
乐达凯

Client:

LumCAT: SYDC13LAJUDBK

Luminaire: LED lamp

Report No:

Ballast type:

Test No: LCZP25010154

Voltage(V): 119.990

LampCAT:

Current(A): 0.207

Lamp flux(lm): 1780.1

Power (W): 24.620

Number of Lamps: 1

PF: 0.993

Length(mm): -320

Width(mm): -320

Phm Type: C

Height(mm): 70

Photometric Results

Lumens(lm): 1780.09, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 72.30

Central intensity(cd): 303.988, Maximum intensity(cd): 305.022

Angle of maximum intensity: C=45.0 γ =10.0

Beam Angle(50%Imax): [C0/180]Total=138.6

[C90/270]Total=138.2

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

[C90/270]Total=N.A.

Maximum s/h(1/2): C0_180=1.38 C90_270=1.37

Maximum s/h(1/4): C0_180=1.51 C90_270=1.51

Up flux rate of lamp(%): 32.89%

Down flux rate of lamp(%): 67.11%

Up flux rate of LUM(%): 32.89%

Down flux rate of LUM(%): 67.11%

CIE Type : Semidirect lighting

Output flux ratio in π solid angle : 44.436%

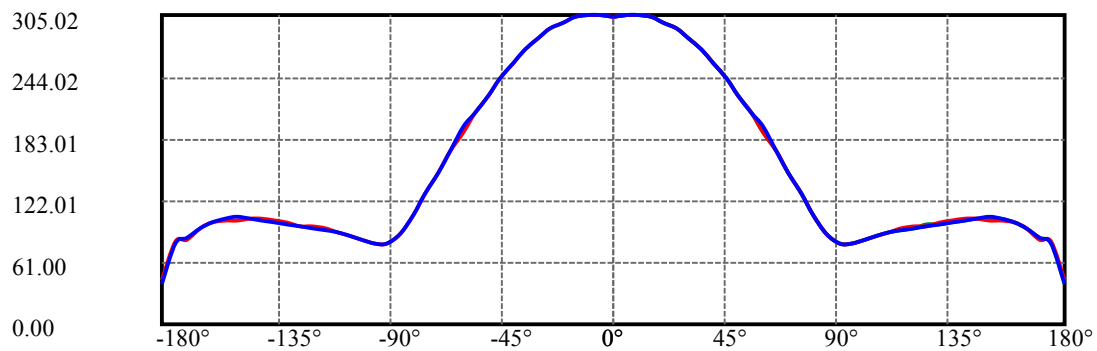
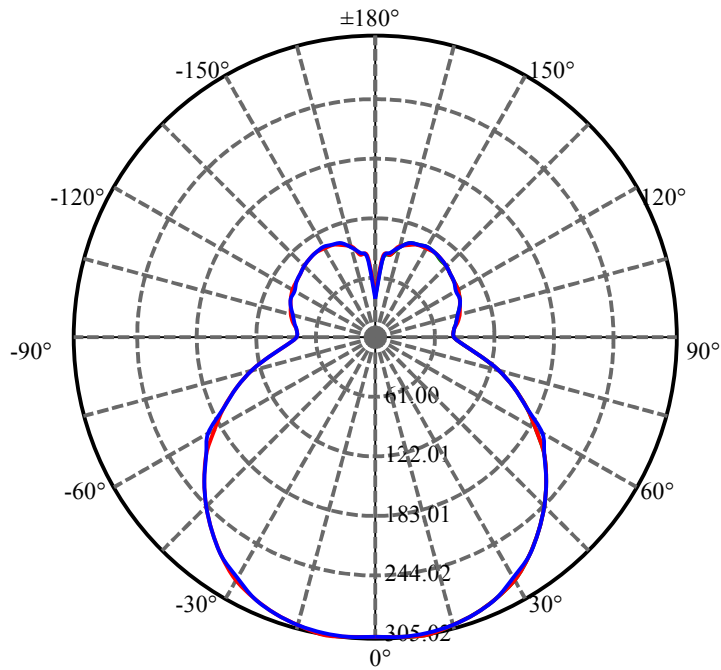
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	303.988	0.000	0	0.00%	0.00%
5.0	304.699	7.277	7.277	0.41%	0.41%
10.0	304.796	21.804	29.08	1.22%	1.63%
15.0	302.605	36.031	65.111	2.02%	3.66%
20.0	297.939	49.493	114.604	2.78%	6.44%
25.0	290.848	61.753	176.357	3.47%	9.91%
30.0	281.655	72.451	248.808	4.07%	13.98%
35.0	270.182	81.262	330.07	4.57%	18.54%
40.0	257.357	88.016	418.085	4.94%	23.49%
45.0	241.973	92.455	510.54	5.19%	28.68%
50.0	225.318	94.423	604.963	5.30%	33.99%
55.0	207.857	94.187	699.15	5.29%	39.28%
60.0	189.510	91.850	791	5.16%	44.44%
65.0	169.543	87.286	878.287	4.90%	49.34%
70.0	148.873	80.625	958.912	4.53%	53.87%
75.0	128.271	72.441	1031.352	4.07%	57.94%
80.0	108.381	63.321	1094.674	3.56%	61.50%
85.0	89.146	53.673	1148.347	3.02%	64.51%
90.0	79.638	46.214	1194.561	2.60%	67.11%
95.0	79.607	43.602	1238.163	2.45%	69.56%
100.0	83.405	44.294	1282.457	2.49%	72.04%
105.0	87.423	45.709	1328.166	2.57%	74.61%
110.0	90.762	46.575	1374.741	2.62%	77.23%
115.0	93.468	46.648	1421.389	2.62%	79.85%
120.0	95.584	45.959	1467.348	2.58%	82.43%
125.0	97.472	44.624	1511.973	2.51%	84.94%
130.0	99.280	42.780	1554.753	2.40%	87.34%
135.0	101.137	40.497	1595.25	2.28%	89.62%
140.0	102.839	37.768	1633.018	2.12%	91.74%
145.0	104.213	34.545	1667.563	1.94%	93.68%
150.0	104.651	30.757	1698.32	1.73%	95.41%
155.0	103.260	26.311	1724.631	1.48%	96.88%
160.0	100.530	21.374	1746.005	1.20%	98.09%
165.0	94.684	16.088	1762.093	0.90%	98.99%
170.0	84.949	10.656	1772.749	0.60%	99.59%
175.0	79.991	5.900	1778.649	0.33%	99.92%
180.0	40.354	1.439	1780.088	0.08%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	248.81	13.98%	13.98%
0-40	418.09	23.49%	23.49%
0-60	791.00	44.44%	44.44%
0-90	1194.56	67.11%	67.11%
0-120	1467.35	82.43%	82.43%
0-180	1780.09	100.00%	100.00%
60-90	403.56	22.67%	22.67%
90-120	272.79	15.32%	15.32%
90-130	360.19	20.23%	20.23%
90-150	503.76	28.30%	28.30%
90-180	584.09	32.81%	32.81%
0-115.29	1424.07	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	29.08
10-20	85.52
20-30	134.20
30-40	169.28
40-50	186.88
50-60	186.04
60-70	167.91
70-80	135.76
80-90	99.89
90-100	87.90
100-110	92.28
110-120	92.61
120-130	87.40
130-140	78.26
140-150	65.30
150-160	47.69
160-170	26.74
170-180	5.90

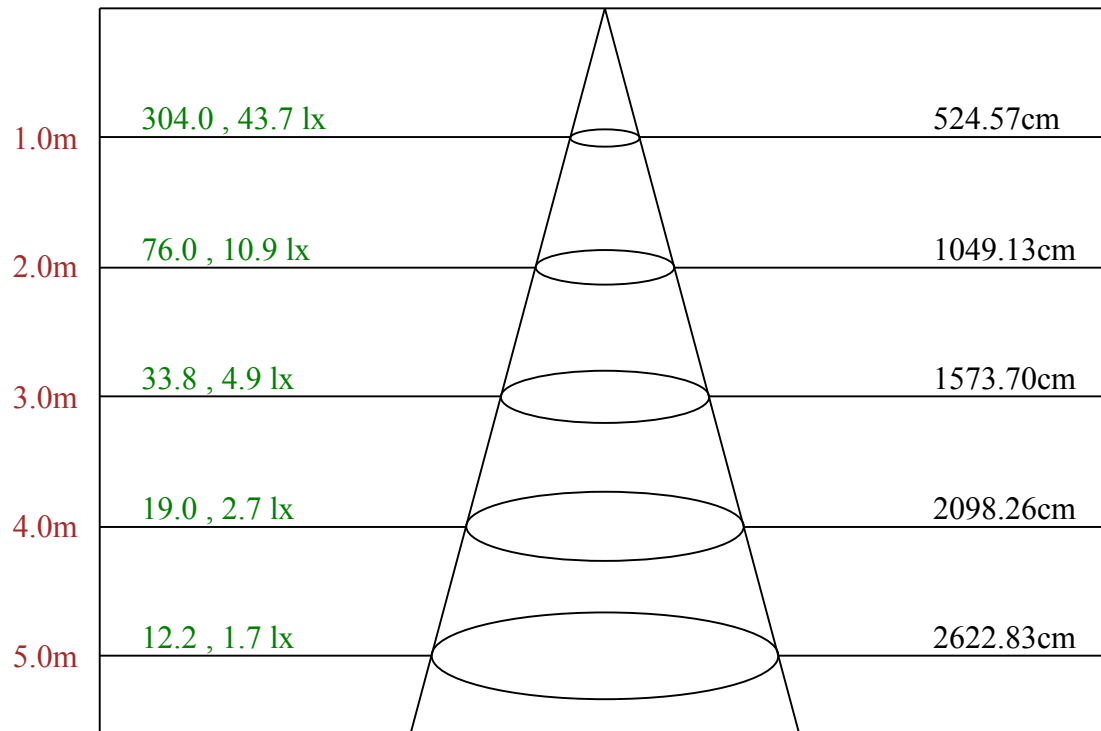
C45(Max): ———C0/C180: ———C90/C270: ———

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

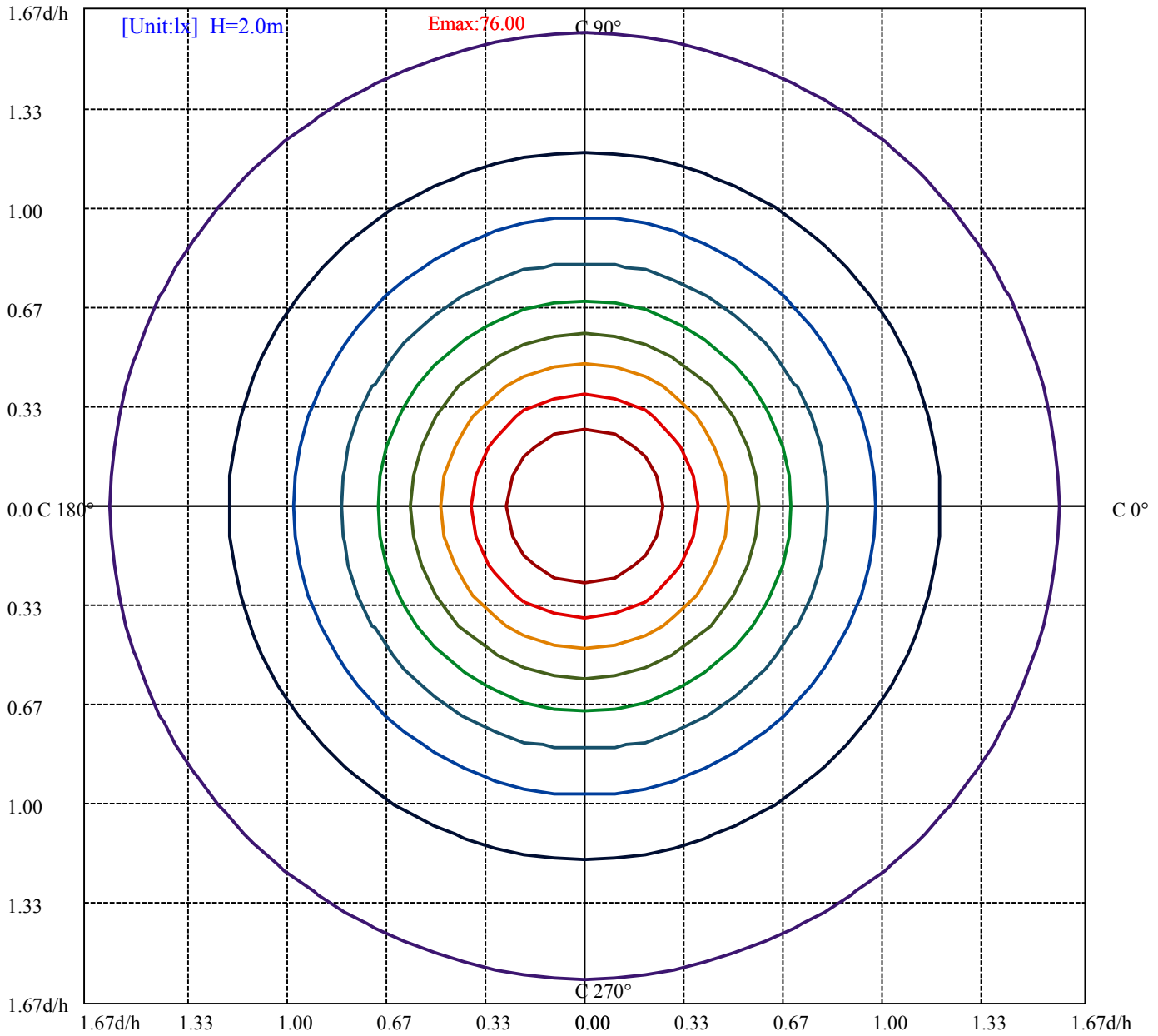
:C90/270Left:0.0 Right:0.0

Beam Angle(50%Imax):C0/180Left:79.3 Right:59.3

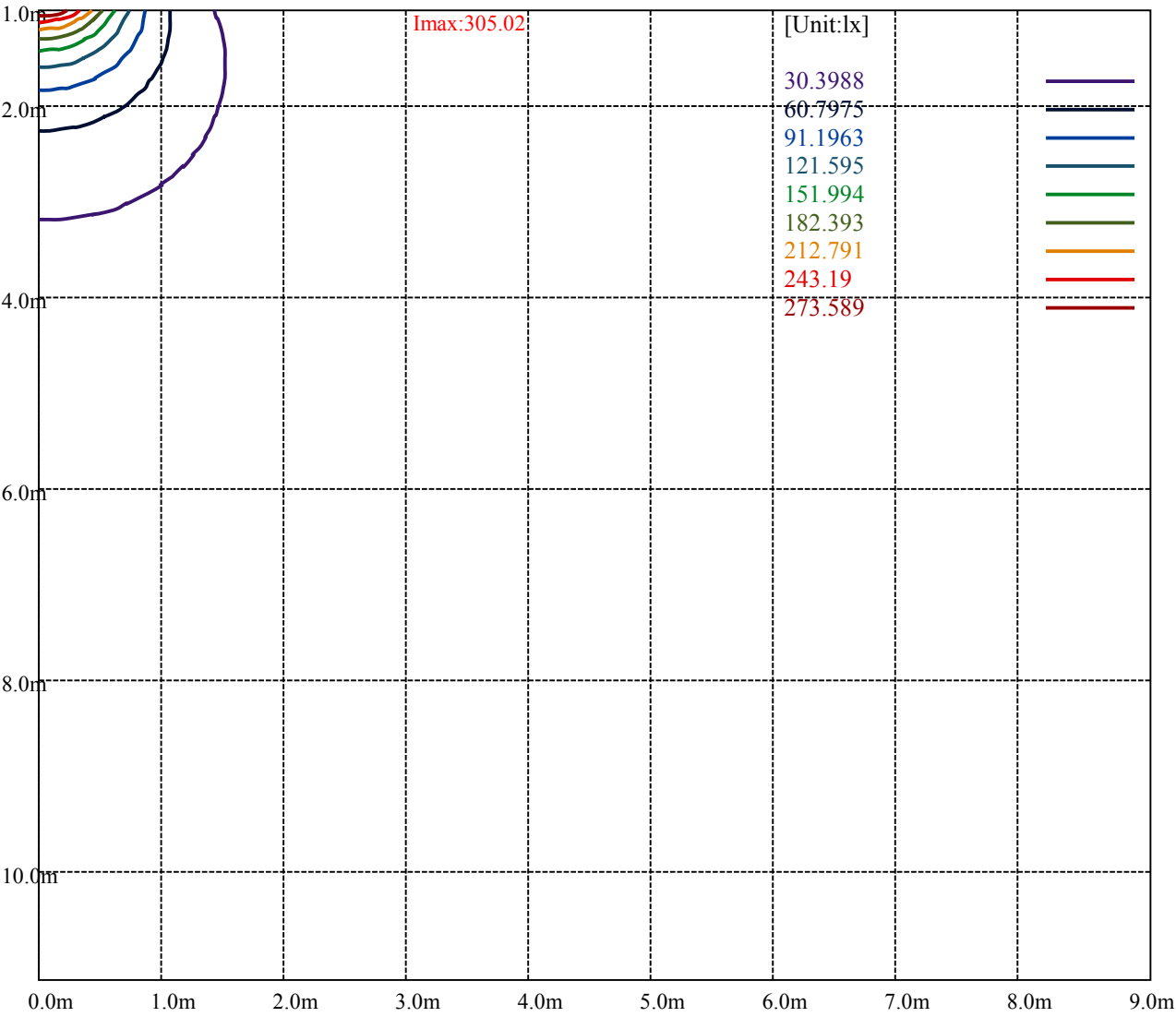
:C90/270Left:74.1 Right:64.1



Max , Ave Beam angle of C45 plane 138.26



(10%Emax)	7.5997	
(20%Emax)	15.1994	
(30%Emax)	22.79907	
(40%Emax)	30.39875	
(50%Emax)	37.9985	
(60%Emax)	45.59825	
(70%Emax)	53.19775	
(80%Emax)	60.7975	
(90%Emax)	68.39725	



Luminance Table

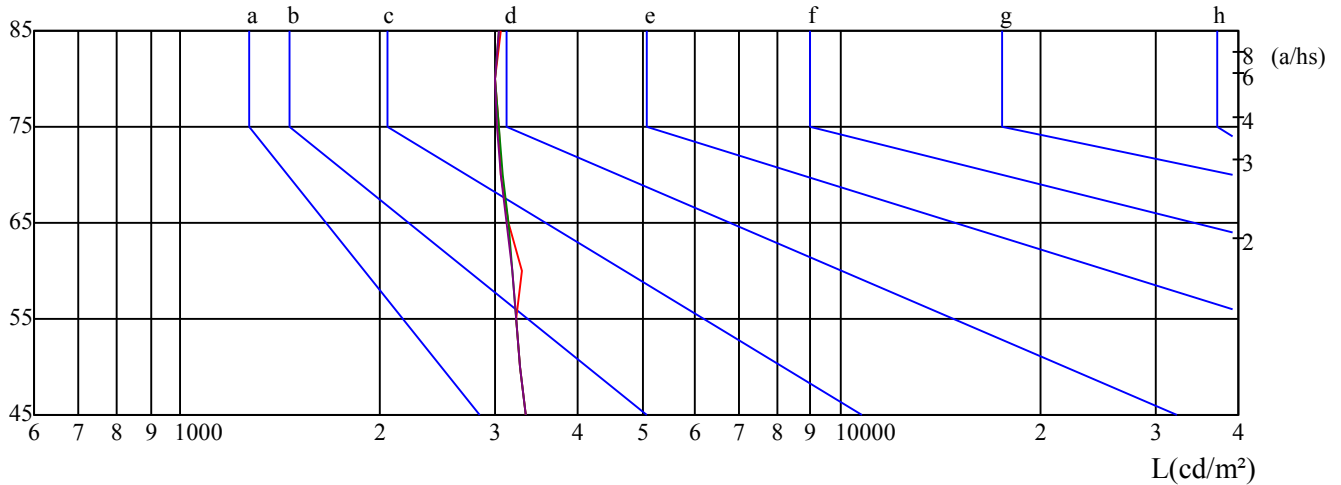
γ	45	50	55	60	65	70	75	80	85
C0	3330	3275	3230	3175	3131	3081	3030	3000	3045
C45	3329	3271	3229	3173	3123	3065	3019	2988	3041
C90	3323	3276	3220	3282	3128	3064	3026	2998	3047

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5000	4996	4989	6180	6171	6157	12737	12749	12722

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

 $\gamma(^{\circ})$ 

C0 ———

C45 ———

C90 ———

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	1.11	1.11	1.11	1.05	1.05	1.05	0.93	0.93	0.93	0.82	0.82	0.82	0.72	0.72	0.72	0.67
1	0.94	0.89	0.84	0.88	0.84	0.80	0.78	0.74	0.71	0.68	0.66	0.63	0.60	0.58	0.56	0.51
2	0.80	0.73	0.67	0.76	0.69	0.63	0.67	0.61	0.57	0.58	0.54	0.51	0.51	0.48	0.45	0.41
3	0.70	0.61	0.54	0.66	0.58	0.52	0.58	0.52	0.47	0.51	0.46	0.42	0.44	0.40	0.37	0.33
4	0.61	0.52	0.45	0.58	0.50	0.43	0.51	0.44	0.39	0.45	0.39	0.35	0.39	0.35	0.31	0.28
5	0.54	0.45	0.38	0.51	0.43	0.37	0.45	0.39	0.33	0.40	0.34	0.30	0.35	0.30	0.27	0.24
6	0.49	0.40	0.33	0.46	0.38	0.32	0.41	0.34	0.29	0.36	0.30	0.26	0.31	0.27	0.23	0.21
7	0.44	0.35	0.29	0.41	0.33	0.28	0.37	0.30	0.25	0.33	0.27	0.23	0.29	0.24	0.20	0.18
8	0.40	0.31	0.25	0.37	0.30	0.24	0.33	0.27	0.22	0.30	0.24	0.20	0.26	0.22	0.18	0.16
9	0.36	0.28	0.23	0.34	0.27	0.22	0.31	0.24	0.20	0.27	0.22	0.18	0.24	0.20	0.16	0.14
10	0.33	0.25	0.20	0.31	0.24	0.19	0.28	0.22	0.18	0.25	0.20	0.16	0.22	0.18	0.15	0.13

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	303.99	304.16	306.19	305.75	302.66	297.19	289.42	279.54	267.45
15.0	303.99	304.25	305.67	305.50	302.83	297.51	289.89	279.96	268.16
30.0	303.99	304.34	306.40	306.31	303.54	298.37	290.79	281.16	269.39
45.0	303.99	304.43	306.67	306.13	303.54	298.44	290.93	281.27	269.47
60.0	303.99	304.80	306.50	306.41	303.72	298.52	291.07	281.56	269.90
75.0	303.99	304.26	306.23	305.96	303.18	297.97	290.43	280.55	268.87
90.0	303.99	304.53	306.06	305.70	302.82	297.60	289.77	280.50	267.81
105.0	303.99	304.08	305.88	305.52	302.37	296.78	288.94	278.94	266.78
120.0	303.99	303.99	305.34	304.53	301.46	295.69	288.30	277.39	265.76
135.0	303.99	304.35	305.71	304.80	301.64	295.67	287.35	276.86	264.38
150.0	303.99	303.81	305.07	303.90	295.76	294.49	286.71	275.32	263.56
165.0	303.99	303.99	305.16	303.81	299.91	293.58	284.98	274.20	260.99
180.0	303.99	304.96	303.46	299.40	293.66	285.10	274.33	261.53	246.79
195.0	303.99	304.61	303.01	299.02	292.46	283.59	272.60	260.71	245.99
210.0	303.99	304.79	303.01	299.53	292.13	283.92	272.78	259.85	244.96
225.0	303.99	304.88	303.18	298.89	292.09	283.15	272.95	258.82	245.05
240.0	303.99	304.88	303.18	298.87	292.69	283.63	272.68	259.50	244.61
255.0	303.99	304.80	303.09	298.96	292.13	283.15	272.92	259.00	245.08
270.0	303.99	305.16	303.36	299.58	293.01	284.10	273.03	259.98	246.21
285.0	303.99	304.98	303.63	299.57	293.81	284.17	274.17	261.19	256.78
300.0	303.99	305.16	303.90	300.11	298.22	285.24	274.51	261.71	247.10
315.0	303.99	305.80	304.53	300.82	294.77	286.45	275.78	263.21	248.74
330.0	303.99	305.62	304.71	301.36	295.67	287.53	277.13	264.82	250.62
345.0	303.99	306.16	305.16	302.09	296.47	288.51	278.28	266.78	252.12
360.0	303.99	304.16	306.19	305.75	302.66	297.19	289.42	279.54	267.45
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	253.59	237.88	220.84	203.45	183.95	163.73	142.73	121.28	100.53
15.0	254.95	238.81	222.40	204.14	184.80	164.67	144.90	123.35	102.60
30.0	255.66	240.32	223.38	206.08	185.75	166.66	145.71	124.31	103.26
45.0	255.69	240.31	224.30	206.06	186.83	166.71	145.78	125.57	104.55
60.0	256.09	240.66	223.80	205.68	187.47	167.38	146.57	125.04	104.23
75.0	255.04	239.60	223.52	205.38	186.07	166.05	145.30	123.93	104.26
90.0	254.58	238.92	221.92	203.65	185.83	164.41	144.79	123.56	102.77
105.0	252.81	237.14	221.01	202.72	183.44	163.44	142.62	122.53	100.73
120.0	251.61	235.74	218.71	200.22	182.37	160.74	141.36	120.17	99.71
135.0	250.19	234.18	218.09	199.55	180.11	159.86	139.15	118.00	97.83
150.0	249.27	233.17	215.62	196.99	178.72	157.47	138.02	115.77	96.87
165.0	247.50	231.11	214.73	194.90	176.62	156.34	135.88	114.79	94.96
180.0	230.64	213.16	195.69	175.12	155.97	135.49	114.57	94.89	78.03
195.0	229.76	212.38	193.67	174.16	154.03	133.37	112.53	93.11	76.88
210.0	228.73	211.07	192.43	174.15	154.00	133.31	112.36	92.92	76.69
225.0	228.77	211.15	192.55	172.88	153.65	131.83	112.15	91.58	76.29
240.0	228.19	211.60	192.85	172.04	152.94	132.22	111.23	91.67	75.62
255.0	228.73	210.95	192.18	173.68	153.48	131.47	111.81	105.88	75.97
270.0	228.58	212.20	193.39	187.63	153.79	133.10	112.13	92.42	75.95
285.0	230.38	211.64	194.07	174.43	154.16	133.34	112.35	92.62	76.04
300.0	230.97	213.39	194.91	175.25	156.14	134.05	114.22	94.30	77.08
315.0	233.64	215.38	197.75	178.12	157.69	136.89	115.56	95.39	78.03
330.0	234.80	217.52	199.07	179.63	159.18	139.29	117.04	97.77	79.68
345.0	237.18	219.35	201.69	182.32	162.04	141.13	119.77	100.30	80.93
360.0	253.59	237.88	220.84	203.45	183.95	163.73	142.73	121.28	100.53

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	82.53	78.03	81.82	86.06	89.68	92.59	94.44	95.86	97.89
15.0	83.36	78.48	82.29	86.37	89.92	92.93	95.42	97.28	98.26
30.0	84.89	79.10	82.75	86.76	90.24	93.18	95.68	97.73	99.34
45.0	85.14	79.42	83.00	86.84	90.24	93.19	95.61	97.75	99.27
60.0	84.76	79.47	82.88	86.92	90.24	93.11	95.35	96.69	98.49
75.0	83.97	79.12	82.62	86.66	89.98	92.77	94.83	96.27	97.35
90.0	83.60	78.74	82.34	86.21	89.63	92.42	93.95	95.75	97.37
105.0	82.89	78.20	81.90	85.77	89.29	91.90	93.97	95.77	97.49
120.0	81.14	77.71	81.50	85.37	88.98	91.86	94.30	96.01	97.54
135.0	80.47	77.49	81.29	85.45	89.06	92.05	94.67	96.66	97.92
150.0	78.96	77.24	81.31	85.20	89.00	92.16	94.88	97.05	97.95
165.0	78.21	76.77	81.02	85.28	89.17	92.25	94.51	96.59	98.58
180.0	77.67	82.18	86.32	90.03	93.03	95.42	97.53	99.21	101.95
195.0	77.50	81.94	85.93	89.65	92.76	95.15	97.46	99.59	102.42
210.0	77.40	81.15	85.61	89.35	92.56	95.24	97.55	99.87	102.19
225.0	76.73	80.94	85.05	88.72	91.94	94.71	95.16	99.00	100.70
240.0	76.51	80.55	81.45	88.44	91.58	94.18	96.69	98.49	100.55
255.0	76.15	80.37	84.60	88.46	91.60	94.11	96.00	97.80	100.13
270.0	75.95	80.36	84.41	88.55	91.70	94.13	95.75	97.37	100.07
285.0	75.95	80.10	84.51	88.39	91.72	93.97	95.77	97.49	99.83
300.0	76.00	80.05	84.20	88.26	91.50	94.03	96.01	97.90	99.35
315.0	76.49	80.47	84.36	88.07	91.41	94.22	96.39	98.01	99.46
330.0	77.06	80.95	84.75	88.09	91.26	93.70	96.05	97.59	99.22
345.0	77.94	81.75	85.82	89.26	91.79	93.97	96.05	97.59	99.40
360.0	82.53	78.03	81.82	86.06	89.68	92.59	94.44	95.86	97.89
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	99.83	102.48	104.42	104.86	103.98	101.95	98.59	90.91	78.20
15.0	99.94	102.25	104.37	104.29	104.29	101.54	98.43	90.81	77.59
30.0	100.50	102.55	103.17	104.78	104.69	101.92	97.91	90.69	77.22
45.0	100.43	101.96	104.01	106.25	105.98	102.49	97.75	90.95	76.47
60.0	100.46	102.79	105.66	107.19	106.74	102.88	98.22	91.49	76.33
75.0	99.50	102.83	106.15	108.21	107.14	103.36	98.25	91.60	76.42
90.0	99.08	102.05	104.93	107.63	106.73	103.31	98.00	90.98	75.77
105.0	99.47	101.54	103.25	105.68	105.77	103.34	97.85	90.82	75.68
120.0	99.08	101.15	103.13	104.48	104.39	101.96	97.54	89.88	75.91
135.0	99.01	100.55	103.08	103.98	103.53	101.27	97.11	89.51	75.50
150.0	99.31	100.85	102.11	103.65	102.84	100.76	96.87	87.82	75.25
165.0	100.12	102.11	103.02	103.20	102.20	100.57	97.50	89.44	75.86
180.0	104.24	104.86	103.45	101.51	100.01	97.80	89.06	77.32	85.62
195.0	104.46	104.99	103.93	102.25	100.47	99.85	89.12	77.86	85.93
210.0	104.33	103.53	104.78	103.97	101.39	98.80	90.15	78.83	86.23
225.0	102.40	105.00	106.52	105.53	101.96	97.66	90.15	79.60	86.57
240.0	102.88	104.86	106.11	105.40	102.26	97.95	89.70	80.01	86.20
255.0	102.65	104.44	105.61	104.44	101.39	98.78	90.79	80.11	85.58
270.0	102.59	103.94	104.84	103.67	100.79	99.26	92.24	80.81	84.50
285.0	102.17	103.25	103.70	103.70	101.18	99.47	92.98	80.73	82.98
300.0	101.33	102.23	103.40	104.21	101.69	99.53	93.58	80.96	81.95
315.0	100.00	101.63	103.89	104.80	103.17	100.00	94.04	79.84	80.11
330.0	101.21	101.75	103.56	104.46	103.29	99.58	93.79	79.50	79.50
345.0	102.29	104.56	104.01	103.47	102.39	98.67	92.79	78.31	78.40
360.0	99.83	102.48	104.42	104.86	103.98	101.95	98.59	90.91	78.20

Intensity data(cd)

C/ γ (°)	180.0
0.0	86.24
15.0	81.58
30.0	80.25
45.0	80.58
60.0	79.56
75.0	79.30
90.0	78.38
105.0	79.29
120.0	80.14
135.0	80.83
150.0	80.86
165.0	81.47
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	86.24