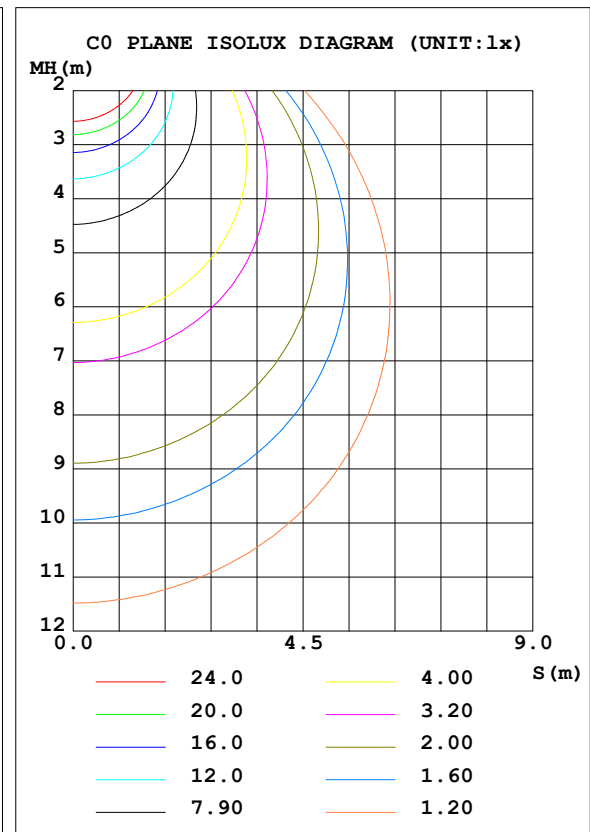
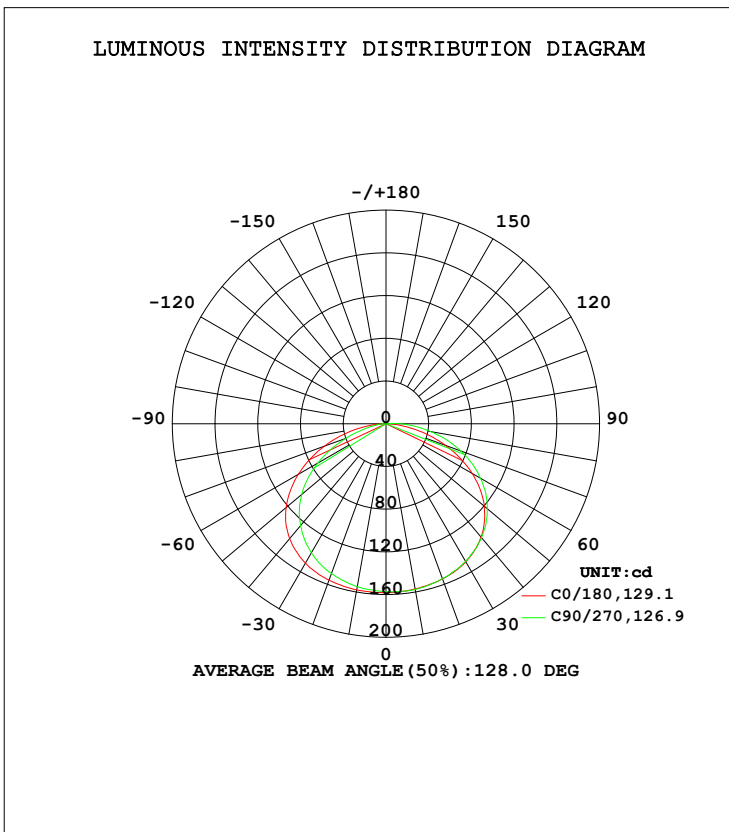


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.001V I:0.5881A P:14.115W PF:1.0000 Freq:0Hz Lamp Flux:545.846x1 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 Eff: 38.67 lm/W			
MODEL		I _{max} (cd)	158.3	S/MH (C0/180)	1.42
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.32
RATED VOLTAGE (V)		TOTAL FLUX (lm)	545.85	η UP, DN (C0-180)	0.2, 52.8
NOMINAL FLUX (lm)	545.846	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 47.0
LAMPS INSIDE	1	η up (%)	0.3	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)		η down (%)	99.7	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Test Date: 2022-09-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity: 65.0%
 Test Distance: 8.700m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM
ZONAL FLUX DIAGRAM:

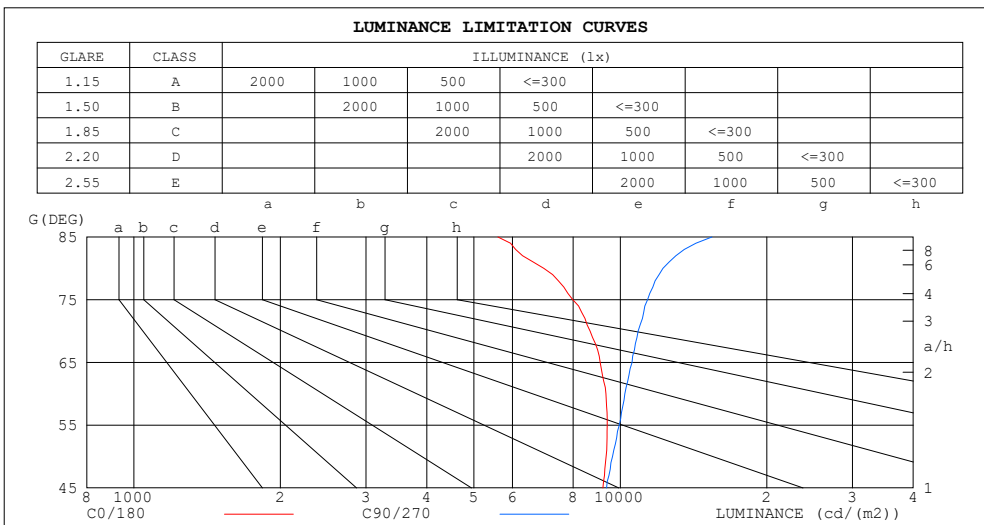
γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum,lamp
10	157.1	157.6	157.9	154.9				0- 10	15.02	15.02	2.75,2.75
20	154.6	154.5	155.9	149.3				10- 20	44.00	59.01	10.8,10.8
30	149.3	148.9	150.8	139.8				20- 30	69.68	128.7	23.6,23.6
40	138.4	139.2	140.5	124.5				30- 40	88.96	217.7	39.9,39.9
50	120.2	123.9	121.9	103.1				40- 50	98.22	315.9	57.9,57.9
60	93.39	102.2	94.83	73.81				50- 60	93.80	409.7	75.1,75.1
70	59.28	74.44	61.36	40.06				60- 70	74.47	484.1	88.7,88.7
80	24.18	42.48	27.63	13.00				70- 80	44.71	528.9	96.9,96.9
90	0.5835	13.44	0	2.443				80- 90	15.41	544.3	99.7,99.7
100	0	0	0	0				90-100	1.578	545.8	100,100
110	0	0	0	0				100-110	0	545.8	100,100
120	0	0	0	0				110-120	0	545.8	100,100
130	0	0	0	0				120-130	0	545.8	100,100
140	0	0	0	0				130-140	0	545.8	100,100
150	0	0	0	0				140-150	0	545.8	100,100
160	0	0	0	0				150-160	0	545.8	100,100
170	0	0	0	0				160-170	0	545.8	100,100
180	0	0	0	0				170-180	0	545.8	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.700m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.001V I:0.5881A P:14.115W PF:1.0000 Freq:0Hz Lamp Flux:545.846x1 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	5601	15422
80	6962	12231
75	7987	11376
70	8666	10882
65	9090	10567
60	9339	10219
55	9397	9949
50	9347	9639
45	9208	9371

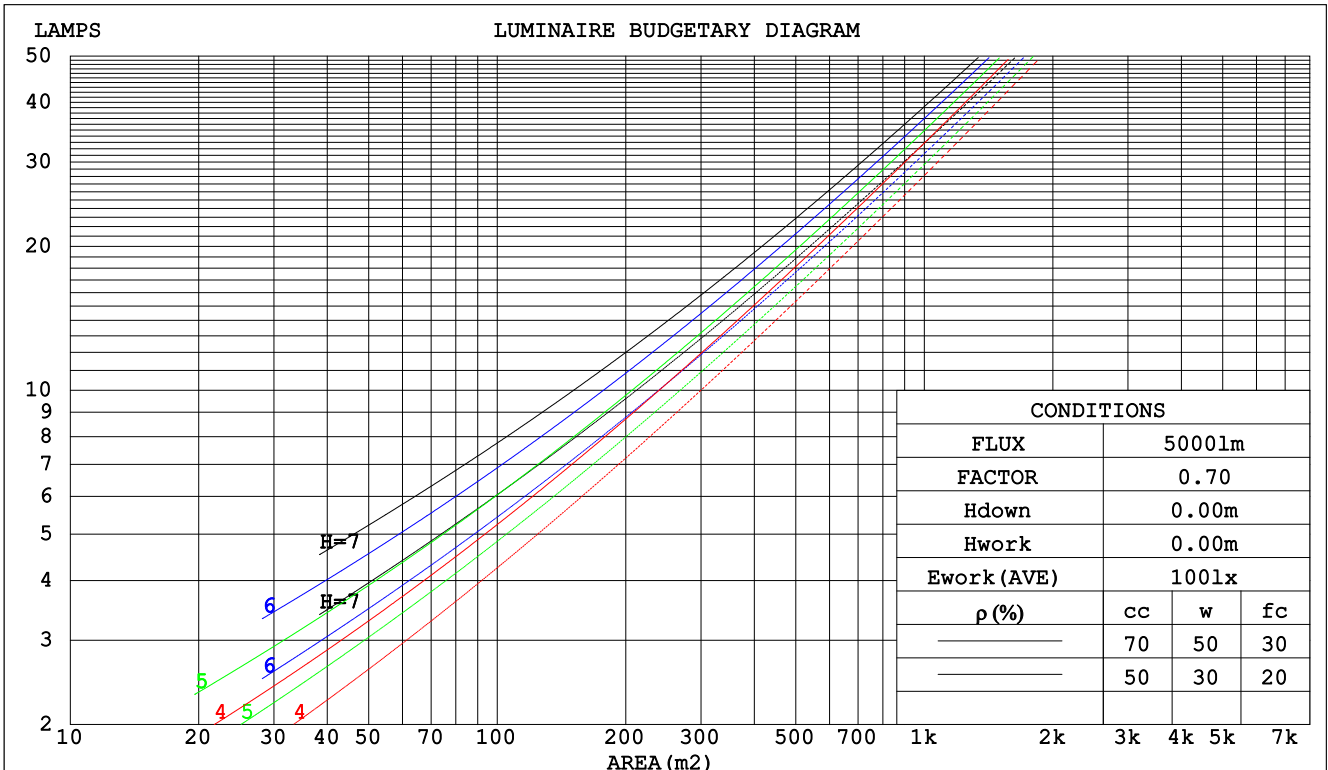
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.700m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.001V I:0.5881A P:14.115W PF:1.0000 Freq:0Hz Lamp Flux:545.846x1 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	1.03	.98	.94	1.00	.96	.92	.96	.92	.89	.92	.89	.86	.88	.86	.84	.82
2.0	.89	.81	.75	.87	.80	.74	.83	.77	.73	.80	.75	.71	.77	.73	.69	.67
3.0	.77	.69	.62	.76	.68	.61	.72	.66	.60	.70	.64	.59	.67	.62	.58	.55
4.0	.68	.59	.52	.67	.58	.51	.64	.56	.51	.62	.55	.50	.59	.54	.49	.47
5.0	.60	.51	.44	.59	.50	.44	.57	.49	.43	.55	.48	.43	.53	.47	.42	.40
6.0	.54	.45	.38	.53	.44	.38	.51	.43	.37	.49	.42	.37	.48	.42	.37	.35
7.0	.49	.40	.33	.48	.39	.33	.46	.39	.33	.45	.38	.33	.43	.37	.32	.30
8.0	.44	.36	.30	.44	.35	.29	.42	.35	.29	.41	.34	.29	.40	.33	.29	.27
9.0	.41	.32	.26	.40	.32	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.24
10.0	.37	.29	.24	.37	.29	.24	.36	.29	.24	.35	.28	.23	.34	.28	.23	.22



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.700m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:24.001V I:0.5881A P:14.115W PF:1.0000 Freq:0Hz Lamp Flux:545.846x1 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	.332	.189	.060	.325	.185	.059	.311	.179	.057	.299	.172	.055	.287	.167	.054	
2.0	.308	.169	.052	.302	.166	.051	.290	.161	.050	.279	.157	.049	.269	.152	.048	
3.0	.283	.151	.045	.278	.149	.045	.267	.145	.044	.257	.141	.043	.248	.137	.042	
4.0	.260	.135	.040	.255	.133	.039	.245	.130	.039	.237	.127	.038	.229	.124	.038	
5.0	.239	.122	.035	.235	.121	.035	.226	.118	.035	.219	.115	.034	.211	.113	.034	
6.0	.221	.111	.032	.217	.110	.032	.210	.107	.031	.203	.105	.031	.196	.103	.031	
7.0	.205	.101	.029	.202	.100	.029	.195	.099	.028	.189	.097	.028	.183	.095	.028	
8.0	.191	.093	.026	.188	.093	.026	.182	.091	.026	.176	.089	.026	.171	.088	.026	
9.0	.179	.086	.024	.176	.086	.024	.170	.084	.024	.165	.083	.024	.161	.082	.024	
10.0	.168	.080	.022	.165	.080	.022	.160	.079	.022	.156	.077	.022	.151	.076	.022	

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	.193	.193	.193	.165	.165	.165	.112	.112	.112	.065	.065	.065	.021	.021	.021	
1.0	.184	.158	.135	.157	.136	.116	.108	.093	.080	.062	.054	.047	.020	.017	.015	
2.0	.177	.134	.098	.151	.115	.085	.104	.080	.059	.060	.046	.035	.019	.015	.011	
3.0	.169	.117	.075	.145	.101	.065	.100	.070	.045	.058	.041	.027	.018	.013	.009	
4.0	.162	.103	.059	.139	.089	.051	.095	.062	.036	.055	.037	.021	.018	.012	.007	
5.0	.154	.093	.048	.133	.081	.042	.091	.056	.030	.053	.033	.018	.017	.011	.006	
6.0	.147	.085	.040	.126	.074	.035	.087	.051	.025	.051	.030	.015	.016	.010	.005	
7.0	.140	.078	.035	.120	.068	.030	.083	.047	.021	.048	.028	.013	.016	.009	.004	
8.0	.133	.072	.030	.115	.063	.026	.079	.044	.019	.046	.026	.011	.015	.009	.004	
9.0	.127	.067	.027	.110	.058	.023	.076	.041	.017	.044	.024	.010	.014	.008	.003	
10.0	.121	.063	.024	.105	.055	.021	.073	.039	.015	.042	.023	.009	.014	.007	.003	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.700m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.001V I:0.5881A P:14.115W PF:1.0000 Freq:0Hz Lamp Flux:545.846x1 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	23.1	24.7	23.4	24.9	25.1	23.4	25.0	23.7	25.2	25.4
3H	24.8	26.2	25.1	26.5	26.7	25.4	26.9	25.7	27.1	27.4
4H	25.4	26.8	25.8	27.1	27.4	26.3	27.7	26.7	28.0	28.3
6H	25.9	27.2	26.2	27.5	27.8	27.2	28.5	27.5	28.8	29.1
8H	26.0	27.3	26.4	27.6	27.9	27.5	28.8	27.9	29.1	29.4
12H	26.1	27.3	26.4	27.6	27.9	27.9	29.1	28.3	29.4	29.7
4H 2H	23.9	25.3	24.2	25.5	25.8	24.1	25.5	24.4	25.7	26.0
3H	25.7	27.0	26.1	27.3	27.6	26.3	27.5	26.6	27.8	28.1
4H	26.5	27.6	26.9	28.0	28.3	27.3	28.5	27.7	28.8	29.1
6H	27.1	28.1	27.5	28.5	28.8	28.3	29.3	28.7	29.7	30.0
8H	27.3	28.2	27.7	28.6	29.0	28.8	29.7	29.2	30.1	30.5
12H	27.4	28.3	27.8	28.7	29.1	29.2	30.1	29.6	30.4	30.9
8H 4H	26.9	27.9	27.4	28.2	28.6	27.6	28.6	28.1	29.0	29.3
6H	27.7	28.5	28.2	28.9	29.3	28.8	29.6	29.3	30.0	30.4
8H	28.0	28.7	28.5	29.1	29.6	29.4	30.1	29.8	30.5	31.0
12H	28.2	28.8	28.7	29.3	29.8	30.0	30.6	30.4	31.0	31.5
12H 4H	27.0	27.9	27.4	28.3	28.7	27.7	28.5	28.1	28.9	29.3
6H	27.9	28.5	28.3	29.0	29.4	28.9	29.6	29.4	30.0	30.5
8H	28.2	28.8	28.7	29.3	29.7	29.5	30.1	30.0	30.6	31.1
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.4					+ 0.2 / - 0.3				

CIE Pub.117, 545.8 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -2.1)
 Area: 0.02 m2

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.700m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.001V I:0.5881A P:14.115W PF:1.0000 Freq:0Hz Lamp Flux:545.846x1 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

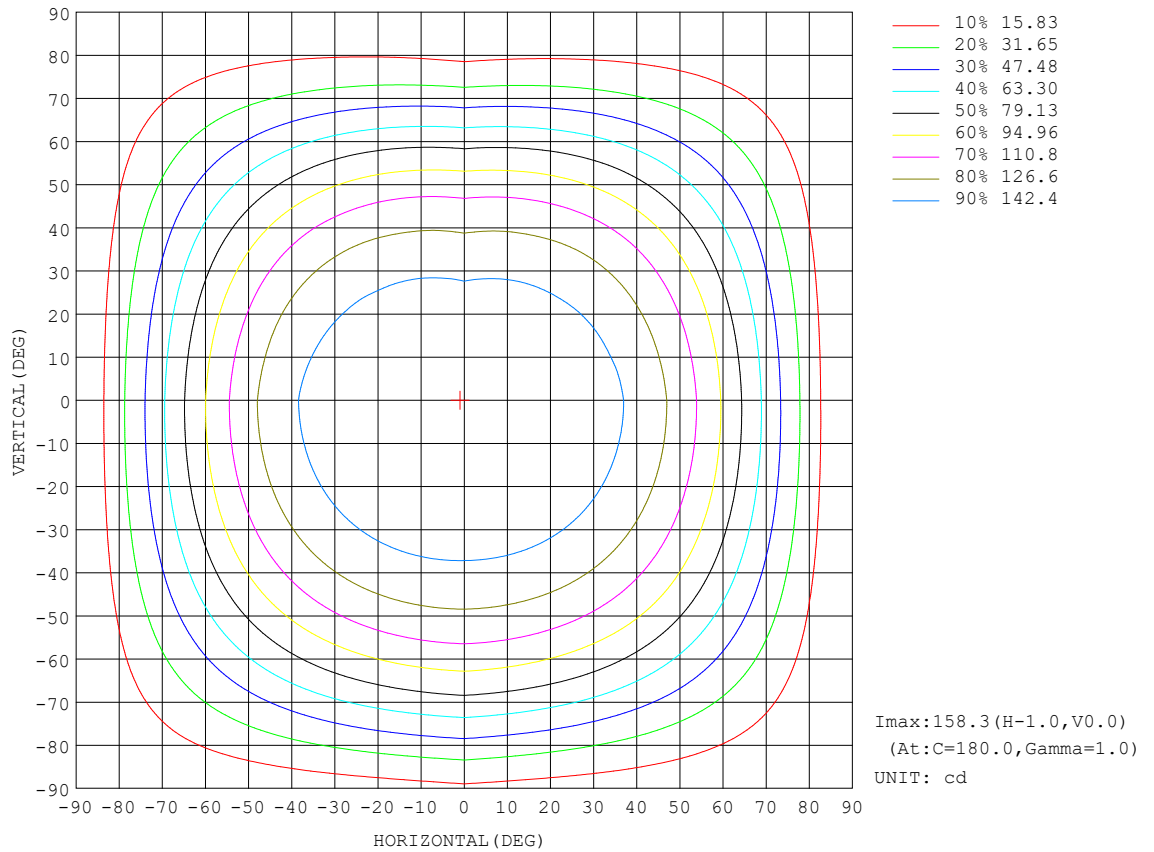
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	55	43	35	54	42	35	53	42	35	28
0.80	65	53	45	64	52	45	62	51	44	37
1.00	73	62	54	72	61	54	70	63	53	46
1.25	81	70	62	79	69	62	76	67	61	53
1.50	86	75	68	84	74	67	81	73	66	58
2.00	93	84	77	91	83	76	88	80	75	66
2.50	97	89	82	95	87	81	91	85	80	71
3.00	101	93	87	99	92	86	94	89	84	75
4.00	105	99	94	103	97	92	98	94	90	81
5.00	108	102	98	105	100	96	100	97	93	84
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:2022-09-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.700m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:24.001V I:0.5881A P:14.115W PF:1.0000 Freq:0Hz Lamp Flux:545.846x1 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

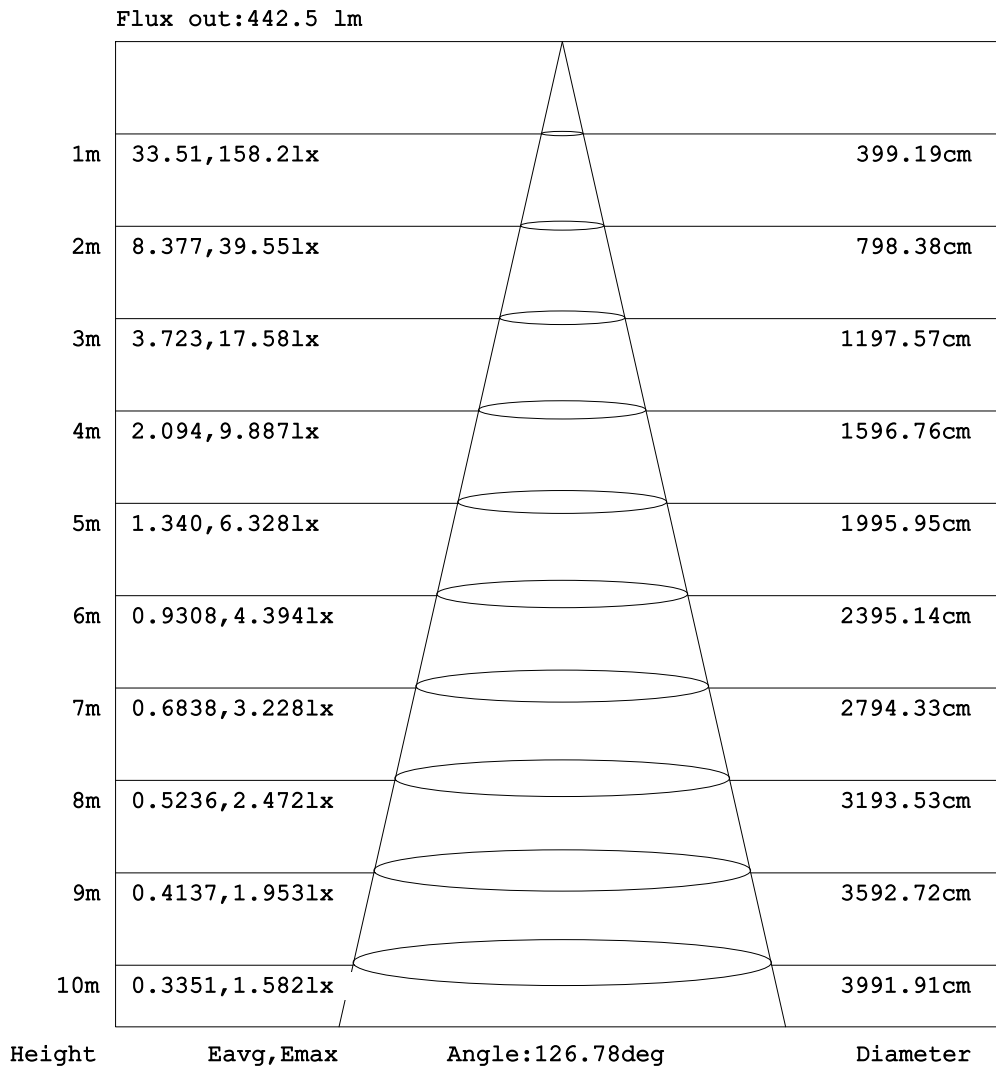


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.700m [K=1.0000]
 Remarks:

AAI Figure

Test:U:24.001V I:0.5881A P:14.115W PF:1.0000 Freq:0Hz Lamp Flux:545.846x1 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



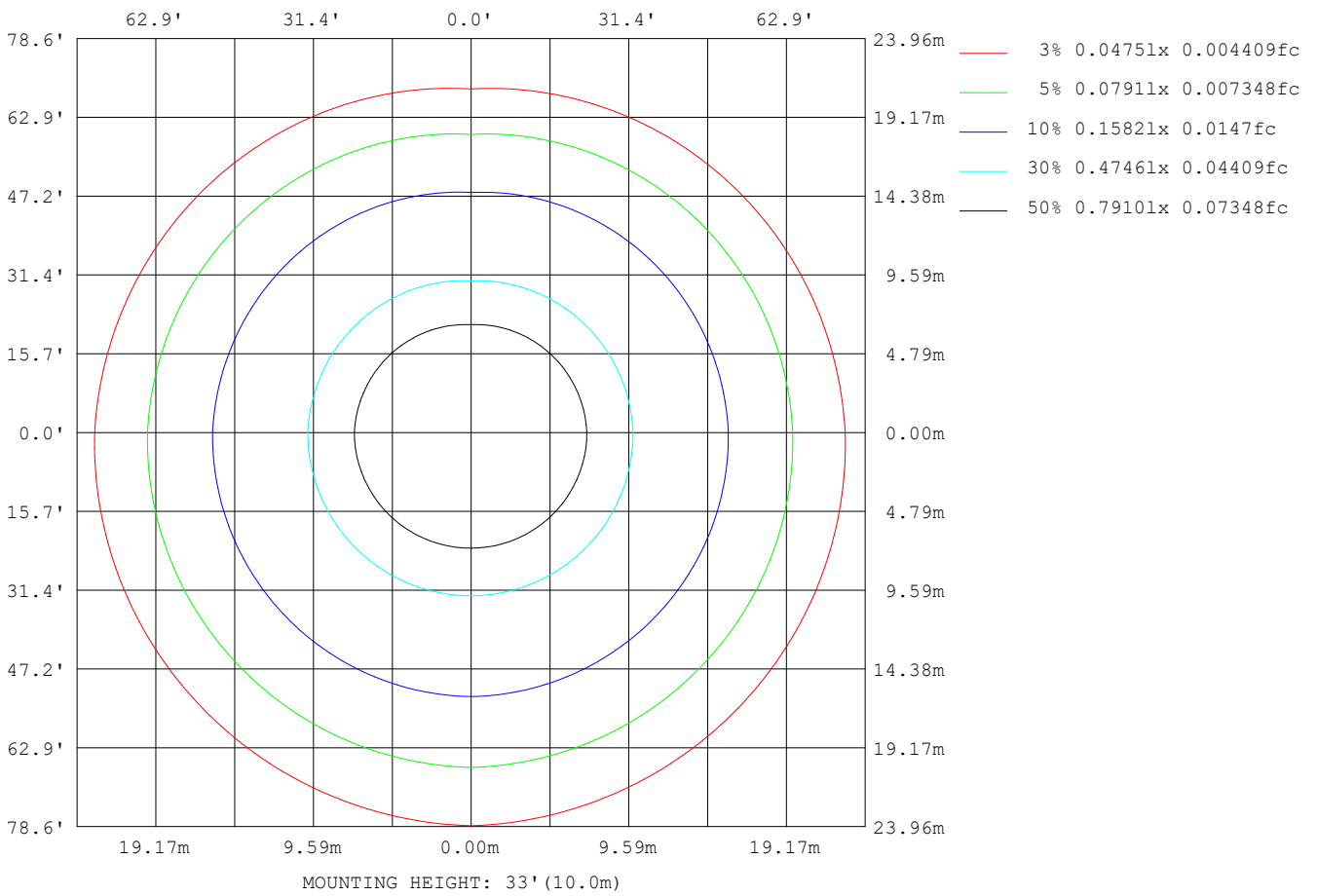
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Test Date: 2022-09-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity: 65.0%
 Test Distance: 8.700m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:24.001V I:0.5881A P:14.115W PF:1.0000 Freq:0Hz Lamp Flux:545.846x1 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:2022-09-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.700m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:24.001V I:0.5881A P:14.115W PF:1.0000 Freq:0Hz Lamp Flux:545.846x1 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

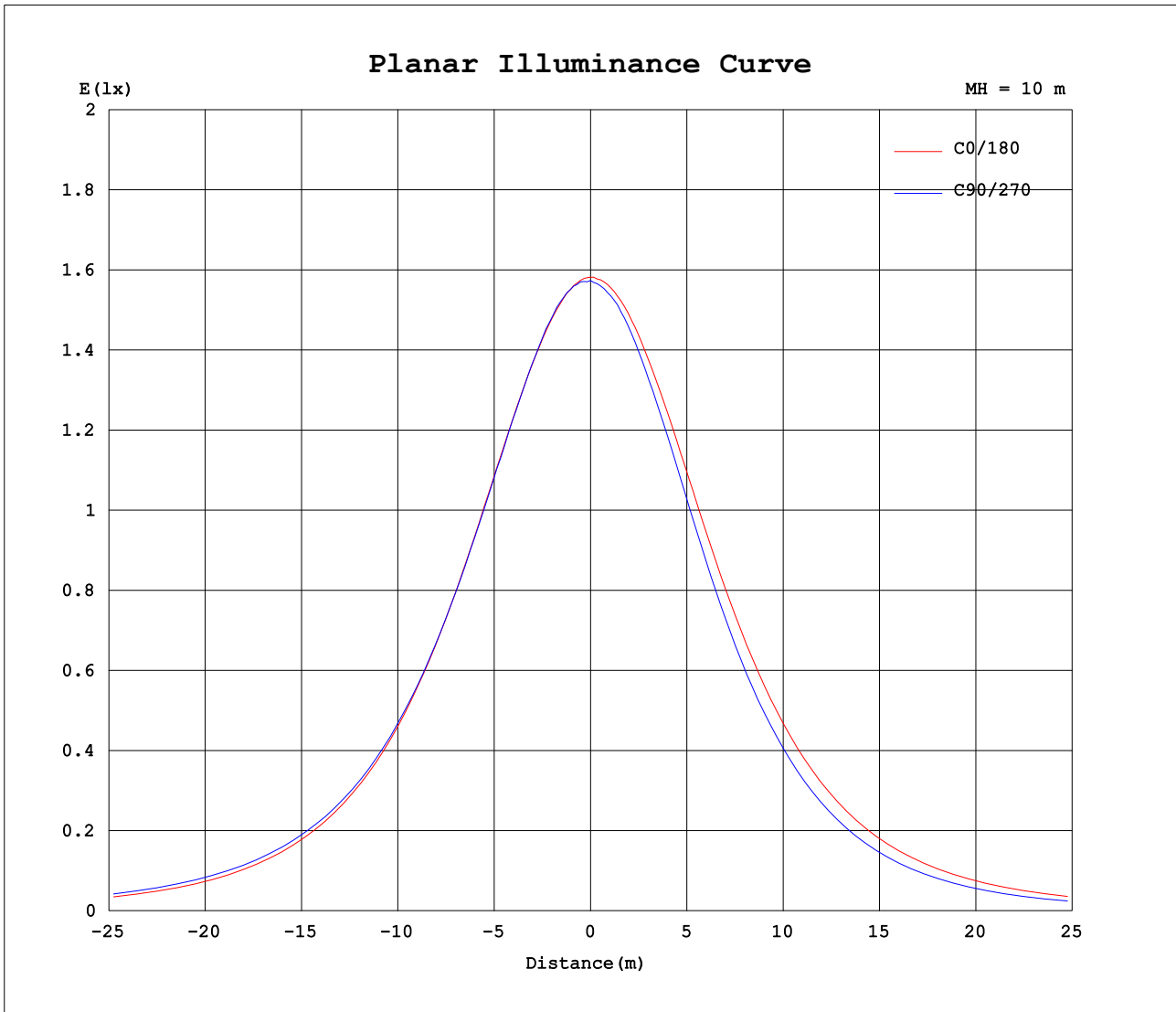
AvgL	cd/m2
L_0~180 (65) av	9192
L_0~180 (75) av	8222
L_0~180 (85) av	6216
L_90~270 (65) av	8654
L_90~270 (75) av	8039
L_90~270 (85) av	9420
L_45 (65) av	8862
L_45 (75) av	8122
L_45 (85) av	8257

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.700m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Test Date: 2022-09-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity: 65.0%
 Test Distance: 8.700m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.001V I:0.5881A P:14.115W PF:1.0000 Freq:0Hz Lamp Flux:545.846x1 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	158	157	158	157															
5	158	158	158	156															
10	157	158	158	155															
15	156	156	157	152															
20	155	154	156	149															
25	152	152	154	145															
30	149	149	151	140															
35	145	144	146	133															
40	138	139	140	125															
45	130	133	132	115															
50	120	124	122	103															
55	108	114	109	89.3															
60	93.4	102	94.8	73.8															
65	76.8	89.3	78.6	57.0															
70	59.3	74.4	61.4	40.1															
75	41.3	58.9	43.8	24.3															
80	24.2	42.5	27.6	13.0															
85	9.76	26.9	11.9	5.96															
90	0.58	13.4	0.00	2.44															
95	0.00	4.09	0.00	0.67															
100	0.00	0.00	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:2022-09-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.700m [K=1.0000]
 Remarks: