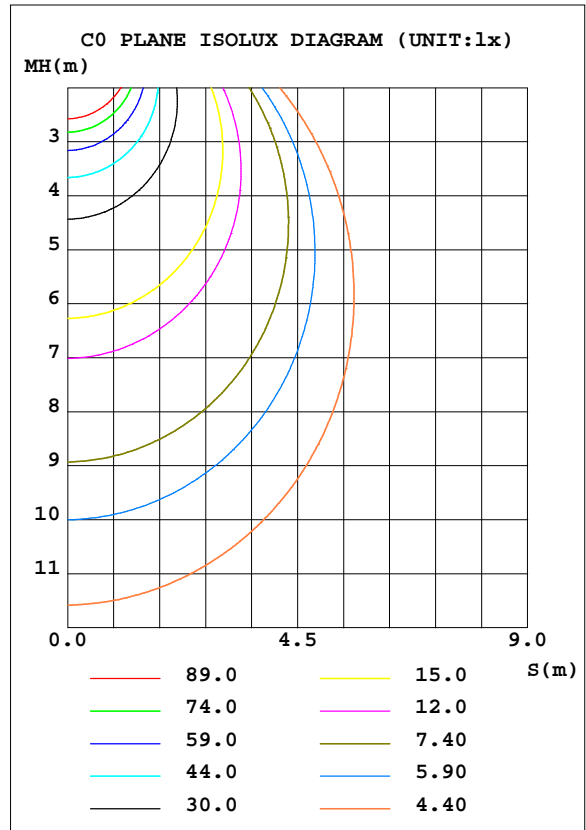
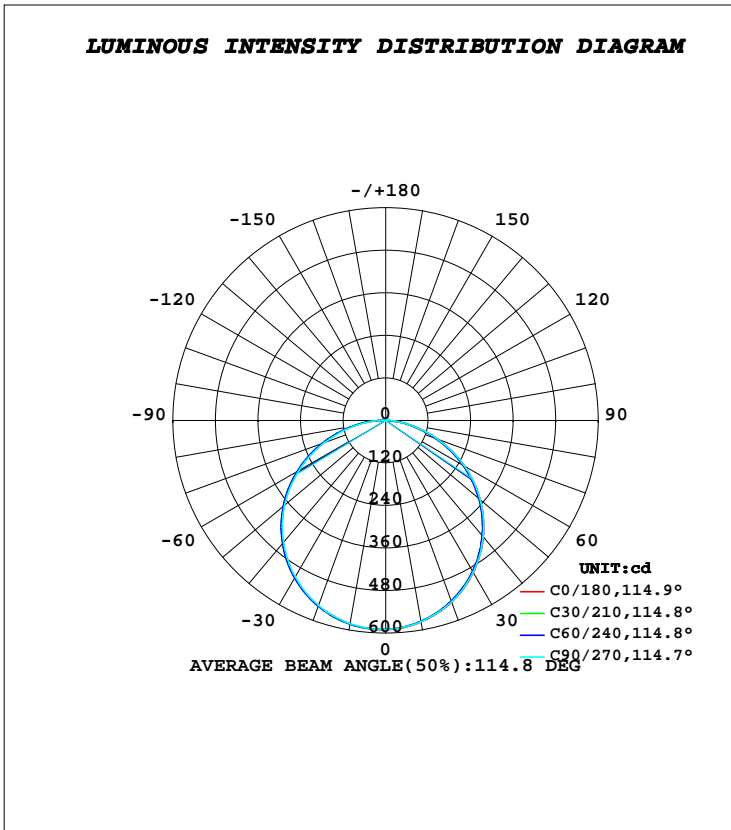


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:222.4V I:0.0950A P:20W PF:0.9840 Lamp Flux:1762.6 x1 lm		
NAME: 面板灯	TYPE:LED	
DIM.: 300*300*10	SUR.:0.3*0.3	
MFR.:		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 84.74 lm/W			
MODEL		I _{max} (cd)	590.2	S/MH(C0/180)	1.25
NOMINAL POWER(W)	20	LOR(%)	18.3	S/MH(C90/270)	1.25
RATED VOLTAGE(V)	222	TOTAL FLUX(lm)	1762.6	η UP, DN(C0-180)	0.1, 8.7
NOMINAL FLUX(lm)	9657.42	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.1, 9.3
LAMPS INSIDE	1	η up(%)	0.3	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	222.4	η down(%)	18.0	CIBSE SHR MAX	1.35



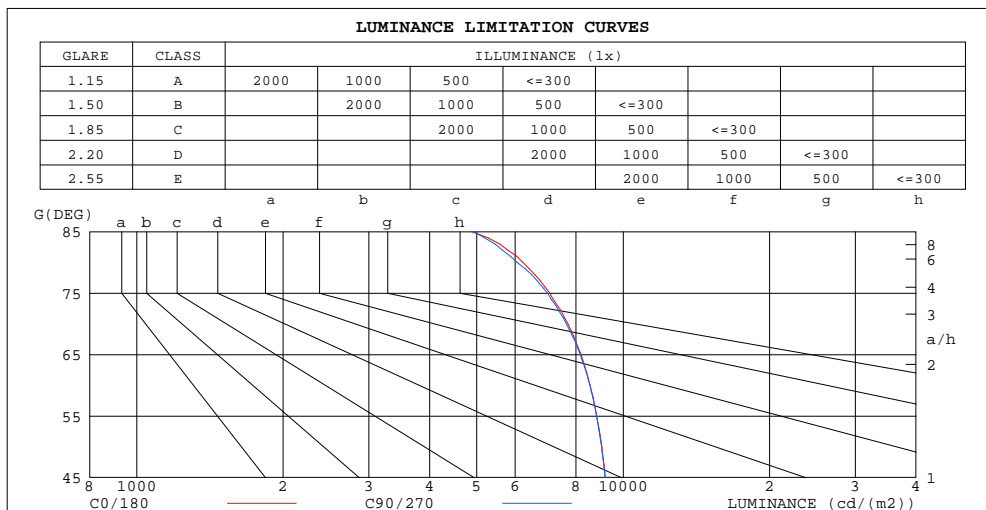
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2015-09-24

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.269
Humidity:65.0%
Test Distance:5.300m [K=1.0000]
Remarks:

**ZONAL FLUX DIAGRAM
AND LUMINANCE LIMITATION CURVES**

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	577.1	575.3	576.0	579.1	583.0	583.3	581.8	579.1	0- 10	55.77	55.77	3.16,0.58
20	544.8	542.0	544.1	549.8	556.1	557.4	555.3	549.4	10- 20	160.0	215.8	12.2,2.23
30	494.9	491.2	493.9	502.6	511.3	513.6	510.1	501.9	20- 30	243.5	459.2	26.1,4.76
40	428.7	424.4	428.1	439.1	449.9	452.8	448.6	438.1	30- 40	295.5	754.8	42.8,7.82
50	348.4	343.5	348.0	361.2	374.0	377.5	372.5	360.0	40- 50	309.5	1064	60.4,11
60	256.5	251.3	256.4	271.2	285.1	289.2	282.9	269.5	50- 60	282.9	1347	76.4,14
70	158.1	152.3	156.9	172.9	187.8	191.8	184.5	170.9	60- 70	219.1	1566	88.9,16.2
80	64.79	59.53	63.09	77.78	91.73	94.37	87.12	75.44	70- 80	130.1	1697	96.3,17.6
90	2.691	2.680	2.679	5.252	13.03	14.74	10.64	4.719	80- 90	41.08	1738	98.6,18
100	3.003	3.010	2.963	2.939	3.460	3.429	3.439	3.539	90-100	3.726	1741	98.8,18
110	3.139	3.150	3.101	3.073	3.875	3.839	3.842	3.945	100-110	3.551	1745	99,18.1
120	3.418	3.420	3.409	3.341	4.258	4.228	4.234	4.319	110-120	3.636	1748	99.2,18.1
130	3.804	3.791	3.779	3.693	4.559	4.536	4.545	4.611	120-130	3.575	1752	99.4,18.1
140	4.166	4.158	4.153	4.068	4.792	4.766	4.779	4.820	130-140	3.339	1755	99.6,18.2
150	4.593	4.598	4.591	4.508	5.010	4.989	4.997	5.015	140-150	2.899	1758	99.8,18.2
160	4.982	4.999	4.988	4.908	5.251	5.235	5.235	5.232	150-160	2.283	1761	99.9,18.2
170	5.340	5.340	5.296	5.248	5.473	5.453	5.438	5.418	160-170	1.482	1762	100,18.2
180	5.566	5.542	5.504	5.483	5.585	5.543	5.502	5.476	170-180	0.5196	1763	100,18.3
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	4869	4915
80	6219	6055
75	7068	6992
70	7704	7645
65	8187	8162
60	8551	8545
55	8830	8817
50	9035	9022
45	9190	9182

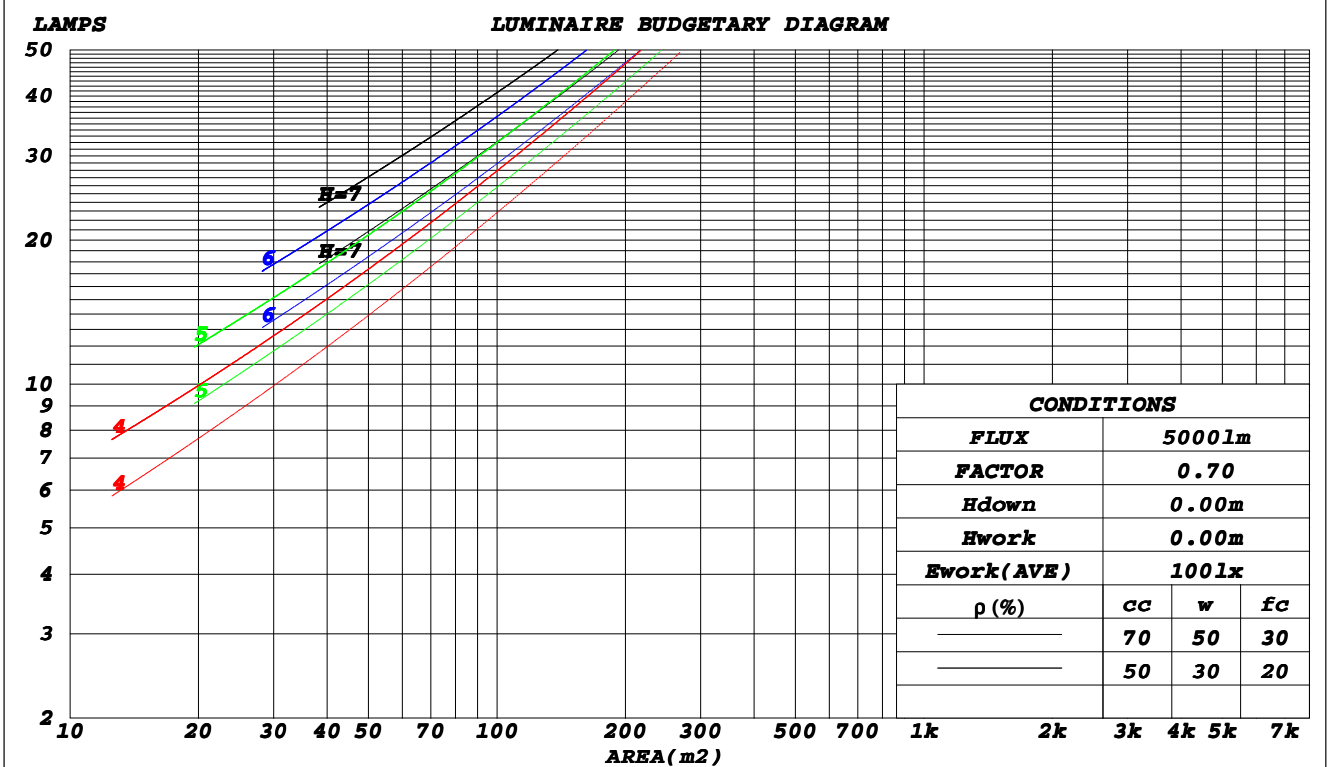
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2015-09-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.269
Humidity:65.0%
Test Distance:5.300m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:222.4V I:0.0950A P:20W PF:0.9840 Lamp Flux:1762.6 x1 lm		
NAME: 面板灯	TYPE:LED	
DIM.: 300*300*10	SUR.:0.3*0.3	
MFR.:		

ρ _{cc}	80%			70%			50%			30%			10%			0
	ρ _w	ρ _{fc}		ρ _w	ρ _{fc}		ρ _w	ρ _{fc}		ρ _w	ρ _{fc}		ρ _w	ρ _{fc}		0
0.0	.22	.22	.22	.21	.21	.21	.20	.20	.20	.19	.19	.19	.18	.18	.18	.18
1.0	.19	.18	.17	.18	.18	.17	.18	.17	.16	.17	.16	.16	.16	.16	.15	.15
2.0	.16	.15	.14	.16	.15	.14	.15	.14	.13	.15	.14	.13	.14	.13	.13	.12
3.0	.14	.13	.12	.14	.13	.11	.13	.12	.11	.13	.12	.11	.12	.12	.11	.10
4.0	.13	.11	.10	.12	.11	.10	.12	.11	.10	.11	.10	.09	.11	.10	.09	.09
5.0	.11	.10	.08	.11	.10	.08	.11	.09	.08	.10	.09	.08	.10	.09	.08	.08
6.0	.10	.09	.07	.10	.08	.07	.10	.08	.07	.09	.08	.07	.09	.08	.07	.07
7.0	.09	.08	.06	.09	.08	.06	.09	.07	.06	.08	.07	.06	.08	.07	.06	.06
8.0	.08	.07	.06	.08	.07	.06	.08	.07	.06	.08	.07	.06	.07	.06	.06	.05
9.0	.08	.06	.05	.08	.06	.05	.07	.06	.05	.07	.06	.05	.07	.06	.05	.05
10.0	.07	.06	.05	.07	.06	.05	.07	.05	.05	.07	.05	.05	.06	.05	.05	.04



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2015-09-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.269
 Humidity: 65.0%
 Test Distance: 5.300m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:222.4V I:0.0950A P:20W PF:0.9840 Lamp Flux:1762.6 x1 lm		
NAME: 面板灯	TYPE:LED	
DIM.: 300*300*10	SUR.:0.3*0.3	
MFR.:		

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	.058	.033	.010	.057	.032	.010	.054	.031	.010	.052	.030	.010	.049	.029	.009	
2.0	.054	.030	.009	.053	.029	.009	.051	.028	.009	.049	.027	.009	.047	.026	.008	
3.0	.050	.027	.008	.049	.026	.008	.047	.025	.008	.045	.025	.008	.043	.024	.007	
4.0	.046	.024	.007	.045	.024	.007	.043	.023	.007	.042	.022	.007	.040	.022	.007	
5.0	.042	.022	.006	.042	.021	.006	.040	.021	.006	.038	.020	.006	.037	.020	.006	
6.0	.039	.020	.006	.039	.019	.006	.037	.019	.006	.036	.019	.005	.034	.018	.005	
7.0	.037	.018	.005	.036	.018	.005	.035	.017	.005	.033	.017	.005	.032	.017	.005	
8.0	.034	.017	.005	.033	.016	.005	.032	.016	.005	.031	.016	.005	.030	.016	.005	
9.0	.032	.015	.004	.031	.015	.004	.030	.015	.004	.029	.015	.004	.028	.014	.004	
10.0	.030	.014	.004	.029	.014	.004	.029	.014	.004	.028	.014	.004	.027	.013	.004	

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	.037	.037	.037	.031	.031	.031	.021	.021	.021	.012	.012	.012	.004	.004	.004	
1.0	.035	.030	.026	.030	.026	.023	.020	.018	.016	.012	.010	.009	.004	.003	.003	
2.0	.034	.026	.020	.029	.022	.017	.020	.016	.012	.011	.009	.007	.004	.003	.002	
3.0	.032	.023	.015	.028	.020	.013	.019	.014	.009	.011	.008	.006	.004	.003	.002	
4.0	.031	.020	.013	.026	.018	.011	.018	.012	.008	.011	.007	.005	.003	.002	.001	
5.0	.029	.019	.011	.025	.016	.009	.017	.011	.007	.010	.007	.004	.003	.002	.001	
6.0	.028	.017	.009	.024	.015	.008	.017	.010	.006	.010	.006	.003	.003	.002	.001	
7.0	.027	.016	.008	.023	.014	.007	.016	.010	.005	.009	.006	.003	.003	.002	.001	
8.0	.026	.015	.007	.022	.013	.006	.015	.009	.004	.009	.005	.003	.003	.002	.001	
9.0	.025	.014	.007	.021	.012	.006	.015	.008	.004	.009	.005	.002	.003	.002	.001	
10.0	.023	.013	.006	.020	.011	.005	.014	.008	.004	.008	.005	.002	.003	.002	.001	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2015-09-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.269
 Humidity:65.0%
 Test Distance:5.300m [K=1.0000]
 Remarks:

Uncorrected UGR Table

Test:U:222.4V I:0.0950A P:20W PF:0.9840 Lamp Flux:1762.6x1 lm		
NAME: 面板灯	TYPE:LED	
DIM.: 300*300*10	SUR.:0.3*0.3	
MFR.:		

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	20.2	21.7	20.5	21.9	22.1	20.1	21.7	20.4	21.9	22.1
3H	21.6	23.0	22.0	23.3	23.6	21.6	23.0	21.9	23.3	23.5
4H	22.2	23.6	22.6	23.8	24.1	22.2	23.5	22.5	23.8	24.1
6H	22.6	23.9	23.0	24.2	24.5	22.6	23.8	22.9	24.1	24.4
8H	22.7	23.9	23.1	24.3	24.6	22.7	23.9	23.0	24.2	24.5
12H	22.8	24.0	23.2	24.3	24.6	22.7	23.9	23.1	24.2	24.6
4H 2H	20.7	22.1	21.1	22.3	22.6	20.7	22.0	21.1	22.3	22.6
3H	22.4	23.6	22.8	23.9	24.2	22.4	23.5	22.7	23.8	24.2
4H	23.1	24.1	23.5	24.5	24.9	23.0	24.1	23.4	24.4	24.8
6H	23.6	24.5	24.0	24.9	25.3	23.5	24.5	24.0	24.9	25.3
8H	23.8	24.6	24.2	25.0	25.5	23.7	24.6	24.1	25.0	25.4
12H	23.9	24.7	24.3	25.1	25.5	23.8	24.6	24.2	25.0	25.5
8H 4H	23.3	24.2	23.7	24.6	25.0	23.3	24.1	23.7	24.5	25.0
6H	23.9	24.7	24.4	25.1	25.6	23.9	24.6	24.4	25.1	25.5
8H	24.2	24.8	24.7	25.3	25.8	24.1	24.8	24.6	25.2	25.7
12H	24.3	24.9	24.8	25.4	25.9	24.3	24.8	24.8	25.3	25.8
12H 4H	23.3	24.1	23.7	24.5	25.0	23.3	24.1	23.7	24.5	24.9
6H	24.0	24.6	24.5	25.1	25.6	23.9	24.6	24.4	25.0	25.5
8H	24.2	24.8	24.7	25.3	25.8	24.2	24.8	24.7	25.2	25.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.2				

CIE Pub.117 Corrected 9657 lm Total Lamp Luminous Flux.(8log(F/F0) = 7.9)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2015-09-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.269
 Humidity:65.0%
 Test Distance:5.300m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:222.4V I:0.0950A P:20W PF:0.9840 Lamp Flux:1762.6 x1 lm		
NAME: 面板灯	TYPE:LED	
DIM.: 300*300*10	SUR.:0.3*0.3	
MFR.:		

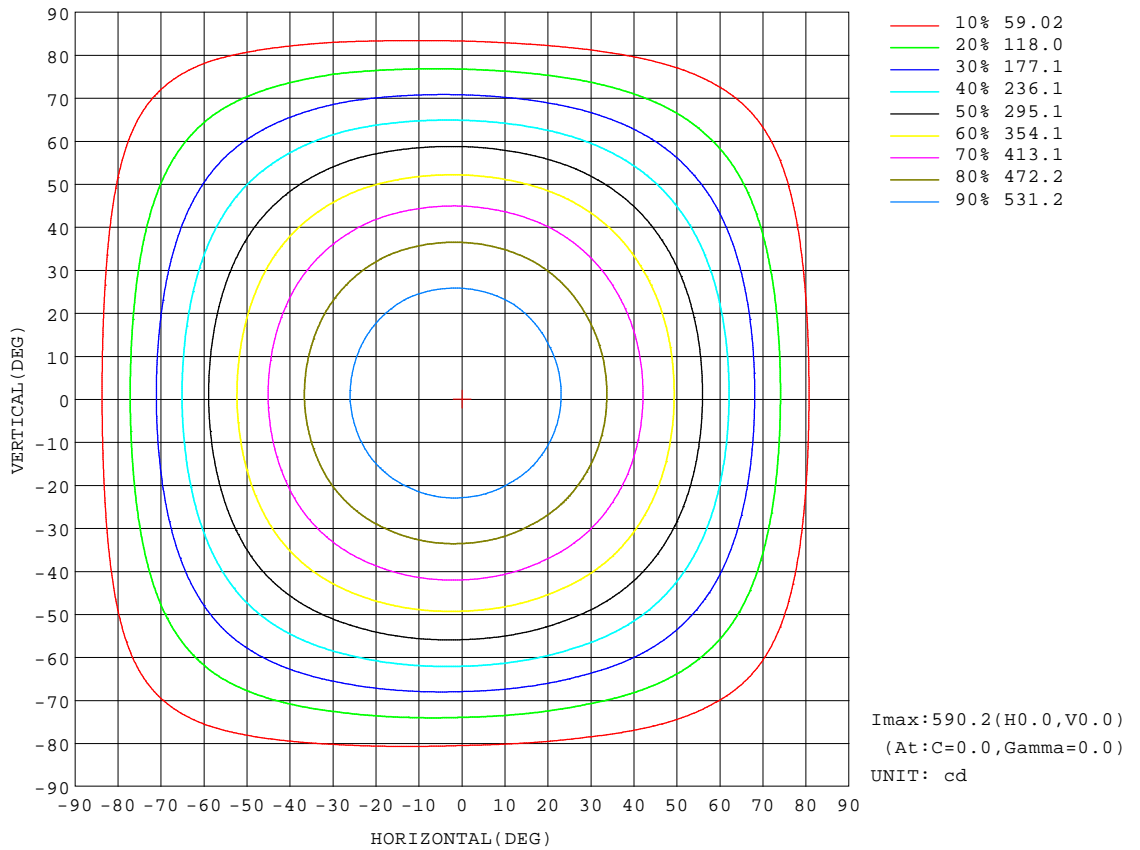
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	10	8	7	10	8	7	10	8	7	6
0.80	12	10	9	12	10	9	12	10	8	7
1.00	14	12	10	13	11	10	13	12	10	9
1.25	15	13	12	15	13	12	14	13	11	10
1.50	16	14	13	16	14	13	15	14	12	11
2.00	17	16	14	17	15	14	16	15	14	12
2.50	18	16	15	17	16	15	17	16	15	13
3.00	18	17	16	18	17	16	17	16	16	14
4.00	19	18	17	19	18	17	18	17	16	15
5.00	20	19	18	19	18	18	18	18	17	15
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2015-09-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.269
Humidity:65.0%
Test Distance:5.300m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:222.4V I:0.0950A P:20W PF:0.9840 Lamp Flux:1762.6x1 lm		
NAME: 面板灯	TYPE:LED	
DIM.: 300*300*10	SUR.:0.3*0.3	
MFR.:		



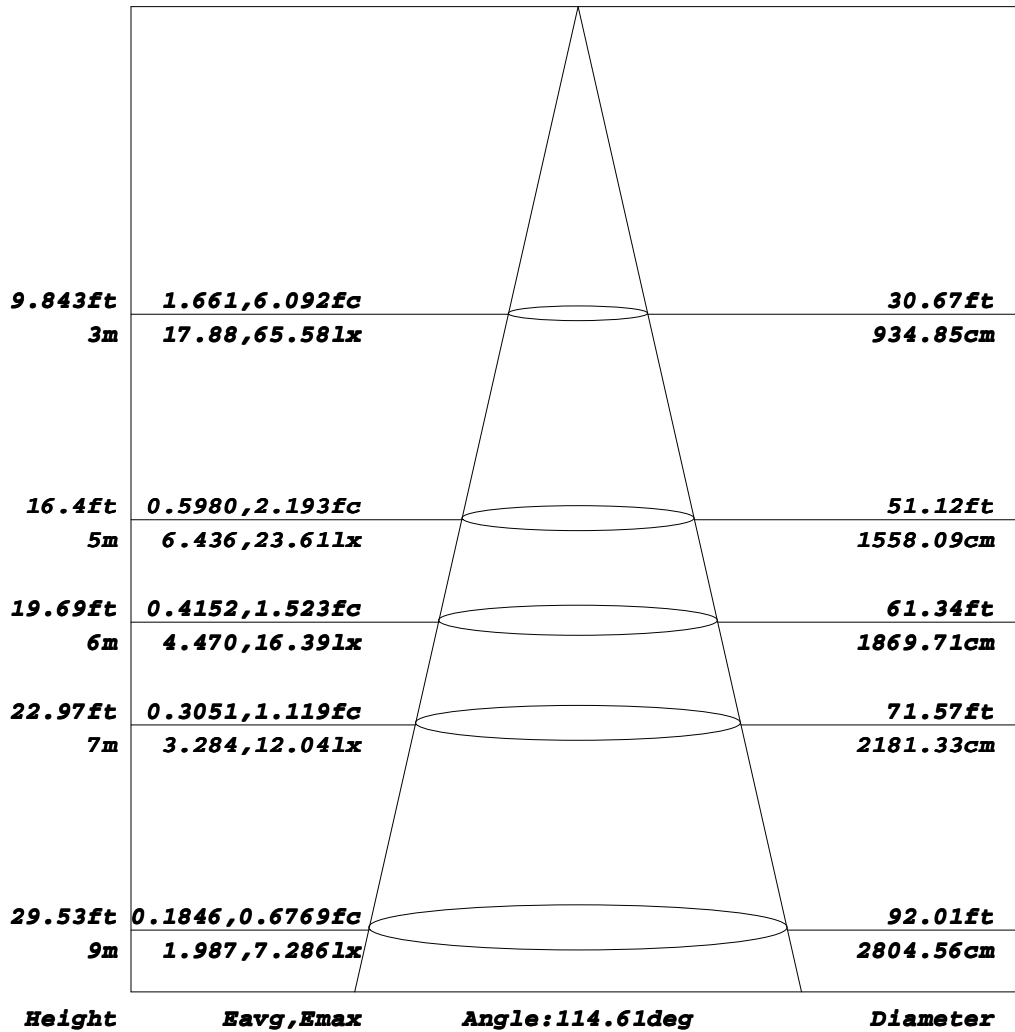
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2015-09-24

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.269
Humidity:65.0%
Test Distance:5.300m [K=1.0000]
Remarks:

AAI Figure

Test:U:222.4V I:0.0950A P:20W PF:0.9840 Lamp Flux:1762.6x1 lm		
NAME: 面板灯	TYPE:LED	
DIM.: 300*300*10	SUR.:0.3*0.3	
MFR.:		

Flux out:1295 lm



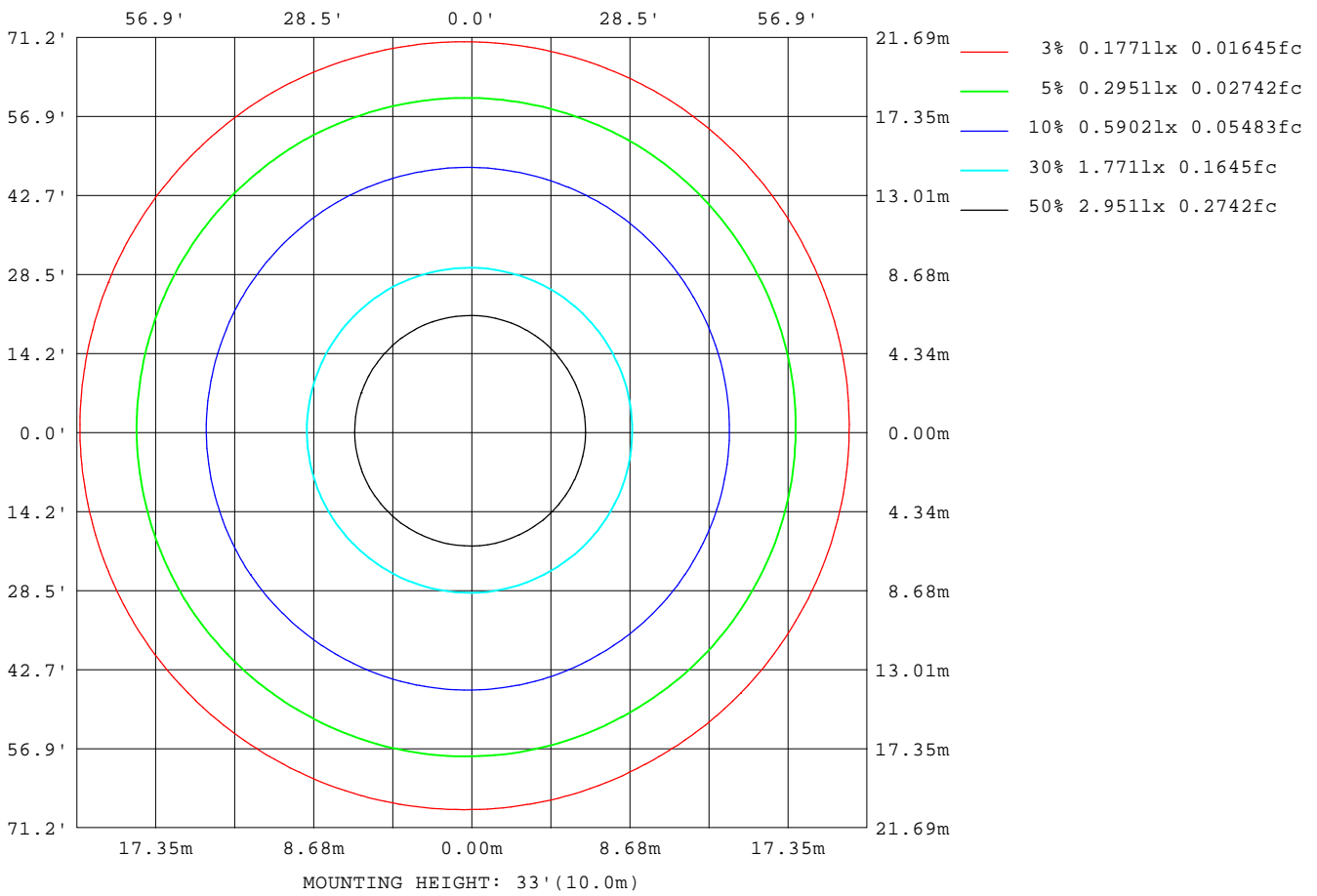
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2015-09-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.269
 Humidity: 65.0%
 Test Distance: 5.300m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

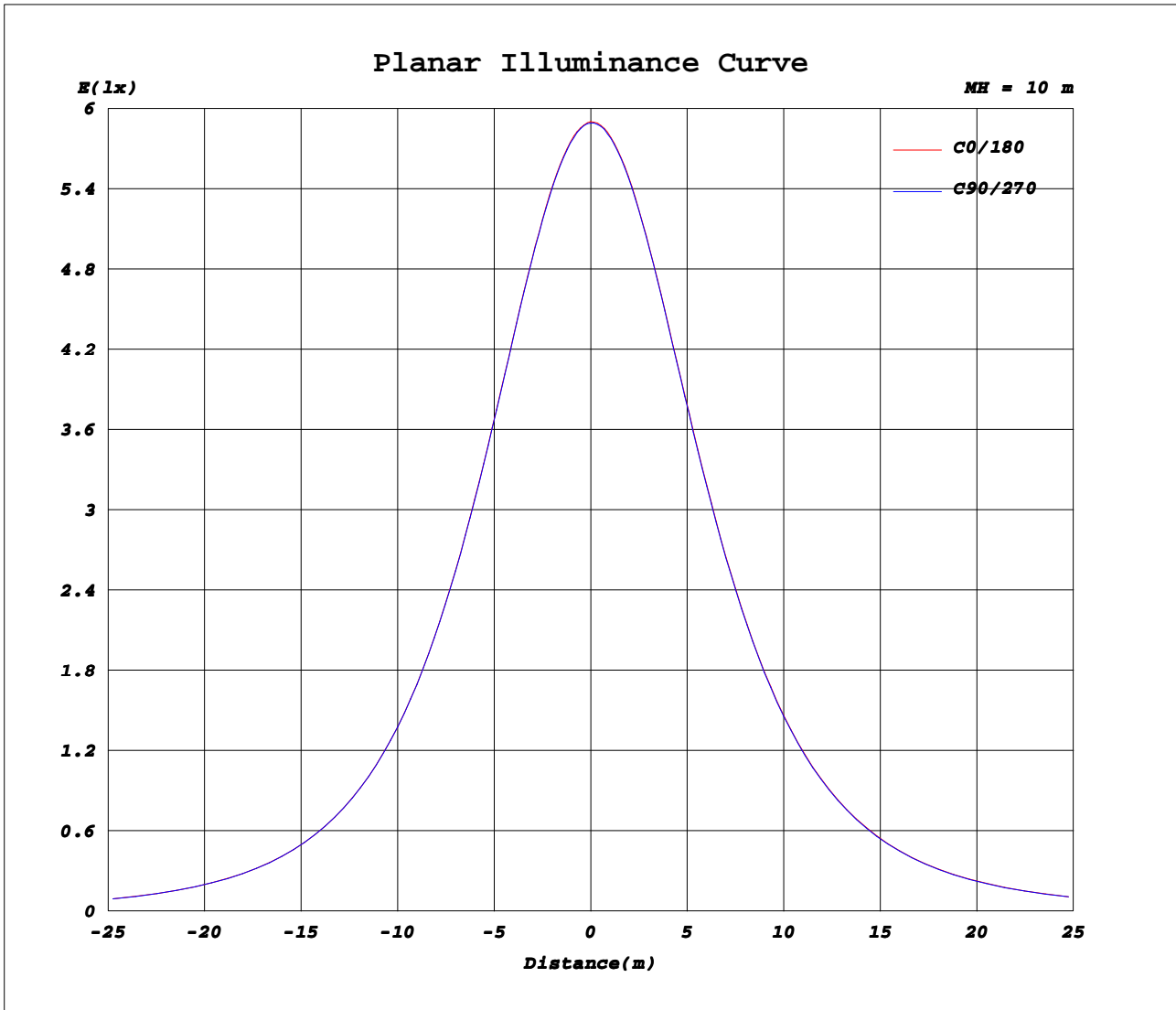
Test:U:222.4V I:0.0950A P:20W PF:0.9840 Lamp Flux:1762.6x1 lm		
NAME: 面板灯	TYPE:LED	
DIM.: 300*300*10	SUR.:0.3*0.3	
MFR.:		



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2015-09-24

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.269
Humidity: 65.0%
Test Distance: 5.300m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2015-09-24

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.269
Humidity: 65.0%
Test Distance: 5.300m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:222.4V I:0.0950A P:20W PF:0.9840 Lamp Flux:1762.6x1 lm		
NAME: 面板灯	TYPE:LED	
DIM.: 300*300*10	SUR.:0.3*0.3	
MFR.:		

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	590	589	589	589	589	589	590	589	589	589	589	589							
5	586	585	585	585	586	587	589	589	588	588	587	586							
10	577	576	575	576	578	580	583	583	583	582	580	578							
15	563	561	560	562	565	569	572	573	573	571	568	564							
20	545	542	542	544	547	552	556	557	558	555	552	547							
25	522	519	518	521	525	531	536	538	538	535	531	525							
30	495	492	491	494	499	506	511	513	514	510	505	498							
35	464	460	459	463	469	477	482	485	485	481	476	468							
40	429	425	424	428	434	444	450	453	453	449	443	434							
45	390	386	385	390	396	407	414	417	417	412	406	396							
50	348	344	343	348	356	367	374	377	378	372	365	355							
55	304	299	298	303	311	323	331	334	335	329	322	310							
60	257	252	251	256	265	278	285	289	290	283	275	264							
65	208	203	201	207	216	229	237	241	242	234	227	215							
70	158	153	152	157	166	179	188	192	192	185	177	165							
75	110	105	103	109	117	131	139	142	142	135	127	116							
80	64.8	59.8	59.3	63.1	71.7	83.8	91.7	94.6	94.1	87.1	80.3	70.6							
85	25.5	22.1	21.4	25.7	32.1	41.8	48.6	51.5	49.9	44.9	38.3	30.3							
90	2.69	2.68	2.68	2.68	2.93	7.57	13.0	14.7	14.8	10.6	6.30	3.14							
95	2.82	2.86	2.89	2.84	2.85	2.76	3.23	3.22	3.21	3.24	3.30	3.33							
100	3.00	3.01	3.01	2.96	2.99	2.89	3.46	3.44	3.42	3.44	3.51	3.57							
105	3.06	3.08	3.07	3.02	3.03	2.96	3.67	3.64	3.63	3.64	3.71	3.77							
110	3.14	3.16	3.14	3.10	3.11	3.04	3.87	3.85	3.83	3.84	3.92	3.97							
115	3.28	3.30	3.29	3.26	3.24	3.17	4.08	4.05	4.03	4.05	4.11	4.16							
120	3.42	3.43	3.41	3.41	3.38	3.31	4.26	4.23	4.22	4.23	4.29	4.35							
125	3.58	3.58	3.56	3.56	3.52	3.45	4.42	4.40	4.39	4.40	4.44	4.51							
130	3.80	3.80	3.78	3.78	3.72	3.66	4.56	4.54	4.53	4.55	4.58	4.64							
135	3.99	3.98	3.98	3.97	3.91	3.86	4.68	4.66	4.65	4.67	4.69	4.75							
140	4.17	4.16	4.16	4.15	4.09	4.05	4.79	4.77	4.76	4.78	4.79	4.84							
145	4.38	4.38	4.39	4.37	4.31	4.28	4.89	4.88	4.87	4.88	4.89	4.93							
150	4.59	4.60	4.60	4.59	4.52	4.50	5.01	4.99	4.99	5.00	5.00	5.03							
155	4.79	4.80	4.81	4.80	4.73	4.70	5.12	5.11	5.11	5.11	5.11	5.12							
160	4.98	5.00	5.00	4.99	4.92	4.90	5.25	5.23	5.24	5.23	5.23	5.23							
165	5.17	5.18	5.19	5.15	5.10	5.06	5.37	5.35	5.35	5.35	5.34	5.33							
170	5.34	5.34	5.34	5.30	5.27	5.22	5.47	5.46	5.45	5.44	5.43	5.40							
175	5.50	5.48	5.47	5.43	5.41	5.38	5.58	5.54	5.52	5.51	5.49	5.47							
180	5.57	5.55	5.53	5.50	5.50	5.47	5.58	5.55	5.53	5.50	5.49	5.46							

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2015-09-24

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.269
Humidity:65.0%
Test Distance:5.300m [K=1.0000]
Remarks: