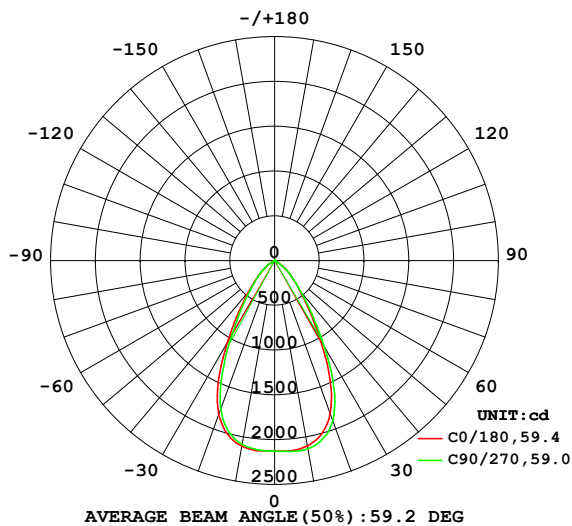


LUMINAIRE PHOTOMETRIC TEST REPORT

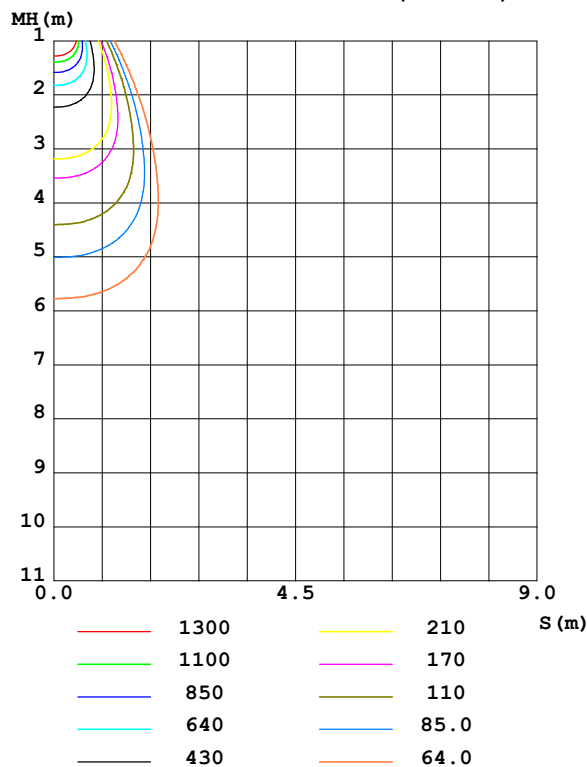
Test:U:230.29V I:0.0780A P:17.515W PF:0.9753 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2209.48x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 3000	DIM.:	Instrument No.: HUP-IES-B4
MFR.: EVERFINE	SUR.: 0.0715	shielding angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 126.15 lm/W			
MODEL	41060182	I _{max} (cd)	2143	S/MH(C0/180)	0.89
NOMINAL POWER(W)	18	LOR(%)	100.0	S/MH(C90/270)	0.91
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	2209.5	η UP,DN(C0-180)	0.0,48.9
NOMINAL FLUX(lm)	2209.48	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.1
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	230	η down (%)	100.0	CIBSE SHR MAX	0.90

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:Pan tianxiong
Test Date:2023-10-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.473
Humidity:65.0%
Test Distance:9.780m [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	2104	2091	2083	2085	2101	2120	2132	2121	0- 10	202.6	202.6	9.17,9.17
20	1828	1779	1757	1770	1816	1865	1901	1878	10- 20	562.8	765.4	34.6,34.6
30	1058	985.6	952.9	996.1	1026	1070	1112	1096	20- 30	664.0	1429	64.7,64.7
40	446.2	430.3	416.2	437.9	443.3	451.8	461.8	450.9	30- 40	433.3	1863	84.3,84.3
50	186.3	185.8	188.6	198.6	195.9	194.1	192.4	185.6	40- 50	230.2	2093	94.7,94.7
60	40.64	42.33	36.13	45.33	44.44	43.18	37.34	40.75	50- 60	98.03	2191	99.2,99.2
70	3.336	3.424	3.651	3.642	3.984	4.309	4.129	3.569	60- 70	13.08	2204	99.7,99.7
80	2.491	2.432	2.771	2.763	3.007	3.217	3.162	2.752	70- 80	3.436	2207	99.9,99.9
90	0.0441	0.0253	0.0316	0.0190	0.0567	0.0569	0.0443	0.0507	80- 90	2.103	2209	100,100
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		

Conical surface Flux(90deg): 1996.4 lm

%lum = 90.4%

%lamp = 90.4%

Conical surface Flux(120deg): 2190.9 lm

%lum = 99.2%

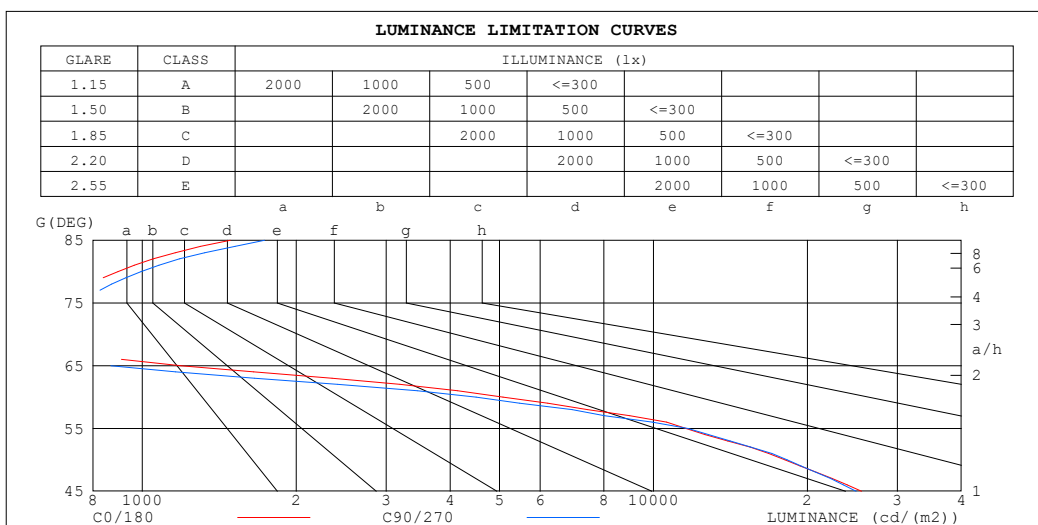
%lamp = 99.2%

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:Pan tianxiong
 Test Date:2023-10-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.473
 Humidity:65.0%
 Test Distance:9.780m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.29V I:0.0780A P:17.515W PF:0.9753 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2209.48x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 3000	DIM.:	Instrument No.: HUP-IES-B4
MFR.: EVERFINE	SUR.: 0.0715	shielding angle:



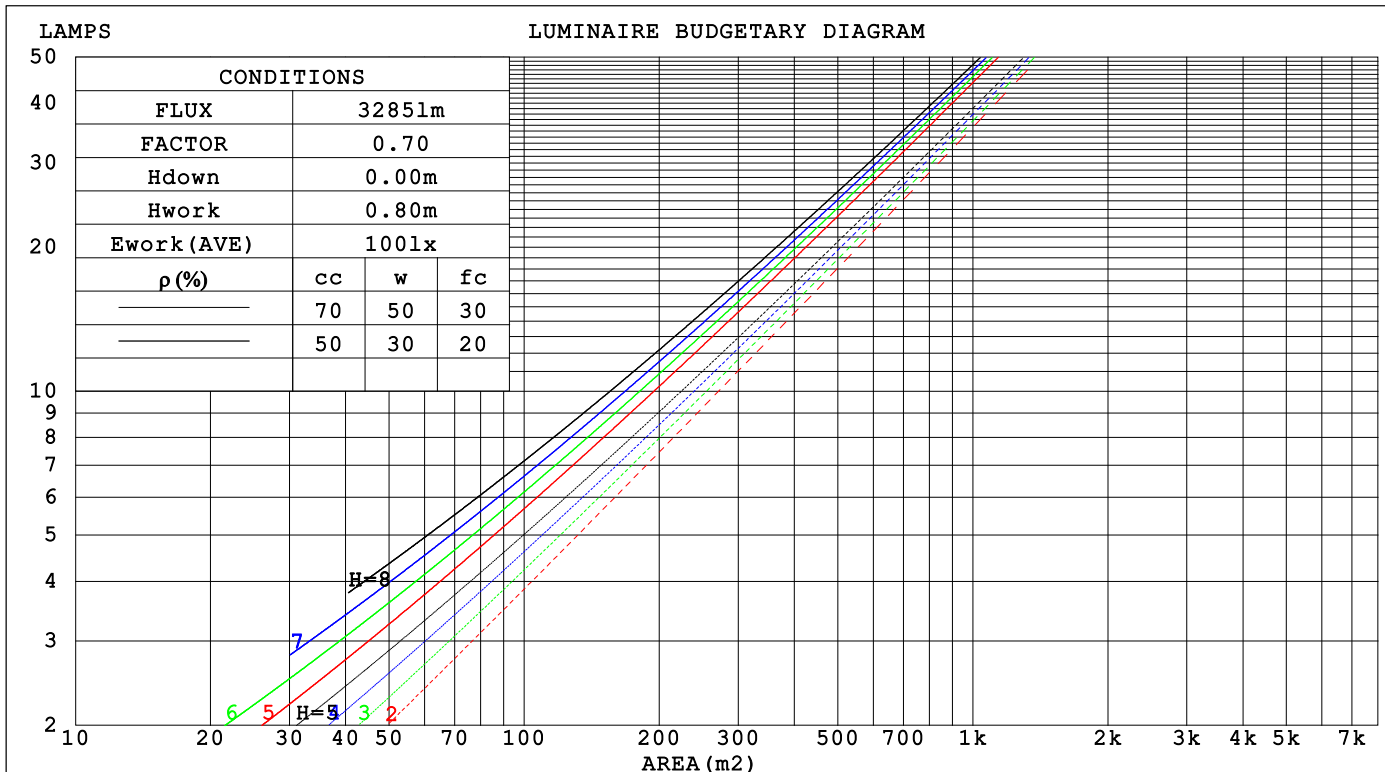
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: Pan tianxiong
Test Date: 2023-10-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.00.473
Humidity: 65.0%
Test Distance: 9.780m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.29V I:0.0780A P:17.515W PF:0.9753 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2209.48x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 3000	DIM.:	Instrument No.: HUP-IES-B4
MFR.: EVERFINE	SUR.: 0.0715	shielding 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	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.10	1.08	1.05	1.08	1.06	1.03	1.04	1.02	1.00	1.00	.99	.97	.97	.96	.94	.93
2.0	1.02	.98	.94	1.00	.96	.93	.97	.94	.91	.94	.91	.89	.91	.89	.87	.85
3.0	.94	.89	.85	.93	.88	.84	.90	.86	.83	.88	.84	.81	.85	.83	.80	.78
4.0	.87	.82	.77	.86	.81	.77	.84	.79	.76	.82	.78	.75	.80	.77	.74	.72
5.0	.81	.75	.71	.80	.75	.70	.79	.73	.70	.77	.72	.69	.75	.71	.68	.67
6.0	.76	.70	.65	.75	.69	.65	.74	.68	.64	.72	.67	.64	.71	.67	.63	.62
7.0	.71	.65	.60	.70	.64	.60	.69	.64	.60	.68	.63	.59	.67	.62	.59	.57
8.0	.67	.60	.56	.66	.60	.56	.65	.59	.56	.64	.59	.55	.63	.58	.55	.54
9.0	.63	.56	.52	.62	.56	.52	.61	.56	.52	.60	.55	.52	.59	.55	.51	.50
10.0	.59	.53	.49	.59	.53	.49	.58	.52	.49	.57	.52	.48	.56	.52	.48	.47



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:Pan tianxiong
Test Date:2023-10-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.473
Humidity:65.0%
Test Distance:9.780m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:230.29V I:0.0780A P:17.515W PF:0.9753 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2209.48x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 3000	DIM.:	Instrument No.: HUP-IES-B4
MFR.: EVERFINE	SUR.: 0.0715	shielding 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	.189	.108	.034	.182	.104	.033	.170	.097	.031	.158	.091	.029	.147	.085	.028		
2.0	.183	.100	.031	.177	.097	.030	.166	.092	.029	.156	.088	.027	.147	.083	.026		
3.0	.175	.093	.028	.170	.091	.027	.161	.087	.026	.152	.083	.026	.144	.080	.025		
4.0	.166	.086	.025	.162	.085	.025	.154	.082	.024	.147	.079	.024	.140	.076	.023		
5.0	.159	.081	.023	.155	.079	.023	.148	.077	.023	.141	.075	.022	.135	.072	.022		
6.0	.151	.076	.022	.148	.075	.021	.142	.073	.021	.136	.071	.021	.130	.069	.020		
7.0	.144	.071	.020	.141	.070	.020	.136	.069	.020	.131	.067	.019	.126	.065	.019		
8.0	.138	.067	.019	.135	.066	.019	.130	.065	.019	.125	.064	.018	.121	.062	.018		
9.0	.131	.064	.018	.129	.063	.018	.125	.062	.017	.121	.060	.017	.117	.059	.017		
10.0	.126	.060	.017	.124	.060	.017	.120	.059	.017	.116	.058	.016	.112	.057	.016		

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020		
1.0	.172	.157	.144	.147	.135	.124	.101	.093	.086	.058	.054	.050	.019	.017	.016		
2.0	.158	.132	.111	.135	.114	.096	.093	.079	.067	.053	.046	.039	.017	.015	.013		
3.0	.146	.114	.088	.125	.098	.076	.086	.068	.053	.050	.040	.031	.016	.013	.010		
4.0	.136	.099	.071	.117	.086	.061	.081	.060	.043	.047	.035	.026	.015	.011	.008		
5.0	.128	.088	.058	.110	.076	.050	.076	.053	.036	.044	.031	.021	.014	.010	.007		
6.0	.121	.079	.048	.104	.068	.042	.072	.048	.030	.042	.028	.018	.013	.009	.006		
7.0	.115	.071	.041	.099	.062	.035	.068	.043	.025	.040	.025	.015	.013	.008	.005		
8.0	.109	.065	.035	.094	.056	.030	.065	.040	.022	.038	.023	.013	.012	.008	.004		
9.0	.104	.060	.030	.090	.052	.026	.062	.037	.019	.036	.022	.011	.012	.007	.004		
10.0	.099	.056	.027	.086	.048	.023	.059	.034	.016	.035	.020	.010	.011	.007	.003		

C Range: 0 - 360DEG

C Interval: 45.0DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:Pan tianxiong

Test Date:2023-10-12

γ Range: 0 - 90DEG

γ Interval: 1.0DEG

Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.473

Humidity:65.0%

Test Distance:9.780m [K=1.0000]

Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.29V I:0.0780A P:17.515W PF:0.9753 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2209.48x1 lm										
Name: 41060182					Type: 18W			Weight:		
SPEC.: 3000					DIM.:			Instrument No.: HUP-IES-B4		
MFR.: EVERFINE					SUR.: 0.0715			shielding 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	19.4	20.5	19.7	20.6	20.8	19.2	20.2	19.4	20.4	20.6
3H	19.2	20.2	19.5	20.4	20.6	19.0	20.0	19.3	20.2	20.4
4H	19.2	20.1	19.4	20.3	20.5	18.9	19.8	19.2	20.1	20.3
6H	19.1	19.9	19.4	20.2	20.4	18.9	19.7	19.2	19.9	20.2
8H	19.0	19.8	19.3	20.1	20.4	18.8	19.6	19.1	19.9	20.1
12H	19.0	19.8	19.3	20.0	20.3	18.8	19.5	19.1	19.8	20.1
4H 2H	19.2	20.1	19.5	20.4	20.6	19.0	19.9	19.3	20.1	20.4
3H	19.1	19.8	19.4	20.1	20.4	18.8	19.6	19.2	19.9	20.2
4H	19.0	19.7	19.3	20.0	20.3	18.8	19.5	19.1	19.8	20.1
6H	18.9	19.5	19.3	19.8	20.2	18.7	19.3	19.1	19.6	20.0
8H	18.8	19.4	19.2	19.8	20.1	18.6	19.2	19.0	19.5	19.9
12H	18.8	19.3	19.2	19.7	20.1	18.6	19.1	19.0	19.5	19.9
8H 4H	18.8	19.4	19.2	19.7	20.1	18.6	19.2	19.0	19.5	19.9
6H	18.7	19.2	19.2	19.6	20.0	18.5	19.0	19.0	19.4	19.8
8H	18.7	19.1	19.2	19.5	20.0	18.5	18.9	18.9	19.3	19.8
12H	18.7	19.0	19.1	19.5	19.9	18.5	18.8	18.9	19.3	19.7
12H 4H	18.8	19.3	19.2	19.7	20.1	18.6	19.1	19.0	19.5	19.8
6H	18.7	19.1	19.1	19.5	20.0	18.5	18.9	18.9	19.3	19.7
8H	18.7	19.0	19.1	19.4	19.9	18.4	18.8	18.9	19.2	19.7
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 2.3 / - 4.8					+ 2.1 / - 5.2				
1.5H	+ 2.8 / - 2.9					+ 2.3 / - 2.8				
2.0H	+ 4.1 / -10.6					+ 4.1 / -10.9				

CIE Pub.117, 2209 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 2.8)
Area: 0.01605 m2

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:Pan tianxiong
Test Date:2023-10-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.473
Humidity:65.0%
Test Distance:9.780m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.29V I:0.0780A P:17.515W PF:0.9753 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2209.48x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 3000	DIM.:	Instrument No.: HUP-IES-B4
MFR.: EVERFINE	SUR.: 0.0715	shielding angle:

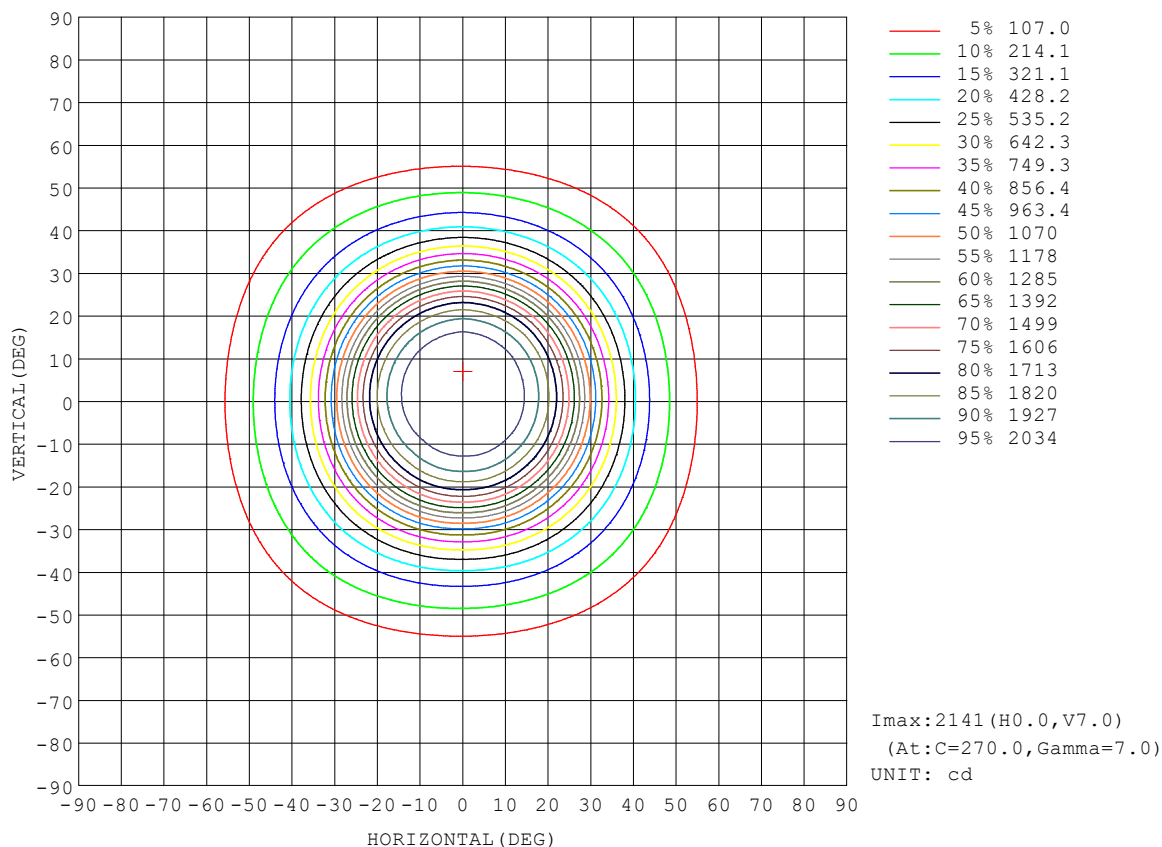
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	81	74	70	81	74	69	80	73	69	65
0.80	90	83	79	89	83	78	88	82	78	74
1.00	96	89	85	95	89	85	93	89	84	80
1.25	100	94	90	99	94	90	97	93	89	85
1.50	104	98	94	102	97	94	100	96	93	88
2.00	107	102	99	105	101	98	103	99	96	91
2.50	109	105	101	107	103	100	104	101	98	92
3.00	111	107	104	109	105	103	105	103	101	94
4.00	113	110	107	111	108	106	107	105	103	96
5.00	114	111	109	112	110	108	108	106	105	97
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3℃
Operators: Pan tianxiong
Test Date: 2023-10-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.00.473
Humidity: 65.0%
Test Distance: 9.780m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:230.29V I:0.0780A P:17.515W PF:0.9753 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2209.48x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 3000	DIM.:	Instrument No.: HUP-IES-B4
MFR.: EVERFINE	SUR.: 0.0715	shielding angle:

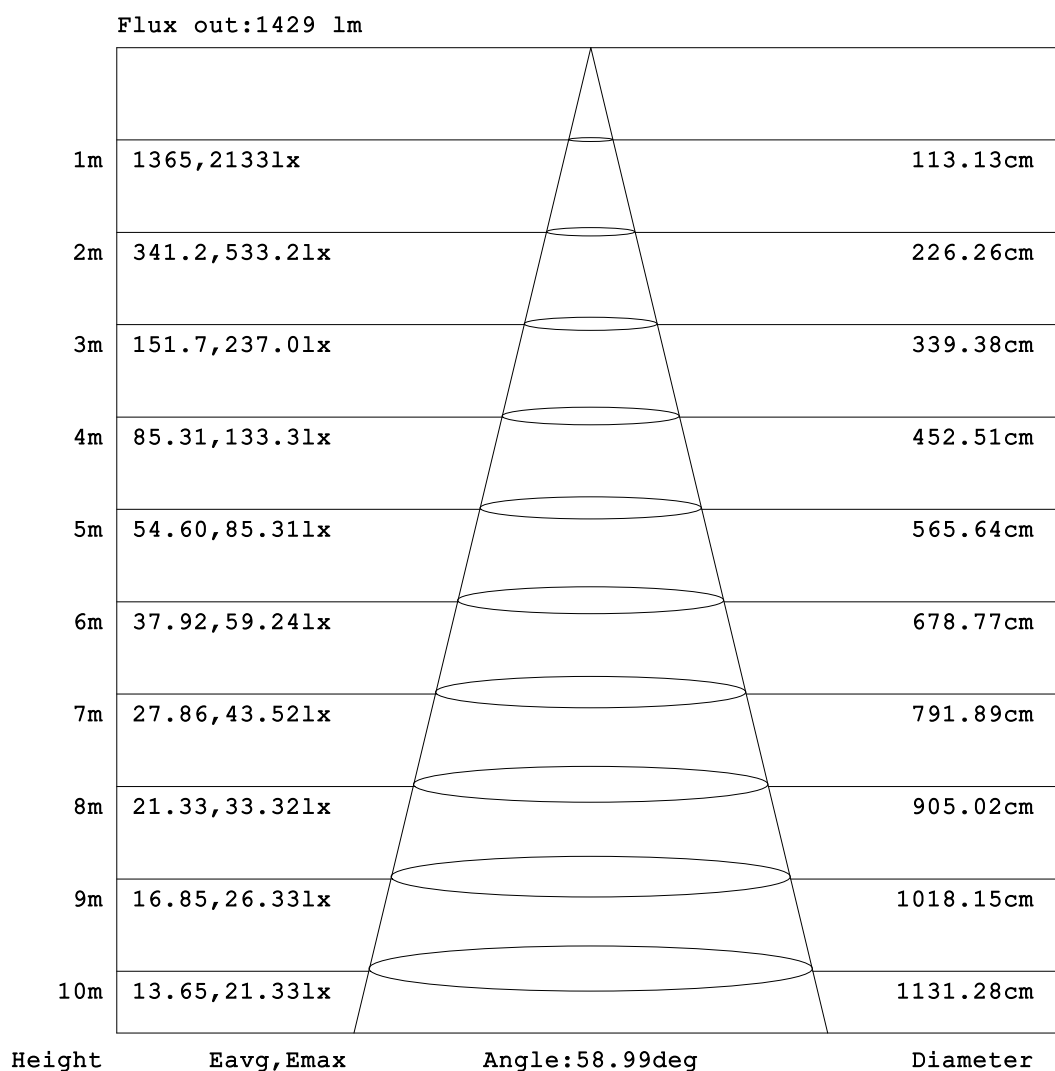


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:Pan tianxiong
Test Date:2023-10-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.473
Humidity:65.0%
Test Distance:9.780m [K=1.0000]
Remarks:

AAI Figure

Test:U:230.29V I:0.0780A P:17.515W PF:0.9753 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2209.48x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 3000	DIM.:	Instrument No.: HUP-IES-B4
MFR.: EVERFINE	SUR.: 0.0715	shielding angle:



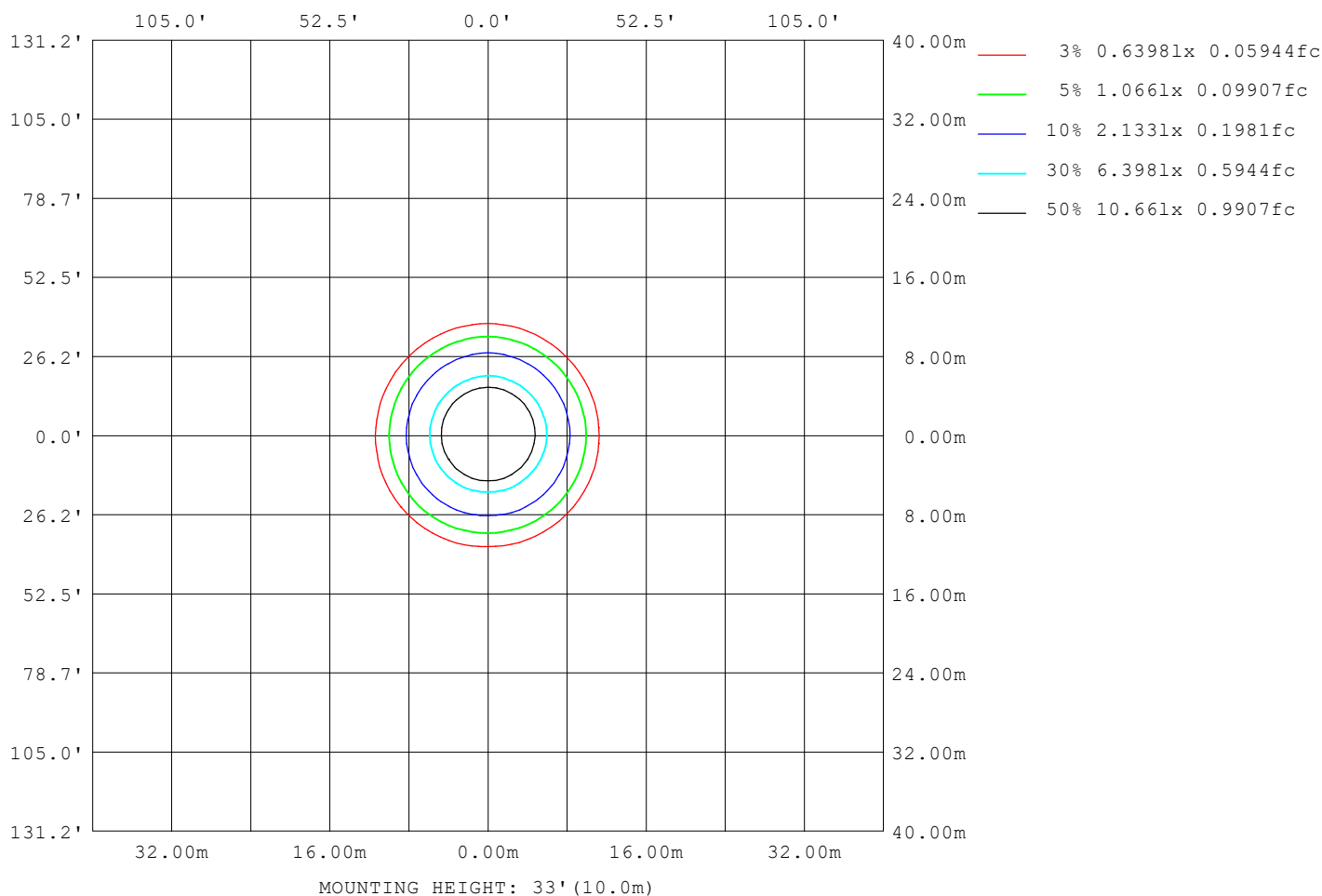
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:Pan tianxiong
Test Date:2023-10-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.473
Humidity:65.0%
Test Distance:9.780m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:230.29V I:0.0780A P:17.515W PF:0.9753 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2209.48x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 3000	DIM.:	Instrument No.: HUP-IES-B4
MFR.: EVERFINE	SUR.: 0.0715	shielding angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:Pan tianxiong
Test Date:2023-10-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.473
Humidity:65.0%
Test Distance:9.780m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:230.29V I:0.0780A P:17.515W PF:0.9753 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2209.48x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 3000	DIM.:	Instrument No.: HUP-IES-B4
MFR.: EVERFINE	SUR.: 0.0715	shielding angle:

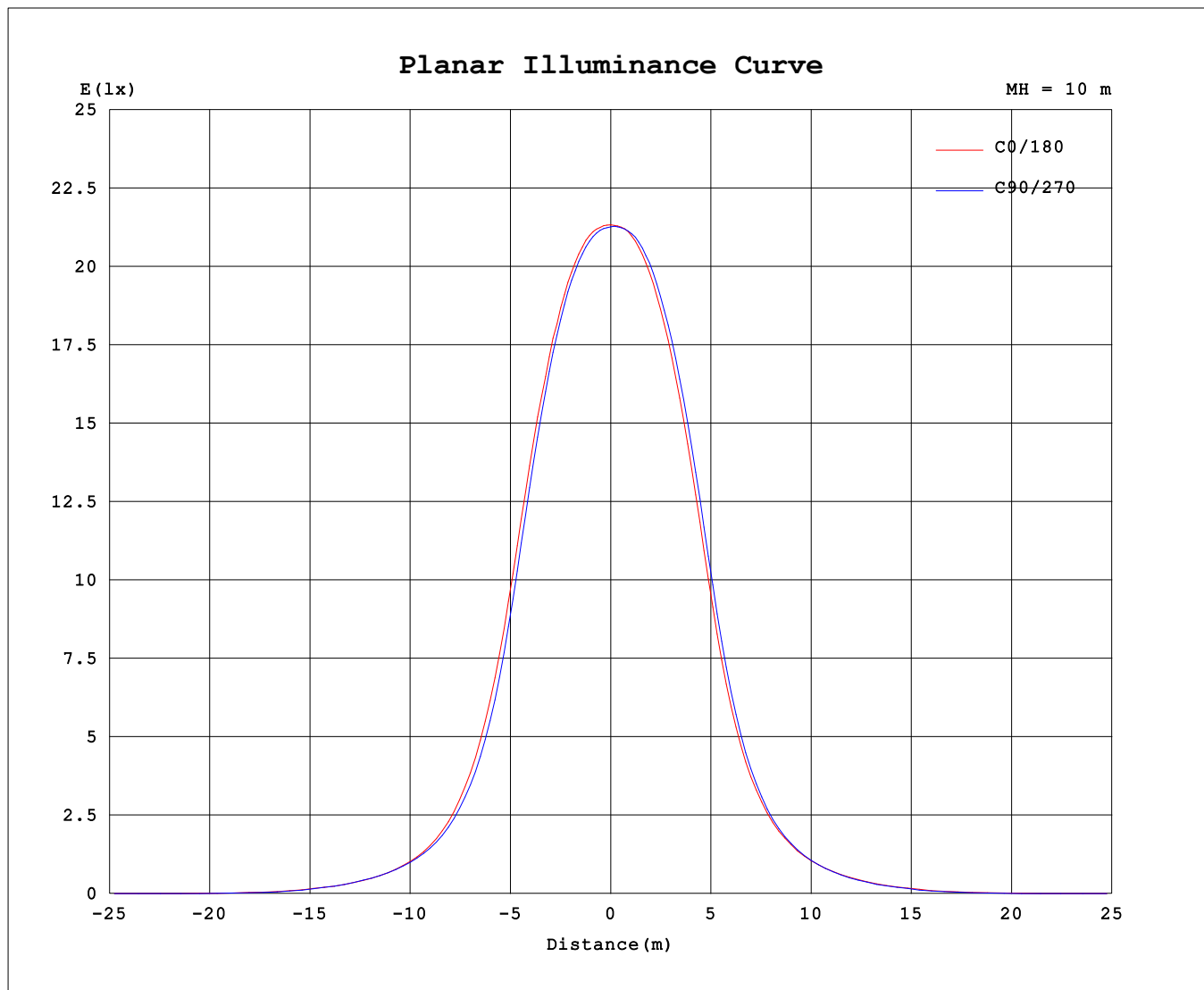
AvgL	cd/m2
L_0~180 (65) av	1295
L_0~180 (75) av	762
L_0~180 (85) av	1659
L_90~270 (65) av	953
L_90~270 (75) av	812
L_90~270 (85) av	1882
L_45 (65) av	1272
L_45 (75) av	769
L_45 (85) av	1752

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:Pan tianxiong
Test Date:2023-10-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.473
Humidity:65.0%
Test Distance:9.780m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3 °C
Operators: Pan tianxiong
Test Date: 2023-10-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.00.473
Humidity: 65.0%
Test Distance: 9.780m [K=1.0000]
Remarks:

Test:U:230.29V I:0.0780A P:17.515W PF:0.9753 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2209.48x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 3000	DIM.:	Instrument No.: HUP-IES-B4
MFR.: EVERFINE	SUR.: 0.0715	shielding angle:

UNIT: cd

[illegible]

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.473
Humidity:65.0%
Test Distance:9.780m [K=1.0000]
Remarks:

```