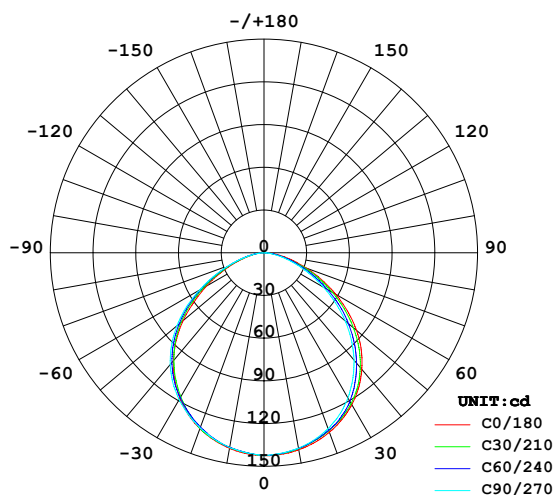


LUMINAIRE PHOTOMETRIC TEST REPORT

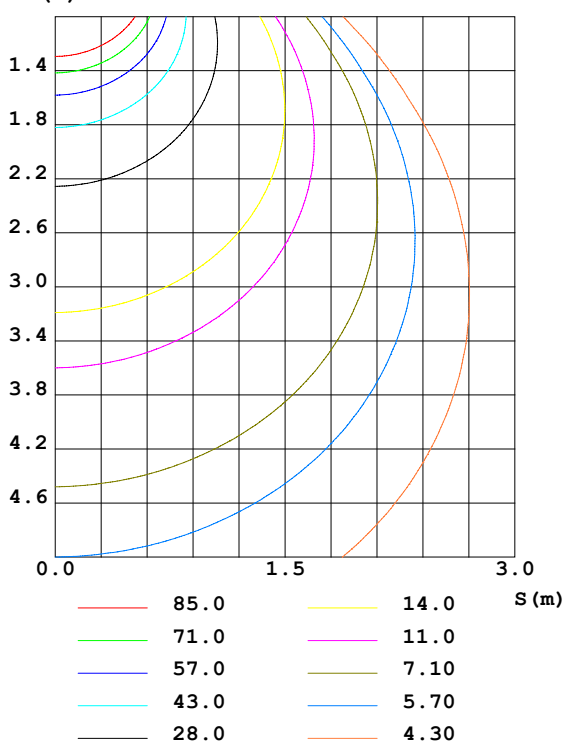
NAME: X-Glo-24-36v	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 101.90 lm/W			
MODEL	5050	I _{max} (cd)	142.5	S/MH (C0/180)	1.24
NOMINAL POWER (W)	3.6	LOR (%)	91.7	S/MH (C90/270)	1.24
RATED VOLTAGE (V)	36	TOTAL FLUX (lm)	366.82	η UP, DN (C0-180)	0.0, 46.4
NOMINAL FLUX (lm)	400	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 45.3
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	36	η down (%)	91.7	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: 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	141.6	140.9	140.9	141.4	142.1	141.5	141.3	141.2	0- 5	3.390	3.390	0.92,0.85
10	139.5	138.7	138.9	139.5	140.5	139.5	139.4	139.0	5- 10	10.04	13.43	3.66,3.36
15	136.1	135.7	135.4	136.7	137.9	136.7	136.1	135.5	10- 15	16.34	29.77	8.11,7.44
20	131.5	130.5	131.1	133.2	134.2	132.9	131.5	130.4	15- 20	22.08	51.85	14.1,13
25	125.6	124.3	125.5	128.4	129.4	128.2	125.4	123.9	20- 25	27.07	78.92	21.5,19.7
30	118.1	117.2	119.2	122.4	123.3	121.9	117.9	116.2	25- 30	31.09	110.0	30,27.5
35	109.3	109.0	111.5	114.9	115.8	113.3	108.6	107.3	30- 35	33.95	144.0	39.2,36
40	99.03	99.93	102.5	105.7	106.8	103.0	98.47	97.45	35- 40	35.46	179.4	48.9,44.9
45	87.23	89.13	91.79	94.89	96.56	91.47	86.86	85.74	40- 45	35.53	214.9	58.6,53.7
50	74.09	77.13	79.88	83.07	84.83	79.01	74.52	73.31	45- 50	34.08	249.0	67.9,62.3
55	59.67	63.92	66.59	70.27	71.69	66.42	61.26	59.90	50- 55	31.13	280.1	76.4,70
60	46.50	50.16	52.14	56.60	57.97	53.58	48.08	46.58	55- 60	26.83	307.0	83.7,76.7
65	33.94	37.42	38.59	42.67	44.46	40.77	35.72	34.20	60- 65	21.71	328.7	89.6,82.2
70	23.03	25.63	26.16	30.11	31.68	29.31	24.39	23.50	65- 70	16.32	345.0	94.1,86.3
75	13.99	16.01	16.11	19.54	20.69	19.00	15.12	14.54	70- 75	11.13	356.1	97.1,89
80	7.445	8.819	8.002	11.34	12.32	10.59	7.578	7.718	75- 80	6.694	362.8	98.9,90.7
85	3.486	3.917	1.782	5.225	6.076	4.360	1.886	3.732	80- 85	3.347	366.2	99.8,91.5
90	2.309	0	0	0	1.990	0	0	0	85- 90	0.6444	366.8	100,91.7
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		

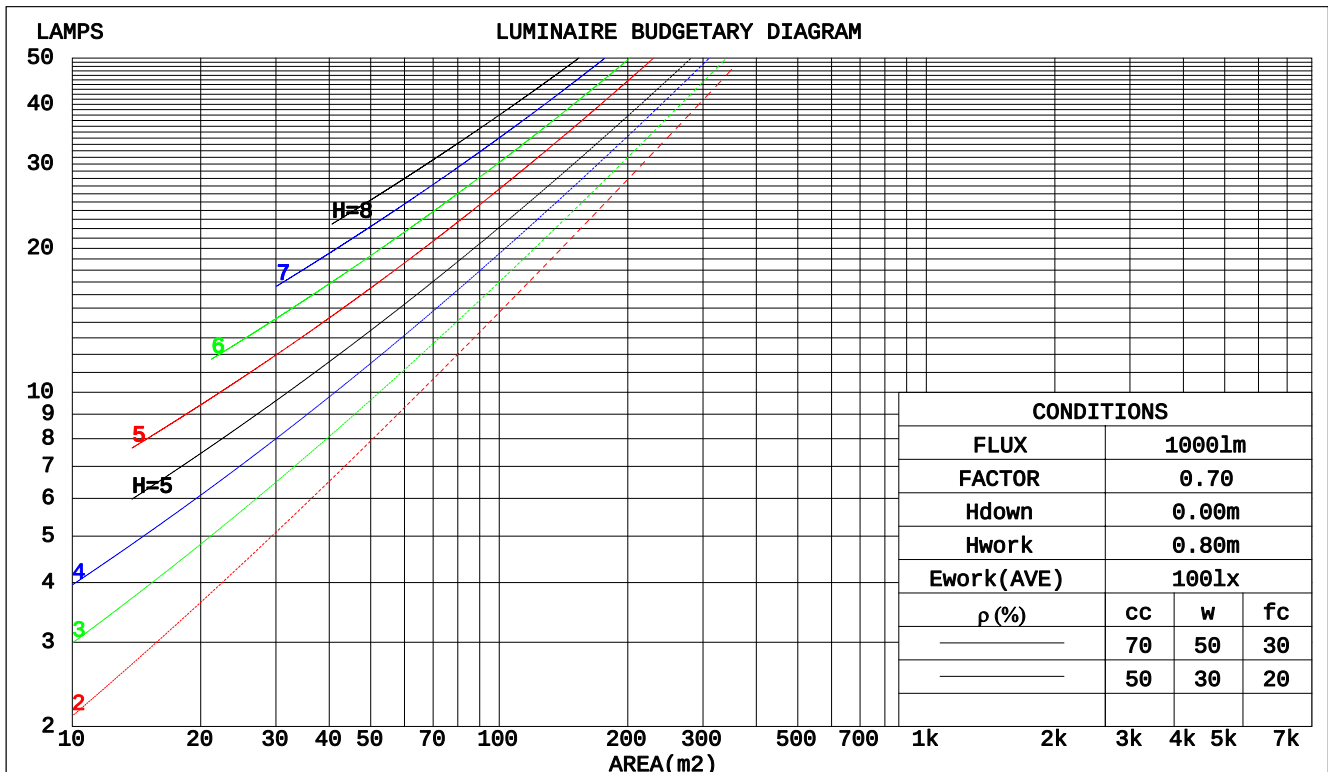
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:28.5DEG
Operators:
Test Date:

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-24-36v	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

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	1.09	1.09	1.09	1.07	1.07	1.07	1.02	1.02	1.02	.98	.98	.98	.94	.94	.94	.92
1.0	.96	.93	.90	.94	.91	.88	.91	.88	.85	.87	.85	.83	.84	.82	.80	.78
2.0	.85	.79	.74	.83	.78	.73	.80	.75	.71	.77	.73	.70	.74	.71	.68	.66
3.0	.75	.68	.62	.73	.67	.62	.71	.65	.60	.68	.63	.59	.66	.62	.58	.56
4.0	.67	.59	.53	.65	.58	.53	.63	.57	.52	.61	.56	.51	.59	.54	.51	.49
5.0	.60	.52	.46	.59	.51	.46	.57	.50	.45	.55	.49	.45	.53	.48	.44	.42
6.0	.54	.46	.40	.53	.46	.40	.51	.45	.40	.50	.44	.39	.48	.43	.39	.37
7.0	.49	.41	.36	.48	.41	.36	.47	.40	.35	.46	.39	.35	.44	.39	.35	.33
8.0	.45	.37	.32	.44	.37	.32	.43	.36	.32	.42	.36	.31	.41	.35	.31	.29
9.0	.41	.34	.29	.41	.33	.29	.40	.33	.28	.39	.33	.28	.38	.32	.28	.27
10.0	.38	.31	.26	.37	.31	.26	.37	.30	.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-24-36v	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

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	.261	.148	.047	.254	.145	.046	.242	.139	.044	.231	.133	.043	.221	.128	.041		
2.0	.250	.137	.042	.244	.134	.041	.234	.130	.040	.224	.126	.039	.215	.122	.038		
3.0	.234	.124	.037	.229	.123	.037	.220	.119	.036	.211	.116	.035	.203	.112	.035		
4.0	.218	.113	.033	.213	.112	.033	.205	.109	.032	.197	.106	.032	.190	.103	.032		
5.0	.203	.103	.030	.199	.102	.030	.192	.100	.029	.185	.097	.029	.178	.095	.029		
6.0	.189	.095	.027	.186	.094	.027	.179	.092	.027	.173	.090	.026	.167	.088	.026		
7.0	.177	.087	.025	.174	.087	.025	.168	.085	.024	.162	.083	.024	.157	.082	.024		
8.0	.166	.081	.023	.163	.080	.023	.158	.079	.022	.153	.077	.022	.148	.076	.022		
9.0	.156	.075	.021	.153	.075	.021	.149	.073	.021	.144	.072	.021	.140	.071	.021		
10.0	.147	.070	.020	.145	.070	.019	.140	.069	.019	.136	.068	.019	.133	.067	.019		

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	.175	.175	.175	.149	.149	.149	.102	.102	.102	.059	.059	.059	.019	.019	.019	
1.0	.164	.143	.125	.140	.123	.108	.096	.085	.074	.055	.049	.043	.018	.016	.014	
2.0	.156	.121	.092	.133	.104	.080	.091	.072	.055	.053	.042	.033	.017	.014	.011	
3.0	.148	.105	.070	.127	.090	.061	.087	.063	.043	.050	.037	.025	.016	.012	.008	
4.0	.141	.092	.055	.121	.080	.048	.083	.056	.034	.048	.033	.020	.016	.011	.007	
5.0	.135	.083	.045	.116	.072	.039	.080	.050	.027	.046	.029	.016	.015	.010	.005	
6.0	.128	.075	.037	.110	.065	.032	.076	.045	.023	.044	.027	.014	.014	.009	.004	
7.0	.122	.069	.031	.105	.060	.027	.073	.042	.019	.042	.025	.011	.014	.008	.004	
8.0	.116	.063	.027	.100	.055	.023	.069	.039	.017	.040	.023	.010	.013	.007	.003	
9.0	.111	.059	.024	.096	.051	.021	.066	.036	.015	.039	.021	.009	.012	.007	.003	
10.0	.106	.055	.021	.091	.048	.018	.063	.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-24-36v						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	12.2	13.6	12.4	13.8	14.0	12.5	14.0	12.8	14.2	14.4	
3H	13.1	14.4	13.4	14.6	14.9	13.5	14.9	13.8	15.1	15.3	
4H	13.3	14.6	13.6	14.9	15.1	13.9	15.1	14.2	15.4	15.6	
6H	13.5	14.7	13.8	14.9	15.2	14.0	15.2	14.3	15.5	15.8	
8H	13.5	14.7	13.8	14.9	15.2	14.0	15.2	14.4	15.5	15.8	
12H	13.5	14.6	13.9	14.9	15.2	14.0	15.1	14.4	15.4	15.7	
4H 2H	12.6	13.9	12.9	14.2	14.4	12.9	14.2	13.3	14.5	14.7	
3H	13.7	14.8	14.1	15.1	15.4	14.1	15.2	14.5	15.5	15.8	
4H	14.1	15.1	14.4	15.4	15.7	14.5	15.5	14.9	15.9	16.2	
6H	14.3	15.2	14.7	15.5	15.9	14.8	15.7	15.2	16.0	16.4	
8H	14.4	15.2	14.8	15.6	15.9	14.8	15.7	15.2	16.0	16.4	
12H	14.4	15.2	14.8	15.5	15.9	14.8	15.6	15.3	16.0	16.4	
8H 4H	14.2	15.1	14.6	15.4	15.8	14.6	15.5	15.1	15.8	16.2	
6H	14.6	15.2	15.0	15.6	16.1	15.0	15.7	15.4	16.1	16.5	
8H	14.7	15.3	15.1	15.7	16.1	15.1	15.7	15.6	16.2	16.6	
12H	14.8	15.3	15.2	15.7	16.2	15.2	15.7	15.6	16.1	16.6	
12H 4H	14.2	15.0	14.6	15.4	15.8	14.6	15.4	15.1	15.8	16.2	
6H	14.6	15.2	15.0	15.6	16.1	15.0	15.6	15.5	16.1	16.5	
8H	14.7	15.2	15.2	15.7	16.2	15.2	15.7	15.6	16.1	16.6	
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 / - 0.4					
2.0H	+ 0.5 / - 0.6					+ 0.5 / - 0.4					

CIE Pub.117 Corrected 400.0 lm Total Lamp Luminous Flux.(8log(F/F0) = -3.2)

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-24-36v	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

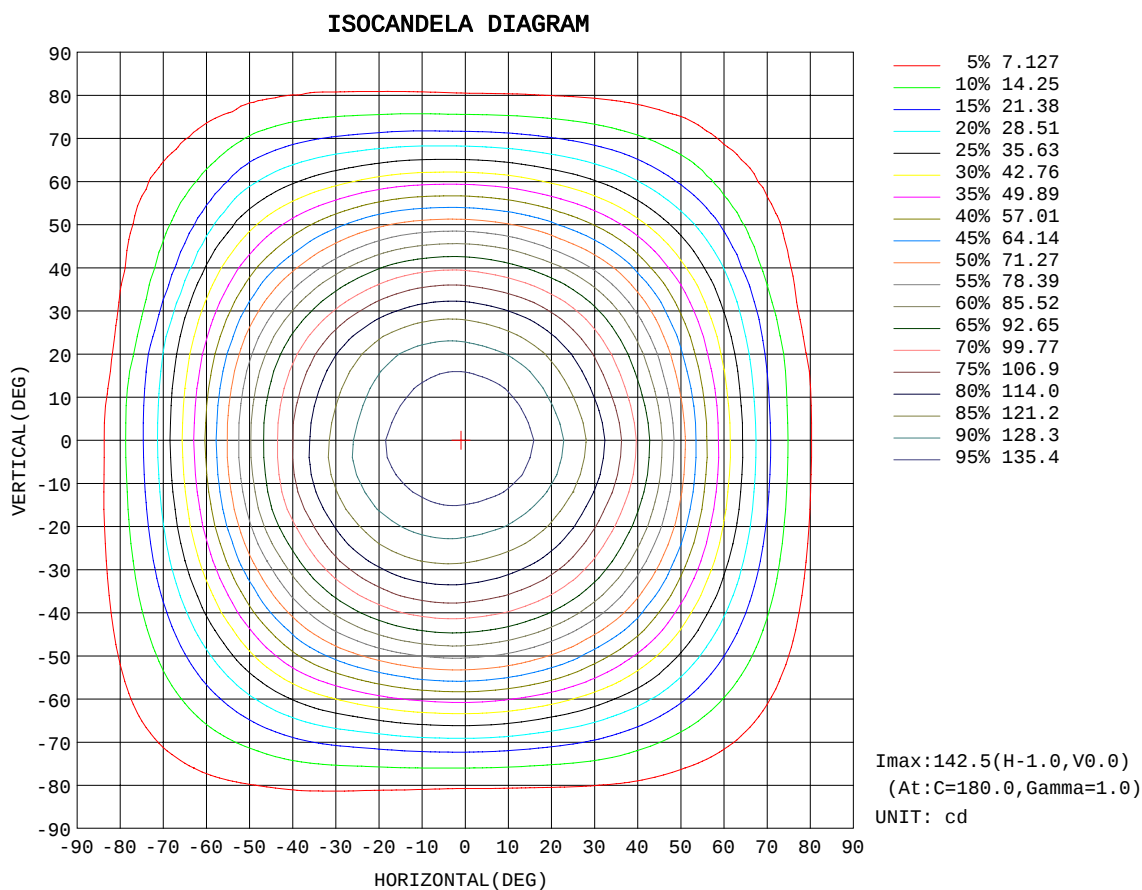
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	55	44	38	54	44	38	53	44	38	32
0.80	64	54	48	63	54	47	62	53	47	41
1.00	72	62	56	71	62	56	69	63	55	49
1.25	78	69	63	77	69	63	75	67	62	56
1.50	83	74	68	81	74	68	79	72	67	60
2.00	89	82	76	87	81	75	84	79	74	67
2.50	92	86	81	90	84	80	87	82	78	71
3.00	95	89	85	93	88	84	90	85	82	74
4.00	99	94	90	96	92	89	93	89	86	78
5.00	101	96	93	98	95	92	94	91	89	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:

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:

ISOCANDELA DIAGRAM

NAME: x-Glo-24-36v	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

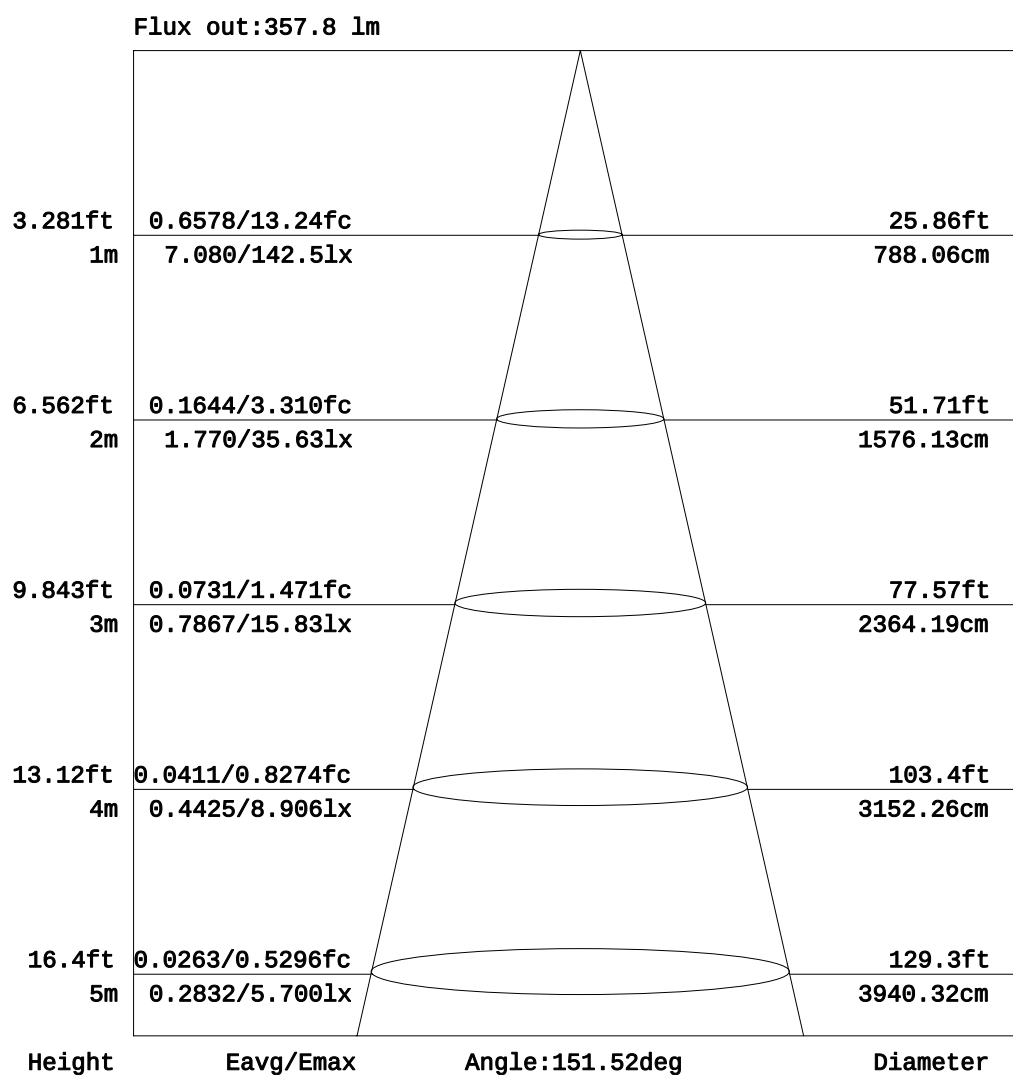


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:28.5DEG
Operators:
Test Date:

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:

AAI Figure

NAME: x-Glo-24-36v	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



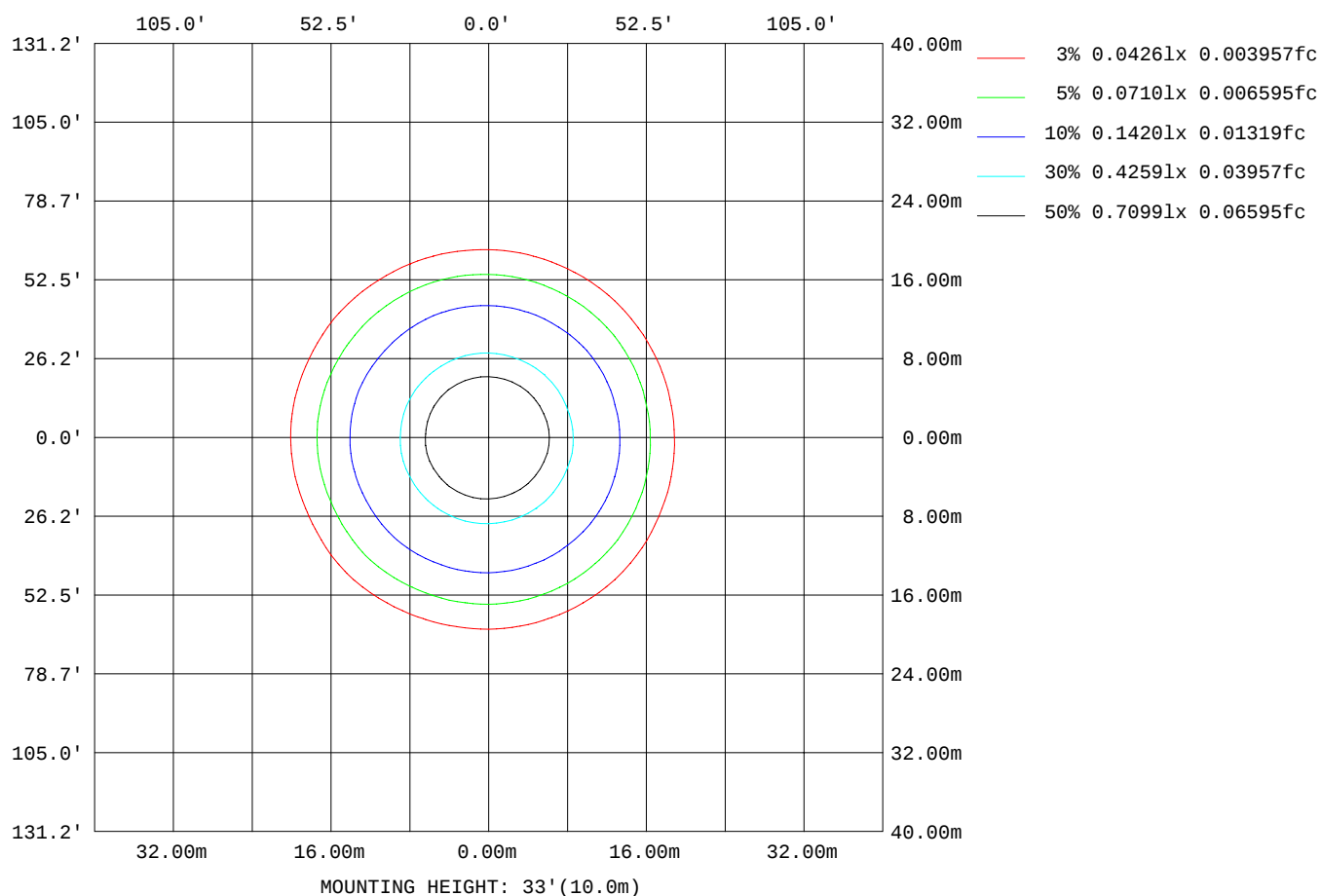
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

NAME: x-Glo-24-36v	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:

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V1.0.257
Humidity: 64%
Test Distance: 6.810m [K=0.8223]
Remarks:

Average Luminance Table (CIBSE)

NAME: x-Glo-24-36v	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	400	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	C plane(deg)																		
deg	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	867	884	896	912	925	929	942	949	960	968	975	981	997	1015	1024	1024	1034	1044	1042
60	775	789	800	814	833	843	853	857	863	869	874	888	906	931	942	940	946	956	966
65	669	684	694	708	731	739	744	746	755	761	766	778	801	830	845	841	841	864	877
70	561	573	581	595	617	628	635	632	635	637	645	661	689	723	735	733	735	757	772
75	450	461	469	487	507	524	531	518	517	519	529	546	584	619	635	635	632	649	666
80	357	365	375	394	413	434	433	406	388	384	404	440	493	536	550	558	558	571	591
85	333	316	323	339	367	379	333	243	190	170	201	274	400	495	515	550	535	559	581

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

CIBSE Category	Gamma (deg)	Average Luminance		Patch Luminance	
		maximum	specified	maximum	specified
		calculated	maximum	measured	maximum
Category 1	55 to 90	1044	200	---	500
Category 2	65 to 90	877	200	---	500
Category 3	75 to 90	666	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:

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:

```

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:

```

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V1.0.257
Humidity:64%
Test Distance:6.810m [K=0.8223]
Remarks:

```

```

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:

```

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V1.0.257
Humidity:64%
Test Distance:6.810m [K=0.8223]
Remarks:

```