

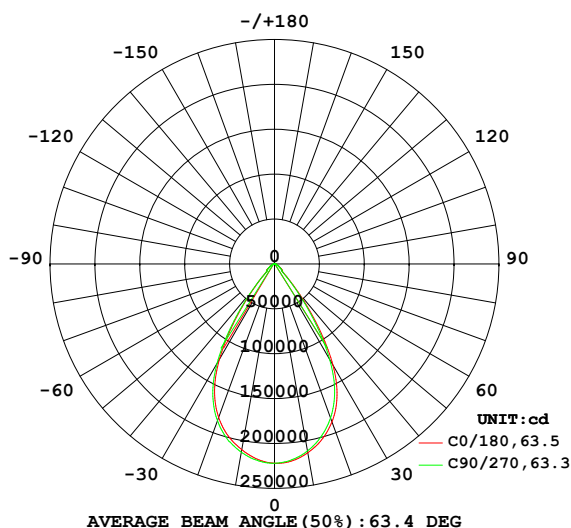
## EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## LUMINAIRE PHOTOMETRIC TEST REPORT

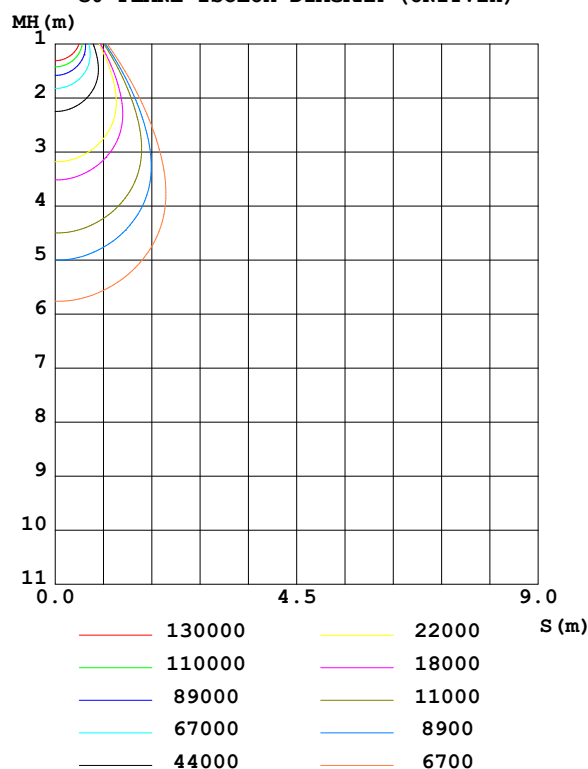
Test:U:230.0V I:6.541A P:1500.0W PF:0.997 Freq:50.00Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:224742x1 lm		
NAME: SP04-1K5-5770-F04006Z	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 149.83 lm/W			
MODEL	5050	Imax (cd)	222064	S/MH (C0/180)	0.93
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.94
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	224742	$\eta$ UP, DN (C0-180)	0.0, 49.8
NOMINAL FLUX (lm)	224742	CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	0.0, 50.2
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE (V)	/	$\eta$ down (%)	100.0	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: LYJ  
Test Date: 2022-10-26

$\gamma$  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

## ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	2135	2130	2115	2099	2100	2112	2129	2136	0- 10	20706	20706	9.21,9.21
20	1872	1846	1825	1794	1819	1826	1857	1865	10- 20	56140	76846	34.2,34.2
30	1303	1269	1229	1204	1228	1247	1281	1299	20- 30	72438	149284	66.4,66.4
40	409.4	388.6	367.6	359.3	371.3	382.0	398.2	410.7	30- 40	49381	198665	88.4,88.4
50	108.5	90.33	107.1	88.91	111.0	90.41	107.9	91.39	40- 50	13225	211890	94.3,94.3
60	59.82	60.62	51.84	60.57	56.87	60.92	54.04	61.52	50- 60	6565	218455	97.2,97.2
70	27.92	29.96	23.67	28.53	26.76	29.73	24.85	31.61	60- 70	4233	222688	99.1,99.1
80	8.230	7.012	5.936	6.495	7.415	6.896	6.479	7.395	70- 80	1778	224466	99.9,99.9
90	0.1237	0.0752	0.0356	0.0449	0.0504	0.0582	0.0719	0.1071	80- 90	275.7	224742	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): 2.0759e+005 lm

%lum = 92.4%

%lamp = 92.4%

Conical surface Flux(120deg): 2.1845e+005 lm

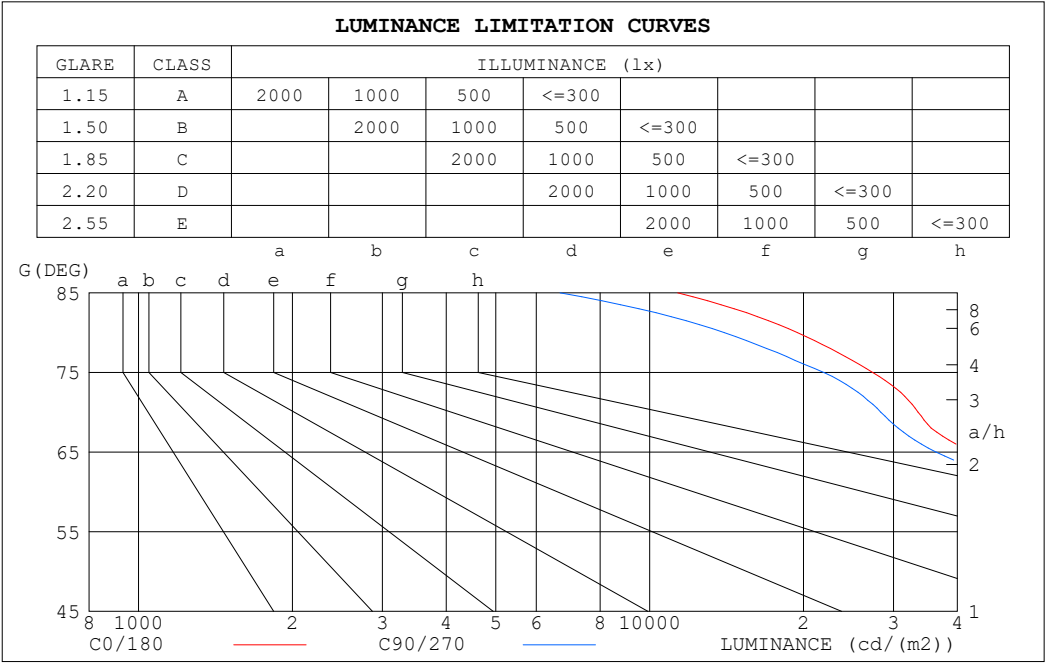
%lum = 97.2%

%lamp = 97.2%

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:LYJ  
Test Date:2022-10-26

$\gamma$  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	11348	6678
80	19458	13997
75	27313	21913
70	33515	28338
65	42943	36345
60	49117	42452
55	62310	53000
50	69324	68220
45	86338	76033

C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:LYJ

Test Date:2022-10-26

γ Range: 0 - 90DEG

γ Interval: 0.5DEG

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

Humidity:65.0%

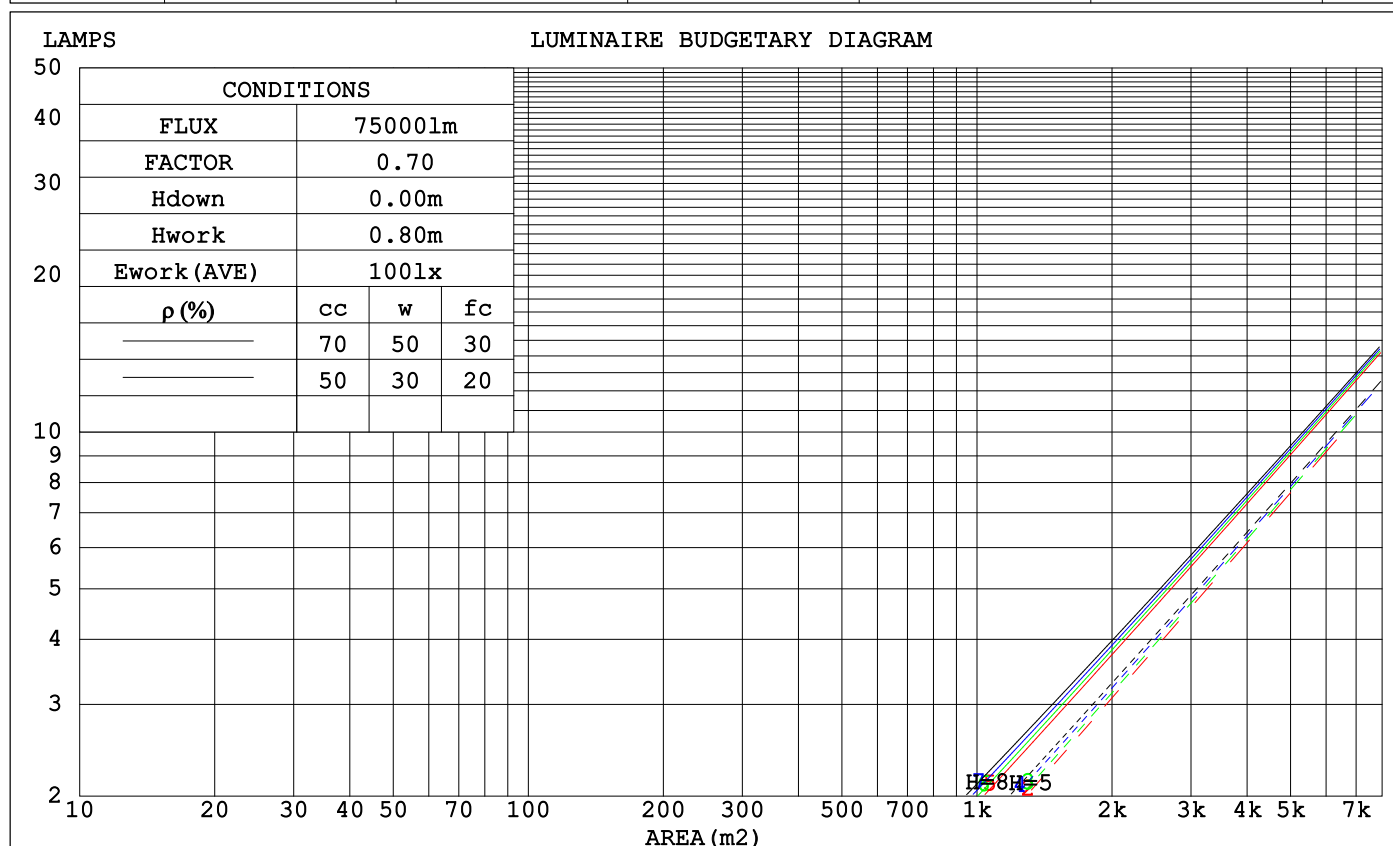
Test Distance:26.000m [K=0.4548]

Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## 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	1.10	1.07	1.05	1.08	1.05	1.03	1.04	1.02	1.00	1.00	.99	.97	.97	.95	.94	.92
2.0	1.02	.97	.94	.90	.96	.93	.97	.93	.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	.88	.82	.77	.86	.81	.77	.84	.79	.76	.82	.78	.75	.80	.77	.74	.72
5.0	.82	.75	.71	.81	.75	.71	.79	.74	.70	.77	.73	.69	.76	.72	.69	.67
6.0	.76	.70	.65	.75	.69	.65	.74	.69	.65	.72	.68	.64	.71	.67	.64	.62
7.0	.71	.65	.61	.71	.65	.60	.69	.64	.60	.68	.63	.60	.67	.63	.59	.58
8.0	.67	.61	.56	.66	.61	.56	.65	.60	.56	.64	.59	.56	.63	.59	.56	.54
9.0	.63	.57	.53	.63	.57	.53	.62	.56	.52	.61	.56	.52	.60	.55	.52	.51
10.0	.60	.53	.49	.59	.53	.49	.58	.53	.49	.57	.53	.49	.57	.52	.49	.48



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:LYJ  
 Test Date:2022-10-26

$\gamma$  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	.192	.109	.035	.185	.106	.034	.172	.099	.032	.161	.093	.030	.150	.087	.028		
2.0	.184	.101	.031	.178	.098	.030	.167	.093	.029	.158	.088	.028	.148	.084	.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	.146	.079	.024	.139	.076	.023		
5.0	.158	.080	.023	.154	.079	.023	.147	.077	.023	.140	.074	.022	.134	.072	.022		
6.0	.150	.075	.022	.147	.074	.021	.141	.072	.021	.135	.070	.021	.129	.068	.020		
7.0	.143	.071	.020	.140	.070	.020	.135	.068	.020	.129	.066	.019	.125	.065	.019		
8.0	.136	.067	.019	.134	.066	.019	.129	.064	.018	.124	.063	.018	.120	.062	.018		
9.0	.130	.063	.018	.128	.062	.018	.124	.061	.017	.119	.060	.017	.116	.059	.017		
10.0	.125	.060	.017	.123	.059	.017	.119	.058	.016	.115	.057	.016	.111	.056	.016		

$\rho_{cc}$	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	.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	.080	.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	.114	.071	.041	.098	.062	.036	.068	.043	.025	.039	.025	.015	.013	.008	.005	
8.0	.109	.065	.035	.093	.056	.031	.065	.040	.022	.038	.023	.013	.012	.008	.004	
9.0	.103	.060	.030	.089	.052	.026	.062	.037	.019	.036	.022	.011	.012	.007	.004	
10.0	.099	.055	.027	.085	.048	.023	.059	.034	.017	.034	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:LYJ  
 Test Date:2022-10-26

$\gamma$  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	20.3	21.4	20.7	21.7	22.0	19.9	20.9	20.2	21.2	21.5
3H	21.6	22.5	22.0	22.9	23.2	20.9	21.8	21.3	22.1	22.5
4H	22.0	22.8	22.4	23.2	23.6	21.2	22.0	21.6	22.4	22.8
6H	22.2	22.9	22.6	23.3	23.7	21.3	22.0	21.7	22.4	22.8
8H	22.2	22.9	22.6	23.3	23.7	21.2	22.0	21.7	22.4	22.8
12H	22.1	22.8	22.6	23.2	23.7	21.2	21.9	21.6	22.3	22.7
4H 2H	20.8	21.7	21.2	22.1	22.4	20.4	21.3	20.8	21.6	22.0
3H	22.2	22.9	22.6	23.3	23.7	21.6	22.3	22.0	22.7	23.1
4H	22.7	23.3	23.1	23.7	24.2	22.0	22.6	22.4	23.0	23.5
6H	22.9	23.5	23.4	23.9	24.4	22.1	22.6	22.6	23.1	23.6
8H	23.0	23.5	23.4	23.9	24.4	22.1	22.6	22.6	23.0	23.5
12H	22.9	23.4	23.4	23.9	24.3	22.0	22.5	22.5	23.0	23.4
8H 4H	22.7	23.2	23.2	23.7	24.1	22.0	22.5	22.5	23.0	23.4
6H	23.0	23.4	23.5	23.9	24.4	22.2	22.6	22.7	23.1	23.6
8H	23.1	23.4	23.6	23.9	24.4	22.2	22.6	22.7	23.1	23.6
12H	23.1	23.4	23.6	23.9	24.5	22.2	22.5	22.7	23.0	23.6
12H 4H	22.7	23.1	23.2	23.6	24.1	22.0	22.4	22.5	22.9	23.4
6H	23.0	23.3	23.5	23.8	24.4	22.2	22.5	22.7	23.0	23.5
8H	23.1	23.4	23.6	23.9	24.4	22.2	22.5	22.7	23.0	23.6
CIE190: 2010										

CIE190: 2010  
Area: 0.244035 m2

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:LYJ  
Test Date:2022-10-26

$\gamma$  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

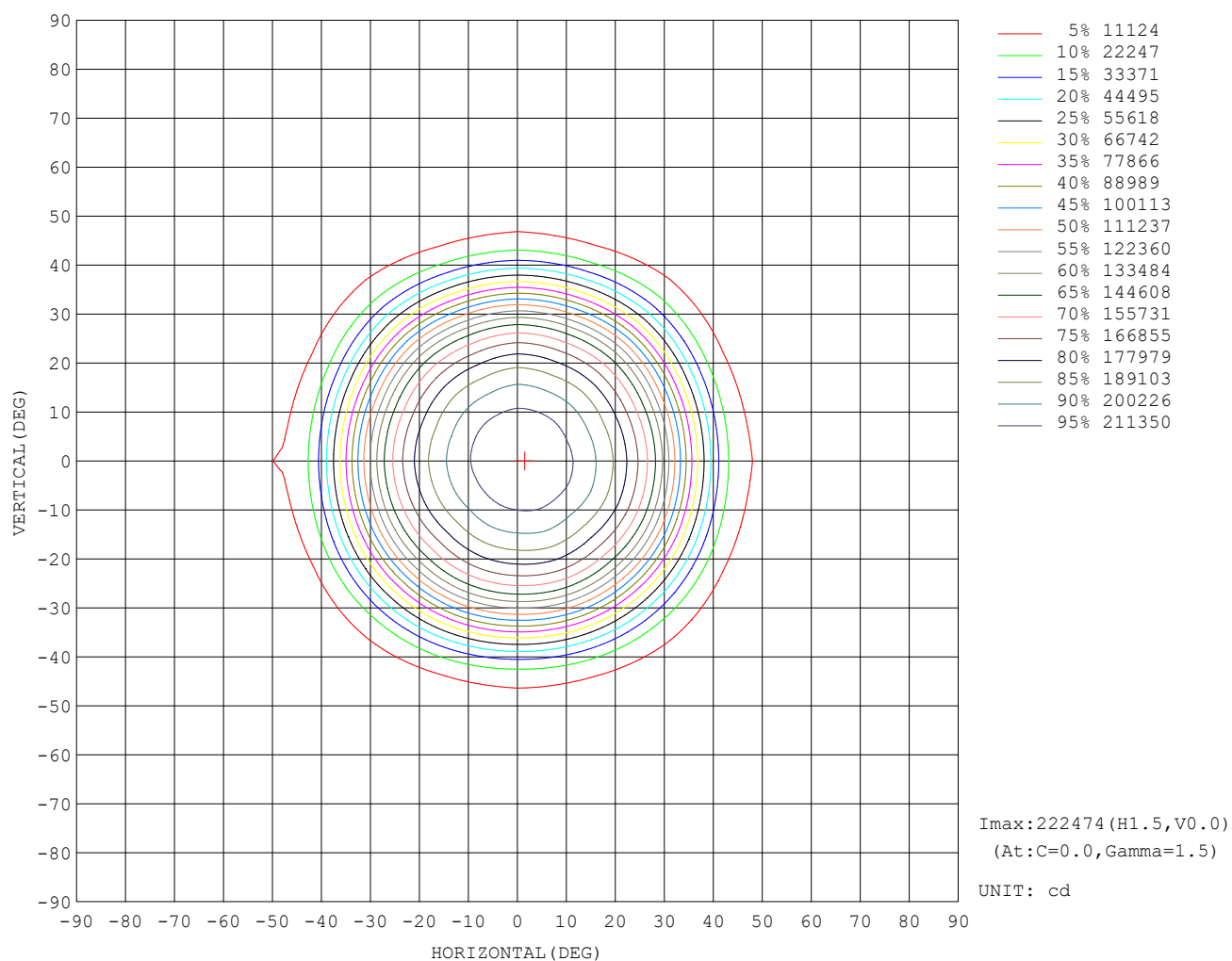
## UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	84	77	73	84	77	73	83	77	73	69
0.80	92	86	82	91	85	81	90	85	81	77
1.00	97	91	87	96	90	87	94	90	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	92
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	114	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	

C Range: 0 - 360DEG  
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 Test Date: 2022-10-26

$\gamma$  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

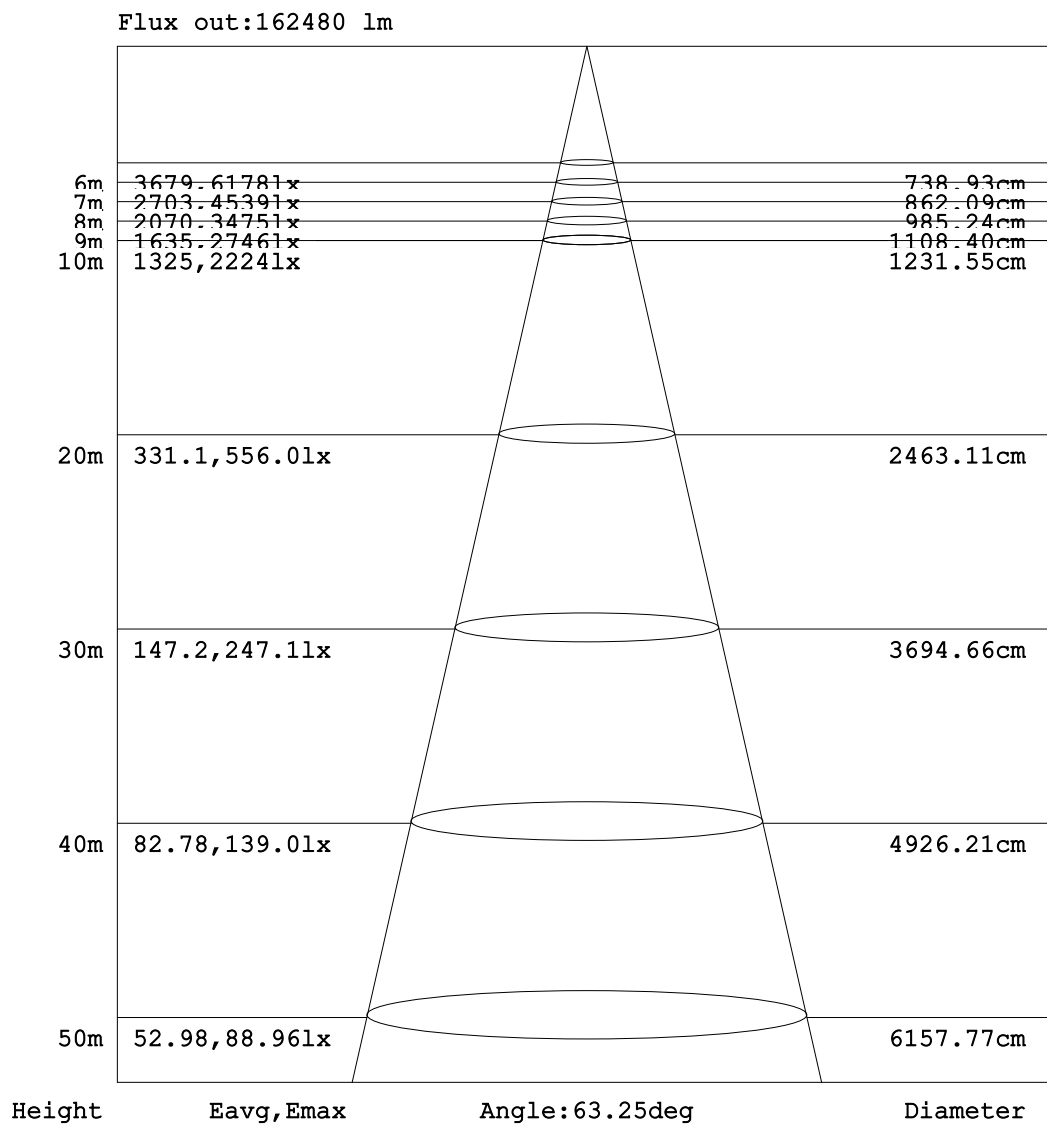


C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: LYJ  
Test Date: 2022-10-26

$\gamma$  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:



## AAI Figure



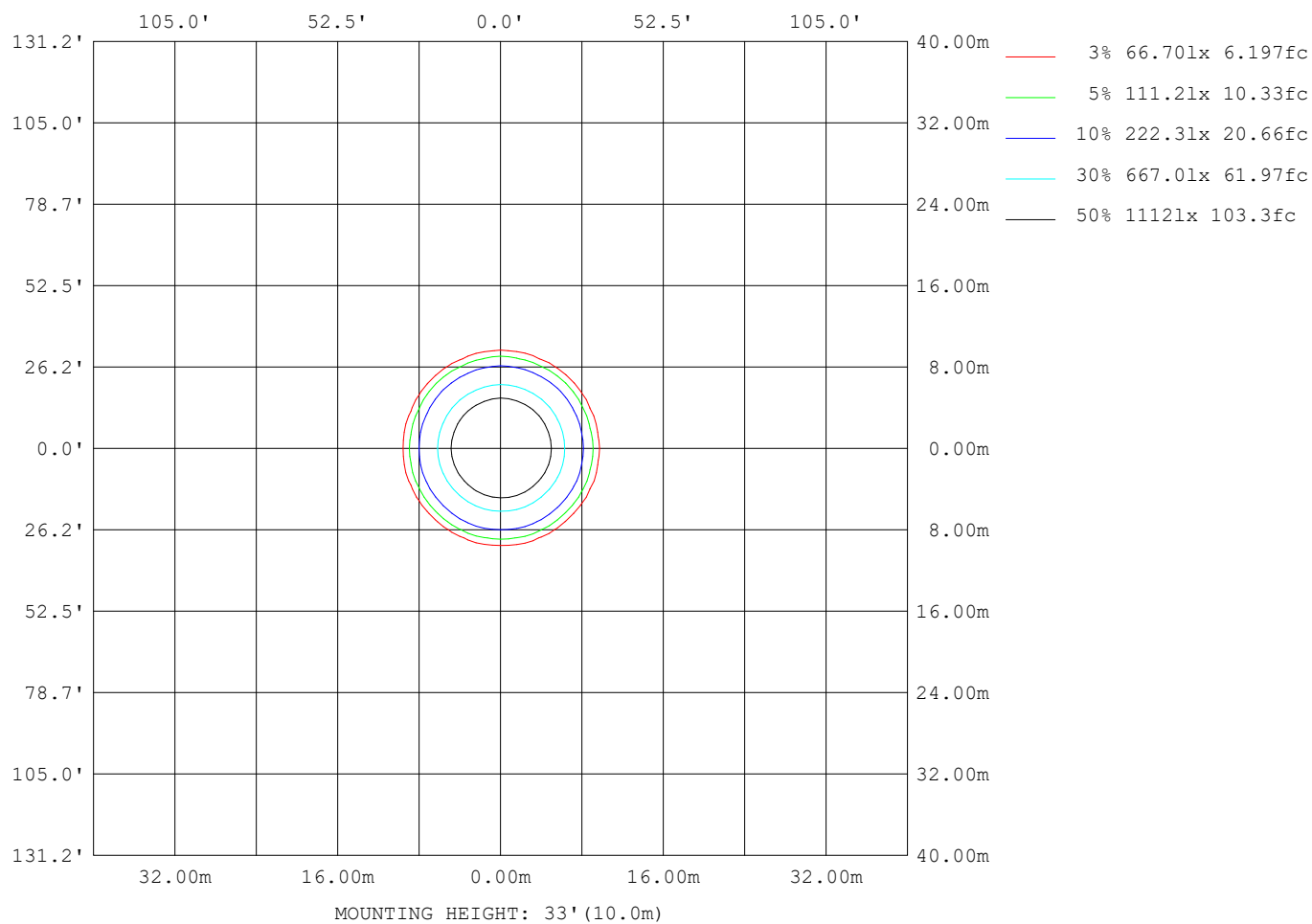
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: LYJ  
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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

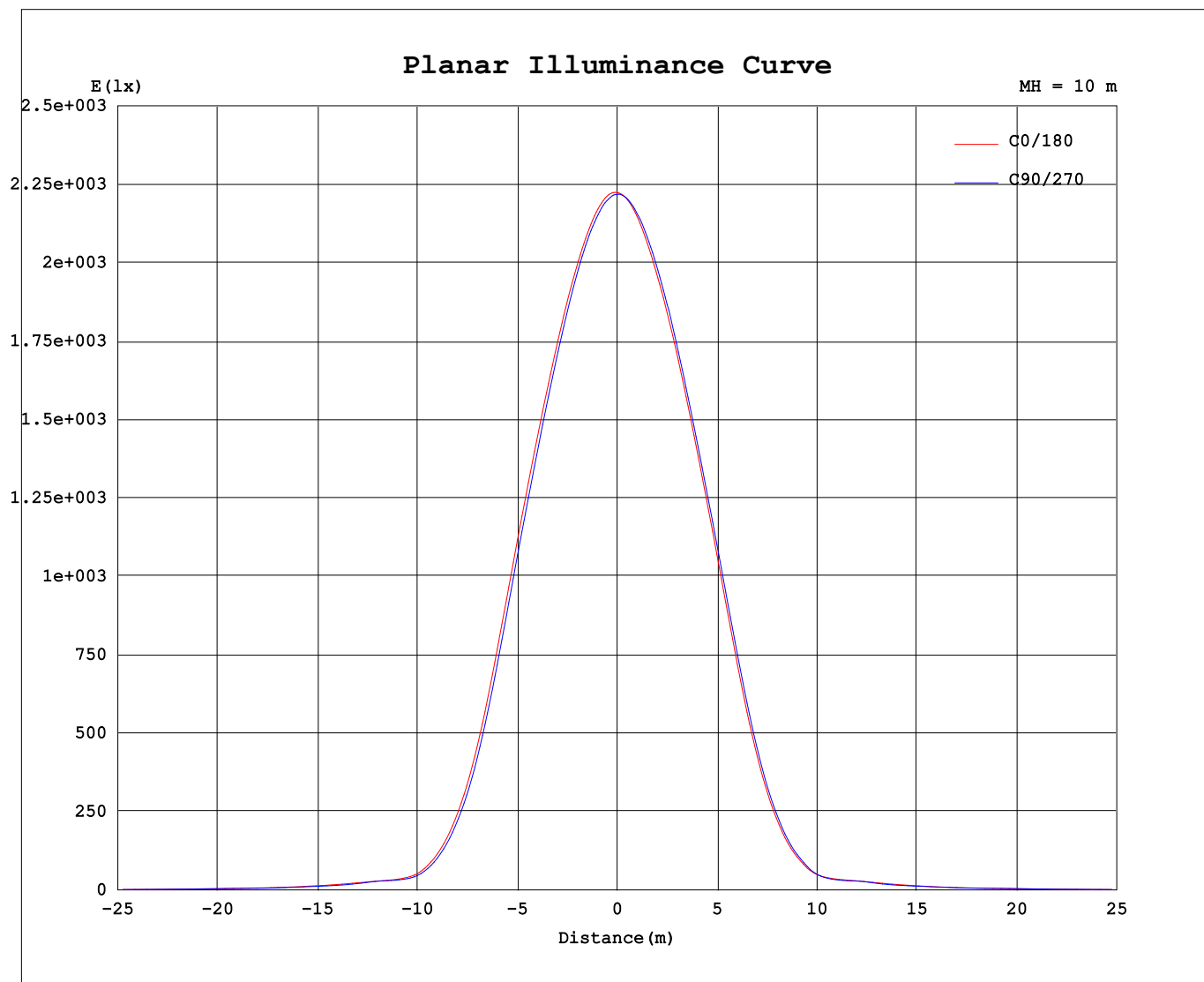
## ISOLUX DIAGRAM



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: LYJ  
Test Date: 2022-10-26

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:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: LYJ  
Test Date: 2022-10-26

$\gamma$  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: