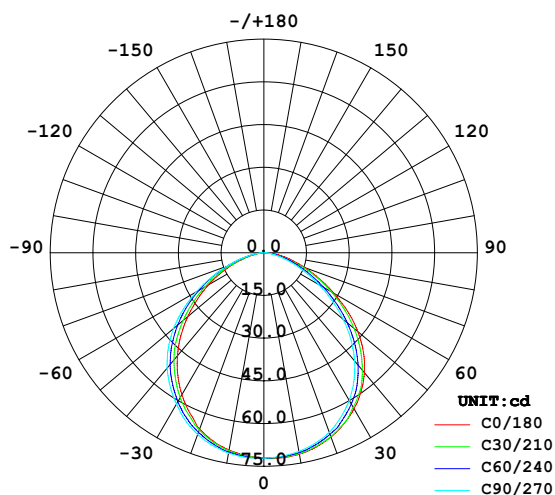


LUMINAIRE PHOTOMETRIC TEST REPORT

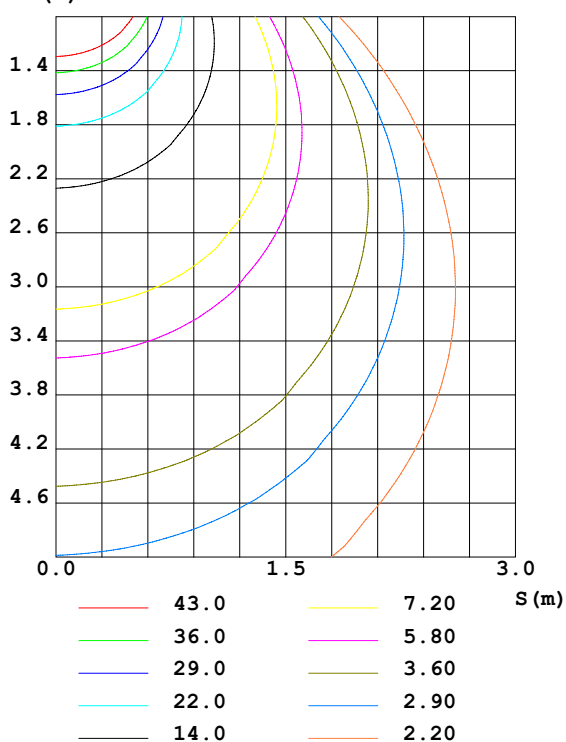
NAME: x-Glo-12-36v	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 75.28 lm/W			
MODEL	5050	I _{max} (cd)	72.31	S/MH (C0/180)	1.19
NOMINAL POWER (W)	2.45	LOR (%)	92.2	S/MH (C90/270)	1.26
RATED VOLTAGE (V)	36	TOTAL FLUX (lm)	184.43	η UP, DN (C0-180)	0.0, 47.2
NOMINAL FLUX (lm)	200	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 45.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	36	η down (%)	92.2	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: 28.5DEG
Operators:
Test Date:

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V1.0.257
Humidity: 56%
Test Distance: 6.810m [K=0.8223]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φone	Φtotal	%lum, lamp
5	71.48	71.74	72.12	72.30	72.30	72.01	71.70	71.41	0- 5	1.721	1.721	0.93,0.86
10	70.34	70.80	71.46	71.70	71.82	71.43	70.88	70.31	5- 10	5.114	6.835	3.71,3.42
15	68.51	69.17	69.97	70.28	70.67	70.21	69.30	68.61	10- 15	8.345	15.18	8.23,7.59
20	65.88	66.60	67.96	68.27	68.86	68.32	67.25	66.07	15- 20	11.29	26.47	14.4,13.2
25	61.83	63.17	65.08	65.82	66.38	65.85	63.82	62.67	20- 25	13.82	40.29	21.8,20.1
30	57.53	59.56	61.37	62.68	63.31	62.44	60.01	58.55	25- 30	15.82	56.11	30.4,28.1
35	52.65	55.45	57.37	58.74	59.53	58.02	55.12	53.76	30- 35	17.24	73.35	39.8,36.7
40	47.24	50.32	52.88	54.39	54.94	52.79	49.61	48.32	35- 40	17.97	91.32	49.5,45.7
45	41.24	44.60	47.48	49.16	49.46	46.65	43.31	42.16	40- 45	17.94	109.3	59.2,54.6
50	34.86	38.53	41.49	43.21	43.09	40.03	36.44	35.57	45- 50	17.12	126.4	68.5,63.2
55	28.45	32.10	34.50	36.61	35.96	33.01	29.19	28.72	50- 55	15.52	141.9	76.9,70.9
60	22.33	25.51	27.27	29.56	28.33	25.98	22.14	22.18	55- 60	13.31	155.2	84.2,77.6
65	16.40	18.96	20.16	22.68	21.41	19.35	16.03	16.25	60- 65	10.73	165.9	90,83
70	10.84	12.85	13.67	16.38	15.30	13.63	10.68	11.10	65- 70	8.036	174.0	94.3,87
75	6.277	7.543	8.398	10.84	10.15	8.807	6.557	6.732	70- 75	5.437	179.4	97.3,89.7
80	2.869	3.582	3.978	6.361	6.261	4.972	3.146	3.446	75- 80	3.209	182.6	99,91.3
85	1.334	1.348	0.7795	2.717	3.213	2.055	0.7386	1.516	80- 85	1.535	184.1	99.8,92.1
90	1.110	0	0	0	0.8879	0	0	0	85- 90	0.2837	184.4	100,92.2
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		

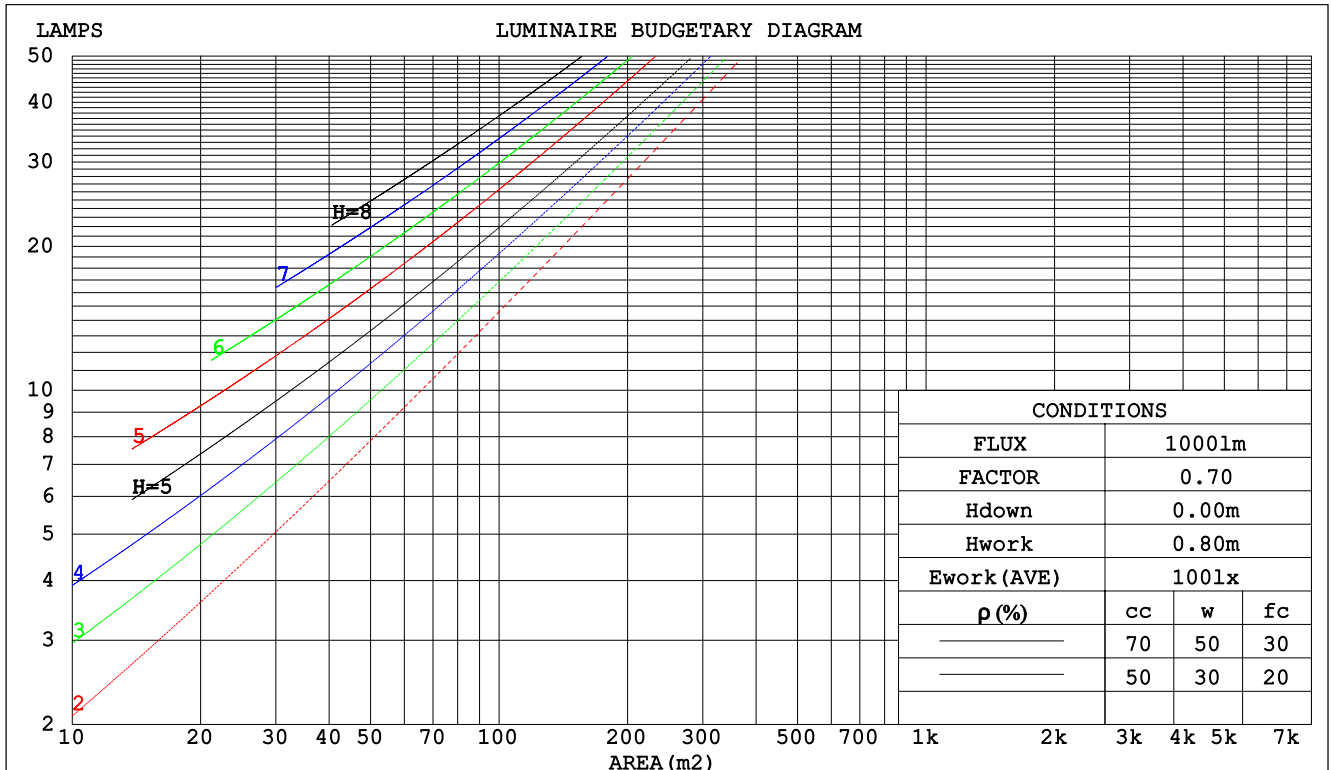
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:28.5DEG
Operators:
Test Date:

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V1.0.257
Humidity:56%
Test Distance:6.810m [K=0.8223]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: x-Glo-12-36v	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	1.07	1.07	1.07	1.02	1.02	1.02	.98	.98	.98	.94	.94	.94	.92
1.0	.97	.94	.90	.95	.92	.89	.91	.88	.86	.88	.85	.83	.84	.83	.81	.79
2.0	.85	.80	.75	.84	.78	.74	.81	.76	.72	.78	.74	.70	.75	.72	.69	.67
3.0	.76	.68	.63	.74	.68	.62	.71	.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	.47	.59	.52	.46	.57	.51	.46	.56	.50	.45	.54	.49	.45	.43
6.0	.54	.47	.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	.36	.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	.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: 56%
Test Distance: 6.810m [K=0.8223]
Remarks:

WEC AND CCEC

NAME: x-Glo-12-36v	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 Wall Exitance Coefficients(WEC)					
0.0						
1.0	.260 .148 .047	.253 .145 .046	.241 .138 .044	.230 .133 .043	.220 .127 .041	
2.0	.249 .137 .042	.244 .134 .041	.233 .130 .040	.223 .125 .039	.214 .121 .038	
3.0	.234 .124 .037	.229 .122 .037	.219 .119 .036	.211 .115 .035	.203 .112 .035	
4.0	.218 .113 .033	.213 .112 .033	.205 .109 .032	.197 .106 .032	.190 .103 .031	
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 .088 .025	.174 .087 .025	.168 .085 .024	.163 .083 .024	.157 .082 .024	
8.0	.166 .081 .023	.163 .080 .023	.158 .079 .023	.153 .078 .022	.148 .076 .022	
9.0	.156 .075 .021	.154 .075 .021	.149 .074 .021	.144 .072 .021	.140 .071 .021	
10.0	.147 .071 .020	.145 .070 .020	.141 .069 .019	.137 .068 .019	.133 .067 .019	

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	.176 .176 .176	.150 .150 .150	.102 .102 .102	.059 .059 .059	.019 .019 .019	
1.0	.164 .144 .126	.141 .124 .108	.096 .085 .075	.055 .049 .044	.018 .016 .014	
2.0	.156 .122 .093	.134 .105 .080	.092 .073 .056	.053 .042 .033	.017 .014 .011	
3.0	.149 .105 .071	.127 .091 .061	.088 .063 .043	.051 .037 .025	.016 .012 .008	
4.0	.142 .093 .056	.122 .080 .048	.084 .056 .034	.048 .033 .020	.016 .011 .007	
5.0	.135 .083 .045	.116 .072 .039	.080 .050 .028	.046 .030 .016	.015 .010 .005	
6.0	.129 .075 .037	.110 .065 .032	.076 .046 .023	.044 .027 .014	.014 .009 .005	
7.0	.122 .069 .031	.105 .060 .027	.073 .042 .019	.042 .025 .012	.014 .008 .004	
8.0	.117 .064 .027	.100 .055 .024	.070 .039 .017	.040 .023 .010	.013 .007 .003	
9.0	.111 .059 .024	.096 .051 .021	.066 .036 .015	.039 .021 .009	.013 .007 .003	
10.0	.106 .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: 56%
Test Distance: 6.810m [K=0.8223]
Remarks:

Uncorrected UGR Table

NAME: x-Glo-12-36v						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	9.5	10.9	9.7	11.1	11.3	10.3	11.8	10.6	12.0	12.2					
3H	10.4	11.7	10.7	11.9	12.2	11.4	12.7	11.6	12.9	13.2					
4H	10.6	11.9	10.9	12.1	12.4	11.7	12.9	12.0	13.2	13.4					
6H	10.7	11.9	11.0	12.1	12.4	11.8	13.0	12.1	13.3	13.5					
8H	10.7	11.8	11.0	12.1	12.4	11.8	13.0	12.2	13.2	13.5					
12H	10.6	11.7	11.0	12.0	12.3	11.8	12.9	12.1	13.2	13.5					
4H 2H	10.0	11.3	10.3	11.6	11.8	10.7	12.0	11.0	12.2	12.5					
3H	11.1	12.2	11.4	12.5	12.8	11.9	13.0	12.3	13.3	13.6					
4H	11.4	12.4	11.7	12.7	13.0	12.3	13.3	12.7	13.6	14.0					
6H	11.5	12.4	11.9	12.7	13.1	12.6	13.4	12.9	13.8	14.2					
8H	11.5	12.3	11.9	12.7	13.1	12.6	13.4	13.0	13.8	14.2					
12H	11.5	12.3	11.9	12.6	13.0	12.6	13.3	13.0	13.7	14.1					
8H 4H	11.5	12.3	11.9	12.7	13.1	12.4	13.2	12.8	13.6	14.0					
6H	11.7	12.4	12.2	12.8	13.2	12.7	13.4	13.2	13.8	14.2					
8H	11.8	12.4	12.2	12.8	13.2	12.8	13.4	13.3	13.8	14.3					
12H	11.8	12.3	12.3	12.7	13.2	12.8	13.3	13.3	13.8	14.3					
12H 4H	11.5	12.3	11.9	12.6	13.0	12.4	13.1	12.8	13.5	13.9					
6H	11.7	12.3	12.2	12.7	13.2	12.7	13.3	13.2	13.7	14.2					
8H	11.8	12.3	12.3	12.7	13.2	12.8	13.3	13.3	13.8	14.2					
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	+ 0.4 / - 0.6					+ 0.5 / - 0.5									

CIE Pub.117 Corrected 200.0 lm Total Lamp Luminous Flux. (8log(F/F0) = -5.6)

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: 56%
Test Distance: 6.810m [K=0.8223]
Remarks:

UTILIZATION FACTORS TABLE

NAME: x-Glo-12-36v	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

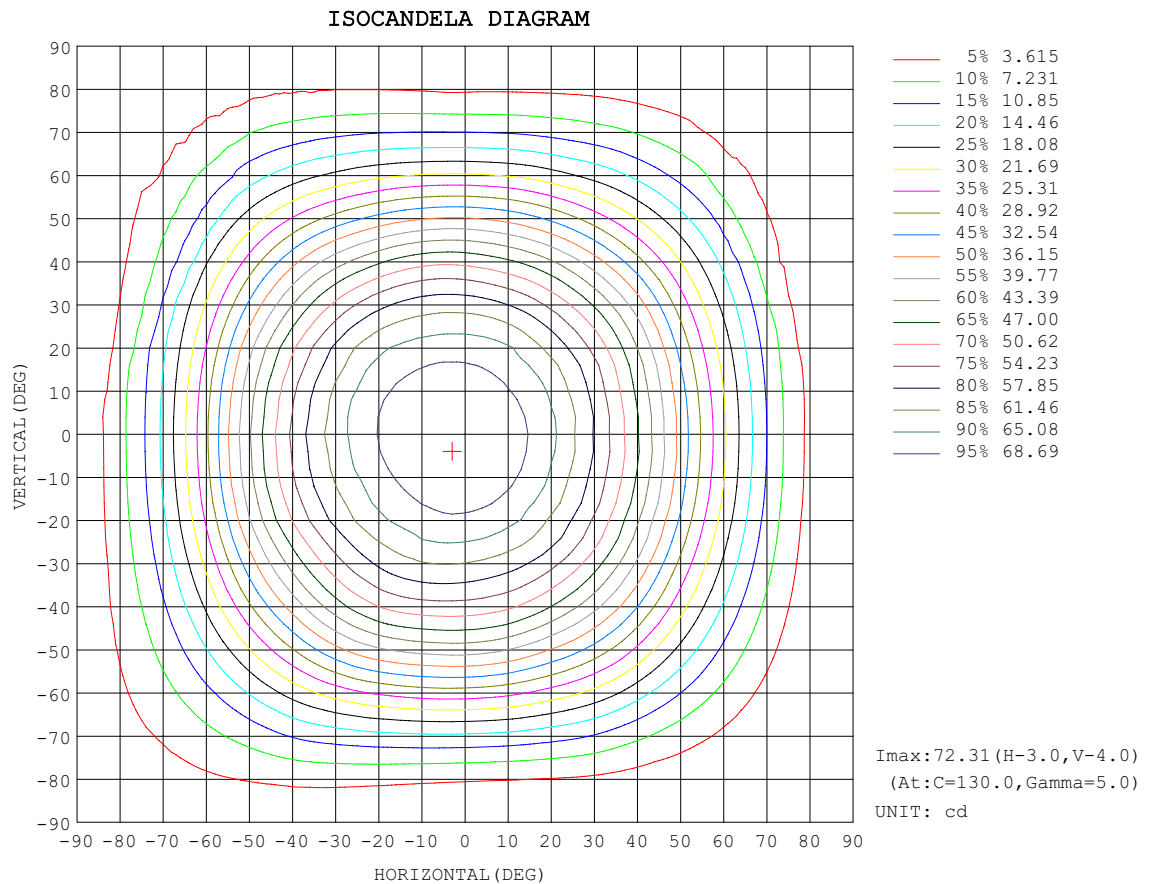
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) k (RI) x RCR = 5									
k = 0.60	55	45	39	55	45	39	54	44	39	33
0.80	65	55	48	64	54	48	62	54	48	42
1.00	73	63	57	72	63	57	70	64	56	50
1.25	79	70	64	78	70	64	76	68	63	57
1.50	84	75	69	82	74	69	79	73	68	61
2.00	90	82	77	88	81	76	85	79	75	68
2.50	93	86	81	91	85	80	88	83	79	71
3.00	96	90	85	94	89	84	90	86	82	75
4.00	99	94	91	97	93	89	93	90	87	79
5.00	101	97	94	99	95	92	95	92	89	81
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: 28.5DEG
Operators:
Test Date:

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V1.0.257
Humidity: 56%
Test Distance: 6.810m [K=0.8223]
Remarks:

ISOCANDELA DIAGRAM

NAME: x-G1o-12-36v	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

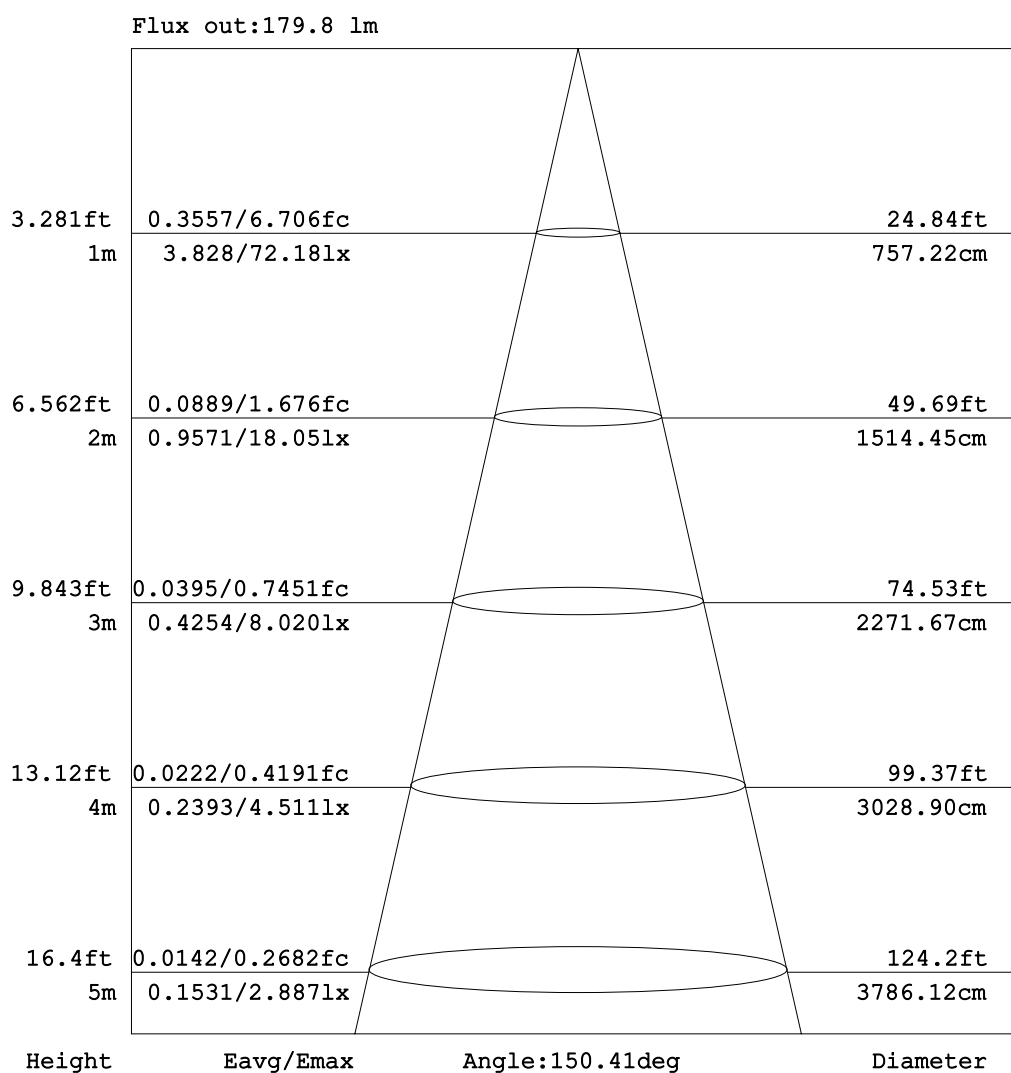


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:28.5DEG
Operators:
Test Date:

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V1.0.257
Humidity:56%
Test Distance:6.810m [K=0.8223]
Remarks:

AAI Figure

NAME: x-Glo-12-36v	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



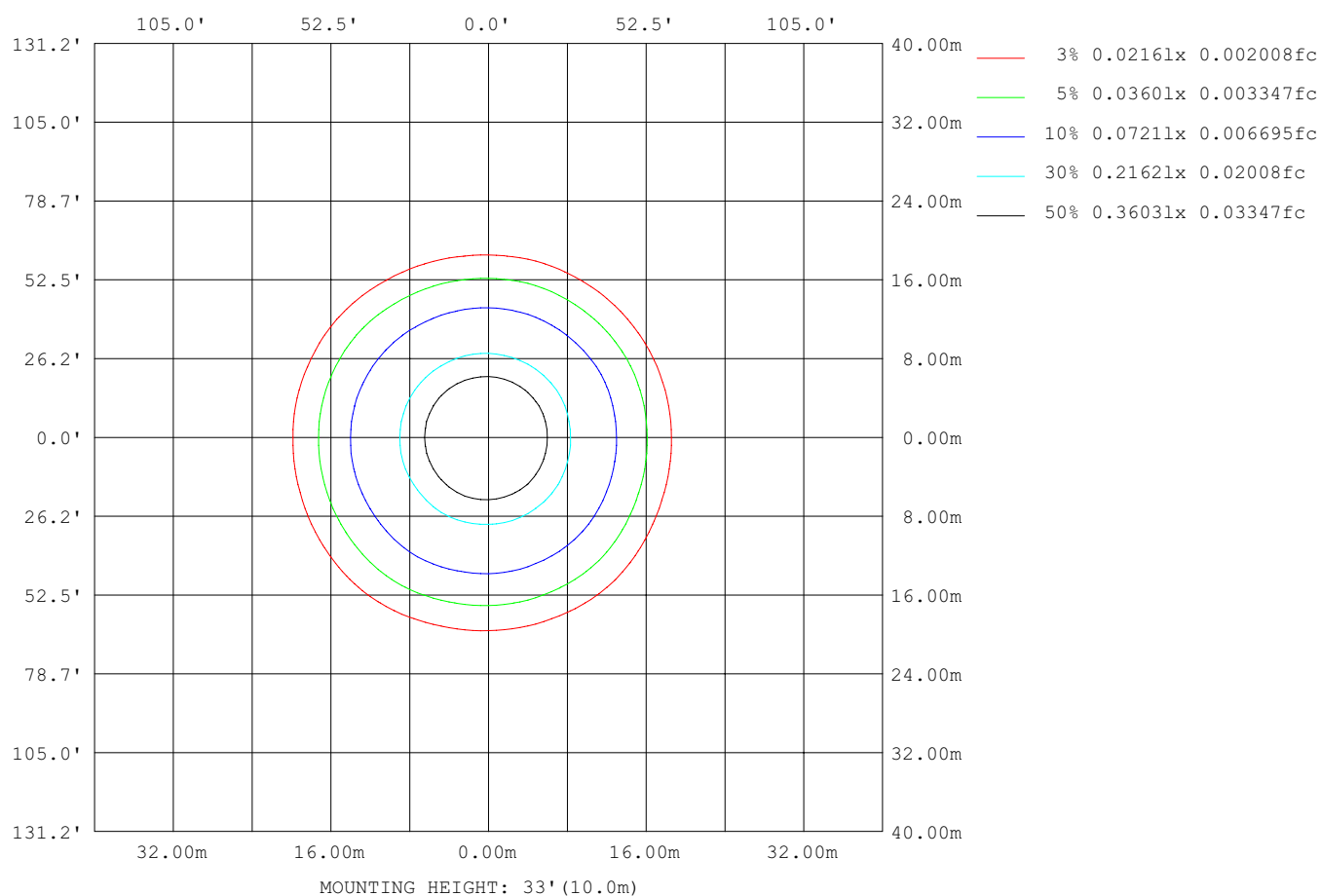
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:56%
Test Distance:6.810m [K=0.8223]
Remarks:

ISOLUX DIAGRAM

NAME: x-Glo-12-36v	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:

Y Range: 0 - 90DEG
Y Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V1.0.257
Humidity: 56%
Test Distance: 6.810m [K=0.8223]
Remarks:

Average Luminance Table (CIBSE)

NAME: x-Glo-12-36v	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	200	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	413	418	426	441	459	472	480	486	495	501	507	519	532	534	528	526	525	525	522
60	372	376	382	397	416	432	439	442	449	455	462	474	489	494	489	485	480	477	472
65	323	327	333	347	364	383	390	391	395	398	406	418	436	446	445	438	430	425	422
70	264	268	274	289	304	322	333	332	332	333	343	359	381	397	396	389	380	374	373
75	202	204	209	221	236	251	267	266	267	270	281	301	327	347	348	340	333	328	327
80	138	135	140	150	165	182	195	190	187	191	209	240	275	303	306	304	299	297	300
85	128	108	107	108	124	132	126	97	79	75	93	136	209	262	276	292	273	285	307

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	534	200	---	500
Category 2	65 to 90	446	200	---	500
Category 3	75 to 90	348	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:

Y Range: 0 - 90DEG
Y Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V1.0.257
Humidity:56%
Test Distance:6.810m [K=0.8223]
Remarks:

```
Y Range: 0 - 90DEG
Y Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V1.0.257
Humidity:56%
Test Distance:6.810m [K=0.8223]
Remarks:
```

```

Y Range: 0 - 90DEG
Y Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V1.0.257
Humidity:56%
Test Distance:6.810m [K=0.8223]
Remarks:

```

```
Y Range: 0 - 90DEG
Y Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V1.0.257
Humidity:56%
Test Distance:6.810m [K=0.8223]
Remarks:
```

```
Y Range: 0 - 90DEG
Y Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V1.0.257
Humidity:56%
Test Distance:6.810m [K=0.8223]
Remarks:
```