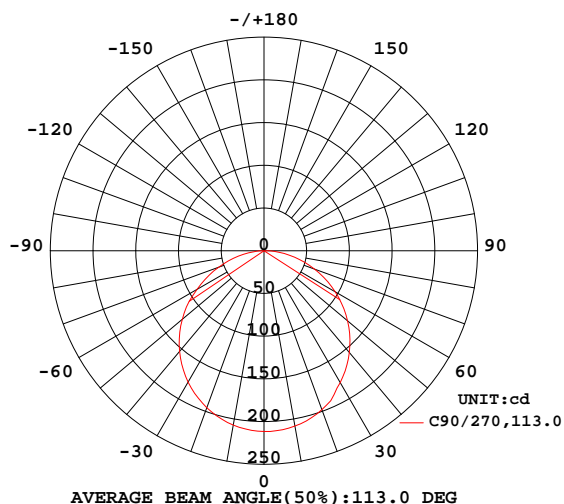


LUMINAIRE PHOTOMETRIC TEST REPORT

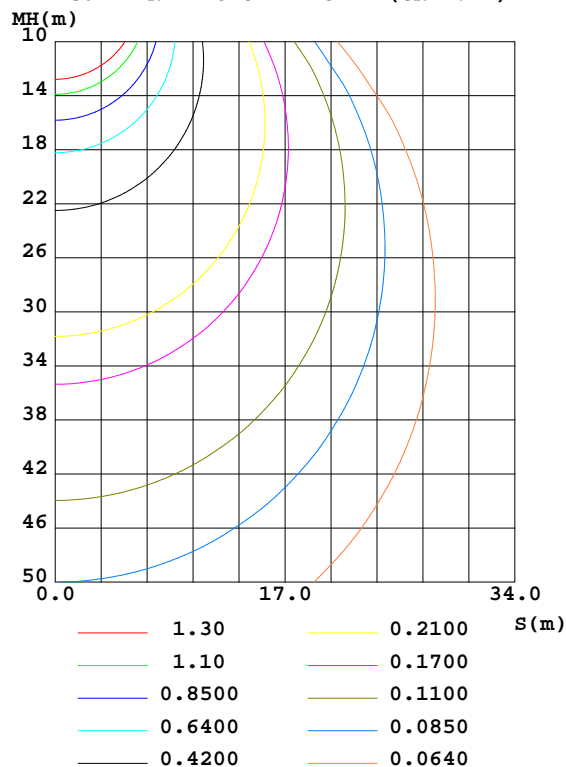
NAME: C-SFR-F2219S12-VB-24CC-RGBW(40K)-WM-84-22W-83.3-RGB	WEIGHT: 0.570kg/m
SPEC.:	DIM.: 22*19mm
MFR.: CLEAR	SUR.: 22*1000mm
	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 37.82 lm/W			
MODEL	5050	Imax(cd)	212.7	S/MH(C0/180)	1.25
NOMINAL POWER(W)	22	LOR(%)	100.4	S/MH(C90/270)	1.25
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	621.83	$\eta$ UP,DN(C0-180)	0.4,50.5
NOMINAL FLUX(lm)	619.12	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.4,49.2
LAMPS INSIDE	1	$\eta$ up(%)	0.8	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	24	$\eta$ down(%)	99.7	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	208.7	208.9	208.4	209.6	209.2	208.4	207.1	208.5	0- 10	20.09	20.09	3.23,3.25
20	197.8	198.4	198.1	199.1	198.5	197.4	195.5	197.2	10- 20	57.62	77.72	12.5,12.6
30	180.1	180.0	178.3	180.5	178.4	178.3	177.5	178.0	20- 30	87.21	164.9	26.5,26.6
40	156.5	157.0	155.4	157.4	155.2	154.7	153.8	154.5	30- 40	105.1	270.0	43.4,43.6
50	128.2	129.2	127.7	129.4	127.4	126.4	124.9	126.2	40- 50	109.6	379.7	61.1,61.3
60	94.12	96.88	96.44	97.63	95.60	93.60	90.50	92.81	50- 60	99.92	479.6	77.1,77.5
70	59.64	62.51	63.09	62.80	61.29	58.86	56.57	58.51	60- 70	76.88	556.5	89.5,89.9
80	26.39	29.35	30.25	29.63	27.74	26.03	24.40	25.66	70- 80	46.10	602.6	96.9,97.3
90	0.7342	3.467	4.771	3.627	1.339	2.218	2.197	2.007	80- 90	14.61	617.2	99.2,99.7
100	0.4921	0.9129	0.9560	1.057	1.244	0.9813	0.6498	0.7662	90-100	1.414	618.6	99.5,99.9
110	0.5784	0.4564	0.0712	0.5987	1.222	0.6251	0.0961	0.4502	100-110	0.7100	619.3	99.6,100
120	0.7424	0.5182	0.1206	0.6296	1.135	0.6420	0.0991	0.4905	110-120	0.5267	619.8	99.7,100
130	0.8168	0.5926	0.2385	0.6544	1.061	0.6638	0.2443	0.5817	120-130	0.5234	620.3	99.8,100
140	0.8293	0.6512	0.3683	0.6776	0.9467	0.6732	0.3558	0.6111	130-140	0.4902	620.8	99.8,100
150	0.8200	0.6807	0.4983	0.6838	0.8755	0.6963	0.5043	0.6003	140-150	0.4139	621.2	99.9,100
160	0.7830	0.7054	0.6437	0.6870	0.7859	0.7009	0.6281	0.6483	150-160	0.3155	621.6	100,100
170	0.7551	0.7117	0.7921	0.7302	0.7303	0.7487	0.7950	0.6900	160-170	0.2016	621.8	100,100
180	0.7798	0.8076	0.8478	0.7968	0.7859	0.7906	0.8478	0.7937	170-180	0.0717	621.8	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 336.17 lm

%lum = 54.1%

%lamp = 54.3%

Conical surface Flux(120deg): 479.57 lm

%lum = 77.1%

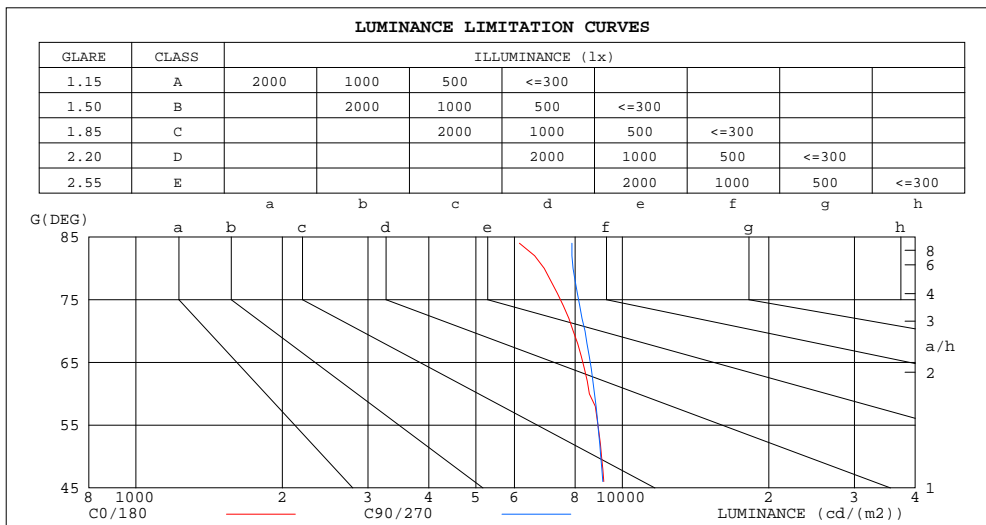
%lamp = 77.5%

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(40K)-WM-84-22W-8BYBERGB	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	7369	9451
80	6908	7919
75	8059	8705
70	7927	8385
65	8668	8955
60	8557	8767
55	9168	9157
50	9064	9031
45	9368	9314

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:

## WEC AND CCEC

NAME: C-SFR-F2219S12-VB-24CC-RGBW(40K)-WM-84-22W-8TYBERGB	WEIGHT: 0.570kg/m
SPEC.:	DIM.: 22*19mm
MFR.: CLEAR	SUR.: 22*1000mm
	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	.319	.181	.057	.311	.178	.056	.297	.171	.054	.285	.164	.053	.273	.158	.051		
2.0	.298	.163	.050	.291	.160	.049	.279	.155	.048	.268	.150	.047	.257	.146	.046		
3.0	.274	.146	.044	.269	.144	.043	.258	.140	.042	.248	.136	.042	.239	.132	.041		
4.0	.253	.131	.039	.247	.130	.038	.238	.126	.038	.229	.123	.037	.221	.120	.037		
5.0	.233	.119	.034	.229	.117	.034	.220	.115	.034	.212	.112	.033	.205	.109	.033		
6.0	.216	.108	.031	.212	.107	.031	.204	.105	.030	.197	.102	.030	.190	.100	.030		
7.0	.201	.099	.028	.197	.098	.028	.190	.096	.028	.184	.094	.027	.178	.092	.027		
8.0	.187	.092	.026	.184	.091	.026	.178	.089	.025	.172	.087	.025	.167	.086	.025		
9.0	.175	.085	.024	.173	.084	.024	.167	.083	.023	.162	.081	.023	.157	.080	.023		
10.0	.165	.079	.022	.162	.078	.022	.157	.077	.022	.153	.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	.197	.197	.197	.168	.168	.168	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.187	.163	.140	.160	.140	.121	.110	.096	.083	.063	.056	.049	.020	.018	.016	
2.0	.179	.138	.104	.154	.119	.090	.105	.082	.063	.061	.048	.037	.019	.015	.012	
3.0	.172	.121	.080	.147	.104	.069	.101	.072	.049	.058	.042	.029	.019	.014	.009	
4.0	.164	.107	.064	.141	.093	.056	.097	.065	.039	.056	.038	.023	.018	.012	.008	
5.0	.156	.097	.053	.134	.084	.046	.093	.059	.033	.054	.034	.019	.017	.011	.006	
6.0	.149	.089	.045	.128	.077	.039	.088	.054	.028	.051	.032	.016	.017	.010	.005	
7.0	.142	.082	.039	.122	.071	.034	.085	.050	.024	.049	.029	.014	.016	.010	.005	
8.0	.136	.076	.035	.117	.066	.030	.081	.046	.021	.047	.027	.013	.015	.009	.004	
9.0	.130	.071	.031	.112	.062	.027	.077	.043	.019	.045	.026	.012	.015	.008	.004	
10.0	.124	.067	.028	.107	.058	.025	.074	.041	.018	.043	.024	.011	.014	.008	.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(40K)-WM-84-22W-8BYBERGB						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		22.1	23.6	22.4	23.8	24.1	22.2	23.7	22.5	23.9	24.2
3H		23.7	25.1	24.0	25.3	25.6	23.8	25.2	24.1	25.5	25.7
4H		24.3	25.6	24.6	25.9	26.2	24.5	25.9	24.8	26.1	26.4
6H		24.8	26.0	25.1	26.3	26.6	25.1	26.3	25.4	26.6	26.9
8H		24.9	26.1	25.3	26.4	26.8	25.3	26.5	25.6	26.8	27.1
12H		25.0	26.2	25.4	26.5	26.8	25.4	26.6	25.8	26.9	27.2
4H 2H		22.8	24.1	23.1	24.4	24.6	22.8	24.2	23.2	24.4	24.7
3H		24.5	25.7	24.9	26.0	26.3	24.6	25.8	25.0	26.1	26.5
4H		25.3	26.4	25.7	26.7	27.0	25.5	26.6	25.9	26.9	27.2
6H		25.9	26.8	26.3	27.2	27.6	26.2	27.1	26.6	27.5	27.9
8H		26.1	27.0	26.5	27.4	27.8	26.4	27.3	26.9	27.7	28.1
12H		26.2	27.1	26.7	27.5	27.9	26.6	27.5	27.1	27.9	28.3
8H 4H		25.6	26.5	26.0	26.9	27.3	25.8	26.7	26.2	27.0	27.5
6H		26.4	27.1	26.8	27.5	28.0	26.6	27.4	27.1	27.8	28.3
8H		26.7	27.4	27.2	27.8	28.3	27.0	27.7	27.5	28.1	28.6
12H		26.9	27.5	27.4	28.0	28.5	27.3	27.9	27.8	28.4	28.9
12H 4H		25.6	26.5	26.1	26.9	27.3	25.8	26.6	26.2	27.0	27.4
6H		26.5	27.1	26.9	27.6	28.0	26.7	27.4	27.2	27.8	28.3
8H		26.8	27.4	27.3	27.9	28.4	27.2	27.7	27.6	28.2	28.7
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H		+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H		+ 0.1 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117, 619.1 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.7)  
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(40K)-WM-84-22W-8BYBERGB	WEIGHT: 0.570kg/m
SPEC.:	DIM.: 22*19mm
MFR.: CLEAR	SUR.: 22*1000mm
	Shielding Angle:

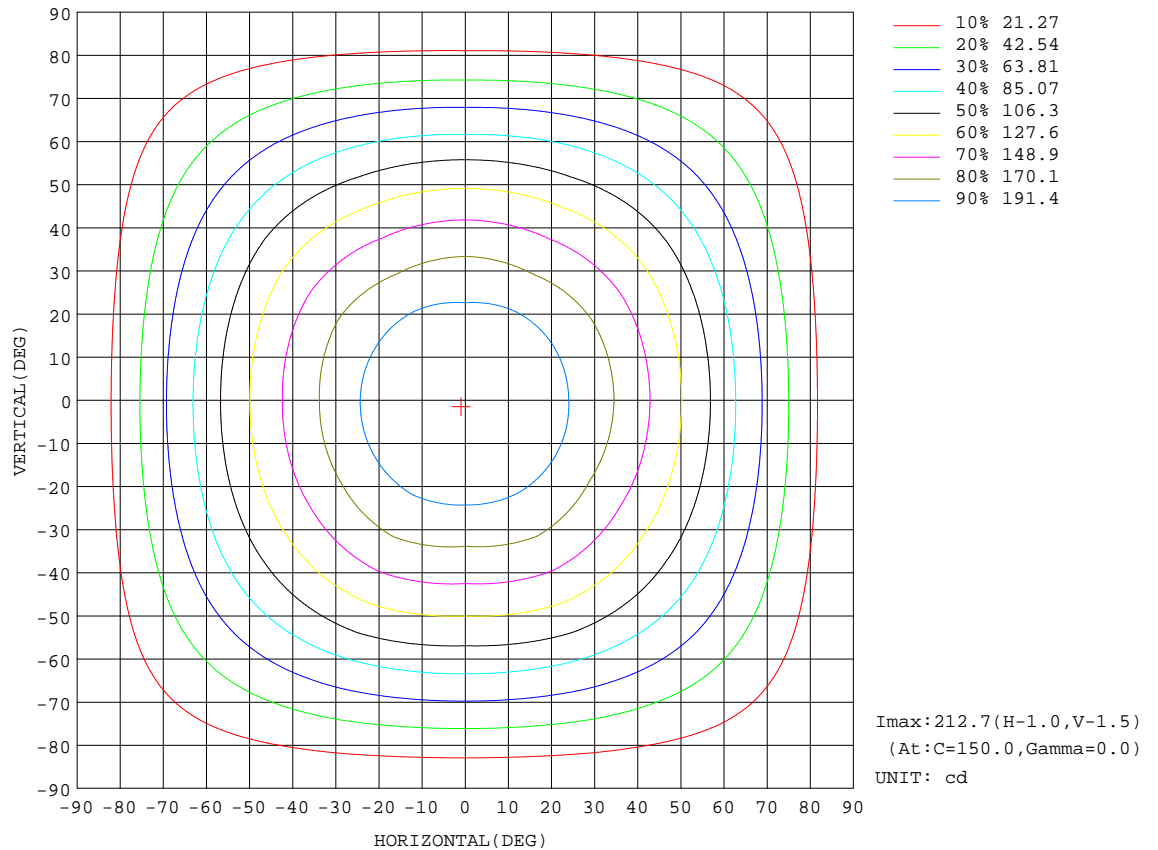
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT)    k(RI) x RCR = 5									
k = 0.60	57	45	38	56	45	38	55	45	38	31
0.80	67	55	48	66	55	48	64	54	47	40
1.00	76	64	57	74	64	56	72	65	56	49
1.25	83	72	65	81	71	64	78	70	63	56
1.50	88	78	70	86	77	70	83	75	69	61
2.00	95	86	79	93	85	78	89	82	77	69
2.50	99	91	84	96	89	83	93	86	81	73
3.00	102	95	89	100	93	88	96	90	86	77
4.00	106	100	95	104	98	94	99	95	91	82
5.00	109	104	99	106	102	98	101	98	95	85
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNOM = 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(40K)-WM-84-22W-8TYBERGB	WEIGHT: 0.570kg/m
SPEC.:	DIM.: 22*19mm
MFR.: CLEAR	SUR.: 22*1000mm
	Shielding Angle:



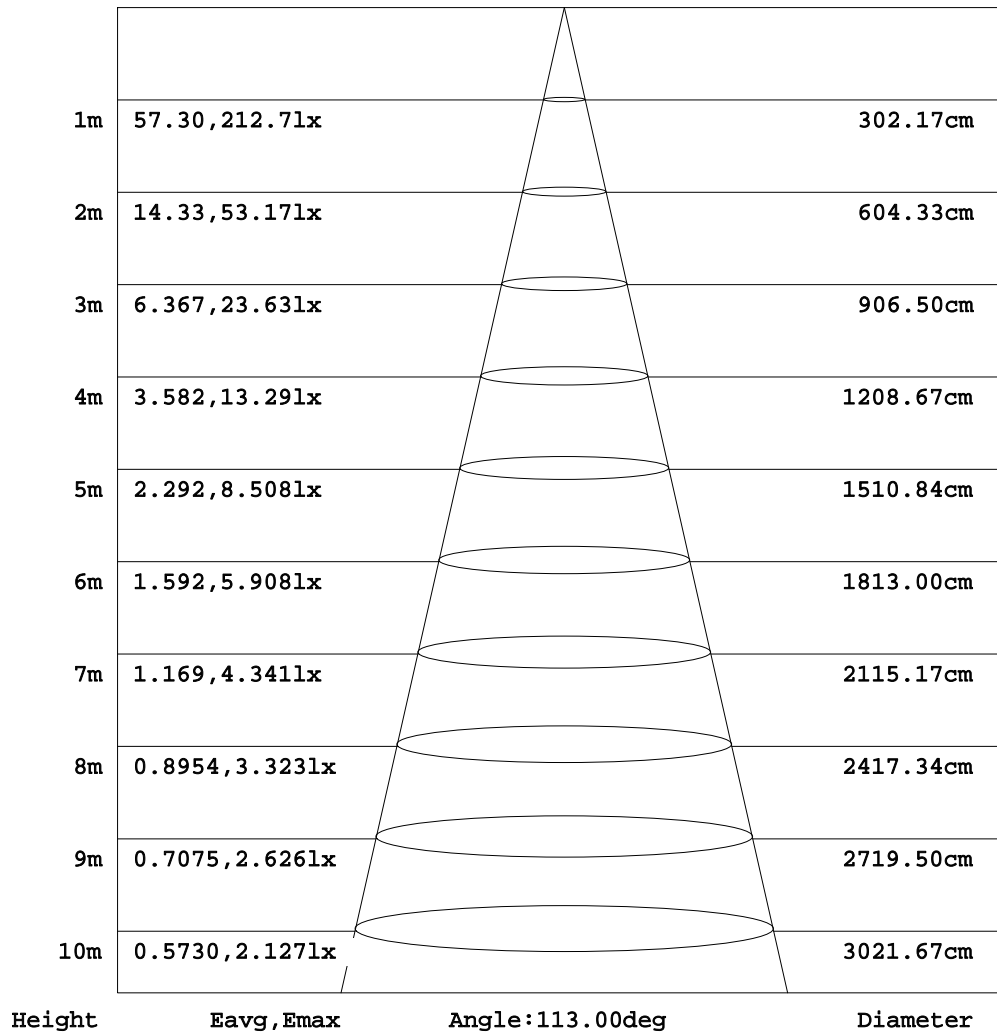
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Dillon  
 Test Date: 29 July 2021

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:

AAI Figure

NAME: C-SFR-F2219S12-VB-24CC-RGBW(40K)-WM-84-22W-8TYBERGB	WEIGHT: 0.570kg/m
SPEC.:	SERIAL No.:
MFR.: CLEAR	Shielding Angle:

Flux out:461.1 lm



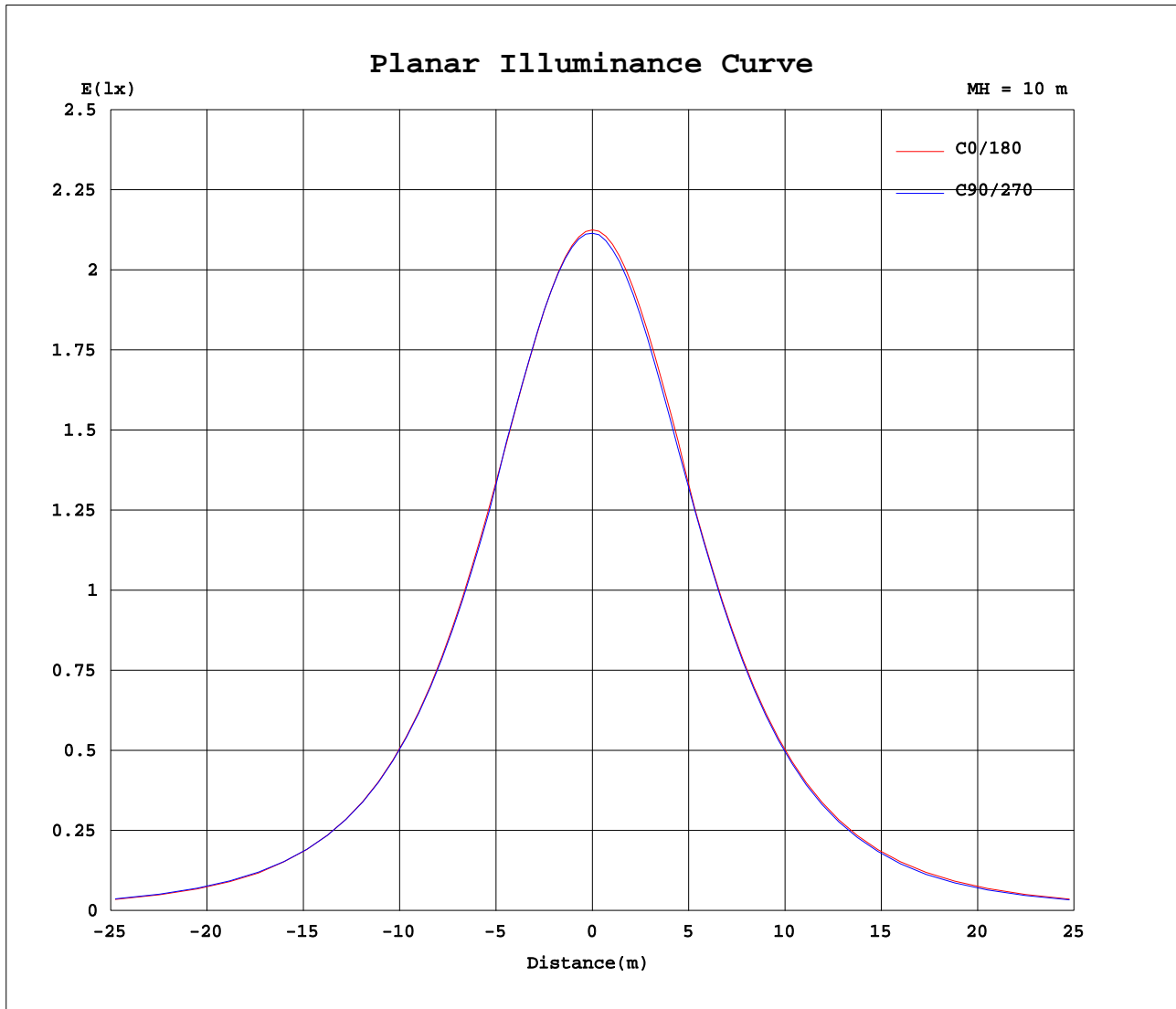
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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(40K)-WM-84-22W-8BYBERGB	WEIGHT: 0.570kg/m
SPEC.:	DIM.: 22*19mm
MFR.: CLEAR	SUR.: 22*1000mm
	Shielding Angle:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	212	213	212	211	213	213	212	213	212	211	213	213							
5	212	212	211	211	213	212	212	212	211	211	212	212							
10	209	209	209	208	210	210	209	209	208	207	208	209							
15	205	206	205	205	206	206	206	205	205	203	205	205							
20	198	199	198	198	199	199	198	198	197	196	197	197							
25	191	192	193	192	193	193	192	191	191	189	191	191							
30	180	179	182	178	182	179	178	180	176	178	176	180							
35	171	170	173	170	173	170	170	171	168	169	168	171							
40	157	156	158	155	159	156	155	156	153	154	153	156							
45	146	145	148	145	148	145	145	146	142	143	142	145							
50	128	128	131	128	131	128	127	128	125	125	125	128							
55	116	115	118	116	118	116	115	116	112	112	112	115							
60	94.1	96.0	97.7	96.4	98.8	96.4	95.6	94.9	92.3	90.5	92.1	93.5							
65	80.6	82.6	83.6	83.3	83.8	83.1	82.1	80.4	78.6	77.0	78.4	79.9							
70	59.6	61.9	63.1	63.1	63.2	62.4	61.3	59.6	58.1	56.6	57.9	59.1							
75	45.9	48.1	49.6	49.6	49.7	48.6	47.4	45.8	44.5	43.3	44.3	45.4							
80	26.4	28.6	30.1	30.3	30.2	29.1	27.7	26.5	25.5	24.4	25.3	26.0							
85	14.1	16.5	17.9	18.1	18.0	16.9	15.6	14.4	13.5	12.7	13.4	14.0							
90	0.73	2.58	4.36	4.77	4.42	2.84	1.34	2.01	2.42	2.20	2.29	1.73							
95	0.60	1.21	1.38	1.16	1.39	1.45	1.27	1.35	1.14	0.76	1.06	1.08							
100	0.49	0.63	1.19	0.96	1.23	0.88	1.24	0.98	0.99	0.65	0.87	0.66							
105	0.49	0.58	0.47	0.70	0.55	0.87	1.24	0.92	0.81	0.57	0.68	0.61							
110	0.58	0.62	0.29	0.07	0.32	0.87	1.22	0.90	0.35	0.10	0.28	0.62							
115	0.67	0.64	0.29	0.08	0.32	0.88	1.19	0.88	0.35	0.05	0.28	0.64							
120	0.74	0.69	0.35	0.12	0.38	0.88	1.14	0.88	0.40	0.10	0.31	0.67							
125	0.79	0.71	0.39	0.16	0.41	0.87	1.10	0.89	0.42	0.15	0.38	0.71							
130	0.82	0.74	0.45	0.24	0.45	0.85	1.06	0.86	0.47	0.24	0.44	0.73							
135	0.83	0.75	0.50	0.31	0.50	0.86	1.01	0.82	0.54	0.29	0.46	0.72							
140	0.83	0.76	0.54	0.37	0.55	0.80	0.95	0.79	0.56	0.36	0.49	0.74							
145	0.83	0.77	0.57	0.42	0.57	0.78	0.92	0.82	0.56	0.41	0.47	0.75							
150	0.82	0.77	0.59	0.50	0.61	0.76	0.88	0.77	0.62	0.50	0.46	0.74							
155	0.80	0.75	0.60	0.59	0.61	0.75	0.85	0.77	0.62	0.55	0.49	0.76							
160	0.78	0.75	0.66	0.64	0.66	0.72	0.79	0.73	0.67	0.63	0.55	0.75							
165	0.78	0.74	0.66	0.72	0.70	0.70	0.74	0.74	0.71	0.69	0.58	0.74							
170	0.76	0.74	0.69	0.79	0.74	0.72	0.73	0.73	0.76	0.80	0.65	0.73							
175	0.75	0.71	0.73	0.79	0.76	0.74	0.75	0.76	0.79	0.80	0.71	0.74							
180	0.78	0.80	0.81	0.85	0.80	0.79	0.79	0.80	0.78	0.85	0.78	0.81							

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: