
Nata

LumCAT: 3-1942-M
Luminaire: BJB 47.319.2011
Report No: GC2017060708
Test No: NT-0010
LampCAT: LUMILEDS LUXEON CoB 1208
Lamp flux(lm): 3235.0
Number of Lamps: 1
Length(mm): 86
Phm Type: C

Voltage(V): 217.5000
Current(A): 0.1370
Power (W): 28.1000
PF: 0.9430
Ballast type: DC
Width(mm): 86
Height(mm): 0

Photometric Results

Lumens(lm): 3010.98
Efficiency(%): 93.08%
Lumens(lm)/Power(W): 107.15
Central intensity(cd): 12048.270
Maximum intensity(cd): 12048.270
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=16.8
[C90/270]Total=16.8
Field angle(10%Imax): [C0/180]Total=60.2
[C90/270]Total=60.2
Maximum s/h(1/2): C0_180=0.29 C90_270=0.29
Maximum s/h(1/4): C0_180=0.37 C90_270=0.37
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 93.08%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.725%

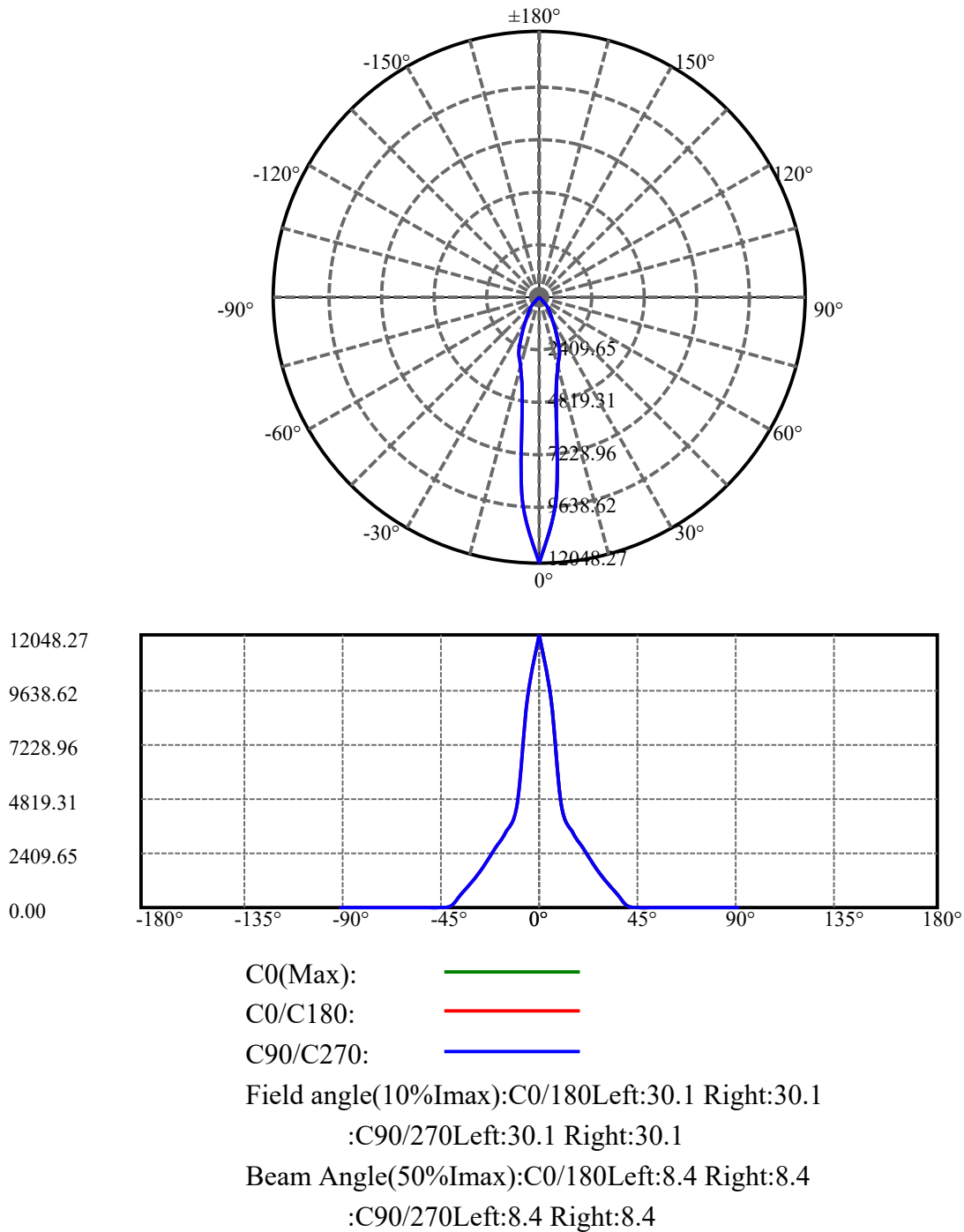
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	12048.267	0.000	0	.000%	.000%
5.0	9200.269	254.020	254.02	7.852%	8.436%
10.0	4561.492	492.301	746.322	15.218%	24.787%
15.0	3292.029	465.866	1212.187	14.401%	40.259%
20.0	2612.701	486.633	1698.82	15.043%	56.421%
25.0	1795.596	462.349	2161.169	14.292%	71.776%
30.0	1215.274	381.028	2542.197	11.778%	84.431%
35.0	607.382	268.399	2810.596	8.297%	93.345%
40.0	107.800	119.323	2929.919	3.688%	97.308%
45.0	20.736	23.799	2953.718	.736%	98.098%
50.0	14.163	7.052	2960.77	.218%	98.333%
55.0	12.993	5.905	2966.675	.183%	98.529%
60.0	12.574	5.910	2972.584	.183%	98.725%
65.0	12.353	6.060	2978.644	.187%	98.926%
70.0	12.250	6.230	2984.874	.193%	99.133%
75.0	12.174	6.384	2991.258	.197%	99.345%
80.0	12.133	6.504	2997.762	.201%	99.561%
85.0	12.112	6.588	3004.35	.204%	99.780%
90.0	12.092	6.627	3010.977	.205%	100.000%

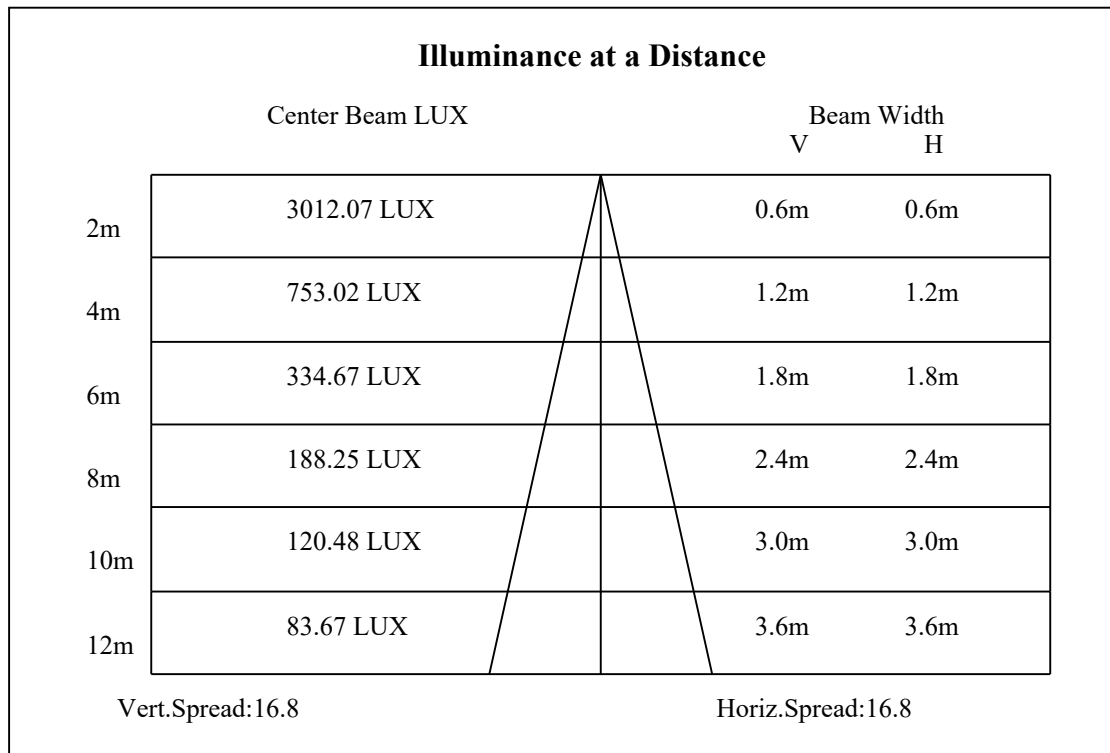
ZONAL LUMEN SUMMARY

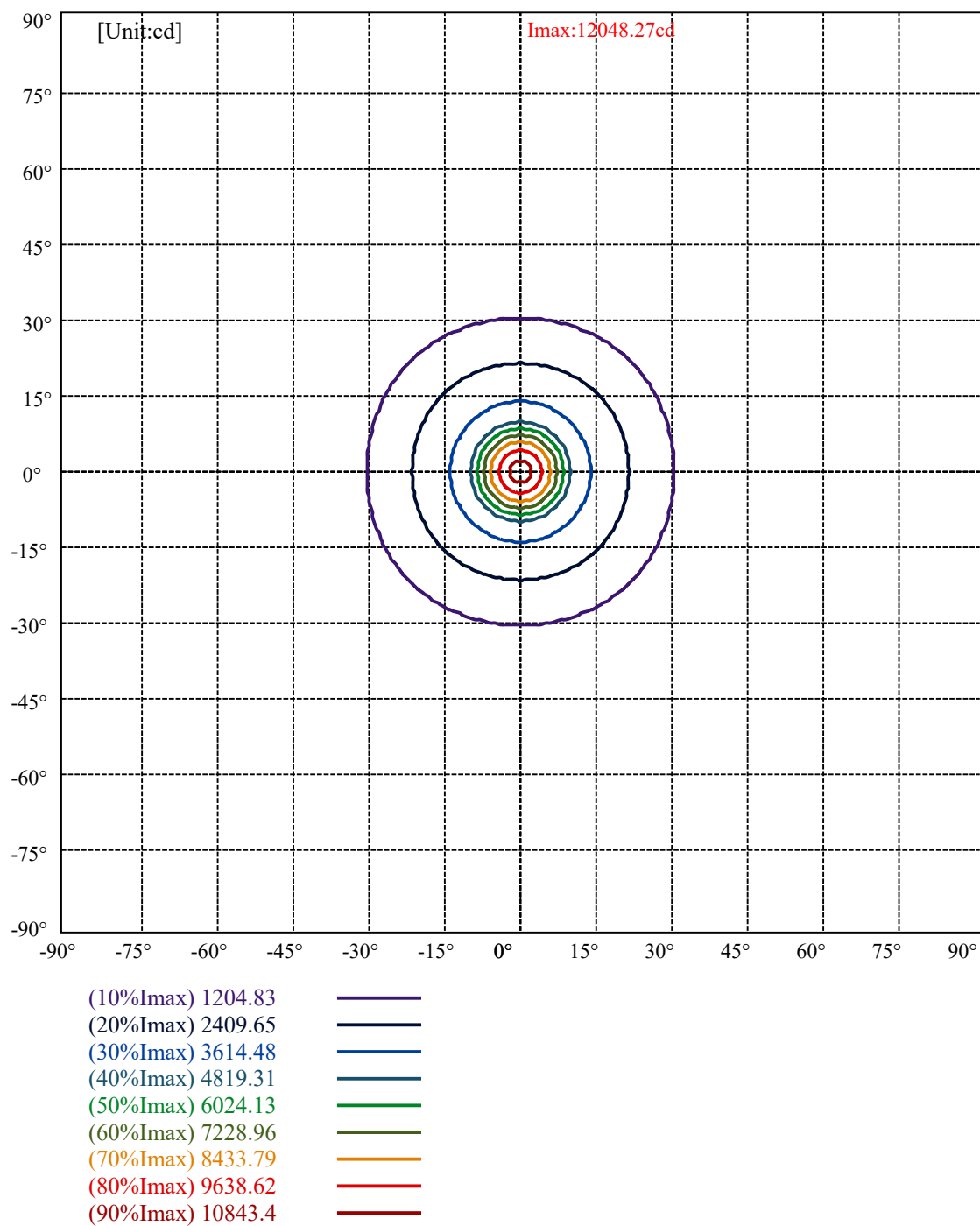
Zone	Lumens	%Lamp	%Fixt
0-30	2542.20	78.58%	84.43%
0-40	2929.92	90.57%	97.31%
0-60	2972.58	91.89%	98.72%
0-90	3004.35	92.87%	99.78%
0-120	3004.35	92.87%	99.78%
0-180	3010.98	93.08%	100.00%
60-90	37.68	1.16%	1.25%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-28.25	2408.78	74.46%	80.00%

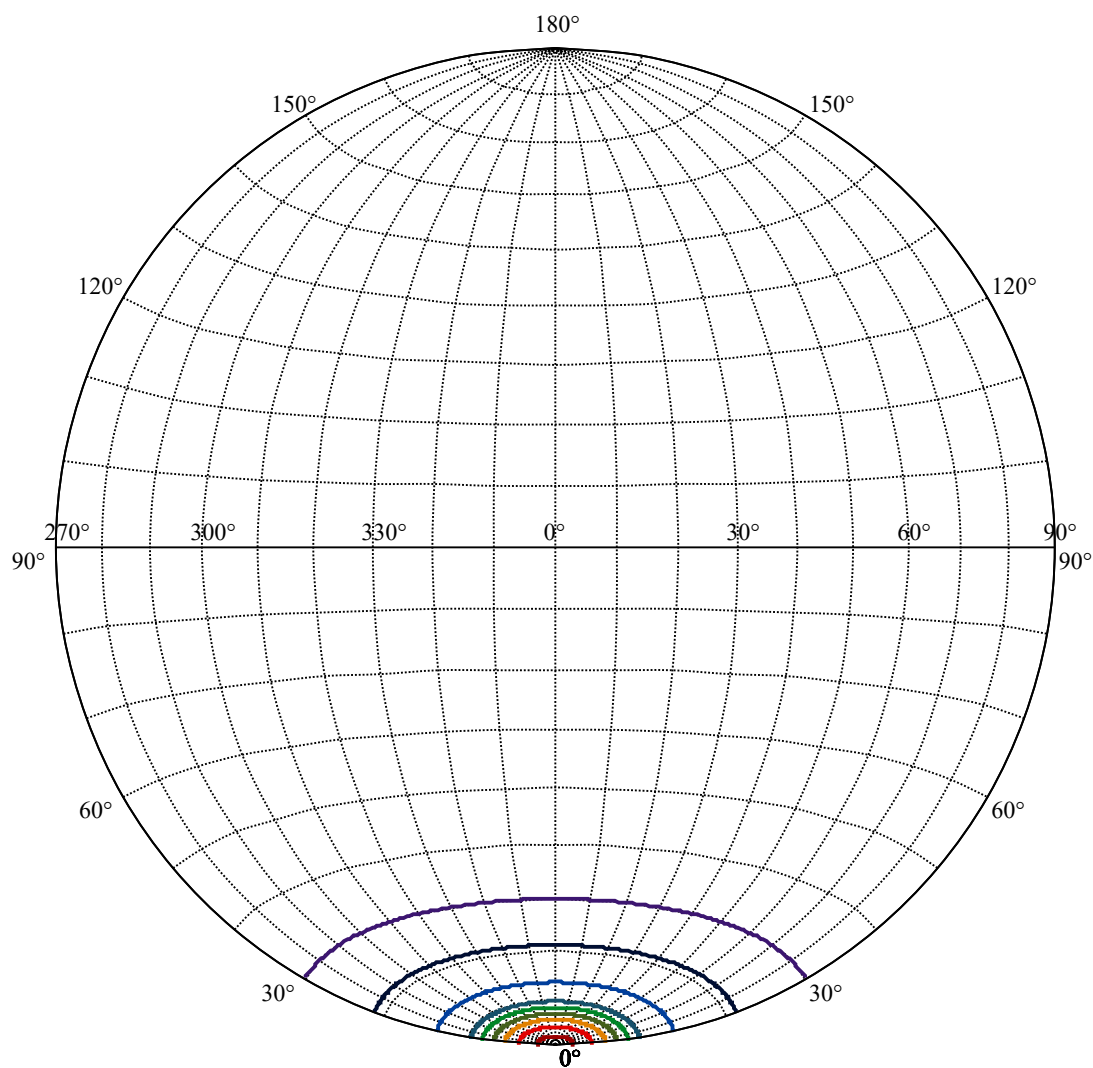
ZONAL LUMEN SUMMARY

0-10	746.32
10-20	952.50
20-30	843.38
30-40	387.72
40-50	30.85
50-60	11.81
60-70	12.29
70-80	12.89
80-90	6.59
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









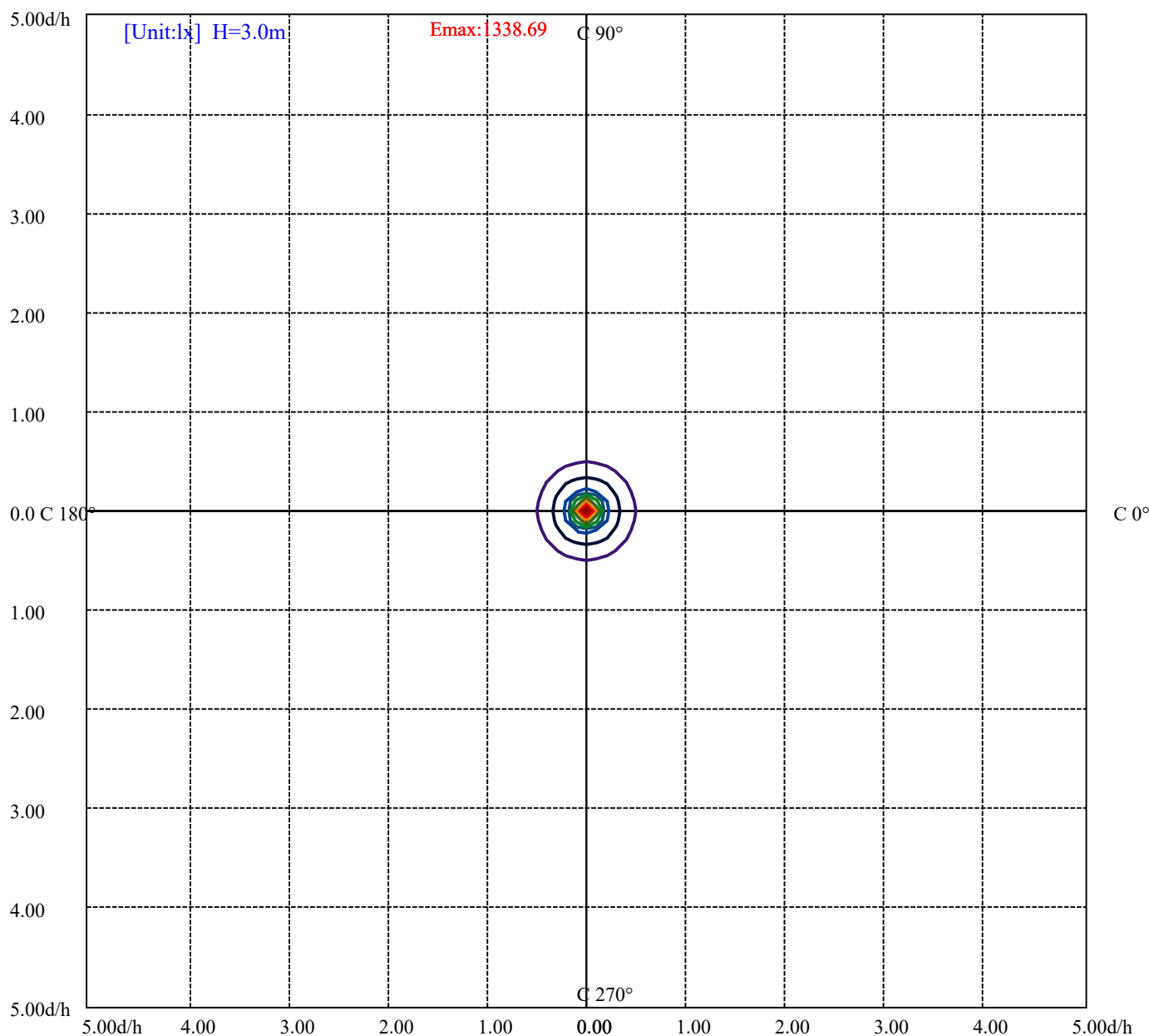
House

[Unit:cd]

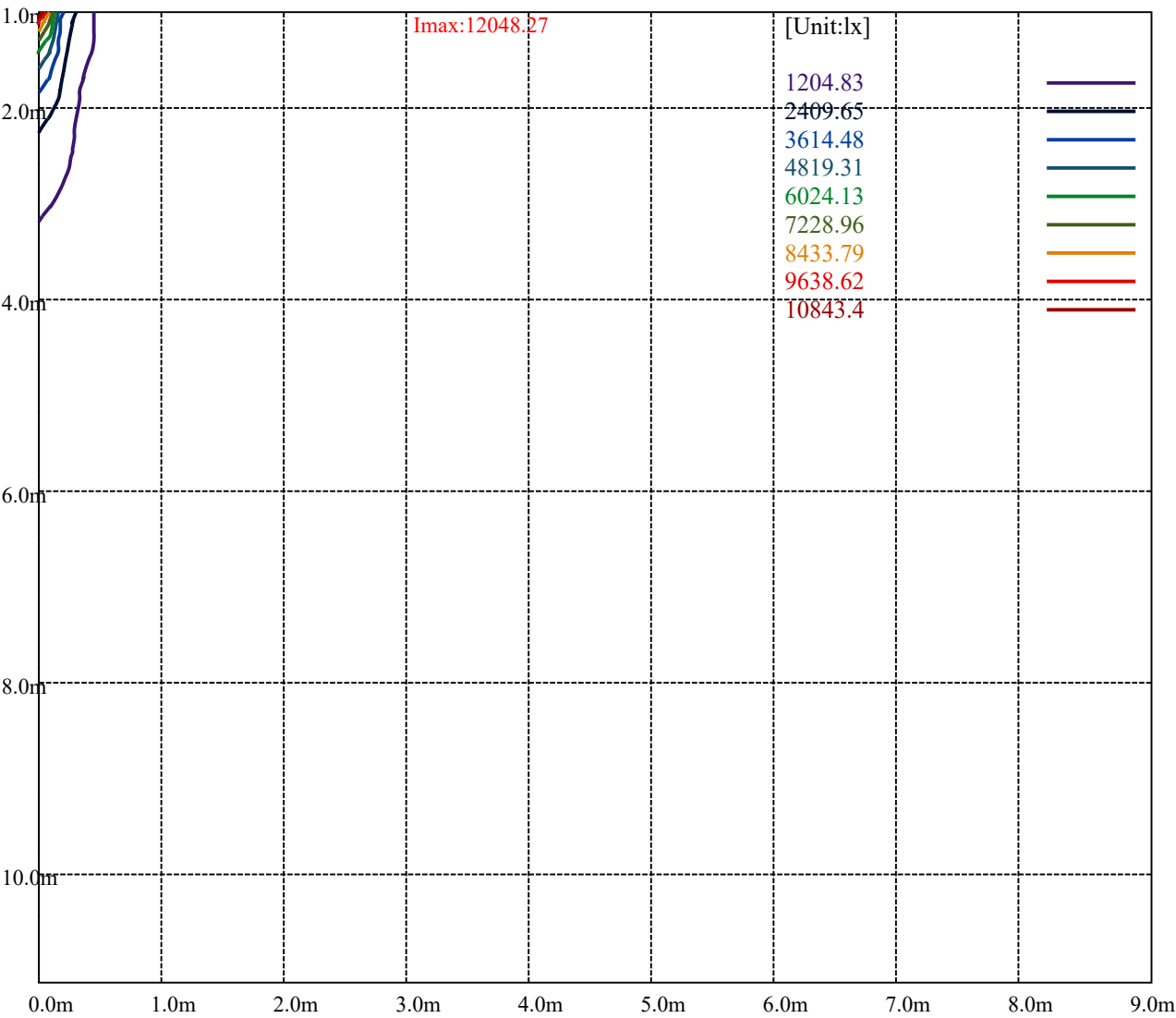
Road

Imax:12048.27

(10%Imax)	1204.83	—
(20%Imax)	2409.65	—
(30%Imax)	3614.48	—
(40%Imax)	4819.31	—
(50%Imax)	6024.13	—
(60%Imax)	7228.96	—
(70%Imax)	8433.79	—
(80%Imax)	9638.62	—
(90%Imax)	10843.4	—



(10%Emax)	133.8689	—
(20%Emax)	267.7378	—
(30%Emax)	401.6056	—
(40%Emax)	535.4744	—
(50%Emax)	669.3433	—
(60%Emax)	803.2122	—
(70%Emax)	937.0812	—
(80%Emax)	1070.95	—
(90%Emax)	1204.822	—



Luminance Table

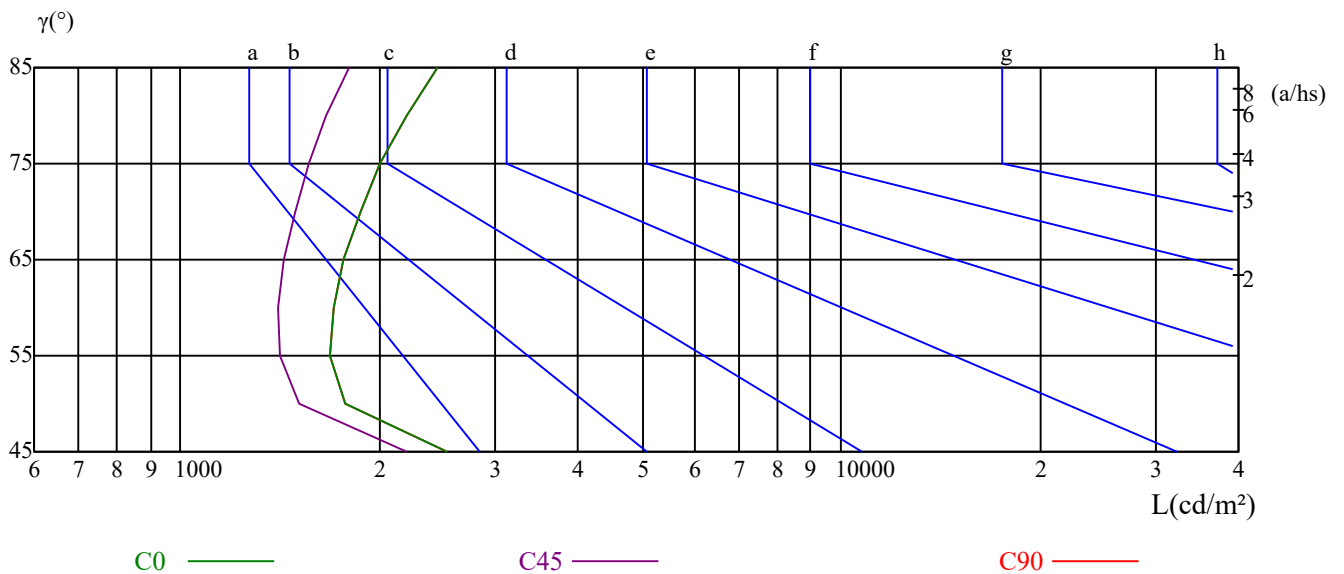
γ	45	50	55	60	65	70	75	80	85
C0	2537	1778	1689	1707	1769	1872	2010	2197	2448
C45	2196	1516	1418	1409	1435	1488	1562	1664	1798
C90	2537	1778	1689	1707	1769	1872	2010	2197	2448

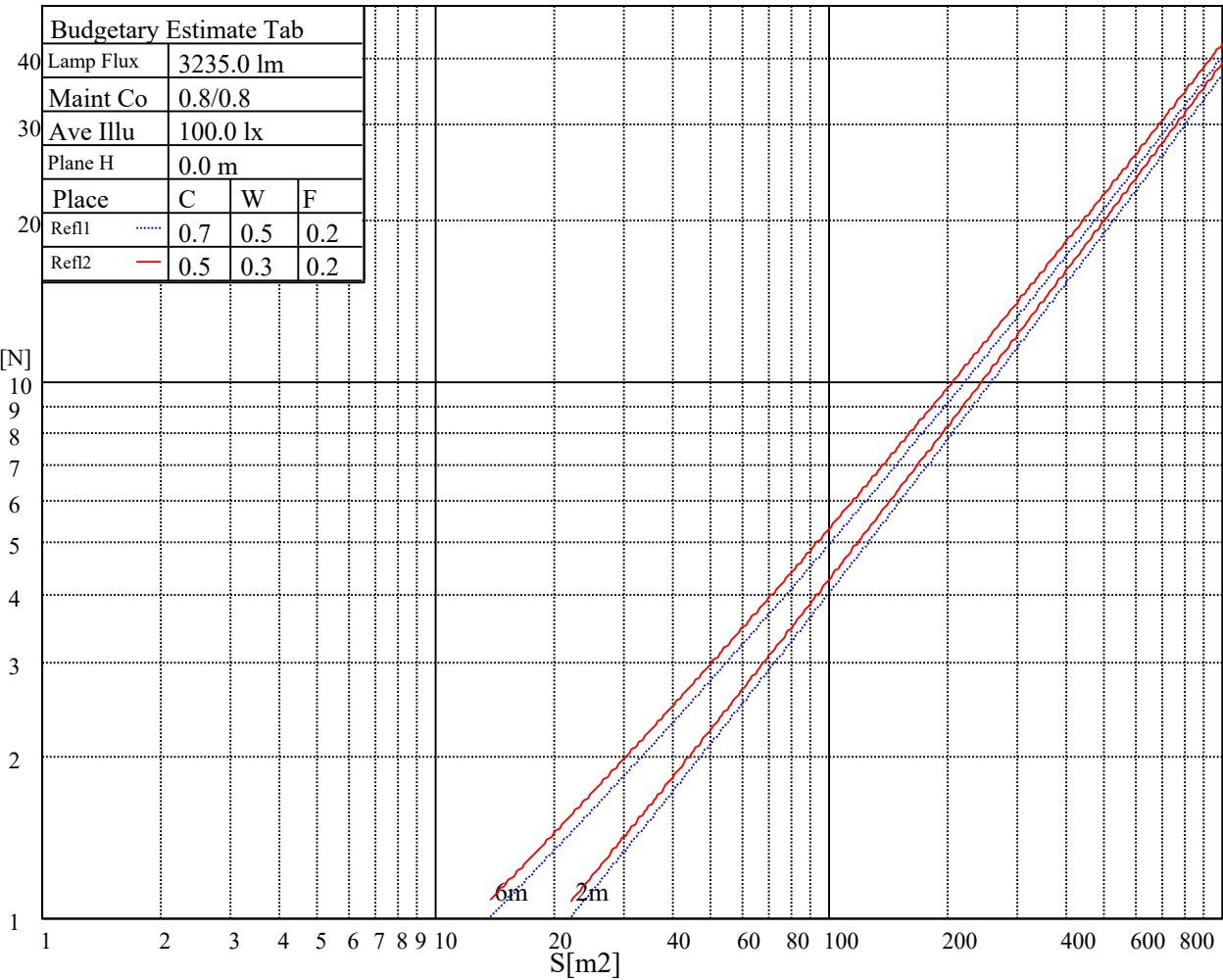
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4046	4046	4046	6510	6510	6510	19235	19235	19235

Glare Table

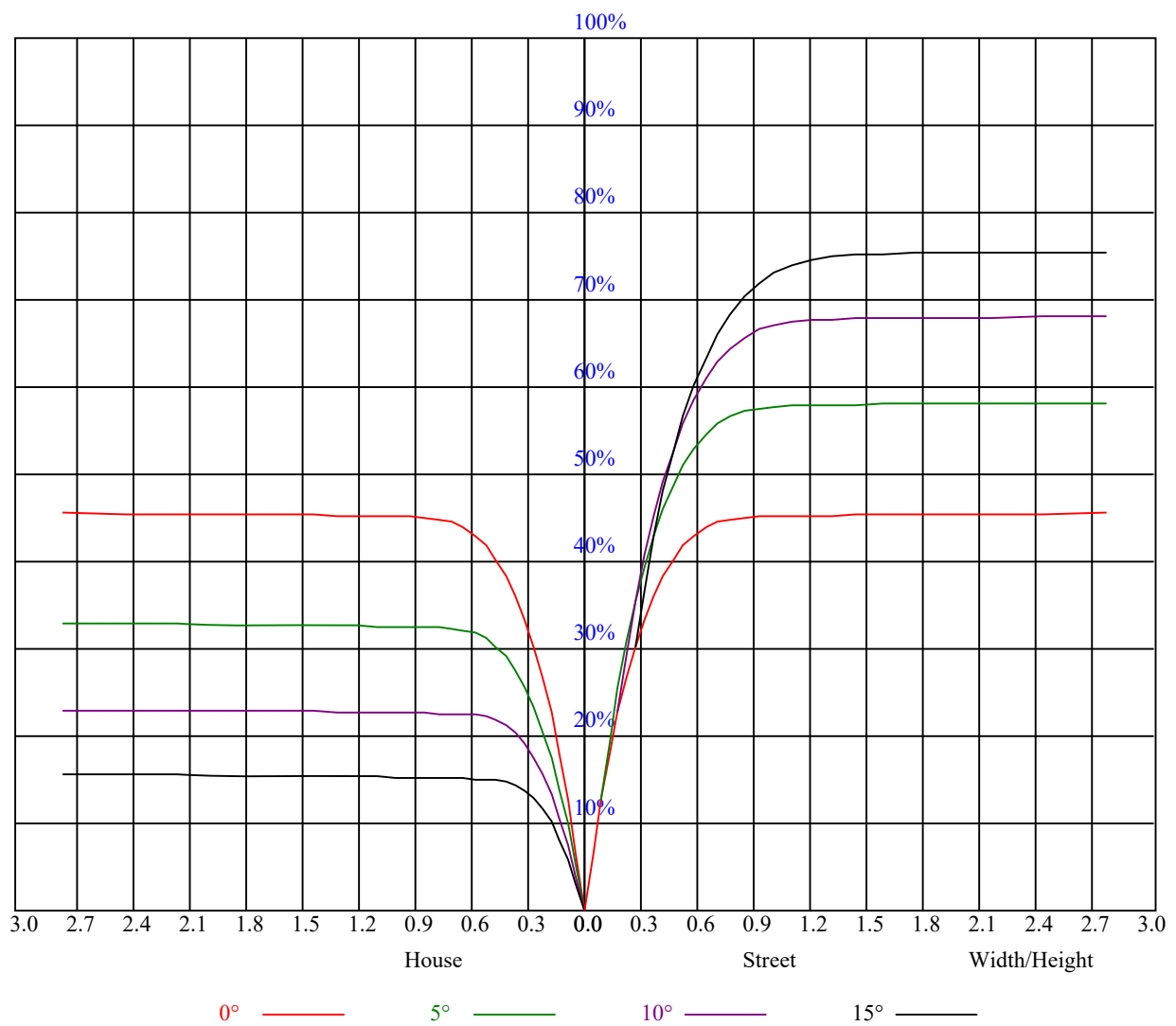
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





RHOC	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 RHOF=20 CU															
0	1.11	1.11	1.11	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.04	1.02	1.00	1.02	1.00	0.98	0.98	0.97	0.95	0.95	0.94	0.92	0.92	0.91	0.90	0.88
2	0.98	0.95	0.92	0.96	0.93	0.91	0.93	0.91	0.89	0.91	0.89	0.87	0.88	0.86	0.85	0.84
3	0.93	0.89	0.85	0.91	0.88	0.85	0.89	0.86	0.83	0.87	0.84	0.82	0.85	0.83	0.81	0.79
4	0.88	0.83	0.80	0.87	0.83	0.80	0.85	0.81	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.76
5	0.84	0.79	0.76	0.83	0.78	0.75	0.81	0.77	0.75	0.80	0.76	0.74	0.78	0.76	0.73	0.72
6	0.80	0.75	0.72	0.79	0.75	0.71	0.78	0.74	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
7	0.76	0.71	0.68	0.76	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.66
8	0.73	0.68	0.65	0.72	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.70	0.67	0.64	0.63
9	0.70	0.65	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.61
10	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.66	0.62	0.59	0.65	0.62	0.59	0.58



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Intensity data(cd)										Appendix Page: 14 Total:14	
C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	12415.22	10251.50	5252.38	3501.59	2802.37	1944.04	1379.16	751.52	292.90		
45.0	10936.40	10697.46	5428.56	3617.21	2780.35	1945.14	1426.51	820.34	289.60		
90.0	12382.18	9087.06	4457.92	3310.54	2507.82	1749.14	1073.49	567.47	43.00		
135.0	12459.26	9332.06	4553.16	3314.40	2818.89	1825.12	1300.43	635.35	57.59		
180.0	12415.22	8164.31	4074.17	3089.21	2377.34	1648.94	1088.52	484.55	38.32		
225.0	10936.40	7513.00	3831.37	2977.45	2312.37	1649.49	1075.91	372.62	37.05		
270.0	12382.18	9194.42	4421.03	3253.83	2802.37	1836.68	1304.29	617.73	55.06		
315.0	12459.26	9362.34	4473.33	3272.00	2500.11	1766.21	1073.88	609.47	48.89		
360.0	12415.22	10251.50	5252.38	3501.59	2802.37	1944.04	1379.16	751.52	292.90		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	24.28	14.81	13.27	12.72	12.44	12.33	12.28	12.22	12.17		
45.0	24.22	14.81	13.21	12.72	12.39	12.28	12.17	12.17	12.06		
90.0	19.43	13.82	12.88	12.44	12.28	12.17	12.11	12.06	12.06		
135.0	21.20	14.20	12.94	12.61	12.33	12.28	12.22	12.17	12.17		
180.0	18.77	13.87	12.88	12.55	12.39	12.28	12.17	12.17	12.17		
225.0	17.84	13.60	12.83	12.44	12.28	12.22	12.11	12.06	12.06		
270.0	20.43	14.26	13.05	12.61	12.39	12.28	12.17	12.11	12.11		
315.0	19.71	13.93	12.88	12.50	12.33	12.17	12.17	12.11	12.11		
360.0	24.28	14.81	13.27	12.72	12.44	12.33	12.28	12.22	12.17		
C/ γ (°)	90.0										
0.0	12.17										
45.0	12.06										
90.0	12.06										
135.0	12.11										
180.0	12.17										
225.0	12.06										
270.0	12.06										
315.0	12.06										
360.0	12.17										