
ASD Lighting Corp

LumCAT: ASD-CAN05-45D50-BZ-PRM

Luminaire: Parking Garage Luminaires

Report No:

Voltage(V): 120.0600

Test No:

Current(A): 0.3940

LampCAT:

Power (W): 47.0700

Lamp flux(lm): 5167.3

PF: 0.9941

Number of Lamps: 1

Ballast type:

Length(mm): 215

Width(mm): 215

Phm Type: C

Height(mm): 30

Photometric Results

Lumens(lm): 5167.27

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 109.78

Central intensity(cd): 1367.997

Maximum intensity(cd): 1413.583

Angle of maximum intensity: C=60.0 γ =20.0

Beam Angle(50%Imax): [C0/180]Total=131.1

[C90/270]Total=133.2

Field angle(10%Imax): [C0/180]Total=168.7

[C90/270]Total=169.1

Maximum s/h(1/2): C0_180=1.44 C90_270=1.43

Maximum s/h(1/4): C0_180=1.54 C90_270=1.56

Up flux rate of lamp(%): 1.00%

Down flux rate of lamp(%): 99.00%

Up flux rate of LUM(%): 1.00%

Down flux rate of LUM(%): 99.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 71.973%

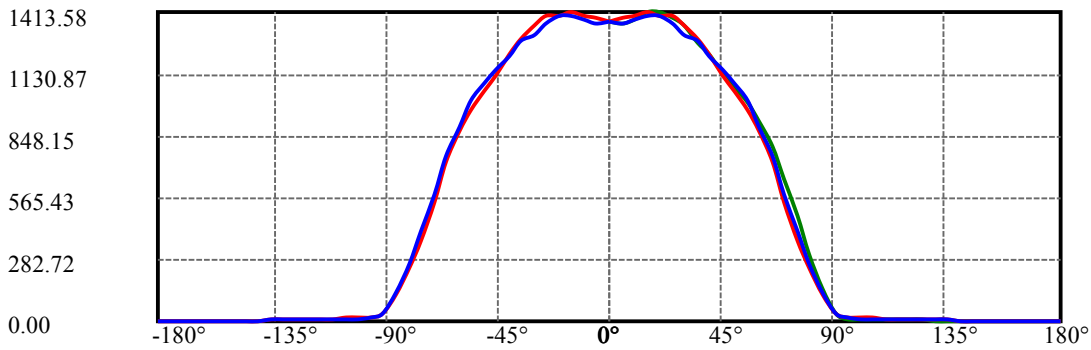
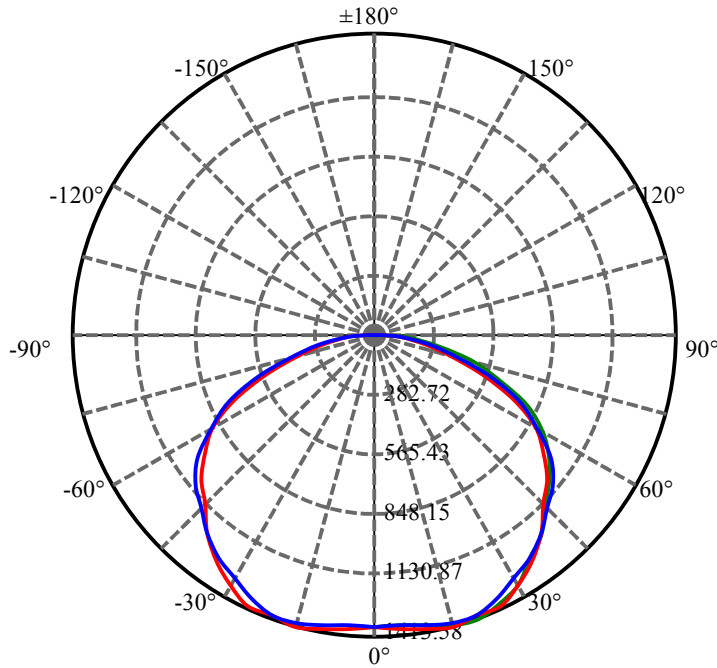
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1367.997	.000	.000	.000%	.000%
5.0	1369.180	32.722	32.722	.633%	.633%
10.0	1384.976	98.525	131.247	1.907%	2.540%
15.0	1400.884	165.255	296.502	3.198%	5.738%
20.0	1394.161	230.351	526.853	4.458%	10.196%
25.0	1372.714	290.194	817.047	5.616%	15.812%
30.0	1333.083	342.421	1159.468	6.627%	22.439%
35.0	1289.004	386.121	1545.589	7.472%	29.911%
40.0	1215.941	417.931	1963.520	8.088%	37.999%
45.0	1136.234	435.524	2399.044	8.429%	46.428%
50.0	1059.154	443.610	2842.655	8.585%	55.013%
55.0	981.382	443.680	3286.335	8.586%	63.599%
60.0	890.667	432.719	3719.054	8.374%	71.973%
65.0	771.237	404.012	4123.066	7.819%	79.792%
70.0	616.749	351.447	4474.513	6.801%	86.593%
75.0	447.460	278.167	4752.681	5.383%	91.977%
80.0	287.608	196.684	4949.365	3.806%	95.783%
85.0	141.789	116.677	5066.042	2.258%	98.041%
90.0	38.981	49.496	5115.538	.958%	98.999%
95.0	13.582	14.392	5129.930	.279%	99.277%
100.0	11.441	6.799	5136.729	.132%	99.409%
105.0	10.684	5.920	5142.649	.115%	99.524%
110.0	9.805	5.355	5148.005	.104%	99.627%
115.0	8.249	4.571	5152.576	.088%	99.716%
120.0	6.570	3.603	5156.179	.070%	99.785%
125.0	5.878	2.877	5159.056	.056%	99.841%
130.0	4.543	2.266	5161.322	.044%	99.885%
135.0	3.116	1.547	5162.870	.030%	99.915%
140.0	1.571	.868	5163.737	.017%	99.932%
145.0	1.782	.559	5164.297	.011%	99.942%
150.0	2.022	.560	5164.857	.011%	99.953%
155.0	2.355	.554	5165.411	.011%	99.964%
160.0	2.828	.544	5165.954	.011%	99.975%
165.0	3.353	.509	5166.463	.010%	99.984%
170.0	3.730	.420	5166.883	.008%	99.993%
175.0	4.074	.279	5167.163	.005%	99.998%
180.0	4.340	.101	5167.263	.002%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1159.47	22.44%	22.44%
0-40	1963.52	38.00%	38.00%
0-60	3719.05	71.97%	71.97%
0-90	5115.54	99.00%	99.00%
0-120	5156.18	99.79%	99.79%
0-180	5167.26	100.00%	100.00%
60-90	1829.20	35.40%	35.40%
90-120	90.14	1.74%	1.74%
90-130	95.28	1.84%	1.84%
90-150	98.82	1.91%	1.91%
90-180	101.12	1.96%	1.96%
0-65.15	4133.81	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	131.25
10-20	395.61
20-30	632.62
30-40	804.05
40-50	879.13
50-60	876.40
60-70	755.46
70-80	474.85
80-90	166.17
90-100	21.19
100-110	11.28
110-120	8.17
120-130	5.14
130-140	2.42
140-150	1.12
150-160	1.10
160-170	0.93
170-180	0.28



C60(Max): —

C0/C180: —

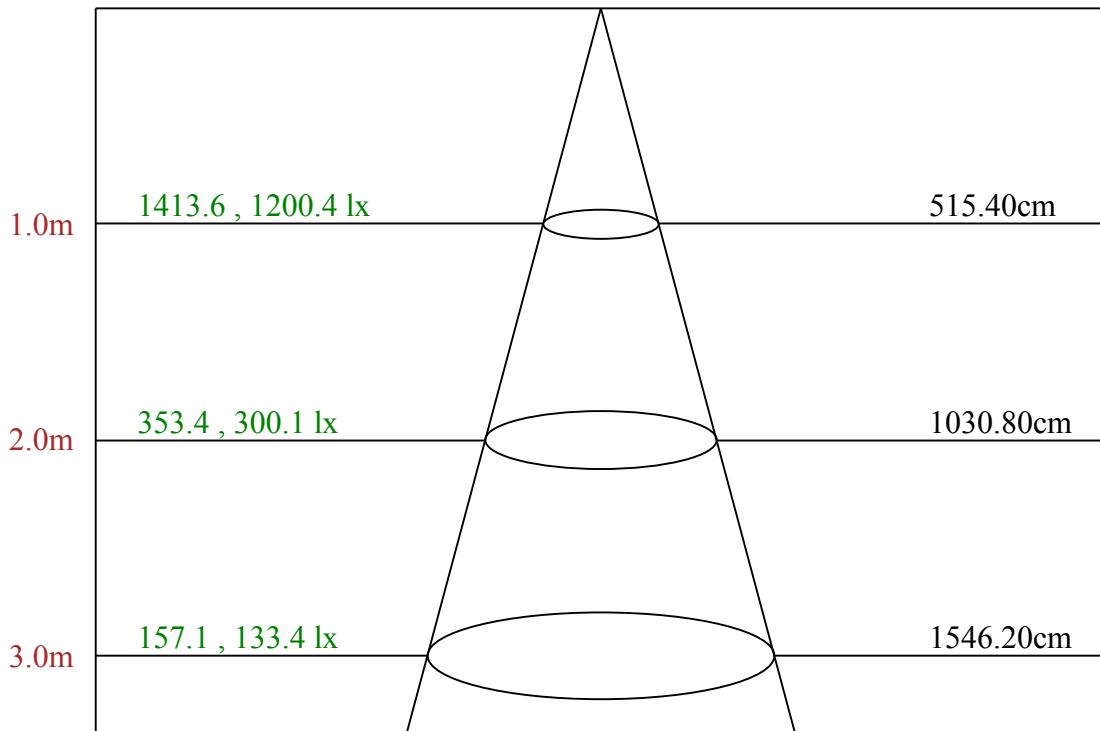
C90/C270: —

Field angle(10%Imax):C0/180Left:99.3 Right:69.3

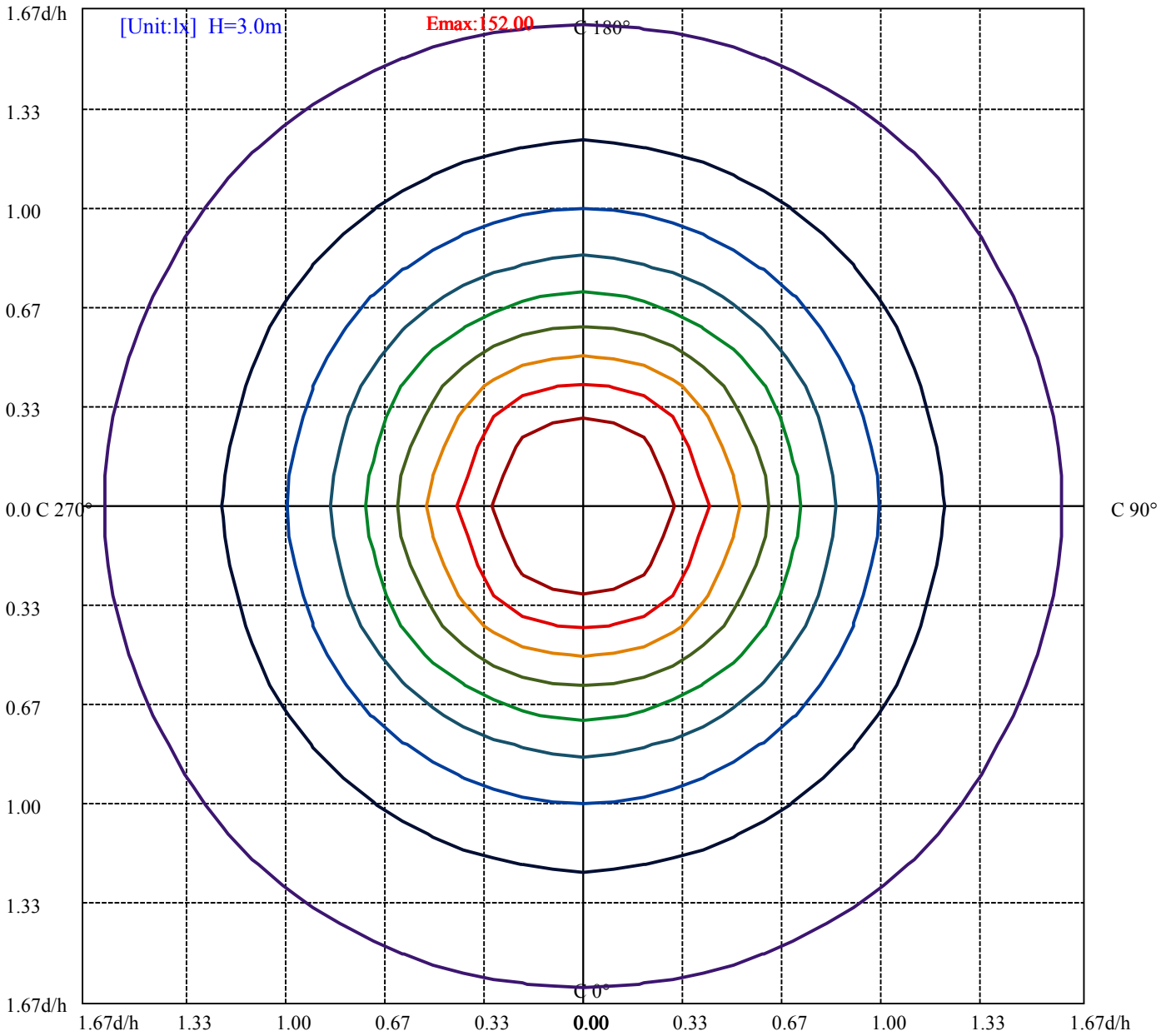
:C90/270Left:104.6 Right:64.6

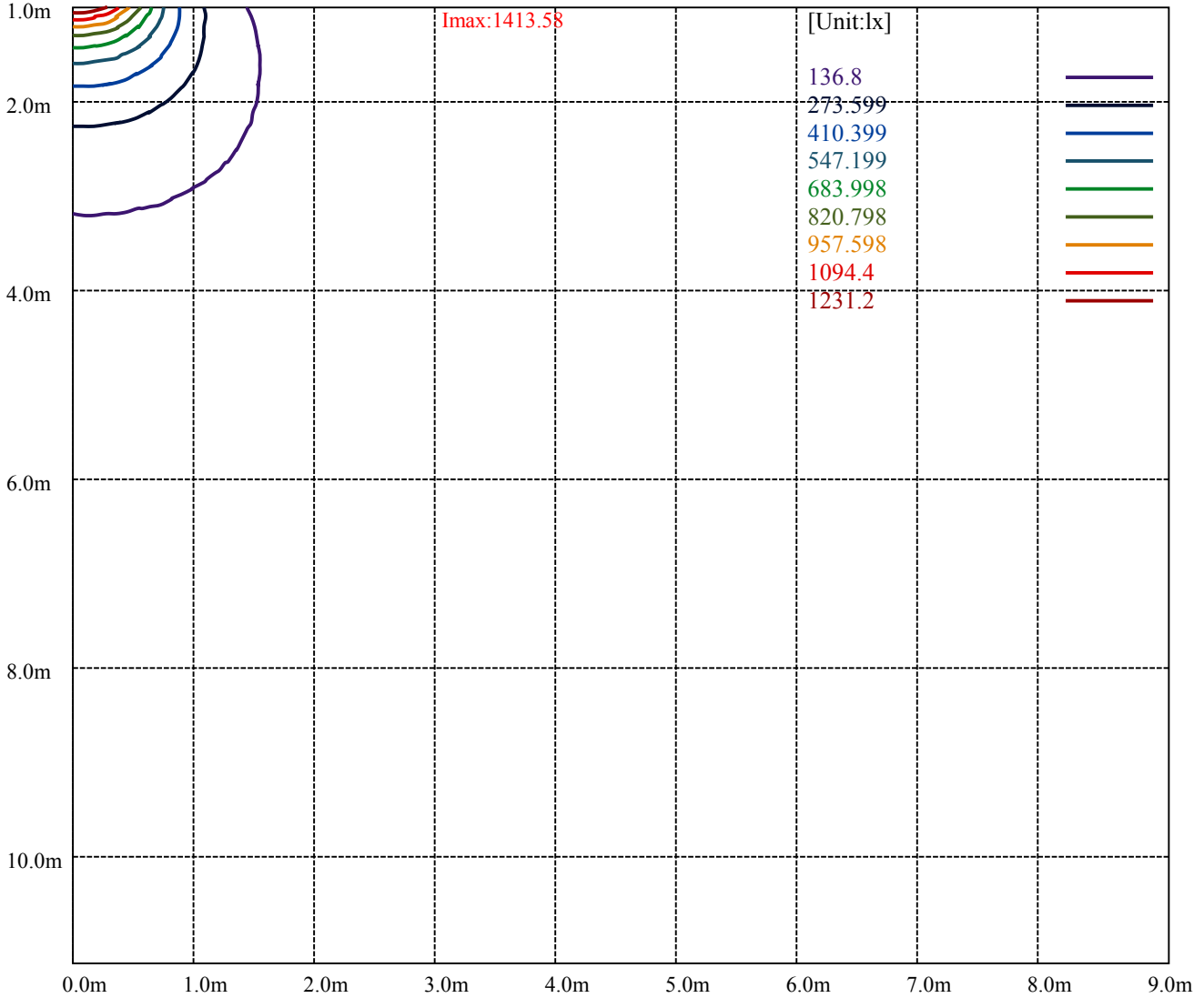
Beam Angle(50%Imax):C0/180Left:80.5 Right:50.5

:C90/270Left:86.6 Right:46.6



Max , Ave Beam angle of C60plane137.58





Luminance Table

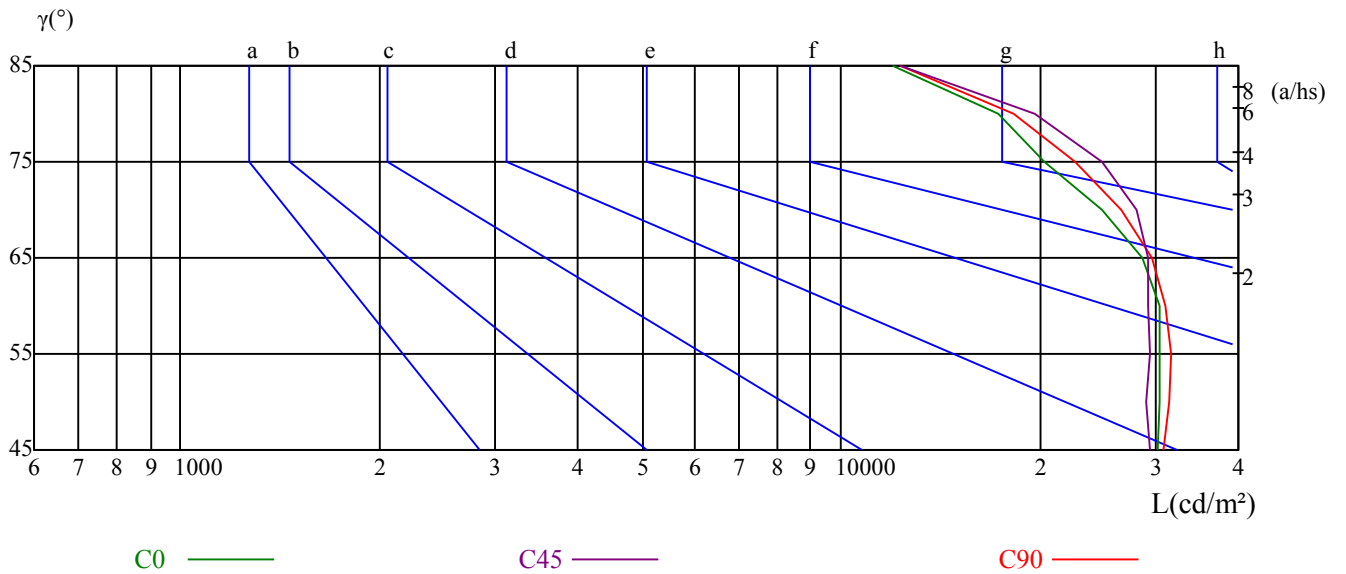
γ	45	50	55	60	65	70	75	80	85
C0	30215	30403	30317	30373	28640	24794	20317	17296	11968
C45	29444	29067	29395	29146	29265	28103	24816	19665	12323
C90	30871	31498	31721	30958	29665	26567	22673	18213	12272

L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
37210	38542	41649	30898	34481	43092	31056	31844	40119

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	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.01	1.01	1.01	0.99
1	1.02	0.97	0.93	0.99	0.95	0.91	0.95	0.91	0.88	0.91	0.88	0.85	0.87	0.85	0.82	0.80
2	0.88	0.80	0.74	0.86	0.79	0.73	0.82	0.76	0.71	0.78	0.73	0.69	0.75	0.71	0.67	0.65
3	0.76	0.67	0.60	0.74	0.66	0.60	0.71	0.64	0.58	0.68	0.62	0.57	0.65	0.60	0.56	0.54
4	0.67	0.57	0.50	0.65	0.57	0.50	0.63	0.55	0.49	0.60	0.53	0.48	0.58	0.52	0.47	0.45
5	0.59	0.50	0.43	0.58	0.49	0.42	0.56	0.48	0.42	0.54	0.47	0.41	0.52	0.45	0.41	0.38
6	0.53	0.44	0.37	0.52	0.43	0.37	0.50	0.42	0.36	0.48	0.41	0.36	0.46	0.40	0.35	0.33
7	0.48	0.39	0.32	0.47	0.38	0.32	0.45	0.37	0.32	0.44	0.37	0.31	0.42	0.36	0.31	0.29
8	0.43	0.35	0.28	0.43	0.34	0.28	0.41	0.34	0.28	0.40	0.33	0.28	0.39	0.32	0.28	0.26
9	0.40	0.31	0.25	0.39	0.31	0.25	0.38	0.30	0.25	0.37	0.30	0.25	0.36	0.29	0.25	0.23
10	0.37	0.28	0.23	0.36	0.28	0.23	0.35	0.28	0.23	0.34	0.27	0.22	0.33	0.27	0.22	0.20

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	1368.00	1383.42	1394.78	1413.44	1399.69	1396.23	1355.94	1294.09	1216.28
15.0	1368.00	1375.04	1387.82	1391.35	1364.74	1350.98	1330.95	1280.58	1208.78
30.0	1368.00	1371.13	1394.34	1401.57	1385.36	1352.38	1320.03	1302.68	1229.47
45.0	1368.00	1372.06	1389.03	1406.45	1405.03	1399.44	1346.08	1303.78	1220.93
60.0	1368.00	1363.82	1378.38	1409.26	1413.58	1387.88	1350.43	1275.80	1219.86
75.0	1368.00	1359.79	1373.90	1392.35	1397.91	1366.62	1318.60	1284.93	1201.33
90.0	1368.00	1363.09	1377.99	1395.20	1396.98	1361.75	1308.87	1278.41	1214.29
105.0	1368.00	1359.79	1373.90	1392.35	1397.91	1366.62	1318.60	1284.93	1201.33
120.0	1368.00	1363.82	1378.38	1409.26	1413.58	1387.88	1350.43	1275.80	1219.86
135.0	1368.00	1372.06	1389.03	1406.45	1405.03	1399.44	1346.08	1303.78	1220.93
150.0	1368.00	1371.13	1394.34	1401.57	1385.36	1352.38	1320.03	1302.68	1229.47
165.0	1368.00	1375.04	1387.82	1391.35	1364.74	1350.98	1330.95	1280.58	1208.78
180.0	1368.00	1383.42	1394.78	1413.44	1399.69	1396.23	1355.94	1294.09	1216.28
195.0	1368.00	1375.04	1387.82	1391.35	1364.74	1350.98	1330.95	1280.58	1208.78
210.0	1368.00	1371.13	1394.34	1401.57	1385.36	1352.38	1320.03	1302.68	1229.47
225.0	1368.00	1372.06	1389.03	1406.45	1405.03	1399.44	1346.08	1303.78	1220.93
240.0	1368.00	1363.82	1378.38	1409.26	1413.58	1387.88	1350.43	1275.80	1219.86
255.0	1368.00	1359.79	1373.90	1392.35	1397.91	1366.62	1318.60	1284.93	1201.33
270.0	1368.00	1363.09	1377.99	1395.20	1396.98	1361.75	1308.87	1278.41	1214.29
285.0	1368.00	1359.79	1373.90	1392.35	1397.91	1366.62	1318.60	1284.93	1201.33
300.0	1368.00	1363.82	1378.38	1409.26	1413.58	1387.88	1350.43	1275.80	1219.86
315.0	1368.00	1372.06	1389.03	1406.45	1405.03	1399.44	1346.08	1303.78	1220.93
330.0	1368.00	1371.13	1394.34	1401.57	1385.36	1352.38	1320.03	1302.68	1229.47
345.0	1368.00	1375.04	1387.82	1391.35	1364.74	1350.98	1330.95	1280.58	1208.78
360.0	1368.00	1383.42	1394.78	1413.44	1399.69	1396.23	1355.94	1294.09	1216.28
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	1125.43	1053.57	963.99	871.65	726.93	542.27	369.65	248.70	125.12
15.0	1102.56	1017.10	945.17	872.45	734.60	558.77	395.95	261.51	132.79
30.0	1133.12	1048.37	964.17	877.10	782.04	636.86	461.74	291.18	150.21
45.0	1152.31	1066.79	999.01	903.88	813.63	685.18	515.55	334.50	161.63
60.0	1135.97	1072.79	997.43	912.13	795.31	645.75	481.67	309.57	149.71
75.0	1155.82	1077.32	996.20	898.39	761.91	612.28	438.76	273.60	129.69
90.0	1149.85	1091.53	1008.63	888.45	752.94	581.04	412.52	261.89	128.29
105.0	1155.82	1077.32	996.20	898.39	761.91	612.28	438.76	273.60	129.69
120.0	1135.97	1072.79	997.43	912.13	795.31	645.75	481.67	309.57	149.71
135.0	1152.31	1066.79	999.01	903.88	813.63	685.18	515.55	334.50	161.63
150.0	1133.12	1048.37	964.17	877.10	782.04	636.86	461.74	291.18	150.21
165.0	1102.56	1017.10	945.17	872.45	734.60	558.77	395.95	261.51	132.79
180.0	1125.43	1053.57	963.99	871.65	726.93	542.27	369.65	248.70	125.12
195.0	1102.56	1017.10	945.17	872.45	734.60	558.77	395.95	261.51	132.79
210.0	1133.12	1048.37	964.17	877.10	782.04	636.86	461.74	291.18	150.21
225.0	1152.31	1066.79	999.01	903.88	813.63	685.18	515.55	334.50	161.63
240.0	1135.97	1072.79	997.43	912.13	795.31	645.75	481.67	309.57	149.71
255.0	1155.82	1077.32	996.20	898.39	761.91	612.28	438.76	273.60	129.69
270.0	1149.85	1091.53	1008.63	888.45	752.94	581.04	412.52	261.89	128.29
285.0	1155.82	1077.32	996.20	898.39	761.91	612.28	438.76	273.60	129.69
300.0	1135.97	1072.79	997.43	912.13	795.31	645.75	481.67	309.57	149.71
315.0	1152.31	1066.79	999.01	903.88	813.63	685.18	515.55	334.50	161.63
330.0	1133.12	1048.37	964.17	877.10	782.04	636.86	461.74	291.18	150.21
345.0	1102.56	1017.10	945.17	872.45	734.60	558.77	395.95	261.51	132.79
360.0	1125.43	1053.57	963.99	871.65	726.93	542.27	369.65	248.70	125.12

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	36.91	16.59	15.35	13.80	11.59	9.16	7.30	6.94	5.92
15.0	38.04	15.36	13.84	12.27	10.52	8.42	6.79	6.45	5.46
30.0	41.13	13.24	10.35	9.58	8.69	7.52	5.83	5.12	4.01
45.0	44.51	12.61	8.60	8.27	8.20	7.58	6.02	4.45	1.82
60.0	39.15	12.12	9.61	9.28	8.92	7.88	5.88	5.26	4.11
75.0	35.70	13.05	12.05	11.43	10.77	8.81	7.30	6.79	5.73
90.0	33.80	13.65	13.02	12.75	11.86	9.41	7.89	7.45	6.33
105.0	35.70	13.05	12.05	11.43	10.77	8.81	7.30	6.79	5.73
120.0	39.15	12.12	9.61	9.28	8.92	7.88	5.88	5.26	4.11
135.0	44.51	12.61	8.60	8.27	8.20	7.58	6.02	4.45	1.82
150.0	41.13	13.24	10.35	9.58	8.69	7.52	5.83	5.12	4.01
165.0	38.04	15.36	13.84	12.27	10.52	8.42	6.79	6.45	5.46
180.0	36.91	16.59	15.35	13.80	11.59	9.16	7.30	6.94	5.92
195.0	38.04	15.36	13.84	12.27	10.52	8.42	6.79	6.45	5.46
210.0	41.13	13.24	10.35	9.58	8.69	7.52	5.83	5.12	4.01
225.0	44.51	12.61	8.60	8.27	8.20	7.58	6.02	4.45	1.82
240.0	39.15	12.12	9.61	9.28	8.92	7.88	5.88	5.26	4.11
255.0	35.70	13.05	12.05	11.43	10.77	8.81	7.30	6.79	5.73
270.0	33.80	13.65	13.02	12.75	11.86	9.41	7.89	7.45	6.33
285.0	35.70	13.05	12.05	11.43	10.77	8.81	7.30	6.79	5.73
300.0	39.15	12.12	9.61	9.28	8.92	7.88	5.88	5.26	4.11
315.0	44.51	12.61	8.60	8.27	8.20	7.58	6.02	4.45	1.82
330.0	41.13	13.24	10.35	9.58	8.69	7.52	5.83	5.12	4.01
345.0	38.04	15.36	13.84	12.27	10.52	8.42	6.79	6.45	5.46
360.0	36.91	16.59	15.35	13.80	11.59	9.16	7.30	6.94	5.92

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	5.04	1.77	1.72	1.94	2.29	2.78	3.35	3.75	4.02
15.0	4.26	1.59	1.72	2.01	2.34	2.83	3.34	3.71	4.02
30.0	1.89	1.46	1.80	2.04	2.35	2.77	3.35	3.68	4.10
45.0	1.42	1.56	1.76	2.00	2.38	2.85	3.38	3.76	4.11
60.0	1.78	1.55	1.86	2.04	2.38	2.84	3.37	3.73	4.08
75.0	4.26	1.53	1.82	2.02	2.35	2.86	3.35	3.75	4.06
90.0	5.13	1.69	1.74	2.10	2.36	2.85	3.30	3.75	4.10
105.0	4.26	1.53	1.82	2.02	2.35	2.86	3.35	3.75	4.06
120.0	1.78	1.55	1.86	2.04	2.38	2.84	3.37	3.73	4.08
135.0	1.42	1.56	1.76	2.00	2.38	2.85	3.38	3.76	4.11
150.0	1.89	1.46	1.80	2.04	2.35	2.77	3.35	3.68	4.10
165.0	4.26	1.59	1.72	2.01	2.34	2.83	3.34	3.71	4.02
180.0	5.04	1.77	1.72	1.94	2.29	2.78	3.35	3.75	4.02
195.0	4.26	1.59	1.72	2.01	2.34	2.83	3.34	3.71	4.02
210.0	1.89	1.46	1.80	2.04	2.35	2.77	3.35	3.68	4.10
225.0	1.42	1.56	1.76	2.00	2.38	2.85	3.38	3.76	4.11
240.0	1.78	1.55	1.86	2.04	2.38	2.84	3.37	3.73	4.08
255.0	4.26	1.53	1.82	2.02	2.35	2.86	3.35	3.75	4.06
270.0	5.13	1.69	1.74	2.10	2.36	2.85	3.30	3.75	4.10
285.0	4.26	1.53	1.82	2.02	2.35	2.86	3.35	3.75	4.06
300.0	1.78	1.55	1.86	2.04	2.38	2.84	3.37	3.73	4.08
315.0	1.42	1.56	1.76	2.00	2.38	2.85	3.38	3.76	4.11
330.0	1.89	1.46	1.80	2.04	2.35	2.77	3.35	3.68	4.10
345.0	4.26	1.59	1.72	2.01	2.34	2.83	3.34	3.71	4.02
360.0	5.04	1.77	1.72	1.94	2.29	2.78	3.35	3.75	4.02

Intensity data(cd)

C/ γ ($^{\circ}$)	180.0
0.0	4.33
15.0	4.38
30.0	4.30
45.0	4.36
60.0	4.31
75.0	4.35
90.0	4.37
105.0	4.35
120.0	4.31
135.0	4.36
150.0	4.30
165.0	4.38
180.0	4.33
195.0	4.38
210.0	4.30
225.0	4.36
240.0	4.31
255.0	4.35
270.0	4.37
285.0	4.35
300.0	4.31
315.0	4.36
330.0	4.30
345.0	4.38
360.0	4.33