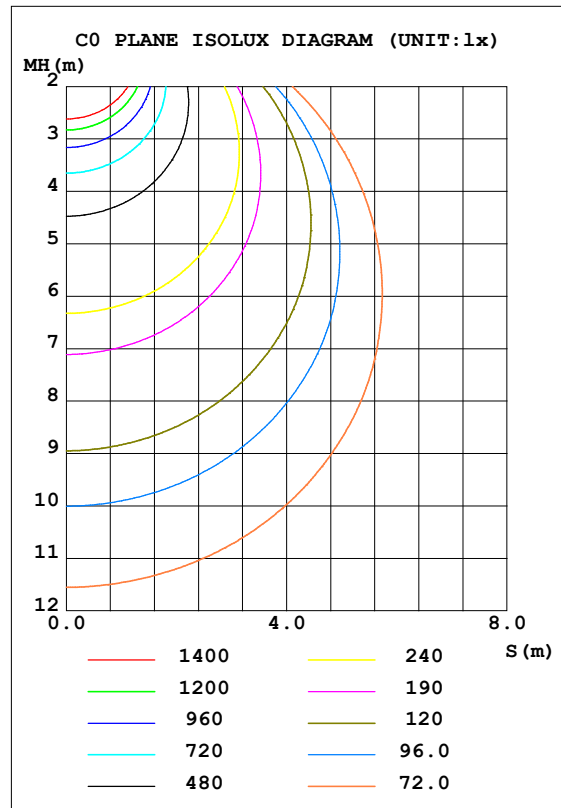
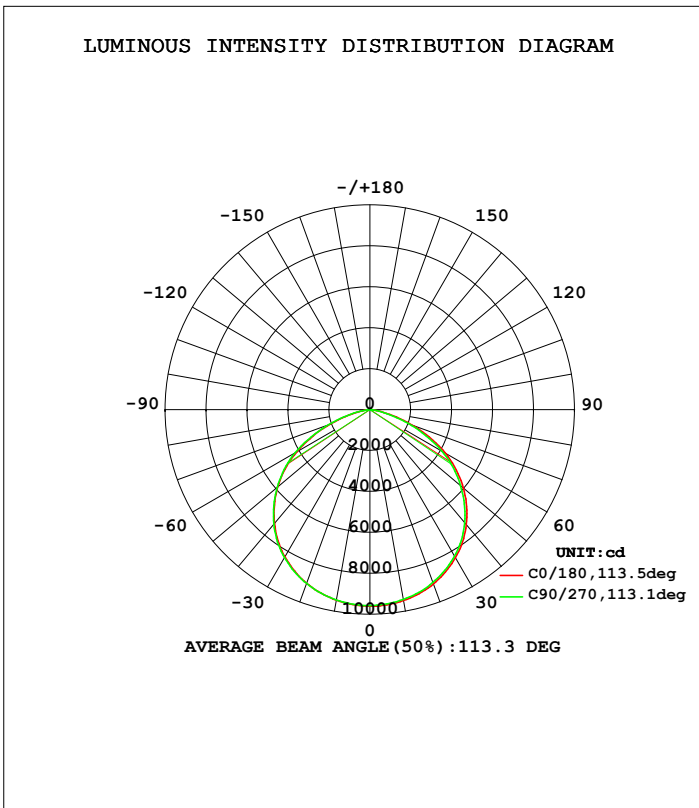


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:221.8V I:0.9139A P:200.5W PF:0.9891 Lamp Flux:26603.2x1 lm		
NAME: 246821	TYPE:	WEIGHT:
SPEC.:120D R80	DIM.: 400*400*176mm	SERIAL No.:
MFR.: LED line	SUR.:400*400mm	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	SMD3030	Imax (cd)	9608	S/MH (C0/180)	1.29
NOMINAL POWER (W)	200	LOR (%)	100.0	S/MH (C90/270)	1.30
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	26603	$\eta$ UP, DN (C0-180)	0.2, 49.8
NOMINAL FLUX (lm)	26603.2	CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	0.2, 49.8
LAMPS INSIDE	1	$\eta$ up (%)	0.4	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220	$\eta$ down (%)	99.6	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: DEG  
 Operators:  
 Test Date: 2016-07-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity: 65.0%  
 Test Distance: 9.390m [K=1.0160]  
 Remarks:

**ZONAL FLUX DIAGRAM**

**ZONAL FLUX DIAGRAM:**

$\gamma$	C0	C90	C180	C270					$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	9469	9418	9452	9442					0- 10	908.1	908.1	3.41,3.41
20	9067	8994	9036	9044					10- 20	2620	3528	13.3,13.3
30	8358	8273	8309	8347					20- 30	4017	7546	28.4,28.4
40	7331	7204	7252	7300					30- 40	4906	12452	46.8,46.8
50	5962	5789	5877	5904					40- 50	5098	17550	66,66
60	4259	4065	4125	4210					50- 60	4527	22077	83,83
70	2161	1996	2031	2125					60- 70	3088	25164	94.6,94.6
80	434.9	351.9	376.5	414.4					70- 80	1216	26380	99.2,99.2
90	2.622	2.654	1.570	1.528					80- 90	118.5	26499	99.6,99.6
100	6.308	6.507	4.239	3.989					90-100	3.760	26502	99.6,99.6
110	11.98	12.22	8.891	8.525					100-110	8.161	26511	99.7,99.7
120	18.00	18.26	14.34	13.96					110-120	13.14	26524	99.7,99.7
130	23.25	23.57	19.63	19.30					120-130	16.87	26541	99.8,99.8
140	27.61	27.93	24.37	24.04					130-140	18.37	26559	99.8,99.8
150	30.92	31.22	27.74	27.38					140-150	17.42	26576	99.9,99.9
160	33.41	33.58	30.41	30.04					150-160	14.13	26591	100,100
170	35.18	35.45	33.23	32.83					160-170	9.331	26600	100,100
180	35.92	35.72	36.04	35.66					170-180	3.314	26603	100,100
DEG	LUMINOUS INTENSITY:cd MAX (Ii - Iavg)/Iavg (0-135) = 151.6 %									UNIT:lm		

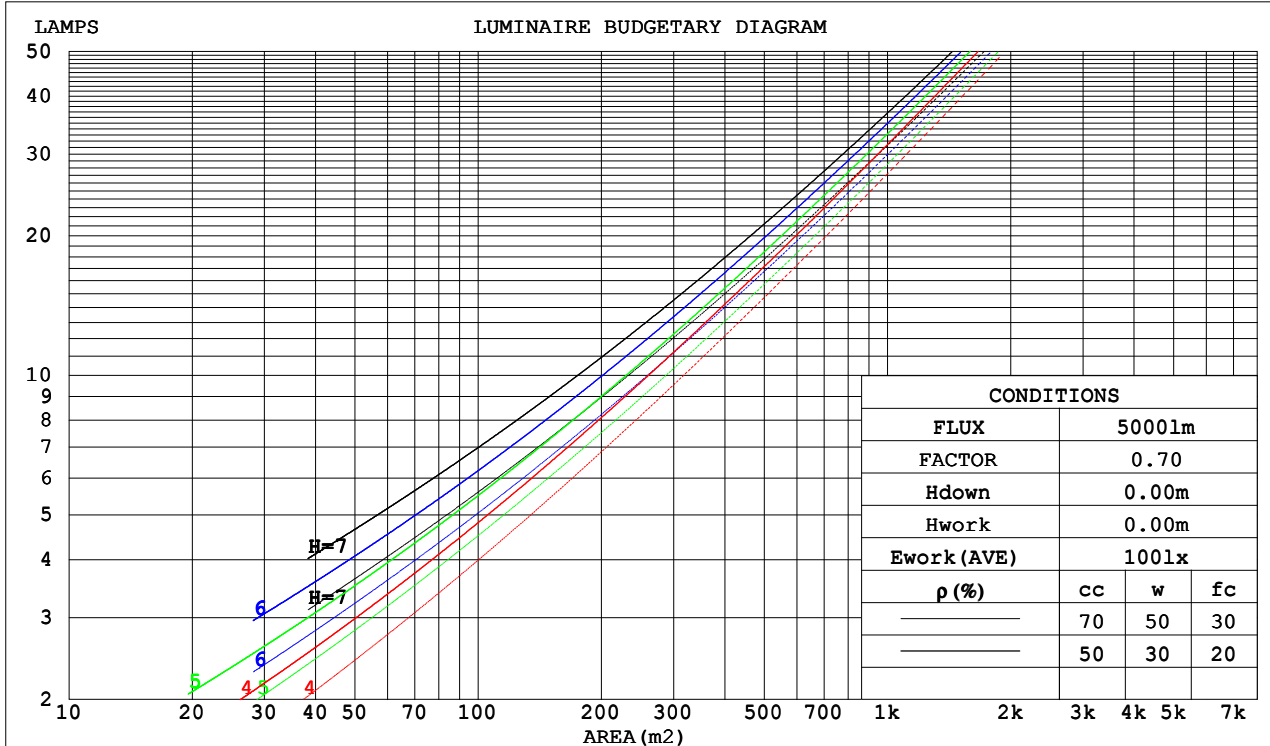
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:DEG  
 Operators:  
 Test Date:2016-07-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity:65.0%  
 Test Distance:9.390m [K=1.0160]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:221.8V I:0.9139A P:200.5W PF:0.9891 Lamp Flux:26603.2x1 lm		
NAME: 246821	TYPE:	WEIGHT:
SPEC.:120D R80	DIM.: 400*400*176mm	SERIAL No.:
MFR.: LED line	SUR.:400*400mm	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pf <sub>c</sub>	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	.00
1.0	1.05	1.01	.98	1.03	.99	.96	.99	.96	.93	.95	.92	.90	.91	.89	.87	.85
2.0	.92	.86	.80	.90	.84	.79	.87	.82	.78	.83	.79	.76	.80	.77	.74	.72
3.0	.81	.73	.67	.80	.72	.67	.77	.70	.65	.74	.69	.64	.71	.67	.63	.61
4.0	.72	.64	.57	.71	.63	.57	.68	.61	.56	.66	.60	.55	.64	.58	.54	.52
5.0	.64	.56	.49	.63	.55	.49	.61	.54	.48	.59	.53	.48	.57	.52	.47	.45
6.0	.58	.49	.43	.57	.49	.43	.55	.48	.42	.53	.47	.42	.52	.46	.41	.39
7.0	.53	.44	.38	.52	.43	.38	.50	.43	.37	.49	.42	.37	.47	.41	.37	.35
8.0	.48	.39	.34	.47	.39	.34	.46	.39	.33	.45	.38	.33	.43	.37	.33	.31
9.0	.44	.36	.30	.43	.36	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.28
10.0	.40	.33	.27	.40	.32	.27	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: DEG  
 Operators:  
 Test Date: 2016-07-26

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity: 65.0%  
 Test Distance: 9.390m [K=1.0160]  
 Remarks:

WEC AND CCEC

Test:U:221.8V I:0.9139A P:200.5W PF:0.9891 Lamp Flux:26603.2x1 lm		
NAME: 246821	TYPE:	WEIGHT:
SPEC.:120D R80	DIM.: 400*400*176mm	SERIAL No.:
MFR.: LED line	SUR.:400*400mm	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.282	.160	.051	.275	.157	.050	.261	.150	.048	.249	.144	.046	.238	.138	.044	
2.0	.273	.150	.046	.267	.147	.045	.255	.142	.044	.244	.137	.043	.234	.133	.042	
3.0	.257	.137	.041	.252	.135	.041	.241	.131	.040	.232	.127	.039	.223	.123	.038	
4.0	.240	.125	.037	.235	.123	.036	.226	.120	.036	.217	.117	.035	.209	.114	.035	
5.0	.224	.114	.033	.219	.113	.033	.211	.110	.032	.203	.107	.032	.196	.105	.032	
6.0	.209	.105	.030	.205	.103	.030	.197	.101	.029	.190	.099	.029	.184	.097	.029	
7.0	.195	.096	.027	.191	.095	.027	.185	.093	.027	.179	.092	.027	.173	.090	.026	
8.0	.183	.089	.025	.179	.088	.025	.174	.087	.025	.168	.085	.025	.163	.084	.024	
9.0	.171	.083	.023	.169	.082	.023	.163	.081	.023	.158	.079	.023	.154	.078	.023	
10.0	.162	.077	.022	.159	.077	.021	.154	.076	.021	.150	.074	.021	.145	.073	.021	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.193	.193	.193	.165	.165	.165	.113	.113	.113	.065	.065	.065	.021	.021	.021	
1.0	.181	.159	.140	.155	.137	.120	.106	.094	.083	.061	.054	.048	.020	.018	.016	
2.0	.173	.135	.103	.148	.116	.089	.101	.080	.062	.058	.047	.037	.019	.015	.012	
3.0	.165	.117	.079	.142	.101	.069	.097	.070	.048	.056	.041	.028	.018	.013	.009	
4.0	.158	.104	.063	.135	.090	.055	.093	.063	.038	.054	.037	.023	.017	.012	.007	
5.0	.150	.093	.051	.129	.081	.045	.089	.056	.031	.052	.033	.019	.017	.011	.006	
6.0	.144	.085	.043	.123	.074	.037	.085	.052	.026	.049	.030	.016	.016	.010	.005	
7.0	.137	.078	.037	.118	.068	.032	.081	.047	.023	.047	.028	.014	.015	.009	.004	
8.0	.131	.072	.032	.113	.063	.028	.078	.044	.020	.045	.026	.012	.015	.009	.004	
9.0	.125	.067	.029	.108	.058	.025	.075	.041	.018	.043	.024	.011	.014	.008	.004	
10.0	.119	.063	.026	.103	.055	.022	.071	.039	.016	.042	.023	.010	.013	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: DEG  
 Operators:  
 Test Date: 2016-07-26

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity: 65.0%  
 Test Distance: 9.390m [K=1.0160]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:221.8V I:0.9139A P:200.5W PF:0.9891 Lamp Flux:26603.2x1 lm										
NAME: 246821					TYPE:			WEIGHT:		
SPEC.:120D R80					DIM.: 400*400*176mm			SERIAL No.:		
MFR.: LED line					SUR.:400*400mm			PROTECTION ANGLE:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	27.8	29.3	28.1	29.5	29.7	27.6	29.1	27.9	29.3	29.5
3H	28.9	30.3	29.2	30.5	30.8	28.7	30.0	29.0	30.3	30.5
4H	29.2	30.5	29.5	30.7	31.0	28.9	30.2	29.2	30.5	30.7
6H	29.2	30.4	29.6	30.7	31.0	28.9	30.1	29.3	30.4	30.7
8H	29.2	30.4	29.5	30.7	31.0	28.9	30.1	29.2	30.3	30.6
12H	29.2	30.3	29.5	30.6	30.9	28.8	30.0	29.2	30.3	30.6
4H 2H	28.3	29.6	28.6	29.8	30.1	28.2	29.4	28.5	29.7	30.0
3H	29.5	30.6	29.9	30.9	31.3	29.3	30.4	29.7	30.7	31.1
4H	29.9	30.9	30.2	31.2	31.5	29.6	30.6	30.0	31.0	31.3
6H	30.0	30.9	30.4	31.2	31.6	29.7	30.6	30.1	30.9	31.3
8H	29.9	30.8	30.4	31.1	31.5	29.7	30.5	30.1	30.9	31.3
12H	29.9	30.7	30.3	31.1	31.5	29.6	30.4	30.1	30.8	31.2
8H 4H	29.9	30.8	30.3	31.1	31.5	29.7	30.5	30.1	30.9	31.3
6H	30.1	30.7	30.5	31.2	31.6	29.8	30.5	30.3	30.9	31.3
8H	30.1	30.7	30.5	31.1	31.6	29.8	30.4	30.3	30.8	31.3
12H	30.0	30.6	30.5	31.0	31.5	29.8	30.3	30.2	30.7	31.2
12H 4H	29.9	30.6	30.3	31.0	31.4	29.7	30.4	30.1	30.8	31.2
6H	30.0	30.6	30.5	31.1	31.5	29.8	30.4	30.2	30.8	31.3
8H	30.0	30.6	30.5	31.0	31.5	29.8	30.3	30.3	30.7	31.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.3 / - 0.3				
1.5H	+ 0.3 / - 0.5					+ 0.3 / - 0.5				
2.0H	+ 0.4 / - 0.5					+ 0.4 / - 0.4				

CIE Pub.117 Corrected 26603 lm Total Lamp Luminous Flux. (8log(F/F0) = 11.4)

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:DEG  
 Operators:  
 Test Date:2016-07-26

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity:65.0%  
 Test Distance:9.390m [K=1.0160]  
 Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:221.8V I:0.9139A P:200.5W PF:0.9891 Lamp Flux:26603.2x1 lm		
NAME: 246821	TYPE:	WEIGHT:
SPEC.:120D R80	DIM.: 400*400*176mm	SERIAL No.:
MFR.: LED line	SUR.:400*400mm	PROTECTION ANGLE:

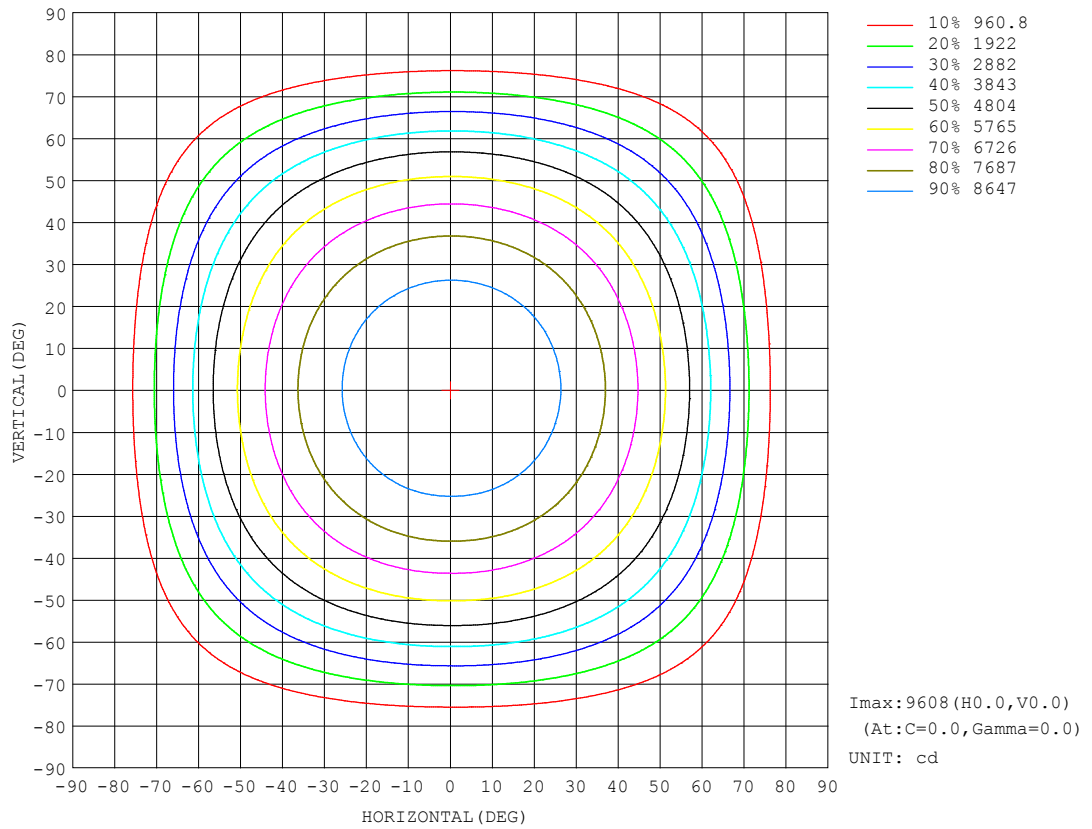
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	58	47	40	58	47	40	56	46	40	33
0.80	69	57	50	68	57	50	66	56	50	43
1.00	78	67	60	76	66	60	74	67	59	52
1.25	85	75	68	83	74	67	81	73	67	60
1.50	90	80	74	88	79	73	85	78	72	65
2.00	97	89	82	95	87	82	91	85	80	73
2.50	100	93	87	98	92	86	94	89	85	76
3.00	104	97	92	101	96	91	97	93	89	80
4.00	107	102	98	105	100	96	101	97	94	85
5.00	110	105	101	107	103	100	103	100	97	88
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: DEG  
 Operators:  
 Test Date: 2016-07-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity: 65.0%  
 Test Distance: 9.390m [K=1.0160]  
 Remarks:

**ISOCANDELA DIAGRAM**

Test:U:221.8V I:0.9139A P:200.5W PF:0.9891 Lamp Flux:26603.2x1 lm		
NAME: 246821	TYPE:	WEIGHT:
SPEC.:120D R80	DIM.: 400*400*176mm	SERIAL No.:
MFR.: LED line	SUR.:400*400mm	PROTECTION ANGLE:

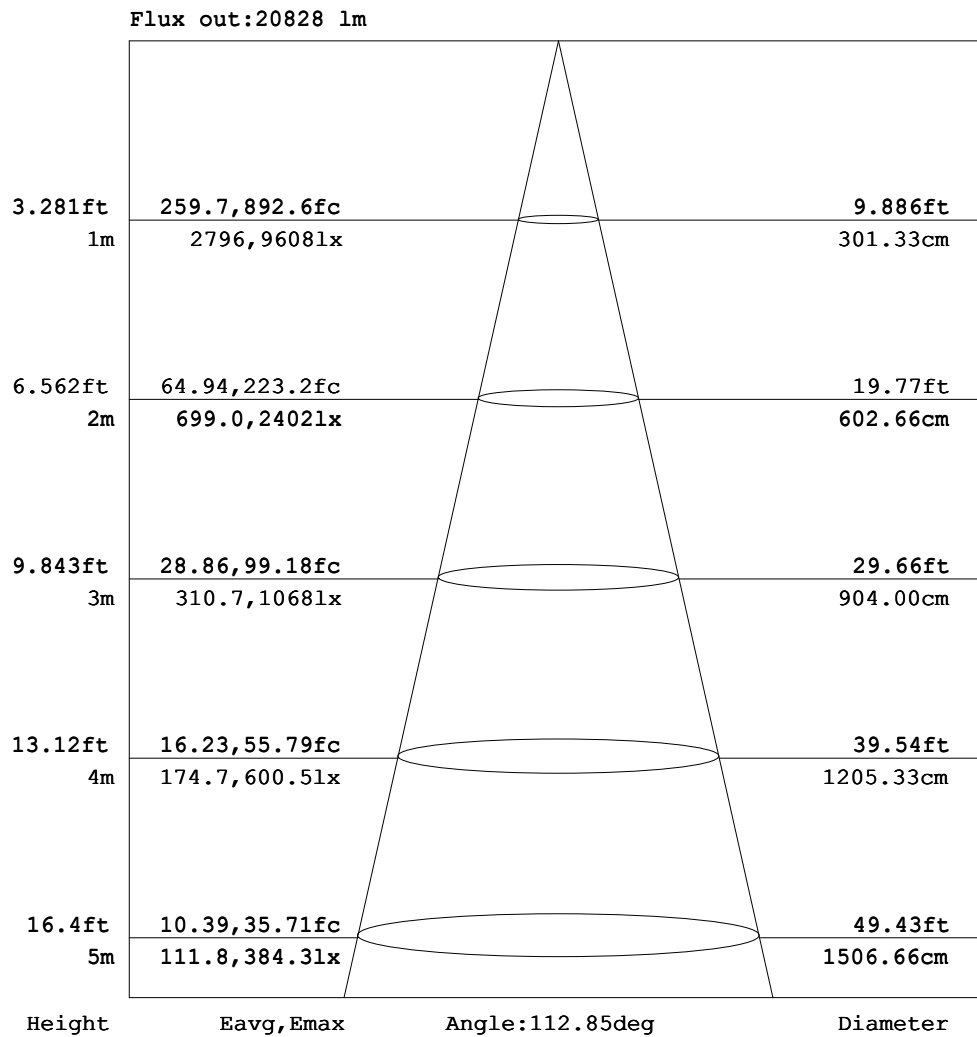


C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: DEG  
 Operators:  
 Test Date: 2016-07-26

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity: 65.0%  
 Test Distance: 9.390m [K=1.0160]  
 Remarks:

**AAI Figure**

Test:U:221.8V I:0.9139A P:200.5W PF:0.9891 Lamp Flux:26603.2x1 lm		
NAME: 246821	TYPE:	WEIGHT:
	DIM.: 400*400*176mm	SERIAL No.:
MFR.: LED line	SUR.:400*400mm	PROTECTION ANGLE:



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

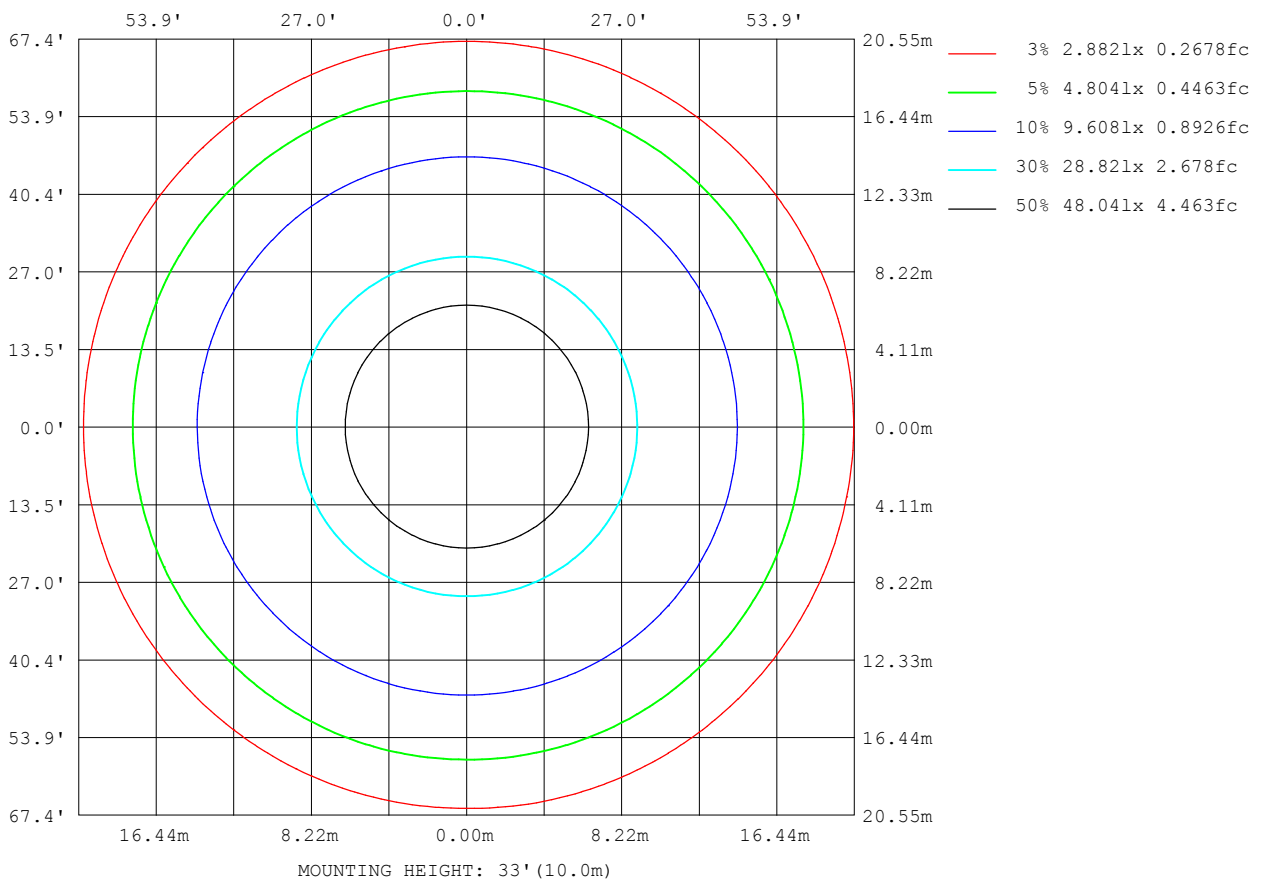
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:DEG  
 Operators:  
 Test Date:2016-07-26

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity:65.0%  
 Test Distance:9.390m [K=1.0160]  
 Remarks:



**ISOLUX DIAGRAM**

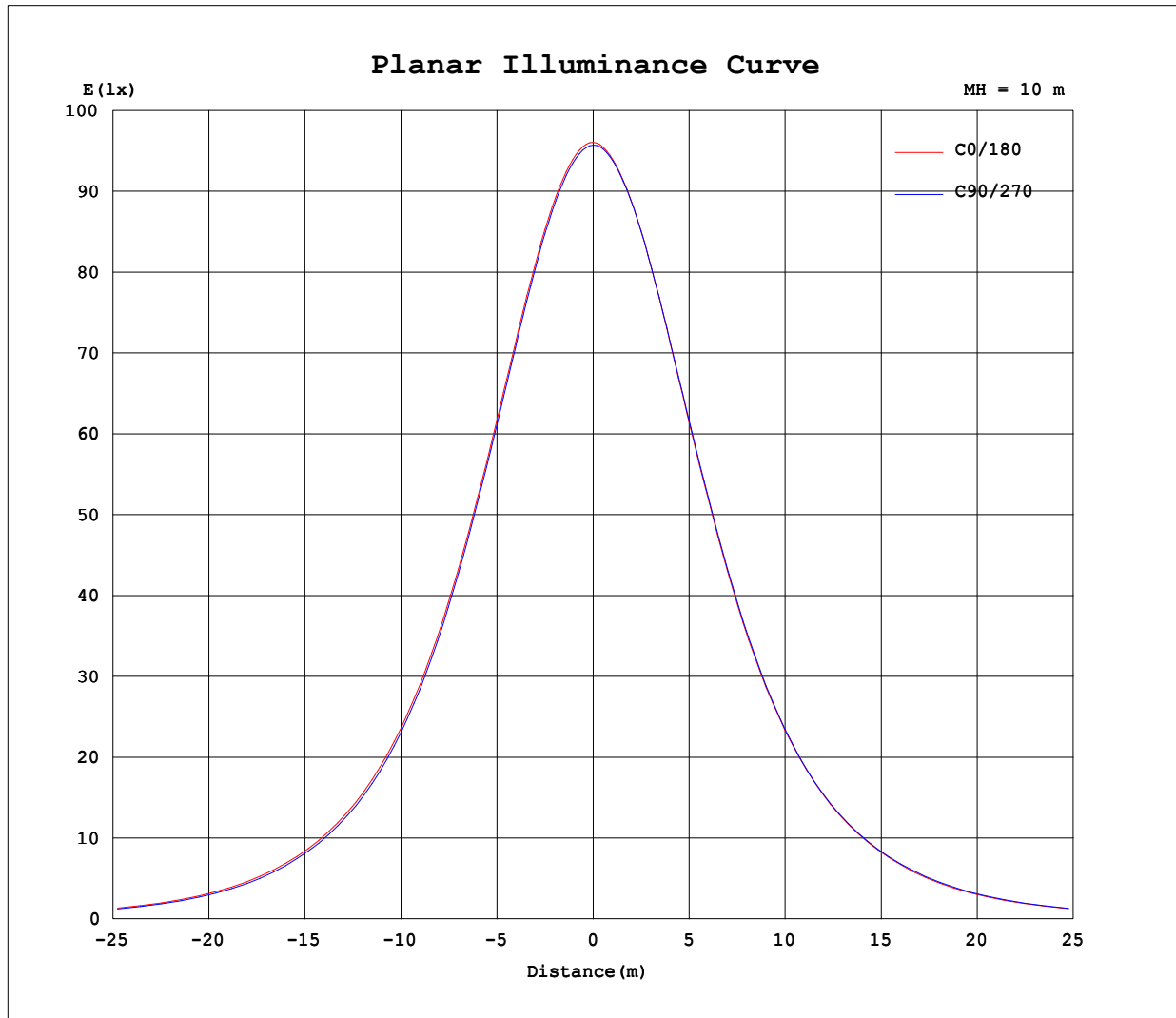
Test:U:221.8V I:0.9139A P:200.5W PF:0.9891 Lamp Flux:26603.2x1 lm		
NAME:246821	TYPE:	WEIGHT:
SPEC.:120D R80	DIM.: 400*400*176mm	SERIAL No.:
MFR.: LED line	SUR.:400*400mm	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:DEG  
 Operators:  
 Test Date:2016-07-26

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity:65.0%  
 Test Distance:9.390m [K=1.0160]  
 Remarks:

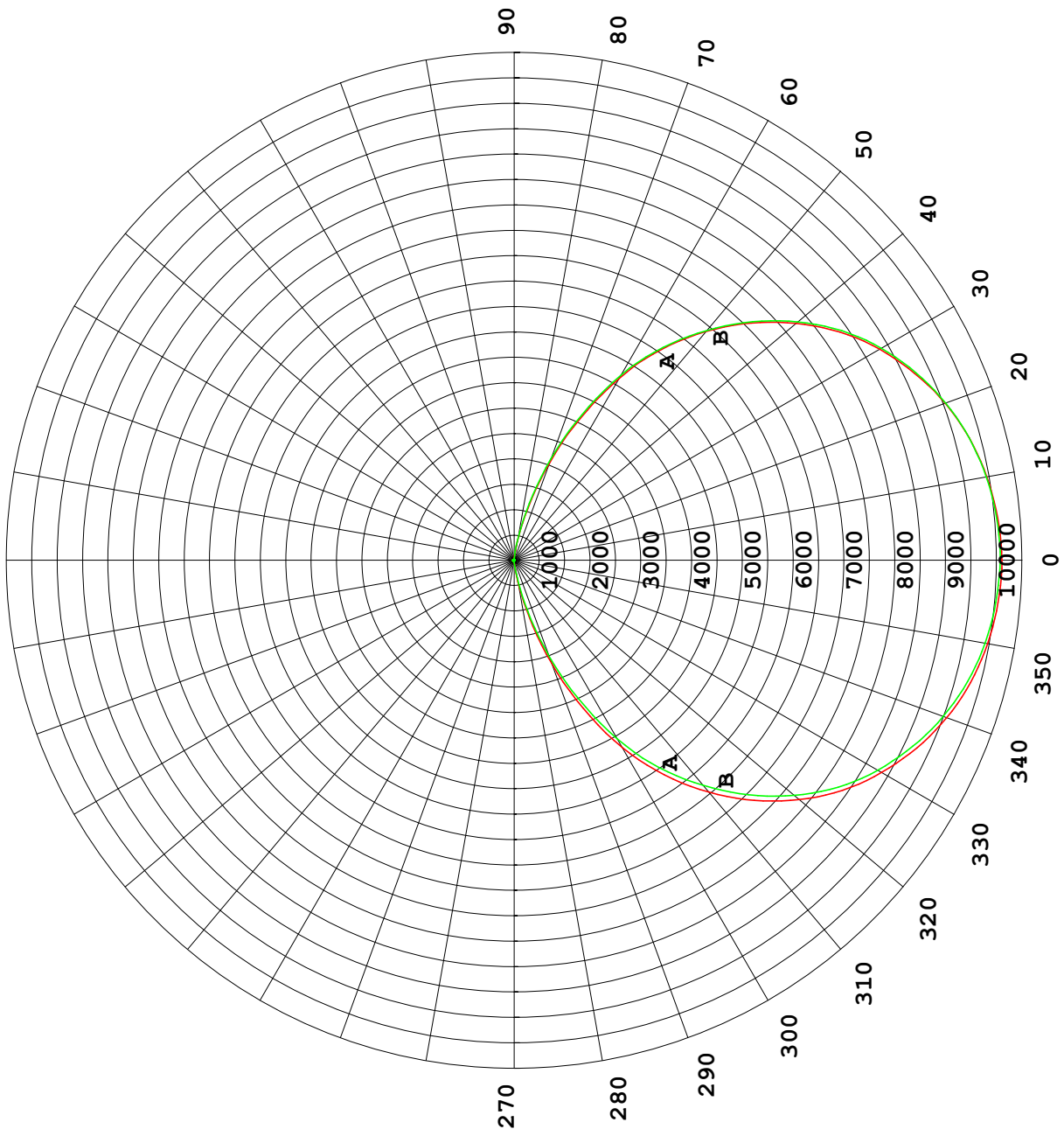
Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: DEG  
 Operators:  
 Test Date: 2016-07-26

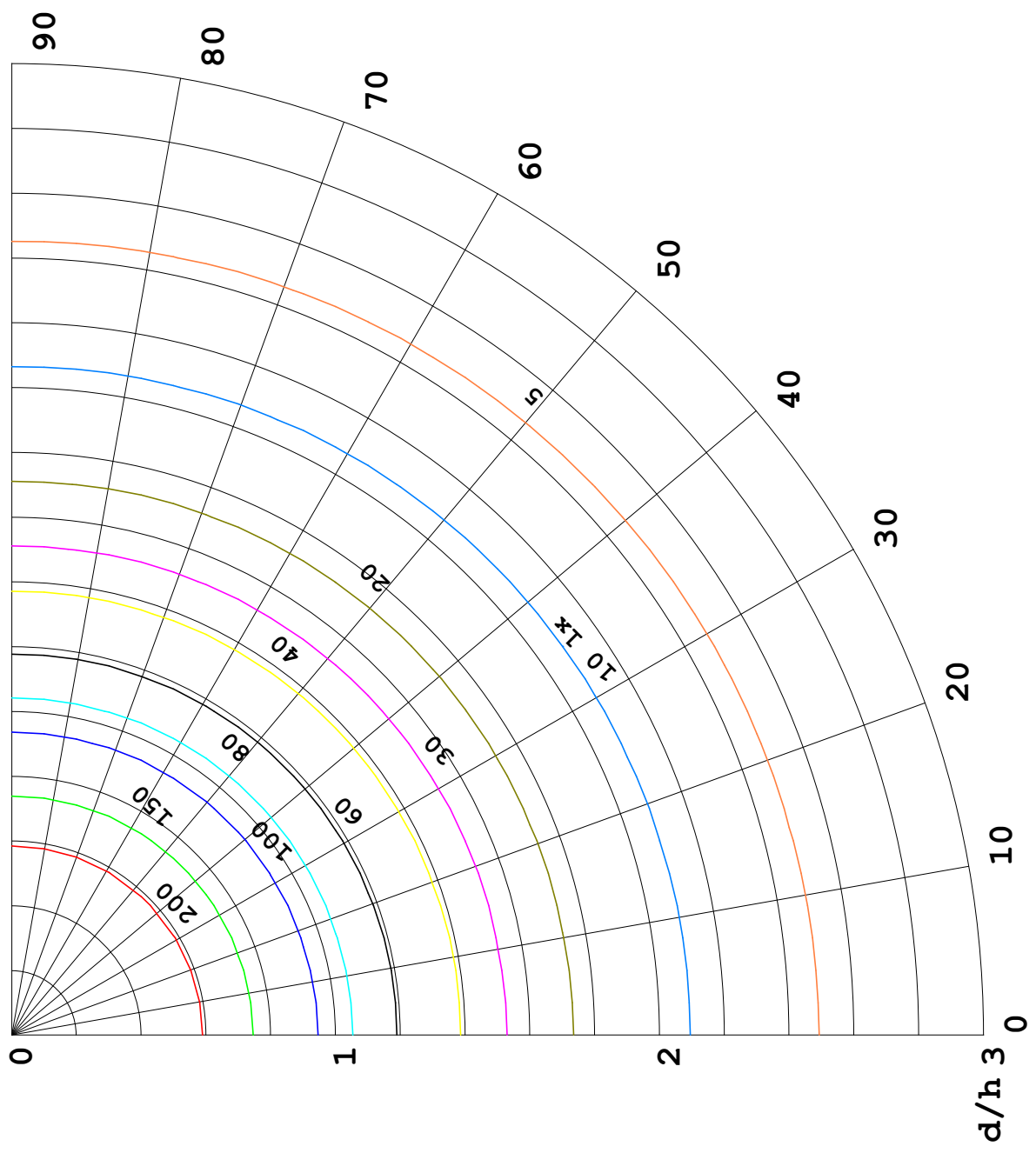
γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity: 65.0%  
 Test Distance: 9.390m [K=1.0160]  
 Remarks:

I (cd)



$K = 1$

1000 lm



F = 5000 lm  
 K = 0.7  
 Hcc = 0.0 m  
 Hfc = 0.0 m  
 Eave = 100 lx

	Pcc	Pw	Pfc
————	70	50	30
————	50	30	20

