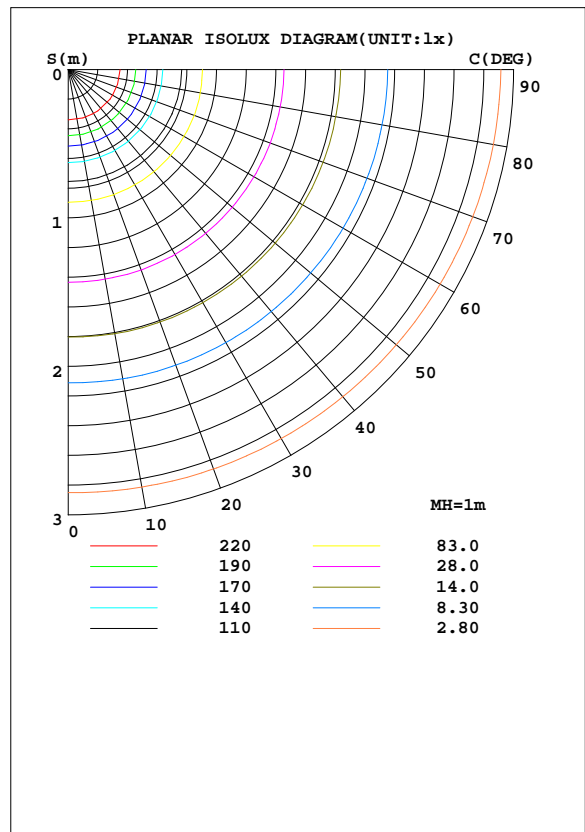
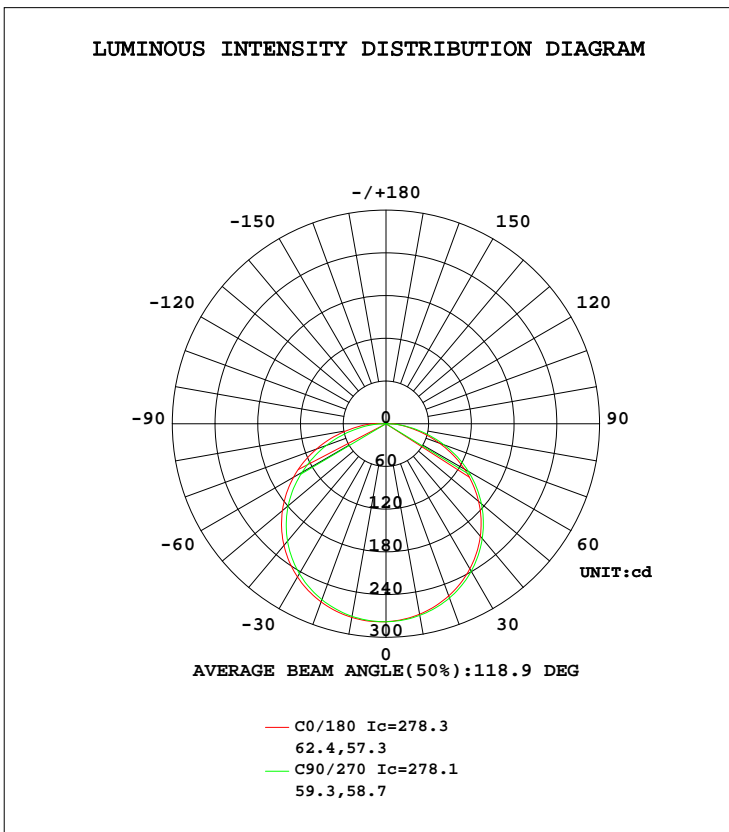


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.000V I:0.4800A P:11.520W PF:1.0000 Freq:0Hz Lamp Flux:877.854x1 lm		
NAME: UB-AT1-27K97C	TYPE: LED Strip	WEIGHT:
SPEC.: 11.5W	DIM.: 1000*10*2(MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 1000*10(MM)	Shielding Angle: 120

DATA OF LAMP		PHOTOMETRIC DATA Eff: 76.20 lm/W			
MODEL		I _{max} (cd)	278.3	S/MH(C0/180)	1.33
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.30
RATED VOLTAGE(V)		TOTAL FLUX(lm)	877.86	η UP, DN(C0-180)	0.7,47.3
NOMINAL FLUX(lm)	877.854	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.8,51.1
LAMPS INSIDE	1	η up(%)	1.5	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)		η down(%)	98.5	CIBSE SHR MAX	1.50



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2021-12-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.429
 Humidity:65.0%
 Test Distance:8.270m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

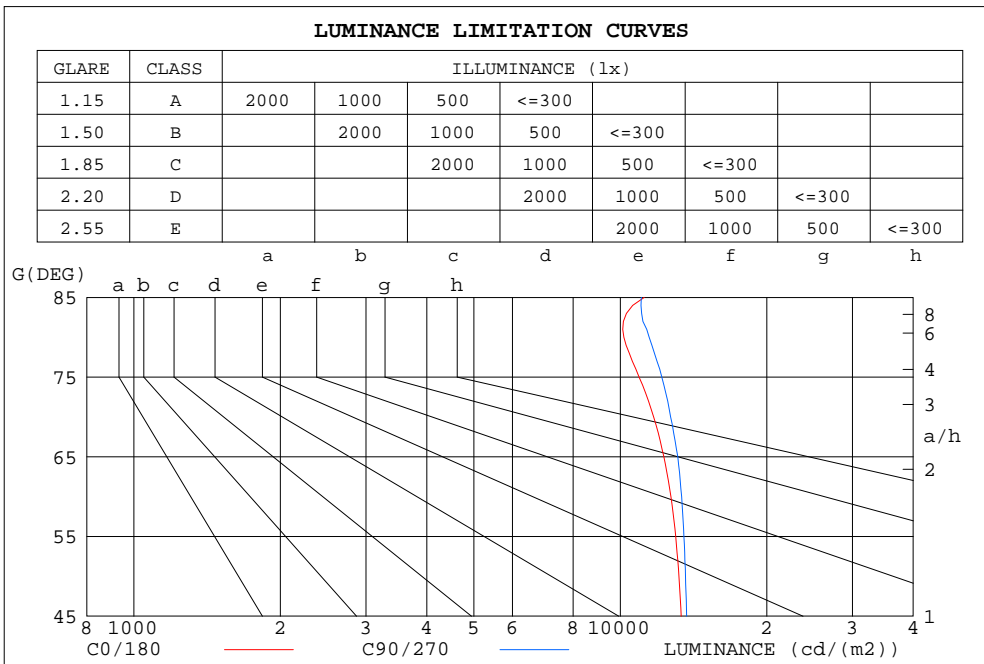
ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270				γ	Φ zone	Φ total	Φ lum, lamp
10	271.7	273.3	276.3	274.6				0- 10	26.35	26.35	3,3
20	257.4	260.5	266.4	263.0				10- 20	75.94	102.3	11.7,11.7
30	235.4	239.3	248.6	243.2				20- 30	116.5	218.8	24.9,24.9
40	206.1	210.3	223.0	215.2				30- 40	143.0	361.9	41.2,41.2
50	169.8	174.9	189.9	179.3				40- 50	151.9	513.8	58.5,58.5
60	127.2	133.6	149.8	136.0				50- 60	141.4	655.2	74.6,74.6
70	80.12	86.75	104.0	89.00				60- 70	112.4	767.6	87.4,87.4
80	35.35	39.79	56.25	41.93				70- 80	69.98	837.6	95.4,95.4
90	9.672	2.210	18.79	4.567				80- 90	26.87	864.4	98.5,98.5
100	1.667	1.043	2.226	1.021				90-100	4.200	868.6	99,99
110	1.392	1.342	1.322	1.298				100-110	1.384	870.0	99.1,99.1
120	1.643	1.619	1.496	1.580				110-120	1.445	871.5	99.3,99.3
130	1.876	1.852	1.741	1.814				120-130	1.525	873.0	99.4,99.4
140	2.105	2.053	1.958	2.026				130-140	1.490	874.5	99.6,99.6
150	2.273	2.254	2.171	2.210				140-150	1.336	875.8	99.8,99.8
160	2.453	2.423	2.383	2.384				150-160	1.071	876.9	99.9,99.9
170	2.616	2.580	2.589	2.542				160-170	0.7060	877.6	100,100
180	2.703	2.645	2.703	2.645				170-180	0.2502	877.9	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Test Date:2021-12-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.429
Humidity:65.0%
Test Distance:8.270m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES



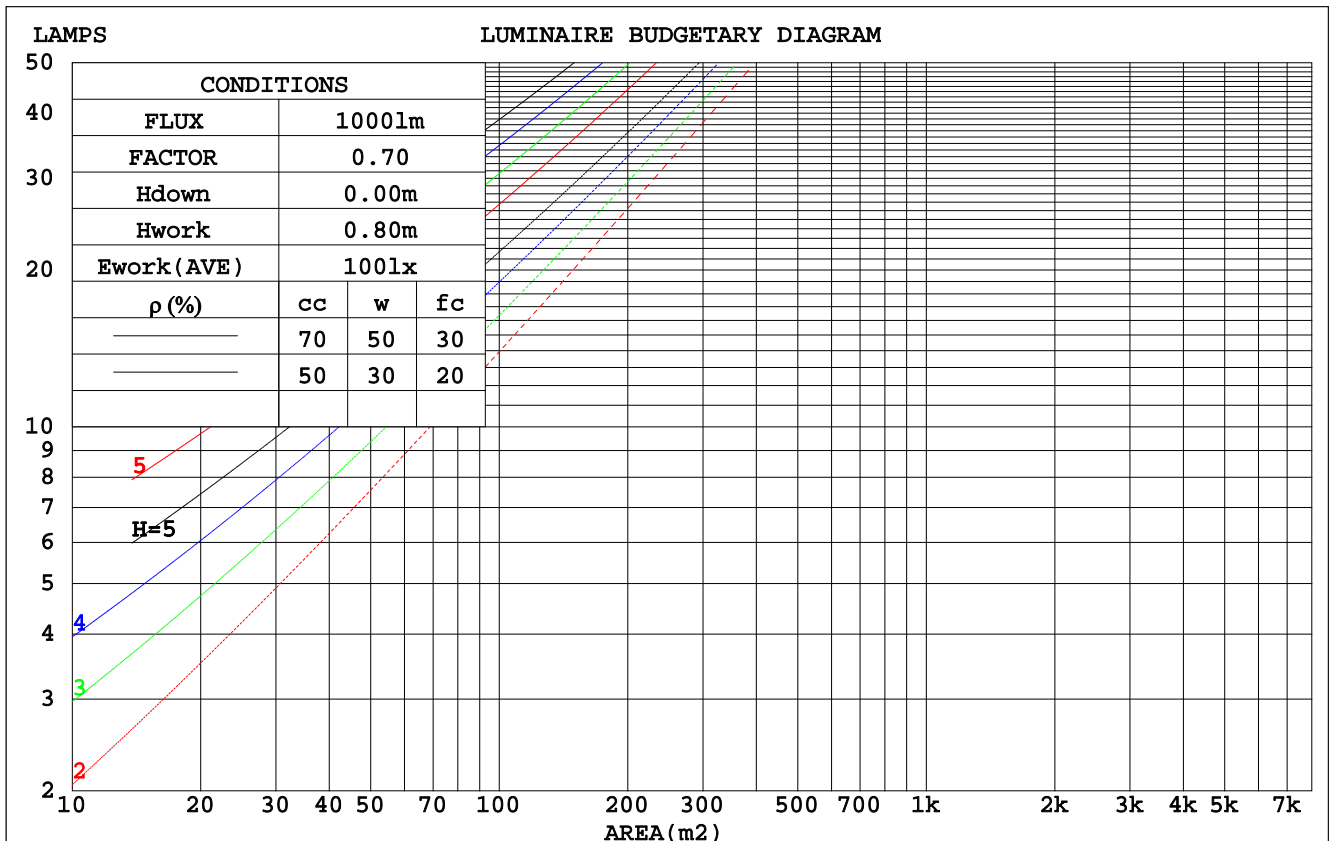
LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	11194	11043
80	10171	11466
75	10927	12171
70	11704	12692
65	12290	13128
60	12708	13369
55	12996	13514
50	13197	13616
45	13340	13685

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Test Date: 2021-12-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.429
 Humidity: 65.0%
 Test Distance: 8.270m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	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	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	.98
1.0	1.02	.98	.94	1.00	.96	.92	.95	.92	.89	.91	.88	.86	.87	.85	.83	.81
2.0	.89	.82	.76	.87	.80	.74	.83	.77	.72	.79	.75	.71	.76	.72	.69	.66
3.0	.78	.69	.62	.76	.68	.62	.73	.66	.60	.70	.64	.59	.67	.62	.58	.55
4.0	.68	.59	.52	.67	.59	.52	.64	.57	.51	.62	.55	.50	.59	.54	.49	.47
5.0	.61	.52	.45	.60	.51	.45	.57	.50	.44	.55	.49	.43	.53	.47	.43	.40
6.0	.55	.46	.39	.54	.45	.39	.52	.44	.38	.50	.43	.38	.48	.42	.37	.35
7.0	.50	.41	.34	.49	.40	.34	.47	.39	.34	.45	.38	.33	.44	.38	.33	.31
8.0	.45	.36	.30	.44	.36	.30	.43	.35	.30	.42	.35	.30	.40	.34	.29	.28
9.0	.41	.33	.27	.41	.33	.27	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.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: 2021-12-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.429
 Humidity: 65.0%
 Test Distance: 8.270m [K=1.0000]
 Remarks:

WEC AND CCEC

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.330	.187	.059	.322	.184	.058	.308	.177	.056	.295	.170	.055	.283	.164	.053	
2.0	.305	.167	.051	.298	.164	.051	.285	.159	.049	.274	.154	.048	.263	.149	.047	
3.0	.279	.149	.045	.273	.146	.044	.262	.142	.043	.252	.138	.042	.242	.134	.041	
4.0	.256	.133	.039	.251	.131	.039	.241	.128	.038	.232	.124	.038	.223	.121	.037	
5.0	.236	.120	.035	.231	.119	.035	.222	.116	.034	.214	.113	.034	.206	.110	.033	
6.0	.218	.109	.031	.214	.108	.031	.206	.105	.031	.198	.103	.030	.191	.101	.030	
7.0	.202	.100	.028	.199	.099	.028	.191	.097	.028	.185	.095	.028	.179	.093	.027	
8.0	.189	.092	.026	.185	.091	.026	.179	.089	.026	.173	.088	.025	.167	.086	.025	
9.0	.176	.085	.024	.173	.084	.024	.168	.083	.023	.162	.081	.023	.157	.080	.023	
10.0	.166	.079	.022	.163	.079	.022	.158	.077	.022	.153	.076	.022	.148	.074	.021	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.202	.202	.202	.173	.173	.173	.118	.118	.118	.068	.068	.068	.022	.022	.022	
1.0	.193	.168	.145	.165	.144	.124	.113	.099	.086	.065	.057	.050	.021	.018	.016	
2.0	.186	.144	.108	.159	.124	.094	.109	.086	.065	.063	.050	.038	.020	.016	.012	
3.0	.178	.126	.085	.153	.109	.074	.105	.076	.052	.061	.044	.030	.019	.014	.010	
4.0	.170	.113	.069	.146	.098	.060	.101	.068	.042	.058	.040	.025	.019	.013	.008	
5.0	.163	.103	.058	.140	.089	.051	.096	.062	.036	.056	.036	.021	.018	.012	.007	
6.0	.156	.094	.051	.134	.082	.044	.092	.057	.031	.054	.034	.019	.017	.011	.006	
7.0	.149	.088	.045	.128	.076	.039	.088	.053	.028	.051	.031	.016	.017	.010	.005	
8.0	.142	.082	.040	.122	.071	.035	.085	.050	.025	.049	.029	.015	.016	.010	.005	
9.0	.136	.077	.037	.117	.067	.032	.081	.047	.023	.047	.028	.014	.015	.009	.005	
10.0	.130	.073	.034	.112	.063	.030	.078	.044	.021	.045	.026	.013	.015	.009	.004	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2021-12-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.429
 Humidity:65.0%
 Test Distance:8.270m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

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	20.8	22.4	21.2	22.8	23.1	21.3	22.9	21.6	23.2	23.6
3H	22.6	24.1	23.0	24.5	24.9	23.2	24.7	23.6	25.1	25.5
4H	23.3	24.8	23.8	25.1	25.5	24.0	25.4	24.4	25.8	26.2
6H	23.9	25.2	24.3	25.6	26.0	24.6	25.9	25.0	26.3	26.7
8H	24.1	25.3	24.5	25.7	26.2	24.8	26.0	25.2	26.4	26.9
12H	24.2	25.4	24.7	25.8	26.3	24.9	26.1	25.4	26.5	27.0
4H 2H	21.5	22.9	21.9	23.3	23.7	22.0	23.4	22.5	23.8	24.2
3H	23.5	24.7	24.0	25.2	25.6	24.2	25.4	24.6	25.8	26.3
4H	24.4	25.4	24.8	25.9	26.4	25.1	26.2	25.6	26.6	27.1
6H	25.0	26.0	25.5	26.4	26.9	25.9	26.8	26.3	27.3	27.8
8H	25.3	26.2	25.7	26.6	27.1	26.1	27.0	26.6	27.5	28.0
12H	25.5	26.3	26.0	26.8	27.3	26.3	27.1	26.8	27.6	28.1
8H 4H	24.7	25.6	25.2	26.1	26.6	25.6	26.5	26.1	26.9	27.4
6H	25.5	26.2	26.0	26.8	27.3	26.5	27.2	27.0	27.7	28.2
8H	25.8	26.5	26.4	27.0	27.5	26.8	27.5	27.4	28.0	28.6
12H	26.1	26.7	26.7	27.3	27.9	27.2	27.8	27.7	28.3	28.9
12H 4H	24.8	25.6	25.3	26.1	26.6	25.7	26.5	26.2	27.0	27.5
6H	25.6	26.3	26.1	26.7	27.3	26.6	27.3	27.2	27.8	28.4
8H	26.0	26.6	26.5	27.1	27.7	27.1	27.7	27.6	28.2	28.8
CIE190: 2010										

CIE190: 2010
Area: 0.02 m2

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Test Date: 2021-12-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.429
Humidity: 65.0%
Test Distance: 8.270m [K=1.0000]
Remarks:

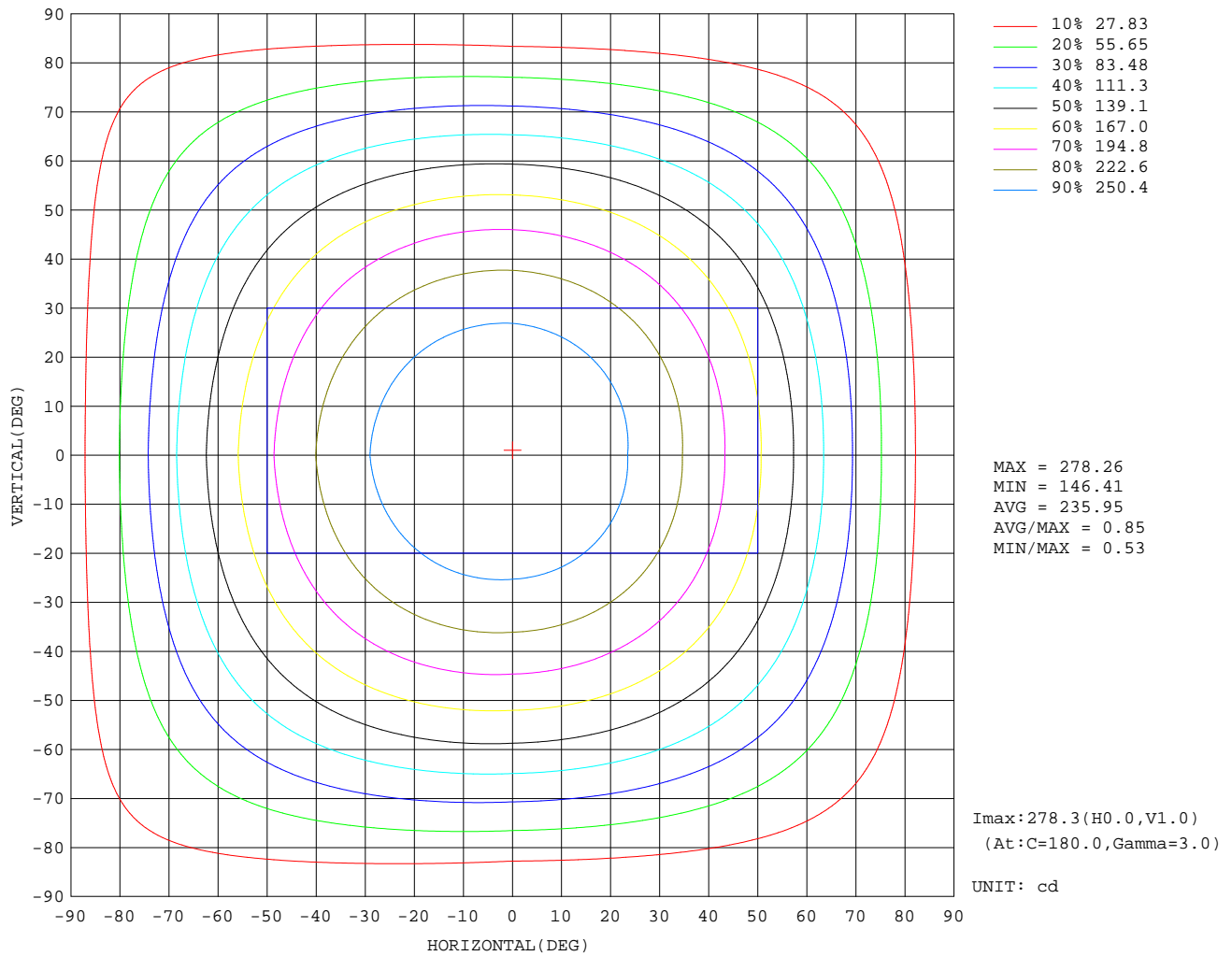
UTILIZATION FACTORS TABLE

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	56	44	37	55	43	36	54	43	36	30
0.80	65	53	46	64	53	46	62	52	45	38
1.00	74	62	55	73	62	54	70	63	54	46
1.25	81	70	63	79	69	62	77	68	61	53
1.50	86	76	68	84	75	68	81	73	67	59
2.00	93	84	77	91	83	76	87	80	75	66
2.50	97	89	82	95	87	81	91	85	79	71
3.00	101	93	87	98	92	86	94	88	84	75
4.00	105	99	94	102	97	92	98	93	89	80
5.00	107	102	98	105	100	96	100	96	93	83
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: 2021-12-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.429
 Humidity: 65.0%
 Test Distance: 8.270m [K=1.0000]
 Remarks:

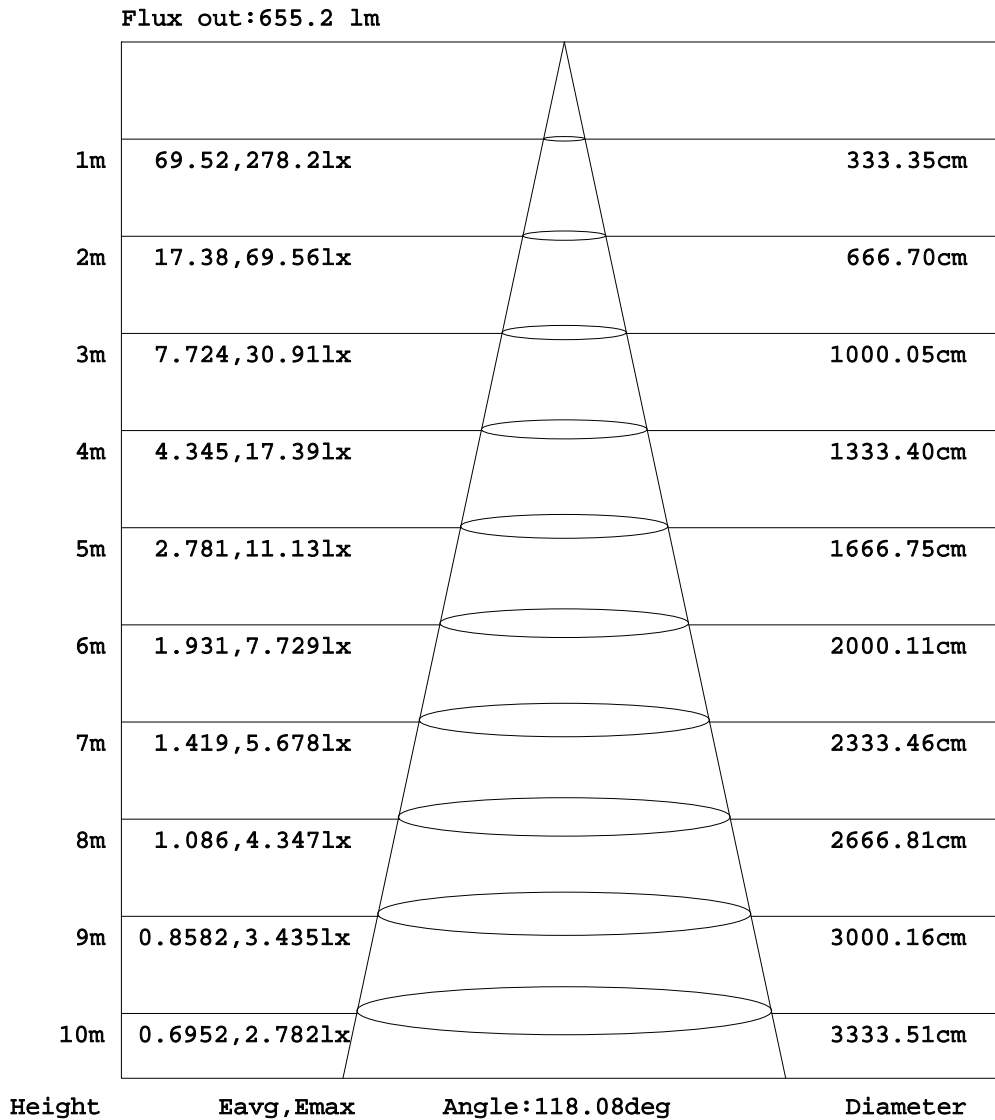
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Test Date: 2021-12-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.429
 Humidity: 65.0%
 Test Distance: 8.270m [K=1.0000]
 Remarks:

AAI Figure

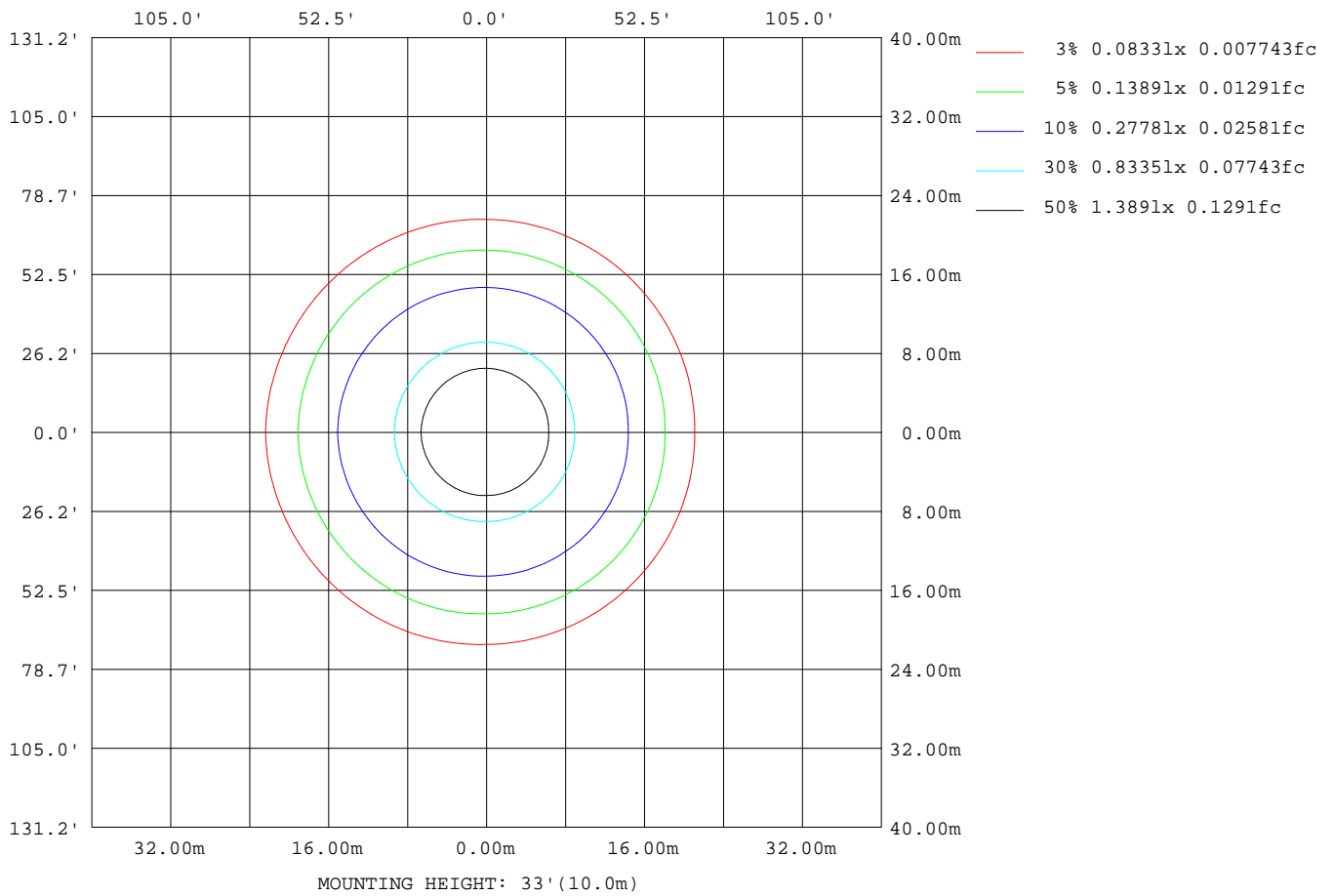


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2021-12-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.429
 Humidity:65.0%
 Test Distance:8.270m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Test Date: 2021-12-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.429
 Humidity: 65.0%
 Test Distance: 8.270m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:24.000V I:0.4800A P:11.520W PF:1.0000 Freq:0Hz Lamp Flux:877.854x1 lm		
NAME: UB-AT1-27K97C	TYPE: LED Strip	WEIGHT:
SPEC.: 11.5W	DIM.: 1000*10*2(MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 1000*10(MM)	Shielding Angle: 120

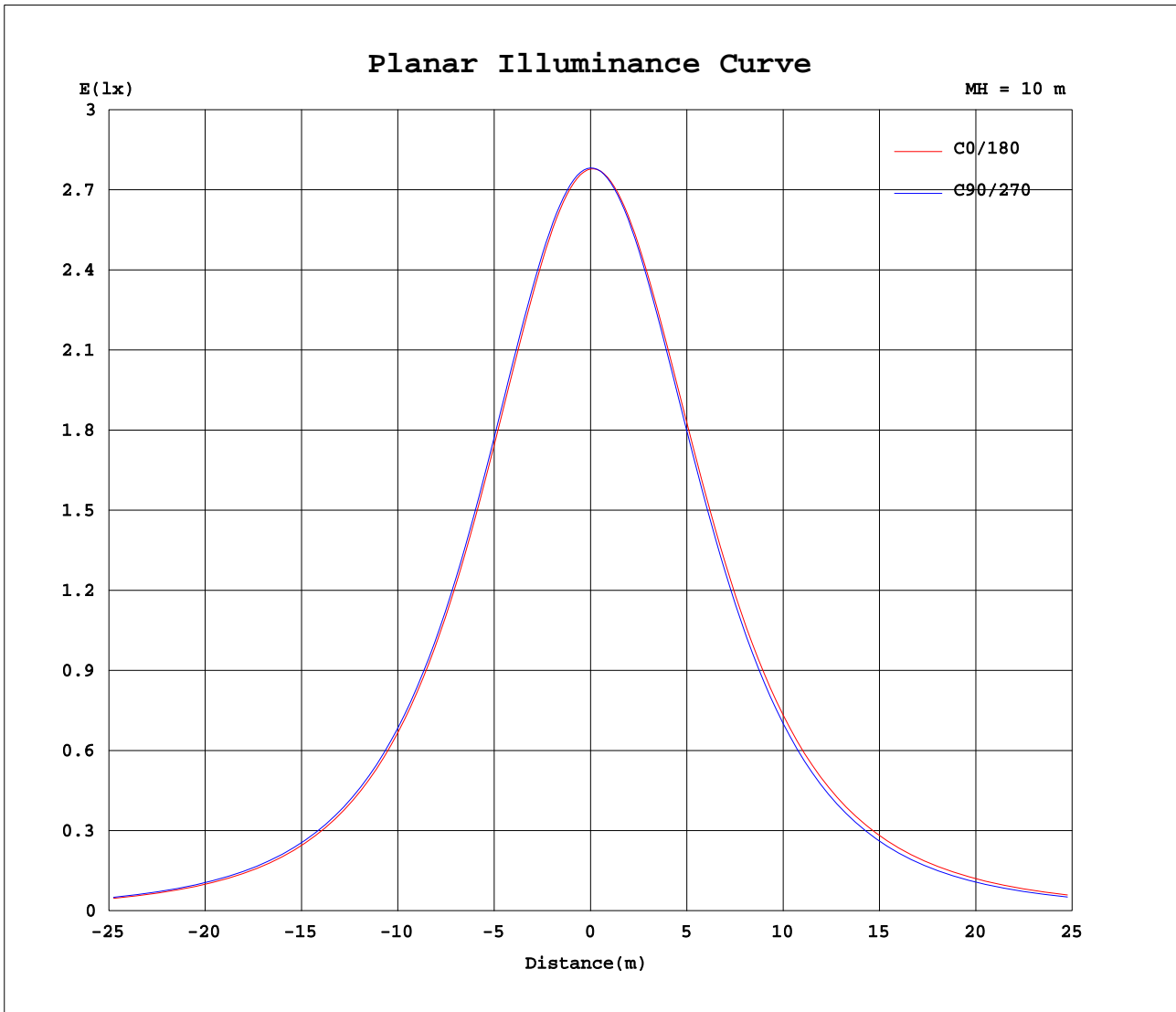
AvgL	cd/m2
L_0~180(65)av	13691
L_0~180(75)av	13178
L_0~180(85)av	15759
L_90~270(65)av	13228
L_90~270(75)av	12371
L_90~270(85)av	11612
L_45(65)av	13489
L_45(75)av	12814
L_45(85)av	13451

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Test Date:2021-12-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.429
Humidity:65.0%
Test Distance:8.270m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Test Date: 2021-12-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.429
 Humidity: 65.0%
 Test Distance: 8.270m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	90	180	270															
0	278	278	278	278															
5	276	277	278	277															
10	272	273	276	275															
15	266	268	272	270															
20	257	261	266	263															
25	247	251	258	254															
30	235	239	249	243															
35	222	226	237	230															
40	206	210	223	215															
45	189	193	207	198															
50	170	175	190	179															
55	149	155	171	159															
60	127	134	150	136															
65	104	111	127	113															
70	80.1	86.8	104	89.0															
75	56.6	63.0	79.8	65.1															
80	35.3	39.8	56.2	41.9															
85	19.5	19.2	35.4	21.2															
90	9.67	2.21	18.8	4.57															
95	4.03	0.90	7.44	0.88															
100	1.67	1.04	2.23	1.02															
105	1.38	1.20	1.35	1.16															
110	1.39	1.34	1.32	1.30															
115	1.51	1.48	1.38	1.44															
120	1.64	1.62	1.50	1.58															
125	1.76	1.75	1.62	1.69															
130	1.88	1.85	1.74	1.81															
135	2.00	1.96	1.84	1.92															
140	2.10	2.05	1.96	2.03															
145	2.19	2.17	2.06	2.12															
150	2.27	2.25	2.17	2.21															
155	2.37	2.34	2.28	2.30															
160	2.45	2.42	2.38	2.38															
165	2.53	2.50	2.49	2.47															
170	2.62	2.58	2.59	2.54															
175	2.67	2.63	2.67	2.60															
180	2.70	2.65	2.70	2.65															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Test Date: 2021-12-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.429
 Humidity: 65.0%
 Test Distance: 8.270m [K=1.0000]
 Remarks: