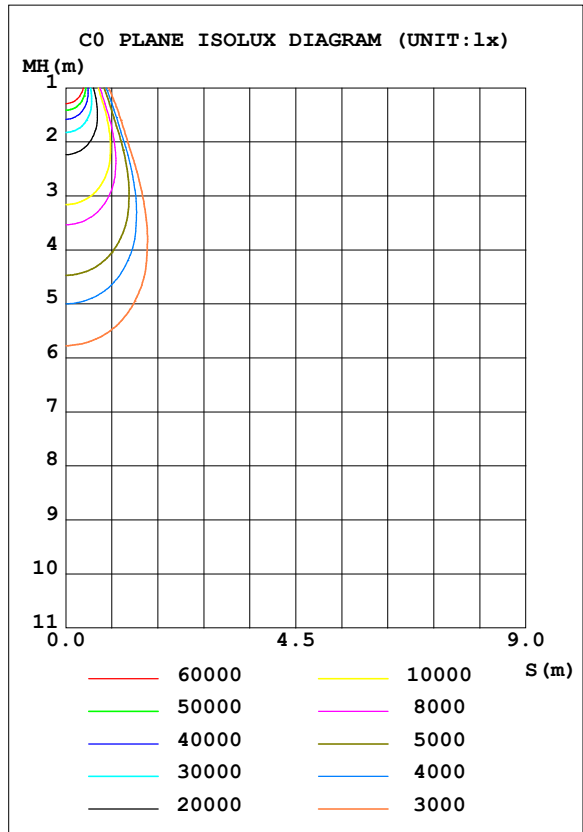
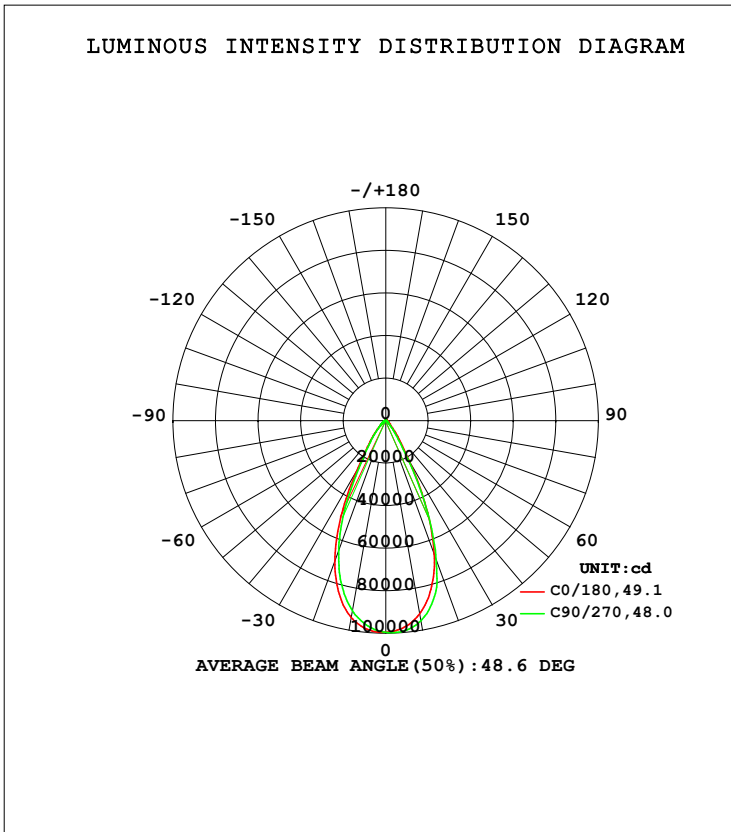


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:229.3V I:2.0529A P:460.67W PF:0.9785 Freq:50.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:67377.1lx1 lm		
NAME: FL05-480-5070-S32702 (55deg)+VISOR	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 146.26 lm/W			
MODEL	/	I <sub>max</sub> (cd)	99774	S/MH (C0/180)	0.76
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.73
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	67377	η UP, DN (C0-180)	0.0, 48.0
NOMINAL FLUX (lm)	67377.1	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 52.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	0.75



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: LYJ  
 Test Date: 2021-12-29

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.446  
 Humidity: 65.0%  
 Test Distance: 26.000m [K=0.4536]  
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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**ZONAL FLUX DIAGRAM**

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	9221	9427	9546	9540	9393	9196	9075	9069	0- 10	9204	9204	13.7,13.7
20	6679	6743	6945	7218	7011	6648	6501	6464	10- 20	22989	32194	47.8,47.8
30	2279	2091	2106	2580	2751	2485	2420	2423	20- 30	20755	52948	78.6,78.6
40	657.6	486.4	465.4	674.0	899.8	837.9	825.3	827.4	30- 40	8225	61174	90.8,90.8
50	190.4	97.93	90.22	183.2	313.6	339.4	330.8	316.1	40- 50	3166	64340	95.5,95.5
60	89.11	0.9773	0.3261	75.12	168.8	190.4	188.7	176.0	50- 60	1418	65758	97.6,97.6
70	48.47	0.1102	0.0473	33.14	103.4	123.9	121.5	109.8	60- 70	855.4	66613	98.9,98.9
80	21.54	0.4562	0.4759	12.01	51.96	67.69	68.22	57.15	70- 80	523.3	67137	99.6,99.6
90	1.888	2.185	2.778	2.619	3.224	4.391	4.235	3.435	80- 90	240.5	67377	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:X10cd									UNIT:lm		

Conical surface Flux(90deg): 63133 lm

%lum = 93.7%

%lamp = 93.7%

Conical surface Flux(120deg): 65758 lm

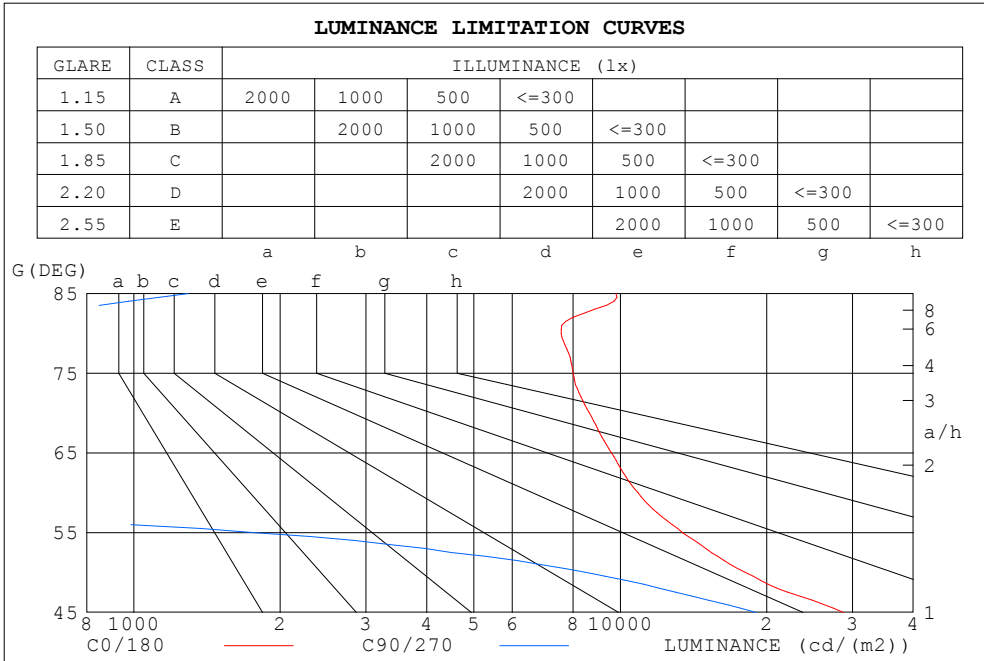
%lum = 97.6%

%lamp = 97.6%

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:LYJ  
 Test Date:2021-12-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.446  
 Humidity:65.0%  
 Test Distance:26.000m [K=0.4536]  
 Remarks:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	9793	1294
80	7564	166
75	8000	21
70	8644	8
65	9591	8
60	10869	40
55	13436	1771
50	18067	8515
45	28743	18983

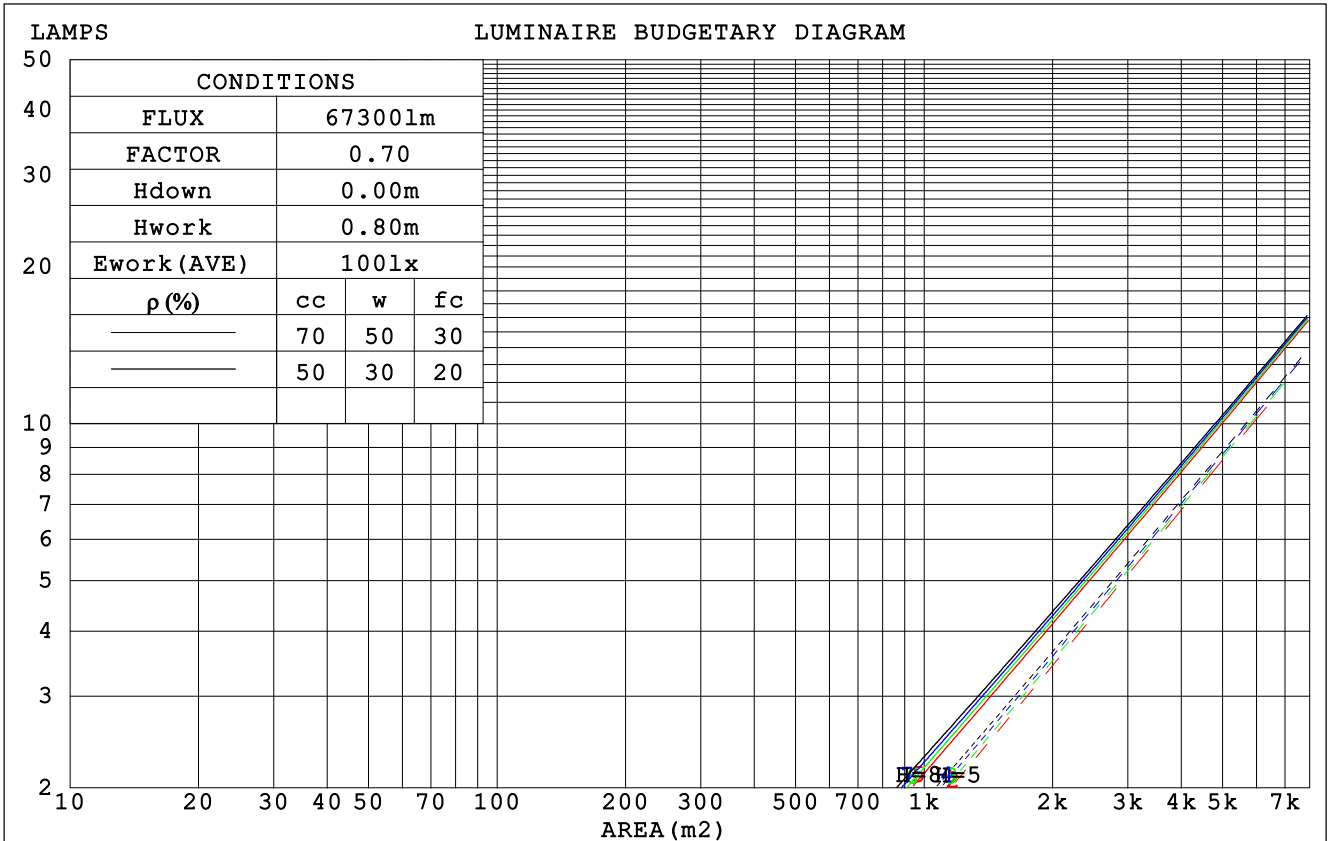
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: LYJ  
 Test Date: 2021-12-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.446  
 Humidity: 65.0%  
 Test Distance: 26.000m [K=0.4536]  
 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	1.08	1.06	1.09	1.06	1.04	1.04	1.03	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.96	1.01	.98	.95	.98	.95	.93	.95	.93	.91	.93	.91	.89	.87
3.0	.97	.92	.88	.95	.91	.87	.93	.89	.86	.90	.87	.84	.88	.85	.83	.82
4.0	.91	.85	.81	.90	.85	.81	.87	.83	.80	.85	.82	.79	.84	.81	.78	.77
5.0	.85	.80	.76	.85	.79	.75	.83	.78	.75	.81	.77	.74	.80	.76	.73	.72
6.0	.81	.75	.71	.80	.75	.71	.78	.74	.70	.77	.73	.70	.76	.72	.69	.68
7.0	.76	.71	.67	.76	.70	.66	.74	.70	.66	.73	.69	.66	.72	.68	.65	.64
8.0	.72	.67	.63	.72	.67	.63	.71	.66	.63	.70	.65	.62	.69	.65	.62	.61
9.0	.69	.63	.60	.68	.63	.59	.68	.63	.59	.67	.62	.59	.66	.62	.59	.58
10.0	.66	.60	.57	.65	.60	.56	.64	.60	.56	.64	.59	.56	.63	.59	.56	.55



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: LYJ  
 Test Date: 2021-12-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.446  
 Humidity: 65.0%  
 Test Distance: 26.000m [K=0.4536]  
 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	.180	.102	.032	.173	.099	.031	.160	.092	.029	.149	.086	.028	.138	.080	.026	
2.0	.169	.093	.028	.164	.090	.028	.153	.085	.026	.143	.080	.025	.134	.076	.024	
3.0	.160	.085	.025	.155	.083	.025	.146	.079	.024	.137	.075	.023	.130	.072	.022	
4.0	.151	.078	.023	.147	.077	.023	.139	.074	.022	.132	.071	.021	.125	.068	.021	
5.0	.143	.073	.021	.139	.071	.021	.132	.069	.020	.126	.067	.020	.120	.064	.019	
6.0	.136	.068	.019	.132	.067	.019	.127	.065	.019	.121	.063	.018	.116	.061	.018	
7.0	.129	.064	.018	.126	.063	.018	.121	.061	.018	.116	.060	.017	.112	.058	.017	
8.0	.123	.060	.017	.121	.059	.017	.116	.058	.017	.112	.057	.016	.108	.055	.016	
9.0	.118	.057	.016	.116	.056	.016	.111	.055	.016	.108	.054	.015	.104	.053	.015	
10.0	.113	.054	.015	.111	.054	.015	.107	.052	.015	.104	.051	.015	.100	.050	.014	

$\rho_{cc}$	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	.147	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.133	.113	.134	.114	.098	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.143	.114	.090	.123	.098	.078	.084	.068	.055	.049	.040	.032	.016	.013	.011	
4.0	.133	.099	.073	.114	.085	.063	.078	.059	.045	.045	.035	.026	.015	.011	.009	
5.0	.124	.087	.060	.106	.075	.052	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.116	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.109	.070	.043	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.103	.064	.037	.089	.055	.032	.061	.039	.023	.036	.023	.014	.012	.008	.004	
9.0	.098	.058	.032	.084	.051	.028	.058	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.093	.054	.028	.080	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:LYJ  
 Test Date:2021-12-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.446  
 Humidity:65.0%  
 Test Distance:26.000m [K=0.4536]  
 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	10.1	11.1	10.5	11.4	11.7	0.0	0.0	0.0	0.3	0.6
3H	11.3	12.2	11.7	12.6	12.9	0.0	0.0	0.0	0.0	0.3
4H	11.9	12.7	12.3	13.0	13.4	0.0	0.0	0.0	0.0	0.2
6H	12.4	13.1	12.8	13.5	13.9	0.0	0.0	0.0	0.0	0.1
8H	12.6	13.4	13.1	13.8	14.2	0.0	0.0	0.0	0.0	0.1
12H	13.0	13.7	13.4	14.1	14.5	0.0	0.0	0.0	0.0	0.3
4H 2H	9.8	10.6	10.2	11.0	11.4	6.0	6.9	6.5	7.2	7.6
3H	11.0	11.7	11.4	12.1	12.5	6.0	6.7	6.4	7.1	7.5
4H	11.6	12.2	12.0	12.6	13.0	5.9	6.5	6.3	6.9	7.4
6H	12.2	12.7	12.6	13.1	13.6	5.8	6.3	6.3	6.8	7.2
8H	12.5	13.0	13.0	13.4	13.9	5.7	6.2	6.2	6.7	7.1
12H	13.0	13.5	13.5	13.9	14.4	5.7	6.2	6.2	6.6	7.1
8H 4H	11.4	11.9	11.9	12.3	12.8	8.1	8.5	8.5	9.0	9.5
6H	12.0	12.4	12.5	12.9	13.3	8.0	8.4	8.5	8.9	9.4
8H	12.3	12.7	12.9	13.2	13.7	7.9	8.3	8.5	8.8	9.3
12H	13.0	13.3	13.5	13.8	14.4	7.9	8.2	8.5	8.7	9.3
12H 4H	11.3	11.7	11.8	12.2	12.7	8.6	9.0	9.1	9.5	10.0
6H	11.9	12.2	12.4	12.7	13.3	8.7	9.1	9.3	9.6	10.1
8H	12.3	12.6	12.8	13.1	13.7	8.8	9.1	9.3	9.6	10.1
CIE190: 2010										

CIE190: 2010  
Area: 0.16475 m2

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:LYJ  
Test Date:2021-12-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.446  
Humidity:65.0%  
Test Distance:26.000m [K=0.4536]  
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

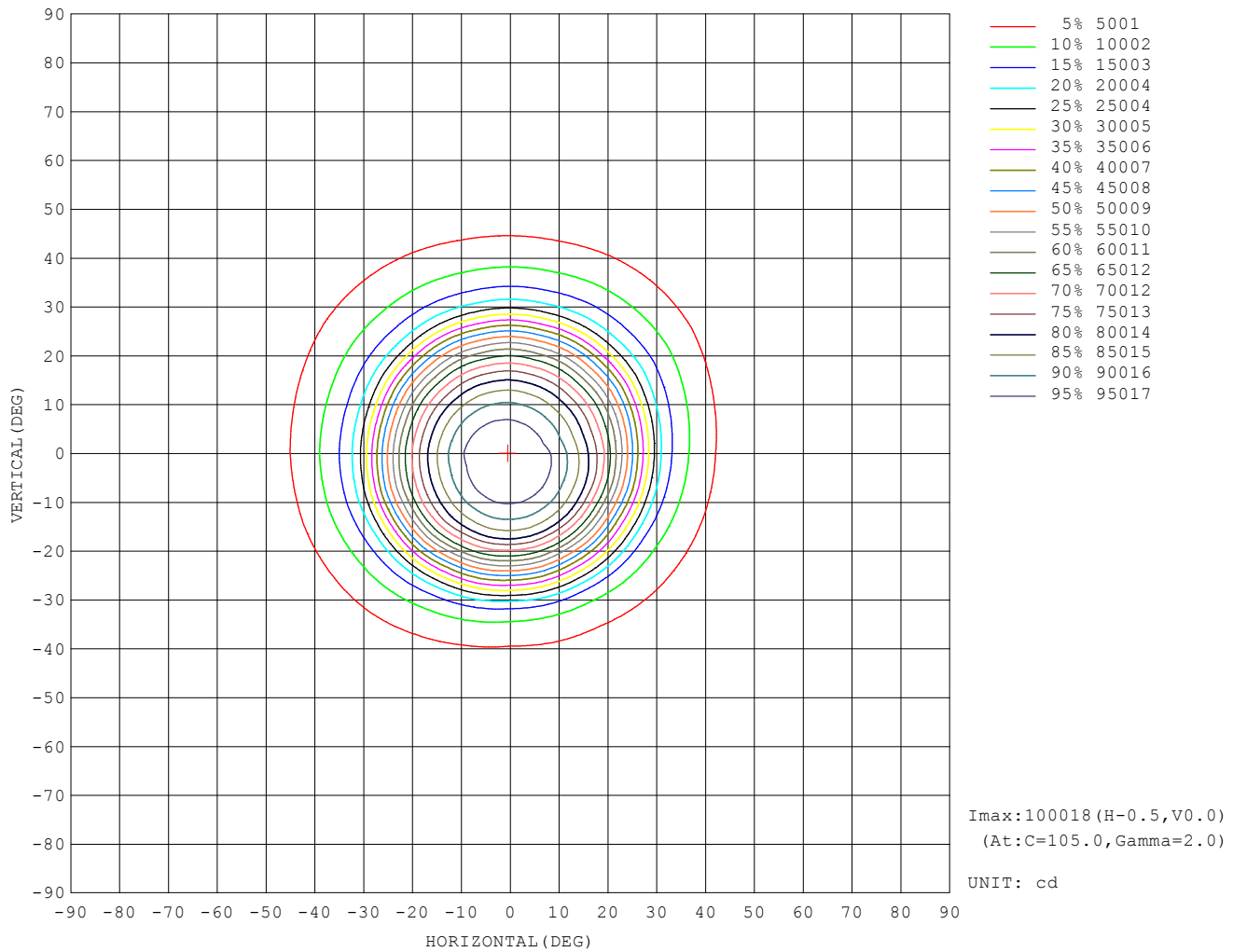
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	86	79	75	85	79	75	85	79	75	71
0.80	93	87	83	93	87	83	91	86	83	79
1.00	98	92	88	97	92	88	95	92	87	83
1.25	102	97	93	101	96	93	99	95	92	87
1.50	105	100	96	104	99	96	101	98	95	90
2.00	108	103	100	106	102	99	104	100	98	92
2.50	110	106	102	108	104	101	105	102	100	94
3.00	111	108	105	109	106	104	106	103	101	95
4.00	113	110	108	111	109	107	108	106	104	97
5.00	115	112	110	112	110	109	108	107	106	98
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: LYJ  
 Test Date: 2021-12-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.446  
 Humidity: 65.0%  
 Test Distance: 26.000m [K=0.4536]  
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

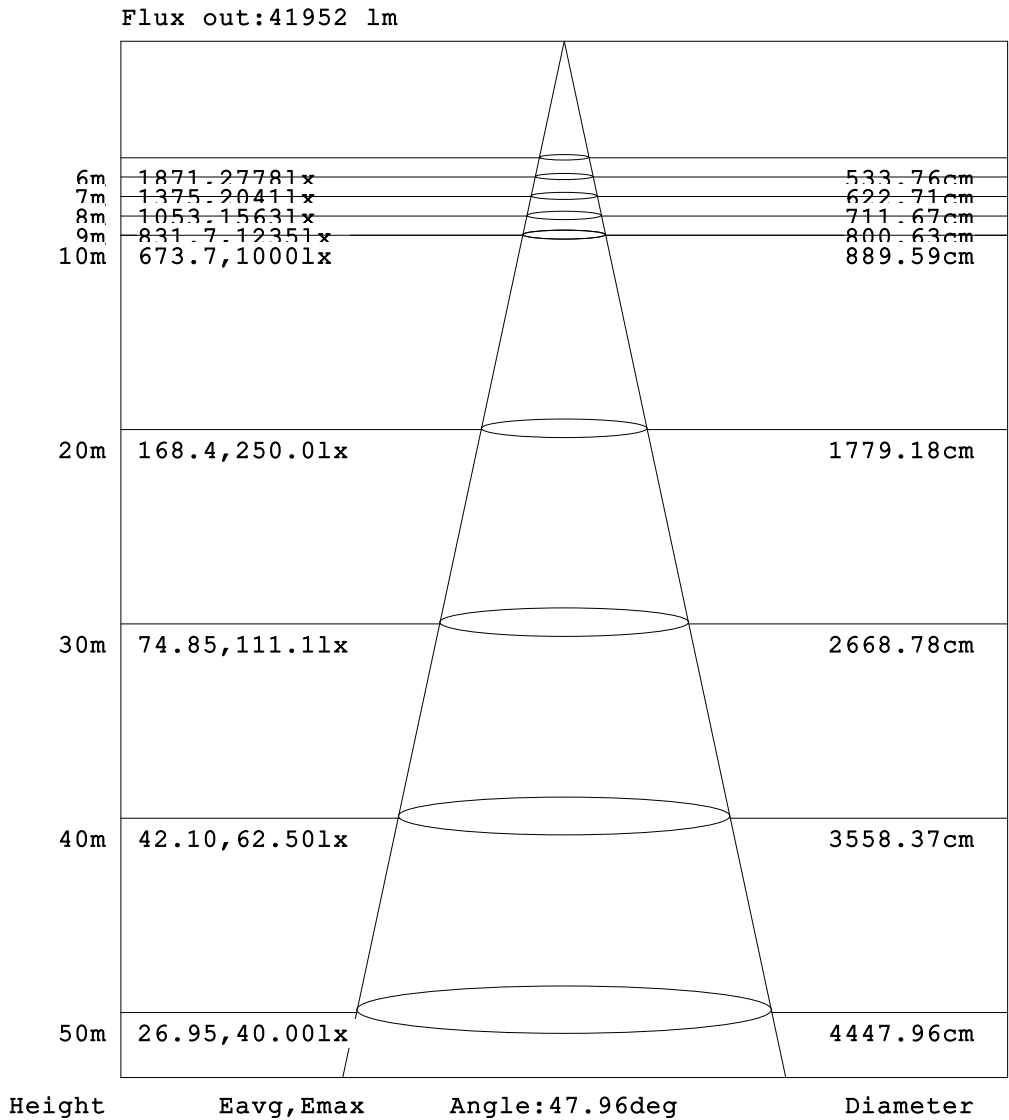


C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:LYJ  
Test Date:2021-12-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.446  
Humidity:65.0%  
Test Distance:26.000m [K=0.4536]  
Remarks:



AAI Figure



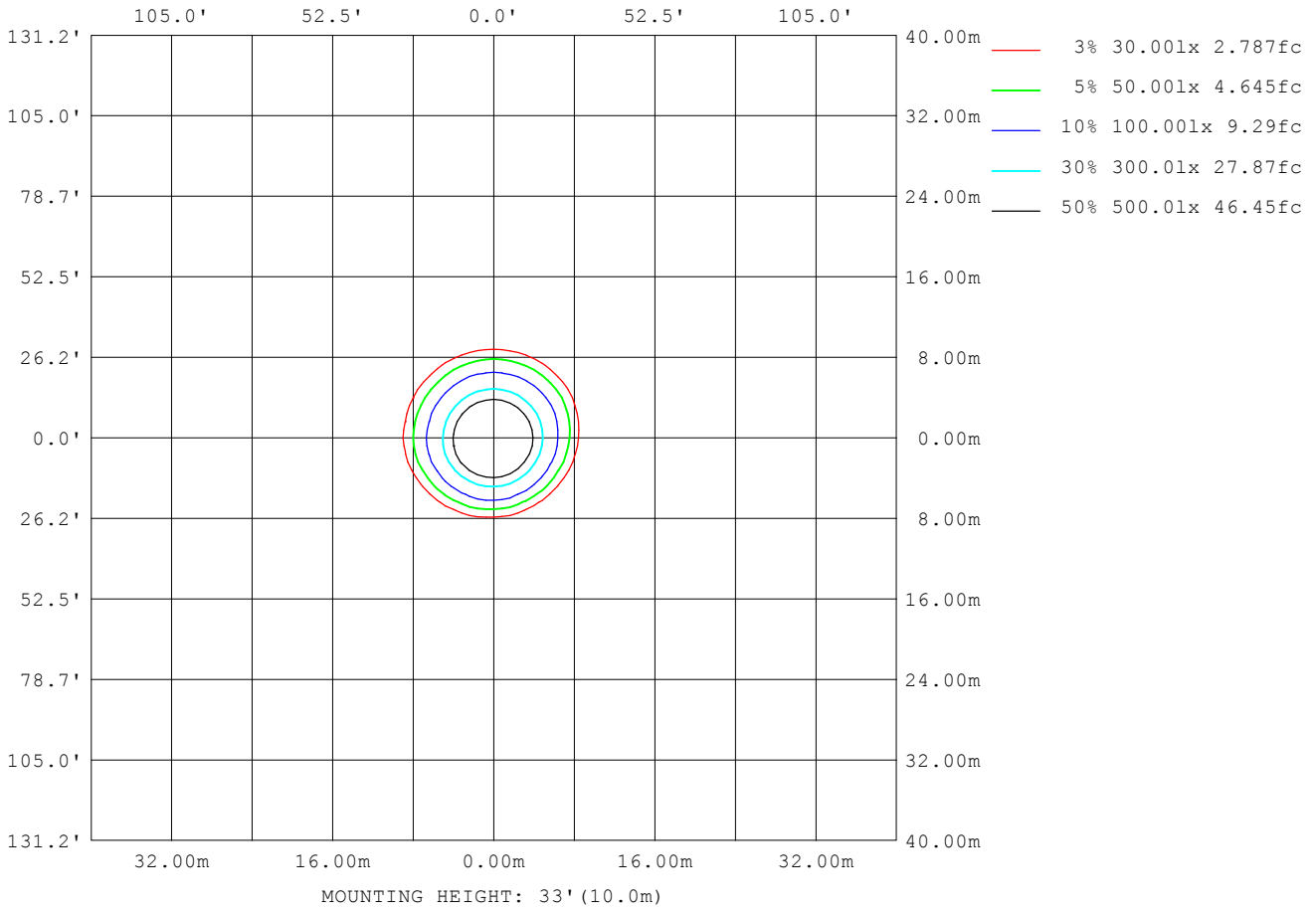
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: LYJ  
 Test Date: 2021-12-29

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.446  
 Humidity: 65.0%  
 Test Distance: 26.000m [K=0.4536]  
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

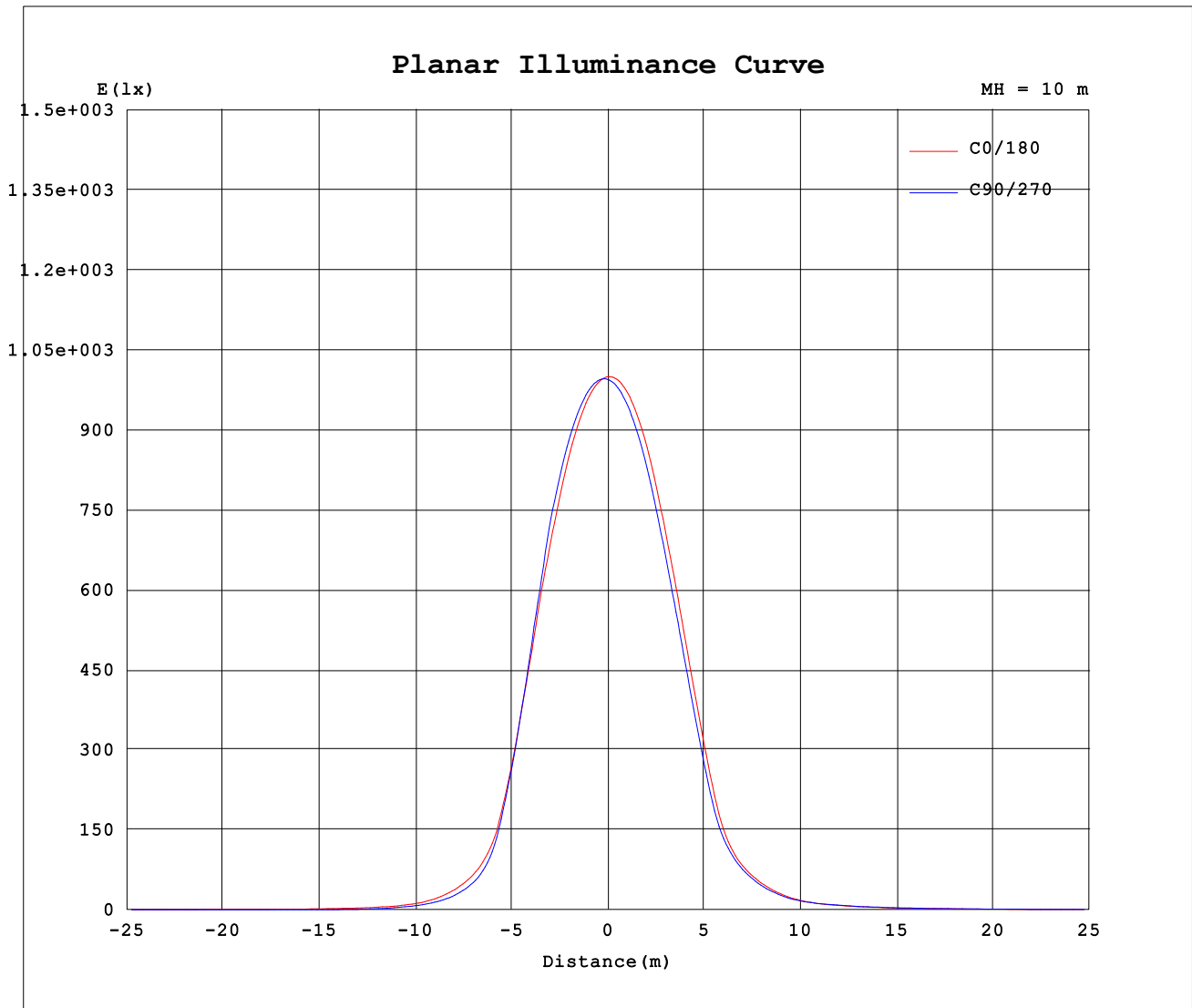
ISOLUX DIAGRAM



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: LYJ  
 Test Date: 2021-12-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.446  
 Humidity: 65.0%  
 Test Distance: 26.000m [K=0.4536]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:LYJ  
Test Date:2021-12-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.446  
Humidity:65.0%  
Test Distance:26.000m [K=0.4536]  
Remarks: