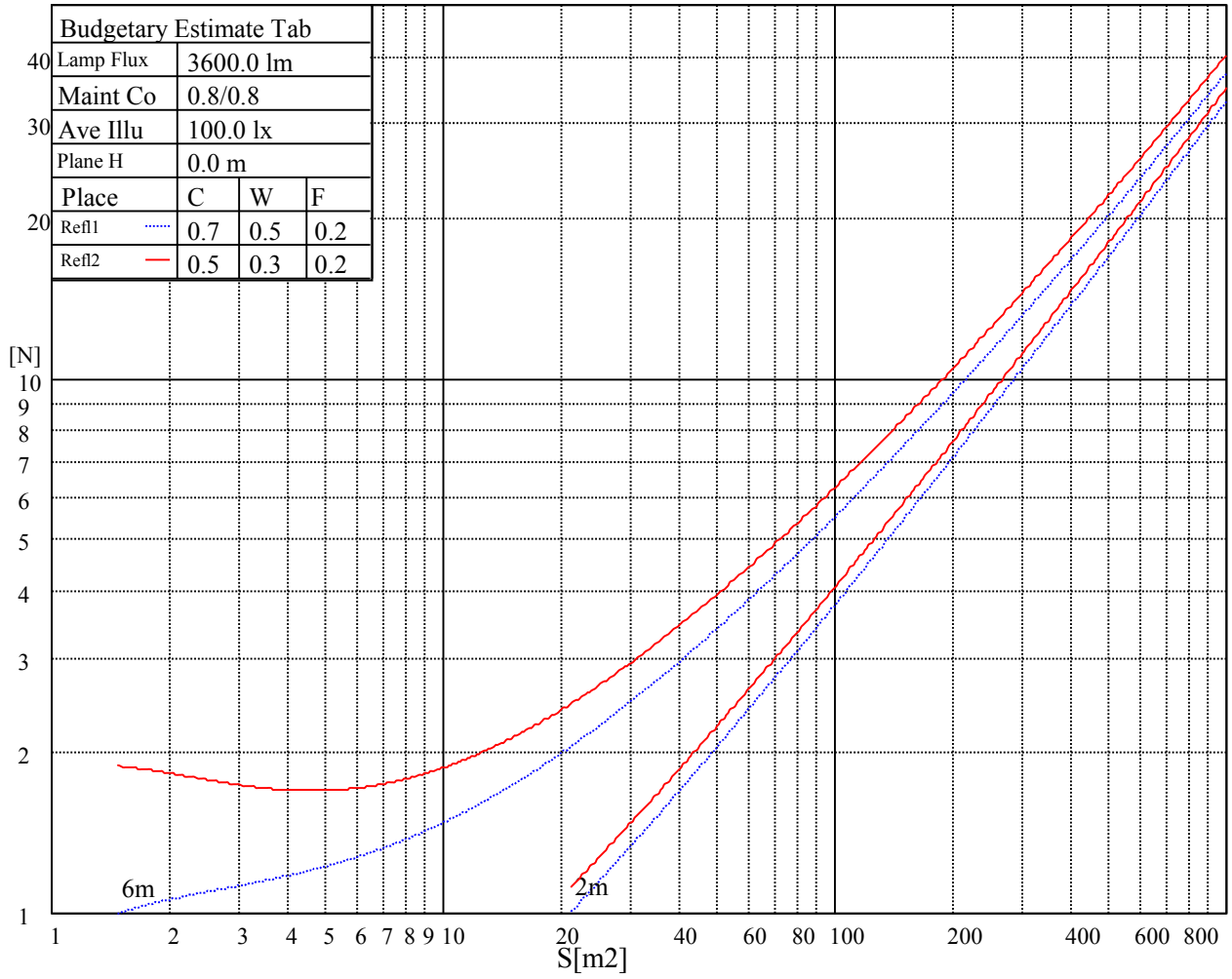


Illuminatin assessment according UGR

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	13.0	14.1	13.3	14.3	14.6	13.0	14.1	13.3	14.3	14.6
	3H	12.8	13.8	13.2	14.1	14.3	12.8	13.8	13.2	14.1	14.3
	4H	12.7	13.4	13.0	13.8	14.1	12.7	13.4	13.0	13.8	14.1
	6H	12.7	13.4	13.0	13.8	14.1	12.7	13.4	13.0	13.8	14.1
	8H	12.7	13.4	13.0	13.8	14.1	12.7	13.4	13.0	13.8	14.1
	12H	12.5	13.1	12.9	13.4	13.8	12.5	13.1	12.9	13.4	13.8
4H	2H	12.7	13.4	13.0	13.8	14.1	12.7	13.4	13.0	13.8	14.1
	3H	12.5	13.1	12.9	13.4	13.8	12.5	13.1	12.9	13.4	13.8
	4H	12.5	13.1	12.9	13.4	13.8	12.5	13.1	12.9	13.4	13.8
	6H	12.5	13.1	12.9	13.4	13.8	12.5	13.1	12.9	13.4	13.8
	8H	12.3	12.6	12.8	13.1	13.6	12.3	12.6	12.8	13.1	13.6
	12H	12.3	12.6	12.8	13.1	13.6	12.3	12.6	12.8	13.1	13.6
8H	4H	12.3	12.6	12.8	13.1	13.6	12.3	12.6	12.8	13.1	13.6
	6H	12.3	12.6	12.8	13.1	13.6	12.3	12.6	12.8	13.1	13.6
	8H	12.3	12.6	12.8	13.1	13.6	12.3	12.6	12.8	13.1	13.6
	12H	12.3	12.6	12.8	13.1	13.6	12.3	12.6	12.8	13.1	13.6
12H	4H	12.3	12.6	12.8	13.1	13.6	12.3	12.6	12.8	13.1	13.6
	6H	12.3	12.6	12.8	13.1	13.6	12.3	12.6	12.8	13.1	13.6
	8H	12.3	12.6	12.8	13.1	13.6	12.3	12.6	12.8	13.1	13.6

Variation with the observer position at spacings:		
S = 1.0H	4.0/-31.6	4.0/-31.6
S = 1.5H	6.4/-30.7	6.4/-30.7
S = 2.0H	8.4/-29.7	8.4/-29.7
Standard tables:	BK0	BK0
Uncorrected UGR	-0.1	-0.1

Budgetary Estimate Table

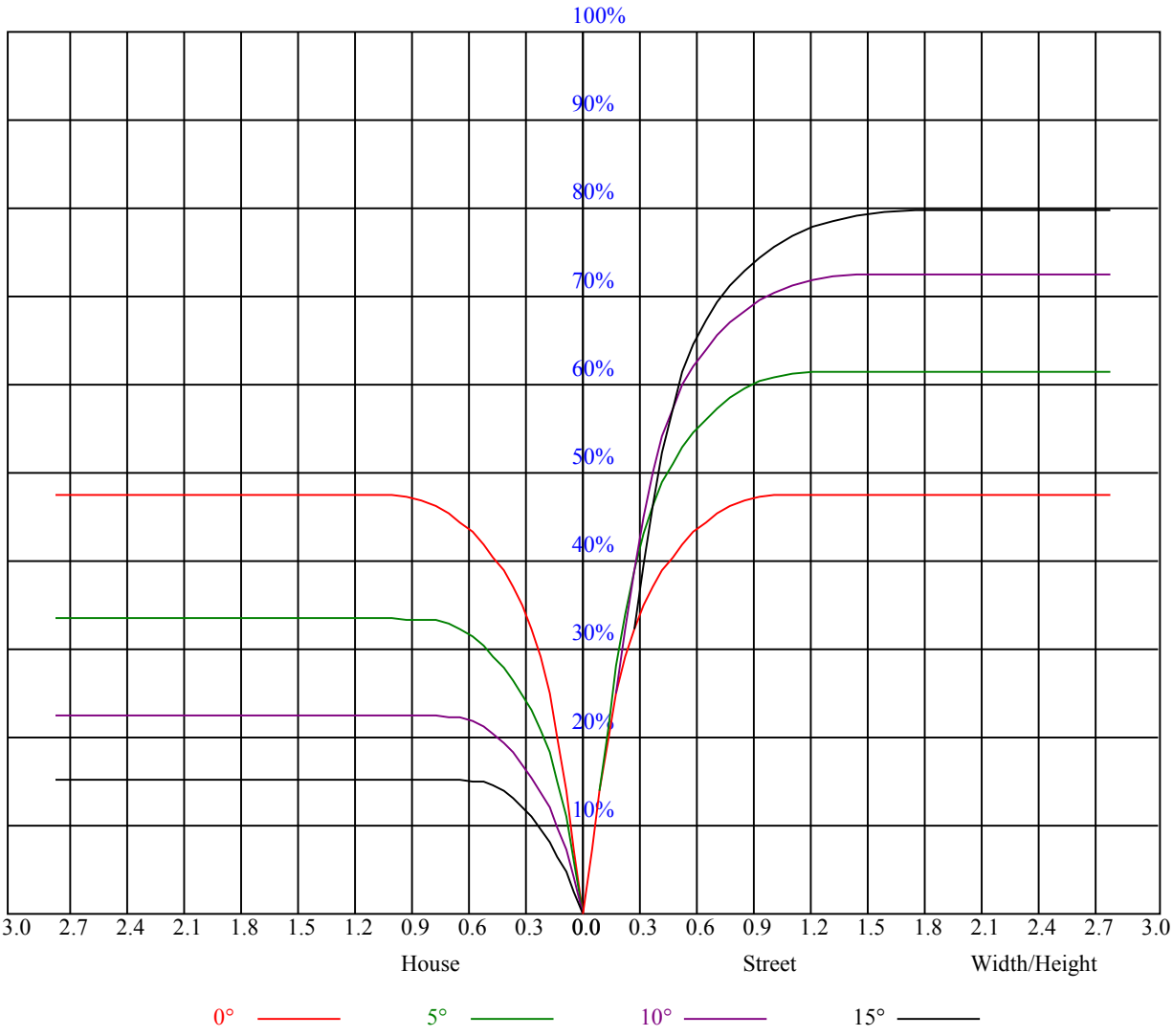


Equipment: GMS-1800 Date: 2022/8/29 Operator: New
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.18

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	1.14	1.14	1.14	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	0.98	0.98	0.98	0.96
1	1.04	1.01	0.99	1.02	0.99	0.97	0.98	0.96	0.94	0.94	0.93	0.91	0.91	0.90	0.89	0.87
2	0.95	0.90	0.86	0.93	0.89	0.85	0.90	0.86	0.83	0.87	0.84	0.81	0.84	0.82	0.80	0.78
3	0.86	0.80	0.76	0.85	0.79	0.75	0.82	0.77	0.74	0.80	0.76	0.72	0.77	0.74	0.71	0.70
4	0.78	0.72	0.67	0.77	0.71	0.66	0.75	0.70	0.66	0.73	0.68	0.65	0.71	0.67	0.64	0.62
5	0.72	0.65	0.60	0.71	0.64	0.59	0.69	0.63	0.59	0.67	0.62	0.58	0.65	0.61	0.58	0.56
6	0.66	0.59	0.54	0.65	0.58	0.53	0.63	0.57	0.53	0.62	0.57	0.53	0.60	0.56	0.52	0.51
7	0.60	0.53	0.48	0.60	0.53	0.48	0.58	0.52	0.48	0.57	0.52	0.48	0.56	0.51	0.47	0.46
8	0.56	0.49	0.44	0.55	0.48	0.44	0.54	0.48	0.44	0.53	0.47	0.43	0.52	0.47	0.43	0.42
9	0.51	0.45	0.40	0.51	0.44	0.40	0.50	0.44	0.40	0.49	0.44	0.40	0.48	0.43	0.39	0.38
10	0.48	0.41	0.37	0.47	0.41	0.37	0.46	0.40	0.36	0.46	0.40	0.36	0.45	0.40	0.36	0.35

Coefficient Utilization Curve



Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2022/8/29
Humidity(%): 65.0%

Operator: New
Distance(m): 7.18

Intensity data(cd)

C/γ(°)	0.0	3.0	6.0	9.0	12.0	15.0	18.0	21.0	24.0
0.0	14032.62	13163.74	10817.27	8303.60	5696.81	3672.24	2415.49	1729.36	1336.48
30.0	14032.62	13163.74	10817.27	8303.60	5696.81	3672.24	2415.49	1729.36	1336.48
60.0	14032.62	13163.74	10817.27	8303.60	5696.81	3672.24	2415.49	1729.36	1336.48
90.0	14032.62	13163.74	10817.27	8303.60	5696.81	3672.24	2415.49	1729.36	1336.48
120.0	14032.62	13163.74	10817.27	8303.60	5696.81	3672.24	2415.49	1729.36	1336.48
150.0	14032.62	13163.74	10817.27	8303.60	5696.81	3672.24	2415.49	1729.36	1336.48
180.0	14032.62	13163.74	10817.27	8303.60	5696.81	3672.24	2415.49	1729.36	1336.48
210.0	14032.62	13163.74	10817.27	8303.60	5696.81	3672.24	2415.49	1729.36	1336.48
240.0	14032.62	13163.74	10817.27	8303.60	5696.81	3672.24	2415.49	1729.36	1336.48
270.0	14032.62	13163.74	10817.27	8303.60	5696.81	3672.24	2415.49	1729.36	1336.48
300.0	14032.62	13163.74	10817.27	8303.60	5696.81	3672.24	2415.49	1729.36	1336.48
330.0	14032.62	13163.74	10817.27	8303.60	5696.81	3672.24	2415.49	1729.36	1336.48
360.0	14032.62	13163.74	10817.27	8303.60	5696.81	3672.24	2415.49	1729.36	1336.48

C/γ(°)	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0
0.0	1185.58	1100.85	1047.46	969.48	771.22	429.67	136.89	9.84	1.44
30.0	1185.58	1100.85	1047.46	969.48	771.22	429.67	136.89	9.84	1.44
60.0	1185.58	1100.85	1047.46	969.48	771.22	429.67	136.89	9.84	1.44
90.0	1185.58	1100.85	1047.46	969.48	771.22	429.67	136.89	9.84	1.44
120.0	1185.58	1100.85	1047.46	969.48	771.22	429.67	136.89	9.84	1.44
150.0	1185.58	1100.85	1047.46	969.48	771.22	429.67	136.89	9.84	1.44
180.0	1185.58	1100.85	1047.46	969.48	771.22	429.67	136.89	9.84	1.44
210.0	1185.58	1100.85	1047.46	969.48	771.22	429.67	136.89	9.84	1.44
240.0	1185.58	1100.85	1047.46	969.48	771.22	429.67	136.89	9.84	1.44
270.0	1185.58	1100.85	1047.46	969.48	771.22	429.67	136.89	9.84	1.44
300.0	1185.58	1100.85	1047.46	969.48	771.22	429.67	136.89	9.84	1.44
330.0	1185.58	1100.85	1047.46	969.48	771.22	429.67	136.89	9.84	1.44
360.0	1185.58	1100.85	1047.46	969.48	771.22	429.67	136.89	9.84	1.44

C/γ(°)	54.0	57.0	60.0	63.0	66.0	69.0	72.0	75.0	78.0
0.0	1.19	0.98	0.82	0.72	0.67	0.57	0.46	0.41	0.36
30.0	1.19	0.98	0.82	0.72	0.67	0.57	0.46	0.41	0.36
60.0	1.19	0.98	0.82	0.72	0.67	0.57	0.46	0.41	0.36
90.0	1.19	0.98	0.82	0.72	0.67	0.57	0.46	0.41	0.36
120.0	1.19	0.98	0.82	0.72	0.67	0.57	0.46	0.41	0.36
150.0	1.19	0.98	0.82	0.72	0.67	0.57	0.46	0.41	0.36
180.0	1.19	0.98	0.82	0.72	0.67	0.57	0.46	0.41	0.36
210.0	1.19	0.98	0.82	0.72	0.67	0.57	0.46	0.41	0.36
240.0	1.19	0.98	0.82	0.72	0.67	0.57	0.46	0.41	0.36
270.0	1.19	0.98	0.82	0.72	0.67	0.57	0.46	0.41	0.36
300.0	1.19	0.98	0.82	0.72	0.67	0.57	0.46	0.41	0.36
330.0	1.19	0.98	0.82	0.72	0.67	0.57	0.46	0.41	0.36
360.0	1.19	0.98	0.82	0.72	0.67	0.57	0.46	0.41	0.36

C/γ(°)	81.0	84.0	87.0	90.0
0.0	0.36	0.36	0.36	0.36
30.0	0.36	0.36	0.36	0.36
60.0	0.36	0.36	0.36	0.36
90.0	0.36	0.36	0.36	0.36
120.0	0.36	0.36	0.36	0.36
150.0	0.36	0.36	0.36	0.36
180.0	0.36	0.36	0.36	0.36
210.0	0.36	0.36	0.36	0.36
240.0	0.36	0.36	0.36	0.36
270.0	0.36	0.36	0.36	0.36
300.0	0.36	0.36	0.36	0.36
330.0	0.36	0.36	0.36	0.36
360.0	0.36	0.36	0.36	0.36