
Nata

LumCAT: 3-1939-M	
Luminaire: BJB 47.319.2344	
Report No: GC20170617006	Voltage(V): 34.4000
Test No: NT-0010	Current(A): 0.5000
LampCAT: Certaflux slm 1208 L14 G1	Power (W): 17.2000
Lamp flux(lm): 2401.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 78	Width(mm): 78
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2201.82
Efficiency(%): 91.70%
Lumens(lm)/Power(W): 128.01
Central intensity(cd): 8187.988
Maximum intensity(cd): 8187.988
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=26.1
[C90/270]Total=26.1
Field angle(10%Imax): [C0/180]Total=51.3
[C90/270]Total=51.3
Maximum s/h(1/2): C0_180=0.45 C90_270=0.45
Maximum s/h(1/4): C0_180=0.43 C90_270=0.43
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.70%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.738%

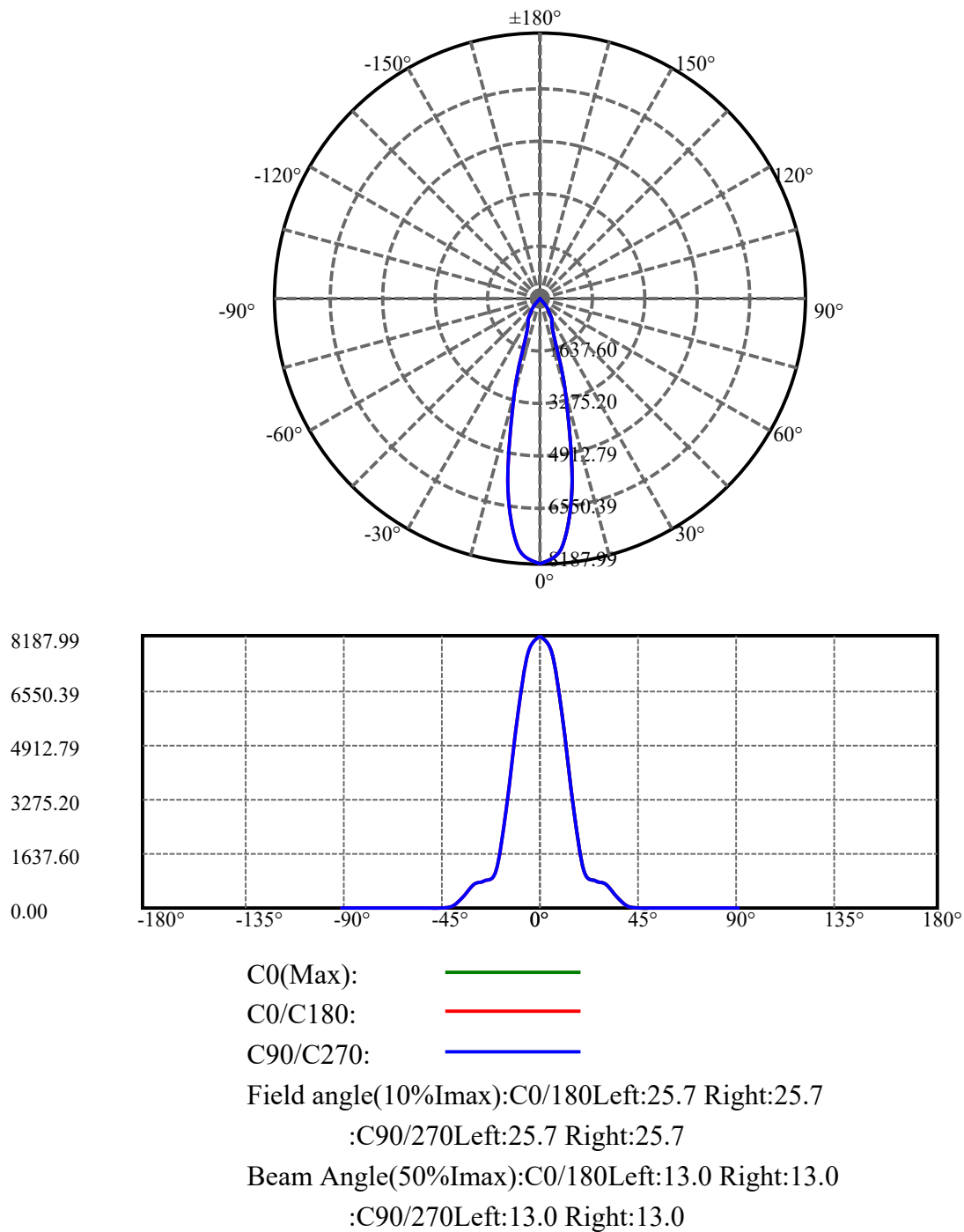
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	8187.988	0.000	0	.000%	.000%
5.0	7694.201	189.867	189.867	7.908%	8.623%
10.0	5848.091	484.450	674.317	20.177%	30.625%
15.0	2957.148	522.321	1196.638	21.754%	54.348%
20.0	1144.168	338.006	1534.644	14.078%	69.699%
25.0	832.177	207.282	1741.927	8.633%	79.113%
30.0	733.000	198.075	1940.001	8.250%	88.109%
35.0	318.928	154.904	2094.905	6.452%	95.144%
40.0	25.863	57.526	2152.431	2.396%	97.757%
45.0	13.771	7.339	2159.769	.306%	98.090%
50.0	11.225	5.051	2164.82	.210%	98.320%
55.0	10.158	4.649	2169.469	.194%	98.531%
60.0	9.545	4.554	2174.024	.190%	98.738%
65.0	9.132	4.541	2178.564	.189%	98.944%
70.0	8.947	4.578	2183.142	.191%	99.152%
75.0	8.747	4.625	2187.767	.193%	99.362%
80.0	8.665	4.659	2192.426	.194%	99.573%
85.0	8.630	4.699	2197.125	.196%	99.787%
90.0	8.520	4.696	2201.821	.196%	100.000%

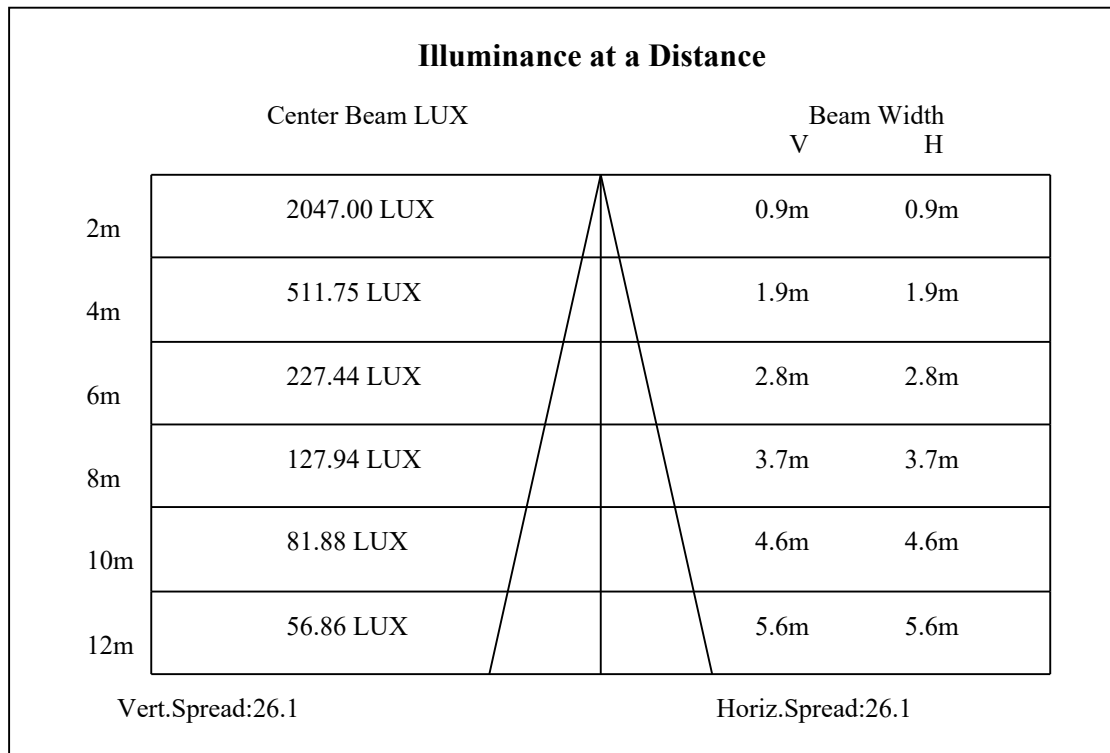
ZONAL LUMEN SUMMARY

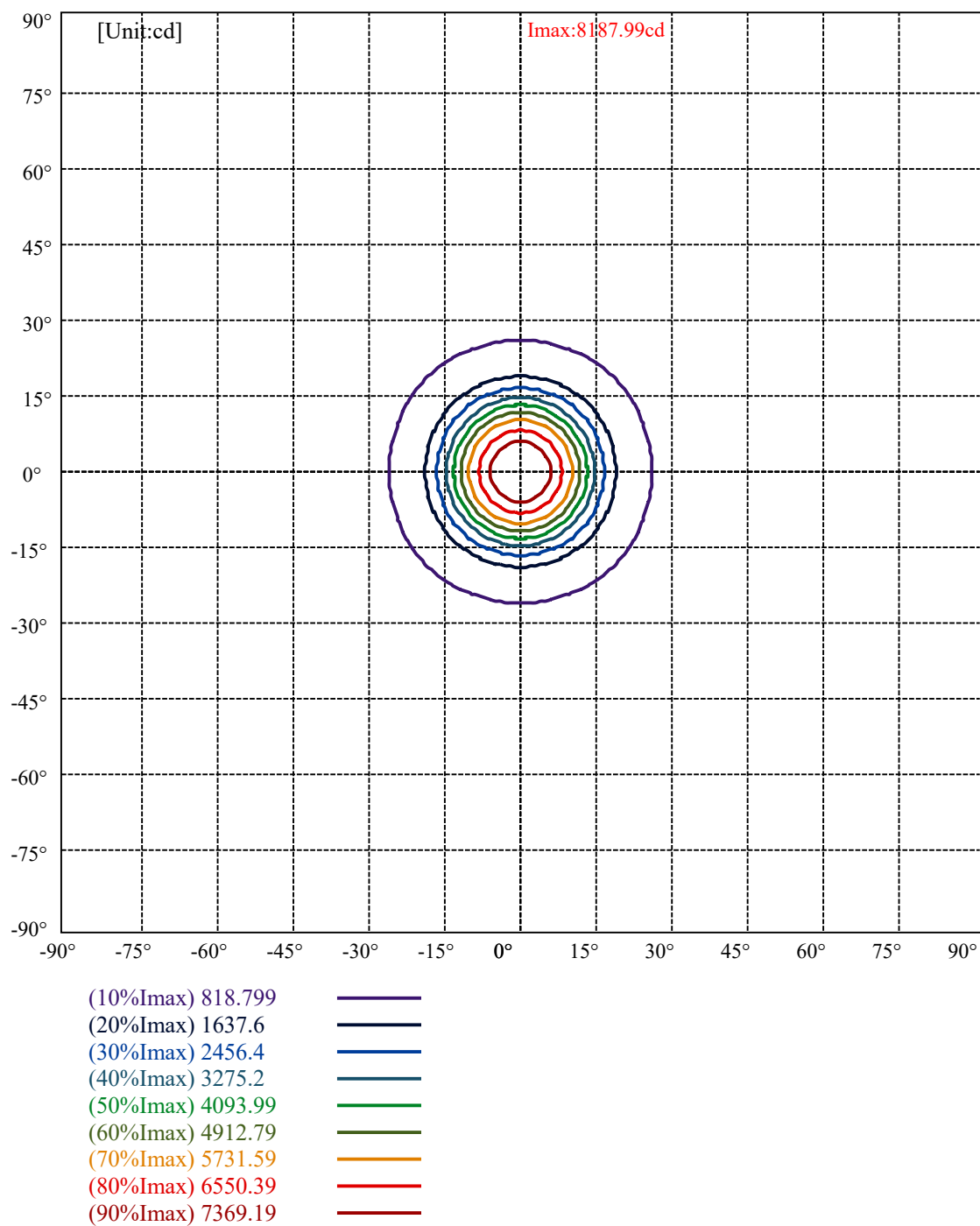
Zone	Lumens	%Lamp	%Fixt
0-30	1940.00	80.80%	88.11%
0-40	2152.43	89.65%	97.76%
0-60	2174.02	90.55%	98.74%
0-90	2197.12	91.51%	99.79%
0-120	2197.12	91.51%	99.79%
0-180	2201.82	91.70%	100.00%
60-90	27.66	1.15%	1.26%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-25.49	1761.46	73.36%	80.00%

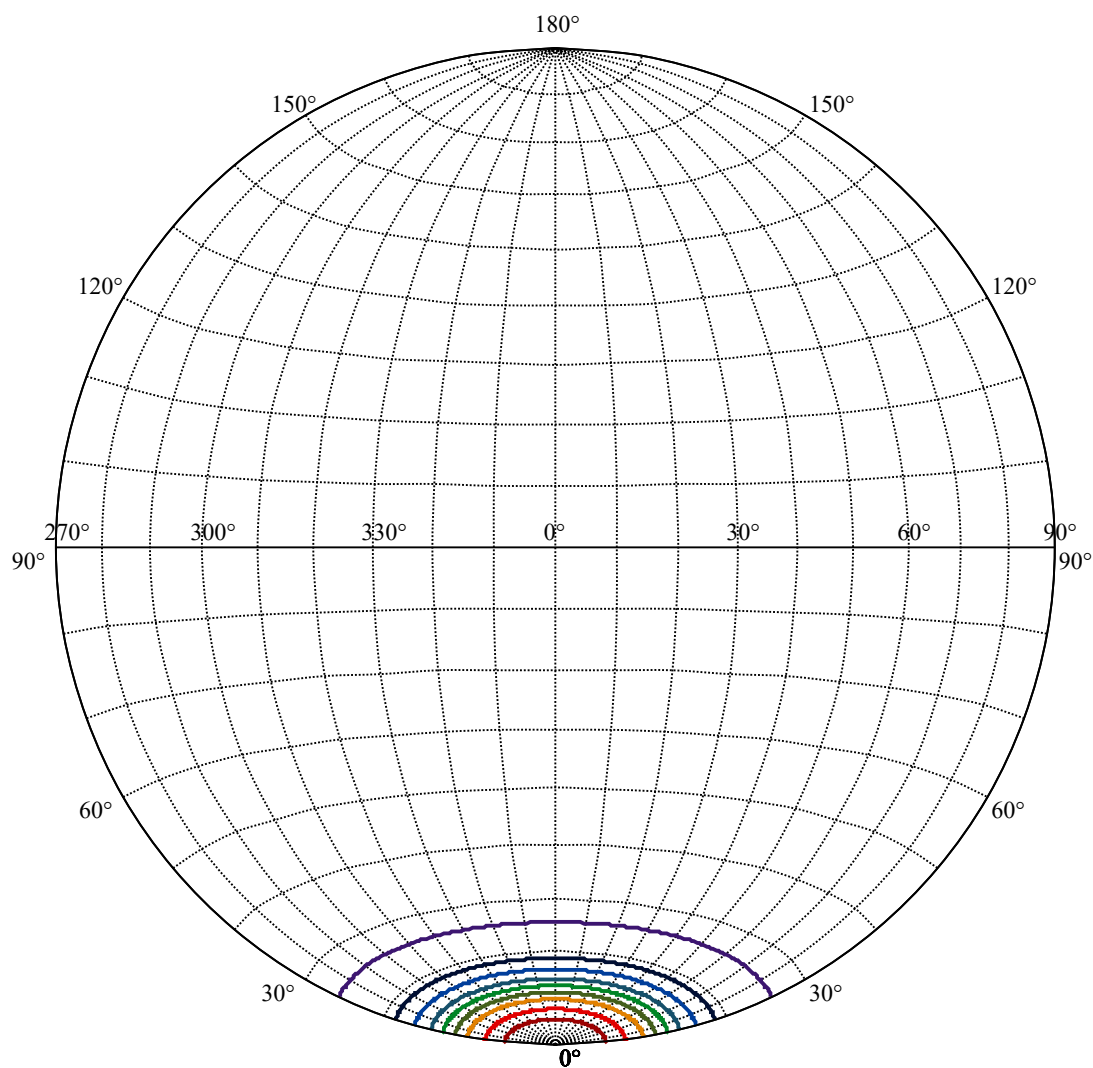
ZONAL LUMEN SUMMARY

0-10	674.32
10-20	860.33
20-30	405.36
30-40	212.43
40-50	12.39
50-60	9.20
60-70	9.12
70-80	9.28
80-90	4.70
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:8187.99

(10%Imax) 818.799

(20%Imax) 1637.6

(30%Imax) 2456.4

(40%Imax) 3275.2

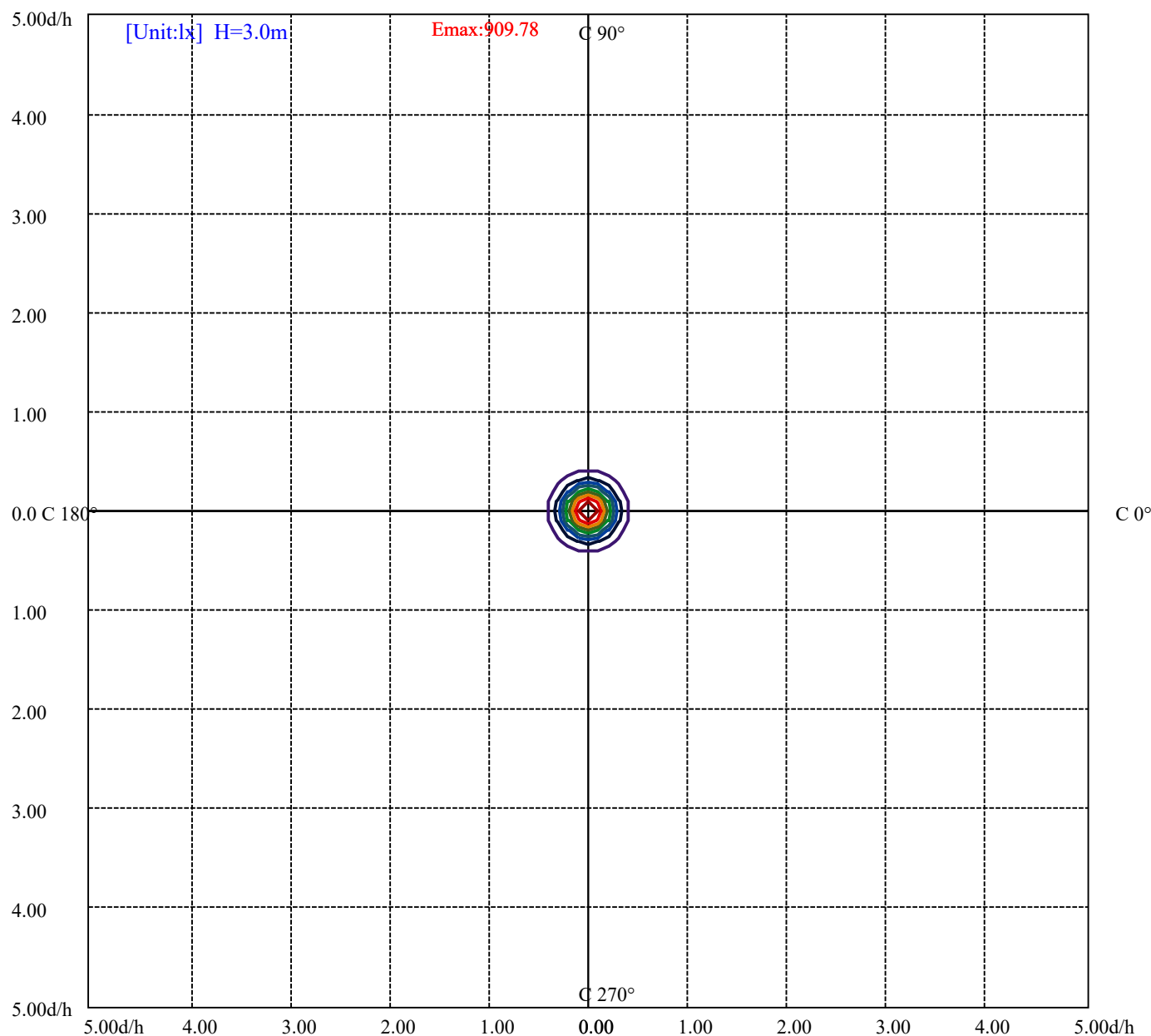
(50%Imax) 4093.99

(60%Imax) 4912.79

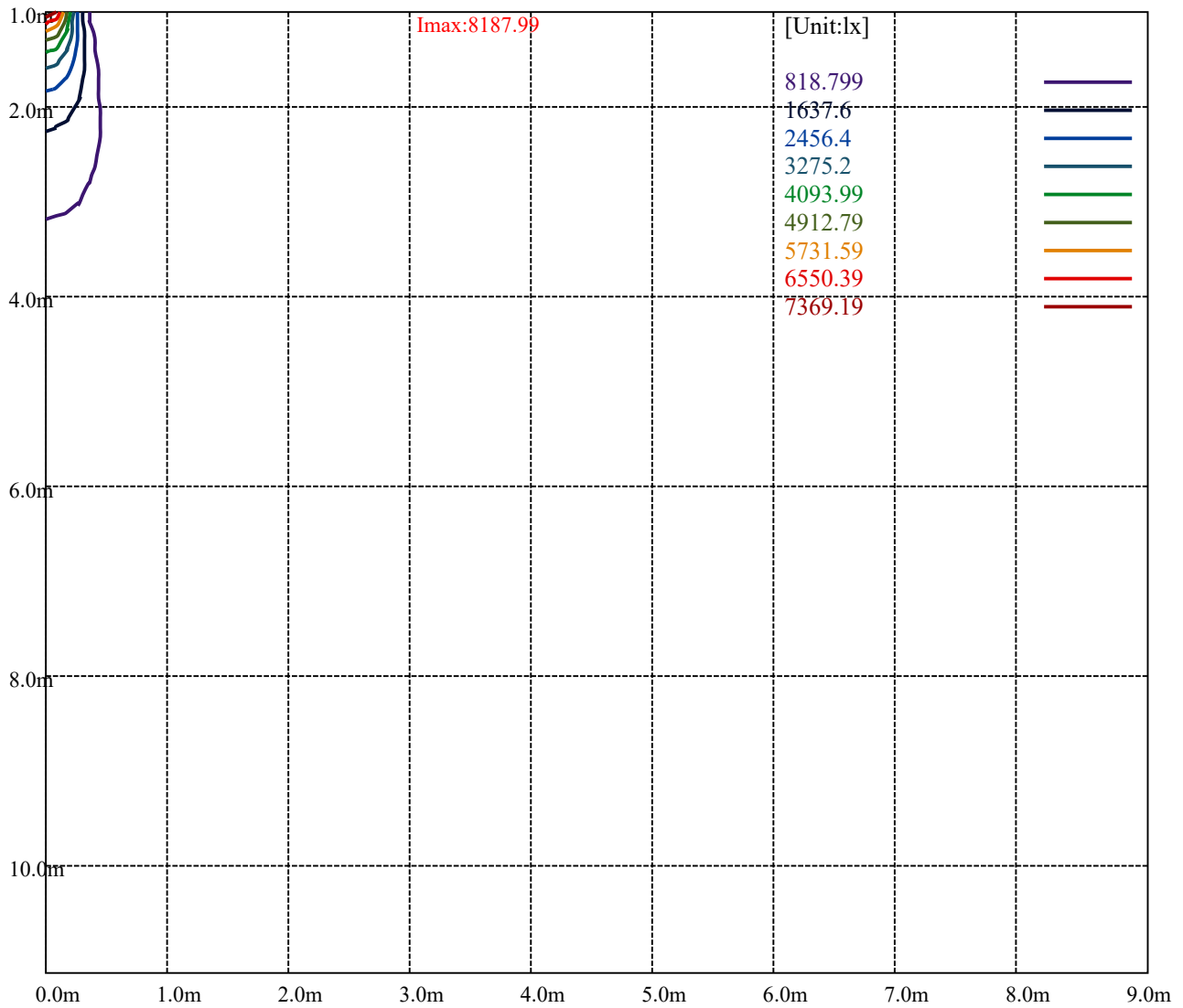
(70%Imax) 5731.59

(80%Imax) 6550.39

(90%Imax) 7369.19



(10%E _{max}) 90.97745	—
(20%E _{max}) 181.9544	—
(30%E _{max}) 272.9322	—
(40%E _{max}) 363.91	—
(50%E _{max}) 454.8878	—
(60%E _{max}) 545.8644	—
(70%E _{max}) 636.8422	—
(80%E _{max}) 727.82	—
(90%E _{max}) 818.7978	—



Luminance Table

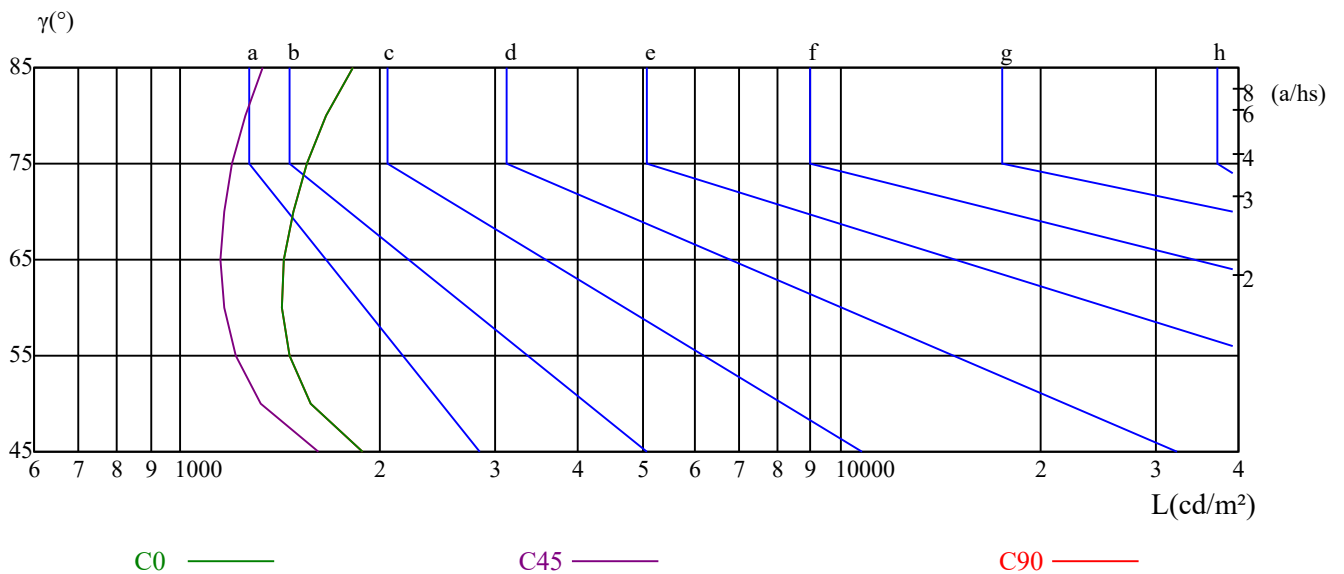
γ	45	50	55	60	65	70	75	80	85
C0	1892	1573	1464	1427	1430	1482	1550	1665	1826
C45	1617	1325	1214	1164	1146	1165	1194	1252	1335
C90	1892	1573	1464	1427	1430	1482	1550	1665	1826

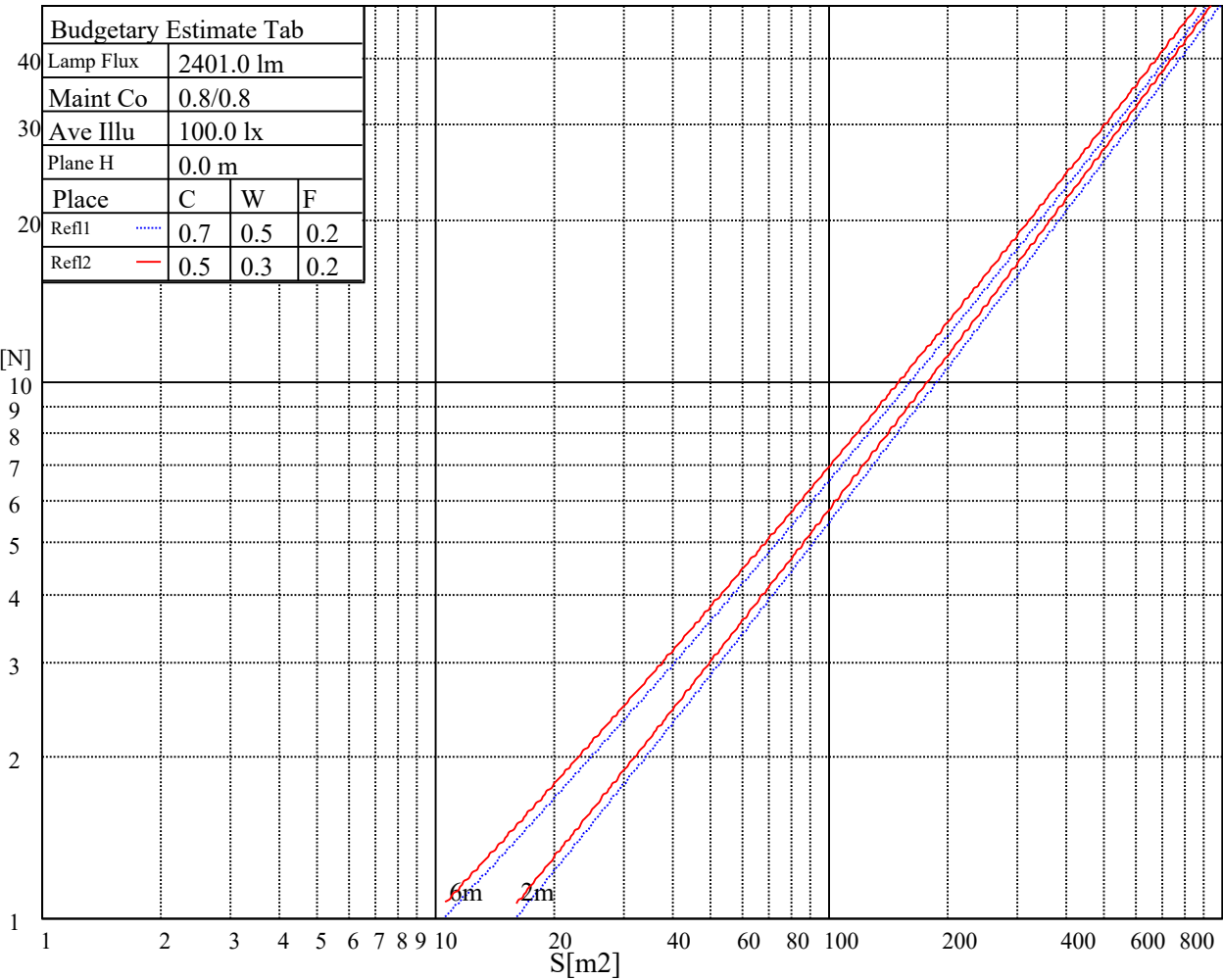
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3552	3552	3552	5555	5555	5555	16275	16275	16275

Glare Table

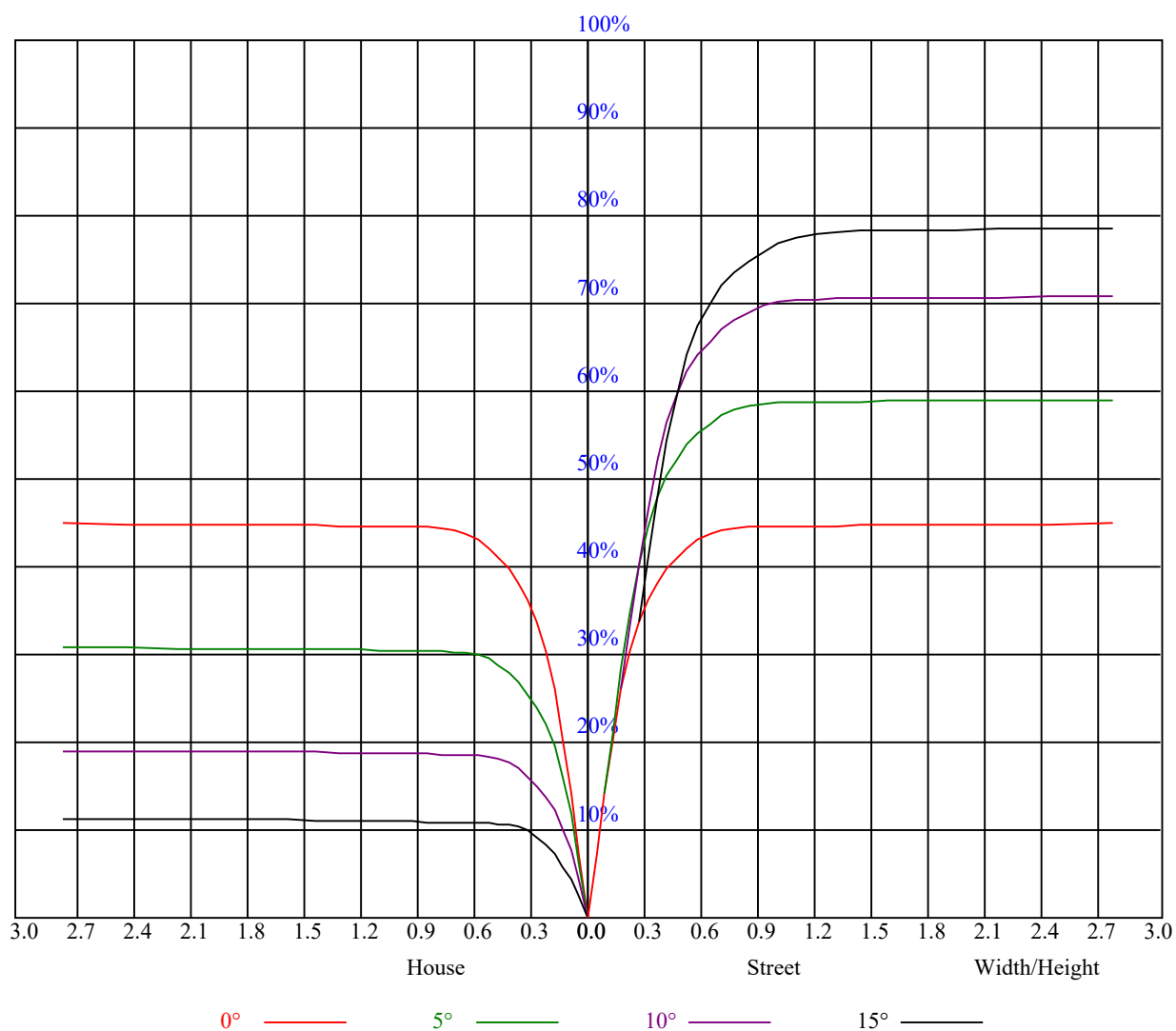
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

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	1.09	1.09	1.09	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.03	1.01	0.99	1.01	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88
2	0.97	0.94	0.92	0.96	0.93	0.91	0.93	0.91	0.89	0.90	0.89	0.87	0.88	0.86	0.85	0.84
3	0.93	0.89	0.86	0.91	0.88	0.85	0.89	0.86	0.84	0.87	0.85	0.83	0.85	0.83	0.82	0.80
4	0.89	0.85	0.81	0.88	0.84	0.81	0.86	0.83	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.77
5	0.85	0.81	0.78	0.84	0.80	0.77	0.82	0.79	0.77	0.81	0.78	0.76	0.80	0.77	0.75	0.74
6	0.81	0.77	0.74	0.81	0.77	0.74	0.80	0.76	0.73	0.78	0.75	0.73	0.77	0.75	0.73	0.71
7	0.78	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
8	0.76	0.71	0.69	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.68	0.73	0.70	0.68	0.67
9	0.73	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.70	0.68	0.65	0.64
10	0.71	0.67	0.64	0.70	0.66	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.68	0.66	0.63	0.62



Nata 3-1939-M

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	8212.21	7879.67	6376.63	3495.53	1283.36	866.04	762.53	412.92	33.47		
45.0	8172.02	7971.07	6371.68	3528.56	1302.08	861.08	755.37	398.06	35.46		
90.0	8173.67	7656.69	5691.73	2754.47	1062.48	824.36	727.52	273.74	23.34		
135.0	8194.04	7759.65	5951.05	3194.92	1207.94	837.96	744.91	340.25	24.39		
180.0	8212.21	7493.73	5428.56	2473.13	1038.14	810.43	699.88	240.65	20.98		
225.0	8172.02	7396.83	5240.82	2377.34	1006.38	799.36	699.49	233.88	20.59		
270.0	8173.67	7759.65	5976.37	3129.96	1179.86	836.31	742.71	365.02	25.33		
315.0	8194.04	7636.32	5747.89	2703.27	1073.10	821.88	731.59	286.90	23.34		
360.0	8212.21	7879.67	6376.63	3495.53	1283.36	866.04	762.53	412.92	33.47		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	14.53	11.56	10.30	9.69	9.19	8.97	8.81	8.70	8.70		
45.0	15.03	11.45	10.30	9.63	9.19	9.03	8.81	8.64	8.64		
90.0	12.83	11.12	10.08	9.52	9.08	8.92	8.70	8.59	8.59		
135.0	14.15	11.45	10.30	9.63	9.14	8.97	8.75	8.70	8.64		
180.0	13.60	11.23	10.24	9.52	9.14	8.97	8.81	8.70	8.70		
225.0	12.94	10.96	10.08	9.41	9.14	8.92	8.70	8.70	8.59		
270.0	13.98	11.07	10.02	9.47	9.08	8.92	8.70	8.64	8.59		
315.0	13.10	10.96	9.97	9.47	9.08	8.86	8.70	8.64	8.59		
360.0	14.53	11.56	10.30	9.69	9.19	8.97	8.81	8.70	8.70		
C/γ(°)	90.0										
0.0	8.53										
45.0	8.53										
90.0	8.53										
135.0	8.48										
180.0	8.48										
225.0	8.59										
270.0	8.53										
315.0	8.48										
360.0	8.53										