
乐达凯

Client:

LumCAT: WTNW0810LAJUDWH-3000K

Luminaire: LED Lamp

Report No:

Ballast type:

Test No:

Voltage(V): 120.060

LampCAT:

Current(A): 0.178

Lamp flux(lm): 1099.4

Power (W): 21.220

Number of Lamps: 1

PF: 0.992

Length(mm): 190

Width(mm): 65

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1099.40, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 51.81

Central intensity(cd): 590.406, Maximum intensity(cd): 590.406

Angle of maximum intensity: C=60.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=88.4

[C90/270]Total=67.8

Field angle(10%Imax): [C0/180]Total=148.8

[C90/270]Total=138.4

Maximum s/h(1/2): C0_180=1.11 C90_270=0.94

Maximum s/h(1/4): C0_180=1.20 C90_270=1.02

Up flux rate of lamp(%): 0.65%

Down flux rate of lamp(%): 99.35%

Up flux rate of LUM(%): 0.65%

Down flux rate of LUM(%): 99.35%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 84.730%

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Zonal flux distribution table

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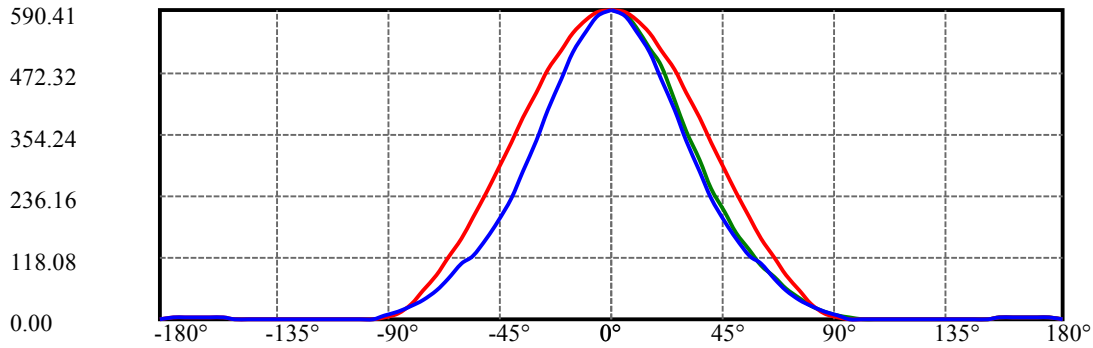
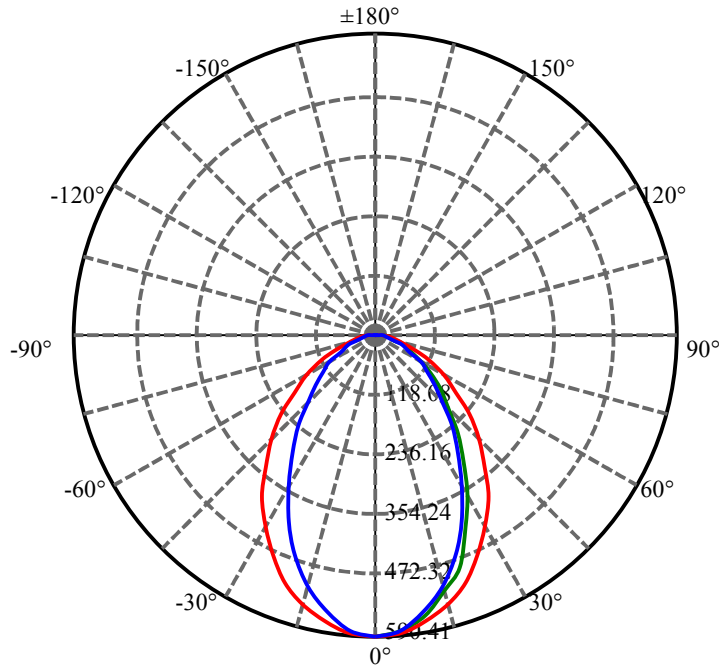
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	590.406	0.000	0	0.00%	0.00%
5.0	582.336	14.020	14.02	1.28%	1.28%
10.0	561.018	40.901	54.921	3.72%	5.00%
15.0	527.944	64.596	119.518	5.88%	10.87%
20.0	487.334	83.673	203.191	7.61%	18.48%
25.0	437.069	96.953	300.144	8.82%	27.30%
30.0	384.675	103.992	404.136	9.46%	36.76%
35.0	330.952	105.381	509.517	9.59%	46.35%
40.0	281.330	102.155	611.672	9.29%	55.64%
45.0	233.061	95.244	706.916	8.66%	64.30%
50.0	191.080	85.704	792.619	7.80%	72.10%
55.0	154.068	75.047	867.666	6.83%	78.92%
60.0	122.199	63.858	931.524	5.81%	84.73%
65.0	93.080	52.335	983.859	4.76%	89.49%
70.0	67.963	40.777	1024.636	3.71%	93.20%
75.0	46.018	29.793	1054.429	2.71%	95.91%
80.0	28.385	19.908	1074.338	1.81%	97.72%
85.0	15.369	11.889	1086.227	1.08%	98.80%
90.0	6.782	6.065	1092.292	0.55%	99.35%
95.0	1.800	2.350	1094.642	0.21%	99.57%
100.0	0.543	0.637	1095.279	0.06%	99.63%
105.0	0.442	0.264	1095.542	0.02%	99.65%
110.0	0.427	0.227	1095.769	0.02%	99.67%
115.0	0.438	0.219	1095.988	0.02%	99.69%
120.0	0.434	0.212	1096.2	0.02%	99.71%
125.0	0.412	0.196	1096.396	0.02%	99.73%
130.0	0.400	0.177	1096.572	0.02%	99.74%
135.0	0.437	0.169	1096.742	0.02%	99.76%
140.0	0.665	0.204	1096.946	0.02%	99.78%
145.0	1.013	0.280	1097.226	0.03%	99.80%
150.0	1.428	0.359	1097.585	0.03%	99.84%
155.0	1.895	0.421	1098.006	0.04%	99.87%
160.0	2.198	0.429	1098.435	0.04%	99.91%
165.0	2.523	0.389	1098.824	0.04%	99.95%
170.0	2.778	0.314	1099.139	0.03%	99.98%
175.0	2.961	0.205	1099.344	0.02%	100.00%
180.0	1.465	0.053	1099.397	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	404.14	36.76%	36.76%
0-40	611.67	55.64%	55.64%
0-60	931.52	84.73%	84.73%
0-90	1092.29	99.35%	99.35%
0-120	1096.20	99.71%	99.71%
0-180	1099.40	100.00%	100.00%
60-90	160.77	14.62%	14.62%
90-120	3.91	0.36%	0.36%
90-130	4.28	0.39%	0.39%
90-150	5.29	0.48%	0.48%
90-180	7.05	0.64%	0.64%
0-55.93	879.52	80.00%	80.00%

ZONAL LUMEN SUMMARY

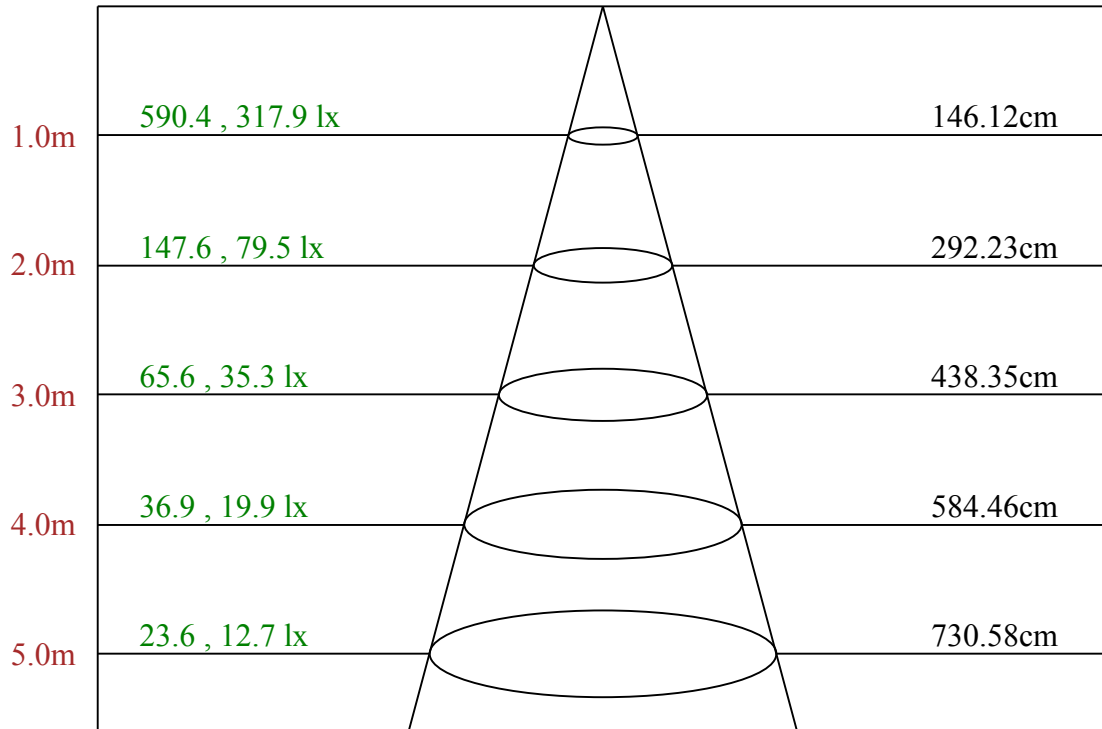
0-10	54.92
10-20	148.27
20-30	200.95
30-40	207.54
40-50	180.95
50-60	138.91
60-70	93.11
70-80	49.70
80-90	17.95
90-100	2.99
100-110	0.49
110-120	0.43
120-130	0.37
130-140	0.37
140-150	0.64
150-160	0.85
160-170	0.70
170-180	0.21



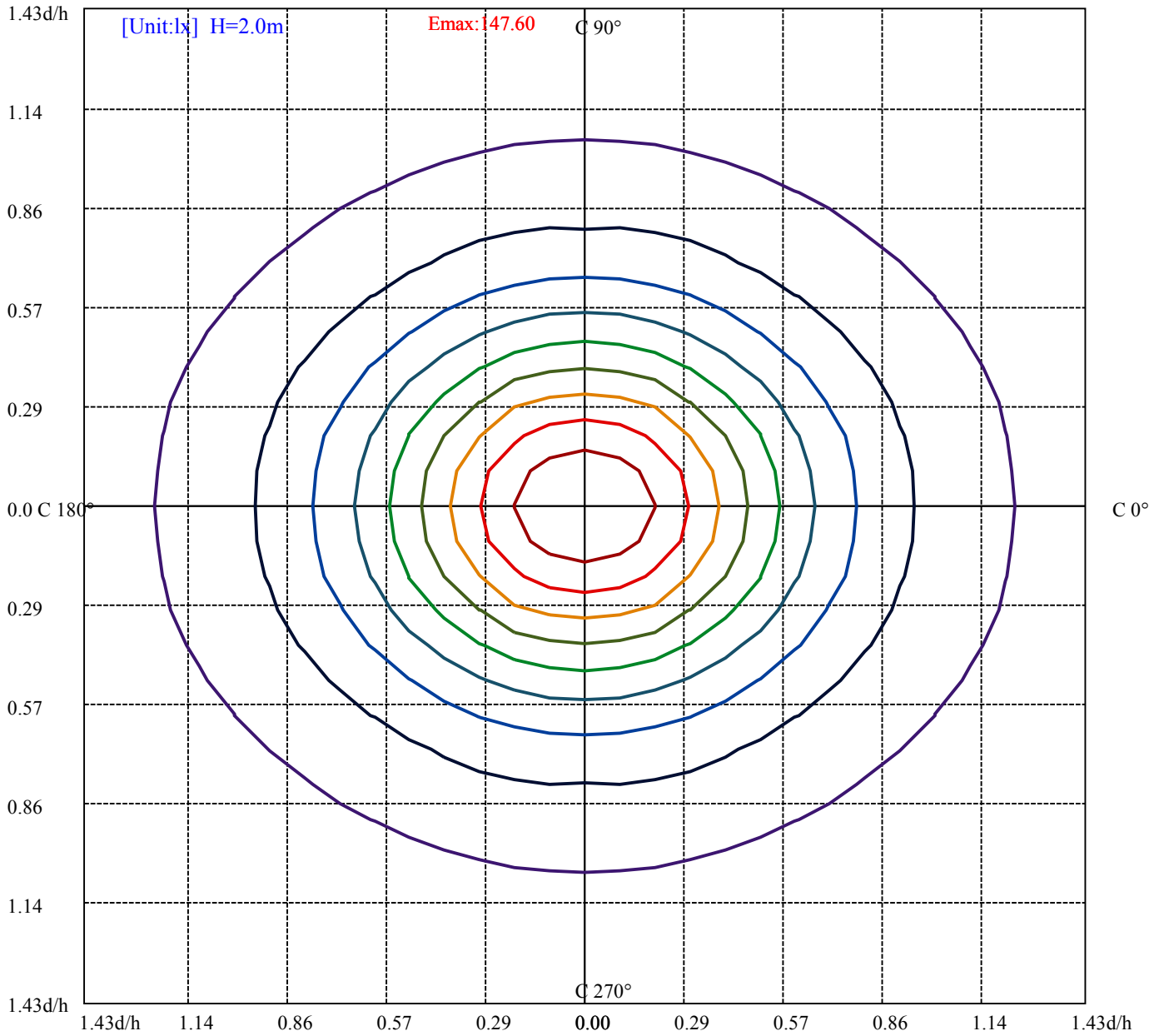
C60(Max): ——
 C0/C180: ——
 C90/C270: ——

Field angle(10%Imax):C0/180Left:74.4 Right:74.4
 :C90/270Left:69.2 Right:69.2

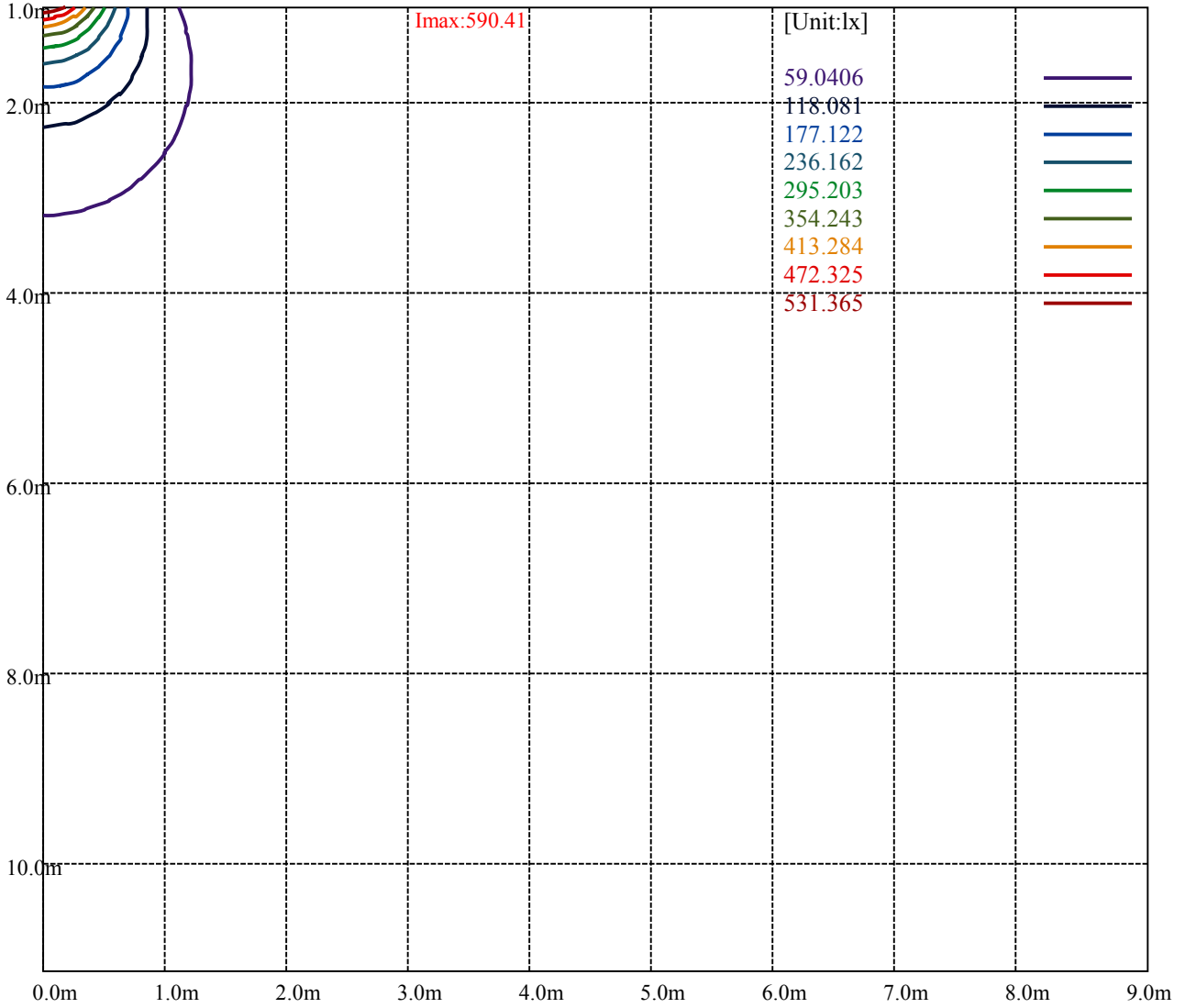
Beam Angle(50%Imax):C0/180Left:44.2 Right:44.2
 :C90/270Left:33.9 Right:33.9



Max , Ave Beam angle of C60 plane 72.30



(10%Emax) 14.76013	—
(20%Emax) 29.52025	—
(30%Emax) 44.2805	—
(40%Emax) 59.0405	—
(50%Emax) 73.80075	—
(60%Emax) 88.56075	—
(70%Emax) 103.321	—
(80%Emax) 118.081	—
(90%Emax) 132.8412	—



Luminance Table

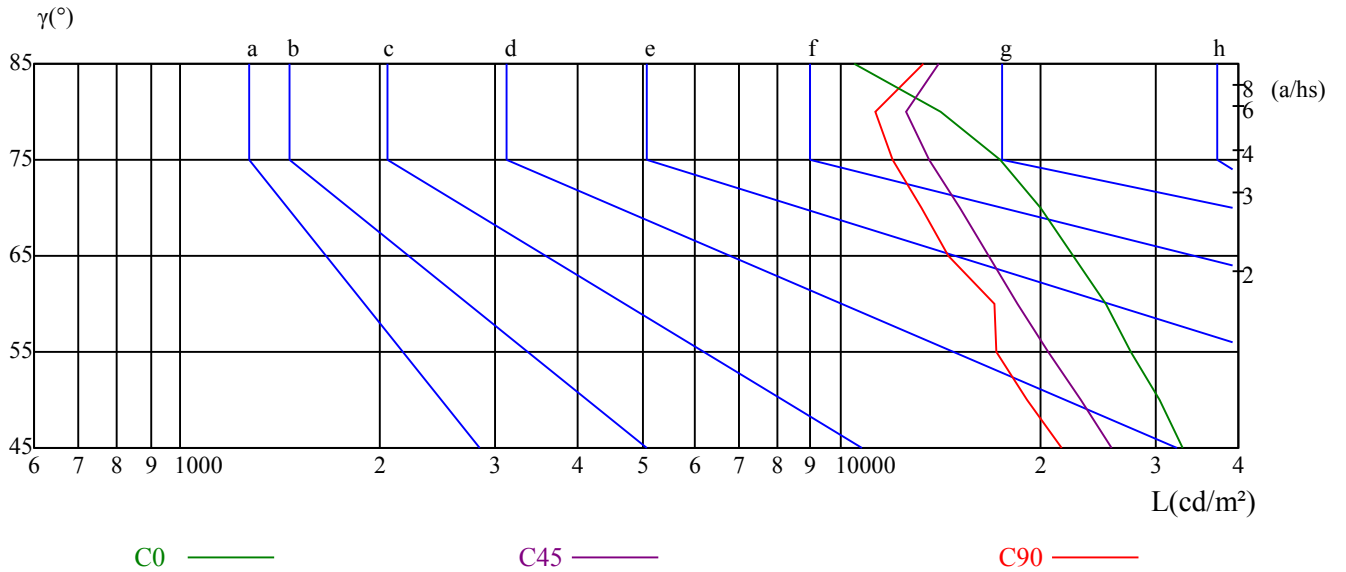
γ	45	50	55	60	65	70	75	80	85
C0	32880	30312	27529	25156	22448	20047	17390	14182	10484
C45	25694	23034	20678	18554	16741	15133	13580	12563	14090
C90	21597	19204	17247	17080	14518	13260	12016	11259	13291

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
22448	14518	16741	17390	12016	13580	10484	13291	14090

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	1.06	1.02	0.98	1.03	1.00	0.97	0.99	0.96	0.93	0.95	0.93	0.90	0.91	0.89	0.88	0.86
2	0.94	0.88	0.82	0.92	0.86	0.81	0.88	0.83	0.79	0.85	0.81	0.78	0.82	0.79	0.76	0.74
3	0.84	0.76	0.70	0.82	0.75	0.70	0.79	0.73	0.68	0.76	0.71	0.67	0.74	0.70	0.66	0.64
4	0.75	0.67	0.61	0.74	0.66	0.61	0.71	0.65	0.60	0.69	0.63	0.59	0.67	0.62	0.58	0.56
5	0.68	0.60	0.54	0.67	0.59	0.53	0.65	0.58	0.53	0.63	0.57	0.52	0.61	0.56	0.52	0.50
6	0.62	0.54	0.48	0.61	0.53	0.48	0.59	0.52	0.47	0.57	0.51	0.47	0.56	0.50	0.46	0.44
7	0.57	0.49	0.43	0.56	0.48	0.43	0.54	0.47	0.42	0.53	0.47	0.42	0.52	0.46	0.42	0.40
8	0.52	0.44	0.39	0.51	0.44	0.39	0.50	0.43	0.38	0.49	0.43	0.38	0.48	0.42	0.38	0.36
9	0.48	0.41	0.35	0.48	0.40	0.35	0.47	0.40	0.35	0.45	0.39	0.35	0.44	0.39	0.35	0.33
10	0.45	0.37	0.32	0.44	0.37	0.32	0.43	0.37	0.32	0.42	0.36	0.32	0.41	0.36	0.32	0.30

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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	590.41	585.47	572.07	548.62	515.65	476.68	433.39	386.23	338.18
15.0	590.41	596.11	592.90	579.53	554.83	523.08	485.09	436.85	390.66
30.0	590.41	598.28	593.54	578.14	553.44	517.99	475.39	425.80	372.54
45.0	590.41	600.38	595.26	578.27	550.42	510.34	460.46	406.01	346.60
60.0	590.41	599.31	593.65	575.47	546.40	502.22	444.81	380.38	318.10
75.0	590.41	600.52	595.37	576.77	542.54	493.40	430.18	363.44	304.28
90.0	590.41	599.97	594.02	576.60	540.49	491.03	425.41	358.52	296.87
105.0	590.41	600.24	594.56	576.60	543.30	492.67	429.13	362.17	306.30
120.0	590.41	598.68	594.09	576.65	546.80	499.33	445.03	380.66	318.62
135.0	590.41	591.56	586.58	571.66	544.20	506.61	458.80	399.17	342.83
150.0	590.41	598.79	595.55	582.83	534.58	522.85	482.17	432.75	378.36
165.0	590.41	598.16	596.81	583.91	563.71	529.71	493.99	449.34	395.41
180.0	590.41	585.29	569.25	545.36	513.09	473.59	430.92	383.58	334.39
195.0	590.41	574.18	549.48	514.88	472.97	425.88	374.79	323.16	272.51
210.0	590.41	572.77	542.34	501.88	456.68	399.75	344.34	293.05	242.57
225.0	590.41	569.20	532.17	485.00	426.85	366.46	308.14	254.58	210.01
240.0	590.41	565.12	519.86	462.26	397.92	335.47	277.52	228.66	184.83
255.0	590.41	559.97	512.55	445.72	382.31	318.28	261.20	211.52	170.43
270.0	590.41	560.26	507.54	441.92	374.05	310.50	255.98	206.07	166.71
285.0	590.41	558.55	510.81	446.10	377.96	314.52	257.57	207.75	198.10
300.0	590.41	563.79	518.03	457.53	442.78	330.04	271.33	222.87	177.65
315.0	590.41	558.50	520.03	466.53	412.95	348.52	294.40	242.51	197.10
330.0	590.41	569.39	536.38	494.26	442.49	387.11	329.84	276.89	230.08
345.0	590.41	571.56	541.61	504.18	459.63	413.63	362.31	310.90	258.76
360.0	590.41	585.47	572.07	548.62	515.65	476.68	433.39	386.23	338.18
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	289.43	243.50	196.60	157.72	119.81	86.57	56.33	32.00	11.46
15.0	340.90	290.88	242.90	198.32	156.94	120.20	88.64	59.03	33.44
30.0	322.50	267.01	221.36	176.51	140.44	107.23	77.87	52.01	30.79
45.0	289.54	238.23	193.03	154.75	121.68	94.81	69.82	47.81	28.31
60.0	261.59	213.09	172.06	139.30	110.68	86.57	64.97	45.89	27.72
75.0	248.46	201.05	162.39	131.41	107.03	83.63	64.31	44.89	27.10
90.0	242.08	195.78	158.23	130.07	105.79	83.85	63.63	45.22	27.35
105.0	246.20	202.07	163.62	132.67	107.12	84.74	65.25	45.85	27.98
120.0	262.52	213.70	174.87	139.26	113.82	88.38	66.80	46.84	29.40
135.0	285.07	234.51	190.61	153.02	121.12	94.11	71.09	49.41	30.12
150.0	322.44	268.78	222.69	177.32	141.78	108.95	80.27	55.29	32.92
165.0	350.85	298.99	250.29	203.66	161.81	126.45	91.28	63.41	37.97
180.0	284.84	237.77	193.42	152.96	114.52	82.78	54.84	28.83	11.11
195.0	225.52	183.78	141.69	108.17	76.60	48.96	25.32	8.29	1.61
210.0	197.10	156.46	121.46	91.03	64.00	41.53	20.50	7.61	1.43
225.0	166.97	133.90	104.15	78.54	55.45	35.05	17.16	5.93	1.17
240.0	148.21	118.15	92.60	70.01	49.67	31.86	16.20	5.04	1.26
255.0	139.18	110.73	88.15	66.93	47.33	28.63	14.36	11.56	1.17
270.0	135.12	109.13	86.11	80.88	45.76	28.16	13.18	3.07	1.26
285.0	136.55	109.47	86.28	65.07	46.57	28.70	13.90	3.52	1.26
300.0	144.03	114.63	89.90	67.61	47.47	29.31	14.20	3.87	1.17
315.0	155.95	124.76	98.10	71.98	51.27	31.72	15.55	4.62	1.07
330.0	183.90	147.47	113.64	84.60	58.63	35.81	17.95	5.05	0.90
345.0	214.48	172.09	133.49	101.02	68.64	43.11	21.02	6.22	0.90
360.0	289.43	243.50	196.60	157.72	119.81	86.57	56.33	32.00	11.46

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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	1.68	0.18	0.00	0.00	0.00	0.00	0.09	0.26	0.44
15.0	14.27	3.12	0.18	0.00	0.00	0.00	0.09	0.18	0.27
30.0	13.34	2.95	0.27	0.00	0.00	0.00	0.00	0.27	0.36
45.0	12.40	2.88	0.45	0.00	0.00	0.00	0.00	0.18	0.27
60.0	12.51	2.79	0.36	0.00	0.00	0.00	0.00	0.09	0.18
75.0	11.92	2.08	0.27	0.09	0.00	0.00	0.00	0.09	0.27
90.0	11.82	1.53	0.09	0.00	0.00	0.00	0.00	0.09	0.09
105.0	12.45	2.62	0.18	0.00	0.00	0.00	0.00	0.09	0.18
120.0	13.67	3.24	0.36	0.00	0.00	0.00	0.00	0.09	0.27
135.0	14.04	3.82	0.36	0.09	0.00	0.00	0.00	0.09	0.27
150.0	16.42	4.42	0.36	0.00	0.00	0.00	0.09	0.18	0.27
165.0	17.23	4.06	0.27	0.00	0.00	0.00	0.09	0.18	0.27
180.0	2.03	0.26	0.26	0.26	0.26	0.35	0.35	0.35	0.26
195.0	0.54	0.54	0.45	0.45	0.54	0.45	0.62	0.45	0.45
210.0	0.63	0.72	0.81	0.81	0.54	0.63	0.63	0.63	0.45
225.0	0.81	0.81	0.81	0.99	0.90	0.81	0.81	0.54	0.45
240.0	0.81	0.90	0.81	0.99	0.99	0.99	0.81	0.63	0.54
255.0	0.99	0.99	0.99	1.08	1.08	1.08	1.08	0.81	0.54
270.0	1.17	1.17	1.35	1.35	1.44	1.44	1.44	1.26	0.81
285.0	1.17	1.08	1.17	1.26	1.26	1.44	1.35	0.90	0.81
300.0	0.90	0.99	1.08	1.08	1.17	1.17	0.99	0.81	0.63
315.0	0.80	0.80	0.80	0.80	0.89	0.80	0.71	0.53	0.53
330.0	0.63	0.72	0.72	0.81	0.63	0.72	0.63	0.54	0.45
345.0	0.54	0.54	0.63	0.54	0.54	0.63	0.63	0.63	0.54
360.0	1.68	0.18	0.00	0.00	0.00	0.00	0.09	0.26	0.44
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.53	0.97	1.41	2.03	2.38	2.64	2.91	2.91	3.09
15.0	0.45	0.80	1.25	1.69	2.23	2.50	2.76	2.94	2.94
30.0	0.27	0.81	1.16	1.70	2.06	2.42	2.77	2.95	2.95
45.0	0.27	0.72	1.08	1.53	2.07	2.43	2.70	2.88	2.97
60.0	0.27	0.63	1.08	1.53	2.07	2.25	2.61	2.79	2.88
75.0	0.18	0.63	0.99	1.35	2.08	2.26	2.62	2.80	2.89
90.0	0.27	0.54	0.99	1.35	1.90	2.17	2.62	2.80	2.89
105.0	0.18	0.54	0.99	1.35	1.90	2.17	2.62	2.89	2.98
120.0	0.27	0.54	0.99	1.35	1.98	2.16	2.61	2.88	2.97
135.0	0.27	0.62	1.07	1.42	1.95	2.22	2.58	2.84	2.93
150.0	0.27	0.72	1.08	1.44	1.98	2.35	2.71	2.89	2.98
165.0	0.36	0.63	1.17	1.62	1.98	2.44	2.71	2.89	2.98
180.0	0.35	0.44	0.79	1.15	1.50	2.03	2.20	2.56	2.91
195.0	0.54	0.62	0.89	1.34	1.69	1.78	2.23	2.59	3.03
210.0	0.54	0.54	0.81	1.34	1.70	2.15	2.33	2.69	2.95
225.0	0.54	0.63	0.90	1.35	1.62	2.07	2.43	2.70	2.97
240.0	0.54	0.63	0.90	1.26	1.71	2.07	2.43	2.70	3.06
255.0	0.54	0.63	0.81	1.35	1.72	2.08	2.35	2.71	2.89
270.0	0.81	0.90	1.08	1.53	1.99	2.17	2.44	2.80	2.98
285.0	0.81	0.81	1.08	1.35	2.08	2.17	2.44	2.71	2.98
300.0	0.63	0.72	0.99	1.35	1.80	2.07	2.43	2.70	2.97
315.0	0.53	0.62	0.89	1.24	1.69	2.04	2.31	2.58	2.93
330.0	0.54	0.63	0.99	1.26	1.71	2.07	2.35	2.71	2.98
345.0	0.54	0.63	0.90	1.35	1.71	2.07	2.44	2.80	2.98
360.0	0.53	0.97	1.41	2.03	2.38	2.64	2.91	2.91	3.09

Intensity data(cd)

C/γ(°)	180.0
0.0	2.91
15.0	2.94
30.0	2.95
45.0	2.88
60.0	2.97
75.0	2.98
90.0	2.89
105.0	2.89
120.0	2.88
135.0	2.93
150.0	2.98
165.0	2.98
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	2.91