
乐达凯

Client:

LumCAT: SYDC13LAJUDSN

Luminaire: LED lamp

Report No:

Ballast type:

Test No: LCZP25010148

Voltage(V): 120.040

LampCAT:

Current(A): 0.210

Lamp flux(lm): 1987.8

Power (W): 24.970

Number of Lamps: 1

PF: 0.993

Length(mm): -320

Width(mm): -320

Phm Type: C

Height(mm): 70

Photometric Results

Lumens(lm): 1987.80, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 79.61

Central intensity(cd): 341.213, Maximum intensity(cd): 343.636

Angle of maximum intensity: C=15.0 γ =10.0

Beam Angle(50%Imax): [C0/180]Total=138.8

[C90/270]Total=138.0

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=1.38

Maximum s/h(1/4): C0_180=1.52 C90_270=1.51

Up flux rate of lamp(%): 32.25%

Down flux rate of lamp(%): 67.75%

Up flux rate of LUM(%): 32.25%

Down flux rate of LUM(%): 67.75%

CIE Type : Semidirect lighting

Output flux ratio in π solid angle : 44.922%

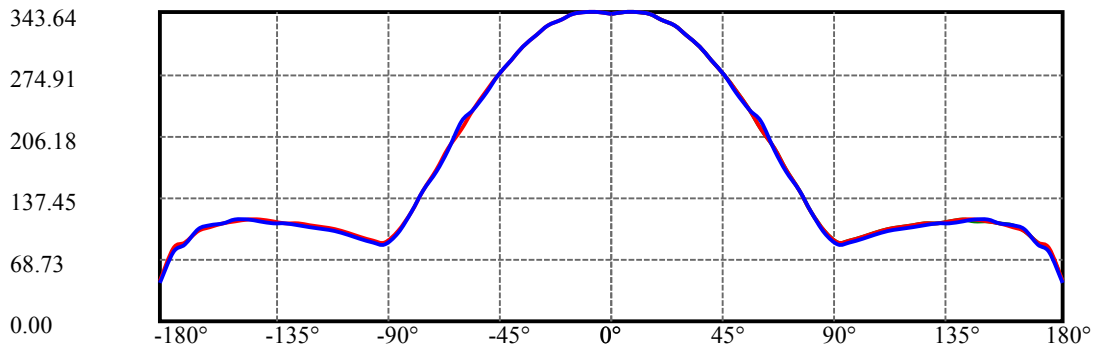
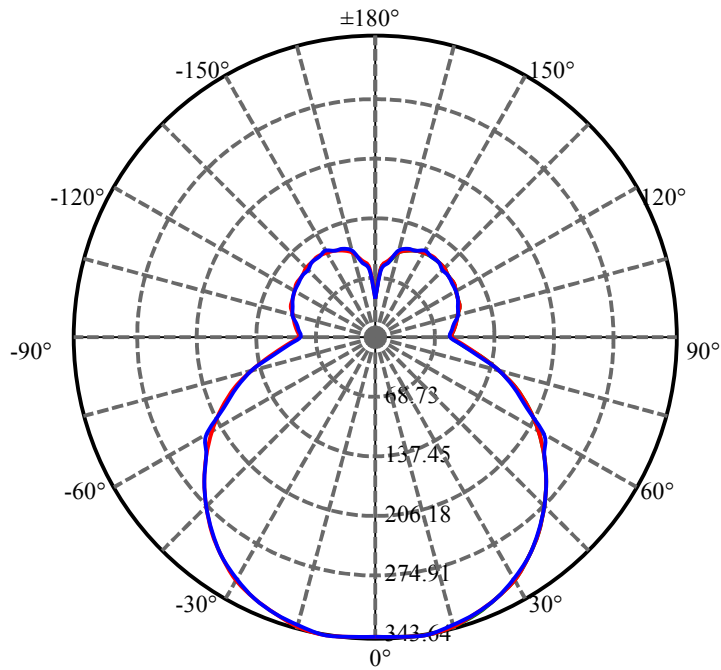
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	341.213	0.000	0	0.00%	0.00%
5.0	342.874	8.178	8.178	0.41%	0.41%
10.0	343.475	24.553	32.731	1.24%	1.65%
15.0	340.978	40.601	73.332	2.04%	3.69%
20.0	335.699	55.768	129.1	2.81%	6.49%
25.0	327.879	69.597	198.697	3.50%	10.00%
30.0	317.513	81.675	280.372	4.11%	14.10%
35.0	304.912	91.656	372.029	4.61%	18.72%
40.0	290.618	99.360	471.388	5.00%	23.71%
45.0	273.379	104.429	575.817	5.25%	28.97%
50.0	254.953	106.757	682.574	5.37%	34.34%
55.0	234.935	106.518	789.092	5.36%	39.70%
60.0	214.443	103.872	892.965	5.23%	44.92%
65.0	191.545	98.696	991.661	4.97%	49.89%
70.0	168.506	91.167	1082.828	4.59%	54.47%
75.0	145.033	81.954	1164.782	4.12%	58.60%
80.0	121.823	71.403	1236.186	3.59%	62.19%
85.0	98.835	59.958	1296.144	3.02%	65.20%
90.0	86.259	50.680	1346.824	2.55%	67.75%
95.0	88.780	47.927	1394.751	2.41%	70.17%
100.0	92.769	49.331	1444.082	2.48%	72.65%
105.0	97.247	50.843	1494.925	2.56%	75.20%
110.0	100.922	51.798	1546.723	2.61%	77.81%
115.0	103.976	51.881	1598.604	2.61%	80.42%
120.0	106.047	51.057	1649.661	2.57%	82.99%
125.0	107.605	49.385	1699.046	2.48%	85.47%
130.0	108.801	47.054	1746.1	2.37%	87.84%
135.0	110.087	44.229	1790.329	2.23%	90.07%
140.0	111.358	41.002	1831.332	2.06%	92.13%
145.0	112.176	37.295	1868.627	1.88%	94.00%
150.0	111.965	33.006	1901.633	1.66%	95.66%
155.0	109.415	28.016	1929.649	1.41%	97.07%
160.0	105.811	22.573	1952.222	1.14%	98.21%
165.0	101.334	17.072	1969.294	0.86%	99.07%
170.0	86.837	11.162	1980.456	0.56%	99.63%
175.0	77.928	5.894	1986.35	0.30%	99.93%
180.0	43.760	1.455	1987.805	0.07%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	280.37	14.10%	14.10%
0-40	471.39	23.71%	23.71%
0-60	892.96	44.92%	44.92%
0-90	1346.82	67.75%	67.75%
0-120	1649.66	82.99%	82.99%
0-180	1987.80	100.00%	100.00%
60-90	453.86	22.83%	22.83%
90-120	302.84	15.23%	15.23%
90-130	399.28	20.09%	20.09%
90-150	554.81	27.91%	27.91%
90-180	639.53	32.17%	32.17%
0-114.19	1590.24	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	32.73
10-20	96.37
20-30	151.27
30-40	191.02
40-50	211.19
50-60	210.39
60-70	189.86
70-80	153.36
80-90	110.64
90-100	97.26
100-110	102.64
110-120	102.94
120-130	96.44
130-140	85.23
140-150	70.30
150-160	50.59
160-170	28.23
170-180	5.89



C15(Max): ————

C0/C180: ————

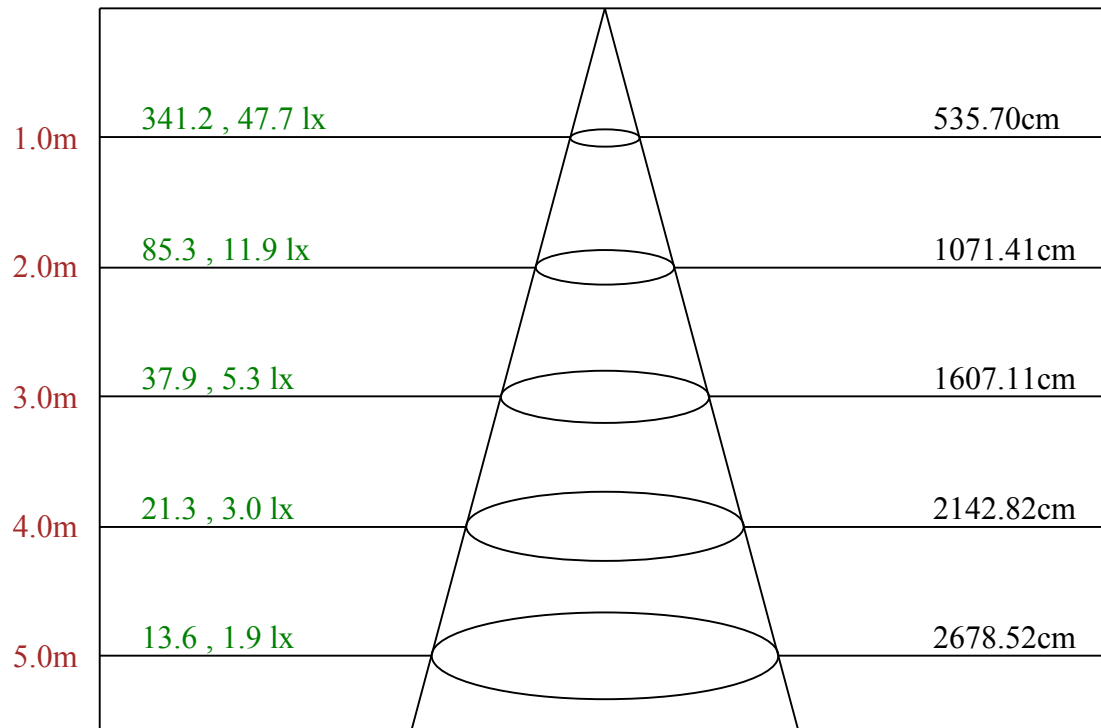
C90/C270: ————

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

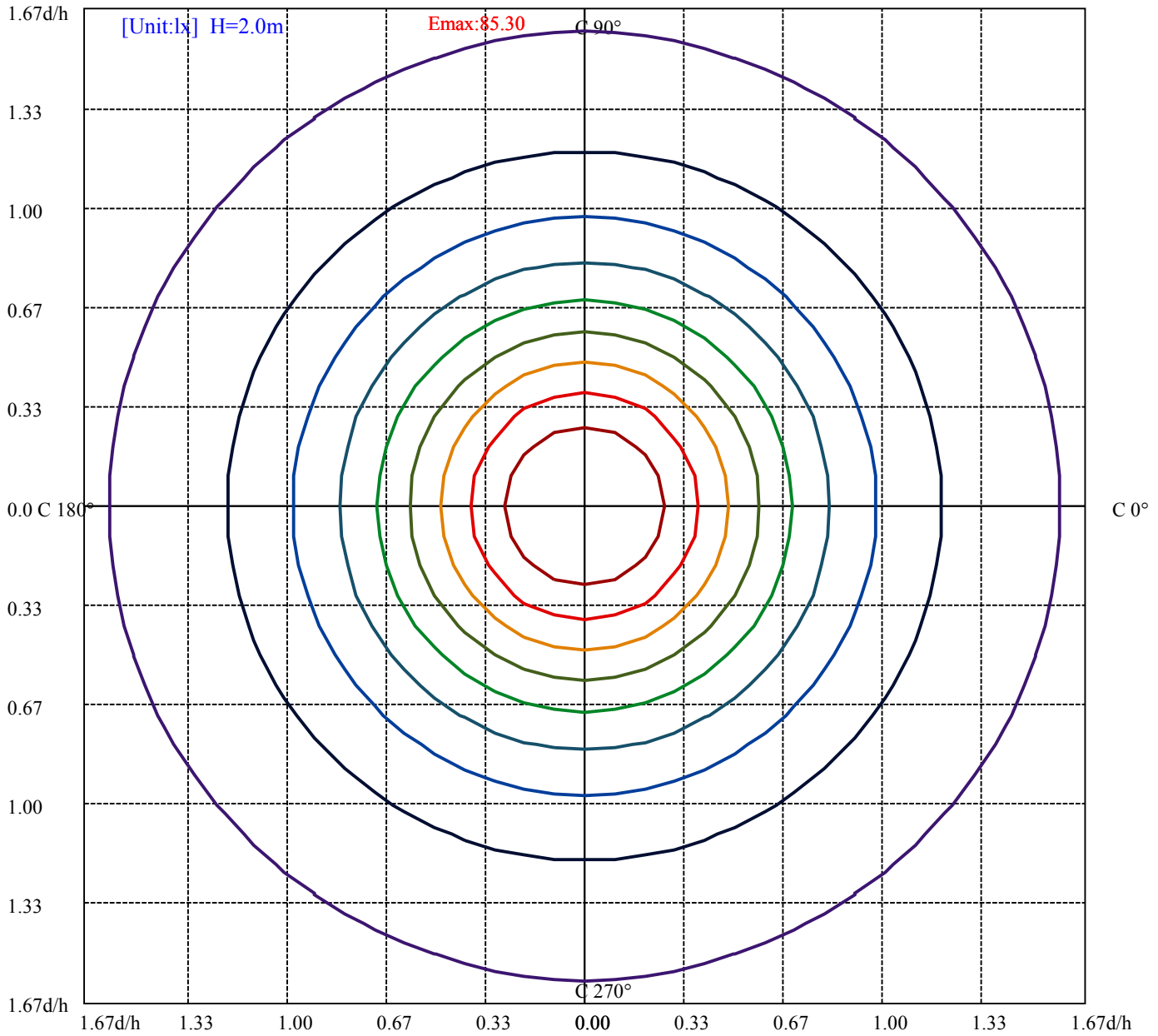
:C90/270Left:0.0 Right:0.0

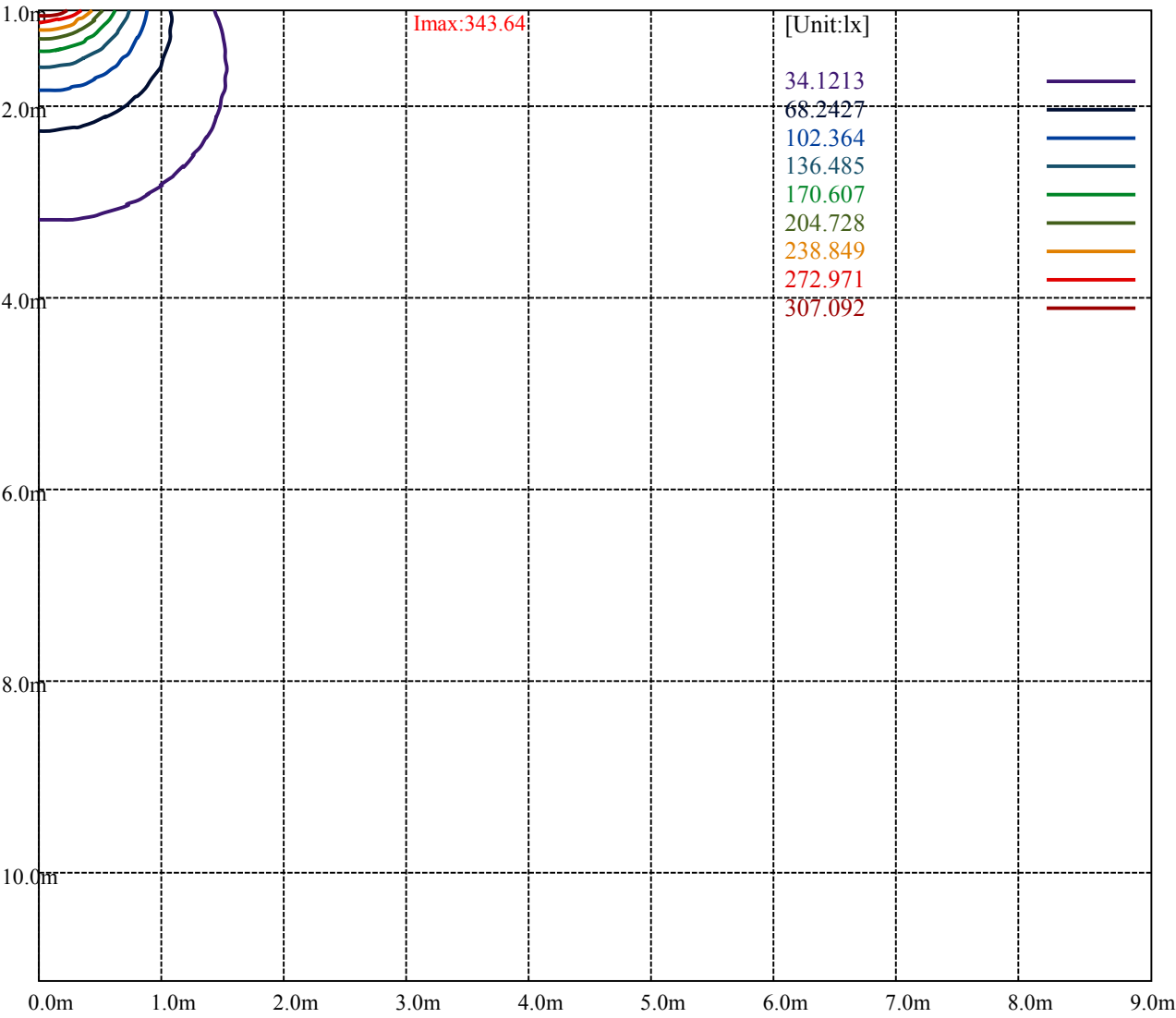
Beam Angle(50%Imax):C0/180Left:79.4 Right:59.4

:C90/270Left:79.0 Right:59.0



Max , Ave Beam angle of C15 plane 139.05





Luminance Table

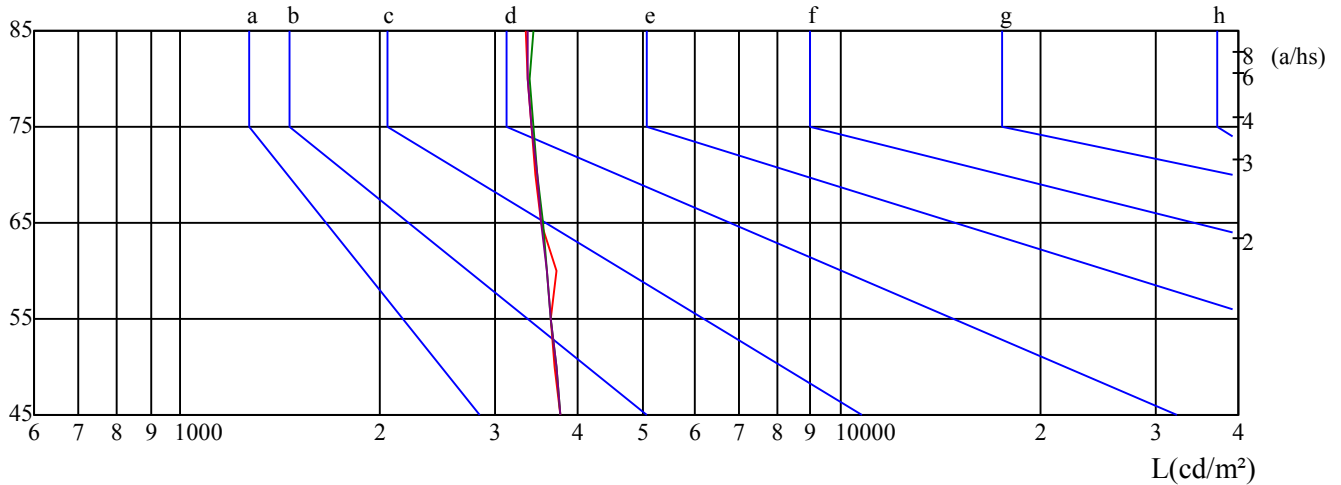
γ	45	50	55	60	65	70	75	80	85
C0	3762	3713	3648	3597	3539	3480	3435	3389	3419
C45	3757	3701	3643	3582	3525	3464	3407	3346	3357
C90	3758	3687	3639	3716	3518	3445	3404	3348	3341

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5652	5620	5630	7005	6942	6949	14304	13978	14045

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	0.68
1	0.94	0.89	0.84	0.88	0.84	0.80	0.78	0.75	0.71	0.69	0.66	0.64	0.60	0.58	0.56	0.52
2	0.80	0.73	0.67	0.76	0.69	0.63	0.67	0.62	0.57	0.59	0.55	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	0.45	0.41	0.37	0.34
4	0.61	0.52	0.45	0.58	0.50	0.43	0.51	0.45	0.39	0.45	0.40	0.35	0.39	0.35	0.32	0.28
5	0.54	0.45	0.38	0.51	0.43	0.37	0.46	0.39	0.33	0.40	0.35	0.30	0.35	0.31	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	0.32	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	0.21	0.18
8	0.40	0.31	0.25	0.38	0.30	0.24	0.34	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	0.32	0.24	0.19	0.28	0.22	0.18	0.25	0.20	0.16	0.23	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	341.21	342.64	344.78	344.06	340.41	334.09	325.10	313.61	300.43
15.0	341.21	342.82	344.96	343.98	340.50	333.62	324.69	313.17	299.50
30.0	341.21	342.73	344.88	343.81	339.78	332.99	323.69	312.34	298.04
45.0	341.21	343.18	344.89	343.09	339.15	332.08	322.68	310.94	296.88
60.0	341.21	342.92	344.35	342.74	338.34	331.25	321.38	309.36	296.08
75.0	341.21	343.01	344.36	342.74	338.52	330.43	321.35	309.12	294.74
90.0	341.21	342.92	344.18	342.20	337.44	329.89	319.73	307.78	292.67
105.0	341.21	342.92	343.64	341.39	336.54	329.16	319.00	306.59	291.93
120.0	341.21	342.65	343.37	341.21	336.18	328.35	318.18	305.50	291.20
135.0	341.21	341.84	342.38	340.05	334.75	326.94	316.71	304.23	289.51
150.0	341.21	342.47	343.01	340.67	328.69	327.70	317.34	304.64	290.32
165.0	341.21	342.47	342.65	340.13	334.91	327.07	316.80	304.01	288.70
180.0	341.21	342.91	342.01	338.10	331.51	322.25	310.58	296.60	281.11
195.0	341.21	342.73	341.93	337.82	331.12	322.72	310.13	297.27	281.37
210.0	341.21	342.29	341.48	337.55	331.11	321.90	310.28	296.52	280.69
225.0	341.21	342.74	342.02	338.17	331.63	323.12	311.66	298.05	282.37
240.0	341.21	342.56	342.47	338.79	332.69	323.90	312.50	298.69	282.98
255.0	341.21	342.92	342.56	339.24	333.30	325.12	313.35	300.49	285.12
270.0	341.21	343.10	343.01	339.69	334.29	325.93	314.88	301.75	286.38
285.0	341.21	343.28	343.37	340.58	335.01	326.55	316.48	303.44	300.02
300.0	341.21	343.37	344.09	341.48	340.13	327.27	317.46	304.78	289.85
315.0	341.21	342.47	343.46	341.03	335.74	327.93	317.33	305.40	289.78
330.0	341.21	343.92	344.55	342.20	337.61	329.14	319.59	306.98	292.30
345.0	341.21	344.10	345.00	342.74	337.43	329.68	319.41	306.62	292.84
360.0	341.21	342.64	344.78	344.06	340.41	334.09	325.10	313.61	300.43
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	284.23	267.04	247.72	226.97	205.16	182.36	159.83	135.35	111.93
15.0	283.51	265.91	246.44	226.88	205.00	182.04	158.28	133.81	111.65
30.0	282.75	264.87	245.38	224.64	202.65	180.75	156.97	132.66	109.33
45.0	280.76	263.66	243.24	223.27	201.15	178.22	154.49	130.22	108.10
60.0	278.86	261.63	241.89	220.90	198.73	175.77	153.25	129.02	105.87
75.0	278.11	259.78	239.91	219.78	197.75	174.65	150.74	126.56	104.63
90.0	276.76	257.53	238.56	217.44	195.15	172.13	149.21	125.21	102.47
105.0	275.38	256.67	236.71	216.29	194.08	170.97	147.04	123.21	100.64
120.0	273.83	256.02	235.96	214.82	192.42	169.39	146.63	122.61	100.21
135.0	272.81	254.14	235.20	213.02	191.57	168.50	144.80	120.65	98.39
150.0	273.48	254.83	234.74	213.48	191.05	167.72	145.02	120.07	98.81
165.0	272.84	254.11	233.75	212.40	190.87	167.72	144.03	119.98	97.82
180.0	262.86	244.25	222.70	201.86	179.07	155.56	131.78	108.81	88.60
195.0	263.59	244.30	223.58	201.60	178.74	156.58	132.64	109.60	88.07
210.0	264.07	243.77	224.20	201.40	179.59	156.17	132.39	110.58	87.61
225.0	264.82	245.57	225.15	203.21	180.46	156.99	134.16	109.89	88.93
240.0	265.49	247.63	225.74	205.37	182.58	159.17	135.30	111.88	90.71
255.0	267.69	248.63	228.13	206.47	183.82	161.80	137.80	130.97	91.24
270.0	269.75	250.25	230.65	225.62	186.88	162.43	139.78	116.04	93.48
285.0	271.69	252.99	232.75	211.26	188.86	165.48	141.56	117.81	96.05
300.0	273.02	254.40	234.25	212.84	190.26	168.22	144.29	120.54	97.61
315.0	274.16	255.84	235.91	214.64	192.29	169.04	145.16	121.46	98.39
330.0	275.55	257.08	237.98	215.74	194.57	171.42	147.37	123.59	100.35
345.0	275.10	257.98	237.89	216.73	194.39	171.06	148.27	123.23	101.16
360.0	284.23	267.04	247.72	226.97	205.16	182.36	159.83	135.35	111.93

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	92.07	91.63	95.01	99.19	102.84	105.96	108.45	110.06	111.13
15.0	91.38	91.73	95.31	99.42	103.08	105.94	108.26	109.87	111.21
30.0	90.73	91.45	94.85	99.23	102.62	105.57	107.45	108.97	110.85
45.0	90.01	90.99	94.75	98.87	102.45	105.41	107.47	108.72	109.98
60.0	88.74	90.62	94.48	98.51	102.19	104.97	107.40	109.01	110.09
75.0	87.82	90.07	93.93	98.25	101.66	104.45	106.88	108.76	110.11
90.0	86.92	89.53	93.30	97.80	101.21	104.27	106.34	107.60	108.85
105.0	86.34	88.77	92.81	97.22	101.00	104.05	106.21	107.11	108.37
120.0	85.37	88.16	92.39	96.62	100.48	103.63	105.79	107.05	108.13
135.0	84.56	87.35	91.39	95.87	99.82	102.97	105.30	107.01	108.08
150.0	83.86	86.56	90.89	95.48	98.81	102.33	105.12	107.01	108.27
165.0	83.23	85.57	89.81	94.49	98.45	101.61	104.31	106.65	108.36
180.0	83.79	87.44	92.16	96.52	100.44	103.56	105.61	107.21	108.63
195.0	82.71	86.46	91.29	95.58	99.60	102.81	104.95	106.47	107.72
210.0	81.88	85.64	90.20	94.67	98.69	102.00	104.32	106.29	107.99
225.0	81.59	85.08	90.01	94.57	98.15	101.56	102.01	106.21	107.56
240.0	81.83	85.15	86.22	94.30	98.25	101.57	103.99	105.51	107.13
255.0	82.34	85.84	90.16	94.65	98.70	101.93	104.18	105.35	106.34
270.0	83.51	86.74	91.15	95.64	99.15	102.29	104.09	105.53	106.97
285.0	85.17	88.05	92.45	96.68	100.37	103.25	104.77	106.03	107.29
300.0	86.99	89.96	94.10	98.05	101.65	104.44	106.24	107.05	108.04
315.0	88.33	91.39	95.25	99.46	103.06	105.84	107.36	108.53	108.26
330.0	90.17	92.87	96.74	101.07	104.31	107.19	108.90	109.62	110.43
345.0	90.89	93.68	97.82	101.79	105.12	107.82	109.71	110.89	111.43
360.0	92.07	91.63	95.01	99.19	102.84	105.96	108.45	110.06	111.13
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	112.02	113.35	115.04	112.11	108.28	104.80	101.78	89.04	76.67
15.0	112.55	113.80	114.42	112.46	108.71	105.04	102.01	88.88	75.30
30.0	112.19	113.80	112.99	113.08	110.67	105.39	101.01	88.32	75.54
45.0	111.23	112.04	114.28	114.72	111.77	106.57	101.56	88.75	74.96
60.0	110.27	112.33	114.40	114.66	111.70	106.68	101.74	89.00	74.92
75.0	111.19	111.82	113.35	113.98	111.01	107.06	102.56	88.72	75.33
90.0	111.10	112.18	112.81	112.81	110.38	106.70	102.83	88.00	75.42
105.0	110.08	112.51	113.32	112.69	109.90	106.21	103.16	88.41	75.19
120.0	109.75	111.55	112.81	112.63	109.48	106.69	103.63	89.33	75.21
135.0	109.43	109.88	111.67	111.22	109.25	106.02	104.13	89.86	76.39
150.0	109.53	111.25	110.34	109.98	108.45	106.47	104.31	89.99	77.20
165.0	109.98	111.16	110.80	109.62	108.45	106.74	104.04	90.26	78.10
180.0	109.61	111.21	110.77	109.43	108.01	105.25	99.37	86.55	83.61
195.0	109.87	111.39	110.49	110.31	109.51	108.80	100.49	87.45	82.80
210.0	109.69	109.60	110.94	111.47	109.42	105.84	100.48	87.25	82.60
225.0	108.81	110.42	112.22	112.04	109.44	105.41	101.38	87.41	82.12
240.0	108.92	111.35	112.42	112.24	109.46	105.78	102.28	86.85	80.84
255.0	109.03	111.01	112.36	112.45	109.48	105.89	101.66	85.75	79.01
270.0	108.40	110.20	111.82	112.18	109.21	105.80	101.66	84.76	78.83
285.0	107.83	108.37	111.25	112.42	109.81	106.12	100.55	83.82	79.14
300.0	108.13	108.58	110.47	111.91	109.84	105.79	100.30	82.94	78.26
315.0	108.71	109.70	110.78	111.13	108.35	104.13	97.58	81.51	76.84
330.0	111.43	111.79	111.07	111.34	108.27	103.50	96.83	80.44	78.01
345.0	112.33	113.32	111.43	110.25	107.10	102.78	96.65	80.80	78.01
360.0	112.02	113.35	115.04	112.11	108.28	104.80	101.78	89.04	76.67

Intensity data(cd)

C/ γ (°)	180.0
0.0	88.06
15.0	87.98
30.0	86.80
45.0	86.78
60.0	87.03
75.0	87.37
90.0	86.83
105.0	87.42
120.0	87.44
135.0	87.53
150.0	88.19
165.0	88.82
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	88.06