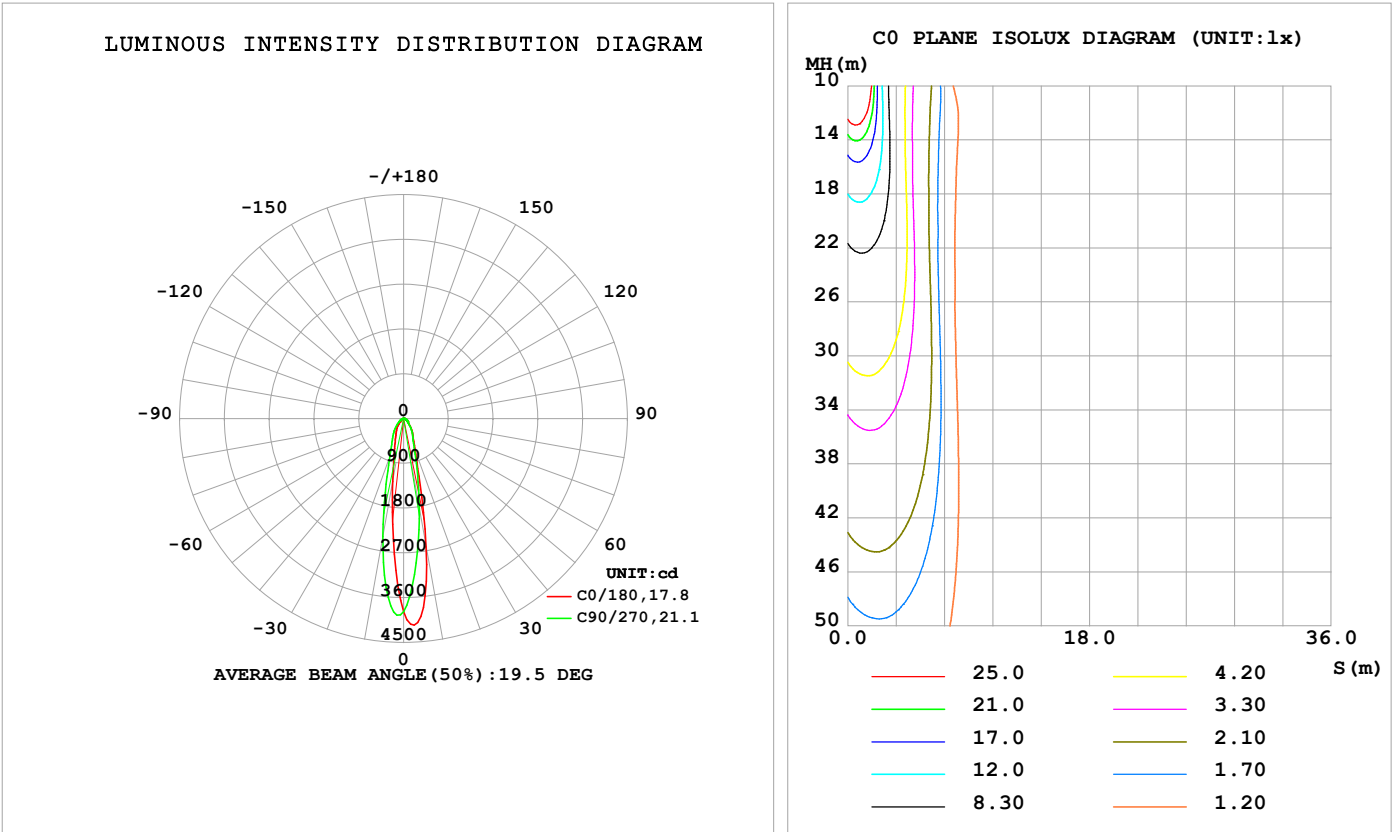


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.00V I:0.7578A P:18.19W PF:1.000 Freq:0Hz		
Lamp Flux:1286.77x1 lm		
NAME: SFW20-24V-3535-24-CC-3000-80-24	TYPE:	WEIGHT:
SPEC.:	DIM.: Length=1m	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 70.75 lm/W
MODEL		Imax (cd)	4242	S/MH (C0/180)		0.23
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)		0.41
RATED VOLTAGE (V)		TOTAL FLUX (lm)	1286.8	η UP,DN (C0-180)		0.0,46.6
NOMINAL FLUX (lm)	1286.77	CIE CLASS	DIRECT	η UP,DN (C180-360)		0.0,53.4
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM		0.00
TEST VOLTAGE (V)		η down (%)	100.0	CIBSE SHR MAX		1.00



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:Cloud  
Test Date:2024-10-15

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.488  
Humidity:65.0%  
Test Distance:6.360m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	2621	2115	1834	1388	1287	1576	2407	3104	0- 10	268.5	268.5	20.9,20.9
20	691.0	664.8	627.5	507.7	507.0	623.3	820.1	839.0	10- 20	316.1	584.6	45.4,45.4
30	370.1	363.6	362.0	291.6	299.6	360.9	448.2	417.2	20- 30	218.4	803.0	62.4,62.4
40	213.7	197.1	202.2	170.4	165.7	208.2	274.9	263.4	30- 40	178.5	981.5	76.3,76.3
50	110.9	107.9	112.0	104.2	100.5	114.7	145.8	134.5	40- 50	120.2	1102	85.6,85.6
60	73.19	73.62	71.76	67.10	66.41	77.16	86.77	82.51	50- 60	83.88	1186	92.1,92.1
70	42.55	42.95	42.75	39.73	37.95	44.23	51.64	48.60	60- 70	57.98	1244	96.6,96.6
80	16.95	18.35	20.19	18.06	16.20	18.18	23.27	21.29	70- 80	32.54	1276	99.2,99.2
90	3.726	3.801	4.178	3.956	3.577	3.735	3.983	3.751	80- 90	10.65	1287	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:cd									UNIT:lm		

Conical surface Flux(90deg): 1048.2 lm

%lum = 81.5%

%lamp = 81.5%

Conical surface Flux(130deg): 1217.8 lm

%lum = 94.6%

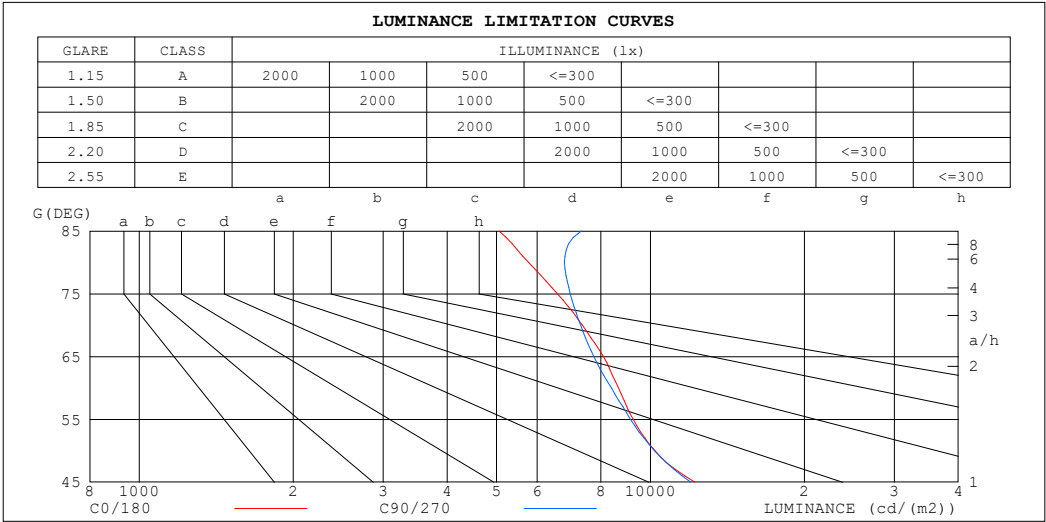
%lamp = 94.6%

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3℃  
 Operators:Cloud  
 Test Date:2024-10-15

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.488  
 Humidity:65.0%  
 Test Distance:6.360m [K=1.0000]  
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.00V I:0.7578A P:18.19W PF:1.000 Freq:0Hz Lamp Flux:1286.77x1 lm		
NAME: SFW20-24V-3535-24-CC-3000-80-24	TYPE:	WEIGHT:
SPEC.:	DIM.: Length=1m	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



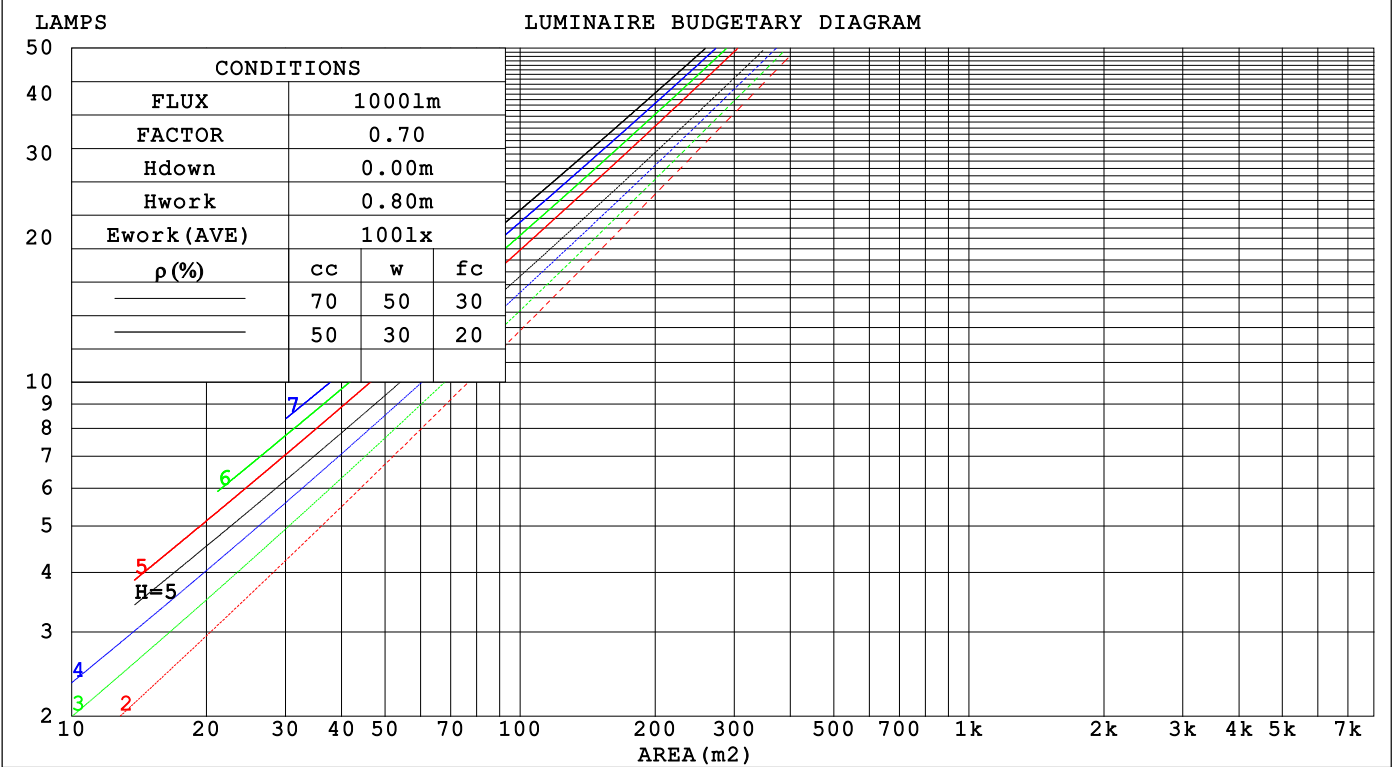
LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	5056	7327
80	5774	6789
75	6577	6966
70	7358	7299
65	8088	7746
60	8658	8381
55	9252	9135
50	10201	10178
45	12219	11997

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 22.5DEG	γ Interval: 1.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.488
Temperature:25.3℃	Humidity:65.0%
Operators:Cloud	Test Distance:6.360m [K=1.0000]
Test Date:2024-10-15	Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.00V I:0.7578A P:18.19W PF:1.000 Freq:0Hz		
Lamp Flux:1286.77x1 lm		
NAME: SFW20-24V-3535-24-CC-3000-80-24	TYPE:	WEIGHT:
SPEC.:	DIM.: Length=1m	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
p <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
p <sub>fc</sub>	20%			20%			20%			20%			20%			0
RCR	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	.00
1.0	1.09	1.06	1.04	1.07	1.04	1.02	1.03	1.01	.99	.99	.97	.96	.96	.94	.93	.91
2.0	1.00	.96	.92	.98	.94	.91	.95	.92	.89	.92	.89	.87	.89	.87	.85	.83
3.0	.93	.87	.83	.91	.86	.82	.89	.84	.81	.86	.82	.79	.84	.81	.78	.76
4.0	.86	.80	.76	.85	.79	.75	.83	.78	.74	.81	.77	.73	.79	.75	.72	.71
5.0	.81	.75	.70	.80	.74	.70	.78	.73	.69	.76	.72	.68	.75	.71	.68	.66
6.0	.76	.70	.65	.75	.69	.65	.74	.68	.64	.72	.68	.64	.71	.67	.64	.62
7.0	.72	.66	.61	.71	.65	.61	.70	.65	.61	.69	.64	.60	.68	.63	.60	.59
8.0	.68	.62	.58	.68	.62	.58	.66	.61	.57	.65	.61	.57	.64	.60	.57	.56
9.0	.65	.59	.55	.64	.59	.55	.63	.58	.55	.63	.58	.54	.62	.57	.54	.53
10.0	.62	.56	.52	.62	.56	.52	.61	.56	.52	.60	.55	.52	.59	.55	.52	.50



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:Cloud  
Test Date:2024-10-15

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.488  
Humidity:65.0%  
Test Distance:6.360m [K=1.0000]  
Remarks:

## WEC AND CCEC

Test:U:24.00V I:0.7578A P:18.19W PF:1.000 Freq:0Hz Lamp Flux:1286.77x1 lm					
NAME: SFW20-24V-3535-24-CC-3000-80-24			TYPE:		WEIGHT:
SPEC.:			DIM.: Length=1m		SERIAL No.:
MFR.:			SUR.:		Shielding Angle:

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	.210	.120	.038	.203	.116	.037	.191	.109	.035	.179	.103	.033	.168	.097	.031															
2.0	.198	.108	.033	.192	.106	.033	.181	.101	.031	.171	.096	.030	.162	.091	.029															
3.0	.184	.098	.029	.179	.096	.029	.170	.092	.028	.161	.088	.027	.153	.085	.026															
4.0	.172	.089	.026	.168	.088	.026	.159	.085	.025	.152	.082	.025	.145	.079	.024															
5.0	.161	.082	.024	.157	.081	.023	.150	.078	.023	.143	.076	.022	.137	.073	.022															
6.0	.151	.075	.022	.147	.074	.021	.141	.072	.021	.135	.070	.021	.130	.068	.020															
7.0	.142	.070	.020	.139	.069	.020	.133	.067	.019	.128	.066	.019	.123	.064	.019															
8.0	.134	.065	.018	.131	.065	.018	.126	.063	.018	.122	.062	.018	.117	.060	.018															
9.0	.126	.061	.017	.124	.061	.017	.120	.059	.017	.116	.058	.017	.112	.057	.016															
10.0	.120	.058	.016	.118	.057	.016	.114	.056	.016	.110	.055	.016	.107	.054	.015															

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	.173	.157	.142	.148	.135	.122	.101	.093	.085	.058	.054	.049	.019	.017	.016	
2.0	.160	.132	.109	.137	.114	.095	.094	.079	.066	.054	.046	.039	.017	.015	.013	
3.0	.148	.114	.086	.127	.098	.075	.087	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.138	.099	.070	.118	.086	.061	.081	.060	.043	.047	.035	.025	.015	.011	.008	
5.0	.129	.088	.058	.111	.076	.050	.076	.053	.035	.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	.107	.065	.035	.093	.056	.031	.064	.039	.022	.037	.023	.013	.012	.008	.004	
9.0	.102	.059	.031	.088	.052	.027	.061	.036	.019	.035	.021	.011	.011	.007	.004	
10.0	.097	.055	.027	.083	.048	.024	.058	.034	.017	.034	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:Cloud  
Test Date:2024-10-15

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.488  
Humidity:65.0%  
Test Distance:6.360m [K=1.0000]  
Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.00V I:0.7578A P:18.19W PF:1.000 Freq:0Hz Lamp Flux:1286.77x1 lm											
NAME: SFW20-24V-3535-24-CC-3000-80-24						TYPE:		WEIGHT:			
SPEC.:						DIM.: Length=1m		SERIAL No.:			
MFR.:						SUR.:		Shielding Angle:			
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	2H	17.2	18.2	17.4	18.4	18.5	17.1	18.1	17.3	18.3	18.4
	3H	18.3	19.2	18.6	19.4	19.7	18.2	19.1	18.4	19.3	19.5
	4H	18.7	19.6	19.0	19.9	20.1	18.7	19.6	19.0	19.8	20.0
	6H	19.0	19.9	19.3	20.1	20.4	19.1	19.9	19.4	20.2	20.4
	8H	19.1	19.9	19.4	20.2	20.5	19.2	20.1	19.6	20.3	20.6
	12H	19.2	20.0	19.5	20.2	20.5	19.4	20.2	19.7	20.4	20.7
4H	2H	17.6	18.5	17.9	18.8	19.0	17.5	18.5	17.8	18.7	18.9
	3H	18.9	19.7	19.3	20.0	20.3	18.8	19.6	19.2	19.9	20.2
	4H	19.5	20.2	19.8	20.5	20.8	19.5	20.2	19.8	20.5	20.8
	6H	19.9	20.5	20.3	20.9	21.2	20.0	20.6	20.4	21.0	21.3
	8H	20.0	20.6	20.4	21.0	21.4	20.2	20.8	20.6	21.2	21.5
	12H	20.1	20.7	20.5	21.0	21.4	20.4	21.0	20.8	21.3	21.7
8H	4H	19.7	20.3	20.1	20.6	21.0	19.7	20.3	20.1	20.6	21.0
	6H	20.2	20.7	20.6	21.1	21.5	20.3	20.8	20.8	21.2	21.7
	8H	20.4	20.9	20.9	21.3	21.7	20.6	21.1	21.1	21.5	22.0
	12H	20.6	21.0	21.0	21.4	21.9	20.9	21.3	21.4	21.8	22.2
12H	4H	19.7	20.2	20.1	20.6	21.0	19.7	20.2	20.1	20.6	21.0
	6H	20.3	20.7	20.7	21.1	21.6	20.4	20.8	20.8	21.2	21.7
	8H	20.5	20.9	21.0	21.3	21.8	20.7	21.1	21.2	21.6	22.0
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 0.3 / - 0.4					+ 0.3 / - 0.4				
1.5H		+ 0.5 / - 0.3					+ 0.4 / - 0.3				
2.0H		+ 0.3 / - 0.3					+ 0.3 / - 0.4				

CIE Pub.117, 1287 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 0.9$ )  
Area: 0.017 m<sup>2</sup>

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:Cloud  
Test Date:2024-10-15

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.488  
Humidity:65.0%  
Test Distance:6.360m [K=1.0000]  
Remarks:

## UTILIZATION FACTORS TABLE

Test:U:24.00V I:0.7578A P:18.19W PF:1.000 Freq:0Hz Lamp Flux:1286.77x1 lm		
NAME: SFW20-24V-3535-24-CC-3000-80-24	TYPE:	WEIGHT:
SPEC.:	DIM.: Length=1m	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

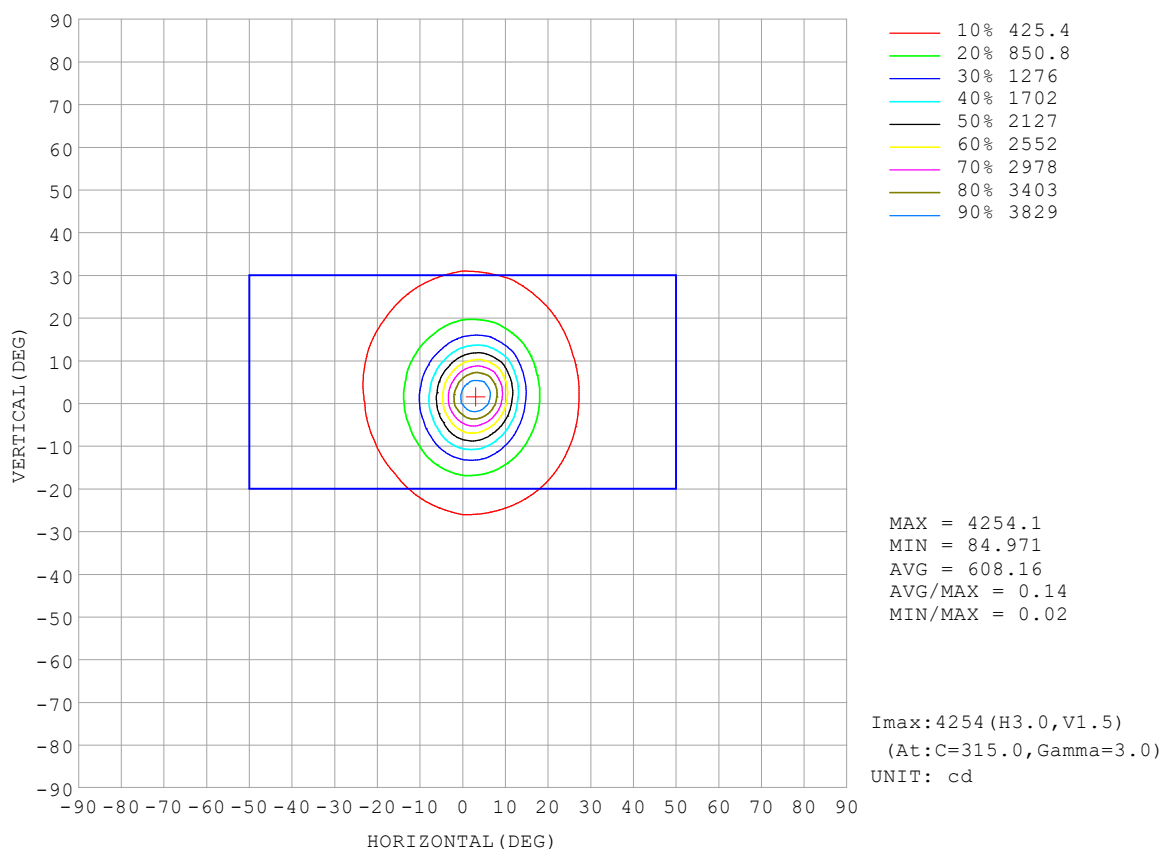
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	77	69	64	76	69	64	75	68	64	59
0.80	85	77	72	84	77	72	83	76	72	67
1.00	91	84	79	90	83	78	88	84	78	73
1.25	96	89	84	95	89	84	93	87	83	78
1.50	100	93	89	98	92	88	96	91	87	81
2.00	104	98	94	102	97	93	99	95	92	85
2.50	106	101	97	105	100	96	101	97	94	88
3.00	108	104	100	107	102	99	103	100	97	90
4.00	111	107	104	109	106	103	105	102	100	92
5.00	113	110	107	111	108	105	106	104	102	94
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators: Cloud  
 Test Date: 2024-10-15

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.488  
 Humidity: 65.0%  
 Test Distance: 6.360m [K=1.0000]  
 Remarks:

## ISOCANDELA DIAGRAM

Test:U:24.00V I:0.7578A P:18.19W PF:1.000 Freq:0Hz Lamp Flux:1286.77x1 lm		
NAME: SFW20-24V-3535-24-CC-3000-80-24	TYPE:	WEIGHT:
SPEC.:	DIM.: Length=1m	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



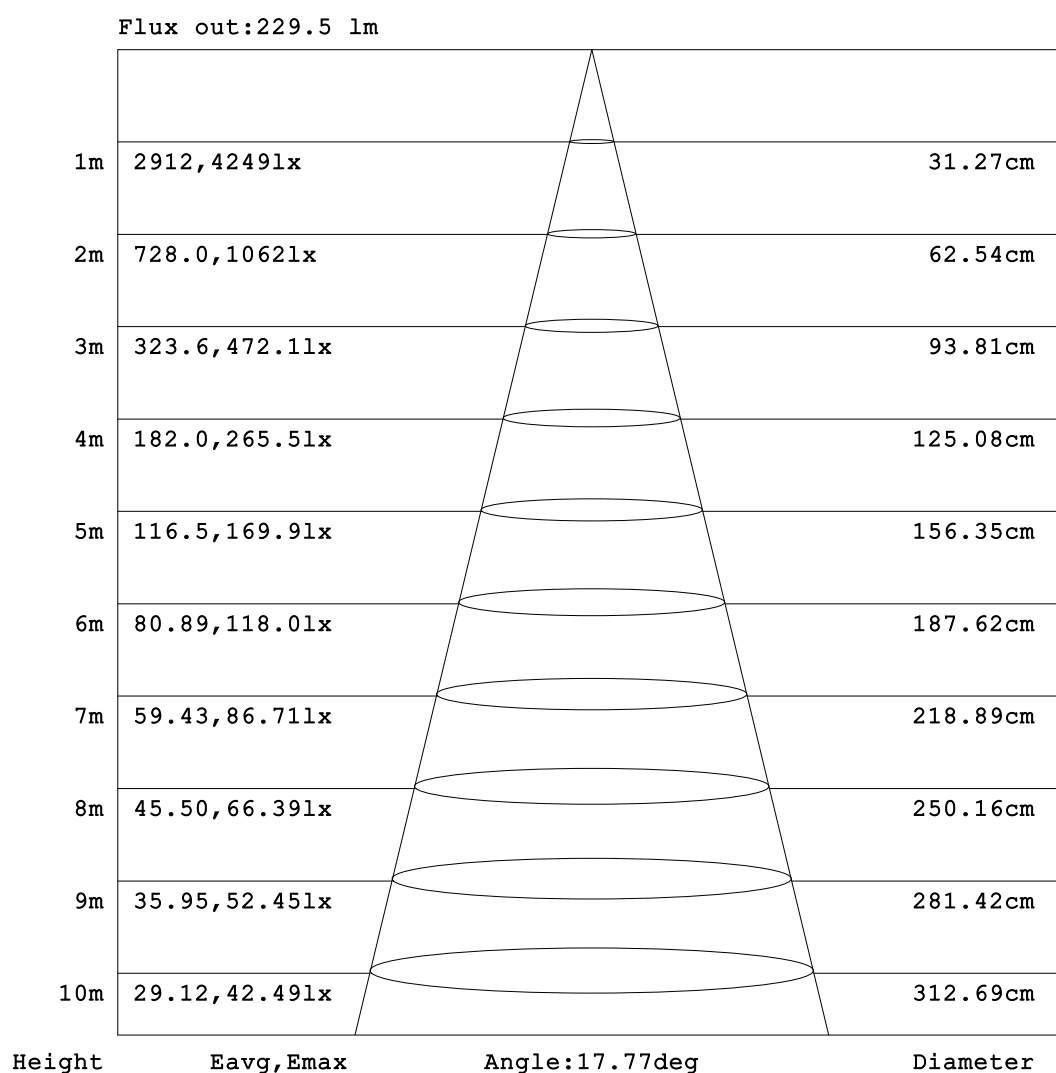
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:Cloud  
Test Date:2024-10-15

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.488  
Humidity:65.0%  
Test Distance:6.360m [K=1.0000]  
Remarks:



## AAI Figure

Test:U:24.00V I:0.7578A P:18.19W PF:1.000 Freq:0Hz Lamp Flux:1286.77x1 lm		
NAME: SFW20-24V-3535-24-CC-3000-80-24	TYPE:	WEIGHT:
SPEC.:	DIM.: Length=1m	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



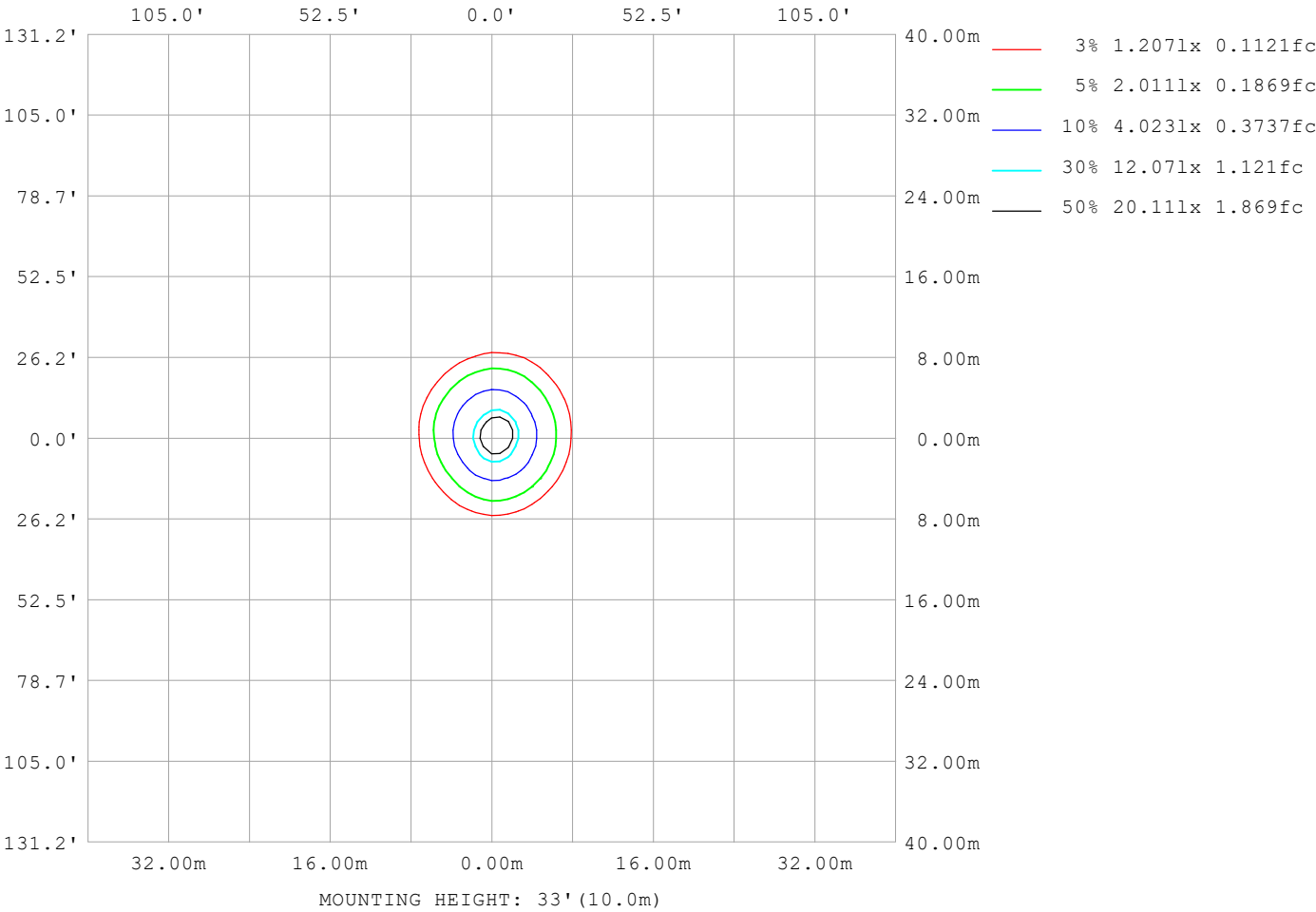
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: Cloud  
Test Date: 2024-10-15

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.488  
Humidity: 65.0%  
Test Distance: 6.360m [K=1.0000]  
Remarks:

ISOLUX DIAGRAM

Test:U:24.00V I:0.7578A P:18.19W PF:1.000 Freq:0Hz Lamp Flux:1286.77x1 lm		
NAME: SFW20-24V-3535-24-CC-3000-80-24	TYPE:	WEIGHT:
SPEC.:	DIM.: Length=1m	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:Cloud  
Test Date:2024-10-15

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.488  
Humidity:65.0%  
Test Distance:6.360m [K=1.0000]  
Remarks:

## LED Avg.L Report

Test:U:24.00V I:0.7578A P:18.19W PF:1.000 Freq:0Hz Lamp Flux:1286.77x1 lm		
NAME: SFW20-24V-3535-24-CC-3000-80-24	TYPE:	WEIGHT:
SPEC.:	DIM.: Length=1m	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

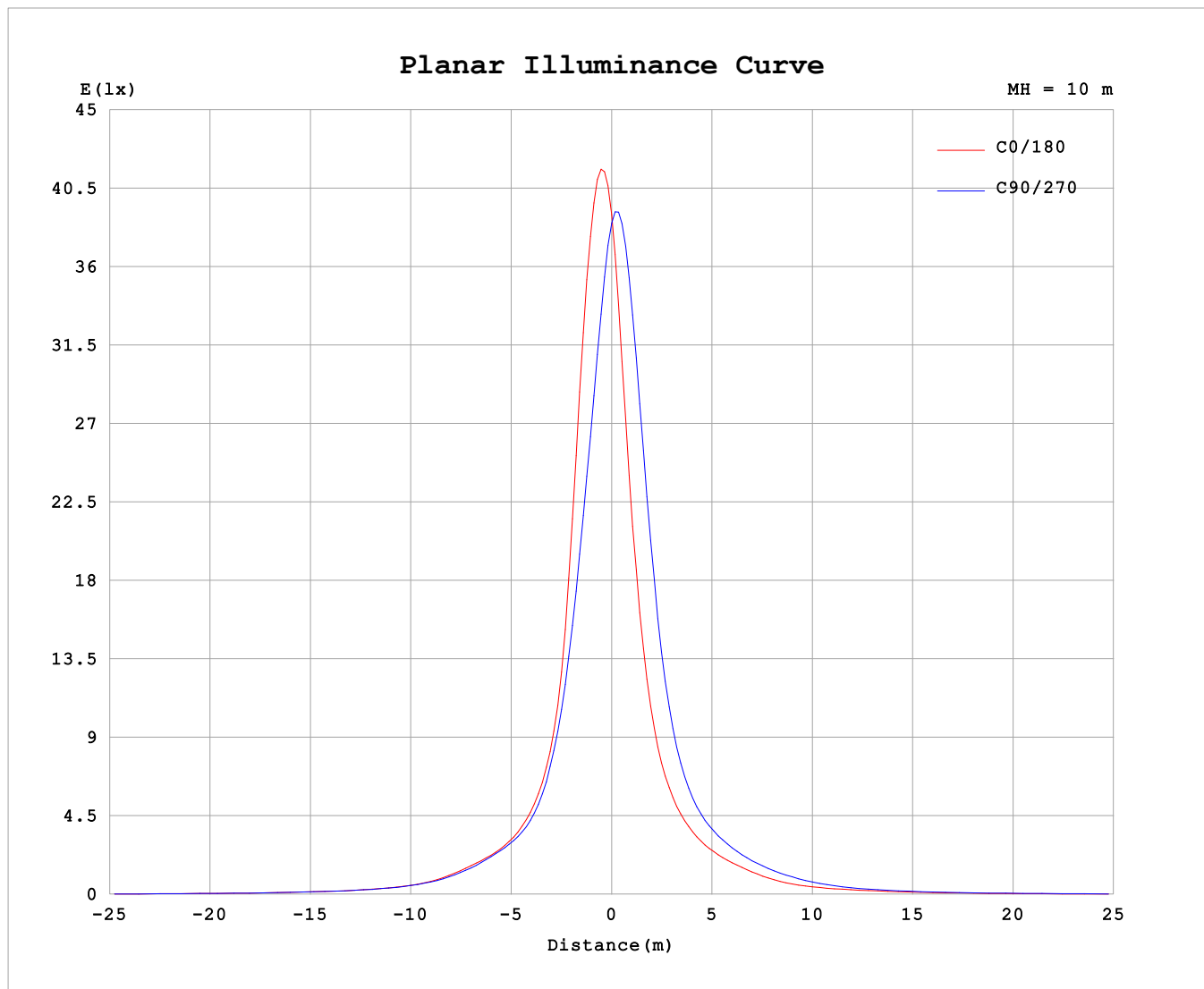
AvgL	cd/m2
L_0~180 (65) av	7522
L_0~180 (75) av	6285
L_0~180 (85) av	4913
L_90~270 (65) av	8648
L_90~270 (75) av	7681
L_90~270 (85) av	7680
L_45 (65) av	8177
L_45 (75) av	6961
L_45 (85) av	5933

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:Cloud  
Test Date:2024-10-15

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.488  
Humidity:65.0%  
Test Distance:6.360m [K=1.0000]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3 °C  
Operators: Cloud  
Test Date: 2024-10-15

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.488  
Humidity: 65.0%  
Test Distance: 6.360m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.7578A P:18.19W PF:1.000 Freq:0Hz Lamp Flux:1286.77x1 lm		
NAME: SFW20-24V-3535-24-CC-3000-80-24	TYPE:	WEIGHT:
SPEC.:	DIM.: Length=1m	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1

UNIT: cd

[illegible]

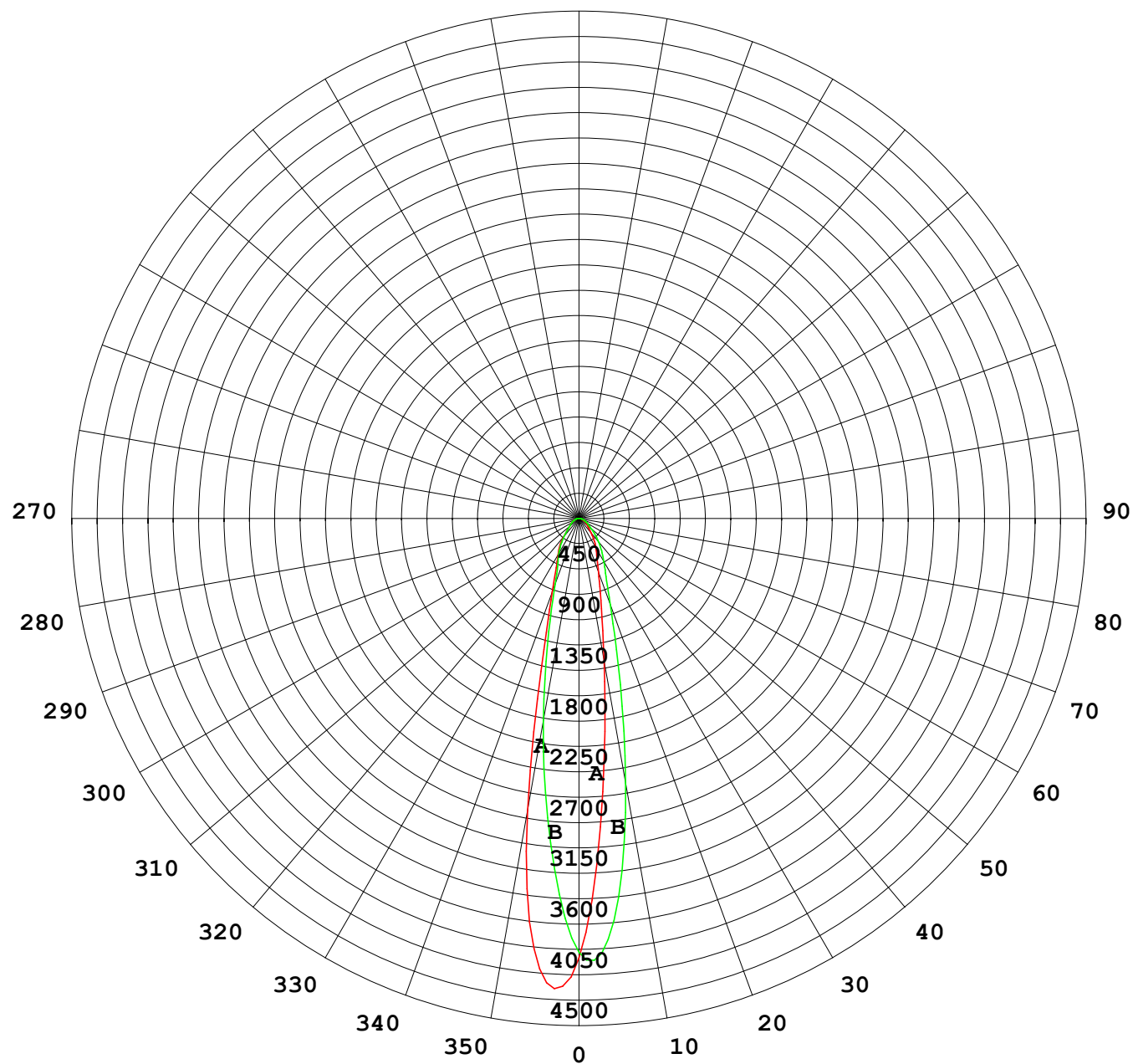
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:Cloud  
Test Date:2024-10-15

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.488
Humidity:65.0%
Test Distance:6.360m [K=1.0000]
Remarks:

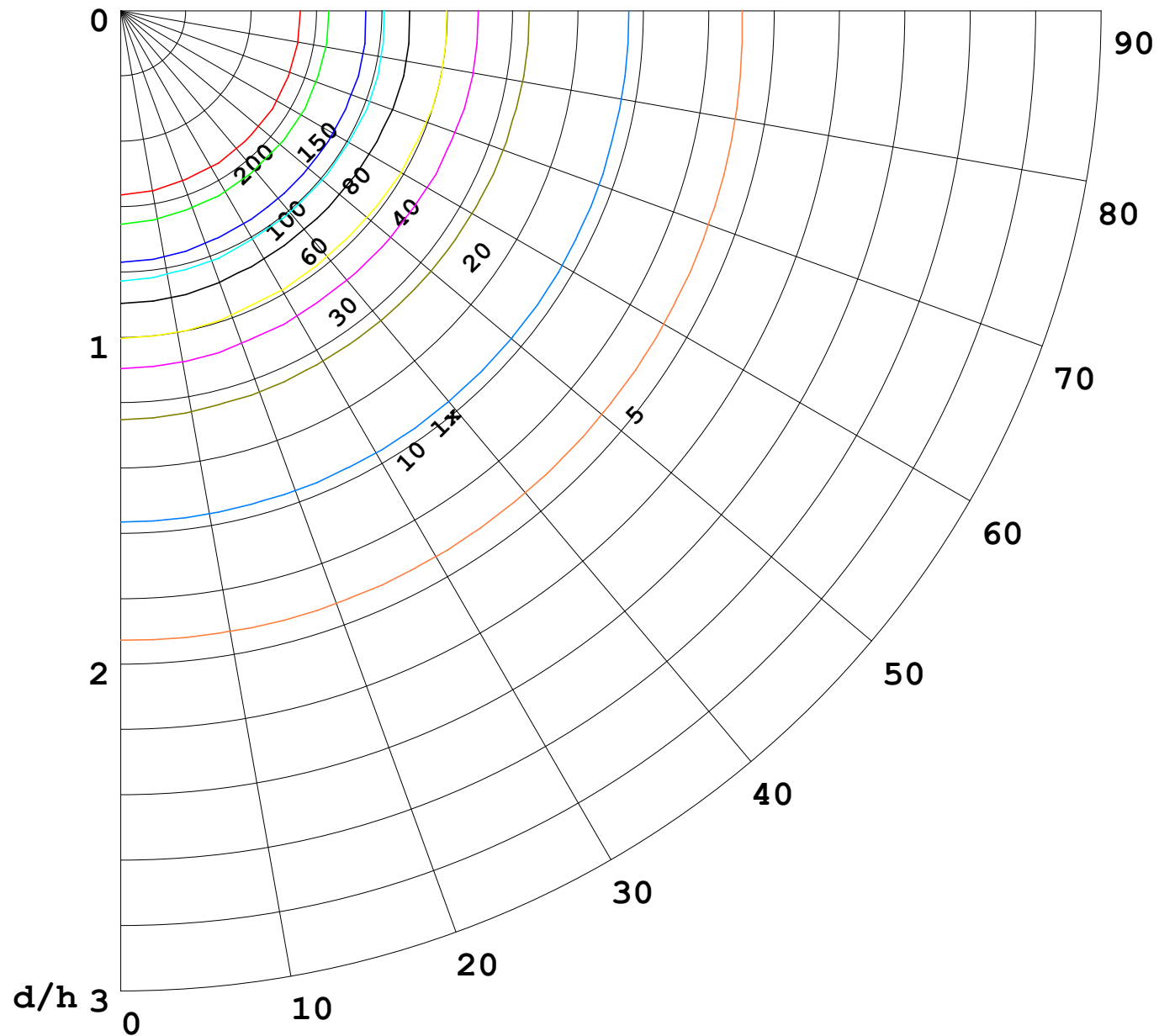
```

I (cd)



1000 lm

$\kappa = 1$



F = 1000 lm  
 K = 0.7  
 Hcc = 0.8 m  
 Hfc = 0.0 m  
 Eave = 100 lx

	Pcc	Pw	Pfc
—————	70	50	30
—————	50	30	20

