

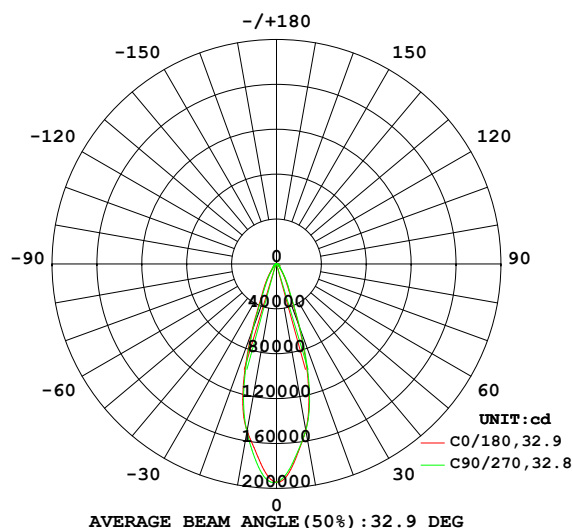
# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## LUMINAIRE PHOTOMETRIC TEST REPORT

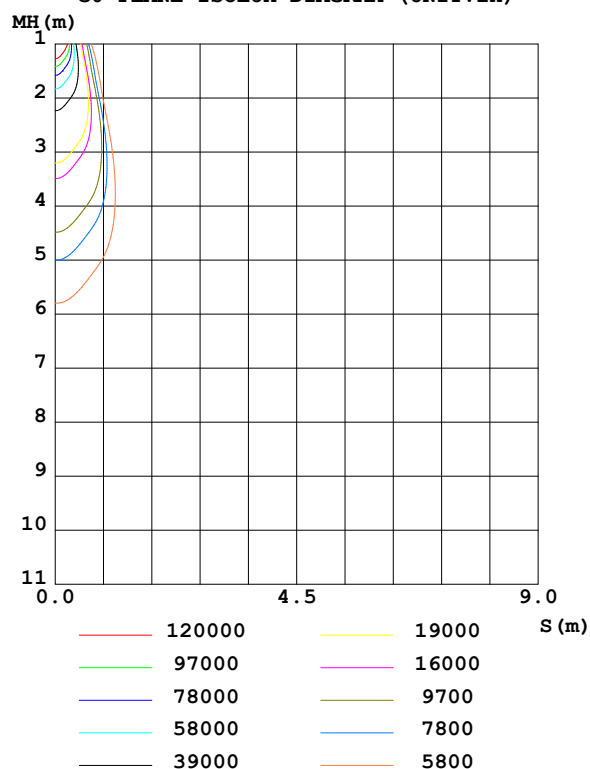
Test:U:230.0V I:2.140A P:480.0W PF:0.975 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:73829.4x1 lm		
NAME: SP04-480-5770-F04003Z	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 153.81 lm/W			
MODEL	/	I <sub>max</sub> (cd)	194813	S/MH (C0/180)	0.53
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.52
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	73829	η UP,DN (C0-180)	0.0,50.2
NOMINAL FLUX (lm)	73829.4	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,49.8
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	/	η down (%)	100.0	CIBSE SHR MAX	0.50

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:LYJ  
 Test Date:19 September 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
 Humidity:65.0%  
 Test Distance:26.000m [K=0.4548]  
 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	1502	1501	1505	1520	1511	1511	1519	1511	0- 10	16108	16108	21.8,21.8
20	580.9	589.4	609.9	643.0	645.3	604.1	606.6	567.6	10- 20	29669	45776	62,62
30	155.2	147.0	176.0	170.0	190.7	158.2	165.4	138.5	20- 30	13980	59757	80.9,80.9
40	54.18	50.23	61.02	55.24	65.75	52.81	56.96	47.07	30- 40	6007	65764	89.1,89.1
50	33.11	31.65	34.65	32.92	35.60	31.94	33.45	30.52	40- 50	3195	68959	93.4,93.4
60	20.99	21.81	21.80	21.81	21.94	22.10	21.43	20.76	50- 60	2406	71364	96.7,96.7
70	11.15	11.56	11.52	11.45	11.69	11.66	11.31	10.85	60- 70	1605	72969	98.8,98.8
80	3.115	3.208	3.314	3.285	3.394	3.269	3.200	2.990	70- 80	744.5	73714	99.8,99.8
90	0.0184	0.0155	0.0229	0.0277	0.0265	0.0186	0.0187	0.0198	80- 90	115.8	73829	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:X100cd									UNIT:lm		

Conical surface Flux(90deg): 67491 lm

%lum = 91.4%

%lamp = 91.4%

Conical surface Flux(120deg): 71364 lm

%lum = 96.7%

%lamp = 96.7%

C Range: 0 - 360DEG

C Interval: 15.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:LYJ

Test Date:19 September 2022

$\gamma$  Range: 0 - 90DEG

$\gamma$  Interval: 0.5DEG

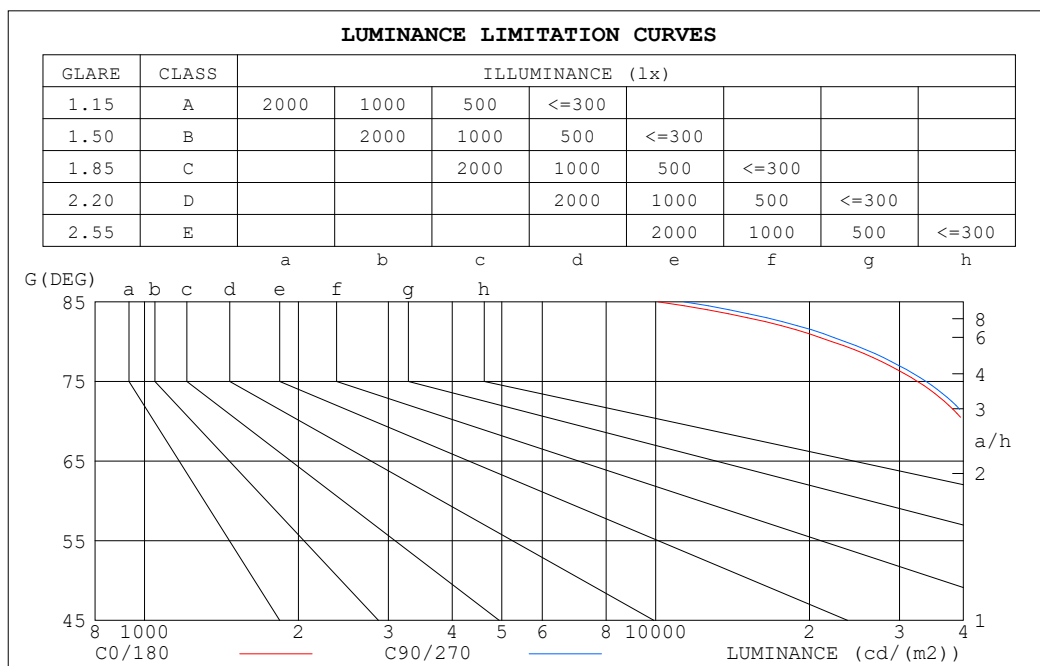
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.465

Humidity:65.0%

Test Distance:26.000m [K=0.4548]

Remarks:

## LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	10105	11358
80	22102	23460
75	32517	33817
70	40168	41399
65	46240	47699
60	51730	53598
55	57250	59093
50	63470	66267
45	70356	75261

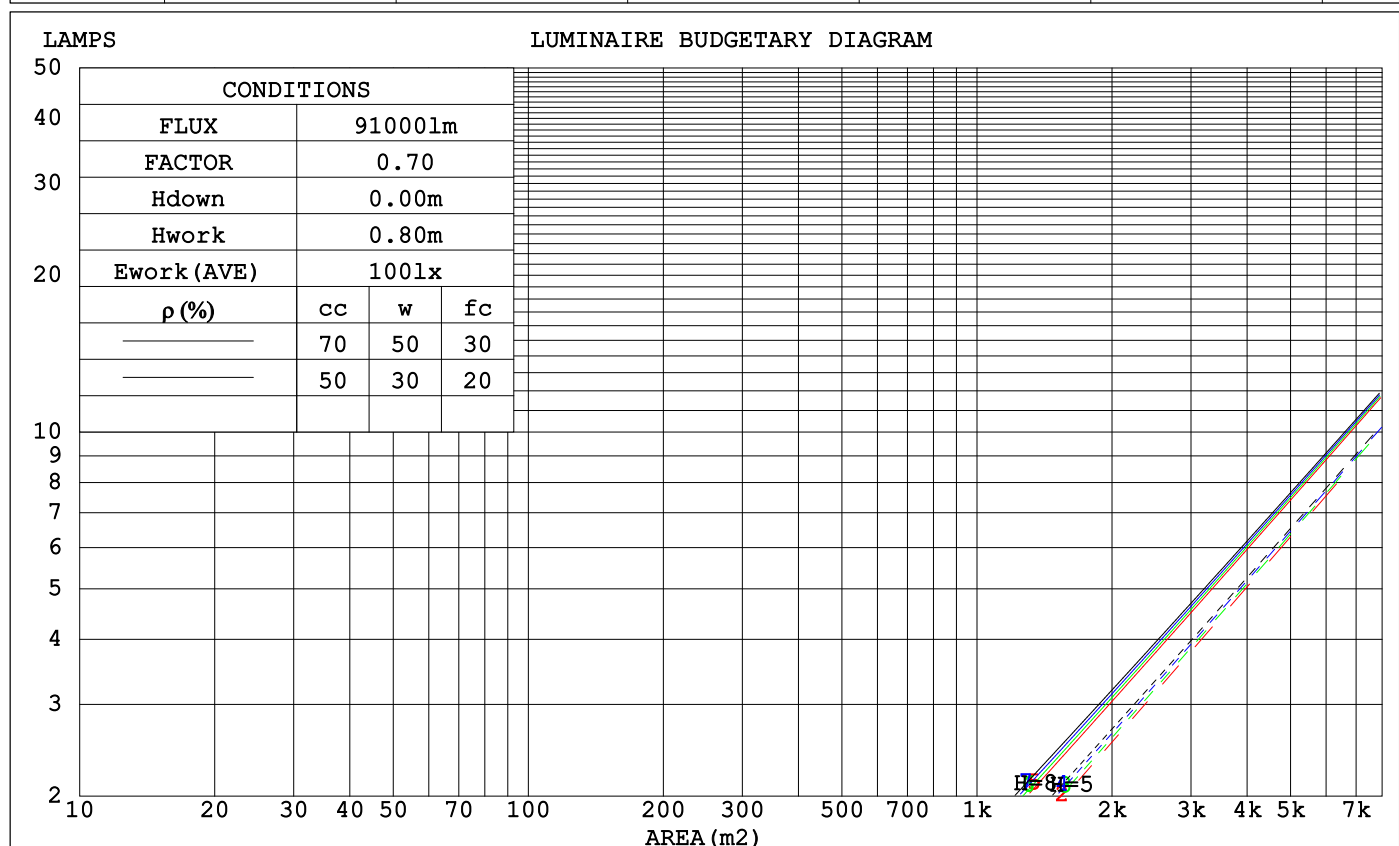
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: LYJ  
Test Date: 19 September 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
Humidity: 65.0%  
Test Distance: 26.000m [K=0.4548]  
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	.00	.99	.98	.97	.96	.94
2.0	1.04	1.00	.97	1.02	.99	.96	.99	.96	.94	.96	.94	.92	.93	.92	.90	.88
3.0	.98	.93	.90	.97	.92	.89	.94	.90	.87	.92	.89	.86	.89	.87	.85	.83
4.0	.93	.87	.84	.91	.87	.83	.89	.85	.82	.87	.84	.81	.86	.83	.80	.79
5.0	.88	.83	.79	.87	.82	.78	.85	.81	.78	.84	.80	.77	.82	.79	.76	.75
6.0	.84	.78	.74	.83	.78	.74	.81	.77	.74	.80	.76	.73	.79	.75	.73	.71
7.0	.80	.75	.71	.79	.74	.71	.78	.74	.70	.77	.73	.70	.76	.72	.70	.68
8.0	.76	.71	.68	.76	.71	.67	.75	.70	.67	.74	.70	.67	.73	.69	.67	.65
9.0	.73	.68	.65	.73	.68	.65	.72	.68	.64	.71	.67	.64	.70	.67	.64	.63
10.0	.71	.66	.62	.70	.65	.62	.69	.65	.62	.69	.65	.62	.68	.64	.62	.61



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:LYJ  
 Test Date:19 September 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
 Humidity:65.0%  
 Test Distance:26.000m [K=0.4548]  
 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	.171	.097	.031	.165	.094	.030	.152	.087	.028	.141	.081	.026	.130	.075	.024		
2.0	.161	.088	.027	.156	.086	.026	.145	.081	.025	.136	.076	.024	.127	.072	.023		
3.0	.151	.081	.024	.147	.079	.024	.138	.075	.023	.129	.071	.022	.122	.067	.021		
4.0	.142	.074	.022	.138	.072	.021	.130	.069	.021	.123	.066	.020	.117	.063	.019		
5.0	.134	.068	.020	.130	.067	.019	.124	.064	.019	.117	.062	.018	.112	.060	.018		
6.0	.126	.063	.018	.123	.062	.018	.117	.060	.018	.112	.058	.017	.107	.056	.017		
7.0	.120	.059	.017	.117	.058	.017	.112	.057	.016	.107	.055	.016	.103	.053	.016		
8.0	.114	.056	.016	.111	.055	.015	.107	.053	.015	.103	.052	.015	.099	.051	.015		
9.0	.108	.052	.015	.106	.052	.015	.102	.051	.014	.098	.049	.014	.095	.048	.014		
10.0	.103	.050	.014	.101	.049	.014	.098	.048	.014	.095	.047	.013	.091	.046	.013		

$\rho_{cc}$	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	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016		
2.0	.155	.133	.114	.133	.114	.098	.091	.079	.069	.052	.046	.040	.017	.015	.013		
3.0	.142	.113	.091	.121	.098	.079	.083	.068	.055	.048	.040	.033	.015	.013	.011		
4.0	.130	.099	.074	.112	.085	.065	.077	.059	.045	.045	.035	.027	.014	.011	.009		
5.0	.121	.087	.062	.104	.075	.054	.072	.052	.038	.041	.031	.022	.013	.010	.007		
6.0	.113	.077	.052	.097	.067	.045	.067	.047	.032	.039	.028	.019	.013	.009	.006		
7.0	.105	.069	.044	.091	.060	.038	.063	.042	.027	.036	.025	.016	.012	.008	.005		
8.0	.099	.063	.038	.085	.055	.033	.059	.038	.023	.034	.023	.014	.011	.007	.005		
9.0	.094	.057	.033	.081	.050	.029	.056	.035	.020	.033	.021	.012	.011	.007	.004		
10.0	.089	.053	.029	.077	.046	.025	.053	.032	.018	.031	.019	.011	.010	.006	.004		

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:LYJ  
 Test Date:19 September 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
 Humidity:65.0%  
 Test Distance:26.000m [K=0.4548]  
 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	21.1	22.1	21.5	22.5	22.8	21.2	22.2	21.6	22.5	22.9
3H	22.5	23.4	22.9	23.7	24.1	22.5	23.5	22.9	23.8	24.2
4H	22.9	23.7	23.3	24.1	24.4	22.9	23.8	23.4	24.2	24.5
6H	23.0	23.8	23.4	24.2	24.6	23.1	23.9	23.5	24.3	24.7
8H	23.0	23.7	23.4	24.1	24.5	23.1	23.9	23.6	24.3	24.7
12H	23.0	23.7	23.4	24.1	24.5	23.1	23.8	23.5	24.2	24.6
4H 2H	21.6	22.4	22.0	22.8	23.2	21.6	22.5	22.0	22.8	23.2
3H	23.1	23.8	23.5	24.2	24.6	23.1	23.8	23.5	24.2	24.6
4H	23.5	24.2	24.0	24.6	25.0	23.6	24.2	24.0	24.7	25.1
6H	23.8	24.3	24.2	24.7	25.2	23.9	24.4	24.3	24.8	25.3
8H	23.8	24.3	24.2	24.7	25.2	23.9	24.4	24.3	24.8	25.3
12H	23.7	24.2	24.2	24.7	25.1	23.8	24.3	24.3	24.8	25.2
8H 4H	23.6	24.1	24.1	24.6	25.1	23.7	24.2	24.2	24.6	25.1
6H	23.9	24.3	24.4	24.8	25.3	24.0	24.4	24.5	24.9	25.4
8H	23.9	24.3	24.5	24.8	25.3	24.0	24.4	24.6	24.9	25.4
12H	23.9	24.2	24.5	24.7	25.3	24.1	24.4	24.6	24.9	25.4
12H 4H	23.6	24.0	24.1	24.5	25.0	23.7	24.1	24.2	24.6	25.1
6H	23.9	24.2	24.4	24.7	25.3	24.0	24.3	24.5	24.8	25.3
8H	23.9	24.2	24.5	24.7	25.3	24.1	24.4	24.6	24.9	25.4
CIE190: 2010										

CIE190: 2010  
Area: 0.08135 m2

C Range: 0 - 360DEG  
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Temperature:25.3°C  
Operators:LYJ  
Test Date:19 September 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
Humidity:65.0%  
Test Distance:26.000m [K=0.4548]  
Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

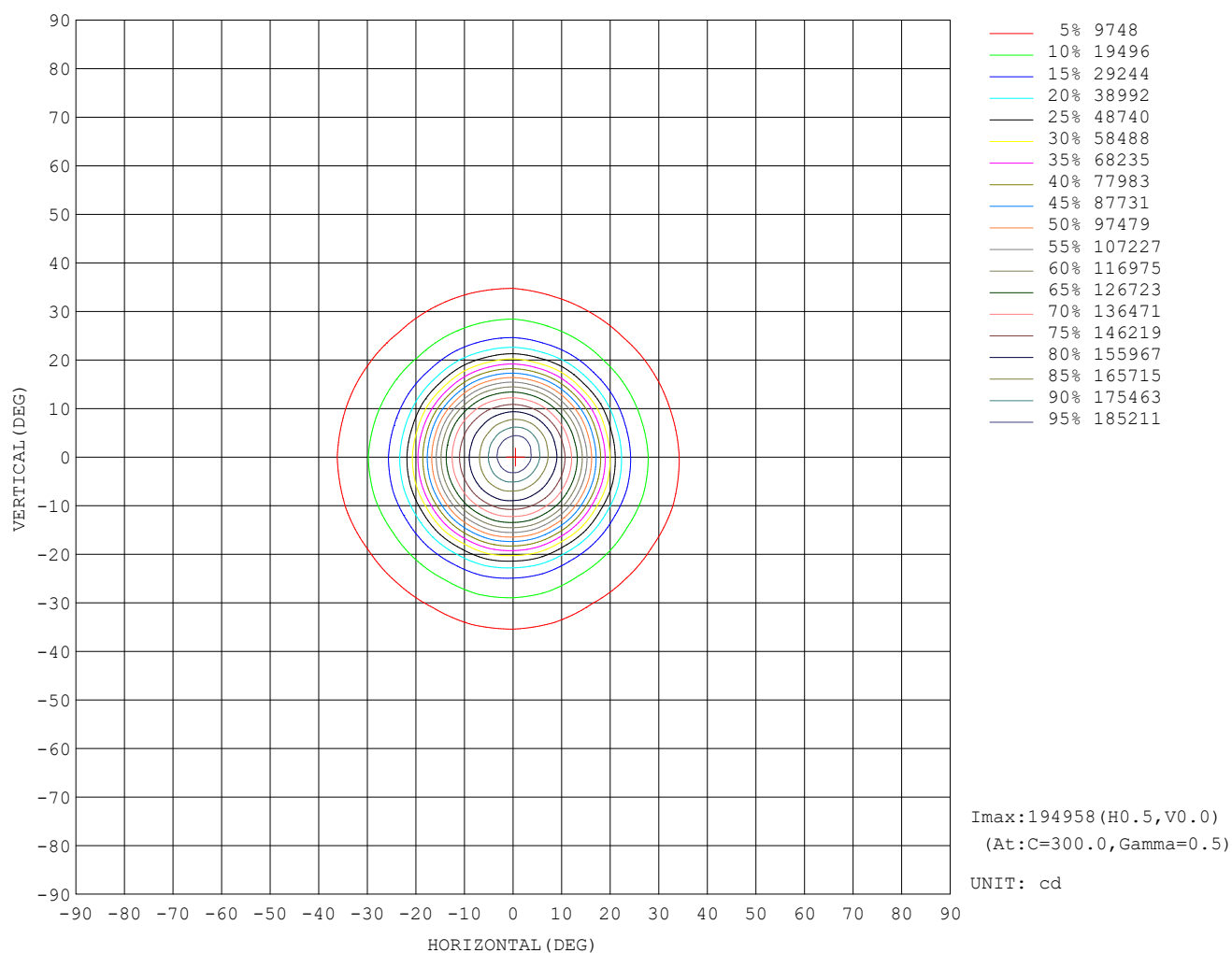
## UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	85	78	74	84	78	74	83	77	74	70
0.80	92	86	82	92	86	82	90	85	81	77
1.00	97	91	87	96	91	87	95	91	86	82
1.25	101	96	92	100	95	91	98	94	91	86
1.50	104	99	95	103	98	95	101	97	94	89
2.00	107	103	99	106	102	98	103	100	97	91
2.50	109	105	102	108	104	101	104	101	99	93
3.00	111	107	104	109	106	103	106	103	101	94
4.00	113	110	108	111	108	106	107	105	104	96
5.00	115	112	110	112	110	108	108	107	105	98
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004						Suspended			SHRNOM = 1.25	

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 C Interval: 15.0DEG  
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$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
 Humidity: 65.0%  
 Test Distance: 26.000m [K=0.4548]  
 Remarks:

# ISOCANDELA DIAGRAM

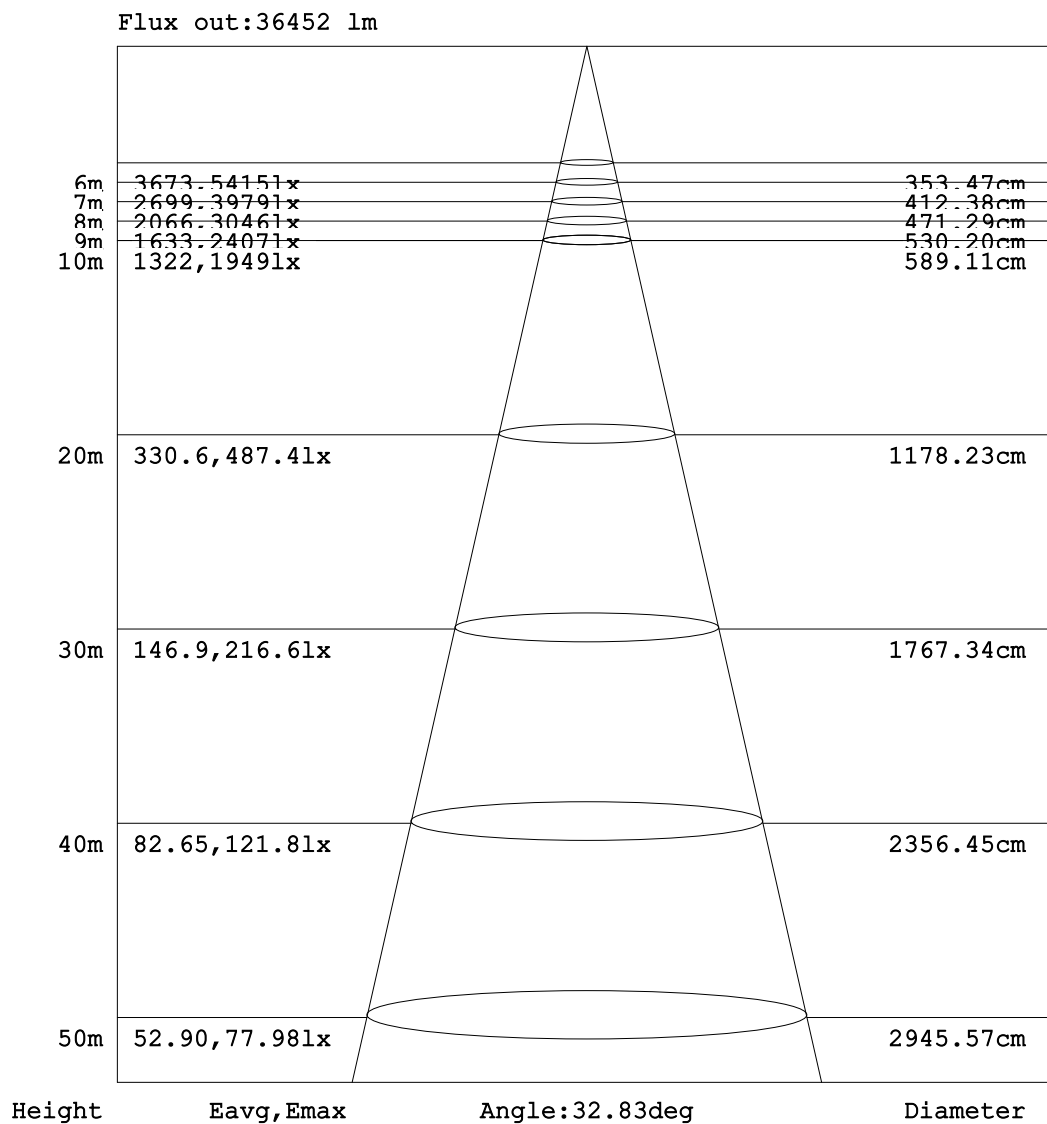


C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:LYJ  
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$\gamma$  Range: 0 - 90DEG  
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Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
Humidity:65.0%  
Test Distance:26.000m [K=0.4548]  
Remarks:



## AAI Figure



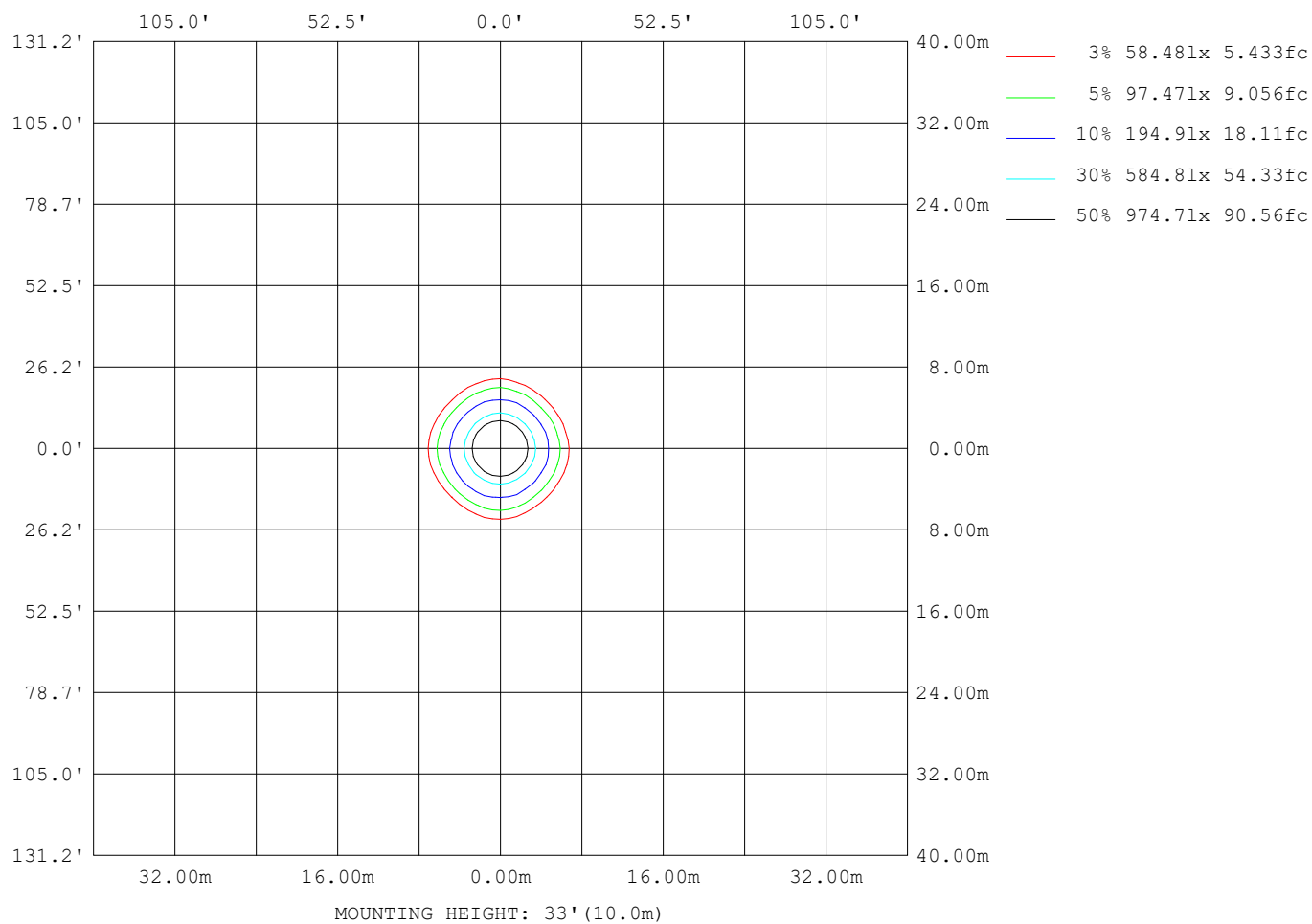
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:LYJ  
Test Date:19 September 2022

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
Humidity:65.0%  
Test Distance:26.000m [K=0.4548]  
Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

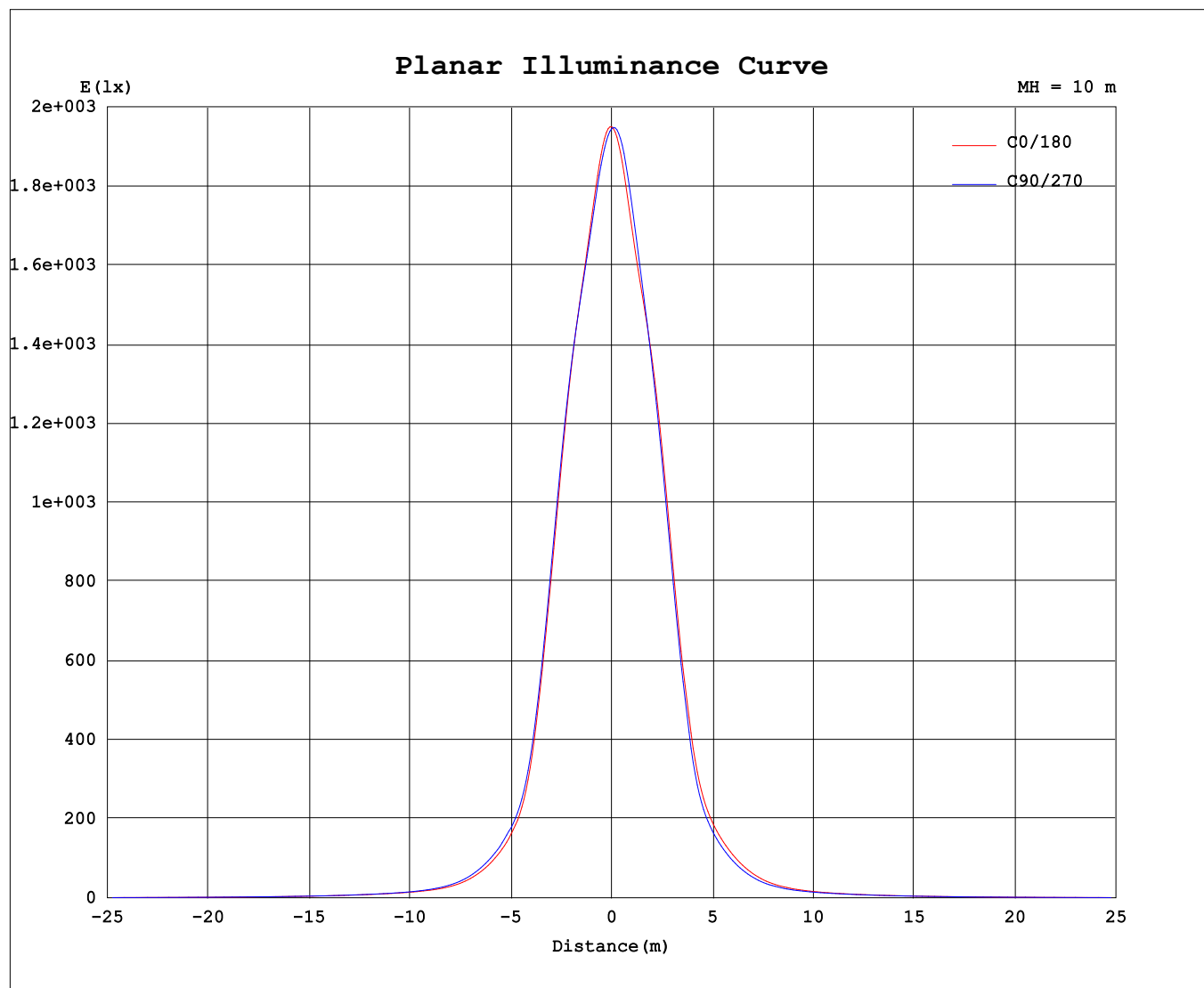
## ISOLUX DIAGRAM



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: LYJ  
Test Date: 19 September 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
Humidity: 65.0%  
Test Distance: 26.000m [K=0.4548]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: LYJ  
Test Date: 19 September 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.465  
Humidity: 65.0%  
Test Distance: 26.000m [K=0.4548]  
Remarks: