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Client:

LumCAT: 1655-S

Luminaire: 92.70.043.00

Report No: nt0100

Test No: GC2019122005

LampCAT: LUMINUS CXM-6-AC40

Lamp flux(lm): 823.0

Number of Lamps: 1

Length(mm): 0

Phm Type: C

Voltage(V): 34.9400

Current(A): 0.1970

Power (W): 6.8800

PF: 1.0000

Ballast type: DC

Width(mm): 0

Height(mm): 0

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Photometric Results

Lumens(lm): 696.09, Efficiency(%): 84.58% , Luminous Efficacy(lm/W): 101.18

Central intensity(cd): 1624.500, Maximum intensity(cd): 1624.500

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=33.6

[C90/270]Total=33.6

Field angle(10%Imax): [C0/180]Total=67.2

[C90/270]Total=67.2

Maximum s/h(1/2): C0\_180=0.55 C90\_270=0.55

Maximum s/h(1/4): C0\_180=0.57 C90\_270=0.57

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 84.58%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 97.931%

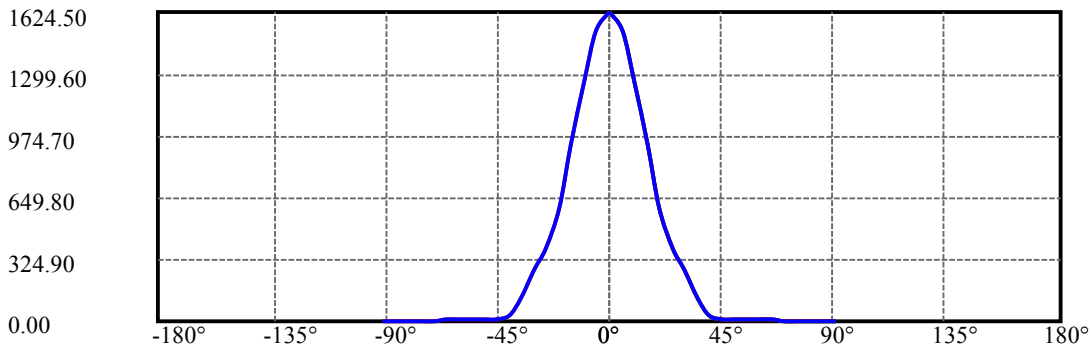
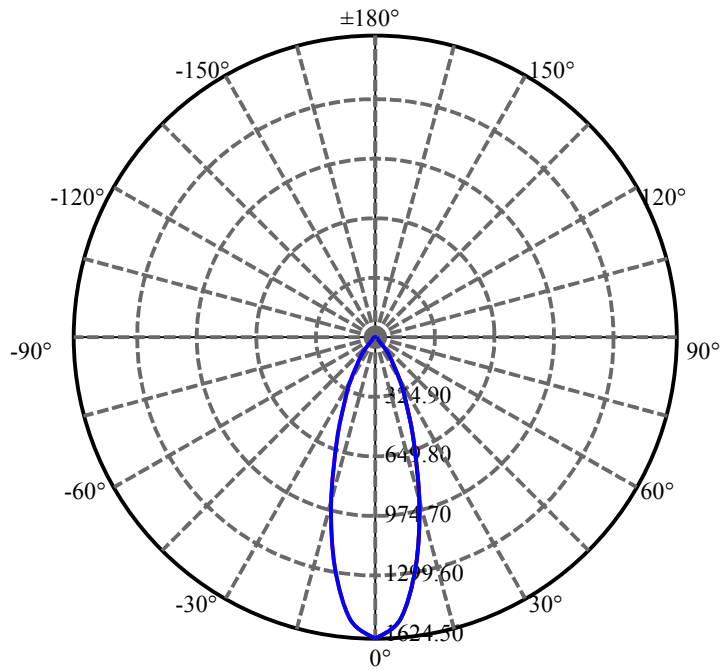
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1624.500	0.000	0	.000%	.000%
5.0	1523.039	37.628	37.628	4.572%	5.406%
10.0	1261.596	99.615	137.243	12.104%	19.716%
15.0	931.338	130.083	267.326	15.806%	38.404%
20.0	592.868	125.616	392.942	15.263%	56.450%
25.0	383.970	102.452	495.395	12.449%	71.169%
30.0	273.347	83.184	578.579	10.107%	83.119%
35.0	118.343	57.679	636.258	7.008%	91.405%
40.0	27.176	24.279	660.536	2.950%	94.893%
45.0	15.110	7.830	668.366	.951%	96.018%
50.0	11.355	5.348	673.714	.650%	96.786%
55.0	8.684	4.357	678.071	.529%	97.412%
60.0	6.954	3.615	681.686	.439%	97.931%
65.0	5.752	3.089	684.774	.375%	98.375%
70.0	4.985	2.719	687.493	.330%	98.765%
75.0	4.373	2.446	689.939	.297%	99.117%
80.0	3.923	2.220	692.159	.270%	99.436%
85.0	3.600	2.044	694.203	.248%	99.730%
90.0	3.277	1.883	696.086	.229%	100.000%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	578.58	70.30%	83.12%
0-40	660.54	80.26%	94.89%
0-60	681.69	82.83%	97.93%
0-90	694.20	84.35%	99.73%
0-120	694.20	84.35%	99.73%
0-180	696.09	84.58%	100.00%
60-90	16.13	1.96%	2.32%
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%
0-28.70	556.87	67.66%	80.00%

## ZONAL LUMEN SUMMARY

0-10	137.24
10-20	255.70
20-30	185.64
30-40	81.96
40-50	13.18
50-60	7.97
60-70	5.81
70-80	4.67
80-90	2.04
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



C0(Max): —————

C0/C180: —————

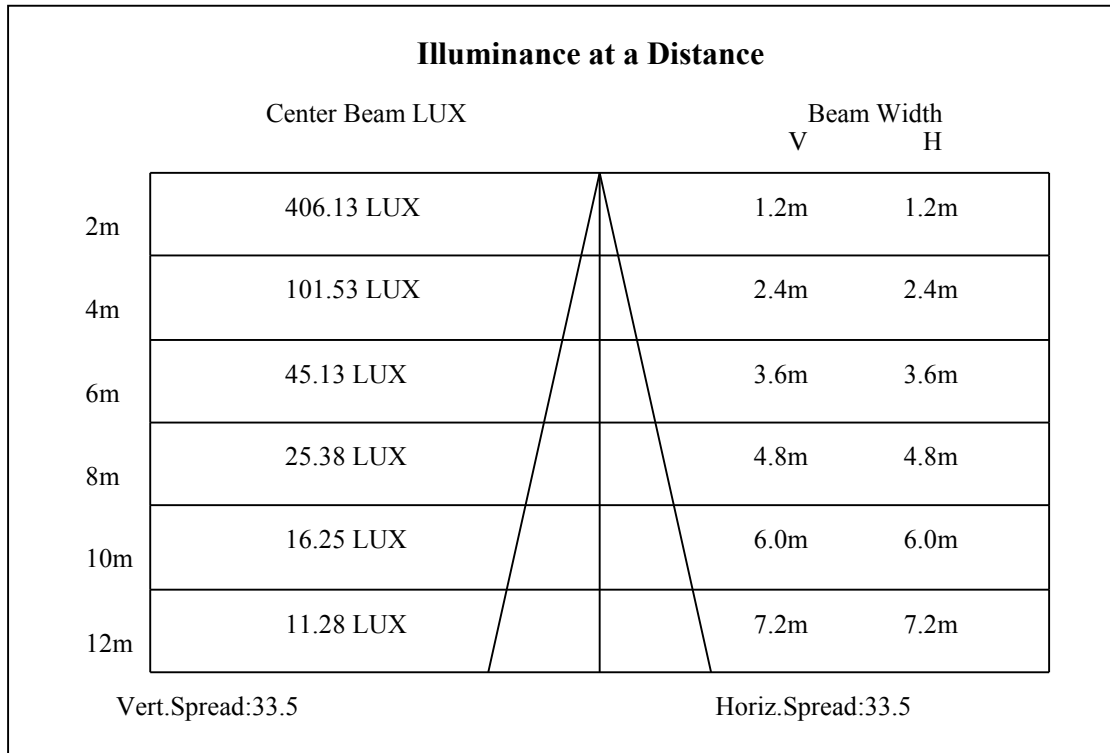
C90/C270: —————

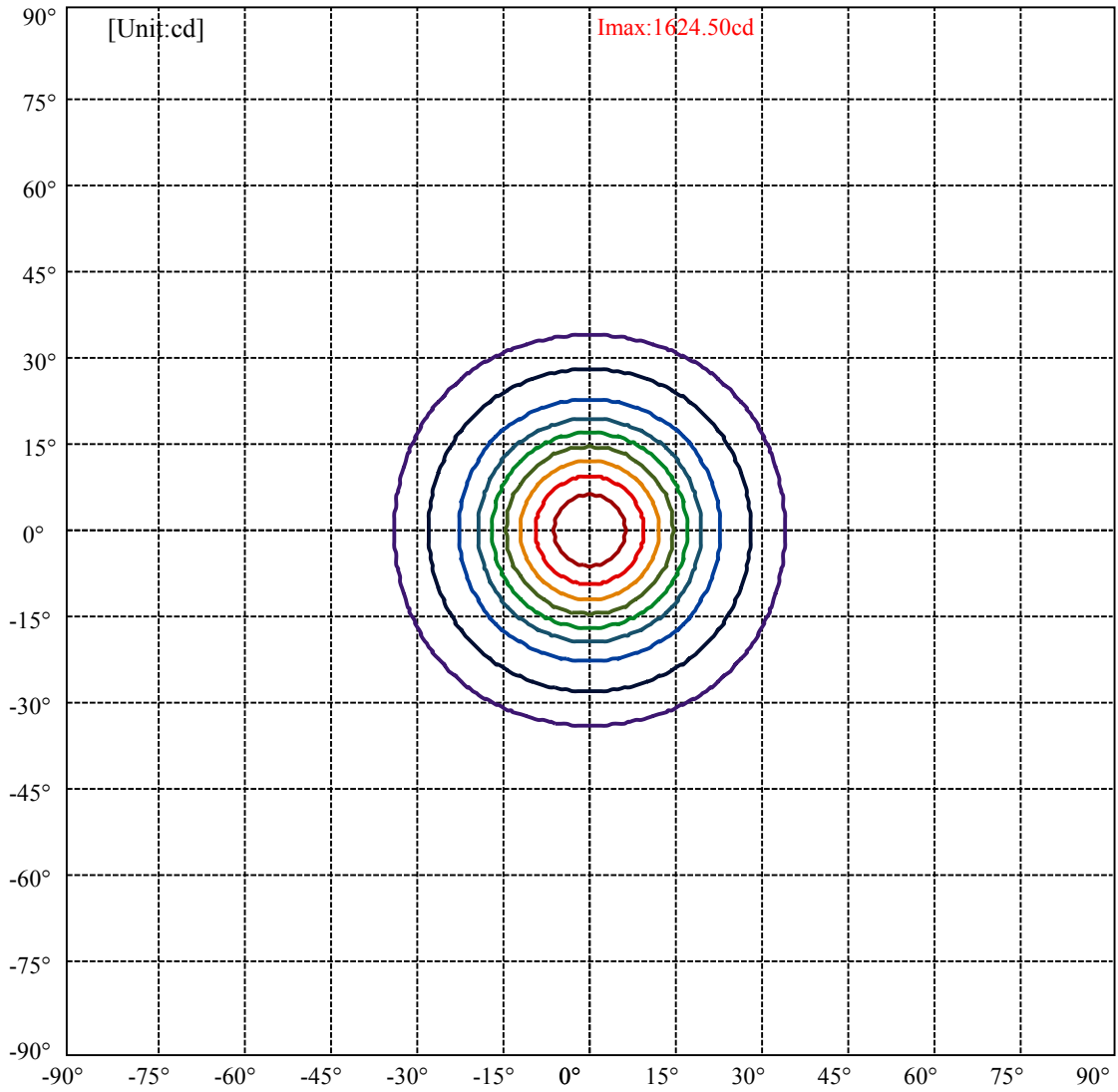
Field angle(10%Imax):C0/180Left:33.6 Right:33.6

:C90/270Left:33.6 Right:33.6

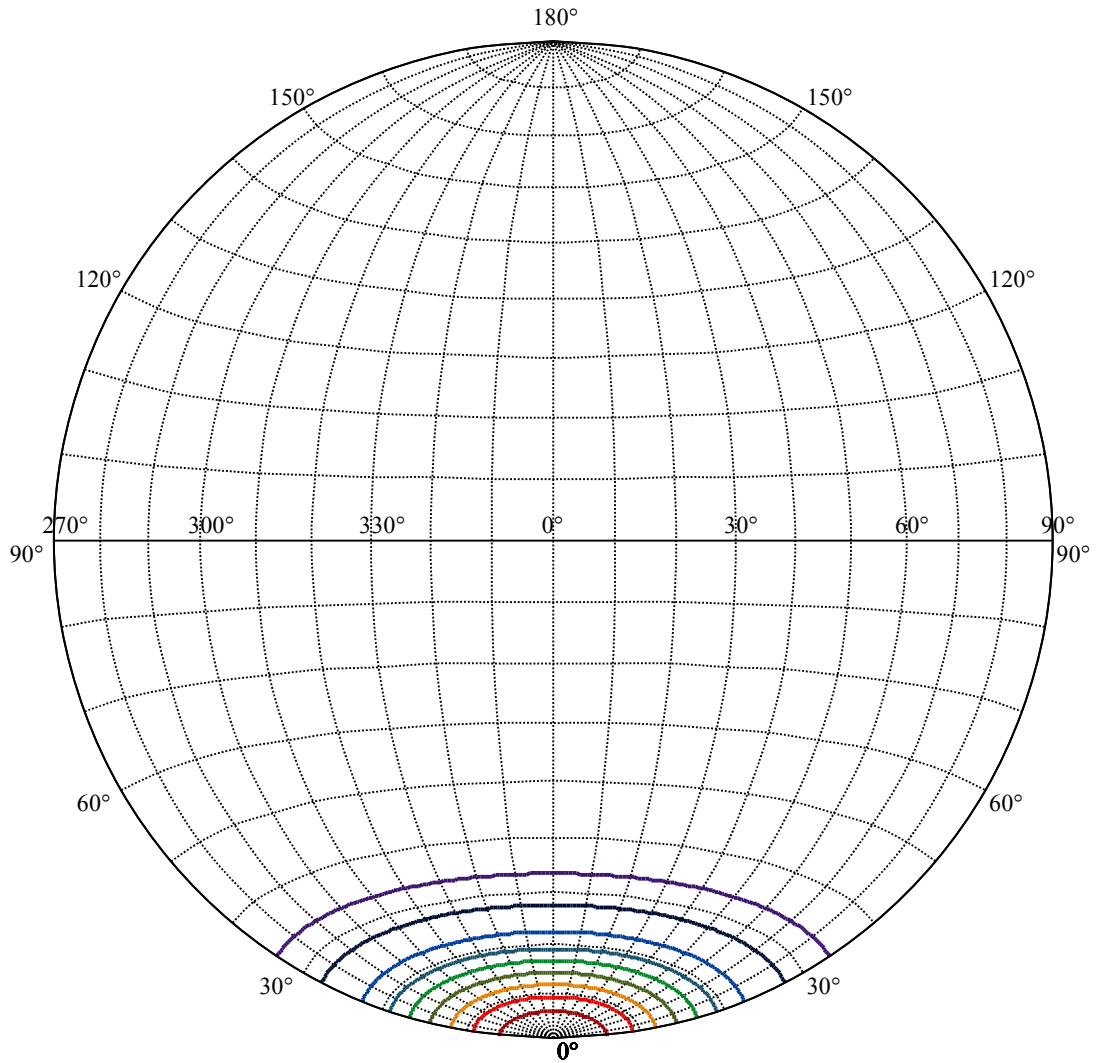
Beam Angle(50%Imax):C0/180Left:16.8 Right:16.8

:C90/270Left:16.8 Right:16.8





(10%Imax) 162.45	—
(20%Imax) 324.9	—
(30%Imax) 487.35	—
(40%Imax) 649.8	—
(50%Imax) 812.25	—
(60%Imax) 974.7	—
(70%Imax) 1137.15	—
(80%Imax) 1299.6	—
(90%Imax) 1462.05	—



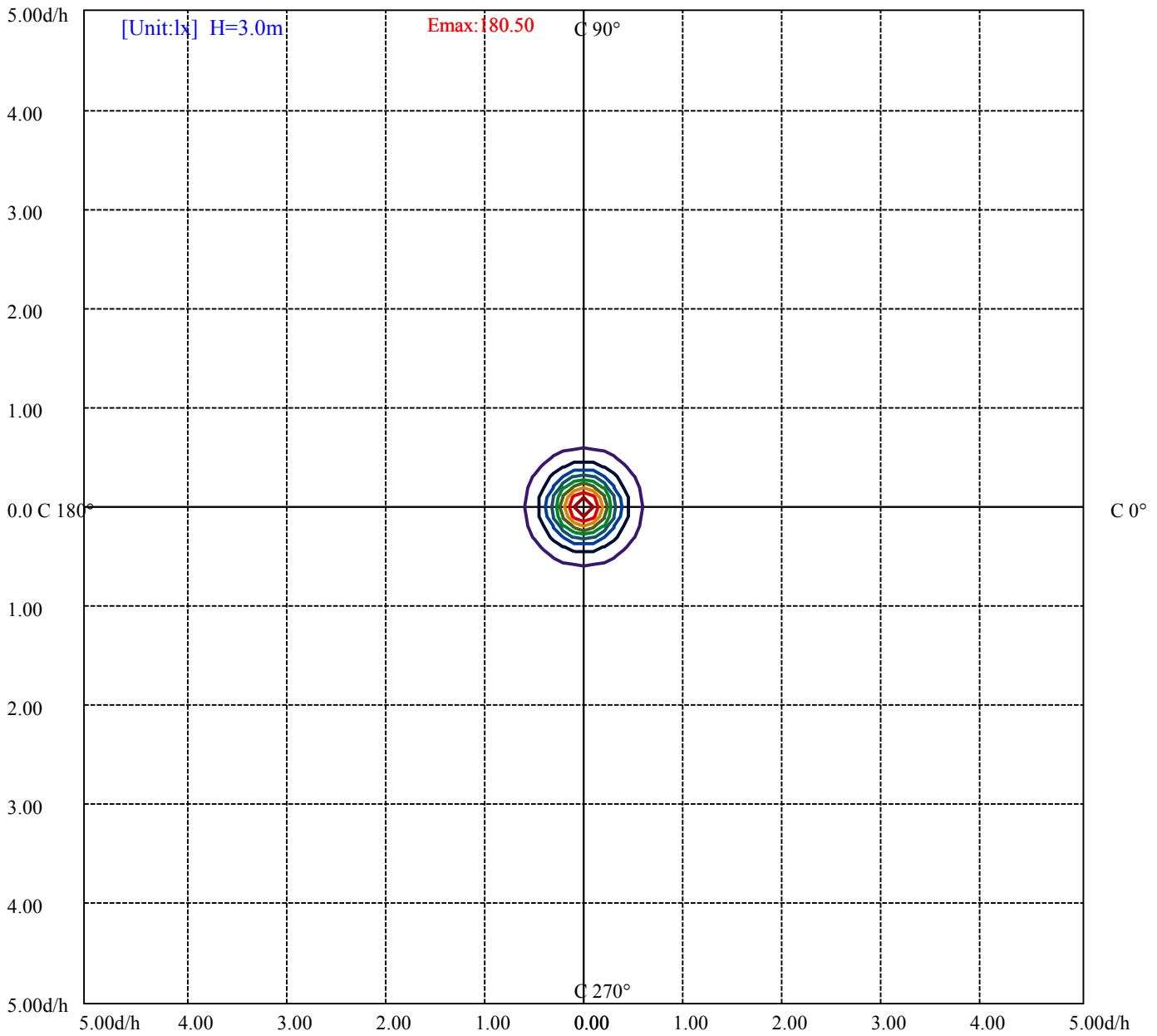
House










[Unit:cd]

Road

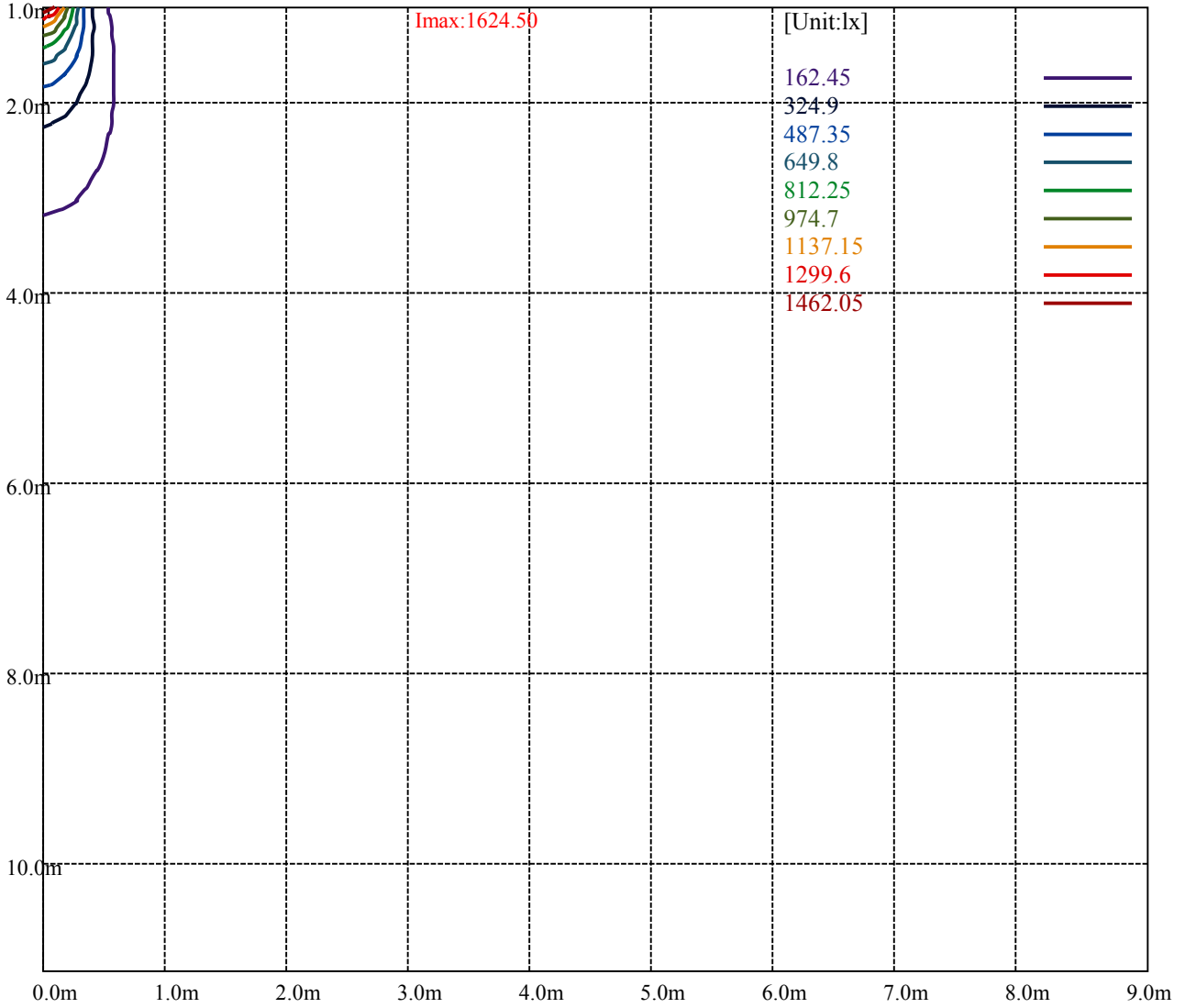
I<sub>max</sub>:1624.50

(10%I <sub>max</sub> )	162.45	—
(20%I <sub>max</sub> )	324.9	—
(30%I <sub>max</sub> )	487.35	—
(40%I <sub>max</sub> )	649.8	—
(50%I <sub>max</sub> )	812.25	—
(60%I <sub>max</sub> )	974.7	—
(70%I <sub>max</sub> )	1137.15	—
(80%I <sub>max</sub> )	1299.6	—
(90%I <sub>max</sub> )	1462.05	—



(10%Emax) 18.05	
(20%Emax) 36.09989	
(30%Emax) 54.14989	
(40%Emax) 72.19989	
(50%Emax) 90.24978	
(60%Emax) 108.2998	
(70%Emax) 126.35	
(80%Emax) 144.4	
(90%Emax) 162.45	





Luminance Table

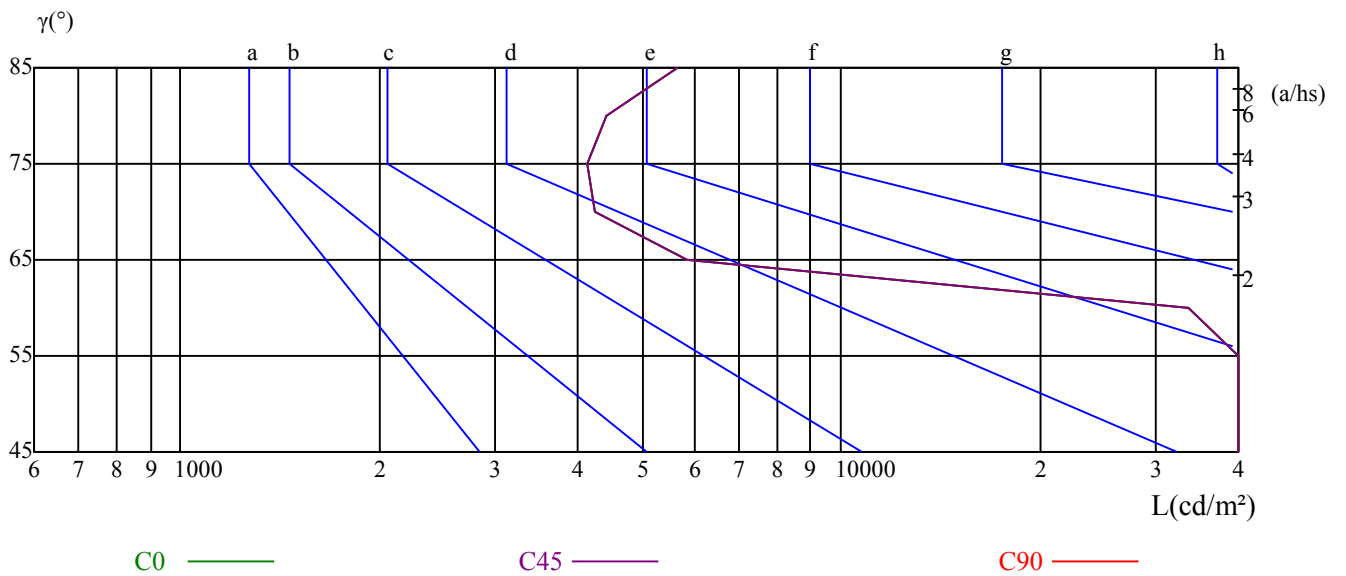
$\gamma$	45	50	55	60	65	70	75	80	85
C0	46650	52836	53885	33658	5848	4245	4131	4405	5640
C45	46650	52836	53885	33658	5848	4245	4131	4405	5640
C90	46650	52836	53885	33658	5848	4245	4131	4405	5640

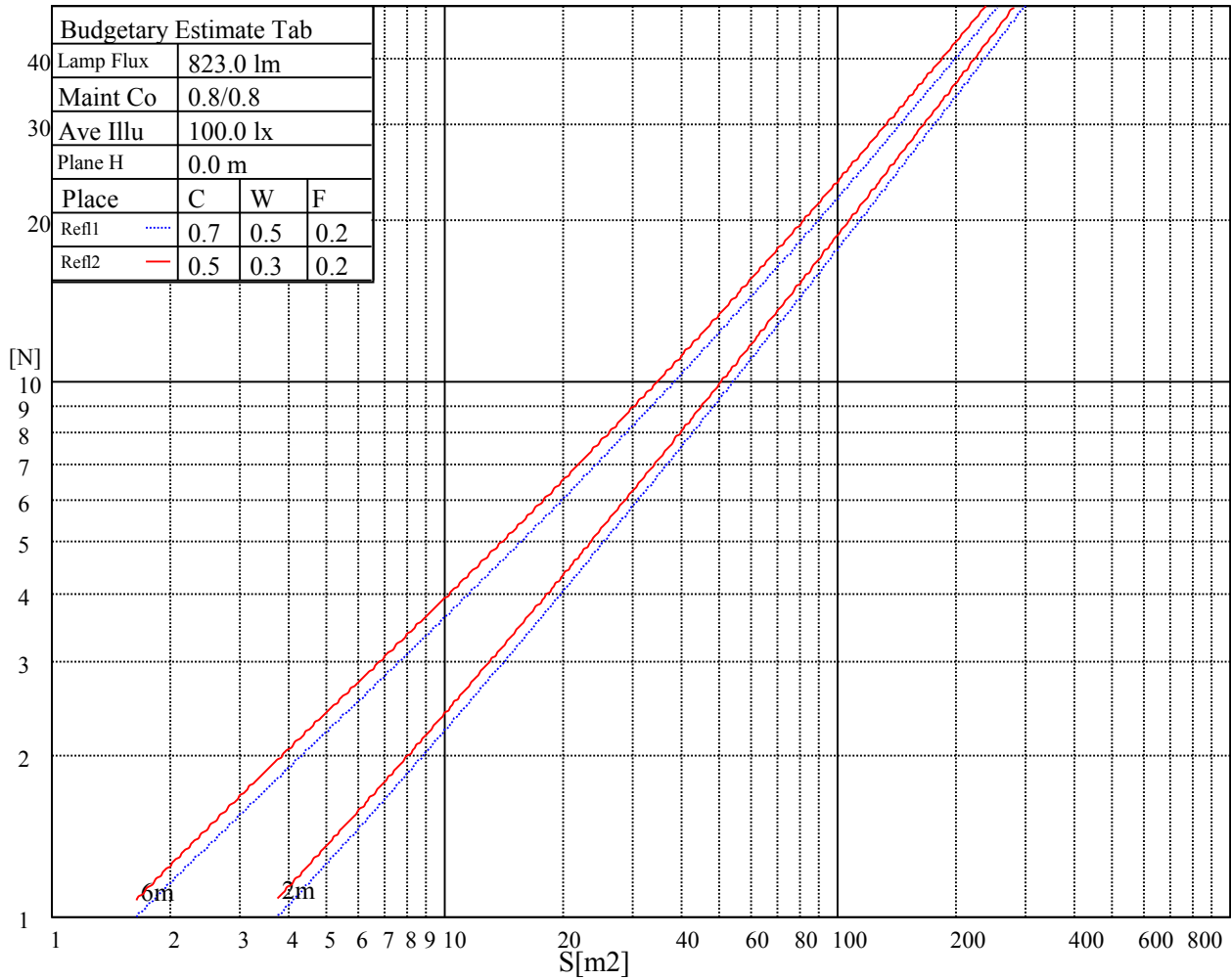
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5848	5848	5848	4131	4131	4131	5640	5640	5640

Glare Table

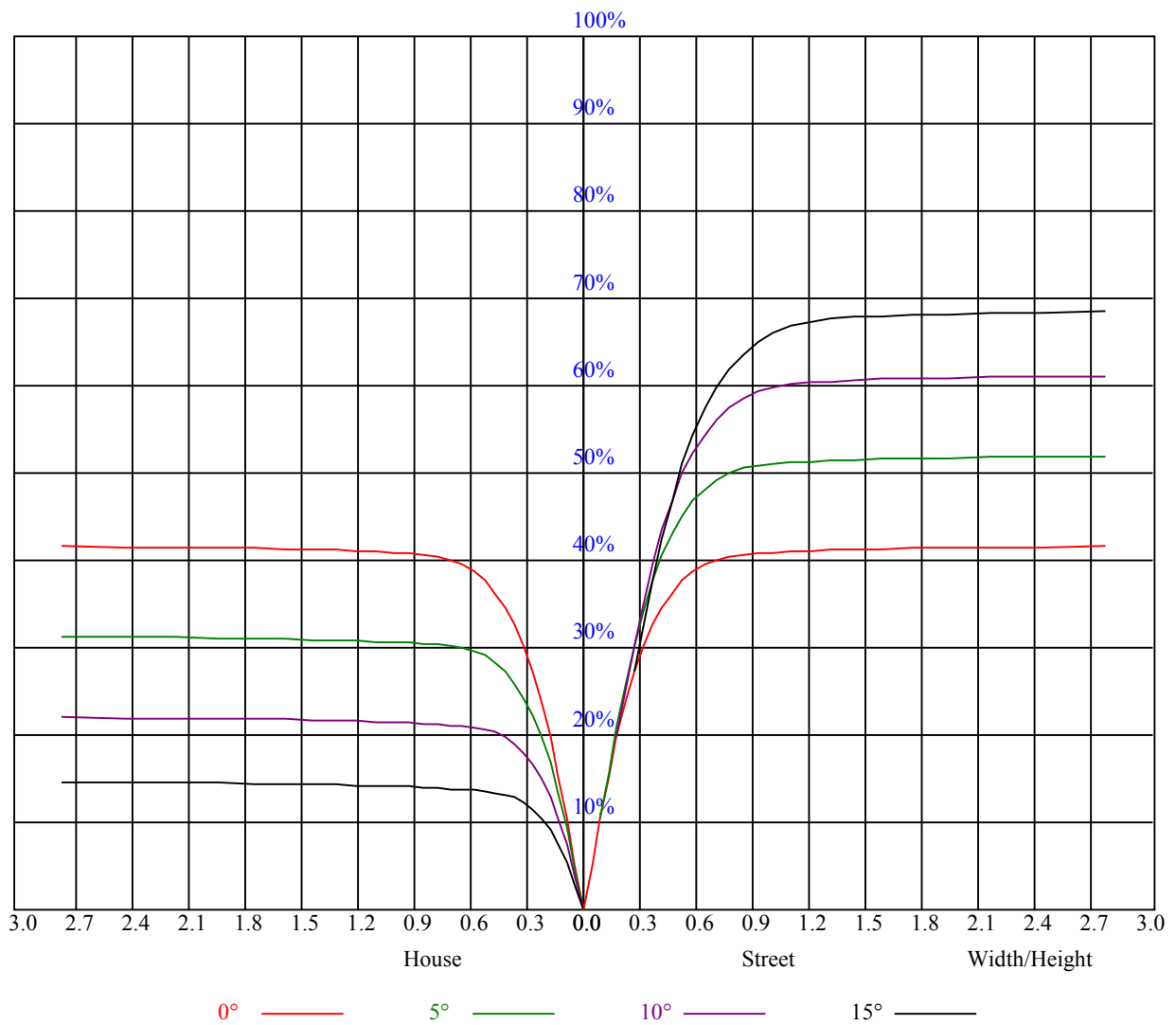
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

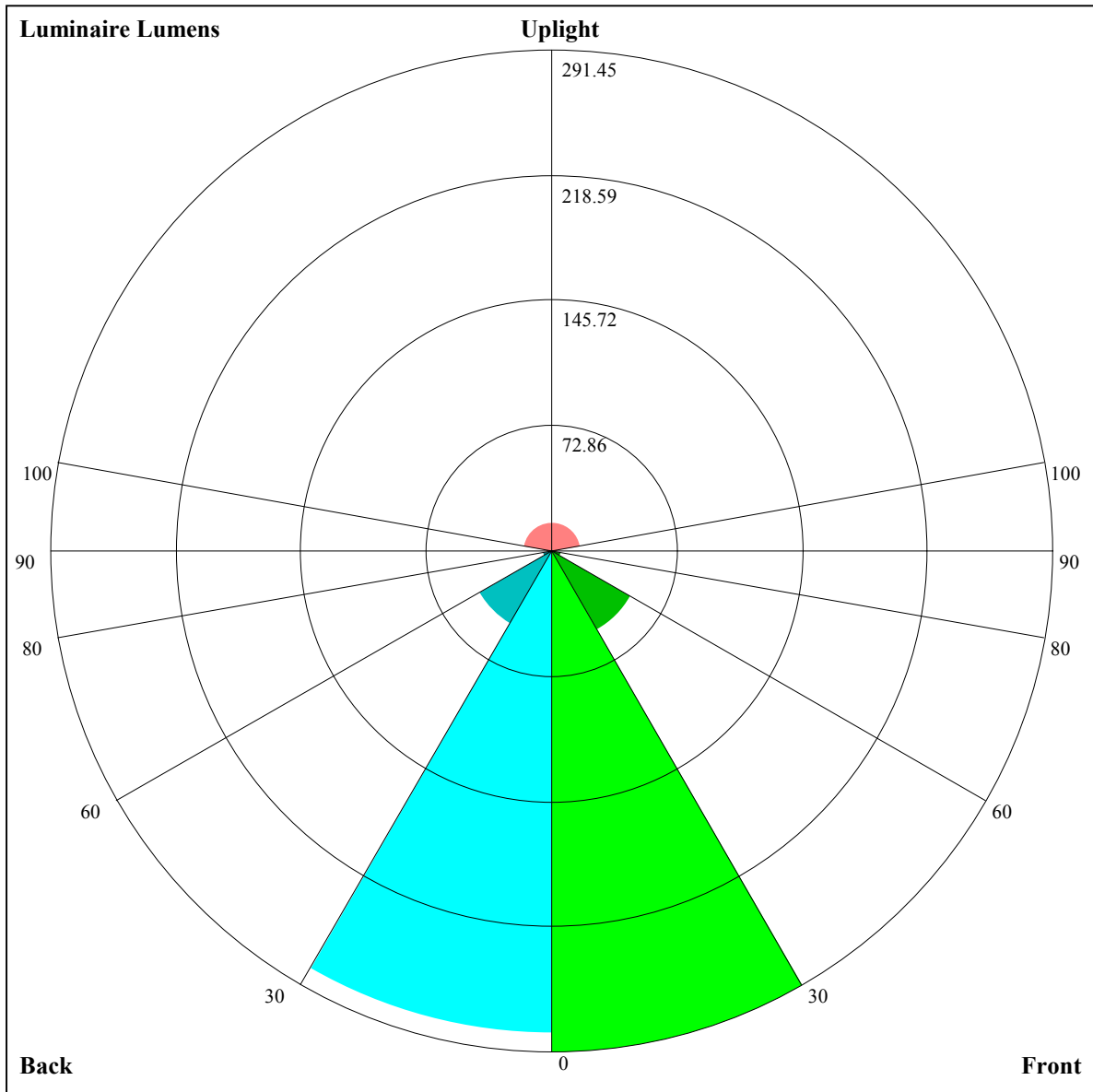
Luminance Limiting Curve





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	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.01	1.01	1.01	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.85
1	0.94	0.92	0.90	0.92	0.90	0.89	0.89	0.87	0.86	0.86	0.85	0.84	0.83	0.82	0.81	0.80
2	0.88	0.85	0.82	0.87	0.84	0.82	0.84	0.82	0.80	0.82	0.80	0.78	0.79	0.78	0.76	0.75
3	0.83	0.79	0.76	0.82	0.79	0.76	0.80	0.77	0.75	0.78	0.75	0.73	0.76	0.74	0.72	0.71
4	0.79	0.75	0.71	0.78	0.74	0.71	0.76	0.73	0.70	0.74	0.72	0.69	0.73	0.71	0.69	0.67
5	0.75	0.70	0.67	0.74	0.70	0.67	0.72	0.69	0.66	0.71	0.68	0.66	0.70	0.67	0.65	0.64
6	0.71	0.67	0.63	0.70	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.62	0.67	0.64	0.62	0.61
7	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.64	0.61	0.59	0.58
8	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.56	0.55
9	0.62	0.58	0.55	0.62	0.57	0.55	0.61	0.57	0.54	0.60	0.57	0.54	0.59	0.56	0.54	0.53
10	0.59	0.55	0.52	0.59	0.55	0.52	0.58	0.55	0.52	0.58	0.54	0.52	0.57	0.54	0.52	0.51





Luminaire Lumens:

FL=291.45,FM=53.15,FH=5.25,FVH=1.96

BL=280.17,BM=48.96,BH=5.25,BVH=1.96

UL=3.57,UH=17.01

BUG Rating:B1-U2-G0

## Intensity data(cd)

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	1625.63	1550.81	1328.06	988.31	659.81	415.69	297.56	145.13	31.56
45.0	1623.38	1533.94	1266.75	946.69	597.38	396.00	284.06	129.15	28.29
90.0	1619.44	1477.69	1120.89	830.19	512.61	354.71	232.65	83.25	25.37
135.0	1629.56	1531.69	1299.94	913.50	547.88	362.81	287.44	114.13	25.20
180.0	1625.63	1510.88	1222.31	911.98	555.02	351.62	233.89	100.46	23.23
225.0	1623.38	1506.38	1223.44	905.01	590.18	371.08	255.66	106.26	26.27
270.0	1619.44	1549.13	1340.44	999.00	663.75	423.00	311.63	148.67	31.78
315.0	1629.56	1523.81	1290.94	956.03	616.33	396.84	283.89	119.70	25.71
360.0	1625.63	1550.81	1328.06	988.31	659.81	415.69	297.56	145.13	31.56
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	16.14	11.93	8.89	6.98	5.68	4.89	4.33	3.94	3.60
45.0	15.86	12.15	9.17	7.20	5.91	5.06	4.44	3.94	3.54
90.0	15.36	11.42	8.55	7.03	5.74	5.01	4.22	3.77	3.49
135.0	14.46	11.03	8.61	6.86	5.68	4.89	4.33	3.94	3.60
180.0	13.84	10.69	8.33	6.75	5.74	4.95	4.39	3.94	3.66
225.0	15.02	11.14	8.72	7.03	5.79	5.06	4.33	3.88	3.60
270.0	15.69	11.70	8.94	7.20	5.91	5.18	4.67	4.05	3.66
315.0	14.51	10.80	8.27	6.58	5.57	4.84	4.28	3.94	3.66
360.0	16.14	11.93	8.89	6.98	5.68	4.89	4.33	3.94	3.60
C/ $\gamma$ (°)	90.0								
0.0	3.26								
45.0	3.21								
90.0	3.26								
135.0	3.32								
180.0	3.32								
225.0	3.26								
270.0	3.26								
315.0	3.32								
360.0	3.26								