
Shenzhen Wisdom Light Co., Ltd.

Client:

LumCAT: WL-DL08IN24WDUV(30K-35K-40K)-T

Luminaire: Commercial downlight

Report No:

Ballast type:

Test No: LCZP21120044

Voltage(V): 119.960

LampCAT:

Current(A): 0.208

Lamp flux(lm): 2611.1

Power (W): 24.830

Number of Lamps: 1

PF: 0.993

Length(mm): -190

Width(mm): -190

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2611.13, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 105.16

Central intensity(cd): 1323.021, Maximum intensity(cd): 1323.021

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=90.8

[C90/270]Total=90.8

Field angle(10%Imax): [C0/180]Total=128.8

[C90/270]Total=129.0

Maximum s/h(1/2): C0_180=1.15 C90_270=1.15

Maximum s/h(1/4): C0_180=1.24 C90_270=1.24

Up flux rate of lamp(%): 0.26%

Down flux rate of lamp(%): 99.74%

Up flux rate of LUM(%): 0.26%

Down flux rate of LUM(%): 99.74%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 91.782%

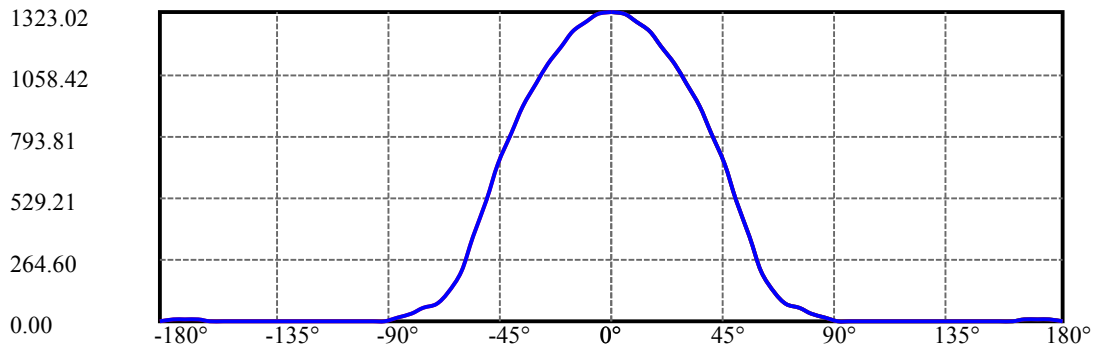
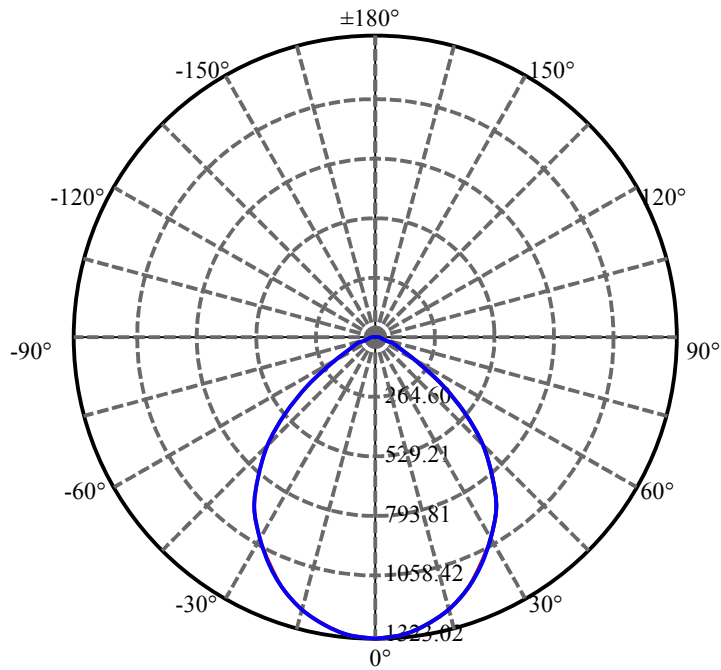
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1323.021	0.000	0	0.00%	0.00%
5.0	1313.322	31.517	31.517	1.21%	1.21%
10.0	1284.152	92.920	124.437	3.56%	4.77%
15.0	1237.613	149.589	274.026	5.73%	10.49%
20.0	1176.285	198.939	472.965	7.62%	18.11%
25.0	1102.825	239.037	712.002	9.15%	27.27%
30.0	1021.327	268.813	980.815	10.29%	37.56%
35.0	921.204	286.051	1266.866	10.96%	48.52%
40.0	805.113	288.023	1554.889	11.03%	59.55%
45.0	674.753	274.009	1828.898	10.49%	70.04%
50.0	520.196	241.457	2070.355	9.25%	79.29%
55.0	361.990	191.817	2262.172	7.35%	86.64%
60.0	219.314	134.367	2396.538	5.15%	91.78%
65.0	121.069	82.748	2479.286	3.17%	94.95%
70.0	77.000	50.152	2529.439	1.92%	96.87%
75.0	55.133	34.537	2563.976	1.32%	98.19%
80.0	33.411	23.692	2587.668	0.91%	99.10%
85.0	13.423	12.726	2600.394	0.49%	99.59%
90.0	0.959	3.938	2604.332	0.15%	99.74%
95.0	0.000	0.262	2604.594	0.01%	99.75%
100.0	0.184	0.050	2604.644	0.00%	99.75%
105.0	0.443	0.168	2604.812	0.01%	99.76%
110.0	0.443	0.231	2605.043	0.01%	99.77%
115.0	0.443	0.224	2605.268	0.01%	99.78%
120.0	0.443	0.215	2605.483	0.01%	99.78%
125.0	0.885	0.307	2605.79	0.01%	99.80%
130.0	0.885	0.385	2606.174	0.01%	99.81%
135.0	0.885	0.358	2606.532	0.01%	99.82%
140.0	1.328	0.410	2606.942	0.02%	99.84%
145.0	1.770	0.517	2607.459	0.02%	99.86%
150.0	2.213	0.586	2608.045	0.02%	99.88%
155.0	3.098	0.672	2608.717	0.03%	99.91%
160.0	3.577	0.700	2609.417	0.03%	99.93%
165.0	4.425	0.660	2610.077	0.03%	99.96%
170.0	5.310	0.578	2610.654	0.02%	99.98%
175.0	5.310	0.380	2611.034	0.01%	100.00%
180.0	3.098	0.101	2611.135	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	980.81	37.56%	37.56%
0-40	1554.89	59.55%	59.55%
0-60	2396.54	91.78%	91.78%
0-90	2604.33	99.74%	99.74%
0-120	2605.48	99.78%	99.78%
0-180	2611.13	100.00%	100.00%
60-90	207.79	7.96%	7.96%
90-120	1.15	0.04%	0.04%
90-130	1.84	0.07%	0.07%
90-150	3.71	0.14%	0.14%
90-180	6.70	0.26%	0.26%
0-50.48	2088.91	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	124.44
10-20	348.53
20-30	507.85
30-40	574.07
40-50	515.47
50-60	326.18
60-70	132.90
70-80	58.23
80-90	16.66
90-100	0.31
100-110	0.40
110-120	0.44
120-130	0.69
130-140	0.77
140-150	1.10
150-160	1.37
160-170	1.24
170-180	0.38



C0(Max):

C0/C180:

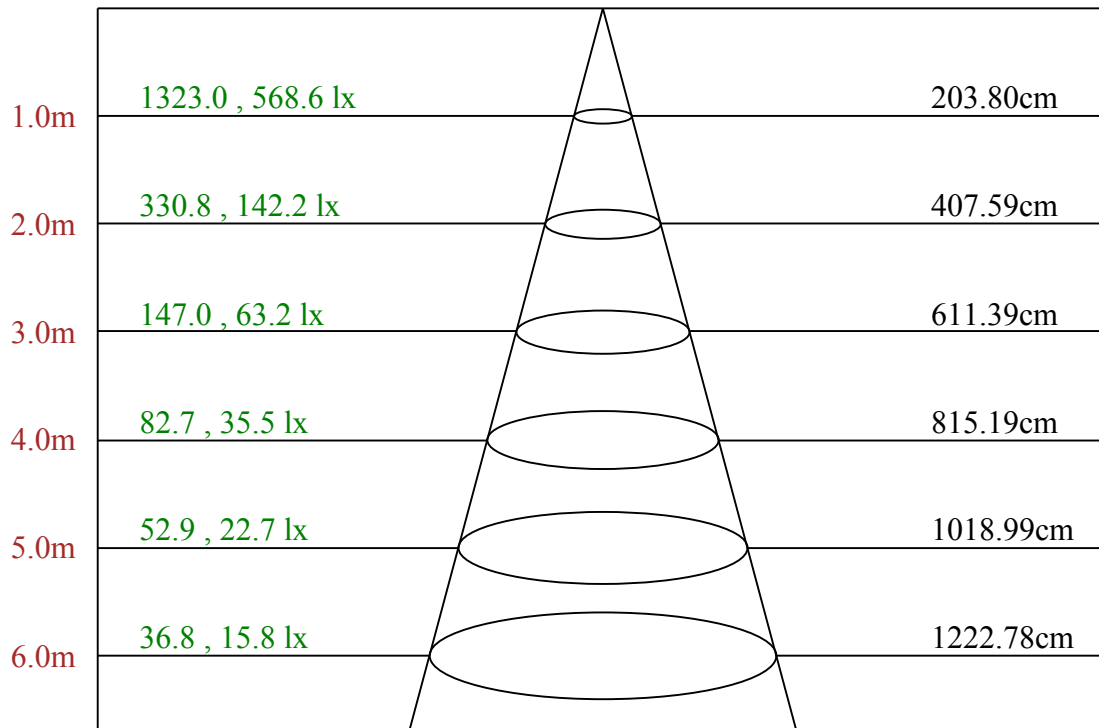
C90/C270:

Field angle(10%Imax):C0/180Left:64.4 Right:64.4

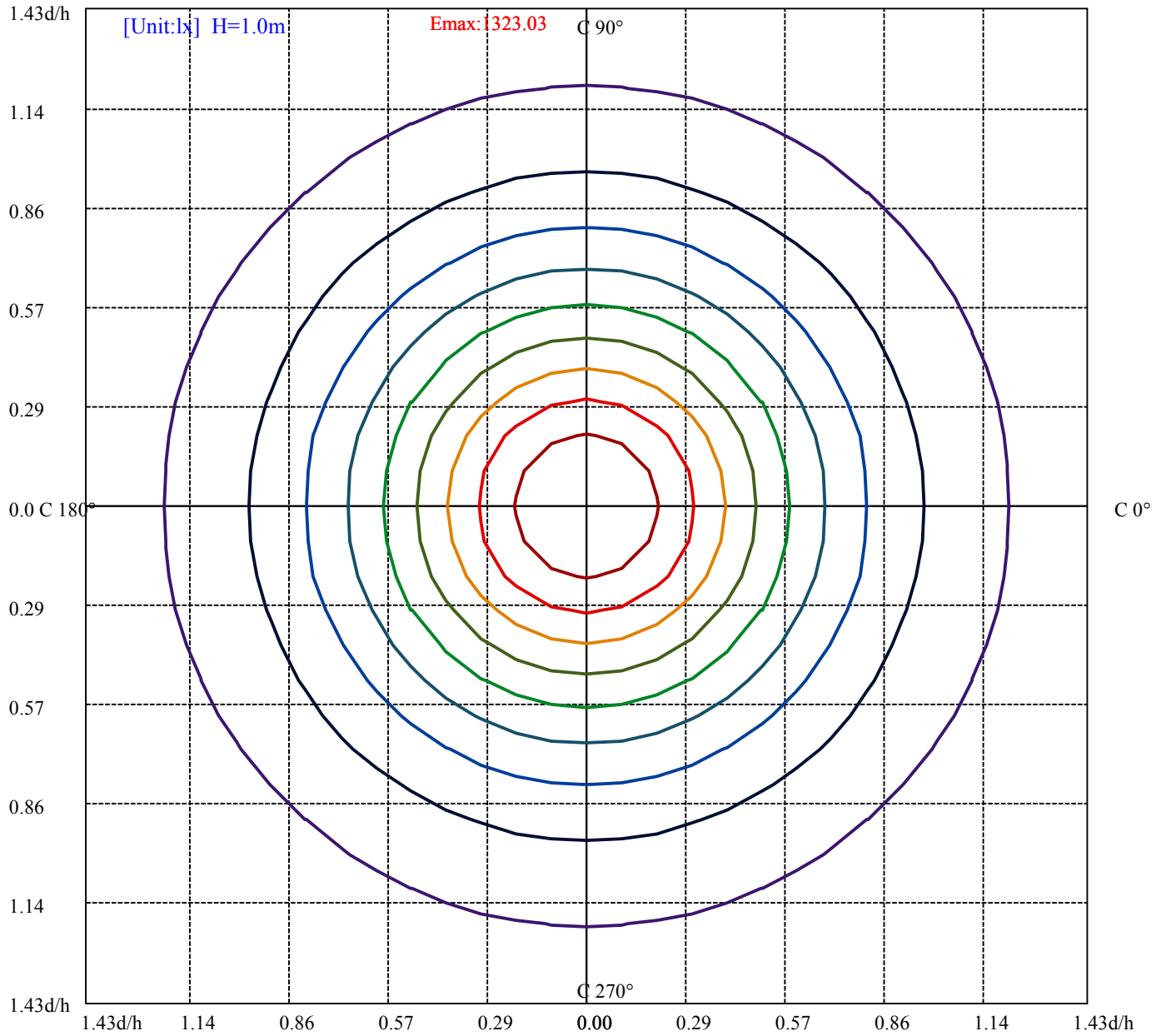
:C90/270Left:64.5 Right:64.5

Beam Angle(50%Imax):C0/180Left:45.4 Right:45.4

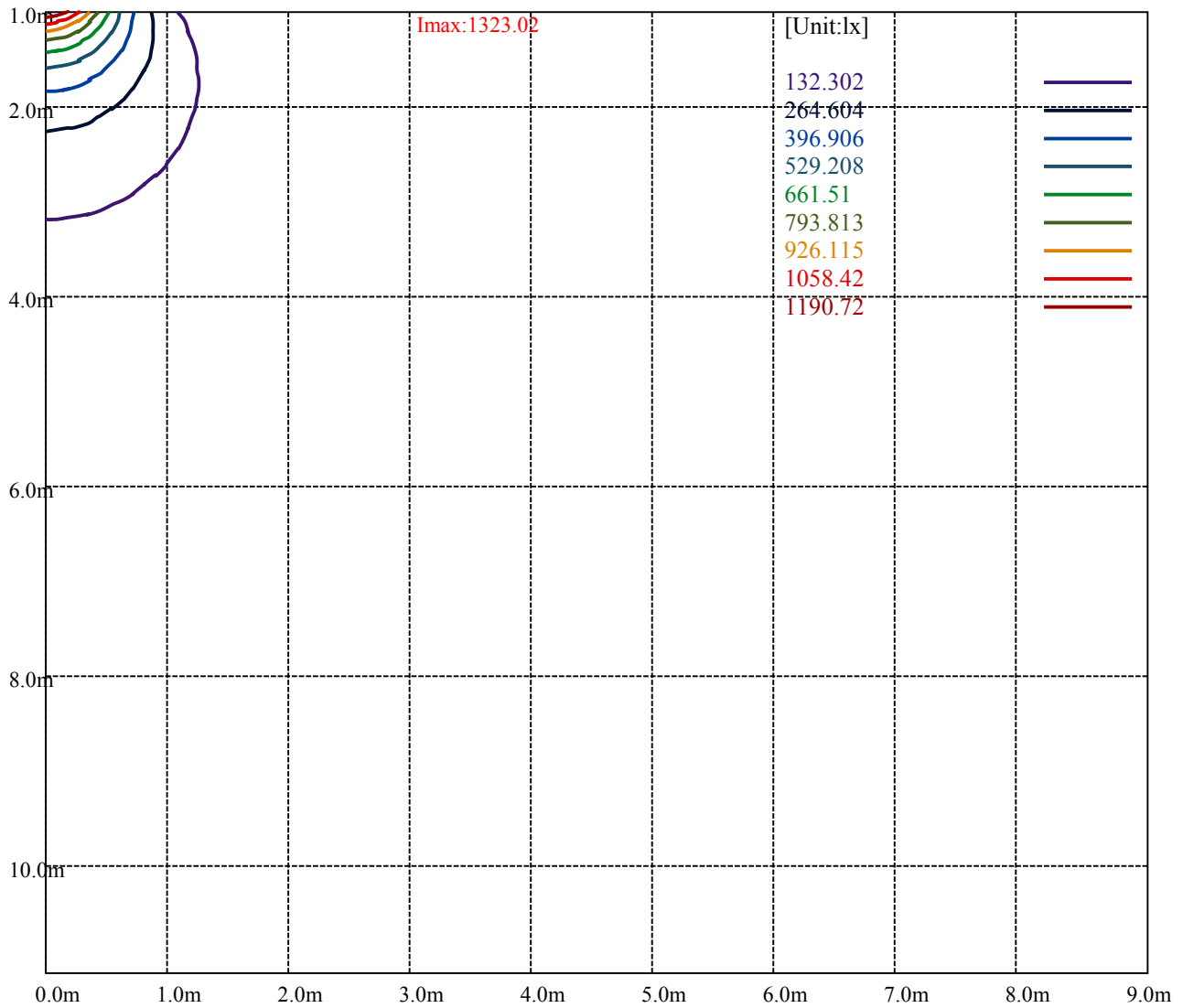
:C90/270Left:45.4 Right:45.4



Max , Ave Beam angle of C0 plane 91.08



(10%Emax) 132.302	—
(20%Emax) 264.604	—
(30%Emax) 396.906	—
(40%Emax) 529.208	—
(50%Emax) 661.51	—
(60%Emax) 793.812	—
(70%Emax) 926.115	—
(80%Emax) 1058.42	—
(90%Emax) 1190.72	—



Luminance Table

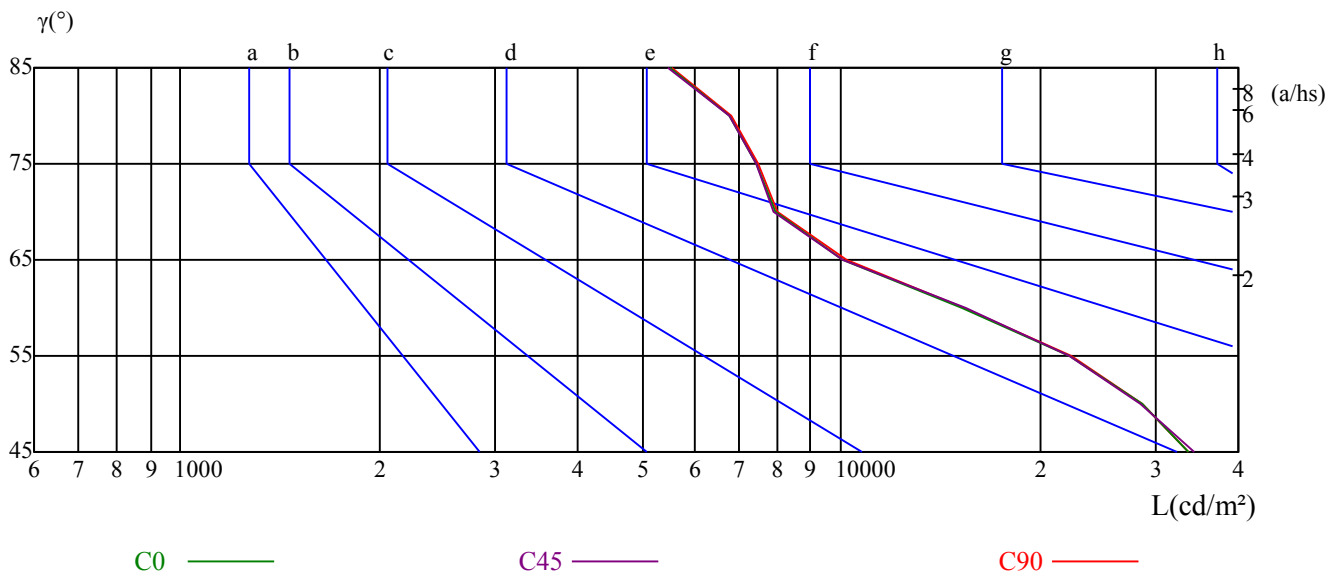
γ	45	50	55	60	65	70	75	80	85
C0	33566	28526	22232	15203	10094	7937	7432	6789	5518
C45	34332	28486	22217	15414	10069	7922	7422	6790	5465
C90	33570	28542	22341	15346	10169	7996	7487	6839	5558

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
10094	10169	10069	7432	7487	7422	5518	5558	5465

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 RHOFC=20 CU															
0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.07	1.04	1.01	1.05	1.02	0.99	1.01	0.98	0.96	0.97	0.95	0.93	0.93	0.92	0.90	0.88
2	0.96	0.90	0.86	0.94	0.89	0.85	0.91	0.86	0.83	0.87	0.84	0.81	0.85	0.82	0.79	0.77
3	0.86	0.79	0.74	0.85	0.78	0.73	0.82	0.76	0.72	0.79	0.74	0.71	0.77	0.73	0.69	0.67
4	0.78	0.70	0.64	0.76	0.69	0.64	0.74	0.68	0.63	0.72	0.66	0.62	0.70	0.65	0.61	0.59
5	0.70	0.62	0.57	0.69	0.62	0.56	0.67	0.61	0.56	0.65	0.60	0.55	0.64	0.59	0.55	0.53
6	0.64	0.56	0.50	0.63	0.56	0.50	0.61	0.55	0.50	0.60	0.54	0.49	0.58	0.53	0.49	0.47
7	0.59	0.51	0.45	0.58	0.50	0.45	0.56	0.50	0.45	0.55	0.49	0.44	0.54	0.48	0.44	0.42
8	0.54	0.46	0.41	0.53	0.46	0.41	0.52	0.45	0.40	0.51	0.45	0.40	0.50	0.44	0.40	0.38
9	0.50	0.42	0.37	0.49	0.42	0.37	0.48	0.41	0.37	0.47	0.41	0.37	0.46	0.40	0.36	0.35
10	0.46	0.39	0.34	0.46	0.39	0.34	0.45	0.38	0.34	0.44	0.38	0.34	0.43	0.37	0.33	0.32

Intensity data(cd)									Appendix Page: 10 Total:12		
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	1323.02	1320.38	1298.39	1257.93	1200.75	1128.61	1050.32	961.48	850.64		
15.0	1323.02	1321.25	1299.16	1259.39	1203.71	1133.01	1051.70	962.44	854.62		
30.0	1323.02	1320.37	1298.24	1258.42	1203.55	1135.41	1053.99	965.50	853.99		
45.0	1323.02	1320.37	1299.13	1259.30	1202.67	1134.52	1055.76	963.73	855.76		
60.0	1323.02	1321.25	1300.00	1260.15	1204.36	1133.51	1053.81	966.14	854.56		
75.0	1323.02	1321.25	1299.11	1260.15	1203.47	1135.28	1053.81	964.37	856.33		
90.0	1323.02	1321.25	1299.09	1260.10	1204.28	1134.27	1055.40	963.24	855.13		
105.0	1323.02	1320.36	1299.98	1260.10	1203.39	1135.16	1054.52	965.02	853.36		
120.0	1323.02	1321.25	1299.09	1260.10	1204.28	1134.27	1055.40	965.90	854.25		
135.0	1323.02	1321.25	1299.09	1260.10	1202.50	1134.27	1053.63	964.13	855.13		
150.0	1323.02	1320.36	1298.23	1258.38	1202.59	1131.74	1052.93	963.49	851.91		
165.0	1323.02	1320.36	1299.09	1259.22	1200.73	1132.50	1050.97	960.59	852.48		
180.0	1323.02	1305.43	1269.36	1215.70	1150.61	1074.95	986.11	877.91	757.39		
195.0	1323.02	1307.11	1270.88	1217.85	1152.45	1073.79	988.07	880.25	758.28		
210.0	1323.02	1306.21	1269.92	1215.94	1150.45	1070.81	984.96	879.65	753.99		
225.0	1323.02	1305.32	1269.04	1215.06	1146.91	1069.04	984.08	876.11	750.45		
240.0	1323.02	1306.20	1269.00	1214.10	1147.68	1071.52	985.62	874.04	752.72		
255.0	1323.02	1305.31	1267.23	1214.98	1148.57	1068.87	982.97	875.82	754.49		
270.0	1323.02	1305.30	1268.08	1215.80	1147.56	1071.35	981.85	878.17	753.23		
285.0	1323.02	1305.30	1268.97	1214.91	1149.34	1070.47	984.51	877.29	756.77		
300.0	1323.02	1305.30	1268.97	1214.02	1148.45	1072.24	987.17	879.95	755.89		
315.0	1323.02	1306.18	1269.85	1215.80	1150.22	1074.01	986.28	879.95	760.32		
330.0	1323.02	1305.31	1269.00	1214.98	1149.45	1073.29	1028.13	880.24	760.69		
345.0	1323.02	1307.07	1270.74	1220.23	1152.88	1074.90	989.83	883.49	760.32		
360.0	1323.02	1320.38	1298.39	1257.93	1200.75	1128.61	1050.32	961.48	850.64		

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	727.49	581.46	424.00	264.78	147.78	86.21	63.34	41.34	21.11		
15.0	727.35	585.06	429.52	269.55	146.71	86.61	63.63	41.54	21.21		
30.0	729.21	583.19	428.32	269.03	148.67	85.84	63.72	41.59	20.35		
45.0	727.44	581.42	426.55	272.57	147.79	84.96	62.83	40.71	20.35		
60.0	729.70	583.58	428.61	270.09	148.77	85.90	62.87	40.74	20.37		
75.0	727.93	580.92	425.07	266.55	147.89	85.90	62.87	40.74	20.37		
90.0	730.19	583.09	425.35	266.73	147.99	85.07	62.92	40.76	20.38		
105.0	728.41	584.86	420.92	266.73	146.21	84.18	62.03	40.76	20.38		
120.0	729.30	581.31	422.69	262.30	146.21	84.18	62.03	39.88	19.50		
135.0	726.64	577.77	419.15	263.19	143.56	84.18	62.03	40.76	19.50		
150.0	727.04	579.15	416.21	260.35	143.46	84.13	61.10	39.85	19.48		
165.0	723.98	576.00	418.26	256.98	142.67	84.18	62.03	40.76	19.50		
180.0	618.41	458.31	299.09	166.26	94.12	67.73	45.74	25.51	6.16		
195.0	614.23	459.57	296.07	165.27	94.56	68.05	45.96	25.63	5.30		
210.0	610.63	454.87	300.00	168.14	94.69	68.14	46.90	25.66	6.19		
225.0	611.51	456.64	297.35	170.80	95.58	69.03	46.02	25.66	7.08		
240.0	612.80	454.29	300.20	169.14	94.75	68.19	46.93	25.68	6.20		
255.0	611.92	457.83	298.43	167.37	96.53	69.07	46.93	25.68	6.20		
270.0	615.87	457.25	301.29	168.37	95.70	70.01	46.97	26.58	7.09		
285.0	614.99	461.68	299.52	169.25	96.59	69.12	57.60	25.70	7.09		
300.0	614.10	459.91	301.29	223.31	95.70	69.12	46.97	26.58	7.09		
315.0	687.65	460.80	302.18	167.48	95.70	69.12	46.97	26.58	7.09		
330.0	624.32	463.15	304.63	170.03	96.53	69.07	47.82	26.57	7.08		
345.0	622.96	462.57	303.06	169.25	97.48	70.01	46.97	26.58	7.09		
360.0	727.49	581.46	424.00	264.78	147.78	86.21	63.34	41.34	21.11		

Intensity data(cd)

Appendix Page: 11 Total:12

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	2.64	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88
15.0	2.65	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88
30.0	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88
45.0	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88
60.0	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89
75.0	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89
90.0	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89
105.0	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89
120.0	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89
135.0	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89
150.0	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89
165.0	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89
180.0	0.00	0.00	0.88	0.88	0.88	0.88	0.88	0.88	0.88
195.0	0.00	0.00	0.00	0.88	0.88	0.88	0.88	0.88	0.88
210.0	0.00	0.00	0.00	0.88	0.88	0.88	0.88	0.88	0.88
225.0	0.00	0.00	0.00	0.88	0.88	0.88	0.88	0.88	0.88
240.0	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89	0.89
255.0	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89	0.89
270.0	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89	0.89
285.0	0.00	0.00	0.89	0.89	0.89	0.89	0.89	0.89	0.89
300.0	0.00	0.00	0.89	0.89	0.89	0.89	0.89	0.89	0.89
315.0	0.00	0.00	0.89	0.89	0.89	0.89	0.89	0.89	0.89
330.0	0.00	0.00	0.89	0.89	0.89	0.89	0.89	0.89	0.89
345.0	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89	0.89
360.0	2.64	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.88	1.76	1.76	2.64	3.52	3.52	4.40	5.28	5.28
15.0	0.88	1.77	1.77	2.65	3.54	4.42	4.42	5.30	5.30
30.0	0.88	1.77	1.77	2.65	3.54	3.54	4.42	5.31	5.31
45.0	0.88	1.77	1.77	2.65	3.54	3.54	4.42	5.31	5.31
60.0	0.89	1.77	1.77	2.66	3.54	3.54	4.43	5.31	5.31
75.0	0.89	1.77	1.77	2.66	3.54	3.54	4.43	5.31	5.31
90.0	0.89	1.77	1.77	2.66	3.54	3.54	4.43	5.32	5.32
105.0	0.89	1.77	1.77	2.66	3.54	3.54	4.43	5.32	5.32
120.0	0.89	1.77	1.77	2.66	3.54	3.54	4.43	5.32	5.32
135.0	0.89	1.77	1.77	2.66	3.54	3.54	4.43	5.32	5.32
150.0	0.89	1.77	1.77	2.66	3.54	3.54	4.43	5.31	5.31
165.0	0.89	1.77	1.77	2.66	3.54	3.54	4.43	5.32	5.32
180.0	0.88	0.88	1.76	1.76	2.64	3.52	4.40	5.28	5.28
195.0	0.88	0.88	1.77	1.77	2.65	3.54	4.42	5.30	5.30
210.0	0.88	0.88	1.77	1.77	2.65	3.54	4.42	5.31	5.31
225.0	0.88	0.88	1.77	1.77	2.65	3.54	4.42	5.31	5.31
240.0	0.89	0.89	1.77	1.77	2.66	3.54	4.43	5.31	5.31
255.0	0.89	0.89	1.77	1.77	2.66	3.54	4.43	5.31	5.31
270.0	0.89	0.89	1.77	1.77	2.66	3.54	4.43	5.32	5.32
285.0	0.89	0.89	1.77	1.77	2.66	3.54	4.43	5.32	5.32
300.0	0.89	0.89	1.77	1.77	2.66	3.54	4.43	5.32	5.32
315.0	0.89	0.89	1.77	1.77	2.66	3.54	4.43	5.32	5.32
330.0	0.89	0.89	1.77	1.77	2.66	3.54	4.43	5.31	5.31
345.0	0.89	0.89	1.77	1.77	2.66	3.54	4.43	5.32	5.32
360.0	0.88	1.76	1.76	2.64	3.52	3.52	4.40	5.28	5.28

Intensity data(cd)

Appendix Page: 12 Total:12

C/γ(°)	180.0
0.0	6.16
15.0	6.19
30.0	6.19
45.0	6.19
60.0	6.20
75.0	6.20
90.0	6.20
105.0	6.20
120.0	6.20
135.0	6.20
150.0	6.20
165.0	6.20
180.0	0.00
195.0	0.00
210.0	0.00
225.0	0.00
240.0	0.00
255.0	0.00
270.0	0.00
285.0	0.00
300.0	0.00
315.0	0.00
330.0	0.00
345.0	0.00
360.0	6.16