
Shenzhen Wisdom Light Co., Ltd.

Client:

LumCAT: WL-DL10IN40WDUV(30K-35K-40K)-T

Luminaire: Commercial downlight

Report No:

Ballast type:

Test No: LCZP21120040

Voltage(V): 119.950

LampCAT:

Current(A): 0.345

Lamp flux(lm): 4191.8

Power (W): 40.610

Number of Lamps: 1

PF: 0.983

Length(mm): -190

Width(mm): -190

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 4191.83, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 103.22

Central intensity(cd): 2135.361, Maximum intensity(cd): 2135.361

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=89.6

[C90/270]Total=89.6

Field angle(10%Imax): [C0/180]Total=129.0

[C90/270]Total=128.8

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

Maximum s/h(1/4): C0_180=1.23 C90_270=1.23

Up flux rate of lamp(%): 0.29%

Down flux rate of lamp(%): 99.71%

Up flux rate of LUM(%): 0.29%

Down flux rate of LUM(%): 99.71%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 91.724%

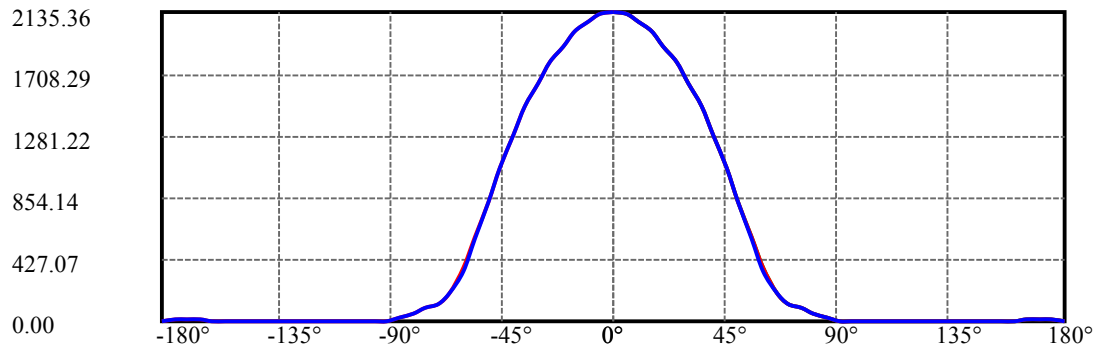
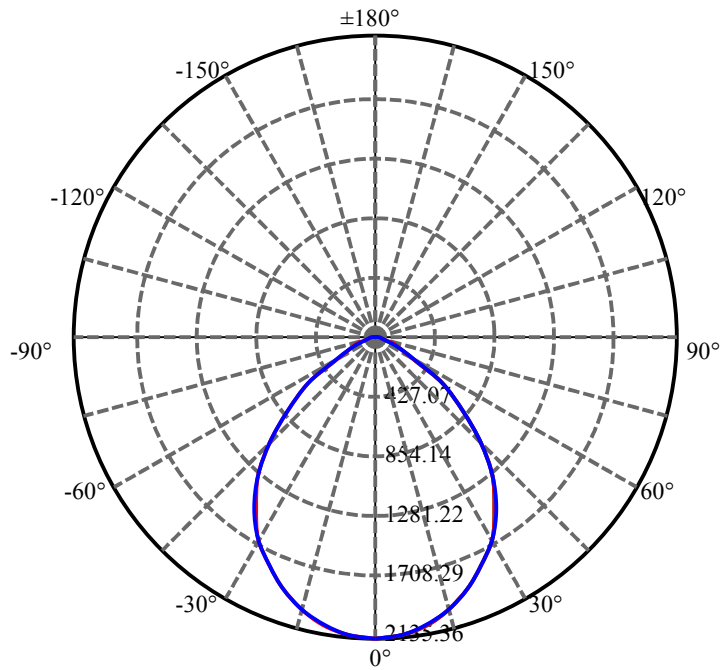
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2135.361	0.000	0	0.00%	0.00%
5.0	2120.241	50.875	50.875	1.21%	1.21%
10.0	2075.139	150.082	200.956	3.58%	4.79%
15.0	2001.829	241.843	442.799	5.77%	10.56%
20.0	1902.777	321.794	764.594	7.68%	18.24%
25.0	1786.166	386.902	1151.496	9.23%	27.47%
30.0	1650.867	434.959	1586.455	10.38%	37.85%
35.0	1482.408	461.397	2047.852	11.01%	48.85%
40.0	1283.563	461.481	2509.333	11.01%	59.86%
45.0	1064.518	434.766	2944.1	10.37%	70.23%
50.0	818.681	380.528	3324.628	9.08%	79.31%
55.0	577.021	303.472	3628.1	7.24%	86.55%
60.0	360.925	216.804	3844.903	5.17%	91.72%
65.0	194.897	135.121	3980.025	3.22%	94.95%
70.0	122.580	80.387	4060.412	1.92%	96.86%
75.0	87.695	54.963	4115.375	1.31%	98.18%
80.0	53.325	37.733	4153.108	0.90%	99.08%
85.0	21.647	20.372	4173.48	0.49%	99.56%
90.0	1.069	6.220	4179.699	0.15%	99.71%
95.0	0.443	0.414	4180.113	0.01%	99.72%
100.0	0.443	0.240	4180.354	0.01%	99.73%
105.0	0.443	0.237	4180.59	0.01%	99.73%
110.0	0.443	0.231	4180.822	0.01%	99.74%
115.0	0.443	0.224	4181.046	0.01%	99.74%
120.0	0.922	0.332	4181.378	0.01%	99.75%
125.0	1.364	0.528	4181.906	0.01%	99.76%
130.0	1.733	0.674	4182.58	0.02%	99.78%
135.0	1.881	0.730	4183.31	0.02%	99.80%
140.0	2.213	0.758	4184.068	0.02%	99.81%
145.0	3.098	0.886	4184.954	0.02%	99.84%
150.0	3.946	1.037	4185.991	0.02%	99.86%
155.0	4.868	1.115	4187.106	0.03%	99.89%
160.0	5.937	1.133	4188.24	0.03%	99.91%
165.0	7.486	1.106	4189.346	0.03%	99.94%
170.0	16.426	1.418	4190.764	0.03%	99.97%
175.0	8.851	0.904	4191.669	0.02%	100.00%
180.0	4.831	0.164	4191.832	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1586.46	37.85%	37.85%
0-40	2509.33	59.86%	59.86%
0-60	3844.90	91.72%	91.72%
0-90	4179.70	99.71%	99.71%
0-120	4181.38	99.75%	99.75%
0-180	4191.83	100.00%	100.00%
60-90	334.80	7.99%	7.99%
90-120	1.68	0.04%	0.04%
90-130	2.88	0.07%	0.07%
90-150	6.29	0.15%	0.15%
90-180	11.97	0.29%	0.29%
0-50.48	3353.47	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	200.96
10-20	563.64
20-30	821.86
30-40	922.88
40-50	815.29
50-60	520.28
60-70	215.51
70-80	92.70
80-90	26.59
90-100	0.65
100-110	0.47
110-120	0.56
120-130	1.20
130-140	1.49
140-150	1.92
150-160	2.25
160-170	2.52
170-180	0.90



C0(Max):

C0/C180:

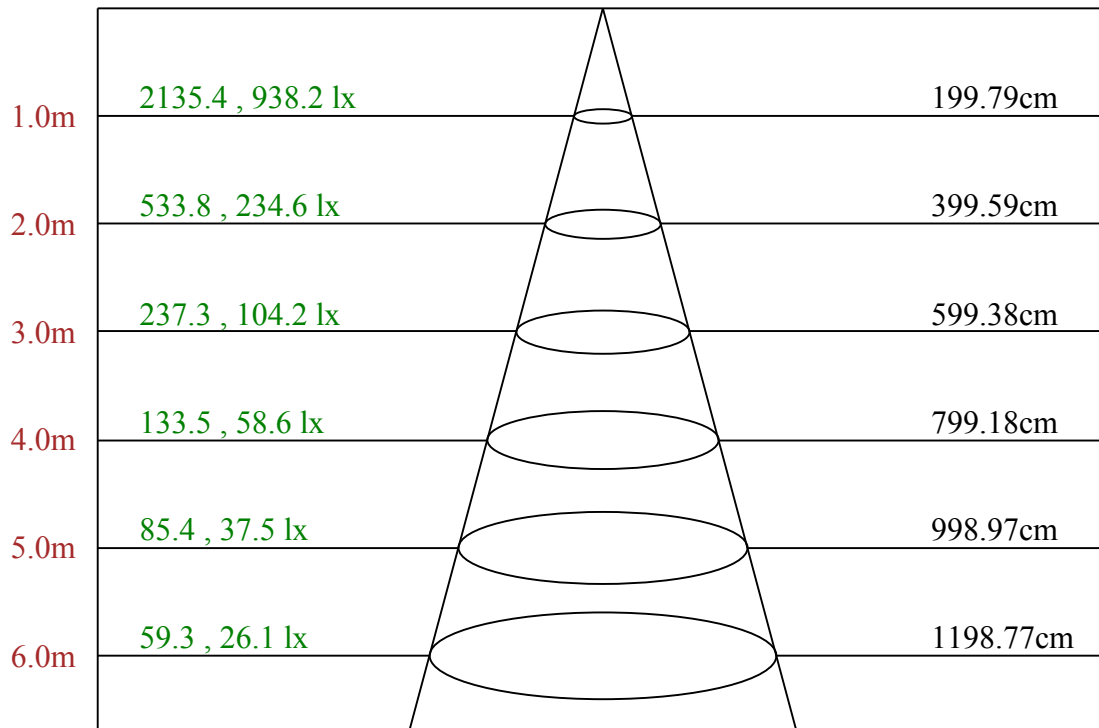
C90/C270:

Field angle(10%Imax):C0/180Left:64.5 Right:64.5

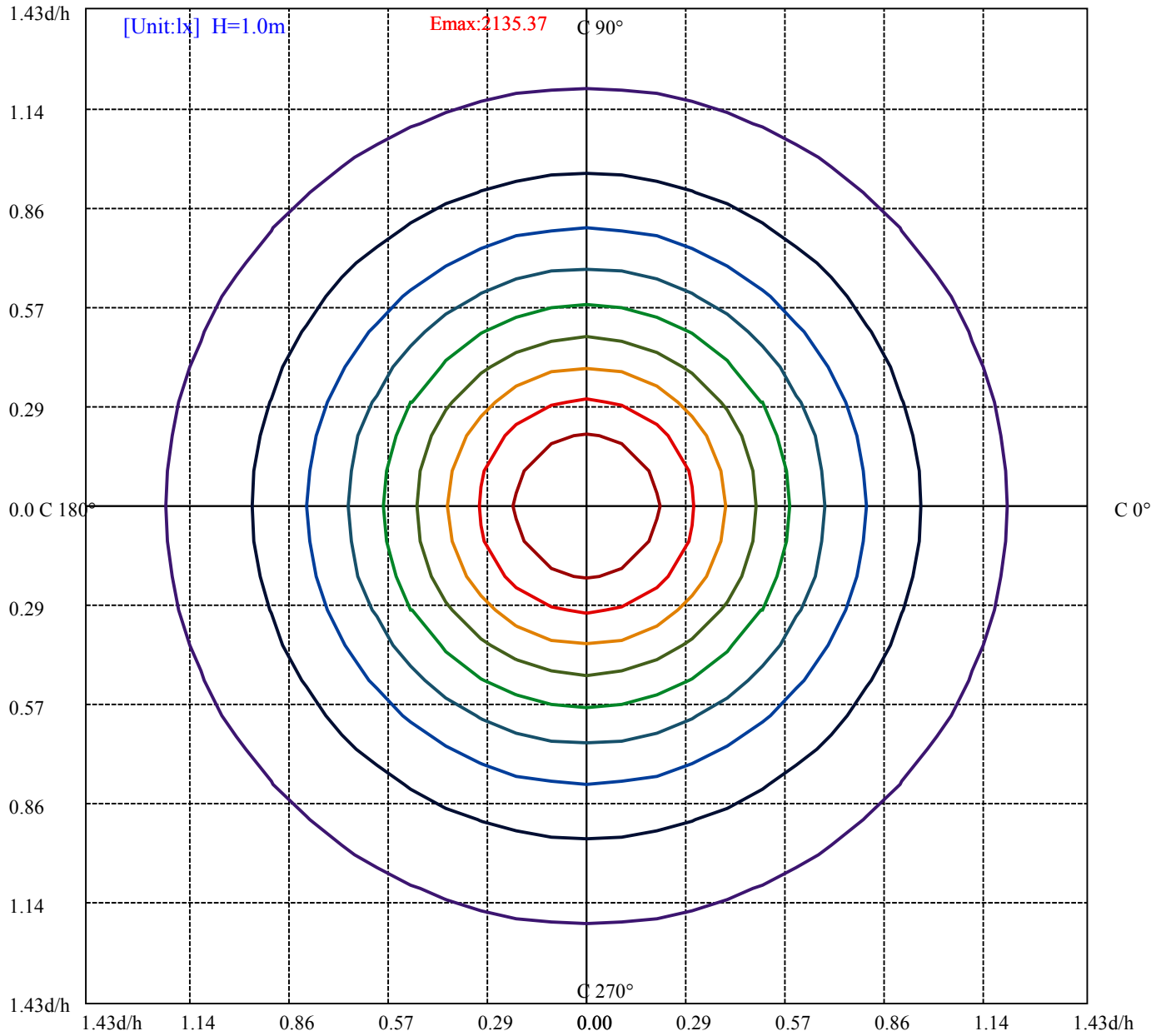
:C90/270Left:64.4 Right:64.4

Beam Angle(50%Imax):C0/180Left:44.8 Right:44.8

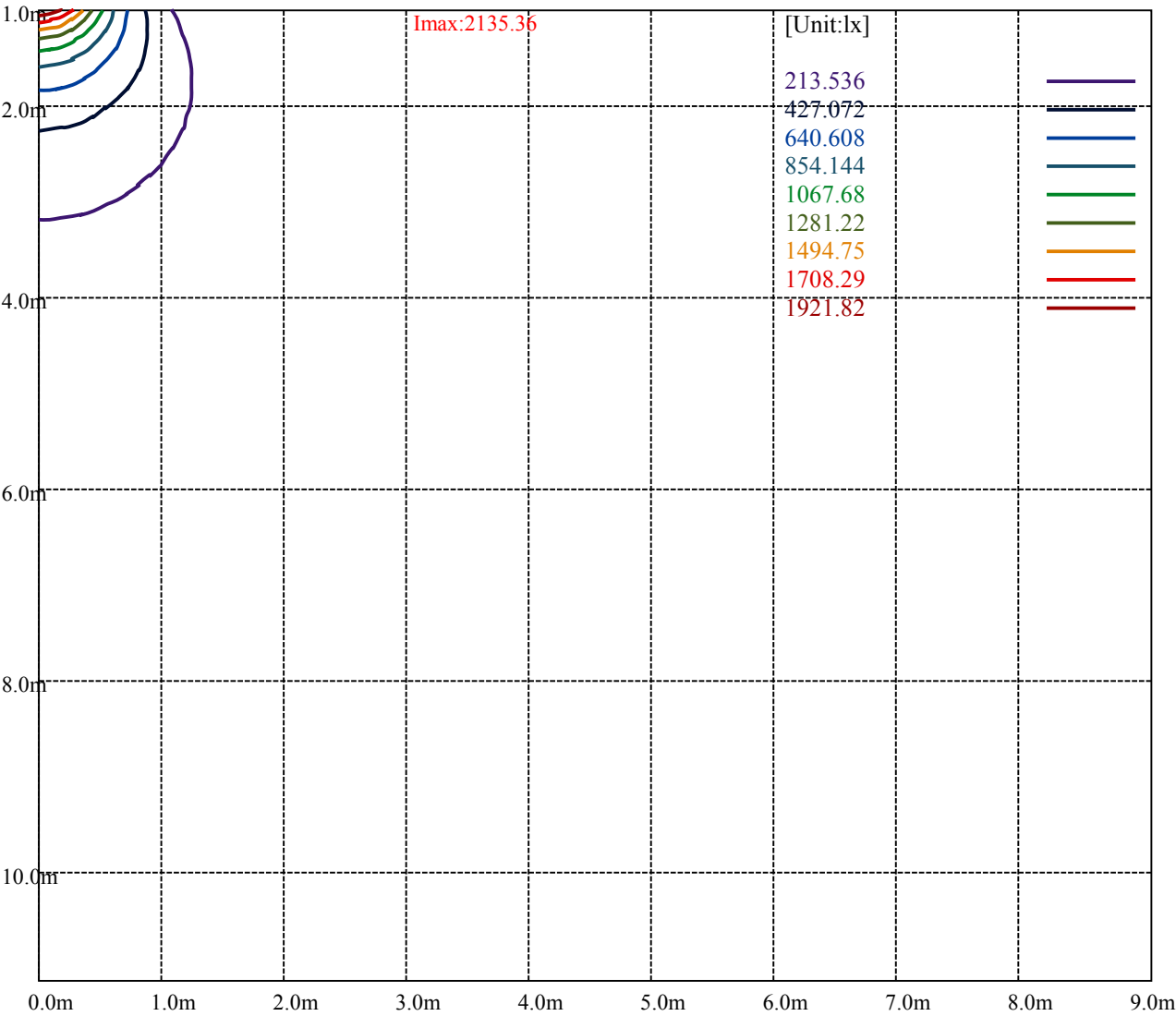
:C90/270Left:44.8 Right:44.8



Max , Ave Beam angle of C0 plane 89.94



(10%Emax) 213.536	—
(20%Emax) 427.072	—
(30%Emax) 640.608	—
(40%Emax) 854.144	—
(50%Emax) 1067.68	—
(60%Emax) 1281.22	—
(70%Emax) 1494.75	—
(80%Emax) 1708.29	—
(90%Emax) 1921.82	—



Luminance Table

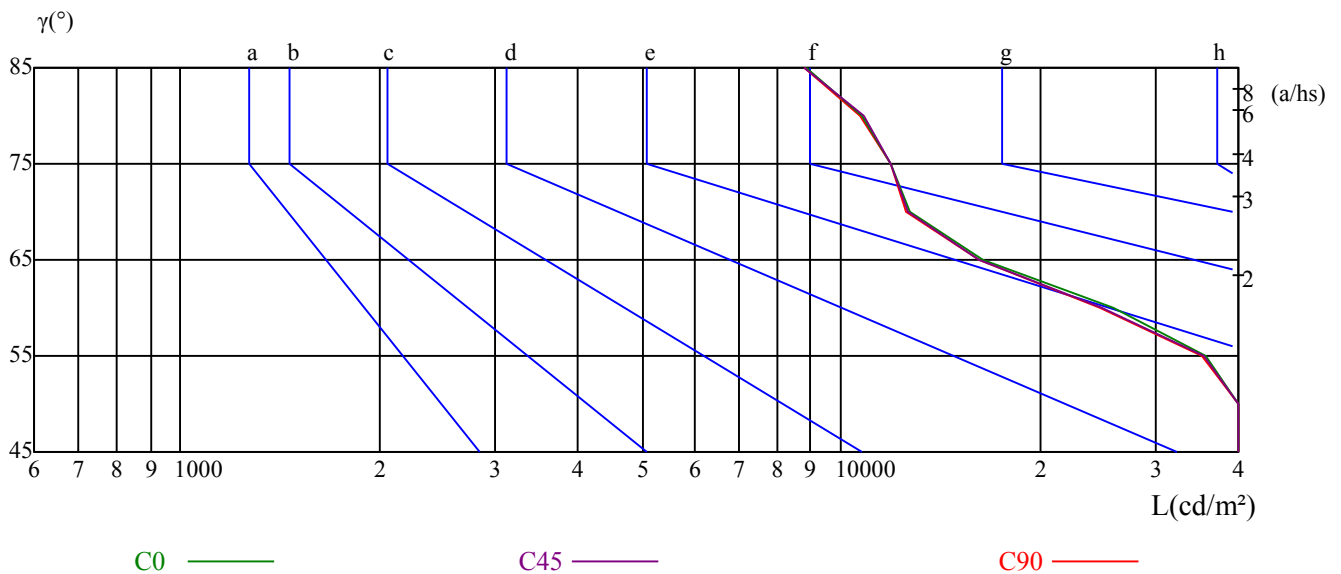
γ	45	50	55	60	65	70	75	80	85
C0	52817	44974	35715	25920	16450	12721	11905	10789	8883
C45	54295	44919	35340	24818	16234	12657	11865	10845	8787
C90	52857	44928	35291	24709	16150	12558	11888	10703	8781

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
16450	16150	16234	11905	11888	11865	8883	8781	8787

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	0.75	0.71	0.77	0.73	0.69	0.68
4	0.78	0.70	0.64	0.76	0.69	0.64	0.74	0.68	0.63	0.72	0.67	0.62	0.70	0.65	0.61	0.60
5	0.70	0.63	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	0.51	0.63	0.56	0.50	0.62	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	0.45	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	0.41	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	0.42	0.37	0.47	0.41	0.37	0.46	0.41	0.37	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	0.34	0.32

Shenzhen Wisdom Light Co., Ltd. WL-DL10IN40WDUV(30K-35K-40K)-T

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	2135.36	2129.21	2094.09	2023.85	1940.44	1824.54	1694.59	1540.06	1353.04		
15.0	2135.36	2128.30	2091.22	2026.78	1936.74	1821.10	1685.16	1534.21	1340.89		
30.0	2135.36	2127.40	2089.36	2023.02	1931.02	1814.26	1683.34	1529.43	1334.82		
45.0	2135.36	2127.39	2089.31	2022.88	1931.66	1812.98	1675.70	1520.70	1324.08		
60.0	2135.36	2124.73	2085.76	2020.22	1926.34	1812.09	1674.81	1513.62	1320.54		
75.0	2135.36	2125.62	2085.76	2016.68	1923.68	1808.55	1670.38	1514.50	1321.43		
90.0	2135.36	2125.62	2084.88	2019.34	1926.34	1806.78	1672.15	1516.27	1318.77		
105.0	2135.36	2125.62	2086.65	2020.22	1924.57	1809.43	1672.15	1516.27	1324.97		
120.0	2135.36	2127.38	2089.25	2022.74	1930.52	1811.69	1678.67	1519.94	1329.28		
135.0	2135.36	2128.27	2091.91	2026.29	1935.84	1818.78	1682.22	1528.80	1334.60		
150.0	2135.36	2130.04	2093.68	2028.06	1936.72	1821.44	1689.31	1533.24	1346.13		
165.0	2135.36	2131.81	2096.34	2030.72	1940.27	1828.54	1693.75	1544.77	1358.54		
180.0	2135.36	2111.65	2057.22	1975.56	1858.78	1747.27	1605.91	1418.89	1212.55		
195.0	2135.36	2110.64	2059.44	1977.35	1871.42	1754.90	1609.24	1430.05	1219.07		
210.0	2135.36	2113.25	2061.06	1977.91	1873.53	1756.76	1612.58	1440.97	1233.98		
225.0	2135.36	2114.99	2063.62	1983.02	1874.97	1758.95	1619.90	1445.42	1246.14		
240.0	2135.36	2114.10	2063.62	1985.68	1874.97	1763.38	1620.78	1452.51	1247.92		
255.0	2135.36	2113.22	2062.74	1983.91	1877.63	1762.49	1624.33	1451.62	1253.23		
270.0	2135.36	2114.10	2062.74	1983.02	1874.97	1763.38	1626.10	1453.39	1248.80		
285.0	2135.36	2114.10	2062.74	1981.25	1874.97	1763.38	1620.78	1447.19	1240.83		
300.0	2135.36	2114.08	2061.76	1982.84	1879.97	1760.25	1621.92	1440.13	1238.83		
315.0	2135.36	2113.19	2058.21	1979.29	1877.31	1753.16	1613.94	1436.58	1233.51		
330.0	2135.36	2111.42	2056.44	1977.51	1874.65	1749.61	1675.12	1427.71	1215.77		
345.0	2135.36	2109.64	2055.55	1975.74	1869.33	1744.29	1597.97	1421.50	1207.79		
360.0	2135.36	2129.21	2094.09	2023.85	1940.44	1824.54	1694.59	1540.06	1353.04		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	1130.90	898.22	657.64	446.92	237.95	136.09	99.22	64.10	32.49		
15.0	1123.73	881.86	639.99	407.83	231.28	133.29	97.10	63.56	31.78		
30.0	1118.10	875.73	626.28	399.83	221.14	130.92	95.53	61.92	29.19		
45.0	1107.09	863.53	622.63	387.04	216.99	129.31	93.88	60.23	29.23		
60.0	1095.58	860.88	619.97	384.38	210.79	127.54	93.00	60.23	27.46		
75.0	1096.46	852.90	612.00	385.27	210.79	126.65	92.11	58.45	27.46		
90.0	1100.01	855.56	607.57	381.73	213.45	126.65	93.00	58.45	26.57		
105.0	1100.01	856.45	612.89	388.81	214.33	127.54	92.11	58.45	26.57		
120.0	1112.02	869.04	625.18	392.84	221.69	129.47	94.00	59.41	27.49		
135.0	1118.23	876.14	634.93	399.94	224.35	131.24	95.77	61.19	29.26		
150.0	1124.43	892.10	652.67	415.90	233.22	133.02	97.55	62.96	30.15		
165.0	1139.51	902.74	665.08	482.41	237.66	134.79	98.43	63.85	31.92		
180.0	986.90	741.05	503.99	287.99	156.29	110.63	75.51	42.15	11.41		
195.0	994.85	756.51	518.17	300.13	161.54	112.99	76.80	43.25	11.48		
210.0	1009.30	763.39	522.78	306.06	165.42	114.11	78.73	45.11	14.15		
225.0	1014.98	774.97	526.98	316.19	170.94	116.02	79.71	46.06	14.17		
240.0	1024.73	777.62	535.83	317.96	171.82	117.79	80.60	47.83	15.94		
255.0	1023.84	784.71	536.72	323.27	174.48	116.91	80.60	47.83	16.83		
270.0	1019.41	782.05	540.26	318.84	173.59	116.91	81.48	46.94	16.83		
285.0	1019.41	782.05	541.15	317.96	172.71	116.91	97.42	47.83	15.94		
300.0	1016.25	771.50	531.18	407.03	171.15	116.17	80.70	47.00	15.08		
315.0	1113.79	759.97	514.33	304.16	165.83	114.39	78.92	46.11	14.19		
330.0	988.76	740.46	505.46	300.62	163.17	112.62	77.15	44.34	12.41		
345.0	970.13	728.93	494.82	289.09	156.96	109.96	75.38	42.57	11.53		
360.0	1130.90	898.22	657.64	446.92	237.95	136.09	99.22	64.10	32.49		

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	2.63	0.00	0.00	0.00	0.00	0.00	0.88	0.88	1.76
15.0	1.77	0.00	0.00	0.00	0.00	0.00	0.88	0.88	1.77
30.0	0.88	0.00	0.00	0.00	0.00	0.00	0.88	1.77	1.77
45.0	0.89	0.00	0.00	0.00	0.00	0.00	0.89	0.89	1.77
60.0	0.89	0.00	0.00	0.00	0.00	0.00	0.89	1.77	1.77
75.0	0.89	0.00	0.00	0.00	0.00	0.00	0.89	1.77	1.77
90.0	0.89	0.00	0.00	0.00	0.00	0.00	0.89	1.77	1.77
105.0	0.89	0.00	0.00	0.00	0.00	0.00	0.89	1.77	1.77
120.0	0.89	0.00	0.00	0.00	0.00	0.00	0.89	1.77	1.77
135.0	0.89	0.00	0.00	0.00	0.00	0.00	0.89	0.89	1.77
150.0	0.89	0.00	0.00	0.00	0.00	0.00	0.89	0.89	1.77
165.0	1.77	0.00	0.00	0.00	0.00	0.00	0.89	0.89	1.77
180.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.76	1.76
195.0	0.88	0.88	0.88	0.88	0.88	0.88	1.77	1.77	1.77
210.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.77	1.77
225.0	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	1.77
240.0	0.89	0.89	0.89	0.89	0.89	0.89	0.89	1.77	1.77
255.0	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	1.77
270.0	1.77	0.89	0.89	0.89	0.89	0.89	0.89	0.89	1.77
285.0	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
300.0	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	1.77
315.0	0.89	0.89	0.89	0.89	0.89	0.89	0.89	1.77	1.77
330.0	0.89	0.89	0.89	0.89	0.89	0.89	0.89	1.77	1.77
345.0	0.89	0.89	0.89	0.89	0.89	0.89	0.89	1.77	1.77
360.0	2.63	0.00	0.00	0.00	0.00	0.00	0.88	0.88	1.76
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	1.76	2.63	3.51	4.39	5.27	6.15	7.90	8.78	8.78
15.0	1.77	2.65	3.53	4.41	5.30	6.18	7.94	8.83	8.83
30.0	1.77	2.65	3.54	4.42	5.31	6.19	7.96	8.85	8.85
45.0	1.77	2.66	3.54	4.43	5.31	6.20	7.97	8.86	8.86
60.0	2.66	2.66	3.54	4.43	5.31	6.20	7.97	8.86	8.86
75.0	1.77	2.66	3.54	4.43	5.31	6.20	7.97	8.86	8.86
90.0	2.66	2.66	3.54	4.43	5.31	6.20	7.97	8.86	8.86
105.0	2.66	2.66	3.54	4.43	5.31	6.20	7.97	8.86	8.86
120.0	1.77	2.66	3.55	4.43	5.32	6.21	7.98	8.87	8.87
135.0	1.77	2.66	3.55	4.43	5.32	6.21	7.98	8.87	8.87
150.0	1.77	2.66	3.55	4.43	5.32	6.21	7.98	201.30	8.87
165.0	1.77	2.66	3.55	4.43	5.32	6.21	7.98	8.87	8.87
180.0	1.76	1.76	2.63	3.51	4.39	6.15	7.02	7.90	8.78
195.0	1.77	1.77	2.65	3.53	4.41	6.18	6.18	7.94	8.83
210.0	1.77	1.77	2.65	2.65	4.42	6.19	7.08	7.96	8.85
225.0	1.77	1.77	2.66	3.54	4.43	5.31	7.09	7.97	8.86
240.0	1.77	1.77	2.66	3.54	4.43	6.20	7.09	7.97	8.86
255.0	1.77	1.77	2.66	3.54	4.43	6.20	7.09	7.97	8.86
270.0	1.77	1.77	2.66	3.54	4.43	5.31	7.09	7.97	8.86
285.0	1.77	1.77	2.66	3.54	4.43	5.31	7.09	7.97	8.86
300.0	1.77	1.77	2.66	3.55	4.43	5.32	7.09	7.98	8.87
315.0	1.77	1.77	2.66	3.55	4.43	5.32	7.09	7.98	8.87
330.0	1.77	1.77	2.66	3.55	4.43	5.32	7.09	7.98	8.87
345.0	1.77	1.77	2.66	3.55	4.43	5.32	7.09	7.98	8.87
360.0	1.76	2.63	3.51	4.39	5.27	6.15	7.90	8.78	8.78

Intensity data(cd)

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C/γ(°)	180.0
0.0	9.66
15.0	9.71
30.0	9.73
45.0	8.86
60.0	9.74
75.0	9.74
90.0	9.74
105.0	9.74
120.0	9.75
135.0	9.75
150.0	9.75
165.0	9.75
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	9.66