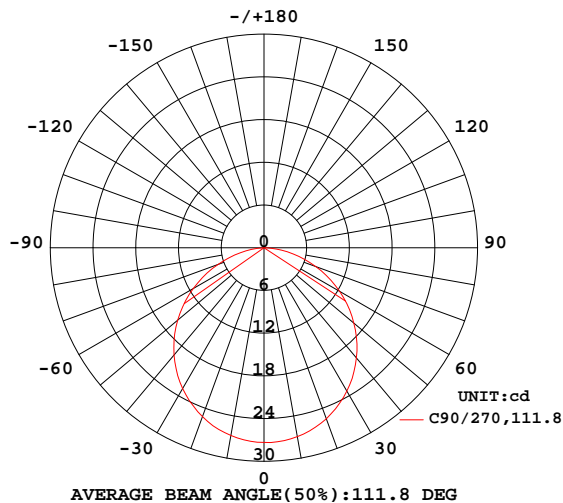


LUMINAIRE PHOTOMETRIC TEST REPORT

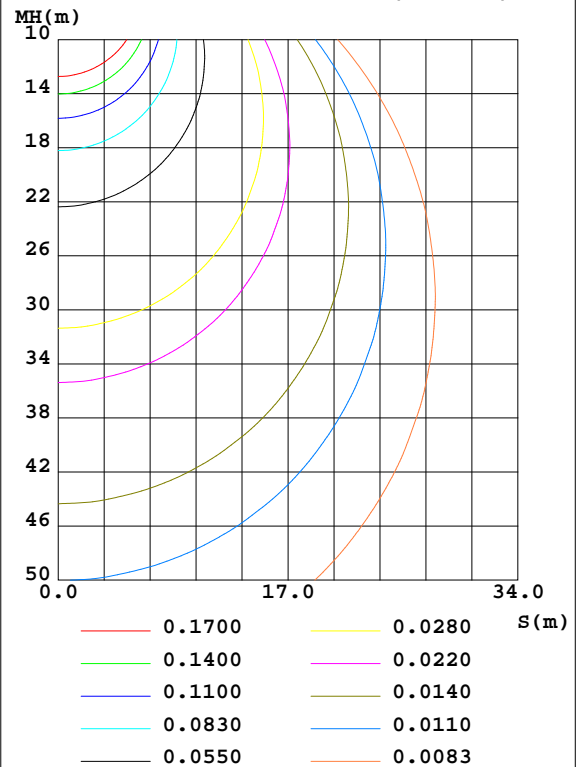
NAME: C-SFR-F2219S12-VB-24CC-RGBW(27K)-WM-84-22W-83.3-B	WEIGHT: 0.570kg/m
SPEC.:	DIM.: 22*19mm
MFR.: CLEAR	SUR.: 22*1000mm
	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 11.95 lm/W			
MODEL	5050	Imax(cd)	27.54	S/MH(C0/180)	1.26
NOMINAL POWER(W)	22	LOR(%)	100.3	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	78.132	$\eta$ UP,DN(C0-180)	0.0,50.8
NOMINAL FLUX(lm)	77.932	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,49.4
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	24	$\eta$ down(%)	100.3	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Dillon  
Test Date:29 July 2021

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 2.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.446  
Humidity:65.0%  
Test Distance:6.950m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

### ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	27.00	27.02	26.94	27.12	27.09	27.00	26.78	26.96	0- 10	2.601	2.601	3.33,3.34
20	25.54	25.62	25.57	25.74	25.68	25.53	25.25	25.45	10- 20	7.449	10.05	12.9,12.9
30	23.16	23.35	23.27	23.43	23.38	23.15	22.84	23.06	20- 30	11.28	21.34	27.3,27.4
40	20.03	20.27	20.20	20.36	20.26	20.00	19.67	19.90	30- 40	13.60	34.94	44.7,44.8
50	16.27	16.50	16.48	16.59	16.51	16.21	15.82	16.09	40- 50	14.10	49.04	62.8,62.9
60	11.97	12.24	12.28	12.36	12.24	11.87	11.48	11.76	50- 60	12.72	61.75	79,79.2
70	7.321	7.681	7.757	7.776	7.605	7.245	6.911	7.150	60- 70	9.647	71.40	91.4,91.6
80	2.848	3.246	3.346	3.307	3.065	2.809	2.575	2.723	70- 80	5.461	76.86	98.4,98.6
90	0	0.0098	0.0714	0.0170	0	0.0001	0.0002	0.0000	80- 90	1.270	78.13	100,100
100	0	0	0	0	0	0	0	0	90-100	0.0012	78.13	100,100
110	0	0	0	0	0	0	0	0	100-110	0	78.13	100,100
120	0	0	0	0	0	0	0	0	110-120	0	78.13	100,100
130	0	0	0	0	0	0	0	0	120-130	0	78.13	100,100
140	0	0	0	0	0	0	0	0	130-140	0	78.13	100,100
150	0	0	0	0	0	0	0	0	140-150	0	78.13	100,100
160	0	0	0	0	0	0	0	0	150-160	0	78.13	100,100
170	0	0	0	0	0	0	0	0	160-170	0	78.13	100,100
180	0	0	0	0	0	0	0	0	170-180	0	78.13	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 43.459 lm

%lum = 55.6%

%lamp = 55.8%

Conical surface Flux(120deg): 61.751 lm

%lum = 79.0%

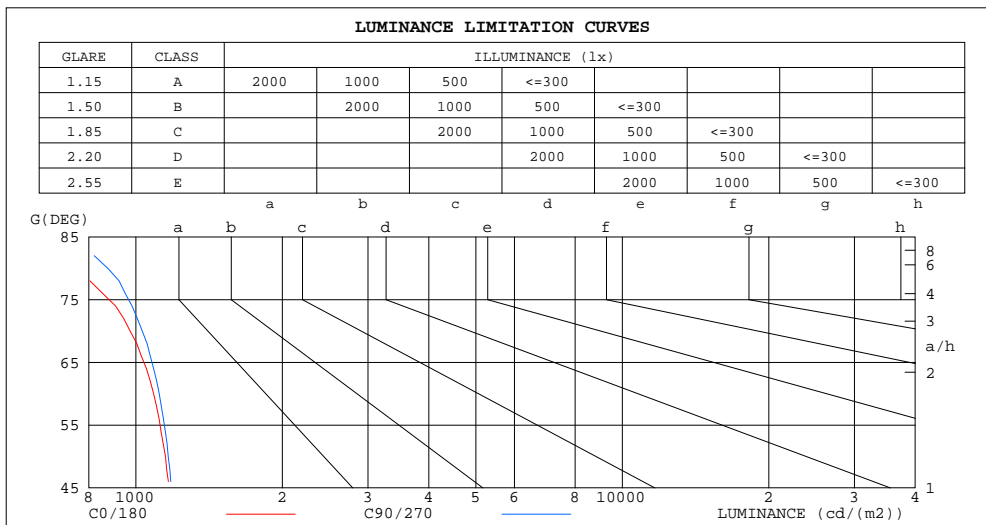
%lamp = 79.2%

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Dillon  
 Test Date:29 July 2021

γ Range: 0 - 180DEG  
 γ Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.446  
 Humidity:65.0%  
 Test Distance:6.950m [K=1.0000]  
 Remarks:

### LUMINANCE LIMITATION CURVES

NAME: C-SFR-F2219S12-VB-24CC-RGBW(27K)-WM-84-22W-8BYBBB	WEIGHT: 0.570kg/m
SPEC.:	DIM.: 22*19mm
MFR.: CLEAR	SUR.: 22*1000mm
	Shielding Angle:



LUMINANCE cd/(m2)		
G( DEG)	C0/180	C90/270
85	633	915
80	746	876
75	967	1045
70	973	1031
65	1091	1128
60	1088	1117
55	1154	1178
50	1150	1166
45	1196	1208

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Dillon  
Test Date:29 July 2021

γ Range: 0 - 180DEG  
γ Interval: 2.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.446  
Humidity:65.0%  
Test Distance:6.950m [K=1.0000]  
Remarks:

## WEC AND CCEC

NAME: C-SFR-F2219S12-VB-24CC-RGBW(27K)-WM-84-22W-8TYBBB	WEIGHT: 0.570kg/m
SPEC.:	DIM.: 22*19mm
MFR.: CLEAR	SUR.: 22*1000mm
	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0	
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
ρfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.308	.175	.055	.301	.172	.055	.288	.165	.053	.275	.159	.051	.264	.153	.049		
2.0	.291	.160	.049	.285	.157	.048	.273	.152	.047	.262	.147	.046	.252	.143	.045		
3.0	.270	.144	.043	.264	.142	.043	.254	.138	.042	.244	.134	.041	.236	.130	.040		
4.0	.249	.130	.038	.244	.128	.038	.235	.125	.037	.227	.122	.037	.219	.119	.036		
5.0	.231	.118	.034	.226	.116	.034	.218	.114	.033	.211	.111	.033	.203	.109	.033		
6.0	.214	.107	.031	.210	.106	.031	.203	.104	.030	.196	.102	.030	.190	.100	.030		
7.0	.199	.098	.028	.196	.098	.028	.189	.096	.028	.183	.094	.027	.177	.092	.027		
8.0	.186	.091	.026	.183	.090	.025	.177	.089	.025	.172	.087	.025	.167	.086	.025		
9.0	.174	.084	.024	.172	.084	.023	.166	.082	.023	.162	.081	.023	.157	.080	.023		
10.0	.164	.079	.022	.162	.078	.022	.157	.077	.022	.152	.076	.022	.148	.075	.021		

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	.191	.191	.191	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020		
1.0	.181	.157	.135	.155	.134	.116	.106	.092	.080	.061	.053	.047	.019	.017	.015		
2.0	.173	.132	.098	.148	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011		
3.0	.165	.115	.075	.141	.099	.065	.097	.069	.045	.056	.040	.027	.018	.013	.009		
4.0	.157	.101	.059	.135	.087	.051	.093	.061	.036	.054	.036	.021	.017	.012	.007		
5.0	.150	.091	.047	.129	.079	.041	.089	.055	.029	.051	.032	.017	.017	.011	.006		
6.0	.143	.082	.039	.123	.071	.034	.085	.050	.024	.049	.029	.014	.016	.010	.005		
7.0	.136	.076	.033	.117	.065	.029	.081	.046	.021	.047	.027	.012	.015	.009	.004		
8.0	.129	.070	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004		
9.0	.123	.065	.025	.106	.056	.022	.074	.039	.016	.043	.023	.009	.014	.008	.003		
10.0	.117	.060	.022	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003		

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Dillon  
Test Date:29 July 2021

γ Range: 0 - 180DEG  
γ Interval: 2.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.446  
Humidity:65.0%  
Test Distance:6.950m [K=1.0000]  
Remarks:

## UGR(Unified Glare Rating) Table

NAME: C-SFR-F2219S12-VB-24CC-RGBW(27K)-WM-84-22W-8TYBBB						WEIGHT: 0.570kg/m					
SPEC.:						DIM.: 22*19mm		SERIAL No.:			
MFR.: CLEAR						SUR.: 22*1000mm		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		22.2	23.7	22.5	23.9	24.1	22.3	23.8	22.6	24.0	24.2
3H		23.7	25.1	24.0	25.3	25.6	23.8	25.3	24.1	25.5	25.7
4H		24.3	25.6	24.6	25.8	26.1	24.5	25.8	24.8	26.1	26.3
6H		24.6	25.9	25.0	26.2	26.4	24.9	26.2	25.3	26.5	26.7
8H		24.7	25.9	25.1	26.2	26.5	25.1	26.3	25.4	26.6	26.9
12H		24.7	25.9	25.1	26.2	26.5	25.1	26.3	25.5	26.6	26.9
4H 2H		22.8	24.2	23.2	24.4	24.7	22.9	24.2	23.2	24.5	24.8
3H		24.5	25.7	24.9	26.0	26.3	24.6	25.8	25.0	26.1	26.4
4H		25.2	26.3	25.6	26.6	26.9	25.4	26.5	25.8	26.8	27.1
6H		25.7	26.7	26.1	27.0	27.4	26.0	26.9	26.4	27.3	27.7
8H		25.8	26.7	26.3	27.1	27.5	26.2	27.1	26.6	27.4	27.8
12H		25.9	26.7	26.3	27.1	27.5	26.3	27.1	26.7	27.5	27.9
8H 4H		25.5	26.4	25.9	26.7	27.1	25.7	26.6	26.1	26.9	27.3
6H		26.1	26.9	26.6	27.3	27.7	26.4	27.1	26.9	27.5	28.0
8H		26.4	27.0	26.8	27.4	27.9	26.7	27.3	27.1	27.8	28.2
12H		26.4	27.0	26.9	27.5	27.9	26.9	27.4	27.3	27.9	28.3
12H 4H		25.5	26.3	25.9	26.7	27.1	25.7	26.5	26.1	26.9	27.3
6H		26.2	26.9	26.7	27.3	27.7	26.5	27.1	26.9	27.5	28.0
8H		26.5	27.0	26.9	27.5	27.9	26.8	27.3	27.3	27.8	28.3
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 0.2 / - 0.2					+ 0.1 / - 0.2				
1.5H		+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H		+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 77.93 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -8.9)  
Area: 0.022 m2

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Dillon  
Test Date:29 July 2021

γ Range: 0 - 180DEG  
γ Interval: 2.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.446  
Humidity:65.0%  
Test Distance:6.950m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

NAME: C-SFR-F2219S12-VB-24CC-RGBW(27K)-WM-84-22W-8TYBBB	WEIGHT: 0.570kg/m
SPEC.:	DIM.: 22*19mm
MFR.: CLEAR	SUR.: 22*1000mm
	Shielding Angle:

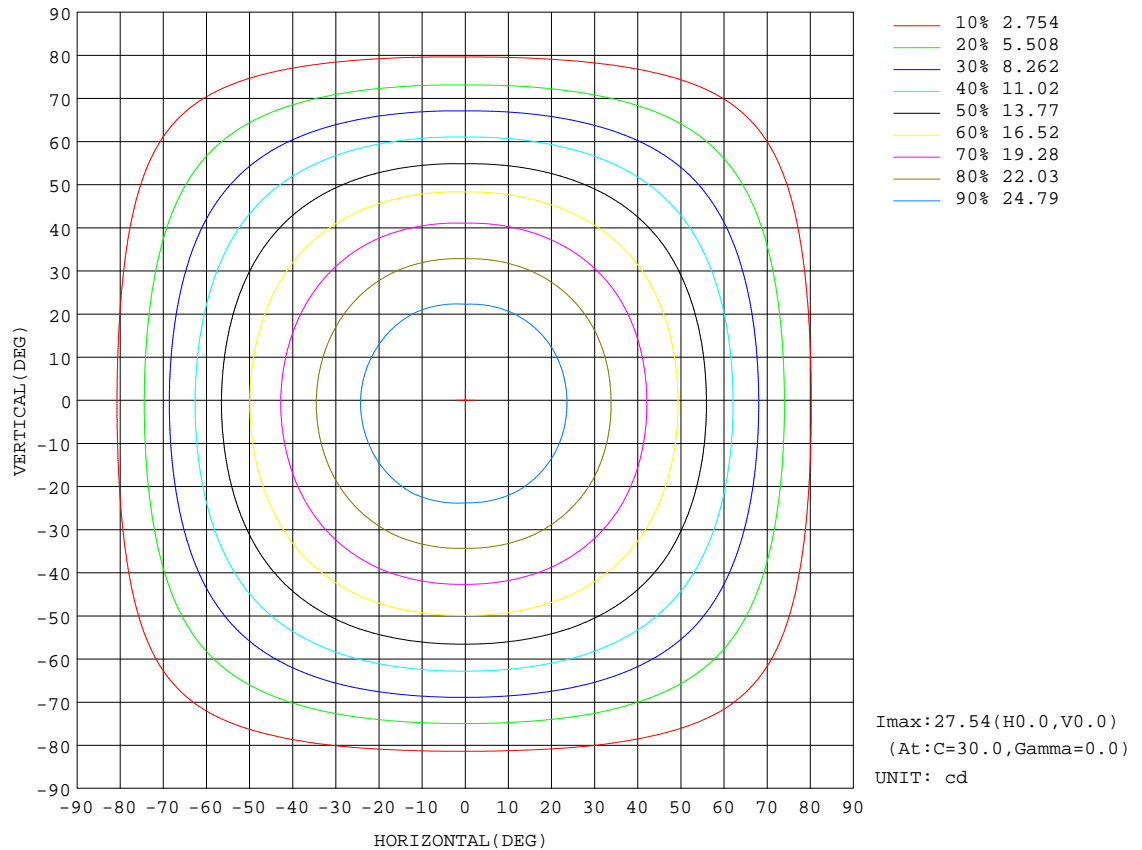
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT)    k(RI) x RCR = 5									
k = 0.60	58	46	39	57	46	39	56	45	39	32
0.80	68	56	49	67	56	49	65	55	48	41
1.00	76	65	58	75	65	58	73	66	57	50
1.25	83	73	66	82	72	65	79	71	65	57
1.50	88	79	72	87	78	71	84	76	70	62
2.00	95	87	80	93	86	80	90	83	78	70
2.50	99	91	85	97	90	85	93	87	83	74
3.00	103	96	90	100	94	89	96	91	87	79
4.00	107	101	96	104	99	95	100	96	92	83
5.00	109	104	100	107	102	99	102	99	96	86
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNM = 1.25										

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Dillon  
Test Date:29 July 2021

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 2.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.446  
Humidity:65.0%  
Test Distance:6.950m [K=1.0000]  
Remarks:

**ISOCANDELA DIAGRAM**

NAME: C-SFR-F2219S12-VB-24CC-RGBW(27K)-WM-84-22W-8TYBBB	WEIGHT: 0.570kg/m
SPEC.:	SERIAL No.:
MFR.: CLEAR	Shielding Angle:

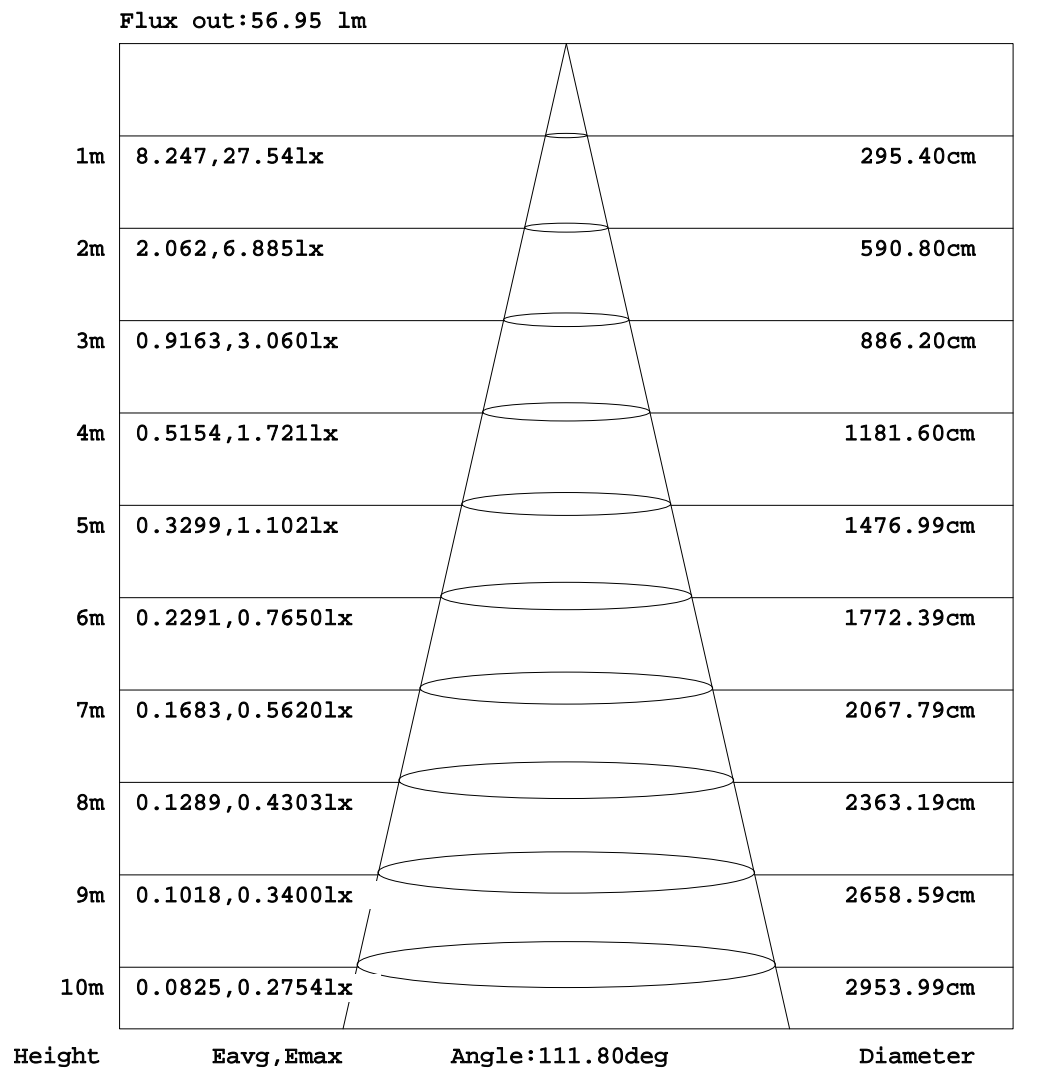


C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Dillon  
 Test Date: 29 July 2021

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 2.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.446  
 Humidity: 65.0%  
 Test Distance: 6.950m [K=1.0000]  
 Remarks:

### AAI Figure

NAME: C-SFR-F2219S12-VB-24CC-RGBW(27K)-WM-84-22W-8TYBBB	WEIGHT: 0.570kg/m
SPEC.:	SERIAL No.:
MFR.: CLEAR	Shielding Angle:



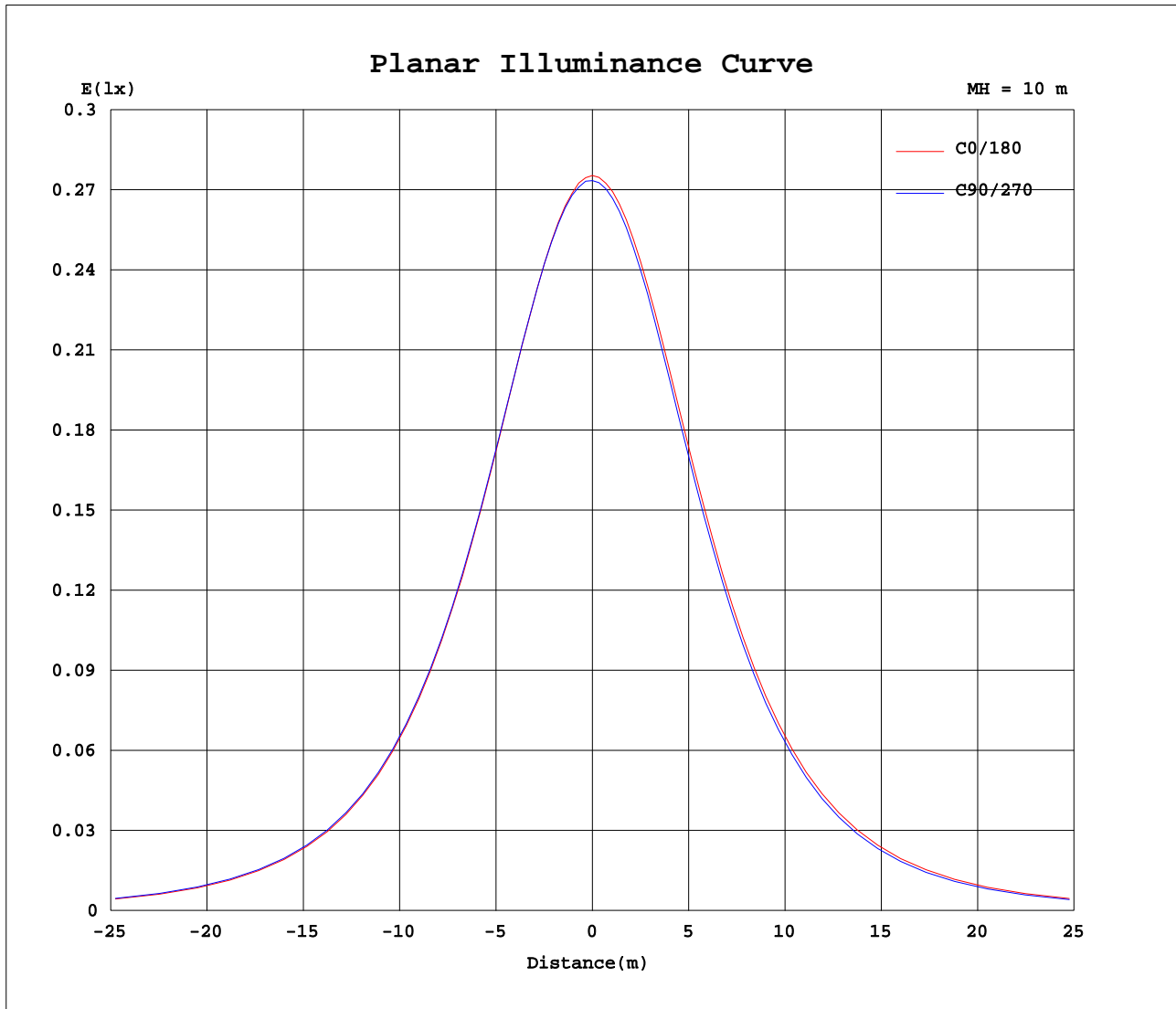
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Dillon  
 Test Date:29 July 2021

γ Range: 0 - 180DEG  
 γ Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.446  
 Humidity:65.0%  
 Test Distance:6.950m [K=1.0000]  
 Remarks:



# Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Dillon  
 Test Date: 29 July 2021

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 2.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.446  
 Humidity: 65.0%  
 Test Distance: 6.950m [K=1.0000]  
 Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: C-SFR-F2219S12-VB-24CC-RGBW(27K)-WM-84-22W-8BYBBB	WEIGHT: 0.570kg/m
SPEC.:	DIM.: 22*19mm
MFR.: CLEAR	SUR.: 22*1000mm
	Shielding Angle:

Table--1

UNIT: cd

C(DEC)	0	30	60	90	120	150	180	210	240	270	300	330						
γ (DEC)																		
0	27.5	27.5	27.5	27.3	27.5	27.5	27.5	27.5	27.5	27.3	27.5	27.5						
5	27.5	27.4	27.4	27.3	27.5	27.5	27.4	27.4	27.4	27.2	27.4	27.4						
10	27.0	27.1	27.0	26.9	27.1	27.1	27.1	27.0	26.9	26.8	26.9	27.0						
15	26.5	26.6	26.5	26.5	26.7	26.7	26.6	26.6	26.5	26.3	26.4	26.5						
20	25.5	25.6	25.6	25.6	25.8	25.7	25.7	25.6	25.5	25.2	25.4	25.5						
25	24.7	24.8	24.8	24.7	24.9	24.9	24.9	24.7	24.6	24.4	24.5	24.6						
30	23.2	23.3	23.4	23.3	23.4	23.4	23.4	23.2	23.1	22.8	23.0	23.1						
35	22.0	22.2	22.2	22.1	22.3	22.3	22.2	22.0	21.9	21.7	21.8	21.9						
40	20.0	20.2	20.3	20.2	20.4	20.3	20.3	20.1	19.9	19.7	19.8	20.0						
45	18.6	18.8	18.9	18.8	18.9	18.9	18.8	18.6	18.5	18.2	18.4	18.5						
50	16.3	16.4	16.6	16.5	16.6	16.6	16.5	16.3	16.1	15.8	16.0	16.2						
55	14.6	14.8	14.9	14.9	15.0	14.9	14.9	14.6	14.4	14.1	14.3	14.5						
60	12.0	12.2	12.3	12.3	12.4	12.4	12.2	12.0	11.7	11.5	11.6	11.9						
65	10.1	10.4	10.5	10.5	10.6	10.5	10.4	10.1	9.92	9.65	9.81	10.0						
70	7.32	7.62	7.74	7.76	7.83	7.72	7.60	7.37	7.12	6.91	7.06	7.24						
75	5.51	5.76	5.96	5.95	6.02	5.86	5.70	5.49	5.28	5.08	5.24	5.38						
80	2.85	3.15	3.34	3.35	3.37	3.24	3.07	2.88	2.74	2.57	2.67	2.78						
85	1.21	1.53	1.67	1.75	1.75	1.59	1.46	1.26	1.14	1.00	1.09	1.19						
90	0.00	0.00	0.02	0.07	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00						
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						

C Range: 0 - 360DEG

C Interval: 30.0DEG

Test Speed: HIGH

Temperature:25.3DEG

Operators:Dillon

Test Date:29 July 2021

γ Range: 0 - 180DEG

γ Interval: 2.0DEG

Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.446

Humidity:65.0%

Test Distance:6.950m [K=1.0000]

Remarks: