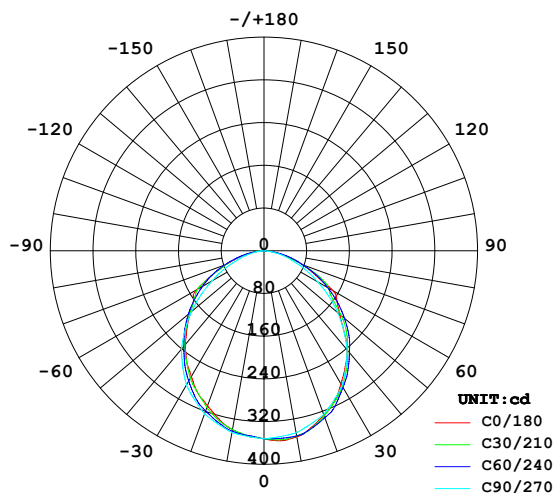


LUMINAIRE PHOTOMETRIC TEST REPORT

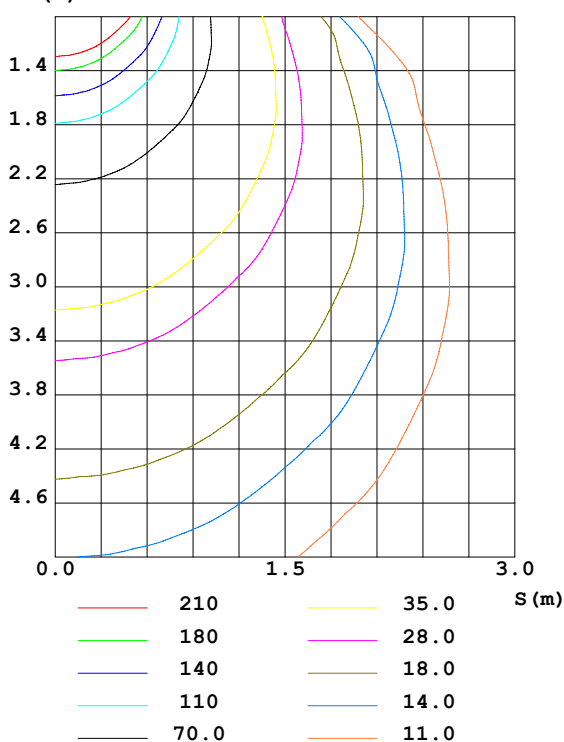
NAME: z/Inq/94/442x	WEIGHT:0.382kg/m	
DIM.: 0.0155*0.006	SPEC.:	SERIAL No.:PXS14012054
MFR.: EVERFINE	SUR.:1*0.0155	PROTECTION ANGLE:/

DATA OF LAMP		PHOTOMETRIC DATA Eff: 72.71 lm/W			
MODEL	2835	I <sub>max</sub> (cd)	357.2	S/MH (C0/180)	1.16
NOMINAL POWER (W)	14	LOR (%)	100.2	S/MH (C90/270)	1.23
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	901.58	η UP, DN (C0-180)	0.0, 49.9
NOMINAL FLUX (lm)	900	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.2
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	100.2	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Zhangyulong  
Test Date:2015-01-27

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.257  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks:

### ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
5	348.5	347.6	349.0	353.8	357.1	354.1	349.3	347.8	0- 5	8.398	8.398	0.93,0.93
10	340.3	341.2	345.8	351.4	353.6	352.5	346.4	341.6	5- 10	24.95	33.34	3.7,3.7
15	326.3	331.7	335.6	344.3	342.4	345.9	336.4	331.9	10- 15	40.55	73.89	8.2,8.21
20	309.2	315.6	325.3	327.8	327.4	330.6	326.4	315.4	15- 20	54.28	128.2	14.2,14.2
25	293.9	296.7	307.9	310.8	311.4	313.8	309.3	296.0	20- 25	65.87	194.0	21.5,21.6
30	272.1	276.6	290.5	292.3	288.4	295.5	292.2	275.5	25- 30	74.84	268.9	29.8,29.9
35	252.6	257.1	265.4	269.9	265.2	273.9	267.2	255.3	30- 35	80.79	349.7	38.8,38.9
40	229.9	233.1	240.3	243.8	242.2	249.3	242.1	230.8	35- 40	83.68	433.4	48.1,48.2
45	203.8	207.3	208.6	215.2	211.6	220.5	211.2	205.1	40- 45	83.44	516.8	57.3,57.4
50	180.3	183.3	176.9	188.8	184.9	193.8	180.2	180.6	45- 50	79.94	596.7	66.2,66.3
55	160.7	158.2	144.1	161.6	167.3	163.6	147.8	155.1	50- 55	74.29	671.0	74.4,74.6
60	144.8	134.5	111.3	134.6	148.9	135.5	115.4	131.2	55- 60	67.75	738.8	81.9,82.1
65	106.2	108.1	83.33	105.0	104.5	108.8	87.52	106.4	60- 65	57.87	796.6	88.4,88.5
70	75.01	78.45	55.32	74.73	77.09	79.87	59.67	78.53	65- 70	44.85	841.5	93.3,93.5
75	48.17	50.88	36.40	48.67	50.09	52.37	39.89	51.78	70- 75	31.59	873.1	96.8,97
80	26.75	28.52	17.49	27.73	26.05	29.32	20.11	29.62	75- 80	19.31	892.4	99,99.2
85	10.35	6.665	0	6.495	9.427	6.745	0	7.141	80- 85	8.292	900.7	99.9,100
90	1.880	0	0	0	2.028	0	0	0	85- 90	0.8990	901.6	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

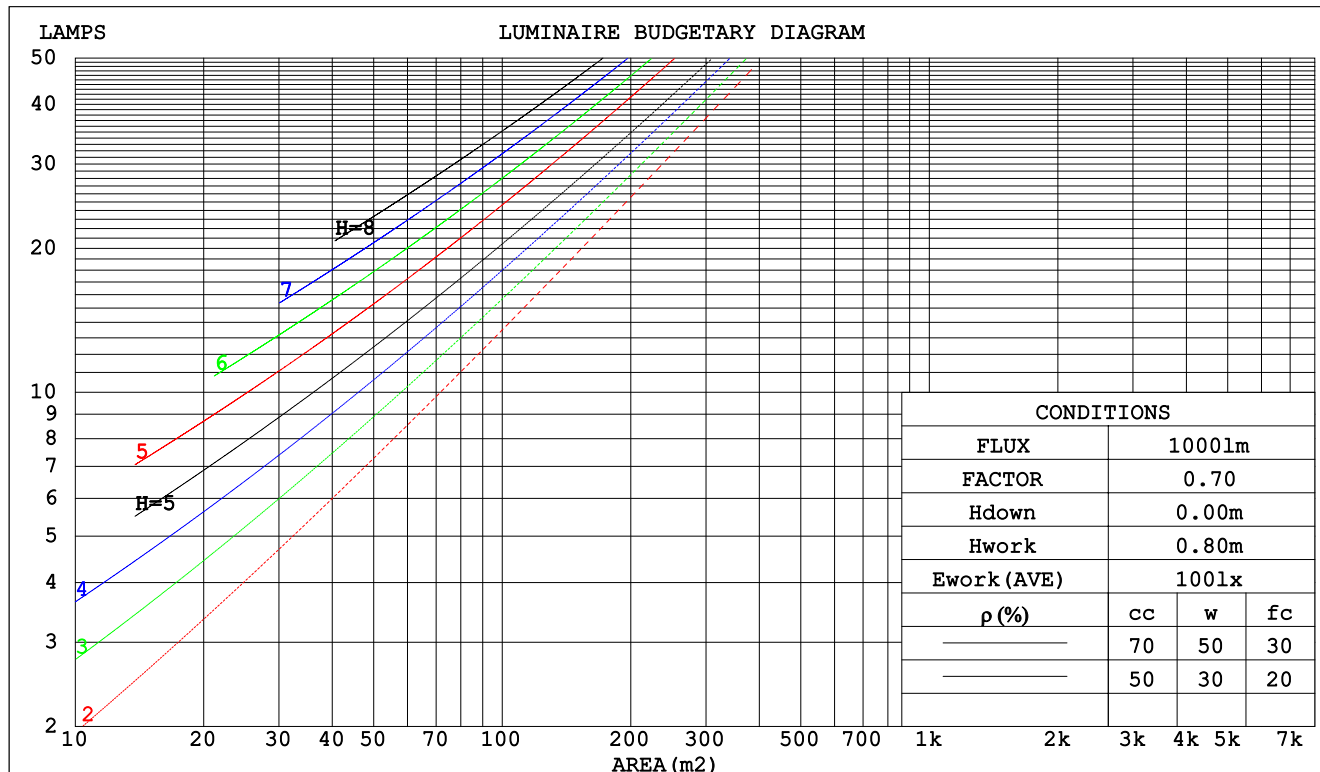
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Zhangyulong  
Test Date:2015-01-27

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.257  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: z/Inq/94/442x	WEIGHT:0.382kg/m	
DIM.: 0.0155*0.006	SPEC.:	SERIAL No.:PXS14012054
MFR.: EVERFINE	SUR.:1*0.0155	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
pfc	20%			20%			20%			20%			20%			0
RCR	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.07	1.07	1.07	1.02	1.02	1.02	1.00
1.0	1.05	1.01	.97	1.03	.99	.96	.99	.96	.93	.95	.92	.90	.91	.89	.87	.85
2.0	.92	.86	.80	.90	.84	.79	.87	.82	.77	.83	.79	.76	.80	.77	.74	.72
3.0	.81	.73	.67	.80	.72	.66	.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	.59	.54	.52
5.0	.65	.56	.49	.64	.55	.49	.61	.54	.49	.59	.53	.48	.58	.52	.48	.45
6.0	.58	.50	.43	.57	.49	.43	.56	.48	.43	.54	.47	.42	.52	.47	.42	.40
7.0	.53	.44	.38	.52	.44	.38	.51	.43	.38	.49	.43	.38	.48	.42	.37	.35
8.0	.48	.40	.34	.48	.40	.34	.46	.39	.34	.45	.39	.34	.44	.38	.34	.32
9.0	.45	.36	.31	.44	.36	.31	.43	.36	.31	.42	.35	.31	.41	.35	.30	.29
10.0	.41	.33	.28	.41	.33	.28	.40	.33	.28	.39	.32	.28	.38	.32	.28	.26



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Zhangyulong  
Test Date:2015-01-27

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.257  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks:

**WEC AND CCEC**

NAME: z/Inq/94/442x	WEIGHT:0.382kg/m	
DIM.: 0.0155*0.006	SPEC.:	SERIAL No.:PXS14012054
MFR.: EVERFINE	SUR.:1*0.0155	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
pfc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio Wall Exitance Coefficients(WEC)					
0.0						
1.0	.290 .165 .052	.283 .162 .051	.270 .155 .049	.258 .149 .048	.247 .143 .046	
2.0	.278 .152 .047	.271 .150 .046	.260 .144 .045	.249 .140 .044	.239 .135 .043	
3.0	.259 .138 .041	.254 .136 .041	.244 .132 .040	.234 .128 .039	.225 .125 .039	
4.0	.241 .125 .037	.236 .124 .037	.227 .120 .036	.219 .117 .035	.211 .114 .035	
5.0	.224 .114 .033	.219 .113 .033	.211 .110 .032	.204 .108 .032	.197 .105 .032	
6.0	.208 .104 .030	.204 .103 .030	.197 .101 .029	.191 .099 .029	.184 .097 .029	
7.0	.194 .096 .027	.191 .095 .027	.185 .093 .027	.179 .092 .027	.173 .090 .026	
8.0	.182 .089 .025	.179 .088 .025	.173 .087 .025	.168 .085 .025	.163 .084 .024	
9.0	.171 .083 .023	.168 .082 .023	.163 .081 .023	.158 .079 .023	.154 .078 .023	
10.0	.161 .077 .021	.158 .077 .021	.154 .075 .021	.149 .074 .021	.145 .073 .021	

pcc	80%	70%	50%	30%	10%	0
pw	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
pfc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio Ceiling Cavity Exitance Coefficients(CCEC)					
0.0	.191 .191 .191	.163 .163 .163	.111 .111 .111	.064 .064 .064	.020 .020 .020	
1.0	.179 .157 .136	.153 .134 .117	.105 .092 .081	.060 .054 .047	.019 .017 .015	
2.0	.171 .132 .100	.146 .114 .086	.100 .079 .060	.058 .046 .035	.019 .015 .012	
3.0	.163 .114 .076	.139 .099 .066	.096 .069 .046	.055 .040 .027	.018 .013 .009	
4.0	.155 .101 .060	.133 .087 .052	.091 .061 .037	.053 .036 .022	.017 .012 .007	
5.0	.148 .090 .048	.127 .078 .042	.087 .055 .030	.051 .032 .018	.016 .010 .006	
6.0	.141 .082 .040	.121 .071 .035	.083 .050 .025	.048 .029 .015	.016 .010 .005	
7.0	.134 .075 .034	.115 .065 .030	.080 .046 .021	.046 .027 .012	.015 .009 .004	
8.0	.127 .069 .029	.110 .060 .026	.076 .042 .018	.044 .025 .011	.014 .008 .004	
9.0	.122 .064 .026	.105 .056 .022	.073 .039 .016	.042 .023 .009	.014 .008 .003	
10.0	.116 .060 .023	.100 .052 .020	.069 .037 .014	.040 .022 .008	.013 .007 .003	

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Zhangyulong  
Test Date:2015-01-27

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.257  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks:

Uncorrected UGR Table

NAME: z/Inq/94/442x					WEIGHT:0.382kg/m						
DIM.: 0.0155*0.006					SPEC.:			SERIAL No.:PXS14012054			
MFR.: EVERFINE					SUR.:1*0.0155			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	23.0	24.4	23.2	24.6	24.8	22.5	24.0	22.8	24.2	24.4	
	3H	24.2	25.6	24.5	25.8	26.1	23.6	25.0	23.9	25.2	25.4
	4H	24.6	25.9	25.0	26.2	26.4	23.9	25.2	24.3	25.5	25.7
	6H	24.9	26.1	25.2	26.4	26.7	24.1	25.3	24.4	25.6	25.9
	8H	25.0	26.1	25.3	26.4	26.7	24.1	25.3	24.4	25.6	25.8
	12H	25.0	26.1	25.3	26.4	26.7	24.1	25.2	24.4	25.5	25.8
4H	2H	23.5	24.8	23.8	25.1	25.3	23.2	24.5	23.5	24.7	25.0
	3H	24.9	26.1	25.3	26.4	26.7	24.5	25.7	24.9	26.0	26.3
	4H	25.5	26.5	25.9	26.8	27.2	25.0	26.1	25.4	26.4	26.7
	6H	25.8	26.7	26.2	27.1	27.5	25.3	26.2	25.7	26.6	26.9
	8H	25.9	26.8	26.3	27.1	27.5	25.3	26.2	25.7	26.5	26.9
	12H	26.0	26.8	26.4	27.1	27.5	25.3	26.1	25.7	26.5	26.9
8H	4H	25.7	26.5	26.1	26.9	27.3	25.3	26.1	25.7	26.5	26.9
	6H	26.1	26.8	26.6	27.3	27.7	25.7	26.4	26.1	26.8	27.2
	8H	26.3	26.9	26.8	27.4	27.8	25.8	26.4	26.2	26.8	27.3
	12H	26.4	26.9	26.9	27.4	27.9	25.8	26.3	26.2	26.7	27.2
12H	4H	25.7	26.5	26.1	26.8	27.2	25.3	26.1	25.7	26.4	26.8
	6H	26.2	26.8	26.6	27.2	27.7	25.7	26.4	26.2	26.8	27.2
	8H	26.4	26.9	26.8	27.3	27.8	25.8	26.4	26.3	26.8	27.3
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.3					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.7					

CIE Pub.117 Corrected 900.0 lm Total Lamp Luminous Flux.(8log(F/F0) = -0.4)

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Zhangyulong  
Test Date:2015-01-27

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.257  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks:

**UTILIZATION FACTORS TABLE**

NAME: z/Inq/94/442x	WEIGHT:0.382kg/m	
DIM.: 0.0155*0.006	SPEC.:	SERIAL No.:PXS14012054
MFR.: EVERFINE	SUR.:1*0.0155	PROTECTION ANGLE:/

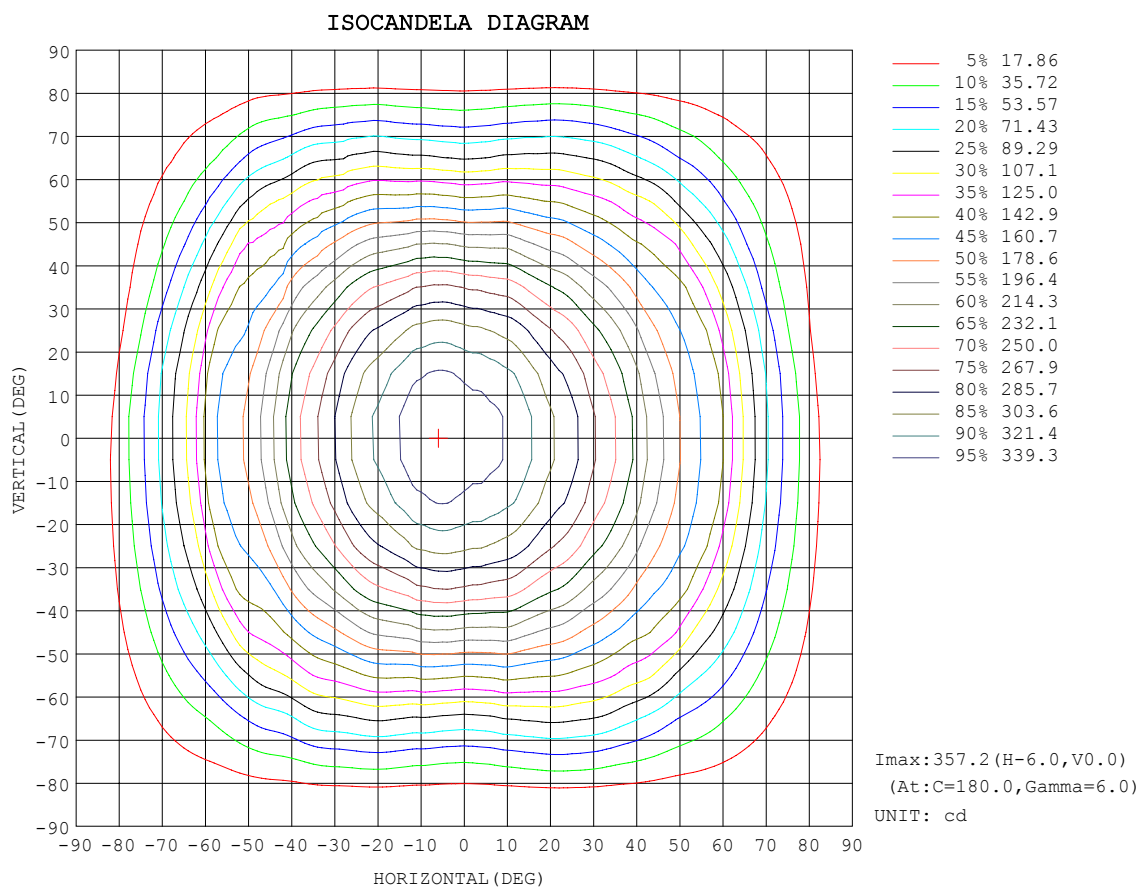
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT)    k (RI) x RCR = 5									
k = 0.60	60	48	41	59	48	41	58	48	41	35
0.80	70	58	51	69	58	51	67	57	51	44
1.00	78	67	60	77	67	60	75	68	60	53
1.25	85	75	68	84	74	68	81	73	67	60
1.50	90	81	74	88	80	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	95	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			SHR NOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Zhangyulong  
Test Date:2015-01-27

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.257  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks:

### ISOCANDELA DIAGRAM

NAME: z/Inq/94/442x	WEIGHT:0.382kg/m	
DIM.: 0.0155*0.006	SPEC.:	SERIAL No.:PXS14012054
MFR.: EVERFINE	SUR.:1*0.0155	PROTECTION ANGLE:/

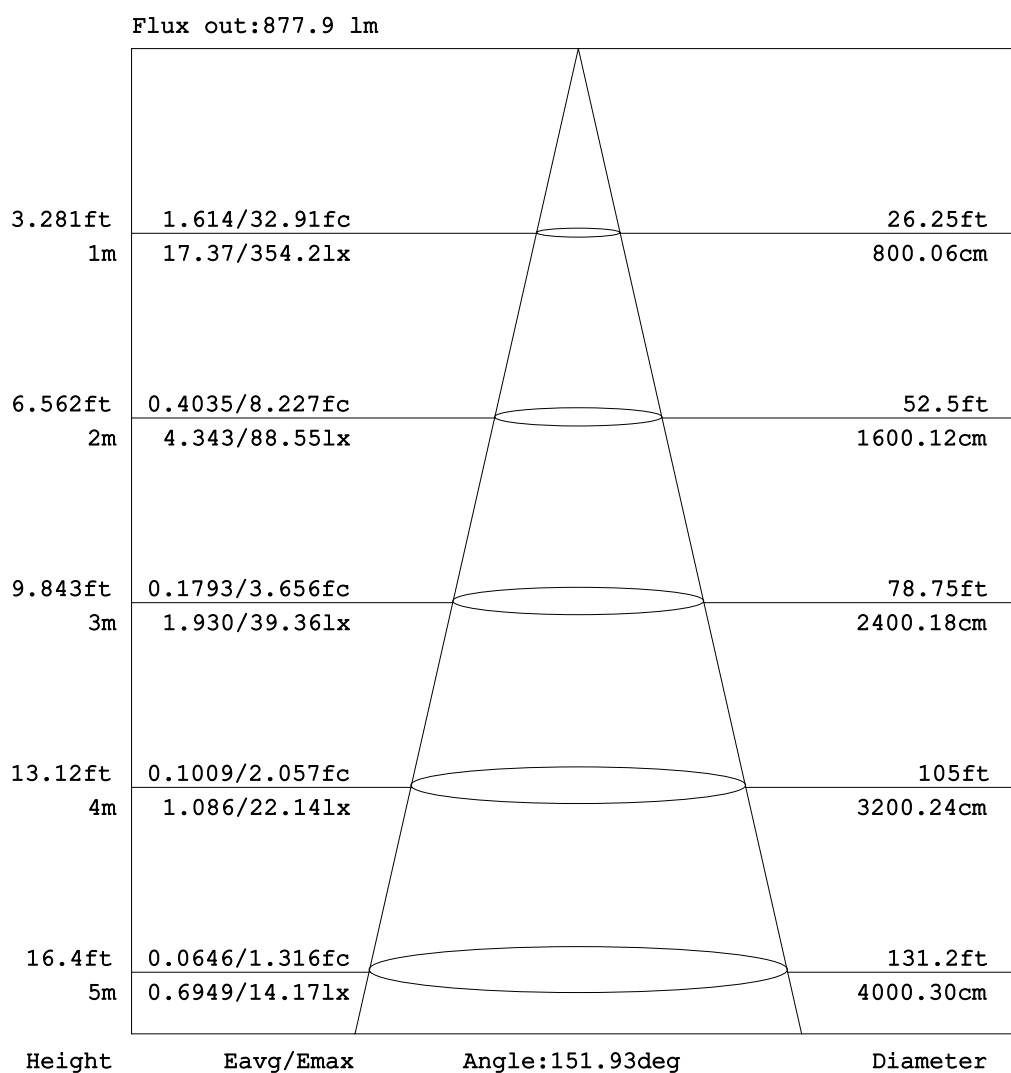


C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Zhangyulong  
Test Date:2015-01-27

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.257  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks:

### AAI Figure

NAME: x-Glo-72-220v	WEIGHT:0.382kg/m	
DIM.: 0.0155*0.006	SPEC.:	SERIAL No.:PXS14012054
MFR.: EVERFINE	SUR.:1*0.0155	PROTECTION ANGLE:/



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

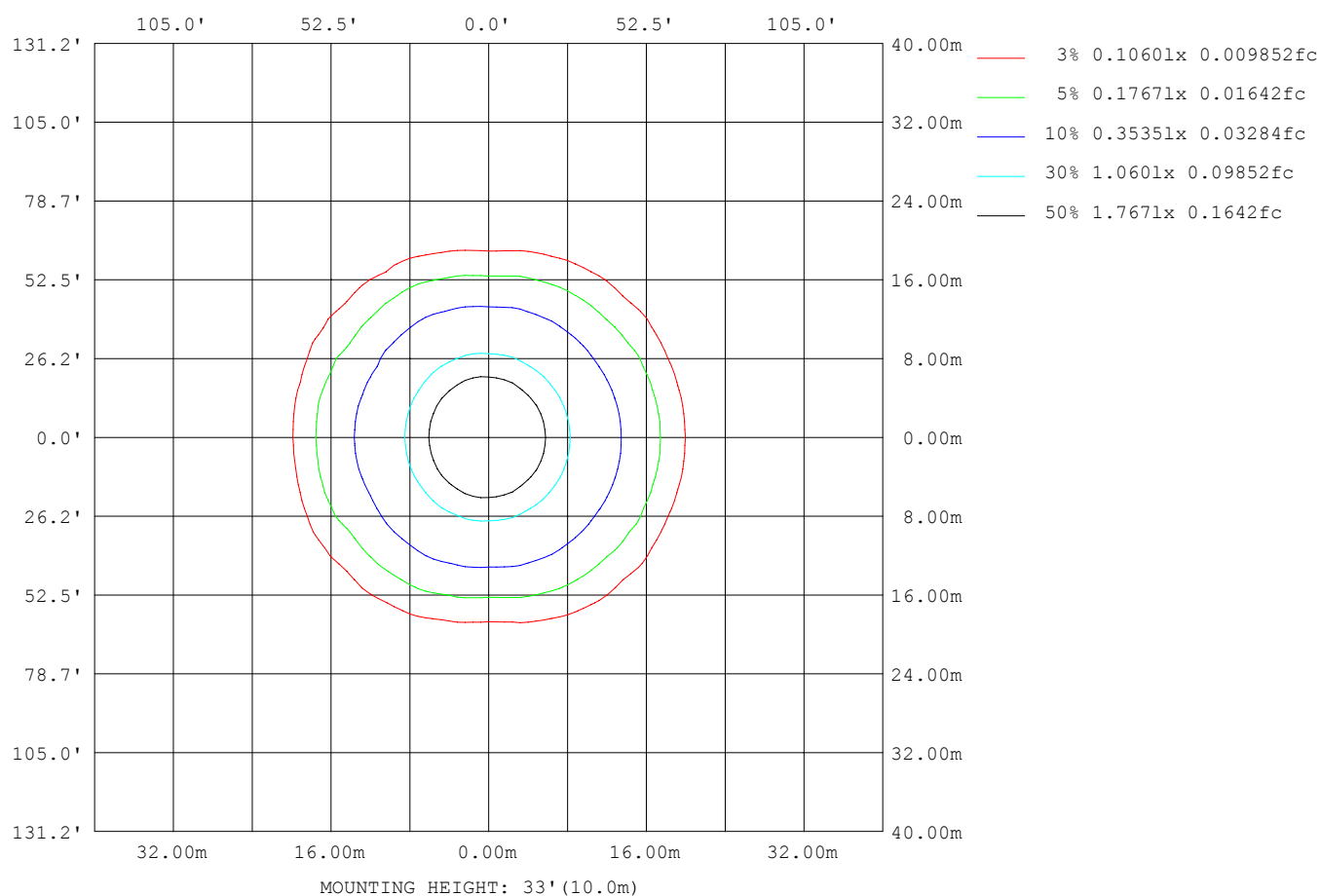
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Zhangyulong  
Test Date:2015-01-27

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.257  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks:



### ISOLUX DIAGRAM

NAME: x-Glo-72-220v	WEIGHT: 0.382kg/m	
DIM.: 0.0155*0.006	SPEC.:	SERIAL No.: PXS14012054
MFR.: EVERFINE	SUR.: 1*0.0155	PROTECTION ANGLE: /



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Zhangyulong  
Test Date: 2015-01-27

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.257  
Humidity: 65.0%  
Test Distance: 8.000m [K=1.0000]  
Remarks:

**Average Luminance Table (CIBSE)**

NAME: x-Glo-72-220v	WEIGHT:0.382kg/m	
DIM.: 0.0155*0.006	SPEC.:	SERIAL No.:PXS14012054
MFR.: EVERFINE	SUR.:1*0.0155	PROTECTION ANGLE:/

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	900	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0155	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:1996 Average Luminance

G	C plane(deg)																		
deg	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	18077	18147	18152	17928	17660	17772	17872	17336	16962	16213	16976	17535	18144	17989	18072	17558	18192	18622	18815
60	18678	18502	18430	18483	17953	17320	17105	16346	15420	14366	15286	16308	16955	17402	17370	18260	19102	18970	19213
65	16212	16347	16205	16082	16885	16692	16348	15319	13920	12721	13696	15055	15732	16753	16349	16996	16163	15824	15952
70	14148	14153	14514	14204	14448	14962	14962	13955	11848	10435	11525	13495	14154	14829	14550	14551	14007	14346	14541
75	12008	11949	12294	12584	12307	12787	13186	12323	10325	9075	9998	11806	12328	12140	12736	12082	12272	12414	12486
80	9939	9745	9768	10121	10214	10771	10715	9363	7531	6498	7254	8863	9925	9993	10502	9393	9787	9650	9677
85	7659	7459	7602	7500	5694	4203	2557	1057	223	0	215	996	2360	3830	5649	6970	7192	6951	6978

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

CIBSE Category	Gamma (deg)	Average Luminance		Patch Luminance	
		maximum calculated	specified maximum	maximum measured	specified maximum
Category 1	55 to 90	19213	200	---	500
Category 2	65 to 90	16996	200	---	500
Category 3	75 to 90	13186	200	---	500

Table 3. Tabulation of Average and Patch Luminance(cd/sq.m.) for defined CIBSE categories

No match

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Zhangyulong  
Test Date:2015-01-27

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.257  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.257
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.257
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks

```

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.257
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.257
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks:

```