
乐达凯

Client:

LumCAT: SYDV2107LAJUDBK

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 120.000

LampCAT:

Current(A): 0.168

Lamp flux(lm): 1217.9

Power (W): 19.940

Number of Lamps: 1

PF: 0.991

Length(mm): 520

Width(mm): 110

Phm Type: C

Height(mm): 80

Photometric Results

Lumens(lm): 1217.93, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 61.08

Central intensity(cd): 108.556, Maximum intensity(cd): 131.556

Angle of maximum intensity: C=45.0 γ =40.0

Beam Angle(50%Imax): [C0/180]Total=323.2

[C90/270]Total=295.4

Field angle(10%Imax): [C0/180]Total=N.A.

[C90/270]Total=N.A.

Maximum s/h(1/2): C0_180=1.78 C90_270=1.81

Maximum s/h(1/4): C0_180=1.89 C90_270=1.95

Up flux rate of lamp(%): 40.79%

Down flux rate of lamp(%): 59.21%

Up flux rate of LUM(%): 40.79%

Down flux rate of LUM(%): 59.21%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 32.549%

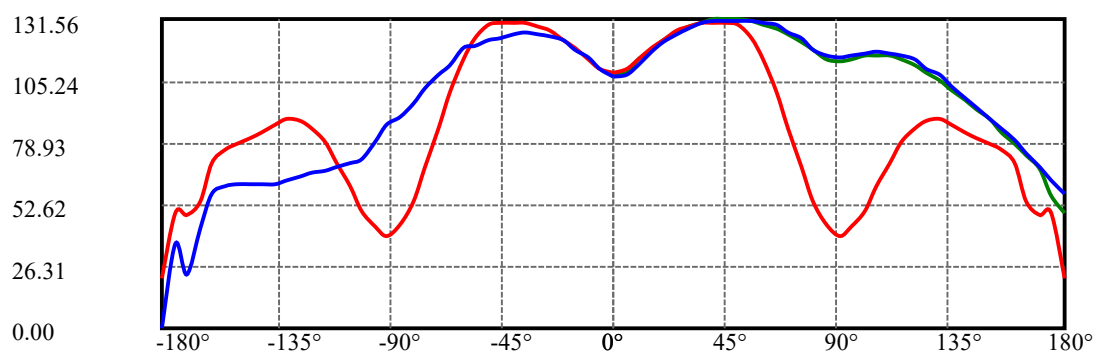
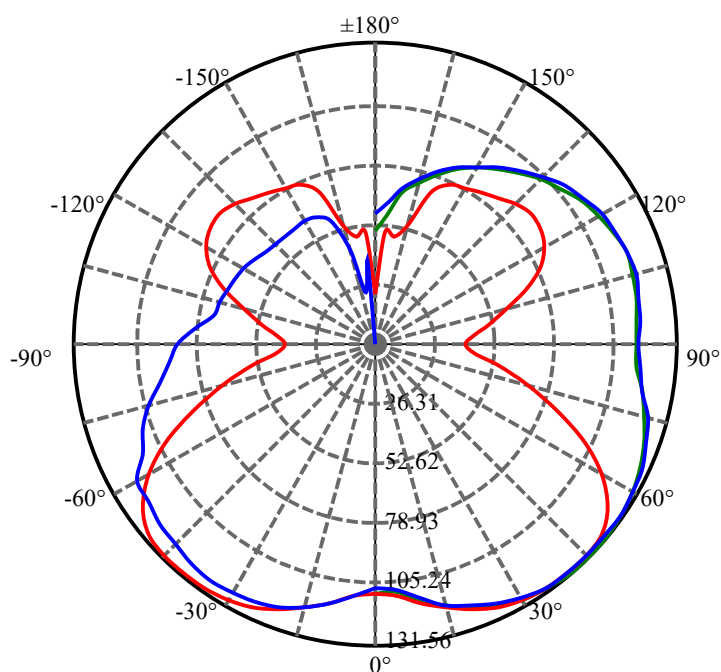
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	107.636	0.000	0	0.00%	0.00%
5.0	109.783	2.599	2.599	0.21%	0.21%
10.0	114.536	8.025	10.624	0.66%	0.87%
15.0	118.944	13.850	24.474	1.14%	2.01%
20.0	122.586	19.905	44.379	1.63%	3.64%
25.0	125.653	26.036	70.415	2.14%	5.78%
30.0	127.646	32.055	102.47	2.63%	8.41%
35.0	128.872	37.774	140.244	3.10%	11.51%
40.0	129.486	43.105	183.349	3.54%	15.05%
45.0	129.102	47.880	231.229	3.93%	18.99%
50.0	128.412	52.035	283.263	4.27%	23.26%
55.0	126.572	55.442	338.706	4.55%	27.81%
60.0	123.123	57.716	396.422	4.74%	32.55%
65.0	117.909	58.595	455.017	4.81%	37.36%
70.0	111.470	58.080	513.098	4.77%	42.13%
75.0	104.072	56.339	569.437	4.63%	46.75%
80.0	95.983	53.529	622.966	4.40%	51.15%
85.0	89.505	50.402	673.367	4.14%	55.29%
90.0	85.136	47.818	721.186	3.93%	59.21%
95.0	82.146	45.803	766.988	3.76%	62.97%
100.0	81.494	44.465	811.453	3.65%	66.63%
105.0	81.456	43.601	855.054	3.58%	70.21%
110.0	82.031	42.733	897.787	3.51%	73.71%
115.0	82.414	41.638	939.425	3.42%	77.13%
120.0	82.759	40.154	979.579	3.30%	80.43%
125.0	82.376	38.170	1017.749	3.13%	83.56%
130.0	81.226	35.572	1053.322	2.92%	86.48%
135.0	79.462	32.469	1085.791	2.67%	89.15%
140.0	77.852	29.128	1114.919	2.39%	91.54%
145.0	76.242	25.710	1140.629	2.11%	93.65%
150.0	74.479	22.195	1162.824	1.82%	95.48%
155.0	72.294	18.574	1181.398	1.53%	97.00%
160.0	68.193	14.734	1196.132	1.21%	98.21%
165.0	59.338	10.510	1206.643	0.86%	99.07%
170.0	53.052	6.667	1213.31	0.55%	99.62%
175.0	50.637	3.709	1217.019	0.30%	99.92%
180.0	25.836	0.914	1217.933	0.08%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	102.47	8.41%	8.41%
0-40	183.35	15.05%	15.05%
0-60	396.42	32.55%	32.55%
0-90	721.19	59.21%	59.21%
0-120	979.58	80.43%	80.43%
0-180	1217.93	100.00%	100.00%
60-90	324.76	26.67%	26.67%
90-120	258.39	21.22%	21.22%
90-130	332.14	27.27%	27.27%
90-150	441.64	36.26%	36.26%
90-180	495.83	40.71%	40.71%
0-119.35	974.35	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	10.62
10-20	33.76
20-30	58.09
30-40	80.88
40-50	99.91
50-60	113.16
60-70	116.68
70-80	109.87
80-90	98.22
90-100	90.27
100-110	86.33
110-120	81.79
120-130	73.74
130-140	61.60
140-150	47.90
150-160	33.31
160-170	17.18
170-180	3.71



C45(Max):

C0/C180:

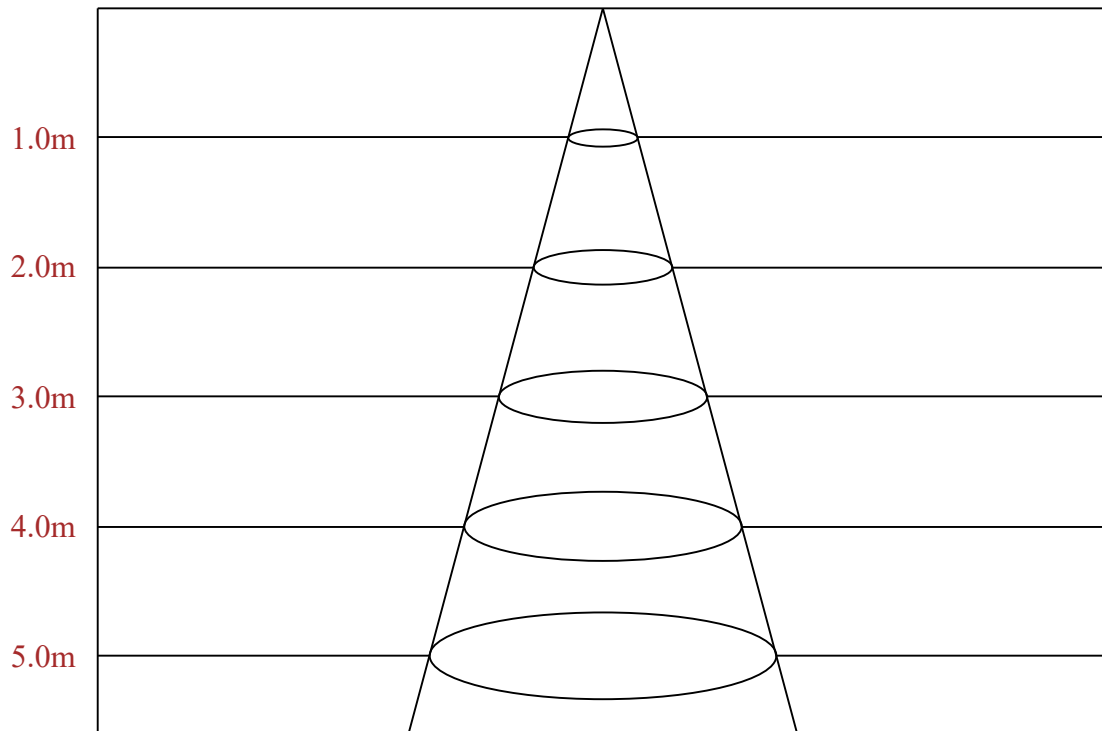
C90/C270:

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

:C90/270Left:0.0 Right:0.0

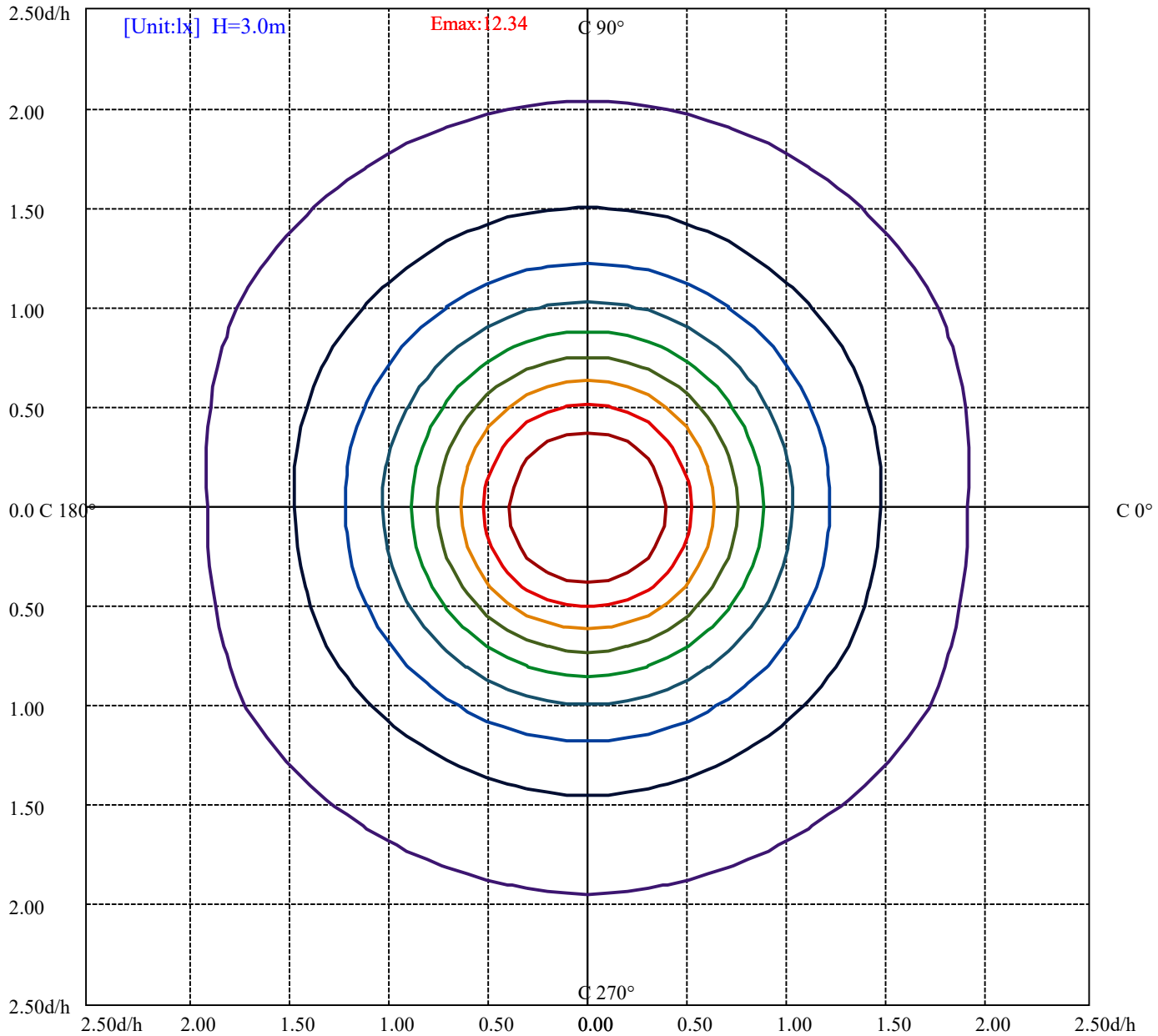
Beam Angle(50%Imax):C0/180Left:206.6 Right:116.6

:C90/270Left:177.5 Right:117.9

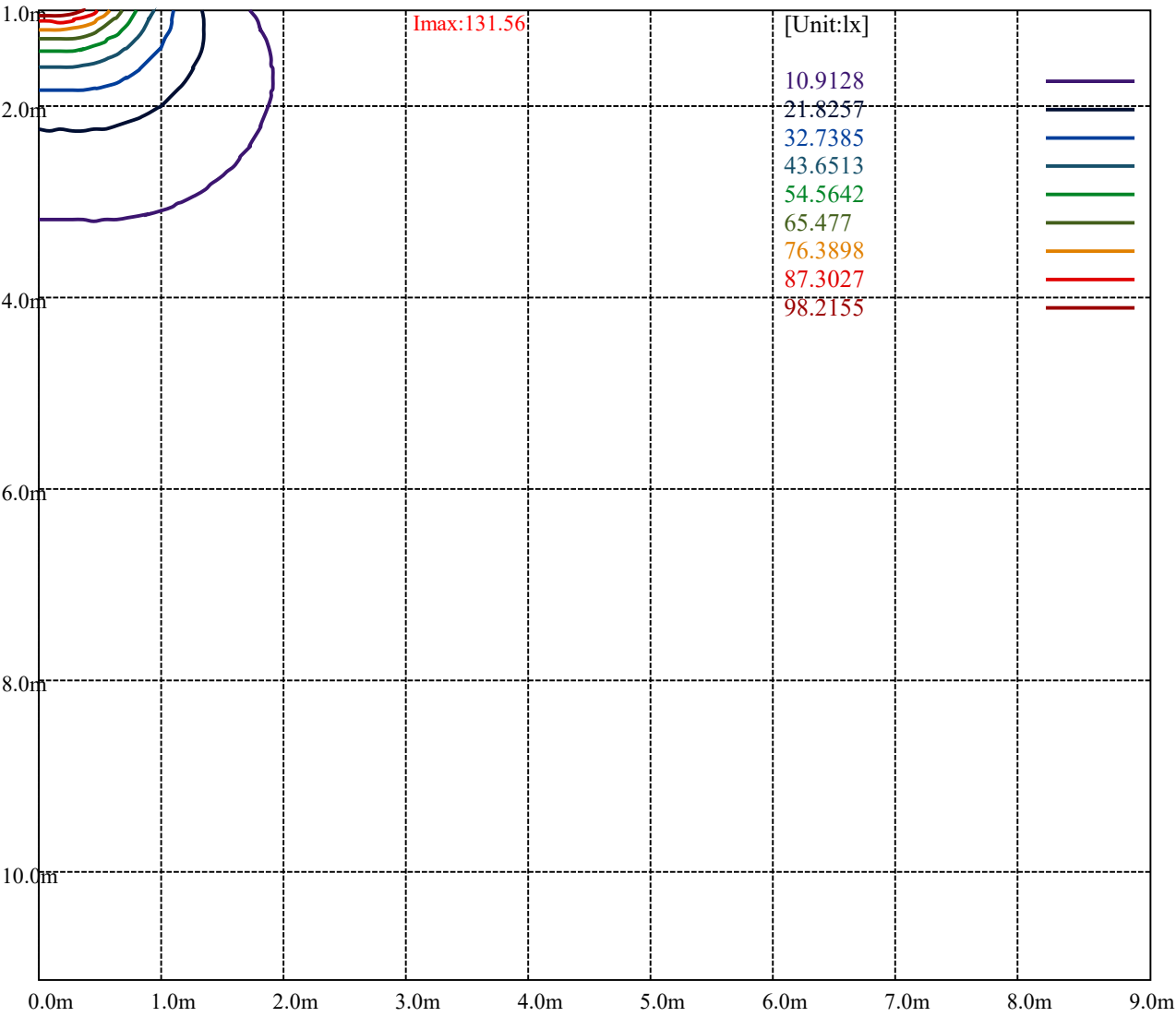


Max , Ave

Beam angle of C45 plane 274.38



(10%Emax)	1.233933	—
(20%Emax)	2.467867	—
(30%Emax)	3.7018	—
(40%Emax)	4.935744	—
(50%Emax)	6.169678	—
(60%Emax)	7.403611	—
(70%Emax)	8.637545	—
(80%Emax)	9.871478	—
(90%Emax)	11.10542	—



Luminance Table

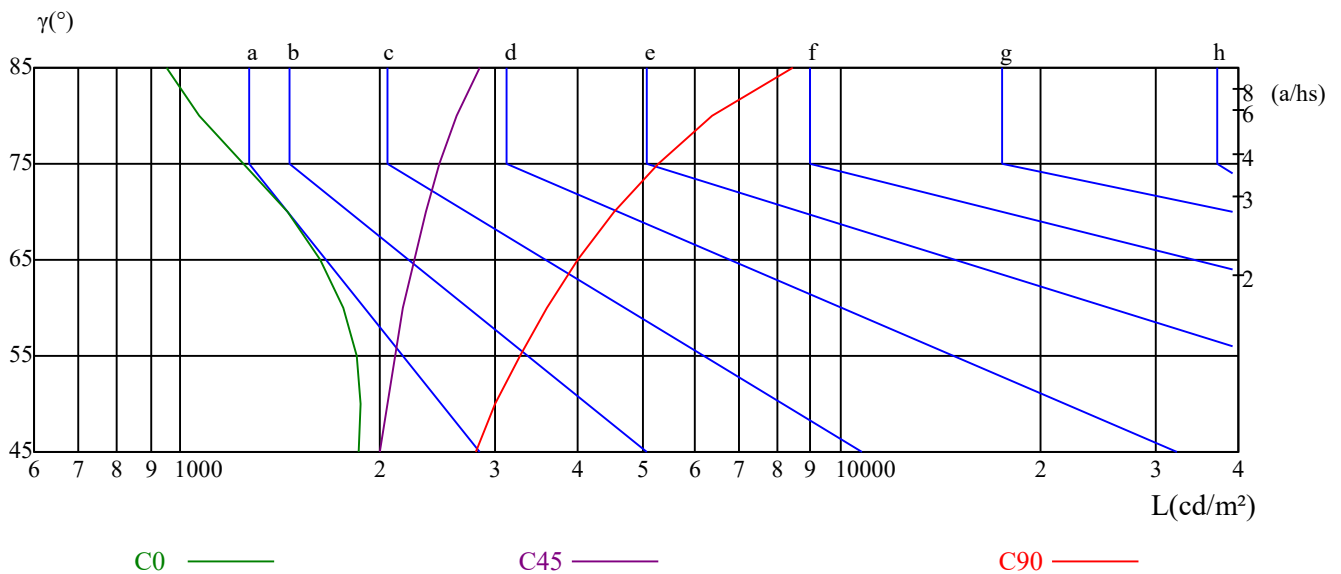
γ	45	50	55	60	65	70	75	80	85
C0	1863	1877	1850	1765	1628	1451	1246	1066	951
C45	2004	2053	2107	2174	2264	2350	2467	2625	2829
C90	2799	3003	3264	3581	4006	4528	5290	6381	8429

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4167	4985	5071	4630	7612	7550	8858	20668	19792

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	1.09	1.09	1.09	1.02	1.02	1.02	0.88	0.88	0.88	0.76	0.76	0.76	0.65	0.65	0.65	0.59
1	0.90	0.84	0.79	0.83	0.79	0.74	0.72	0.68	0.64	0.61	0.58	0.55	0.51	0.49	0.47	0.42
2	0.76	0.68	0.61	0.71	0.64	0.58	0.60	0.55	0.50	0.51	0.47	0.43	0.42	0.39	0.36	0.32
3	0.65	0.56	0.49	0.61	0.53	0.46	0.52	0.45	0.40	0.44	0.39	0.34	0.36	0.32	0.29	0.25
4	0.57	0.48	0.40	0.53	0.45	0.38	0.45	0.38	0.33	0.38	0.33	0.28	0.31	0.27	0.24	0.20
5	0.50	0.41	0.34	0.47	0.38	0.32	0.40	0.33	0.28	0.34	0.28	0.24	0.28	0.23	0.20	0.17
6	0.45	0.35	0.29	0.42	0.33	0.27	0.36	0.29	0.24	0.30	0.25	0.20	0.25	0.20	0.17	0.14
7	0.40	0.31	0.25	0.37	0.29	0.23	0.32	0.25	0.20	0.27	0.22	0.18	0.23	0.18	0.15	0.12
8	0.36	0.28	0.22	0.34	0.26	0.20	0.29	0.23	0.18	0.25	0.19	0.15	0.21	0.16	0.13	0.10
9	0.33	0.25	0.19	0.31	0.23	0.18	0.27	0.20	0.16	0.23	0.17	0.14	0.19	0.15	0.11	0.09
10	0.30	0.22	0.17	0.28	0.21	0.16	0.24	0.18	0.14	0.21	0.16	0.12	0.17	0.13	0.10	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	108.56	107.64	113.16	118.68	124.20	128.80	132.48	135.24	137.08
15.0	108.56	107.64	113.16	118.68	124.20	128.80	132.48	135.24	137.08
30.0	108.56	107.64	113.16	118.68	124.20	128.80	131.56	135.24	137.08
45.0	108.56	107.64	114.08	118.68	124.20	128.80	131.56	134.32	137.08
60.0	108.56	108.56	113.16	118.68	123.28	127.88	130.64	133.40	135.24
75.0	107.64	107.64	112.24	117.76	122.36	126.04	129.72	131.56	133.40
90.0	106.72	107.64	112.24	117.76	121.44	125.12	127.88	129.72	130.64
105.0	106.72	108.56	113.16	116.84	120.52	124.20	126.04	127.88	128.80
120.0	106.72	109.48	113.16	117.76	121.44	124.20	126.04	126.96	127.88
135.0	108.56	109.48	114.08	117.76	120.52	123.28	125.12	126.04	126.04
150.0	106.72	109.48	113.16	117.76	121.44	122.36	124.20	124.20	124.20
165.0	105.80	109.48	113.16	116.84	119.60	122.36	123.28	123.28	123.28
180.0	108.56	112.24	115.92	119.60	121.44	124.20	124.20	124.20	123.28
195.0	108.56	112.24	116.84	119.60	122.36	123.28	124.20	124.20	124.20
210.0	108.56	112.24	116.84	119.60	122.36	123.28	124.20	124.20	123.28
225.0	108.56	112.24	116.84	119.60	122.36	124.20	125.12	124.20	123.28
240.0	108.56	113.16	116.84	120.52	123.28	124.20	125.12	125.12	124.20
255.0	107.64	111.32	115.92	119.60	122.36	124.20	125.12	124.20	124.20
270.0	106.72	110.40	115.00	118.68	122.36	124.20	125.12	126.04	125.12
285.0	106.72	110.40	115.00	119.60	122.36	125.12	126.04	126.96	126.96
300.0	106.72	110.40	115.92	120.52	121.44	126.96	128.80	129.72	130.64
315.0	108.56	110.40	115.92	120.52	125.12	127.88	130.64	132.48	133.40
330.0	106.72	109.48	115.00	120.52	124.20	127.88	131.56	133.40	135.24
345.0	105.80	109.48	115.00	120.52	125.12	129.72	132.48	135.24	136.16
360.0	108.56	107.64	113.16	118.68	124.20	128.80	132.48	135.24	137.08
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	138.00	138.00	135.24	126.04	112.24	95.68	79.12	63.48	50.60
15.0	138.92	138.92	138.00	131.56	122.36	112.24	100.28	90.16	80.96
30.0	138.00	138.92	138.92	138.00	136.16	132.48	126.96	121.44	115.92
45.0	138.00	138.00	138.00	137.08	136.16	133.40	130.64	127.88	123.28
60.0	136.16	137.08	136.16	136.16	134.32	132.48	129.72	125.12	122.36
75.0	134.32	134.32	134.32	133.40	131.56	129.72	126.96	122.36	119.60
90.0	130.64	130.64	130.64	129.72	128.80	126.04	123.28	118.68	115.92
105.0	128.80	128.80	127.88	126.96	125.12	122.36	119.60	115.92	112.24
120.0	126.96	126.04	125.12	124.20	122.36	119.60	115.92	111.32	108.56
135.0	125.12	125.12	123.28	121.44	119.60	115.92	112.24	108.56	105.80
150.0	123.28	122.36	121.44	119.60	115.00	110.40	105.80	99.36	95.68
165.0	122.36	121.44	118.68	111.32	102.12	92.92	82.80	71.76	65.32
180.0	122.36	119.60	112.24	102.12	89.24	74.52	57.96	45.08	37.72
195.0	122.36	121.44	115.92	108.56	100.28	90.16	78.20	66.24	59.80
210.0	122.36	120.52	118.68	115.92	110.40	103.04	93.84	83.72	74.52
225.0	122.36	120.52	118.68	115.00	110.40	103.04	94.76	85.56	77.28
240.0	122.36	120.52	117.76	115.00	110.40	103.96	96.60	88.32	81.88
255.0	122.36	120.52	118.68	115.00	110.40	104.88	98.44	92.00	86.48
270.0	123.28	122.36	120.52	119.60	112.24	107.64	102.12	95.68	90.16
285.0	126.04	124.20	123.28	119.60	115.00	109.48	103.04	96.60	89.24
300.0	129.72	128.80	126.04	123.28	118.68	112.24	105.80	96.60	89.24
315.0	132.48	132.48	130.64	128.80	124.20	117.76	109.48	99.36	88.32
330.0	135.24	135.24	134.32	132.48	127.88	121.44	112.24	100.28	88.32
345.0	137.08	136.16	133.40	124.20	115.00	103.96	92.00	78.20	69.00
360.0	138.00	138.00	135.24	126.04	112.24	95.68	79.12	63.48	50.60

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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	43.24	46.00	51.52	62.56	73.60	83.72	91.08	95.68	97.52
15.0	76.36	78.20	82.80	88.32	93.84	98.44	103.04	104.88	104.88
30.0	112.24	114.08	116.84	119.60	120.52	120.52	119.60	116.84	112.24
45.0	121.44	122.36	124.20	124.20	124.20	122.36	119.60	116.84	113.16
60.0	120.52	121.44	122.36	123.28	122.36	121.44	118.68	115.00	111.32
75.0	117.76	118.68	120.52	120.52	120.52	118.68	116.84	113.16	109.48
90.0	115.00	115.92	116.84	117.76	116.84	115.92	114.08	110.40	107.64
105.0	112.24	113.16	114.08	114.08	114.08	113.16	111.32	107.64	103.96
120.0	108.56	109.48	111.32	111.32	111.32	109.48	107.64	103.96	101.20
135.0	105.80	106.72	107.64	108.56	108.56	106.72	103.96	101.20	97.52
150.0	93.84	96.60	99.36	101.20	102.12	101.20	100.28	98.44	94.76
165.0	62.56	65.32	69.00	73.60	77.28	80.96	84.64	86.48	86.48
180.0	35.88	41.40	48.76	57.96	67.16	74.52	79.12	80.96	80.04
195.0	53.36	48.76	48.76	50.60	56.12	59.80	64.40	69.00	69.92
210.0	65.32	54.28	50.60	47.84	45.08	45.08	46.00	46.92	49.68
225.0	69.00	57.04	49.68	44.16	40.48	38.64	37.72	38.64	40.48
240.0	76.36	68.08	66.24	56.12	52.44	48.76	48.76	48.76	48.76
255.0	82.80	75.44	69.00	64.40	62.56	60.72	58.88	57.96	57.04
270.0	86.48	79.12	71.76	69.92	69.00	67.16	66.24	64.40	62.56
285.0	85.56	77.28	70.84	65.32	62.56	59.80	58.88	57.96	57.04
300.0	81.88	72.68	65.32	58.88	55.20	52.44	51.52	51.52	51.52
315.0	77.28	65.32	57.96	52.44	47.84	46.00	45.08	45.08	46.00
330.0	77.28	66.24	61.64	59.80	57.04	57.96	58.88	60.72	61.64
345.0	62.56	57.96	58.88	62.56	68.08	74.52	80.04	84.64	84.64
360.0	43.24	46.00	51.52	62.56	73.60	83.72	91.08	95.68	97.52
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	94.76	91.08	87.40	84.64	81.88	78.20	63.48	48.76	50.60
15.0	100.28	96.60	92.00	88.32	84.64	80.96	71.76	51.52	51.52
30.0	107.64	102.12	97.52	92.92	87.40	82.80	77.28	63.48	46.00
45.0	108.56	103.96	99.36	93.84	88.32	82.80	76.36	70.84	54.28
60.0	106.72	103.04	98.44	93.84	88.32	82.80	76.36	69.92	62.56
75.0	104.88	100.28	96.60	92.00	87.40	81.88	75.44	69.92	63.48
90.0	103.04	98.44	93.84	89.24	84.64	80.04	74.52	69.00	62.56
105.0	100.28	95.68	92.00	88.32	83.72	78.20	72.68	67.16	61.64
120.0	97.52	93.84	90.16	85.56	80.96	76.36	71.76	66.24	60.72
135.0	94.76	91.08	87.40	83.72	79.12	74.52	69.92	64.40	58.88
150.0	91.08	87.40	83.72	80.04	76.36	72.68	68.08	62.56	57.96
165.0	83.72	80.96	78.20	76.36	73.60	70.84	66.24	61.64	57.04
180.0	78.20	75.44	73.60	71.76	70.84	62.56	44.16	46.92	46.92
195.0	69.00	69.00	66.24	64.40	63.48	60.72	43.24	46.00	39.56
210.0	52.44	52.44	52.44	51.52	53.36	46.92	44.16	43.24	36.80
225.0	43.24	47.84	52.44	56.12	55.20	55.20	48.76	42.32	39.56
240.0	50.60	53.36	56.12	59.80	60.72	58.88	51.52	42.32	34.04
255.0	56.12	56.12	57.04	57.04	57.96	57.04	48.76	33.12	28.52
270.0	61.64	61.64	61.64	61.64	60.72	57.04	42.32	23.00	35.88
285.0	56.12	57.04	58.88	59.80	59.80	57.04	41.40	30.36	46.92
300.0	53.36	55.20	58.88	62.56	64.40	57.96	38.64	40.48	50.60
315.0	48.76	52.44	57.04	58.88	59.80	55.20	45.08	46.92	52.44
330.0	61.64	62.56	60.72	59.80	59.80	55.20	50.60	53.36	57.04
345.0	82.80	80.96	78.20	75.44	72.68	70.84	61.64	59.80	59.80
360.0	94.76	91.08	87.40	84.64	81.88	78.20	63.48	48.76	50.60

Intensity data(cd)

C/ γ (°)	180.0
0.0	43.24
15.0	46.00
30.0	47.84
45.0	42.32
60.0	46.92
75.0	54.28
90.0	57.04
105.0	57.04
120.0	57.04
135.0	56.12
150.0	56.12
165.0	56.12
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	43.24