
AFX

Client:

LumCAT: VRNV1407LAJUDSN

Luminaire: LED 灯具

Report No:

Ballast type:

Test No:

Voltage(V): 120.010

LampCAT:

Current(A): 0.168

Lamp flux(lm): 1630.1

Power (W): 19.920

Number of Lamps: 1

PF: 0.990

Length(mm): 350

Width(mm): 120

Phm Type: C

Height(mm): 120

Photometric Results

Lumens(lm): 1630.11, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 81.83

Central intensity(cd): 193.937, Maximum intensity(cd): 198.877

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=1.32

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

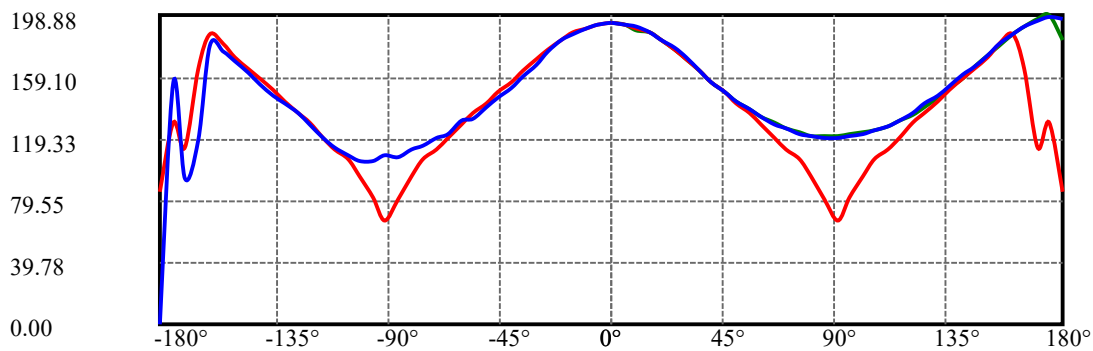
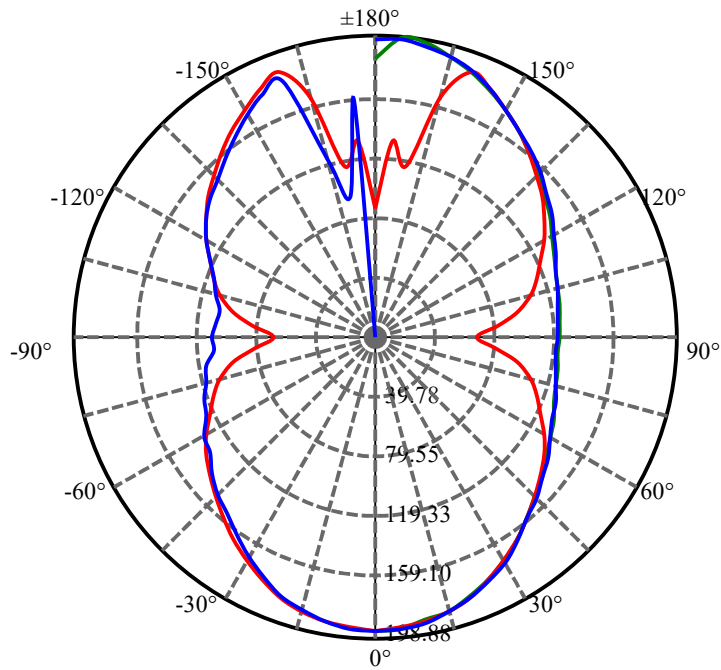
Output flux ratio in π solid angle : 29.637%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	193.937	0.000	0	0.00%	0.00%
5.0	193.152	4.628	4.628	0.28%	0.28%
10.0	190.980	13.742	18.369	0.84%	1.13%
15.0	187.387	22.444	40.814	1.38%	2.50%
20.0	182.483	30.482	71.296	1.87%	4.37%
25.0	175.969	37.595	108.891	2.31%	6.68%
30.0	168.478	43.590	152.481	2.67%	9.35%
35.0	160.658	48.468	200.949	2.97%	12.33%
40.0	152.801	52.298	253.247	3.21%	15.54%
45.0	145.317	55.199	308.446	3.39%	18.92%
50.0	137.867	57.222	365.667	3.51%	22.43%
55.0	130.944	58.449	424.116	3.59%	26.02%
60.0	124.282	58.995	483.111	3.62%	29.64%
65.0	117.548	58.790	541.9	3.61%	33.24%
70.0	111.638	58.031	599.932	3.56%	36.80%
75.0	106.740	57.080	657.012	3.50%	40.30%
80.0	103.311	56.204	713.216	3.45%	43.75%
85.0	100.335	55.336	768.552	3.39%	47.15%
90.0	98.852	54.539	823.091	3.35%	50.49%
95.0	100.856	54.681	877.772	3.35%	53.85%
100.0	104.285	55.742	933.514	3.42%	57.27%
105.0	108.356	56.897	990.41	3.49%	60.76%
110.0	113.143	57.896	1048.307	3.55%	64.31%
115.0	119.054	58.794	1107.1	3.61%	67.92%
120.0	125.336	59.412	1166.512	3.64%	71.56%
125.0	131.585	59.387	1225.899	3.64%	75.20%
130.0	137.720	58.556	1284.455	3.59%	78.80%
135.0	143.781	56.881	1341.336	3.49%	82.28%
140.0	150.030	54.402	1395.738	3.34%	85.62%
145.0	156.727	51.180	1446.918	3.14%	88.76%
150.0	163.163	47.106	1494.024	2.89%	91.65%
155.0	169.002	42.036	1536.06	2.58%	94.23%
160.0	167.947	35.340	1571.399	2.17%	96.40%
165.0	153.937	26.528	1597.927	1.63%	98.03%
170.0	146.430	17.818	1615.745	1.09%	99.12%
175.0	169.638	11.307	1627.052	0.69%	99.81%
180.0	86.475	3.062	1630.113	0.19%	100.00%

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	152.48	9.35%	9.35%
0-40	253.25	15.54%	15.54%
0-60	483.11	29.64%	29.64%
0-90	823.09	50.49%	50.49%
0-120	1166.51	71.56%	71.56%
0-180	1630.11	100.00%	100.00%
60-90	339.98	20.86%	20.86%
90-120	343.42	21.07%	21.07%
90-130	461.36	28.30%	28.30%
90-150	670.93	41.16%	41.16%
90-180	803.96	49.32%	49.32%
0-131.73	1304.09	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	18.37
10-20	52.93
20-30	81.19
30-40	100.77
40-50	112.42
50-60	117.44
60-70	116.82
70-80	113.28
80-90	109.87
90-100	110.42
100-110	114.79
110-120	118.21
120-130	117.94
130-140	111.28
140-150	98.29
150-160	77.38
160-170	44.35
170-180	11.31



C60(Max): —————

C0/C180: —————

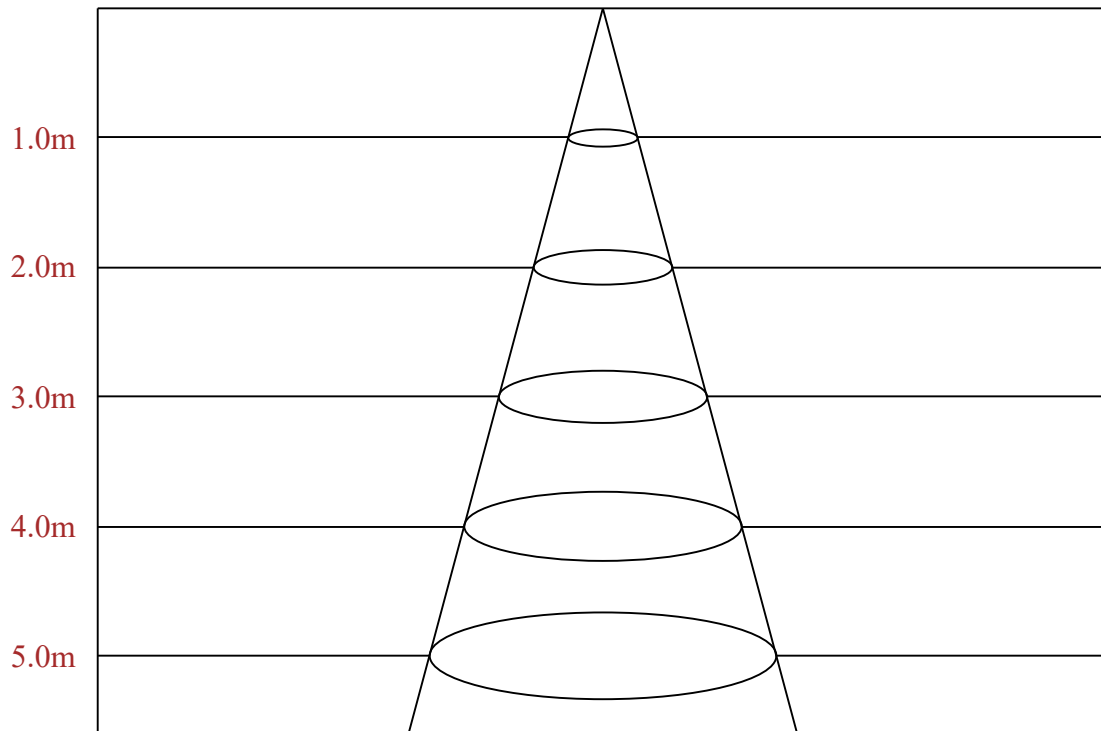
C90/C270: —————

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

:C90/270Left:0.0 Right:0.0

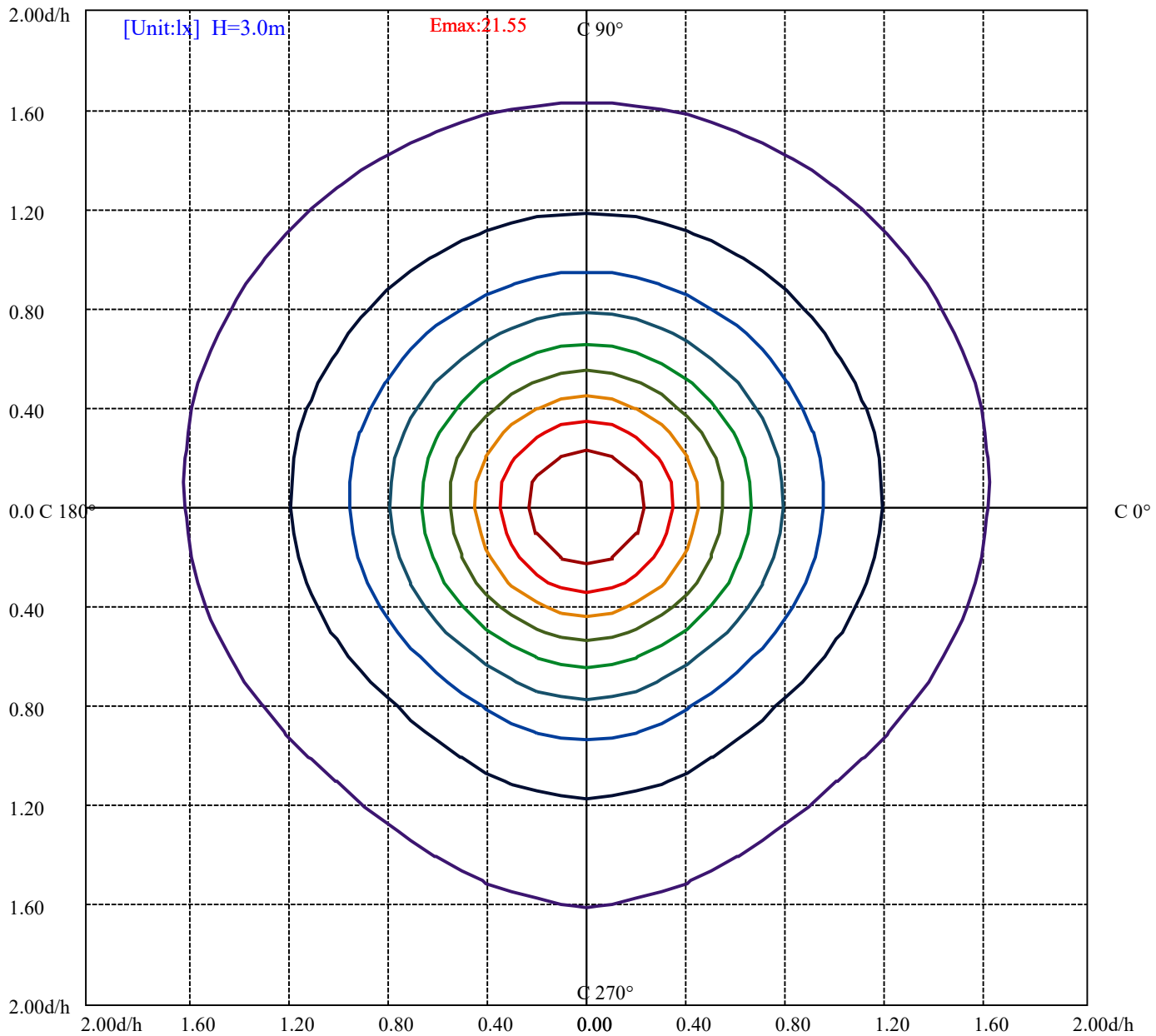
Beam Angle(50%Imax):C0/180Left:178.7 Right:178.7

:C90/270Left:0.0 Right:0.0

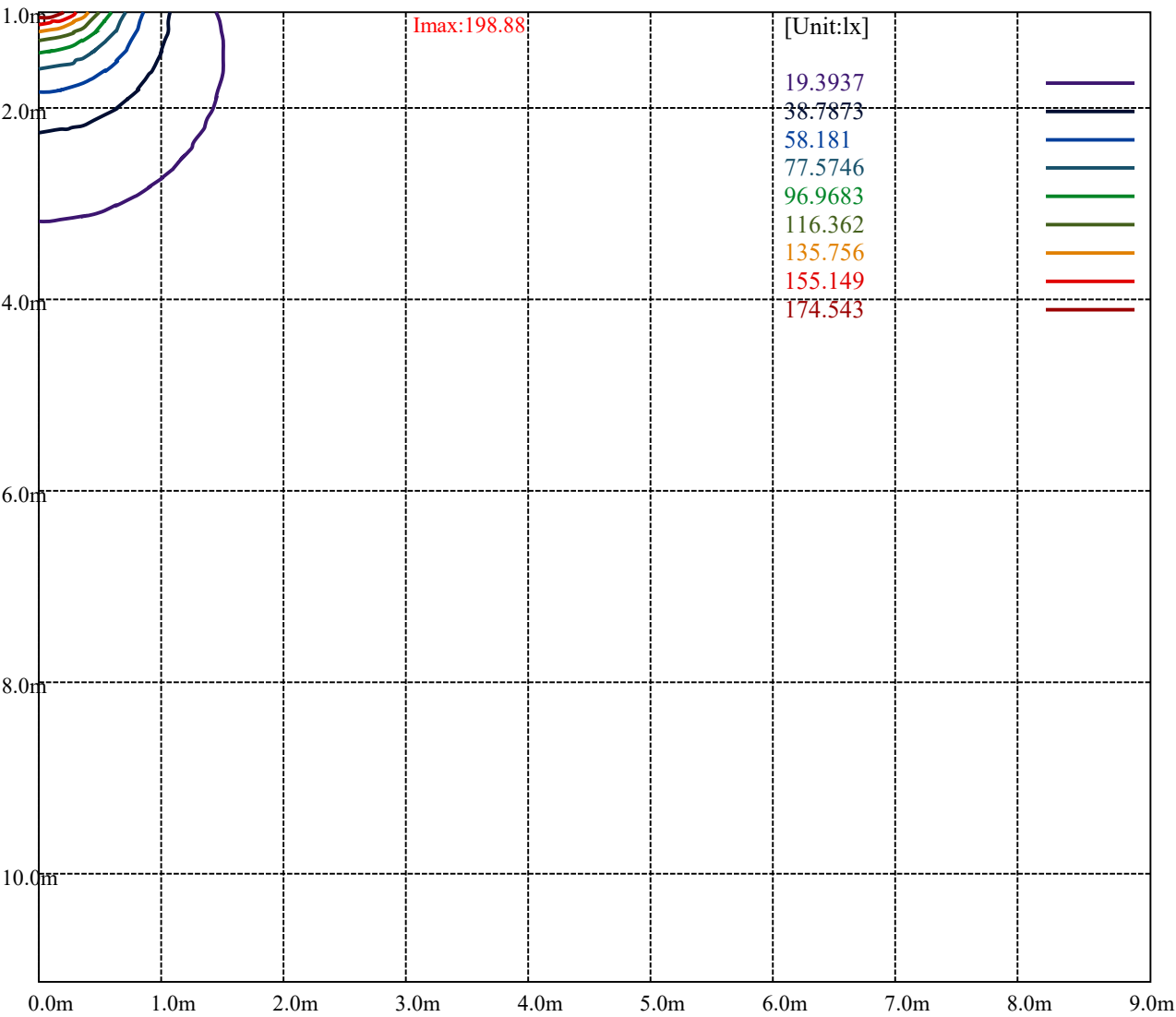


Max , Ave

Beam angle of C60 plane 245.97



(10%Emax) 2.154855	—
(20%Emax) 4.3097	—
(30%Emax) 6.464556	—
(40%Emax) 8.6194	—
(50%Emax) 10.77426	—
(60%Emax) 12.92911	—
(70%Emax) 15.084	—
(80%Emax) 17.23878	—
(90%Emax) 19.39367	—



Luminance Table

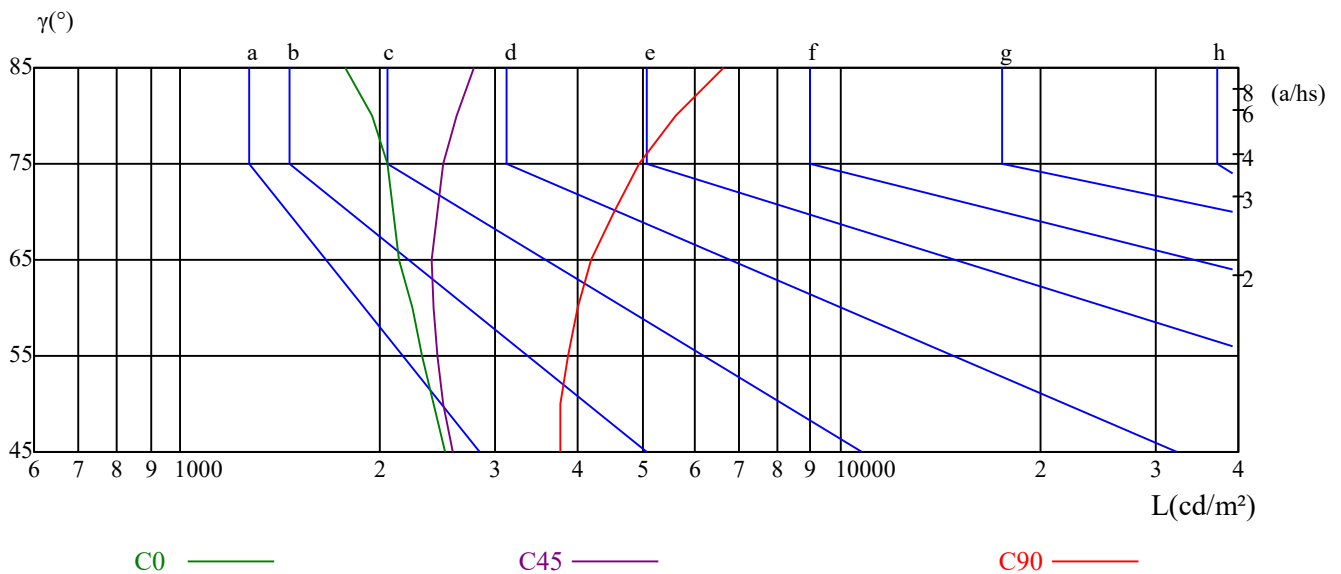
γ	45	50	55	60	65	70	75	80	85
C0	2512	2410	2316	2238	2142	2097	2057	1957	1771
C45	2588	2502	2442	2414	2404	2448	2505	2618	2779
C90	3755	3771	3871	3989	4188	4527	4951	5629	6663

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6735	7089	6286	9735	10953	9126	22015	31049	26059

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)

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C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	193.94	193.05	191.28	187.74	183.31	177.11	170.91	163.83	156.74
15.0	193.94	193.94	191.27	187.71	183.26	177.92	170.81	163.69	157.46
30.0	193.94	193.05	191.27	187.71	183.26	176.14	169.92	162.80	156.57
45.0	193.94	193.04	191.26	187.68	182.32	176.96	169.81	161.76	154.61
60.0	193.94	193.04	190.36	186.79	181.42	175.17	168.91	161.76	154.61
75.0	193.94	193.04	191.24	187.65	183.16	176.88	169.69	162.51	155.33
90.0	193.94	193.03	191.23	187.62	183.11	177.70	171.39	163.27	156.05
105.0	193.94	193.94	192.12	188.50	183.97	178.53	171.28	164.03	157.69
120.0	193.94	193.03	188.52	187.62	183.11	177.70	171.39	163.27	156.05
135.0	193.94	194.84	193.03	189.41	184.87	179.44	166.75	164.94	157.69
150.0	193.94	194.84	193.03	190.31	185.78	180.34	174.00	165.84	158.59
165.0	193.94	193.94	193.03	190.31	185.78	181.25	174.91	167.66	159.50
180.0	193.94	192.17	190.39	186.85	182.42	176.23	169.14	162.06	154.97
195.0	193.94	193.05	191.27	187.71	182.37	176.14	169.92	161.91	154.79
210.0	193.94	193.05	191.27	187.71	182.37	176.14	169.92	160.13	147.68
225.0	193.94	193.04	191.26	187.68	183.21	176.96	169.81	158.19	144.78
240.0	193.94	193.04	190.36	186.79	182.32	176.06	168.91	159.98	150.14
255.0	193.94	193.04	191.24	187.65	183.16	176.88	168.80	161.61	154.43
270.0	193.94	193.03	190.33	186.72	182.21	174.99	166.88	159.66	152.44
285.0	193.94	193.03	192.12	186.69	181.25	171.28	162.22	153.16	146.81
300.0	193.94	192.13	189.43	185.82	179.50	168.68	157.86	147.93	138.01
315.0	193.94	193.03	190.31	185.78	179.44	171.28	161.31	151.34	143.19
330.0	193.94	193.03	189.41	184.87	179.44	172.19	164.03	155.87	147.72
345.0	193.94	191.22	188.50	183.97	178.53	171.28	164.94	158.59	151.34
360.0	193.94	193.05	191.28	187.74	183.31	177.11	170.91	163.83	156.74
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	150.54	144.35	137.26	129.29	120.44	114.24	106.27	93.87	79.70
15.0	151.23	144.12	138.78	133.44	126.33	120.10	114.76	108.53	103.20
30.0	149.46	144.12	138.78	134.33	130.77	127.22	124.55	121.88	120.10
45.0	149.25	143.89	138.53	134.06	130.48	127.80	125.12	123.33	121.55
60.0	148.36	142.99	137.63	133.16	129.59	126.01	124.23	122.44	122.44
75.0	149.04	143.66	138.27	133.78	129.29	126.60	123.01	121.21	120.31
90.0	149.74	143.42	138.91	133.50	128.99	126.28	122.68	120.87	119.97
105.0	150.44	144.09	138.66	134.12	129.59	125.97	123.25	121.44	120.53
120.0	149.74	143.42	138.01	133.50	128.99	125.38	122.68	120.87	119.97
135.0	150.44	144.09	138.66	134.12	128.69	125.97	122.34	120.53	119.62
150.0	151.34	140.47	138.66	134.12	129.59	125.06	122.34	120.53	117.81
165.0	152.25	145.91	139.56	133.22	128.69	121.44	116.00	110.56	105.12
180.0	147.89	140.80	133.72	127.52	118.66	111.58	105.38	96.53	81.47
195.0	147.68	139.67	130.77	123.66	114.76	106.75	101.42	96.97	92.52
210.0	137.89	129.88	121.88	112.09	103.20	94.30	86.29	80.96	78.29
225.0	131.38	119.76	113.50	105.46	97.42	86.69	77.75	72.39	69.71
240.0	138.53	127.80	117.08	107.25	98.31	89.37	83.12	79.54	79.54
255.0	146.35	138.27	128.39	119.41	113.13	106.84	100.56	98.76	96.97
270.0	146.13	139.81	132.60	130.79	122.68	119.97	115.46	112.75	107.34
285.0	141.37	134.12	125.06	119.62	114.19	107.84	105.12	105.12	101.50
300.0	132.60	124.48	115.46	106.44	97.42	90.20	84.79	84.79	86.59
315.0	134.12	124.16	113.28	101.50	89.72	78.84	71.59	70.69	70.69
330.0	138.66	129.59	120.53	110.56	99.69	90.62	84.28	80.66	81.56
345.0	143.19	135.94	128.69	117.81	110.56	104.22	98.78	94.25	91.53
360.0	150.54	144.35	137.26	129.29	120.44	114.24	106.27	93.87	79.70

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	69.07	85.90	99.18	108.04	115.12	121.32	131.06	137.26	144.35
15.0	102.31	105.86	112.09	115.65	121.88	128.99	134.33	139.67	145.90
30.0	120.10	121.88	123.66	125.44	128.10	131.66	137.00	141.45	146.79
45.0	122.44	123.33	124.23	126.91	129.59	133.16	137.63	142.10	148.36
60.0	123.33	123.33	124.23	126.01	128.70	132.27	136.74	142.10	148.36
75.0	121.21	122.11	123.01	124.80	128.39	131.98	136.47	141.86	148.15
90.0	119.97	120.87	122.68	124.48	127.19	130.79	135.30	141.62	147.03
105.0	119.62	120.53	122.34	124.16	126.87	130.50	135.03	140.47	145.91
120.0	119.97	120.87	121.77	122.68	125.38	128.99	133.50	138.01	143.42
135.0	118.72	118.72	119.62	122.34	124.16	127.78	132.31	137.75	143.19
150.0	116.00	116.00	116.91	119.62	122.34	125.97	130.50	135.94	141.37
165.0	99.69	96.97	100.59	106.03	111.47	117.81	125.97	132.31	138.66
180.0	65.53	77.04	92.10	103.61	110.69	118.66	127.52	135.49	142.57
195.0	89.85	91.63	96.97	104.09	110.31	117.43	128.10	132.55	139.67
210.0	77.40	80.96	86.29	91.63	98.75	106.75	113.87	120.99	128.99
225.0	68.82	68.82	69.71	75.07	80.43	87.58	89.37	100.99	106.35
240.0	83.12	81.33	80.43	81.33	85.80	92.95	101.88	108.14	113.50
255.0	95.17	93.38	95.17	98.76	104.15	112.23	122.11	131.09	138.27
270.0	108.24	105.54	104.64	108.24	113.66	119.97	128.09	136.21	141.62
285.0	101.50	102.41	104.22	106.94	112.37	121.44	129.59	136.84	142.28
300.0	84.79	84.79	88.40	92.91	98.32	105.54	110.95	115.46	121.77
315.0	68.87	69.78	74.31	79.75	86.09	93.34	98.78	103.31	108.75
330.0	82.47	87.91	93.34	98.78	105.12	111.47	117.81	125.06	131.41
345.0	94.25	100.59	106.94	113.28	120.53	128.69	134.12	141.37	148.62
360.0	69.07	85.90	99.18	108.04	115.12	121.32	131.06	137.26	144.35
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	151.43	158.51	164.71	172.68	179.77	185.97	187.74	127.52	102.72
15.0	152.12	159.24	165.47	173.48	179.70	185.93	191.27	167.25	107.64
30.0	153.01	159.24	166.36	173.48	180.59	186.82	192.16	196.61	147.68
45.0	153.72	159.98	167.13	174.27	181.42	187.68	193.94	198.41	193.04
60.0	153.72	159.98	167.13	174.27	181.42	187.68	193.04	196.62	198.41
75.0	154.43	160.72	167.00	175.08	180.47	186.75	191.24	194.83	196.63
90.0	153.35	160.56	165.97	173.19	180.41	186.72	191.23	194.84	197.54
105.0	152.25	158.59	165.84	173.09	180.34	185.78	191.22	195.75	199.37
120.0	149.74	156.05	163.27	170.48	177.70	184.92	190.33	195.74	199.35
135.0	148.62	154.97	161.31	168.56	176.72	183.06	189.41	195.75	199.37
150.0	147.72	153.16	160.41	166.75	174.00	181.25	187.59	192.12	195.75
165.0	145.91	152.25	158.59	165.84	173.09	179.44	184.87	189.41	192.12
180.0	149.66	157.63	164.71	171.80	179.77	185.97	140.80	100.95	157.63
195.0	148.57	155.68	163.69	170.81	177.92	178.81	109.42	99.64	177.03
210.0	136.11	137.89	147.68	153.01	153.90	133.44	98.75	100.53	162.80
225.0	109.93	115.29	120.65	122.44	123.33	107.25	97.42	100.99	118.86
240.0	117.97	125.12	131.38	134.06	138.53	126.01	111.71	73.28	95.63
255.0	143.66	149.94	158.02	166.10	171.49	168.80	131.09	70.03	123.01
270.0	147.03	154.25	161.46	168.68	175.90	179.50	119.07	93.81	156.05
285.0	148.62	155.87	163.12	170.37	175.81	157.69	100.59	97.87	182.16
300.0	127.19	133.50	137.11	141.62	145.23	121.77	96.52	105.54	190.33
315.0	113.28	117.81	122.34	124.16	126.87	114.19	98.78	113.28	193.94
330.0	136.84	142.28	148.62	154.06	158.59	148.62	132.31	139.56	192.12
345.0	155.87	162.22	169.47	177.62	183.06	186.69	174.00	174.00	192.12
360.0	151.43	158.51	164.71	172.68	179.77	185.97	187.74	127.52	102.72

Intensity data(cd)

C/ γ (°)	180.0
0.0	170.91
15.0	136.11
30.0	103.20
45.0	122.44
60.0	168.91
75.0	194.83
90.0	196.64
105.0	197.56
120.0	197.54
135.0	197.56
150.0	195.75
165.0	193.94
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	170.91