
乐达凯

Client:

LumCAT: KNTW0816LAJUDBK

Luminaire: LED lamp

Report No:

Ballast type:

Test No: LCZP25010145

Voltage(V): 119.950

LampCAT:

Current(A): 0.172

Lamp flux(lm): 1688.1

Power (W): 20.390

Number of Lamps: 1

PF: 0.990

Length(mm): 155

Width(mm): 55

Phm Type: C

Height(mm): 360

Photometric Results

Lumens(lm): 1688.07, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 82.79

Central intensity(cd): 36.710, Maximum intensity(cd): 393.514

Angle of maximum intensity: C=75.0 γ =90.0

Beam Angle(50%Imax): [C0/180]Total=289.4

[C90/270]Total=116.8

Field angle(10%Imax): [C0/180]Total=337.4

[C90/270]Total=168.5

Maximum s/h(1/2): C0_180=2.92 C90_270=5.09

Maximum s/h(1/4): C0_180=2.87 C90_270=4.75

Up flux rate of lamp(%): 47.60%

Down flux rate of lamp(%): 52.40%

Up flux rate of LUM(%): 47.60%

Down flux rate of LUM(%): 52.40%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 21.589%

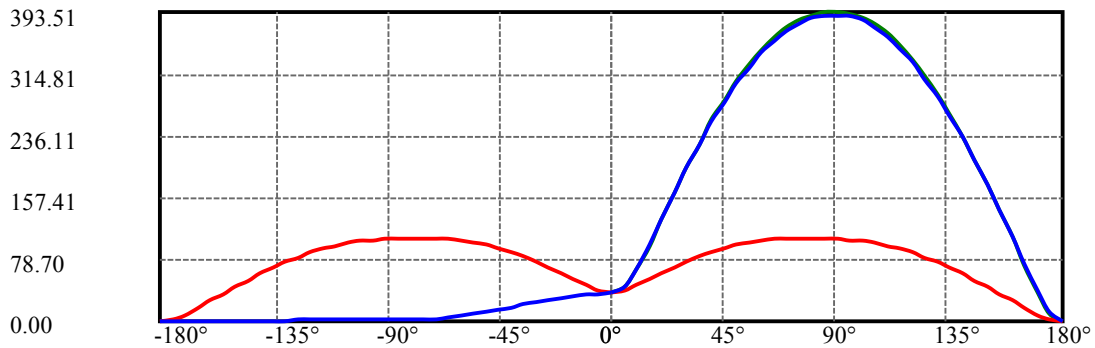
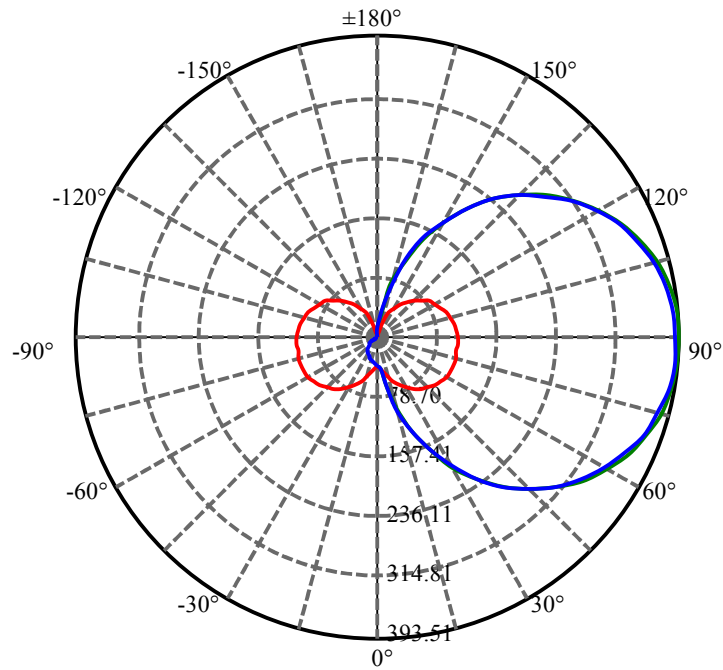
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	36.710	0.000	0	0.00%	0.00%
5.0	39.052	0.906	0.906	0.05%	0.05%
10.0	47.549	3.098	4.004	0.18%	0.24%
15.0	59.429	6.346	10.35	0.38%	0.61%
20.0	73.095	10.922	21.271	0.65%	1.26%
25.0	85.500	16.634	37.905	0.99%	2.25%
30.0	98.186	23.246	61.151	1.38%	3.62%
35.0	110.132	30.676	91.827	1.82%	5.44%
40.0	121.398	38.629	130.456	2.29%	7.73%
45.0	131.165	46.764	177.22	2.77%	10.50%
50.0	140.007	54.794	232.014	3.25%	13.74%
55.0	147.776	62.574	294.588	3.71%	17.45%
60.0	154.401	69.847	364.435	4.14%	21.59%
65.0	159.569	76.327	440.762	4.52%	26.11%
70.0	163.747	81.866	522.627	4.85%	30.96%
75.0	167.064	86.469	609.096	5.12%	36.08%
80.0	169.239	89.985	699.082	5.33%	41.41%
85.0	170.219	92.239	791.32	5.46%	46.88%
90.0	170.285	93.233	884.553	5.52%	52.40%
95.0	169.492	93.033	977.586	5.51%	57.91%
100.0	167.242	91.499	1069.085	5.42%	63.33%
105.0	163.345	88.456	1157.541	5.24%	68.57%
110.0	157.979	83.989	1241.53	4.98%	73.55%
115.0	151.282	78.307	1319.837	4.64%	78.19%
120.0	143.265	71.605	1391.441	4.24%	82.43%
125.0	133.831	64.050	1455.491	3.79%	86.22%
130.0	123.389	55.928	1511.419	3.31%	89.54%
135.0	111.900	47.544	1558.963	2.82%	92.35%
140.0	99.463	39.136	1598.099	2.32%	94.67%
145.0	86.161	30.970	1629.069	1.83%	96.50%
150.0	72.081	23.302	1652.371	1.38%	97.89%
155.0	57.393	16.385	1668.756	0.97%	98.86%
160.0	42.534	10.480	1679.236	0.62%	99.48%
165.0	27.337	5.758	1684.995	0.34%	99.82%
170.0	13.393	2.416	1687.411	0.14%	99.96%
175.0	3.657	0.610	1688.021	0.04%	100.00%
180.0	0.509	0.050	1688.071	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	61.15	3.62%	3.62%
0-40	130.46	7.73%	7.73%
0-60	364.43	21.59%	21.59%
0-90	884.55	52.40%	52.40%
0-120	1391.44	82.43%	82.43%
0-180	1688.07	100.00%	100.00%
60-90	520.12	30.81%	30.81%
90-120	506.89	30.03%	30.03%
90-130	626.87	37.14%	37.14%
90-150	767.82	45.48%	45.48%
90-180	803.47	47.60%	47.60%
0-117.14	1350.46	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	4.00
10-20	17.27
20-30	39.88
30-40	69.31
40-50	101.56
50-60	132.42
60-70	158.19
70-80	176.45
80-90	185.47
90-100	184.53
100-110	172.44
110-120	149.91
120-130	119.98
130-140	86.68
140-150	54.27
150-160	26.87
160-170	8.17
170-180	0.61



C75(Max): —————

C0/C180: —————

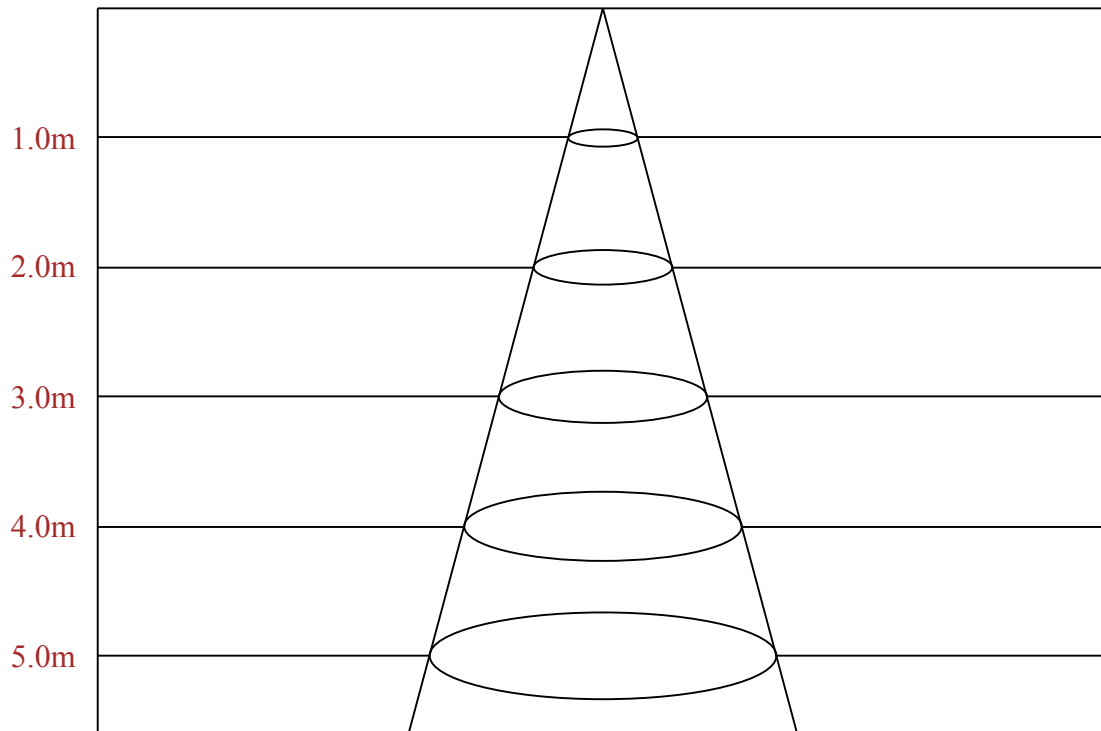
C90/C270: —————

Field angle(10%Imax):C0/180Left:243.7 Right:93.7

:C90/270Left:88.4 Right:80.1

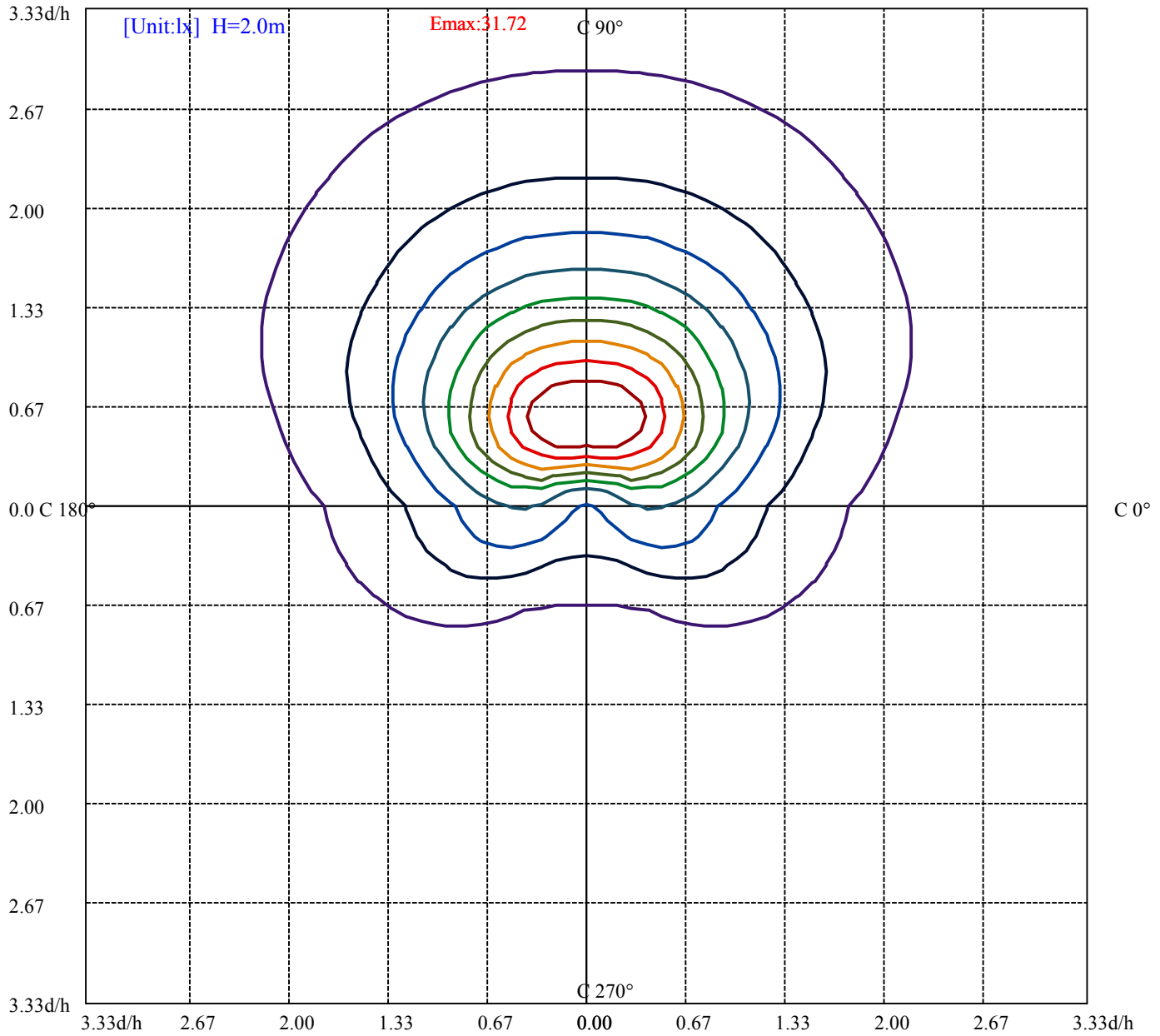
Beam Angle(50%Imax):C0/180Left:219.7 Right:69.7

:C90/270Left:60.1 Right:56.7

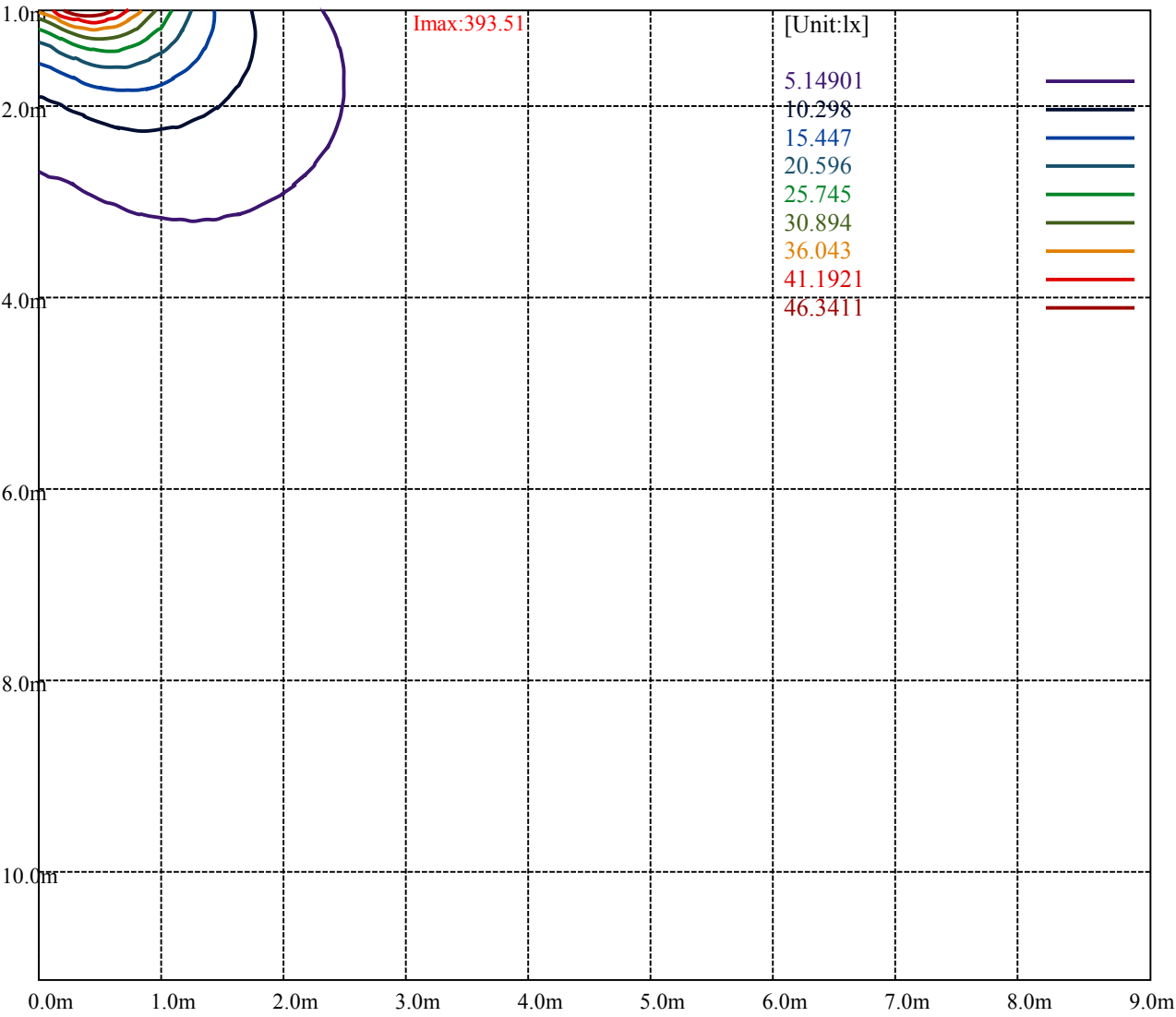


Max , Ave

Beam angle of C75 plane 216.03



(10%Emax) 3.1715	—
(20%Emax) 6.343	—
(30%Emax) 9.514475	—
(40%Emax) 12.68598	—
(50%Emax) 15.85748	—
(60%Emax) 19.02897	—
(70%Emax) 22.20048	—
(80%Emax) 25.372	—
(90%Emax) 28.5435	—



Luminance Table

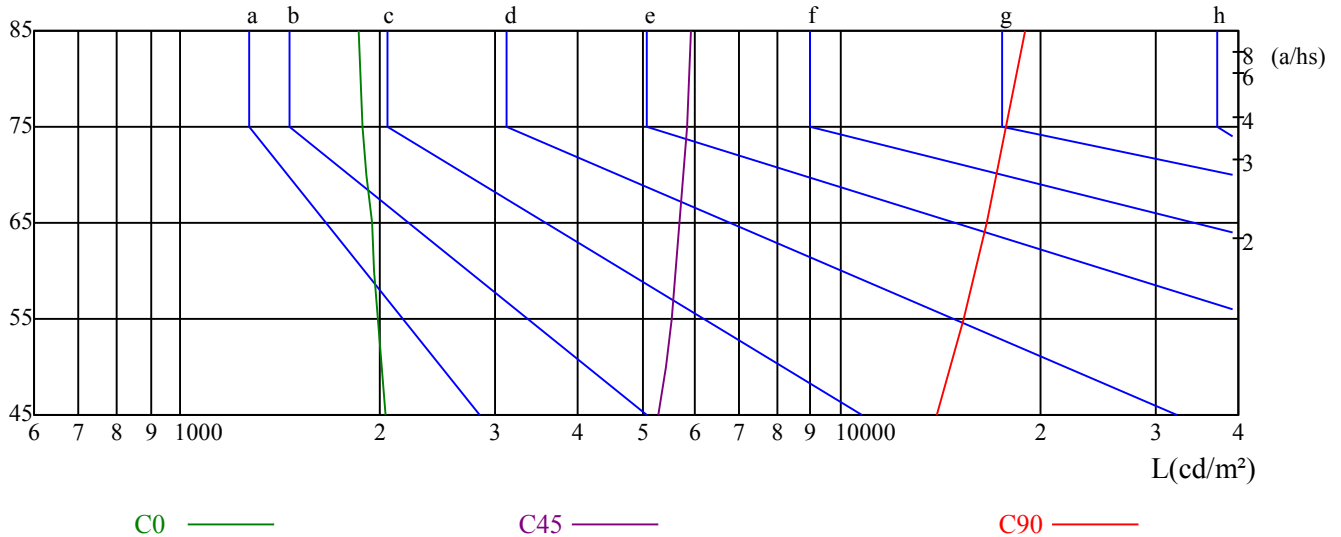
γ	45	50	55	60	65	70	75	80	85
C0	2049	2023	1995	1968	1945	1916	1892	1870	1856
C45	5282	5417	5529	5627	5697	5780	5836	5893	5949
C90	13962	14682	15324	15997	16601	17201	17803	18392	19004

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
29242	50162	46937	48106	86759	80424	140734	264139	244283

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	1.08	1.08	1.08	1.00	1.00	1.00	0.85	0.85	0.85	0.71	0.71	0.71	0.58	0.58	0.58	0.52
1	0.86	0.80	0.74	0.79	0.74	0.69	0.66	0.62	0.58	0.54	0.51	0.48	0.43	0.40	0.38	0.33
2	0.72	0.64	0.56	0.66	0.58	0.52	0.55	0.49	0.44	0.44	0.40	0.36	0.34	0.31	0.28	0.23
3	0.61	0.52	0.44	0.56	0.48	0.41	0.46	0.40	0.34	0.37	0.32	0.28	0.29	0.25	0.21	0.17
4	0.53	0.43	0.36	0.49	0.40	0.33	0.40	0.33	0.28	0.32	0.27	0.22	0.25	0.20	0.17	0.13
5	0.47	0.37	0.30	0.43	0.34	0.27	0.35	0.28	0.23	0.28	0.23	0.18	0.22	0.17	0.14	0.10
6	0.41	0.32	0.25	0.38	0.29	0.23	0.31	0.24	0.19	0.25	0.19	0.15	0.19	0.15	0.11	0.08
7	0.37	0.28	0.21	0.34	0.26	0.20	0.28	0.21	0.16	0.22	0.17	0.13	0.17	0.13	0.10	0.07
8	0.33	0.24	0.18	0.30	0.22	0.17	0.25	0.19	0.14	0.20	0.15	0.11	0.16	0.11	0.08	0.06
9	0.30	0.22	0.16	0.28	0.20	0.15	0.23	0.17	0.12	0.18	0.13	0.10	0.14	0.10	0.07	0.05
10	0.27	0.19	0.14	0.25	0.18	0.13	0.21	0.15	0.11	0.17	0.12	0.09	0.13	0.09	0.06	0.04

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	36.71	38.55	44.68	52.48	60.19	68.43	75.61	82.36	88.31
15.0	36.71	39.09	47.01	58.54	71.57	85.39	99.21	111.98	124.74
30.0	36.71	40.18	52.89	70.22	92.17	113.33	135.37	156.71	176.53
45.0	36.71	41.19	58.29	82.91	110.67	139.32	166.09	194.38	218.29
60.0	36.71	42.86	63.74	92.86	123.42	156.06	187.89	218.18	246.21
75.0	36.71	43.09	65.95	96.92	130.62	164.42	197.30	226.73	257.15
90.0	36.71	43.54	65.40	98.01	129.80	163.24	195.30	225.63	253.78
105.0	36.71	43.45	64.95	95.28	128.53	161.78	194.30	223.81	253.87
120.0	36.71	42.18	62.22	88.72	121.42	151.76	183.09	212.79	240.66
135.0	36.71	38.61	53.59	75.67	100.95	127.19	151.95	178.09	200.17
150.0	36.71	39.25	50.43	67.06	102.04	106.77	127.48	147.38	166.37
165.0	36.71	38.34	45.14	55.84	66.98	79.31	91.55	103.33	115.21
180.0	36.71	40.48	47.31	55.02	62.82	70.27	77.10	82.79	88.66
195.0	36.71	39.61	44.37	50.88	56.78	62.68	68.05	72.89	77.12
210.0	36.71	38.04	41.33	45.15	49.06	52.80	56.18	58.84	61.24
225.0	36.71	36.80	37.61	38.68	39.75	40.92	41.81	42.17	42.44
240.0	36.71	35.81	34.72	33.55	32.10	30.29	28.48	26.40	24.41
255.0	36.71	35.34	33.61	31.88	29.60	26.96	24.32	21.50	18.58
270.0	36.71	35.07	33.25	31.24	29.15	26.51	23.87	21.04	18.04
285.0	36.71	35.34	33.61	31.79	29.70	27.15	24.41	21.59	20.95
300.0	36.71	36.07	35.43	34.61	34.52	32.79	31.43	29.70	27.96
315.0	36.71	35.50	36.97	38.70	40.61	42.34	43.64	44.59	45.11
330.0	36.71	38.71	42.53	47.25	51.98	56.15	60.06	63.42	66.24
345.0	36.71	40.15	46.14	53.03	59.82	66.17	71.97	76.86	81.49
360.0	36.71	38.55	44.68	52.48	60.19	68.43	75.61	82.36	88.31
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	93.48	98.04	101.63	104.43	106.54	107.50	107.68	107.15	106.10
15.0	136.45	147.01	156.35	164.27	170.70	175.36	178.71	180.38	180.73
30.0	194.93	210.57	225.95	237.77	248.26	256.43	262.30	265.77	266.57
45.0	241.30	262.07	280.34	296.27	308.36	319.73	326.63	331.55	333.79
60.0	272.25	295.58	314.93	333.10	348.38	360.50	369.27	374.87	378.13
75.0	282.20	306.52	328.11	347.06	362.91	375.66	385.41	391.78	394.61
90.0	279.65	303.15	323.46	342.50	357.71	370.19	379.76	385.86	388.96
105.0	279.29	303.52	325.01	343.69	359.54	371.20	381.13	387.59	391.05
120.0	266.17	287.85	309.71	326.20	341.23	353.43	362.54	368.37	371.56
135.0	221.73	240.95	258.01	272.73	284.76	294.72	301.82	306.40	308.66
150.0	183.82	199.63	213.08	225.26	235.16	243.16	248.70	252.33	253.61
165.0	124.81	134.24	142.49	149.74	155.45	159.80	162.61	164.24	164.42
180.0	92.96	97.07	100.23	102.59	104.17	104.61	104.61	103.91	103.03
195.0	80.73	83.63	85.66	87.50	88.21	88.47	88.30	88.03	88.03
210.0	63.20	64.71	65.60	66.04	66.22	65.86	65.42	66.04	66.40
225.0	42.35	41.99	41.46	40.56	39.57	38.59	38.59	39.40	39.84
240.0	21.97	19.62	17.45	15.28	13.20	11.30	11.94	12.39	12.84
255.0	15.21	12.02	9.29	6.56	4.10	2.73	3.19	3.28	3.73
270.0	14.76	11.66	8.84	8.20	3.73	2.82	3.10	3.46	3.55
285.0	15.39	12.30	9.38	6.56	4.01	2.73	3.01	3.37	3.55
300.0	26.05	23.96	22.04	19.95	17.94	16.31	16.85	17.22	17.49
315.0	45.45	45.37	45.11	44.50	43.72	42.86	42.77	43.46	43.72
330.0	68.51	70.24	71.51	72.15	72.24	72.06	71.60	71.69	72.15
345.0	85.29	88.47	91.00	92.73	93.54	93.90	93.63	93.18	92.73
360.0	93.48	98.04	101.63	104.43	106.54	107.50	107.68	107.15	106.10

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	105.40	104.96	103.65	101.37	98.21	94.18	89.45	83.93	77.62
15.0	180.29	179.68	177.03	172.72	166.73	159.08	150.45	139.44	128.18
30.0	266.75	265.59	261.95	256.08	247.90	237.50	224.70	209.77	192.79
45.0	334.24	332.98	328.87	321.61	311.58	298.96	283.38	265.29	246.04
60.0	378.40	376.86	371.98	363.75	352.27	338.98	321.35	301.09	278.22
75.0	395.06	392.97	388.59	379.76	367.46	351.98	333.58	313.08	289.40
90.0	389.51	387.87	382.95	374.38	362.45	347.24	329.75	309.16	286.12
105.0	391.96	390.42	385.50	376.93	365.18	349.97	331.84	310.89	288.94
120.0	372.11	370.83	366.64	358.72	347.60	334.67	317.82	298.14	275.73
135.0	308.92	308.05	304.85	298.35	289.35	277.83	264.07	247.44	228.66
150.0	254.06	253.24	249.97	244.34	237.07	227.16	214.99	200.81	184.64
165.0	164.24	163.61	161.34	157.90	152.55	145.75	137.50	128.35	117.20
180.0	102.68	101.72	99.88	97.16	93.57	89.45	84.11	78.50	72.02
195.0	87.94	87.06	85.48	83.19	80.11	76.32	71.83	67.08	61.53
210.0	66.40	65.86	64.62	62.84	60.35	57.51	53.95	50.04	45.69
225.0	39.93	39.49	38.68	37.61	35.99	33.93	33.31	29.10	26.23
240.0	12.84	12.75	12.75	12.03	11.21	10.31	9.40	8.32	7.32
255.0	3.64	3.55	3.46	3.10	2.73	2.28	1.91	1.37	0.91
270.0	3.64	3.64	3.46	3.10	2.64	2.19	1.82	1.28	0.82
285.0	3.55	3.46	3.37	3.01	2.73	2.19	1.91	1.37	1.00
300.0	17.31	17.13	16.76	16.03	15.12	13.94	12.75	11.48	9.84
315.0	43.64	43.20	42.25	40.87	39.31	36.97	34.72	31.86	28.83
330.0	71.87	71.33	69.97	67.97	65.33	62.15	58.24	53.97	49.52
345.0	92.45	91.55	89.83	87.47	84.02	80.22	75.50	70.16	64.08
360.0	105.40	104.96	103.65	101.37	98.21	94.18	89.45	83.93	77.62
C/ γ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	70.62	63.43	55.37	46.70	37.59	28.74	18.75	10.16	2.98
15.0	114.97	100.89	86.62	69.99	54.93	39.09	24.12	11.36	3.17
30.0	175.28	153.59	132.62	109.06	84.71	60.26	37.69	16.80	3.47
45.0	223.12	198.23	171.37	144.24	112.55	82.46	51.39	23.64	5.28
60.0	254.07	225.05	196.75	165.10	132.28	98.28	65.10	32.28	8.59
75.0	263.25	235.11	205.14	175.17	142.28	107.49	72.14	37.07	10.29
90.0	260.61	234.65	205.32	174.71	142.65	108.67	73.51	39.72	11.66
105.0	262.98	234.74	206.23	172.89	141.56	107.49	71.96	36.98	11.20
120.0	251.68	224.72	195.39	164.24	131.44	97.47	64.31	32.16	8.38
135.0	207.70	184.67	159.83	134.46	106.58	77.49	48.66	22.86	5.89
150.0	166.56	147.02	126.85	104.68	81.60	58.34	36.89	17.08	4.00
165.0	105.96	93.27	79.76	65.81	52.03	37.62	23.66	11.51	3.72
180.0	64.92	57.30	49.68	41.27	32.33	23.30	14.81	6.66	0.79
195.0	55.46	48.95	42.17	34.77	27.47	25.27	11.80	5.37	0.70
210.0	40.98	39.73	30.75	25.15	19.73	13.96	8.44	3.29	0.62
225.0	23.28	20.15	17.10	13.88	10.57	7.16	4.21	1.61	0.63
240.0	6.24	5.33	4.34	3.53	2.71	2.08	1.09	0.45	0.81
255.0	0.55	0.46	0.36	0.55	0.46	0.46	0.36	0.55	0.73
270.0	0.55	0.36	0.27	0.27	0.27	0.36	0.36	0.46	0.73
285.0	0.64	0.46	0.46	0.46	0.46	0.55	0.46	0.46	0.73
300.0	8.65	7.29	5.92	4.74	3.46	2.46	1.37	0.82	0.82
315.0	25.54	22.25	18.79	15.15	11.43	7.71	4.50	1.90	0.87
330.0	44.34	38.80	32.98	27.17	20.54	14.54	8.54	3.36	0.91
345.0	57.65	50.67	43.78	35.98	27.83	19.58	11.96	4.89	0.82
360.0	70.62	63.43	55.37	46.70	37.59	28.74	18.75	10.16	2.98

Intensity data(cd)

C/ $\gamma(^{\circ})$	180.0
0.0	0.61
15.0	0.88
30.0	1.16
45.0	1.16
60.0	1.18
75.0	1.18
90.0	1.09
105.0	1.09
120.0	1.09
135.0	0.95
150.0	0.91
165.0	0.91
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	0.61