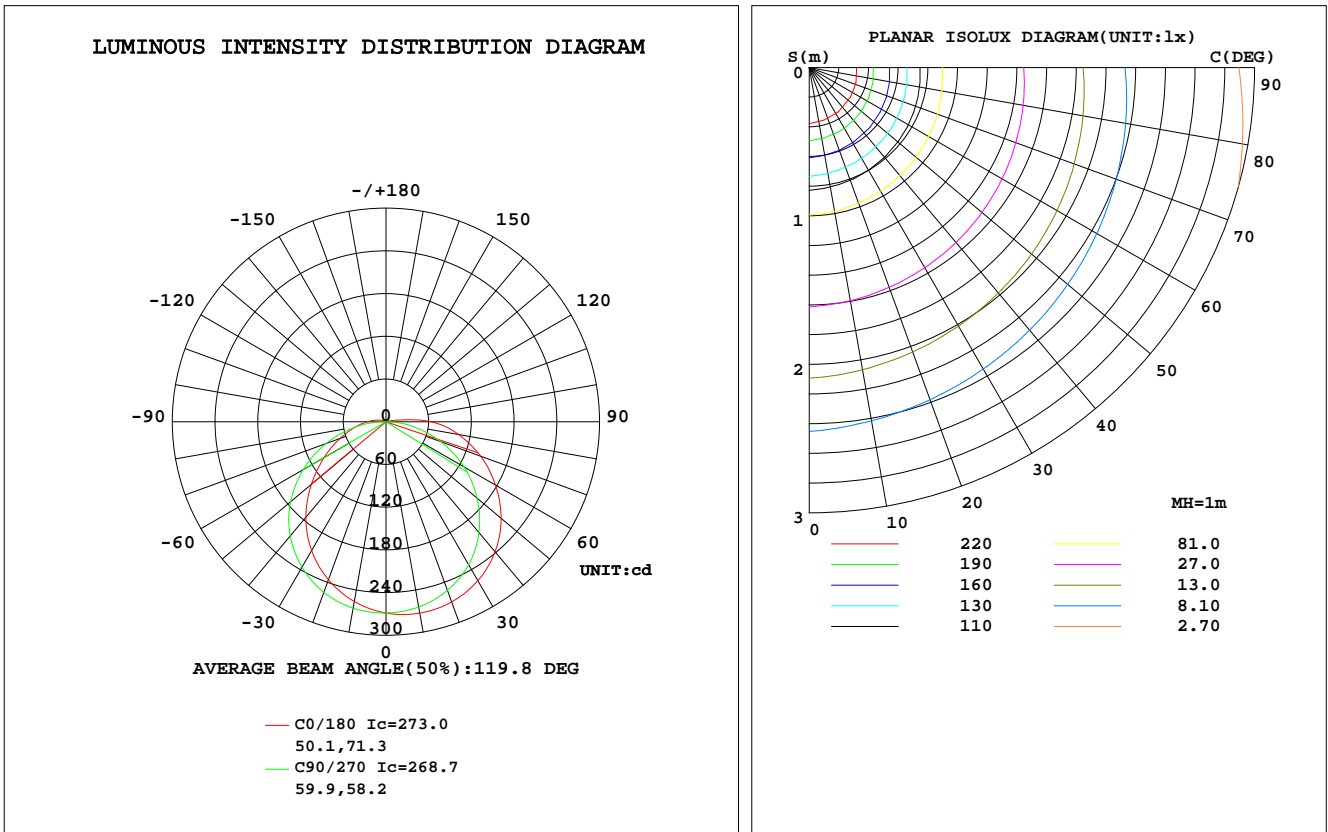


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.000V I:0.4800A P:11.520W PF:1.0000 Freq:0Hz Lamp Flux:901.731x1 lm		
NAME: UB-AT1-30K97C	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: 78.28 lm/W			
MODEL		I _{max} (cd)	273.0	S/MH(C0/180)	1.17
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.30
RATED VOLTAGE(V)		TOTAL FLUX(lm)	901.73	η UP, DN(C0-180)	1.7,53.2
NOMINAL FLUX(lm)	901.731	CIE CLASS	DIRECT	η UP, DN(C180-360)	1.4,43.6
LAMPS INSIDE	1	η up(%)	3.2	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)		η down(%)	96.8	CIBSE SHR MAX	1.35



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

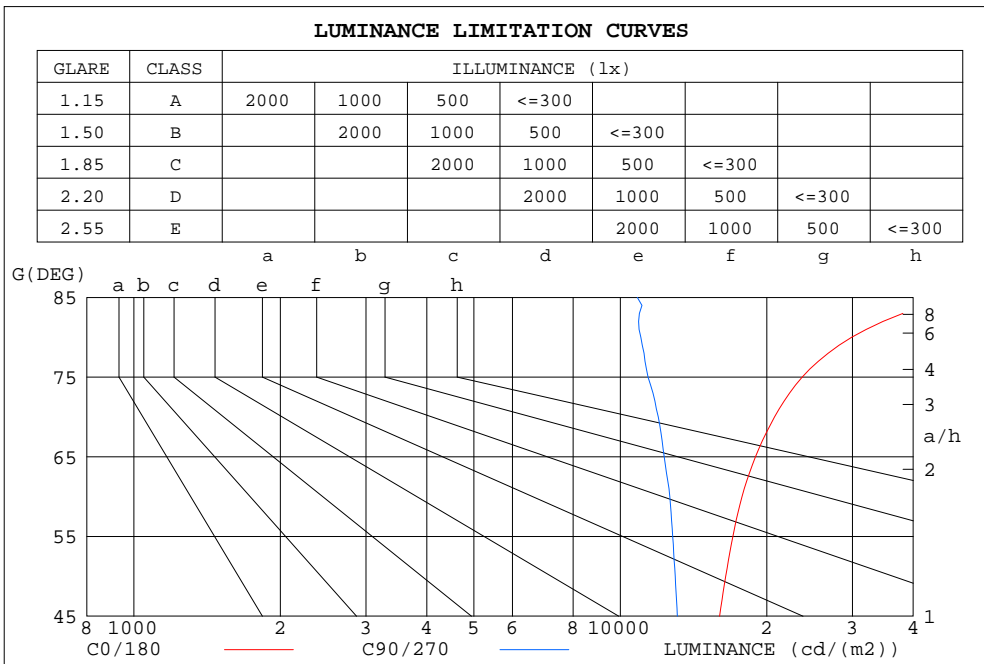
ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270				γ	Φ zone	Φ total	Φ lum, lamp
10	273.0	264.3	256.4	265.9				0- 10	25.46	25.46	2.82,2.82
20	269.4	252.2	236.3	255.1				10- 20	73.44	98.90	11,11
30	257.9	232.1	209.0	235.9				20- 30	112.7	211.6	23.5,23.5
40	238.4	203.1	175.0	209.3				30- 40	138.3	349.9	38.8,38.8
50	211.1	167.1	136.8	175.0				40- 50	146.7	496.6	55.1,55.1
60	177.4	126.8	100.3	134.1				50- 60	137.5	634.2	70.3,70.3
70	141.5	82.07	68.67	89.58				60- 70	114.0	748.1	83,83
80	103.5	38.39	43.84	43.74				70- 80	80.27	828.4	91.9,91.9
90	63.27	4.552	26.43	7.314				80- 90	44.52	872.9	96.8,96.8
100	12.22	1.101	13.46	1.052				90-100	15.90	888.8	98.6,98.6
110	2.249	1.330	5.447	1.330				100-110	4.659	893.5	99.1,99.1
120	1.414	1.586	2.010	1.581				110-120	1.917	895.4	99.3,99.3
130	1.593	1.804	2.033	1.804				120-130	1.539	896.9	99.5,99.5
140	1.816	2.006	2.168	2.005				130-140	1.472	898.4	99.6,99.6
150	2.016	2.257	2.304	2.191				140-150	1.317	899.7	99.8,99.8
160	2.260	2.426	2.450	2.376				150-160	1.055	900.8	99.9,99.9
170	2.471	2.578	2.586	2.562				160-170	0.6955	901.5	100,100
180	2.607	2.654	2.613	2.660				170-180	0.2467	901.7	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



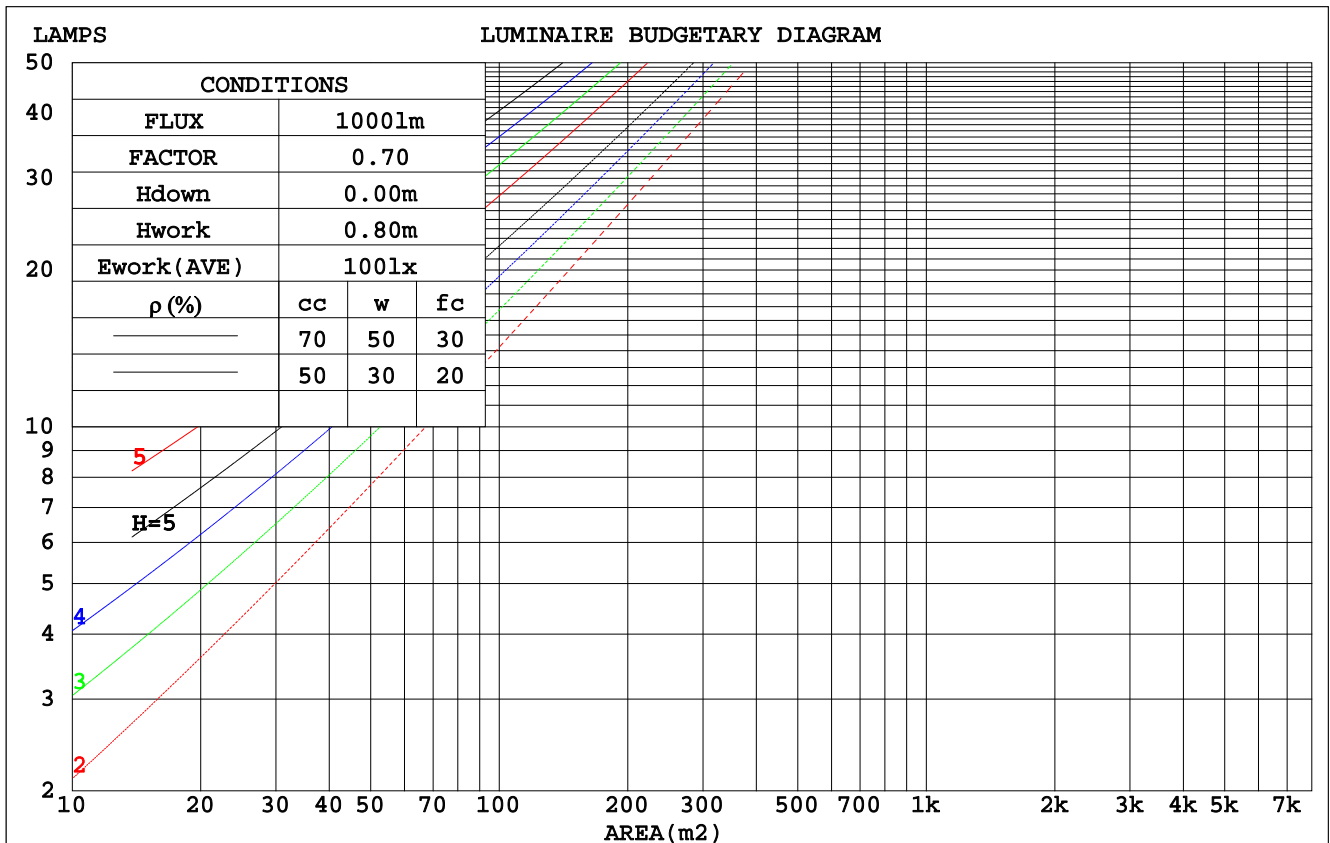
LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	48914	10838
80	29890	11022
75	23646	11397
70	20740	11964
65	18964	12311
60	17790	12642
55	17031	12816
50	16465	12965
45	16000	13096

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	1.18	1.18	1.18	1.15	1.15	1.15	1.09	1.09	1.09	1.04	1.04	1.04	.99	.99	.99	.97
1.0	1.01	.96	.91	.98	.94	.90	.93	.90	.86	.89	.86	.83	.85	.82	.80	.78
2.0	.87	.79	.73	.85	.78	.72	.81	.75	.70	.77	.72	.68	.73	.69	.66	.63
3.0	.76	.67	.60	.74	.66	.59	.70	.64	.58	.67	.61	.56	.64	.59	.55	.53
4.0	.67	.58	.50	.65	.57	.50	.62	.55	.49	.60	.53	.48	.57	.51	.47	.44
5.0	.60	.50	.43	.58	.49	.43	.56	.48	.42	.53	.47	.41	.51	.45	.40	.38
6.0	.53	.44	.37	.52	.44	.37	.50	.42	.37	.48	.41	.36	.46	.40	.35	.33
7.0	.48	.39	.33	.47	.39	.33	.45	.38	.32	.44	.37	.32	.42	.36	.31	.29
8.0	.44	.35	.29	.43	.35	.29	.42	.34	.29	.40	.33	.28	.39	.32	.28	.26
9.0	.40	.32	.26	.40	.32	.26	.38	.31	.26	.37	.30	.25	.36	.30	.25	.23
10.0	.37	.29	.24	.37	.29	.24	.35	.28	.23	.34	.28	.23	.33	.27	.23	.21



