
乐达凯

Client:

LumCAT: VRNP2X4LAJUDLB

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 120.020

LampCAT:

Current(A): 0.329

Lamp flux(lm): 3281.9

Power (W): 39.080

Number of Lamps: 1

PF: 0.991

Length(mm): 740

Width(mm): 180

Phm Type: C

Height(mm): 180

Photometric Results

Lumens(lm): 3281.89, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 83.98

Central intensity(cd): 407.321, Maximum intensity(cd): 407.321

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=N.A.

[C90/270]Total=N.A.

Field angle(10%Imax): [C0/180]Total=N.A.

[C90/270]Total=N.A.

Maximum s/h(1/2): C0_180=1.29 C90_270=1.10

Maximum s/h(1/4): C0_180=1.47 C90_270=1.24

Up flux rate of lamp(%): 47.99%

Down flux rate of lamp(%): 52.01%

Up flux rate of LUM(%): 47.99%

Down flux rate of LUM(%): 52.01%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 28.964%

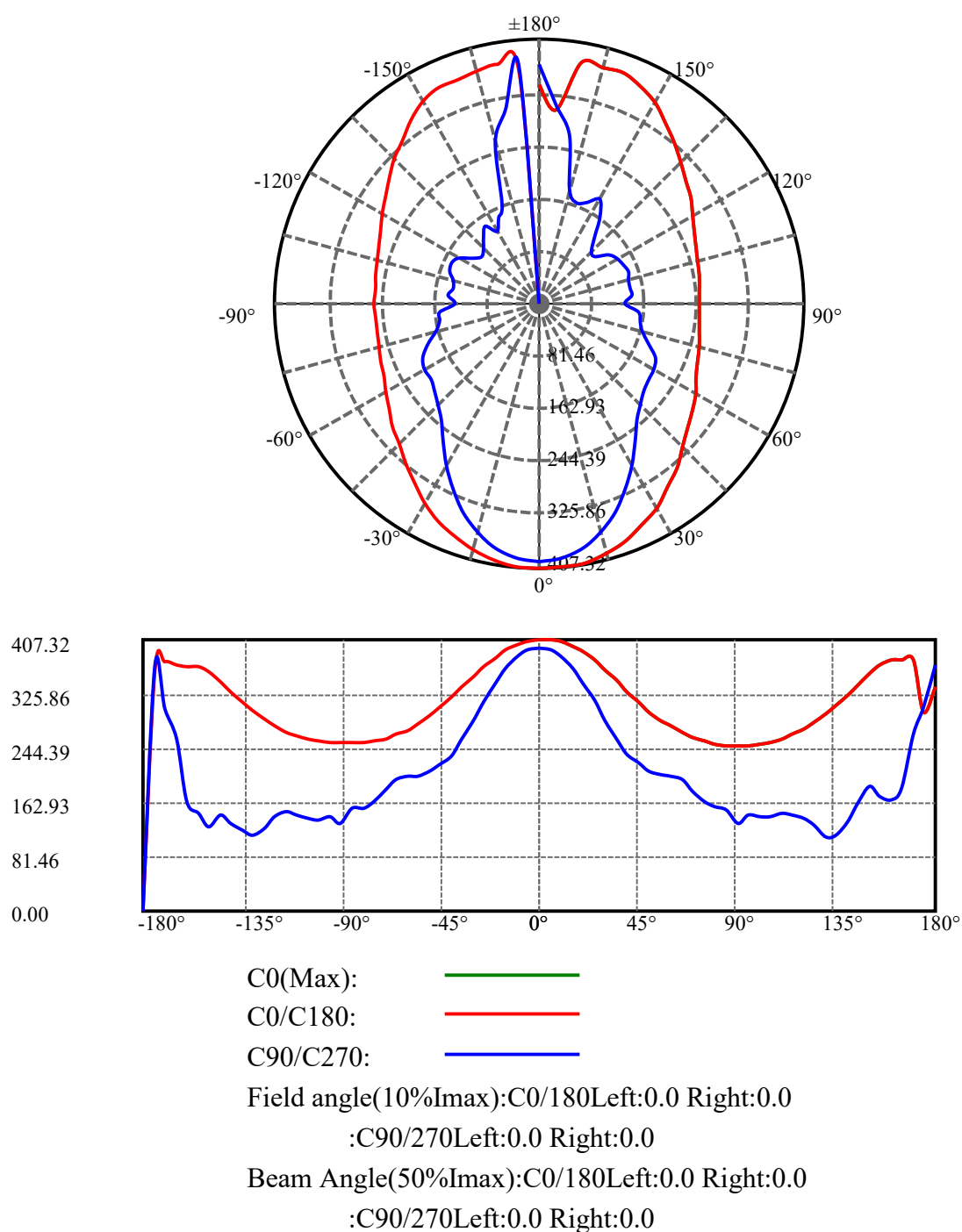
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	399.022	0.000	0	0.00%	0.00%
5.0	396.891	9.515	9.515	0.29%	0.29%
10.0	389.714	28.139	37.654	0.86%	1.15%
15.0	378.050	45.543	83.197	1.39%	2.54%
20.0	363.359	61.103	144.3	1.86%	4.40%
25.0	345.752	74.373	218.673	2.27%	6.66%
30.0	327.472	85.197	303.869	2.60%	9.26%
35.0	308.182	93.604	397.474	2.85%	12.11%
40.0	292.594	100.235	497.709	3.05%	15.17%
45.0	279.584	105.943	603.652	3.23%	18.39%
50.0	269.828	111.017	714.669	3.38%	21.78%
55.0	262.575	115.762	830.431	3.53%	25.30%
60.0	257.230	120.151	950.582	3.66%	28.96%
65.0	252.220	123.848	1074.431	3.77%	32.74%
70.0	245.940	126.137	1200.568	3.84%	36.58%
75.0	239.772	126.957	1327.525	3.87%	40.45%
80.0	235.510	127.172	1454.698	3.87%	44.32%
85.0	230.912	126.738	1581.436	3.86%	48.19%
90.0	227.548	125.530	1706.966	3.82%	52.01%
95.0	227.996	124.732	1831.697	3.80%	55.81%
100.0	228.819	124.128	1955.825	3.78%	59.59%
105.0	232.931	123.551	2079.376	3.76%	63.36%
110.0	237.080	122.853	2202.23	3.74%	67.10%
115.0	240.669	120.969	2323.199	3.69%	70.79%
120.0	242.800	117.532	2440.731	3.58%	74.37%
125.0	243.323	112.366	2553.097	3.42%	77.79%
130.0	246.426	106.488	2659.585	3.24%	81.04%
135.0	254.052	101.129	2760.714	3.08%	84.12%
140.0	265.379	96.177	2856.891	2.93%	87.05%
145.0	278.575	90.755	2947.646	2.77%	89.82%
150.0	289.117	83.597	3031.242	2.55%	92.36%
155.0	294.500	73.857	3105.099	2.25%	94.61%
160.0	294.799	61.807	3166.906	1.88%	96.50%
165.0	303.883	49.340	3216.246	1.50%	98.00%
170.0	315.360	36.733	3252.979	1.12%	99.12%
175.0	326.836	22.973	3275.952	0.70%	99.82%
180.0	169.941	5.939	3281.891	0.18%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	303.87	9.26%	9.26%
0-40	497.71	15.17%	15.17%
0-60	950.58	28.96%	28.96%
0-90	1706.97	52.01%	52.01%
0-120	2440.73	74.37%	74.37%
0-180	3281.89	100.00%	100.00%
60-90	756.38	23.05%	23.05%
90-120	733.77	22.36%	22.36%
90-130	952.62	29.03%	29.03%
90-150	1324.28	40.35%	40.35%
90-180	1568.99	47.81%	47.81%
0-128.40	2625.51	80.00%	80.00%

ZONAL LUMEN SUMMARY

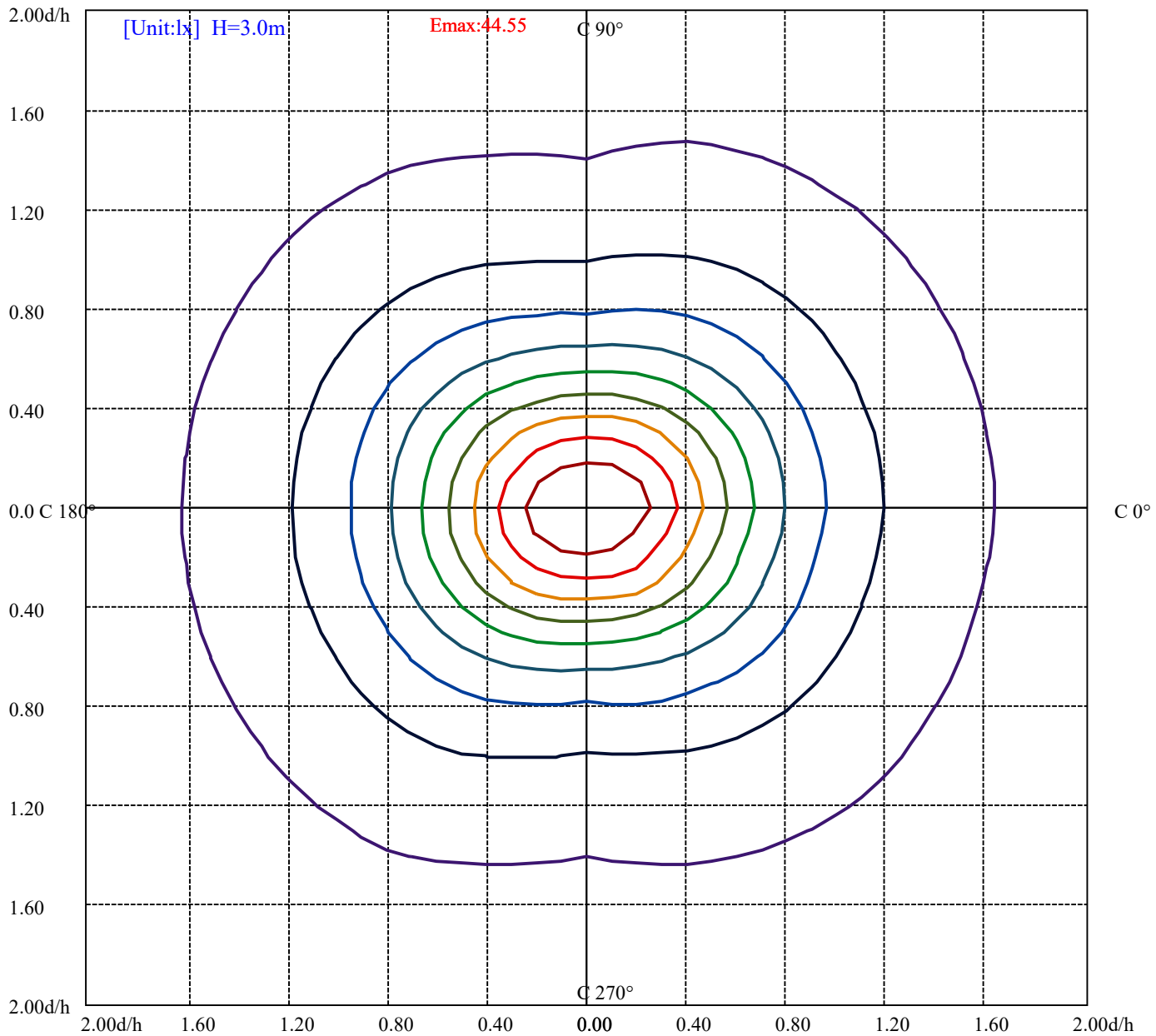
0-10	37.65
10-20	106.65
20-30	159.57
30-40	193.84
40-50	216.96
50-60	235.91
60-70	249.99
70-80	254.13
80-90	252.27
90-100	248.86
100-110	246.40
110-120	238.50
120-130	218.85
130-140	197.31
140-150	174.35
150-160	135.66
160-170	86.07
170-180	22.97



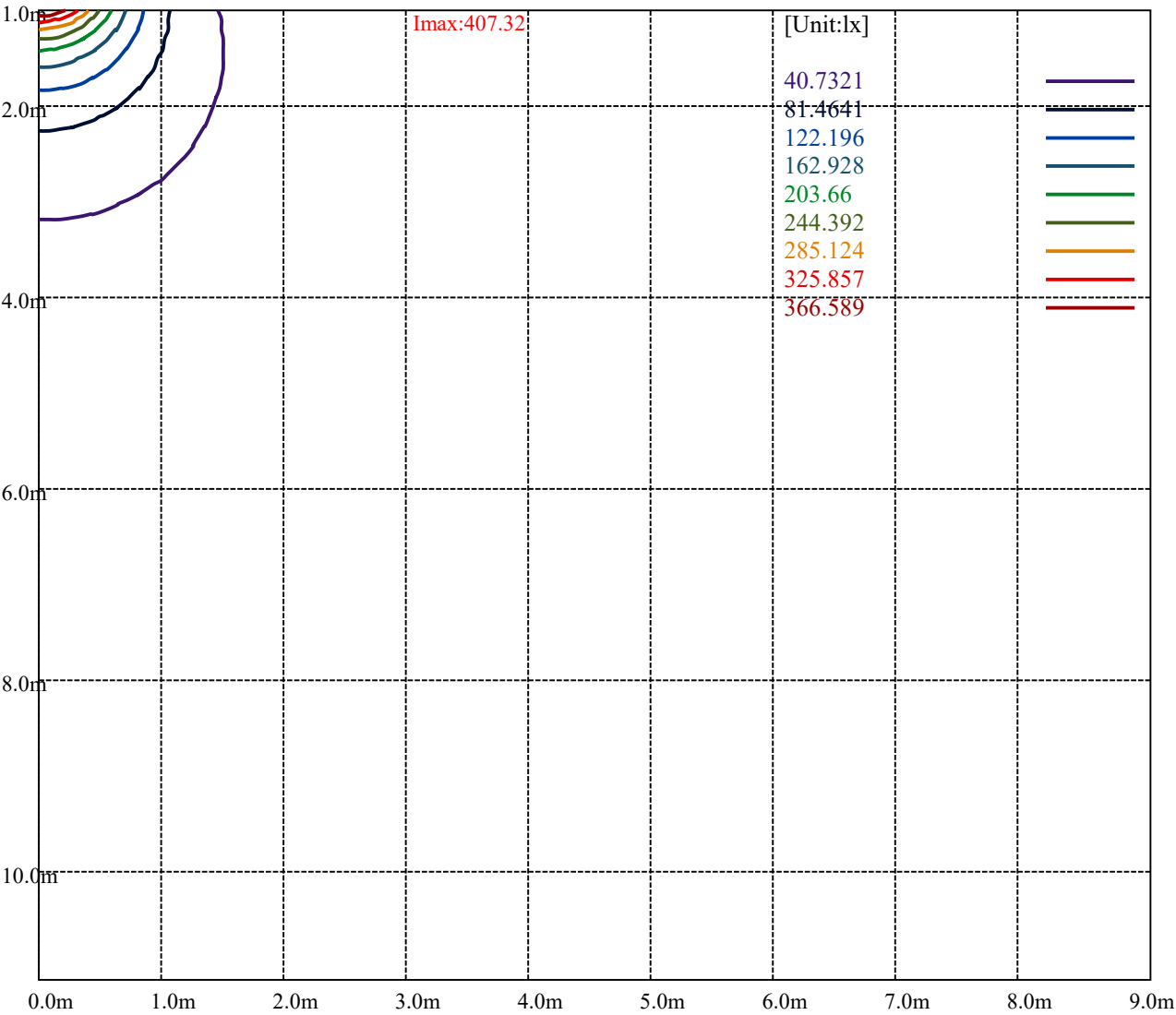


Max , Ave

Beam angle of C0 plane 180.00



(10%Emax) 4.454534	—
(20%Emax) 8.909067	—
(30%Emax) 13.36356	—
(40%Emax) 17.81811	—
(50%Emax) 22.27267	—
(60%Emax) 26.72722	—
(70%Emax) 31.18167	—
(80%Emax) 35.63622	—
(90%Emax) 40.09077	—



Luminance Table

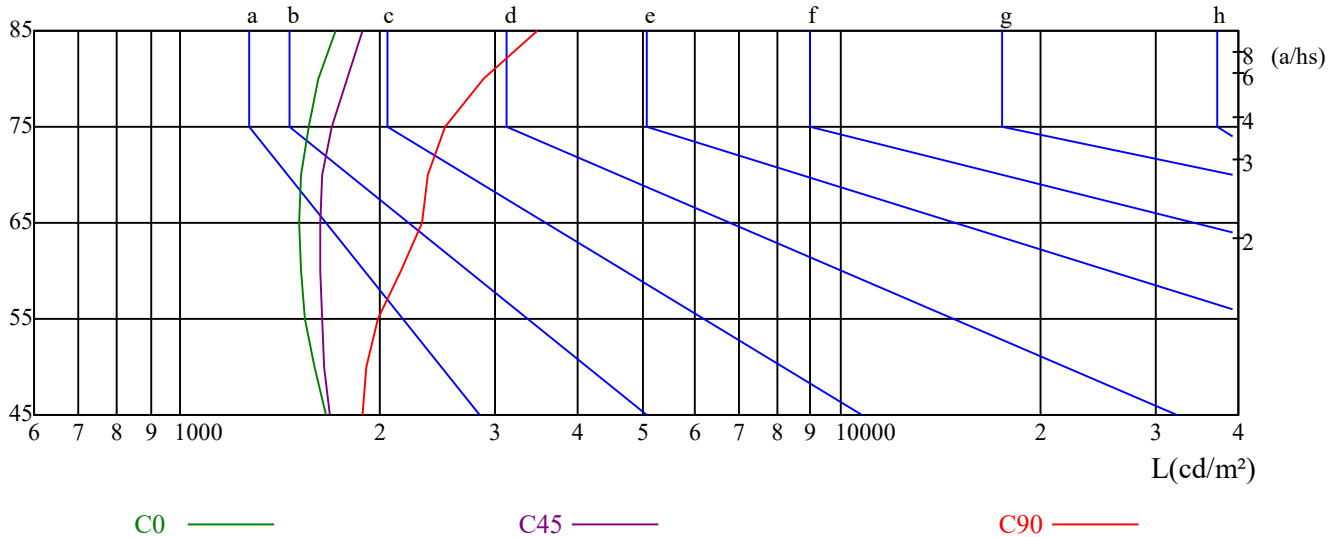
γ	45	50	55	60	65	70	75	80	85
C0	1662	1597	1548	1524	1510	1524	1562	1622	1716
C45	1688	1653	1640	1629	1624	1643	1690	1782	1889
C90	1892	1909	1987	2152	2315	2373	2510	2869	3475

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4726	3506	4654	7391	4788	7228	21523	13177	20808

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	1.08	1.08	1.08	1.00	1.00	1.00	0.84	0.84	0.84	0.71	0.71	0.71	0.58	0.58	0.58	0.52
1	0.89	0.84	0.79	0.82	0.77	0.73	0.69	0.65	0.62	0.57	0.54	0.52	0.46	0.44	0.42	0.36
2	0.76	0.68	0.62	0.70	0.63	0.57	0.58	0.53	0.49	0.48	0.44	0.41	0.38	0.35	0.33	0.28
3	0.66	0.57	0.50	0.60	0.53	0.47	0.51	0.45	0.40	0.41	0.37	0.33	0.33	0.30	0.27	0.22
4	0.58	0.49	0.42	0.53	0.45	0.39	0.44	0.38	0.33	0.36	0.32	0.28	0.29	0.25	0.22	0.19
5	0.51	0.42	0.35	0.47	0.39	0.33	0.39	0.33	0.28	0.32	0.27	0.24	0.26	0.22	0.19	0.16
6	0.45	0.37	0.30	0.42	0.34	0.28	0.35	0.29	0.24	0.29	0.24	0.20	0.23	0.20	0.16	0.13
7	0.41	0.32	0.26	0.38	0.30	0.25	0.32	0.26	0.21	0.26	0.21	0.18	0.21	0.17	0.14	0.12
8	0.37	0.29	0.23	0.34	0.27	0.22	0.29	0.23	0.19	0.24	0.19	0.16	0.20	0.16	0.13	0.10
9	0.34	0.26	0.20	0.31	0.24	0.19	0.27	0.21	0.17	0.22	0.17	0.14	0.18	0.14	0.11	0.09
10	0.31	0.23	0.18	0.29	0.22	0.17	0.24	0.19	0.15	0.20	0.16	0.13	0.17	0.13	0.10	0.08

乐达凯 VRNP2X4LAJUDLB

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	407.32	407.32	404.63	397.45	388.48	375.92	362.46	345.42	329.27
15.0	404.63	403.73	400.14	393.86	383.99	372.33	358.87	342.72	326.57
30.0	401.94	400.14	395.66	387.58	376.82	365.15	351.70	337.34	322.09
45.0	399.25	397.45	390.27	380.41	366.95	351.70	337.34	322.09	308.63
60.0	398.35	395.66	387.58	374.12	357.08	338.24	318.50	300.56	285.30
75.0	396.55	392.97	383.10	366.95	348.11	322.99	300.56	276.33	258.39
90.0	395.66	392.07	381.30	364.26	341.83	315.81	287.10	257.49	235.06
105.0	395.66	392.07	381.30	364.26	342.72	318.50	292.48	266.46	244.93
120.0	397.45	393.86	383.99	369.64	350.80	330.16	308.63	288.89	273.64
135.0	396.55	396.55	387.58	375.92	361.56	344.52	329.27	312.22	298.76
150.0	396.55	394.76	389.38	381.30	360.67	357.98	344.52	330.16	315.81
165.0	398.35	396.55	392.97	385.79	376.82	366.05	351.70	336.44	319.40
180.0	407.32	405.53	400.14	392.07	380.41	367.84	352.59	335.55	320.29
195.0	404.63	402.83	398.35	390.27	380.41	367.84	353.49	337.34	321.19
210.0	401.94	399.25	394.76	385.79	375.02	362.46	348.11	332.85	318.50
225.0	399.25	397.45	391.17	380.41	368.74	352.59	338.24	321.19	309.53
240.0	398.35	395.66	386.69	374.12	357.08	338.24	318.50	300.56	287.10
255.0	396.55	394.76	383.99	367.84	347.21	323.88	300.56	275.43	256.59
270.0	395.66	392.97	382.20	364.26	341.83	314.91	286.20	257.49	233.27
285.0	395.66	392.97	382.20	366.05	343.62	318.50	292.48	265.57	258.39
300.0	397.45	394.76	386.69	371.43	366.95	331.96	309.53	288.89	272.74
315.0	396.55	396.55	389.38	376.82	362.46	345.42	328.37	310.43	297.86
330.0	396.55	394.76	388.48	379.51	367.84	354.39	341.83	326.57	313.12
345.0	398.35	394.76	391.17	383.10	373.23	360.67	346.31	328.37	315.81
360.0	407.32	407.32	404.63	397.45	388.48	375.92	362.46	345.42	329.27

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	313.12	299.66	287.10	277.23	267.36	260.18	254.80	250.31	247.62
15.0	311.32	297.86	287.10	275.43	266.46	259.29	253.01	249.42	246.73
30.0	310.43	296.97	285.30	274.54	265.57	258.39	252.11	248.52	244.03
45.0	298.76	289.79	282.61	273.64	263.77	255.70	249.42	246.73	242.24
60.0	275.43	269.15	265.57	261.98	261.08	253.90	244.93	245.83	240.44
75.0	247.62	242.24	241.34	242.24	245.83	242.24	235.96	234.16	230.58
90.0	221.60	210.84	204.56	203.66	198.28	180.33	165.08	157.90	152.52
105.0	231.47	224.30	222.50	225.19	228.78	230.58	228.78	218.02	205.45
120.0	263.77	257.49	254.80	254.80	254.80	251.21	246.73	242.24	236.86
135.0	288.00	280.82	274.54	268.26	259.29	252.11	246.73	242.24	239.55
150.0	303.25	291.58	279.02	269.15	260.18	252.11	247.62	243.14	240.44
165.0	305.94	292.48	280.82	270.05	261.98	254.80	249.42	246.73	245.83
180.0	305.94	293.38	281.72	271.85	264.67	258.39	254.80	253.01	252.11
195.0	306.84	293.38	281.72	271.85	263.77	256.59	253.01	250.31	248.52
210.0	304.14	291.58	281.72	271.85	263.77	255.70	250.31	245.83	243.14
225.0	298.76	289.79	279.92	270.95	263.77	256.59	251.21	246.73	243.14
240.0	276.33	271.85	267.36	265.57	261.98	253.90	246.73	238.65	229.68
255.0	242.24	232.37	227.88	229.68	232.37	229.68	226.09	222.50	199.17
270.0	219.81	209.04	203.66	202.76	196.48	183.03	165.08	154.32	153.42
285.0	233.27	226.99	227.88	232.37	236.86	240.44	237.75	236.86	232.37
300.0	261.98	255.70	253.90	253.90	253.90	253.01	245.83	241.34	238.65
315.0	288.00	279.92	274.54	269.15	261.08	254.80	249.42	244.93	241.34
330.0	300.56	288.89	278.13	268.26	260.18	254.80	249.42	245.83	244.03
345.0	301.45	289.79	278.13	269.15	261.08	254.80	250.31	246.73	244.03
360.0	313.12	299.66	287.10	277.23	267.36	260.18	254.80	250.31	247.62

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	246.73	247.62	249.42	253.01	257.49	264.67	273.64	284.41	296.07
15.0	246.73	246.73	249.42	253.01	256.59	263.77	272.74	282.61	294.28
30.0	243.14	246.73	249.42	251.21	256.59	263.77	271.85	281.72	292.48
45.0	241.34	244.03	248.52	251.21	254.80	263.77	274.54	283.51	292.48
60.0	239.55	242.24	244.03	249.42	253.01	257.49	268.26	271.85	278.13
75.0	228.78	226.99	224.30	226.99	226.99	220.71	219.81	208.15	183.92
90.0	131.89	144.45	141.75	142.65	146.24	143.55	138.17	130.09	112.15
105.0	191.10	181.23	184.82	200.07	199.17	194.69	172.26	161.49	168.67
120.0	238.65	235.06	242.24	244.03	239.55	231.47	222.50	218.02	221.60
135.0	238.65	239.55	242.24	246.73	251.21	256.59	266.46	272.74	278.13
150.0	239.55	241.34	244.03	247.62	253.01	260.18	269.15	279.02	290.69
165.0	244.93	244.93	247.62	250.31	254.80	260.18	268.26	278.13	289.79
180.0	253.01	253.90	255.70	258.39	262.87	269.15	278.13	288.00	300.56
195.0	247.62	248.52	250.31	253.90	258.39	265.57	274.54	284.41	296.07
210.0	242.24	243.14	244.93	249.42	254.80	256.59	263.77	271.85	284.41
225.0	242.24	242.24	243.14	246.73	251.21	249.42	249.42	251.21	247.62
240.0	228.78	221.60	218.91	227.88	236.86	243.14	233.27	218.02	207.25
255.0	187.51	179.44	170.46	176.74	193.79	199.17	196.48	183.03	173.16
270.0	130.99	141.75	135.47	138.17	145.34	148.93	142.65	122.91	114.84
285.0	230.58	228.78	226.99	229.68	222.50	220.71	203.66	178.54	169.57
300.0	237.75	239.55	239.55	242.24	245.83	251.21	252.11	251.21	253.01
315.0	240.44	242.24	243.14	246.73	253.90	261.08	269.15	272.74	279.02
330.0	244.03	244.03	246.73	251.21	256.59	263.77	271.85	281.72	294.28
345.0	244.93	245.83	248.52	253.01	258.39	266.46	274.54	284.41	296.07
360.0	246.73	247.62	249.42	253.01	257.49	264.67	273.64	284.41	296.07
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	309.53	323.88	340.03	356.18	370.54	377.71	376.82	376.82	299.66
15.0	307.73	321.19	338.24	355.28	369.64	375.02	374.12	375.02	375.02
30.0	305.04	319.40	335.55	353.49	366.95	370.54	372.33	374.12	375.92
45.0	301.45	310.43	325.68	340.03	349.00	349.00	354.39	355.28	361.56
60.0	276.33	279.92	286.20	296.07	293.38	294.28	312.22	314.91	333.75
75.0	175.85	184.82	197.38	205.45	189.31	187.51	208.15	270.05	310.43
90.0	113.94	134.58	161.49	186.61	173.16	166.88	183.92	264.67	306.84
105.0	185.72	211.74	235.06	258.39	244.93	202.76	214.43	248.52	292.48
120.0	240.44	257.49	270.05	287.10	307.73	261.98	241.34	243.14	285.30
135.0	286.20	296.97	311.32	324.78	334.65	339.13	279.92	247.62	267.36
150.0	304.14	316.71	331.96	347.21	354.39	357.98	357.08	294.28	235.06
165.0	303.25	317.60	333.75	350.80	362.46	365.15	366.05	366.05	293.38
180.0	314.91	328.37	344.52	359.77	366.95	367.84	370.54	375.02	359.77
195.0	305.94	319.40	327.47	337.34	343.62	344.52	356.18	325.68	219.81
210.0	288.89	288.89	293.38	304.14	314.01	326.57	279.92	226.09	286.20
225.0	245.83	244.93	249.42	262.87	280.82	238.65	221.60	268.26	335.55
240.0	201.87	206.35	218.02	235.06	202.76	208.15	227.88	282.61	365.15
255.0	173.16	178.54	192.89	175.85	161.49	183.03	253.90	294.28	367.84
270.0	122.02	131.89	144.45	127.40	146.24	163.29	258.39	303.25	366.95
285.0	169.57	180.33	178.54	162.39	182.13	203.66	268.26	312.22	366.95
300.0	259.29	271.85	281.72	284.41	296.97	317.60	323.88	342.72	366.05
315.0	290.69	300.56	314.01	324.78	334.65	346.31	356.18	364.26	369.64
330.0	305.94	318.50	333.75	347.21	355.28	358.87	365.15	370.54	368.74
345.0	309.53	324.78	340.93	356.18	366.95	368.74	370.54	373.23	334.65
360.0	309.53	323.88	340.03	356.18	370.54	377.71	376.82	376.82	299.66

Intensity data(cd)

C/ $\gamma(^{\circ})$	180.0
0.0	336.44
15.0	310.43
30.0	372.33
45.0	375.02
60.0	373.23
75.0	370.54
90.0	369.64
105.0	367.84
120.0	355.28
135.0	331.06
150.0	299.66
165.0	217.12
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	336.44