

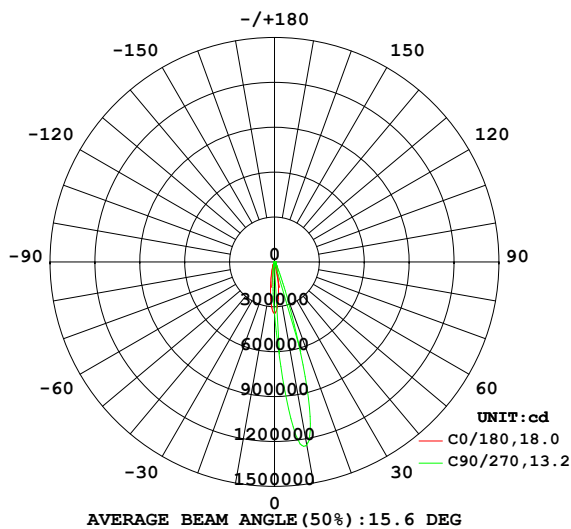
## EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## LUMINAIRE PHOTOMETRIC TEST REPORT

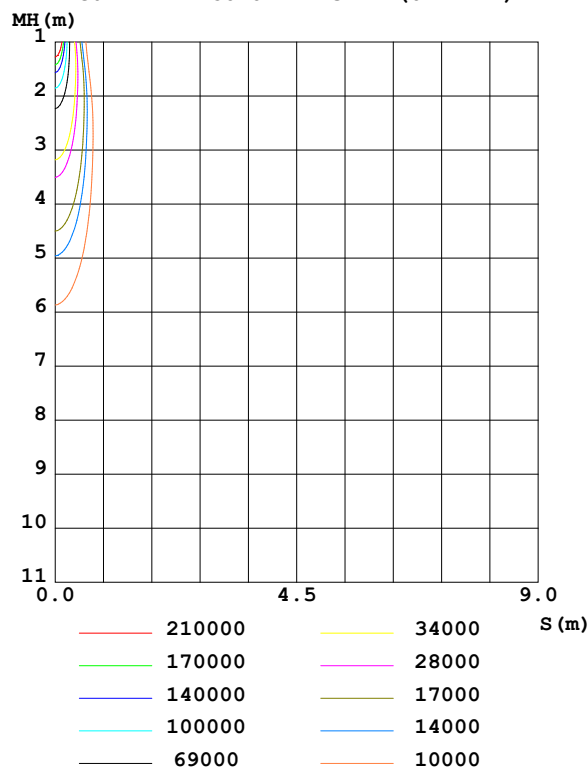
Test:U:230.0V I:4.272A P:960.0W PF:0.977 Freq:50.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:129767x1 lm		
NAME: SP04-960-5770-F04002X	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 135.17 lm/W			
MODEL	3737	Imax(cd)	1247614	S/MH(C0/180)	0.31
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	0.12
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	129767	$\eta$ UP,DN(C0-180)	0.0,79.0
NOMINAL FLUX(lm)	129767	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,21.0
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	/	$\eta$ down(%)	100.0	CIBSE SHR MAX	0.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:LYJ  
Test Date:2023-03-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
Humidity:65.0%  
Test Distance:26.000m [K=0.4556]  
Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	150.1	542.3	1242	542.3	150.1	76.97	60.85	76.97	0- 10	36240	36240	27.9,27.9
20	39.51	103.4	234.3	103.4	39.51	22.23	18.69	22.23	10- 20	52748	88988	68.6,68.6
30	14.91	28.08	37.73	28.08	14.91	11.56	10.62	11.56	20- 30	16273	105261	81.1,81.1
40	8.864	10.94	12.74	10.94	8.864	7.961	7.644	7.961	30- 40	8417	113679	87.6,87.6
50	6.539	6.900	7.031	6.900	6.539	6.364	5.792	6.364	40- 50	6040	119718	92.3,92.3
60	4.486	4.943	4.659	4.943	4.486	4.548	3.556	4.548	50- 60	4942	124661	96.1,96.1
70	2.445	2.867	2.637	2.867	2.445	2.165	1.491	2.165	60- 70	3397	128058	98.7,98.7
80	0.6903	0.8020	0.7592	0.8020	0.6903	0.4464	0.3291	0.4464	70- 80	1496	129554	99.8,99.8
90	0	0	0	0	0	0	0	0	80- 90	213.5	129767	100,100
100	0	0	0	0	0	0	0	0	90-100	0	129767	100,100
110	0	0	0	0	0	0	0	0	100-110	0	129767	100,100
120	0	0	0	0	0	0	0	0	110-120	0	129767	100,100
130	0	0	0	0	0	0	0	0	120-130	0	129767	100,100
140	0	0	0	0	0	0	0	0	130-140	0	129767	100,100
150	0	0	0	0	0	0	0	0	140-150	0	129767	100,100
160	0	0	0	0	0	0	0	0	150-160	0	129767	100,100
170	0	0	0	0	0	0	0	0	160-170	0	129767	100,100
180	0	0	0	0	0	0	0	0	170-180	0	129767	100,100
DEG	LUMINOUS INTENSITY:X1000cd									UNIT:lm		

Conical surface Flux(90deg): 1.1684e+005 lm

%lum = 90.0%

%lamp = 90.0%

Conical surface Flux(120deg): 1.2466e+005 lm

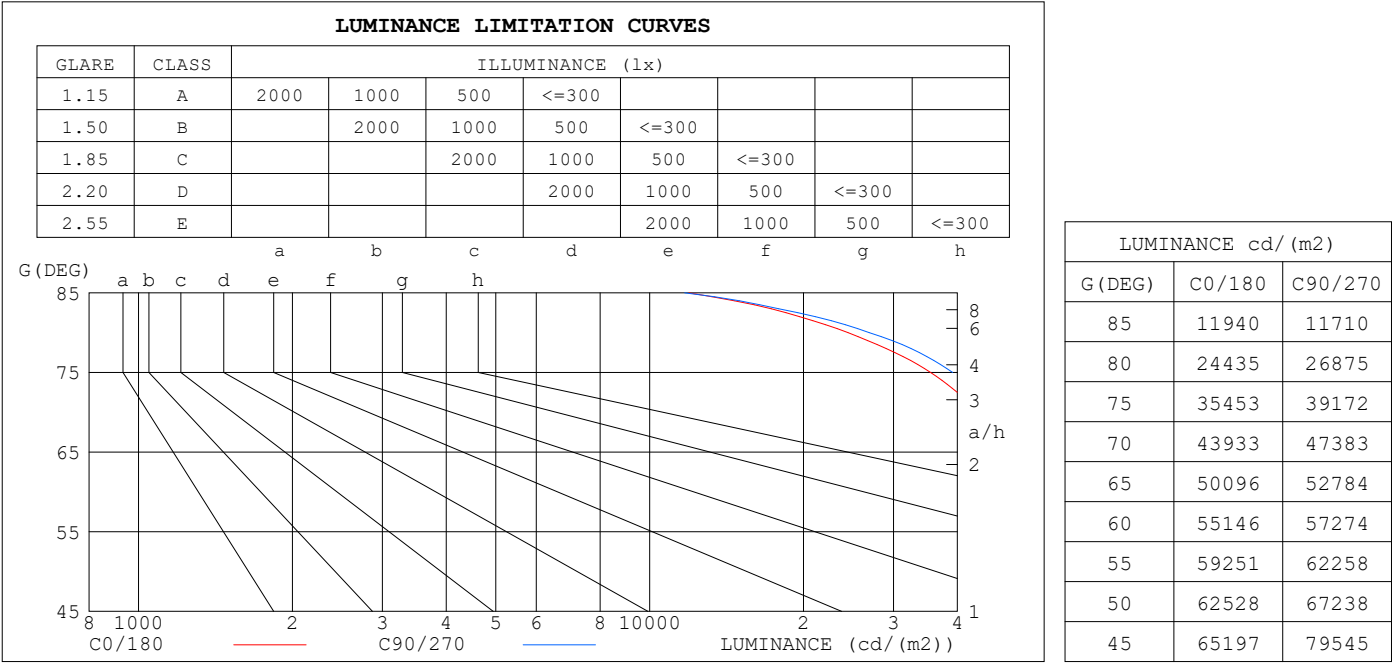
%lum = 96.1%

%lamp = 96.1%

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:LYJ  
Test Date:2023-03-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
Humidity:65.0%  
Test Distance:26.000m [K=0.4556]  
Remarks:

LUMINANCE LIMITATION CURVES



C Range: 0 - 360DEG

C Interval: 5.0DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:LYJ

Test Date:2023-03-09

γ Range: 0 - 180DEG

γ Interval: 0.5DEG

Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.465

Humidity:65.0%

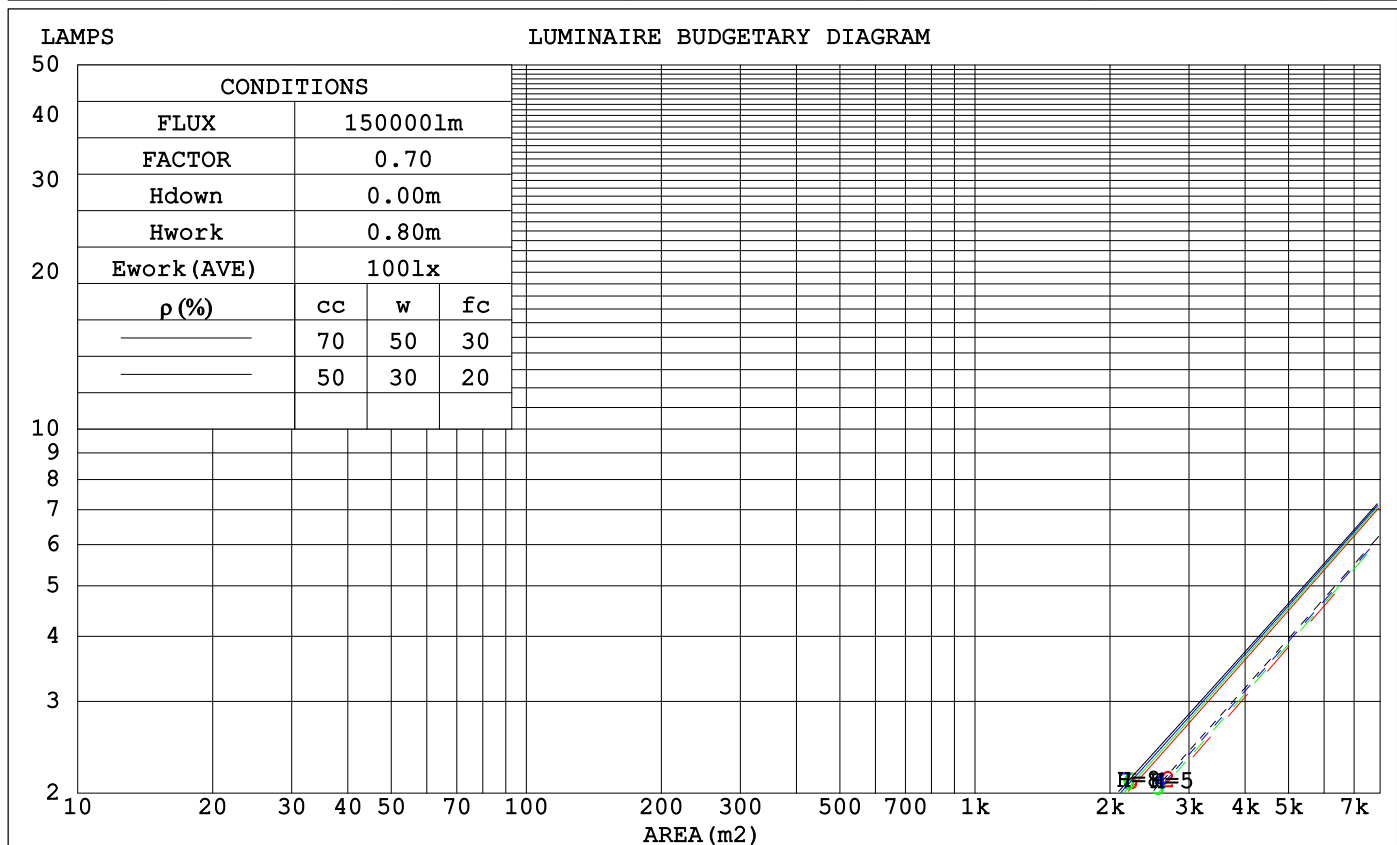
Test Distance:26.000m [K=0.4556]

Remarks:

## EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	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	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96	.94
2.0	1.04	1.01	.98	1.03	.99	.96	.99	.97	.94	.97	.94	.92	.94	.92	.90	.89
3.0	.98	.94	.90	.97	.93	.90	.95	.91	.88	.92	.89	.87	.90	.88	.86	.84
4.0	.93	.89	.85	.92	.88	.84	.90	.86	.83	.88	.85	.82	.86	.84	.81	.80
5.0	.89	.84	.80	.88	.83	.80	.86	.82	.79	.85	.81	.78	.83	.80	.78	.76
6.0	.85	.80	.76	.84	.80	.76	.83	.79	.76	.82	.78	.75	.80	.77	.75	.73
7.0	.82	.77	.73	.81	.76	.73	.80	.76	.72	.79	.75	.72	.78	.74	.72	.71
8.0	.79	.74	.70	.78	.73	.70	.77	.73	.70	.76	.72	.69	.75	.72	.69	.68
9.0	.76	.71	.68	.75	.71	.67	.74	.70	.67	.74	.70	.67	.73	.69	.67	.66
10.0	.73	.68	.65	.73	.68	.65	.72	.68	.65	.71	.68	.65	.71	.67	.65	.64



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:LYJ  
Test Date:2023-03-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
Humidity:65.0%  
Test Distance:26.000m [K=0.4556]  
Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## WEC AND CCEC

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.168	.096	.030	.161	.092	.029	.149	.085	.027	.137	.079	.025	.127	.073	.024	
2.0	.158	.087	.027	.152	.084	.026	.142	.079	.024	.132	.074	.023	.123	.070	.022	
3.0	.147	.078	.023	.143	.076	.023	.134	.073	.022	.126	.069	.021	.118	.065	.020	
4.0	.138	.072	.021	.134	.070	.021	.126	.067	.020	.119	.064	.019	.113	.061	.019	
5.0	.129	.066	.019	.126	.064	.019	.119	.062	.018	.113	.060	.018	.107	.057	.017	
6.0	.121	.061	.017	.118	.060	.017	.113	.058	.017	.107	.056	.016	.103	.054	.016	
7.0	.115	.057	.016	.112	.056	.016	.107	.054	.016	.102	.052	.015	.098	.051	.015	
8.0	.109	.053	.015	.106	.052	.015	.102	.051	.015	.098	.050	.014	.094	.048	.014	
9.0	.103	.050	.014	.101	.049	.014	.097	.048	.014	.093	.047	.013	.090	.046	.013	
10.0	.098	.047	.013	.096	.047	.013	.093	.046	.013	.090	.045	.013	.087	.044	.012	

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	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	.171	.157	.146	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016	
2.0	.154	.133	.114	.132	.114	.099	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.141	.113	.092	.121	.098	.079	.083	.068	.056	.048	.040	.033	.015	.013	.011	
4.0	.129	.099	.075	.111	.085	.065	.076	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.120	.087	.062	.103	.075	.054	.071	.052	.038	.041	.031	.023	.013	.010	.007	
6.0	.111	.077	.052	.095	.067	.046	.066	.047	.032	.038	.027	.019	.012	.009	.006	
7.0	.104	.069	.045	.089	.060	.039	.062	.042	.028	.036	.025	.016	.012	.008	.005	
8.0	.097	.062	.039	.084	.054	.034	.058	.038	.024	.034	.022	.014	.011	.007	.005	
9.0	.091	.057	.034	.079	.049	.029	.055	.035	.021	.032	.020	.012	.010	.007	.004	
10.0	.086	.052	.030	.074	.045	.026	.052	.032	.018	.030	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:LYJ  
 Test Date:2023-03-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
 Humidity:65.0%  
 Test Distance:26.000m [K=0.4556]  
 Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## UGR(Unified Glare Rating) Table

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	22.1	23.2	22.5	23.5	23.8	22.4	23.4	22.7	23.7	24.1
3H	23.4	24.4	23.8	24.7	25.1	23.8	24.8	24.2	25.1	25.5
4H	23.8	24.7	24.2	25.1	25.4	24.3	25.1	24.7	25.5	25.9
6H	24.0	24.8	24.4	25.2	25.6	24.5	25.3	24.9	25.6	26.0
8H	24.0	24.7	24.4	25.1	25.6	24.5	25.2	24.9	25.6	26.0
12H	24.0	24.7	24.4	25.1	25.5	24.4	25.2	24.9	25.5	26.0
4H 2H	22.7	23.6	23.1	24.0	24.3	22.9	23.8	23.3	24.1	24.5
3H	24.2	24.9	24.6	25.4	25.8	24.6	25.3	25.0	25.7	26.1
4H	24.7	25.3	25.1	25.7	26.2	25.1	25.7	25.5	26.1	26.6
6H	24.9	25.5	25.4	25.9	26.4	25.3	25.9	25.8	26.3	26.8
8H	24.9	25.4	25.4	25.9	26.4	25.3	25.8	25.8	26.3	26.8
12H	24.9	25.3	25.4	25.8	26.3	25.3	25.7	25.8	26.2	26.7
8H 4H	24.8	25.4	25.3	25.8	26.3	25.2	25.7	25.7	26.1	26.6
6H	25.1	25.5	25.6	26.0	26.5	25.5	25.9	26.0	26.4	26.9
8H	25.2	25.5	25.7	26.0	26.5	25.5	25.9	26.1	26.4	26.9
12H	25.2	25.5	25.7	26.0	26.6	25.5	25.9	26.1	26.4	26.9
12H 4H	24.8	25.3	25.3	25.7	26.2	25.2	25.6	25.6	26.1	26.6
6H	25.1	25.5	25.6	25.9	26.5	25.5	25.8	26.0	26.3	26.9
8H	25.2	25.5	25.7	26.0	26.6	25.5	25.9	26.1	26.4	26.9
CIE190: 2010										

CIE190: 2010  
Area: 0.16269 m2

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:LYJ  
Test Date:2023-03-09

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
Humidity:65.0%  
Test Distance:26.000m [K=0.4556]  
Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

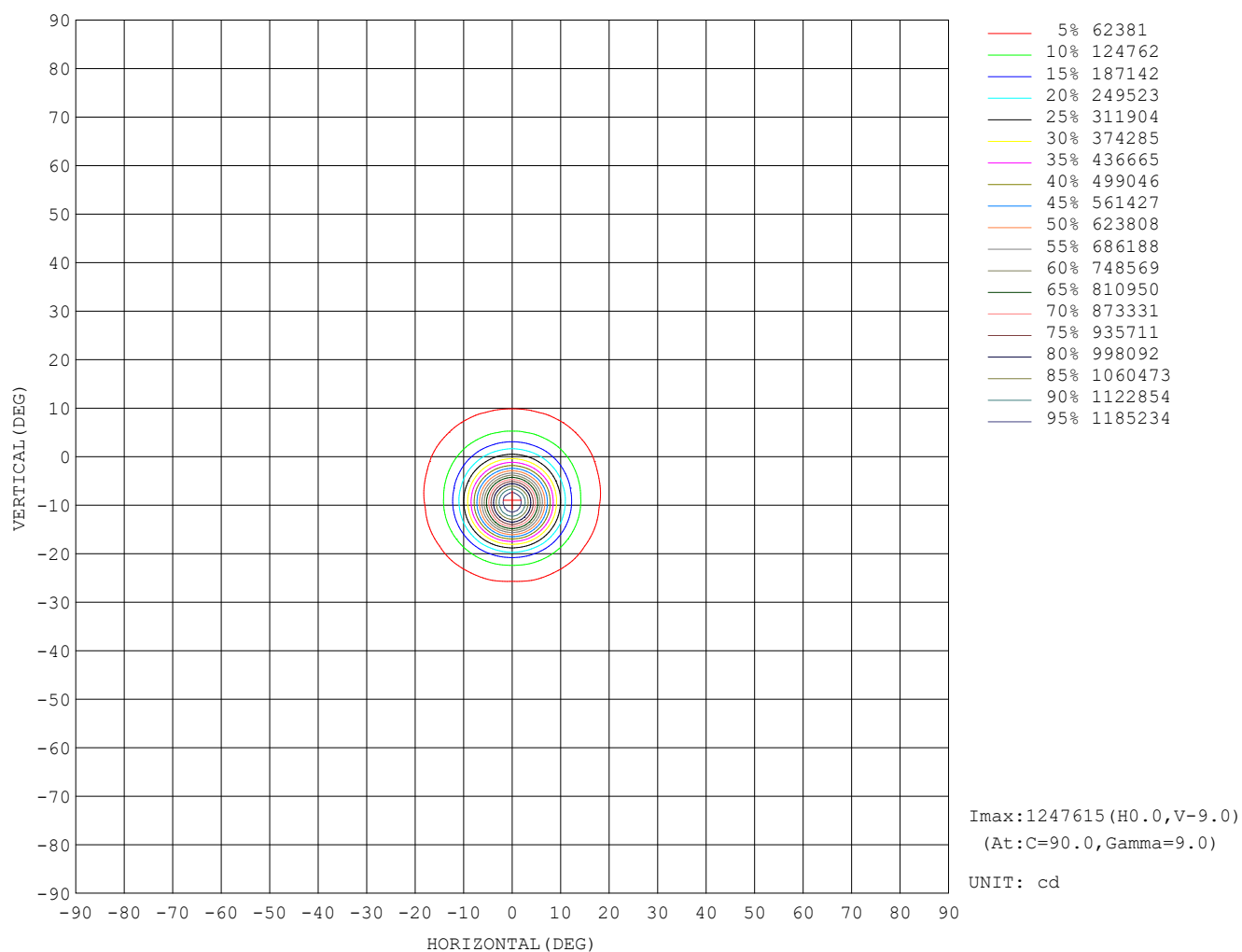
## UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	84	77	73	83	77	73	83	76	73	69
0.80	92	85	81	91	85	81	90	84	80	76
1.00	96	90	86	95	90	86	94	90	85	81
1.25	101	95	91	100	94	91	98	93	90	85
1.50	104	98	95	102	98	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	112	110	112	110	108	108	107	105	97
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: 25.3°C  
 Operators: LYJ  
 Test Date: 2023-03-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
 Humidity: 65.0%  
 Test Distance: 26.000m [K=0.4556]  
 Remarks:

## ISOCANDELA DIAGRAM

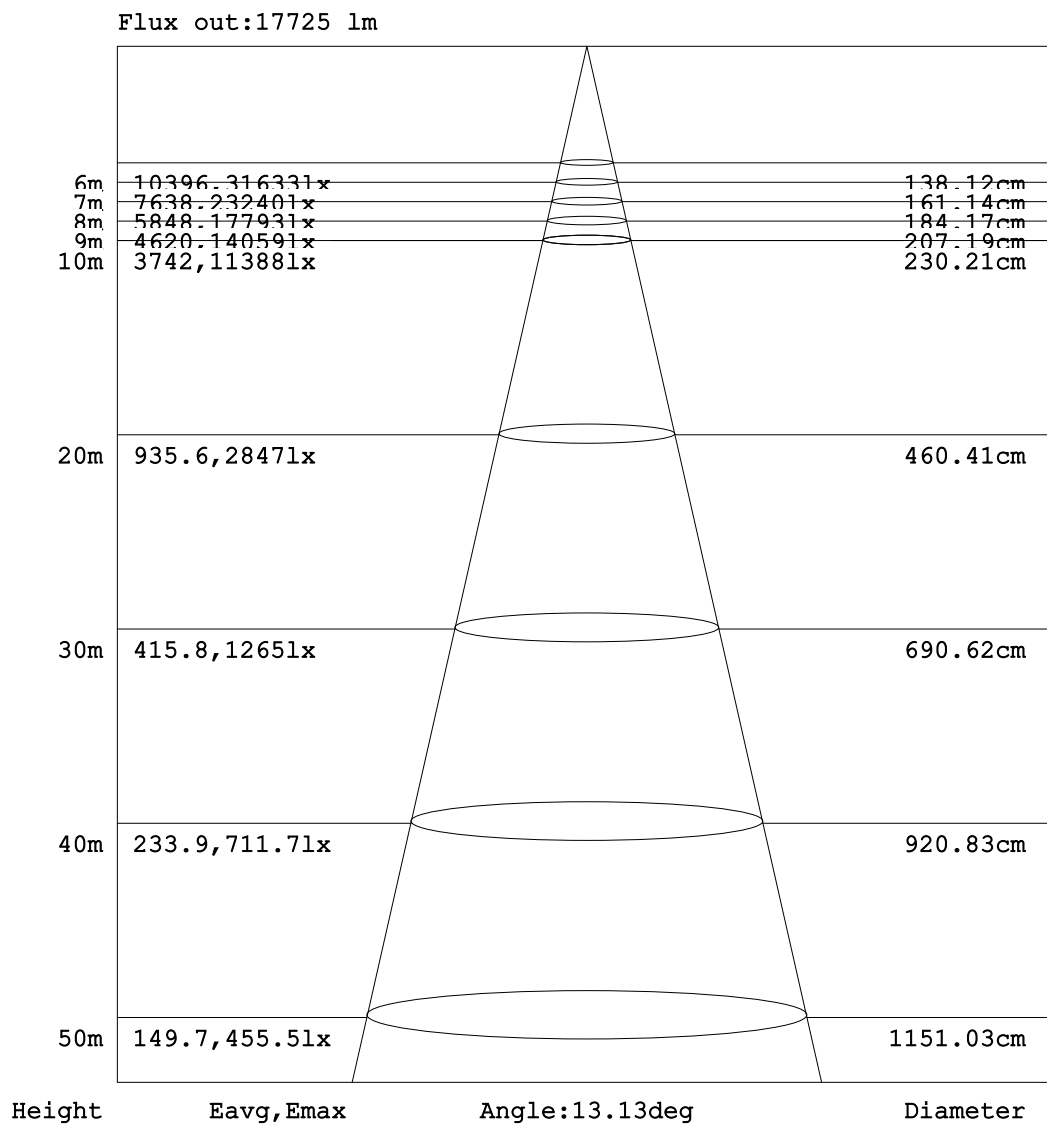


C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:LYJ  
Test Date:2023-03-09

$\gamma$  Range: 0 - 180DEG  
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Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
Humidity:65.0%  
Test Distance:26.000m [K=0.4556]  
Remarks:



## AAI Figure



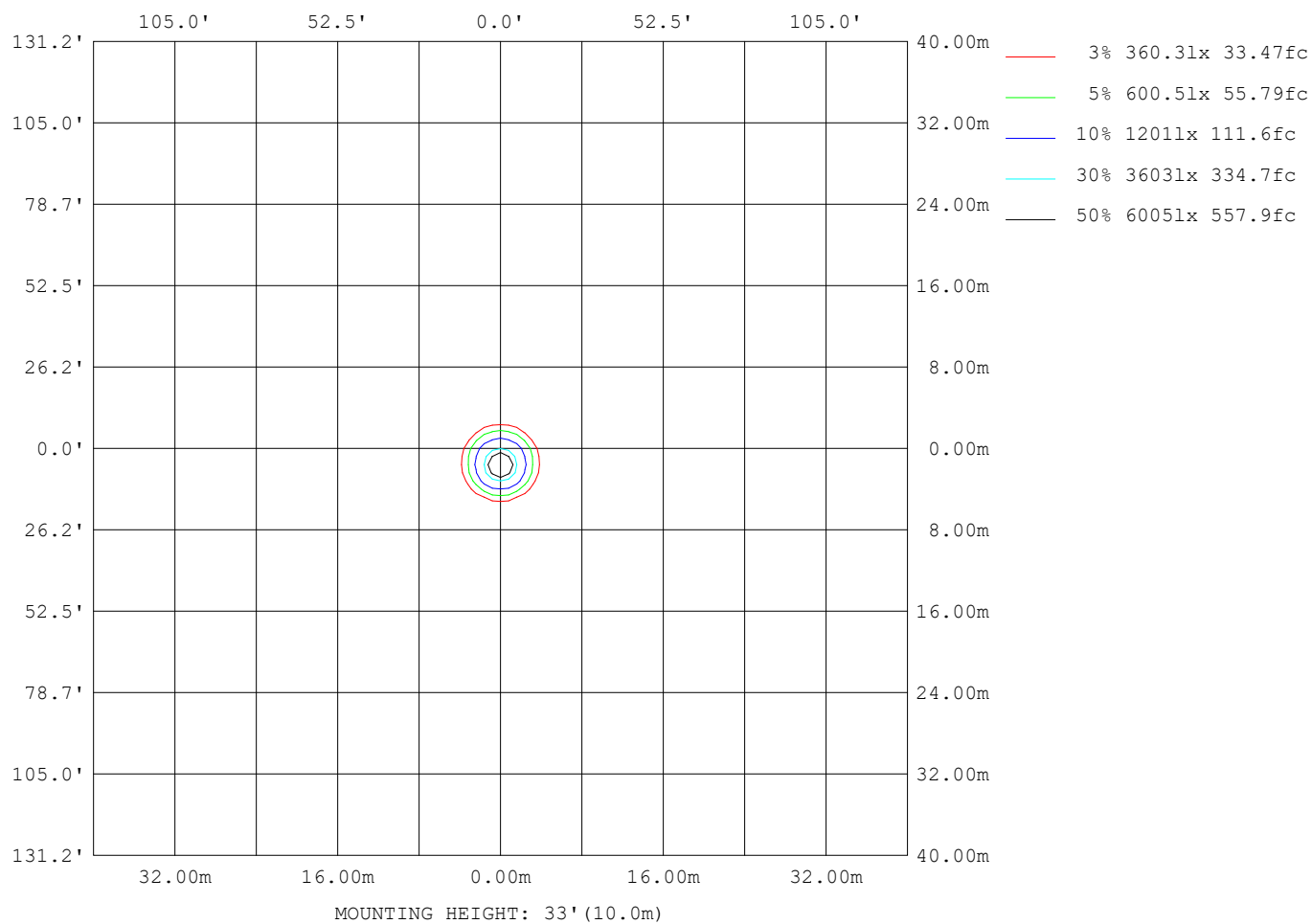
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:LYJ  
Test Date:2023-03-09

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
Humidity:65.0%  
Test Distance:26.000m [K=0.4556]  
Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

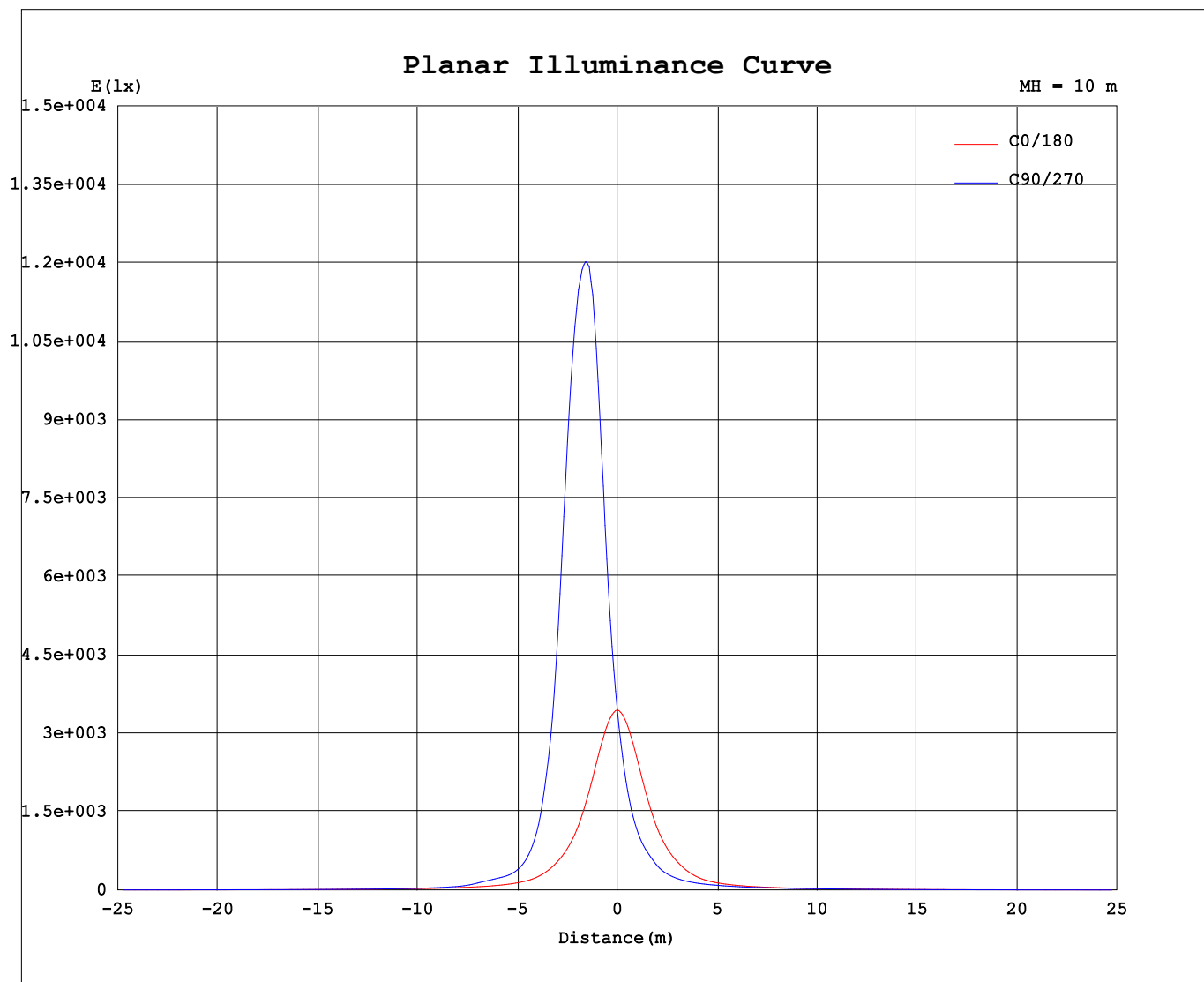
## ISOLUX DIAGRAM



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: LYJ  
Test Date: 2023-03-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
Humidity: 65.0%  
Test Distance: 26.000m [K=0.4556]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: LYJ  
Test Date: 2023-03-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
Humidity: 65.0%  
Test Distance: 26.000m [K=0.4556]  
Remarks: