
乐达凯

Client:

LumCAT: BWNS0514LAJUDBK-3000K

Luminaire: LED lamp

Report No:

Ballast type:

Test No: LCZP25060198

Voltage(V): 120.050

LampCAT:

Current(A): 0.130

Lamp flux(lm): 1580.9

Power (W): 15.290

Number of Lamps: 1

PF: 0.983

Length(mm): -60

Width(mm): -60

Phm Type: C

Height(mm): 340

Photometric Results

Lumens(lm): 1580.87, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 103.39

Central intensity(cd): 7.447, Maximum intensity(cd): 190.248

Angle of maximum intensity: C=30.0 γ =90.0

Beam Angle(50%Imax): [C0/180]Total=296.0

[C90/270]Total=253.1

Field angle(10%Imax): [C0/180]Total=346.8

[C90/270]Total=318.2

Maximum s/h(1/2): C0_180=7.09 C90_270=6.77

Maximum s/h(1/4): C0_180=6.62 C90_270=6.29

Up flux rate of lamp(%): 48.28%

Down flux rate of lamp(%): 51.72%

Up flux rate of LUM(%): 48.28%

Down flux rate of LUM(%): 51.72%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 20.048%

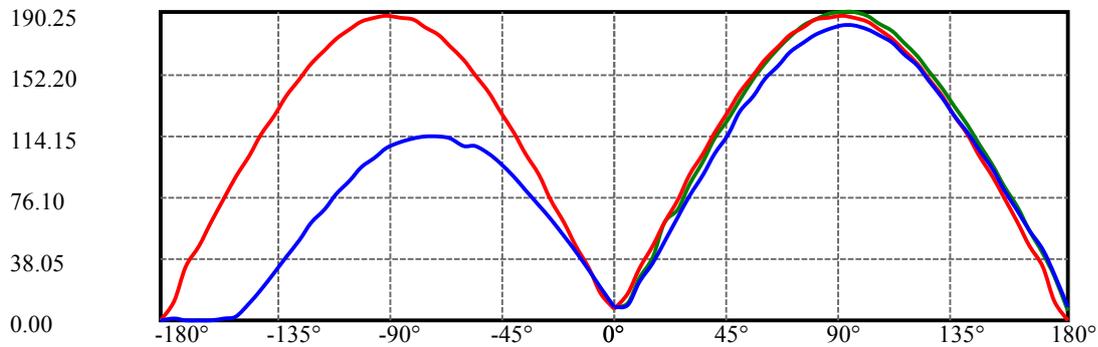
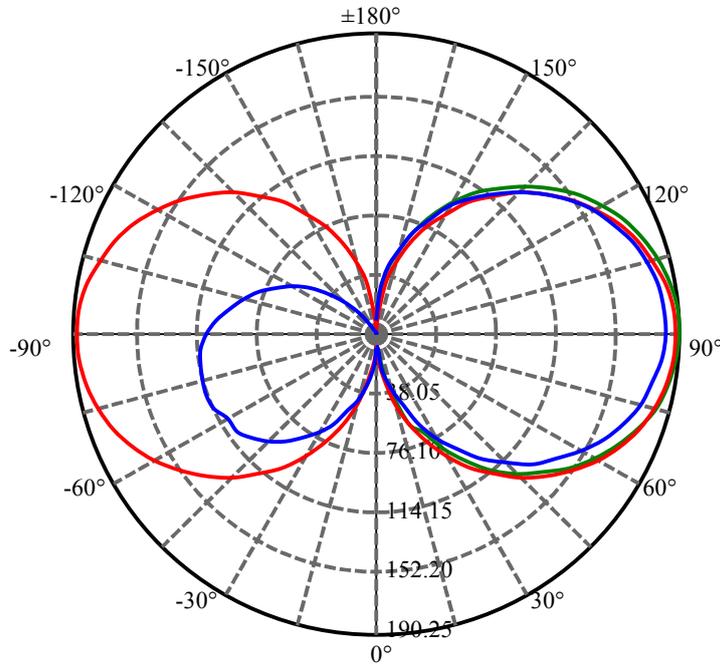
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7.731	0.000	0	0.00%	0.00%
5.0	15.678	0.280	0.28	0.02%	0.02%
10.0	29.005	1.598	1.878	0.10%	0.12%
15.0	42.145	4.221	6.099	0.27%	0.39%
20.0	55.420	8.041	14.14	0.51%	0.89%
25.0	68.489	12.996	27.135	0.82%	1.72%
30.0	81.116	18.933	46.068	1.20%	2.91%
35.0	93.434	25.704	71.772	1.63%	4.54%
40.0	105.023	33.111	104.883	2.09%	6.63%
45.0	116.376	40.994	145.876	2.59%	9.23%
50.0	126.835	49.144	195.021	3.11%	12.34%
55.0	135.998	57.149	252.17	3.62%	15.95%
60.0	144.173	64.761	316.93	4.10%	20.05%
65.0	151.276	71.824	388.755	4.54%	24.59%
70.0	157.100	78.083	466.838	4.94%	29.53%
75.0	161.362	83.241	550.078	5.27%	34.80%
80.0	164.311	87.141	637.22	5.51%	40.31%
85.0	165.713	89.676	726.895	5.67%	45.98%
90.0	165.467	90.680	817.575	5.74%	51.72%
95.0	163.568	90.092	907.667	5.70%	57.42%
100.0	160.349	88.016	995.683	5.57%	62.98%
105.0	155.336	84.468	1080.151	5.34%	68.33%
110.0	149.164	79.591	1159.743	5.03%	73.36%
115.0	141.699	73.648	1233.391	4.66%	78.02%
120.0	133.448	66.889	1300.28	4.23%	82.25%
125.0	123.564	59.408	1359.688	3.76%	86.01%
130.0	113.247	51.491	1411.178	3.26%	89.27%
135.0	102.380	43.570	1454.749	2.76%	92.02%
140.0	91.703	35.936	1490.685	2.27%	94.30%
145.0	80.399	28.714	1519.399	1.82%	96.11%
150.0	68.915	21.987	1541.386	1.39%	97.50%
155.0	57.984	16.059	1557.445	1.02%	98.52%
160.0	47.401	11.053	1568.498	0.70%	99.22%
165.0	36.695	6.931	1575.429	0.44%	99.66%
170.0	26.284	3.736	1579.165	0.24%	99.89%
175.0	15.166	1.483	1580.647	0.09%	99.99%
180.0	3.196	0.220	1580.867	0.01%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	46.07	2.91%	2.91%
0-40	104.88	6.63%	6.63%
0-60	316.93	20.05%	20.05%
0-90	817.57	51.72%	51.72%
0-120	1300.28	82.25%	82.25%
0-180	1580.87	100.00%	100.00%
60-90	500.64	31.67%	31.67%
90-120	482.70	30.53%	30.53%
90-130	593.60	37.55%	37.55%
90-150	723.81	45.79%	45.79%
90-180	763.07	48.27%	48.27%
0-117.34	1264.69	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	1.88
10-20	12.26
20-30	31.93
30-40	58.81
40-50	90.14
50-60	121.91
60-70	149.91
70-80	170.38
80-90	180.36
90-100	178.11
100-110	164.06
110-120	140.54
120-130	110.90
130-140	79.51
140-150	50.70
150-160	27.11
160-170	10.67
170-180	1.48



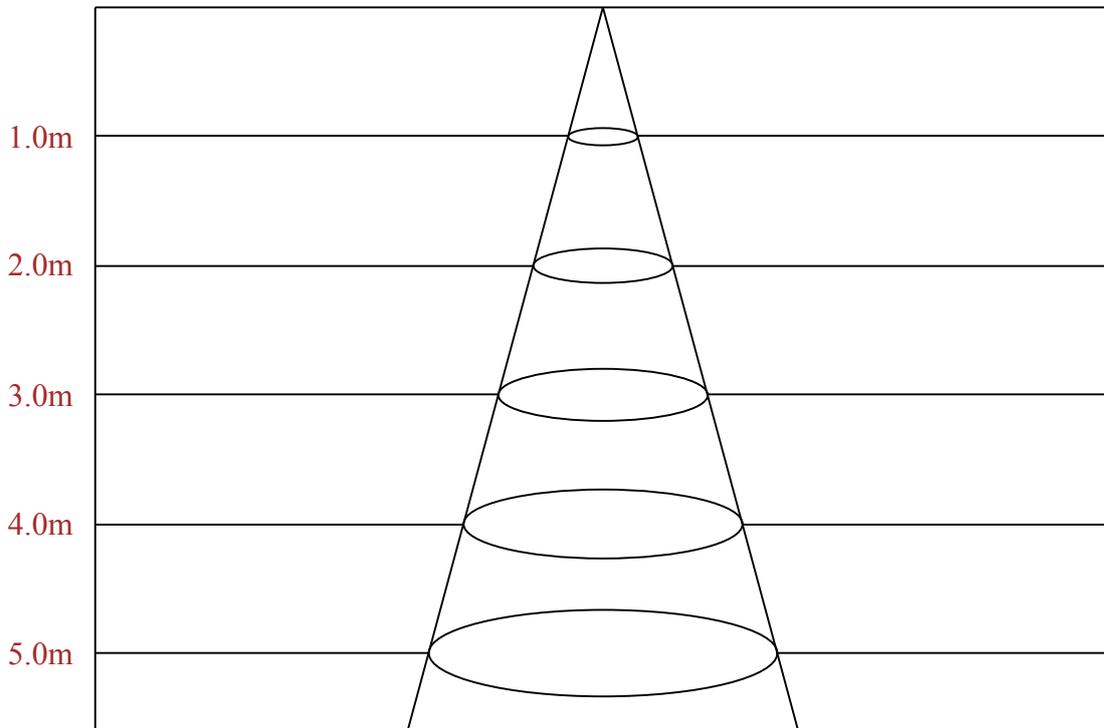
C30(Max): ——

C0/C180: ——

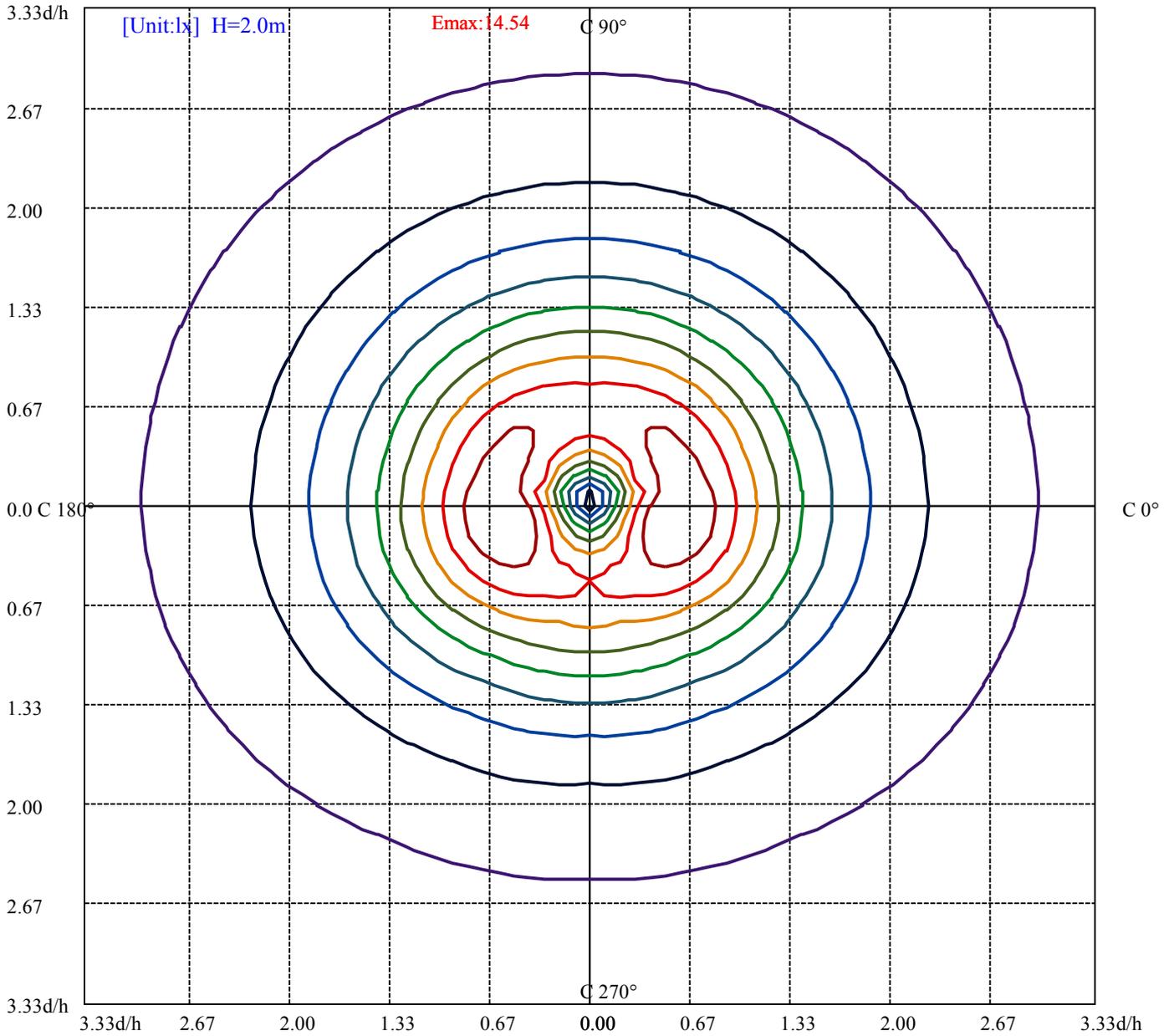
C90/C270: ——

Field angle(10%Imax):C0/180Left:263.4 Right:83.4
:C90/270Left:235.7 Right:82.5

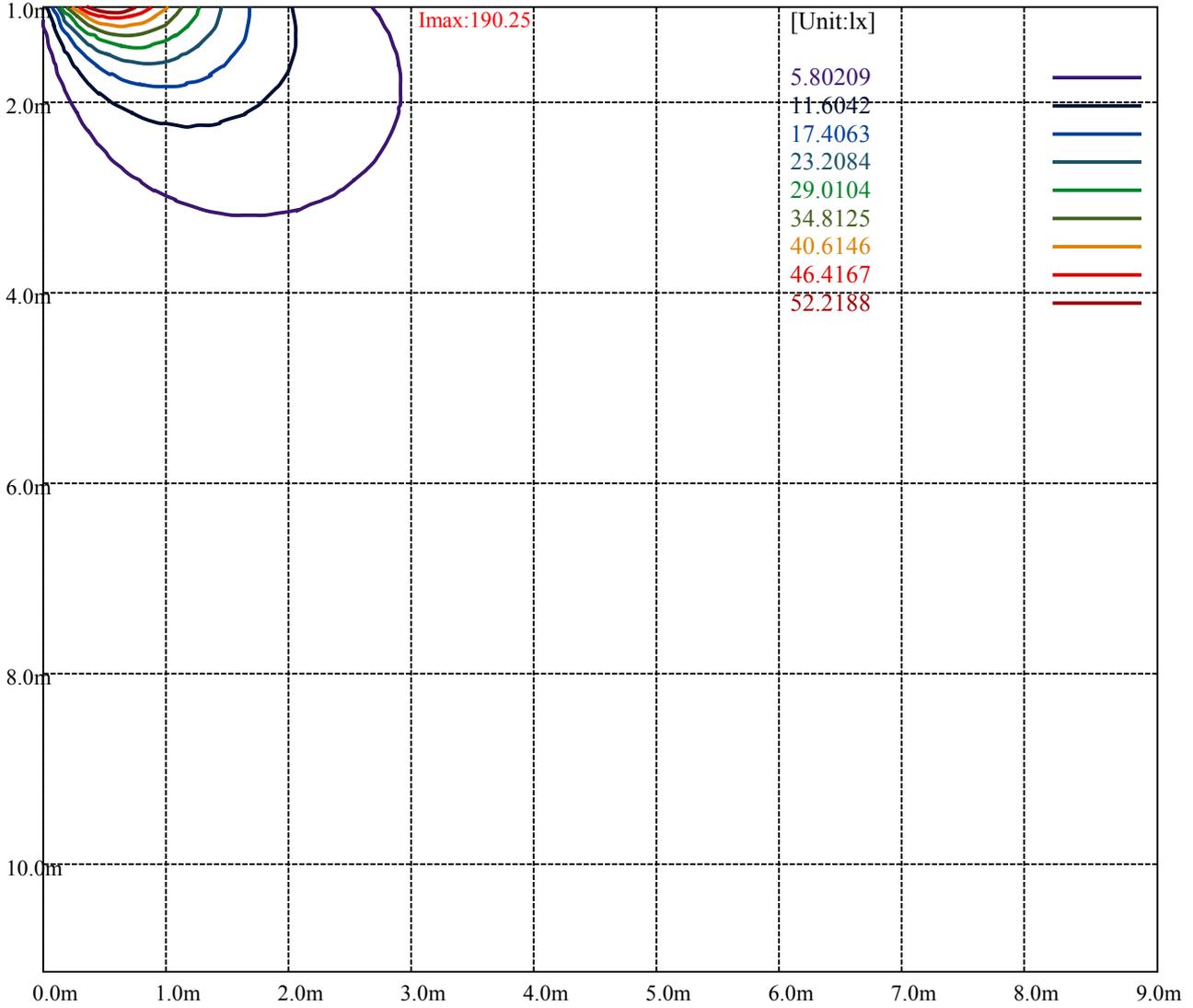
Beam Angle(50%Imax):C0/180Left:238.0 Right:58.0
:C90/270Left:197.2 Right:55.9



Max , Ave Beam angle of C30 plane 351.53



(10%Emax) 1.454352	—
(20%Emax) 2.9087	—
(30%Emax) 4.36305	—
(40%Emax) 5.8174	—
(50%Emax) 7.27175	—
(60%Emax) 8.726125	—
(70%Emax) 10.18048	—
(80%Emax) 11.63482	—
(90%Emax) 13.08918	—



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Luminance Limiting Curve(no luminous side)

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Luminance Table

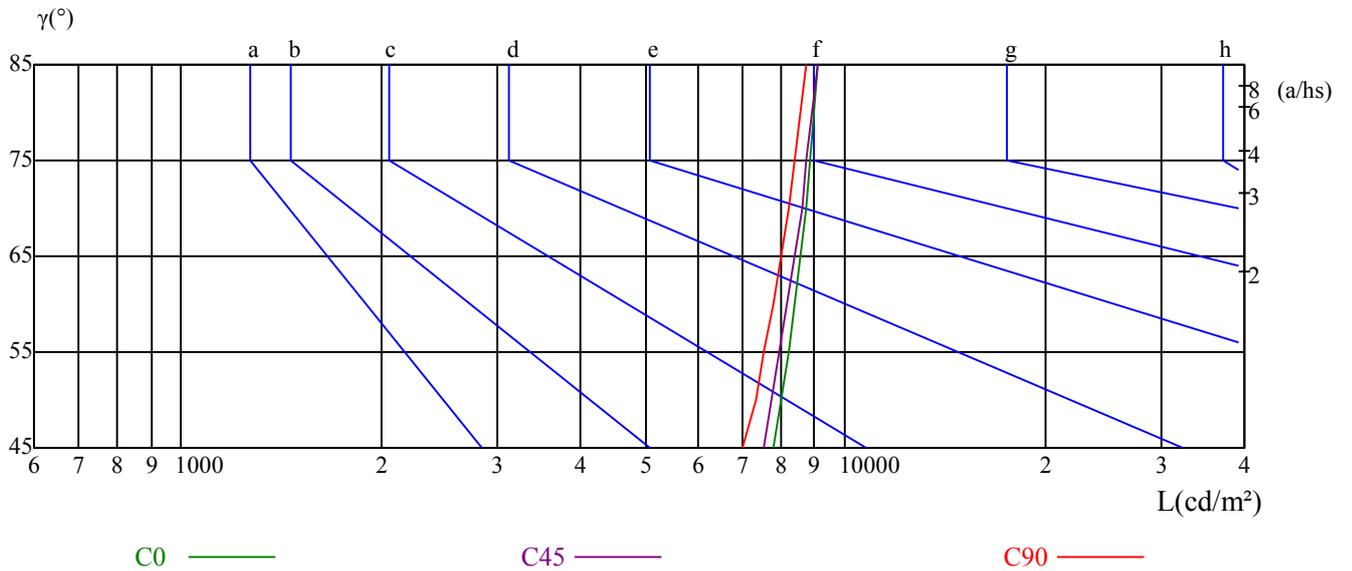
γ	45	50	55	60	65	70	75	80	85
C0	7814	8033	8229	8400	8576	8724	8864	8987	9103
C45	7522	7732	7953	8200	8400	8610	8771	8939	9105
C90	7014	7360	7522	7796	7990	8207	8403	8575	8741

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
141268	112737	126514	247530	194873	220313	759827	588893	672358

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	1.08	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	0.17	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	7.45	12.29	26.47	41.18	54.55	69.71	83.80	97.52	109.37
15.0	8.34	12.20	25.75	40.01	54.28	68.72	82.72	96.45	110.26
30.0	8.34	10.95	24.76	38.13	53.11	66.84	81.64	95.37	108.56
45.0	7.90	9.15	23.60	37.50	51.77	66.12	79.40	94.02	106.23
60.0	8.16	9.69	23.69	36.43	50.24	63.97	77.61	92.14	104.43
75.0	7.90	9.24	22.34	35.08	48.54	62.53	76.44	89.72	103.36
90.0	8.07	9.33	23.06	35.80	47.91	63.34	76.44	89.45	102.37
105.0	7.63	10.50	23.51	36.69	50.15	64.42	78.68	91.78	104.70
120.0	7.81	10.41	24.49	38.22	52.75	67.29	80.39	94.29	108.11
135.0	7.09	11.66	25.48	40.73	55.00	69.80	84.42	98.96	112.42
150.0	7.09	11.30	26.47	40.46	67.11	70.70	85.95	99.86	115.11
165.0	7.00	12.11	26.47	41.36	56.16	71.51	85.68	101.02	115.56
180.0	7.45	21.53	36.43	51.23	65.76	80.30	94.92	108.83	123.09
195.0	8.34	21.62	35.98	50.51	64.87	79.67	92.86	105.60	117.71
210.0	8.34	22.34	35.17	48.81	62.44	75.00	86.67	98.60	110.35
225.0	7.90	21.26	33.29	45.94	58.23	69.44	80.66	90.35	101.02
240.0	8.16	20.55	32.57	44.23	54.82	65.76	75.18	84.51	93.13
255.0	7.90	19.92	32.12	42.71	53.65	63.34	73.48	82.27	90.26
270.0	8.07	20.01	31.31	42.08	52.04	62.26	71.33	80.39	89.00
285.0	7.63	19.83	31.40	42.26	52.75	63.25	72.40	81.19	83.17
300.0	7.81	20.10	32.12	43.15	46.20	64.96	74.38	83.35	92.32
315.0	7.09	20.37	33.11	44.77	57.78	68.37	79.67	90.44	100.30
330.0	7.09	19.92	33.38	46.47	59.48	72.13	84.69	96.18	107.57
345.0	7.00	20.01	33.20	47.73	60.47	74.29	87.39	100.13	112.15
360.0	7.45	12.29	26.47	41.18	54.55	69.71	83.80	97.52	109.37
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	121.66	133.23	143.46	153.06	161.85	168.85	174.50	178.45	181.32
15.0	122.11	134.04	144.98	154.94	163.47	170.64	176.92	181.05	184.19
30.0	121.12	132.69	144.98	153.96	163.02	170.73	176.66	181.05	184.19
45.0	120.13	131.08	142.02	152.25	160.95	168.76	174.23	178.99	182.40
60.0	117.53	130.63	139.69	150.64	158.89	166.61	172.71	177.37	180.24
75.0	115.20	127.04	138.44	148.66	157.55	165.17	171.54	176.30	179.62
90.0	115.20	128.39	137.90	148.75	157.28	165.26	171.72	176.48	179.80
105.0	116.54	130.81	140.68	151.35	160.42	168.31	174.59	179.62	182.85
120.0	121.39	134.04	145.70	155.84	165.08	173.25	179.62	184.46	187.42
135.0	126.95	138.70	149.56	160.69	169.75	178.00	184.28	188.95	192.18
150.0	127.76	140.14	151.89	162.21	171.72	179.71	186.17	191.01	193.97
165.0	127.76	139.87	151.53	161.76	171.09	178.81	184.82	189.66	192.45
180.0	135.03	147.05	158.26	167.50	175.76	182.49	187.78	191.46	193.16
195.0	130.09	141.40	150.82	160.60	167.41	173.69	178.45	181.41	182.94
210.0	121.39	131.26	139.96	147.86	154.49	159.70	163.02	165.26	166.07
225.0	109.55	117.80	125.25	131.62	136.91	141.13	143.64	144.72	144.45
240.0	100.84	107.93	113.40	118.61	122.29	124.98	125.70	125.70	124.35
255.0	98.15	104.16	109.46	113.31	116.27	117.80	118.16	117.98	116.27
270.0	96.54	102.28	106.94	107.57	112.15	113.40	113.49	112.33	110.44
285.0	97.16	103.80	108.83	112.78	115.83	117.71	118.16	117.98	116.10
300.0	100.30	107.48	113.76	118.79	122.47	124.98	126.32	126.59	125.16
315.0	109.55	118.34	126.50	132.07	137.09	140.77	142.74	144.00	143.73
330.0	117.53	127.76	136.19	143.73	149.92	154.94	158.53	160.86	160.69
345.0	123.54	134.13	143.73	151.62	158.98	164.72	168.94	171.81	173.16
360.0	121.66	133.23	143.46	153.06	161.85	168.85	174.50	178.45	181.32

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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	182.58	181.77	179.89	175.67	170.20	163.92	155.66	146.42	135.92
15.0	185.27	184.82	182.40	178.27	173.07	166.34	158.26	148.66	138.97
30.0	185.36	184.82	182.67	178.90	173.78	166.70	158.53	149.20	138.88
45.0	183.20	182.85	180.87	177.46	172.08	164.99	156.56	147.14	137.54
60.0	181.86	181.77	179.62	175.76	171.09	163.74	156.38	146.87	136.55
75.0	180.96	180.78	178.90	175.76	170.55	163.92	155.75	147.14	136.37
90.0	181.41	181.59	179.71	176.21	171.09	164.63	157.19	148.12	137.54
105.0	184.28	184.19	182.31	178.81	173.78	166.97	158.98	149.47	139.33
120.0	188.95	188.77	186.79	183.03	177.28	170.55	161.58	152.16	141.40
135.0	193.34	193.25	190.74	186.43	180.96	173.78	165.17	155.21	144.89
150.0	195.14	194.51	192.18	188.23	182.58	175.31	167.50	157.46	146.42
165.0	193.88	193.34	190.92	187.24	181.68	174.86	166.34	156.92	146.06
180.0	193.34	192.00	188.59	184.28	177.55	170.02	161.31	151.00	139.60
195.0	182.85	180.51	177.73	172.62	166.43	158.62	149.74	140.14	129.37
210.0	165.26	162.48	158.44	153.15	146.78	138.52	129.91	119.95	109.37
225.0	142.47	139.06	134.22	128.66	121.66	113.49	111.52	95.28	85.59
240.0	121.66	116.63	115.11	104.16	96.63	88.37	79.67	69.26	59.48
255.0	112.60	106.94	100.48	93.58	85.23	76.53	67.02	57.33	47.10
270.0	106.76	101.02	94.11	86.49	78.05	68.99	59.84	50.15	39.48
285.0	112.96	108.20	102.46	95.73	88.46	80.21	71.51	62.09	52.93
300.0	123.09	118.97	114.21	108.29	101.38	94.38	85.23	76.98	67.74
315.0	141.75	139.06	134.76	128.66	122.20	114.30	105.24	95.55	85.23
330.0	159.61	157.10	153.60	147.68	140.86	132.60	123.81	112.96	102.91
345.0	172.62	171.18	167.68	163.02	156.56	149.02	140.05	130.09	119.24
360.0	182.58	181.77	179.89	175.67	170.20	163.92	155.66	146.42	135.92
C/ γ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	125.16	113.40	100.93	88.01	74.47	61.19	46.38	33.46	17.85
15.0	127.76	116.01	104.88	91.78	80.03	66.39	53.29	38.04	24.31
30.0	129.19	117.17	106.59	93.58	80.57	67.29	54.19	40.10	26.29
45.0	126.68	116.54	105.24	92.86	80.84	67.74	55.18	42.44	26.92
60.0	125.61	116.10	105.06	92.41	80.21	67.47	55.80	42.26	28.08
75.0	126.05	115.20	104.61	91.96	79.94	67.11	55.36	42.17	28.80
90.0	126.77	115.92	105.15	93.13	80.30	67.74	55.36	43.15	28.44
105.0	128.30	116.90	106.59	93.93	81.91	68.19	55.63	42.44	28.53
120.0	129.73	118.79	108.38	95.46	82.99	69.71	56.34	42.62	27.81
135.0	132.78	120.85	110.17	96.99	84.07	71.24	56.79	42.44	27.18
150.0	134.76	123.27	111.07	98.60	85.77	71.06	56.34	42.62	27.09
165.0	134.76	122.82	109.82	97.25	84.69	69.44	55.80	41.36	26.47
180.0	127.67	115.38	102.91	89.27	75.63	60.47	46.47	32.39	6.73
195.0	117.35	104.88	92.86	79.40	66.57	64.06	40.19	24.31	0.63
210.0	97.97	95.10	75.18	63.70	51.86	39.83	29.52	15.43	0.63
225.0	76.17	65.58	55.45	45.04	34.99	26.29	16.60	4.93	0.54
240.0	48.99	40.73	32.03	24.49	18.12	10.77	4.67	0.54	0.54
255.0	37.50	27.01	18.03	11.57	6.55	2.69	0.90	0.45	1.44
270.0	29.70	19.47	10.23	2.87	1.08	0.45	0.36	0.45	1.26
285.0	42.08	32.39	21.98	13.46	6.91	3.50	1.97	0.54	0.90
300.0	58.05	47.91	37.50	27.54	18.12	12.56	8.88	6.91	4.04
315.0	75.18	64.06	53.11	41.99	31.49	20.90	15.97	11.48	7.18
330.0	90.62	79.22	67.56	57.15	46.03	34.72	23.78	16.69	10.77
345.0	108.29	96.18	84.25	71.51	58.50	46.83	34.90	23.60	11.57
360.0	125.16	113.40	100.93	88.01	74.47	61.19	46.38	33.46	17.85

Equipment: LC-I-902 GMS-2000
 Temperature(°C): 25.5

Date: 2025/7/23
 Humidity(%): 62.5%

Operator: JUN WANG
 Distance(m): 29.95

Intensity data(cd)

C/γ(°)	180.0
0.0	0.81
15.0	3.95
30.0	4.84
45.0	7.72
60.0	8.07
75.0	7.72
90.0	8.07
105.0	7.27
120.0	7.45
135.0	7.72
150.0	6.91
165.0	6.19
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	0.81