
乐达凯

Client:

LumCAT: VRNP3X6LAJUDSN

Luminaire: LED lamp

Report No:

Ballast type:

Test No: LCZP25010162

Voltage(V): 120.070

LampCAT:

Current(A): 0.473

Lamp flux(lm): 4410.4

Power (W): 56.260

Number of Lamps: 1

PF: 0.990

Length(mm): 740

Width(mm): 180

Phm Type: C

Height(mm): 440

Photometric Results

Lumens(lm): 4410.38, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 78.39

Central intensity(cd): 488.516, Maximum intensity(cd): 490.265

Angle of maximum intensity: C=0.0 γ =150.0

Beam Angle(50%Imax): [C0/180]Total=355.8

[C90/270]Total=359.8

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

[C90/270]Total=N.A.

Maximum s/h(1/2): C0_180=1.47 C90_270=1.20

Maximum s/h(1/4): C0_180=1.60 C90_270=1.27

Up flux rate of lamp(%): 48.68%

Down flux rate of lamp(%): 51.32%

Up flux rate of LUM(%): 48.68%

Down flux rate of LUM(%): 51.32%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 28.296%

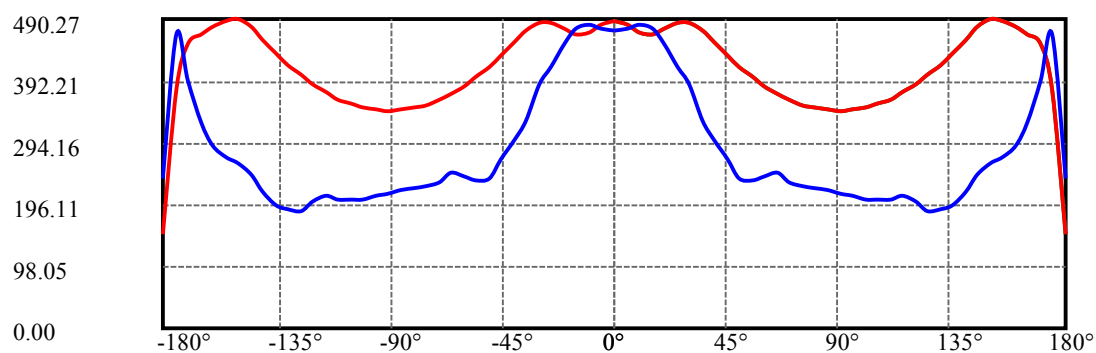
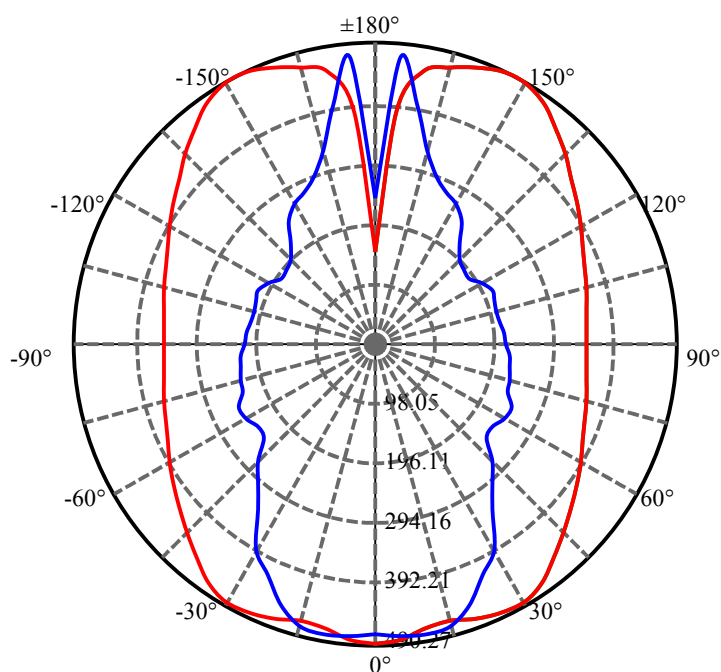
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	475.312	0.000	0	0.00%	0.00%
5.0	474.994	11.361	11.361	0.26%	0.26%
10.0	472.703	33.902	45.263	0.77%	1.03%
15.0	469.948	55.917	101.18	1.27%	2.29%
20.0	464.011	76.971	178.152	1.75%	4.04%
25.0	452.494	96.124	274.276	2.18%	6.22%
30.0	435.489	112.375	386.651	2.55%	8.77%
35.0	411.732	124.759	511.41	2.83%	11.60%
40.0	390.435	133.835	645.245	3.03%	14.63%
45.0	373.445	141.438	786.684	3.21%	17.84%
50.0	358.267	147.853	934.537	3.35%	21.19%
55.0	348.907	153.763	1088.3	3.49%	24.68%
60.0	341.864	159.670	1247.97	3.62%	28.30%
65.0	335.243	164.606	1412.576	3.73%	32.03%
70.0	327.759	167.877	1580.452	3.81%	35.83%
75.0	321.916	169.815	1750.267	3.85%	39.69%
80.0	316.593	170.847	1921.115	3.87%	43.56%
85.0	313.318	171.162	2092.277	3.88%	47.44%
90.0	311.390	171.050	2263.327	3.88%	51.32%
95.0	310.679	170.327	2433.654	3.86%	55.18%
100.0	312.290	169.276	2602.93	3.84%	59.02%
105.0	316.137	168.150	2771.079	3.81%	62.83%
110.0	319.359	166.109	2937.188	3.77%	66.60%
115.0	323.786	162.848	3100.036	3.69%	70.29%
120.0	327.969	158.443	3258.479	3.59%	73.88%
125.0	332.256	152.609	3411.088	3.46%	77.34%
130.0	340.810	146.347	3557.435	3.32%	80.66%
135.0	353.079	140.210	3697.645	3.18%	83.84%
140.0	368.656	133.635	3831.28	3.03%	86.87%
145.0	389.676	126.522	3957.802	2.87%	89.74%
150.0	405.762	117.134	4074.936	2.66%	92.39%
155.0	405.680	102.689	4177.625	2.33%	94.72%
160.0	395.605	84.040	4261.665	1.91%	96.63%
165.0	385.564	64.379	4326.044	1.46%	98.09%
170.0	399.594	46.575	4372.619	1.06%	99.14%
175.0	435.331	29.868	4402.487	0.68%	99.82%
180.0	225.122	7.896	4410.383	0.18%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	386.65	8.77%	8.77%
0-40	645.25	14.63%	14.63%
0-60	1247.97	28.30%	28.30%
0-90	2263.33	51.32%	51.32%
0-120	3258.48	73.88%	73.88%
0-180	4410.38	100.00%	100.00%
60-90	1015.36	23.02%	23.02%
90-120	995.15	22.56%	22.56%
90-130	1294.11	29.34%	29.34%
90-150	1811.61	41.08%	41.08%
90-180	2139.16	48.50%	48.50%
0-129.00	3528.31	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	45.26
10-20	132.89
20-30	208.50
30-40	258.59
40-50	289.29
50-60	313.43
60-70	332.48
70-80	340.66
80-90	342.21
90-100	339.60
100-110	334.26
110-120	321.29
120-130	298.96
130-140	273.85
140-150	243.66
150-160	186.73
160-170	110.95
170-180	29.87

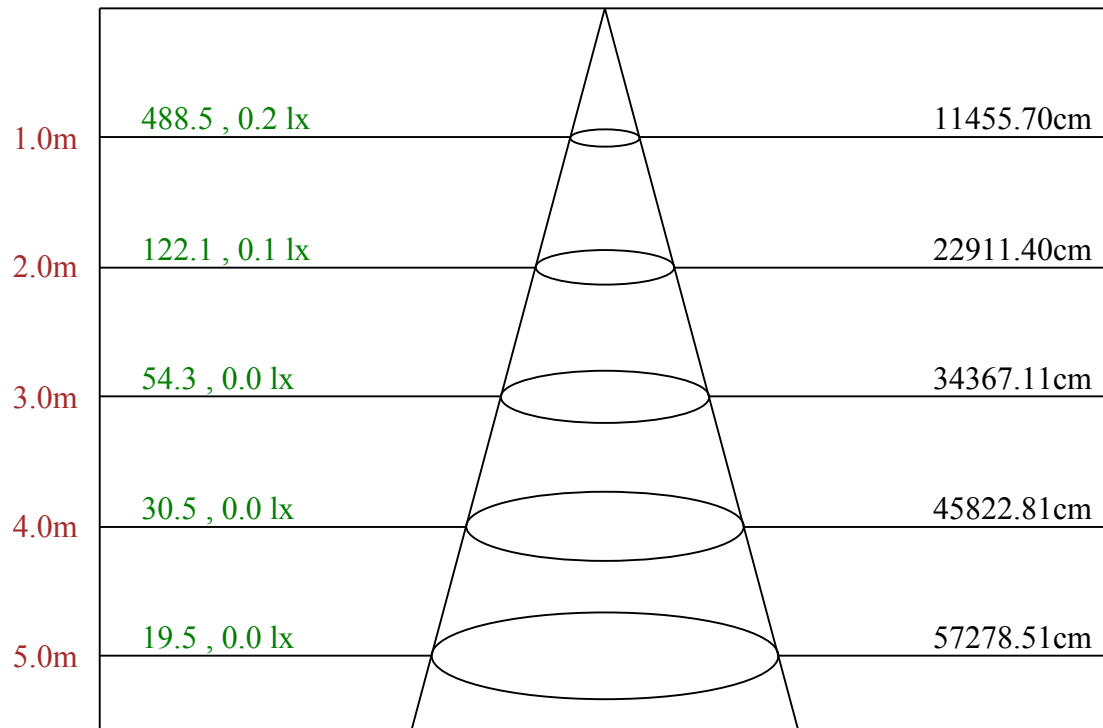
C0(Max): —————C0/C180: —————C90/C270: —————

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

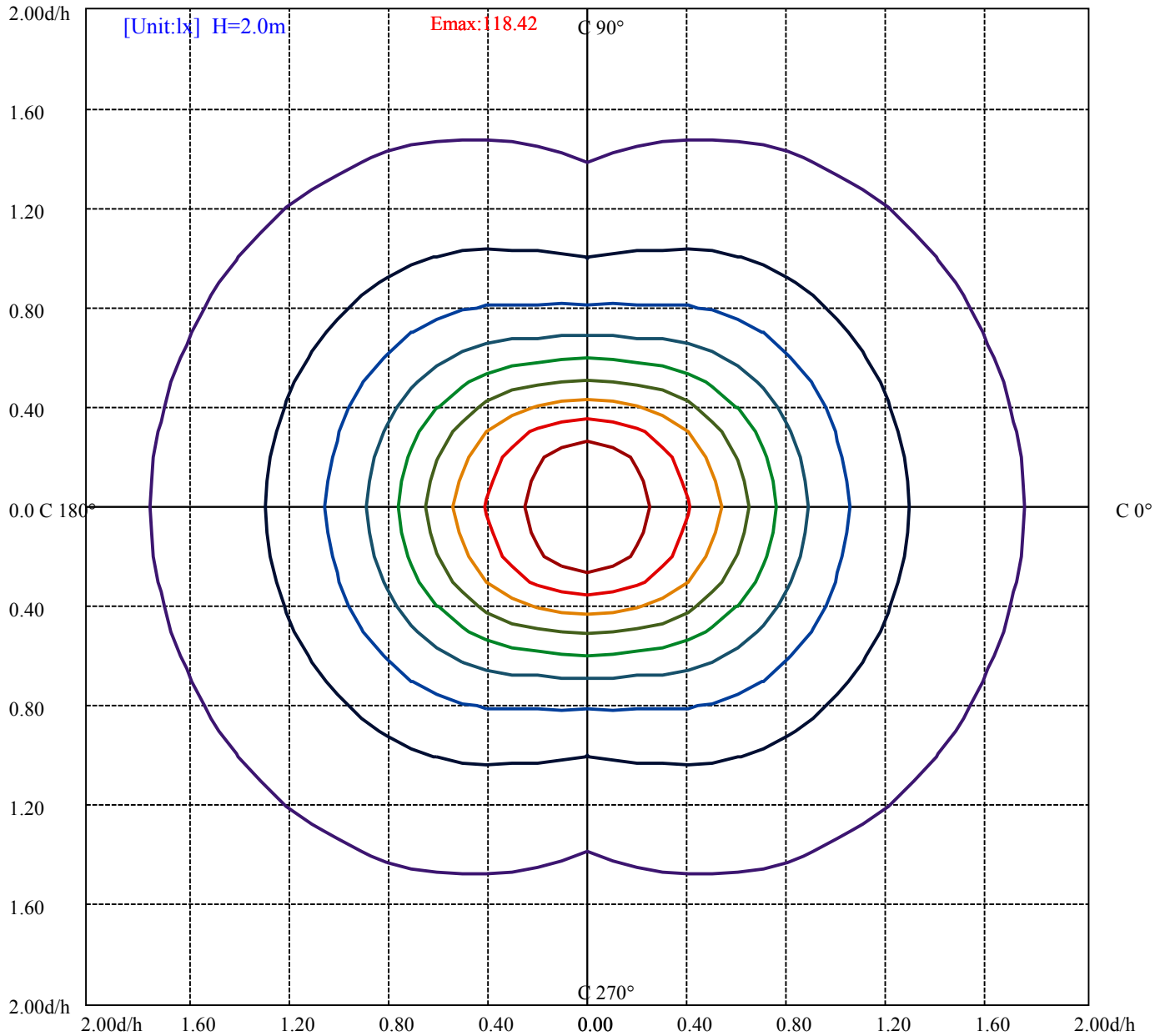
:C90/270Left:0.0 Right:0.0

Beam Angle(50%Imax):C0/180Left:327.9 Right:27.9

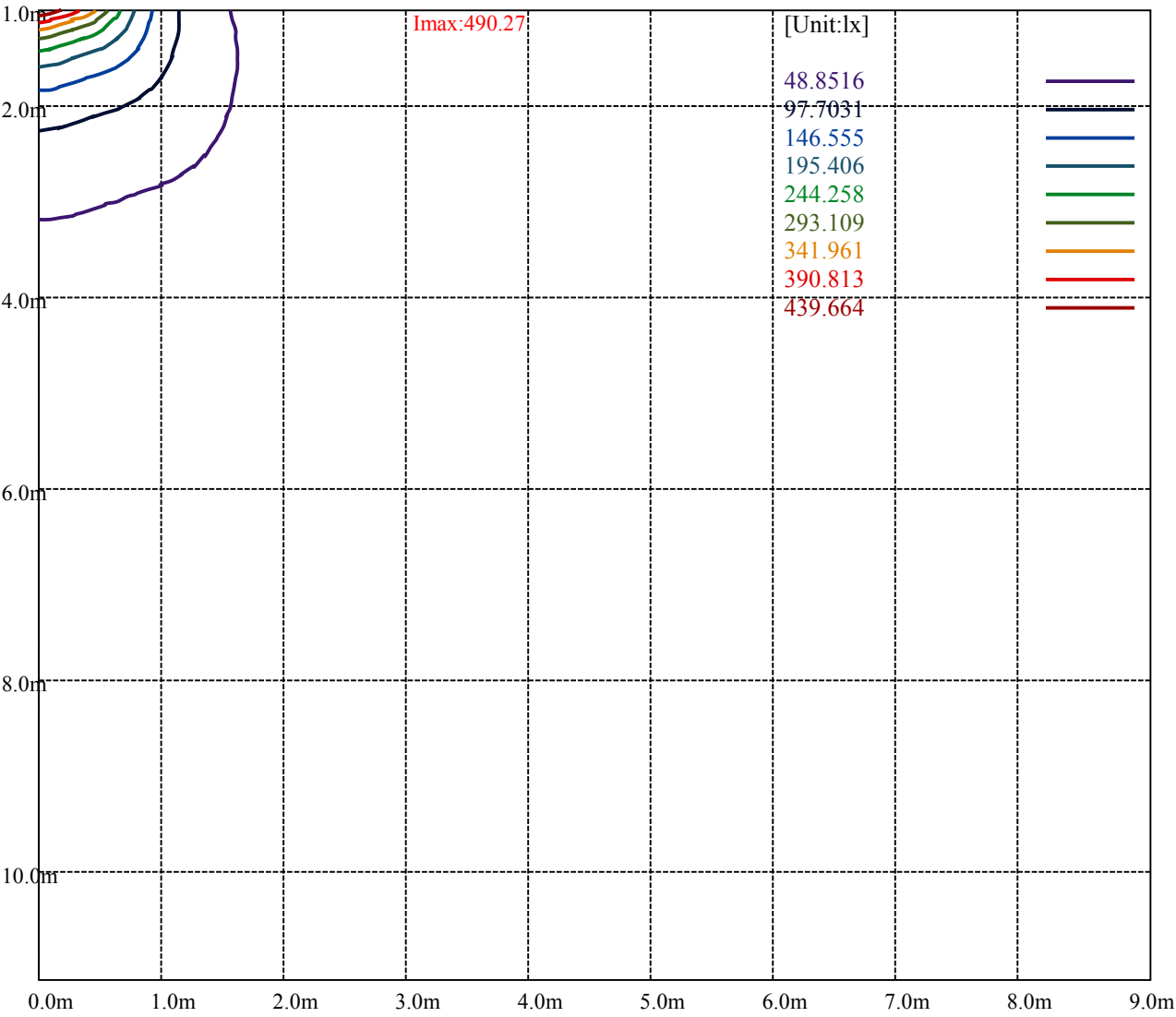
:C90/270Left:189.9 Right:169.9



Max , Ave Beam angle of C0 plane 178.00



(10%Emax) 11.84167	—
(20%Emax) 23.68335	—
(30%Emax) 35.525	—
(40%Emax) 47.36675	—
(50%Emax) 59.20825	—
(60%Emax) 71.05	—
(70%Emax) 82.89175	—
(80%Emax) 94.7335	—
(90%Emax) 106.575	—



Luminance Table

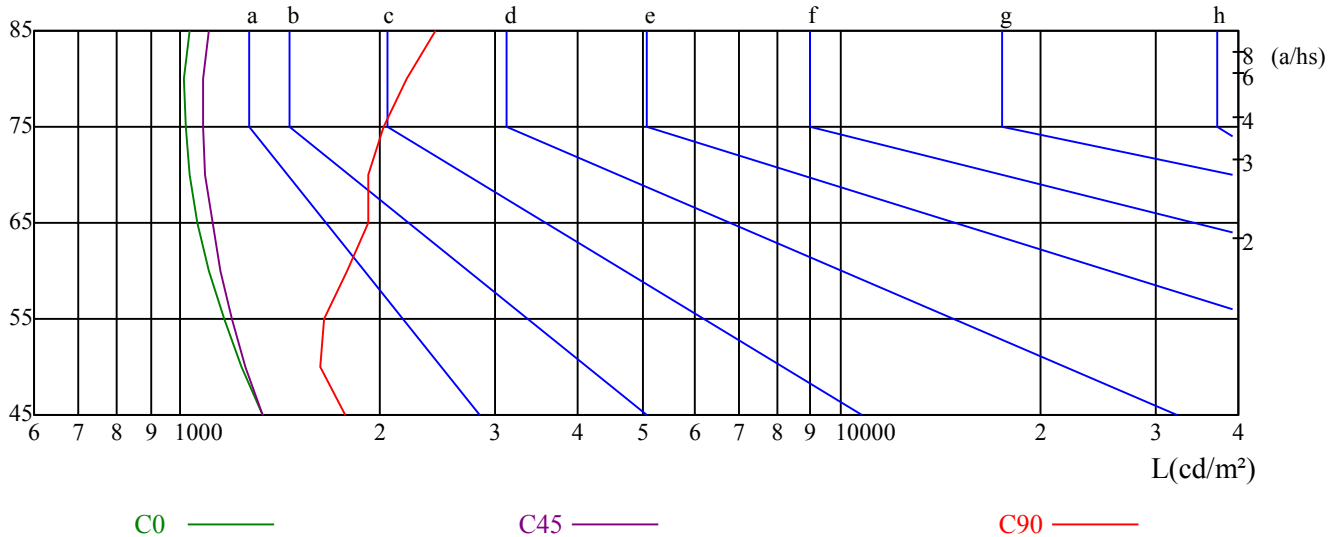
γ	45	50	55	60	65	70	75	80	85
C0	1335	1238	1163	1105	1061	1032	1017	1015	1029
C45	1330	1254	1193	1150	1117	1092	1078	1082	1101
C90	1780	1630	1655	1786	1919	1925	2028	2196	2437

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6625	4366	6267	10290	6527	9727	29781	18996	28156

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

 $\gamma(^{\circ})$ 

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	0.84	0.84	0.84	0.70	0.70	0.70	0.57	0.57	0.57	0.51
1	0.89	0.83	0.79	0.82	0.77	0.73	0.68	0.65	0.62	0.56	0.53	0.51	0.45	0.43	0.41	0.36
2	0.76	0.68	0.62	0.69	0.63	0.57	0.58	0.53	0.48	0.47	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	0.32	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	0.39	0.33	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	0.38	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	0.26	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	0.15	0.20	0.16	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	488.52	479.19	463.66	460.16	469.23	477.93	478.38	463.66	443.66
15.0	485.73	478.56	466.53	463.22	469.41	474.70	473.08	458.55	440.88
30.0	481.16	477.21	471.56	469.05	471.47	471.83	463.84	446.26	431.19
45.0	476.22	475.42	474.97	474.25	472.99	466.00	448.68	427.51	411.27
60.0	473.26	474.07	476.58	474.88	466.80	451.46	424.55	396.11	374.04
75.0	470.84	474.25	477.57	473.89	457.74	431.99	400.41	364.44	333.21
90.0	471.38	475.78	480.53	475.78	451.19	412.34	367.13	322.72	291.23
105.0	470.57	476.49	480.80	472.55	446.89	400.23	351.16	311.14	283.60
120.0	470.39	476.40	476.49	475.06	454.24	420.78	394.58	371.25	350.26
135.0	471.11	477.48	479.10	475.51	463.39	454.69	429.48	425.35	405.35
150.0	472.01	477.21	476.04	471.02	467.88	468.33	468.42	453.71	437.02
165.0	472.55	476.40	471.20	463.48	464.29	472.82	477.39	471.47	457.38
180.0	488.52	485.11	472.73	468.87	478.02	488.78	491.39	480.17	462.05
195.0	485.73	481.16	468.24	463.66	472.55	483.58	487.44	478.11	461.06
210.0	481.16	479.10	472.37	470.21	474.79	479.27	478.65	465.64	450.21
225.0	476.22	476.94	476.40	476.67	475.69	472.55	462.14	442.40	423.29
240.0	473.26	476.67	480.62	480.17	472.10	459.27	435.40	405.80	383.10
255.0	470.84	476.13	481.70	479.81	464.92	438.90	405.35	371.88	339.85
270.0	471.38	475.78	479.54	474.97	452.54	413.60	403.55	336.44	304.32
285.0	470.57	473.35	473.71	473.89	447.69	401.40	360.31	321.73	294.99
300.0	470.39	469.05	472.55	466.45	454.42	431.90	403.55	375.38	354.39
315.0	471.11	465.91	463.84	461.24	458.82	455.05	435.58	411.36	396.11
330.0	472.01	462.77	457.11	457.92	464.29	463.04	450.65	434.77	417.82
345.0	472.55	459.45	451.01	456.04	464.92	469.41	460.61	445.72	424.19
360.0	488.52	479.19	463.66	460.16	469.23	477.93	478.38	463.66	443.66
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	424.01	405.89	390.90	376.91	364.61	354.84	347.12	341.92	339.58
15.0	422.03	404.63	389.02	375.92	364.61	355.64	349.36	344.79	342.63
30.0	414.86	400.50	387.58	374.66	363.81	354.75	348.20	343.26	341.56
45.0	396.64	383.90	374.84	368.11	360.58	351.61	344.61	339.67	336.98
60.0	359.50	349.90	344.16	339.67	336.44	332.85	328.19	322.90	318.05
75.0	315.90	303.16	297.51	295.62	291.85	288.89	283.96	279.29	273.01
90.0	263.95	237.75	232.73	239.01	238.20	226.36	224.47	222.59	221.33
105.0	270.68	263.23	266.73	276.06	285.93	292.93	292.75	289.16	287.46
120.0	338.06	332.41	332.50	336.08	335.19	330.16	326.13	318.14	314.55
135.0	391.98	384.89	374.84	367.22	360.85	353.13	344.79	338.96	336.62
150.0	424.46	398.71	395.66	382.74	369.82	359.95	352.14	344.70	339.67
165.0	439.35	421.41	403.37	387.85	374.75	363.36	355.37	348.38	343.26
180.0	442.13	423.47	407.32	393.23	381.30	370.72	362.37	355.73	351.87
195.0	441.86	425.26	407.41	393.23	380.58	370.18	362.46	356.72	352.95
210.0	434.68	419.34	405.08	390.45	377.44	367.13	360.13	354.39	352.41
225.0	407.95	394.94	384.89	375.92	370.18	362.46	354.12	348.65	345.77
240.0	367.22	357.26	352.41	348.56	347.12	346.40	344.07	337.79	337.43
255.0	323.88	309.71	306.48	306.84	306.12	304.23	301.90	299.30	291.05
270.0	270.86	239.01	234.88	243.94	253.36	235.51	225.55	221.51	219.72
285.0	284.77	274.18	275.35	279.65	282.43	284.68	284.59	276.96	274.00
300.0	340.66	331.96	322.45	310.51	303.07	296.07	293.56	287.91	283.51
315.0	381.66	365.60	349.27	335.10	319.58	307.28	297.77	292.84	288.09
330.0	399.52	383.10	365.69	348.91	332.68	321.01	313.48	307.82	305.04
345.0	406.06	388.21	372.69	358.51	345.33	336.08	328.91	324.87	323.08
360.0	424.01	405.89	390.90	376.91	364.61	354.84	347.12	341.92	339.58

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	338.96	341.29	345.86	353.22	363.18	374.75	389.02	405.26	423.74
15.0	342.63	344.34	349.63	355.91	365.06	376.46	390.18	405.26	423.29
30.0	341.65	343.89	348.65	355.37	363.54	374.39	388.03	403.19	418.18
45.0	336.80	339.05	343.89	350.53	357.35	364.61	369.91	380.05	390.99
60.0	319.13	320.56	326.57	332.85	334.56	333.12	332.50	327.56	322.81
75.0	260.99	254.89	254.62	254.35	257.22	260.27	257.31	252.56	250.76
90.0	214.34	210.12	201.51	201.06	207.43	220.62	214.34	202.94	209.58
105.0	286.02	279.38	278.40	279.02	268.08	267.45	257.40	230.84	230.31
120.0	314.19	314.55	316.08	316.35	307.02	300.91	304.41	305.49	315.99
135.0	334.20	333.12	333.57	337.61	341.47	345.42	353.40	362.46	375.74
150.0	337.97	335.99	335.91	342.10	350.26	358.87	369.64	382.11	395.93
165.0	340.93	339.22	340.66	344.52	351.07	359.68	370.09	382.20	396.20
180.0	350.08	350.35	352.59	357.08	363.45	372.60	383.72	396.55	411.81
195.0	350.89	350.71	352.50	356.63	362.64	370.90	381.93	393.59	407.68
210.0	351.25	351.16	353.31	356.81	361.12	368.20	378.07	390.45	403.82
225.0	345.33	346.04	347.66	351.34	357.53	364.44	364.88	372.96	378.79
240.0	338.51	337.16	336.17	340.48	344.70	339.58	333.57	333.57	330.97
255.0	294.46	288.62	282.70	286.47	278.58	267.00	256.32	248.16	238.74
270.0	211.20	209.13	209.58	206.80	203.66	199.35	184.82	167.86	166.25
285.0	260.09	253.63	257.04	251.48	237.57	225.37	219.27	205.01	198.64
300.0	283.33	284.59	283.51	285.66	282.52	280.01	281.80	286.92	294.28
315.0	290.96	292.93	295.71	304.95	315.81	327.11	339.13	350.89	366.68
330.0	305.67	308.36	315.18	323.70	335.99	351.52	367.40	385.70	404.54
345.0	323.79	327.20	333.66	342.99	354.84	368.20	384.08	402.57	423.74
360.0	338.96	341.29	345.86	353.22	363.18	374.75	389.02	405.26	423.74
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	443.21	465.01	487.71	498.38	493.81	482.86	470.93	469.85	444.37
15.0	442.67	464.02	486.18	495.33	490.94	480.08	471.47	473.62	480.26
30.0	434.68	452.63	469.67	479.54	479.10	475.78	476.85	483.76	486.63
45.0	399.25	409.47	423.02	437.47	449.58	463.66	480.53	488.43	488.43
60.0	324.24	334.02	352.68	377.53	409.65	451.55	475.24	488.70	489.05
75.0	259.29	273.01	305.49	337.07	377.71	425.17	440.61	448.14	477.57
90.0	223.22	243.85	269.69	281.63	294.81	318.68	352.95	405.71	471.65
105.0	252.29	273.82	295.80	279.02	253.90	275.35	282.97	364.26	459.18
120.0	328.10	342.36	355.73	367.58	305.22	294.63	279.20	344.16	432.17
135.0	390.99	404.90	419.34	440.34	405.97	308.45	287.01	311.05	398.71
150.0	410.19	426.97	442.49	458.46	462.41	384.26	296.34	267.54	363.00
165.0	413.42	431.81	450.48	468.33	474.25	453.71	378.07	288.35	280.46
180.0	429.39	448.14	468.42	482.15	481.52	472.37	463.13	433.34	313.57
195.0	423.83	441.86	460.97	474.52	477.93	476.13	433.88	316.26	327.65
210.0	414.68	417.46	442.04	458.28	466.62	441.86	329.54	304.32	396.91
225.0	386.51	395.30	408.22	424.28	425.62	339.94	287.82	348.47	428.49
240.0	323.25	325.59	341.11	362.10	327.56	283.78	286.20	361.56	450.48
255.0	232.91	237.84	260.18	279.47	267.63	257.04	289.70	371.16	458.37
270.0	168.04	187.42	218.82	243.32	249.15	259.55	299.93	382.56	460.34
285.0	210.66	229.50	265.39	301.63	326.75	348.65	369.10	409.03	462.95
300.0	304.95	323.43	349.18	376.37	400.59	408.49	420.69	437.02	464.65
315.0	385.88	405.17	425.80	444.64	452.63	451.73	452.27	458.82	467.43
330.0	425.53	446.71	467.43	481.43	478.38	469.59	465.19	466.53	471.83
345.0	446.71	467.43	486.36	489.41	484.57	471.20	463.93	467.61	473.80
360.0	443.21	465.01	487.71	498.38	493.81	482.86	470.93	469.85	444.37

Intensity data(cd)

C/ $\gamma(^{\circ})$	180.0
0.0	298.22
15.0	442.31
30.0	472.37
45.0	477.75
60.0	475.96
75.0	476.31
90.0	474.34
105.0	472.46
120.0	470.39
135.0	470.75
150.0	460.97
165.0	411.09
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	298.22