
AFX

Client:

LumCAT: VRNV2207LAJUDSN

Luminaire: LED lamp

Report No:

Ballast type:

Test No: LCZP24090182

Voltage(V): 120.020

LampCAT:

Current(A): 0.243

Lamp flux(lm): 2467.0

Power (W): 28.900

Number of Lamps: 1

PF: 0.991

Length(mm): 540

Width(mm): 120

Phm Type: C

Height(mm): 120

Photometric Results

Lumens(lm): 2467.02, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 85.36

Central intensity(cd): 304.460, Maximum intensity(cd): 304.460

Angle of maximum intensity: C=0.0 γ =0.0

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=1.30 C90_270=1.34

Maximum s/h(1/4): C0_180=1.47 C90_270=1.52

Up flux rate of lamp(%): 49.21%

Down flux rate of lamp(%): 50.79%

Up flux rate of LUM(%): 49.21%

Down flux rate of LUM(%): 50.79%

CIE Type : General diffuse lighting

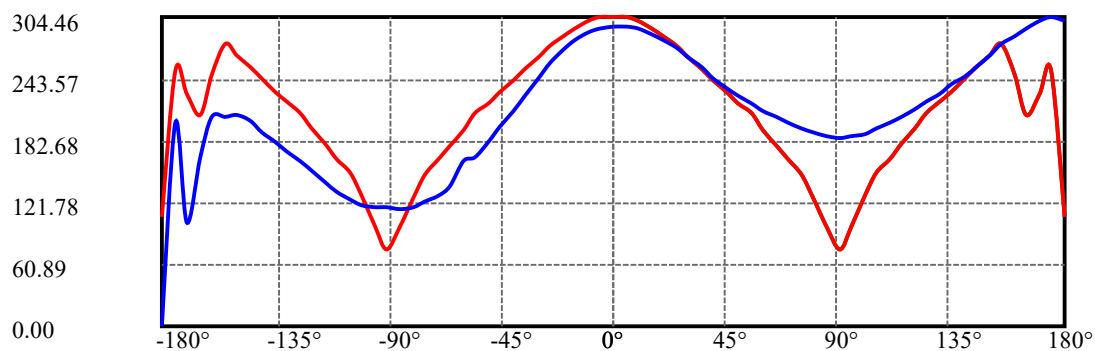
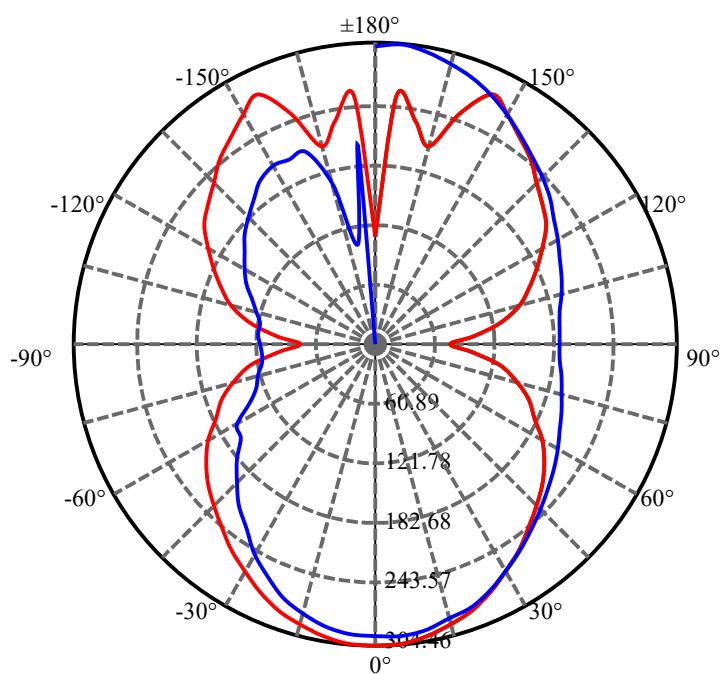
Output flux ratio in π solid angle : 30.130%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	298.660	0.000	0	0.00%	0.00%
5.0	297.607	7.128	7.128	0.29%	0.29%
10.0	294.204	21.171	28.299	0.86%	1.15%
15.0	288.344	34.556	62.855	1.40%	2.55%
20.0	280.534	46.884	109.739	1.90%	4.45%
25.0	270.622	57.806	167.545	2.34%	6.79%
30.0	259.271	67.058	234.603	2.72%	9.51%
35.0	246.765	74.517	309.121	3.02%	12.53%
40.0	235.098	80.395	389.516	3.26%	15.79%
45.0	223.331	84.882	474.398	3.44%	19.23%
50.0	212.393	88.044	562.442	3.57%	22.80%
55.0	201.565	90.008	652.45	3.65%	26.45%
60.0	191.573	90.873	743.323	3.68%	30.13%
65.0	181.039	90.583	833.906	3.67%	33.80%
70.0	171.146	89.175	923.081	3.61%	37.42%
75.0	160.845	86.777	1009.858	3.52%	40.93%
80.0	151.822	83.661	1093.519	3.39%	44.33%
85.0	145.461	80.779	1174.298	3.27%	47.60%
90.0	141.654	78.614	1252.912	3.19%	50.79%
95.0	145.660	78.669	1331.581	3.19%	53.98%
100.0	153.134	81.189	1412.771	3.29%	57.27%
105.0	162.050	84.335	1497.105	3.42%	60.68%
110.0	170.738	86.985	1584.09	3.53%	64.21%
115.0	179.601	88.708	1672.798	3.60%	67.81%
120.0	188.731	89.542	1762.34	3.63%	71.44%
125.0	198.784	89.573	1851.913	3.63%	75.07%
130.0	208.627	88.585	1940.498	3.59%	78.66%
135.0	218.646	86.337	2026.835	3.50%	82.16%
140.0	227.875	82.677	2109.512	3.35%	85.51%
145.0	237.234	77.600	2187.112	3.15%	88.65%
150.0	248.360	71.507	2258.619	2.90%	91.55%
155.0	256.158	63.847	2322.466	2.59%	94.14%
160.0	250.736	53.164	2375.63	2.15%	96.30%
165.0	239.802	40.427	2416.057	1.64%	97.93%
170.0	241.660	28.560	2444.617	1.16%	99.09%
175.0	254.258	17.741	2462.358	0.72%	99.81%
180.0	135.423	4.659	2467.016	0.19%	100.00%

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	234.60	9.51%	9.51%
0-40	389.52	15.79%	15.79%
0-60	743.32	30.13%	30.13%
0-90	1252.91	50.79%	50.79%
0-120	1762.34	71.44%	71.44%
0-180	2467.02	100.00%	100.00%
60-90	509.59	20.66%	20.66%
90-120	509.43	20.65%	20.65%
90-130	687.59	27.87%	27.87%
90-150	1005.71	40.77%	40.77%
90-180	1209.45	49.02%	49.02%
0-131.92	1973.61	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	28.30
10-20	81.44
20-30	124.86
30-40	154.91
40-50	172.93
50-60	180.88
60-70	179.76
70-80	170.44
80-90	159.39
90-100	159.86
100-110	171.32
110-120	178.25
120-130	178.16
130-140	169.01
140-150	149.11
150-160	117.01
160-170	68.99
170-180	17.74



C0(Max): —————

C0/C180: —————

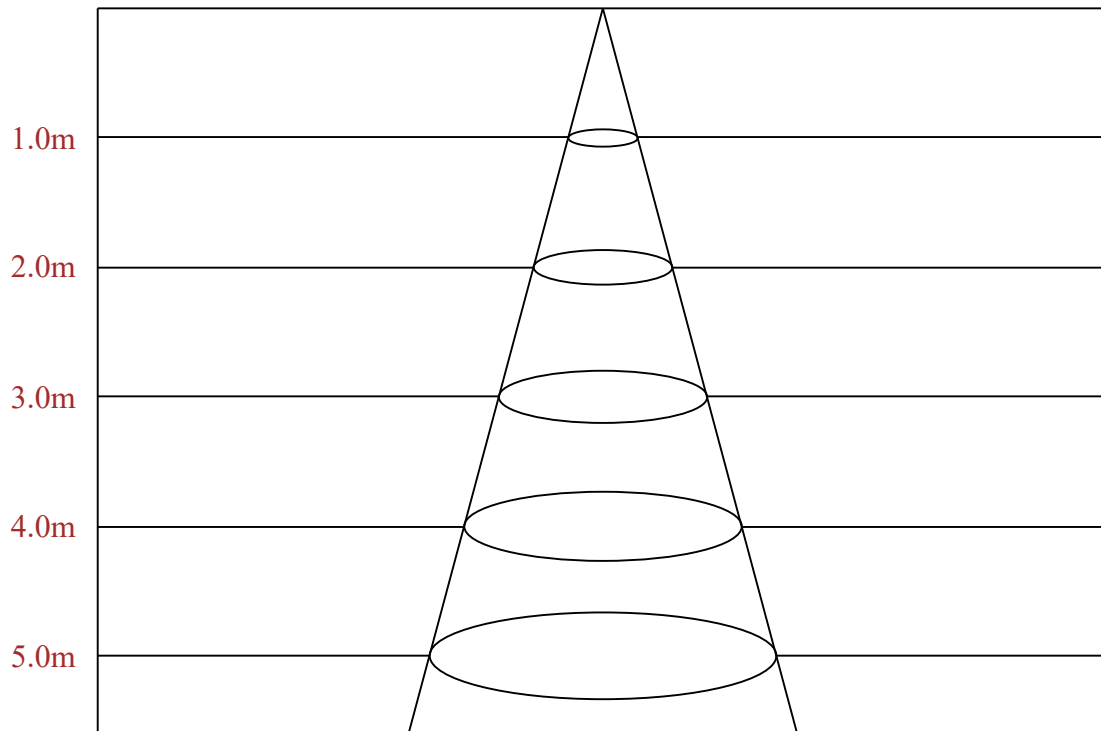
C90/C270: —————

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

:C90/270Left:0.0 Right:0.0

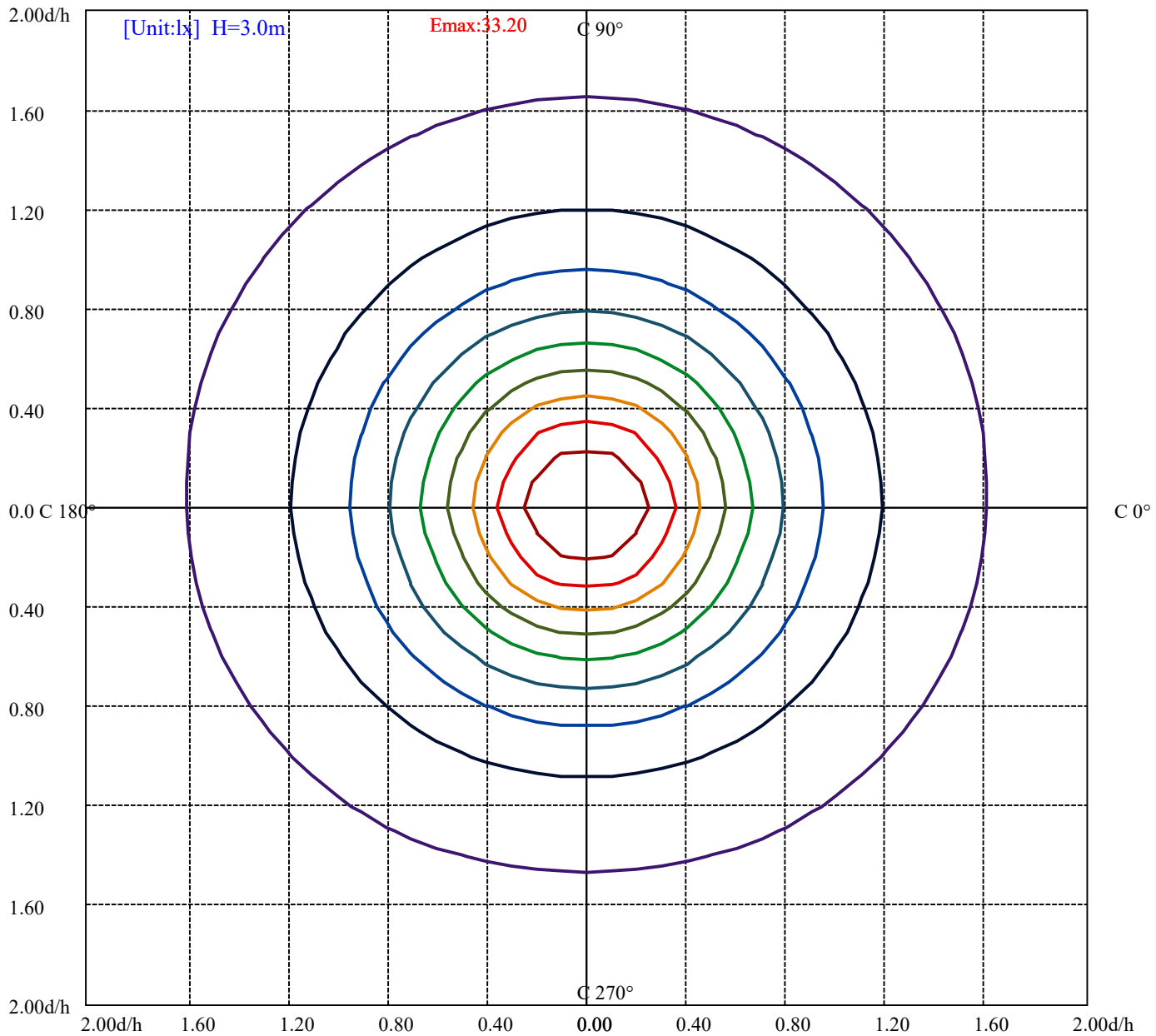
Beam Angle(50%Imax):C0/180Left:178.5 Right:178.5

:C90/270Left:0.0 Right:0.0

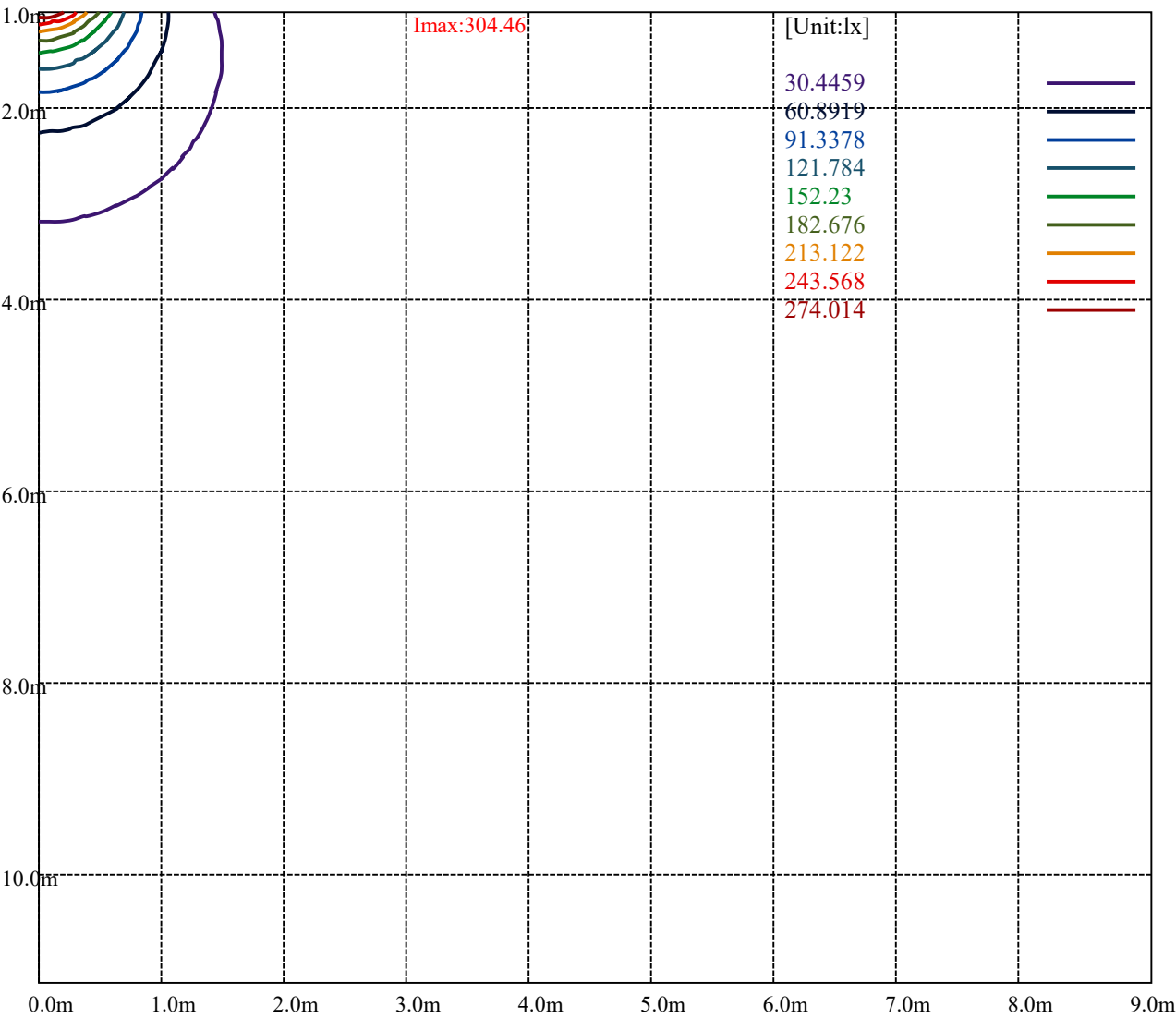


Max , Ave

Beam angle of C0 plane 252.62



(10%Emax) 3.3198	—
(20%Emax) 6.639611	—
(30%Emax) 9.959411	—
(40%Emax) 13.27922	—
(50%Emax) 16.599	—
(60%Emax) 19.91878	—
(70%Emax) 23.23867	—
(80%Emax) 26.55844	—
(90%Emax) 29.87822	—



Luminance Limiting Curve(no luminous side)

Appendix Page: 8 Total:12

Luminance Table

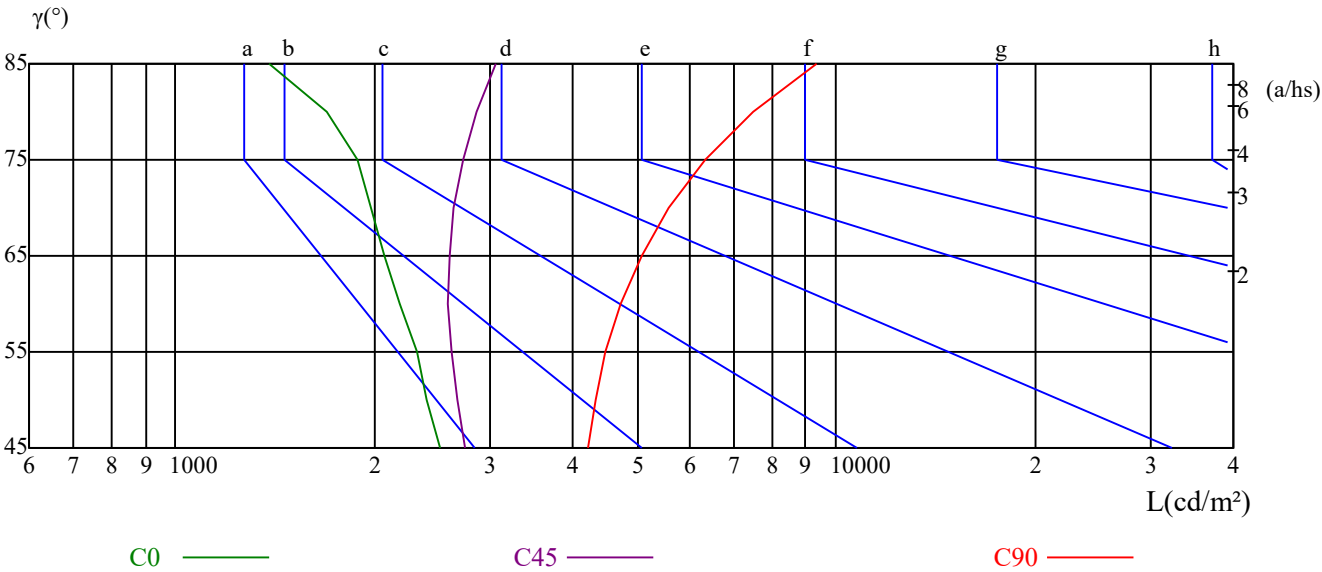
γ	45	50	55	60	65	70	75	80	85
C0	2514	2406	2319	2189	2071	1982	1880	1693	1390
C45	2751	2669	2613	2589	2598	2645	2718	2850	3058
C90	4202	4314	4485	4734	5088	5592	6336	7474	9348

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6512	6284	6749	8897	9434	9964	17275	26776	28527

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	1.07	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	0.51
1	0.89	0.84	0.80	0.82	0.78	0.74	0.69	0.66	0.63	0.57	0.54	0.52	0.46	0.44	0.42	0.37
2	0.77	0.69	0.63	0.70	0.64	0.59	0.59	0.54	0.50	0.48	0.45	0.41	0.39	0.36	0.33	0.29
3	0.66	0.58	0.51	0.61	0.54	0.48	0.51	0.45	0.41	0.42	0.38	0.34	0.33	0.30	0.27	0.23
4	0.58	0.49	0.43	0.54	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	0.52	0.43	0.36	0.48	0.40	0.34	0.40	0.34	0.29	0.33	0.28	0.24	0.26	0.23	0.20	0.16
6	0.46	0.37	0.31	0.43	0.35	0.29	0.36	0.30	0.25	0.30	0.25	0.21	0.24	0.20	0.17	0.14
7	0.41	0.33	0.27	0.38	0.31	0.25	0.32	0.26	0.22	0.27	0.22	0.18	0.21	0.18	0.15	0.12
8	0.38	0.29	0.24	0.35	0.27	0.22	0.29	0.23	0.19	0.24	0.20	0.16	0.20	0.16	0.13	0.11
9	0.34	0.26	0.21	0.32	0.24	0.20	0.27	0.21	0.17	0.22	0.18	0.14	0.18	0.14	0.12	0.10
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	0.09

Intensity data(cd)

Appendix Page: 10 Total:12

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	304.46	304.37	301.35	295.85	288.07	279.19	267.92	255.84	243.57
15.0	302.90	301.80	299.24	294.02	286.88	277.72	267.83	254.83	243.29
30.0	301.71	301.35	298.69	294.11	286.88	278.73	267.92	256.20	244.67
45.0	301.62	302.08	299.51	294.39	287.79	279.46	268.84	258.31	246.31
60.0	300.80	300.61	297.78	293.20	287.34	279.10	269.02	257.94	247.14
75.0	297.78	297.13	295.03	290.72	284.41	276.44	266.64	255.93	245.77
90.0	295.49	295.39	292.83	288.07	282.12	274.52	265.27	254.65	244.85
105.0	295.94	295.49	293.11	288.62	282.58	274.52	264.90	254.01	244.30
120.0	297.04	297.04	295.12	290.08	284.04	275.16	265.91	254.92	243.84
135.0	295.94	295.94	293.75	288.62	282.48	274.24	264.17	254.19	242.29
150.0	294.75	294.39	292.01	287.24	274.61	271.77	262.71	251.53	240.09
165.0	295.49	295.03	292.74	287.61	280.56	271.95	261.42	250.34	237.07
180.0	304.46	302.99	298.51	291.82	283.95	273.05	262.52	250.25	238.81
195.0	302.90	300.71	296.77	290.91	282.48	272.32	260.87	248.33	237.07
210.0	301.71	299.61	295.49	289.35	280.56	269.94	258.13	245.77	233.95
225.0	301.62	300.25	295.67	289.08	279.83	268.75	255.84	241.64	228.28
240.0	300.80	299.15	294.57	287.24	277.36	265.45	251.35	236.33	221.41
255.0	297.78	295.94	291.46	283.95	274.15	261.33	246.41	230.75	215.37
270.0	295.49	293.65	289.17	282.03	271.50	258.68	244.76	227.73	212.71
285.0	295.94	293.84	289.53	282.21	272.32	259.59	245.77	229.92	226.17
300.0	297.04	295.03	291.18	283.12	280.65	261.24	248.05	233.77	220.31
315.0	295.94	294.11	289.63	282.85	273.97	263.25	250.98	237.89	225.16
330.0	294.75	292.92	288.62	282.03	273.97	263.71	252.27	239.90	229.28
345.0	295.49	293.75	289.17	283.12	274.33	264.81	253.00	241.37	230.66
360.0	304.46	304.37	301.35	295.85	288.07	279.19	267.92	255.84	243.57
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	232.49	221.32	211.70	197.51	181.30	166.83	153.37	133.05	106.68
15.0	232.67	222.32	212.62	204.29	192.93	181.67	170.68	159.05	148.52
30.0	234.14	224.98	215.82	208.13	201.54	195.31	189.82	185.42	181.85
45.0	237.07	227.73	218.94	211.52	205.11	199.62	194.40	191.01	190.09
60.0	237.25	228.55	220.49	213.53	207.22	201.63	196.87	194.03	192.29
75.0	236.52	228.37	220.49	213.35	206.67	201.08	195.86	191.83	189.45
90.0	235.33	227.27	219.58	212.43	205.75	199.62	194.40	190.09	186.89
105.0	234.69	226.63	218.57	211.34	205.11	199.43	195.40	191.92	189.27
120.0	234.14	224.89	218.02	210.05	204.47	198.43	194.12	191.28	189.54
135.0	232.95	223.70	215.00	207.31	200.99	195.95	190.83	187.44	185.70
150.0	229.83	220.22	211.52	204.01	197.78	191.37	184.60	180.11	176.63
165.0	227.91	217.75	208.31	199.16	186.89	174.71	162.62	147.70	134.42
180.0	228.37	218.02	206.94	190.00	175.35	162.35	145.04	121.14	88.45
195.0	226.72	217.65	204.65	193.39	178.28	161.34	143.21	122.70	108.87
210.0	222.69	209.96	197.05	185.42	171.87	156.58	135.34	121.23	120.32
225.0	215.64	203.55	188.54	176.45	166.93	154.47	141.75	132.04	132.95
240.0	206.94	193.11	180.11	167.84	157.68	147.61	137.62	131.31	124.44
255.0	200.16	184.51	170.50	156.95	144.77	134.51	120.32	119.22	111.89
270.0	196.87	181.12	165.92	162.26	138.45	128.83	122.06	116.47	115.56
285.0	199.62	184.78	170.31	157.40	146.42	136.89	129.48	125.90	123.34
300.0	205.66	193.11	180.84	169.49	159.78	151.18	143.94	137.90	137.26
315.0	213.44	200.99	187.53	175.81	166.29	155.85	141.47	131.58	135.70
330.0	218.75	206.48	194.40	183.32	171.14	155.02	136.34	120.32	115.01
345.0	220.13	210.42	199.71	186.80	172.24	157.22	140.74	120.96	105.94
360.0	232.49	221.32	211.70	197.51	181.30	166.83	153.37	133.05	106.68

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	74.44	88.64	120.50	144.86	160.70	174.71	189.27	206.39	218.02
15.0	141.47	144.13	153.56	165.46	175.81	187.62	199.62	209.87	218.48
30.0	179.75	180.94	184.14	187.99	193.02	198.52	205.20	212.62	221.32
45.0	189.36	189.73	190.46	192.75	198.15	203.37	209.60	216.65	224.80
60.0	191.56	191.74	193.30	195.77	200.44	205.93	211.79	218.39	225.80
75.0	188.44	188.99	191.65	195.86	200.35	206.12	212.98	220.77	228.55
90.0	185.24	186.61	189.63	194.40	199.71	206.21	213.17	220.95	229.19
105.0	188.08	188.81	191.28	194.58	199.07	205.11	211.89	219.58	227.36
120.0	188.81	189.63	191.28	193.66	197.60	203.19	209.41	216.19	223.97
135.0	184.87	184.87	186.16	188.63	193.39	198.79	205.20	212.16	220.58
150.0	174.80	175.26	177.64	181.76	187.25	194.58	200.44	207.58	216.28
165.0	124.35	128.56	140.37	154.56	167.29	179.65	192.38	204.56	213.53
180.0	76.92	108.14	136.07	156.40	169.31	183.68	200.26	214.54	224.16
195.0	105.03	116.75	139.09	157.13	170.77	183.68	197.69	208.59	217.65
210.0	120.41	123.25	129.84	141.01	149.71	156.67	166.19	175.35	185.33
225.0	132.50	136.71	139.55	147.42	156.40	166.10	167.02	182.22	194.95
240.0	119.86	120.78	120.68	128.47	143.30	155.30	167.02	179.47	194.76
255.0	113.63	114.82	115.19	122.24	135.15	146.42	158.04	169.58	180.75
270.0	117.11	118.03	119.04	125.08	132.13	142.66	152.37	161.71	171.96
285.0	121.69	124.07	128.38	135.61	141.65	147.42	155.30	164.64	178.28
300.0	131.12	128.65	132.50	143.21	153.37	163.26	173.98	186.61	200.62
315.0	132.04	136.43	142.11	149.62	158.23	167.38	175.17	186.61	198.24
330.0	115.19	116.84	126.73	138.17	146.69	152.55	159.23	168.57	175.99
345.0	103.01	113.45	136.07	154.56	168.21	181.49	196.32	207.22	216.46
360.0	74.44	88.64	120.50	144.86	160.70	174.71	189.27	206.39	218.02
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	228.73	239.63	251.44	264.44	276.35	274.61	209.78	205.02	272.23
15.0	228.73	239.90	251.99	263.90	275.89	286.33	253.82	205.57	250.07
30.0	231.30	241.83	252.72	265.27	276.90	286.60	294.66	241.64	208.96
45.0	233.04	243.20	254.37	266.37	277.17	286.33	293.84	297.78	229.65
60.0	234.59	244.39	254.92	266.83	277.54	286.51	293.65	298.97	298.97
75.0	237.16	246.13	256.39	267.56	277.63	286.51	293.38	299.51	303.73
90.0	237.71	246.50	256.11	267.10	277.36	286.24	292.46	300.25	303.91
105.0	235.24	244.85	255.10	266.37	277.08	285.05	292.74	298.87	301.80
120.0	233.04	241.28	253.18	263.35	274.24	283.67	292.28	297.41	300.16
135.0	228.92	238.81	249.89	261.61	273.05	283.12	290.82	297.04	299.61
150.0	225.44	236.24	247.78	259.68	271.04	281.48	288.98	295.03	297.68
165.0	223.51	234.04	245.49	258.13	269.48	279.55	287.43	293.01	296.49
180.0	234.04	246.41	257.67	269.85	279.74	222.69	204.56	253.55	231.76
195.0	226.90	229.19	230.47	240.36	238.44	226.90	200.26	241.19	204.47
210.0	193.66	193.48	188.35	199.80	208.41	196.41	200.90	215.00	203.92
225.0	206.94	212.98	221.04	237.25	255.10	248.79	233.40	199.16	213.90
240.0	209.96	223.97	237.98	252.63	257.76	260.23	239.26	200.26	174.34
255.0	193.21	204.47	216.65	225.25	227.63	229.74	210.79	151.18	147.15
270.0	181.39	191.56	201.54	207.22	205.29	205.75	166.10	101.55	200.53
285.0	189.54	200.62	211.98	219.76	220.40	208.86	135.79	132.68	246.68
300.0	214.45	227.91	240.73	253.27	255.47	197.78	163.54	195.77	258.40
315.0	210.24	217.56	228.55	242.38	241.37	193.30	188.08	240.73	276.07
330.0	184.14	188.26	189.18	197.97	204.38	187.62	192.02	262.61	288.07
345.0	225.62	235.78	240.09	244.30	250.07	233.59	236.70	276.07	293.65
360.0	228.73	239.63	251.44	264.44	276.35	274.61	209.78	205.02	272.23

Intensity data(cd)

C/ γ (°)	180.0
0.0	215.46
15.0	248.88
30.0	270.76
45.0	227.09
60.0	223.51
75.0	289.53
90.0	300.06
105.0	298.69
120.0	296.04
135.0	294.20
150.0	293.38
165.0	292.56
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	215.46