
Shenzhen Wisdom Light Co., Ltd.

Client:

LumCAT: WL-DL04IN15WDUV(30K-35K-40K)-T

Luminaire: Commercial downlight

Report No:

Ballast type:

Test No: LCZP21120037

Voltage(V): 120.060

LampCAT:

Current(A): 0.139

Lamp flux(lm): 1543.0

Power (W): 16.280

Number of Lamps: 1

PF: 0.976

Length(mm): -100

Width(mm): -100

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1542.97, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 94.78

Central intensity(cd): 738.806, Maximum intensity(cd): 738.806

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=138.0

Maximum s/h(1/2): C0_180=1.16 C90_270=1.15

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

Up flux rate of lamp(%): 0.21%

Down flux rate of lamp(%): 99.79%

Up flux rate of LUM(%): 0.21%

Down flux rate of LUM(%): 99.79%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 88.950%

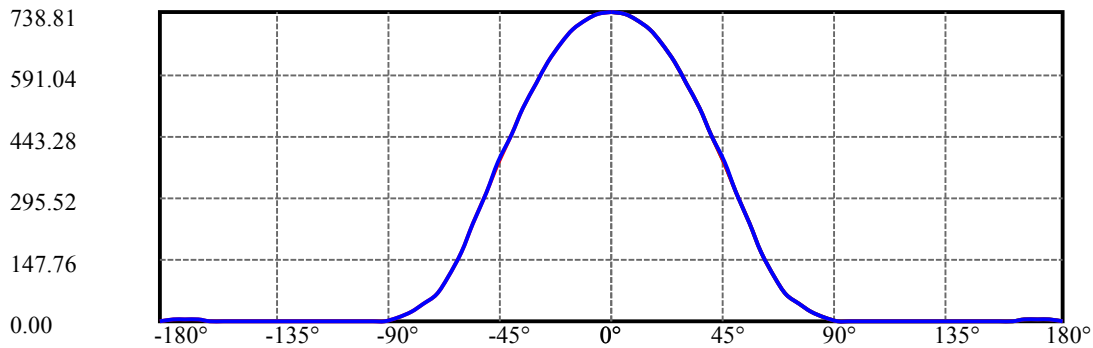
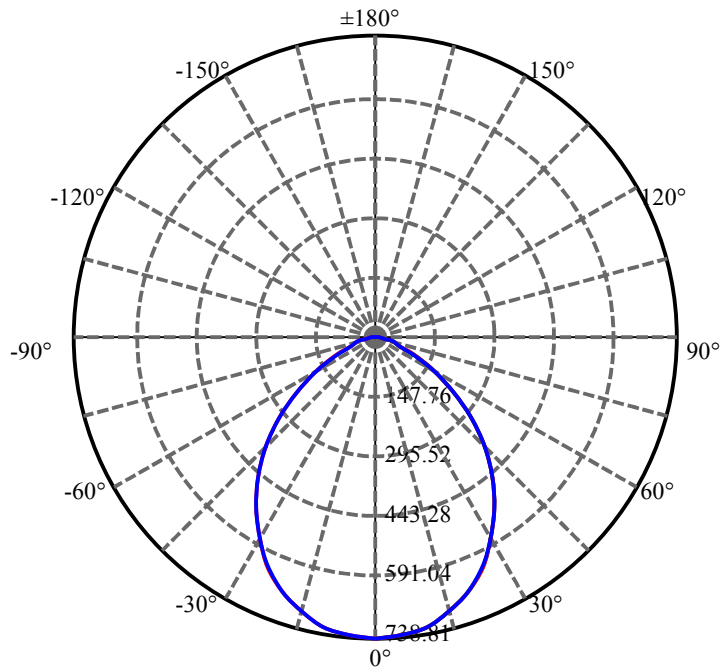
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	738.806	0.000	0	0.00%	0.00%
5.0	734.012	17.607	17.607	1.14%	1.14%
10.0	719.777	52.007	69.614	3.37%	4.51%
15.0	696.839	84.033	153.646	5.45%	9.96%
20.0	664.054	112.157	265.803	7.27%	17.23%
25.0	620.575	134.734	400.537	8.73%	25.96%
30.0	569.872	150.652	551.189	9.76%	35.72%
35.0	510.533	159.097	710.286	10.31%	46.03%
40.0	446.773	159.719	870.005	10.35%	56.39%
45.0	379.770	153.041	1023.047	9.92%	66.30%
50.0	307.155	138.803	1161.85	9.00%	75.30%
55.0	235.355	117.960	1279.809	7.64%	82.94%
60.0	165.509	92.659	1372.468	6.01%	88.95%
65.0	106.062	66.020	1438.487	4.28%	93.23%
70.0	64.650	43.225	1481.713	2.80%	96.03%
75.0	42.373	27.974	1509.687	1.81%	97.84%
80.0	25.224	18.087	1527.774	1.17%	99.02%
85.0	9.110	9.329	1537.103	0.60%	99.62%
90.0	0.406	2.605	1539.709	0.17%	99.79%
95.0	0.000	0.111	1539.82	0.01%	99.80%
100.0	0.000	0.000	1539.82	0.00%	99.80%
105.0	0.000	0.000	1539.82	0.00%	99.80%
110.0	0.000	0.000	1539.82	0.00%	99.80%
115.0	0.000	0.000	1539.82	0.00%	99.80%
120.0	0.147	0.036	1539.856	0.00%	99.80%
125.0	0.222	0.085	1539.941	0.01%	99.80%
130.0	0.701	0.201	1540.142	0.01%	99.82%
135.0	0.627	0.268	1540.41	0.02%	99.83%
140.0	0.885	0.280	1540.69	0.02%	99.85%
145.0	0.885	0.295	1540.985	0.02%	99.87%
150.0	1.069	0.288	1541.273	0.02%	99.89%
155.0	1.770	0.359	1541.632	0.02%	99.91%
160.0	1.844	0.379	1542.012	0.02%	99.94%
165.0	2.655	0.371	1542.382	0.02%	99.96%
170.0	2.655	0.315	1542.697	0.02%	99.98%
175.0	3.245	0.211	1542.908	0.01%	100.00%
180.0	1.770	0.060	1542.968	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	551.19	35.72%	35.72%
0-40	870.01	56.39%	56.39%
0-60	1372.47	88.95%	88.95%
0-90	1539.71	99.79%	99.79%
0-120	1539.86	99.80%	99.80%
0-180	1542.97	100.00%	100.00%
60-90	167.24	10.84%	10.84%
90-120	0.15	0.01%	0.01%
90-130	0.43	0.03%	0.03%
90-150	1.56	0.10%	0.10%
90-180	3.20	0.21%	0.21%
0-53.07	1234.38	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	69.61
10-20	196.19
20-30	285.39
30-40	318.82
40-50	291.84
50-60	210.62
60-70	109.24
70-80	46.06
80-90	11.93
90-100	0.11
100-110	0.00
110-120	0.04
120-130	0.29
130-140	0.55
140-150	0.58
150-160	0.74
160-170	0.69
170-180	0.21



C0(Max): —————

C0/C180: —————

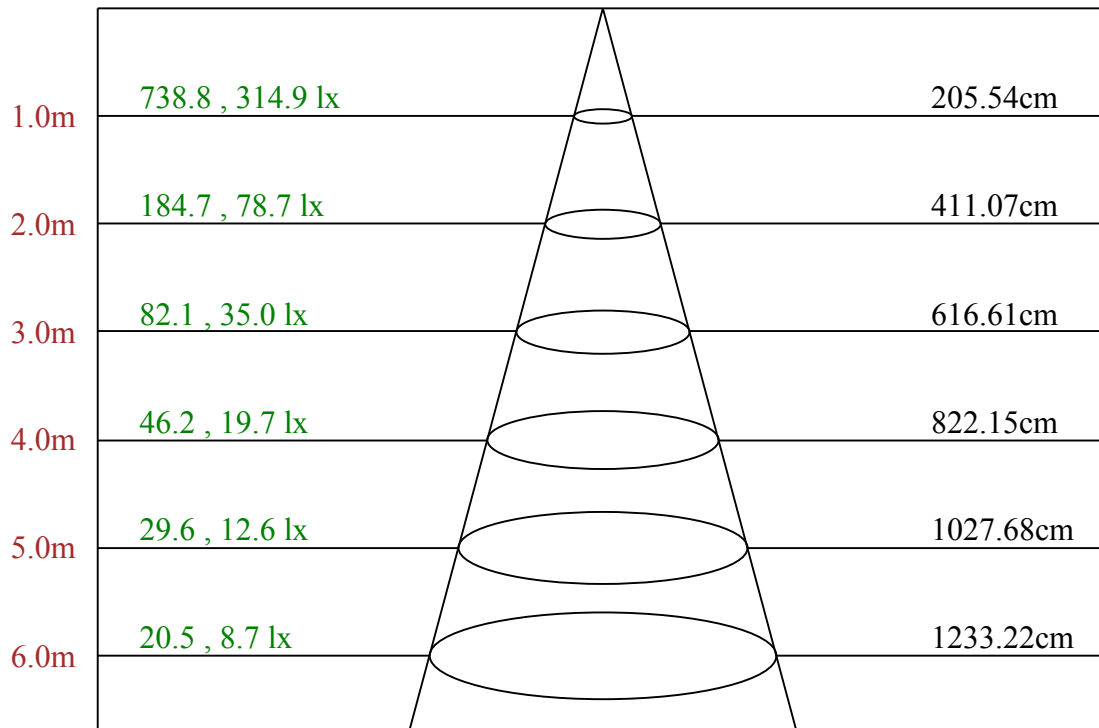
C90/C270: —————

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

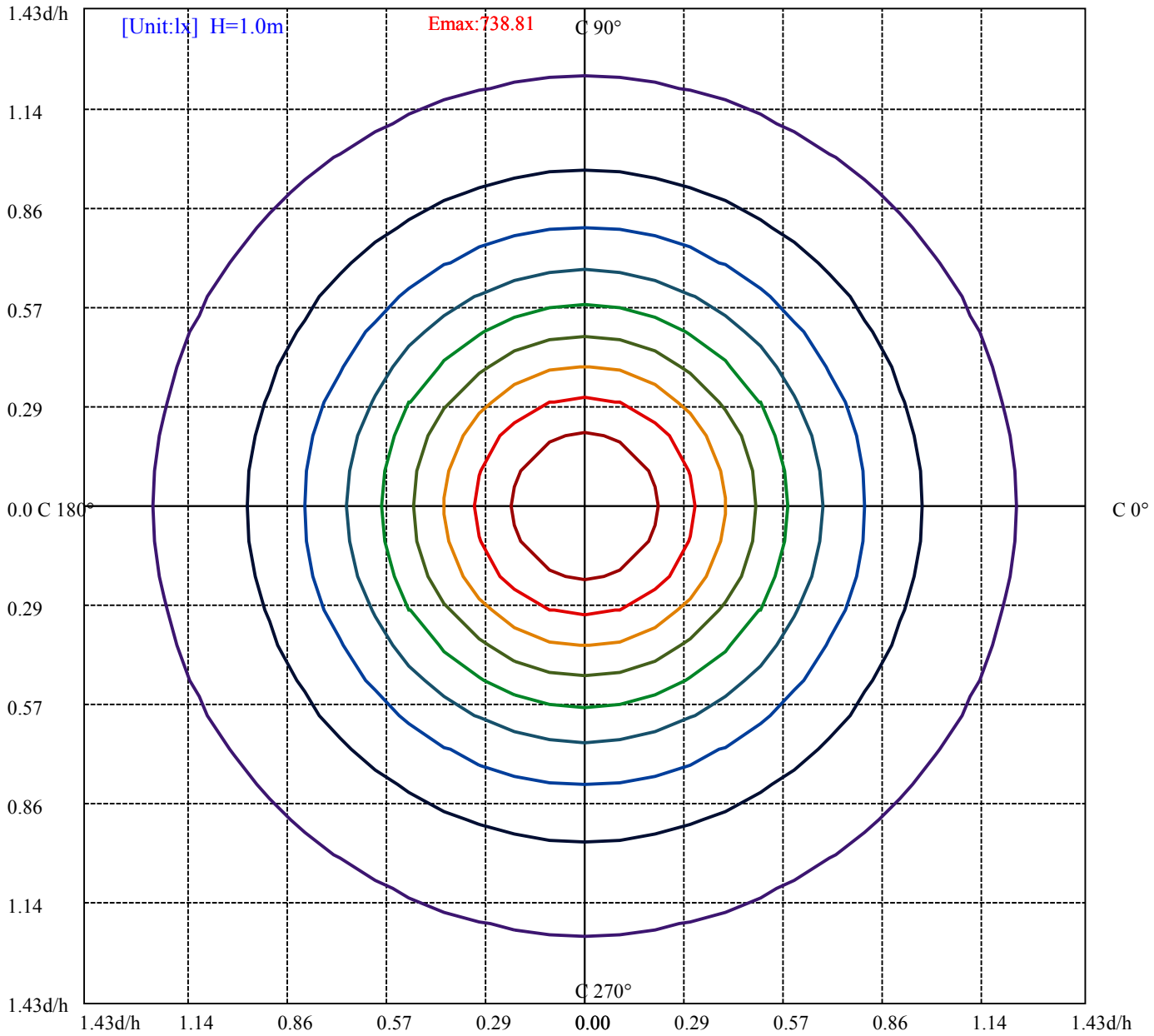
:C90/270Left:69.0 Right:69.0

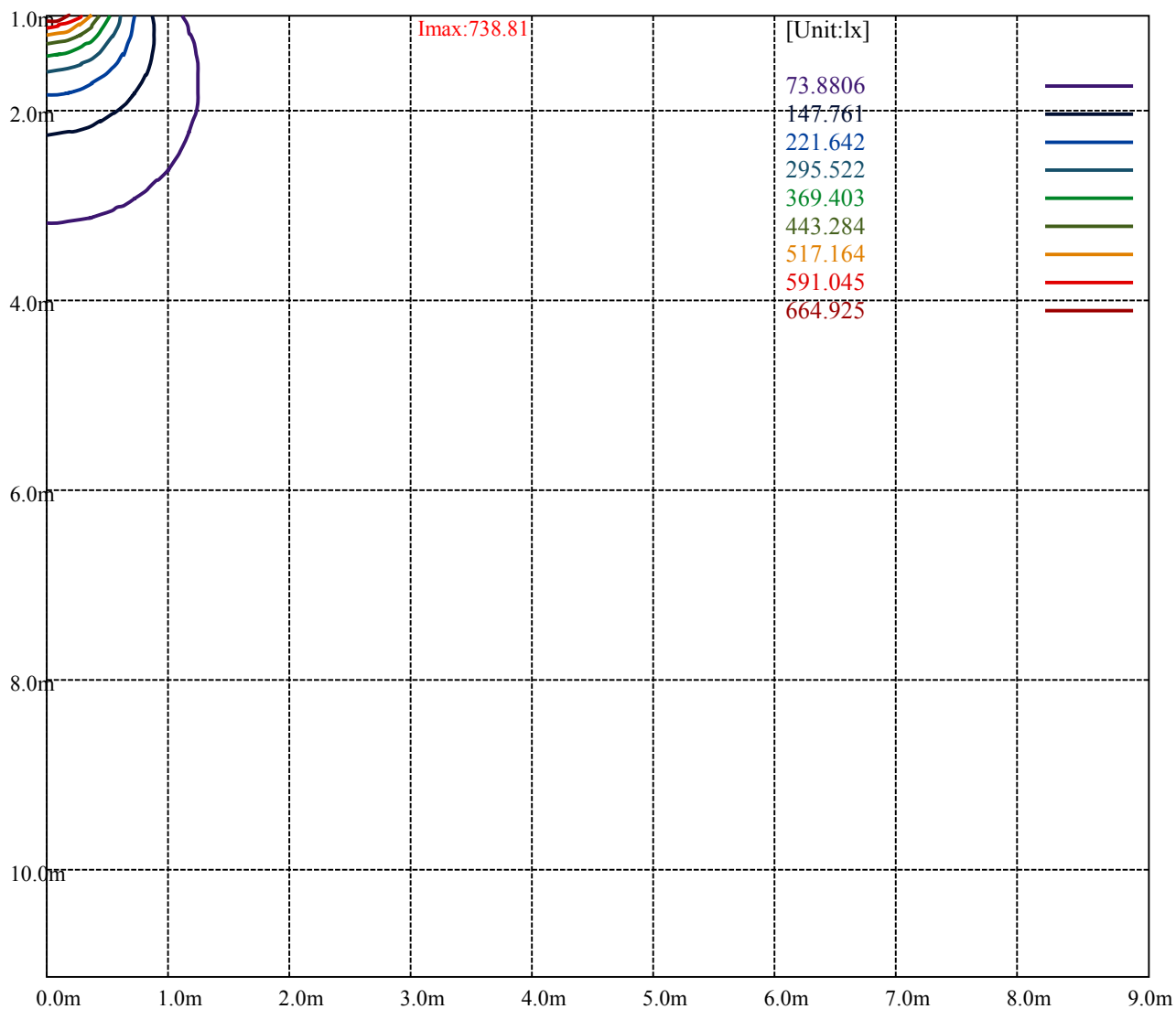
Beam Angle(50%Imax):C0/180Left:45.6 Right:45.6

:C90/270Left:45.7 Right:45.7



Max , Ave Beam angle of C0 plane 91.56





Luminance Table

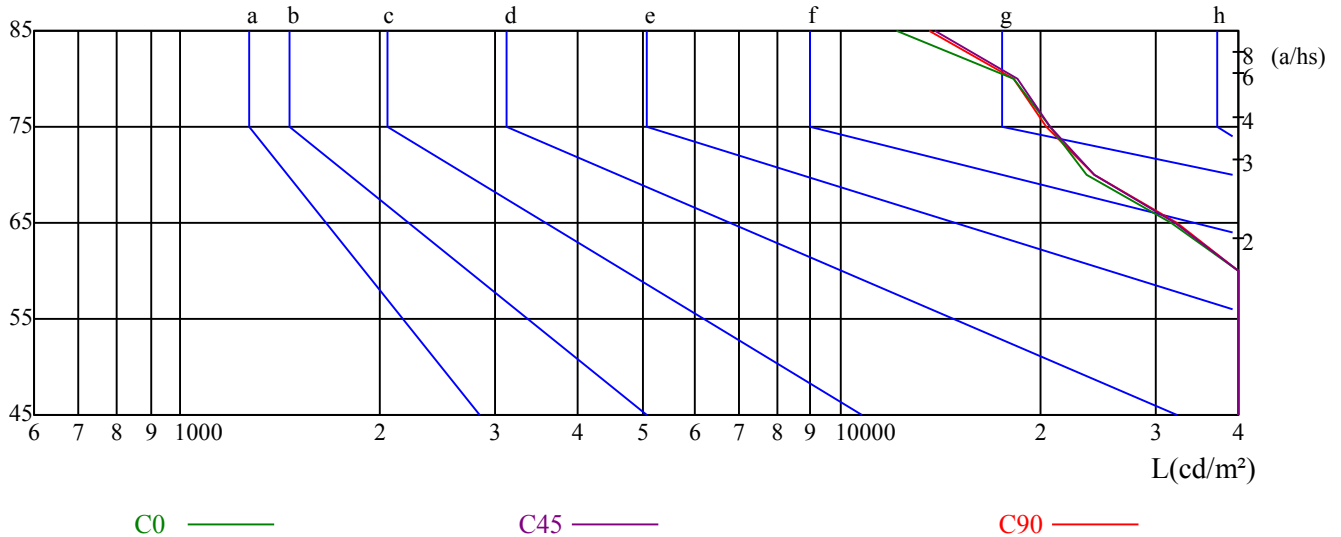
γ	45	50	55	60	65	70	75	80	85
C0	68094	60759	52138	41845	31552	23491	20695	18314	12163
C45	69671	60881	52339	42040	32046	24254	20713	18523	13920
C90	68193	60962	52272	42347	32198	24268	20507	18209	13605

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
31552	32198	32046	20695	20507	20713	12163	13605	13920

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	0.59	0.57
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	0.62	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	0.46	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	0.38	0.48	0.42	0.38	0.36
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	0.41	0.36	0.32	0.30

Shenzhen Wisdom Light Co., Ltd. WL-DL04IN15WDUV(30K-35K-40K)-T

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	738.81	736.18	723.91	703.75	673.95	631.89	581.93	524.96	460.99
15.0	738.81	736.16	724.72	703.58	674.52	634.02	582.94	525.71	464.07
30.0	738.81	736.16	724.68	704.38	676.14	634.65	585.22	526.96	465.17
45.0	738.81	737.04	725.53	705.18	676.87	635.28	586.62	530.88	467.17
60.0	738.81	737.92	726.40	706.92	677.68	637.82	587.32	532.40	471.28
75.0	738.81	737.03	726.40	706.92	678.57	637.82	588.21	533.29	472.16
90.0	738.81	737.92	727.28	707.76	680.27	641.24	591.58	534.81	474.50
105.0	738.81	737.92	727.28	708.65	680.27	641.24	592.46	537.47	477.16
120.0	738.81	737.92	727.28	708.65	681.16	642.13	595.12	539.25	478.94
135.0	738.81	738.81	728.15	709.50	682.86	644.68	595.84	539.90	479.51
150.0	738.81	738.81	728.15	709.50	681.97	644.68	595.84	540.78	480.40
165.0	738.81	737.92	728.15	709.50	682.86	643.79	596.73	539.90	479.51
180.0	738.81	731.79	716.02	690.60	655.55	610.85	556.51	497.80	431.19
195.0	738.81	731.76	715.03	690.37	655.15	608.48	555.65	494.89	430.60
210.0	738.81	731.74	714.09	689.38	652.30	607.29	552.56	493.42	427.22
225.0	738.81	731.73	714.92	689.26	652.10	606.97	552.11	492.83	426.47
240.0	738.81	730.83	714.00	688.31	651.11	603.27	550.12	489.88	424.33
255.0	738.81	729.95	713.12	686.54	649.33	601.50	548.35	487.22	420.78
270.0	738.81	730.82	713.09	685.59	647.45	599.56	545.46	486.03	419.51
285.0	738.81	729.94	711.31	684.70	646.57	597.79	544.57	482.49	415.97
300.0	738.81	729.05	711.31	682.93	644.79	597.79	541.91	481.60	415.08
315.0	738.81	729.93	711.28	683.75	645.57	596.73	541.67	481.29	414.69
330.0	738.81	729.93	711.28	683.75	645.57	596.73	567.42	480.40	412.91
345.0	738.81	729.04	711.28	684.64	644.68	597.62	540.78	478.63	412.91
360.0	738.81	736.18	723.91	703.75	673.95	631.89	581.93	524.96	460.99
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	395.26	323.39	252.40	181.42	120.07	71.86	47.33	30.67	13.15
15.0	395.38	324.05	251.85	182.28	120.64	72.21	47.55	30.82	14.09
30.0	397.21	328.36	256.86	185.36	121.81	74.15	47.66	30.89	14.12
45.0	401.70	330.03	259.25	186.69	123.87	75.21	47.78	30.97	15.04
60.0	403.07	332.20	261.33	190.46	125.79	75.30	47.84	31.01	14.17
75.0	407.49	335.74	264.87	192.23	126.68	77.07	47.84	31.01	15.06
90.0	408.87	337.92	266.08	194.24	129.49	78.05	47.89	31.04	15.08
105.0	409.76	338.80	266.96	194.24	130.38	78.94	47.89	31.93	15.96
120.0	413.31	341.46	267.85	196.90	130.38	78.94	47.89	31.04	15.08
135.0	413.80	341.88	270.84	197.13	132.31	79.92	48.84	31.97	15.10
150.0	412.91	341.88	270.84	198.91	131.42	79.03	48.84	31.97	15.10
165.0	412.03	343.65	271.72	198.02	130.53	79.03	48.84	31.97	15.10
180.0	361.08	290.09	217.35	147.24	89.39	54.34	36.81	19.28	3.51
195.0	360.16	288.83	214.86	145.30	88.94	53.72	36.98	19.37	3.52
210.0	359.25	285.11	213.61	144.76	89.15	53.84	37.07	20.30	3.53
225.0	355.69	284.02	212.35	143.34	87.59	53.09	36.28	19.47	4.42
240.0	354.34	280.82	209.06	142.62	86.81	53.15	36.32	19.49	3.54
255.0	352.57	280.82	208.18	139.97	85.93	52.27	36.32	19.49	3.54
270.0	348.56	277.61	204.88	138.36	84.26	52.33	35.48	18.63	3.55
285.0	347.67	276.72	203.11	135.70	83.37	52.33	43.46	19.51	3.55
300.0	344.13	273.17	202.22	134.81	82.48	51.44	35.48	19.51	3.55
315.0	376.51	273.50	200.69	133.20	81.69	52.39	35.52	18.65	3.55
330.0	341.88	270.84	200.69	134.97	80.81	51.50	35.52	18.65	2.66
345.0	341.88	270.84	200.69	134.09	81.69	51.50	35.52	17.76	2.66
360.0	395.26	323.39	252.40	181.42	120.07	71.86	47.33	30.67	13.15

Intensity data(cd)

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88
15.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88
30.0	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88
45.0	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88
60.0	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89
75.0	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89
90.0	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89
105.0	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89
120.0	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89
135.0	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89
150.0	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89
165.0	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.88	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	0.88	0.88	0.88
240.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89
255.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89
285.0	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.00
300.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.00
330.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89
345.0	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89
360.0	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.88	0.88	1.75	1.75	2.63	2.63	2.63	3.51
15.0	0.88	0.88	0.88	0.88	1.76	1.76	2.64	2.64	3.52
30.0	0.88	0.88	0.88	1.77	1.77	1.77	2.65	2.65	3.53
45.0	0.88	0.88	0.88	0.88	1.77	1.77	2.65	2.65	3.54
60.0	0.89	0.89	0.89	1.77	1.77	1.77	2.66	2.66	3.54
75.0	0.89	0.89	0.89	1.77	1.77	1.77	2.66	2.66	3.54
90.0	0.89	0.89	0.89	1.77	1.77	1.77	2.66	2.66	3.55
105.0	0.89	0.89	0.89	0.89	1.77	1.77	2.66	2.66	3.55
120.0	0.89	0.89	0.89	0.89	1.77	2.66	2.66	2.66	3.55
135.0	0.89	0.89	0.89	0.89	1.78	1.78	2.66	2.66	3.55
150.0	0.89	0.89	0.89	0.89	1.78	1.78	2.66	2.66	3.55
165.0	0.89	0.89	0.89	0.89	1.78	1.78	2.66	2.66	3.55
180.0	0.00	0.88	0.88	0.88	1.75	1.75	2.63	2.63	3.51
195.0	0.88	0.88	0.88	0.88	1.76	1.76	2.64	2.64	2.64
210.0	0.00	0.88	0.88	0.88	1.77	1.77	2.65	2.65	2.65
225.0	0.88	0.88	0.88	0.88	1.77	1.77	2.65	2.65	2.65
240.0	0.00	0.89	0.89	0.89	1.77	1.77	2.66	2.66	2.66
255.0	0.89	0.89	0.89	0.89	1.77	1.77	2.66	2.66	2.66
270.0	0.00	0.89	0.89	0.89	1.77	1.77	2.66	2.66	2.66
285.0	0.00	0.89	0.89	0.89	1.77	1.77	2.66	2.66	2.66
300.0	0.89	0.89	0.89	0.89	1.77	1.77	2.66	2.66	3.55
315.0	0.89	0.89	0.89	0.89	1.78	1.78	2.66	2.66	2.66
330.0	0.00	0.89	0.89	0.89	1.78	1.78	2.66	2.66	3.55
345.0	0.00	0.89	0.89	0.89	1.78	1.78	2.66	2.66	3.55
360.0	0.88	0.88	0.88	1.75	1.75	2.63	2.63	2.63	3.51

Intensity data(cd)

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C/γ(°)	180.0
0.0	3.51
15.0	3.52
30.0	3.53
45.0	3.54
60.0	3.54
75.0	3.54
90.0	3.55
105.0	3.55
120.0	3.55
135.0	3.55
150.0	3.55
165.0	3.55
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	3.51