



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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Client:

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.02

LampCAT:

Current(A): 0.1340

Lamp flux(lm): -1.0

Power (W): 15.91

Number of Lamps: 1

PF: 0.9924

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1000.85, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 62.91

Central intensity(cd): 347.503, Maximum intensity(cd): 358.470

Angle of maximum intensity: C=90.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=108.8

[C90/270]Total=114.7

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

[C90/270]Total=162.0

Maximum s/h(1/2): C0_180=1.39 C90_270=1.32

Maximum s/h(1/4): C0_180=1.52 C90_270=1.43

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.99%

Down flux rate of LUM(%): 99.01%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 77.399%

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	347.503	0.000	0	0.00%	0.00%
5.0	346.347	8.295	8.295	0.00%	0.83%
10.0	340.369	24.566	32.861	0.00%	3.28%
15.0	332.828	39.934	72.794	0.00%	7.27%
20.0	321.687	53.941	126.736	0.00%	12.66%
25.0	308.195	66.063	192.799	0.00%	19.26%
30.0	291.838	75.935	268.733	0.00%	26.85%
35.0	272.395	83.087	351.821	0.00%	35.15%
40.0	252.316	87.544	439.365	0.00%	43.90%
45.0	228.915	89.104	528.468	0.00%	52.80%
50.0	203.978	87.472	615.941	0.00%	61.54%
55.0	177.616	82.971	698.912	0.00%	69.83%
60.0	150.022	75.733	774.644	0.00%	77.40%
65.0	121.197	65.934	840.578	0.00%	83.99%
70.0	91.942	53.968	894.546	0.00%	89.38%
75.0	64.238	40.823	935.369	0.00%	93.46%
80.0	41.598	28.319	963.688	0.00%	96.29%
85.0	23.996	17.823	981.512	0.00%	98.07%
90.0	10.573	9.465	990.977	0.00%	99.01%
95.0	2.671	3.626	994.603	0.00%	99.38%
100.0	0.996	0.996	995.599	0.00%	99.48%
105.0	1.024	0.541	996.14	0.00%	99.53%
110.0	0.872	0.496	996.635	0.00%	99.58%
115.0	0.886	0.445	997.08	0.00%	99.62%
120.0	0.941	0.444	997.524	0.00%	99.67%
125.0	0.927	0.432	997.956	0.00%	99.71%
130.0	1.024	0.424	998.38	0.00%	99.75%
135.0	1.066	0.422	998.803	0.00%	99.80%
140.0	1.107	0.402	999.205	0.00%	99.84%
145.0	1.093	0.367	999.572	0.00%	99.87%
150.0	1.066	0.318	999.89	0.00%	99.90%
155.0	1.135	0.278	1000.168	0.00%	99.93%
160.0	1.135	0.238	1000.406	0.00%	99.96%
165.0	1.176	0.190	1000.597	0.00%	99.97%
170.0	1.204	0.141	1000.738	0.00%	99.99%
175.0	1.149	0.084	1000.822	0.00%	100.00%
180.0	1.211	0.028	1000.85	0.00%	100.00%

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

Date:
Humidity(%): 58%

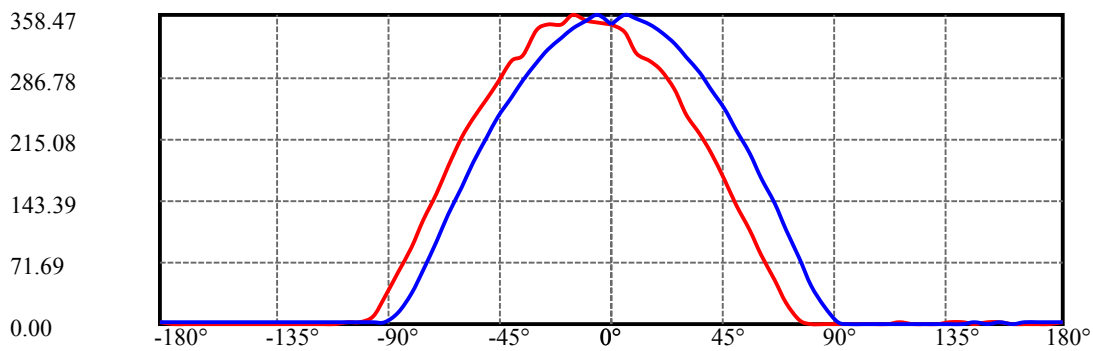
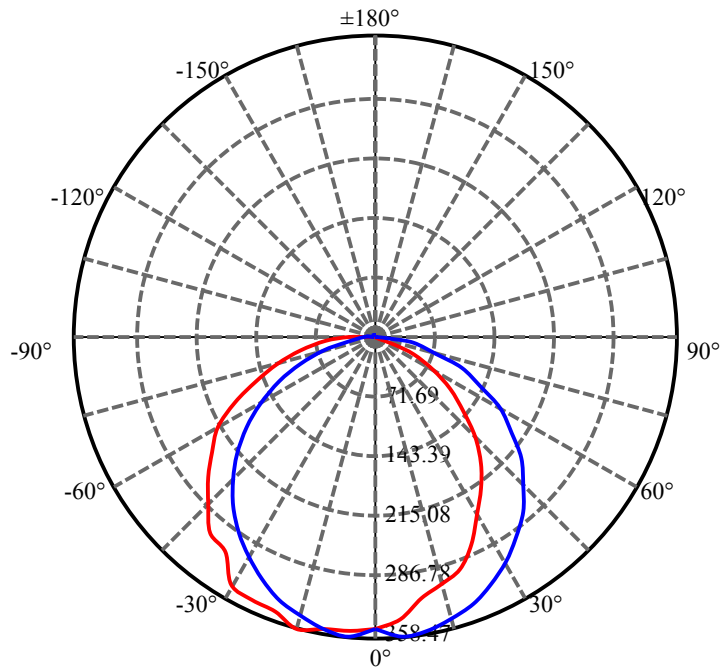
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	268.73	N.A.	26.85%
0-40	439.36	N.A.	43.90%
0-60	774.64	N.A.	77.40%
0-90	990.98	N.A.	99.01%
0-120	997.52	N.A.	99.67%
0-180	1000.85	N.A.	100.00%
60-90	216.33	N.A.	21.61%
90-120	6.55	N.A.	0.65%
90-130	7.40	N.A.	0.74%
90-150	8.91	N.A.	0.89%
90-180	9.85	N.A.	0.98%
0-61.97	800.68	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	32.86
10-20	93.87
20-30	142.00
30-40	170.63
40-50	176.58
50-60	158.70
60-70	119.90
70-80	69.14
80-90	27.29
90-100	4.62
100-110	1.04
110-120	0.89
120-130	0.86
130-140	0.82
140-150	0.68
150-160	0.52
160-170	0.33
170-180	0.08

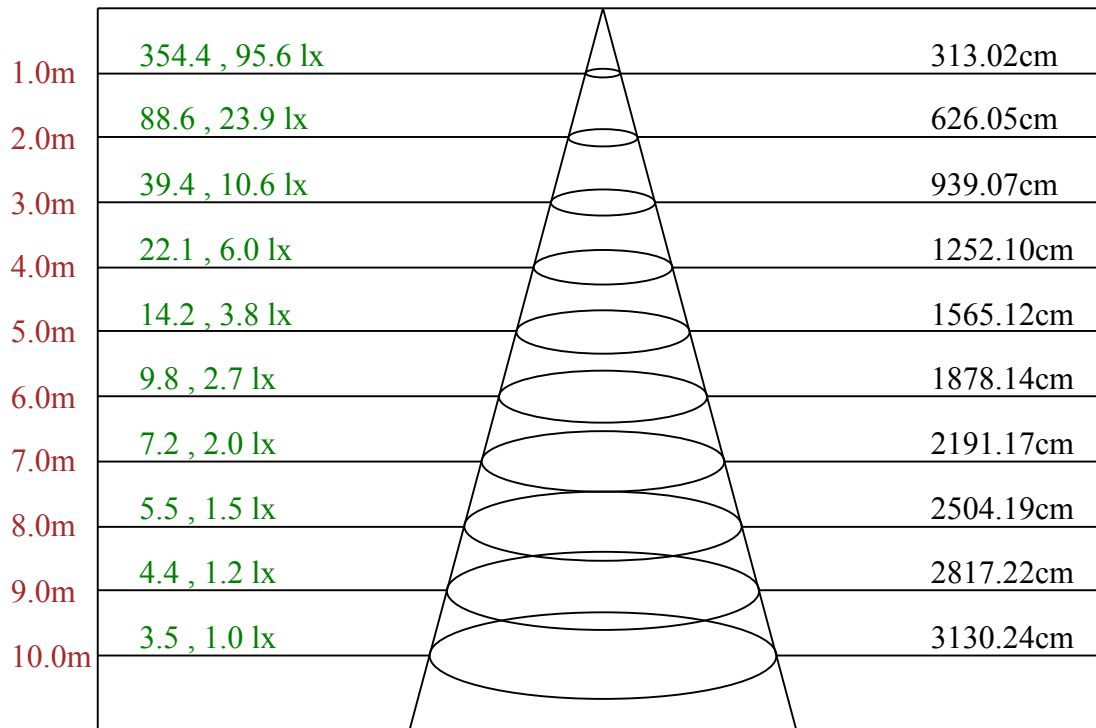


C0/C180: —

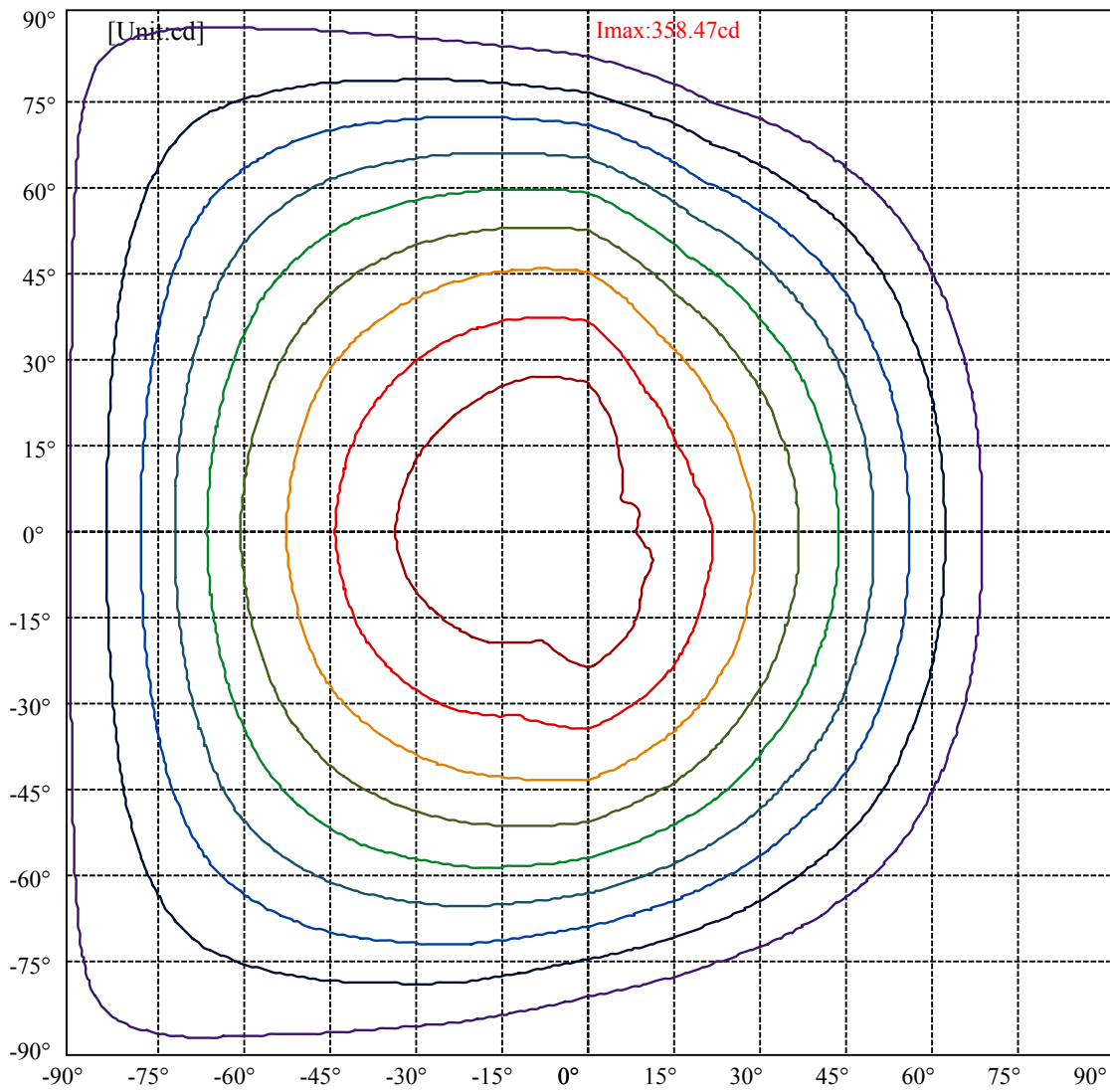
C90/C270: —

Field angle(10%Imax):C0/180Left:89.2 Right:67.9
:C90/270Left:80.1 Right:81.9

Beam Angle(50%Imax):C0/180Left:65.7 Right:43.1
:C90/270Left:56.3 Right:58.4



Max , Ave Beam angle of C90 plane 114.85

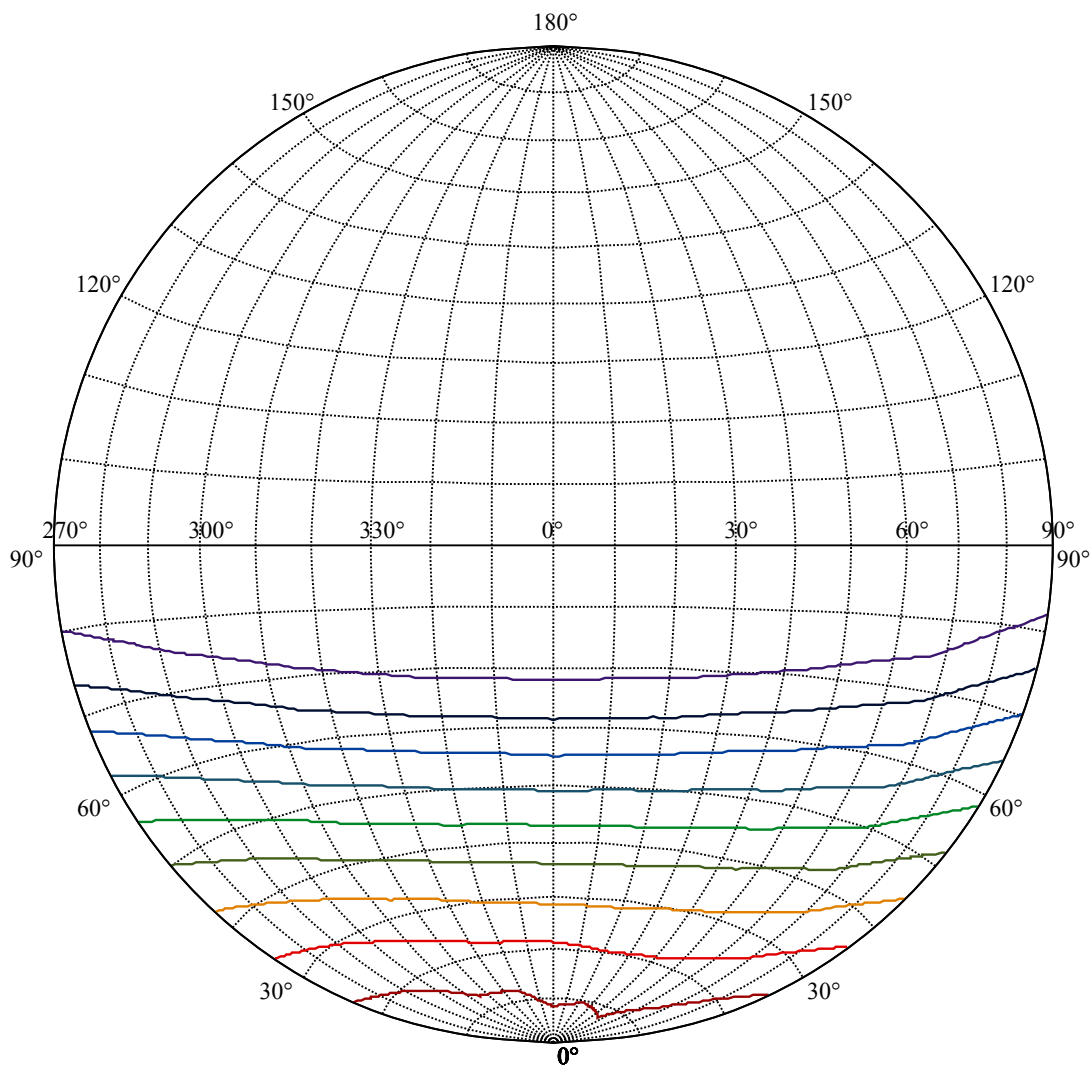


(10%Imax) 35.847	—
(20%Imax) 71.694	—
(30%Imax) 107.541	—
(40%Imax) 143.388	—
(50%Imax) 179.235	—
(60%Imax) 215.082	—
(70%Imax) 250.929	—
(80%Imax) 286.776	—
(90%Imax) 322.623	—

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

Date:
Humidity(%): 58%

Operator: Tester



House

[Unit:cd]

Road

I_{max}:358.47

(10%I _{max}) 35.847	—
(20%I _{max}) 71.694	—
(30%I _{max}) 107.541	—
(40%I _{max}) 143.388	—
(50%I _{max}) 179.235	—
(60%I _{max}) 215.082	—
(70%I _{max}) 250.929	—
(80%I _{max}) 286.776	—
(90%I _{max}) 322.623	—

Intensity data(cd)

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C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	347.50	337.66	314.85	304.00	292.93	271.68	243.11	220.53	197.06
22.5	347.50	335.44	321.49	306.22	287.40	267.03	245.11	222.96	198.17
45.0	347.50	327.69	318.17	306.44	291.38	273.89	254.41	232.26	208.79
67.5	347.50	337.66	330.57	320.61	306.44	291.16	272.78	252.63	229.16
90.0	347.50	358.47	354.26	347.18	337.44	324.37	309.10	291.60	272.12
112.5	347.50	358.25	356.92	352.71	345.19	333.67	317.73	300.46	281.42
135.0	347.50	356.92	356.48	352.27	344.96	333.89	321.27	306.22	288.72
157.5	347.50	355.81	355.15	351.39	345.41	337.66	327.25	313.08	296.25
180.0	347.50	350.06	352.49	358.47	347.62	346.29	341.20	312.19	304.00
202.5	347.50	352.49	352.94	349.17	342.09	333.23	323.04	309.98	293.82
225.0	347.50	337.88	338.99	337.44	333.01	324.37	313.30	299.13	281.64
247.5	347.50	339.43	336.55	331.02	322.82	311.31	297.58	282.97	266.80
270.0	347.50	357.36	352.27	343.64	332.56	318.39	301.79	282.97	263.71
292.5	347.50	351.83	344.30	333.23	318.84	302.90	284.52	263.26	239.13
315.0	347.50	343.64	331.68	316.84	303.12	286.73	266.14	241.34	215.66
337.5	347.50	340.98	328.80	314.63	295.81	274.55	251.08	226.73	200.60
360.0	347.50	337.66	314.85	304.00	292.93	271.68	243.11	220.53	197.06
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	168.05	138.16	108.49	79.49	51.15	24.58	4.65	1.11	0.89
22.5	170.49	142.59	114.25	84.36	55.58	28.12	7.75	1.33	1.33
45.0	182.45	154.55	127.09	99.42	70.19	41.85	17.49	2.66	1.11
67.5	205.03	178.02	149.90	120.89	92.55	63.55	35.21	13.51	1.55
90.0	249.76	225.18	198.17	170.27	139.27	108.49	75.06	45.39	19.93
112.5	260.16	235.59	210.57	182.67	154.33	124.66	94.10	63.77	34.98
135.0	268.13	245.77	222.08	195.51	168.72	139.05	108.49	77.50	48.71
157.5	277.21	256.62	231.82	205.69	178.24	148.79	118.46	87.46	58.45
180.0	280.31	260.38	237.36	215.22	183.55	150.78	120.45	89.67	59.12
202.5	275.22	253.74	231.38	205.92	177.57	149.01	118.24	88.12	57.13
225.0	261.71	239.79	217.65	192.85	167.61	137.72	108.05	77.50	48.71
247.5	248.65	227.39	204.37	178.46	150.78	122.00	92.77	63.77	35.43
270.0	240.01	214.99	186.43	157.87	126.65	94.99	63.10	36.09	12.62
292.5	214.11	186.21	156.54	126.87	96.32	66.20	37.86	14.39	1.77
315.0	187.98	160.08	129.97	99.64	70.85	42.73	18.16	2.21	1.11
337.5	173.37	144.58	115.80	85.25	55.80	28.56	7.97	1.11	1.11
360.0	168.05	138.16	108.49	79.49	51.15	24.58	4.65	1.11	0.89
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.89	0.66	0.89	1.11	0.89	1.33	1.11	1.11	1.11
22.5	0.89	0.66	0.89	1.11	0.89	1.11	1.33	0.89	1.33
45.0	0.89	0.89	0.66	0.89	0.89	0.66	1.11	1.33	1.11
67.5	0.89	0.66	0.44	0.89	1.11	0.89	0.89	0.89	1.11
90.0	3.10	0.89	0.89	0.89	0.89	0.89	1.11	1.11	1.11
112.5	12.18	1.33	0.66	0.89	0.66	0.66	0.66	0.66	0.89
135.0	21.92	3.76	1.33	0.89	0.89	0.66	0.66	0.44	0.89
157.5	29.01	7.53	1.33	1.11	0.66	0.89	0.66	0.89	0.66
180.0	31.22	9.30	1.33	1.33	0.66	0.66	0.89	0.66	0.89
202.5	30.11	7.97	1.11	0.89	0.89	0.89	0.66	0.66	0.66
225.0	22.14	3.99	1.33	0.89	0.66	0.44	0.66	0.66	0.66
247.5	11.96	1.11	0.66	0.66	0.66	0.44	0.44	0.66	0.89
270.0	1.55	1.33	1.55	1.55	1.33	1.33	1.55	1.55	1.55
292.5	1.11	1.33	0.89	1.11	1.11	1.33	1.33	1.11	1.33
315.0	0.66	0.66	1.11	1.11	0.89	0.89	1.11	1.33	1.11
337.5	0.66	0.66	0.89	1.11	0.89	1.11	0.89	0.89	1.11
360.0	0.89	0.66	0.89	1.11	0.89	1.33	1.11	1.11	1.11

Equipment: GMS-3000
Temperature(°C): 25Date:
Humidity(%): 58%

Operator: Tester

Intensity data(cd)

Appendix Page: 9 Total:9

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	1.33	1.33	1.11	1.33	1.33	1.11	1.11	1.11	1.11
22.5	1.11	1.11	1.11	1.33	1.55	1.33	1.11	1.11	0.89
45.0	1.11	1.33	1.11	0.89	1.11	1.11	1.11	1.11	1.11
67.5	1.11	1.11	1.11	1.11	1.33	1.11	1.11	1.11	1.11
90.0	1.11	1.11	1.33	1.11	1.33	1.11	1.33	1.55	1.33
112.5	0.89	1.11	0.89	0.89	1.11	1.11	1.33	1.11	1.11
135.0	0.66	1.11	0.89	0.66	0.89	0.89	1.11	1.11	1.11
157.5	1.11	0.66	1.11	1.11	0.89	0.89	0.89	1.11	1.33
180.0	0.89	0.66	0.66	0.89	0.89	0.89	0.89	0.89	0.89
202.5	0.89	0.66	0.89	0.66	1.11	0.89	0.89	1.11	1.11
225.0	0.89	1.11	0.89	0.89	0.89	1.11	1.11	1.11	1.11
247.5	0.89	0.89	0.89	0.89	0.89	1.11	1.11	1.11	1.11
270.0	1.77	1.77	1.99	1.77	1.77	1.99	1.99	1.99	1.77
292.5	1.11	1.33	1.11	1.11	1.11	1.11	1.33	1.33	1.11
315.0	1.11	1.11	1.11	1.11	0.89	1.11	1.33	1.33	1.11
337.5	1.11	1.33	1.33	1.33	1.11	1.33	1.11	1.11	1.11
360.0	1.33	1.33	1.11	1.33	1.33	1.11	1.11	1.11	1.11
C/γ(°)	180.0								
0.0	1.21								
22.5	1.21								
45.0	1.21								
67.5	1.21								
90.0	1.21								
112.5	1.21								
135.0	1.21								
157.5	1.21								
180.0	1.21								
202.5	1.21								
225.0	1.21								
247.5	1.21								
270.0	1.21								
292.5	1.21								
315.0	1.21								
337.5	1.21								
360.0	1.21								