
乐达凯

Client:

LumCAT: VRNP3X6LAJUDBK

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 119.980

LampCAT:

Current(A): 0.471

Lamp flux(lm): 4429.2

Power (W): 55.890

Number of Lamps: 1

PF: 0.990

Length(mm): 740

Width(mm): 180

Phm Type: C

Height(mm): 440

Photometric Results

Lumens(lm): 4429.21, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 79.25

Central intensity(cd): 459.357, Maximum intensity(cd): 488.516

Angle of maximum intensity: C=15.0 γ =150.0

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=1.52 C90_270=1.30

Maximum s/h(1/4): C0_180=1.65 C90_270=1.39

Up flux rate of lamp(%): 48.23%

Down flux rate of lamp(%): 51.77%

Up flux rate of LUM(%): 48.23%

Down flux rate of LUM(%): 51.77%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 28.266%

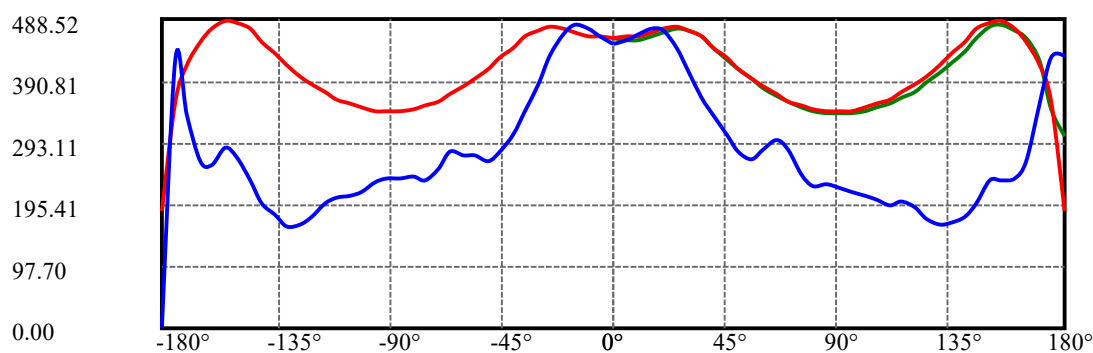
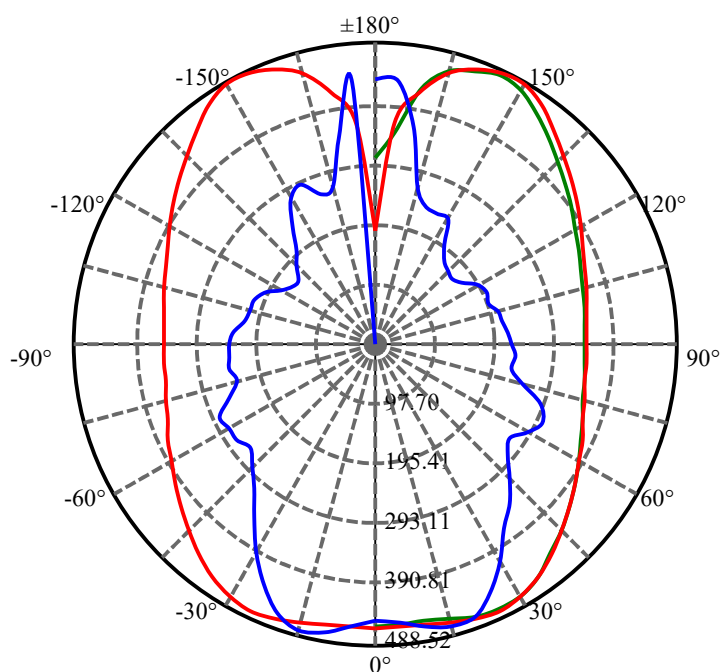
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	452.180	0.000	0	0.00%	0.00%
5.0	455.993	10.857	10.857	0.25%	0.25%
10.0	463.282	32.885	43.742	0.74%	0.99%
15.0	469.974	55.360	99.102	1.25%	2.24%
20.0	469.077	77.391	176.493	1.75%	3.98%
25.0	457.563	97.187	273.681	2.19%	6.18%
30.0	438.161	113.355	387.035	2.56%	8.74%
35.0	413.713	125.444	512.48	2.83%	11.57%
40.0	391.134	134.283	646.763	3.03%	14.60%
45.0	372.742	141.438	788.2	3.19%	17.80%
50.0	359.658	147.992	936.192	3.34%	21.14%
55.0	351.135	154.550	1090.742	3.49%	24.63%
60.0	346.424	161.239	1251.981	3.64%	28.27%
65.0	342.985	167.597	1419.578	3.78%	32.05%
70.0	337.266	172.244	1591.822	3.89%	35.94%
75.0	330.387	174.514	1766.336	3.94%	39.88%
80.0	325.453	175.485	1941.82	3.96%	43.84%
85.0	321.565	175.810	2117.631	3.97%	47.81%
90.0	319.023	175.398	2293.029	3.96%	51.77%
95.0	318.275	174.497	2467.526	3.94%	55.71%
100.0	318.612	173.058	2640.583	3.91%	59.62%
105.0	320.070	170.893	2811.477	3.86%	63.48%
110.0	321.602	167.723	2979.2	3.79%	67.26%
115.0	322.948	163.204	3142.404	3.68%	70.95%
120.0	323.322	157.110	3299.513	3.55%	74.49%
125.0	324.294	149.695	3449.208	3.38%	77.87%
130.0	330.724	142.423	3591.631	3.22%	81.09%
135.0	343.658	136.269	3727.899	3.08%	84.17%
140.0	360.742	130.425	3858.325	2.94%	87.11%
145.0	384.966	124.416	3982.741	2.81%	89.92%
150.0	406.536	116.554	4099.295	2.63%	92.55%
155.0	408.853	103.188	4202.483	2.33%	94.88%
160.0	393.601	84.163	4286.646	1.90%	96.78%
165.0	377.303	63.533	4350.179	1.43%	98.22%
170.0	376.929	44.740	4394.919	1.01%	99.23%
175.0	386.835	27.322	4422.242	0.62%	99.84%
180.0	196.109	6.969	4429.21	0.16%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	387.04	8.74%	8.74%
0-40	646.76	14.60%	14.60%
0-60	1251.98	28.27%	28.27%
0-90	2293.03	51.77%	51.77%
0-120	3299.51	74.49%	74.49%
0-180	4429.21	100.00%	100.00%
60-90	1041.05	23.50%	23.50%
90-120	1006.48	22.72%	22.72%
90-130	1298.60	29.32%	29.32%
90-150	1806.27	40.78%	40.78%
90-180	2129.21	48.07%	48.07%
0-128.31	3543.37	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	43.74
10-20	132.75
20-30	210.54
30-40	259.73
40-50	289.43
50-60	315.79
60-70	339.84
70-80	350.00
80-90	351.21
90-100	347.55
100-110	338.62
110-120	320.31
120-130	292.12
130-140	266.69
140-150	240.97
150-160	187.35
160-170	108.27
170-180	27.32



C15(Max): —

C0/C180: —

C90/C270: —

Field angle(10%Imax):C0/180Left:0.0 Right:0.0

:C90/270Left:0.0 Right:0.0

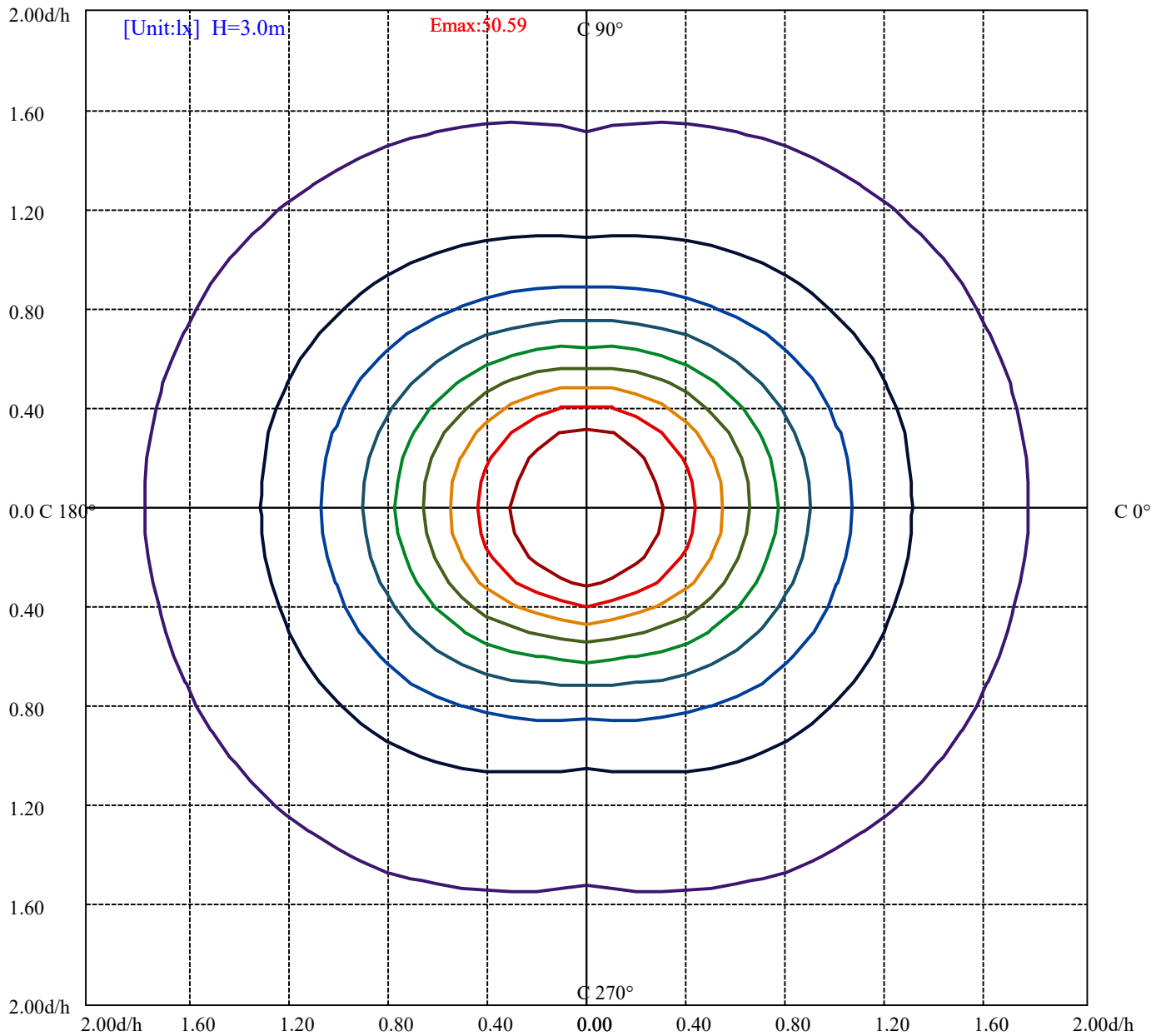
Beam Angle(50%Imax):C0/180Left:333.3 Right:23.3

:C90/270Left:0.0 Right:0.0

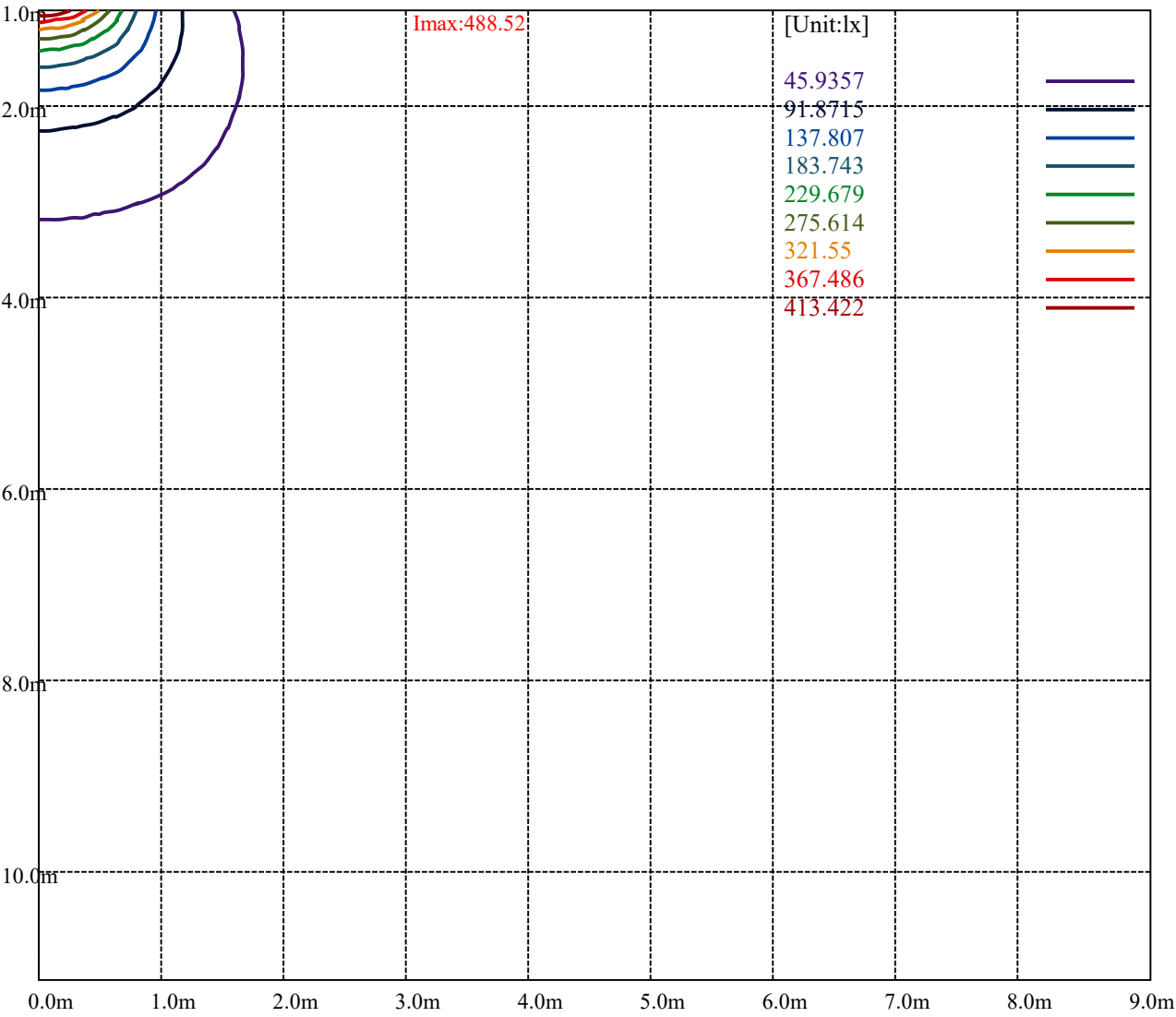


Max , Ave

Beam angle of C15 plane 180.00



(10%Emax) 5.059111	—
(20%Emax) 10.11822	—
(30%Emax) 15.17733	—
(40%Emax) 20.23644	—
(50%Emax) 25.29556	—
(60%Emax) 30.35467	—
(70%Emax) 35.41378	—
(80%Emax) 40.47289	—
(90%Emax) 45.532	—



Luminance Table

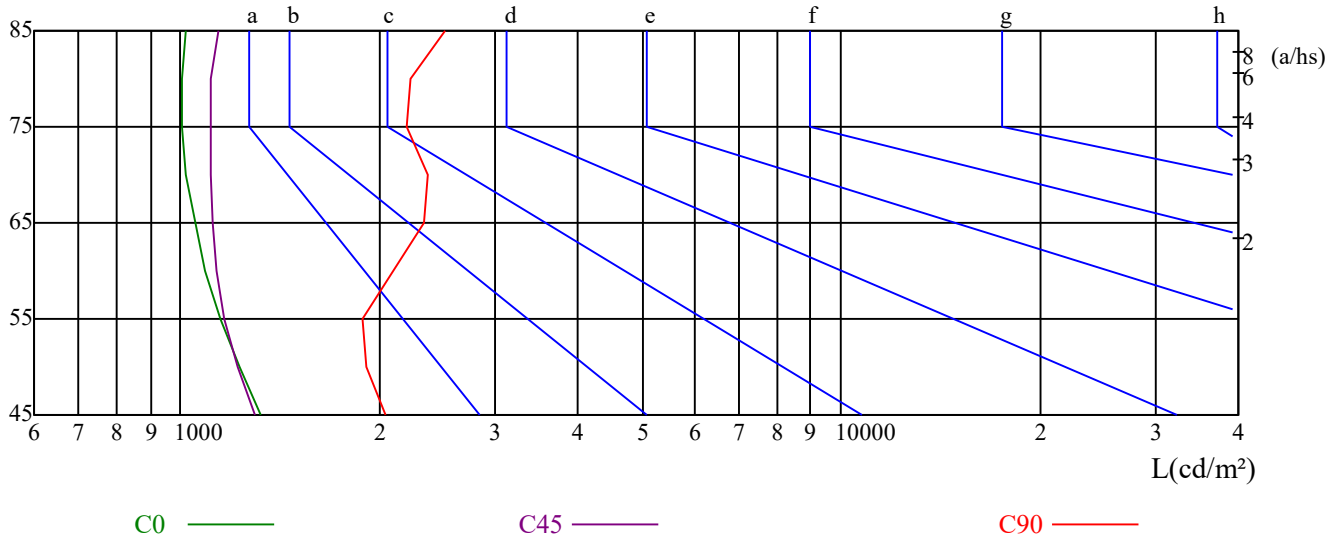
γ	45	50	55	60	65	70	75	80	85
C0	1322	1226	1152	1093	1052	1021	1008	1006	1021
C45	1296	1221	1166	1133	1115	1108	1108	1115	1140
C90	2049	1913	1886	2097	2333	2363	2199	2227	2508

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6566	5124	6279	10202	6922	9993	29560	19939	29020

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	0.99	0.99	0.99	0.84	0.84	0.84	0.70	0.70	0.70	0.58	0.58	0.58	0.52
1	0.89	0.83	0.78	0.82	0.77	0.73	0.68	0.65	0.62	0.56	0.54	0.51	0.45	0.43	0.41	0.36
2	0.75	0.68	0.61	0.69	0.63	0.57	0.58	0.53	0.48	0.48	0.44	0.40	0.38	0.35	0.32	0.27
3	0.65	0.57	0.50	0.60	0.52	0.46	0.50	0.44	0.39	0.41	0.36	0.33	0.33	0.29	0.26	0.22
4	0.57	0.48	0.41	0.53	0.45	0.38	0.44	0.38	0.33	0.36	0.31	0.27	0.29	0.25	0.22	0.18
5	0.51	0.42	0.35	0.47	0.38	0.32	0.39	0.33	0.28	0.32	0.27	0.23	0.25	0.22	0.19	0.15
6	0.45	0.36	0.30	0.42	0.34	0.28	0.35	0.29	0.24	0.29	0.24	0.20	0.23	0.19	0.16	0.13
7	0.41	0.32	0.26	0.37	0.30	0.24	0.32	0.25	0.21	0.26	0.21	0.17	0.21	0.17	0.14	0.11
8	0.37	0.28	0.23	0.34	0.26	0.21	0.29	0.23	0.18	0.24	0.19	0.15	0.19	0.15	0.12	0.10
9	0.33	0.25	0.20	0.31	0.24	0.19	0.26	0.20	0.16	0.22	0.17	0.14	0.18	0.14	0.11	0.09
10	0.31	0.23	0.18	0.28	0.21	0.17	0.24	0.18	0.14	0.20	0.15	0.12	0.16	0.13	0.10	0.08

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	459.36	463.84	456.67	458.46	468.33	473.71	476.40	473.71	455.77
15.0	458.46	461.15	454.87	456.67	463.84	471.02	471.92	468.33	449.49
30.0	453.08	457.56	454.87	459.36	463.84	463.84	458.46	447.69	422.57
45.0	449.49	453.97	457.56	463.84	462.95	453.08	437.82	413.60	381.30
60.0	448.59	453.97	462.05	470.12	467.43	448.59	421.68	383.10	344.52
75.0	448.59	454.87	466.53	476.40	475.51	452.18	415.40	373.23	332.85
90.0	448.59	453.97	465.64	474.61	471.02	443.21	405.53	365.15	336.44
105.0	450.39	454.87	465.64	476.40	474.61	450.39	414.50	382.20	353.49
120.0	452.18	455.77	466.53	478.20	477.30	467.43	450.39	428.85	403.73
135.0	451.28	452.18	463.84	475.51	477.30	479.10	466.53	445.90	426.16
150.0	451.28	449.49	457.56	469.23	478.20	479.10	470.12	449.49	432.44
165.0	454.87	450.39	455.77	467.43	473.71	475.51	471.02	451.28	435.13
180.0	459.36	456.67	466.53	473.71	475.51	477.30	463.84	446.80	432.44
195.0	458.46	454.87	462.95	471.92	473.71	473.71	461.15	442.31	429.75
210.0	453.08	451.28	461.15	464.74	464.74	459.36	440.52	420.78	407.32
225.0	449.49	452.18	461.15	461.15	454.87	439.62	413.60	385.79	366.05
240.0	448.59	454.87	464.74	463.84	450.39	426.16	387.58	350.80	321.19
255.0	448.59	457.56	470.12	470.12	453.08	420.78	381.30	339.13	305.94
270.0	448.59	460.25	473.71	479.10	464.74	429.75	386.69	341.83	305.94
285.0	450.39	462.05	475.51	479.10	465.64	427.96	388.48	356.18	352.59
300.0	452.18	462.95	472.82	479.10	479.10	447.69	423.47	408.22	392.07
315.0	451.28	459.36	467.43	476.40	475.51	469.23	462.95	442.31	425.26
330.0	451.28	454.87	460.25	470.12	474.61	478.20	473.71	454.87	436.03
345.0	454.87	454.87	454.87	463.84	471.92	474.61	472.82	457.56	438.72
360.0	459.36	463.84	456.67	458.46	468.33	473.71	476.40	473.71	455.77
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	442.31	423.47	405.53	389.38	376.82	363.36	354.39	346.31	341.83
15.0	432.44	418.98	403.73	387.58	375.02	362.46	353.49	346.31	341.83
30.0	406.42	394.76	384.89	375.02	368.74	361.56	351.70	346.31	341.83
45.0	357.98	345.42	340.93	341.83	345.42	348.11	349.00	345.42	341.83
60.0	312.22	300.56	297.86	305.04	318.50	331.06	340.03	341.83	340.03
75.0	307.73	293.38	291.58	296.97	307.73	317.60	323.88	319.40	315.81
90.0	307.73	279.92	266.46	283.51	298.76	283.51	244.03	225.19	226.99
105.0	332.85	319.40	314.01	313.12	312.22	309.53	303.25	296.07	287.10
120.0	384.89	373.23	366.05	358.87	347.21	337.34	329.27	325.68	322.09
135.0	410.91	399.25	383.99	370.54	358.87	349.00	340.03	334.65	334.65
150.0	419.88	403.73	386.69	372.33	360.67	350.80	343.62	339.13	337.34
165.0	419.88	401.94	385.79	373.23	361.56	351.70	344.52	340.93	338.24
180.0	415.40	398.35	384.89	372.33	362.46	354.39	349.00	345.42	344.52
195.0	414.50	397.45	384.89	371.43	361.56	353.49	348.11	344.52	343.62
210.0	396.55	385.79	375.02	366.95	357.98	350.80	347.21	343.62	343.62
225.0	354.39	347.21	345.42	346.31	346.31	348.11	347.21	342.72	339.13
240.0	308.63	303.25	305.04	316.71	328.37	339.13	341.83	338.24	332.85
255.0	288.89	282.61	286.20	296.97	308.63	316.71	316.71	313.12	296.97
270.0	279.92	263.77	271.85	274.54	278.13	253.01	233.27	238.65	235.96
285.0	311.32	307.73	307.73	311.32	310.43	308.63	301.45	295.17	288.89
300.0	379.51	371.43	364.26	358.87	349.90	340.03	331.06	322.09	314.91
315.0	411.81	402.83	390.27	375.92	363.36	352.59	341.83	336.44	331.96
330.0	422.57	407.32	391.17	376.82	366.05	355.28	346.31	340.93	337.34
345.0	427.06	410.01	392.97	378.61	366.95	356.18	348.11	342.72	338.24
360.0	442.31	423.47	405.53	389.38	376.82	363.36	354.39	346.31	341.83

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	339.13	339.13	340.93	345.42	349.90	358.87	369.64	383.10	398.35
15.0	339.13	339.13	340.93	344.52	349.90	358.87	369.64	383.10	398.35
30.0	340.03	339.13	340.93	344.52	350.80	358.87	367.84	376.82	386.69
45.0	340.03	339.13	340.03	344.52	349.90	351.70	351.70	349.90	353.49
60.0	339.13	338.24	338.24	341.83	340.93	333.75	322.99	308.63	301.45
75.0	315.81	315.81	314.01	306.84	291.58	278.13	257.49	241.34	235.96
90.0	220.71	215.32	209.94	204.56	194.69	199.17	190.20	172.26	163.29
105.0	278.13	275.43	276.33	271.85	273.64	266.46	254.80	234.16	228.78
120.0	314.91	310.43	305.04	305.04	309.53	314.01	314.01	319.40	325.68
135.0	331.06	325.68	322.09	323.88	328.37	332.85	340.03	352.59	365.15
150.0	337.34	338.24	339.13	342.72	347.21	355.28	366.05	377.71	392.07
165.0	339.13	340.93	345.42	351.70	359.77	368.74	379.51	392.97	407.32
180.0	346.31	349.00	355.28	363.36	373.23	384.89	400.14	414.50	431.54
195.0	345.42	348.11	354.39	361.56	370.54	381.30	395.66	411.81	427.96
210.0	344.52	347.21	350.80	357.08	366.05	370.54	377.71	387.58	399.25
225.0	338.24	341.83	342.72	345.42	345.42	344.52	343.62	335.55	340.03
240.0	330.16	333.75	333.75	319.40	307.73	291.58	273.64	261.08	261.98
255.0	286.20	278.13	272.74	261.98	243.14	217.12	194.69	183.92	181.23
270.0	235.96	229.68	214.43	210.84	207.25	196.48	176.74	165.08	161.49
285.0	283.51	287.10	291.58	293.38	294.28	293.38	287.10	277.23	273.64
300.0	308.63	305.94	309.53	314.01	318.50	323.88	328.37	327.47	333.75
315.0	329.27	328.37	331.06	337.34	341.83	348.11	351.70	356.18	369.64
330.0	336.44	335.55	338.24	345.42	351.70	360.67	372.33	383.10	396.55
345.0	337.34	337.34	339.13	344.52	352.59	361.56	374.12	387.58	403.73
360.0	339.13	339.13	340.93	345.42	349.90	358.87	369.64	383.10	398.35
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	416.29	436.03	458.46	480.89	497.04	490.76	462.95	389.38	326.57
15.0	415.40	434.24	453.08	476.40	491.66	485.38	471.02	437.82	366.05
30.0	399.25	414.50	432.44	458.46	477.30	477.30	470.12	458.46	419.88
45.0	359.77	376.82	397.45	425.26	452.18	462.05	464.74	457.56	437.82
60.0	306.84	320.29	350.80	380.41	400.14	421.68	438.72	440.52	431.54
75.0	236.86	239.55	257.49	283.51	288.00	294.28	322.99	391.17	426.16
90.0	165.98	174.95	197.38	235.06	233.27	236.86	263.77	356.18	427.96
105.0	243.14	253.90	276.33	298.76	277.23	246.73	256.59	339.13	418.09
120.0	337.34	349.90	364.26	368.74	375.92	306.84	269.15	301.45	397.45
135.0	378.61	394.76	411.81	425.26	428.85	410.01	315.81	265.57	355.28
150.0	407.32	425.26	445.00	461.15	458.46	450.39	417.19	309.53	259.29
165.0	424.37	441.41	461.15	475.51	469.23	454.87	445.00	404.63	323.88
180.0	449.49	468.33	487.17	486.27	471.02	454.87	444.11	441.41	389.38
195.0	445.90	466.53	486.27	486.27	471.92	466.53	445.90	392.07	308.63
210.0	415.40	418.09	460.25	465.64	459.36	453.97	399.25	326.57	327.47
225.0	355.28	383.10	410.91	421.68	425.26	393.86	347.21	322.09	332.85
240.0	270.05	299.66	325.68	352.59	361.56	335.55	292.48	324.78	372.33
255.0	187.51	208.15	258.39	310.43	312.22	291.58	268.26	328.37	409.12
270.0	180.33	198.28	232.37	270.95	285.30	257.49	263.77	338.24	425.26
285.0	278.13	296.07	321.19	349.00	328.37	297.86	304.14	355.28	426.16
300.0	349.00	364.26	382.20	404.63	398.35	370.54	357.98	380.41	428.85
315.0	389.38	412.70	438.72	462.05	462.95	434.24	414.50	407.32	431.54
330.0	412.70	436.03	460.25	487.17	493.45	474.61	457.56	435.13	433.34
345.0	423.47	445.00	470.12	490.76	493.45	478.20	462.05	443.21	409.12
360.0	416.29	436.03	458.46	480.89	497.04	490.76	462.95	389.38	326.57

Intensity data(cd)

C/ γ (°)	180.0
0.0	367.84
15.0	331.96
30.0	354.39
45.0	402.83
60.0	430.65
75.0	429.75
90.0	430.65
105.0	430.65
120.0	431.54
135.0	427.96
150.0	395.66
165.0	272.74
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	367.84