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乐达凯

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Client:

LumCAT: BRQP32LAJUDBK-3000K

Luminaire: LED LAMP

Report No:

Ballast type:

Test No: LCZP25120114

Voltage(V): 120.010

LampCAT:

Current(A): 0.237

Lamp flux(lm): 2513.1

Power (W): 28.150

Number of Lamps: 1

PF: 0.992

Length(mm): -60

Width(mm): -60

Phm Type: C

Height(mm): 600

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Photometric Results

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Lumens(lm): 2513.06, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 89.27

Central intensity(cd): 51.273, Maximum intensity(cd): 223.625

Angle of maximum intensity: C=90.0  $\gamma$ =100.0

Beam Angle(50%Imax): [C0/180]Total=329.0

[C90/270]Total=325.4

Field angle(10%Imax): [C0/180]Total=353.8

[C90/270]Total=356.0

Maximum s/h(1/2): C0\_180=3.46 C90\_270=3.45

Maximum s/h(1/4): C0\_180=3.33 C90\_270=3.33

Up flux rate of lamp(%): 50.47%

Down flux rate of lamp(%): 49.53%

Up flux rate of LUM(%): 50.47%

Down flux rate of LUM(%): 49.53%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 22.606%

## 乐达凯 BRQP32LAJUDBK-3000K

Zonal flux distribution table

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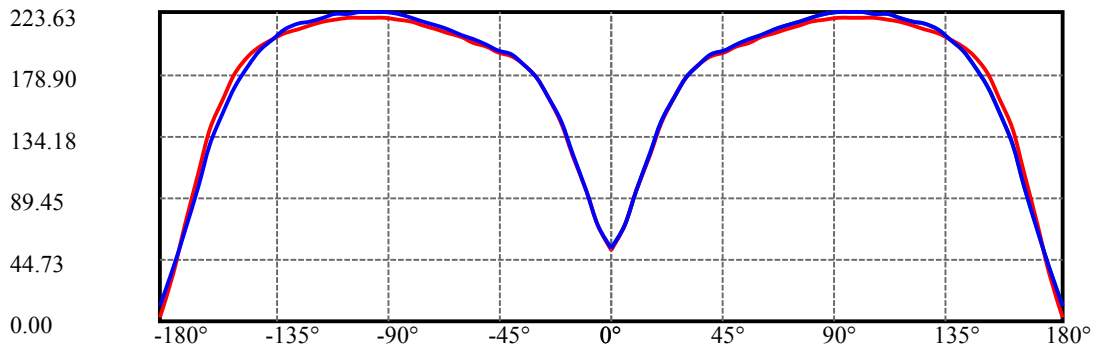
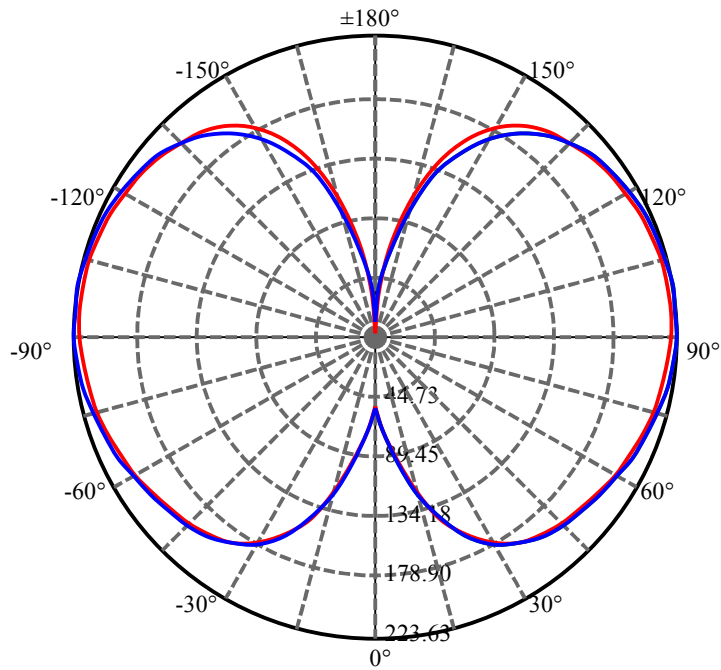
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	52.685	0.000	0	0.00%	0.00%
5.0	69.874	1.465	1.465	0.06%	0.06%
10.0	95.302	5.909	7.374	0.24%	0.29%
15.0	120.643	12.810	20.184	0.51%	0.80%
20.0	144.097	21.818	42.002	0.87%	1.67%
25.0	162.869	32.195	74.197	1.28%	2.95%
30.0	176.659	42.968	117.165	1.71%	4.66%
35.0	186.647	53.499	170.664	2.13%	6.79%
40.0	192.289	63.223	233.887	2.52%	9.31%
45.0	196.050	71.904	305.791	2.86%	12.17%
50.0	199.674	79.962	385.752	3.18%	15.35%
55.0	203.233	87.605	473.358	3.49%	18.84%
60.0	206.599	94.731	568.089	3.77%	22.61%
65.0	210.033	101.284	669.373	4.03%	26.64%
70.0	213.107	107.142	776.515	4.26%	30.90%
75.0	215.877	112.129	888.644	4.46%	35.36%
80.0	218.199	116.147	1004.791	4.62%	39.98%
85.0	220.134	119.106	1123.896	4.74%	44.72%
90.0	221.413	120.899	1244.795	4.81%	49.53%
95.0	222.016	121.414	1366.21	4.83%	54.36%
100.0	222.024	120.656	1486.866	4.80%	59.17%
105.0	221.417	118.652	1605.518	4.72%	63.89%
110.0	220.225	115.438	1720.957	4.59%	68.48%
115.0	218.468	111.080	1832.037	4.42%	72.90%
120.0	216.294	105.692	1937.728	4.21%	77.11%
125.0	213.365	99.314	2037.042	3.95%	81.06%
130.0	209.699	91.988	2129.031	3.66%	84.72%
135.0	204.834	83.762	2212.793	3.33%	88.05%
140.0	199.260	74.821	2287.614	2.98%	91.03%
145.0	189.576	64.874	2352.489	2.58%	93.61%
150.0	175.361	53.740	2406.228	2.14%	95.75%
155.0	157.481	42.121	2448.35	1.68%	97.43%
160.0	134.171	30.589	2478.939	1.22%	98.64%
165.0	102.785	19.528	2498.467	0.78%	99.42%
170.0	69.100	10.196	2508.663	0.41%	99.83%
175.0	37.772	3.823	2512.486	0.15%	99.98%
180.0	10.063	0.572	2513.058	0.02%	100.00%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	117.16	4.66%	4.66%
0-40	233.89	9.31%	9.31%
0-60	568.09	22.61%	22.61%
0-90	1244.80	49.53%	49.53%
0-120	1937.73	77.11%	77.11%
0-180	2513.06	100.00%	100.00%
60-90	676.71	26.93%	26.93%
90-120	692.93	27.57%	27.57%
90-130	884.24	35.19%	35.19%
90-150	1161.43	46.22%	46.22%
90-180	1267.69	50.44%	50.44%
0-123.66	2010.45	80.00%	80.00%

## ZONAL LUMEN SUMMARY

0-10	7.37
10-20	34.63
20-30	75.16
30-40	116.72
40-50	151.87
50-60	182.34
60-70	208.43
70-80	228.28
80-90	240.00
90-100	242.07
100-110	234.09
110-120	216.77
120-130	191.30
130-140	158.58
140-150	118.61
150-160	72.71
160-170	29.72
170-180	3.82



C90(Max): ——

C0/C180: ——

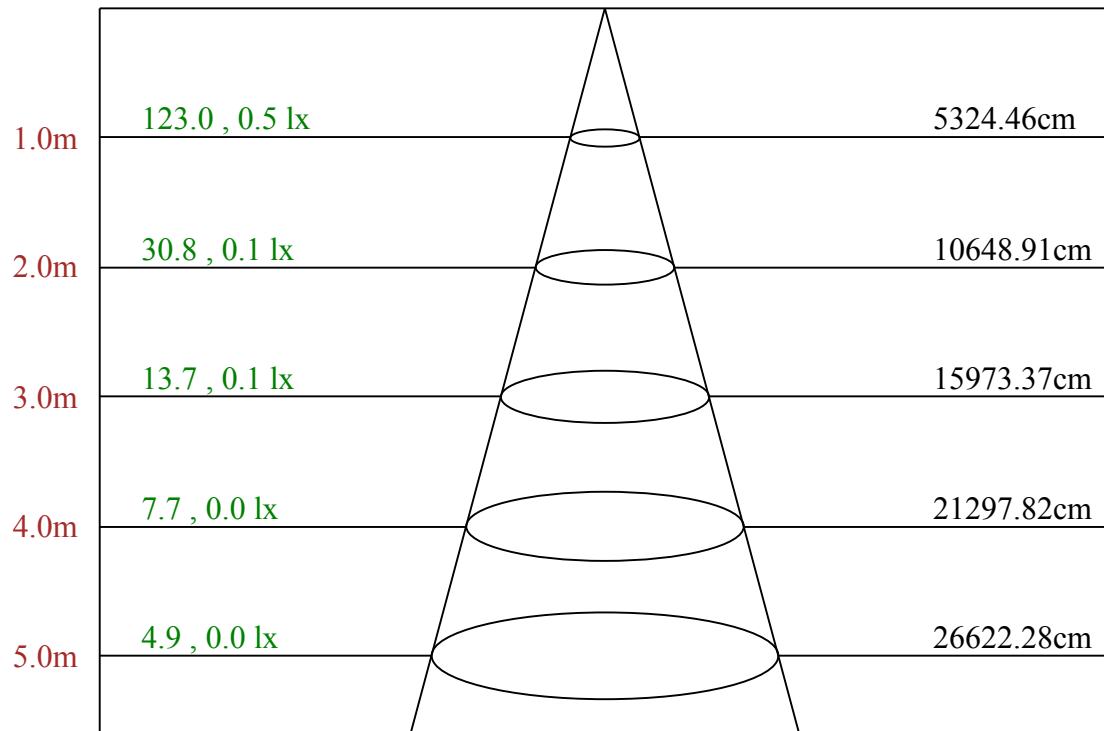
C90/C270: ——

Field angle(10%Imax):C0/180Left:271.9 Right:81.9

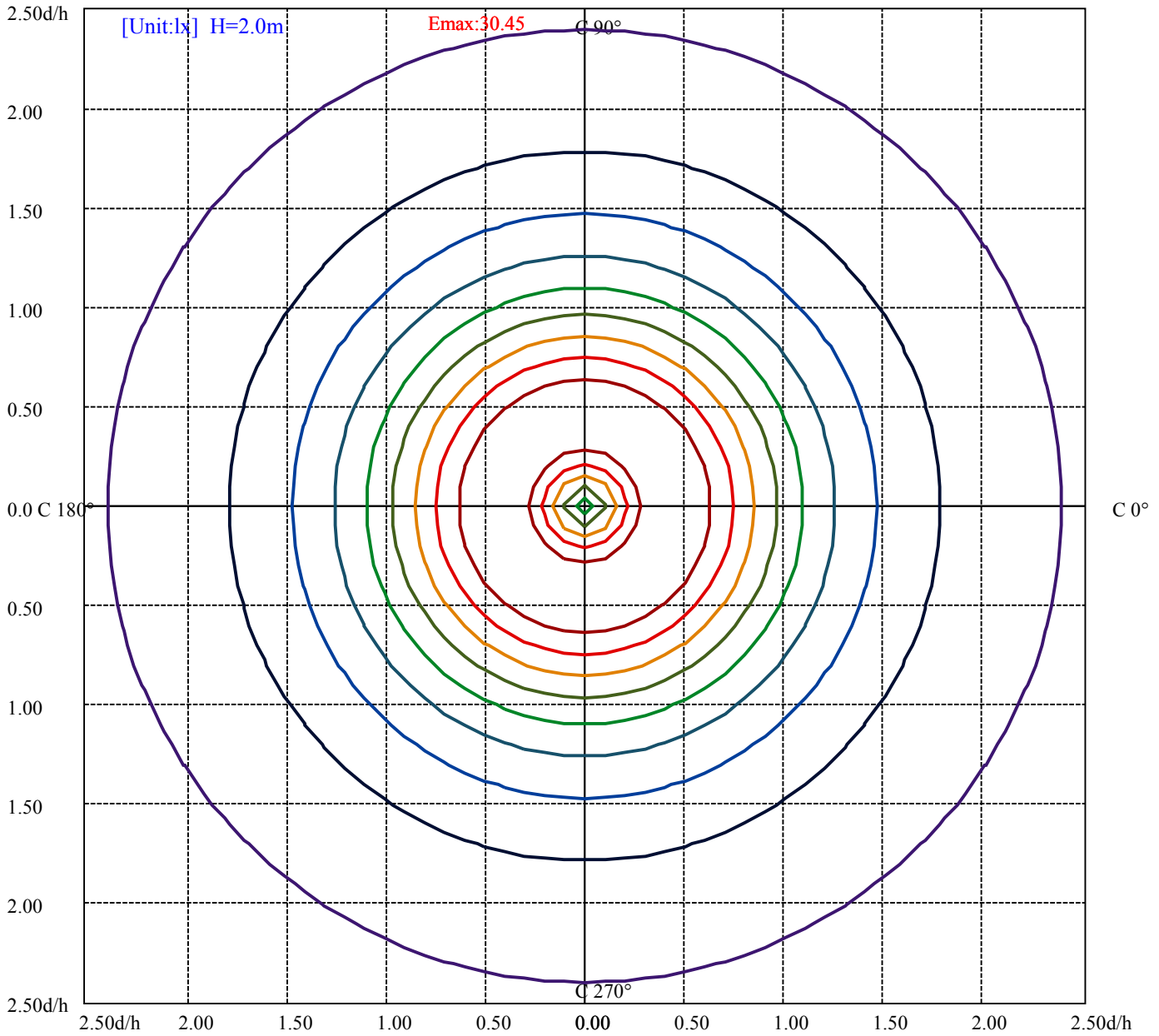
:C90/270Left:278.0 Right:78.0

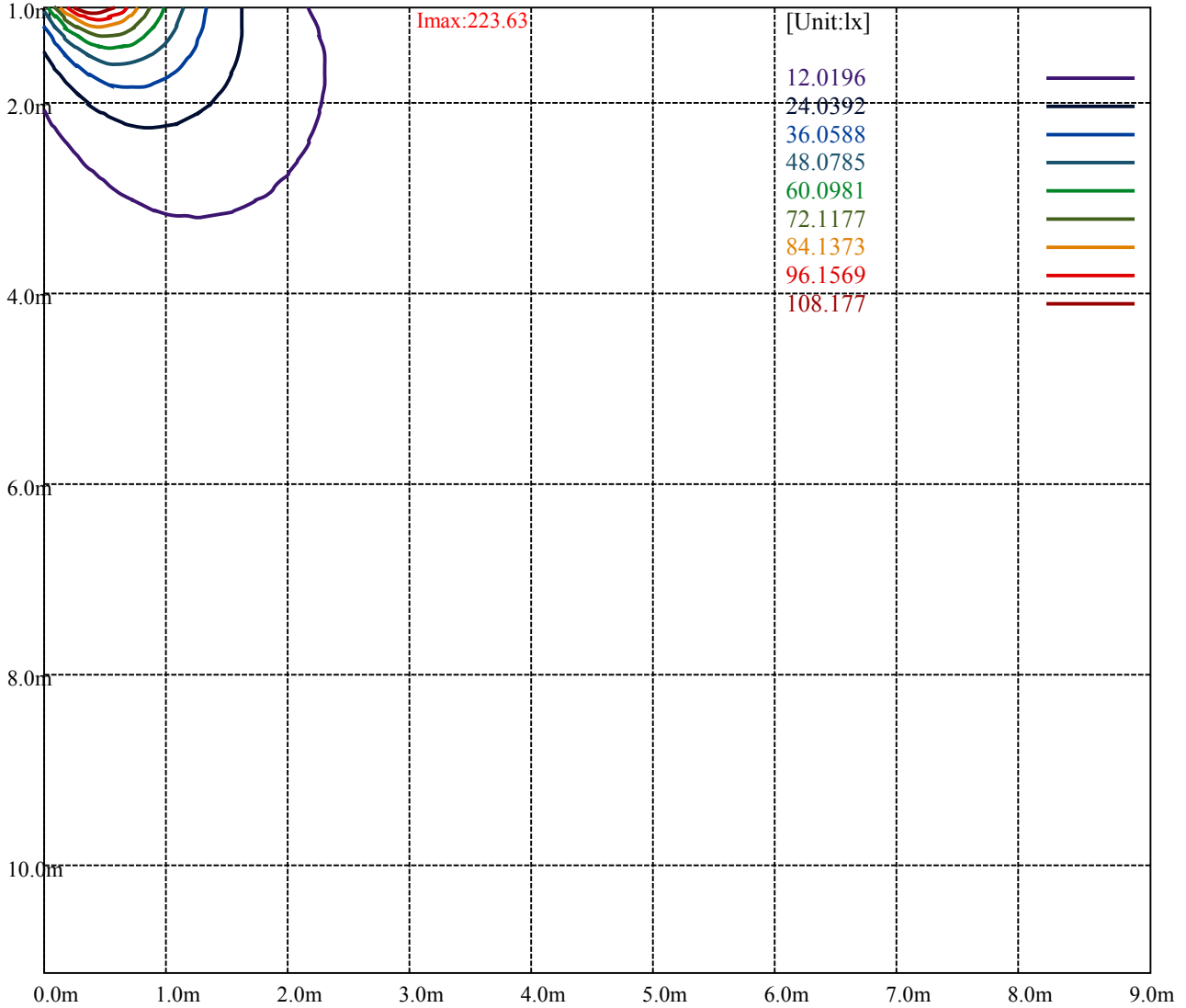
Beam Angle(50%Imax):C0/180Left:259.5 Right:69.5

:C90/270Left:262.7 Right:62.7



Max , Ave      Beam angle of C90 plane 175.70





# 乐达凯 BRQP32LAJUDBK-3000K

## Luminance Limiting Curve(no luminous side)

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Luminance Table

$\gamma$	45	50	55	60	65	70	75	80	85
C0	7090	6743	6478	6290	6155	6069	6023	6015	6037
C45	7143	6794	6534	6344	6205	6121	6078	6073	6095
C90	7158	6819	6559	6336	6240	6161	6120	6116	6143

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
174227	176628	175637	292207	296936	294883	884557	900079	893149

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	1.07	1.07	1.07	0.99	0.99	0.99	0.83	0.83	0.83	0.69	0.69	0.69	0.56	0.56	0.56	0.50
1	0.87	0.81	0.76	0.79	0.74	0.70	0.66	0.62	0.58	0.53	0.50	0.48	0.42	0.40	0.38	0.32
2	0.73	0.65	0.58	0.67	0.60	0.54	0.55	0.49	0.45	0.44	0.40	0.36	0.34	0.31	0.28	0.23
3	0.63	0.54	0.46	0.57	0.49	0.43	0.47	0.41	0.36	0.38	0.33	0.29	0.29	0.25	0.22	0.18
4	0.54	0.45	0.38	0.50	0.41	0.35	0.41	0.34	0.29	0.33	0.27	0.23	0.25	0.21	0.18	0.14
5	0.48	0.38	0.32	0.44	0.35	0.29	0.36	0.29	0.24	0.29	0.23	0.19	0.22	0.18	0.15	0.11
6	0.43	0.33	0.27	0.39	0.31	0.25	0.32	0.25	0.20	0.26	0.20	0.16	0.19	0.15	0.12	0.09
7	0.38	0.29	0.23	0.35	0.27	0.21	0.29	0.22	0.17	0.23	0.18	0.14	0.18	0.14	0.11	0.08
8	0.34	0.26	0.20	0.31	0.24	0.18	0.26	0.20	0.15	0.21	0.16	0.12	0.16	0.12	0.09	0.07
9	0.31	0.23	0.17	0.28	0.21	0.16	0.24	0.18	0.13	0.19	0.14	0.11	0.15	0.11	0.08	0.06
10	0.28	0.20	0.15	0.26	0.19	0.14	0.22	0.16	0.12	0.17	0.13	0.09	0.13	0.10	0.07	0.05

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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	51.27	65.66	88.89	114.11	138.06	158.10	172.58	183.24	189.06
15.0	50.54	65.75	90.52	116.12	140.43	159.47	175.04	185.15	191.25
30.0	50.18	66.66	92.07	116.75	141.25	161.56	176.31	186.88	192.89
45.0	50.91	66.21	91.89	118.12	142.80	163.11	177.13	188.24	194.89
60.0	50.91	66.76	92.71	117.76	142.80	163.47	178.50	189.61	196.35
75.0	51.82	65.66	91.89	118.48	143.44	164.20	179.14	189.70	196.90
90.0	52.18	65.75	90.62	118.76	142.62	163.75	178.95	190.07	197.62
105.0	53.46	64.11	90.52	117.30	142.71	162.93	179.05	190.07	197.81
120.0	53.82	63.75	90.16	115.66	142.44	162.38	177.95	189.70	196.99
135.0	56.56	62.11	88.34	115.21	140.61	162.11	176.86	188.97	196.08
150.0	54.82	61.11	87.16	114.02	156.00	160.38	175.95	187.52	195.35
165.0	55.74	60.84	86.79	113.38	137.52	159.92	174.58	186.24	194.25
180.0	51.27	74.13	100.18	125.77	148.72	166.30	179.32	188.70	193.44
195.0	50.54	74.31	100.18	124.13	148.26	164.75	177.86	187.42	192.25
210.0	50.18	73.49	98.90	124.13	146.72	164.20	177.13	185.88	191.16
225.0	50.91	73.95	97.72	123.95	145.44	163.65	176.04	185.15	189.88
240.0	50.91	73.49	98.45	122.95	145.44	162.56	174.86	184.60	188.97
255.0	51.82	73.22	99.09	123.58	144.80	161.83	174.67	183.96	188.61
270.0	52.18	74.50	99.09	123.31	145.53	162.20	174.86	183.51	188.06
285.0	53.46	74.77	100.36	123.49	145.53	162.56	174.95	183.51	185.42
300.0	53.82	76.32	101.82	124.86	130.23	163.11	175.49	183.87	188.24
315.0	56.56	77.41	101.91	126.22	147.17	164.47	176.13	184.87	188.61
330.0	54.82	77.77	103.82	127.14	148.99	165.48	177.59	185.60	189.70
345.0	55.74	79.23	104.19	130.23	150.81	166.39	178.86	187.06	191.16
360.0	51.27	65.66	88.89	114.11	138.06	158.10	172.58	183.24	189.06
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	192.16	195.53	198.63	201.81	204.91	207.73	210.19	212.65	214.38
15.0	194.80	198.08	201.54	204.55	208.10	211.10	213.84	216.20	218.02
30.0	196.90	200.17	203.73	207.37	211.10	214.38	216.75	219.57	221.21
45.0	198.81	202.63	206.64	210.47	213.65	216.84	219.94	222.49	224.58
60.0	200.54	204.27	208.46	212.47	216.29	219.75	222.85	225.31	227.50
75.0	201.27	205.55	209.92	213.93	217.75	221.12	224.49	226.95	229.04
90.0	201.63	206.19	210.10	214.11	218.12	221.67	224.95	227.68	229.86
105.0	201.54	205.73	209.92	213.74	217.66	221.12	224.31	226.95	229.23
120.0	201.09	205.27	209.37	213.11	216.84	220.03	223.31	225.95	228.13
135.0	200.17	204.18	208.10	211.83	215.38	218.84	221.85	224.76	226.77
150.0	199.26	203.18	206.82	210.37	214.11	217.39	220.57	222.94	225.13
165.0	197.62	201.45	205.09	208.74	212.29	215.66	218.48	220.94	223.12
180.0	197.17	200.90	204.45	208.19	211.47	214.65	217.48	219.75	221.58
195.0	195.89	199.45	203.18	206.64	209.65	212.74	215.47	218.02	219.85
210.0	194.53	197.99	201.54	204.64	208.01	211.10	213.74	215.84	217.66
225.0	193.44	196.71	199.90	203.27	206.09	209.28	212.01	214.38	216.11
240.0	192.34	195.71	198.99	202.27	205.37	208.37	210.65	213.20	214.84
255.0	191.98	195.26	198.17	201.63	204.73	207.46	210.19	210.65	214.29
270.0	191.43	194.71	197.99	198.90	204.00	207.10	209.65	212.01	213.74
285.0	191.25	194.71	197.72	200.90	203.91	206.55	209.19	211.19	212.56
300.0	191.52	194.80	197.90	201.09	204.00	206.46	208.74	210.83	212.47
315.0	192.07	195.35	198.44	201.45	204.36	207.00	209.37	211.47	212.92
330.0	193.16	196.35	199.63	202.54	205.64	208.10	210.47	212.47	214.02
345.0	194.62	197.99	201.36	204.36	207.37	210.10	212.56	214.56	216.20
360.0	192.16	195.53	198.63	201.81	204.91	207.73	210.19	212.65	214.38

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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	215.66	216.48	216.57	216.11	215.20	213.74	212.20	210.37	208.37
15.0	219.39	220.03	220.03	219.66	218.57	217.30	215.29	213.47	211.01
30.0	222.58	223.40	223.49	222.94	221.76	220.21	218.30	216.20	213.74
45.0	225.86	226.59	226.49	226.13	224.85	223.22	221.30	218.94	216.66
60.0	228.77	229.32	229.50	228.77	227.77	225.95	223.76	221.30	218.48
75.0	230.59	231.14	231.32	230.77	229.50	227.68	225.58	222.76	220.03
90.0	231.32	232.23	232.41	231.50	230.50	228.41	226.49	223.76	220.85
105.0	230.87	231.69	232.05	231.23	230.23	228.59	226.31	223.85	221.03
120.0	229.68	230.68	231.05	230.59	229.50	228.04	225.86	223.49	220.57
135.0	228.41	229.14	229.68	229.04	228.04	226.49	224.49	222.21	218.48
150.0	226.77	227.86	228.13	227.68	226.59	224.85	222.85	220.03	216.48
165.0	224.58	225.49	225.77	225.58	224.58	222.85	220.85	217.93	214.20
180.0	222.85	223.40	223.12	222.49	221.21	219.48	216.48	212.92	208.01
195.0	221.03	221.58	221.30	220.76	219.57	217.11	213.74	209.46	204.00
210.0	219.03	219.66	219.48	218.94	217.30	214.75	210.92	206.37	201.45
225.0	217.39	217.93	217.84	217.20	216.02	213.84	213.29	206.91	200.90
240.0	216.11	216.57	216.75	216.11	214.65	212.20	209.37	205.18	199.17
255.0	215.20	215.75	215.57	214.84	213.56	211.74	209.10	205.37	198.54
270.0	214.75	214.93	214.84	214.20	212.65	211.10	208.19	205.46	200.45
285.0	213.74	213.93	213.74	212.92	211.65	210.28	208.10	205.64	201.18
300.0	213.56	213.74	213.65	212.83	211.47	209.83	207.92	205.73	203.09
315.0	213.84	214.29	213.84	213.11	212.20	210.56	209.01	206.37	203.82
330.0	214.93	215.38	215.02	214.38	213.11	211.47	209.92	207.55	205.46
345.0	217.02	217.20	216.93	216.20	214.93	213.56	211.74	209.46	206.82
360.0	215.66	216.48	216.57	216.11	215.20	213.74	212.20	210.37	208.37

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	205.82	203.00	198.17	188.34	173.85	155.46	126.68	92.16	57.92
15.0	208.37	205.27	200.81	190.07	176.50	155.28	125.40	90.43	57.74
30.0	211.19	207.82	202.63	192.80	178.14	155.09	125.31	92.07	55.83
45.0	213.47	210.01	204.64	194.98	179.41	157.55	127.86	94.62	56.56
60.0	215.47	211.56	206.55	196.17	181.32	157.37	127.86	93.07	55.28
75.0	216.75	213.20	207.73	197.08	181.23	157.01	124.77	90.34	55.37
90.0	217.30	213.93	208.10	197.08	181.87	161.56	128.96	91.44	54.73
105.0	217.66	213.29	207.19	195.71	181.05	161.10	132.96	94.90	55.28
120.0	216.57	211.65	205.46	194.25	179.05	158.92	132.78	96.90	53.46
135.0	214.02	209.46	203.00	192.25	177.41	157.37	129.14	95.17	50.54
150.0	211.83	207.55	200.99	189.97	175.13	154.09	125.77	89.07	47.81
165.0	210.10	205.37	199.17	187.70	172.22	149.36	118.30	81.51	43.17
180.0	202.00	195.26	185.06	168.85	149.36	121.58	86.61	46.90	10.38
195.0	196.62	189.52	177.86	161.38	141.89	135.06	78.05	41.80	7.74
210.0	194.80	193.16	173.31	155.09	134.51	103.09	69.58	34.70	9.20
225.0	192.80	182.87	168.12	146.90	121.67	90.34	54.55	26.77	11.57
240.0	190.98	179.68	162.84	140.25	114.84	82.87	50.91	24.95	15.03
255.0	188.43	176.50	157.10	135.06	111.11	83.88	51.27	28.32	18.76
270.0	190.52	178.32	160.83	140.80	120.67	94.99	66.12	37.89	23.04
285.0	194.25	185.88	170.49	151.72	129.87	104.37	76.68	48.45	27.32
300.0	198.72	191.43	178.86	161.83	143.25	118.48	89.16	56.74	30.05
315.0	201.18	197.35	187.88	172.49	153.27	128.77	100.82	64.66	35.06
330.0	202.82	199.26	190.43	178.04	160.19	136.97	107.56	71.40	36.16
345.0	204.36	200.90	192.62	179.87	161.74	139.52	109.74	74.13	38.52
360.0	205.82	203.00	198.17	188.34	173.85	155.46	126.68	92.16	57.92

Intensity data(cd)

C/γ(°)	180.0
0.0	5.46
15.0	24.50
30.0	26.05
45.0	25.41
60.0	24.95
75.0	24.86
90.0	22.95
105.0	21.67
120.0	18.76
135.0	17.12
150.0	15.76
165.0	14.02
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	5.46