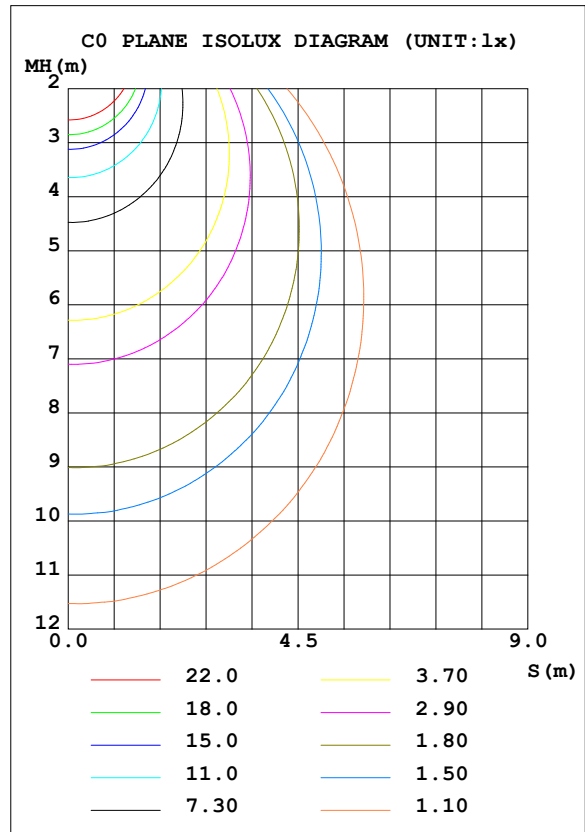
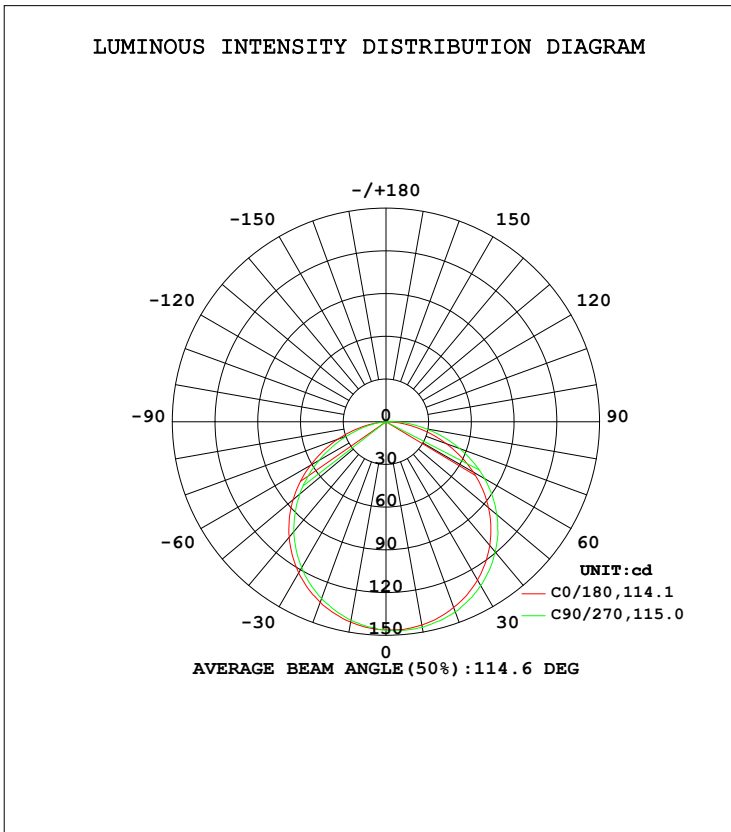


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.002V I:0.2106A P:5.0548W PF:1.0000 Freq:60.00Hz Lamp Flux:429.972x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL		Imax (cd)	147.1	S/MH (C0/180)	1.25
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.21
RATED VOLTAGE (V)		TOTAL FLUX (lm)	429.97	η UP, DN (C0-180)	0.2, 54.8
NOMINAL FLUX (lm)	429.972	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 45.0
LAMPS INSIDE	1	η up (%)	0.2	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)		η down (%)	99.8	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Test Date: 2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity: 65.0%
 Test Distance: 8.820m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM
ZONAL FLUX DIAGRAM:

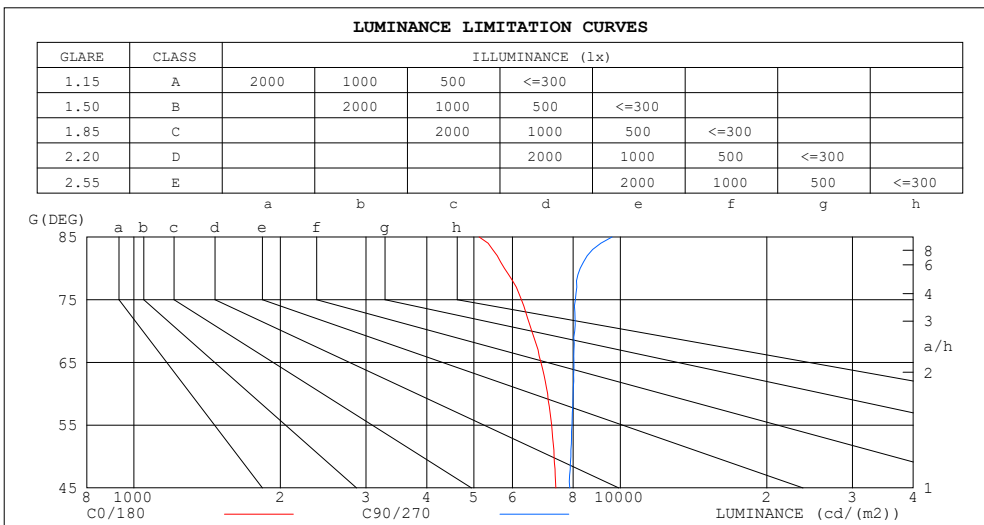
γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum, lamp
10	145.0	146.8	142.9	141.5				0- 10	13.85	13.85	3.22,3.22
20	138.8	142.1	134.9	132.2				10- 20	39.82	53.67	12.5,12.5
30	128.5	132.9	122.6	118.3				20- 30	60.79	114.5	26.6,26.6
40	113.4	119.3	105.6	100.6				30- 40	73.93	188.4	43.8,43.8
50	93.94	101.7	85.20	79.08				40- 50	77.37	265.7	61.8,61.8
60	70.87	79.95	61.22	54.44				50- 60	70.26	336.0	78.1,78.1
70	45.00	55.10	36.00	29.15				60- 70	53.44	389.4	90.6,90.6
80	20.06	28.71	12.19	8.381				70- 80	30.65	420.1	97.7,97.7
90	0.0061	7.673	0	0				80- 90	9.001	429.1	99.8,99.8
100	0	0.1633	0	0				90-100	0.8754	430.0	100,100
110	0	0	0	0				100-110	0.0022	430.0	100,100
120	0	0	0	0				110-120	0	430.0	100,100
130	0	0	0	0				120-130	0	430.0	100,100
140	0	0	0	0				130-140	0	430.0	100,100
150	0	0	0	0				140-150	0	430.0	100,100
160	0	0	0	0				150-160	0	430.0	100,100
170	0	0	0	0				160-170	0	430.0	100,100
180	0	0	0	0				170-180	0	430.0	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.002V I:0.2106A P:5.0548W PF:1.0000 Freq:60.00Hz Lamp Flux:429.972x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	5128	9618
80	5777	8268
75	6261	8081
70	6579	8056
65	6869	8028
60	7087	7995
55	7227	7955
50	7307	7911
45	7368	7872

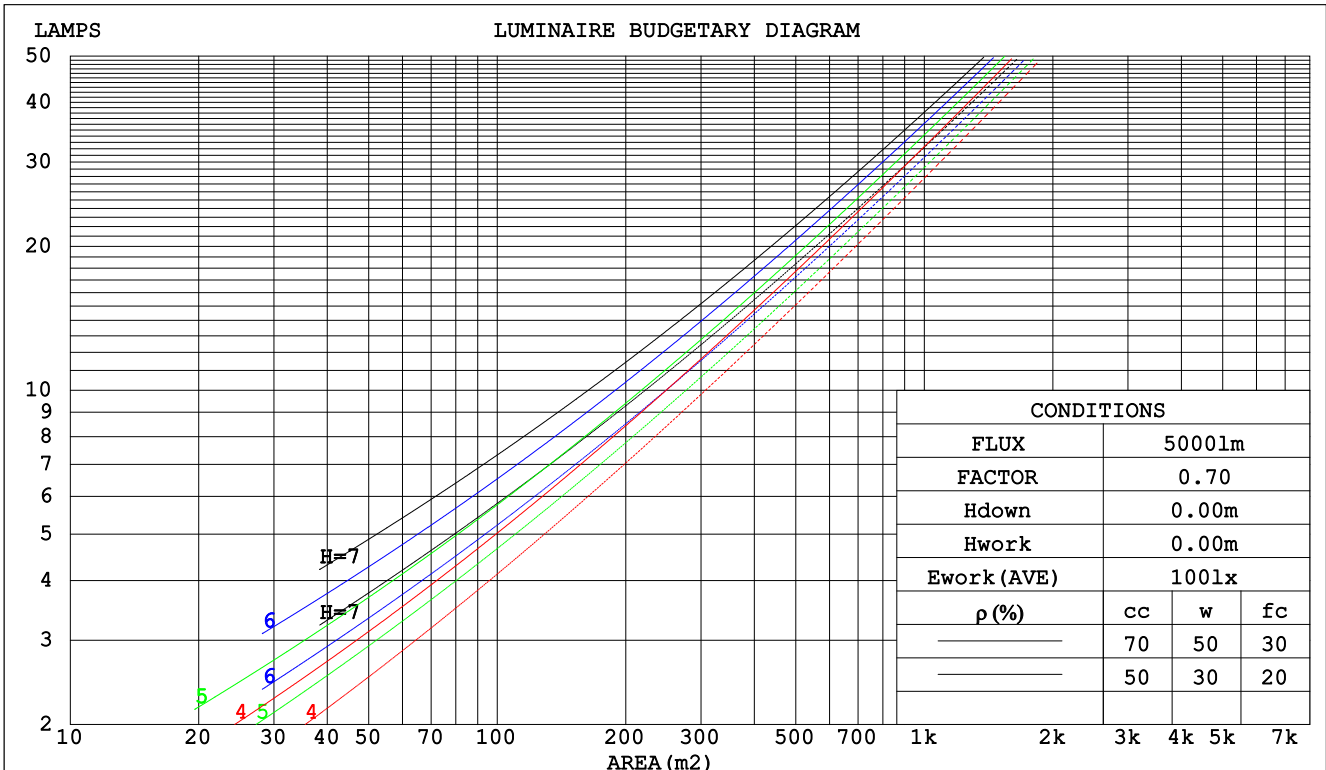
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.002V I:0.2106A P:5.0548W PF:1.0000 Freq:60.00Hz Lamp Flux:429.972x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2(MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120

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	.00
1.0	1.04	.99	.95	1.01	.97	.94	.97	.94	.91	.93	.90	.88	.89	.87	.85	.83
2.0	.90	.83	.77	.88	.82	.76	.85	.79	.75	.81	.77	.73	.78	.75	.71	.69
3.0	.79	.71	.64	.77	.70	.64	.74	.68	.62	.72	.66	.61	.69	.64	.60	.58
4.0	.70	.61	.54	.69	.60	.54	.66	.59	.53	.64	.57	.52	.61	.56	.52	.49
5.0	.62	.53	.47	.61	.53	.46	.59	.51	.46	.57	.50	.45	.55	.49	.45	.43
6.0	.56	.47	.41	.55	.47	.40	.53	.46	.40	.52	.45	.40	.50	.44	.39	.37
7.0	.51	.42	.36	.50	.42	.36	.48	.41	.35	.47	.40	.35	.46	.39	.35	.33
8.0	.46	.38	.32	.46	.37	.32	.44	.37	.31	.43	.36	.31	.42	.36	.31	.29
9.0	.42	.34	.29	.42	.34	.28	.41	.33	.28	.40	.33	.28	.39	.32	.28	.26
10.0	.39	.31	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.25	.24



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:24.002V I:0.2106A P:5.0548W PF:1.0000 Freq:60.00Hz Lamp Flux:429.972x1 lm								
NAME: CB-RGBW			TYPE: LED Strip			WEIGHT:		
SPEC.: 19W			DIM.: 1000*12*2(MM)			SERIAL No.: 001		
MFR.: Flexfire LEDs, Inc.			SUR.: 0.02*1			Shielding Angle: 120		

ρcc	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	.313	.178	.056	.306	.175	.056	.293	.168	.054	.281	.162	.052	.269	.156	.050	
2.0	.294	.161	.049	.288	.159	.049	.276	.154	.048	.265	.149	.047	.255	.144	.045	
3.0	.272	.145	.043	.266	.143	.043	.256	.139	.042	.246	.135	.041	.237	.131	.041	
4.0	.251	.130	.038	.246	.129	.038	.237	.125	.037	.228	.122	.037	.220	.119	.036	
5.0	.232	.118	.034	.227	.117	.034	.219	.114	.034	.211	.112	.033	.204	.109	.033	
6.0	.215	.108	.031	.211	.107	.031	.204	.104	.030	.197	.102	.030	.190	.100	.030	
7.0	.200	.099	.028	.196	.098	.028	.190	.096	.028	.184	.094	.027	.178	.092	.027	
8.0	.187	.091	.026	.183	.090	.026	.178	.089	.025	.172	.087	.025	.167	.086	.025	
9.0	.175	.085	.024	.172	.084	.024	.167	.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	

ρcc	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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.192	.192	.192	.164	.164	.164	.112	.112	.112	.064	.064	.064	.021	.021	.021	
1.0	.182	.158	.136	.156	.135	.117	.107	.093	.081	.061	.054	.047	.020	.017	.015	
2.0	.174	.133	.099	.149	.115	.086	.102	.079	.060	.059	.046	.035	.019	.015	.011	
3.0	.166	.116	.076	.143	.100	.066	.098	.069	.046	.057	.041	.027	.018	.013	.009	
4.0	.159	.103	.060	.136	.089	.052	.094	.062	.037	.054	.036	.022	.017	.012	.007	
5.0	.151	.092	.049	.130	.080	.042	.090	.056	.030	.052	.033	.018	.017	.011	.006	
6.0	.144	.084	.041	.124	.073	.035	.086	.051	.025	.050	.030	.015	.016	.010	.005	
7.0	.137	.077	.035	.118	.067	.030	.082	.047	.021	.047	.028	.013	.015	.009	.004	
8.0	.131	.071	.030	.113	.062	.026	.078	.043	.019	.045	.026	.011	.015	.008	.004	
9.0	.125	.066	.027	.108	.058	.023	.074	.040	.017	.043	.024	.010	.014	.008	.003	
10.0	.119	.062	.024	.103	.054	.021	.071	.038	.015	.042	.022	.009	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.002V I:0.2106A P:5.0548W PF:1.0000 Freq:60.00Hz Lamp Flux:429.972x1 lm										
NAME: CB-RGBW			TYPE: LED Strip			WEIGHT:				
SPEC.: 19W			DIM.: 1000*12*2(MM)			SERIAL No.: 001				
MFR.: Flexfire LEDs, Inc.			SUR.: 0.02*1			Shielding Angle: 120				
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	23.0	24.6	23.3	24.8	25.0	23.5	25.0	23.7	25.2	25.4
3H	24.6	26.0	24.9	26.3	26.5	25.3	26.7	25.6	26.9	27.2
4H	25.3	26.6	25.6	26.9	27.1	26.1	27.4	26.4	27.7	28.0
6H	25.8	27.0	26.1	27.3	27.6	26.8	28.1	27.1	28.3	28.6
8H	25.9	27.2	26.3	27.5	27.7	27.1	28.3	27.4	28.6	28.9
12H	26.0	27.2	26.4	27.5	27.8	27.3	28.5	27.7	28.8	29.1
4H 2H	23.8	25.1	24.1	25.4	25.6	24.1	25.4	24.4	25.7	26.0
3H	25.6	26.7	25.9	27.0	27.3	26.1	27.3	26.5	27.6	27.9
4H	26.3	27.4	26.7	27.7	28.1	27.1	28.1	27.4	28.5	28.8
6H	27.0	27.9	27.4	28.3	28.7	27.9	28.8	28.3	29.2	29.6
8H	27.2	28.1	27.6	28.5	28.9	28.3	29.1	28.7	29.5	29.9
12H	27.4	28.2	27.8	28.6	29.0	28.6	29.4	29.0	29.8	30.2
8H 4H	26.7	27.6	27.1	28.0	28.4	27.3	28.2	27.8	28.6	29.0
6H	27.5	28.3	28.0	28.7	29.1	28.4	29.1	28.8	29.5	29.9
8H	27.9	28.5	28.3	29.0	29.4	28.8	29.5	29.3	29.9	30.4
12H	28.1	28.7	28.6	29.1	29.6	29.3	29.9	29.8	30.3	30.8
12H 4H	26.8	27.6	27.2	28.0	28.4	27.4	28.2	27.8	28.6	29.0
6H	27.7	28.3	28.1	28.7	29.2	28.4	29.1	28.9	29.5	30.0
8H	28.0	28.6	28.5	29.1	29.5	29.0	29.5	29.5	30.0	30.5
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	+ 0.2 / - 0.4					+ 0.1 / - 0.3				

CIE Pub.117, 430.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -2.9)
 Area: 0.02 m2

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.002V I:0.2106A P:5.0548W PF:1.0000 Freq:60.00Hz Lamp Flux:429.972x1 lm		
NAME: CB-RGBW	TYPE: LED strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120

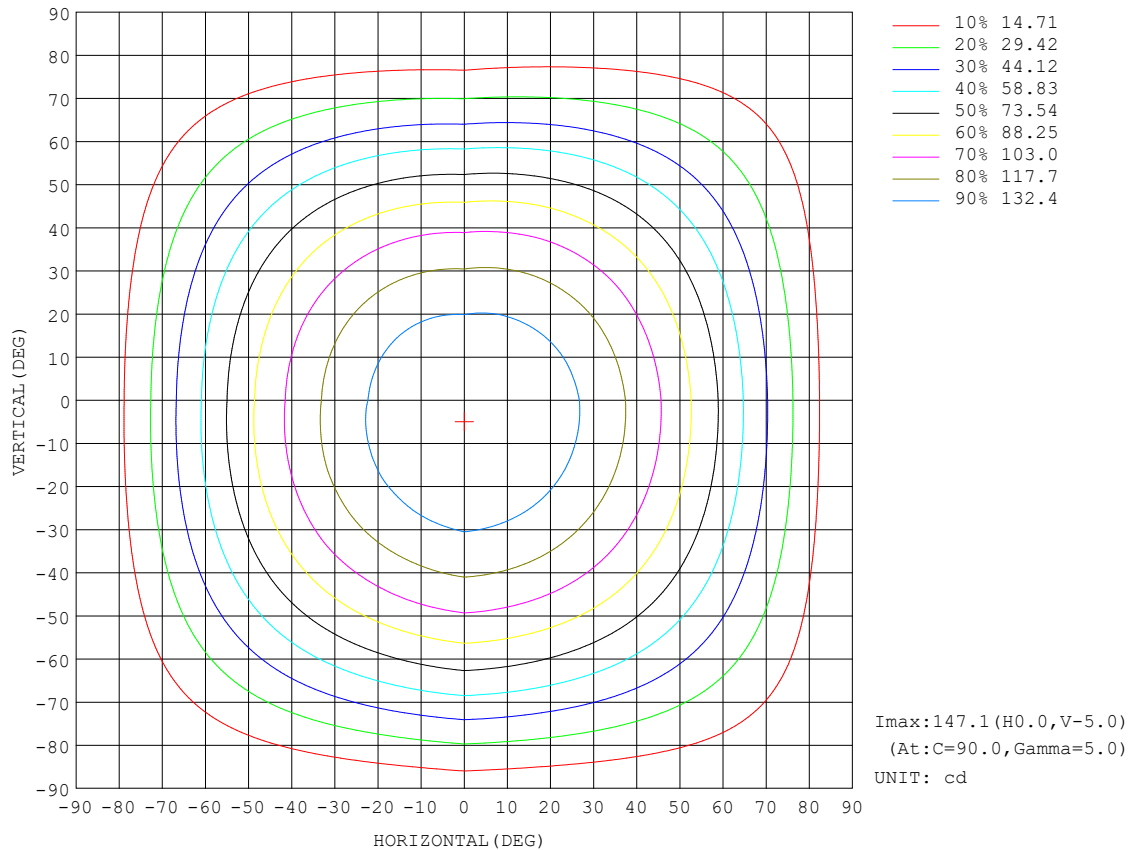
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	45	38	56	45	38	55	45	38	32
0.80	67	55	48	66	55	48	64	54	47	40
1.00	76	64	57	74	64	57	72	65	56	49
1.25	83	72	65	81	71	64	78	70	64	56
1.50	88	78	71	86	77	70	83	75	69	61
2.00	95	86	79	93	85	79	89	82	77	69
2.50	99	91	85	96	89	84	93	87	82	73
3.00	102	95	89	100	93	88	96	90	86	78
4.00	106	100	95	104	98	94	99	95	91	82
5.00	108	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: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:24.002V I:0.2106A P:5.0548W PF:1.0000 Freq:60.00Hz Lamp Flux:429.972x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120

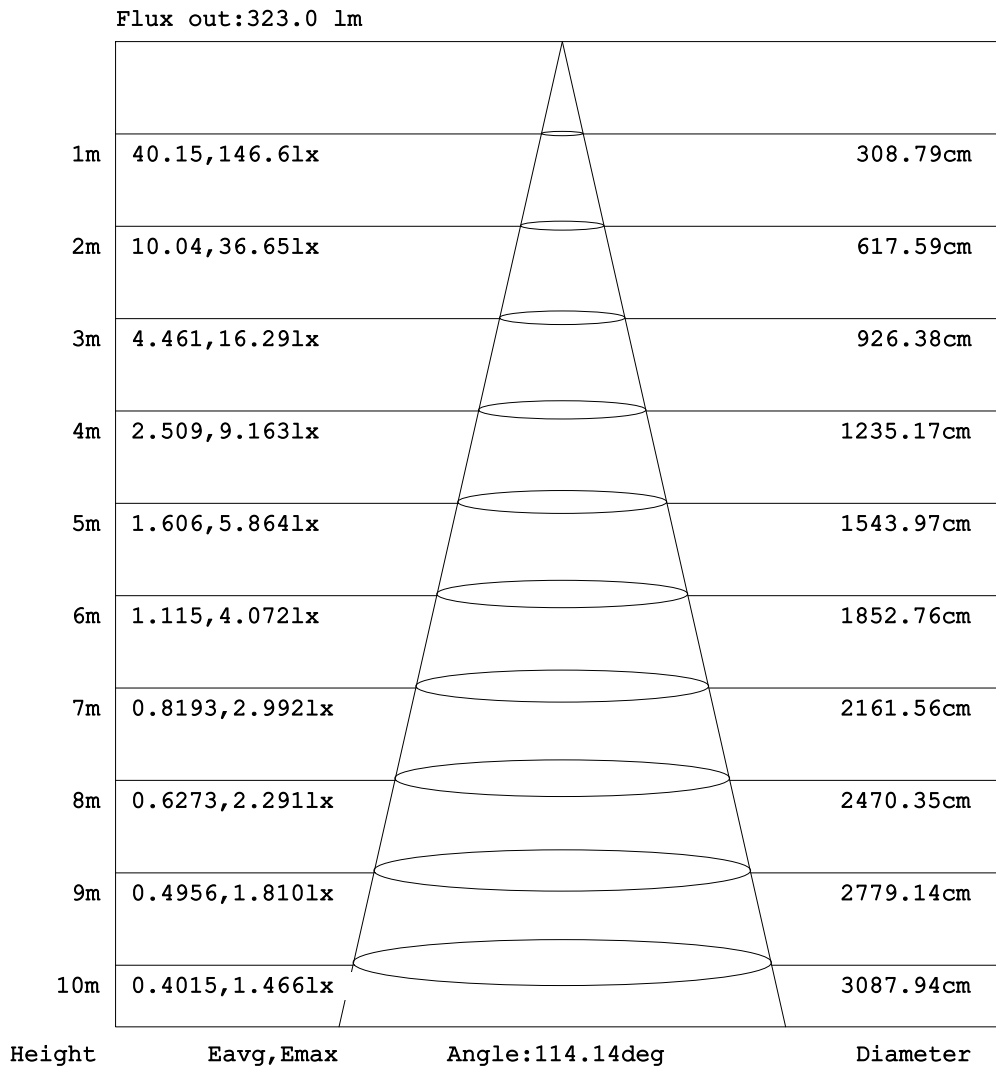


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

AAI Figure

Test:U:24.002V I:0.2106A P:5.0548W PF:1.0000 Freq:60.00Hz Lamp Flux:429.972x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2(MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120



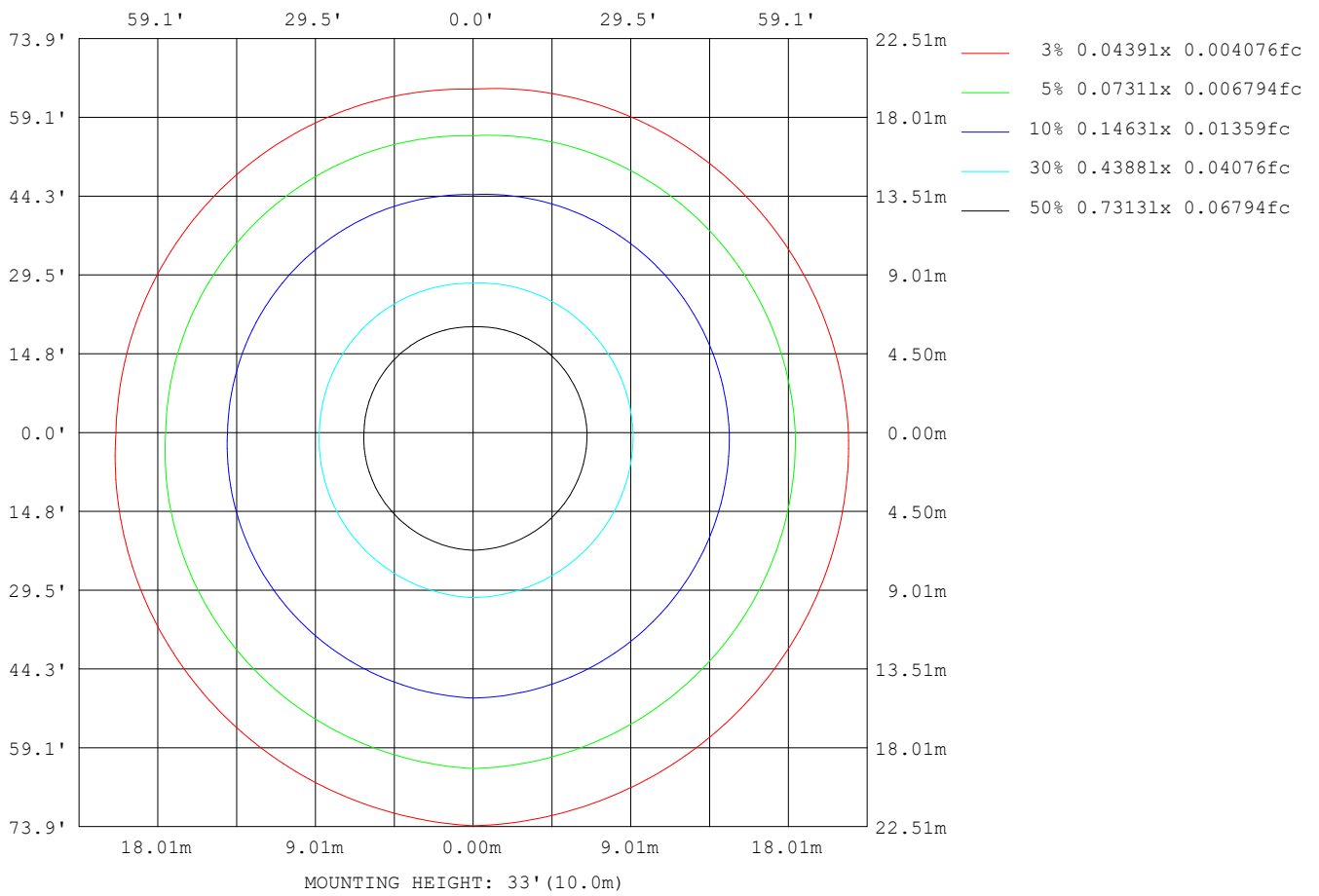
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:24.002V I:0.2106A P:5.0548W PF:1.0000 Freq:60.00Hz Lamp Flux:429.972x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2(MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:24.002V I:0.2106A P:5.0548W PF:1.0000 Freq:60.00Hz Lamp Flux:429.972x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2(MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120

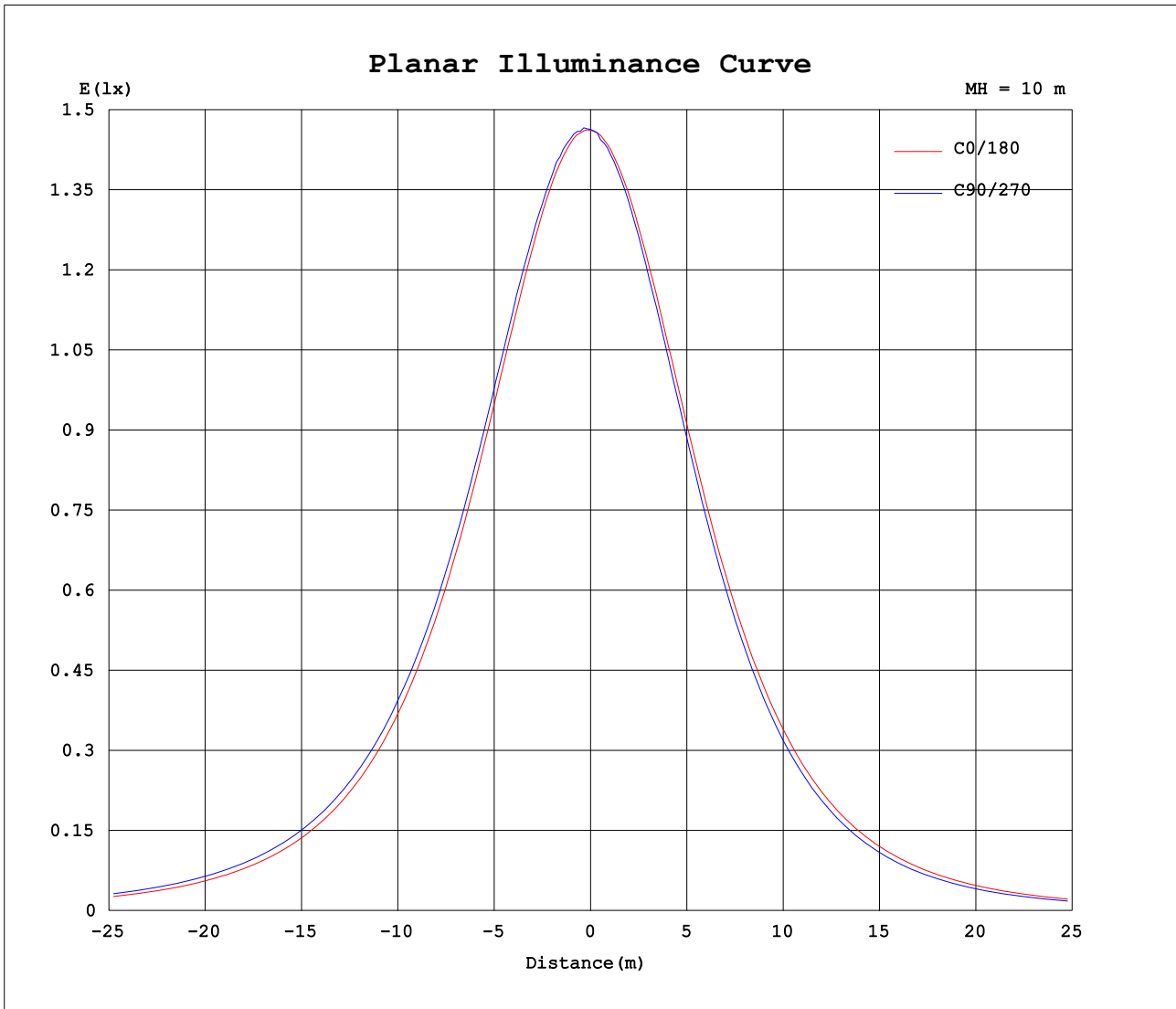
AvgL	cd/m2
L_0~180 (65) av	6310
L_0~180 (75) av	5424
L_0~180 (85) av	3445
L_90~270 (65) av	6473
L_90~270 (75) av	5759
L_90~270 (85) av	5237
L_45 (65) av	6377
L_45 (75) av	5581
L_45 (85) av	4460

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.002V I:0.2106A P:5.0548W PF:1.0000 Freq:60.00Hz Lamp Flux:429.972x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2(MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	90	180	270															
0	146	146	146	146															
5	146	147	145	144															
10	145	147	143	142															
15	142	145	139	137															
20	139	142	135	132															
25	134	138	129	126															
30	128	133	123	118															
35	121	127	115	110															
40	113	119	106	101															
45	104	111	96.0	90.1															
50	93.9	102	85.2	79.1															
55	82.9	91.3	73.5	67.0															
60	70.9	80.0	61.2	54.4															
65	58.1	67.9	48.6	41.6															
70	45.0	55.1	36.0	29.1															
75	32.4	41.8	23.7	17.8															
80	20.1	28.7	12.2	8.38															
85	8.94	16.8	3.07	1.49															
90	0.01	7.67	0.00	0.00															
95	0.00	2.84	0.00	0.00															
100	0.00	0.16	0.00	0.00															
105	0.00	0.00	0.00	0.00															
110	0.00	0.00	0.00	0.00															
115	0.00	0.00	0.00	0.00															
120	0.00	0.00	0.00	0.00															
125	0.00	0.00	0.00	0.00															
130	0.00	0.00	0.00	0.00															
135	0.00	0.00	0.00	0.00															
140	0.00	0.00	0.00	0.00															
145	0.00	0.00	0.00	0.00															
150	0.00	0.00	0.00	0.00															
155	0.00	0.00	0.00	0.00															
160	0.00	0.00	0.00	0.00															
165	0.00	0.00	0.00	0.00															
170	0.00	0.00	0.00	0.00															
175	0.00	0.00	0.00	0.00															
180	0.00	0.00	0.00	0.00															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks: