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乐达凯

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Client:

LumCAT: BLKW0724LAJUDBK 4000K

Luminaire: LED 灯具

Report No:

Ballast type:

Test No: LCZP24040387

Voltage(V): 120.060

LampCAT:

Current(A): 0.223

Lamp flux(lm): 2049.6

Power (W): 26.630

Number of Lamps: 1

PF: 0.994

Length(mm): 130

Width(mm): 130

Phm Type: C

Height(mm): 460

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Photometric Results

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Lumens(lm): 2049.62, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 76.97

Central intensity(cd): 7.455, Maximum intensity(cd): 504.070

Angle of maximum intensity: C=105.0  $\gamma$ =90.0

Beam Angle(50%Imax): [C0/180]Total=284.8

[C90/270]Total=106.9

Field angle(10%Imax): [C0/180]Total=330.9

[C90/270]Total=155.4

Maximum s/h(1/2): C0\_180=7.45 C90\_270=10.51

Maximum s/h(1/4): C0\_180=7.00 C90\_270=9.91

Up flux rate of lamp(%): 48.12%

Down flux rate of lamp(%): 51.88%

Up flux rate of LUM(%): 48.12%

Down flux rate of LUM(%): 51.88%

CIE Type : General diffuse lighting

Output flux ratio in  $\pi$  solid angle : 20.065%

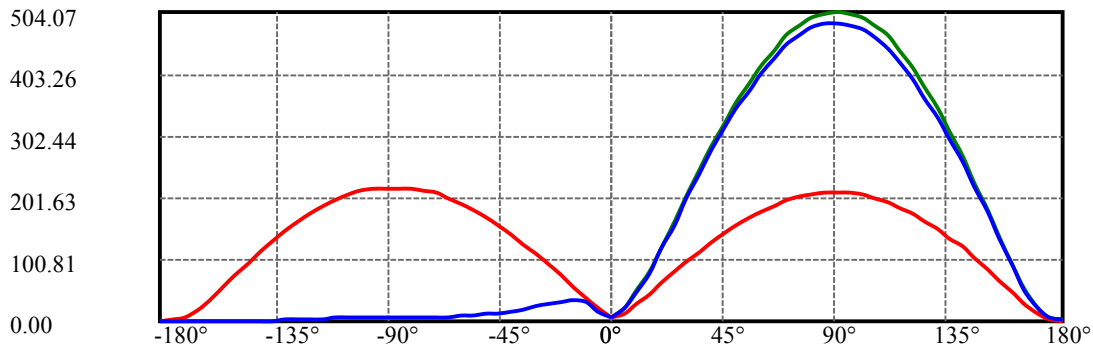
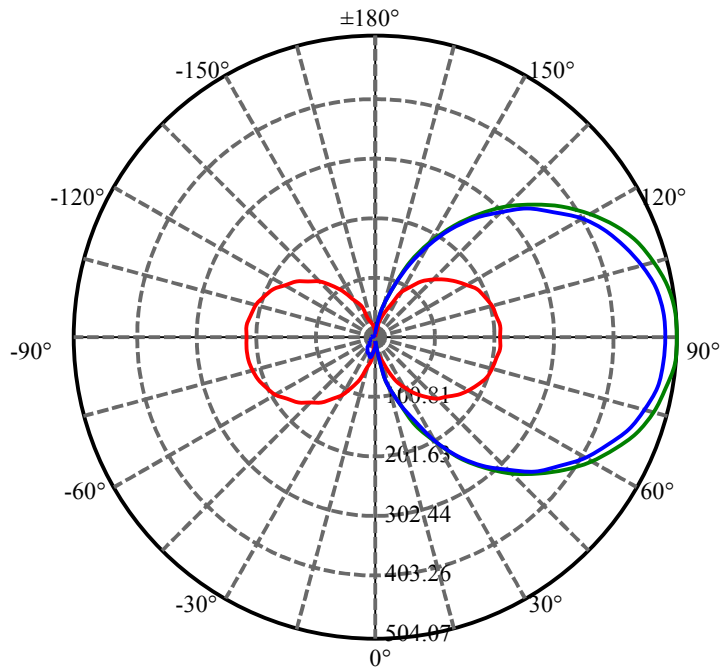
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7.335	0.000	0	0.00%	0.00%
5.0	19.143	0.317	0.317	0.02%	0.02%
10.0	39.427	2.095	2.412	0.10%	0.12%
15.0	56.725	5.704	8.115	0.28%	0.40%
20.0	73.978	10.772	18.887	0.53%	0.92%
25.0	89.745	17.172	36.059	0.84%	1.76%
30.0	105.808	24.747	60.806	1.21%	2.97%
35.0	121.658	33.496	94.302	1.63%	4.60%
40.0	136.687	43.103	137.405	2.10%	6.70%
45.0	150.456	53.167	190.572	2.59%	9.30%
50.0	163.484	63.436	254.008	3.10%	12.39%
55.0	175.321	73.668	327.676	3.59%	15.99%
60.0	186.231	83.572	411.247	4.08%	20.06%
65.0	195.572	92.817	504.064	4.53%	24.59%
70.0	203.929	101.156	605.221	4.94%	29.53%
75.0	210.254	108.261	713.481	5.28%	34.81%
80.0	214.678	113.700	827.181	5.55%	40.36%
85.0	216.889	117.267	944.448	5.72%	46.08%
90.0	217.380	118.906	1063.354	5.80%	51.88%
95.0	216.410	118.775	1182.13	5.79%	57.68%
100.0	213.199	116.735	1298.865	5.70%	63.37%
105.0	207.668	112.612	1411.477	5.49%	68.87%
110.0	199.816	106.510	1517.987	5.20%	74.06%
115.0	189.363	98.543	1616.529	4.81%	78.87%
120.0	177.451	89.173	1705.703	4.35%	83.22%
125.0	163.386	78.784	1784.486	3.84%	87.06%
130.0	148.622	67.841	1852.327	3.31%	90.37%
135.0	132.118	56.728	1909.055	2.77%	93.14%
140.0	114.625	45.687	1954.741	2.23%	95.37%
145.0	96.231	35.180	1989.921	1.72%	97.09%
150.0	76.646	25.457	2015.379	1.24%	98.33%
155.0	56.946	16.906	2032.285	0.82%	99.15%
160.0	38.421	10.002	2042.287	0.49%	99.64%
165.0	21.456	4.935	2047.222	0.24%	99.88%
170.0	9.832	1.856	2049.078	0.09%	99.97%
175.0	3.724	0.485	2049.563	0.02%	100.00%
180.0	1.123	0.058	2049.62	0.00%	100.00%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	60.81	2.97%	2.97%
0-40	137.41	6.70%	6.70%
0-60	411.25	20.06%	20.06%
0-90	1063.35	51.88%	51.88%
0-120	1705.70	83.22%	83.22%
0-180	2049.62	100.00%	100.00%
60-90	652.11	31.82%	31.82%
90-120	642.35	31.34%	31.34%
90-130	788.97	38.49%	38.49%
90-150	952.02	46.45%	46.45%
90-180	986.21	48.12%	48.12%
0-116.30	1639.70	80.00%	80.00%

## ZONAL LUMEN SUMMARY

0-10	2.41
10-20	16.48
20-30	41.92
30-40	76.60
40-50	116.60
50-60	157.24
60-70	193.97
70-80	221.96
80-90	236.17
90-100	235.51
100-110	219.12
110-120	187.72
120-130	146.62
130-140	102.41
140-150	60.64
150-160	26.91
160-170	6.79
170-180	0.48



C105(Max): ——

C0/C180: ——

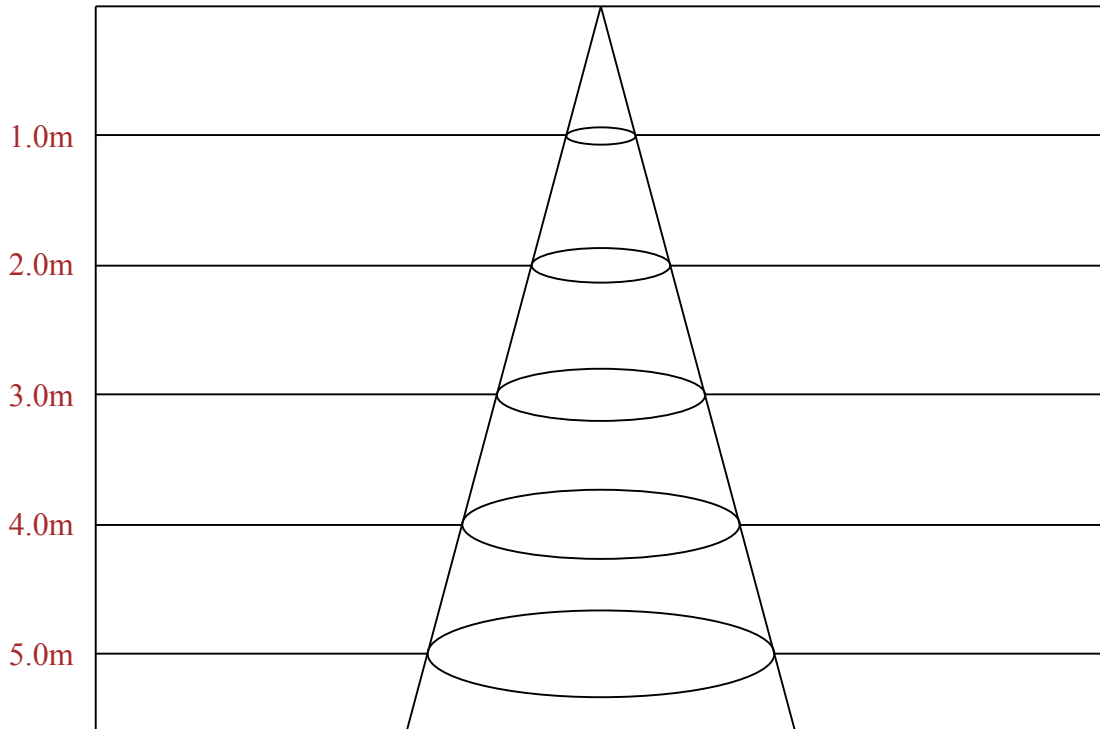
C90/C270: ——

Field angle(10%Imax):C0/180Left:79.0 Right:251.9

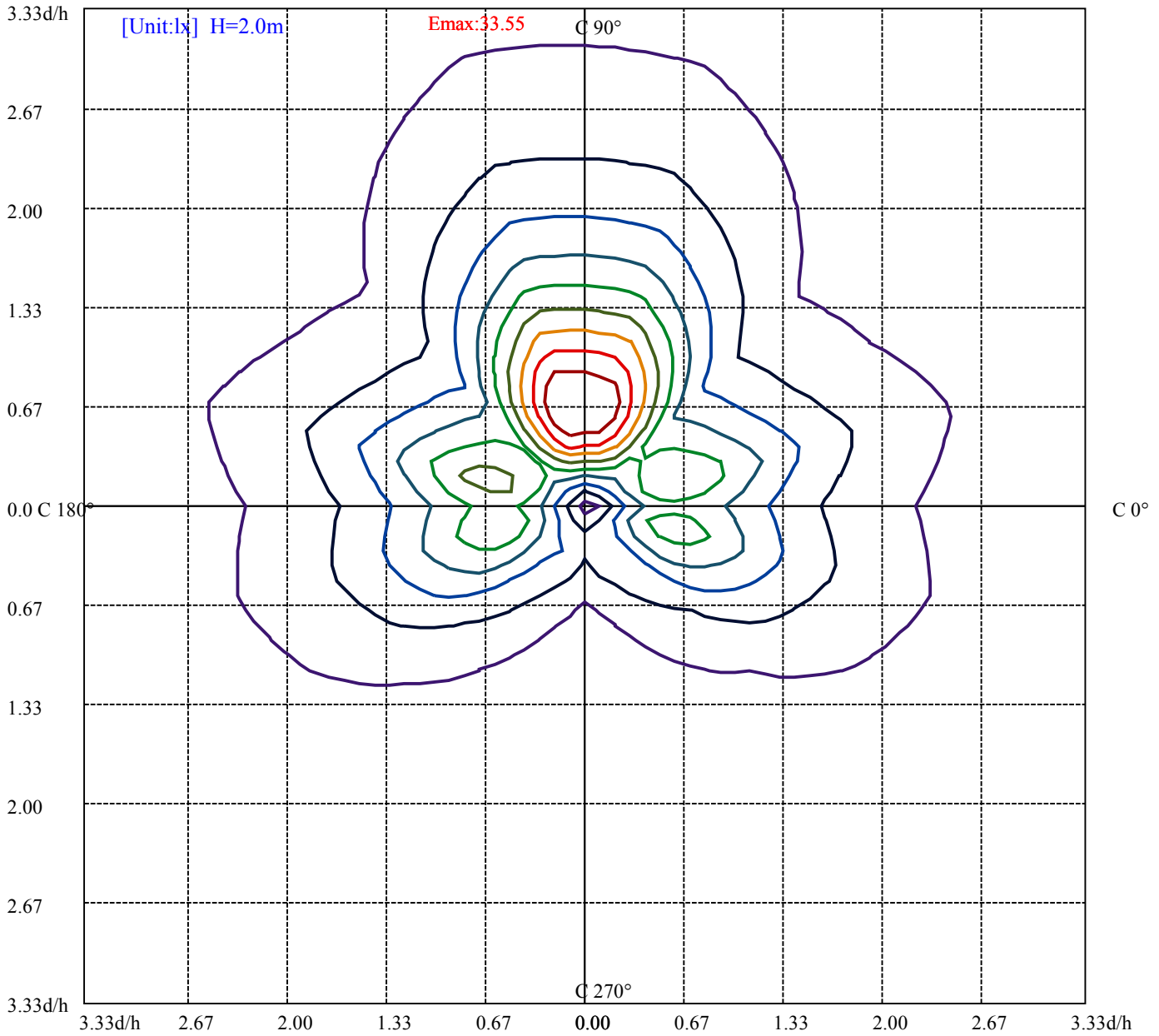
:C90/270Left:79.9 Right:75.5

Beam Angle(50%Imax):C0/180Left:56.3 Right:228.5

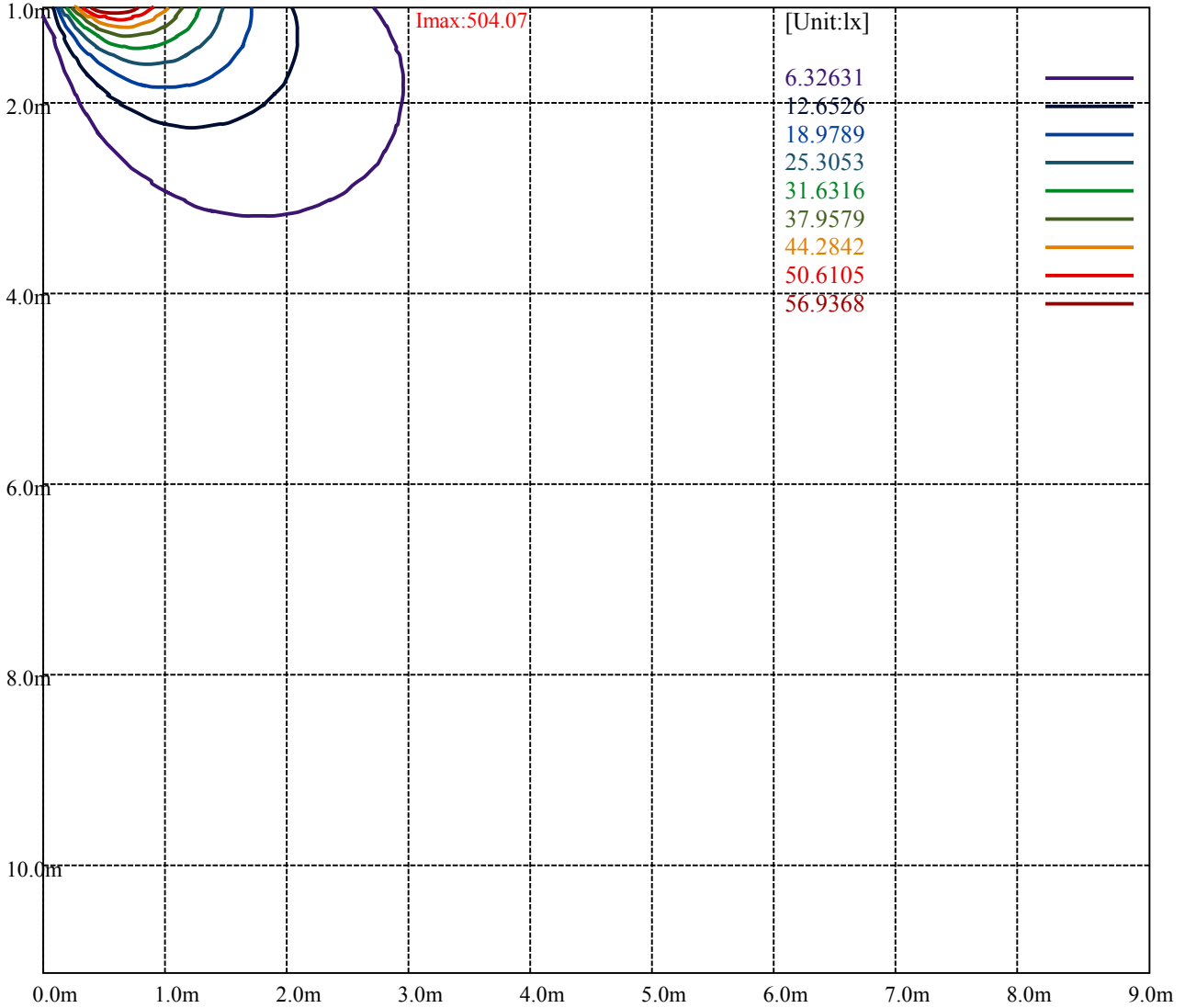
:C90/270Left:54.8 Right:52.1



Max , Ave      Beam angle of C105 plane 322.50



- (10%Emax) 3.355
- (20%Emax) 6.710025
- (30%Emax) 10.06503
- (40%Emax) 13.42002
- (50%Emax) 16.77505
- (60%Emax) 20.13005
- (70%Emax) 23.48507
- (80%Emax) 26.84
- (90%Emax) 30.195



# 乐达凯 BLKW0724LAJUDBK 4000K

## Luminance Limiting Curve(no luminous side)

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Luminance Table

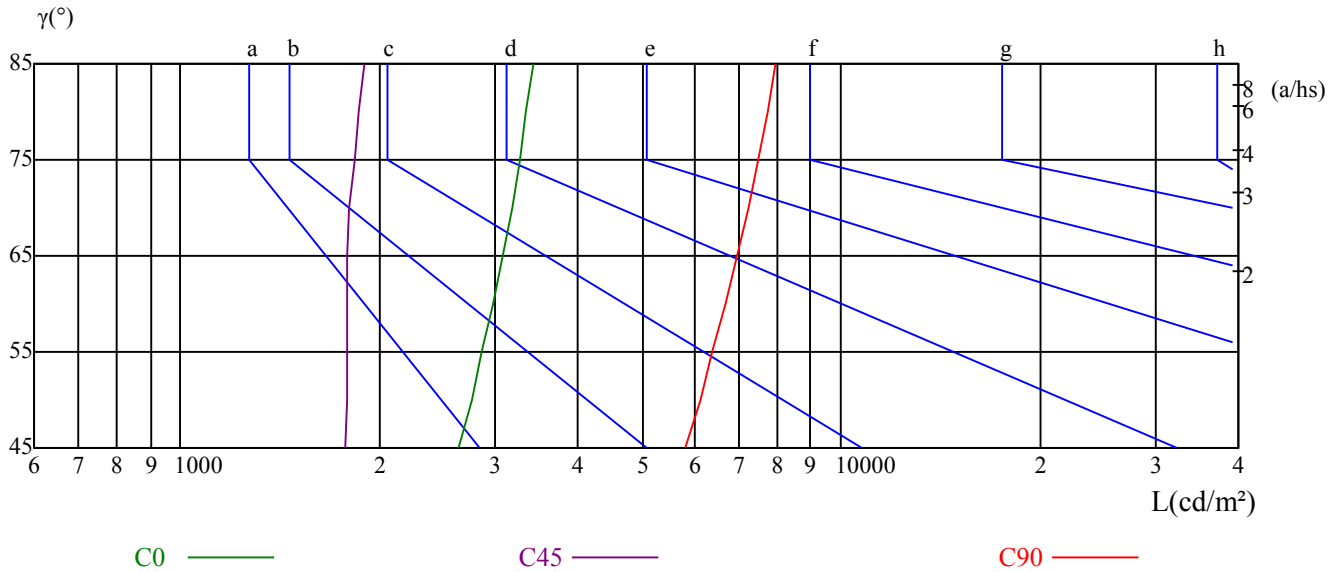
$\gamma$	45	50	55	60	65	70	75	80	85
C0	2642	2761	2864	2973	3082	3180	3264	3343	3417
C45	1781	1786	1788	1788	1791	1797	1834	1867	1893
C90	5803	6134	6401	6710	6975	7265	7510	7739	7941

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
27309	30390	17669	47559	54017	30566	144341	166538	92904

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



Equipment: LC-I-902 GMS-2000  
Temperature( $^{\circ}C$ ): 25.1

Date: 2024/5/27  
Humidity(%): 61.9%

Operator: JUN WANG  
Distance(m): 29.97



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	0.71	0.71	0.71	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	0.32
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	0.20	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	0.17	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	7.46	11.41	27.66	44.73	61.80	80.39	97.19	113.53	129.07
15.0	7.81	12.93	31.26	53.53	77.78	100.33	123.50	145.60	169.49
30.0	7.54	15.36	39.52	60.54	76.53	93.86	109.67	125.30	138.86
45.0	7.81	18.59	45.18	60.63	74.10	86.86	99.07	109.76	119.73
60.0	7.28	20.03	46.80	70.15	97.01	123.41	150.81	177.30	202.19
75.0	6.83	22.28	46.98	76.44	114.16	154.04	194.01	233.62	270.09
90.0	6.74	22.46	48.14	79.58	118.02	157.54	200.30	241.53	279.70
105.0	6.20	22.19	49.94	79.94	119.46	161.86	205.06	247.01	286.26
120.0	6.02	22.19	50.39	72.48	98.71	127.01	154.04	182.42	208.29
135.0	13.92	21.47	48.59	62.34	75.90	88.92	101.05	112.45	122.16
150.0	5.39	19.04	42.75	63.50	96.02	101.14	117.48	133.83	148.47
165.0	5.03	15.90	35.39	59.91	85.87	109.85	133.47	158.26	185.30
180.0	7.46	21.47	37.90	57.13	74.10	92.96	109.67	125.84	141.02
195.0	7.81	22.19	40.15	58.92	79.04	98.26	118.02	137.16	154.85
210.0	7.54	22.99	40.15	55.87	69.97	85.15	99.16	113.17	126.65
225.0	7.81	22.54	36.65	45.00	52.01	59.10	66.11	72.84	79.04
240.0	7.28	21.38	36.65	45.36	48.68	49.40	50.30	51.29	51.56
255.0	6.83	18.32	35.57	44.91	45.45	40.87	36.74	33.41	30.45
270.0	6.74	15.36	32.07	34.85	32.16	28.11	24.34	20.30	16.80
285.0	6.20	15.54	33.41	42.22	43.65	38.71	34.40	30.54	29.73
300.0	6.02	17.78	34.22	45.18	46.71	49.40	49.49	50.21	50.48
315.0	13.92	19.31	32.96	42.13	47.51	52.81	58.29	63.86	69.16
330.0	5.39	19.58	37.19	50.75	64.85	78.41	91.80	106.08	118.47
345.0	5.03	19.13	36.74	55.33	75.99	95.48	115.42	134.46	152.69
360.0	7.46	11.41	27.66	44.73	61.80	80.39	97.19	113.53	129.07
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	143.26	156.47	168.05	179.10	189.07	197.07	202.81	206.68	208.56
15.0	190.15	210.99	230.21	247.27	262.10	275.21	285.72	292.90	297.12
30.0	151.26	162.39	171.74	180.36	187.36	193.47	198.41	202.63	204.70
45.0	127.81	135.09	141.20	146.05	150.09	153.23	157.81	160.96	162.30
60.0	225.27	246.02	264.16	279.70	293.26	307.01	317.33	324.52	328.47
75.0	307.36	339.43	368.89	395.75	420.09	441.38	457.63	469.49	476.14
90.0	314.73	347.60	375.63	404.19	427.81	450.27	466.62	478.47	484.76
105.0	321.56	355.69	387.30	415.33	441.83	465.36	480.90	493.65	501.38
120.0	231.92	254.10	274.40	291.56	307.27	322.81	335.03	344.10	349.76
135.0	132.04	139.31	146.32	152.25	157.36	162.22	167.69	171.74	173.53
150.0	161.50	173.26	182.60	191.86	199.22	205.24	209.91	213.68	215.39
165.0	205.33	227.42	247.36	265.96	282.12	295.51	306.20	313.20	317.15
180.0	155.48	168.59	180.54	191.86	201.02	208.29	213.23	216.11	216.65
195.0	172.45	188.62	203.71	217.81	229.49	239.01	245.84	250.42	252.39
210.0	139.40	151.44	162.39	172.54	181.26	188.17	192.84	195.09	195.81
225.0	85.24	90.54	96.02	100.96	105.00	108.50	110.93	111.74	111.56
240.0	51.92	52.37	52.90	53.44	53.80	54.16	54.79	54.97	54.70
255.0	28.83	28.29	28.47	28.56	28.83	29.28	29.55	29.64	29.55
270.0	13.83	11.86	10.42	10.15	6.29	5.93	5.93	5.93	5.84
285.0	25.69	24.97	24.97	25.15	25.51	26.05	26.50	26.77	26.95
300.0	50.75	51.38	52.10	52.90	53.26	53.89	54.25	54.70	54.43
315.0	74.19	79.13	83.71	88.56	92.34	95.93	98.35	99.70	99.97
330.0	130.96	142.81	153.59	163.65	172.90	180.00	184.76	187.72	188.89
345.0	170.03	185.84	201.02	214.58	226.44	236.32	243.05	247.45	249.34
360.0	143.26	156.47	168.05	179.10	189.07	197.07	202.81	206.68	208.56

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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	208.38	208.29	206.14	201.74	195.09	186.20	176.32	164.19	150.63
15.0	298.65	297.75	293.89	285.90	275.75	262.10	245.39	226.80	207.13
30.0	205.42	205.33	202.99	198.86	192.30	183.41	173.35	160.78	148.11
45.0	162.13	161.86	160.15	156.74	151.35	143.98	135.72	126.02	115.06
60.0	329.37	327.66	322.81	314.46	302.15	285.72	266.77	246.29	223.02
75.0	477.93	474.25	465.72	453.59	435.63	411.83	384.52	353.89	322.36
90.0	485.75	482.78	475.24	463.11	445.33	422.06	395.84	364.22	333.05
105.0	504.07	502.27	495.00	482.69	466.26	442.36	413.44	381.92	346.80
120.0	351.65	351.20	346.35	338.98	326.95	310.69	291.38	270.54	246.83
135.0	173.80	173.98	172.36	168.77	162.66	155.48	146.59	135.81	124.85
150.0	215.57	214.13	211.17	205.33	198.05	188.08	177.04	163.02	149.37
165.0	318.23	316.62	311.32	302.87	290.93	276.74	258.59	237.84	214.94
180.0	216.65	215.39	211.80	206.41	198.50	188.08	175.60	161.50	146.32
195.0	252.93	251.05	245.84	238.47	228.86	214.85	200.39	182.96	164.19
210.0	195.45	193.92	190.78	184.85	176.95	166.89	155.03	141.74	128.53
225.0	111.02	110.48	108.77	105.45	101.05	94.85	93.41	81.20	73.38
240.0	54.34	54.07	53.89	51.74	49.58	47.16	44.28	40.96	37.37
255.0	29.64	29.28	28.38	27.13	25.33	23.35	21.02	18.41	15.99
270.0	5.93	5.75	5.57	5.30	4.76	4.22	3.50	2.87	2.07
285.0	27.22	26.95	26.41	25.42	24.07	22.28	20.21	17.87	15.72
300.0	54.16	54.07	53.26	51.83	49.85	47.51	44.64	41.32	37.81
315.0	99.97	100.51	99.70	97.54	93.86	89.01	83.44	77.16	70.24
330.0	188.98	188.26	185.75	180.72	173.80	164.28	153.41	141.11	128.53
345.0	249.88	247.99	243.50	236.14	226.53	213.59	198.95	182.87	164.64
360.0	208.38	208.29	206.14	201.74	195.09	186.20	176.32	164.19	150.63

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	135.99	120.99	102.84	84.79	65.30	45.54	27.13	13.11	3.95
15.0	184.58	160.87	135.27	108.50	82.63	55.33	33.32	15.72	5.39
30.0	133.56	117.75	100.60	82.81	63.32	44.10	26.86	14.37	5.93
45.0	103.74	90.72	77.60	63.05	48.95	33.86	21.74	12.04	5.93
60.0	197.87	170.75	143.62	113.80	85.42	57.31	32.96	15.99	6.29
75.0	284.37	247.10	206.14	164.46	122.60	83.62	45.90	21.38	6.38
90.0	296.77	258.68	220.24	177.30	134.37	90.72	51.65	22.54	6.92
105.0	308.44	270.00	226.71	182.42	137.07	92.07	53.89	23.08	6.65
120.0	219.97	191.32	162.93	129.43	97.90	65.84	37.72	16.80	6.47
135.0	111.20	98.17	83.17	67.28	51.11	36.02	21.65	11.68	5.75
150.0	133.56	116.59	97.90	79.40	59.46	40.42	23.53	11.59	5.21
165.0	191.50	164.10	137.69	108.50	79.58	52.45	30.36	12.93	4.67
180.0	130.87	113.26	94.31	74.64	54.97	34.40	18.32	6.47	1.98
195.0	144.43	122.51	100.60	77.16	53.62	48.59	16.44	5.66	1.62
210.0	112.81	95.39	78.59	60.09	41.68	25.24	12.84	4.49	1.71
225.0	64.49	54.97	45.09	35.12	24.61	14.64	6.92	2.96	1.53
240.0	33.59	28.92	24.25	18.86	12.84	7.19	3.95	2.25	1.35
255.0	13.29	10.78	8.53	6.29	4.58	3.05	2.07	1.53	1.17
270.0	1.53	1.26	1.17	0.90	0.81	0.81	0.81	0.99	1.26
285.0	13.29	11.05	8.89	6.92	4.85	3.32	2.25	1.62	1.35
300.0	34.13	29.73	25.15	19.85	13.83	7.99	4.31	2.60	1.71
315.0	62.42	53.98	45.27	35.21	25.87	16.08	8.26	3.68	1.98
330.0	113.26	98.08	81.11	62.96	44.55	28.38	14.19	5.57	2.07
345.0	145.15	124.04	101.86	79.76	56.77	35.12	17.87	6.92	2.16
360.0	135.99	120.99	102.84	84.79	65.30	45.54	27.13	13.11	3.95

Intensity data(cd)

C/γ(°)	180.0
0.0	1.44
15.0	1.44
30.0	2.07
45.0	2.34
60.0	2.60
75.0	2.69
90.0	2.78
105.0	2.51
120.0	2.51
135.0	2.34
150.0	2.16
165.0	2.07
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	1.44