
Shenzhen Wisdom Light Co., Ltd.

Client:

LumCAT: WL-DL04IN8WDUV(30K-35K-40K)-T

Luminaire: Commercial downlight

Report No:

Ballast type:

Test No: LCZP21120041

Voltage(V): 120.050

LampCAT:

Current(A): 0.076

Lamp flux(lm): 905.3

Power (W): 8.780

Number of Lamps: 1

PF: 0.969

Length(mm): -100

Width(mm): -100

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 905.29, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 103.11

Central intensity(cd): 433.607, Maximum intensity(cd): 433.607

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=91.2

[C90/270]Total=91.4

Field angle(10%Imax): [C0/180]Total=137.4

[C90/270]Total=137.4

Maximum s/h(1/2): C0_180=1.16 C90_270=1.16

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

Up flux rate of lamp(%): 0.07%

Down flux rate of lamp(%): 99.93%

Up flux rate of LUM(%): 0.07%

Down flux rate of LUM(%): 99.93%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 89.167%

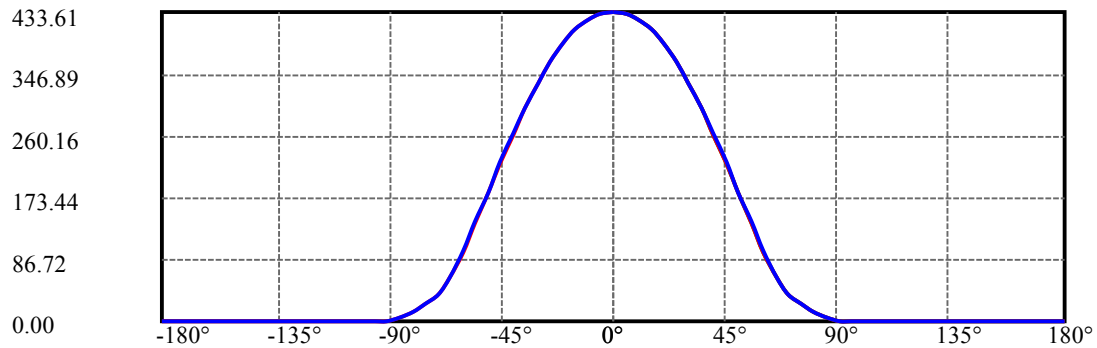
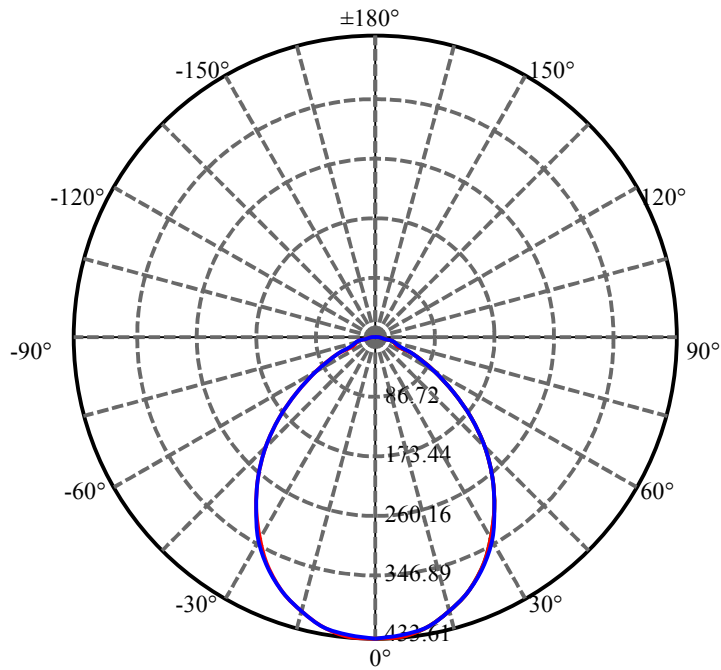
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	433.607	0.000	0	0.00%	0.00%
5.0	430.951	10.336	10.336	1.14%	1.14%
10.0	422.616	30.535	40.87	3.37%	4.51%
15.0	409.379	49.353	90.224	5.45%	9.97%
20.0	390.275	65.903	156.126	7.28%	17.25%
25.0	364.646	79.177	235.304	8.75%	25.99%
30.0	335.147	88.559	323.863	9.78%	35.77%
35.0	300.074	93.541	417.404	10.33%	46.11%
40.0	262.791	93.910	511.314	10.37%	56.48%
45.0	223.630	90.065	601.379	9.95%	66.43%
50.0	180.738	81.709	683.087	9.03%	75.45%
55.0	138.514	69.416	752.503	7.67%	83.12%
60.0	98.209	54.718	807.221	6.04%	89.17%
65.0	61.955	38.936	846.158	4.30%	93.47%
70.0	36.915	25.034	871.192	2.77%	96.23%
75.0	24.672	16.098	887.29	1.78%	98.01%
80.0	14.752	10.549	897.839	1.17%	99.18%
85.0	5.090	5.392	903.23	0.60%	99.77%
90.0	0.000	1.394	904.624	0.15%	99.93%
95.0	0.000	0.000	904.624	0.00%	99.93%
100.0	0.000	0.000	904.624	0.00%	99.93%
105.0	0.000	0.000	904.624	0.00%	99.93%
110.0	0.000	0.000	904.624	0.00%	99.93%
115.0	0.000	0.000	904.624	0.00%	99.93%
120.0	0.000	0.000	904.624	0.00%	99.93%
125.0	0.000	0.000	904.624	0.00%	99.93%
130.0	0.000	0.000	904.624	0.00%	99.93%
135.0	0.000	0.000	904.624	0.00%	99.93%
140.0	0.000	0.000	904.624	0.00%	99.93%
145.0	0.000	0.000	904.624	0.00%	99.93%
150.0	0.111	0.016	904.64	0.00%	99.93%
155.0	0.885	0.126	904.766	0.01%	99.94%
160.0	0.885	0.186	904.952	0.02%	99.96%
165.0	0.885	0.146	905.098	0.02%	99.98%
170.0	0.885	0.105	905.203	0.01%	99.99%
175.0	1.070	0.070	905.273	0.01%	100.00%
180.0	0.701	0.021	905.294	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	323.86	35.77%	35.77%
0-40	511.31	56.48%	56.48%
0-60	807.22	89.17%	89.17%
0-90	904.62	99.93%	99.93%
0-120	904.62	99.93%	99.93%
0-180	905.29	100.00%	100.00%
60-90	97.40	10.76%	10.76%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.02	0.00%	0.00%
90-180	0.65	0.07%	0.07%
0-52.96	724.24	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	40.87
10-20	115.26
20-30	167.74
30-40	187.45
40-50	171.77
50-60	124.13
60-70	63.97
70-80	26.65
80-90	6.79
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.02
150-160	0.31
160-170	0.25
170-180	0.07



C0(Max): —————

C0/C180: —————

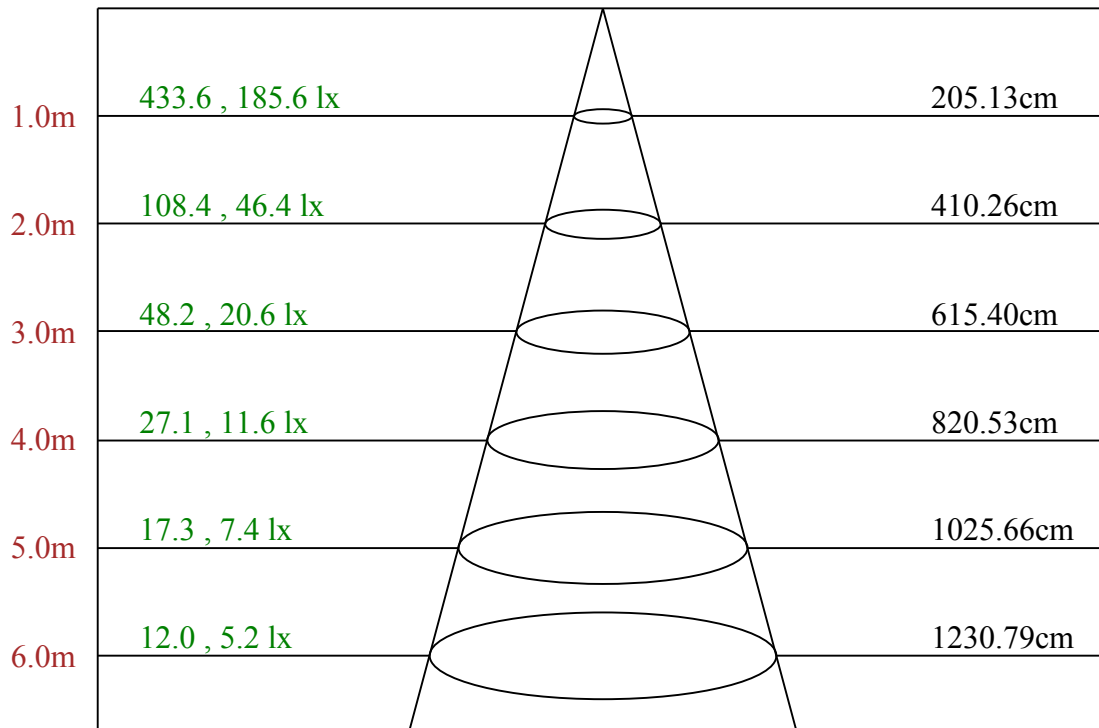
C90/C270: —————

Field angle(10%Imax):C0/180Left:68.7 Right:68.7

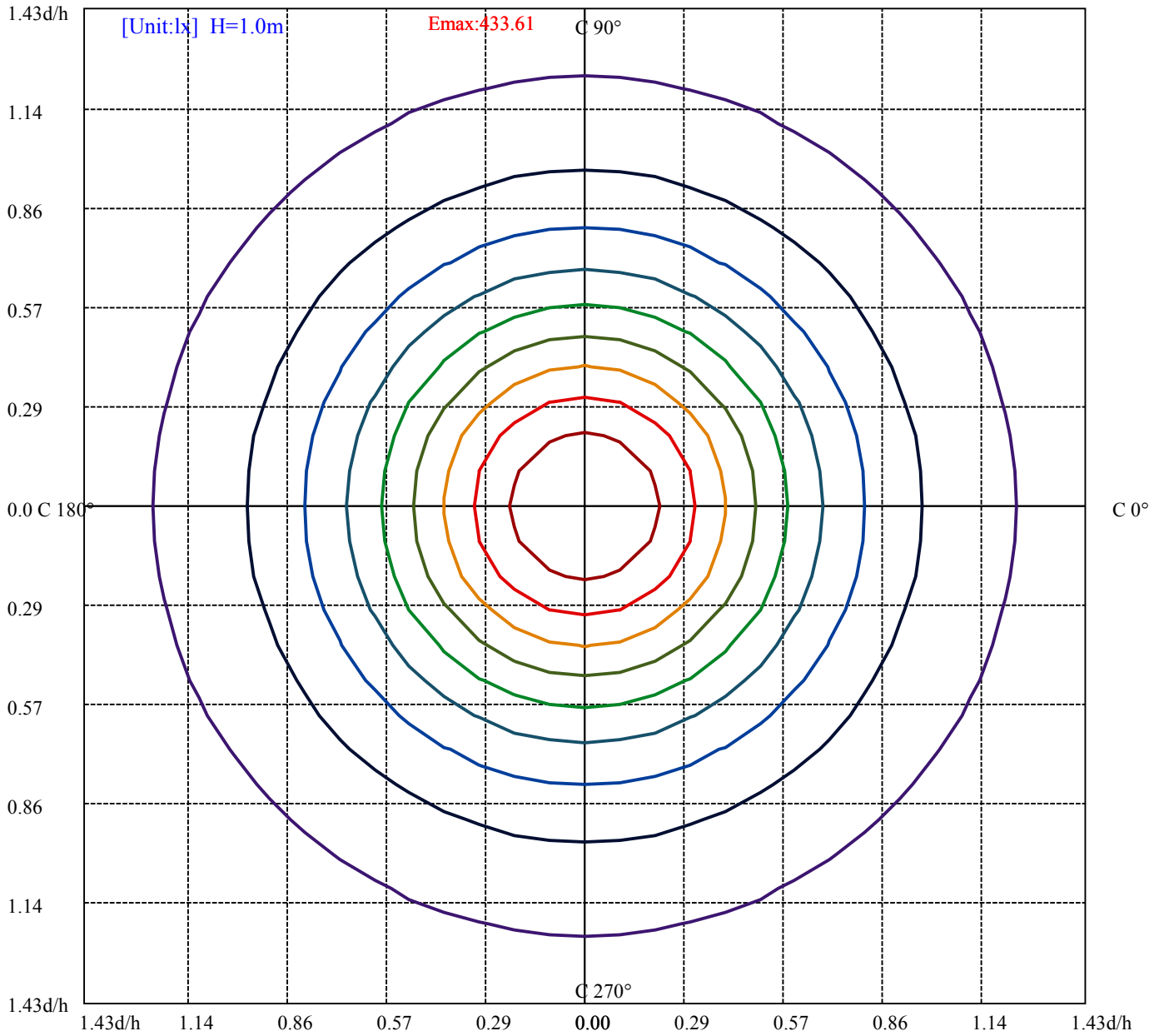
:C90/270Left:68.7 Right:68.7

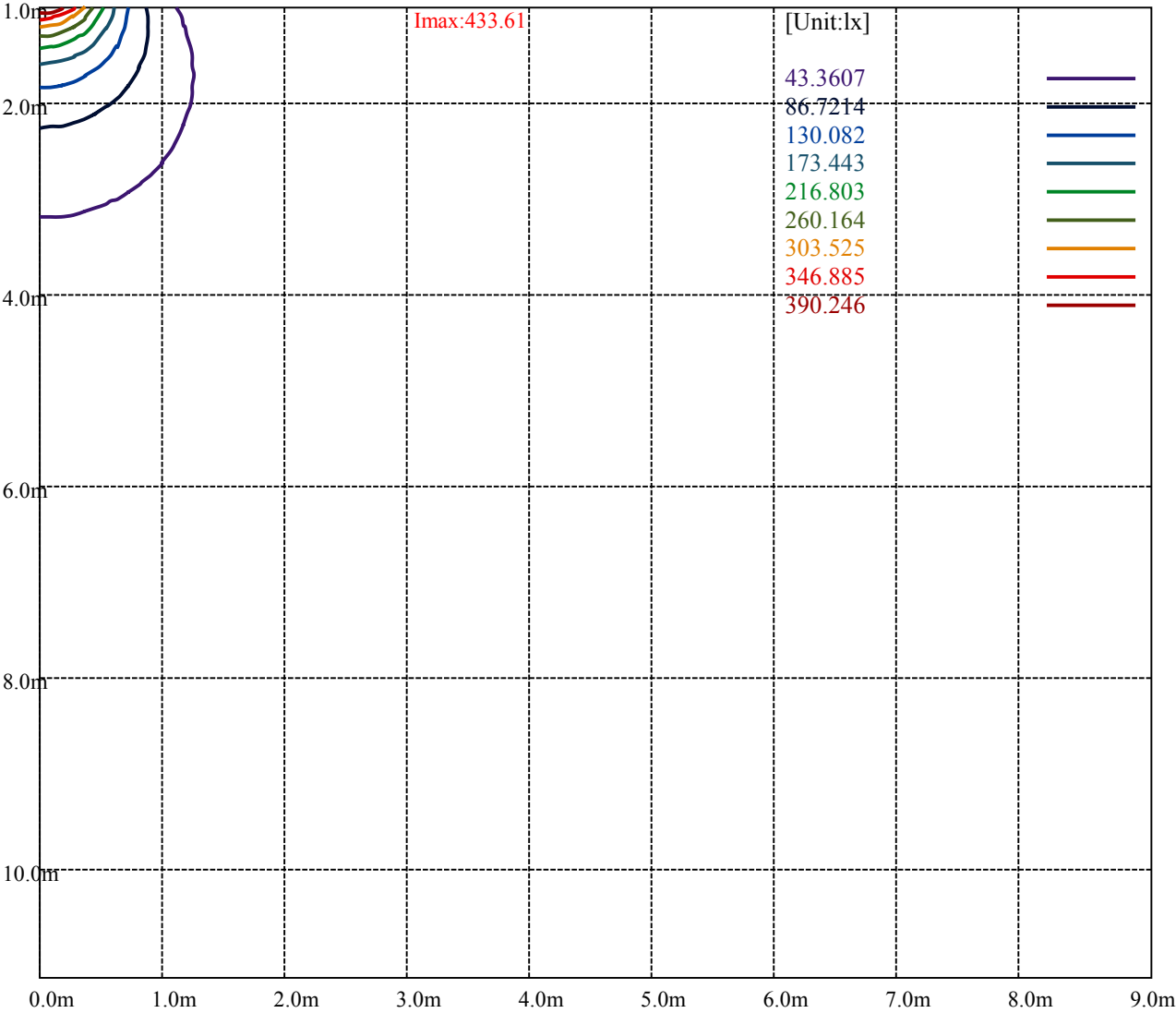
Beam Angle(50%Imax):C0/180Left:45.6 Right:45.6

:C90/270Left:45.7 Right:45.7



Max , Ave Beam angle of C0 plane 91.45





Luminance Table

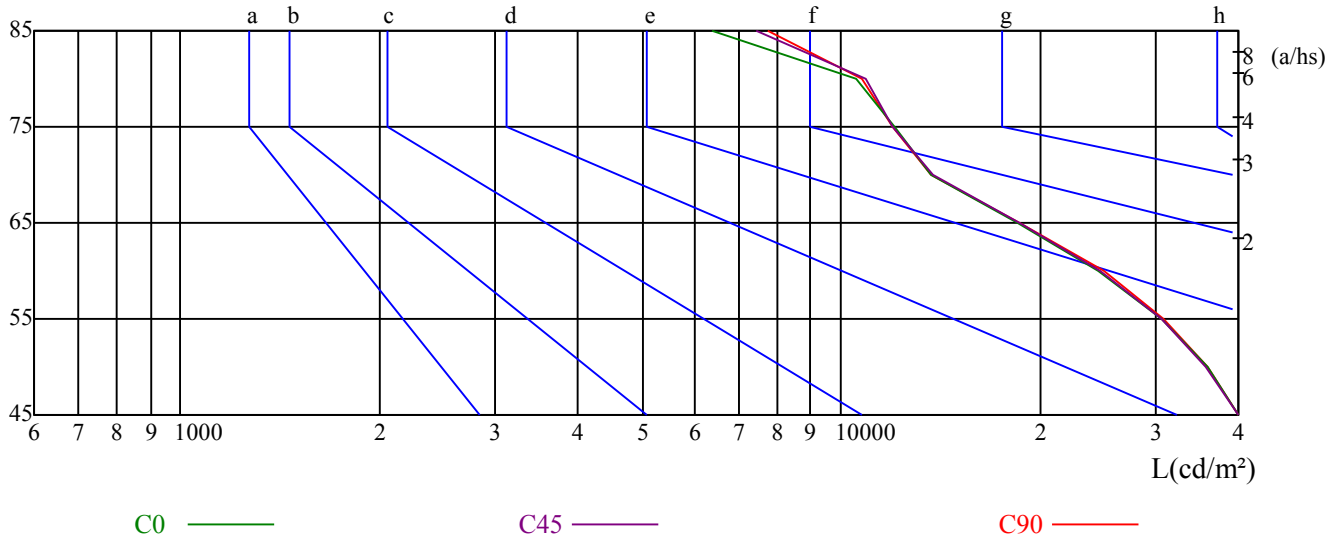
γ	45	50	55	60	65	70	75	80	85
C0	39904	35845	30564	24599	18568	13669	12042	10576	6386
C45	40995	35663	30675	24756	18614	13768	11984	10880	7442
C90	40156	35919	30805	25064	18700	13699	11996	10728	7772

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
18568	18700	18614	12042	11996	11984	6386	7772	7442

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

 $\gamma(^{\circ})$ 

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	1.03	1.00	1.04	1.01	0.98	1.00	0.97	0.95	0.96	0.94	0.92	0.93	0.91	0.89	0.87
2	0.95	0.89	0.84	0.93	0.88	0.83	0.90	0.85	0.81	0.86	0.83	0.79	0.83	0.80	0.78	0.76
3	0.85	0.78	0.72	0.83	0.77	0.71	0.80	0.75	0.70	0.78	0.73	0.69	0.75	0.71	0.68	0.66
4	0.76	0.68	0.62	0.75	0.68	0.62	0.72	0.66	0.61	0.70	0.65	0.60	0.68	0.63	0.60	0.58
5	0.69	0.61	0.55	0.68	0.60	0.54	0.66	0.59	0.54	0.64	0.58	0.53	0.62	0.57	0.53	0.51
6	0.63	0.54	0.48	0.62	0.54	0.48	0.60	0.53	0.48	0.58	0.52	0.47	0.57	0.51	0.47	0.45
7	0.57	0.49	0.43	0.56	0.49	0.43	0.55	0.48	0.43	0.53	0.47	0.43	0.52	0.47	0.42	0.40
8	0.52	0.44	0.39	0.52	0.44	0.39	0.50	0.44	0.39	0.49	0.43	0.39	0.48	0.42	0.38	0.37
9	0.48	0.41	0.35	0.48	0.40	0.35	0.47	0.40	0.35	0.46	0.39	0.35	0.45	0.39	0.35	0.33
10	0.45	0.37	0.32	0.44	0.37	0.32	0.43	0.37	0.32	0.42	0.36	0.32	0.42	0.36	0.32	0.30

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	433.61	432.73	424.86	413.50	396.89	371.54	341.82	309.47	271.88
15.0	433.61	432.73	424.81	412.50	395.79	371.16	341.26	306.95	270.89
30.0	433.61	432.72	424.78	412.41	394.75	370.91	340.00	307.32	269.35
45.0	433.61	431.84	423.89	411.53	392.98	368.26	339.11	305.56	268.47
60.0	433.61	431.84	423.87	411.48	393.79	368.12	338.04	304.41	268.13
75.0	433.61	431.83	424.74	412.33	393.70	368.88	338.73	305.92	268.68
90.0	433.61	431.83	424.74	412.33	393.70	368.88	338.73	305.92	269.56
105.0	433.61	431.83	424.72	413.17	395.40	369.63	340.31	306.55	270.12
120.0	433.61	431.83	424.72	413.17	395.40	371.41	342.09	307.43	271.00
135.0	433.61	432.72	425.61	414.06	396.29	373.19	342.98	310.10	273.67
150.0	433.61	432.72	425.61	414.06	398.07	374.07	345.64	311.88	275.45
165.0	433.61	432.72	426.50	414.95	398.95	374.96	346.53	314.54	277.22
180.0	433.61	430.11	423.12	404.76	384.65	356.68	326.08	290.24	252.65
195.0	433.61	430.09	420.41	406.34	385.23	358.85	328.06	291.12	253.30
210.0	433.61	430.07	421.24	407.11	385.92	359.43	330.28	293.19	256.10
225.0	433.61	429.19	420.36	406.23	385.92	359.43	329.40	294.08	256.10
240.0	433.61	430.07	420.33	407.06	386.71	361.04	330.96	294.68	257.51
255.0	433.61	430.06	421.19	407.01	386.61	360.01	329.86	295.28	258.04
270.0	433.61	430.06	420.31	406.12	385.72	360.01	329.86	294.39	256.26
285.0	433.61	430.05	420.28	406.95	386.51	359.86	329.65	294.11	255.90
300.0	433.61	430.05	420.28	405.17	384.74	358.08	326.98	293.22	255.01
315.0	433.61	429.16	419.39	405.17	383.85	357.19	326.09	290.55	253.23
330.0	433.61	428.28	418.50	403.40	382.96	356.30	328.53	288.78	250.57
345.0	433.61	428.28	418.50	404.29	382.07	353.64	322.54	286.11	247.90
360.0	433.61	432.73	424.86	413.50	396.89	371.54	341.82	309.47	271.88
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	232.54	192.33	149.49	109.28	71.69	42.84	27.97	18.36	7.87
15.0	232.20	188.22	146.88	107.30	71.24	42.22	27.27	17.59	7.92
30.0	230.49	188.10	146.60	105.97	68.88	40.62	27.38	17.66	7.06
45.0	228.73	186.34	144.83	104.21	67.12	39.74	26.49	16.78	7.06
60.0	229.19	186.72	145.13	103.53	66.37	39.82	26.55	16.81	7.08
75.0	228.77	187.10	144.54	102.86	66.50	39.90	25.71	15.96	7.09
90.0	228.77	187.10	144.54	103.75	66.50	39.02	25.71	15.96	6.21
105.0	231.02	189.26	146.61	103.96	66.64	39.98	26.66	15.99	7.11
120.0	231.91	189.26	147.50	104.85	68.42	39.98	26.66	15.99	7.11
135.0	233.69	191.04	148.39	105.74	68.42	40.87	26.66	16.88	7.11
150.0	235.46	194.59	151.94	108.40	70.19	40.87	26.66	16.88	7.11
165.0	238.13	196.37	153.72	111.07	72.86	42.65	27.54	17.77	7.11
180.0	210.68	169.60	125.89	83.92	51.58	30.60	20.98	10.49	0.87
195.0	213.73	170.63	128.41	87.07	52.77	31.66	21.11	11.43	1.76
210.0	214.60	173.09	130.70	89.19	54.75	32.68	22.08	12.36	2.65
225.0	216.36	173.09	131.58	90.96	56.52	33.56	22.08	12.36	2.65
240.0	217.69	174.33	132.74	91.15	57.52	33.63	23.01	13.27	3.54
255.0	217.25	175.57	132.12	92.22	57.64	34.58	23.05	13.30	3.55
270.0	217.25	175.57	133.01	93.11	57.64	34.58	23.05	13.30	4.43
285.0	216.80	174.15	132.39	91.52	57.76	34.65	27.54	13.33	4.44
300.0	214.14	172.38	130.62	109.29	55.98	33.76	22.21	13.33	3.55
315.0	231.91	169.71	127.95	87.97	55.09	33.76	22.21	13.33	3.55
330.0	208.81	167.93	126.17	86.19	53.31	31.99	22.21	12.44	2.67
345.0	207.03	165.27	122.62	83.52	51.54	31.99	21.32	12.44	2.67
360.0	232.54	192.33	149.49	109.28	71.69	42.84	27.97	18.36	7.87

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
195.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
210.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
240.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
255.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
285.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
330.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
345.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.87	0.87
15.0	0.00	0.00	0.00	0.00	0.88	0.88	0.88	0.88	0.88
30.0	0.00	0.00	0.00	0.00	0.88	0.88	0.88	0.88	1.77
45.0	0.00	0.00	0.00	0.88	0.88	0.88	0.88	0.88	1.77
60.0	0.00	0.00	0.00	0.88	0.88	0.88	0.88	0.88	1.77
75.0	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89
90.0	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89
105.0	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89	1.78
120.0	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89	1.78
135.0	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89
150.0	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89
165.0	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89
180.0	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.87	0.87
195.0	0.00	0.00	0.00	0.00	0.88	0.88	0.88	0.88	0.88
210.0	0.00	0.00	0.00	0.00	0.88	0.88	0.88	0.88	0.88
225.0	0.00	0.00	0.00	0.00	0.88	0.88	0.88	0.88	0.88
240.0	0.00	0.00	0.00	0.00	0.88	0.88	0.88	0.88	0.88
255.0	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89
270.0	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89
285.0	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89
300.0	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89
315.0	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89
330.0	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89
345.0	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89	0.89
360.0	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.87	0.87

Intensity data(cd)

Appendix Page: 12 Total:12

C/γ(°)	180.0
0.0	1.75
15.0	0.88
30.0	0.88
45.0	1.77
60.0	1.77
75.0	0.89
90.0	0.89
105.0	0.89
120.0	1.78
135.0	1.78
150.0	1.78
165.0	1.78
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	1.75