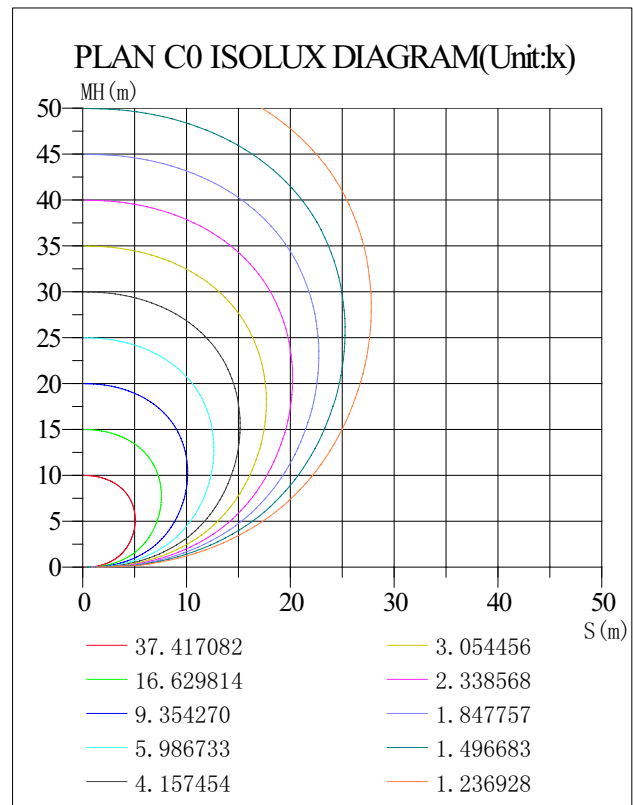
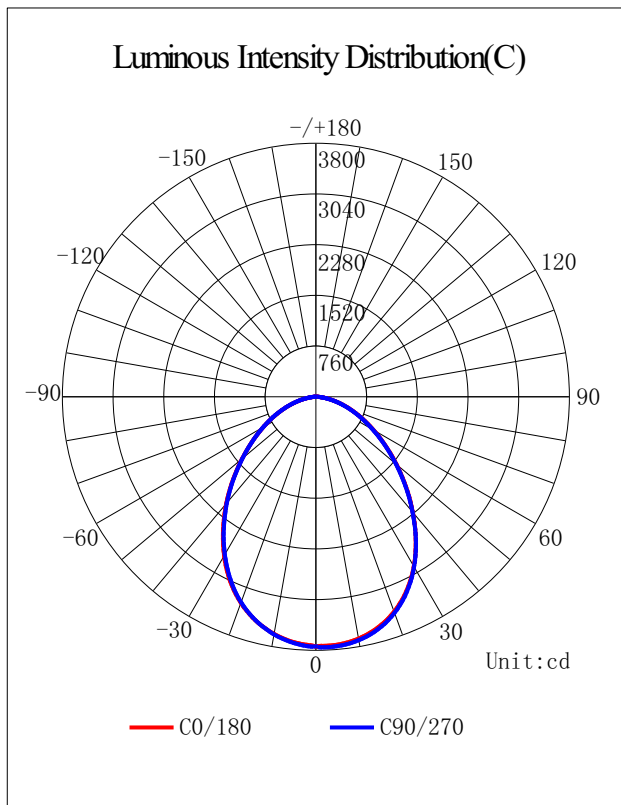


Photometric Data of Luminaire

Lamp Description					
Lamp Name:	400w led grow light	Lamp Des:	FLG05-2X200W	Lamp Weight:	0.000Kg
Manufac:		Lamp Size(cm):	29.0*18.0*8.0	Light Area(cm):	26.0*12.0
Electrical:	U:220.200V I:0.920A P:201.100W Pf:0.9930			LuminareFlux:	1*0.00 lm

Lamp Test Data			
Lamp Flux:	8015.48 lm	Center Cd.:	3741.7 cd
Max(C, ψ):	(80, 3.0)	Maximum Cd.:	3758.7 cd
BeamAngle(50%):	88.0 Deg	BeamAngle(10%):	147.0 Deg
Flux(0-90):	8015.42 lm(100.0%)	Flux(90-180):	0.1 lm(0.0%)
LuminousEfficacy:	39.86 lm/W	S/MH(C0/180)	1.12
		S/MH(C90/270)	1.11



C Angle Range:	0-360Deg	ψ Range:	0-90Deg	Test No.:	
C Precious:	10 Deg	ψ Precious:	1 Deg	Tester:	
Distance:	3.000 m	Date:	2014-10-24	Time:	09:37:52
Other:					

Zonal Flux Diagram

Zonal Flux Diagram:

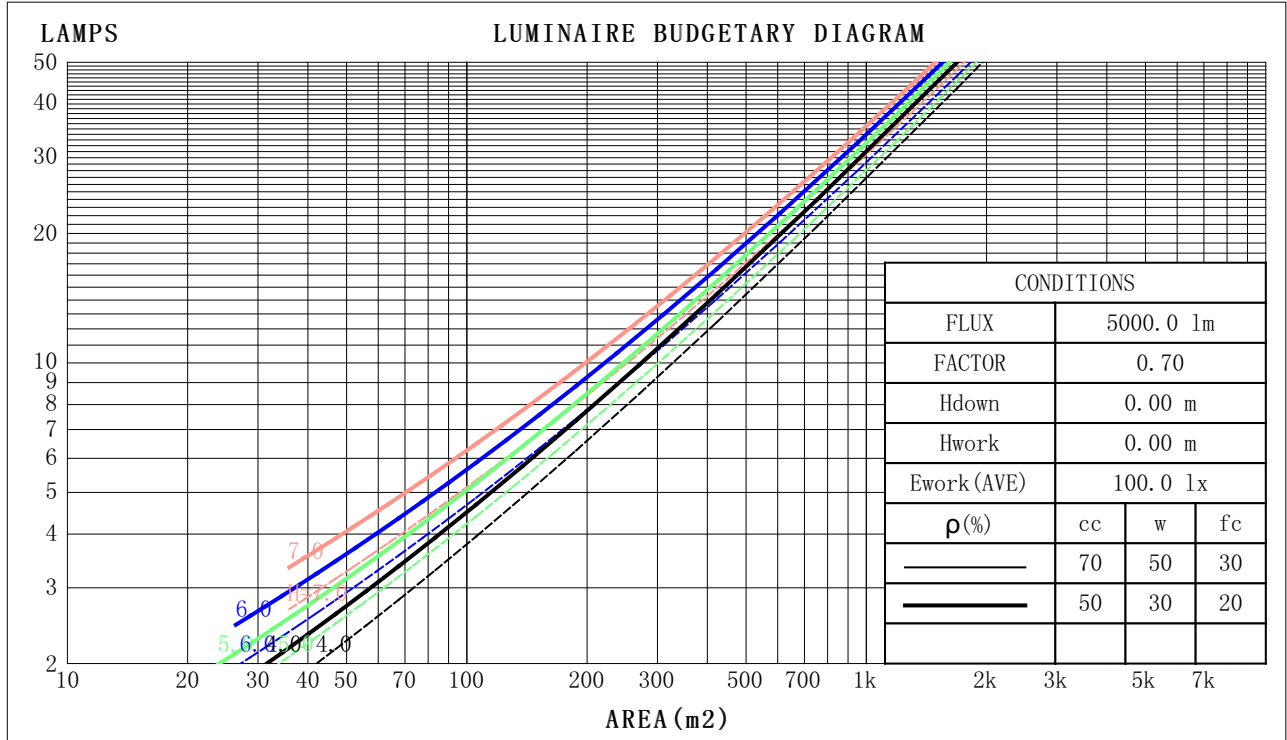
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Fzone	Ftotal	%lamp	%lum
10	3681.3	3716.3	3703.6	3650.7	3609.8	3589.7	3616.5	3632.1	0-10	352.81	352.81	4.41	4.41
20	3427.4	3481.8	3446.0	3369.0	3287.4	3240.6	3277.8	3325.1	10-20	994.13	1346.94	16.81	16.81
30	2935.3	2997.9	2942.0	2851.2	2750.0	2685.6	2730.6	2801.7	20-30	1434.66	2781.60	34.71	34.71
40	2260.1	2315.6	2253.4	2179.7	2090.4	2030.8	2076.3	2141.8	30-40	1567.43	4349.03	54.26	54.26
50	1579.0	1619.2	1566.3	1507.9	1443.5	1395.5	1436.8	1484.4	40-50	1410.44	5759.47	71.86	71.86
60	999.0	1025.5	986.4	953.3	909.7	880.7	911.9	943.2	50-60	1087.15	6846.63	85.42	85.42
70	552.4	569.9	541.2	519.3	492.1	471.2	495.8	515.5	60-70	718.91	7565.54	94.39	94.39
80	205.5	215.1	195.8	187.2	170.5	158.6	175.7	187.6	70-80	363.37	7928.91	98.92	98.92
90	2.2	6.7	0.0	0.0	0.0	0.0	0.0	0.0	80-90	86.52	8015.42	100.00	100.00
DEG	LUMINOUS INTENSITY:cd									UNIT:lm			

C Angle Range:	0-360Deg	Y Range:	0-90Deg	Test No. :
C Precious:	10 Deg	Y Precious:	1 Deg	Tester:
Distance:	3.000 m	Date:	2014-10-24	Time: 09:37:52
Other:				

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Lamp Description					
Lamp Name:	400w led grow light	Lamp Des:	FLG05-2X200W	Lamp Weight:	0.000Kg
Manufac:		Lamp Size(cm):	29.0*18.0*8.0	Light Area(cm):	26.0*12.0
Electrical:	U:220.200V I:0.920A P:201.100W Pf:0.9930			LuminareFlux:	1*0.00 lm

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.06	1.02	.99	1.04	1.00	.97	.99	.96	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.94	.87	.82	.92	.86	.81	.88	.84	.79	.85	.81	.78	.82	.79	.76	.74
3.0	.83	.76	.70	.82	.75	.69	.79	.73	.68	.76	.71	.67	.74	.69	.66	.64
4.0	.75	.67	.60	.73	.66	.60	.71	.64	.59	.69	.63	.58	.67	.62	.58	.56
5.0	.67	.59	.53	.66	.58	.53	.64	.57	.52	.62	.56	.51	.61	.55	.51	.49
6.0	.61	.53	.47	.60	.52	.47	.58	.51	.46	.57	.51	.46	.55	.50	.45	.43
7.0	.56	.48	.42	.55	.47	.42	.54	.46	.41	.52	.46	.41	.51	.45	.41	.39
8.0	.51	.43	.38	.51	.43	.38	.49	.42	.37	.48	.42	.37	.47	.41	.37	.35
9.0	.47	.39	.34	.47	.39	.34	.46	.39	.34	.45	.38	.34	.44	.38	.34	.32
10.0	.44	.36	.31	.43	.36	.31	.42	.36	.31	.41	.35	.31	.41	.35	.31	.29



C Angle Range:	0-360Deg	γ Range:	0-90Deg	Test No. :	
C Precious:	10 Deg	γ Precious:	1 Deg	Tester:	
Distance:	3.000 m	Date:	2014-10-24	Time:	09:37:52
Other:					

WEC AND CCEC

Lamp Description					
Lamp Name:	400w led grow light	Lamp Des:	FLG05-2X200W	Lamp Weight:	0.000Kg
Manufac:		Lamp Size(cm):	29.0*18.0*8.0	Light Area(cm):	26.0*12.0
Electrical:	U:220.200V I:0.920A P:201.100W Pf:0.9930			LuminareFlux:	1*0.00 lm

ρ _{cc}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Wall Exitance Coefficients(WEC)															
0.0																
1.0	.274	.156	.049	.267	.152	.048	.253	.145	.046	.241	.139	.045	.230	.134	.043	
2.0	.261	.143	.044	.255	.140	.043	.244	.135	.042	.233	.131	.041	.223	.126	.040	
3.0	.244	.130	.039	.239	.128	.039	.229	.124	.038	.220	.120	.037	.211	.117	.036	
4.0	.228	.118	.035	.223	.117	.035	.214	.114	.034	.206	.111	.033	.198	.108	.033	
5.0	.213	.108	.031	.208	.107	.031	.201	.104	.031	.193	.102	.030	.186	.100	.030	
6.0	.199	.100	.028	.195	.098	.028	.188	.096	.028	.181	.094	.028	.175	.092	.027	
7.0	.186	.092	.026	.183	.091	.026	.176	.089	.026	.171	.087	.025	.165	.086	.025	
8.0	.175	.085	.024	.172	.085	.024	.166	.083	.024	.161	.081	.024	.156	.080	.023	
9.0	.164	.080	.022	.162	.079	.022	.157	.078	.022	.152	.076	.022	.148	.075	.022	
10.0	.155	.074	.021	.153	.074	.021	.148	.073	.020	.144	.072	.020	.140	.070	.020	

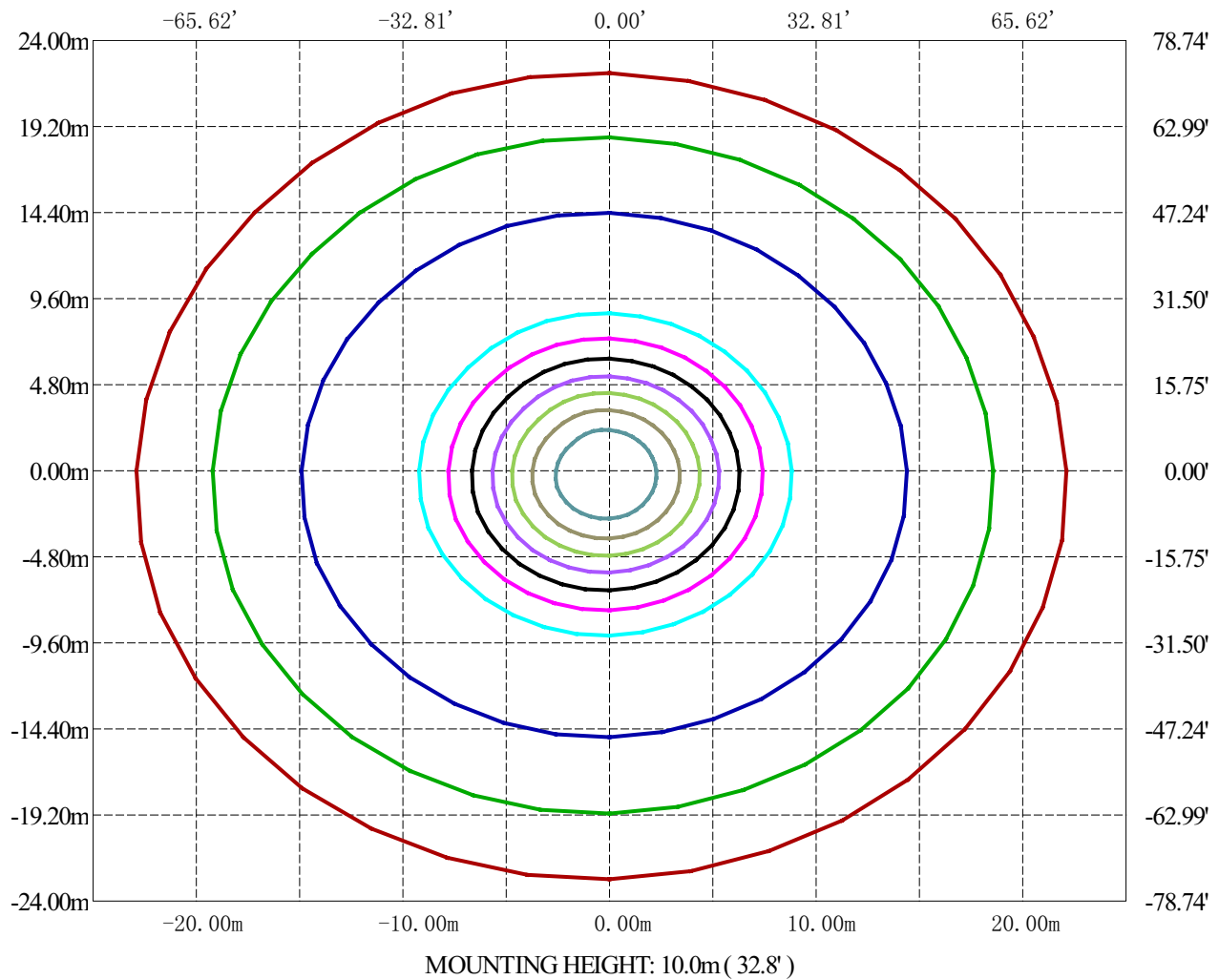
ρ _{cc}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Ceiling Cavity Exitance Coefficients(CCEC)															
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.178	.156	.137	.152	.134	.118	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.168	.132	.102	.144	.114	.088	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.160	.114	.078	.137	.098	.068	.094	.068	.047	.054	.040	.028	.017	.013	.009	
4.0	.152	.101	.061	.130	.087	.053	.089	.061	.038	.052	.035	.022	.017	.012	.007	
5.0	.144	.090	.050	.124	.078	.043	.085	.054	.031	.049	.032	.018	.016	.010	.006	
6.0	.137	.081	.041	.118	.070	.036	.081	.049	.025	.047	.029	.015	.015	.009	.005	
7.0	.131	.074	.035	.112	.064	.030	.078	.045	.022	.045	.027	.013	.015	.009	.004	
8.0	.124	.069	.030	.107	.059	.026	.074	.042	.019	.043	.025	.011	.014	.008	.004	
9.0	.119	.064	.026	.102	.055	.023	.071	.039	.016	.041	.023	.010	.013	.008	.003	
10.0	.113	.059	.023	.098	.051	.020	.068	.036	.014	.040	.021	.009	.013	.007	.003	

C Angle Range: 0-360Deg γ Range: 0-90Deg Test No. :
 C Precious: 10 Deg γ Precious: 1 Deg Tester:
 Distance: 3.000 m Date: 2014-10-24 Time: 09:37:52
 Other:

ISOLUX Diagram

Lamp Description

Lamp Name:	400w led grow light	Lamp Des:	FLG05-2X200W	Lamp Weight:	0.000Kg
Manufac:		Lamp Size(cm):	29.0*18.0*8.0	Light Area(cm):	26.0*12.0
Electrical:	U:220.200V I:0.920A P:201.100W Pf:0.9930			LuminareFlux:	1*0.00 lm

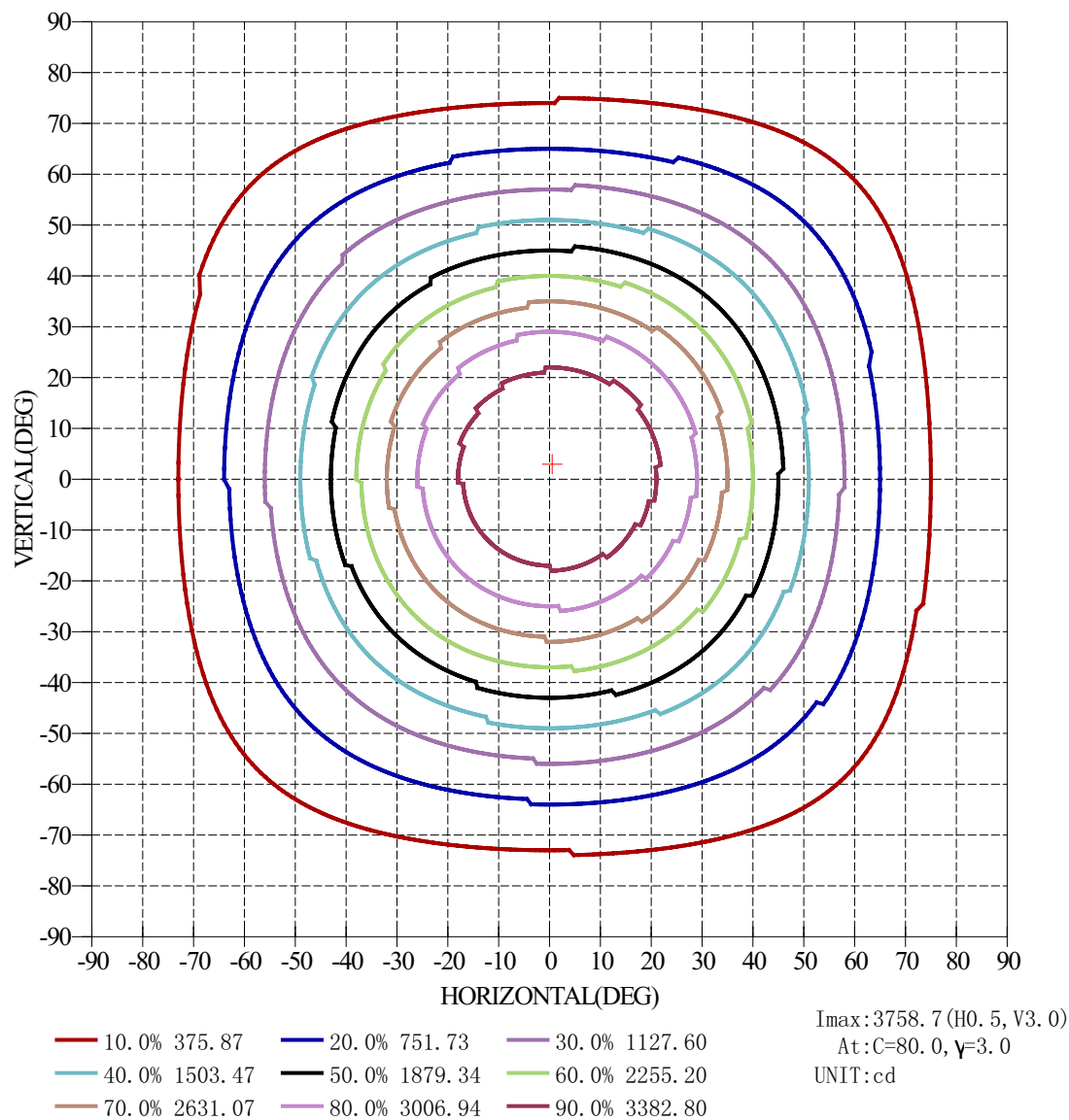


3.0% 1.1225lx 0.1043fc	5.0% 1.8709lx 0.1738fc	10.0% 3.7417lx 0.3476fc
30.0% 11.225lx 1.0428fc	40.0% 14.967lx 1.3904fc	50.0% 18.709lx 1.7380fc
60.0% 22.450lx 2.0856fc	70.0% 26.192lx 2.4332fc	80.0% 29.934lx 2.7808fc
90.0% 33.675lx 3.1284fc		

C Angle Range:	0-360Deg	γ Range:	0-90Deg	Test No. :	
C Precious:	10 Deg	γ Precious:	1 Deg	Tester:	
Distance:	3.000 m	Date:	2014-10-24	Time:	09:37:52
Other:					

ISOCANDELA Diagram

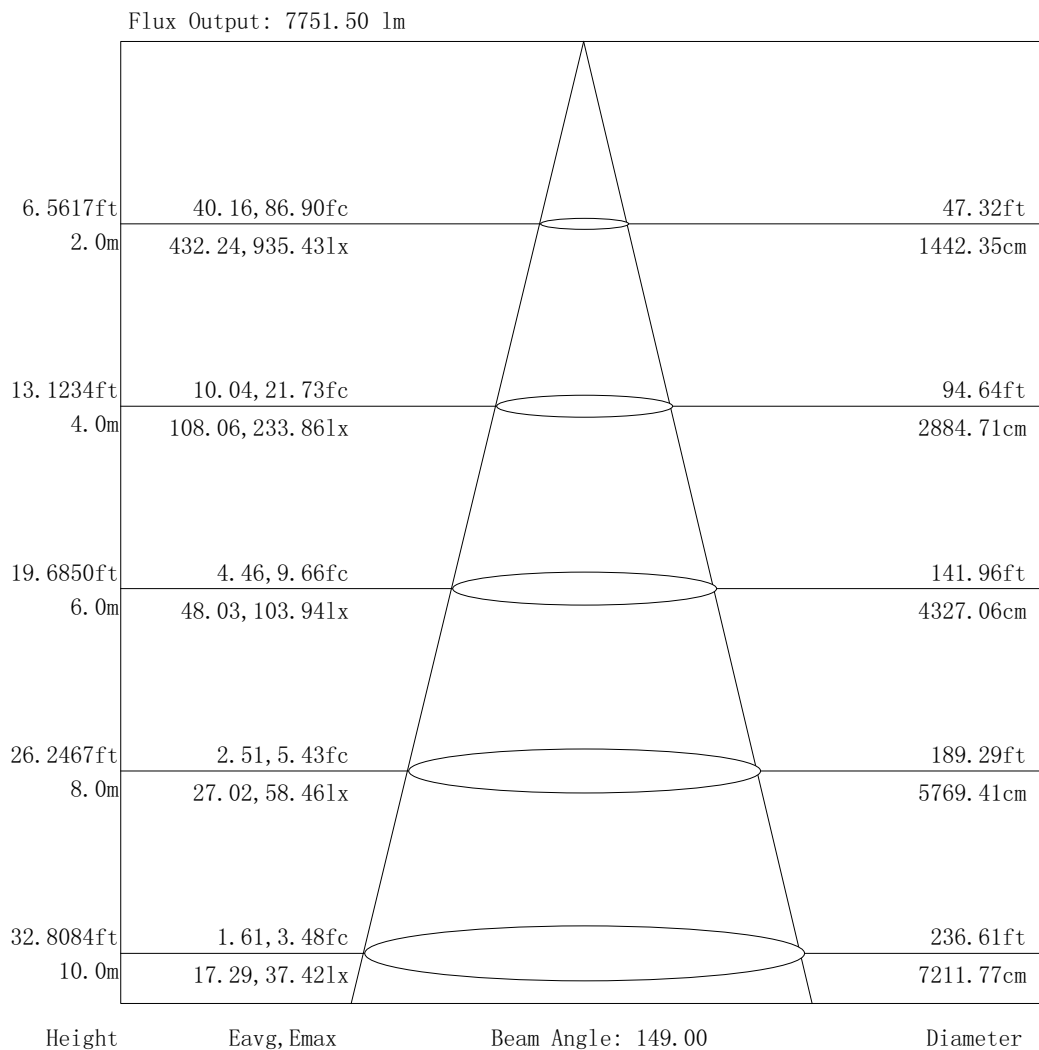
Lamp Description					
Lamp Name:	400w led grow light	Lamp Des:	FLG05-2X200W	Lamp Weight:	0.000Kg
Manufac:		Lamp Size(cm):	29.0*18.0*8.0	Light Area(cm):	26.0*12.0
Electrical:	U:220.200V I:0.920A P:201.100W Pf:0.9930			LuminareFlux:	1*0.00 lm



C Angle Range:	0-360Deg	γ Range:	0-90Deg	Test No. :	
C Precious:	10 Deg	γ Precious:	1 Deg	Tester:	
Distance:	3.000 m	Date:	2014-10-24	Time:	09:37:52
Other:					

Effective Average Illuminance Diagram

Lamp Description					
Lamp Name:	400w led grow light	Lamp Des:	FLG05-2X200W	Lamp Weight:	0.000Kg
Manufac:		Lamp Size(cm):	29.0*18.0*8.0	Light Area(cm):	26.0*12.0
Electrical:	U:220.200V I:0.920A P:201.100W Pf:0.9930			LuminareFlux:	1*0.00 lm



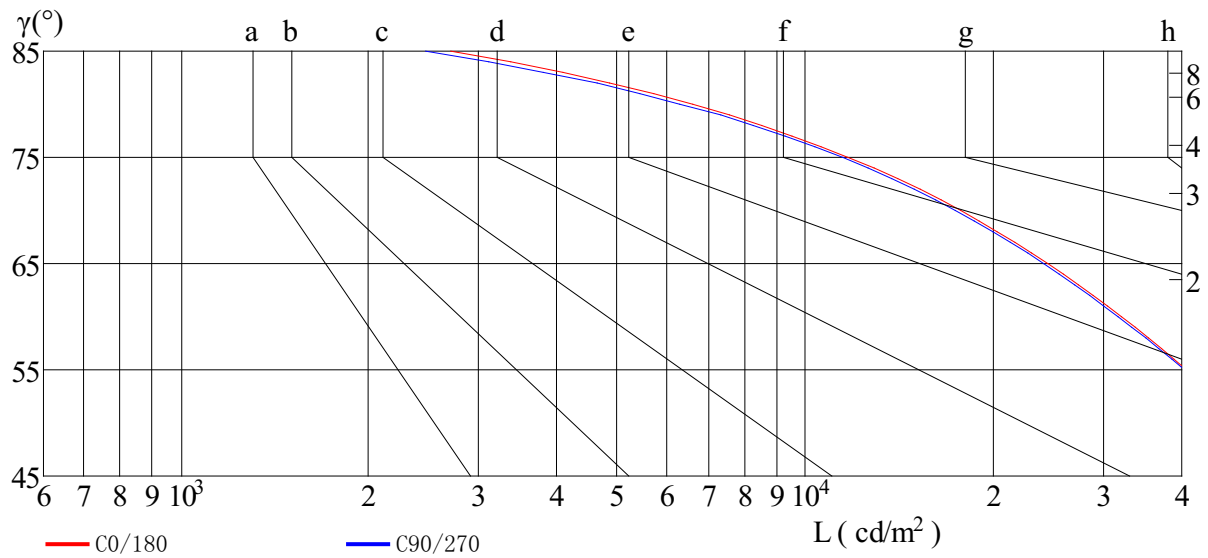
Note: The Curve indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Angle Range:	0-360Deg	γ Range:	0-90Deg	Test No. :
C Precious:	10 Deg	γ Precious:	1 Deg	Tester:
Distance:	3.000 m	Date:	2014-10-24	Time: 09:37:52
Other:				

Luminance Limitation Curves

Lamp Description					
Lamp Name:	400w led grow light	Lamp Des:	FLG05-2X200W	Lamp Weight:	0.000Kg
Manufac:		Lamp Size(cm):	29.0*18.0*8.0	Light Area(cm):	26.0*12.0
Electrical:	U:220.200V I:0.920A P:201.100W Pf:0.9930			LuminareFlux:	1*0.00 lm

GLARE	CLASS	ILLUMINANCE (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



C/Gama	85	80	75	70	65	60	55	50	45	Unit
C0	2696	6586	11668	17704	24409	32021	40706	50608	61249	cd/m2
C90	2457	6276	11453	17347	24028	31615	40420	50202	60963	

C Angle Range: 0-360Deg γ Range: 0-90Deg Test No. :
 C Precious: 10 Deg γ Precious: 1 Deg Tester:
 Distance: 3.000 m Date: 2014-10-24 Time: 09:37:52
 Other:

UTILIZATION FACTORS TABLE

Lamp Description					
Lamp Name:	400w led grow light	Lamp Des:	FLG05-2X200W	Lamp Weight:	0.000Kg
Manufac:		Lamp Size(cm):	29.0*18.0*8.0	Light Area(cm):	26.0*12.0
Electrical:	U:220.200V I:0.920A P:201.100W Pf:0.9930			LuminareFlux:	1*0.00 lm

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERFECT) $k(RI) \times RCR = 5$									
k = 0.60	62	51	44	61	50	44	60	50	44	37
0.80	72	60	53	71	60	53	68	59	52	46
1.00	79	68	61	78	68	61	75	66	60	53
1.25	86	76	69	84	75	68	81	73	67	60
1.50	91	82	75	89	81	74	86	79	73	65
2.00	98	90	84	96	89	83	92	86	81	74
2.50	102	95	89	99	93	88	95	90	86	78
3.00	104	98	93	102	96	92	98	93	89	81
4.00	108	103	98	105	101	97	101	97	94	85
5.00	110	106	102	107	104	100	103	100	97	88
ROOM INDEX	UF (total)									Direct
According to BS EN 13032-2004				Suspended				SHRNOM=1.00		

C Angle Range:	0-360Deg	γ Range:	0-90Deg	Test No. :	
C Precious:	10 Deg	γ Precious:	1 Deg	Tester:	
Distance:	3.000 m	Date:	2014-10-24	Time:	09:37:52
Other:					