
乐达凯

Client:

LumCAT: FTNW0436LAJUDBK-3000K

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.020

LampCAT:

Current(A): 0.246

Lamp flux(lm): 1605.4

Power (W): 29.250

Number of Lamps: 1

PF: 0.991

Length(mm): 70

Width(mm): 45

Phm Type: C

Height(mm): 840

Photometric Results

Lumens(lm): 1605.39, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 54.89

Central intensity(cd): 5.563, Maximum intensity(cd): 286.111

Angle of maximum intensity: C=15.0 γ =90.0

Beam Angle(50%Imax): [C0/180]Total=292.0

[C90/270]Total=114.5

Field angle(10%Imax): [C0/180]Total=344.0

[C90/270]Total=163.3

Maximum s/h(1/2): C0_180=9.19 C90_270=12.91

Maximum s/h(1/4): C0_180=8.00 C90_270=12.35

Up flux rate of lamp(%): 50.24%

Down flux rate of lamp(%): 49.76%

Up flux rate of LUM(%): 50.24%

Down flux rate of LUM(%): 49.76%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 18.641%

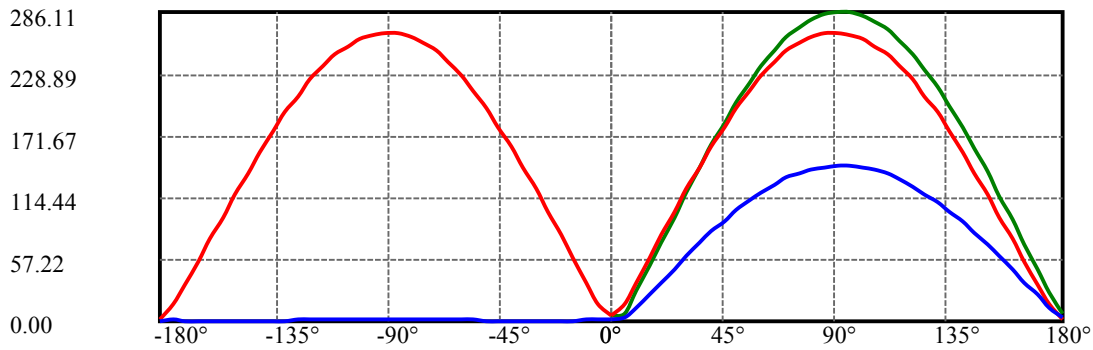
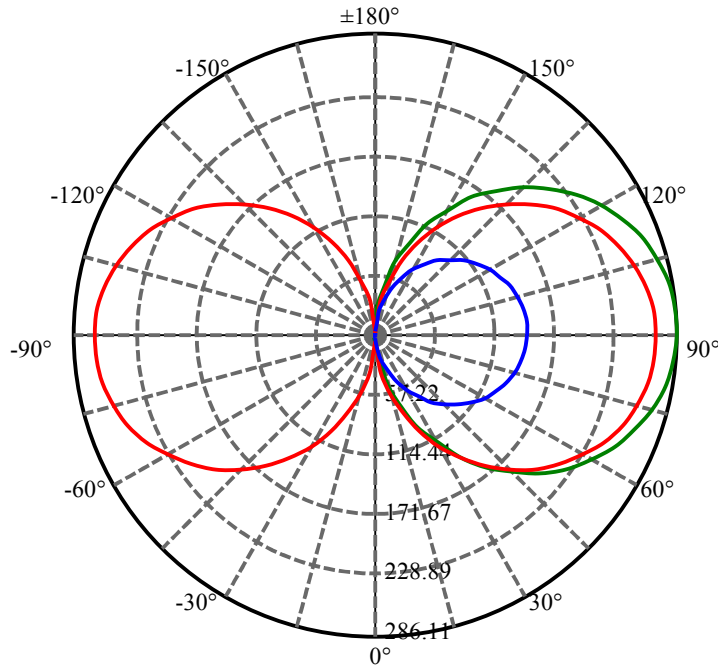
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2.535	0.000	0	0.00%	0.00%
5.0	7.888	0.125	0.125	0.01%	0.01%
10.0	20.385	1.011	1.136	0.06%	0.07%
15.0	33.854	3.217	4.353	0.20%	0.27%
20.0	48.010	6.747	11.1	0.42%	0.69%
25.0	60.840	11.416	22.517	0.71%	1.40%
30.0	73.969	17.060	39.577	1.06%	2.47%
35.0	87.001	23.704	63.281	1.48%	3.94%
40.0	99.569	31.128	94.408	1.94%	5.88%
45.0	111.224	39.030	133.438	2.43%	8.31%
50.0	122.323	47.192	180.63	2.94%	11.25%
55.0	132.312	55.366	235.996	3.45%	14.70%
60.0	141.359	63.258	299.254	3.94%	18.64%
65.0	149.134	70.619	369.874	4.40%	23.04%
70.0	155.799	77.211	447.085	4.81%	27.85%
75.0	160.936	82.789	529.874	5.16%	33.01%
80.0	164.708	87.133	617.007	5.43%	38.43%
85.0	167.037	90.143	707.15	5.62%	44.05%
90.0	167.893	91.706	798.857	5.71%	49.76%
95.0	167.141	91.735	890.591	5.71%	55.48%
100.0	164.943	90.235	980.827	5.62%	61.10%
105.0	161.250	87.280	1068.107	5.44%	66.53%
110.0	156.214	82.980	1151.087	5.17%	71.70%
115.0	149.714	77.463	1228.55	4.83%	76.53%
120.0	142.308	70.991	1299.541	4.42%	80.95%
125.0	133.288	63.703	1363.244	3.97%	84.92%
130.0	123.535	55.842	1419.086	3.48%	88.40%
135.0	112.888	47.773	1466.858	2.98%	91.37%
140.0	101.819	39.755	1506.613	2.48%	93.85%
145.0	89.415	31.906	1538.519	1.99%	95.83%
150.0	76.803	24.477	1562.996	1.52%	97.36%
155.0	63.917	17.808	1580.804	1.11%	98.47%
160.0	51.379	12.092	1592.896	0.75%	99.22%
165.0	37.652	7.337	1600.234	0.46%	99.68%
170.0	24.422	3.682	1603.916	0.23%	99.91%
175.0	11.903	1.299	1605.215	0.08%	99.99%
180.0	2.748	0.175	1605.39	0.01%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	39.58	2.47%	2.47%
0-40	94.41	5.88%	5.88%
0-60	299.25	18.64%	18.64%
0-90	798.86	49.76%	49.76%
0-120	1299.54	80.95%	80.95%
0-180	1605.39	100.00%	100.00%
60-90	499.60	31.12%	31.12%
90-120	500.68	31.19%	31.19%
90-130	620.23	38.63%	38.63%
90-150	764.14	47.60%	47.60%
90-180	806.36	50.23%	50.23%
0-118.93	1284.31	80.00%	80.00%

ZONAL LUMEN SUMMARY

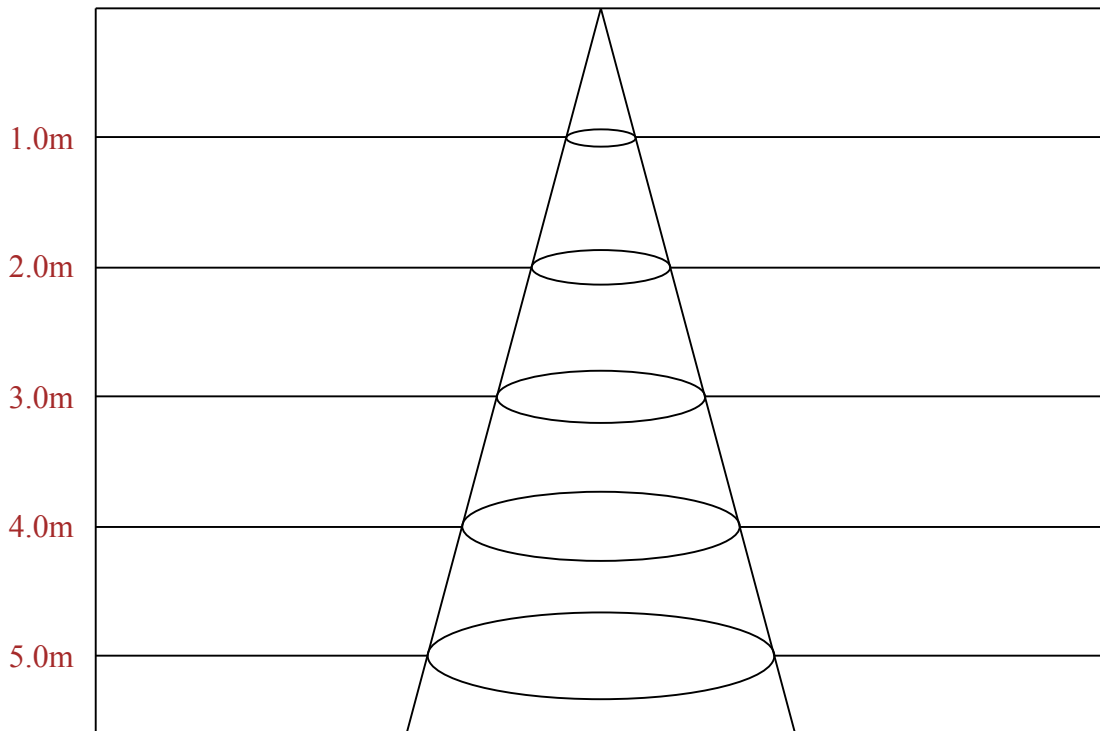
0-10	1.14
10-20	9.96
20-30	28.48
30-40	54.83
40-50	86.22
50-60	118.62
60-70	147.83
70-80	169.92
80-90	181.85
90-100	181.97
100-110	170.26
110-120	148.45
120-130	119.54
130-140	87.53
140-150	56.38
150-160	29.90
160-170	11.02
170-180	1.30



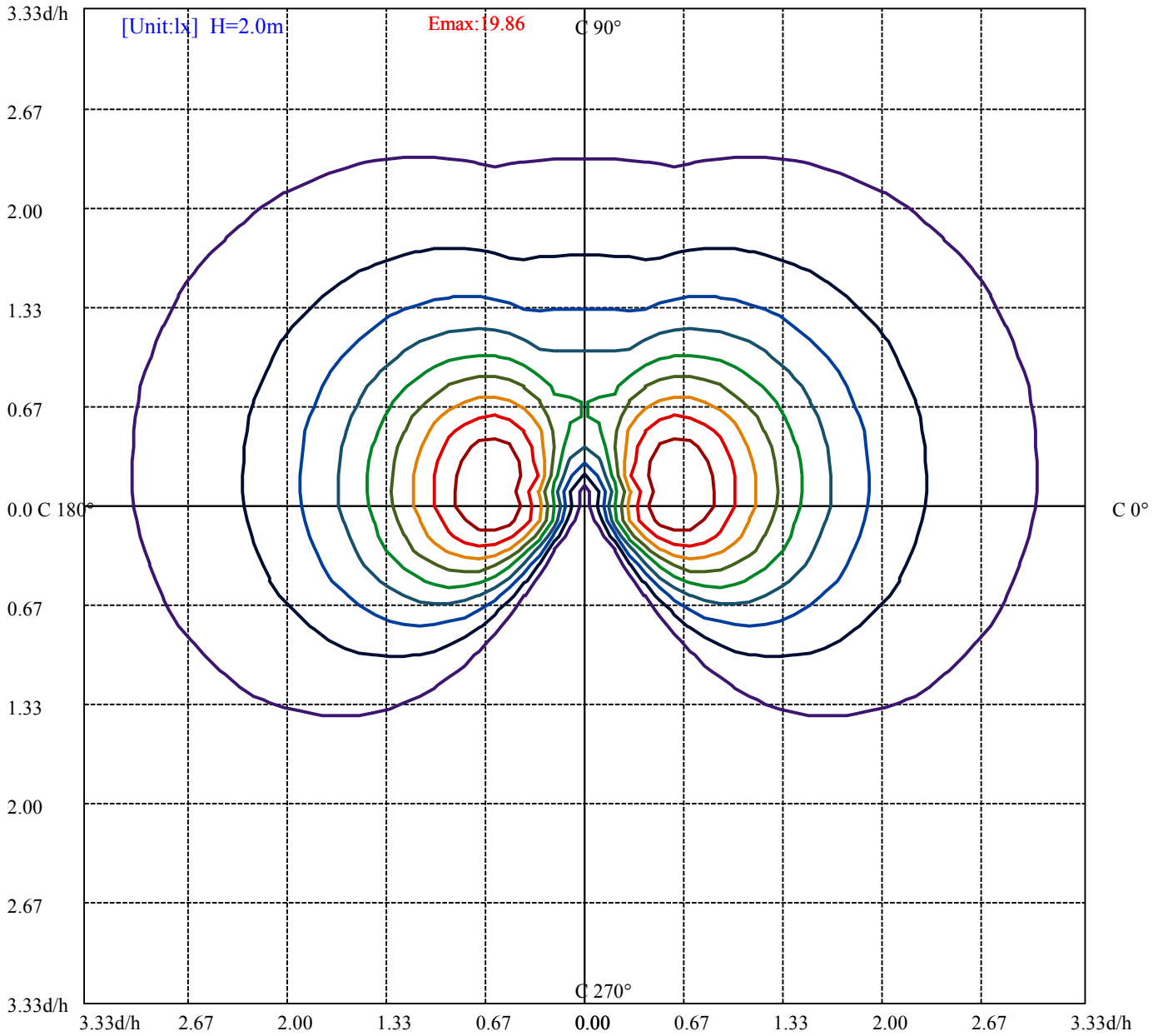
C15(Max): ——
 C0/C180: ——
 C90/C270: ——

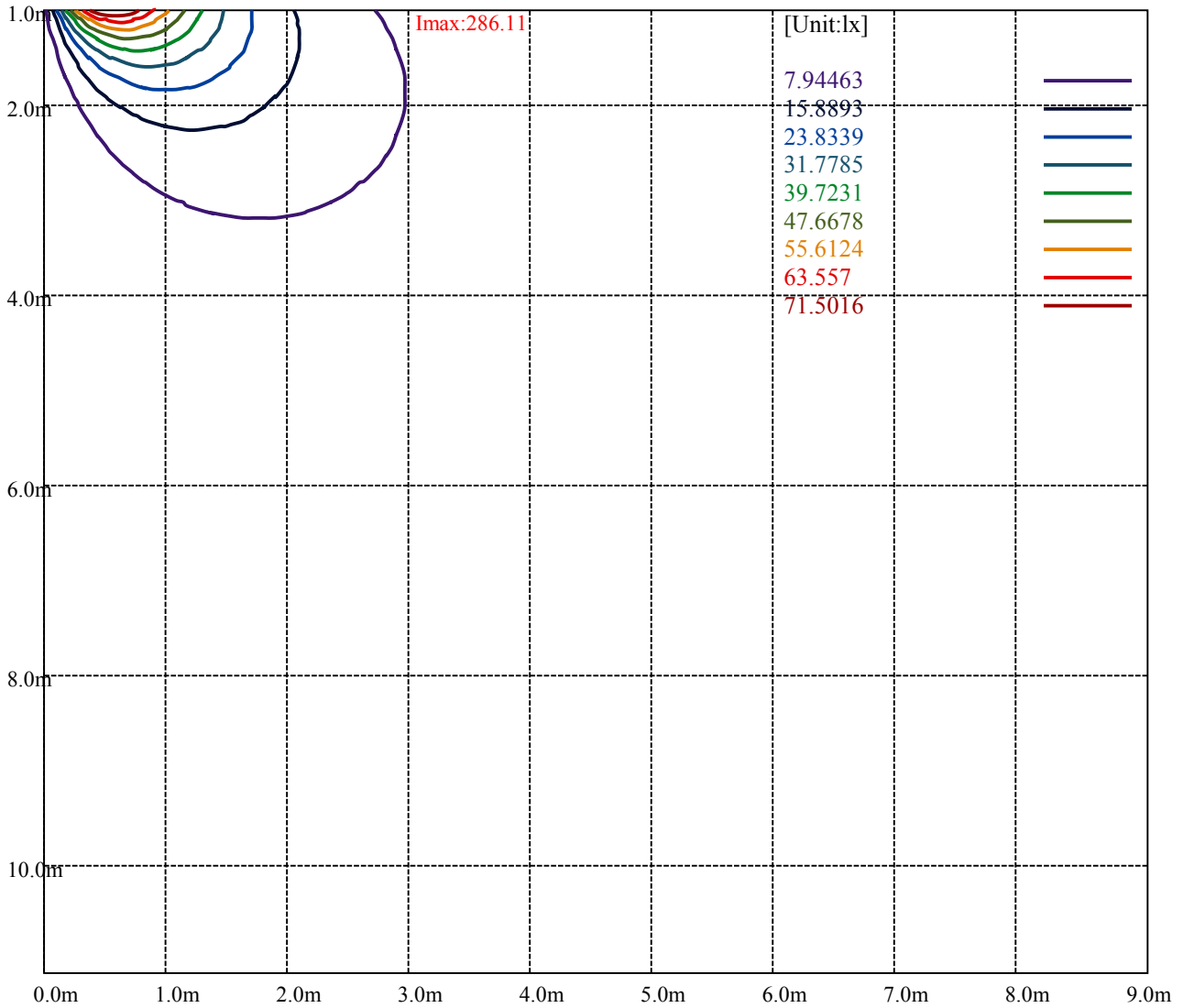
Field angle(10%Imax):C0/180Left:262.0 Right:82.0
 :C90/270Left:79.1 Right:84.2

Beam Angle(50%Imax):C0/180Left:236.0 Right:56.0
 :C90/270Left:55.0 Right:59.5



Max , Ave Beam angle of C15 plane 351.97





乐达凯 FTNW0436LAJUDBK-3000K

Luminance Limiting Curve(no luminous side)

Appendix Page: 8 Total:12

Luminance Table

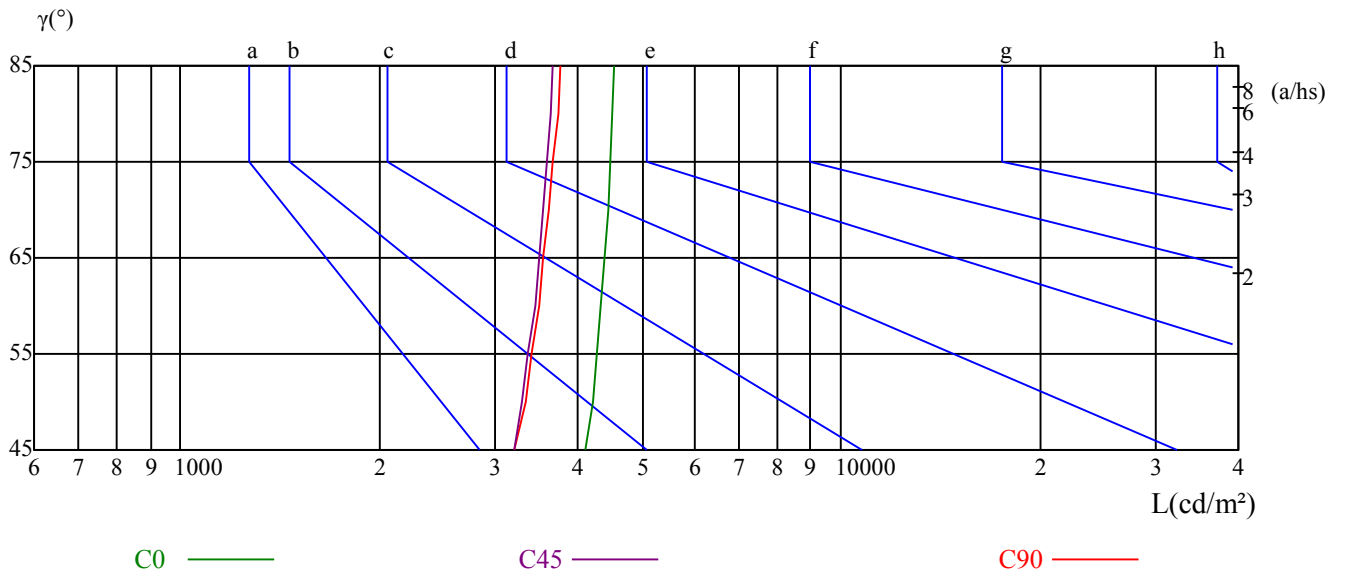
γ	45	50	55	60	65	70	75	80	85
C0	4113	4206	4272	4335	4383	4433	4467	4495	4522
C45	3201	3294	3364	3441	3489	3548	3587	3628	3661
C90	3210	3333	3406	3491	3552	3623	3673	3724	3768

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
179841	47985	115143	315667	85286	203255	969271	264213	627281

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



RHOCC	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	1.07	1.07	1.07	0.99	0.99	0.99	0.83	0.83	0.83	0.69	0.69	0.69	0.56	0.56	0.56	0.50
1	0.85	0.79	0.73	0.78	0.72	0.68	0.64	0.60	0.56	0.52	0.49	0.46	0.40	0.38	0.36	0.30
2	0.71	0.63	0.55	0.65	0.57	0.51	0.53	0.47	0.42	0.42	0.38	0.34	0.32	0.29	0.26	0.21
3	0.61	0.51	0.43	0.55	0.47	0.40	0.45	0.38	0.33	0.35	0.30	0.26	0.27	0.23	0.19	0.15
4	0.52	0.43	0.35	0.48	0.39	0.32	0.39	0.32	0.26	0.30	0.25	0.21	0.23	0.19	0.15	0.11
5	0.46	0.36	0.29	0.42	0.33	0.27	0.34	0.27	0.22	0.27	0.21	0.17	0.20	0.16	0.12	0.09
6	0.41	0.31	0.24	0.37	0.28	0.22	0.30	0.23	0.18	0.24	0.18	0.14	0.18	0.13	0.10	0.07
7	0.36	0.27	0.21	0.33	0.25	0.19	0.27	0.20	0.15	0.21	0.16	0.12	0.16	0.12	0.08	0.06
8	0.33	0.24	0.18	0.30	0.22	0.16	0.24	0.18	0.13	0.19	0.14	0.10	0.14	0.10	0.07	0.05
9	0.29	0.21	0.15	0.27	0.19	0.14	0.22	0.16	0.11	0.17	0.12	0.09	0.13	0.09	0.06	0.04
10	0.27	0.19	0.14	0.24	0.17	0.12	0.20	0.14	0.10	0.16	0.11	0.08	0.12	0.08	0.05	0.03

乐达凯 FTNW0436LAJUDBK-3000K

Appendix Page: 10 Total:12

Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	5.56	8.07	27.18	49.35	69.89	91.24	112.24	132.96	152.97
15.0	4.04	8.16	29.52	52.13	75.27	96.72	119.24	141.67	163.38
30.0	2.24	7.63	29.52	50.78	73.66	95.82	118.07	140.23	160.24
45.0	1.44	7.45	26.38	46.65	66.12	87.56	106.41	126.23	145.43
60.0	1.26	6.55	21.26	38.04	54.82	71.60	87.83	103.09	119.50
75.0	1.26	4.58	15.97	27.81	39.75	51.77	62.89	74.91	85.32
90.0	1.17	3.23	12.29	24.40	36.07	48.27	60.38	72.04	83.17
105.0	1.17	2.87	13.01	25.30	37.68	49.97	62.26	73.21	84.60
120.0	1.26	4.31	18.66	34.81	50.42	66.93	83.17	99.32	114.93
135.0	1.70	4.76	22.61	41.45	62.98	83.17	102.19	122.20	141.58
150.0	3.77	5.20	25.57	48.00	87.92	92.95	115.74	138.17	159.88
165.0	5.56	5.65	26.74	49.61	71.86	96.27	118.25	141.22	164.63
180.0	5.56	24.22	45.40	67.20	89.00	110.44	131.80	152.43	172.17
195.0	4.04	20.10	39.21	57.96	75.81	94.38	112.51	130.00	146.60
210.0	2.24	14.89	28.80	43.15	57.51	71.77	85.50	98.60	111.16
225.0	1.44	6.73	13.82	21.98	29.70	37.59	45.31	52.84	59.93
240.0	1.26	1.17	1.26	1.26	1.35	1.44	1.70	1.97	2.24
255.0	1.26	0.90	0.81	0.72	0.72	0.63	0.63	0.54	0.72
270.0	1.17	1.08	0.90	0.63	0.54	0.45	0.45	0.45	0.54
285.0	1.17	0.90	0.72	0.63	0.54	0.54	0.45	0.54	0.45
300.0	1.26	1.35	1.53	1.61	1.61	1.97	2.15	2.24	2.51
315.0	1.70	8.88	16.42	24.22	31.85	39.48	46.56	53.74	60.02
330.0	3.77	17.67	30.68	44.95	59.84	73.03	86.40	99.32	111.34
345.0	5.56	22.97	41.00	59.84	77.34	96.18	113.13	130.09	146.33
360.0	5.56	8.07	27.18	49.35	69.89	91.24	112.24	132.96	152.97
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	170.64	188.50	204.74	219.27	231.38	242.78	250.94	257.49	261.98
15.0	183.74	202.76	220.44	235.06	248.88	260.72	270.14	277.14	281.89
30.0	181.59	199.35	216.76	232.46	246.28	257.76	266.46	273.46	277.95
45.0	163.56	180.69	195.50	210.48	221.96	232.37	240.53	246.90	250.85
60.0	133.41	148.04	159.88	171.27	181.14	189.48	196.12	200.79	204.02
75.0	95.82	105.69	114.66	122.82	129.37	135.30	140.14	143.64	145.97
90.0	92.95	103.27	111.61	119.77	126.41	132.60	137.09	140.68	142.92
105.0	95.37	105.51	114.75	122.56	130.36	136.01	140.86	144.63	146.96
120.0	129.73	142.74	155.39	166.97	177.10	185.63	192.63	197.83	200.97
135.0	159.97	177.37	193.16	207.52	219.36	230.76	238.65	245.20	249.42
150.0	180.51	199.80	216.58	232.64	246.73	258.75	268.26	275.35	280.37
165.0	183.74	203.57	221.69	238.11	252.38	263.86	273.73	281.09	286.02
180.0	189.66	207.43	222.23	235.87	247.44	256.68	263.77	267.99	270.23
195.0	162.39	176.74	189.66	201.06	210.12	218.46	224.30	228.24	230.13
210.0	122.38	133.23	143.19	151.89	159.43	165.44	170.02	173.16	174.59
225.0	66.57	72.58	78.14	82.99	87.12	90.71	93.49	95.46	96.45
240.0	2.60	3.14	3.68	4.40	4.93	5.47	5.83	6.19	6.55
255.0	0.72	0.90	1.17	1.35	1.53	1.88	1.97	1.97	2.24
270.0	0.54	0.72	0.90	0.99	1.35	1.61	1.97	1.97	2.15
285.0	0.72	0.90	1.17	1.26	1.53	1.79	2.06	2.15	2.24
300.0	2.69	2.96	3.14	3.41	3.68	3.77	4.04	4.13	4.22
315.0	66.21	71.77	76.80	81.11	84.69	88.01	90.17	91.69	92.14
330.0	122.56	132.69	142.38	150.46	157.72	163.47	167.77	170.46	171.63
345.0	161.31	175.40	187.87	198.91	208.33	215.86	221.51	225.37	226.99
360.0	170.64	188.50	204.74	219.27	231.38	242.78	250.94	257.49	261.98

乐达凯 FTNW0436LAJUDBK-3000K

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	264.04	263.14	260.72	254.89	247.80	238.11	227.35	212.90	198.82
15.0	283.87	283.51	280.28	274.54	266.28	255.70	244.03	229.50	213.26
30.0	279.92	279.47	276.24	271.31	263.50	253.10	240.80	226.45	210.57
45.0	252.47	252.20	249.33	244.39	237.21	227.88	217.75	205.01	190.56
60.0	205.28	204.92	203.03	198.46	193.16	185.72	176.74	166.34	155.39
75.0	146.96	146.78	145.25	142.38	138.44	133.23	126.86	119.95	111.79
90.0	144.09	143.82	142.47	139.87	136.28	130.99	125.25	118.07	110.53
105.0	148.30	147.95	146.60	143.91	139.96	134.85	128.57	121.75	113.40
120.0	202.58	202.49	200.61	196.93	191.37	184.82	176.12	166.16	154.76
135.0	251.66	251.39	249.15	244.39	237.48	228.33	218.37	204.83	191.64
150.0	282.52	282.25	279.47	274.09	267.00	256.68	244.57	230.31	214.34
165.0	288.35	288.53	285.21	280.37	272.47	261.98	249.42	235.69	218.64
180.0	269.87	267.18	262.16	254.71	245.02	233.63	219.54	204.47	187.42
195.0	230.58	227.79	223.31	216.94	208.86	198.91	187.42	174.14	160.06
210.0	174.86	173.07	169.84	165.17	158.89	151.35	142.74	132.69	121.75
225.0	96.90	95.91	94.29	91.78	88.46	84.25	83.26	74.02	67.83
240.0	6.73	6.82	6.91	6.82	6.55	6.28	5.83	5.38	4.93
255.0	2.24	2.24	2.15	2.06	1.97	1.61	1.26	1.17	0.90
270.0	2.15	2.15	1.97	1.88	1.61	1.44	1.17	0.99	0.72
285.0	2.24	2.15	2.15	2.06	1.70	1.44	1.08	0.90	0.54
300.0	4.13	4.04	3.86	3.68	3.32	2.96	2.60	2.15	1.70
315.0	92.05	90.71	88.73	85.95	82.36	77.97	73.12	67.38	61.37
330.0	171.27	169.21	165.71	160.42	154.58	147.05	138.26	128.39	118.07
345.0	226.36	223.67	219.18	212.99	204.83	194.87	183.29	170.29	155.84
360.0	264.04	263.14	260.72	254.89	247.80	238.11	227.35	212.90	198.82

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	182.22	164.18	145.16	126.41	105.15	85.14	63.79	42.89	22.70
15.0	195.41	175.94	156.65	135.47	113.40	91.06	69.17	46.20	25.57
30.0	194.06	175.13	155.12	134.04	113.58	91.60	68.99	46.65	24.94
45.0	174.95	158.62	139.69	121.84	102.46	82.54	62.26	42.89	23.06
60.0	142.65	129.10	114.57	99.32	84.25	68.10	51.41	34.81	18.57
75.0	102.64	92.86	82.45	72.22	60.83	49.08	37.14	25.75	14.09
90.0	101.11	92.14	81.91	71.06	60.20	48.45	36.43	24.31	12.47
105.0	104.34	94.47	84.42	72.85	61.82	50.06	38.58	26.11	15.07
120.0	142.29	129.64	115.29	100.13	84.42	69.08	52.93	36.69	20.55
135.0	176.12	159.25	141.31	123.27	102.91	84.07	64.15	45.22	24.58
150.0	196.84	177.91	158.71	137.63	115.83	93.67	72.31	49.79	27.90
165.0	201.78	182.49	161.94	140.14	118.79	96.09	73.21	50.42	29.34
180.0	169.12	149.56	130.18	108.20	87.74	66.48	46.03	25.84	7.98
195.0	144.45	128.03	110.71	92.59	75.27	70.25	38.85	22.34	2.60
210.0	109.99	107.12	84.60	70.88	57.06	43.87	29.97	15.70	1.08
225.0	61.37	54.37	47.28	39.66	32.12	24.31	16.87	7.18	1.08
240.0	4.49	4.13	3.77	3.41	3.05	2.69	2.06	1.26	0.99
255.0	0.81	0.72	0.72	0.72	0.72	0.81	0.90	0.72	1.08
270.0	0.63	0.63	0.54	0.54	0.63	0.72	0.72	0.81	1.17
285.0	0.45	0.45	0.54	0.45	0.54	0.54	0.63	0.81	1.17
300.0	1.44	1.17	1.17	0.99	0.90	0.81	0.90	1.08	1.35
315.0	54.73	47.82	41.00	33.91	26.65	19.38	12.38	5.02	1.61
330.0	106.41	93.85	80.75	67.74	53.74	40.46	26.74	13.91	2.69
345.0	141.04	124.08	107.48	89.81	71.95	53.83	37.23	19.74	4.04
360.0	182.22	164.18	145.16	126.41	105.15	85.14	63.79	42.89	22.70

Intensity data(cd)

C/γ(°)	180.0
0.0	4.40
15.0	5.47
30.0	6.01
45.0	5.20
60.0	3.95
75.0	3.41
90.0	3.32
105.0	4.67
120.0	5.83
135.0	7.36
150.0	7.90
165.0	8.43
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	4.40