
AFX

Client:

LumCAT: VRNF05LAJUDSN

Luminaire: LED 灯具

Report No:

Ballast type:

Test No:

Voltage(V): 120.000

LampCAT:

Current(A): 0.081

Lamp flux(lm): 739.5

Power (W): 9.390

Number of Lamps: 1

PF: 0.971

Length(mm): -140

Width(mm): -140

Phm Type: C

Height(mm): 140

Photometric Results

Lumens(lm): 739.50, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 78.75

Central intensity(cd): 92.140, Maximum intensity(cd): 92.140

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=1.31 C90_270=1.35

Maximum s/h(1/4): C0_180=1.49 C90_270=1.54

Up flux rate of lamp(%): 47.19%

Down flux rate of lamp(%): 52.81%

Up flux rate of LUM(%): 47.19%

Down flux rate of LUM(%): 52.81%

CIE Type : General diffuse lighting

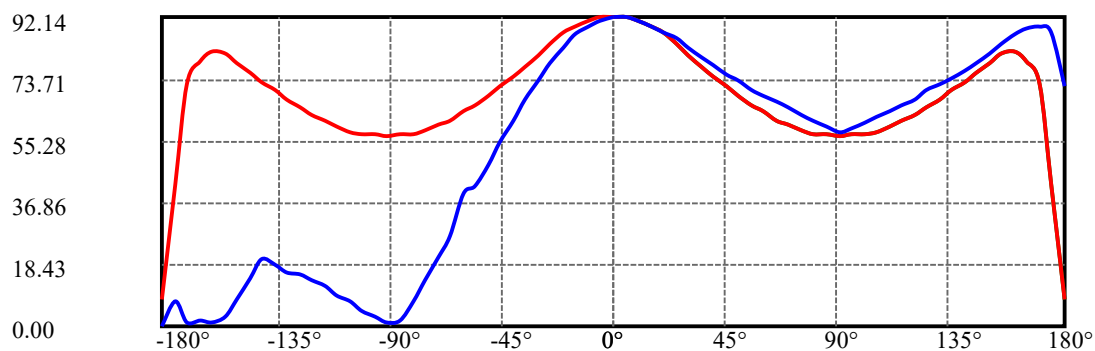
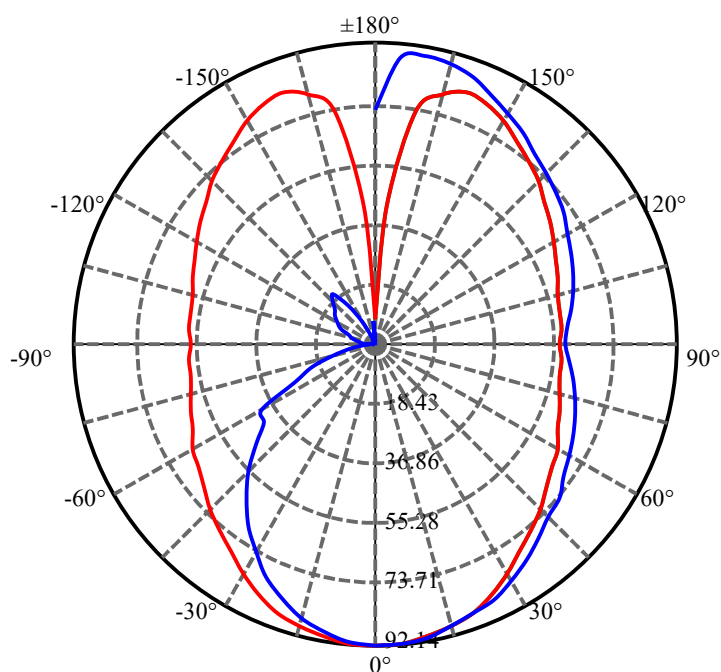
Output flux ratio in π solid angle : 30.926%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	92.140	0.000	0	0.00%	0.00%
5.0	91.879	2.200	2.2	0.30%	0.30%
10.0	90.831	6.536	8.736	0.88%	1.18%
15.0	88.997	10.667	19.403	1.44%	2.62%
20.0	86.563	14.469	33.872	1.96%	4.58%
25.0	83.492	17.836	51.707	2.41%	6.99%
30.0	79.934	20.682	72.389	2.80%	9.79%
35.0	76.114	22.979	95.369	3.11%	12.90%
40.0	72.295	24.761	120.129	3.35%	16.24%
45.0	68.618	26.091	146.221	3.53%	19.77%
50.0	65.134	27.027	173.247	3.65%	23.43%
55.0	61.759	27.591	200.838	3.73%	27.16%
60.0	58.758	27.857	228.695	3.77%	30.93%
65.0	55.609	27.803	256.498	3.76%	34.69%
70.0	53.130	27.534	284.032	3.72%	38.41%
75.0	50.881	27.187	311.219	3.68%	42.08%
80.0	49.228	26.786	338.005	3.62%	45.71%
85.0	47.913	26.395	364.401	3.57%	49.28%
90.0	47.425	26.104	390.505	3.53%	52.81%
95.0	47.761	26.063	416.567	3.52%	56.33%
100.0	48.550	26.170	442.737	3.54%	59.87%
105.0	49.750	26.302	469.039	3.56%	63.43%
110.0	51.249	26.399	495.439	3.57%	67.00%
115.0	53.271	26.465	521.904	3.58%	70.57%
120.0	55.106	26.347	548.251	3.56%	74.14%
125.0	57.274	25.977	574.227	3.51%	77.65%
130.0	59.181	25.321	599.549	3.42%	81.07%
135.0	61.312	24.347	623.896	3.29%	84.37%
140.0	63.482	23.107	647.003	3.12%	87.49%
145.0	64.668	21.381	668.383	2.89%	90.38%
150.0	64.874	19.076	687.459	2.58%	92.96%
155.0	64.220	16.337	703.796	2.21%	95.17%
160.0	63.239	13.368	717.164	1.81%	96.98%
165.0	62.770	10.385	727.549	1.40%	98.38%
170.0	57.984	7.163	734.712	0.97%	99.35%
175.0	49.664	3.851	738.563	0.52%	99.87%
180.0	28.930	0.940	739.503	0.13%	100.00%

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	72.39	9.79%	9.79%
0-40	120.13	16.24%	16.24%
0-60	228.70	30.93%	30.93%
0-90	390.50	52.81%	52.81%
0-120	548.25	74.14%	74.14%
0-180	739.50	100.00%	100.00%
60-90	161.81	21.88%	21.88%
90-120	157.75	21.33%	21.33%
90-130	209.04	28.27%	28.27%
90-150	296.95	40.16%	40.16%
90-180	348.06	47.07%	47.07%
0-128.43	591.60	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	8.74
10-20	25.14
20-30	38.52
30-40	47.74
40-50	53.12
50-60	55.45
60-70	55.34
70-80	53.97
80-90	52.50
90-100	52.23
100-110	52.70
110-120	52.81
120-130	51.30
130-140	47.45
140-150	40.46
150-160	29.70
160-170	17.55
170-180	3.85



C0(Max):

C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:184.8 Right:174.8

:C90/270Left:0.0 Right:0.0

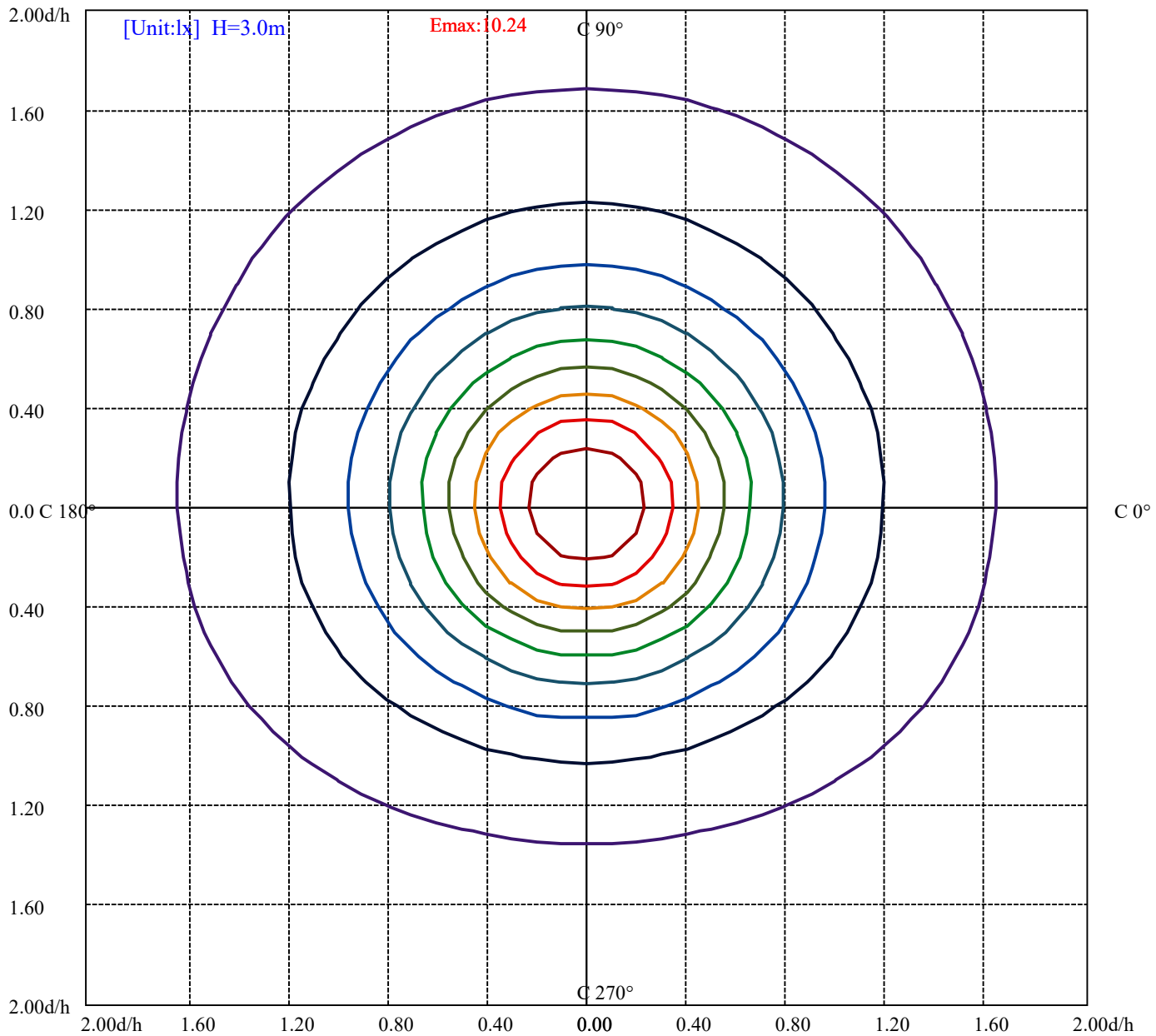
Beam Angle(50%Imax):C0/180Left:179.4 Right:169.4

:C90/270Left:19.7 Right:19.7

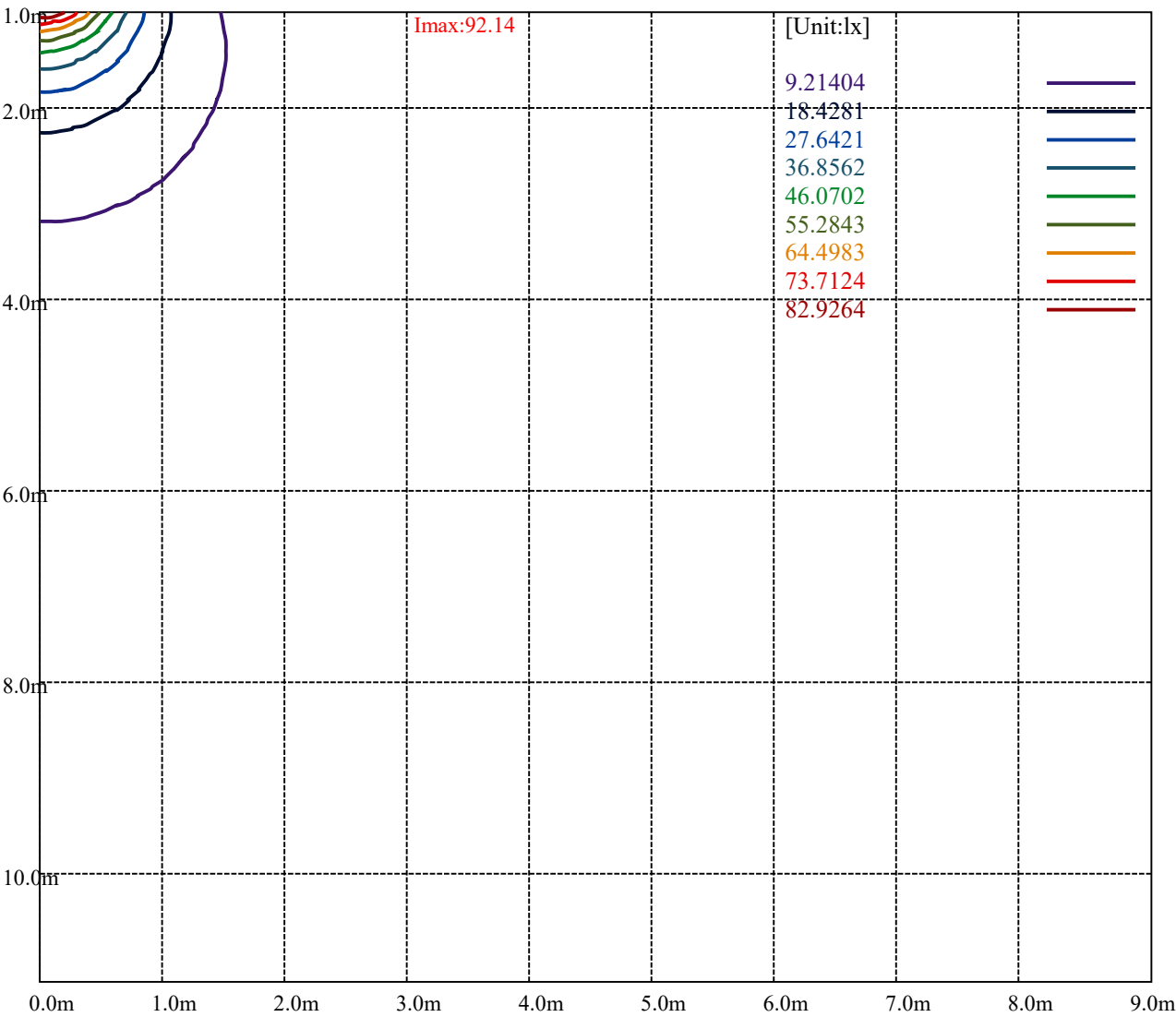


Max , Ave

Beam angle of C0 plane 348.82



(10%Emax) 1.023782	—
(20%Emax) 2.047567	—
(30%Emax) 3.071344	—
(40%Emax) 4.095133	—
(50%Emax) 5.118911	—
(60%Emax) 6.1427	—
(70%Emax) 7.166478	—
(80%Emax) 8.190267	—
(90%Emax) 9.214045	—



Luminance Table

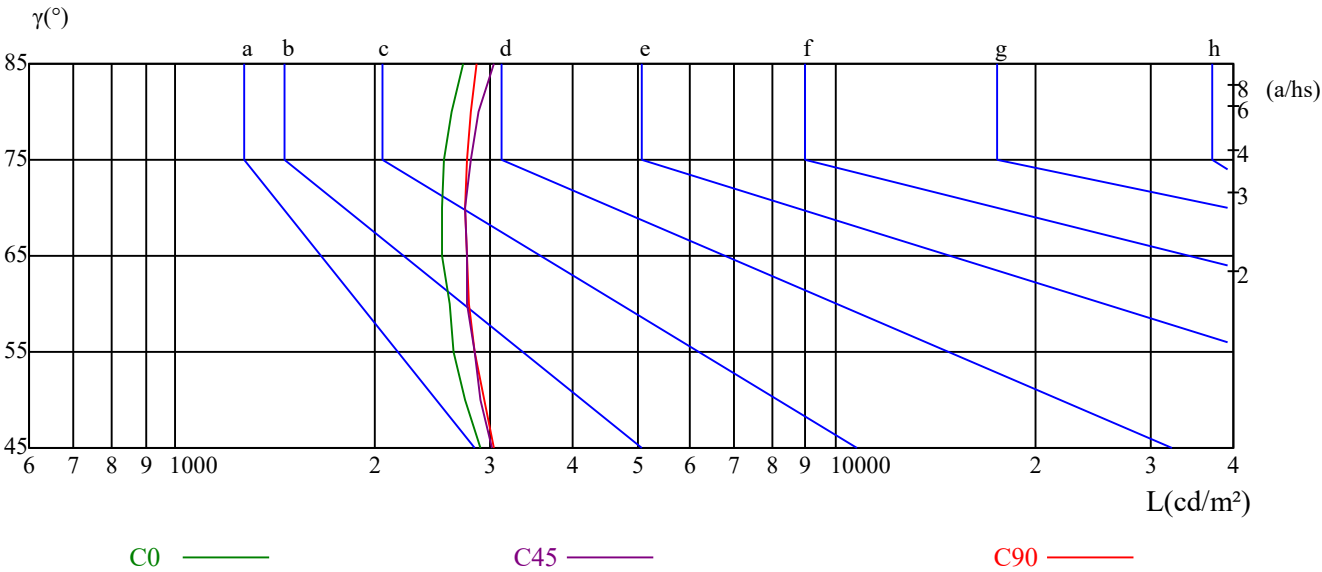
γ	45	50	55	60	65	70	75	80	85
C0	2890	2748	2645	2597	2531	2538	2546	2616	2733
C45	3012	2901	2832	2765	2755	2747	2799	2878	3031
C90	3030	2937	2831	2783	2754	2746	2759	2795	2857

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
9442	7220	8747	14647	9636	13320	42514	22892	38208

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	1.08	1.08	1.08	1.00	1.00	1.00	0.85	0.85	0.85	0.71	0.71	0.71	0.59	0.59	0.59	0.53
1	0.89	0.84	0.80	0.83	0.78	0.74	0.70	0.66	0.63	0.58	0.55	0.53	0.47	0.45	0.43	0.38
2	0.76	0.69	0.63	0.71	0.64	0.58	0.59	0.54	0.50	0.49	0.45	0.42	0.39	0.37	0.34	0.29
3	0.66	0.58	0.51	0.61	0.54	0.48	0.51	0.46	0.41	0.43	0.38	0.34	0.34	0.31	0.28	0.24
4	0.58	0.49	0.42	0.54	0.46	0.40	0.45	0.39	0.34	0.37	0.33	0.29	0.30	0.26	0.23	0.20
5	0.52	0.43	0.36	0.48	0.40	0.34	0.40	0.34	0.29	0.33	0.28	0.24	0.27	0.23	0.20	0.17
6	0.46	0.37	0.31	0.43	0.35	0.29	0.36	0.30	0.25	0.30	0.25	0.21	0.24	0.20	0.17	0.14
7	0.41	0.33	0.27	0.38	0.31	0.25	0.33	0.26	0.22	0.27	0.22	0.18	0.22	0.18	0.15	0.12
8	0.37	0.29	0.24	0.35	0.27	0.22	0.30	0.24	0.19	0.25	0.20	0.16	0.20	0.16	0.13	0.11
9	0.34	0.26	0.21	0.32	0.24	0.20	0.27	0.21	0.17	0.23	0.18	0.15	0.19	0.15	0.12	0.10
10	0.31	0.24	0.19	0.29	0.22	0.17	0.25	0.19	0.15	0.21	0.16	0.13	0.17	0.14	0.11	0.09

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	92.14	92.14	91.26	89.51	87.75	85.12	81.61	78.10	74.59
15.0	92.14	92.14	91.26	89.51	86.88	84.24	81.61	78.10	74.59
30.0	92.14	92.14	91.25	89.48	87.71	85.05	82.39	78.85	75.31
45.0	92.14	92.14	91.25	90.35	88.56	85.88	82.30	79.62	76.04
60.0	92.14	92.14	91.25	89.46	87.67	84.98	82.30	79.62	76.93
75.0	92.14	92.14	91.24	90.33	88.53	85.82	83.11	80.40	77.69
90.0	92.14	92.14	91.24	89.43	87.62	85.82	83.11	80.40	77.69
105.0	92.14	92.14	91.23	90.32	88.49	86.67	83.93	81.19	77.54
120.0	92.14	92.14	91.23	90.32	88.49	86.67	83.93	80.28	77.54
135.0	92.14	92.14	92.14	90.32	88.49	86.67	83.93	81.19	77.54
150.0	92.14	92.14	91.24	90.33	86.72	85.82	83.11	80.40	76.78
165.0	92.14	92.14	92.14	90.33	88.53	86.72	84.01	80.40	76.78
180.0	92.14	92.14	90.39	88.63	86.88	83.37	79.86	76.34	73.71
195.0	92.14	91.26	90.39	88.63	86.00	83.37	79.86	76.34	72.83
210.0	92.14	91.25	90.37	88.60	85.94	82.39	79.74	75.31	71.76
225.0	92.14	92.14	90.35	88.56	85.88	82.30	77.83	73.35	68.88
240.0	92.14	91.25	90.35	87.67	84.09	80.51	75.14	70.67	65.30
255.0	92.14	91.24	90.33	87.62	84.01	79.49	74.98	68.65	62.33
270.0	92.14	91.24	89.43	86.72	83.11	78.59	73.17	67.75	61.43
285.0	92.14	91.23	90.32	87.58	83.93	79.37	73.89	68.42	66.60
300.0	92.14	92.14	90.32	87.58	86.67	80.28	74.81	69.33	63.86
315.0	92.14	92.14	90.32	88.49	84.84	81.19	77.54	72.07	67.51
330.0	92.14	91.24	90.33	87.62	84.91	81.30	77.69	74.07	69.56
345.0	92.14	92.14	90.33	88.53	85.82	82.20	78.59	75.88	72.27
360.0	92.14	92.14	91.26	89.51	87.75	85.12	81.61	78.10	74.59
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	71.96	68.45	65.81	64.06	61.43	59.67	57.92	57.04	56.16
15.0	71.96	69.32	66.69	64.06	61.43	60.55	58.79	57.92	57.04
30.0	72.65	69.99	68.22	65.56	63.79	62.02	61.13	60.25	59.36
45.0	74.25	71.57	69.78	67.09	66.20	64.41	63.51	62.62	62.62
60.0	74.25	71.57	69.78	67.99	67.09	65.30	64.41	63.51	62.62
75.0	74.98	73.17	71.36	68.65	66.85	65.94	64.14	62.33	61.43
90.0	74.98	73.17	70.46	68.65	66.85	65.04	63.23	61.43	59.62
105.0	75.72	72.98	71.16	69.33	67.51	65.68	64.77	62.95	62.04
120.0	74.81	72.98	71.16	69.33	68.42	66.60	65.68	64.77	63.86
135.0	74.81	72.98	71.16	69.33	67.51	65.68	64.77	63.86	63.86
150.0	74.07	71.36	69.56	66.85	65.04	64.14	62.33	61.43	60.52
165.0	74.07	71.36	68.65	66.85	64.14	62.33	61.43	59.62	58.72
180.0	71.08	68.45	65.81	64.06	61.43	60.55	58.79	57.92	57.92
195.0	70.20	67.57	64.94	63.18	60.55	59.67	57.92	57.04	57.04
210.0	68.22	65.56	62.02	59.36	56.70	54.93	52.27	51.39	50.50
225.0	64.41	59.94	55.46	51.88	48.31	45.62	42.94	41.15	40.26
240.0	59.94	53.67	48.31	42.94	38.47	33.99	30.42	27.73	25.94
255.0	56.01	50.59	43.36	37.04	30.71	24.39	18.97	18.07	11.74
270.0	55.10	47.88	41.55	39.75	27.10	20.78	13.55	7.23	1.81
285.0	55.65	49.26	41.96	35.58	29.19	22.81	17.33	12.77	10.04
300.0	58.39	52.91	47.44	41.05	36.49	31.93	28.28	25.54	23.72
315.0	62.95	58.39	53.82	49.26	45.61	42.88	41.05	39.23	38.32
330.0	66.85	63.23	59.62	56.91	54.20	52.39	50.59	49.68	48.78
345.0	69.56	66.85	64.14	61.43	59.62	57.81	56.91	56.01	56.01
360.0	71.96	68.45	65.81	64.06	61.43	59.67	57.92	57.04	56.16

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	56.16	56.16	56.16	57.04	57.92	59.67	61.43	64.06	65.81
15.0	57.04	57.04	57.04	57.92	58.79	60.55	62.30	64.94	66.69
30.0	59.36	58.47	59.36	60.25	61.13	62.90	64.68	66.45	69.11
45.0	61.73	61.73	62.62	62.62	63.51	65.30	66.20	67.99	69.78
60.0	62.62	62.62	63.51	63.51	64.41	66.20	67.09	68.88	70.67
75.0	60.52	61.43	62.33	63.23	64.14	66.85	68.65	70.46	72.27
90.0	57.81	58.72	60.52	62.33	64.14	65.94	67.75	70.46	72.27
105.0	61.12	61.12	62.04	63.86	64.77	66.60	69.33	70.25	72.98
120.0	63.86	63.86	63.86	64.77	65.68	67.51	69.33	70.25	72.07
135.0	62.95	62.95	62.95	63.86	64.77	66.60	67.51	69.33	71.16
150.0	60.52	60.52	60.52	61.43	62.33	64.14	65.04	67.75	69.56
165.0	58.72	58.72	58.72	59.62	60.52	62.33	64.14	65.94	68.65
180.0	57.04	57.92	57.92	58.79	60.55	62.30	64.06	66.69	69.32
195.0	56.16	57.04	57.92	58.79	59.67	61.43	63.18	65.81	67.57
210.0	50.50	51.39	52.27	53.16	54.93	56.70	59.36	61.13	63.79
225.0	39.36	40.26	41.15	42.94	45.62	47.41	48.31	52.78	55.46
240.0	25.94	25.94	26.84	29.52	31.31	34.89	37.57	39.36	41.15
255.0	10.84	11.74	12.65	14.45	17.16	19.87	22.58	23.49	25.29
270.0	0.90	2.71	4.52	7.23	9.03	11.74	13.55	15.36	16.26
285.0	9.12	8.21	10.04	11.86	13.68	15.51	17.33	19.16	20.07
300.0	22.81	23.72	24.63	25.54	28.28	31.02	33.75	36.49	38.32
315.0	38.32	38.32	40.14	41.05	43.79	45.61	48.35	52.00	52.91
330.0	48.78	49.68	50.59	52.39	54.20	56.01	57.81	60.52	62.33
345.0	56.01	56.01	56.91	57.81	59.62	61.43	63.23	65.04	66.85
360.0	56.16	56.16	56.16	57.04	57.92	59.67	61.43	64.06	65.81
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	68.45	71.08	73.71	77.22	79.86	81.61	79.86	73.71	59.67
15.0	69.32	71.96	74.59	77.22	80.73	83.37	85.12	80.73	71.96
30.0	70.88	73.54	76.19	79.74	82.39	85.05	86.82	85.94	78.85
45.0	72.46	74.25	76.93	80.51	83.19	85.88	88.56	88.56	83.19
60.0	72.46	75.14	77.83	80.51	83.19	85.88	88.56	88.56	84.98
75.0	74.07	75.88	78.59	81.30	84.91	86.72	89.43	90.33	87.62
90.0	74.07	75.88	78.59	81.30	84.01	86.72	88.53	89.43	87.62
105.0	74.81	76.63	79.37	82.11	84.84	87.58	89.40	90.32	88.49
120.0	73.89	76.63	78.46	82.11	84.84	87.58	89.40	90.32	87.58
135.0	73.89	75.72	78.46	81.19	83.93	86.67	89.40	90.32	85.75
150.0	72.27	74.98	76.78	80.40	83.11	85.82	87.62	88.53	82.20
165.0	71.36	74.07	76.78	79.49	82.20	84.91	86.72	84.91	77.69
180.0	71.96	74.59	77.22	79.86	82.49	82.49	78.10	71.08	25.45
195.0	69.32	71.96	74.59	76.34	78.10	77.22	68.45	56.16	9.65
210.0	66.45	66.45	69.99	70.88	67.33	61.13	55.82	35.44	1.77
225.0	58.15	59.04	59.94	56.36	50.99	44.73	41.15	18.79	0.89
240.0	42.94	44.73	42.94	37.57	31.31	25.94	25.05	6.26	4.47
255.0	28.00	30.71	26.20	19.87	12.65	8.13	9.94	0.90	6.32
270.0	18.07	19.87	14.45	8.13	2.71	0.90	1.81	0.90	7.23
285.0	21.89	23.72	20.98	14.60	7.30	2.74	4.56	4.56	10.95
300.0	40.14	42.88	39.23	32.84	25.54	19.16	19.16	16.42	20.07
315.0	53.82	56.56	57.47	52.00	45.61	39.23	36.49	31.93	33.75
330.0	64.14	65.94	68.65	68.65	63.23	56.91	51.49	46.97	43.36
345.0	68.65	71.36	74.07	76.78	76.78	71.36	65.04	60.52	52.39
360.0	68.45	71.08	73.71	77.22	79.86	81.61	79.86	73.71	59.67

Intensity data(cd)

C/ γ (°)	180.0
0.0	15.80
15.0	27.20
30.0	43.41
45.0	59.04
60.0	64.41
75.0	70.46
90.0	71.36
105.0	72.07
120.0	71.16
135.0	68.42
150.0	66.85
165.0	64.14
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	15.80