

---

AFX

---

Client:

LumCAT: BAYF19LAJUDSN

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 120.080

LampCAT:

Current(A): 0.262

Lamp flux(lm): 2035.5

Power (W): 31.170

Number of Lamps: 1

PF: 0.991

Length(mm): -460

Width(mm): -460

Phm Type: C

Height(mm): 0

---

Photometric Results

---

Lumens(lm): 2035.46, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 65.30

Central intensity(cd): 694.651, Maximum intensity(cd): 694.651

Angle of maximum intensity: C=90.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=113.4

[C90/270]Total=115.2

Field angle(10%Imax): [C0/180]Total=163.2

[C90/270]Total=163.4

Maximum s/h(1/2): C0\_180=1.27 C90\_270=1.27

Maximum s/h(1/4): C0\_180=1.39 C90\_270=1.38

Up flux rate of lamp(%): 0.57%

Down flux rate of lamp(%): 99.43%

Up flux rate of LUM(%): 0.57%

Down flux rate of LUM(%): 99.43%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 77.588%

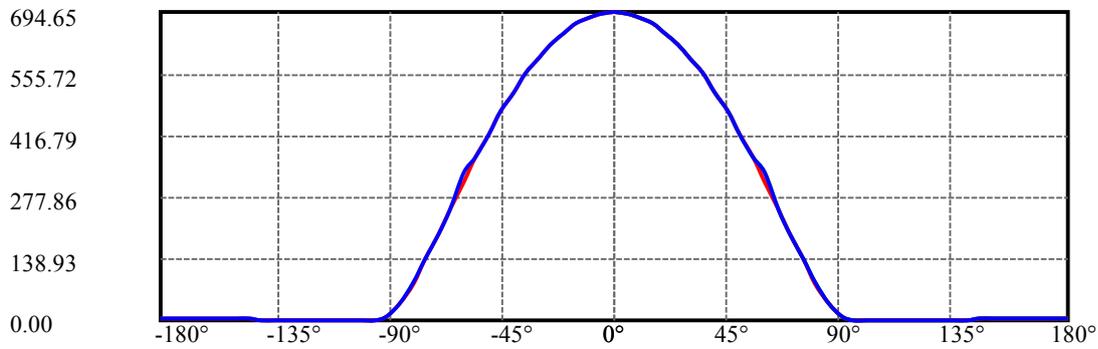
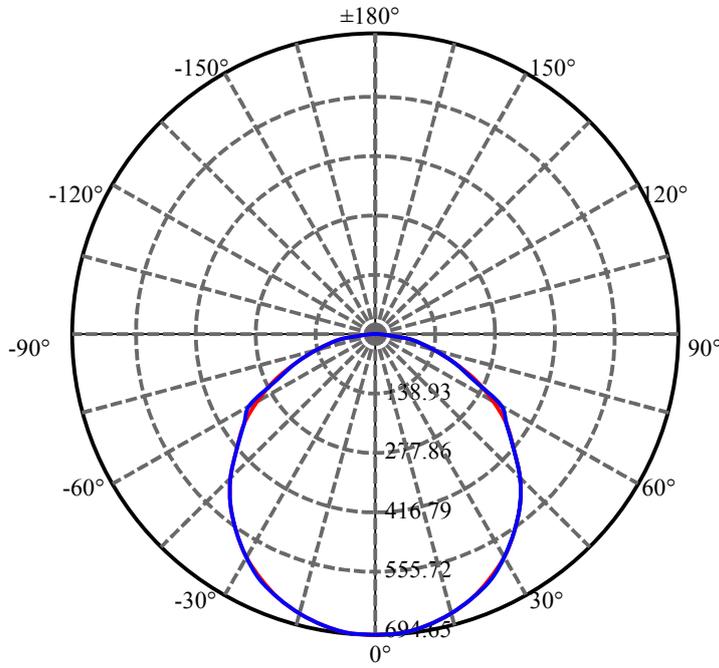
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	694.651	0.000	0	0.00%	0.00%
5.0	691.795	16.575	16.575	0.81%	0.81%
10.0	683.336	49.193	65.767	2.42%	3.23%
15.0	669.097	80.225	145.993	3.94%	7.17%
20.0	649.443	108.666	254.659	5.34%	12.51%
25.0	623.617	133.521	388.179	6.56%	19.07%
30.0	592.873	153.948	542.127	7.56%	26.63%
35.0	556.164	169.204	711.331	8.31%	34.95%
40.0	516.266	178.927	890.258	8.79%	43.74%
45.0	469.042	182.438	1072.696	8.96%	52.70%
50.0	418.538	179.348	1252.044	8.81%	61.51%
55.0	365.977	170.580	1422.624	8.38%	69.89%
60.0	311.687	156.640	1579.264	7.70%	77.59%
65.0	252.672	137.197	1716.461	6.74%	84.33%
70.0	194.839	113.313	1829.774	5.57%	89.89%
75.0	138.568	87.147	1916.921	4.28%	94.18%
80.0	86.826	60.309	1977.23	2.96%	97.14%
85.0	38.437	34.037	2011.267	1.67%	98.81%
90.0	7.667	12.624	2023.891	0.62%	99.43%
95.0	1.081	2.395	2026.286	0.12%	99.55%
100.0	0.920	0.544	2026.83	0.03%	99.58%
105.0	0.927	0.494	2027.324	0.02%	99.60%
110.0	0.972	0.496	2027.82	0.02%	99.62%
115.0	1.066	0.516	2028.336	0.03%	99.65%
120.0	1.181	0.546	2028.883	0.03%	99.68%
125.0	1.331	0.581	2029.463	0.03%	99.71%
130.0	1.421	0.598	2030.062	0.03%	99.73%
135.0	1.473	0.585	2030.646	0.03%	99.76%
140.0	1.761	0.599	2031.245	0.03%	99.79%
145.0	2.205	0.662	2031.907	0.03%	99.83%
150.0	2.613	0.710	2032.616	0.03%	99.86%
155.0	3.133	0.727	2033.343	0.04%	99.90%
160.0	3.432	0.688	2034.032	0.03%	99.93%
165.0	3.742	0.591	2034.623	0.03%	99.96%
170.0	4.034	0.461	2035.084	0.02%	99.98%
175.0	4.314	0.299	2035.383	0.01%	100.00%
180.0	2.176	0.078	2035.461	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	542.13	26.63%	26.63%
0-40	890.26	43.74%	43.74%
0-60	1579.26	77.59%	77.59%
0-90	2023.89	99.43%	99.43%
0-120	2028.88	99.68%	99.68%
0-180	2035.46	100.00%	100.00%
60-90	444.63	21.84%	21.84%
90-120	4.99	0.25%	0.25%
90-130	6.17	0.30%	0.30%
90-150	8.73	0.43%	0.43%
90-180	11.49	0.56%	0.56%
0-61.79	1628.37	80.00%	80.00%

ZONAL LUMEN SUMMARY

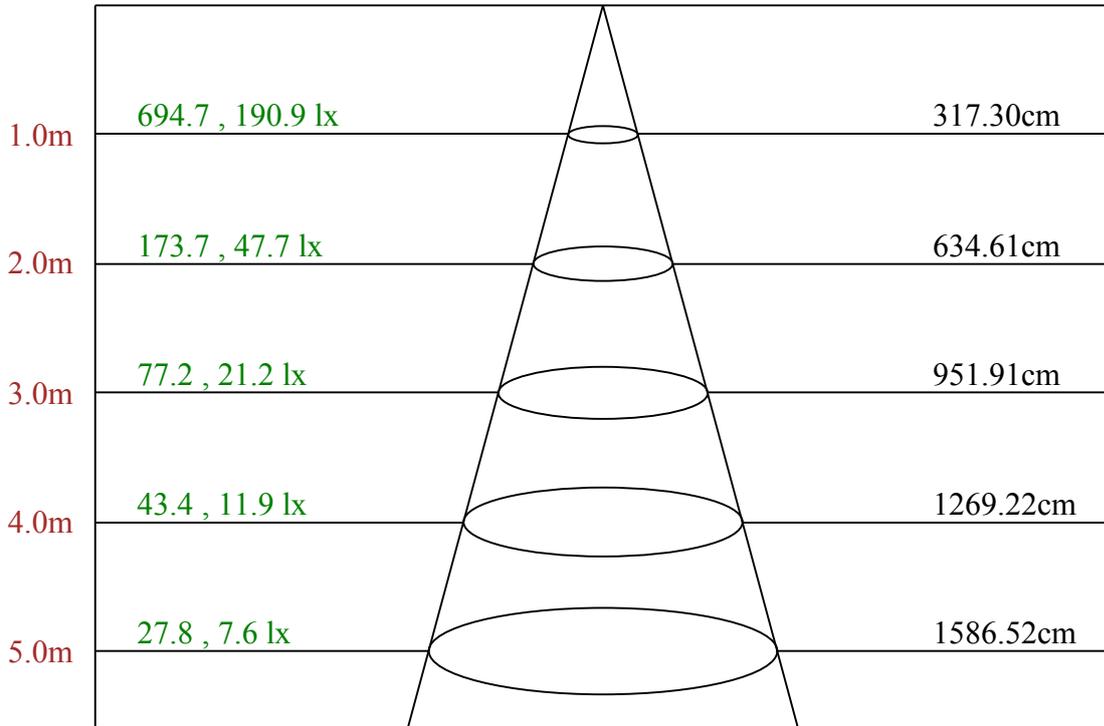
0-10	65.77
10-20	188.89
20-30	287.47
30-40	348.13
40-50	361.79
50-60	327.22
60-70	250.51
70-80	147.46
80-90	46.66
90-100	2.94
100-110	0.99
110-120	1.06
120-130	1.18
130-140	1.18
140-150	1.37
150-160	1.42
160-170	1.05
170-180	0.30



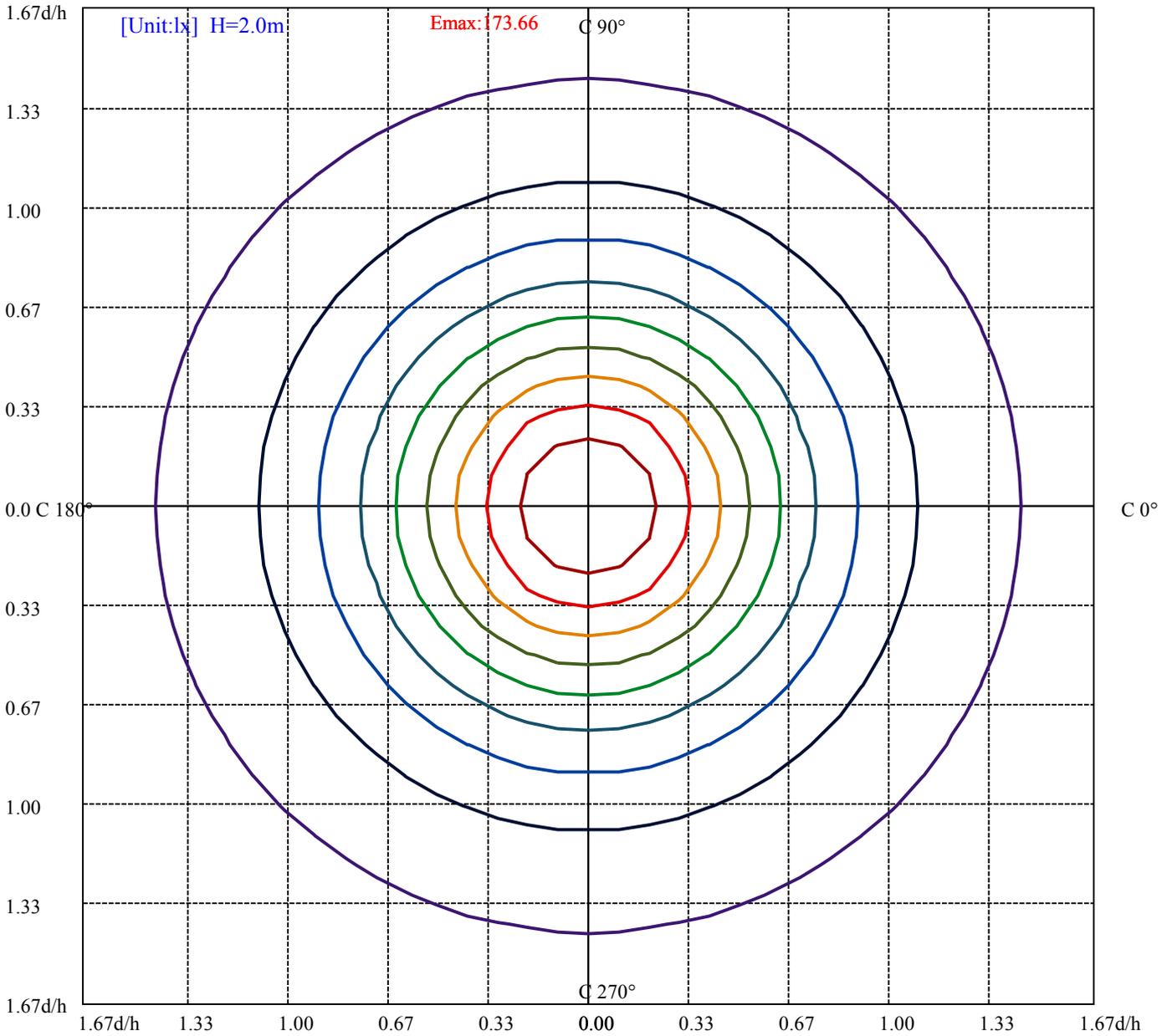
C90(Max): ———  
 C0/C180: ———  
 C90/C270: ———

Field angle(10%Imax):C0/180Left:81.6 Right:81.6  
 :C90/270Left:81.7 Right:81.7

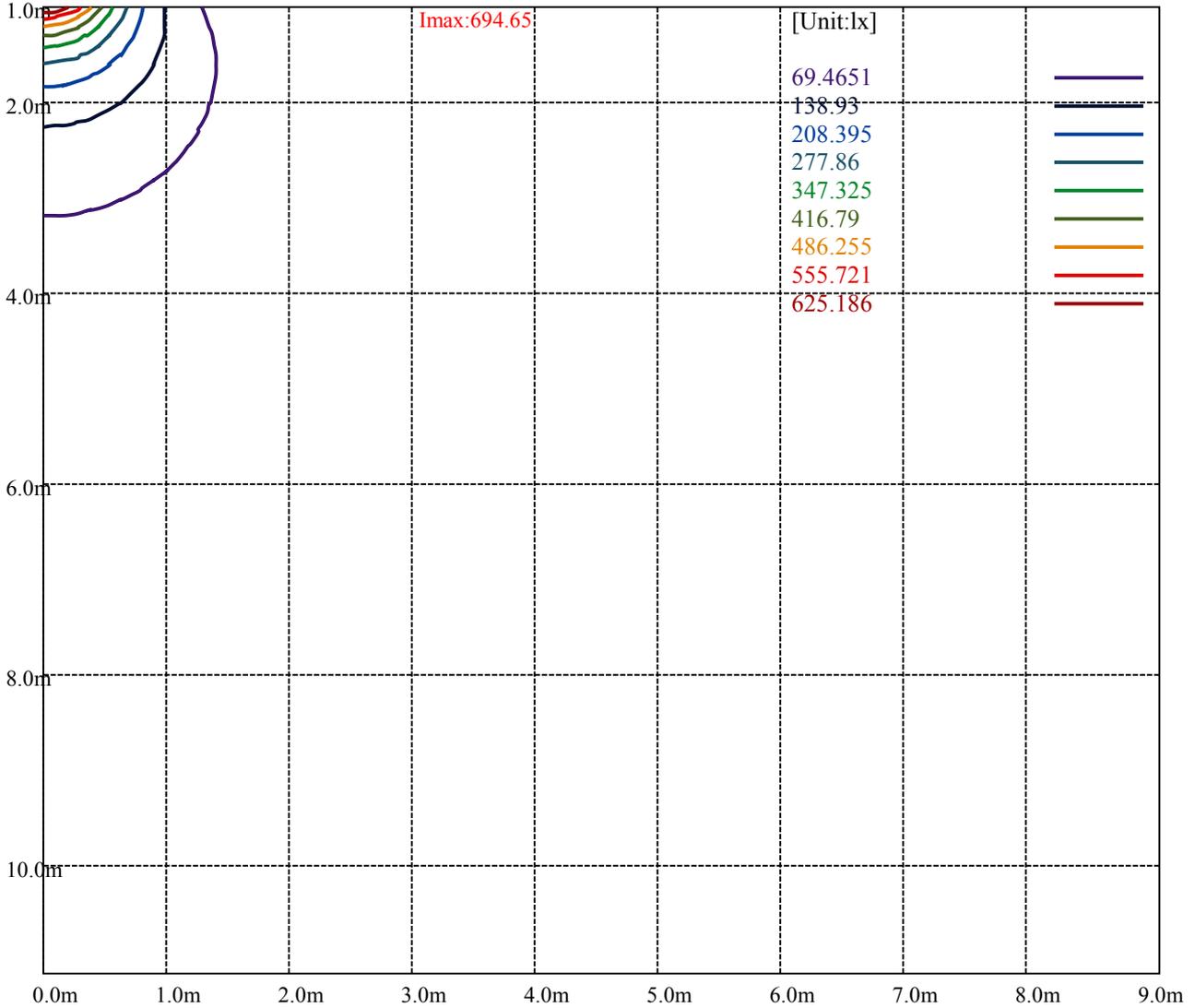
Beam Angle(50%Imax):C0/180Left:56.7 Right:56.7  
 :C90/270Left:57.6 Right:57.6



Max , Ave      Beam angle of C90 plane 115.55



(10%Emax) 17.36628	—
(20%Emax) 34.7325	—
(30%Emax) 52.09875	—
(40%Emax) 69.465	—
(50%Emax) 86.83125	—
(60%Emax) 104.1975	—
(70%Emax) 121.5638	—
(80%Emax) 138.9303	—
(90%Emax) 156.2965	—



Luminance Table

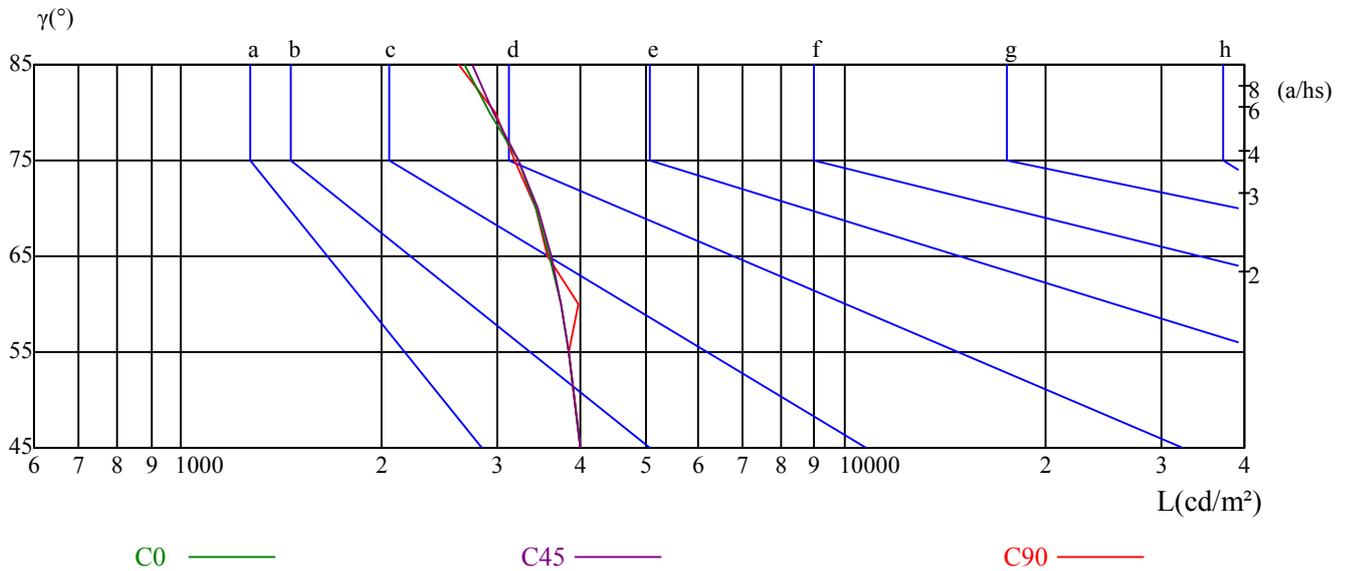
$\gamma$	45	50	55	60	65	70	75	80	85
C0	3996	3913	3840	3731	3590	3417	3232	2913	2671
C45	3994	3917	3841	3740	3601	3440	3225	2948	2749
C90	3984	3914	3836	3975	3575	3423	3173	2971	2625

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3590	3575	3601	3232	3173	3225	2671	2625	2749

Glare Table

Glare	Quality	Service Values Illuminance(lx)							
		a	b	c	d	e	f	g	h
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	1.02	1.02	1.02	0.99
1	1.03	0.99	0.95	1.01	0.97	0.93	0.97	0.93	0.90	0.93	0.90	0.88	0.89	0.87	0.85	0.83
2	0.90	0.83	0.77	0.88	0.82	0.76	0.84	0.79	0.74	0.81	0.76	0.73	0.78	0.74	0.71	0.69
3	0.79	0.71	0.64	0.77	0.70	0.63	0.74	0.68	0.62	0.71	0.66	0.61	0.69	0.64	0.60	0.58
4	0.70	0.61	0.54	0.68	0.60	0.54	0.66	0.59	0.53	0.63	0.57	0.52	0.61	0.56	0.51	0.49
5	0.62	0.53	0.46	0.61	0.53	0.46	0.59	0.51	0.46	0.57	0.50	0.45	0.55	0.49	0.44	0.42
6	0.56	0.47	0.40	0.55	0.46	0.40	0.53	0.46	0.40	0.51	0.45	0.39	0.50	0.44	0.39	0.37
7	0.51	0.42	0.36	0.50	0.42	0.36	0.48	0.41	0.35	0.47	0.40	0.35	0.45	0.39	0.35	0.33
8	0.46	0.38	0.32	0.46	0.37	0.32	0.44	0.37	0.31	0.43	0.36	0.31	0.42	0.36	0.31	0.29
9	0.42	0.34	0.29	0.42	0.34	0.28	0.41	0.33	0.28	0.40	0.33	0.28	0.38	0.32	0.28	0.26
10	0.39	0.31	0.26	0.39	0.31	0.26	0.38	0.31	0.26	0.37	0.30	0.26	0.36	0.30	0.25	0.24

AFX BAYF19LAJUDSN

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	694.65	694.74	688.18	676.66	659.64	636.51	609.92	573.41	536.63
15.0	694.65	694.74	689.13	677.83	662.07	639.37	611.06	576.87	537.70
30.0	694.65	694.38	689.12	677.88	661.03	638.20	609.66	575.77	538.40
45.0	694.65	694.92	689.73	678.46	663.34	638.64	612.34	578.16	538.97
60.0	694.65	695.37	690.08	679.51	662.57	639.82	611.15	578.26	537.59
75.0	694.65	695.28	689.89	678.75	661.60	640.85	612.38	578.07	538.37
90.0	694.65	695.46	690.52	678.83	661.76	638.75	610.17	575.75	537.37
105.0	694.65	694.83	689.25	677.81	661.86	637.36	610.16	575.66	536.03
120.0	694.65	694.47	689.87	678.42	661.02	637.94	608.99	574.37	535.96
135.0	694.65	694.83	688.78	677.14	659.53	637.51	608.53	573.87	534.06
150.0	694.65	694.20	688.15	676.31	641.08	636.47	607.29	572.42	532.39
165.0	694.65	693.03	686.71	674.45	656.68	632.95	603.73	568.91	527.60
180.0	694.65	687.83	677.81	660.71	637.58	609.13	575.27	537.78	492.23
195.0	694.65	688.86	677.38	659.84	637.41	607.94	575.09	536.10	492.30
210.0	694.65	688.76	677.08	659.78	636.59	607.96	574.07	534.83	492.74
225.0	694.65	688.39	676.76	659.22	637.66	609.12	574.94	535.66	492.09
240.0	694.65	689.01	677.36	659.89	636.68	608.01	574.77	534.72	490.82
255.0	694.65	688.63	676.87	661.06	636.00	609.50	575.64	536.39	492.56
270.0	694.65	688.81	676.86	659.69	636.86	608.01	574.13	535.03	493.24
285.0	694.65	689.07	677.27	659.97	638.89	610.43	576.56	537.47	527.29
300.0	694.65	689.51	677.79	660.84	656.51	608.54	577.25	538.21	494.75
315.0	694.65	688.60	677.86	661.07	638.32	610.16	576.66	538.03	494.61
330.0	694.65	689.77	678.57	661.59	641.35	610.99	579.91	541.43	497.88
345.0	694.65	689.60	679.05	662.63	640.62	612.66	579.28	540.77	498.82
360.0	694.65	694.74	688.18	676.66	659.64	636.51	609.92	573.41	536.63
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	492.49	444.02	392.08	336.96	279.26	221.12	166.26	107.68	59.29
15.0	493.55	444.94	395.18	337.40	282.38	223.98	165.94	110.03	58.67
30.0	494.34	446.10	394.28	338.81	281.11	222.78	164.81	111.75	60.02
45.0	494.59	446.01	396.71	338.11	283.62	224.93	166.86	110.59	61.47
60.0	494.94	446.55	394.50	339.04	281.43	225.79	164.86	111.46	60.75
75.0	494.00	445.41	392.86	340.41	282.75	223.92	165.71	109.58	60.54
90.0	493.24	444.89	392.67	337.21	279.51	221.09	162.95	109.83	58.78
105.0	491.53	442.89	393.53	334.62	280.22	221.67	163.39	107.55	56.57
120.0	491.50	442.99	390.79	335.06	280.06	218.93	163.38	108.02	61.04
135.0	489.55	440.71	387.99	335.73	277.86	219.27	161.14	105.44	60.48
150.0	489.48	438.62	388.39	332.64	275.01	216.46	161.26	105.79	54.84
165.0	486.55	437.84	385.35	332.13	274.76	216.40	158.76	103.46	52.86
180.0	446.68	392.08	340.06	283.16	225.02	167.33	111.76	60.44	18.08
195.0	444.58	392.86	337.93	280.96	226.12	168.43	112.88	61.43	16.74
210.0	445.03	393.39	338.72	282.09	224.12	166.68	113.89	59.66	17.48
225.0	443.95	392.24	337.04	283.44	222.25	167.85	112.38	61.02	16.46
240.0	444.67	390.56	338.23	281.43	223.64	166.11	110.92	62.18	15.59
255.0	444.42	392.41	337.63	280.86	222.84	168.05	112.63	97.72	15.81
270.0	443.18	391.32	338.74	323.46	222.62	168.07	110.01	61.65	17.26
285.0	443.70	391.82	339.58	282.92	225.00	167.27	112.23	61.07	17.02
300.0	446.60	394.48	339.75	283.04	227.76	166.99	114.51	63.21	18.75
315.0	449.20	394.76	342.77	285.89	227.85	170.16	114.56	63.28	20.85
330.0	449.82	397.96	343.31	286.30	228.21	170.12	117.45	65.68	20.69
345.0	449.39	400.05	345.39	288.83	230.74	172.74	117.08	65.31	22.46
360.0	492.49	444.02	392.08	336.96	279.26	221.12	166.26	107.68	59.29

AFX BAYF19LAJUDSN

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	15.16	0.53	0.35	0.35	0.35	0.44	0.80	1.06	1.24
15.0	16.38	0.53	0.45	0.45	0.45	0.53	0.71	1.16	1.42
30.0	15.52	0.71	0.62	0.54	0.45	0.54	0.71	1.16	1.43
45.0	14.49	0.98	0.63	0.54	0.54	0.63	0.89	1.25	1.52
60.0	15.05	0.90	0.54	0.54	0.72	0.90	1.16	1.43	1.43
75.0	13.65	0.99	0.81	0.63	0.81	0.90	1.08	1.35	1.44
90.0	14.74	1.53	0.81	1.17	1.08	0.81	1.08	1.35	1.53
105.0	12.79	1.26	0.72	0.72	0.81	0.81	0.90	1.44	1.53
120.0	12.98	1.17	0.72	0.63	0.99	1.08	1.17	1.44	1.62
135.0	14.26	1.08	0.63	0.72	0.99	1.17	1.08	1.26	1.53
150.0	11.56	1.17	0.81	0.54	0.54	0.54	0.90	1.26	1.45
165.0	11.82	0.72	0.63	0.54	0.45	0.54	0.81	1.26	1.44
180.0	1.33	1.24	1.24	1.24	1.33	1.51	1.60	1.42	1.42
195.0	1.34	1.16	1.34	1.25	1.34	1.42	1.51	1.34	1.25
210.0	1.34	1.25	1.16	1.34	1.34	1.52	1.52	1.43	1.43
225.0	1.25	1.25	1.25	1.34	1.43	1.61	1.52	1.43	1.43
240.0	1.34	1.25	1.25	1.25	1.43	1.43	1.43	1.52	1.43
255.0	1.35	1.17	1.26	1.26	1.26	1.35	1.44	1.44	1.44
270.0	1.26	1.08	1.17	1.26	1.26	1.44	1.44	1.44	1.44
285.0	1.26	1.17	1.17	1.26	1.26	1.44	1.44	1.44	1.44
300.0	1.35	1.17	1.08	1.17	1.08	1.26	1.26	1.26	1.26
315.0	1.26	1.26	1.17	1.17	1.17	1.26	1.26	1.26	1.26
330.0	1.26	1.17	1.17	1.17	1.17	1.17	1.26	1.26	1.36
345.0	1.26	1.17	1.08	1.17	1.08	1.26	1.35	1.26	1.35
360.0	15.16	0.53	0.35	0.35	0.35	0.44	0.80	1.06	1.24

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	1.42	2.04	2.48	2.84	3.63	3.90	4.17	4.08	4.17
15.0	1.51	2.05	2.58	2.94	3.56	3.92	4.18	4.10	4.18
30.0	1.61	1.96	2.68	3.03	3.57	3.83	4.19	4.28	4.19
45.0	1.61	2.06	2.59	2.95	3.49	3.94	4.21	4.21	4.38
60.0	1.52	1.97	2.60	2.96	3.58	3.94	4.21	4.21	4.48
75.0	1.62	1.98	2.34	2.87	3.41	3.95	4.04	4.13	4.31
90.0	1.53	2.07	2.43	2.88	3.42	3.86	4.04	4.22	4.31
105.0	1.71	1.98	2.61	2.97	3.60	4.05	4.14	4.23	4.41
120.0	1.62	2.07	2.71	3.07	3.61	4.06	4.33	4.33	4.24
135.0	1.72	2.08	2.62	3.07	3.61	4.06	4.33	4.33	4.24
150.0	1.54	1.99	2.62	3.07	3.61	4.07	4.34	4.52	4.34
165.0	1.53	2.07	2.62	2.98	3.61	4.06	4.33	4.33	4.42
180.0	1.33	1.51	2.04	2.30	2.84	2.84	3.28	3.81	4.34
195.0	1.34	1.42	1.60	2.14	2.58	2.67	3.20	3.92	4.36
210.0	1.16	1.34	1.96	2.32	2.76	2.76	3.30	3.92	4.28
225.0	1.34	1.52	1.79	2.33	2.77	3.13	3.49	3.94	4.38
240.0	1.52	1.61	1.97	2.42	2.78	3.05	3.40	3.94	4.21
255.0	1.53	1.62	1.98	2.34	2.69	3.05	3.41	3.77	4.22
270.0	1.44	1.62	1.98	2.43	2.79	2.97	3.24	3.77	4.40
285.0	1.44	1.53	1.98	2.34	2.70	3.06	3.24	3.78	4.32
300.0	1.35	1.44	1.62	2.07	2.71	2.80	3.16	3.79	4.33
315.0	1.26	1.35	1.62	1.99	2.44	2.71	3.16	3.70	4.33
330.0	1.26	1.45	1.63	2.17	2.71	2.71	3.16	3.70	4.34
345.0	1.44	1.53	1.89	2.26	2.71	2.98	3.25	3.79	4.33
360.0	1.42	2.04	2.48	2.84	3.63	3.90	4.17	4.08	4.17

Intensity data(cd)

C/ $\gamma$ (°)	180.0
0.0	4.34
15.0	4.36
30.0	4.28
45.0	4.21
60.0	4.39
75.0	4.49
90.0	4.49
105.0	4.41
120.0	4.33
135.0	4.42
150.0	4.25
165.0	4.24
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	4.34