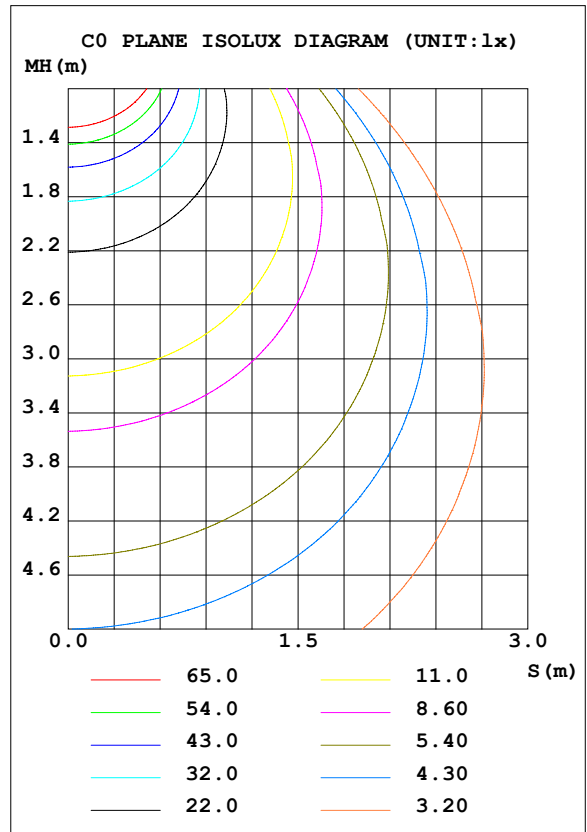
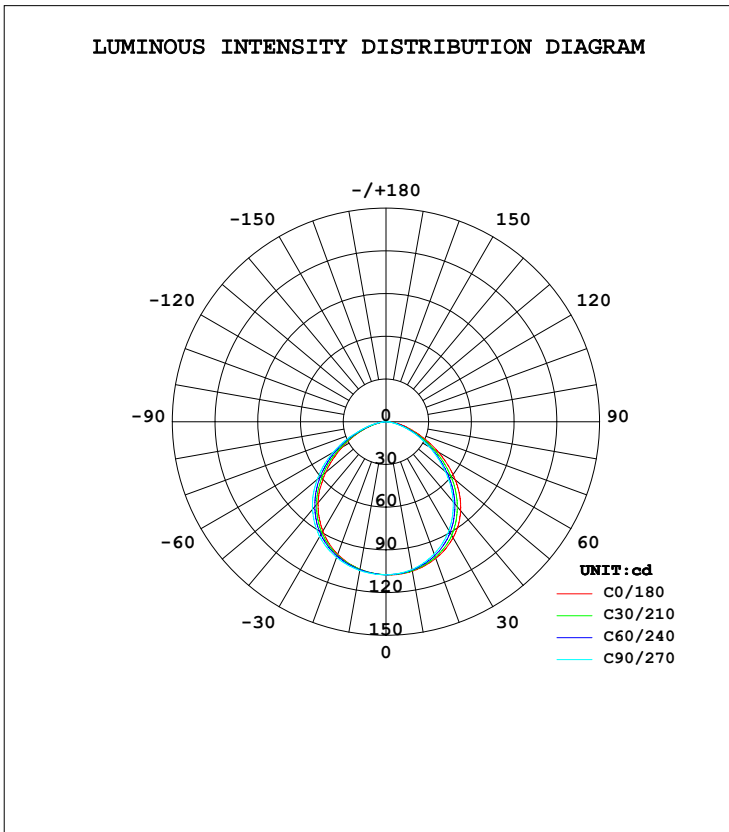


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: X-Glo-UL-18	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	5050	Imax (cd)	107.6	S/MH (C0/180)	1.23
NOMINAL POWER (W)	3.3	LOR (%)	92.6	S/MH (C90/270)	1.28
RATED VOLTAGE (V)	36	TOTAL FLUX (lm)	277.85	η UP, DN (C0-180)	0.0, 47.8
NOMINAL FLUX (lm)	300	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 44.8
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	36	η down (%)	92.6	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 28.5DEG  
Operators:  
Test Date:

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
Humidity: 64%  
Test Distance: 6.810m [K=0.8223]  
Remarks:

**ZONAL FLUX DIAGRAM**

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum, lamp
5	106.8	106.8	107.1	107.4	107.5	107.2	106.9	106.6	0- 5	2.564	2.564	0.92,0.85
10	105.2	105.3	106.1	106.6	106.6	106.0	105.4	104.9	5- 10	7.610	10.17	3.66,3.39
15	102.7	103.2	104.1	105.1	104.7	103.9	102.6	102.4	10- 15	12.42	22.59	8.13,7.53
20	99.16	100.1	101.5	102.7	102.1	100.8	98.92	98.59	15- 20	16.81	39.40	14.2,13.1
25	94.54	96.03	97.76	99.07	98.67	96.55	94.09	93.71	20- 25	20.63	60.03	21.6,20
30	88.73	90.76	93.20	94.44	94.21	91.03	88.44	87.55	25- 30	23.70	83.73	30.1,27.9
35	81.93	84.27	87.24	88.85	88.56	84.16	81.33	80.17	30- 35	25.85	109.6	39.4,36.5
40	74.29	76.90	80.37	81.98	81.54	76.26	73.48	72.04	35- 40	26.96	136.5	49.1,45.5
45	65.14	68.33	72.29	73.79	73.19	67.47	64.45	62.94	40- 45	26.94	163.5	58.8,54.5
50	55.27	58.91	62.99	64.45	63.65	57.75	54.45	53.26	45- 50	25.72	189.2	68.1,63.1
55	45.24	49.35	53.33	54.24	53.10	47.35	44.57	43.85	50- 55	23.41	212.6	76.5,70.9
60	35.41	38.98	42.75	43.90	42.25	37.16	34.83	34.03	55- 60	20.22	232.8	83.8,77.6
65	26.11	28.98	31.89	33.56	31.74	27.89	25.84	25.19	60- 65	16.38	249.2	89.7,83.1
70	17.69	19.68	21.15	23.64	22.73	19.89	17.59	17.41	65- 70	12.28	261.5	94.1,87.2
75	10.62	11.87	13.19	15.69	15.33	13.21	10.66	10.74	70- 75	8.360	269.8	97.1,89.9
80	5.238	6.117	6.457	9.436	9.366	7.439	5.313	5.635	75- 80	5.031	274.9	98.9,91.6
85	2.279	2.355	1.461	4.458	4.441	3.305	1.346	2.669	80- 85	2.498	277.4	99.8,92.5
90	2.032	0	0	0	1.613	0	0	0	85- 90	0.4721	277.8	100,92.6
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			

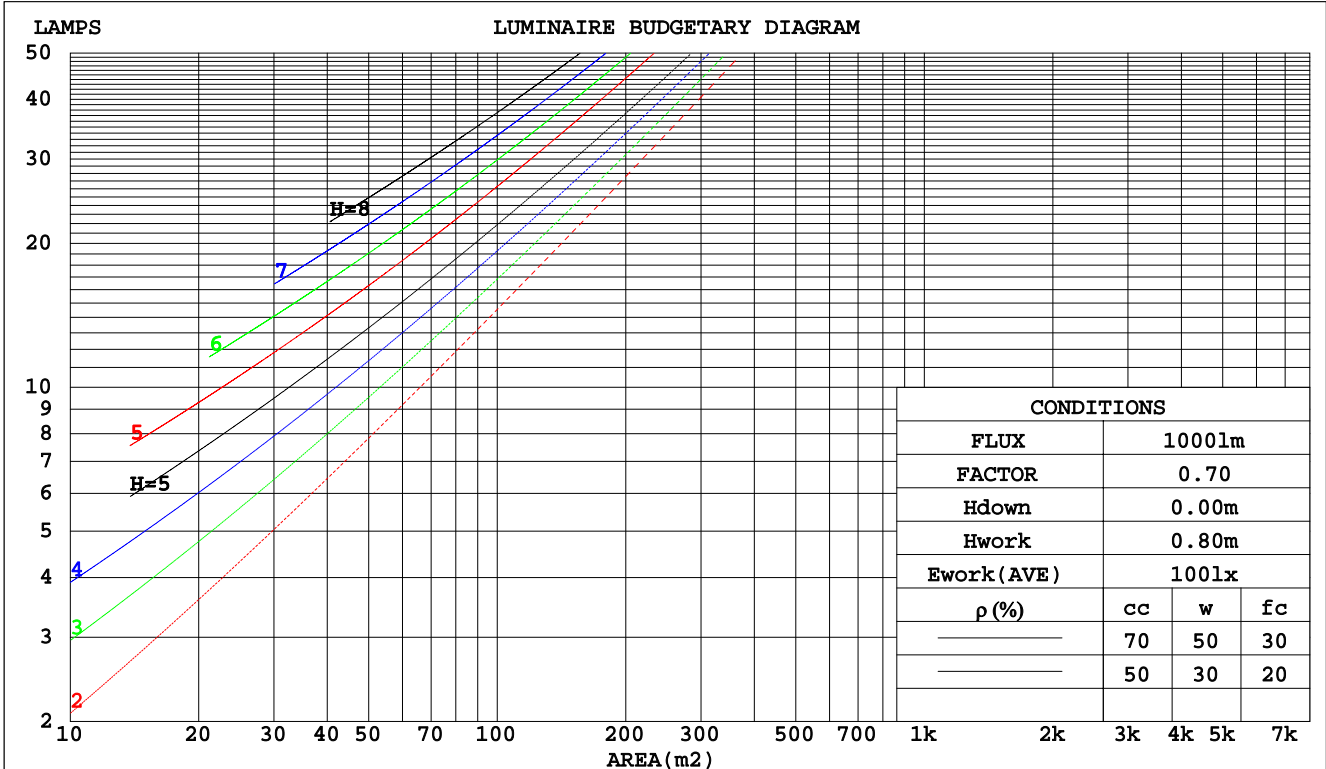
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:28.5DEG  
Operators:  
Test Date:

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
Humidity:64%  
Test Distance:6.810m [K=0.8223]  
Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

NAME: x-Glo-UL-18	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	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						Coefficients of Utilization(CU)									
0.0	1.10	1.10	1.10	1.08	1.08	1.08	1.03	1.03	1.03	.99	.99	.99	.95	.95	.95	.93
1.0	.97	.94	.91	.95	.92	.89	.91	.89	.86	.88	.86	.84	.85	.83	.81	.79
2.0	.86	.80	.75	.84	.79	.74	.81	.76	.72	.78	.74	.71	.75	.72	.69	.67
3.0	.76	.69	.63	.74	.68	.62	.72	.66	.61	.69	.64	.60	.67	.63	.59	.57
4.0	.67	.60	.54	.66	.59	.53	.64	.58	.53	.62	.56	.52	.60	.55	.51	.49
5.0	.60	.52	.46	.59	.52	.46	.57	.51	.46	.56	.50	.45	.54	.49	.45	.43
6.0	.55	.46	.41	.54	.46	.41	.52	.45	.40	.50	.44	.40	.49	.44	.40	.38
7.0	.50	.42	.36	.49	.41	.36	.47	.41	.36	.46	.40	.35	.45	.39	.35	.33
8.0	.45	.38	.32	.45	.37	.32	.43	.37	.32	.42	.36	.32	.41	.36	.32	.30
9.0	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.29	.38	.33	.29	.27
10.0	.38	.31	.26	.38	.31	.26	.37	.31	.26	.36	.30	.26	.35	.30	.26	.24



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 28.5DEG  
 Operators:  
 Test Date:

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
 Humidity: 64%  
 Test Distance: 6.810m [K=0.8223]  
 Remarks:

WEC AND CCEC

NAME: x-Glo-UL-18	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	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	.263	.149	.047	.256	.146	.046	.244	.140	.045	.233	.134	.043	.223	.129	.042	
2.0	.252	.138	.042	.246	.136	.042	.235	.131	.041	.226	.127	.040	.216	.122	.039	
3.0	.236	.125	.038	.231	.124	.037	.221	.120	.036	.213	.117	.036	.205	.113	.035	
4.0	.220	.114	.034	.215	.113	.033	.207	.110	.033	.199	.107	.032	.192	.104	.032	
5.0	.204	.104	.030	.201	.103	.030	.193	.101	.030	.186	.098	.029	.180	.096	.029	
6.0	.191	.096	.027	.187	.095	.027	.181	.093	.027	.174	.091	.027	.169	.089	.026	
7.0	.178	.088	.025	.175	.087	.025	.169	.086	.025	.164	.084	.024	.159	.082	.024	
8.0	.167	.082	.023	.164	.081	.023	.159	.079	.023	.154	.078	.023	.149	.077	.022	
9.0	.157	.076	.021	.155	.075	.021	.150	.074	.021	.145	.073	.021	.141	.072	.021	
10.0	.148	.071	.020	.146	.070	.020	.142	.069	.020	.138	.068	.019	.134	.067	.019	

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	.176	.176	.176	.151	.151	.151	.103	.103	.103	.059	.059	.059	.019	.019	.019	
1.0	.165	.145	.126	.141	.124	.109	.097	.086	.075	.056	.049	.044	.018	.016	.014	
2.0	.157	.122	.093	.135	.105	.080	.092	.073	.056	.053	.042	.033	.017	.014	.011	
3.0	.150	.106	.071	.128	.091	.061	.088	.063	.043	.051	.037	.025	.016	.012	.008	
4.0	.143	.093	.056	.122	.081	.048	.084	.056	.034	.049	.033	.020	.016	.011	.007	
5.0	.136	.084	.045	.117	.072	.039	.080	.050	.028	.047	.030	.016	.015	.010	.005	
6.0	.129	.076	.037	.111	.066	.032	.077	.046	.023	.044	.027	.014	.014	.009	.005	
7.0	.123	.069	.032	.106	.060	.027	.073	.042	.019	.043	.025	.012	.014	.008	.004	
8.0	.117	.064	.027	.101	.055	.024	.070	.039	.017	.041	.023	.010	.013	.008	.003	
9.0	.112	.059	.024	.096	.052	.021	.067	.036	.015	.039	.021	.009	.013	.007	.003	
10.0	.107	.055	.021	.092	.048	.018	.064	.034	.013	.037	.020	.008	.012	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:28.5DEG  
 Operators:  
 Test Date:

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
 Humidity:64%  
 Test Distance:6.810m [K=0.8223]  
 Remarks:

Uncorrected UGR Table

NAME: x-Glo-UL-18		TYPE:					WEIGHT:				
DIM.:		SPEC.:					SERIAL No.:				
MFR.:		SUR.:					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	11.2	12.7	11.5	12.9	13.1	11.9	13.4	12.2	13.5	13.8	
3H	12.1	13.5	12.4	13.7	13.9	12.9	14.3	13.2	14.5	14.7	
4H	12.4	13.7	12.7	13.9	14.2	13.3	14.5	13.6	14.8	15.0	
6H	12.5	13.7	12.8	14.0	14.2	13.4	14.6	13.7	14.9	15.2	
8H	12.5	13.7	12.8	13.9	14.2	13.4	14.6	13.8	14.9	15.2	
12H	12.5	13.6	12.8	13.9	14.2	13.4	14.5	13.8	14.8	15.1	
4H 2H	11.7	13.0	12.0	13.3	13.5	12.3	13.6	12.6	13.8	14.1	
3H	12.8	13.9	13.1	14.2	14.5	13.5	14.6	13.8	14.9	15.2	
4H	13.1	14.1	13.5	14.5	14.8	13.9	14.9	14.3	15.2	15.5	
6H	13.3	14.2	13.7	14.6	14.9	14.1	15.0	14.5	15.4	15.7	
8H	13.3	14.2	13.8	14.5	14.9	14.2	15.0	14.6	15.4	15.8	
12H	13.3	14.1	13.8	14.5	14.9	14.2	15.0	14.6	15.3	15.8	
8H 4H	13.3	14.1	13.7	14.5	14.9	14.0	14.8	14.4	15.2	15.6	
6H	13.5	14.2	14.0	14.6	15.0	14.3	15.0	14.8	15.4	15.8	
8H	13.6	14.2	14.1	14.6	15.1	14.4	15.0	14.9	15.5	15.9	
12H	13.6	14.2	14.1	14.6	15.1	14.5	15.0	14.9	15.4	15.9	
12H 4H	13.3	14.0	13.7	14.4	14.8	14.0	14.7	14.4	15.1	15.5	
6H	13.6	14.2	14.0	14.6	15.0	14.3	14.9	14.8	15.3	15.8	
8H	13.6	14.2	14.1	14.6	15.1	14.4	15.0	14.9	15.4	15.9	
Variations with the observer position at spacings:											
S = 1.0H	+ 0.3 / - 0.4					+ 0.2 / - 0.3					
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.3					
2.0H	+ 0.4 / - 0.6					+ 0.5 / - 0.5					

CIE Pub.117 Corrected 300.0 lm Total Lamp Luminous Flux. (8log(F/F0) = -4.2)

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:28.5DEG  
Operators:  
Test Date:

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
Humidity:64%  
Test Distance:6.810m [K=0.8223]  
Remarks:

**UTILIZATION FACTORS TABLE**

NAME: x-Glo-UL-18	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

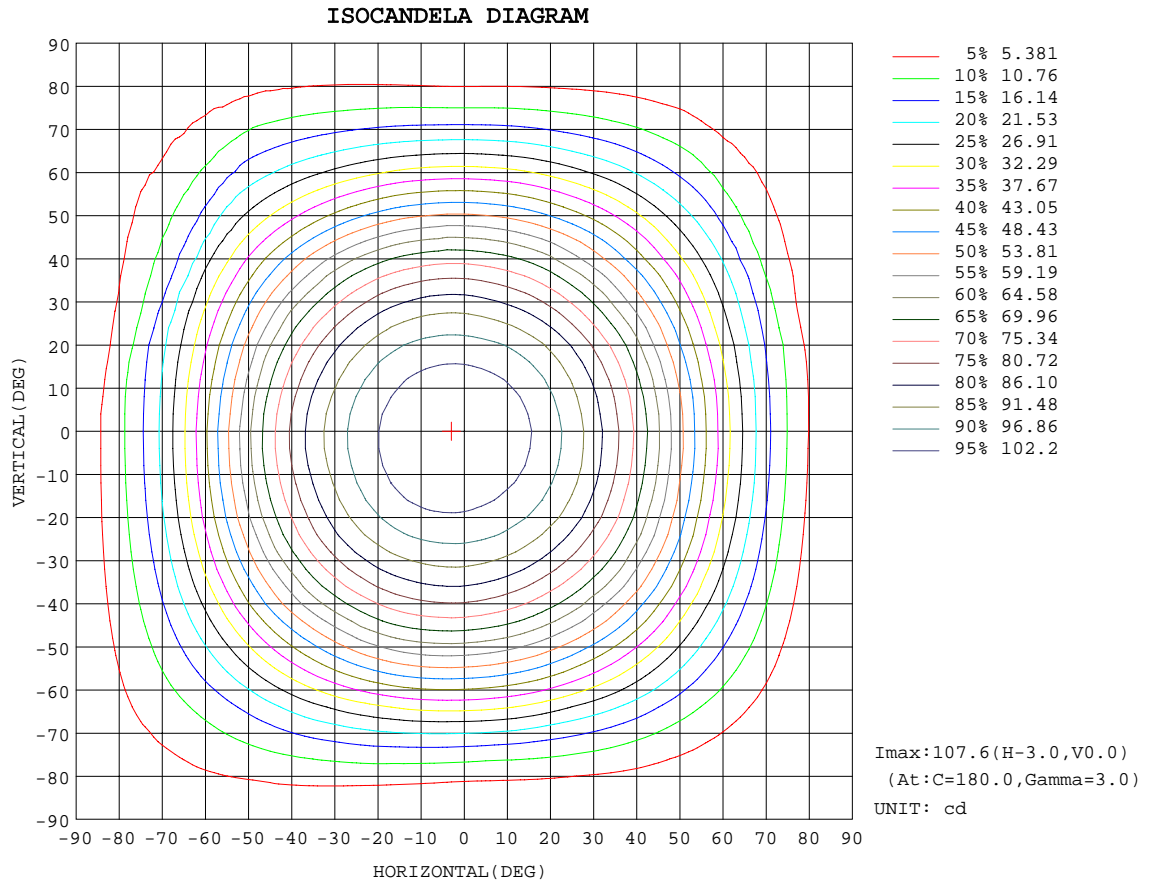
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	55	45	39	55	45	39	54	44	39	33
0.80	65	55	48	64	54	48	62	54	48	42
1.00	73	63	57	72	63	56	70	64	56	50
1.25	79	70	64	78	70	64	76	68	63	57
1.50	84	75	69	82	74	69	80	73	68	61
2.00	90	83	77	88	81	76	85	79	75	68
2.50	93	87	81	91	85	81	88	83	79	72
3.00	96	90	86	94	89	85	91	86	83	75
4.00	100	95	91	97	93	89	94	90	87	79
5.00	102	97	94	99	96	93	95	92	90	81
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:28.5DEG  
 Operators:  
 Test Date:

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
 Humidity:64%  
 Test Distance:6.810m [K=0.8223]  
 Remarks:

**ISOCANDELA DIAGRAM**

NAME: x-Glo-UL-18	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

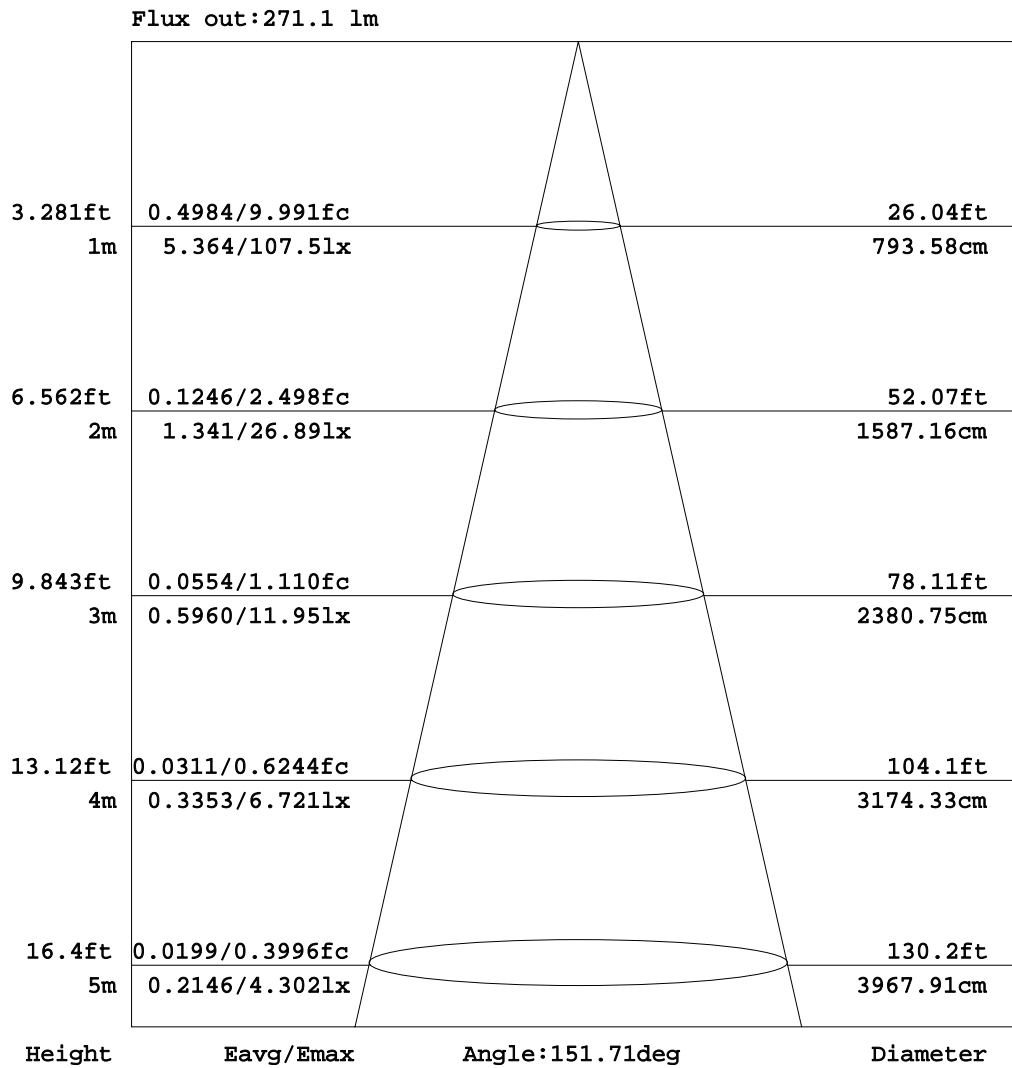


C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 28.5DEG  
 Operators:  
 Test Date:

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
 Humidity: 64%  
 Test Distance: 6.810m [K=0.8223]  
 Remarks:

**AAI Figure**

NAME: x-Glo-UL-18	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



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

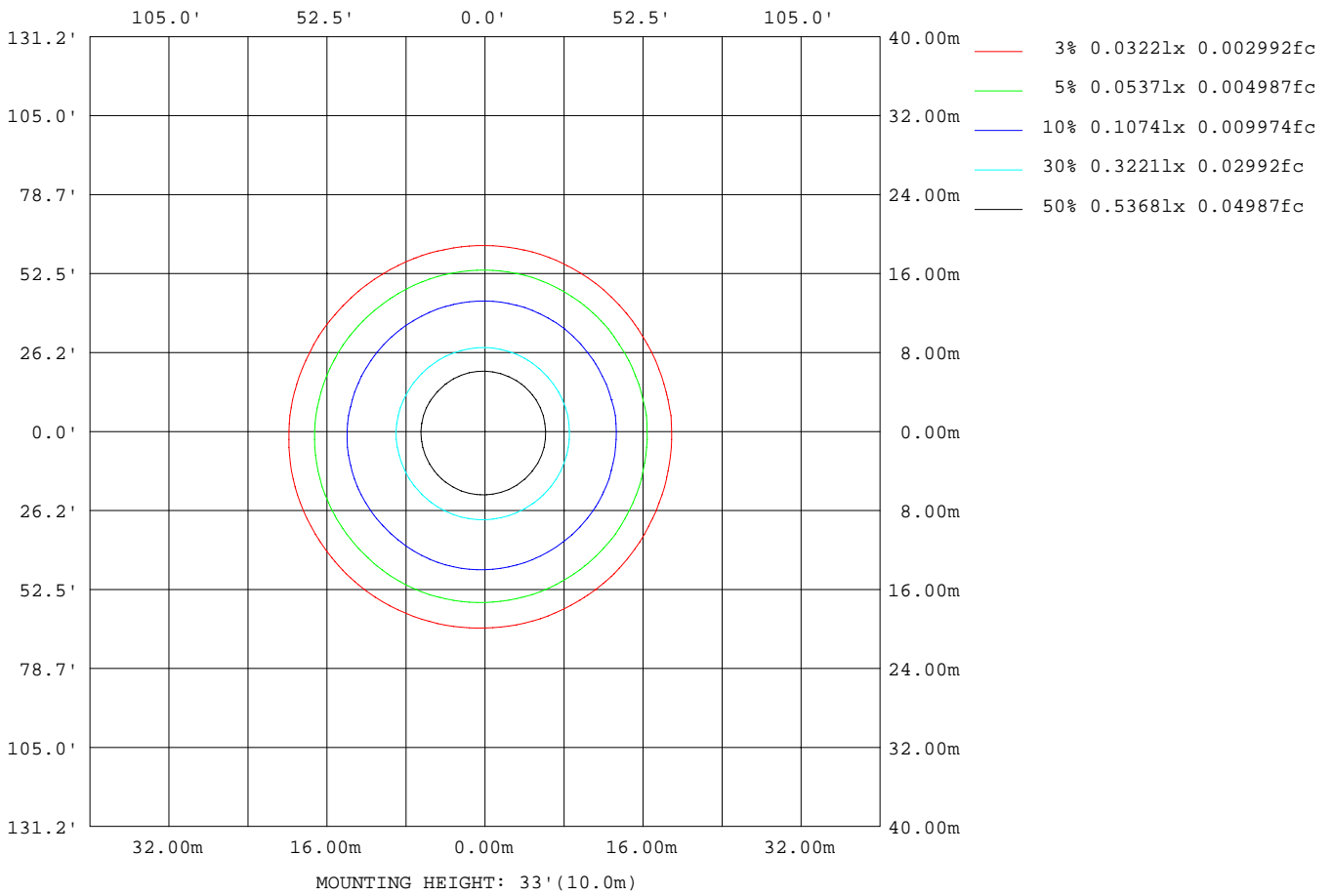
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:28.5DEG  
Operators:  
Test Date:

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
Humidity:64%  
Test Distance:6.810m [K=0.8223]  
Remarks:



**ISOLUX DIAGRAM**

<b>NAME:</b> x-Glo-UL-18	<b>TYPE:</b>	<b>WEIGHT:</b>
<b>DIM.:</b>	<b>SPEC.:</b>	<b>SERIAL No.:</b>
<b>MFR.:</b>	<b>SUR.:</b>	<b>PROTECTION ANGLE:</b>



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 28.5DEG  
 Operators:  
 Test Date:

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
 Humidity: 64%  
 Test Distance: 6.810m [K=0.8223]  
 Remarks:

**Average Luminance Table (CIBSE)**

NAME: x-Glo-UL-18	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	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	300	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.12	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 deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	657	666	682	697	709	722	735	752	764	775	786	793	792	788	790	789	786	779	772
60	590	597	609	622	642	658	674	691	702	712	724	734	737	734	731	731	728	716	704
65	515	521	530	540	561	581	591	605	620	629	640	646	658	662	660	653	649	641	626
70	431	434	441	452	472	485	492	501	509	515	532	554	568	574	575	574	570	564	554
75	342	341	347	358	374	391	402	409	413	425	446	472	493	505	502	500	503	501	493
80	251	240	247	260	284	305	312	312	307	310	343	384	421	447	455	452	451	452	449
85	218	170	172	182	217	229	208	167	142	140	170	234	340	421	420	458	443	459	425

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	793	200	---	500
Category 2	65 to 90	662	200	---	500
Category 3	75 to 90	505	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:28.5DEG  
Operators:  
Test Date:

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V1.0.257  
Humidity:64%  
Test Distance:6.810m [K=0.8223]  
Remarks:







