
AFX

Client:

LumCAT: EMAF06LAJD1SN

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 120.050

LampCAT:

Current(A): 0.133

Lamp flux(lm): 1032.8

Power (W): 15.060

Number of Lamps: 1

PF: 0.944

Length(mm): -140

Width(mm): -140

Phm Type: C

Height(mm): 20

Photometric Results

Lumens(lm): 1032.84, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 68.58

Central intensity(cd): 331.624, Maximum intensity(cd): 331.624

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=107.8

[C90/270]Total=107.8

Field angle(10%Imax): [C0/180]Total=165.4

[C90/270]Total=165.4

Maximum s/h(1/2): C0_180=1.22 C90_270=1.22

Maximum s/h(1/4): C0_180=1.33 C90_270=1.33

Up flux rate of lamp(%): 10.52%

Down flux rate of lamp(%): 89.48%

Up flux rate of LUM(%): 10.52%

Down flux rate of LUM(%): 89.48%

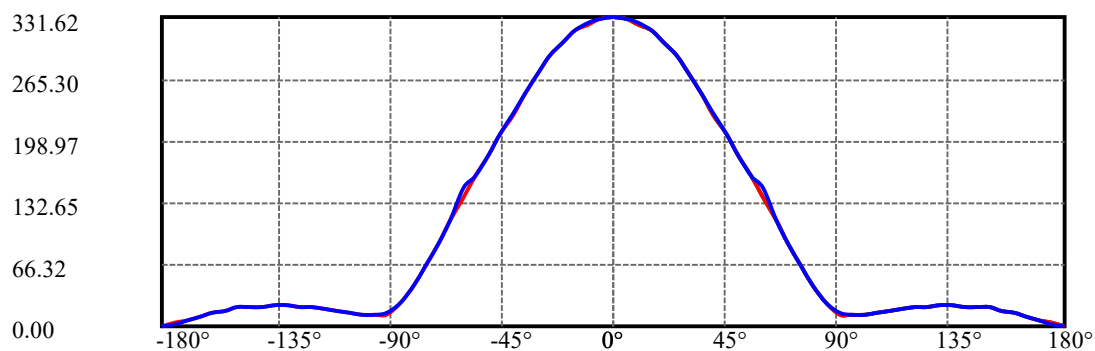
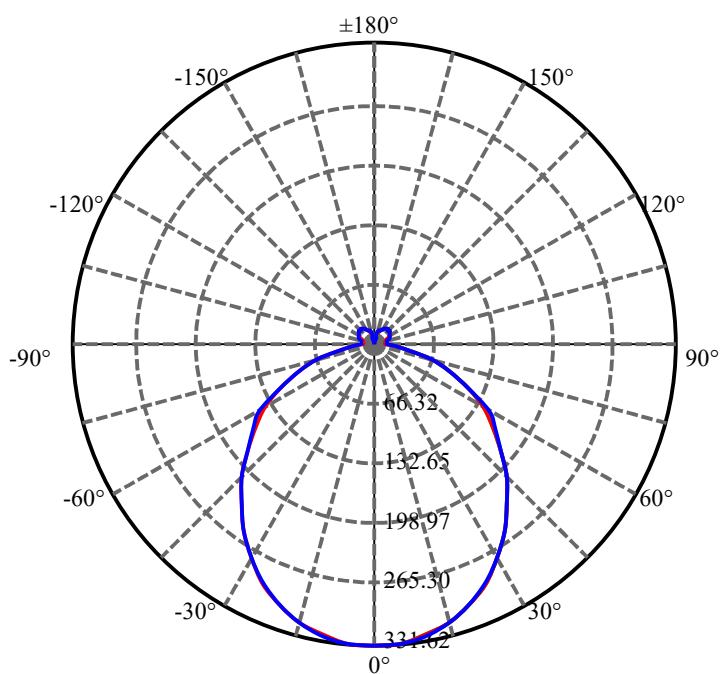
CIE Type : Semidirect lighting

Output flux ratio in π solid angle : 69.088%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	331.624	0.000	0	0.00%	0.00%
5.0	329.983	7.909	7.909	0.77%	0.77%
10.0	324.987	23.430	31.34	2.27%	3.03%
15.0	316.859	38.074	69.414	3.69%	6.72%
20.0	305.374	51.281	120.694	4.97%	11.69%
25.0	289.844	62.427	183.122	6.04%	17.73%
30.0	271.380	71.023	254.145	6.88%	24.61%
35.0	250.014	76.779	330.924	7.43%	32.04%
40.0	228.691	79.868	410.792	7.73%	39.77%
45.0	205.412	80.378	491.17	7.78%	47.56%
50.0	182.941	78.472	569.643	7.60%	55.15%
55.0	160.811	74.743	644.386	7.24%	62.39%
60.0	138.492	69.183	713.569	6.70%	69.09%
65.0	113.614	61.288	774.857	5.93%	75.02%
70.0	88.170	51.093	825.95	4.95%	79.97%
75.0	64.744	39.969	865.919	3.87%	83.84%
80.0	43.912	29.073	894.992	2.81%	86.65%
85.0	24.613	18.620	913.612	1.80%	88.46%
90.0	13.894	10.544	924.155	1.02%	89.48%
95.0	12.476	7.220	931.375	0.70%	90.18%
100.0	12.935	6.905	938.28	0.67%	90.84%
105.0	14.347	7.300	945.58	0.71%	91.55%
110.0	16.826	8.148	953.728	0.79%	92.34%
115.0	18.962	9.062	962.789	0.88%	93.22%
120.0	20.450	9.581	972.371	0.93%	94.15%
125.0	21.443	9.683	982.054	0.94%	95.08%
130.0	21.862	9.416	991.47	0.91%	95.99%
135.0	21.939	8.850	1000.32	0.86%	96.85%
140.0	21.556	8.053	1008.374	0.78%	97.63%
145.0	20.947	7.091	1015.465	0.69%	98.32%
150.0	19.726	5.989	1021.454	0.58%	98.90%
155.0	17.437	4.703	1026.157	0.46%	99.35%
160.0	14.269	3.325	1029.483	0.32%	99.68%
165.0	10.112	2.009	1031.492	0.19%	99.87%
170.0	6.144	0.964	1032.456	0.09%	99.96%
175.0	3.129	0.332	1032.788	0.03%	100.00%
180.0	0.993	0.049	1032.837	0.00%	100.00%

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	254.15	24.61%	24.61%
0-40	410.79	39.77%	39.77%
0-60	713.57	69.09%	69.09%
0-90	924.16	89.48%	89.48%
0-120	972.37	94.15%	94.15%
0-180	1032.84	100.00%	100.00%
60-90	210.59	20.39%	20.39%
90-120	48.22	4.67%	4.67%
90-130	67.31	6.52%	6.52%
90-150	97.30	9.42%	9.42%
90-180	108.63	10.52%	10.52%
0-70.04	826.27	80.00%	80.00%

ZONAL LUMEN SUMMARY	
0-10	31.34
10-20	89.35
20-30	133.45
30-40	156.65
40-50	158.85
50-60	143.93
60-70	112.38
70-80	69.04
80-90	29.16
90-100	14.12
100-110	15.45
110-120	18.64
120-130	19.10
130-140	16.90
140-150	13.08
150-160	8.03
160-170	2.97
170-180	0.33



C0(Max): —————

C0/C180: —————

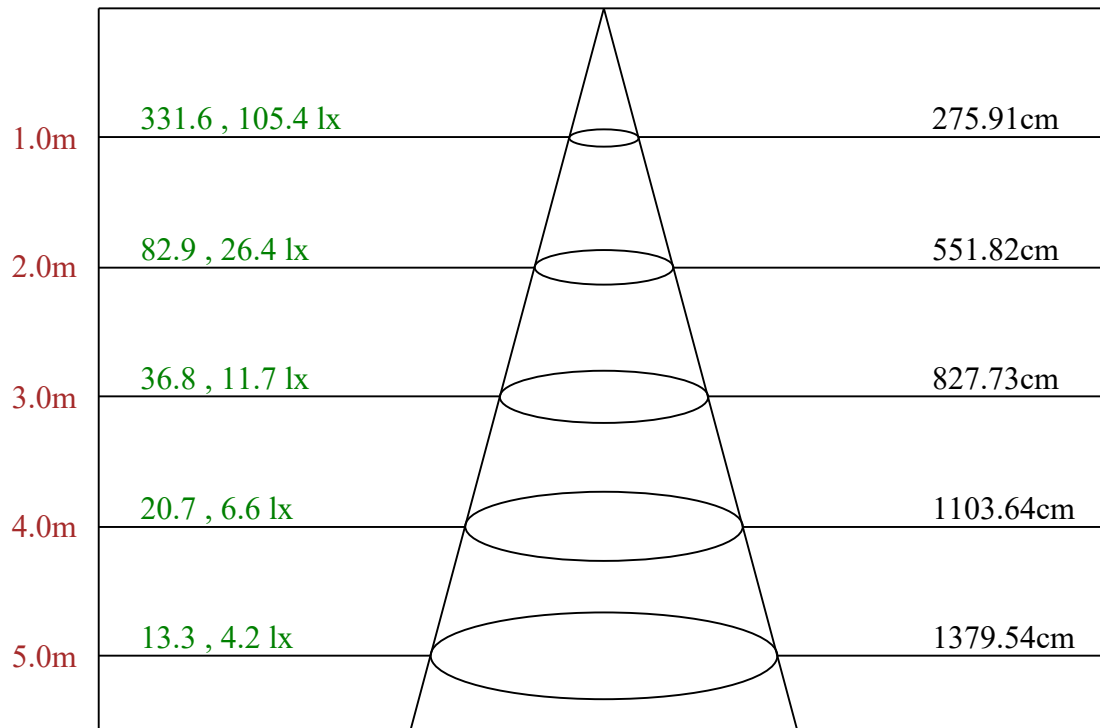
C90/C270: —————

Field angle(10%Imax):C0/180Left:82.7 Right:82.7

:C90/270Left:82.7 Right:82.7

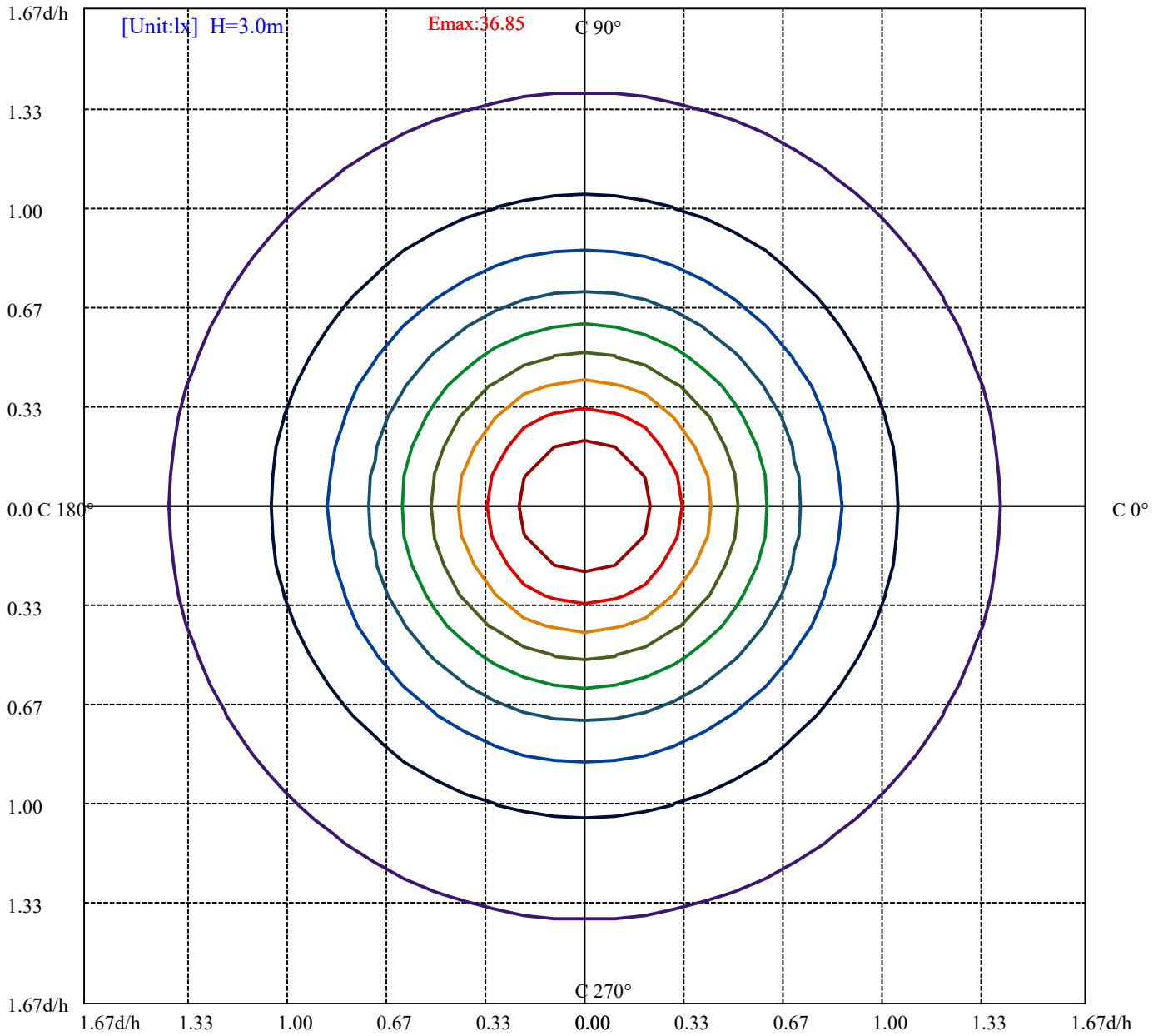
Beam Angle(50%Imax):C0/180Left:53.9 Right:53.9

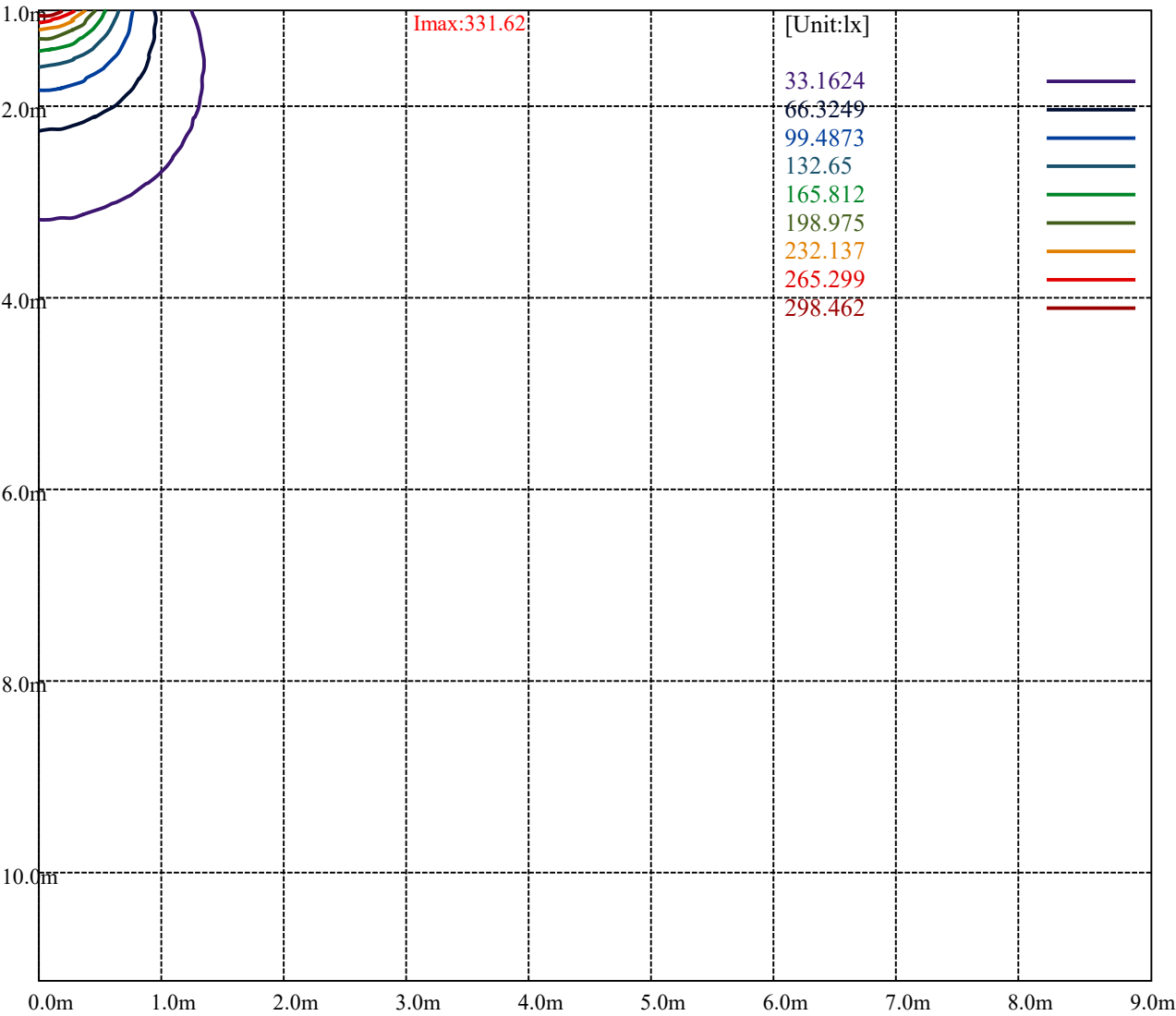
:C90/270Left:53.9 Right:53.9



Max , Ave

Beam angle of C0 plane 108.13





Luminance Table

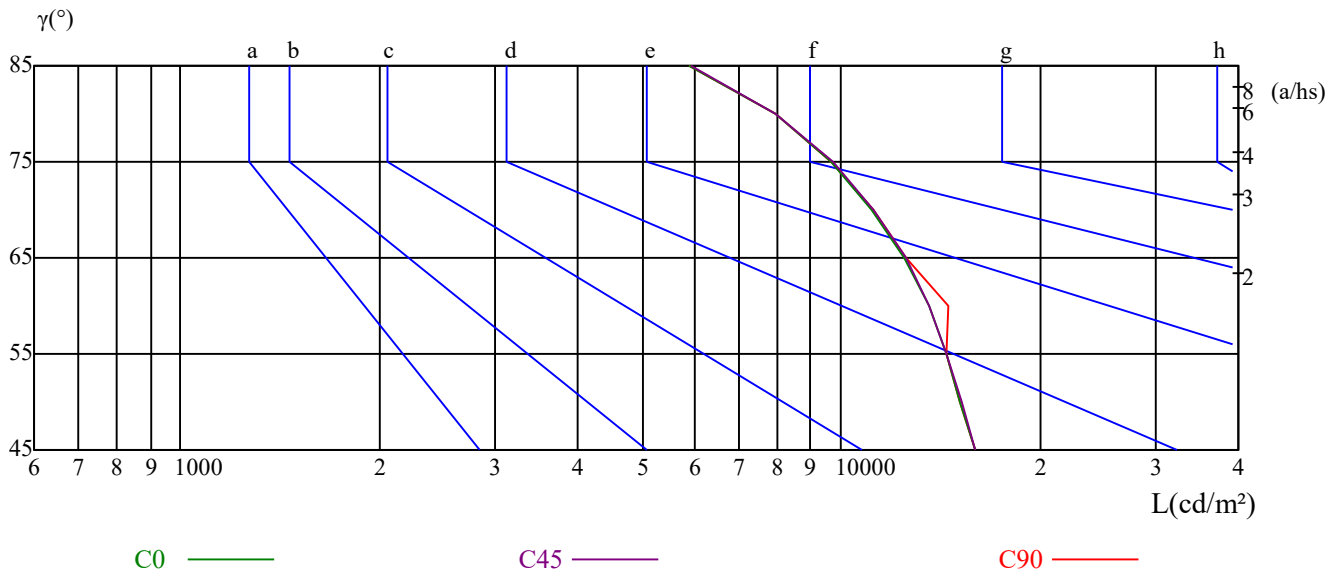
γ	45	50	55	60	65	70	75	80	85
C0	15971	15157	14461	13622	12506	11127	9700	7965	5890
C45	15972	15200	14432	13594	12577	11211	9703	7982	5942
C90	15995	15183	14494	14567	12596	11227	9682	7950	5893

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
17384	17509	17483	16285	16255	16290	18135	18144	18295

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	1.17	1.17	1.17	1.13	1.13	1.13	1.05	1.05	1.05	0.99	0.99	0.99	0.92	0.92	0.92	0.89
1	1.01	0.97	0.93	0.98	0.94	0.90	0.91	0.88	0.85	0.86	0.83	0.81	0.81	0.79	0.77	0.74
2	0.88	0.81	0.75	0.85	0.79	0.73	0.80	0.75	0.70	0.75	0.71	0.67	0.70	0.67	0.64	0.61
3	0.77	0.69	0.62	0.75	0.67	0.61	0.70	0.64	0.59	0.66	0.61	0.56	0.62	0.58	0.54	0.52
4	0.68	0.60	0.53	0.66	0.58	0.52	0.62	0.56	0.50	0.59	0.53	0.48	0.56	0.51	0.47	0.44
5	0.61	0.52	0.45	0.59	0.51	0.45	0.56	0.49	0.43	0.53	0.47	0.42	0.50	0.45	0.40	0.38
6	0.55	0.46	0.40	0.53	0.45	0.39	0.50	0.43	0.38	0.48	0.42	0.37	0.45	0.40	0.36	0.33
7	0.50	0.41	0.35	0.48	0.40	0.34	0.46	0.39	0.34	0.44	0.37	0.33	0.41	0.36	0.32	0.29
8	0.45	0.37	0.31	0.44	0.36	0.31	0.42	0.35	0.30	0.40	0.34	0.29	0.38	0.33	0.28	0.26
9	0.42	0.33	0.28	0.41	0.33	0.28	0.39	0.32	0.27	0.37	0.31	0.26	0.35	0.30	0.26	0.24
10	0.38	0.31	0.25	0.37	0.30	0.25	0.36	0.29	0.24	0.34	0.28	0.24	0.33	0.27	0.23	0.22

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	331.62	329.82	325.32	316.30	306.39	291.07	273.05	251.42	228.89
15.0	331.62	329.81	324.38	316.22	305.35	290.85	270.92	251.89	229.24
30.0	331.62	329.81	324.36	316.18	304.37	288.92	270.75	249.85	228.05
45.0	331.62	329.80	324.34	316.14	304.29	288.80	271.49	250.54	228.67
60.0	331.62	329.80	324.32	316.09	304.22	289.60	271.33	250.32	228.39
75.0	331.62	329.80	324.32	315.18	304.22	289.60	271.33	249.40	229.30
90.0	331.62	329.79	325.19	316.93	305.90	291.20	272.83	252.62	230.58
105.0	331.62	330.70	326.10	317.81	307.67	292.01	275.43	255.17	233.06
120.0	331.62	331.62	327.01	319.62	309.45	295.60	277.12	257.72	235.55
135.0	331.62	331.62	327.93	320.54	311.30	296.52	278.97	258.65	237.40
150.0	331.62	330.70	327.93	321.46	302.06	298.37	281.74	261.42	239.25
165.0	331.62	330.70	328.85	322.39	313.15	299.29	283.59	263.27	240.17
180.0	331.62	329.82	323.51	316.30	304.59	289.27	270.35	247.82	226.19
195.0	331.62	330.72	325.28	318.03	306.25	290.85	271.82	250.08	227.43
210.0	331.62	330.72	325.26	318.00	306.18	290.74	271.66	250.76	228.96
225.0	331.62	329.80	326.16	318.87	307.03	291.54	272.41	251.45	227.76
240.0	331.62	330.71	326.14	318.83	306.96	290.51	272.24	249.40	228.39
255.0	331.62	329.80	325.23	317.01	306.04	289.60	270.42	248.49	225.65
270.0	331.62	329.79	326.11	316.93	304.98	288.45	270.08	247.11	225.06
285.0	331.62	330.70	324.25	315.96	303.07	286.49	268.06	245.03	242.27
300.0	331.62	329.78	324.23	315.00	312.23	285.44	265.11	242.94	219.85
315.0	331.62	328.85	322.39	313.15	300.22	281.74	263.27	240.17	218.00
330.0	331.62	327.93	320.54	311.30	297.45	280.82	260.50	238.33	216.16
345.0	331.62	327.01	320.54	310.38	295.60	278.97	258.65	236.48	214.31
360.0	331.62	329.82	325.32	316.30	306.39	291.07	273.05	251.42	228.89
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	208.17	184.74	164.01	140.58	115.35	89.21	65.78	43.26	24.33
15.0	207.49	184.84	163.09	140.44	116.88	88.80	65.24	42.59	23.56
30.0	206.24	185.35	163.54	141.74	116.30	89.95	65.42	44.52	24.53
45.0	206.81	184.94	163.08	141.21	118.44	91.11	67.42	44.64	24.60
60.0	207.38	184.54	164.44	142.52	118.76	93.18	68.52	46.59	25.58
75.0	207.38	185.45	164.44	142.52	120.59	94.10	70.34	48.42	27.41
90.0	208.53	186.48	166.27	144.22	121.26	96.46	72.57	50.52	30.31
105.0	210.95	187.92	166.73	144.63	123.44	97.64	74.62	52.51	31.32
120.0	213.38	189.37	169.05	146.88	124.71	99.76	75.75	53.58	34.18
135.0	214.31	192.14	169.97	147.80	124.71	102.54	78.52	56.35	35.10
150.0	216.16	193.99	172.74	150.57	127.48	103.46	79.44	57.27	37.87
165.0	218.93	196.76	173.66	151.49	128.40	105.31	81.29	59.12	37.87
180.0	202.76	180.23	157.70	135.17	110.84	86.51	63.98	43.26	24.33
195.0	203.87	181.22	159.47	135.01	112.35	87.89	64.33	43.49	24.46
210.0	205.33	182.62	159.00	136.28	111.75	86.31	64.51	41.79	24.53
225.0	205.90	182.21	159.43	136.66	112.06	86.55	62.86	41.91	22.78
240.0	204.64	181.80	158.96	135.21	109.63	84.96	62.12	41.11	21.93
255.0	202.81	180.89	157.13	134.29	108.71	83.13	59.38	54.81	20.10
270.0	203.02	179.13	156.17	150.65	106.56	80.84	56.95	35.83	18.37
285.0	199.90	176.87	153.84	129.89	105.01	77.38	55.27	34.08	17.50
300.0	197.68	175.51	152.42	127.48	101.61	75.75	52.65	31.41	15.70
315.0	194.91	172.74	149.65	124.71	99.76	73.90	50.81	30.48	15.70
330.0	192.14	171.82	148.72	122.86	96.99	71.13	48.03	28.64	14.78
345.0	191.22	169.05	145.95	121.01	95.15	70.20	48.03	27.71	13.86
360.0	208.17	184.74	164.01	140.58	115.35	89.21	65.78	43.26	24.33

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	12.62	12.62	12.62	13.52	16.22	18.02	19.83	20.73	21.63
15.0	12.69	11.78	12.69	13.59	16.31	18.12	19.93	20.84	21.75
30.0	12.72	12.72	12.72	13.63	16.35	19.08	19.99	21.81	21.81
45.0	12.75	11.84	12.75	14.58	16.40	19.13	20.95	21.87	21.87
60.0	13.70	12.79	12.79	14.62	16.44	19.18	21.01	21.93	21.93
75.0	13.70	11.88	12.79	13.70	16.44	19.18	21.01	21.93	22.84
90.0	14.70	11.94	12.86	13.78	16.54	19.29	21.13	22.05	22.97
105.0	15.66	11.98	12.90	13.82	16.58	19.34	21.19	22.11	23.03
120.0	16.63	12.01	12.93	13.86	15.70	18.47	20.32	22.17	23.09
135.0	17.55	12.01	12.93	12.93	15.70	18.47	20.32	22.17	22.17
150.0	19.40	12.01	12.93	12.93	15.70	18.47	20.32	21.25	22.17
165.0	19.40	12.01	12.93	12.93	15.70	17.55	20.32	21.25	22.17
180.0	13.52	12.62	13.52	14.42	17.12	19.83	20.73	21.63	22.53
195.0	13.59	12.69	12.69	14.50	17.22	19.03	20.84	21.75	21.75
210.0	13.63	12.72	12.72	14.54	17.26	19.08	20.90	20.90	21.81
225.0	12.75	12.75	12.75	14.58	17.31	19.13	19.13	20.95	21.87
240.0	12.79	12.79	12.79	14.62	17.36	19.18	20.10	21.01	21.01
255.0	12.79	12.79	12.79	14.62	17.36	19.18	20.10	21.01	21.01
270.0	12.86	12.86	12.86	14.70	17.45	18.37	20.21	21.13	21.13
285.0	11.98	12.90	12.90	15.66	17.50	19.34	20.27	21.19	21.19
300.0	12.01	12.93	12.93	15.70	17.55	19.40	20.32	21.25	21.25
315.0	12.01	12.93	12.93	15.70	17.55	19.40	20.32	21.25	21.25
330.0	12.01	12.93	13.86	15.70	17.55	19.40	20.32	21.25	21.25
345.0	12.01	12.93	13.86	15.70	18.47	19.40	21.25	21.25	21.25
360.0	12.62	12.62	12.62	13.52	16.22	18.02	19.83	20.73	21.63
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	21.63	21.63	20.73	19.83	17.12	14.42	10.81	6.31	3.60
15.0	21.75	21.75	20.84	19.03	17.22	14.50	10.87	6.34	3.62
30.0	21.81	21.81	20.90	19.08	17.26	14.54	10.90	6.36	2.73
45.0	21.87	21.87	20.95	20.04	17.31	14.58	10.93	6.38	3.64
60.0	21.93	21.93	21.01	20.10	18.27	14.62	10.96	7.31	3.65
75.0	22.84	21.93	21.01	20.10	18.27	15.53	10.96	7.31	3.65
90.0	22.97	22.05	22.05	21.13	18.37	15.62	11.94	8.27	3.67
105.0	23.03	22.11	22.11	21.19	19.34	16.58	12.90	8.29	4.61
120.0	23.09	23.09	22.17	21.25	19.40	16.63	12.93	8.31	4.62
135.0	23.09	22.17	22.17	21.25	19.40	16.63	12.93	8.31	4.62
150.0	23.09	22.17	22.17	21.25	20.32	15.70	12.93	8.31	4.62
165.0	22.17	22.17	22.17	21.25	19.40	16.63	12.01	8.31	4.62
180.0	22.53	21.63	20.73	19.83	17.12	12.62	9.01	4.51	2.70
195.0	21.75	21.75	20.84	19.93	17.22	16.31	8.15	5.44	2.72
210.0	21.81	21.81	20.90	19.08	17.26	12.72	9.09	5.45	2.73
225.0	21.87	20.95	20.95	20.04	16.40	13.67	9.11	5.47	2.73
240.0	21.01	21.01	21.01	19.18	17.36	13.70	9.14	5.48	2.74
255.0	21.01	21.01	20.10	19.18	16.44	13.70	9.14	5.48	2.74
270.0	21.13	21.13	20.21	19.29	16.54	13.78	9.19	4.59	1.84
285.0	21.19	21.19	20.27	18.42	16.58	12.90	8.29	4.61	1.84
300.0	21.25	21.25	20.32	18.47	15.70	12.01	8.31	4.62	1.85
315.0	21.25	20.32	20.32	18.47	15.70	12.01	8.31	4.62	1.85
330.0	21.25	20.32	19.40	18.47	15.70	12.01	7.39	3.69	1.85
345.0	21.25	20.32	19.40	17.55	14.78	11.08	6.47	3.69	1.85
360.0	21.63	21.63	20.73	19.83	17.12	14.42	10.81	6.31	3.60

Intensity data(cd)

C/ γ (°)	180.0
0.0	1.80
15.0	1.81
30.0	1.82
45.0	1.82
60.0	1.83
75.0	1.83
90.0	1.84
105.0	1.84
120.0	1.85
135.0	1.85
150.0	2.77
165.0	2.77
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	1.80