
AFX

Client:

LumCAT: VRNV1407LAJUDSN

Luminaire: LED 灯具

Report No:

Ballast type:

Test No:

Voltage(V): 120.010

LampCAT:

Current(A): 0.171

Lamp flux(lm): 1650.2

Power (W): 20.310

Number of Lamps: 1

PF: 0.990

Length(mm): 350

Width(mm): 120

Phm Type: C

Height(mm): 120

Photometric Results

Lumens(lm): 1650.21, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 81.25

Central intensity(cd): 196.407, Maximum intensity(cd): 201.817

Angle of maximum intensity: C=60.0 γ =175.0

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=1.31

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

Up flux rate of lamp(%): 49.51%

Down flux rate of lamp(%): 50.49%

Up flux rate of LUM(%): 49.51%

Down flux rate of LUM(%): 50.49%

CIE Type : General diffuse lighting

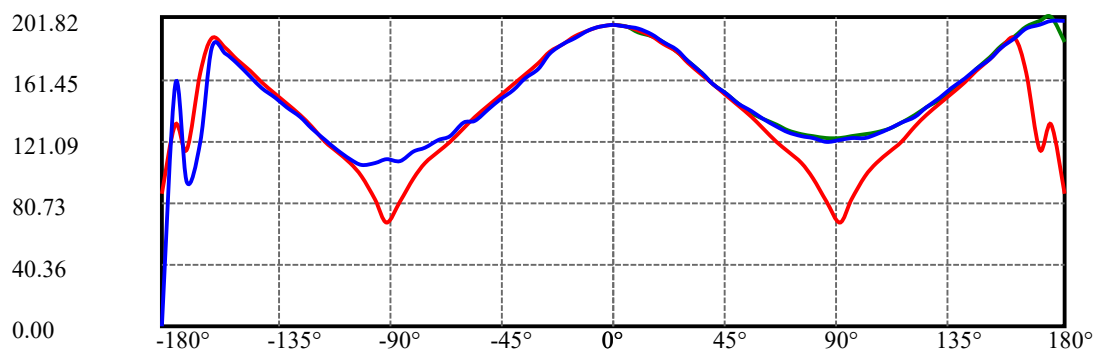
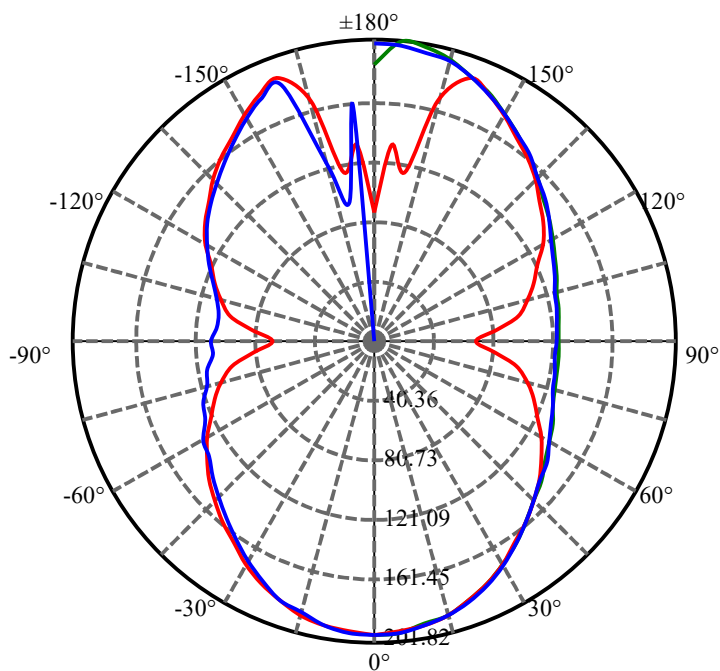
Output flux ratio in π solid angle : 29.638%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	196.407	0.000	0	0.00%	0.00%
5.0	195.546	4.686	4.686	0.28%	0.28%
10.0	193.263	13.909	18.595	0.84%	1.13%
15.0	189.708	22.718	41.312	1.38%	2.50%
20.0	184.842	30.868	72.18	1.87%	4.37%
25.0	178.176	38.074	110.254	2.31%	6.68%
30.0	170.537	44.130	154.384	2.67%	9.36%
35.0	162.679	49.068	203.453	2.97%	12.33%
40.0	154.634	52.941	256.394	3.21%	15.54%
45.0	147.113	55.871	312.265	3.39%	18.92%
50.0	139.551	57.925	370.189	3.51%	22.43%
55.0	132.628	59.181	429.37	3.59%	26.02%
60.0	125.703	59.712	489.083	3.62%	29.64%
65.0	118.894	59.462	548.545	3.60%	33.24%
70.0	113.021	58.722	607.267	3.56%	36.80%
75.0	108.085	57.794	665.06	3.50%	40.30%
80.0	104.620	56.914	721.974	3.45%	43.75%
85.0	101.496	56.006	777.981	3.39%	47.14%
90.0	100.014	55.175	833.156	3.34%	50.49%
95.0	102.130	55.349	888.504	3.35%	53.84%
100.0	105.630	56.453	944.958	3.42%	57.26%
105.0	109.666	57.607	1002.565	3.49%	60.75%
110.0	114.564	58.610	1061.175	3.55%	64.31%
115.0	120.626	59.552	1120.727	3.61%	67.91%
120.0	126.797	60.149	1180.875	3.64%	71.56%
125.0	133.230	60.104	1240.98	3.64%	75.20%
130.0	139.366	59.271	1300.251	3.59%	78.79%
135.0	145.539	57.569	1357.82	3.49%	82.28%
140.0	151.901	55.073	1412.894	3.34%	85.62%
145.0	158.747	51.829	1464.723	3.14%	88.76%
150.0	165.219	47.706	1512.429	2.89%	91.65%
155.0	171.094	42.561	1554.99	2.58%	94.23%
160.0	170.041	35.779	1590.769	2.17%	96.40%
165.0	155.891	26.861	1617.63	1.63%	98.03%
170.0	148.202	18.039	1635.669	1.09%	99.12%
175.0	171.595	11.440	1647.109	0.69%	99.81%
180.0	87.569	3.098	1650.207	0.19%	100.00%

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	154.38	9.36%	9.36%
0-40	256.39	15.54%	15.54%
0-60	489.08	29.64%	29.64%
0-90	833.16	50.49%	50.49%
0-120	1180.88	71.56%	71.56%
0-180	1650.21	100.00%	100.00%
60-90	344.07	20.85%	20.85%
90-120	347.72	21.07%	21.07%
90-130	467.10	28.31%	28.31%
90-150	679.27	41.16%	41.16%
90-180	813.95	49.32%	49.32%
0-131.73	1320.17	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	18.59
10-20	53.59
20-30	82.20
30-40	102.01
40-50	113.80
50-60	118.89
60-70	118.18
70-80	114.71
80-90	111.18
90-100	111.80
100-110	116.22
110-120	119.70
120-130	119.38
130-140	112.64
140-150	99.54
150-160	78.34
160-170	44.90
170-180	11.44



C60(Max): —————

C0/C180: —————

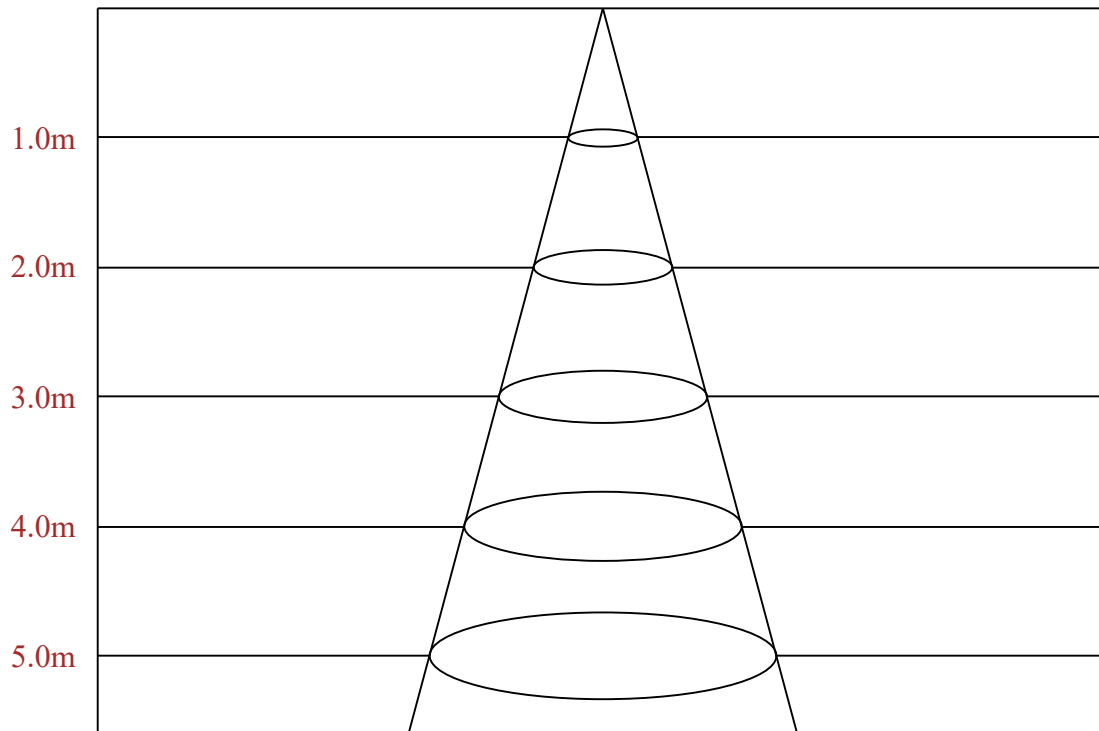
C90/C270: —————

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

:C90/270Left:0.0 Right:0.0

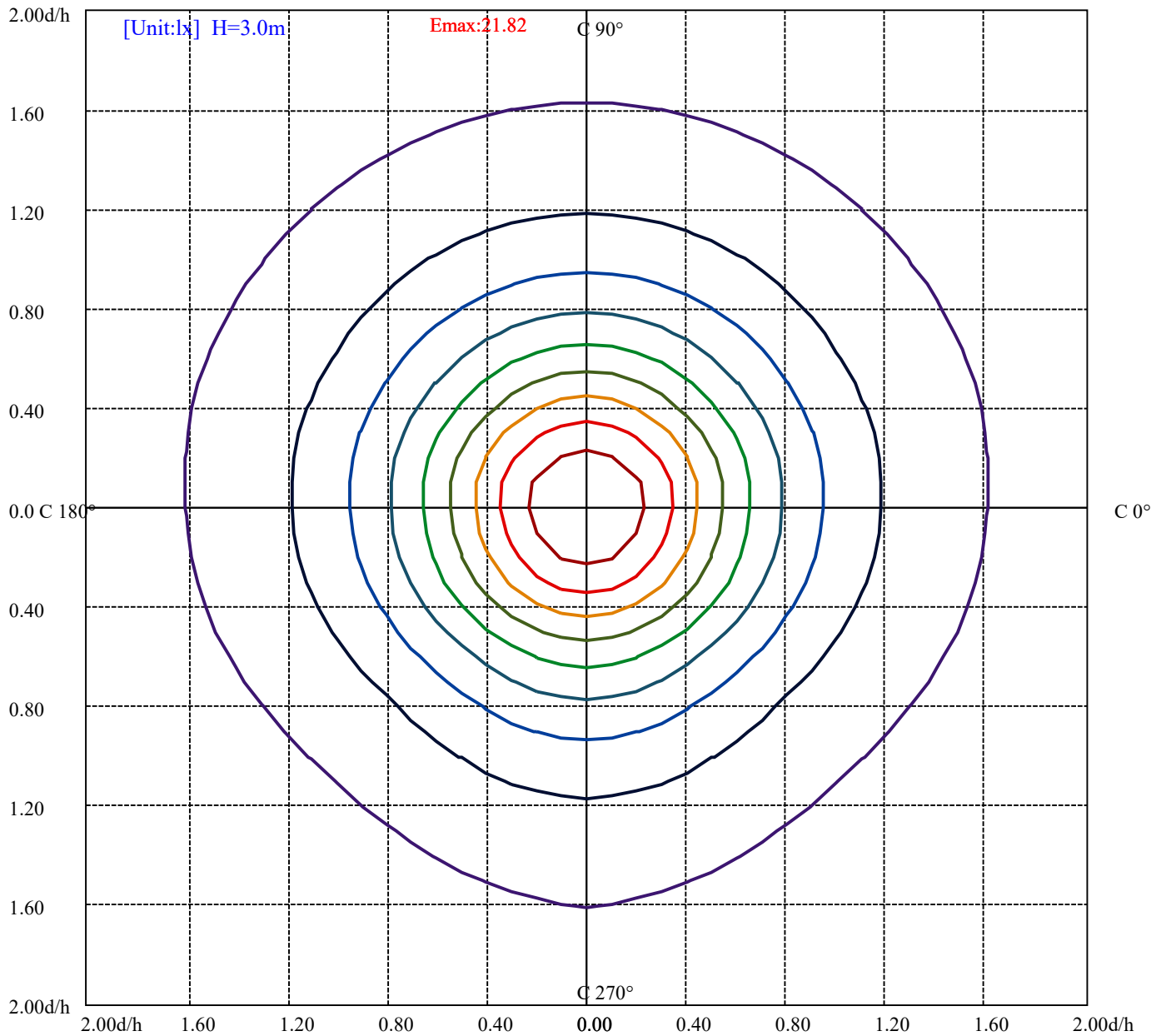
Beam Angle(50%Imax):C0/180Left:178.7 Right:178.7

:C90/270Left:0.0 Right:0.0

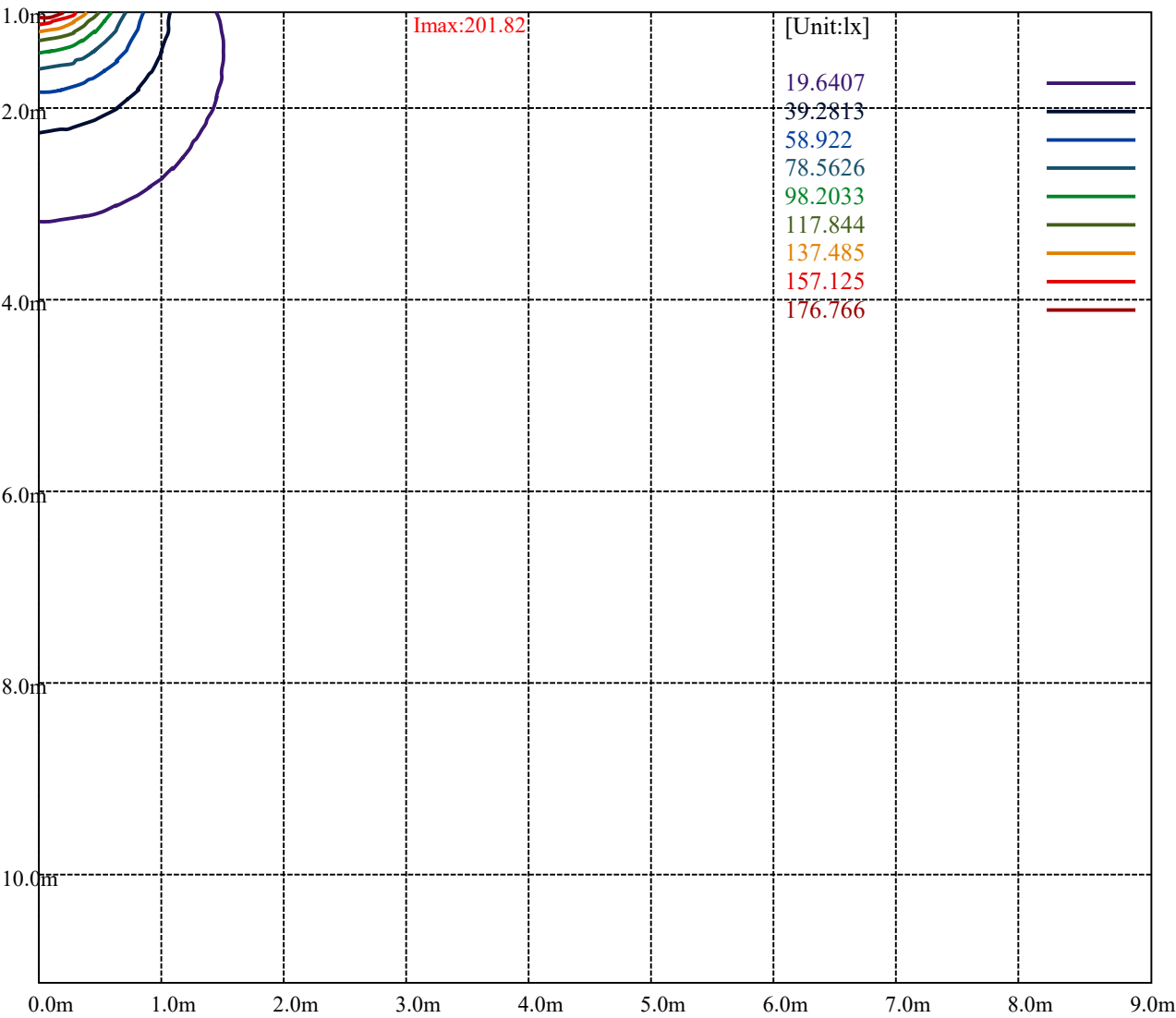


Max , Ave

Beam angle of C60 plane 245.83



(10%Emax) 2.1823	—
(20%Emax) 4.364589	—
(30%Emax) 6.546889	—
(40%Emax) 8.729177	—
(50%Emax) 10.91148	—
(60%Emax) 13.09378	—
(70%Emax) 15.27611	—
(80%Emax) 17.45833	—
(90%Emax) 19.64067	—



Luminance Table

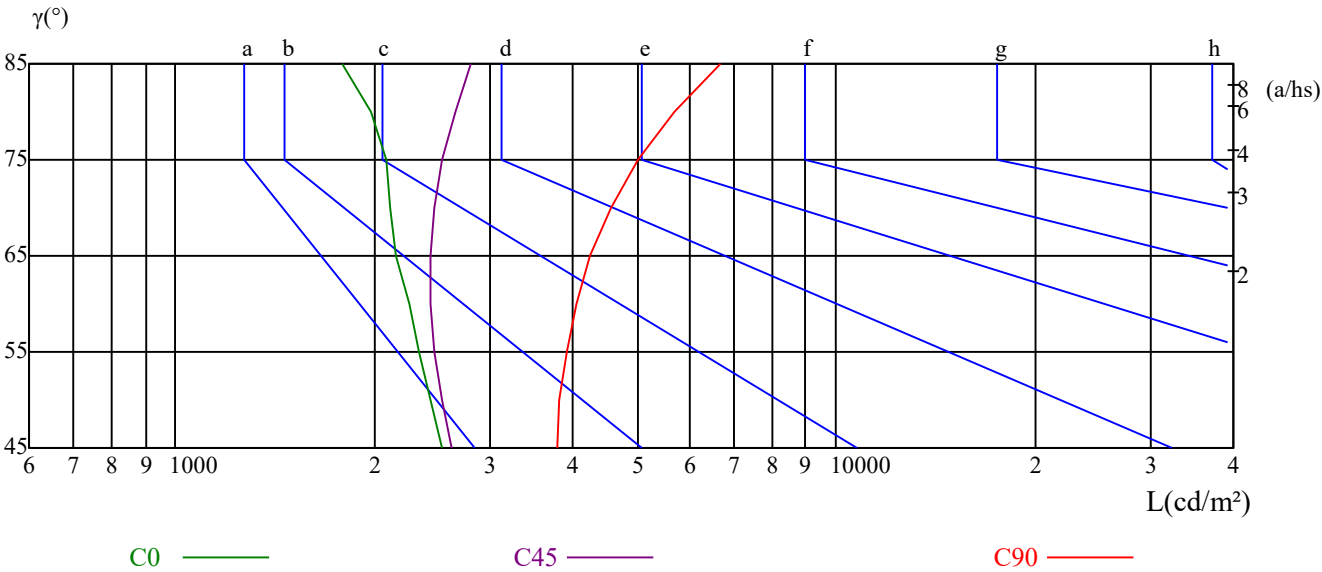
γ	45	50	55	60	65	70	75	80	85
C0	2540	2437	2344	2259	2164	2120	2081	1982	1789
C45	2616	2530	2471	2436	2435	2462	2539	2654	2807
C90	3795	3814	3917	4038	4241	4554	5017	5706	6705

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6804	7182	6367	9848	11065	9239	22235	31258	26336

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



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	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	1.07	1.07	1.07	0.99	0.99	0.99	0.84	0.84	0.84	0.70	0.70	0.70	0.57	0.57	0.57	0.50
1	0.89	0.84	0.80	0.82	0.78	0.74	0.69	0.65	0.62	0.56	0.54	0.52	0.45	0.43	0.42	0.36
2	0.76	0.69	0.63	0.70	0.64	0.58	0.59	0.54	0.49	0.48	0.44	0.41	0.38	0.35	0.33	0.28
3	0.66	0.58	0.51	0.61	0.53	0.47	0.51	0.45	0.40	0.42	0.37	0.34	0.33	0.30	0.27	0.23
4	0.58	0.49	0.42	0.53	0.46	0.40	0.45	0.39	0.34	0.37	0.32	0.28	0.29	0.26	0.23	0.19
5	0.51	0.43	0.36	0.47	0.39	0.34	0.40	0.33	0.29	0.33	0.28	0.24	0.26	0.22	0.19	0.16
6	0.46	0.37	0.31	0.42	0.35	0.29	0.36	0.29	0.25	0.29	0.24	0.21	0.23	0.20	0.17	0.14
7	0.41	0.33	0.27	0.38	0.30	0.25	0.32	0.26	0.22	0.27	0.22	0.18	0.21	0.18	0.15	0.12
8	0.37	0.29	0.24	0.35	0.27	0.22	0.29	0.23	0.19	0.24	0.19	0.16	0.20	0.16	0.13	0.11
9	0.34	0.26	0.21	0.32	0.24	0.19	0.27	0.21	0.17	0.22	0.18	0.14	0.18	0.14	0.12	0.09
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	0.13	0.11	0.08

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	196.41	195.52	192.87	190.21	184.91	178.71	172.52	165.44	158.36
15.0	196.41	196.41	193.74	190.19	185.74	179.52	173.30	166.19	159.08
30.0	196.41	195.52	192.85	189.30	184.85	178.63	172.41	164.41	158.19
45.0	196.41	195.51	193.73	189.26	184.80	178.55	171.41	163.37	157.13
60.0	196.41	195.51	192.82	189.23	184.75	178.47	171.30	164.12	156.95
75.0	196.41	195.51	192.82	189.23	184.75	178.47	172.19	165.02	156.95
90.0	196.41	195.51	193.70	190.10	185.60	180.19	172.98	164.87	157.67
105.0	196.41	196.41	193.69	190.98	185.55	180.11	173.78	165.63	159.30
120.0	196.41	195.50	191.88	190.07	185.55	180.11	173.78	166.54	158.39
135.0	196.41	196.41	194.60	190.98	187.36	181.02	169.25	166.54	159.30
150.0	196.41	196.41	195.50	192.79	188.26	182.83	175.59	168.35	160.20
165.0	196.41	196.41	195.50	193.68	189.13	183.68	177.31	170.04	161.85
180.0	196.41	194.64	192.87	189.33	184.02	178.71	170.75	163.67	156.59
195.0	196.41	195.52	193.74	189.30	184.85	178.63	171.52	164.41	156.41
210.0	196.41	195.52	192.85	189.30	184.85	178.63	171.52	161.75	149.30
225.0	196.41	195.51	193.73	190.16	184.80	178.55	171.41	159.80	146.41
240.0	196.41	195.51	193.72	190.13	185.64	179.37	172.19	162.33	152.46
255.0	196.41	195.51	192.82	190.13	184.75	178.47	171.30	164.12	156.05
270.0	196.41	195.51	192.80	188.30	184.69	177.49	168.48	161.27	154.06
285.0	196.41	195.50	194.60	189.17	183.74	173.78	163.82	154.77	148.44
300.0	196.41	195.50	192.79	189.17	182.83	171.06	160.20	150.25	140.29
315.0	196.41	194.60	191.88	188.26	181.93	172.87	162.92	152.96	144.82
330.0	196.41	194.60	191.88	187.36	181.02	173.78	165.63	157.49	149.34
345.0	196.41	194.59	190.95	186.40	181.86	174.58	167.31	160.94	153.67
360.0	196.41	195.52	192.87	190.21	184.91	178.71	172.52	165.44	158.36
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	152.17	145.98	138.90	130.94	122.09	115.01	107.05	95.55	80.51
15.0	152.86	145.75	140.42	135.09	127.98	121.75	116.42	110.20	104.87
30.0	151.08	145.75	140.42	135.97	131.53	128.86	126.20	123.53	120.87
45.0	150.88	145.52	140.16	135.70	132.13	128.56	126.77	124.99	123.20
60.0	150.67	145.29	139.91	135.42	131.83	128.25	126.45	124.66	124.66
75.0	150.67	145.29	139.01	134.53	130.94	128.25	124.66	122.87	121.97
90.0	151.36	145.05	140.55	135.14	130.64	127.03	124.33	122.53	120.73
105.0	152.06	145.72	140.29	135.76	131.24	127.62	124.90	122.19	121.28
120.0	152.06	145.72	139.39	134.86	131.24	126.71	124.90	123.09	122.19
135.0	152.06	145.72	140.29	134.86	130.33	126.71	124.00	122.19	120.38
150.0	152.96	142.10	140.29	135.76	130.33	126.71	123.09	121.28	118.57
165.0	154.58	148.21	141.85	135.48	130.03	123.66	118.21	112.75	106.39
180.0	149.52	142.44	135.36	128.28	119.44	113.24	107.05	97.32	82.28
195.0	149.30	141.31	132.42	125.31	116.42	108.42	103.09	97.76	93.32
210.0	139.53	131.53	122.64	112.87	103.98	95.09	87.09	81.76	79.10
225.0	133.02	120.52	115.17	106.24	98.20	88.38	78.56	73.21	70.53
240.0	140.80	130.04	119.28	108.52	99.55	90.58	84.30	80.72	80.72
255.0	147.98	139.91	130.04	120.18	113.90	107.62	101.34	100.45	98.65
270.0	147.76	141.45	134.24	132.44	124.33	121.63	116.22	113.52	108.11
285.0	143.01	135.76	126.71	121.28	114.95	109.52	105.90	105.90	102.28
300.0	134.86	126.71	117.66	108.61	98.66	91.42	85.98	85.98	88.70
315.0	135.76	124.90	114.95	102.28	91.42	79.65	72.41	71.50	71.50
330.0	140.29	131.24	122.19	111.33	100.47	91.42	85.08	81.46	82.36
345.0	145.49	137.30	130.94	120.03	111.84	106.39	100.02	95.48	92.75
360.0	152.17	145.98	138.90	130.94	122.09	115.01	107.05	95.55	80.51

Intensity data(cd)

Appendix Page: 11 Total:12

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	69.89	87.59	100.86	109.70	115.90	122.09	131.82	138.90	145.98
15.0	103.98	107.53	112.87	117.31	123.53	130.64	135.97	141.31	148.42
30.0	120.87	122.64	125.31	127.09	129.75	133.31	137.75	143.08	148.42
45.0	124.09	124.99	125.88	127.66	130.34	134.81	139.27	143.73	149.98
60.0	124.66	125.56	126.45	128.25	130.94	134.53	139.01	144.39	150.67
75.0	122.87	122.87	124.66	126.45	129.14	133.63	138.11	143.49	149.77
90.0	121.63	122.53	123.43	125.23	128.84	132.44	136.94	142.35	148.66
105.0	121.28	122.19	123.09	125.81	128.52	132.14	136.67	142.10	147.53
120.0	122.19	123.09	124.00	124.90	127.62	131.24	135.76	140.29	145.72
135.0	119.47	120.38	121.28	123.09	125.81	129.43	133.95	139.39	144.82
150.0	116.76	116.76	118.57	121.28	124.00	127.62	132.14	136.67	143.01
165.0	100.93	99.11	101.84	108.21	113.66	120.03	127.30	134.57	140.94
180.0	66.35	77.85	93.78	104.40	112.36	119.44	128.28	137.13	144.21
195.0	90.65	92.43	98.65	104.87	111.09	119.09	128.86	134.20	141.31
210.0	78.21	81.76	87.09	92.43	100.43	108.42	114.64	122.64	129.75
225.0	69.64	69.64	70.53	75.88	81.24	89.28	90.17	102.67	107.13
240.0	84.30	82.51	82.51	82.51	87.89	94.17	103.14	110.31	114.79
255.0	96.86	94.17	95.96	99.55	104.93	113.00	123.76	131.83	139.01
270.0	109.01	106.31	105.41	109.01	115.32	121.63	129.74	136.94	143.25
285.0	102.28	104.09	104.99	107.71	113.14	122.19	131.24	138.48	143.91
300.0	85.98	85.98	90.51	95.04	99.56	106.80	112.23	117.66	124.00
315.0	69.69	70.60	75.12	80.55	87.79	95.04	100.47	104.99	109.52
330.0	83.27	88.70	94.13	100.47	105.90	113.14	119.47	126.71	133.05
345.0	95.48	101.84	108.21	114.57	121.84	130.94	136.39	143.67	150.94
360.0	69.89	87.59	100.86	109.70	115.90	122.09	131.82	138.90	145.98
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	153.06	160.13	167.21	174.29	181.37	187.56	189.33	129.17	103.51
15.0	153.75	160.86	167.97	175.08	182.19	188.41	192.85	168.86	108.42
30.0	154.64	160.86	167.97	175.97	183.08	189.30	194.63	199.07	149.30
45.0	155.34	161.59	168.73	176.77	183.91	190.16	195.51	199.98	194.62
60.0	156.05	162.33	169.50	177.57	184.75	191.03	196.41	199.10	200.89
75.0	156.05	162.33	169.50	176.68	182.95	189.23	192.82	197.30	199.10
90.0	154.96	162.17	168.48	174.78	181.99	188.30	193.70	196.41	199.11
105.0	153.87	160.20	167.44	175.59	181.93	188.26	193.69	198.22	200.93
120.0	152.06	159.30	165.63	172.87	180.11	187.36	193.69	199.12	202.74
135.0	150.25	156.58	162.92	170.16	178.30	185.55	191.88	197.31	200.93
150.0	149.34	155.68	162.01	168.35	175.59	183.74	190.07	194.60	197.31
165.0	148.21	154.58	161.85	168.22	175.49	182.77	188.22	192.77	195.50
180.0	151.29	159.25	166.33	174.29	182.25	187.56	142.44	101.74	159.25
195.0	150.19	157.30	165.30	172.41	180.41	180.41	111.09	100.43	179.52
210.0	137.75	139.53	149.30	154.64	155.53	135.09	99.54	102.20	164.41
225.0	111.59	116.95	122.31	124.09	124.99	108.02	98.20	101.77	120.52
240.0	120.18	127.35	132.73	136.32	140.80	128.25	113.90	74.44	96.86
255.0	145.29	151.56	159.64	168.60	173.09	170.40	132.73	70.85	124.66
270.0	148.66	155.86	163.07	171.18	178.39	181.99	120.73	94.60	157.67
285.0	150.25	157.49	165.63	171.97	177.40	159.30	101.37	99.56	183.74
300.0	129.43	134.86	139.39	143.91	147.53	124.00	97.75	106.80	193.69
315.0	114.04	119.47	124.00	125.81	128.52	114.95	100.47	114.95	195.50
330.0	138.48	143.91	150.25	155.68	160.20	150.25	133.95	141.20	194.60
345.0	158.22	165.49	172.77	180.04	185.50	189.13	176.40	176.40	195.50
360.0	153.06	160.13	167.21	174.29	181.37	187.56	189.33	129.17	103.51

Intensity data(cd)

C/ γ (°)	180.0
0.0	172.52
15.0	137.75
30.0	103.98
45.0	124.09
60.0	171.30
75.0	197.30
90.0	199.11
105.0	200.03
120.0	200.03
135.0	200.03
150.0	198.22
165.0	197.32
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	172.52