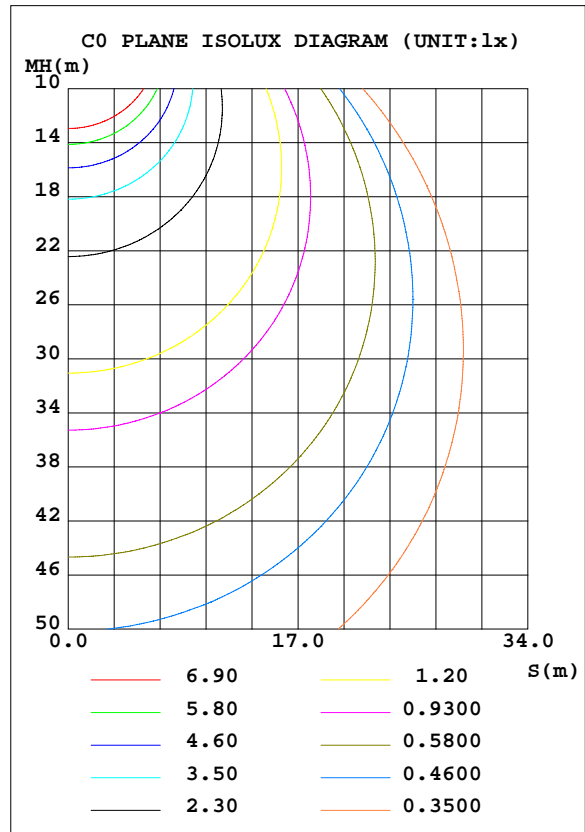
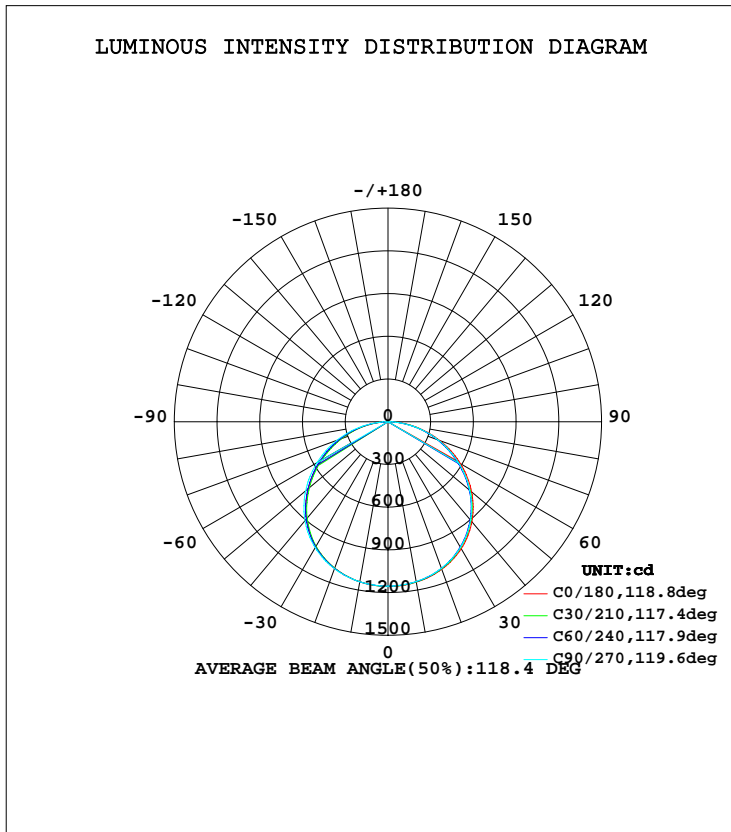




LUMINAIRE PHOTOMETRIC TEST REPORT

NAME:	TYPE:FLB	WEIGHT:
SPEC.:4--1A	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	HQI E40	Imax(cd)	1157	S/MH(C0/180)	1.30
NOMINAL POWER(W)	40	LOR(%)	84.9	S/MH(C90/270)	1.32
RATED VOLTAGE(V)	85-255	TOTAL FLUX(lm)	3566.2	η UP, DN(C0-180)	0.0, 42.5
NOMINAL FLUX(lm)	4202.01	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 42.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	220.2	η down(%)	84.9	CIBSE SHR MAX	1.50



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:XU
 Test Date:2015-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:2.472m [K=1.0000]
 Remarks:



ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1144	1141	1140	1139	1142	1141	1141	1141	0- 10	109.6	109.6	3.07,2.61
20	1103	1098	1095	1093	1095	1096	1099	1101	10- 20	317.3	426.9	12,10.2
30	1029	1018	1018	1012	1013	1013	1022	1023	20- 30	489.9	916.8	25.7,21.8
40	917.1	902.2	902.8	888.8	891.3	888.5	907.1	907.8	30- 40	602.6	1519	42.6,36.2
50	766.1	748.9	749.3	728.0	731.9	727.3	755.0	754.7	40- 50	636.6	2156	60.5,51.3
60	587.4	566.6	569.7	544.6	546.9	545.2	576.5	572.3	50- 60	585.0	2741	76.9,65.2
70	387.8	371.3	375.0	351.4	350.4	353.3	382.2	377.0	60- 70	459.9	3201	89.8,76.2
80	184.0	174.3	172.2	158.9	154.4	162.0	180.5	179.7	70- 80	283.2	3484	97.7,82.9
90	0.1915	0.0517	0.0264	0.0259	0.0223	0.0252	0.0297	0.0704	80- 90	82.08	3566	100,84.9
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:XU
 Test Date:2015-12-28

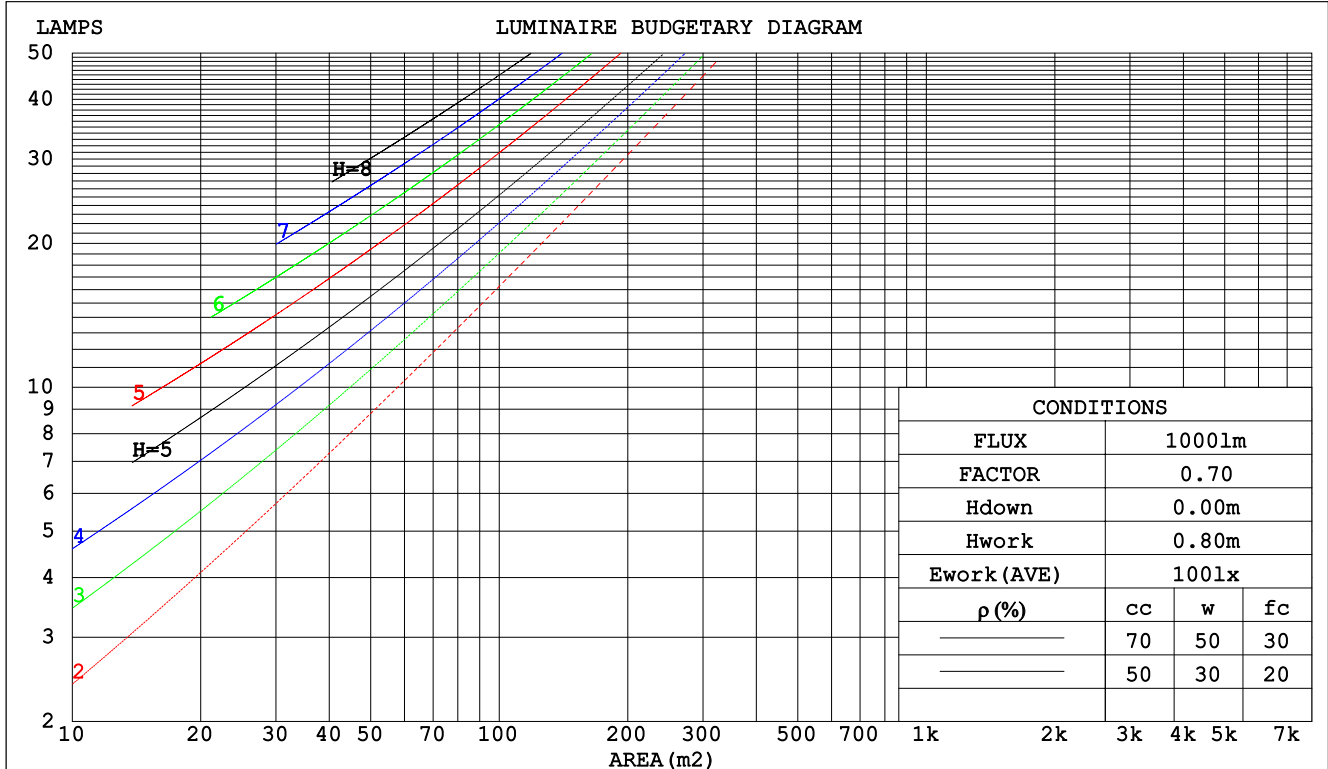
γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:2.472m [K=1.0000]
 Remarks:



CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME:	TYPE:FLB	WEIGHT:
SPEC.:4--1A	DIM.:	SERIAL No.:
MFR.: EVERFINE	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	1.01	1.01	1.01	.99	.99	.99	.94	.94	.94	.90	.90	.90	.87	.87	.87	.85
1.0	.88	.84	.80	.86	.82	.79	.82	.79	.77	.79	.76	.74	.76	.74	.72	.70
2.0	.76	.70	.65	.74	.69	.64	.71	.67	.63	.69	.65	.61	.66	.63	.60	.58
3.0	.66	.59	.54	.65	.58	.53	.63	.57	.52	.60	.55	.51	.58	.54	.50	.48
4.0	.59	.51	.45	.58	.50	.45	.55	.49	.44	.53	.48	.44	.52	.47	.43	.41
5.0	.52	.44	.39	.51	.44	.38	.50	.43	.38	.48	.42	.38	.46	.41	.37	.35
6.0	.47	.39	.34	.46	.39	.33	.45	.38	.33	.43	.37	.33	.42	.37	.33	.31
7.0	.43	.35	.30	.42	.35	.29	.40	.34	.29	.39	.33	.29	.38	.33	.29	.27
8.0	.39	.31	.26	.38	.31	.26	.37	.31	.26	.36	.30	.26	.35	.30	.26	.24
9.0	.36	.28	.24	.35	.28	.24	.34	.28	.23	.33	.27	.23	.32	.27	.23	.22
10.0	.33	.26	.21	.32	.26	.21	.31	.25	.21	.31	.25	.21	.30	.25	.21	.20



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:XU
 Test Date:2015-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:2.472m [K=1.0000]
 Remarks:



WEC AND CCEC

NAME:	TYPE:FLB	WEIGHT:
SPEC.:4--1A	DIM.:	SERIAL No.:
MFR.: EVERFINE	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	.273	.155	.049	.267	.152	.048	.255	.147	.047	.245	.141	.045	.235	.136	.044	
2.0	.255	.140	.043	.250	.137	.042	.240	.133	.041	.230	.129	.040	.222	.125	.040	
3.0	.235	.125	.037	.230	.123	.037	.221	.120	.036	.213	.117	.036	.206	.114	.035	
4.0	.216	.112	.033	.212	.111	.033	.204	.108	.032	.197	.106	.032	.190	.103	.031	
5.0	.199	.101	.029	.195	.100	.029	.189	.098	.029	.182	.096	.029	.176	.094	.028	
6.0	.184	.092	.026	.181	.091	.026	.175	.090	.026	.169	.088	.026	.164	.086	.026	
7.0	.171	.085	.024	.168	.084	.024	.163	.082	.024	.158	.081	.024	.153	.079	.023	
8.0	.160	.078	.022	.157	.077	.022	.152	.076	.022	.148	.075	.022	.143	.073	.021	
9.0	.150	.072	.020	.147	.072	.020	.143	.071	.020	.139	.069	.020	.135	.068	.020	
10.0	.140	.067	.019	.138	.067	.019	.134	.066	.019	.131	.065	.018	.127	.064	.018	

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	.162	.162	.162	.138	.138	.138	.094	.094	.094	.054	.054	.054	.017	.017	.017	
1.0	.154	.132	.113	.132	.114	.097	.090	.078	.067	.052	.045	.039	.017	.015	.013	
2.0	.147	.112	.082	.126	.096	.071	.086	.067	.050	.050	.039	.029	.016	.013	.009	
3.0	.141	.097	.062	.121	.084	.054	.083	.058	.038	.048	.034	.022	.015	.011	.007	
4.0	.134	.086	.049	.115	.074	.042	.079	.052	.030	.046	.030	.018	.015	.010	.006	
5.0	.128	.077	.039	.110	.067	.034	.076	.047	.024	.044	.027	.014	.014	.009	.005	
6.0	.122	.070	.033	.105	.061	.029	.072	.042	.020	.042	.025	.012	.014	.008	.004	
7.0	.116	.064	.028	.100	.056	.024	.069	.039	.017	.040	.023	.010	.013	.008	.003	
8.0	.110	.059	.024	.095	.051	.021	.066	.036	.015	.038	.021	.009	.012	.007	.003	
9.0	.105	.055	.021	.091	.048	.018	.063	.034	.013	.037	.020	.008	.012	.007	.003	
10.0	.100	.051	.019	.086	.045	.016	.060	.031	.012	.035	.019	.007	.011	.006	.002	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:XU
 Test Date:2015-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:2.472m [K=1.0000]
 Remarks:



UGR(Unified Glare Rating) Table

NAME:		TYPE:FLB					WEIGHT:				
SPEC.:4--1A		DIM.:					SERIAL No.:				
MFR.: EVERFINE		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	21.6	23.1	21.8	23.3	23.5	21.4	23.0	21.7	23.2	23.4	
3H	23.3	24.7	23.6	24.9	25.2	23.1	24.5	23.4	24.8	25.0	
4H	24.0	25.3	24.3	25.6	25.9	23.8	25.2	24.1	25.4	25.7	
6H	24.6	25.8	24.9	26.1	26.4	24.4	25.7	24.7	25.9	26.2	
8H	24.8	26.0	25.1	26.3	26.6	24.5	25.8	24.9	26.1	26.4	
12H	24.9	26.1	25.3	26.4	26.7	24.7	25.9	25.0	26.2	26.5	
4H 2H	22.2	23.6	22.5	23.8	24.1	22.1	23.5	22.4	23.7	24.0	
3H	24.1	25.3	24.4	25.6	25.9	23.9	25.1	24.3	25.4	25.8	
4H	24.9	26.0	25.3	26.3	26.7	24.8	25.9	25.2	26.2	26.6	
6H	25.6	26.6	26.0	27.0	27.3	25.5	26.5	25.9	26.8	27.2	
8H	25.9	26.8	26.3	27.2	27.6	25.7	26.6	26.1	27.0	27.4	
12H	26.1	26.9	26.5	27.3	27.7	25.9	26.7	26.3	27.1	27.5	
8H 4H	25.2	26.1	25.6	26.5	26.9	25.1	26.0	25.5	26.4	26.8	
6H	26.1	26.9	26.6	27.3	27.7	26.0	26.7	26.4	27.1	27.6	
8H	26.5	27.2	26.9	27.6	28.0	26.3	27.0	26.8	27.4	27.9	
12H	26.8	27.4	27.3	27.8	28.3	26.5	27.1	27.0	27.6	28.0	
12H 4H	25.3	26.1	25.7	26.5	26.9	25.1	26.0	25.6	26.4	26.8	
6H	26.2	26.9	26.6	27.3	27.7	26.0	26.7	26.5	27.1	27.6	
8H	26.6	27.2	27.1	27.6	28.1	26.4	27.0	26.9	27.5	27.9	
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.1 / - 0.3					+ 0.1 / - 0.3					

CIE Pub.117 Corrected 4202 lm Total Lamp Luminous Flux. (8log(F/F0) = 5.0)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:XU
 Test Date:2015-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:2.472m [K=1.0000]
 Remarks:



UTILIZATION FACTORS TABLE

NAME:	TYPE:FLB	WEIGHT:
SPEC.:4--1A	DIM.:	SERIAL No.:
MFR.: EVERFINE	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) $k(RI) \times RCR = 5$									
$k = 0.60$	48	38	32	47	38	32	46	37	32	26
0.80	56	46	40	55	46	40	54	45	39	33
1.00	64	54	47	62	53	47	61	55	47	41
1.25	70	60	54	68	60	54	66	59	53	47
1.50	74	65	59	72	64	59	70	63	58	51
2.00	80	72	67	78	71	66	75	69	65	58
2.50	83	76	71	81	75	70	78	73	69	62
3.00	86	80	75	84	79	74	81	76	73	65
4.00	90	85	81	88	83	79	84	80	77	69
5.00	92	88	84	90	86	83	86	83	80	72
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:XU
 Test Date:2015-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:2.472m [K=1.0000]
 Remarks:



ISOCANDELA DIAGRAM

NAME:	TYPE:FLB	WEIGHT:
SPEC.:4--1A	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

Conical surface Flux(90deg):

1838.9 lm

%lum = 51.6%

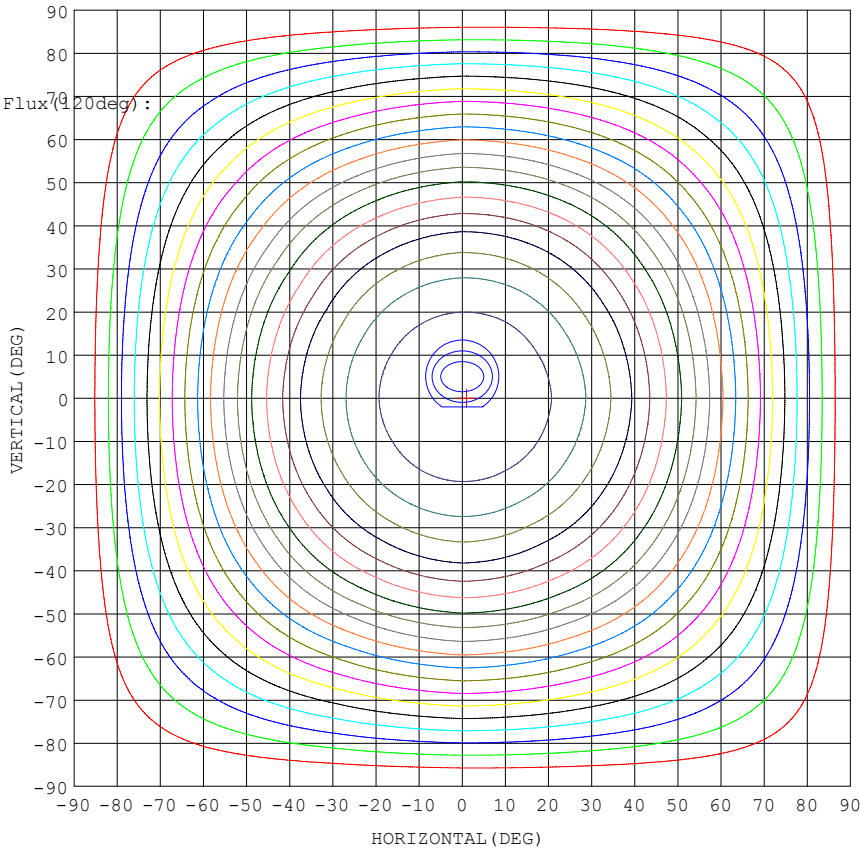
%lamp = 43.8%

Conical surface Flux(70deg):

2741 lm

%lum = 76.9%

%lamp = 65.2%



- 1. AVG=1150,MIN=1145
- 2. AVG=1149,MIN=1138
- 3. AVG=1147,MIN=1130

Imax:1157 (H1.0,V0.0)
 (At:C=0.0,Gamma=1.0)
 UNIT: cd

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:XU
 Test Date:2015-12-28

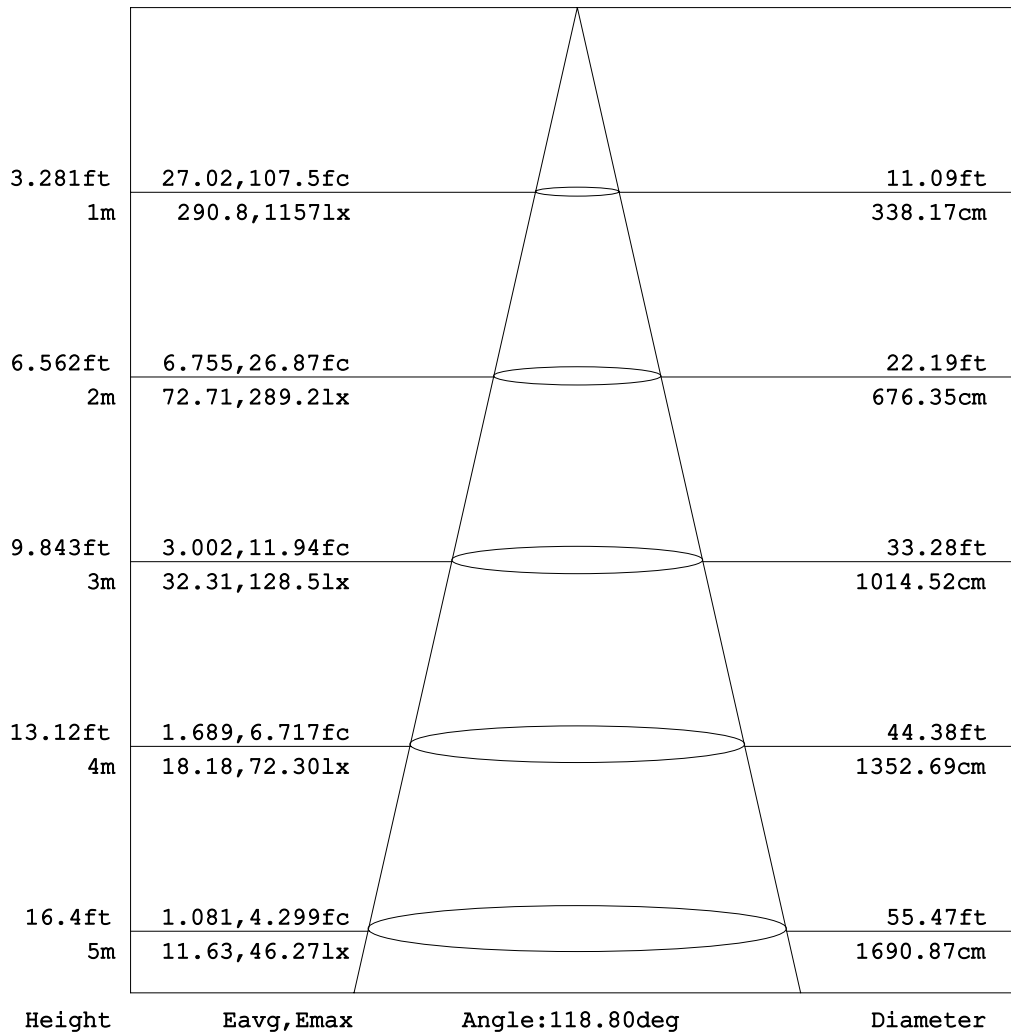
γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:2.472m [K=1.0000]
 Remarks:



AAI Figure

NAME:	TYPE:FLB	WEIGHT:
SPEC.:4--1A	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

Flux out:2741 lm



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

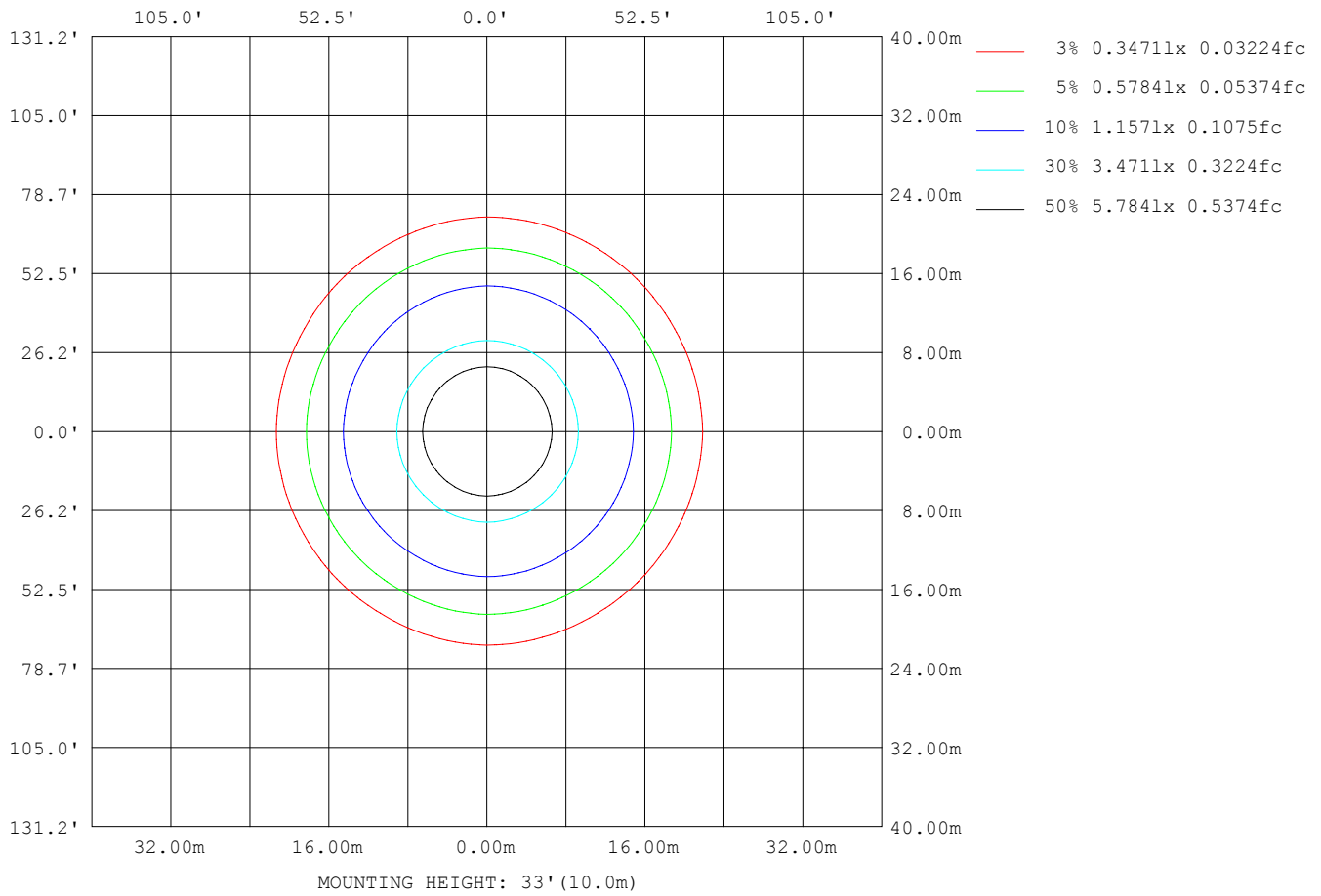
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:XU
 Test Date:2015-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:2.472m [K=1.0000]
 Remarks:



ISOLUX DIAGRAM

NAME:	TYPE:FLB	WEIGHT:
SPEC.:4--1A	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

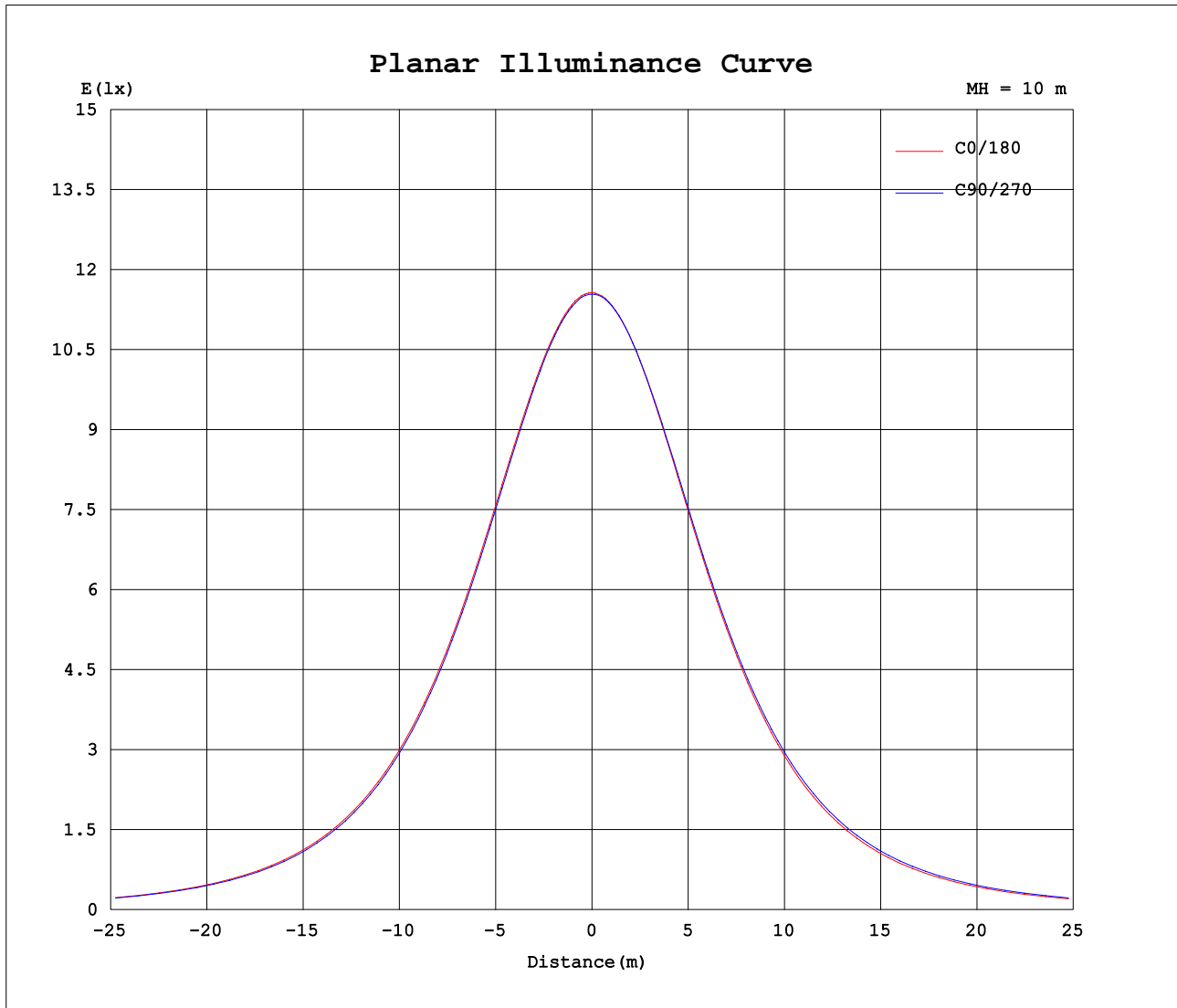


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:XU
 Test Date:2015-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:2.472m [K=1.0000]
 Remarks:



Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:XU
Test Date:2015-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:2.472m [K=1.0000]
Remarks:



LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 面板灯	TYPE:FLB	WEIGHT:
SPEC.:4--1A	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	1157	1156	1154	1154	1154	1154	1157	1156	1154	1154	1154	1154							
5	1154	1152	1151	1150	1150	1149	1153	1152	1152	1151	1152	1151							
10	1144	1143	1140	1140	1139	1139	1142	1141	1142	1141	1142	1141							
15	1128	1125	1123	1122	1121	1120	1122	1122	1123	1124	1125	1124							
20	1103	1100	1096	1095	1094	1093	1095	1094	1097	1099	1101	1100							
25	1071	1065	1061	1062	1059	1057	1058	1057	1061	1065	1067	1067							
30	1029	1021	1015	1018	1013	1010	1013	1010	1016	1022	1023	1024							
35	978	968	961	965	956	953	958	951	960	970	970	970							
40	917	906	898	903	890	888	891	884	893	907	908	908							
45	846	834	827	830	814	811	816	806	818	835	836	836							
50	766	753	745	749	730	726	732	721	734	755	754	755							
55	680	664	656	662	641	636	642	631	646	668	666	666							
60	587	570	563	570	547	542	547	538	553	576	572	572							
65	489	473	467	474	451	445	449	442	457	480	476	475							
70	388	373	369	375	354	349	350	346	361	382	378	376							
75	285	274	271	275	257	252	251	250	264	283	280	276							
80	184	177	172	172	160	158	154	157	167	180	181	178							
85	85.6	81.1	74.6	72.1	64.9	64.8	61.1	64.2	69.7	77.8	80.8	83.0							
90	0.19	0.08	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.03	0.05	0.09							

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 30.0DEG	γ Interval: 1.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.286
Temperature:25.3DEG	Humidity:65.0%
Operators:XU	Test Distance:2.472m [K=1.0000]
Test Date:2015-12-28	Remarks: