

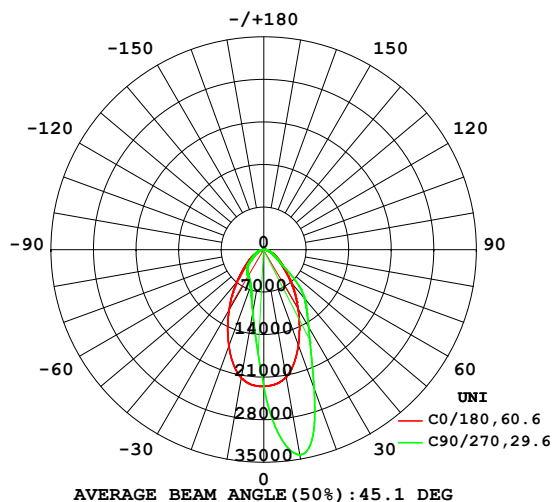
## EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## LUMINAIRE PHOTOMETRIC TEST REPORT

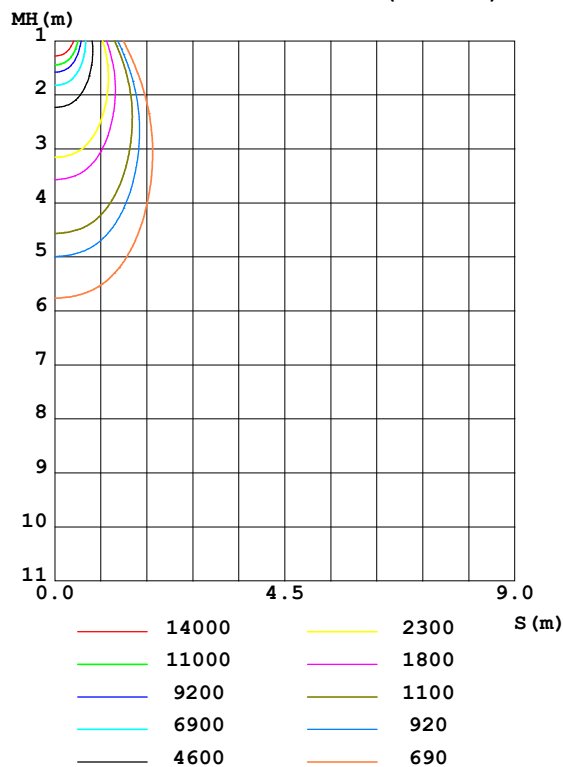
Test:U:229.7V I:0.8891A P:203.0W PF:0.9939 Freq:50.01Hz UTHDi:0% ITHDi:0% Lamp Flux:30014x1 lm		
NAME: FL23-200-5070-F22403	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 147.89 lm/W			
MODEL	-	I <sub>max</sub> (cd)	34395	S/MH (C0/180)	0.89
NOMINAL POWER(W)	200	LOR(%)	100.0	S/MH (C90/270)	0.30
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	30014	η UP,DN(C0-180)	0.0,63.9
NOMINAL FLUX(lm)	30014	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,36.1
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	0.70

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:LYJ  
Test Date:2020-09-01

γ Range: 0 - 90DEG  
γ Interval: 0.1DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
Humidity:65.0%  
Test Distance:26.000m [K=0.4594]  
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	2127	3192	3427	3240	2143	1280	1053	1275	0- 10	2147	2147	7.15,7.15
20	1672	2843	2427	2846	1684	836.7	653.0	832.9	10- 20	5636	7783	25.9,25.9
30	1137	1656	1480	1650	1145	635.0	522.3	635.6	20- 30	6359	14142	47.1,47.1
40	692.6	1006	1041	1016	687.8	530.5	441.1	532.5	30- 40	5653	19795	66,66
50	380.3	634.2	416.8	646.5	375.7	445.9	296.5	446.2	40- 50	4630	24425	81.4,81.4
60	211.6	288.2	187.9	289.9	211.3	308.4	178.3	311.3	50- 60	3158	27583	91.9,91.9
70	102.9	89.76	93.93	90.13	103.0	108.7	101.3	111.2	60- 70	1675	29258	97.5,97.5
80	43.86	23.58	27.75	23.76	46.60	29.57	33.75	30.17	70- 80	653.5	29912	99.7,99.7
90	0	0	0	0	0	0	0	0	80- 90	102.0	30014	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:×10cd									UNIT:lm		

Conical surface Flux(90deg): 22274 lm

%lum = 74.2%

%lamp = 74.2%

Conical surface Flux(120deg): 27583 lm

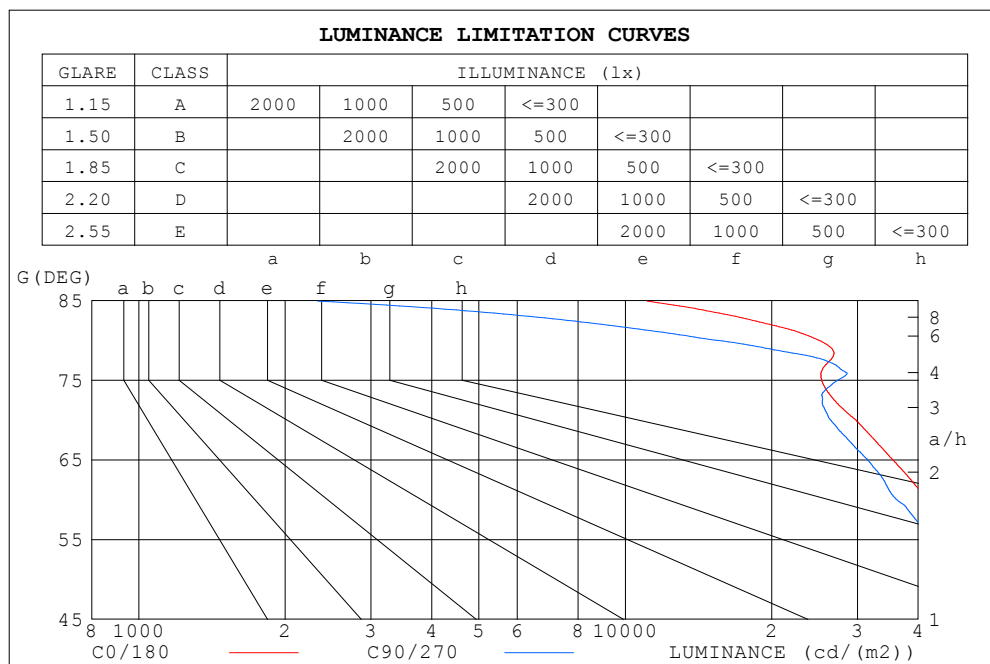
%lum = 91.9%

%lamp = 91.9%

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:LYJ  
Test Date:2020-09-01

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.1DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
Humidity:65.0%  
Test Distance:26.000m [K=0.4594]  
Remarks:

## LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	11309	2378
80	25464	15994
75	25522	27378
70	30031	26621
65	35715	31690
60	42153	36410
55	49687	43846
50	58873	63205
45	72336	107014

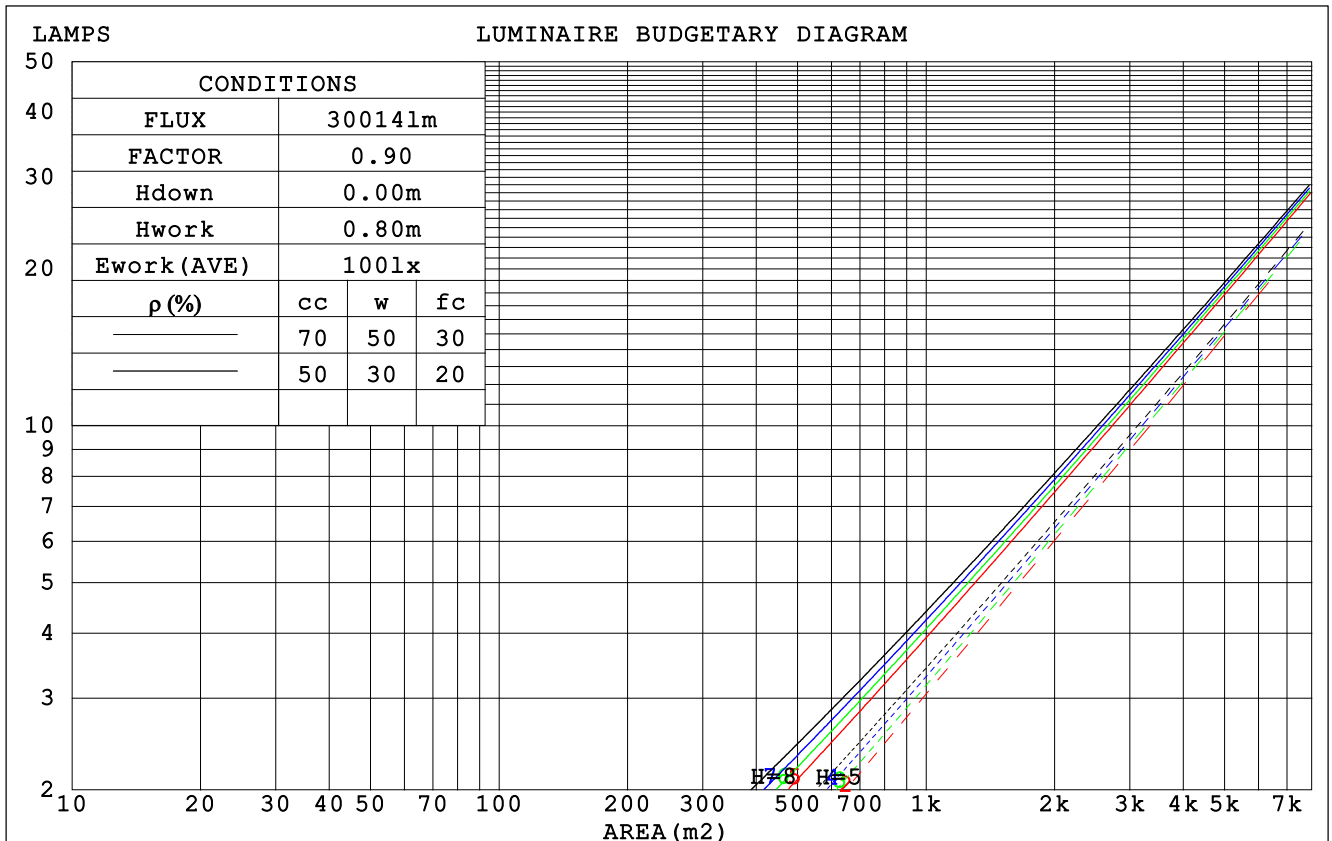
C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: LYJ  
Test Date: 2020-09-01

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.1DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
Humidity: 65.0%  
Test Distance: 26.000m [K=0.4594]  
Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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	1.08	1.05	1.02	1.06	1.03	1.00	1.02	.99	.97	.98	.96	.94	.94	.93	.91	.89
2.0	.97	.92	.88	.96	.91	.87	.92	.88	.85	.89	.86	.83	.86	.83	.81	.79
3.0	.88	.82	.77	.87	.81	.76	.84	.79	.75	.81	.77	.73	.79	.75	.72	.70
4.0	.80	.73	.68	.79	.72	.67	.77	.71	.66	.75	.70	.66	.73	.68	.65	.63
5.0	.74	.66	.61	.72	.66	.60	.71	.64	.60	.69	.63	.59	.67	.62	.59	.57
6.0	.68	.60	.55	.67	.60	.55	.65	.59	.54	.64	.58	.54	.62	.57	.53	.52
7.0	.63	.55	.50	.62	.55	.50	.60	.54	.49	.59	.53	.49	.58	.53	.49	.47
8.0	.58	.51	.46	.57	.50	.46	.56	.50	.45	.55	.49	.45	.54	.49	.45	.43
9.0	.54	.47	.42	.54	.47	.42	.52	.46	.42	.51	.46	.42	.51	.45	.42	.40
10.0	.51	.44	.39	.50	.43	.39	.49	.43	.39	.48	.43	.39	.48	.42	.39	.37



C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: LYJ  
Test Date: 2020-09-01

γ Range: 0 - 90DEG  
γ Interval: 0.1DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
Humidity: 65.0%  
Test Distance: 26.000m [K=0.4594]  
Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## WEC AND CCEC

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	.233	.132	.042	.226	.129	.041	.213	.122	.039	.201	.116	.037	.190	.110	.036	
2.0	.225	.123	.038	.219	.121	.037	.208	.116	.036	.198	.111	.035	.188	.106	.034	
3.0	.213	.113	.034	.208	.111	.034	.198	.107	.033	.189	.104	.032	.181	.100	.031	
4.0	.201	.104	.031	.196	.103	.030	.188	.100	.030	.180	.097	.029	.172	.094	.029	
5.0	.189	.096	.028	.185	.095	.028	.177	.092	.027	.170	.090	.027	.164	.088	.026	
6.0	.178	.089	.025	.174	.088	.025	.168	.086	.025	.161	.084	.025	.156	.082	.024	
7.0	.168	.083	.023	.164	.082	.023	.159	.080	.023	.153	.078	.023	.148	.077	.023	
8.0	.158	.077	.022	.155	.077	.022	.150	.075	.021	.145	.074	.021	.141	.072	.021	
9.0	.150	.072	.020	.147	.072	.020	.143	.070	.020	.138	.069	.020	.134	.068	.020	
10.0	.142	.068	.019	.140	.068	.019	.136	.066	.019	.132	.065	.019	.128	.064	.018	

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	.175	.157	.140	.150	.135	.121	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.163	.132	.106	.140	.114	.092	.096	.079	.064	.055	.046	.037	.018	.015	.012	
3.0	.154	.114	.082	.132	.098	.071	.090	.068	.050	.052	.040	.030	.017	.013	.010	
4.0	.145	.100	.066	.124	.086	.057	.085	.060	.040	.049	.035	.024	.016	.011	.008	
5.0	.137	.089	.053	.118	.077	.046	.081	.054	.033	.047	.032	.019	.015	.010	.006	
6.0	.130	.080	.044	.112	.069	.039	.077	.049	.027	.045	.029	.016	.014	.009	.005	
7.0	.124	.073	.037	.106	.063	.033	.073	.044	.023	.043	.026	.014	.014	.009	.005	
8.0	.118	.067	.032	.101	.058	.028	.070	.041	.020	.041	.024	.012	.013	.008	.004	
9.0	.112	.062	.028	.097	.054	.024	.067	.038	.017	.039	.022	.010	.013	.007	.003	
10.0	.107	.058	.025	.092	.050	.022	.064	.035	.015	.037	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:LYJ  
 Test Date:2020-09-01

γ Range: 0 - 90DEG  
 γ Interval: 0.1DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
 Humidity:65.0%  
 Test Distance:26.000m [K=0.4594]  
 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	24.0	25.4	24.4	25.7	26.0	23.7	25.0	24.0	25.3	25.7
3H	25.0	26.2	25.3	26.5	26.9	24.4	25.6	24.7	25.9	26.3
4H	25.2	26.4	25.6	26.7	27.1	24.6	25.7	25.0	26.1	26.4
6H	25.4	26.5	25.9	26.8	27.2	24.7	25.8	25.1	26.1	26.5
8H	25.5	26.5	25.9	26.9	27.3	24.7	25.7	25.1	26.1	26.5
12H	25.5	26.4	25.9	26.8	27.2	24.7	25.6	25.1	26.0	26.4
4H 2H	24.3	25.5	24.7	25.8	26.2	24.0	25.1	24.4	25.5	25.9
3H	25.4	26.4	25.9	26.8	27.2	24.8	25.8	25.3	26.2	26.6
4H	25.8	26.6	26.2	27.0	27.5	25.1	25.9	25.5	26.4	26.8
6H	26.0	26.7	26.5	27.2	27.7	25.3	26.0	25.7	26.4	26.9
8H	26.1	26.8	26.6	27.2	27.7	25.3	25.9	25.7	26.4	26.8
12H	26.1	26.7	26.6	27.2	27.6	25.2	25.8	25.7	26.3	26.8
8H 4H	25.8	26.5	26.3	26.9	27.4	25.2	25.8	25.6	26.3	26.7
6H	26.1	26.6	26.6	27.1	27.6	25.3	25.9	25.8	26.4	26.9
8H	26.1	26.6	26.7	27.1	27.6	25.3	25.8	25.9	26.3	26.8
12H	26.2	26.6	26.7	27.1	27.7	25.3	25.7	25.8	26.2	26.8
12H 4H	25.8	26.3	26.2	26.8	27.3	25.1	25.7	25.6	26.2	26.7
6H	26.0	26.5	26.6	27.0	27.5	25.3	25.8	25.8	26.3	26.8
8H	26.1	26.6	26.6	27.0	27.6	25.3	25.7	25.8	26.2	26.8
CIE190: 2010										

CIE190: 2010  
Area: 0.103 m2

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:LYJ  
Test Date:2020-09-01

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.1DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
Humidity:65.0%  
Test Distance:26.000m [K=0.4594]  
Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## UTILIZATION FACTORS TABLE

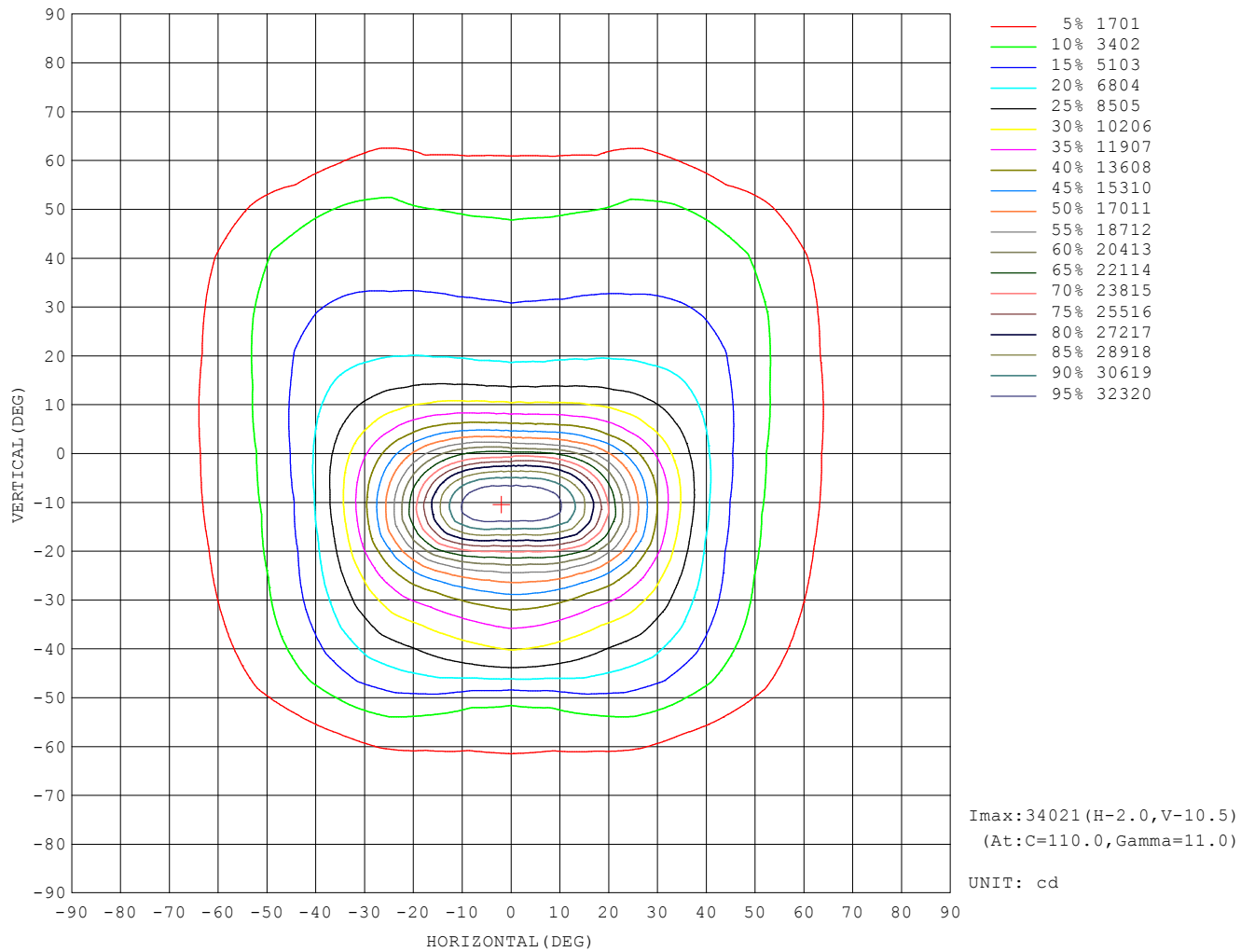
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	70	61	55	69	60	55	68	60	55	50
0.80	80	70	65	79	70	65	77	69	64	59
1.00	87	78	73	86	78	72	84	79	72	66
1.25	93	85	80	92	84	79	89	83	78	73
1.50	97	90	84	95	89	84	93	87	83	77
2.00	102	96	91	100	95	90	97	93	89	82
2.50	105	99	95	103	98	94	100	95	92	85
3.00	107	102	98	105	101	97	102	98	95	88
4.00	110	106	103	108	104	101	104	101	99	91
5.00	112	108	105	110	107	104	105	103	101	92
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: LYJ  
 Test Date: 2020-09-01

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.1DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
 Humidity: 65.0%  
 Test Distance: 26.000m [K=0.4594]  
 Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

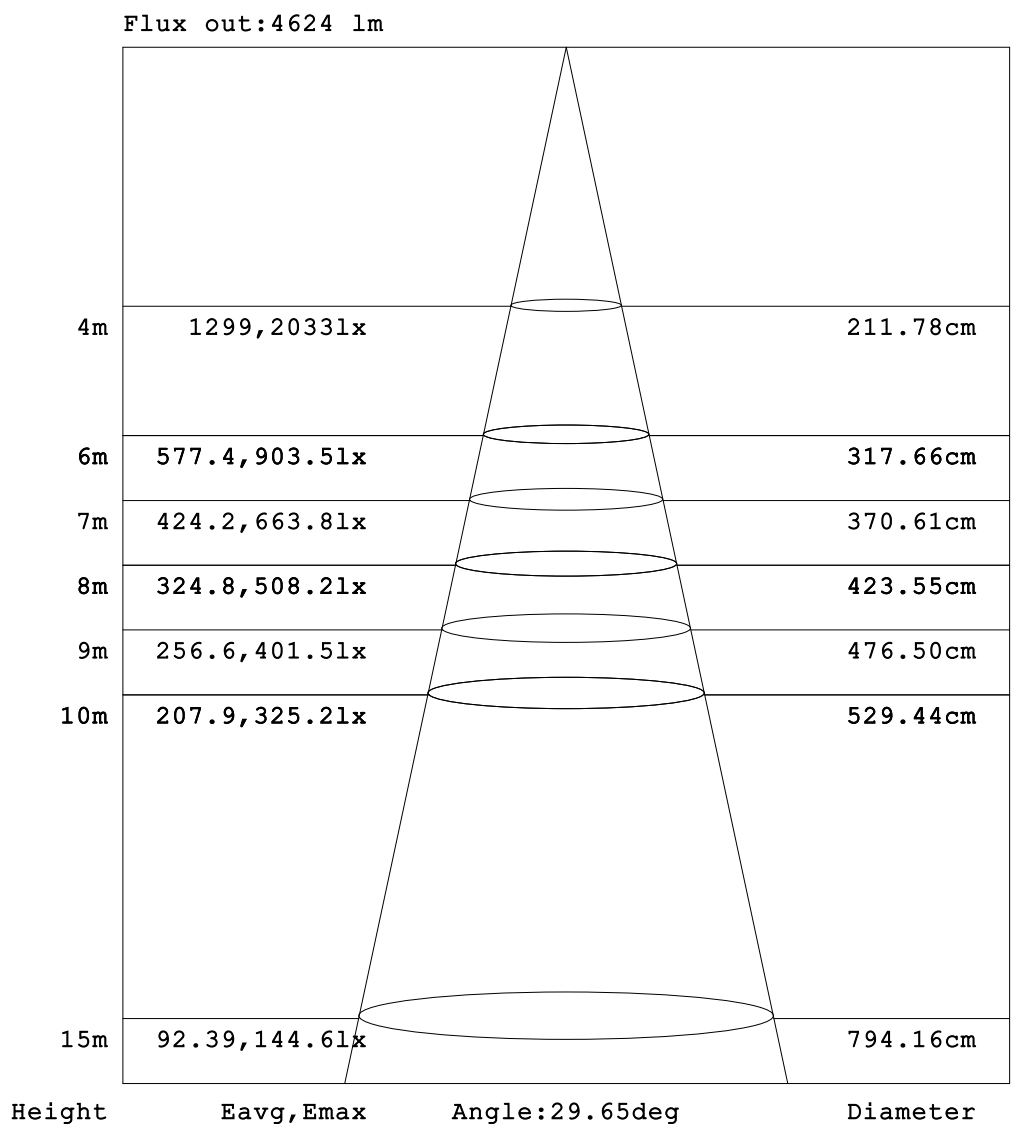
## ISOCANDELA DIAGRAM



C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: LYJ  
Test Date: 2020-09-01

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.1DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
Humidity: 65.0%  
Test Distance: 26.000m [K=0.4594]  
Remarks:

### AAI Figure



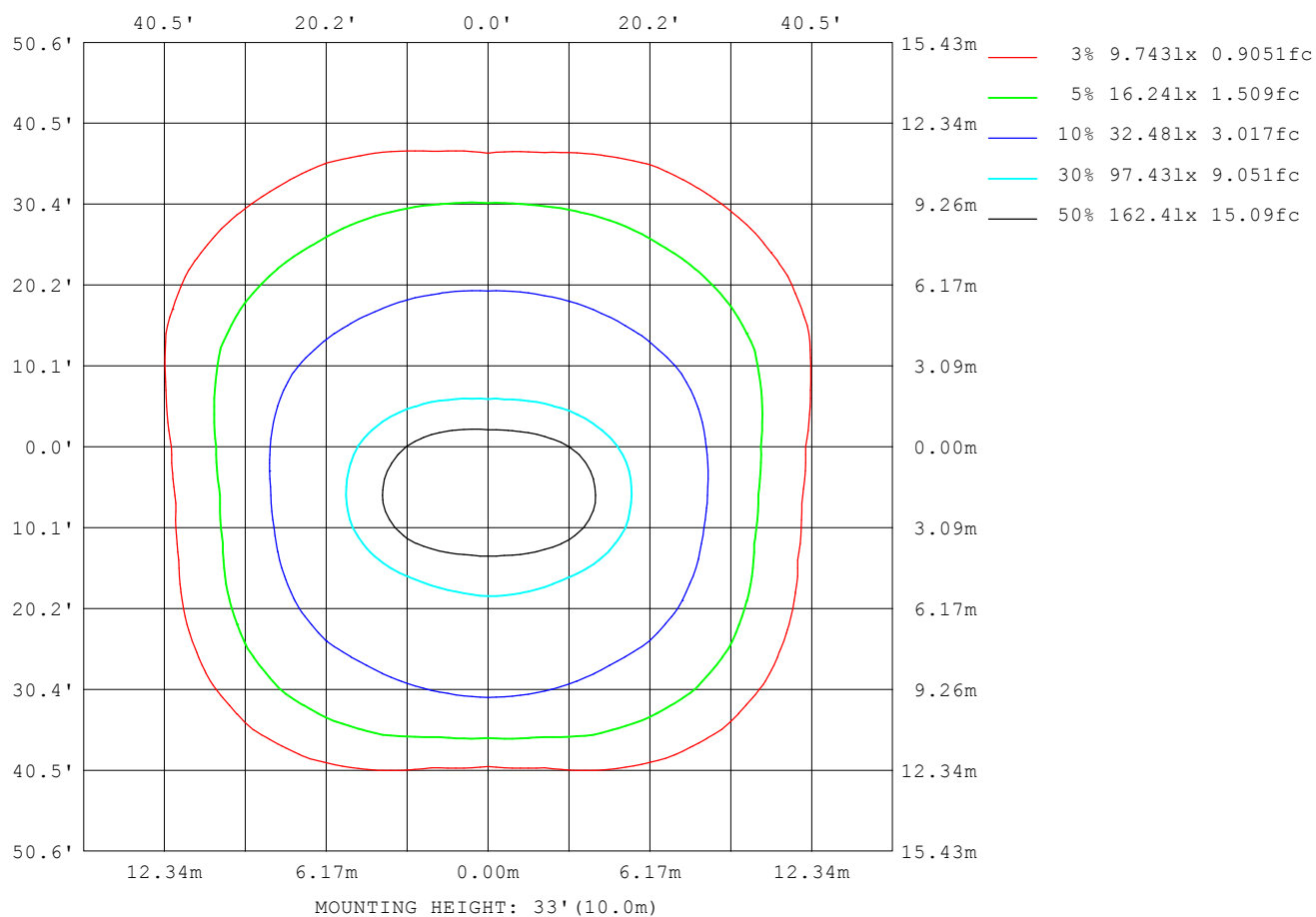
**Note:** The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: LYJ  
 Test Date: 2020-09-01

γ Range: 0 - 90DEG  
 γ Interval: 0.1DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
 Humidity: 65.0%  
 Test Distance: 26.000m [K=0.4594]  
 Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

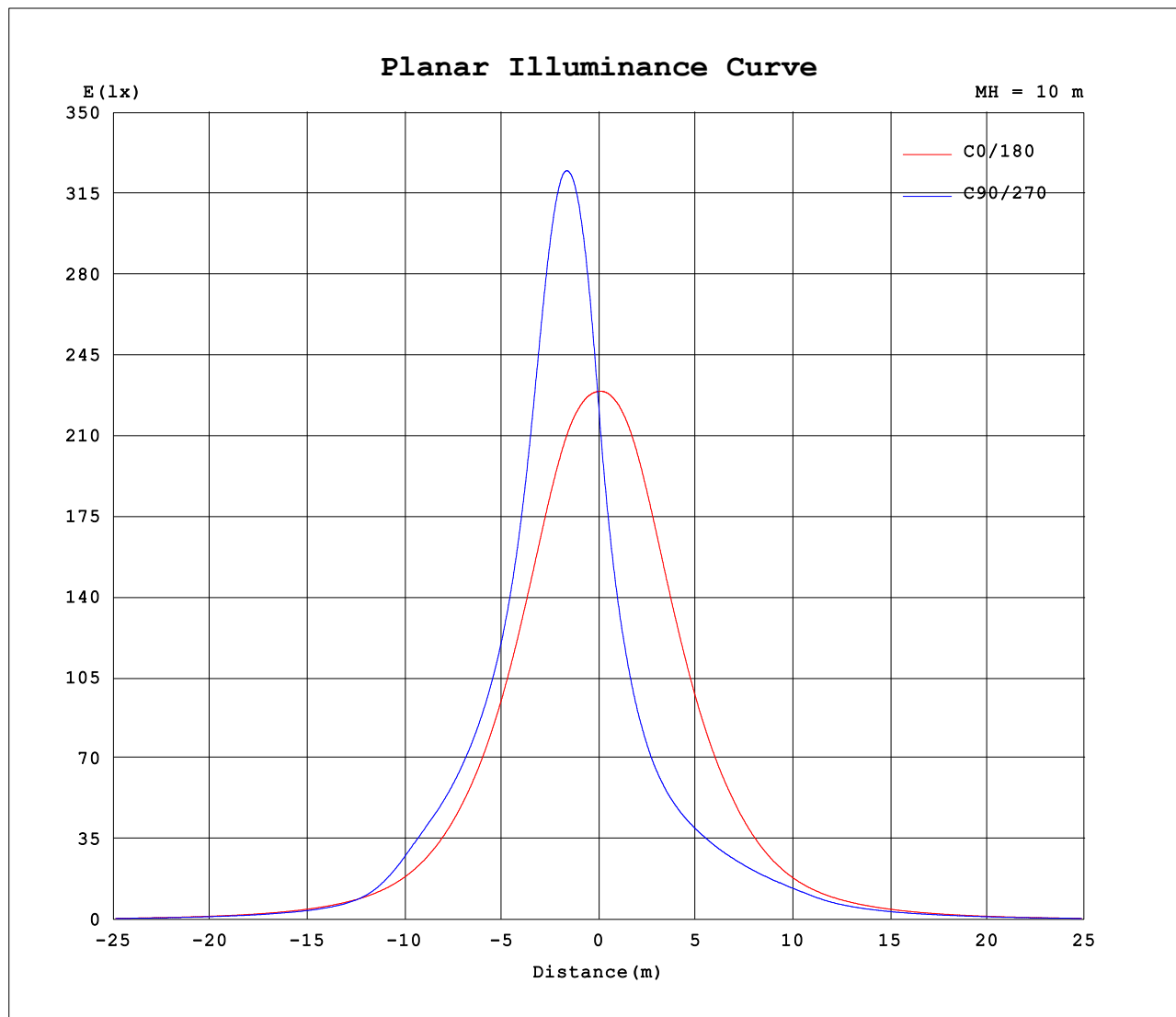
## ISOLUX DIAGRAM



C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: LYJ  
Test Date: 2020-09-01

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.1DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
Humidity: 65.0%  
Test Distance: 26.000m [K=0.4594]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: LYJ  
Test Date: 2020-09-01

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.1DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.426  
Humidity: 65.0%  
Test Distance: 26.000m [K=0.4594]  
Remarks: