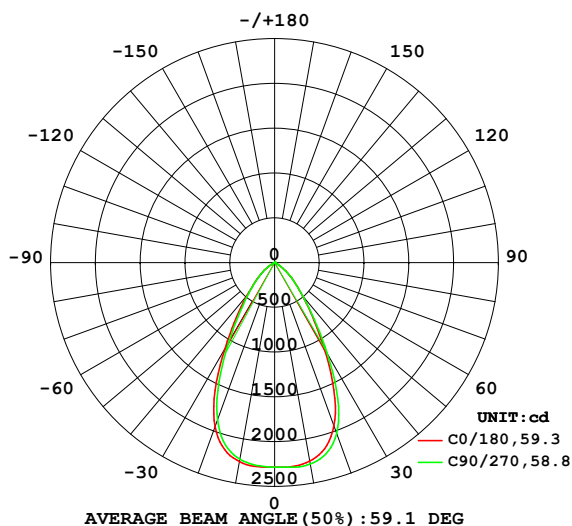


LUMINAIRE PHOTOMETRIC TEST REPORT

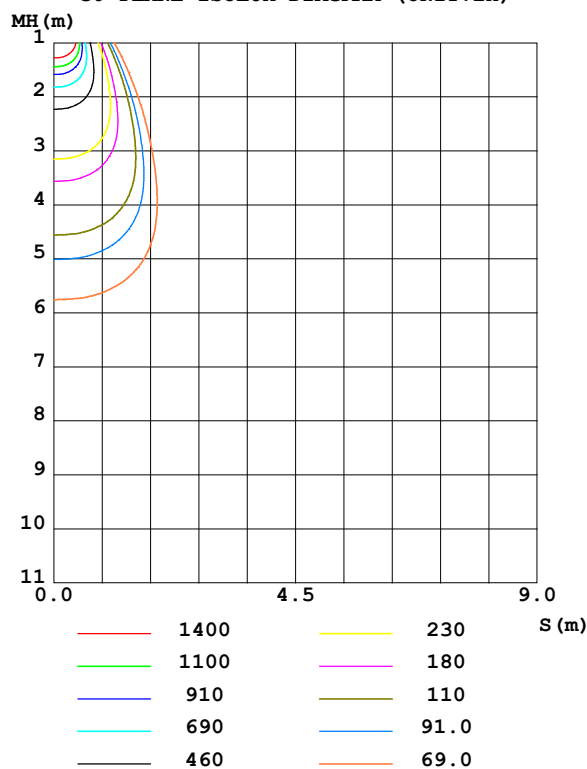
Test:U:230.28V I:0.0754A P:16.913W PF:0.9737 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2369.34x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 4000K	DIM.:	Instrument No.: HUP-IES-B4
MFR.: EVERFINE	SUR.: 0.0715	shielding angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 140.09 lm/W			
MODEL	41060182	Imax (cd)	2299	S/MH(C0/180)	0.89
NOMINAL POWER(W)	18	LOR(%)	100.0	S/MH(C90/270)	0.90
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	2369.3	η UP,DN(C0-180)	0.0,48.8
NOMINAL FLUX(lm)	2369.34	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.2
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	2257	2242	2229	2235	2252	2273	2285	2276	0- 10	217.3	217.3	9.17,9.17
20	1948	1898	1869	1893	1942	1991	2028	2005	10- 20	602.1	819.4	34.6,34.6
30	1114	1051	1022	1069	1113	1143	1183	1173	20- 30	708.2	1528	64.5,64.5
40	479.4	461.9	453.8	476.9	487.6	489.3	498.6	492.6	30- 40	466.1	1994	84.1,84.1
50	199.9	201.2	201.8	213.2	213.6	209.9	206.8	201.1	40- 50	250.1	2244	94.7,94.7
60	44.92	45.67	39.02	48.32	48.48	46.80	40.90	44.05	50- 60	105.2	2349	99.1,99.1
70	3.641	3.737	3.969	3.960	4.340	4.679	4.497	3.896	60- 70	14.19	2363	99.7,99.7
80	2.710	2.653	3.008	3.008	3.272	3.507	3.443	3.008	70- 80	3.740	2367	99.9,99.9
90	0.0442	0.0316	0.0379	0.0316	0.0632	0.0632	0.0569	0.0695	80- 90	2.292	2369	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): 2139.2 lm

