

---

AFX

---

Client:

LumCAT: ORBF18LAJD1BK

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 120.090

LampCAT:

Current(A): 0.323

Lamp flux(lm): 1714.1

Power (W): 37.780

Number of Lamps: 1

PF: 0.973

Length(mm): 460

Width(mm): 420

Phm Type: C

Height(mm): 60

---

Photometric Results

---

Lumens(lm): 1714.09, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 45.37

Central intensity(cd): 460.521, Maximum intensity(cd): 460.521

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=114.8

[C90/270]Total=118.4

Field angle(10%Imax): [C0/180]Total=244.4

[C90/270]Total=229.0

Maximum s/h(1/2): C0\_180=1.25 C90\_270=1.24

Maximum s/h(1/4): C0\_180=1.38 C90\_270=1.38

Up flux rate of lamp(%): 16.95%

Down flux rate of lamp(%): 83.05%

Up flux rate of LUM(%): 16.95%

Down flux rate of LUM(%): 83.05%

CIE Type : Semidirect lighting

Output flux ratio in  $\pi$  solid angle : 60.710%

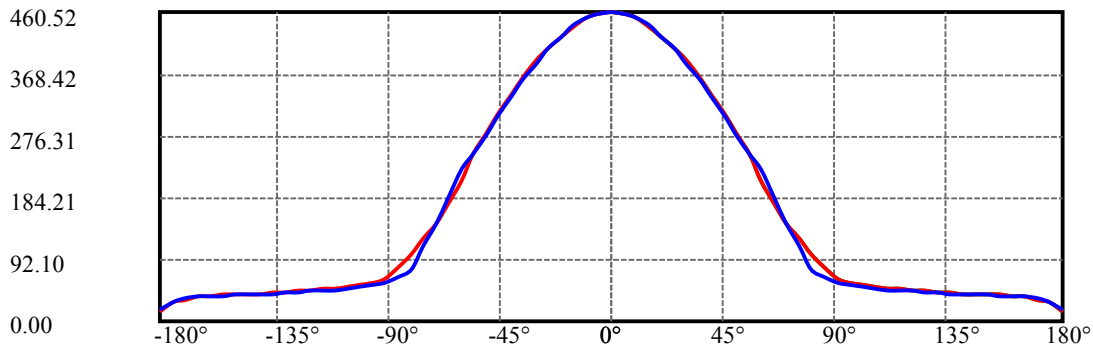
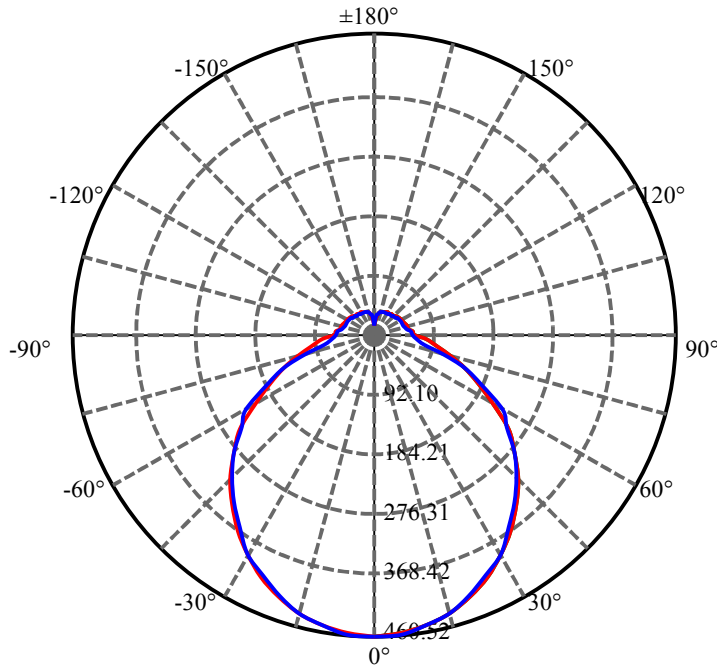
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	460.521	0.000	0	0.00%	0.00%
5.0	458.091	10.982	10.982	0.64%	0.64%
10.0	450.671	32.509	43.491	1.90%	2.54%
15.0	439.014	52.776	96.267	3.08%	5.62%
20.0	423.990	71.124	167.39	4.15%	9.77%
25.0	406.317	87.084	254.474	5.08%	14.85%
30.0	385.701	100.230	354.705	5.85%	20.69%
35.0	361.703	110.061	464.765	6.42%	27.11%
40.0	336.670	116.518	581.283	6.80%	33.91%
45.0	308.287	119.419	700.702	6.97%	40.88%
50.0	278.695	118.608	819.31	6.92%	47.80%
55.0	247.641	114.443	933.753	6.68%	54.48%
60.0	214.737	106.877	1040.631	6.24%	60.71%
65.0	178.793	95.668	1136.299	5.58%	66.29%
70.0	145.091	82.009	1218.308	4.78%	71.08%
75.0	115.850	68.206	1286.514	3.98%	75.06%
80.0	90.421	55.192	1341.706	3.22%	78.28%
85.0	74.021	44.683	1386.389	2.61%	80.88%
90.0	61.578	37.128	1423.517	2.17%	83.05%
95.0	56.557	32.346	1455.863	1.89%	84.93%
100.0	53.017	29.774	1485.637	1.74%	86.67%
105.0	50.033	27.573	1513.211	1.61%	88.28%
110.0	48.485	25.751	1538.962	1.50%	89.78%
115.0	47.021	24.183	1563.144	1.41%	91.19%
120.0	45.856	22.578	1585.723	1.32%	92.51%
125.0	44.614	20.912	1606.635	1.22%	93.73%
130.0	43.196	19.093	1625.727	1.11%	94.84%
135.0	41.724	17.159	1642.887	1.00%	95.85%
140.0	40.712	15.264	1658.15	0.89%	96.74%
145.0	40.145	13.490	1671.641	0.79%	97.52%
150.0	39.398	11.713	1683.354	0.68%	98.21%
155.0	38.574	9.867	1693.221	0.58%	98.78%
160.0	37.496	7.978	1701.2	0.47%	99.25%
165.0	36.200	6.074	1707.274	0.35%	99.60%
170.0	32.859	4.097	1711.37	0.24%	99.84%
175.0	28.481	2.194	1713.564	0.13%	99.97%
180.0	15.721	0.528	1714.093	0.03%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	354.70	20.69%	20.69%
0-40	581.28	33.91%	33.91%
0-60	1040.63	60.71%	60.71%
0-90	1423.52	83.05%	83.05%
0-120	1585.72	92.51%	92.51%
0-180	1714.09	100.00%	100.00%
60-90	382.89	22.34%	22.34%
90-120	162.21	9.46%	9.46%
90-130	202.21	11.80%	11.80%
90-150	259.84	15.16%	15.16%
90-180	290.05	16.92%	16.92%
0-83.31	1371.27	80.00%	80.00%

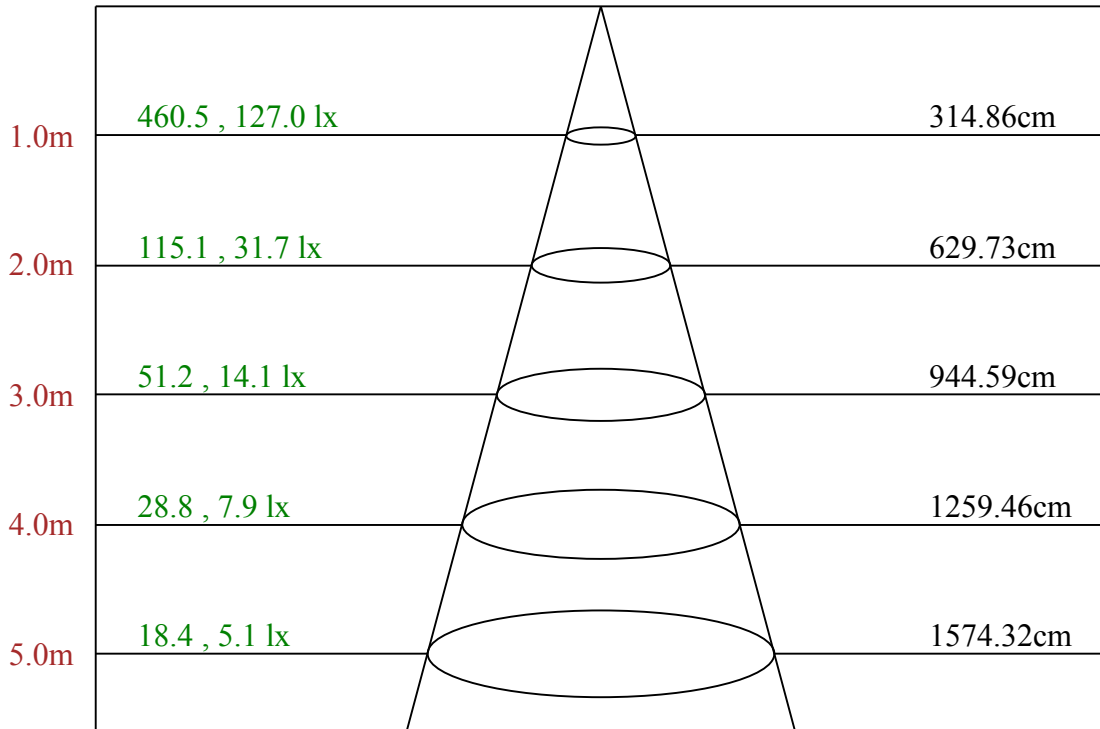
ZONAL LUMEN SUMMARY

0-10	43.49
10-20	123.90
20-30	187.31
30-40	226.58
40-50	238.03
50-60	221.32
60-70	177.68
70-80	123.40
80-90	81.81
90-100	62.12
100-110	53.32
110-120	46.76
120-130	40.00
130-140	32.42
140-150	25.20
150-160	17.85
160-170	10.17
170-180	2.19

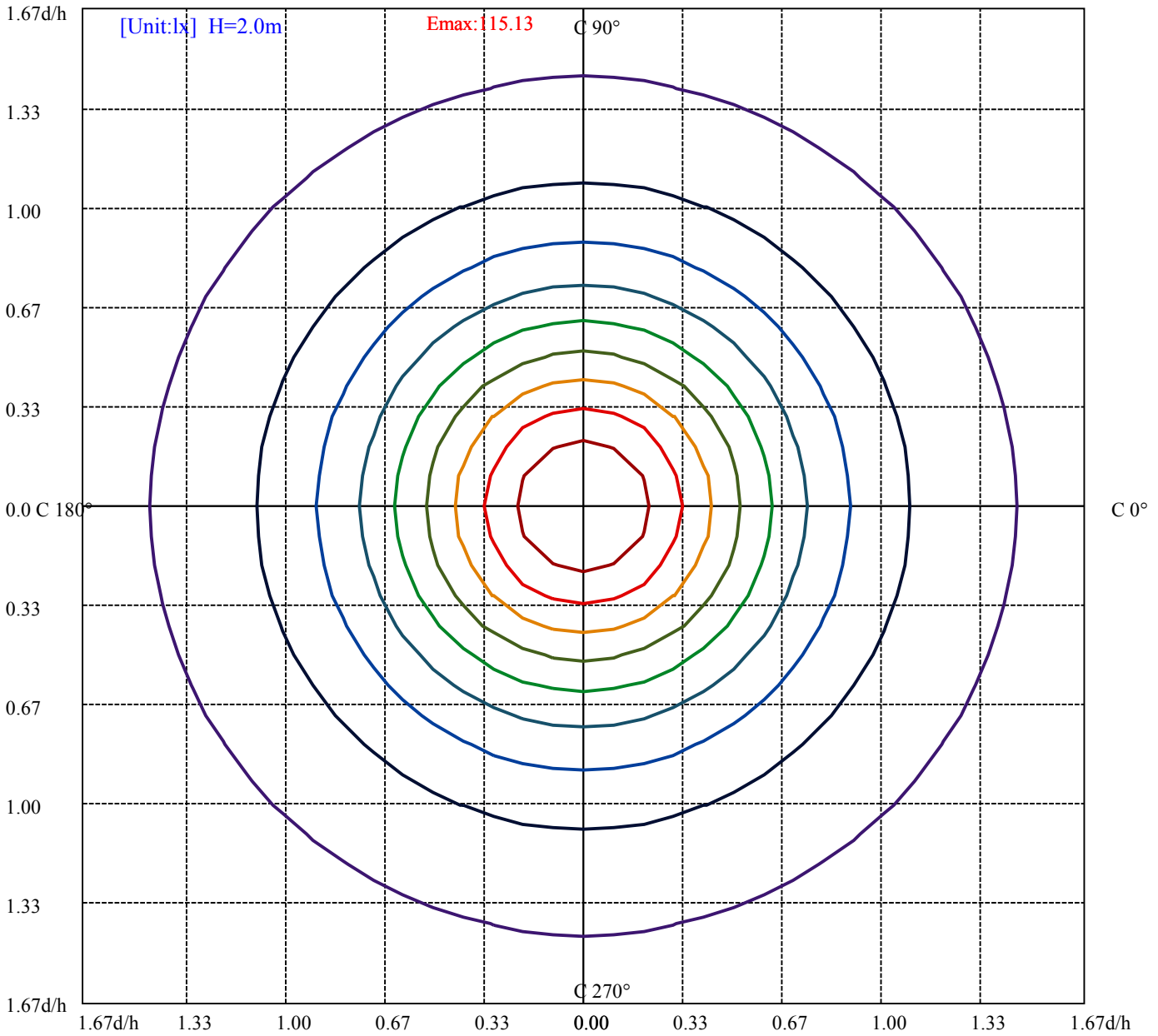


C0(Max): —————  
 C0/C180: —————  
 C90/C270: —————

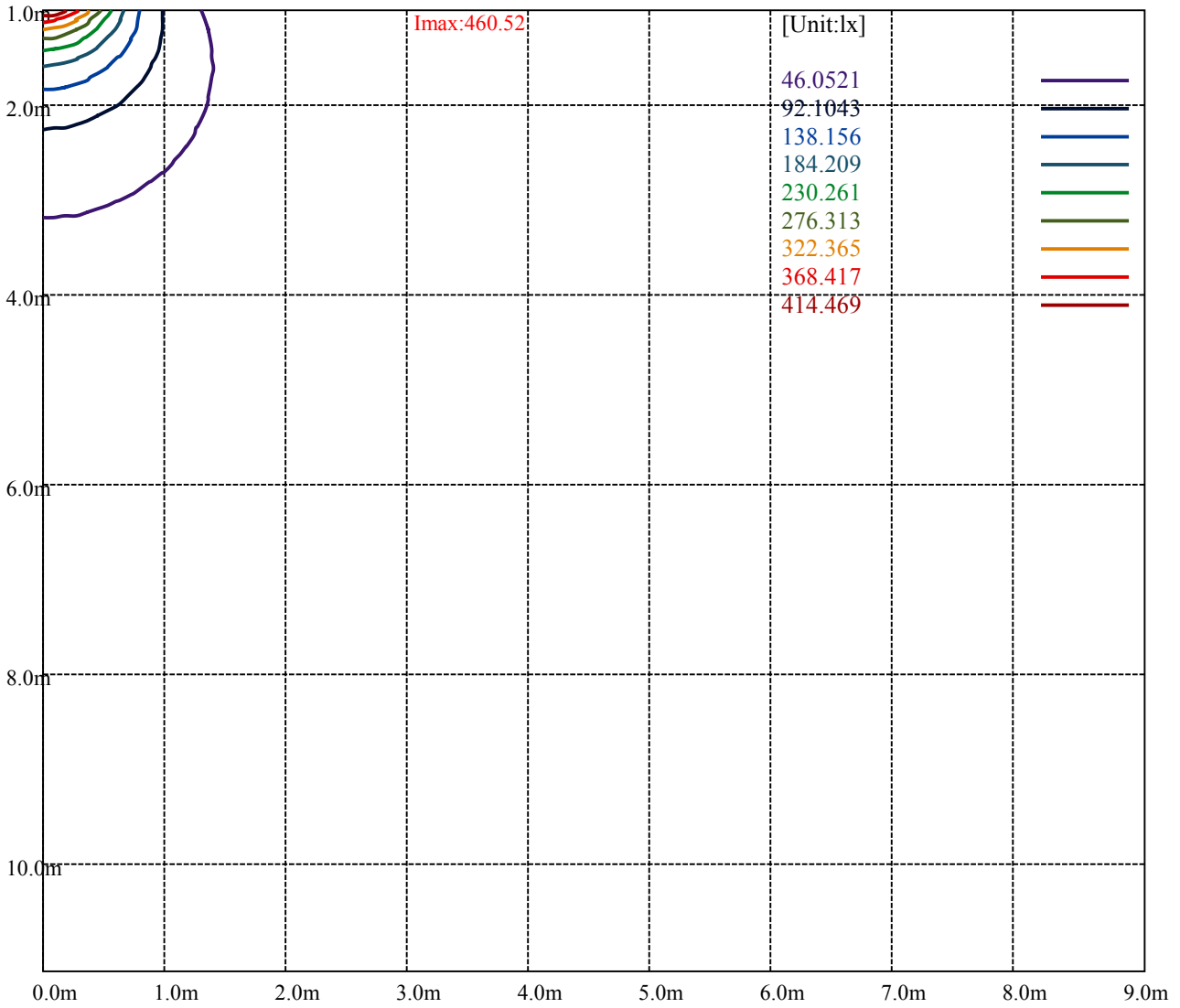
Field angle(10%Imax):C0/180Left:122.2 Right:122.2  
 :C90/270Left:114.5 Right:114.5  
 Beam Angle(50%Imax):C0/180Left:57.4 Right:57.4  
 :C90/270Left:59.2 Right:59.2



Max , Ave      Beam angle of C0 plane 115.15



(10%Emax) 11.51303	—
(20%Emax) 23.02608	—
(30%Emax) 34.539	—
(40%Emax) 46.05225	—
(50%Emax) 57.56525	—
(60%Emax) 69.07825	—
(70%Emax) 80.59125	—
(80%Emax) 92.10425	—
(90%Emax) 103.6172	—



Luminance Table

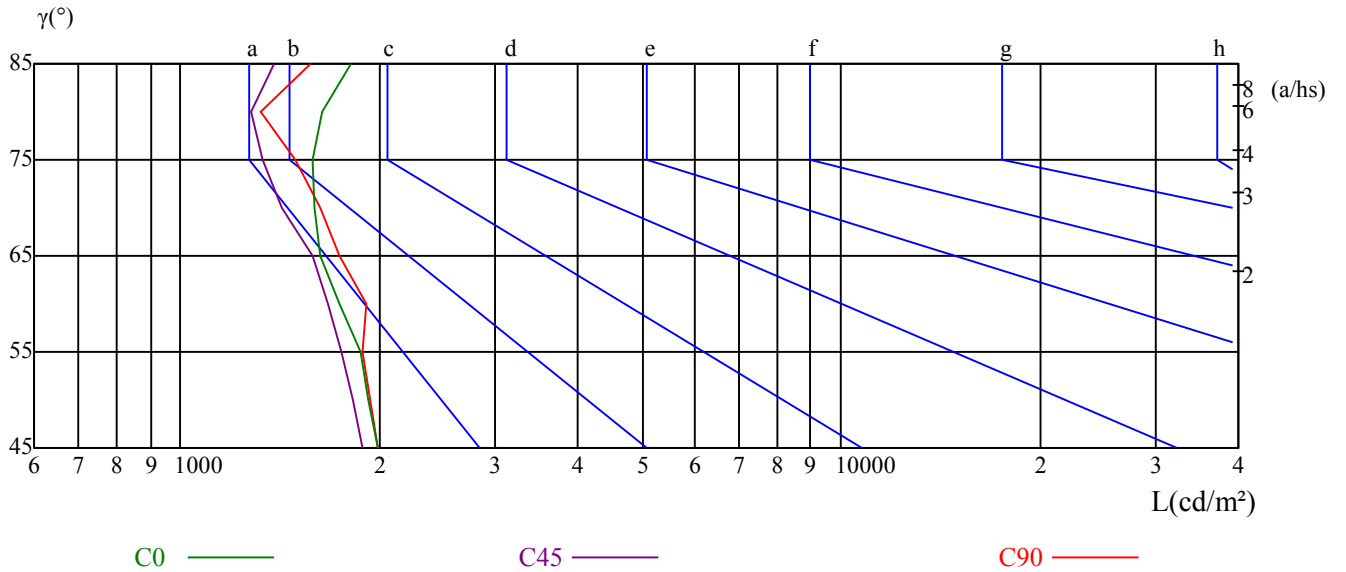
$\gamma$	45	50	55	60	65	70	75	80	85
C0	1987	1930	1872	1737	1630	1600	1589	1637	1809
C45	1891	1826	1750	1677	1580	1422	1335	1278	1383
C90	1990	1942	1885	1917	1738	1631	1488	1321	1576

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2129	2225	2234	2436	2212	2297	4764	3926	4436

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	1.15	1.15	1.15	1.10	1.10	1.10	1.02	1.02	1.02	0.94	0.94	0.94	0.86	0.86	0.86	0.83
1	0.98	0.93	0.89	0.94	0.90	0.86	0.87	0.83	0.80	0.80	0.77	0.75	0.74	0.72	0.70	0.66
2	0.85	0.78	0.72	0.82	0.75	0.69	0.75	0.70	0.65	0.69	0.65	0.61	0.64	0.61	0.57	0.54
3	0.74	0.66	0.59	0.71	0.64	0.57	0.66	0.60	0.54	0.61	0.56	0.51	0.56	0.52	0.48	0.45
4	0.65	0.57	0.50	0.63	0.55	0.48	0.58	0.51	0.46	0.54	0.48	0.44	0.50	0.45	0.41	0.38
5	0.58	0.49	0.43	0.56	0.48	0.42	0.52	0.45	0.40	0.48	0.42	0.38	0.45	0.40	0.36	0.33
6	0.52	0.43	0.37	0.51	0.42	0.36	0.47	0.40	0.34	0.44	0.38	0.33	0.41	0.35	0.31	0.29
7	0.47	0.39	0.32	0.46	0.38	0.32	0.43	0.36	0.30	0.40	0.34	0.29	0.37	0.32	0.28	0.25
8	0.43	0.35	0.29	0.42	0.34	0.28	0.39	0.32	0.27	0.36	0.30	0.26	0.34	0.29	0.25	0.23
9	0.39	0.31	0.26	0.38	0.31	0.25	0.36	0.29	0.24	0.34	0.28	0.23	0.31	0.26	0.22	0.20
10	0.36	0.28	0.23	0.35	0.28	0.23	0.33	0.26	0.22	0.31	0.25	0.21	0.29	0.24	0.20	0.18

## AFX ORBF18LAJD1BK

Appendix Page: 10 Total:12

## 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	460.52	456.95	449.54	436.82	422.27	404.05	384.19	362.51	338.53
15.0	460.52	456.41	449.19	436.57	421.58	401.75	380.63	359.97	334.74
30.0	460.52	455.95	447.99	435.64	420.27	400.69	380.20	357.15	332.54
45.0	460.52	455.84	447.30	434.63	420.39	402.39	380.72	356.66	330.49
60.0	460.52	455.56	447.03	434.09	418.48	401.41	378.83	356.43	331.09
75.0	460.52	456.11	448.02	436.07	420.26	401.42	379.45	355.73	329.26
90.0	460.52	456.37	447.87	436.42	420.91	403.00	380.84	353.98	329.23
105.0	460.52	457.11	448.55	437.04	421.66	401.95	378.84	354.44	327.18
120.0	460.52	458.31	450.19	437.64	422.14	403.60	380.26	356.09	329.25
135.0	460.52	459.04	451.63	439.87	425.15	405.90	383.68	359.23	334.23
150.0	460.52	458.77	450.73	440.84	411.83	406.84	386.79	362.67	338.37
165.0	460.52	459.78	453.69	443.25	428.47	410.91	393.36	369.90	339.22
180.0	460.52	458.69	452.19	440.94	426.93	410.19	391.24	364.98	336.88
195.0	460.52	460.43	454.03	443.25	428.80	416.46	394.98	365.82	340.41
210.0	460.52	460.16	454.76	445.06	429.78	417.52	397.31	368.86	342.51
225.0	460.52	460.34	455.93	445.28	431.69	417.55	400.56	372.27	344.36
240.0	460.52	460.98	455.38	445.19	431.88	414.07	396.82	372.49	344.96
255.0	460.52	460.43	454.55	444.62	430.37	410.79	390.66	368.42	343.23
270.0	460.52	459.69	453.78	442.70	428.02	408.36	388.32	364.96	340.41
285.0	460.52	459.14	451.96	439.53	423.50	404.53	383.35	361.90	356.19
300.0	460.52	457.66	449.54	436.63	433.68	403.60	382.94	360.80	336.07
315.0	460.52	458.58	448.95	436.63	420.71	403.12	383.40	360.34	335.07
330.0	460.52	456.18	446.94	434.74	419.31	402.12	380.78	358.88	334.12
345.0	460.52	455.72	446.39	432.90	417.66	399.36	378.67	356.41	331.74
360.0	460.52	456.95	449.54	436.82	422.27	404.05	384.19	362.51	338.53
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	312.26	283.43	253.14	214.34	179.01	144.05	118.24	97.28	77.61
15.0	310.24	283.00	253.11	218.65	176.51	138.67	116.00	100.00	77.52
30.0	306.37	278.93	251.30	221.02	184.06	130.82	110.78	101.09	78.03
45.0	304.96	276.04	249.32	219.65	184.58	128.84	109.28	101.01	76.95
60.0	303.56	274.00	244.35	212.68	173.95	132.73	111.99	94.73	73.80
75.0	302.51	271.26	242.67	209.30	172.63	135.67	109.29	89.81	72.25
90.0	301.44	272.73	241.34	208.66	174.77	138.12	108.39	84.85	72.38
105.0	300.66	270.09	240.53	209.59	175.52	141.35	109.21	83.34	75.79
120.0	301.48	272.70	242.71	210.98	177.12	145.85	109.87	83.03	76.66
135.0	304.42	276.74	244.43	214.43	181.47	149.90	116.66	83.42	77.59
150.0	308.71	278.40	247.54	215.48	181.84	153.38	127.42	92.22	80.39
165.0	311.88	283.06	250.82	217.28	181.81	152.89	130.72	100.14	86.10
180.0	308.05	277.67	246.28	204.36	168.67	150.46	125.38	101.59	82.82
195.0	312.07	283.10	249.55	202.93	166.27	152.56	124.87	101.19	84.55
210.0	314.61	283.41	248.83	212.97	172.72	147.19	123.04	97.25	81.42
225.0	316.07	284.03	250.51	214.79	181.18	149.77	119.29	91.46	75.30
240.0	315.21	283.00	248.48	214.98	182.85	149.53	116.94	84.17	68.66
255.0	314.92	283.57	251.31	218.13	184.58	152.96	114.35	104.42	62.51
270.0	313.17	284.46	254.27	245.49	188.53	154.74	112.82	69.34	59.83
285.0	308.86	280.68	252.68	219.16	187.67	154.24	112.81	68.14	58.57
300.0	309.14	280.81	249.91	218.27	185.06	151.57	114.76	76.48	63.28
315.0	307.29	279.42	245.82	215.82	182.49	147.03	114.25	83.60	68.98
330.0	306.03	274.89	243.20	209.38	175.74	141.00	112.17	89.54	72.72
345.0	304.95	273.26	241.30	205.36	172.01	138.85	111.87	92.01	72.80
360.0	312.26	283.43	253.14	214.34	179.01	144.05	118.24	97.28	77.61

Equipment: LC-I-902 GMS-2000  
 Temperature(°C): 24.7

Date: 2025/1/21  
 Humidity(%): 51.9%

Operator: JUN WANG  
 Distance(m): 30.33

AFX ORBF18LAJD1BK

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	61.13	56.10	52.17	48.32	46.49	44.94	43.93	43.01	42.01
15.0	58.96	55.49	52.65	48.81	46.53	45.16	44.06	43.15	41.87
30.0	57.45	55.16	53.24	48.58	46.47	44.92	44.09	43.18	42.08
45.0	57.58	55.10	52.71	48.30	46.74	45.36	44.26	43.16	42.15
60.0	57.65	55.81	51.22	47.73	46.72	45.25	44.06	43.14	41.77
75.0	56.71	55.98	50.28	47.71	46.88	45.22	44.12	42.93	41.92
90.0	55.76	55.40	50.87	48.56	47.09	45.79	44.78	43.76	42.47
105.0	55.80	53.59	51.57	48.99	47.88	46.50	45.31	44.11	42.91
120.0	60.24	54.43	53.51	50.46	49.08	47.51	46.31	45.11	43.73
135.0	66.57	56.38	55.74	52.77	50.46	48.89	47.31	46.39	44.81
150.0	71.52	58.21	57.01	54.24	51.93	49.99	48.51	47.40	45.92
165.0	73.07	59.49	57.37	55.06	52.84	50.72	49.42	48.22	46.65
180.0	64.06	58.94	57.02	54.27	52.35	50.61	49.15	47.86	45.85
195.0	68.01	59.60	56.86	54.11	52.29	50.46	48.81	47.08	45.61
210.0	68.25	59.92	56.26	53.97	51.60	50.13	48.12	46.75	45.19
225.0	69.79	59.60	54.64	52.71	51.24	49.86	49.50	46.65	44.72
240.0	68.20	58.29	58.38	51.22	50.58	48.56	47.09	45.62	44.15
255.0	63.88	56.71	50.74	49.09	48.72	47.34	46.24	44.67	43.11
270.0	60.66	55.03	50.32	48.19	46.99	46.07	44.96	44.04	42.29
285.0	55.34	55.25	49.45	47.42	45.95	44.66	43.83	42.73	41.53
300.0	55.35	55.54	49.72	46.77	45.39	44.47	43.45	42.34	41.24
315.0	56.76	56.01	50.09	46.48	45.74	44.90	44.16	42.96	41.66
330.0	57.47	55.53	49.62	48.23	46.66	45.55	44.44	43.15	41.58
345.0	57.65	55.80	50.99	48.78	47.02	45.64	44.62	43.33	41.48
360.0	61.13	56.10	52.17	48.32	46.49	44.94	43.93	43.01	42.01

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	40.63	39.81	39.54	39.08	38.44	36.88	36.15	33.22	27.91
15.0	40.68	39.67	39.40	38.85	38.30	36.84	36.38	33.46	28.34
30.0	40.62	39.79	39.43	38.88	37.97	37.42	35.86	33.30	28.82
45.0	40.96	40.04	40.04	38.75	38.11	37.65	36.92	33.52	29.11
60.0	40.76	39.93	39.20	38.19	38.09	37.54	36.72	33.23	29.10
75.0	40.81	40.17	39.16	38.42	37.50	37.14	36.68	33.55	27.58
90.0	41.36	40.35	39.88	38.78	37.48	36.56	36.10	33.98	28.53
105.0	41.35	40.15	40.24	39.23	37.94	36.74	35.82	33.52	29.19
120.0	42.16	41.51	41.14	40.59	39.30	37.73	36.44	33.30	29.43
135.0	43.61	42.77	41.94	41.29	40.55	38.33	36.85	34.53	29.07
150.0	44.63	43.43	42.69	42.04	40.93	38.81	36.96	32.99	29.20
165.0	45.17	43.88	42.96	42.22	41.20	39.35	37.51	34.27	29.47
180.0	44.02	42.56	41.73	40.73	39.44	37.98	36.06	31.85	27.91
195.0	43.69	42.32	41.59	40.59	39.31	38.85	36.38	31.90	28.15
210.0	43.45	42.81	41.44	40.44	39.15	37.87	36.04	32.11	27.90
225.0	42.98	41.51	40.86	40.04	38.66	37.56	36.18	32.51	28.19
240.0	42.13	41.03	40.39	39.38	38.55	37.36	36.63	32.68	28.27
255.0	41.46	40.08	39.53	39.07	38.61	37.60	36.22	32.17	29.05
270.0	40.53	39.42	38.41	38.59	38.13	37.48	36.19	32.59	28.81
285.0	39.87	38.68	38.40	37.48	37.57	37.02	36.28	32.32	28.09
300.0	39.67	38.65	38.47	37.55	37.18	36.62	35.42	31.83	27.77
315.0	40.18	39.26	38.98	38.42	37.40	36.94	35.55	31.76	27.78
330.0	40.38	39.55	38.99	38.53	37.79	36.96	34.65	31.88	27.90
345.0	40.28	39.72	39.08	38.43	38.15	36.68	34.83	32.15	27.99
360.0	40.63	39.81	39.54	39.08	38.44	36.88	36.15	33.22	27.91

Intensity data(cd)

C/γ(°)	180.0
0.0	27.36
15.0	31.90
30.0	32.11
45.0	32.32
60.0	32.04
75.0	31.80
90.0	31.76
105.0	31.03
120.0	31.46
135.0	31.66
150.0	31.88
165.0	31.96
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	27.36