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乐达凯

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Client:

LumCAT: BWNS0514LAJUDBK-2700K

Luminaire: LED lamp

Report No:

Ballast type:

Test No: LCZP25060198

Voltage(V): 119.940

LampCAT:

Current(A): 0.134

Lamp flux(lm): 1510.9

Power (W): 15.810

Number of Lamps: 1

PF: 0.984

Length(mm): -60

Width(mm): -60

Phm Type: C

Height(mm): 340

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Photometric Results

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Lumens(lm): 1510.91, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 95.57

Central intensity(cd): 8.703, Maximum intensity(cd): 181.231

Angle of maximum intensity: C=30.0  $\gamma$ =90.0

Beam Angle(50%Imax): [C0/180]Total=296.2

[C90/270]Total=254.0

Field angle(10%Imax): [C0/180]Total=347.6

[C90/270]Total=319.1

Maximum s/h(1/2): C0\_180=6.64 C90\_270=6.56

Maximum s/h(1/4): C0\_180=6.14 C90\_270=6.07

Up flux rate of lamp(%): 48.32%

Down flux rate of lamp(%): 51.68%

Up flux rate of LUM(%): 48.32%

Down flux rate of LUM(%): 51.68%

CIE Type : General diffuse lighting

Output flux ratio in  $\pi$  solid angle : 20.034%

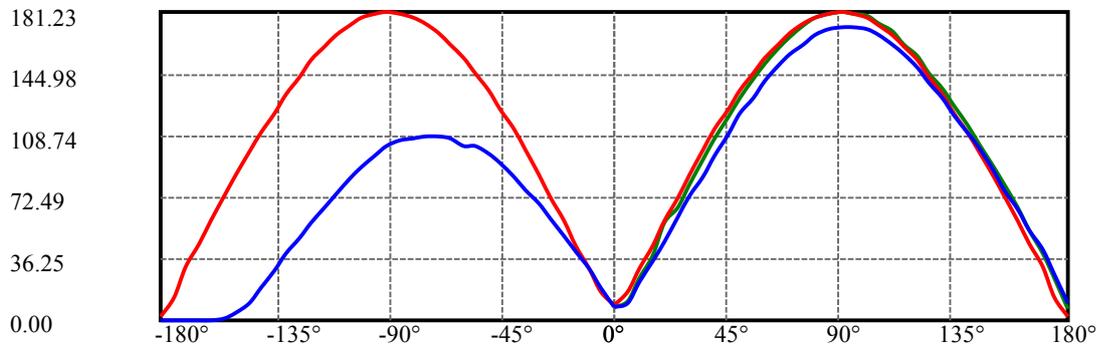
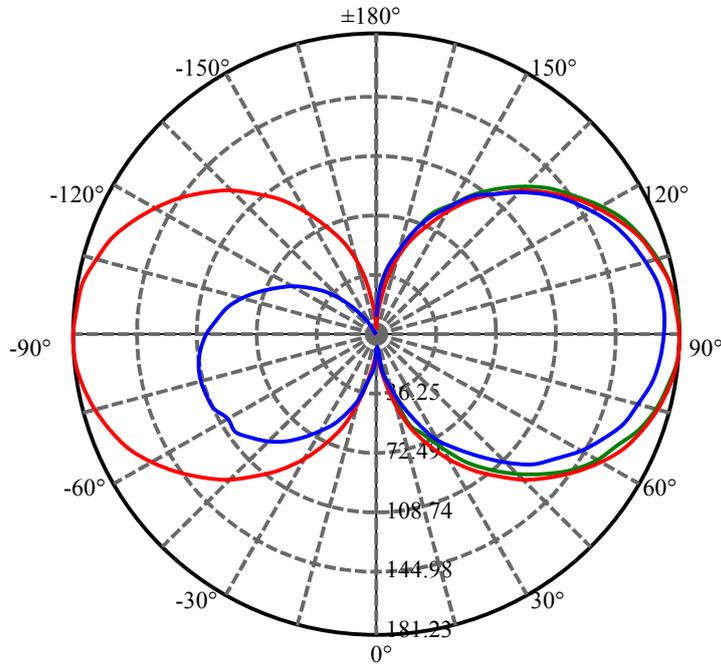
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	8.411	0.000	0	0.00%	0.00%
5.0	15.245	0.283	0.283	0.02%	0.02%
10.0	27.899	1.543	1.826	0.10%	0.12%
15.0	40.298	4.045	5.872	0.27%	0.39%
20.0	53.020	7.691	13.562	0.51%	0.90%
25.0	65.442	12.424	25.987	0.82%	1.72%
30.0	77.472	18.086	44.073	1.20%	2.92%
35.0	89.229	24.548	68.62	1.62%	4.54%
40.0	100.253	31.613	100.234	2.09%	6.63%
45.0	111.172	39.147	139.381	2.59%	9.22%
50.0	121.049	46.924	186.304	3.11%	12.33%
55.0	129.878	54.560	240.864	3.61%	15.94%
60.0	137.639	61.836	302.7	4.09%	20.03%
65.0	144.514	68.592	371.292	4.54%	24.57%
70.0	149.990	74.570	445.862	4.94%	29.51%
75.0	154.151	79.498	525.36	5.26%	34.77%
80.0	156.951	83.242	608.602	5.51%	40.28%
85.0	158.300	85.661	694.263	5.67%	45.95%
90.0	158.102	86.633	780.897	5.73%	51.68%
95.0	156.278	86.080	866.976	5.70%	57.38%
100.0	153.186	84.089	951.065	5.57%	62.95%
105.0	148.465	80.713	1031.779	5.34%	68.29%
110.0	142.547	76.066	1107.845	5.03%	73.32%
115.0	135.370	70.370	1178.215	4.66%	77.98%
120.0	127.497	63.903	1242.119	4.23%	82.21%
125.0	118.099	56.769	1298.887	3.76%	85.97%
130.0	108.279	49.222	1348.109	3.26%	89.22%
135.0	97.939	41.669	1389.779	2.76%	91.98%
140.0	87.673	34.368	1424.146	2.27%	94.26%
145.0	77.371	27.536	1451.683	1.82%	96.08%
150.0	66.186	21.140	1472.822	1.40%	97.48%
155.0	55.775	15.434	1488.257	1.02%	98.50%
160.0	45.786	10.652	1498.908	0.70%	99.21%
165.0	35.656	6.712	1505.62	0.44%	99.65%
170.0	25.476	3.626	1509.247	0.24%	99.89%
175.0	14.878	1.444	1510.69	0.10%	99.99%
180.0	3.832	0.224	1510.914	0.01%	100.00%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	44.07	2.92%	2.92%
0-40	100.23	6.63%	6.63%
0-60	302.70	20.03%	20.03%
0-90	780.90	51.68%	51.68%
0-120	1242.12	82.21%	82.21%
0-180	1510.91	100.00%	100.00%
60-90	478.20	31.65%	31.65%
90-120	461.22	30.53%	30.53%
90-130	567.21	37.54%	37.54%
90-150	691.93	45.80%	45.80%
90-180	729.79	48.30%	48.30%
0-117.39	1208.73	80.00%	80.00%

## ZONAL LUMEN SUMMARY

0-10	1.83
10-20	11.74
20-30	30.51
30-40	56.16
40-50	86.07
50-60	116.40
60-70	143.16
70-80	162.74
80-90	172.29
90-100	170.17
100-110	156.78
110-120	134.27
120-130	105.99
130-140	76.04
140-150	48.68
150-160	26.09
160-170	10.34
170-180	1.44



C30(Max): ——

C0/C180: ——

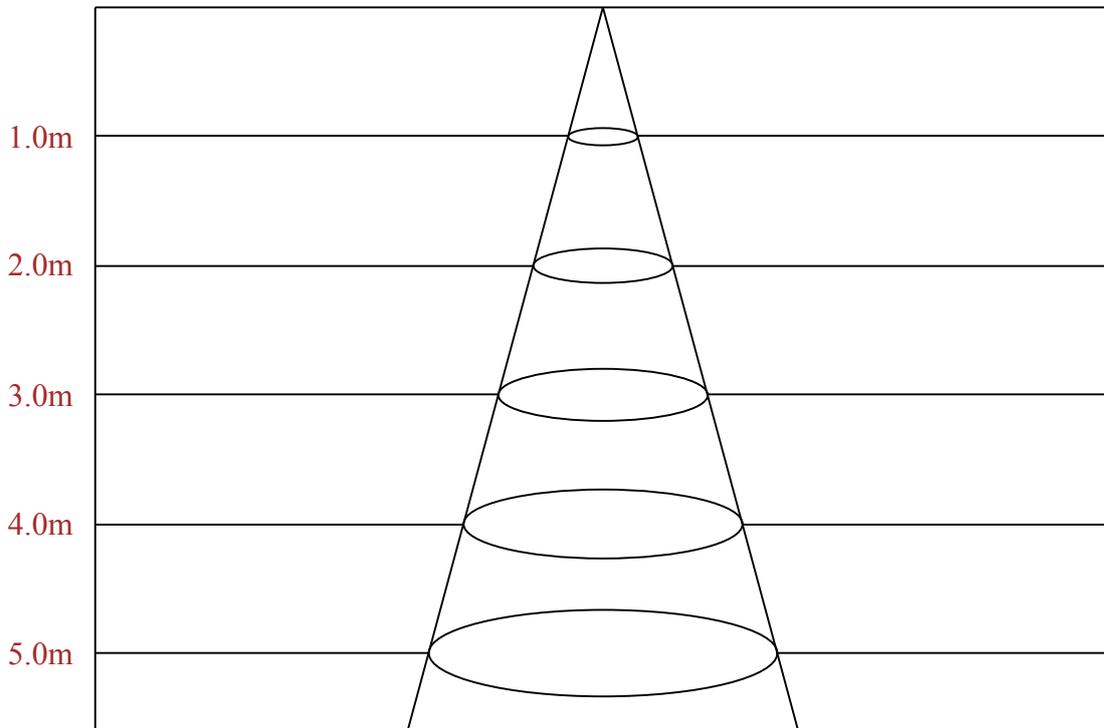
C90/C270: ——

Field angle(10%Imax):C0/180Left:263.8 Right:83.8

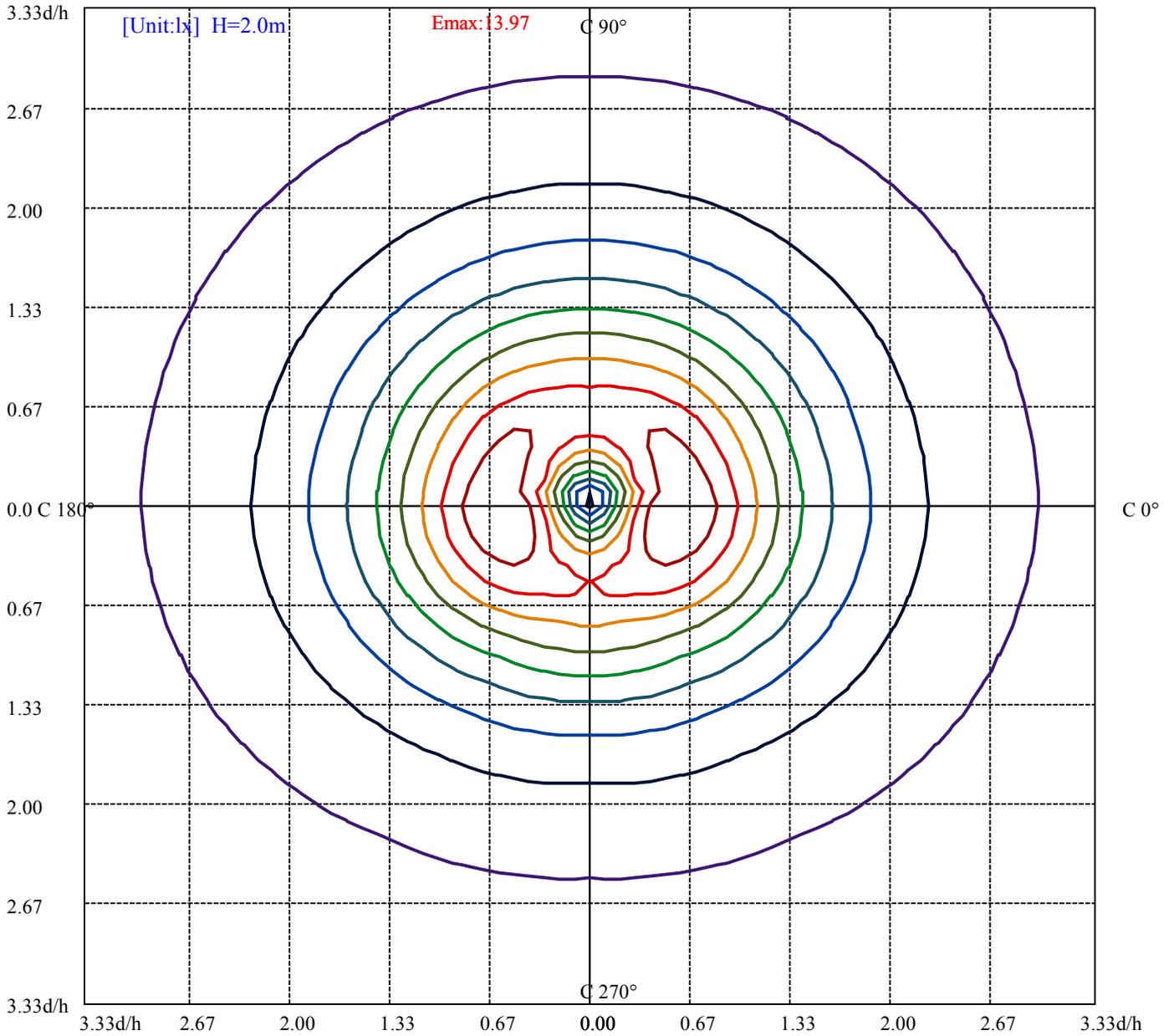
:C90/270Left:236.1 Right:83.0

Beam Angle(50%Imax):C0/180Left:238.1 Right:58.1

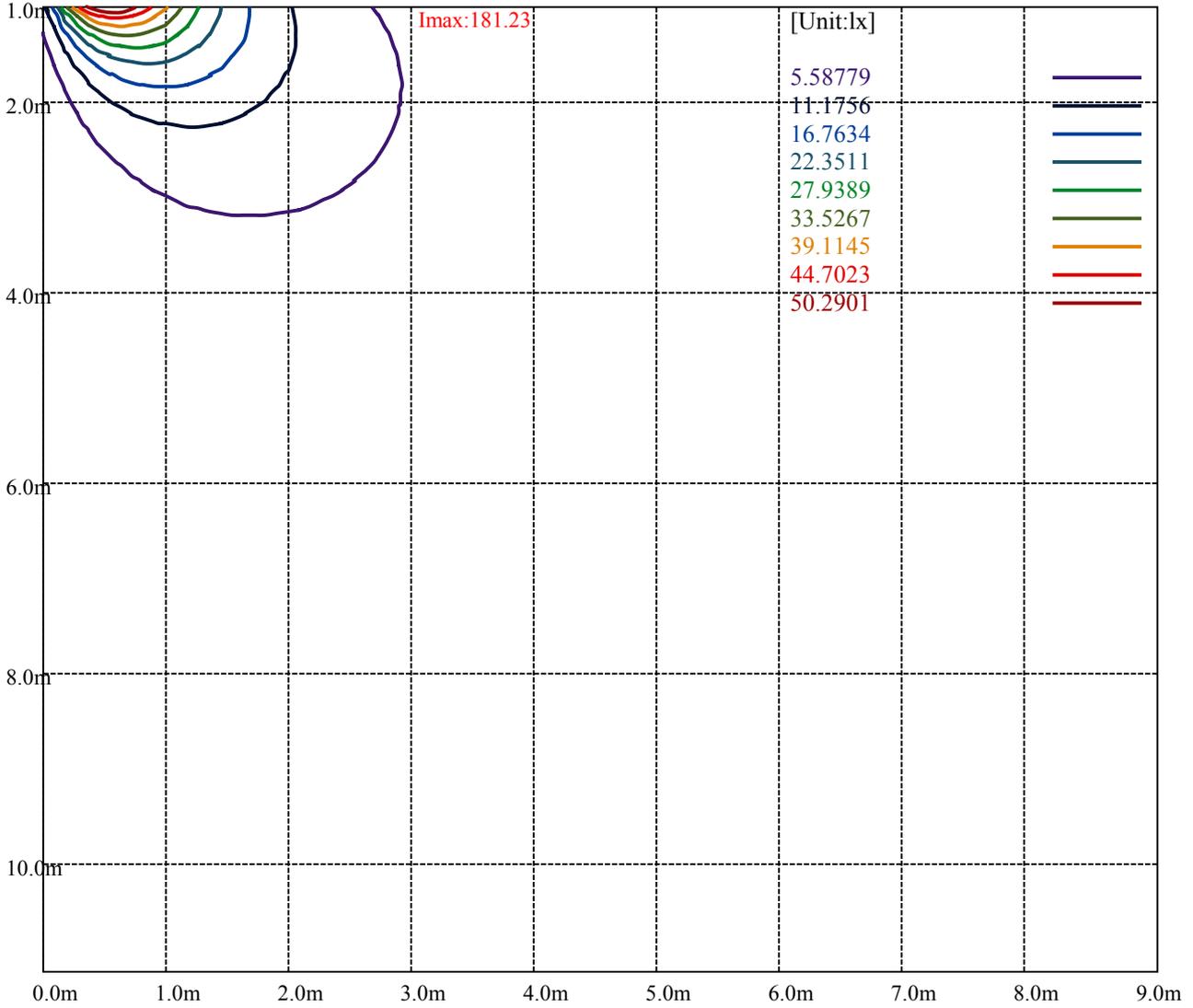
:C90/270Left:197.8 Right:56.2



Max , Ave      Beam angle of C30 plane 352.68



(10%Emax) 1.396945	—
(20%Emax) 2.7939	—
(30%Emax) 4.190825	—
(40%Emax) 5.587775	—
(50%Emax) 6.984725	—
(60%Emax) 8.381675	—
(70%Emax) 9.778625	—
(80%Emax) 11.17558	—
(90%Emax) 12.5725	—



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Luminance Limiting Curve(no luminous side)

Luminance Table

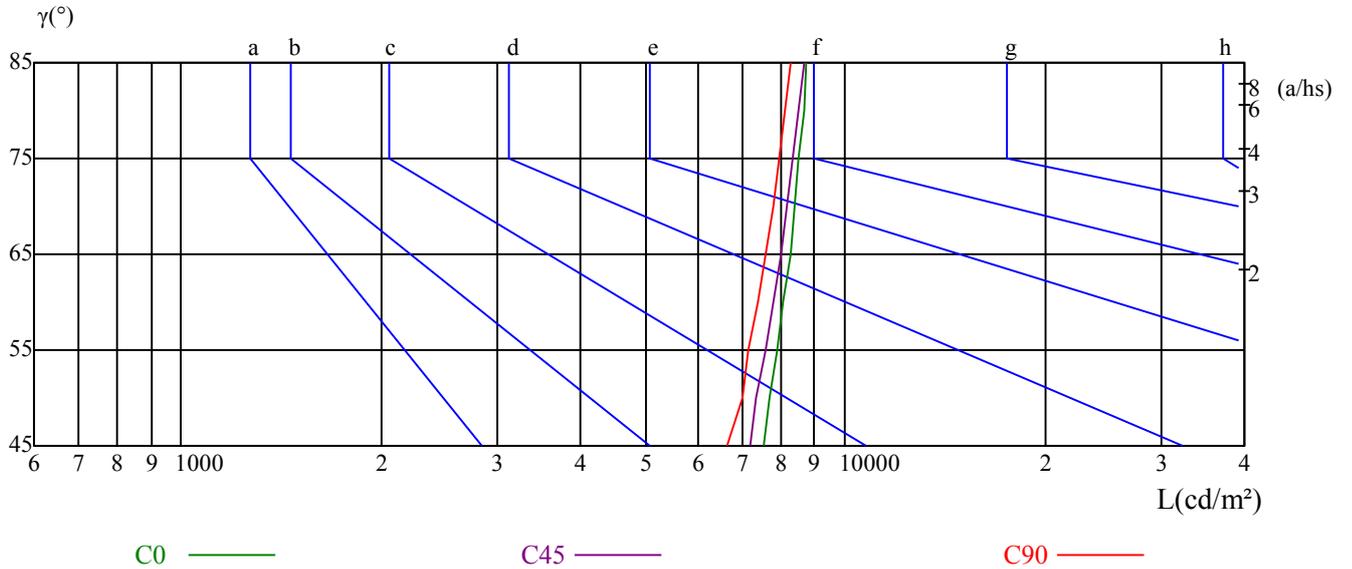
$\gamma$	45	50	55	60	65	70	75	80	85
C0	7549	7714	7906	8095	8261	8401	8539	8662	8772
C45	7197	7352	7586	7808	8004	8205	8356	8516	8660
C90	6659	7000	7145	7378	7598	7797	7950	8147	8301

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
136087	107443	120752	238458	185127	210382	732157	560131	642230

Glare Table

Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	$\leq 300$				
1.5	B		2000	1000	500	$\leq 300$			
1.85	C			2000	1000	500	$\leq 300$		
2.2	D				2000	1000	500	$\leq 300$	
2.55	E					2000	1000	500	$\leq 300$
		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	1.08	1.08	1.08	0.99	0.99	0.99	0.84	0.84	0.84	0.70	0.70	0.70	0.58	0.58	0.58	0.52
1	0.85	0.79	0.74	0.78	0.73	0.68	0.65	0.61	0.57	0.53	0.50	0.47	0.42	0.39	0.37	0.31
2	0.71	0.63	0.56	0.65	0.58	0.51	0.54	0.48	0.43	0.43	0.39	0.35	0.33	0.30	0.27	0.22
3	0.61	0.51	0.44	0.56	0.47	0.40	0.46	0.39	0.33	0.36	0.31	0.27	0.28	0.24	0.20	0.16
4	0.53	0.43	0.35	0.48	0.39	0.32	0.39	0.32	0.27	0.31	0.26	0.21	0.24	0.19	0.16	0.12
5	0.46	0.36	0.29	0.42	0.33	0.27	0.34	0.27	0.22	0.27	0.22	0.17	0.21	0.16	0.13	0.09
6	0.41	0.31	0.24	0.37	0.29	0.22	0.31	0.24	0.18	0.24	0.19	0.15	0.18	0.14	0.11	0.08
7	0.36	0.27	0.21	0.33	0.25	0.19	0.27	0.21	0.16	0.22	0.16	0.12	0.16	0.12	0.09	0.06
8	0.33	0.24	0.18	0.30	0.22	0.16	0.25	0.18	0.13	0.20	0.14	0.11	0.15	0.11	0.08	0.05
9	0.30	0.21	0.16	0.27	0.19	0.14	0.22	0.16	0.12	0.18	0.13	0.09	0.14	0.10	0.07	0.04
10	0.27	0.19	0.14	0.25	0.17	0.12	0.20	0.14	0.10	0.16	0.11	0.08	0.13	0.09	0.06	0.04

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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	8.70	11.21	24.13	38.13	51.68	66.03	80.48	93.76	105.06
15.0	9.33	9.96	23.60	37.41	51.05	64.33	77.97	92.05	105.69
30.0	9.06	9.33	22.25	35.08	48.90	62.35	77.34	90.62	101.92
45.0	9.33	8.07	21.26	34.63	47.82	61.64	74.74	88.37	100.22
60.0	8.88	8.16	21.35	33.46	46.38	59.21	73.30	86.49	98.42
75.0	8.34	7.98	20.72	32.66	45.31	58.68	71.86	84.42	96.63
90.0	8.34	9.69	22.34	34.45	46.12	60.38	72.67	84.87	96.99
105.0	8.25	11.13	23.42	35.89	48.90	62.35	75.36	86.94	100.22
120.0	7.72	12.20	25.30	37.14	52.22	64.78	78.14	90.88	103.89
135.0	10.14	12.92	26.47	40.19	54.46	68.19	81.64	96.00	108.38
150.0	6.55	13.91	27.09	41.18	66.03	69.98	83.26	97.43	111.97
165.0	6.28	15.16	28.62	42.53	55.80	70.79	84.07	98.42	112.06
180.0	8.70	21.80	36.07	49.79	65.40	78.68	91.51	105.51	119.24
195.0	9.33	22.16	36.43	49.26	63.43	77.70	89.99	101.65	113.85
210.0	9.06	21.71	34.90	48.00	61.01	72.85	84.34	95.28	106.41
225.0	9.33	21.53	32.93	45.58	56.79	67.38	78.05	87.92	97.34
240.0	8.88	20.64	32.21	43.33	53.65	63.97	72.49	81.91	89.63
255.0	8.34	20.28	31.40	41.36	51.32	61.19	70.97	78.95	86.85
270.0	8.34	19.20	30.24	40.28	49.97	59.66	68.37	76.71	84.96
285.0	8.25	18.57	29.88	39.83	49.79	60.29	69.17	77.43	79.04
300.0	7.72	18.48	29.79	40.55	43.06	61.55	70.16	78.41	87.56
315.0	10.14	18.03	29.97	41.63	53.11	64.33	74.47	84.69	94.47
330.0	6.55	17.23	30.06	42.26	54.82	66.57	78.41	89.81	100.84
345.0	6.28	16.51	29.16	42.53	55.45	67.74	80.57	92.95	104.43
360.0	8.70	11.21	24.13	38.13	51.68	66.03	80.48	93.76	105.06
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	116.99	127.76	138.26	147.86	156.29	162.93	168.85	172.98	175.67
15.0	116.81	127.85	138.61	148.12	157.19	164.18	170.02	174.41	177.28
30.0	115.02	126.32	138.26	146.87	155.66	163.11	169.21	173.52	176.57
45.0	113.94	123.99	134.76	144.63	152.88	160.69	166.43	171.00	173.87
60.0	110.53	124.26	132.42	142.29	150.91	158.35	164.63	168.76	171.81
75.0	108.47	120.13	131.35	140.95	149.65	156.56	162.75	167.59	170.64
90.0	109.37	122.11	130.99	140.77	149.56	157.01	162.48	167.68	170.73
105.0	111.88	125.34	134.49	144.36	152.97	159.97	166.16	170.64	173.69
120.0	116.54	128.30	139.69	148.84	157.37	164.90	171.09	175.22	178.18
135.0	122.47	132.51	143.37	153.33	162.21	169.75	175.13	179.53	182.40
150.0	123.00	134.85	145.70	155.84	163.65	171.09	176.74	181.32	183.83
165.0	122.91	134.58	145.07	154.94	162.93	170.02	175.67	179.62	182.13
180.0	130.99	141.40	151.62	161.04	168.94	175.40	180.15	183.56	185.18
195.0	125.34	135.74	145.61	153.87	160.69	166.43	170.55	173.52	174.68
210.0	116.90	125.87	134.40	141.58	147.59	152.52	156.02	157.81	158.44
225.0	105.24	113.67	119.95	126.05	131.08	134.76	137.09	138.26	137.54
240.0	96.90	103.62	109.10	113.67	116.99	119.59	120.58	119.86	118.34
255.0	94.38	99.95	105.06	108.20	110.98	112.42	112.42	112.06	109.64
270.0	92.23	97.79	102.19	102.73	107.21	108.29	108.47	107.39	105.33
285.0	92.86	99.05	104.16	108.47	111.25	113.13	113.58	113.22	111.79
300.0	94.92	102.19	108.11	113.49	117.53	120.04	121.75	122.11	121.39
315.0	103.53	111.97	119.59	125.96	130.99	134.31	137.18	138.44	139.24
330.0	111.52	120.13	128.84	136.37	142.92	147.86	151.71	154.14	155.12
345.0	115.38	125.78	135.47	143.10	150.91	156.47	160.95	164.18	165.71
360.0	116.99	127.76	138.26	147.86	156.29	162.93	168.85	172.98	175.67

Equipment: LC-I-902 GMS-2000  
Temperature(°C): 24.8

Date: 2025/7/22  
Humidity(%): 60.8%

Operator: JUN WANG  
Distance(m): 29.95

## 乐达凯 BWNS0514LAJUDBK-2700K

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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	176.92	176.39	174.32	170.91	165.80	159.07	151.18	142.38	132.42
15.0	178.45	178.36	176.03	172.89	167.59	161.13	153.51	144.72	135.03
30.0	178.00	177.64	175.85	172.80	167.59	160.95	153.33	144.63	134.85
45.0	175.40	175.22	173.25	169.93	164.90	158.26	150.91	141.93	132.33
60.0	173.43	173.34	171.63	168.31	163.29	157.01	149.47	140.41	130.90
75.0	172.17	171.99	170.37	167.32	162.21	156.20	148.66	140.50	130.90
90.0	172.08	172.08	170.55	167.23	162.57	156.47	148.84	140.14	130.54
105.0	175.13	174.77	172.71	169.21	164.54	158.08	150.46	141.40	131.62
120.0	179.17	178.81	176.74	173.16	167.41	160.78	152.61	143.37	132.96
135.0	183.11	182.13	179.89	176.03	170.46	163.29	154.67	145.97	135.65
150.0	184.46	183.65	181.41	176.92	171.72	164.09	156.38	146.87	136.55
165.0	183.11	182.31	179.80	175.76	170.29	163.65	155.30	146.51	135.92
180.0	185.45	183.83	180.87	176.21	170.55	162.48	154.05	144.36	133.68
195.0	174.41	172.80	169.12	164.45	158.35	151.00	142.47	132.60	122.82
210.0	157.28	154.41	150.73	145.34	139.24	131.53	122.91	113.49	103.27
225.0	135.30	131.98	127.13	121.48	115.11	107.03	104.70	88.82	79.04
240.0	115.47	110.98	109.28	98.15	90.53	82.45	73.75	64.51	55.27
255.0	106.59	101.29	94.56	87.74	79.22	70.88	61.64	52.04	42.17
270.0	102.10	96.36	90.08	82.99	74.82	66.39	57.42	48.54	38.94
285.0	109.19	104.61	99.23	93.04	86.31	78.23	70.34	61.55	52.31
300.0	119.33	116.01	111.61	106.14	99.77	92.59	84.78	76.26	67.92
315.0	137.36	134.58	130.45	125.34	119.50	112.06	103.71	94.38	84.42
330.0	154.67	152.70	149.11	144.27	137.99	130.18	121.93	111.43	101.83
345.0	165.89	164.45	161.76	157.55	151.35	145.07	136.91	127.58	117.35
360.0	176.92	176.39	174.32	170.91	165.80	159.07	151.18	142.38	132.42
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	122.11	110.80	99.32	86.22	73.48	59.66	46.74	33.64	19.65
15.0	124.44	112.69	102.37	89.18	77.70	64.51	52.40	37.77	25.03
30.0	125.70	114.30	104.16	91.78	79.76	68.10	54.64	41.09	27.18
45.0	122.02	112.87	102.10	89.90	79.13	66.03	54.01	42.08	27.45
60.0	121.21	111.43	101.74	89.18	77.43	66.12	54.55	41.36	27.90
75.0	120.31	109.73	101.20	88.64	76.89	65.67	54.01	40.82	28.26
90.0	120.22	110.17	100.84	88.91	77.07	65.40	52.93	41.36	27.36
105.0	121.39	110.80	100.93	88.91	77.52	64.96	52.84	40.10	26.83
120.0	123.00	110.71	102.10	90.26	77.34	64.96	53.56	39.83	25.57
135.0	124.53	113.04	103.36	91.33	78.59	66.21	52.49	39.30	23.87
150.0	125.52	115.29	102.91	90.71	79.58	65.23	51.41	38.13	22.88
165.0	125.25	113.49	101.11	88.82	78.23	64.06	49.88	36.78	22.34
180.0	121.84	109.10	98.33	84.51	72.40	57.78	43.87	29.97	7.90
195.0	110.71	99.41	88.37	75.45	62.71	59.84	37.95	23.15	0.63
210.0	92.50	89.72	70.79	58.41	48.09	36.96	27.54	14.00	0.54
225.0	69.80	60.20	50.96	40.82	32.30	23.33	15.79	4.40	0.54
240.0	45.13	36.52	28.80	21.35	15.43	9.42	4.49	0.45	0.45
255.0	32.39	22.61	14.35	8.16	4.93	2.60	0.90	0.45	0.54
270.0	29.25	19.29	10.23	4.13	1.61	0.36	0.36	0.45	0.54
285.0	42.80	33.73	24.49	16.06	8.52	4.04	2.60	0.54	0.63
300.0	58.86	49.35	39.39	30.15	18.84	13.55	10.50	8.79	4.67
315.0	74.47	63.25	53.83	43.78	32.75	24.85	19.74	13.46	9.24
330.0	90.35	80.12	70.34	59.66	48.09	37.14	26.56	19.20	12.74
345.0	106.76	95.55	84.87	72.13	60.20	48.09	35.98	24.31	14.35
360.0	122.11	110.80	99.32	86.22	73.48	59.66	46.74	33.64	19.65

Equipment: LC-I-902 GMS-2000  
Temperature(°C): 24.8

Date: 2025/7/22  
Humidity(%): 60.8%

Operator: JUN WANG  
Distance(m): 29.95

Intensity data(cd)

C/γ(°)	180.0
0.0	3.68
15.0	4.31
30.0	7.54
45.0	9.15
60.0	9.78
75.0	10.23
90.0	10.32
105.0	9.33
120.0	8.25
135.0	7.54
150.0	6.37
165.0	5.47
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	3.68