%lum = 90.3%

%lamp = 90.3%

Conical surface Flux(120deg): 2349.1 lm

%lum = 99.1%

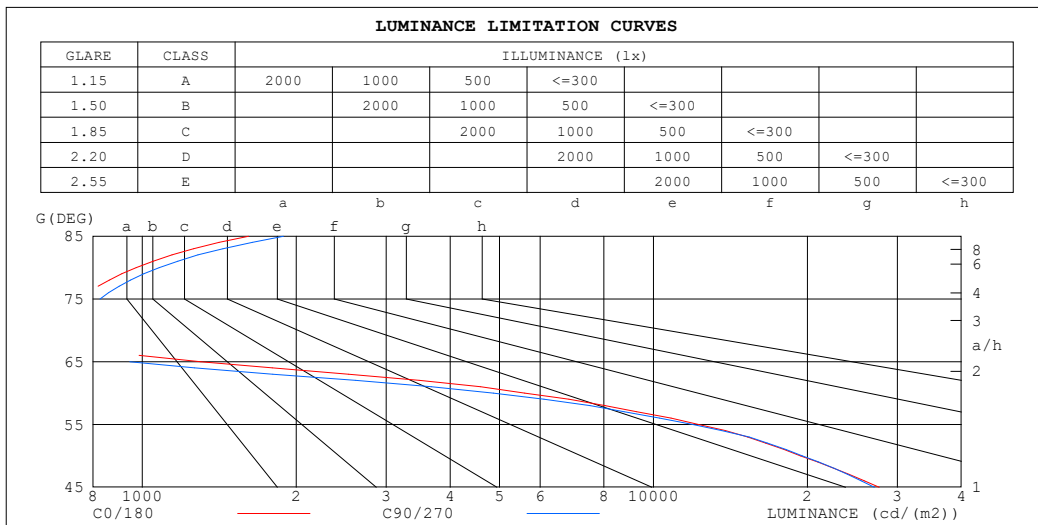
%lamp = 99.1%

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:230.28V I:0.0754A P:16.913W PF:0.9737 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2369.34x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 4000K	DIM.:	Instrument No.: HUP-IES-B4
MFR.: EVERFINE	SUR.: 0.0715	shielding angle:



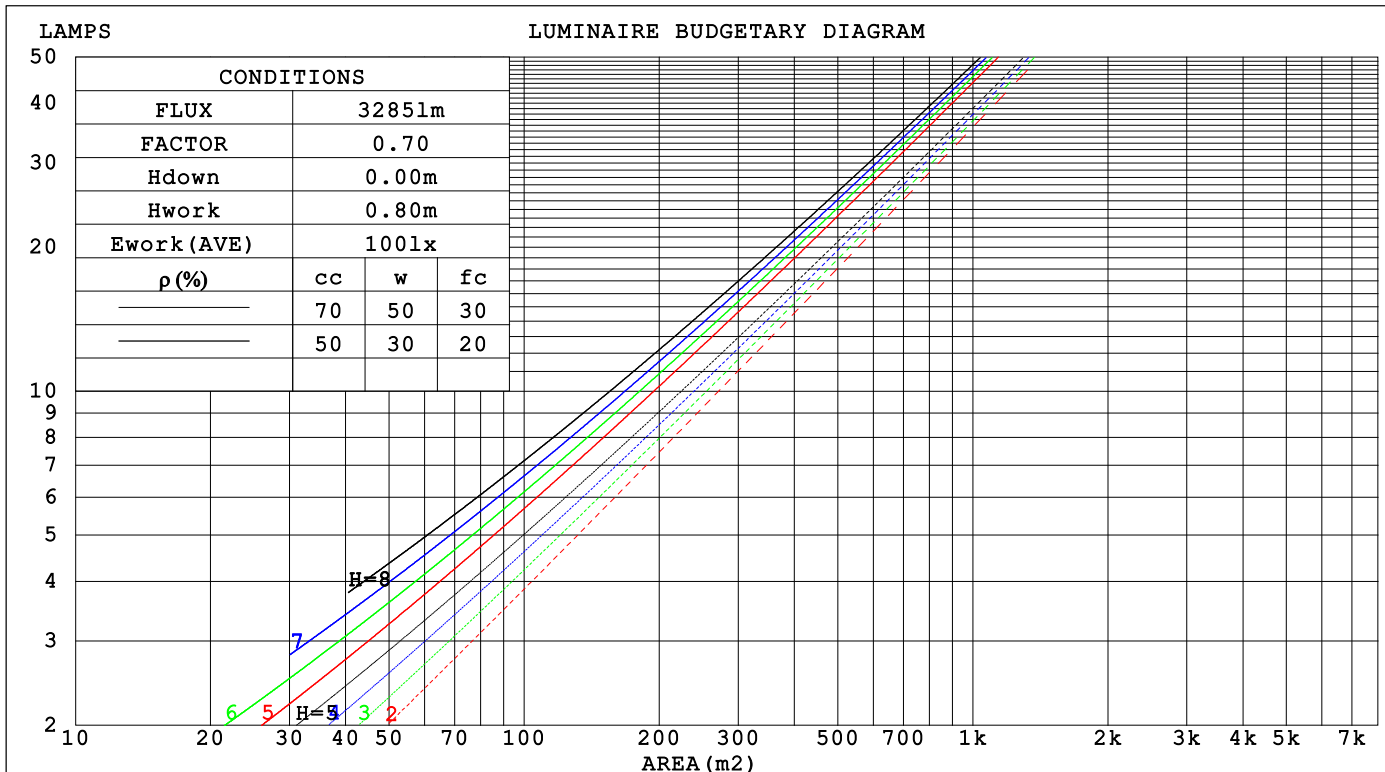
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: Pan tianxiong
Test Date: 2023-10-12

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:230.28V I:0.0754A P:16.913W PF:0.9737 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2369.34x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 4000K	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															



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:230.28V I:0.0754A P:16.913W PF:0.9737 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2369.34x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 4000K	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	.183	.104	.033	.170	.098	.031	.158	.091	.029	.148	.086	.028		
2.0	.183	.100	.031	.177	.098	.030	.166	.093	.029	.157	.088	.027	.147	.083	.026		
3.0	.175	.093	.028	.170	.091	.027	.161	.087	.026	.152	.083	.026	.144	.080	.025		
4.0	.167	.087	.025	.162	.085	.025	.154	.082	.024	.147	.079	.024	.140	.076	.023		
5.0	.159	.081	.023	.155	.080	.023	.148	.077	.023	.142	.075	.022	.135	.072	.022		
6.0	.151	.076	.022	.148	.075	.022	.142	.073	.021	.136	.071	.021	.131	.069	.020		
7.0	.144	.071	.020	.141	.070	.020	.136	.069	.020	.131	.067	.020	.126	.065	.019		
8.0	.138	.067	.019	.135	.067	.019	.130	.065	.019	.126	.064	.018	.121	.062	.018		
9.0	.132	.064	.018	.129	.063	.018	.125	.062	.018	.121	.061	.017	.117	.059	.017		
10.0	.126	.060	.017	.124	.060	.017	.120	.059	.017	.116	.058	.016	.113	.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	.137	.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:230.28V I:0.0754A P:16.913W PF:0.9737 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2369.34x1 lm										
Name: 41060182					Type: 18W			Weight:		
SPEC.: 4000K					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	19.7	20.7	19.9	20.9	21.0	19.5	20.5	19.7	20.7	20.9
3H	19.5	20.4	19.8	20.6	20.9	19.3	20.3	19.6	20.5	20.7
4H	19.4	20.3	19.7	20.5	20.8	19.2	20.1	19.5	20.3	20.6
6H	19.3	20.2	19.6	20.4	20.7	19.1	20.0	19.4	20.2	20.5
8H	19.3	20.1	19.6	20.3	20.6	19.1	19.9	19.4	20.2	20.4
12H	19.2	20.0	19.6	20.3	20.6	19.1	19.8	19.4	20.1	20.4
4H 2H	19.5	20.4	19.8	20.6	20.8	19.3	20.2	19.6	20.4	20.6
3H	19.3	20.1	19.6	20.3	20.6	19.1	19.9	19.5	20.2	20.4
4H	19.2	19.9	19.6	20.2	20.5	19.0	19.7	19.4	20.0	20.3
6H	19.1	19.7	19.5	20.1	20.4	19.0	19.6	19.3	19.9	20.2
8H	19.1	19.7	19.5	20.0	20.4	18.9	19.5	19.3	19.8	20.2
12H	19.1	19.6	19.5	19.9	20.3	18.9	19.4	19.3	19.8	20.2
8H 4H	19.1	19.6	19.5	20.0	20.4	18.9	19.5	19.3	19.8	20.2
6H	19.0	19.5	19.4	19.8	20.3	18.8	19.3	19.2	19.7	20.1
8H	19.0	19.4	19.4	19.8	20.2	18.8	19.2	19.2	19.6	20.0
12H	18.9	19.3	19.4	19.7	20.2	18.7	19.1	19.2	19.5	20.0
12H 4H	19.0	19.5	19.4	19.9	20.3	18.8	19.4	19.3	19.7	20.1
6H	18.9	19.3	19.4	19.8	20.2	18.8	19.2	19.2	19.6	20.0
8H	18.9	19.3	19.4	19.7	20.2	18.7	19.1	19.2	19.5	20.0
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 2.2 / - 5.1					+ 2.1 / - 5.2				
1.5H	+ 2.7 / - 2.9					+ 2.3 / - 2.9				
2.0H	+ 4.1 / -10.5					+ 4.1 / -10.8				

CIE Pub.117, 2369 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 3.0)
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:230.28V I:0.0754A P:16.913W PF:0.9737 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2369.34x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 4000K	DIM.:	Instrument No.: HUP-IES-B4
MFR.: EVERFINE	SUR.: 0.0715	shielding angle:

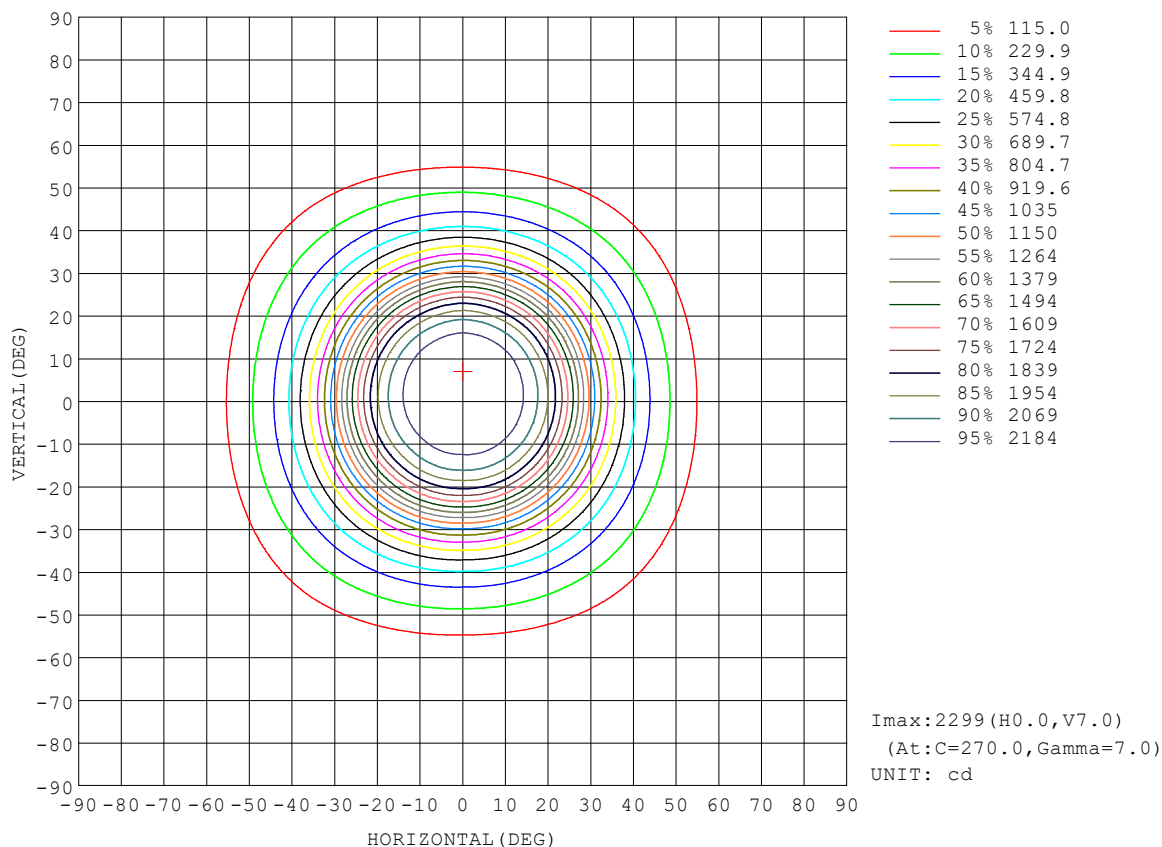
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	81	74	69	81	74	69	80	73	69	65
0.80	90	83	78	89	82	78	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	103	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	100	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:230.28V I:0.0754A P:16.913W PF:0.9737 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2369.34x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 4000K	DIM.:	Instrument No.: HUP-IES-B4
MFR.: EVERFINE	SUR.: 0.0715	shielding angle:

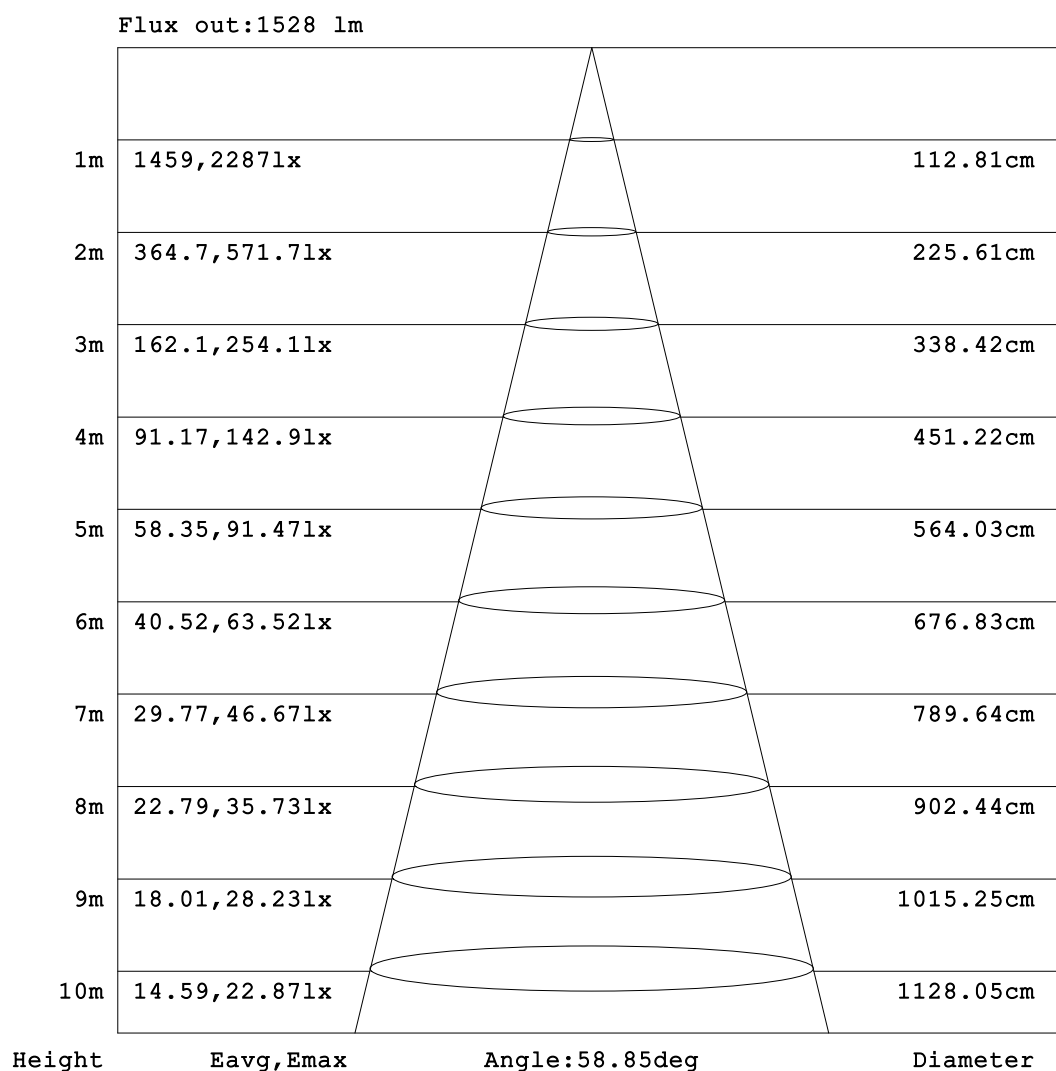


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:Pan tianxiong
Test Date:2023-10-12

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:230.28V I:0.0754A P:16.913W PF:0.9737 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2369.34x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 4000K	DIM.:	Instrument No.: HUP-IES-B4
MFR.: EVERFINE	SUR.: 0.0715	shielding angle:



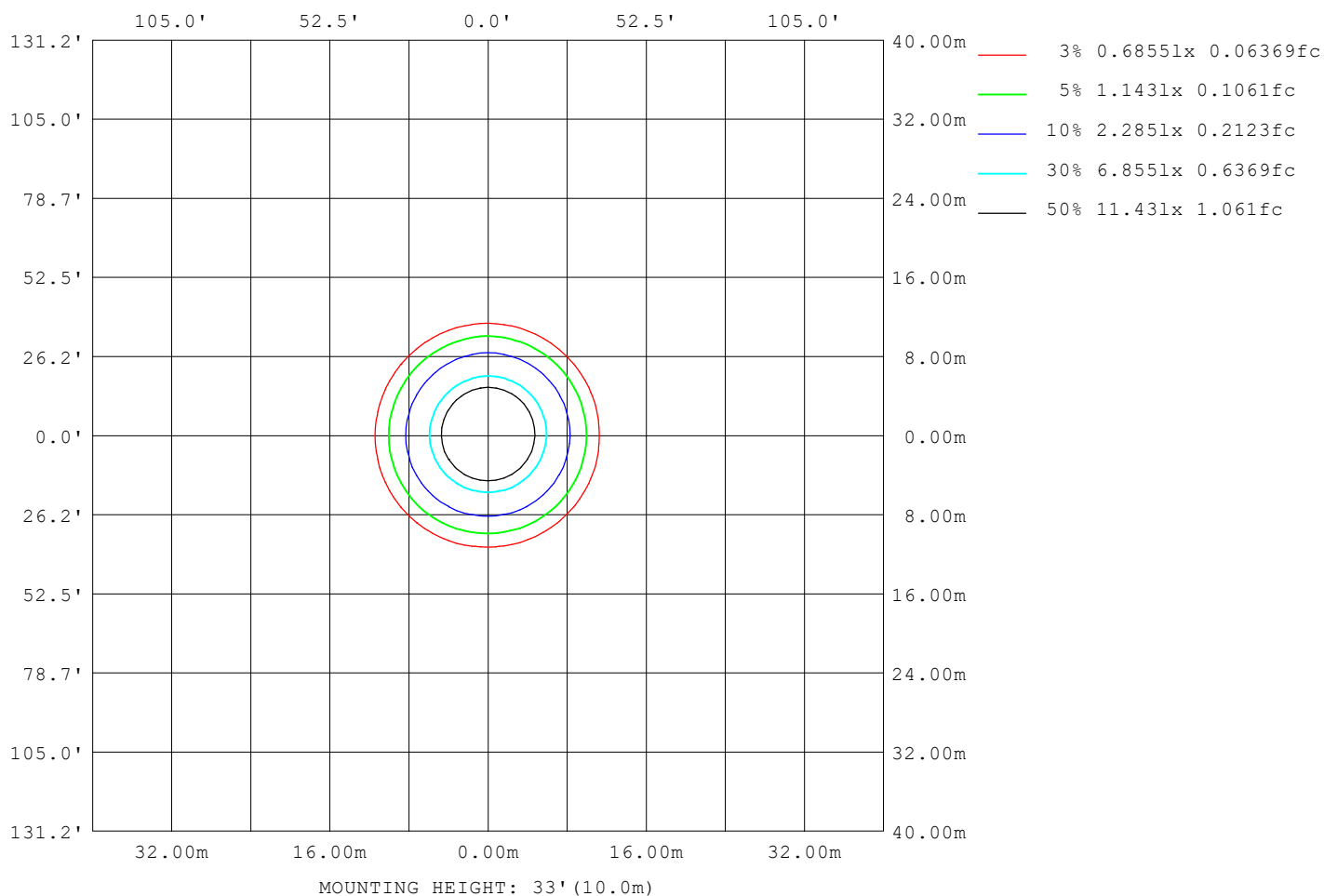
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:230.28V I:0.0754A P:16.913W PF:0.9737 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2369.34x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 4000K	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:230.28V I:0.0754A P:16.913W PF:0.9737 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2369.34x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 4000K	DIM.:	Instrument No.: HUP-IES-B4
MFR.: EVERFINE	SUR.: 0.0715	shielding angle:

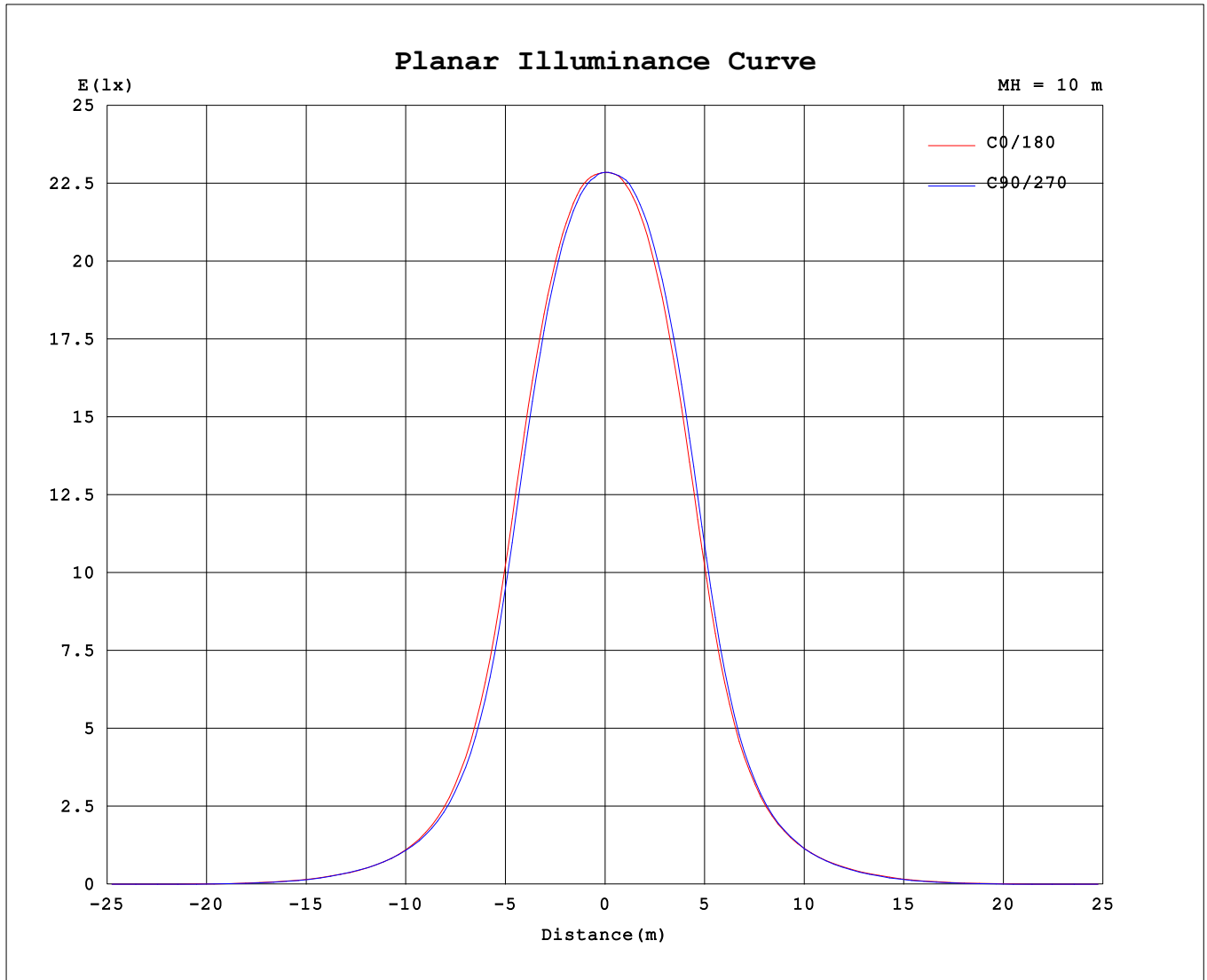
AvgL	cd/m2
L_0~180 (65) av	1409
L_0~180 (75) av	828
L_0~180 (85) av	1802
L_90~270 (65) av	1042
L_90~270 (75) av	884
L_90~270 (85) av	2053
L_45 (65) av	1378
L_45 (75) av	837
L_45 (85) av	1906

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:230.28V I:0.0754A P:16.913W PF:0.9737 Freq:49.99Hz UTHDi: 0.00% ITHDi: 0.00% KDisp: 0 Lamp Flux: 2369.34x1 lm		
Name: 41060182	Type: 18W	Weight:
SPEC.: 4000K	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:

```