
AFX

Client:

LumCAT: ARNP17LAJD4LB

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.010

LampCAT:

Current(A): 0.236

Lamp flux(lm): 2536.2

Power (W): 27.780

Number of Lamps: 1

PF: 0.981

Length(mm): 390

Width(mm): 390

Phm Type: C

Height(mm): 480

Photometric Results

Lumens(lm): 2536.20, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 91.30

Central intensity(cd): 237.753, Maximum intensity(cd): 237.753

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=1.51 C90_270=1.48

Maximum s/h(1/4): C0_180=1.72 C90_270=1.67

Up flux rate of lamp(%): 48.53%

Down flux rate of lamp(%): 51.47%

Up flux rate of LUM(%): 48.53%

Down flux rate of LUM(%): 51.47%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 26.442%

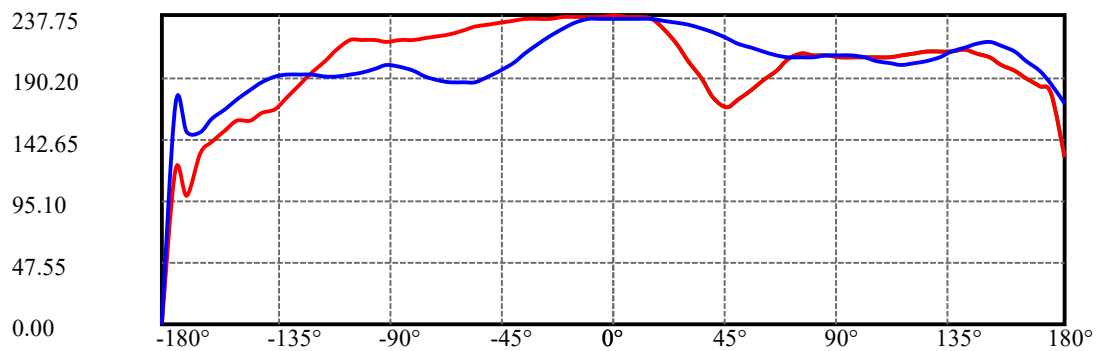
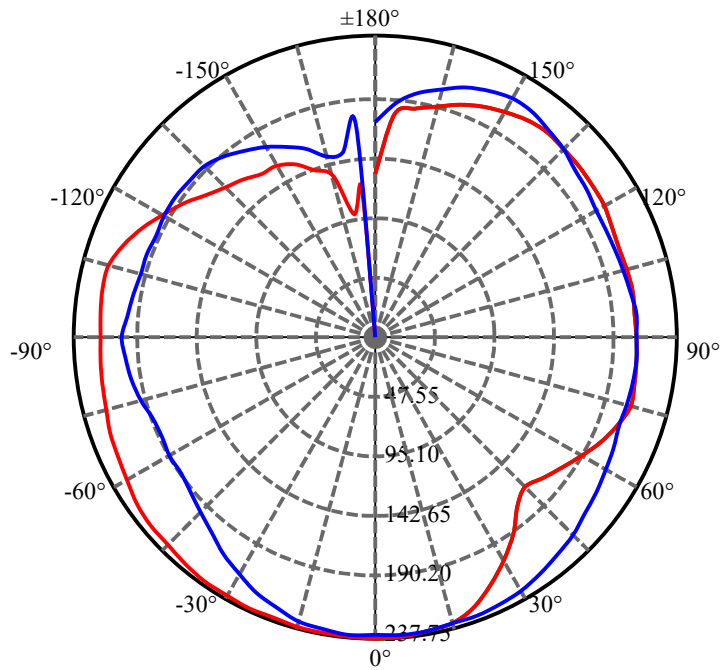
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	235.062	0.000	0	0.00%	0.00%
5.0	235.024	5.620	5.62	0.22%	0.22%
10.0	234.314	16.790	22.409	0.66%	0.88%
15.0	233.006	27.721	50.131	1.09%	1.98%
20.0	230.314	38.184	88.315	1.51%	3.48%
25.0	226.202	47.880	136.195	1.89%	5.37%
30.0	221.342	56.637	192.832	2.23%	7.60%
35.0	216.333	64.451	257.283	2.54%	10.14%
40.0	211.511	71.382	328.665	2.81%	12.96%
45.0	206.913	77.474	406.14	3.05%	16.01%
50.0	204.184	83.068	489.208	3.28%	19.29%
55.0	201.829	88.281	577.488	3.48%	22.77%
60.0	201.118	93.140	670.628	3.67%	26.44%
65.0	200.857	97.721	768.349	3.85%	30.30%
70.0	201.530	101.887	870.236	4.02%	34.31%
75.0	202.128	105.510	975.745	4.16%	38.47%
80.0	202.576	108.287	1084.033	4.27%	42.74%
85.0	202.913	110.181	1194.214	4.34%	47.09%
90.0	202.838	111.098	1305.312	4.38%	51.47%
95.0	202.539	110.995	1416.307	4.38%	55.84%
100.0	202.016	109.927	1526.234	4.33%	60.18%
105.0	200.931	107.817	1634.051	4.25%	64.43%
110.0	199.474	104.659	1738.711	4.13%	68.56%
115.0	198.240	100.704	1839.414	3.97%	72.53%
120.0	197.305	96.158	1935.572	3.79%	76.32%
125.0	197.006	91.144	2026.716	3.59%	79.91%
130.0	196.782	85.623	2112.339	3.38%	83.29%
135.0	196.632	79.495	2191.834	3.13%	86.42%
140.0	196.483	72.788	2264.623	2.87%	89.29%
145.0	194.950	65.308	2329.93	2.58%	91.87%
150.0	192.184	57.008	2386.938	2.25%	94.11%
155.0	187.661	48.070	2435.008	1.90%	96.01%
160.0	180.558	38.619	2473.627	1.52%	97.53%
165.0	168.259	28.747	2502.375	1.13%	98.67%
170.0	158.353	19.374	2521.749	0.76%	99.43%
175.0	163.474	11.513	2533.262	0.45%	99.88%
180.0	82.130	2.936	2536.198	0.12%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	192.83	7.60%	7.60%
0-40	328.67	12.96%	12.96%
0-60	670.63	26.44%	26.44%
0-90	1305.31	51.47%	51.47%
0-120	1935.57	76.32%	76.32%
0-180	2536.20	100.00%	100.00%
60-90	634.68	25.02%	25.02%
90-120	630.26	24.85%	24.85%
90-130	807.03	31.82%	31.82%
90-150	1081.63	42.65%	42.65%
90-180	1227.95	48.42%	48.42%
0-125.13	2028.96	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	22.41
10-20	65.91
20-30	104.52
30-40	135.83
40-50	160.54
50-60	181.42
60-70	199.61
70-80	213.80
80-90	221.28
90-100	220.92
100-110	212.48
110-120	196.86
120-130	176.77
130-140	152.28
140-150	122.32
150-160	86.69
160-170	48.12
170-180	11.51

C0(Max): —————C0/C180: —————C90/C270: —————

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

:C90/270Left:0.0 Right:0.0

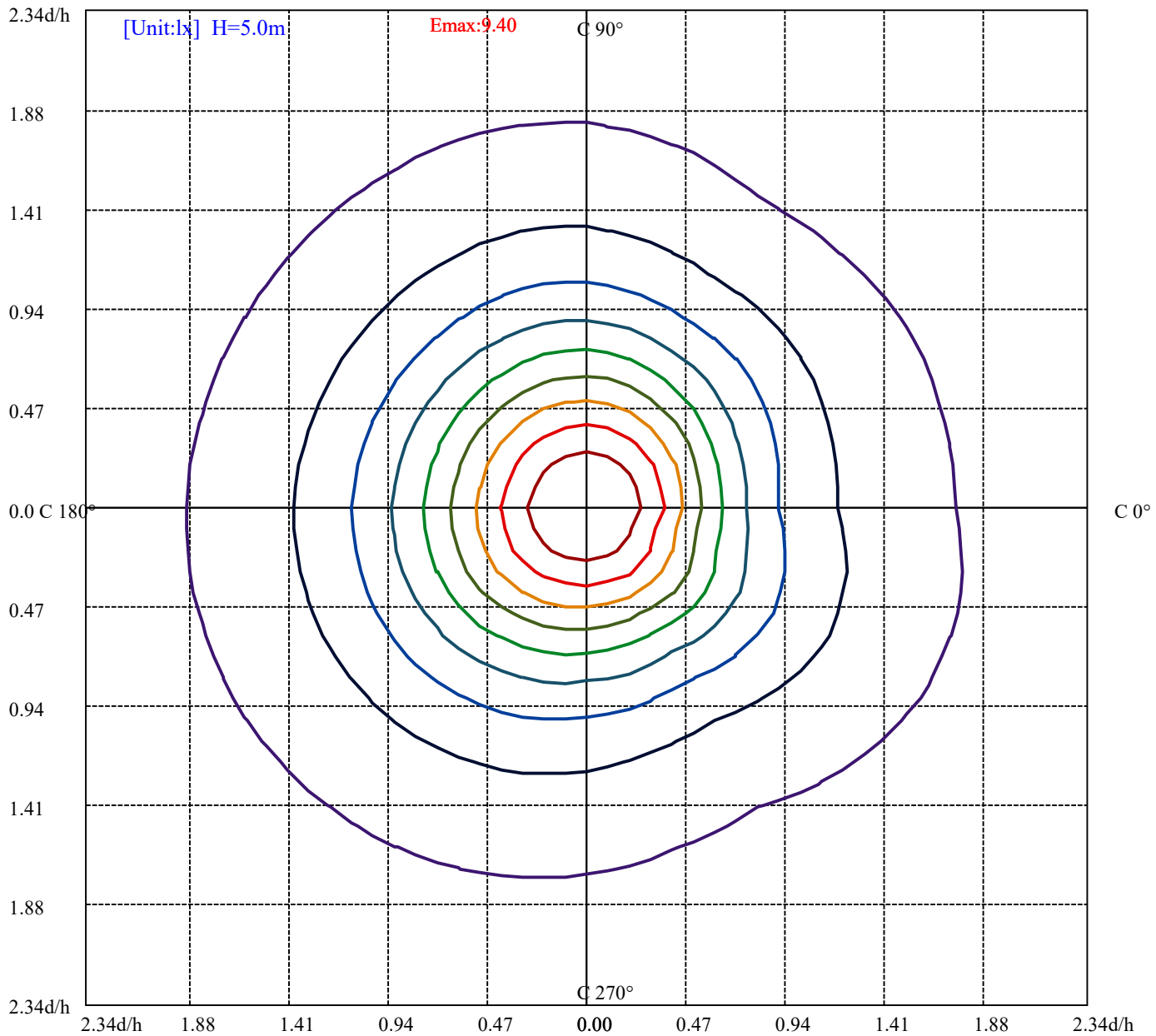
Beam Angle(50%Imax):C0/180Left:0.0 Right:0.0

:C90/270Left:0.0 Right:0.0

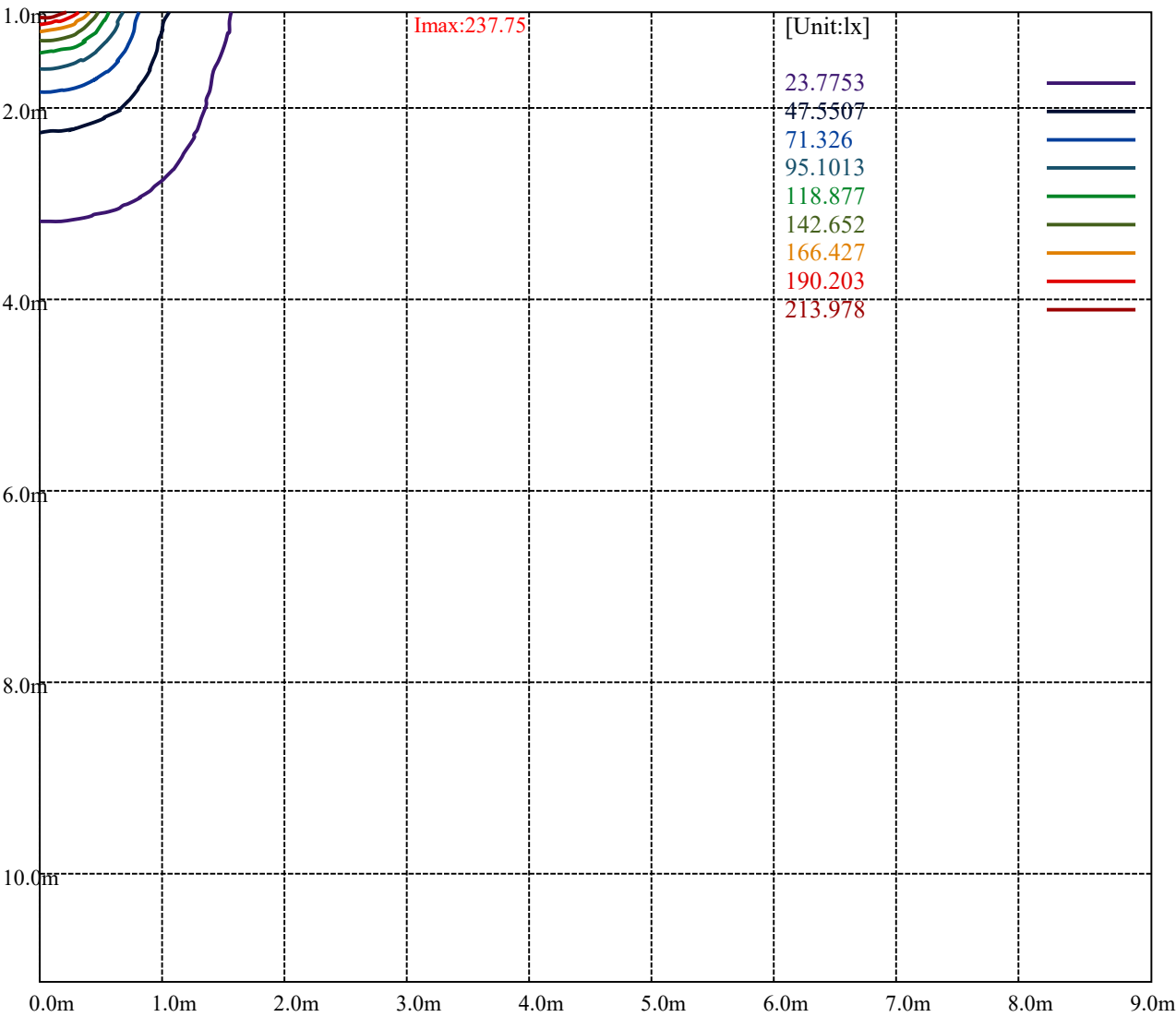


Max , Ave

Beam angle of C0 plane 346.94



(10%Emax) 0.940248	—
(20%Emax) 1.880492	—
(30%Emax) 2.82074	—
(40%Emax) 3.760988	—
(50%Emax) 4.70124	—
(60%Emax) 5.64148	—
(70%Emax) 6.58172	—
(80%Emax) 7.52196	—
(90%Emax) 8.46224	—



Luminance Table

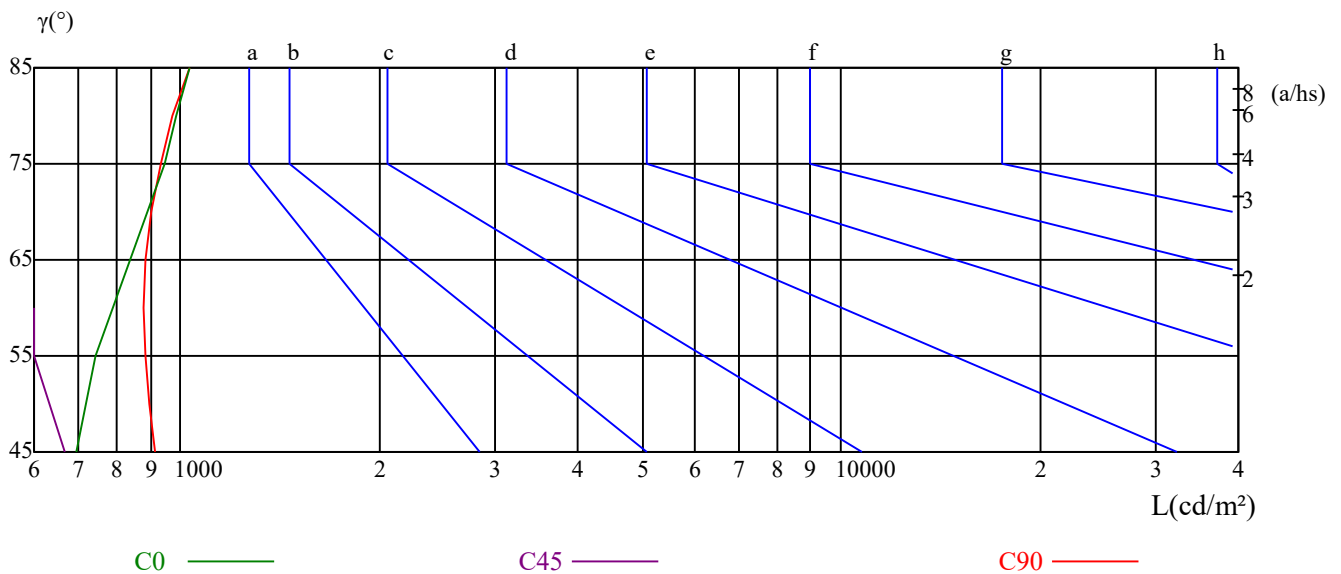
γ	45	50	55	60	65	70	75	80	85
C0	696	718	746	787	836	894	945	983	1033
C45	667	633	599	579	569	579	599	628	667
C90	916	897	884	878	886	901	933	975	1033

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3259	3057	3085	5436	5037	5054	16006	15262	15126

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	0.88	0.82	0.77	0.81	0.76	0.72	0.68	0.64	0.60	0.55	0.53	0.50	0.44	0.42	0.40	0.35
2	0.75	0.67	0.60	0.68	0.62	0.56	0.57	0.52	0.47	0.46	0.42	0.39	0.37	0.34	0.31	0.26
3	0.64	0.56	0.48	0.59	0.51	0.45	0.49	0.43	0.38	0.40	0.35	0.31	0.31	0.28	0.25	0.21
4	0.56	0.47	0.40	0.52	0.43	0.37	0.43	0.37	0.31	0.35	0.30	0.26	0.28	0.24	0.21	0.17
5	0.50	0.41	0.34	0.46	0.37	0.31	0.38	0.32	0.27	0.31	0.26	0.22	0.24	0.21	0.17	0.14
6	0.44	0.35	0.29	0.41	0.33	0.27	0.34	0.28	0.23	0.28	0.23	0.19	0.22	0.18	0.15	0.12
7	0.40	0.31	0.25	0.37	0.29	0.23	0.31	0.24	0.20	0.25	0.20	0.16	0.20	0.16	0.13	0.10
8	0.36	0.28	0.22	0.33	0.26	0.20	0.28	0.22	0.17	0.23	0.18	0.14	0.18	0.14	0.11	0.09
9	0.33	0.25	0.19	0.30	0.23	0.18	0.25	0.19	0.15	0.21	0.16	0.13	0.17	0.13	0.10	0.08
10	0.30	0.22	0.17	0.28	0.21	0.16	0.23	0.18	0.14	0.19	0.15	0.11	0.16	0.12	0.09	0.07

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	237.75	236.86	235.96	234.16	227.88	216.22	202.76	189.31	174.05
15.0	235.96	235.06	235.06	233.27	226.09	217.12	203.66	190.20	179.44
30.0	235.96	235.96	235.06	233.27	228.78	220.71	210.84	199.17	191.10
45.0	235.06	235.96	235.06	233.27	230.58	224.30	218.02	209.04	201.87
60.0	235.06	235.06	235.06	234.16	231.47	226.99	221.60	216.22	208.15
75.0	234.16	235.06	234.16	234.16	233.27	231.47	228.78	223.40	218.02
90.0	235.06	235.06	235.06	234.16	233.27	232.37	230.58	227.88	224.30
105.0	235.06	235.06	234.16	234.16	233.27	232.37	230.58	229.68	226.99
120.0	234.16	234.16	234.16	233.27	232.37	232.37	230.58	228.78	226.09
135.0	234.16	234.16	234.16	234.16	233.27	232.37	230.58	228.78	226.09
150.0	234.16	234.16	234.16	234.16	232.37	231.47	230.58	228.78	226.99
165.0	234.16	234.16	234.16	233.27	233.27	231.47	230.58	230.58	228.78
180.0	237.75	236.86	236.86	236.86	235.96	235.06	235.06	234.16	233.27
195.0	235.96	235.96	235.06	235.06	234.16	234.16	234.16	234.16	233.27
210.0	235.96	235.96	235.06	235.06	235.06	235.06	234.16	234.16	232.37
225.0	235.06	235.96	235.06	234.16	232.37	232.37	231.47	230.58	228.78
240.0	235.06	234.16	234.16	232.37	230.58	227.88	225.19	221.60	219.81
255.0	234.16	235.06	234.16	232.37	228.78	225.19	220.71	216.22	211.74
270.0	235.06	235.06	234.16	231.47	227.88	221.60	215.32	208.15	200.97
285.0	235.06	235.06	233.27	231.47	226.99	219.81	211.74	202.76	200.07
300.0	234.16	234.16	233.27	230.58	230.58	220.71	210.84	200.97	190.20
315.0	234.16	234.16	232.37	231.47	226.99	221.60	216.22	209.04	201.87
330.0	234.16	234.16	232.37	229.68	224.30	218.91	211.74	207.25	203.66
345.0	234.16	233.27	231.47	226.09	218.02	207.25	196.48	191.10	188.41
360.0	237.75	236.86	235.96	234.16	227.88	216.22	202.76	189.31	174.05
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	166.88	173.16	179.44	187.51	195.59	203.66	208.15	207.25	206.35
15.0	174.95	175.85	179.44	185.72	192.89	199.17	201.87	200.97	201.87
30.0	185.72	183.92	183.92	186.61	188.41	187.51	188.41	190.20	192.89
45.0	196.48	190.20	182.13	176.74	173.16	174.05	176.74	180.33	184.82
60.0	200.07	190.20	179.44	170.46	165.98	170.46	175.85	181.23	185.72
75.0	209.94	203.66	196.48	192.89	190.20	190.20	191.10	193.79	197.38
90.0	219.81	216.22	212.63	209.04	207.25	205.45	205.45	205.45	206.35
105.0	224.30	220.71	218.02	215.32	212.63	210.84	208.15	207.25	204.56
120.0	223.40	219.81	217.12	213.53	209.94	208.15	205.45	202.76	199.17
135.0	222.50	219.81	216.22	212.63	209.94	206.35	203.66	202.76	200.07
150.0	224.30	221.60	218.91	215.32	211.74	208.15	206.35	204.56	202.76
165.0	226.99	225.19	222.50	219.81	216.22	213.53	209.94	207.25	206.35
180.0	231.47	230.58	228.78	226.09	223.40	221.60	219.81	218.91	218.02
195.0	231.47	230.58	229.68	227.88	226.99	225.19	224.30	222.50	222.50
210.0	231.47	230.58	229.68	227.88	226.09	225.19	225.19	224.30	223.40
225.0	226.99	226.09	224.30	222.50	221.60	220.71	219.81	217.12	214.43
240.0	218.02	217.12	215.32	214.43	212.63	211.74	209.94	206.35	201.87
255.0	208.15	204.56	202.76	201.87	201.87	203.66	203.66	204.56	199.17
270.0	194.69	190.20	186.61	186.61	185.72	187.51	191.10	194.69	198.28
285.0	183.92	176.74	171.36	170.46	172.26	175.85	180.33	184.82	190.20
300.0	178.54	167.77	159.70	164.18	170.46	176.74	182.13	187.51	192.89
315.0	194.69	189.31	185.72	186.61	188.41	192.00	195.59	199.17	202.76
330.0	201.87	202.76	204.56	206.35	206.35	208.15	208.15	209.04	209.94
345.0	189.31	193.79	199.17	206.35	210.84	210.84	209.94	209.04	208.15
360.0	166.88	173.16	179.44	187.51	195.59	203.66	208.15	207.25	206.35

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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	205.45	205.45	205.45	205.45	205.45	206.35	208.15	209.04	209.94
15.0	201.87	201.87	200.97	200.97	201.87	201.87	203.66	204.56	205.45
30.0	196.48	199.17	200.97	200.07	200.07	200.07	200.07	200.97	201.87
45.0	189.31	192.89	197.38	200.07	200.07	200.97	200.97	201.87	202.76
60.0	191.10	195.59	199.17	203.66	203.66	204.56	204.56	206.35	207.25
75.0	200.07	202.76	205.45	207.25	207.25	208.15	208.15	209.94	211.74
90.0	206.35	206.35	204.56	202.76	200.97	200.07	200.97	202.76	205.45
105.0	201.87	197.38	192.89	189.31	185.72	182.13	181.23	182.13	185.72
120.0	193.79	188.41	183.03	177.64	171.36	165.98	160.60	158.80	167.77
135.0	194.69	189.31	184.82	179.44	174.95	172.26	171.36	173.16	177.64
150.0	201.87	198.28	194.69	191.10	189.31	187.51	187.51	185.72	182.13
165.0	205.45	205.45	205.45	204.56	204.56	203.66	196.48	187.51	179.44
180.0	217.12	218.02	218.02	218.02	211.74	202.76	192.89	183.92	174.95
195.0	221.60	222.50	223.40	224.30	221.60	214.43	208.15	201.87	196.48
210.0	221.60	220.71	218.91	218.02	216.22	215.32	213.53	210.84	208.15
225.0	209.94	206.35	202.76	198.28	193.79	192.00	191.10	193.79	191.10
240.0	197.38	192.00	191.10	180.33	174.95	169.57	169.57	172.26	171.36
255.0	194.69	190.20	185.72	183.03	180.33	179.44	179.44	180.33	179.44
270.0	199.17	196.48	193.79	192.00	191.10	191.10	192.00	192.00	192.00
285.0	195.59	200.97	202.76	202.76	203.66	203.66	205.45	207.25	207.25
300.0	198.28	203.66	206.35	208.15	209.94	211.74	212.63	214.43	215.32
315.0	205.45	208.15	209.94	211.74	213.53	215.32	217.12	218.91	219.81
330.0	209.94	210.84	211.74	213.53	214.43	216.22	217.12	217.12	218.02
345.0	209.04	208.15	209.04	209.94	210.84	212.63	212.63	212.63	211.74
360.0	205.45	205.45	205.45	205.45	205.45	206.35	208.15	209.04	209.94
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	209.94	210.84	208.15	204.56	200.07	194.69	188.41	183.03	176.74
15.0	206.35	206.35	204.56	200.97	195.59	188.41	181.23	177.64	173.16
30.0	202.76	203.66	202.76	199.17	193.79	188.41	183.03	176.74	169.57
45.0	203.66	204.56	204.56	202.76	198.28	192.89	186.61	181.23	170.46
60.0	209.04	209.94	209.94	208.15	204.56	199.17	192.89	187.51	175.85
75.0	213.53	215.32	217.12	214.43	209.94	204.56	198.28	192.00	182.13
90.0	209.04	212.63	216.22	217.12	214.43	209.04	201.87	194.69	184.82
105.0	193.79	202.76	209.94	213.53	213.53	209.94	203.66	194.69	183.92
120.0	180.33	192.00	200.07	205.45	206.35	204.56	196.48	186.61	176.74
135.0	184.82	190.20	194.69	196.48	195.59	189.31	181.23	171.36	160.60
150.0	179.44	180.33	182.13	182.13	178.54	170.46	160.60	149.83	140.86
165.0	173.16	172.26	171.36	167.77	162.39	152.52	141.75	129.19	120.22
180.0	165.98	162.39	157.01	156.11	149.83	140.86	130.99	98.69	117.53
195.0	191.10	183.92	178.54	177.64	169.57	167.77	133.68	94.20	136.37
210.0	202.76	200.97	196.48	193.79	183.92	169.57	131.89	100.48	150.73
225.0	187.51	184.82	183.03	177.64	174.95	161.49	127.40	117.53	161.49
240.0	166.88	162.39	158.80	155.21	155.21	144.45	120.22	124.71	167.77
255.0	175.85	170.46	160.60	151.62	148.93	141.75	127.40	136.37	169.57
270.0	190.20	186.61	179.44	172.26	165.98	157.90	148.04	147.14	167.77
285.0	206.35	203.66	199.17	191.10	183.92	176.74	166.88	159.70	165.98
300.0	216.22	214.43	211.74	206.35	198.28	190.20	180.33	171.36	165.98
315.0	219.81	218.02	214.43	209.04	203.66	195.59	186.61	176.74	168.67
330.0	218.02	217.12	211.74	207.25	200.97	193.79	186.61	176.74	167.77
345.0	212.63	209.94	206.35	201.87	195.59	189.31	182.13	172.26	168.67
360.0	209.94	210.84	208.15	204.56	200.07	194.69	188.41	183.03	176.74

Intensity data(cd)

C/ γ (°)	180.0
0.0	128.30
15.0	167.77
30.0	168.67
45.0	166.88
60.0	166.88
75.0	166.88
90.0	169.57
105.0	174.05
120.0	170.46
135.0	166.88
150.0	164.18
165.0	160.60
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	128.30