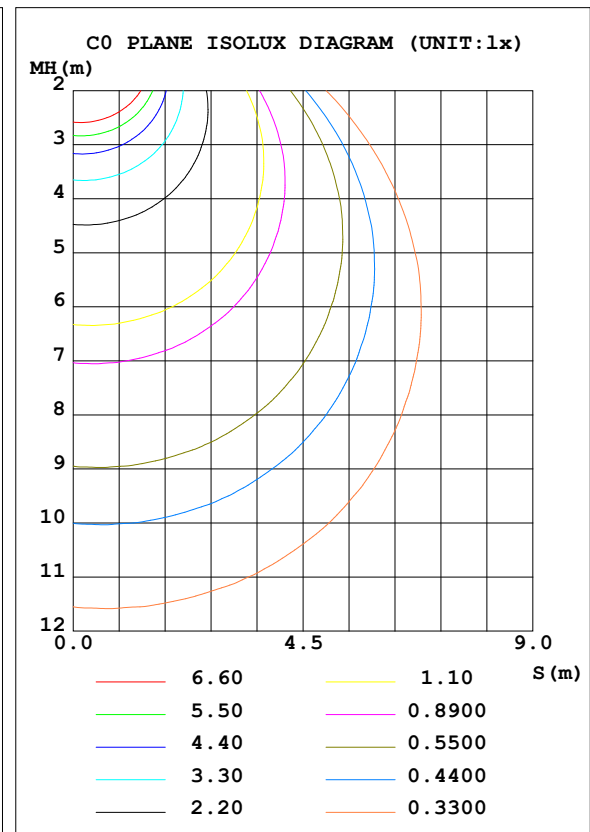
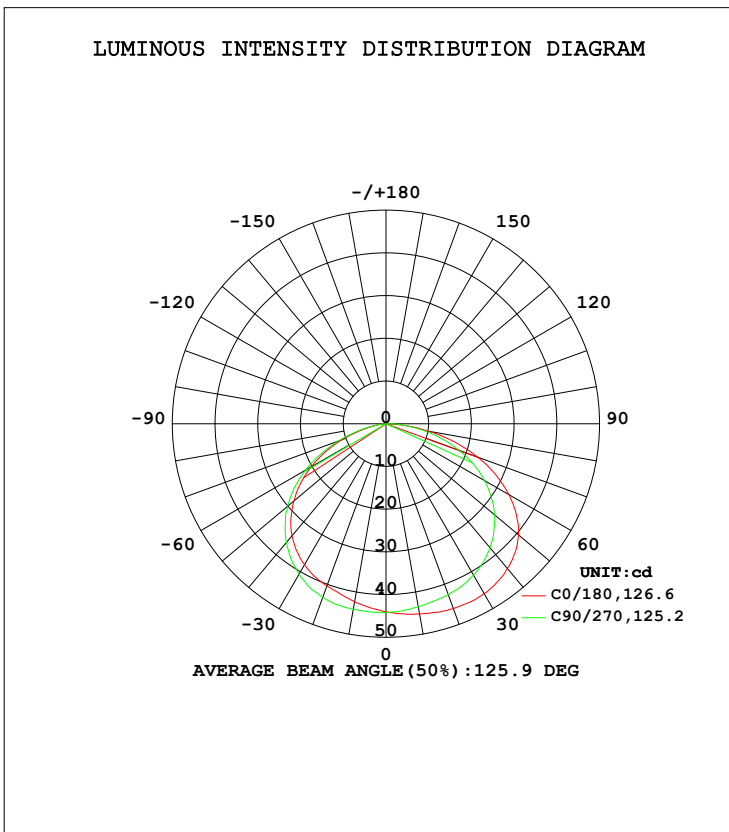


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.002V I:0.1934A P:4.6420W PF:1.0000 Freq:60.00Hz Lamp Flux:150.059x1 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: 32.33 lm/W			
MODEL		I _{max} (cd)	46.16	S/MH (C0/180)	1.30
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.36
RATED VOLTAGE (V)		TOTAL FLUX (lm)	150.06	η UP, DN (C0-180)	0.0, 56.6
NOMINAL FLUX (lm)	150.059	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 43.4
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)		η down (%)	100.0	CIBSE SHR MAX	1.55



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:

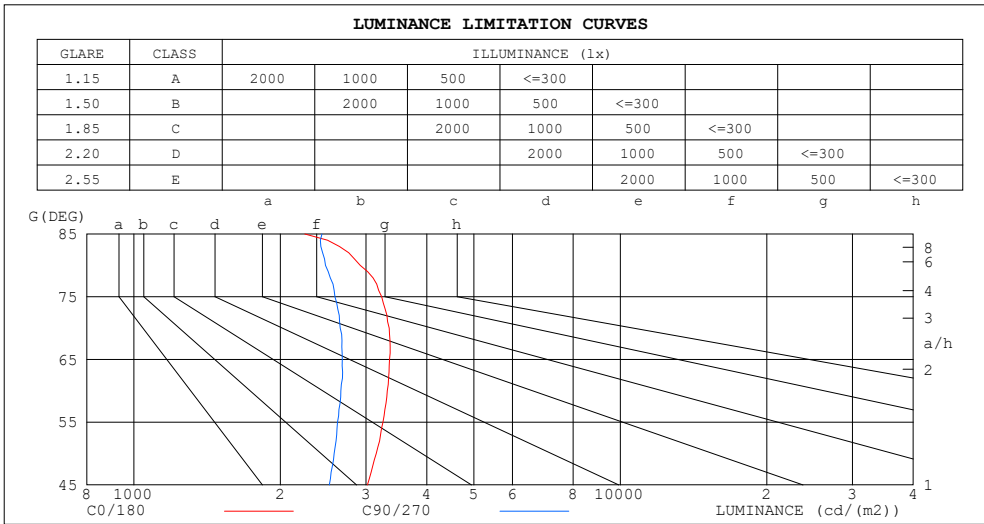
γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum,lamp
10	45.20	43.48	42.29	44.09				0- 10	4.193	4.193	2.79,2.79
20	46.04	42.54	40.45	43.23				10- 20	12.31	16.50	11,11
30	45.90	40.94	38.11	40.67				20- 30	19.59	36.09	24,24
40	44.19	37.90	34.22	36.28				30- 40	25.04	61.13	40.7,40.7
50	40.49	33.16	28.13	30.02				40- 50	27.62	88.75	59.1,59.1
60	33.17	26.64	20.27	21.72				50- 60	26.32	115.1	76.7,76.7
70	22.91	18.17	10.93	11.93				60- 70	20.64	135.7	90.4,90.4
80	10.14	8.600	2.640	3.170				70- 80	11.56	147.3	98.1,98.1
90	0	1.161	0	0				80- 90	2.745	150.0	100,100
100	0	0	0	0				90-100	0.0456	150.1	100,100
110	0	0	0	0				100-110	0	150.1	100,100
120	0	0	0	0				110-120	0	150.1	100,100
130	0	0	0	0				120-130	0	150.1	100,100
140	0	0	0	0				130-140	0	150.1	100,100
150	0	0	0	0				140-150	0	150.1	100,100
160	0	0	0	0				150-160	0	150.1	100,100
170	0	0	0	0				160-170	0	150.1	100,100
180	0	0	0	0				170-180	0	150.1	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:0.1934A P:4.6420W PF:1.0000 Freq:60.00Hz Lamp Flux:150.059x1 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	2246	2436
80	2920	2476
75	3231	2591
70	3349	2656
65	3355	2683
60	3317	2664
55	3251	2622
50	3149	2579
45	3020	2523

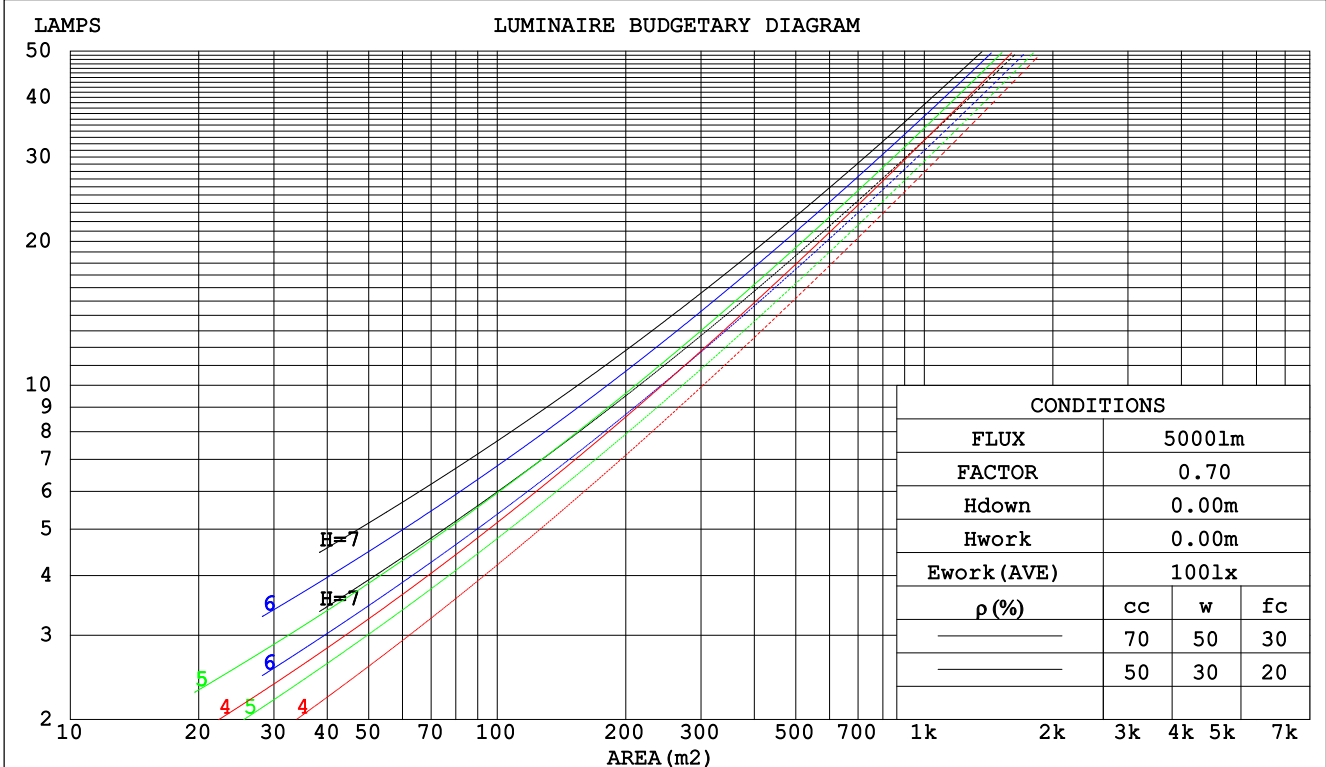
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

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:0.1934A P:4.6420W PF:1.0000 Freq:60.00Hz Lamp Flux:150.059x1 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	.99	.95	1.01	.97	.93	.97	.93	.90	.93	.90	.88	.89	.87	.85	.83
2.0	.89	.82	.76	.87	.81	.75	.84	.78	.74	.81	.76	.72	.78	.74	.70	.68
3.0	.78	.69	.63	.76	.68	.62	.73	.67	.61	.71	.65	.60	.68	.63	.59	.57
4.0	.69	.59	.53	.67	.59	.52	.65	.57	.51	.62	.56	.51	.60	.55	.50	.48
5.0	.61	.52	.45	.60	.51	.45	.58	.50	.44	.56	.49	.43	.54	.48	.43	.41
6.0	.55	.45	.39	.54	.45	.39	.52	.44	.38	.50	.43	.38	.48	.42	.37	.35
7.0	.49	.40	.34	.48	.40	.34	.47	.39	.34	.45	.38	.33	.44	.38	.33	.31
8.0	.45	.36	.30	.44	.36	.30	.43	.35	.30	.41	.35	.30	.40	.34	.29	.27
9.0	.41	.33	.27	.40	.32	.27	.39	.32	.27	.38	.31	.26	.37	.31	.26	.24
10.0	.38	.30	.24	.37	.29	.24	.36	.29	.24	.35	.29	.24	.34	.28	.24	.22



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:0.1934A P:4.6420W PF:1.0000 Freq:60.00Hz Lamp Flux:150.059x1 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	.320	.182	.058	.313	.178	.057	.299	.172	.055	.287	.166	.053	.276	.160	.052	
2.0	.302	.165	.051	.295	.163	.050	.284	.158	.049	.273	.153	.048	.263	.149	.047	
3.0	.279	.148	.044	.273	.146	.044	.263	.142	.043	.253	.139	.043	.244	.135	.042	
4.0	.257	.134	.039	.252	.132	.039	.243	.129	.038	.234	.126	.038	.226	.123	.037	
5.0	.237	.121	.035	.233	.120	.035	.225	.117	.034	.217	.114	.034	.210	.112	.034	
6.0	.220	.110	.032	.216	.109	.031	.208	.107	.031	.201	.105	.031	.195	.103	.030	
7.0	.204	.101	.029	.201	.100	.028	.194	.098	.028	.188	.096	.028	.182	.095	.028	
8.0	.190	.093	.026	.187	.092	.026	.181	.091	.026	.176	.089	.026	.170	.088	.025	
9.0	.178	.086	.024	.175	.085	.024	.170	.084	.024	.165	.083	.024	.160	.081	.024	
10.0	.167	.080	.022	.165	.080	.022	.160	.078	.022	.155	.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	.191	.191	.191	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.181	.156	.134	.155	.134	.115	.106	.092	.080	.061	.053	.046	.020	.017	.015	
2.0	.174	.132	.097	.149	.114	.084	.102	.079	.059	.059	.046	.034	.019	.015	.011	
3.0	.166	.115	.073	.143	.099	.064	.098	.069	.045	.057	.040	.026	.018	.013	.009	
4.0	.159	.101	.057	.136	.088	.050	.094	.061	.035	.054	.036	.021	.017	.012	.007	
5.0	.152	.091	.046	.130	.079	.040	.090	.055	.028	.052	.032	.017	.017	.011	.006	
6.0	.145	.083	.039	.124	.072	.034	.086	.050	.024	.050	.030	.014	.016	.010	.005	
7.0	.138	.076	.033	.118	.066	.029	.082	.046	.020	.048	.027	.012	.015	.009	.004	
8.0	.131	.070	.028	.113	.061	.025	.078	.043	.018	.045	.025	.010	.015	.008	.003	
9.0	.125	.065	.025	.108	.057	.022	.075	.040	.015	.043	.024	.009	.014	.008	.003	
10.0	.119	.061	.022	.103	.053	.019	.071	.037	.014	.042	.022	.008	.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:0.1934A P:4.6420W PF:1.0000 Freq:60.00Hz Lamp Flux:150.059x1 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	24.4	26.0	24.7	26.2	26.4	23.5	25.1	23.8	25.3	25.5
3H	26.3	27.8	26.6	28.0	28.3	25.3	26.8	25.6	27.0	27.3
4H	27.1	28.5	27.5	28.8	29.0	26.1	27.5	26.4	27.7	28.0
6H	27.7	29.0	28.1	29.3	29.6	26.6	28.0	27.0	28.2	28.5
8H	27.9	29.2	28.3	29.5	29.8	26.8	28.1	27.2	28.4	28.7
12H	28.0	29.2	28.4	29.5	29.8	27.0	28.2	27.3	28.5	28.8
4H 2H	25.0	26.4	25.3	26.7	26.9	24.4	25.8	24.7	26.0	26.3
3H	27.1	28.4	27.5	28.7	29.0	26.4	27.6	26.7	27.9	28.2
4H	28.1	29.2	28.5	29.5	29.9	27.2	28.3	27.6	28.7	29.0
6H	28.8	29.8	29.2	30.1	30.5	27.9	28.9	28.3	29.3	29.6
8H	29.1	30.0	29.5	30.3	30.7	28.2	29.1	28.6	29.5	29.9
12H	29.2	30.0	29.6	30.4	30.8	28.4	29.2	28.8	29.6	30.0
8H 4H	28.4	29.3	28.8	29.7	30.0	27.6	28.6	28.0	28.9	29.3
6H	29.3	30.0	29.7	30.4	30.9	28.5	29.3	28.9	29.7	30.1
8H	29.6	30.3	30.1	30.7	31.2	28.9	29.5	29.3	30.0	30.4
12H	29.8	30.4	30.3	30.9	31.3	29.1	29.7	29.6	30.2	30.6
12H 4H	28.4	29.2	28.8	29.6	30.0	27.7	28.5	28.1	28.9	29.3
6H	29.3	30.0	29.8	30.4	30.9	28.6	29.3	29.1	29.7	30.1
8H	29.7	30.3	30.2	30.7	31.2	29.0	29.6	29.5	30.0	30.5
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.3					+ 0.2 / - 0.5				

CIE Pub.117, 150.1 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -6.6)
 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:0.1934A P:4.6420W PF:1.0000 Freq:60.00Hz Lamp Flux:150.059x1 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

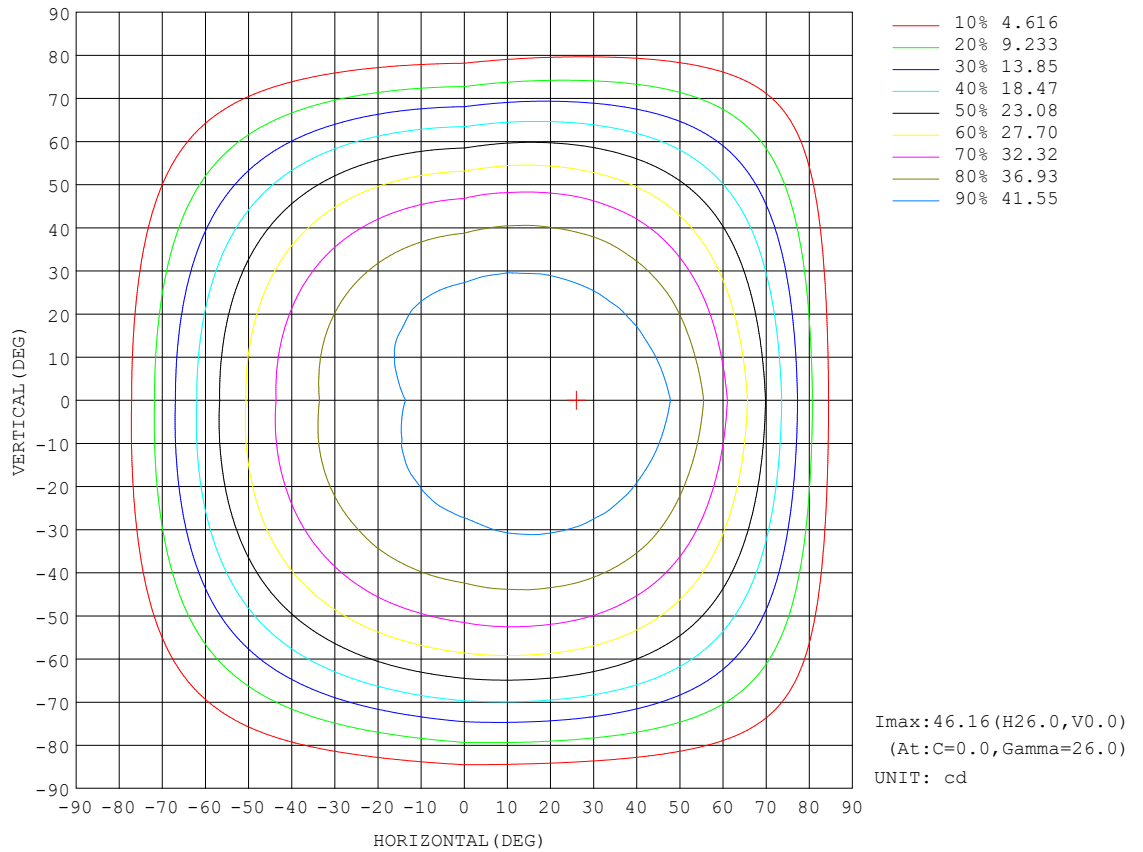
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	55	43	36	54	43	36	53	42	36	29
0.80	65	53	46	64	53	45	62	52	45	38
1.00	74	62	55	73	62	55	70	63	54	47
1.25	81	70	63	80	70	63	77	68	62	54
1.50	87	76	69	85	75	68	82	74	67	60
2.00	94	85	78	92	84	77	88	81	76	68
2.50	98	90	83	96	88	83	92	86	81	72
3.00	101	94	89	99	93	87	95	90	85	77
4.00	106	100	95	103	98	93	99	95	91	82
5.00	108	103	99	106	101	97	101	98	94	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:0.1934A P:4.6420W PF:1.0000 Freq:60.00Hz Lamp Flux:150.059x1 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

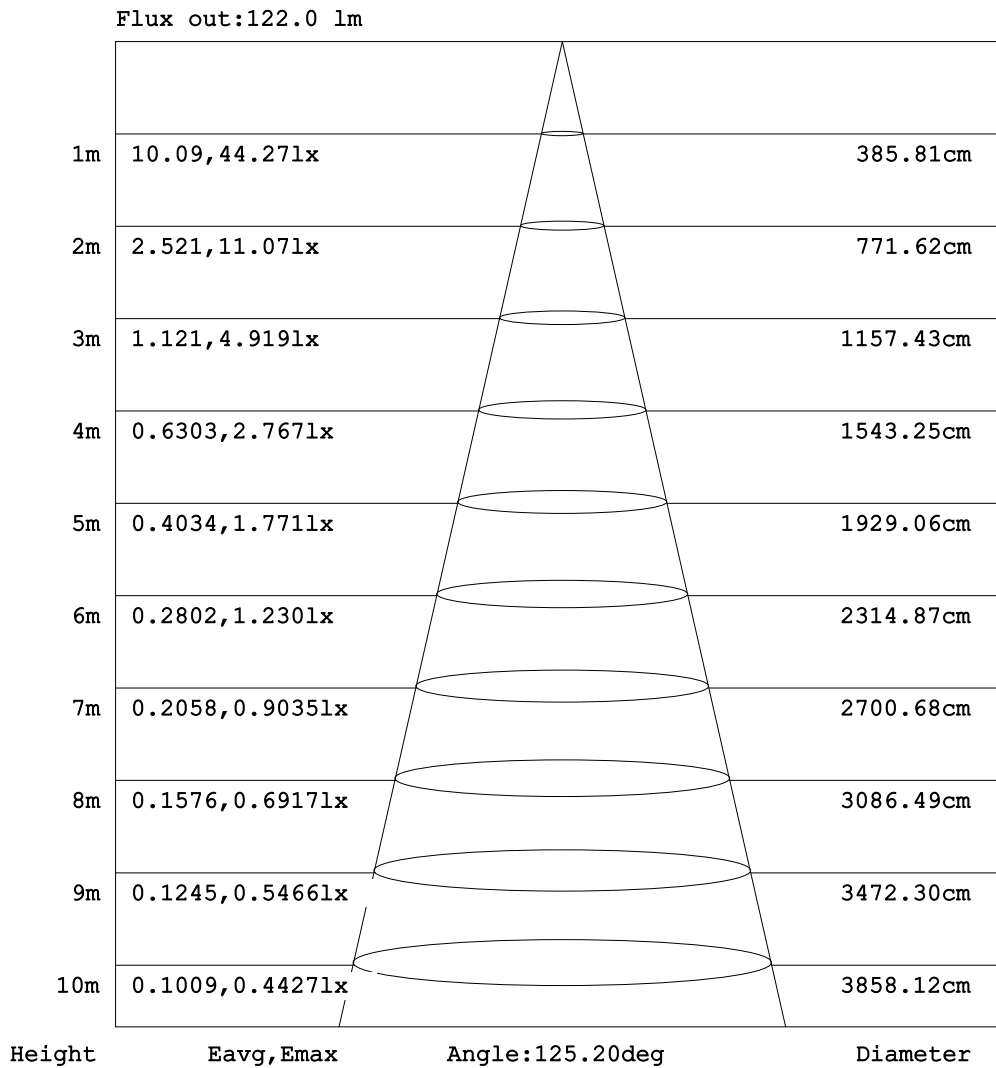


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

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:0.1934A P:4.6420W PF:1.0000 Freq:60.00Hz Lamp Flux:150.059x1 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



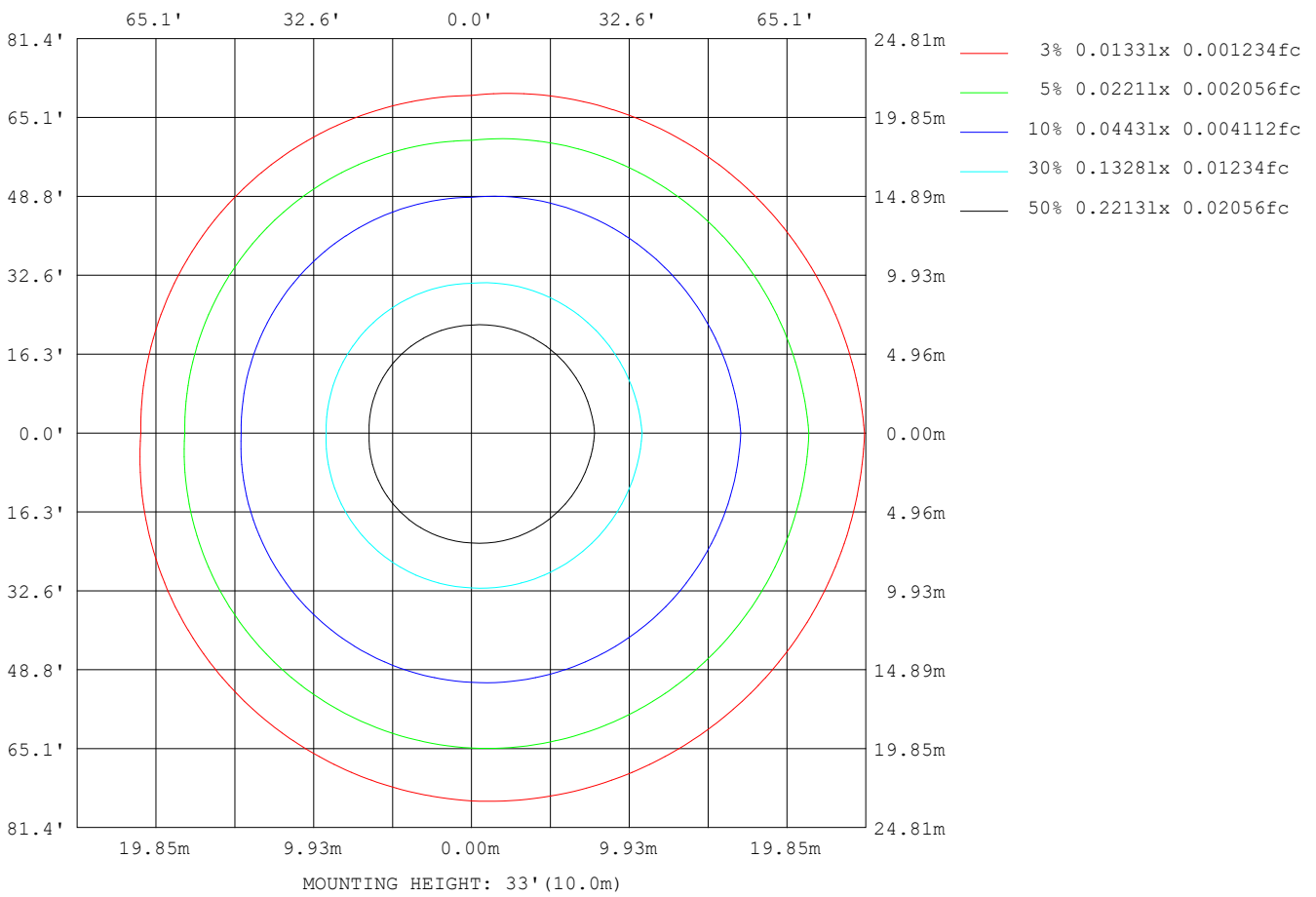
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.1934A P:4.6420W PF:1.0000 Freq:60.00Hz Lamp Flux:150.059x1 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:0.1934A P:4.6420W PF:1.0000 Freq:60.00Hz Lamp Flux:150.059x1 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

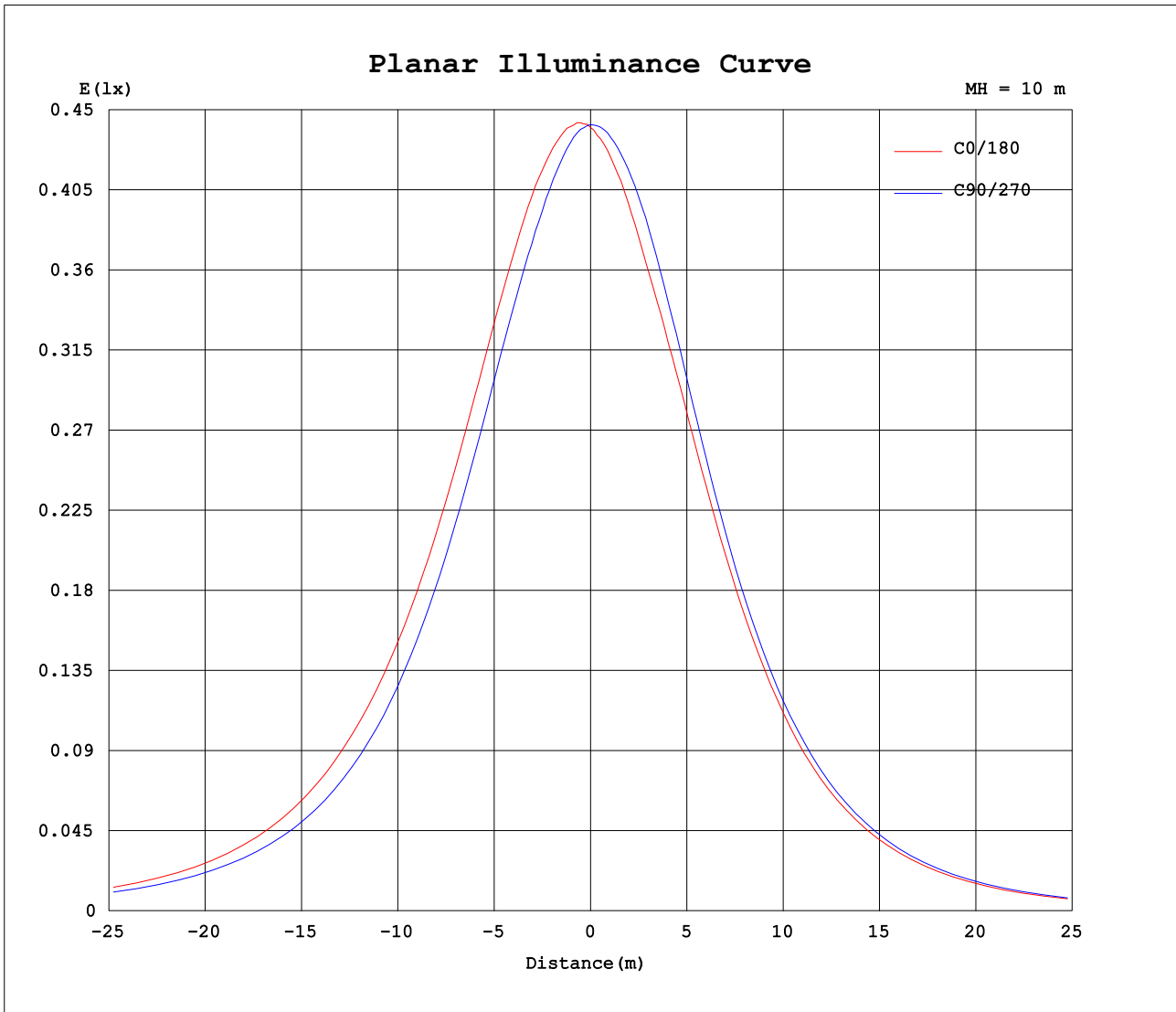
AvgL	cd/m2
L_0~180 (65) av	2604
L_0~180 (75) av	2226
L_0~180 (85) av	1195
L_90~270 (65) av	2344
L_90~270 (75) av	1988
L_90~270 (85) av	1219
L_45 (65) av	2395
L_45 (75) av	2015
L_45 (85) av	1197

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:0.1934A P:4.6420W PF:1.0000 Freq:60.00Hz Lamp Flux:150.059x1 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	44.0	44.2	44.0	44.2															
5	44.6	44.0	43.2	44.2															
10	45.2	43.5	42.3	44.1															
15	45.7	43.0	41.3	43.9															
20	46.0	42.5	40.5	43.2															
25	46.1	41.9	39.5	42.3															
30	45.9	40.9	38.1	40.7															
35	45.3	39.7	36.4	38.7															
40	44.2	37.9	34.2	36.3															
45	42.7	35.7	31.5	33.3															
50	40.5	33.2	28.1	30.0															
55	37.3	30.1	24.4	26.2															
60	33.2	26.6	20.3	21.7															
65	28.4	22.7	15.7	16.9															
70	22.9	18.2	10.9	11.9															
75	16.7	13.4	6.32	7.17															
80	10.1	8.60	2.64	3.17															
85	3.91	4.25	0.25	0.00															
90	0.00	1.16	0.00	0.00															
95	0.00	0.00	0.00	0.00															
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:2022-09-23

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: