



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
www.bellingeel.com

Tel:0755-21038430

Address:Rm. 108, No.1 Building, Meibaohe industrial park, No.14 Shilongzi Road, Dalang street, Longhua district, Shenzhen, China

Client:

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.03

LampCAT:

Current(A): 0.1340

Lamp flux(lm): -1.0

Power (W): 15.92

Number of Lamps: 1

PF: 0.9923

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1010.47, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 63.47

Central intensity(cd): 350.972, Maximum intensity(cd): 365.428

Angle of maximum intensity: C=90.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=108.7

[C90/270]Total=114.6

Field angle(10%Imax): [C0/180]Total=157.1

[C90/270]Total=161.9

Maximum s/h(1/2): C0_180=1.39 C90_270=1.33

Maximum s/h(1/4): C0_180=1.52 C90_270=1.44

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.93%

Down flux rate of LUM(%): 99.07%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 77.422%

Equipment: GMS-3000
Temperature(°C): 25

Date:
Humidity(%): 58%

Operator: Tester

Zonal flux distribution table

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$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	350.972	0.000	0	0.00%	0.00%
5.0	349.818	8.378	8.378	0.00%	0.83%
10.0	343.782	24.812	33.19	0.00%	3.28%
15.0	336.054	40.327	73.517	0.00%	7.28%
20.0	324.856	54.468	127.986	0.00%	12.67%
25.0	311.105	66.701	194.686	0.00%	19.27%
30.0	294.746	76.671	271.357	0.00%	26.85%
35.0	275.070	83.909	355.267	0.00%	35.16%
40.0	254.923	88.425	443.692	0.00%	43.91%
45.0	231.140	89.999	533.691	0.00%	52.82%
50.0	206.025	88.336	622.026	0.00%	61.56%
55.0	179.440	83.813	705.839	0.00%	69.85%
60.0	151.466	76.488	782.327	0.00%	77.42%
65.0	122.369	66.570	848.897	0.00%	84.01%
70.0	92.745	54.468	903.365	0.00%	89.40%
75.0	65.118	41.263	944.628	0.00%	93.48%
80.0	42.210	28.718	973.346	0.00%	96.33%
85.0	24.435	18.109	991.455	0.00%	98.12%
90.0	10.781	9.643	1001.098	0.00%	99.07%
95.0	2.664	3.681	1004.779	0.00%	99.44%
100.0	0.846	0.954	1005.733	0.00%	99.53%
105.0	0.763	0.431	1006.164	0.00%	99.57%
110.0	0.763	0.399	1006.563	0.00%	99.61%
115.0	0.791	0.393	1006.956	0.00%	99.65%
120.0	0.819	0.391	1007.347	0.00%	99.69%
125.0	0.846	0.385	1007.732	0.00%	99.73%
130.0	0.902	0.380	1008.112	0.00%	99.77%
135.0	0.916	0.367	1008.48	0.00%	99.80%
140.0	1.055	0.365	1008.844	0.00%	99.84%
145.0	1.068	0.354	1009.199	0.00%	99.87%
150.0	1.082	0.317	1009.515	0.00%	99.91%
155.0	1.179	0.286	1009.801	0.00%	99.93%
160.0	1.110	0.240	1010.042	0.00%	99.96%
165.0	1.166	0.188	1010.229	0.00%	99.98%
170.0	1.096	0.134	1010.363	0.00%	99.99%
175.0	1.096	0.078	1010.442	0.00%	100.00%
180.0	1.241	0.028	1010.47	0.00%	100.00%

Equipment: GMS-3000
Temperature($^{\circ}$ C): 25

Date:
Humidity(%): 58%

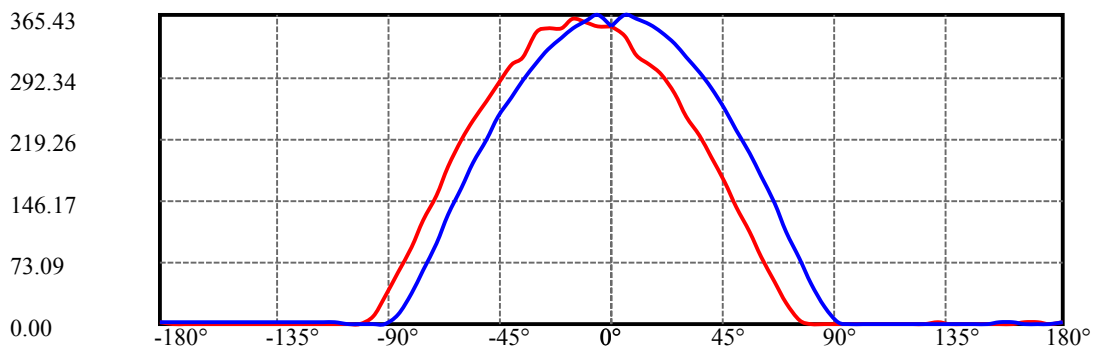
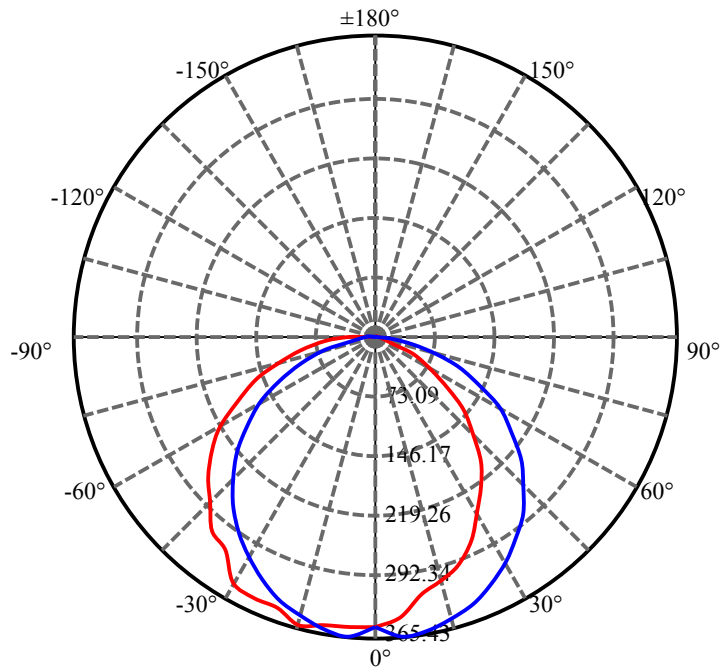
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	271.36	N.A.	26.85%
0-40	443.69	N.A.	43.91%
0-60	782.33	N.A.	77.42%
0-90	1001.10	N.A.	99.07%
0-120	1007.35	N.A.	99.69%
0-180	1010.47	N.A.	100.00%
60-90	218.77	N.A.	21.65%
90-120	6.25	N.A.	0.62%
90-130	7.01	N.A.	0.69%
90-150	8.42	N.A.	0.83%
90-180	9.34	N.A.	0.92%
0-61.96	808.38	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	33.19
10-20	94.80
20-30	143.37
30-40	172.33
40-50	178.33
50-60	160.30
60-70	121.04
70-80	69.98
80-90	27.75
90-100	4.64
100-110	0.83
110-120	0.78
120-130	0.76
130-140	0.73
140-150	0.67
150-160	0.53
160-170	0.32
170-180	0.08

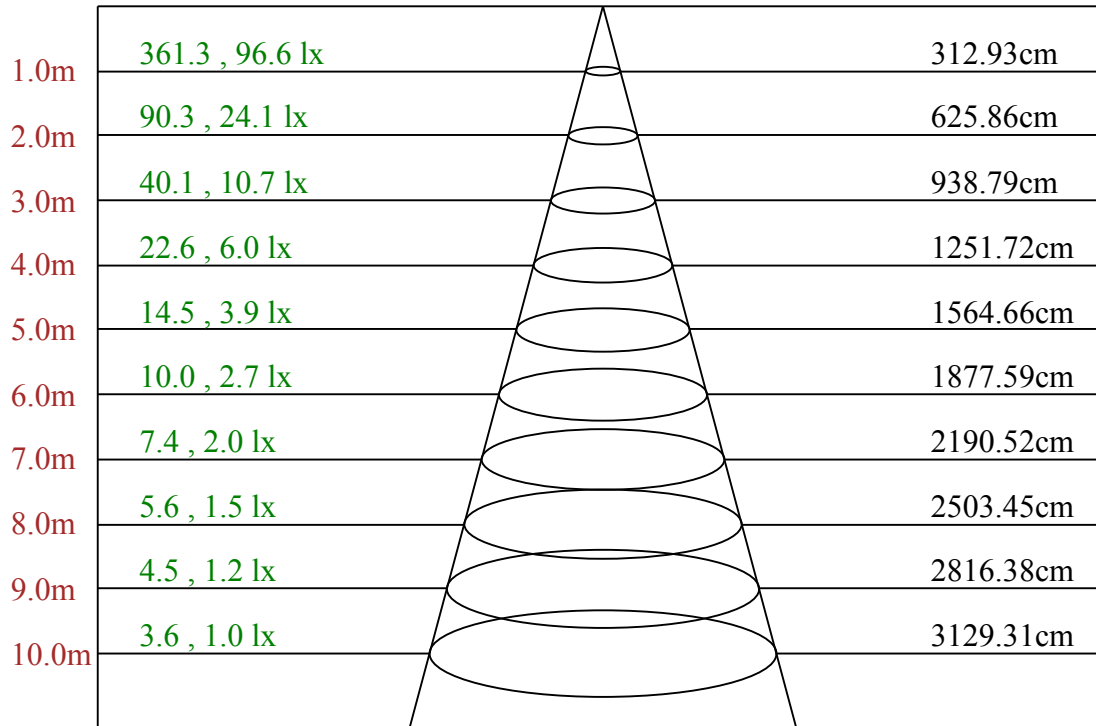


C0/C180: —

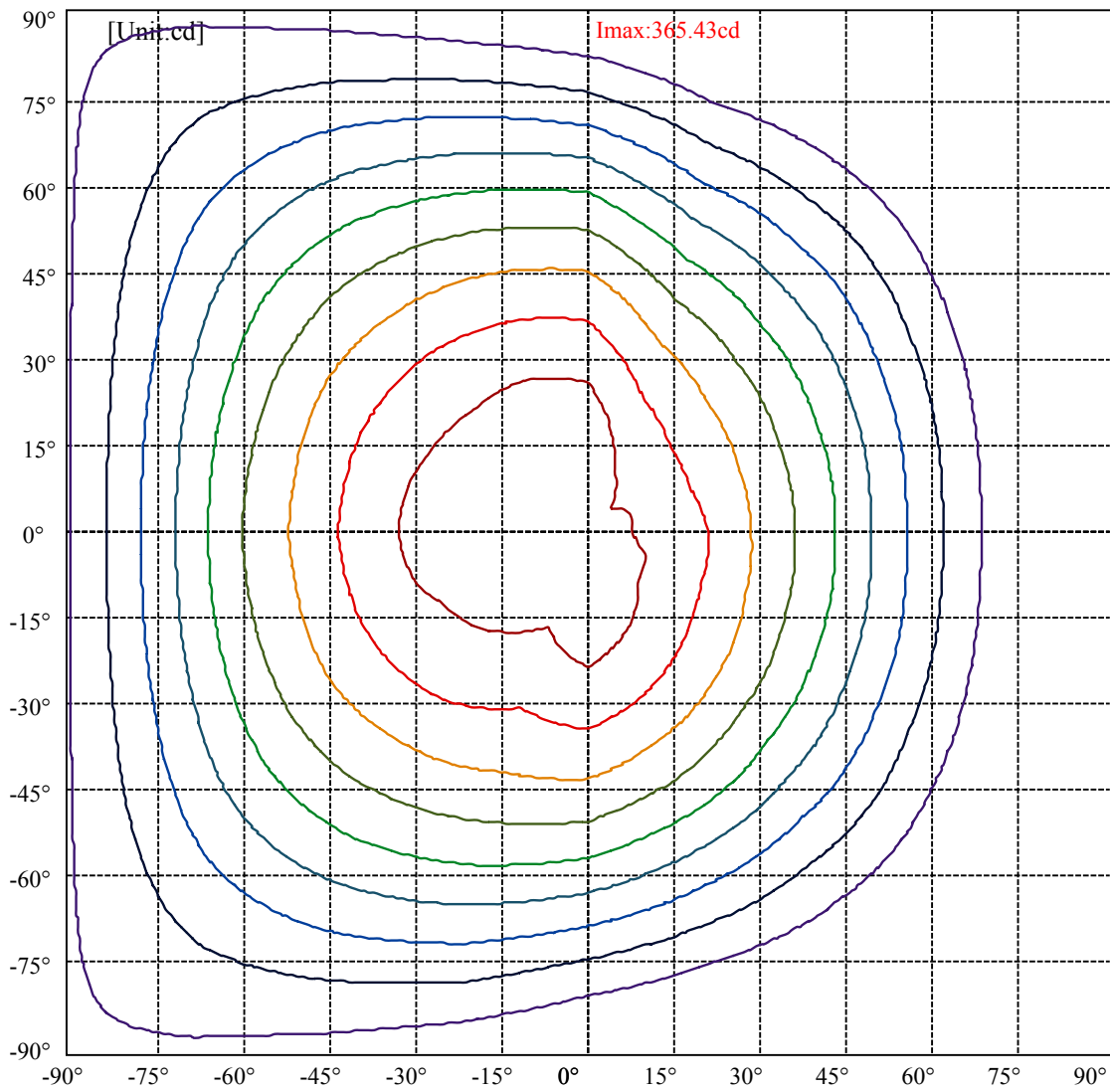
C90/C270: —

Field angle(10%Imax):C0/180Left:89.3 Right:67.8
 :C90/270Left:79.9 Right:82.0

Beam Angle(50%Imax):C0/180Left:65.8 Right:42.9
 :C90/270Left:56.2 Right:58.4



Max , Ave Beam angle of C90 plane 114.83

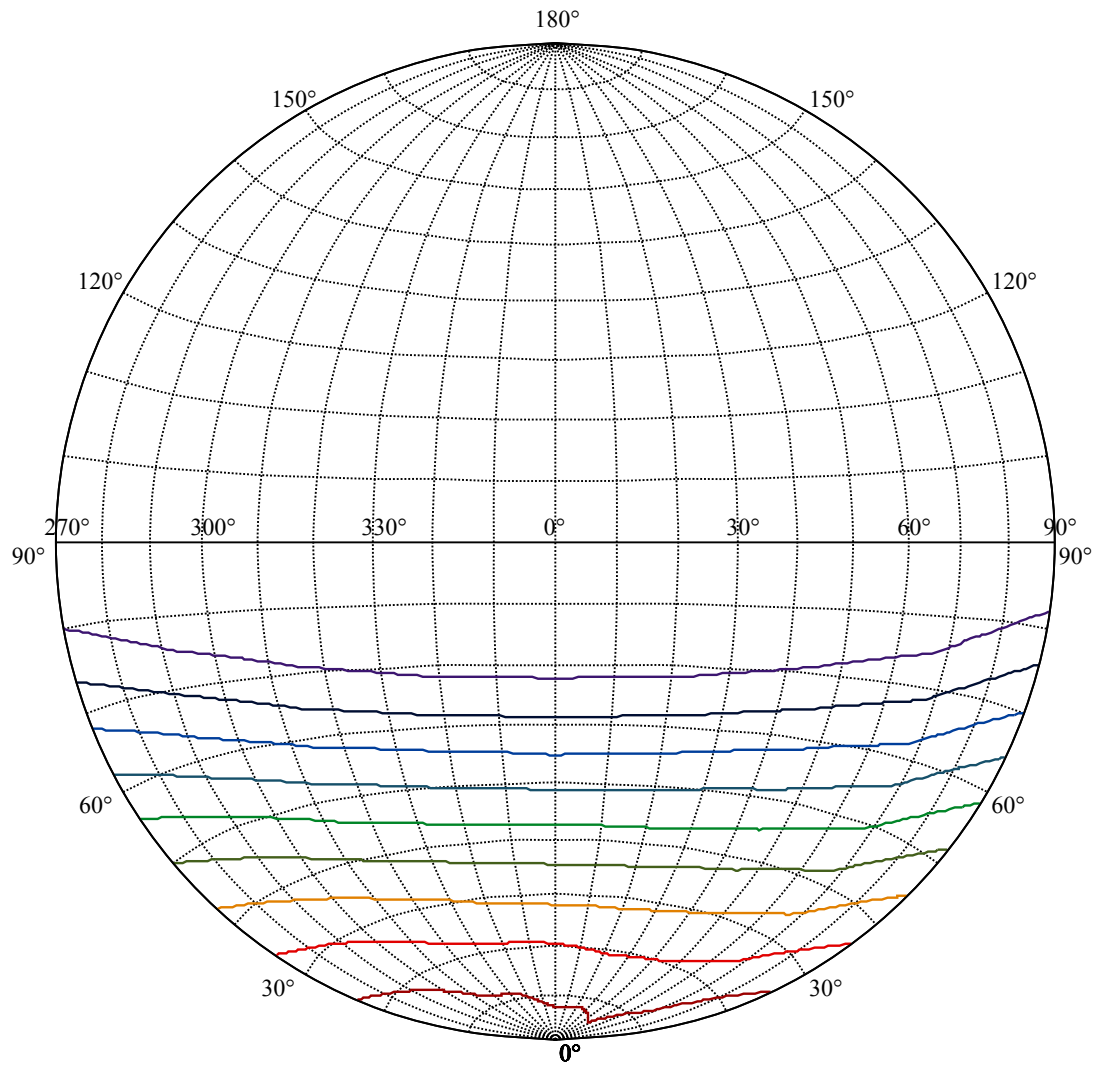


(10%Imax) 36.5428	—
(20%Imax) 73.0856	—
(30%Imax) 109.628	—
(40%Imax) 146.171	—
(50%Imax) 182.714	—
(60%Imax) 219.257	—
(70%Imax) 255.8	—
(80%Imax) 292.342	—
(90%Imax) 328.885	—

Equipment: GMS-3000
Temperature(°C): 25

Date:
Humidity(%): 58%

Operator: Tester



House

[Unit:cd]

Road

Imax:365.43	
(10%Imax) 36.5428	—
(20%Imax) 73.0856	—
(30%Imax) 109.628	—
(40%Imax) 146.171	—
(50%Imax) 182.714	—
(60%Imax) 219.257	—
(70%Imax) 255.8	—
(80%Imax) 292.342	—
(90%Imax) 328.885	—

Intensity data(cd)

C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	350.97	340.34	317.25	305.71	294.83	273.29	244.66	221.57	197.81
22.5	350.97	337.46	323.03	307.93	288.84	268.63	246.88	223.56	198.48
45.0	350.97	329.69	319.92	307.93	293.05	274.85	255.09	233.56	209.58
67.5	350.97	339.68	332.79	321.92	308.15	292.61	274.18	253.76	230.00
90.0	350.97	365.43	361.43	353.88	344.12	331.02	315.03	297.27	278.62
112.5	350.97	363.43	362.54	358.32	350.55	338.57	322.80	304.82	285.95
135.0	350.97	360.99	360.77	356.33	349.00	338.12	324.80	309.48	292.83
157.5	350.97	358.77	357.88	354.55	348.56	340.56	330.35	316.81	299.27
180.0	350.97	352.55	355.22	361.43	350.33	348.56	345.00	315.25	307.48
202.5	350.97	354.77	354.99	351.44	344.12	335.68	325.47	312.37	296.38
225.0	350.97	339.90	341.45	339.68	335.01	326.58	315.25	301.27	284.62
247.5	350.97	341.67	338.79	333.02	324.80	313.48	299.27	284.62	268.85
270.0	350.97	364.54	358.99	349.67	338.57	324.14	307.71	288.61	268.19
292.5	350.97	356.99	349.22	337.68	323.25	306.60	288.61	266.63	241.99
315.0	350.97	347.22	335.24	320.80	306.15	289.28	268.63	243.77	217.35
337.5	350.97	343.67	331.02	316.59	298.38	275.74	252.20	227.78	201.36
360.0	350.97	340.34	317.25	305.71	294.83	273.29	244.66	221.57	197.81
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	168.28	138.53	108.56	79.26	50.84	24.20	4.44	0.89	0.67
22.5	171.17	143.20	114.34	84.36	55.06	27.53	7.55	1.33	1.11
45.0	182.94	155.85	127.43	99.46	70.16	41.74	17.10	2.22	1.11
67.5	205.58	178.27	150.08	121.00	92.58	63.27	35.97	13.10	1.55
90.0	255.09	230.22	202.47	173.83	142.53	109.67	77.93	47.07	20.20
112.5	264.41	239.77	214.24	185.82	157.41	126.99	96.35	65.05	35.97
135.0	271.52	248.87	224.67	198.26	170.73	141.20	110.34	79.26	49.73
157.5	280.18	258.64	234.67	208.02	180.72	150.75	120.11	89.03	59.50
180.0	282.84	262.86	240.44	217.79	186.04	152.52	122.55	91.02	60.61
202.5	277.51	255.98	233.33	207.80	179.61	150.52	119.66	89.47	58.61
225.0	263.75	241.77	219.35	194.70	168.51	138.98	109.23	78.59	49.95
247.5	250.65	229.34	206.25	179.83	152.30	123.44	93.69	65.05	36.19
270.0	244.43	218.68	190.04	160.29	128.54	96.35	64.61	36.19	12.21
292.5	216.68	188.49	158.52	127.43	97.24	66.38	37.52	13.32	1.55
315.0	189.38	160.96	130.54	100.57	70.38	42.40	17.54	2.44	1.11
337.5	173.83	144.97	116.11	85.03	55.28	27.97	7.33	1.33	0.89
360.0	168.28	138.53	108.56	79.26	50.84	24.20	4.44	0.89	0.67
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.67	0.67	0.67	0.89	0.67	0.89	1.11	0.89	1.33
22.5	0.67	0.67	0.67	0.89	0.89	0.89	1.11	0.89	0.89
45.0	0.67	0.44	0.67	0.67	0.89	0.89	0.89	0.89	0.89
67.5	0.67	0.67	0.67	0.67	0.67	0.89	0.67	1.11	1.11
90.0	3.33	0.44	0.44	0.67	0.44	0.67	0.67	0.67	1.11
112.5	12.88	1.11	0.67	0.44	0.67	0.44	0.44	0.67	0.67
135.0	22.87	4.22	1.11	0.89	0.67	0.67	0.67	0.67	0.44
157.5	29.97	7.77	1.11	0.89	0.89	0.67	0.67	0.89	0.89
180.0	32.19	9.99	1.11	0.89	0.67	0.67	0.67	0.67	0.67
202.5	30.19	8.21	1.11	1.11	1.11	0.67	0.67	0.89	0.67
225.0	22.87	4.44	1.33	0.89	0.67	0.67	0.67	0.67	0.67
247.5	12.21	1.11	0.67	0.22	0.44	0.44	0.44	0.44	0.67
270.0	1.11	1.11	0.89	0.89	1.33	1.33	1.55	1.33	1.33
292.5	0.67	0.67	0.89	0.89	0.89	0.89	1.11	0.89	1.11
315.0	0.67	0.67	0.89	0.67	0.67	0.89	0.89	0.89	1.11
337.5	0.89	0.44	0.67	0.67	0.67	1.11	0.89	1.11	0.89
360.0	0.67	0.67	0.67	0.89	0.67	0.89	1.11	0.89	1.33

Intensity data(cd)

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	1.11	1.11	1.11	0.89	1.11	1.11	1.33	1.33	1.11
22.5	1.11	1.33	1.11	1.11	1.11	1.11	1.11	1.11	1.33
45.0	0.89	1.11	0.89	1.11	0.89	0.89	1.11	1.11	1.11
67.5	0.89	1.11	1.11	1.33	1.33	0.89	1.55	1.11	1.11
90.0	1.11	1.11	1.11	1.11	1.55	1.33	1.11	1.11	1.11
112.5	0.89	0.89	0.89	0.89	1.11	1.11	1.11	1.11	0.89
135.0	0.89	1.11	0.89	0.89	1.11	0.89	1.11	0.89	1.11
157.5	0.67	0.67	0.89	1.11	1.11	0.89	1.11	0.89	0.89
180.0	0.67	0.89	0.67	0.89	0.89	0.89	1.11	1.11	0.89
202.5	0.89	0.67	0.89	0.89	1.11	0.89	0.89	1.11	0.89
225.0	0.67	0.89	1.11	0.89	1.11	1.11	0.89	0.89	1.11
247.5	0.67	0.89	1.11	0.89	0.89	1.11	1.11	0.89	1.11
270.0	1.33	1.55	1.78	1.78	1.78	1.78	1.55	1.55	1.78
292.5	0.89	1.11	1.33	1.33	1.11	1.33	1.11	1.11	0.89
315.0	0.89	1.33	1.11	1.11	1.33	1.33	1.33	1.11	1.11
337.5	1.11	1.11	1.11	1.11	1.33	1.11	1.11	1.11	1.11
360.0	1.11	1.11	1.11	0.89	1.11	1.11	1.33	1.33	1.11
C/γ(°)	180.0								
0.0	1.24								
22.5	1.24								
45.0	1.24								
67.5	1.24								
90.0	1.24								
112.5	1.24								
135.0	1.24								
157.5	1.24								
180.0	1.24								
202.5	1.24								
225.0	1.24								
247.5	1.24								
270.0	1.24								
292.5	1.24								
315.0	1.24								
337.5	1.24								
360.0	1.24								