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	.354	.201	.064	.346	.197	.063	.330	.189	.061	.316	.182	.059	.303	.176	.057	
2.0	.318	.174	.053	.311	.171	.053	.297	.165	.051	.285	.160	.050	.273	.154	.049	
3.0	.288	.153	.046	.281	.151	.045	.269	.146	.044	.258	.141	.043	.248	.137	.042	
4.0	.262	.136	.040	.256	.134	.040	.245	.130	.039	.235	.126	.038	.226	.123	.037	
5.0	.240	.122	.035	.235	.120	.035	.225	.117	.034	.216	.114	.034	.208	.111	.033	
6.0	.221	.111	.032	.216	.109	.031	.208	.106	.031	.200	.104	.030	.192	.101	.030	
7.0	.205	.101	.029	.200	.100	.028	.193	.097	.028	.185	.095	.028	.178	.093	.027	
8.0	.190	.093	.026	.187	.092	.026	.180	.090	.026	.173	.088	.025	.167	.086	.025	
9.0	.178	.086	.024	.174	.085	.024	.168	.083	.024	.162	.081	.023	.156	.079	.023	
10.0	.167	.080	.022	.164	.079	.022	.158	.077	.022	.152	.076	.022	.147	.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	.215	.215	.215	.184	.184	.184	.125	.125	.125	.072	.072	.072	.023	.023	.023	
1.0	.208	.180	.155	.178	.155	.134	.122	.106	.093	.070	.062	.054	.022	.020	.017	
2.0	.200	.156	.120	.172	.135	.103	.118	.093	.072	.068	.054	.042	.022	.018	.014	
3.0	.193	.139	.097	.165	.120	.084	.113	.083	.059	.066	.049	.035	.021	.016	.011	
4.0	.185	.126	.081	.159	.109	.071	.109	.076	.050	.063	.045	.029	.020	.014	.010	
5.0	.177	.116	.071	.152	.100	.062	.105	.070	.043	.061	.041	.026	.020	.013	.009	
6.0	.170	.108	.063	.146	.093	.055	.101	.065	.039	.058	.038	.023	.019	.013	.008	
7.0	.163	.101	.058	.140	.087	.050	.097	.061	.036	.056	.036	.021	.018	.012	.007	
8.0	.156	.095	.053	.134	.083	.047	.093	.058	.033	.054	.034	.020	.017	.011	.007	
9.0	.150	.090	.050	.129	.078	.044	.089	.055	.031	.052	.033	.018	.017	.011	.006	
10.0	.144	.086	.047	.124	.075	.041	.086	.053	.029	.050	.031	.018	.016	.010	.006	

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	22.2	23.9	22.6	24.2	24.6	20.1	21.7	20.5	22.1	22.5
3H	24.8	26.3	25.3	26.7	27.1	22.0	23.5	22.5	23.9	24.3
4H	26.1	27.5	26.5	27.9	28.4	22.8	24.2	23.3	24.6	25.1
6H	27.4	28.7	27.9	29.2	29.6	23.4	24.8	23.9	25.2	25.7
8H	28.1	29.4	28.6	29.8	30.3	23.7	24.9	24.2	25.4	25.9
12H	28.9	30.1	29.4	30.6	31.1	23.9	25.1	24.3	25.5	26.0
4H 2H	22.8	24.2	23.3	24.6	25.1	20.6	22.0	21.0	22.4	22.9
3H	25.6	26.8	26.1	27.3	27.8	22.8	24.0	23.2	24.4	24.9
4H	27.1	28.1	27.5	28.6	29.1	23.7	24.8	24.2	25.3	25.8
6H	28.6	29.5	29.1	30.0	30.6	24.5	25.5	25.0	26.0	26.5
8H	29.4	30.3	29.9	30.8	31.3	24.8	25.7	25.3	26.2	26.7
12H	30.3	31.1	30.8	31.7	32.2	25.1	25.9	25.6	26.4	27.0
8H 4H	27.4	28.3	27.9	28.8	29.3	24.0	24.9	24.5	25.4	26.0
6H	29.1	29.8	29.6	30.4	30.9	25.0	25.7	25.5	26.3	26.8
8H	30.0	30.7	30.6	31.3	31.8	25.4	26.1	25.9	26.6	27.2
12H	31.2	31.8	31.7	32.3	33.0	25.7	26.4	26.3	26.9	27.5
12H 4H	27.4	28.2	27.9	28.8	29.3	24.1	24.9	24.6	25.4	26.0
6H	29.2	29.9	29.7	30.4	31.0	25.1	25.8	25.7	26.3	26.9
8H	30.2	30.8	30.7	31.3	32.0	25.6	26.2	26.1	26.7	27.3
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:

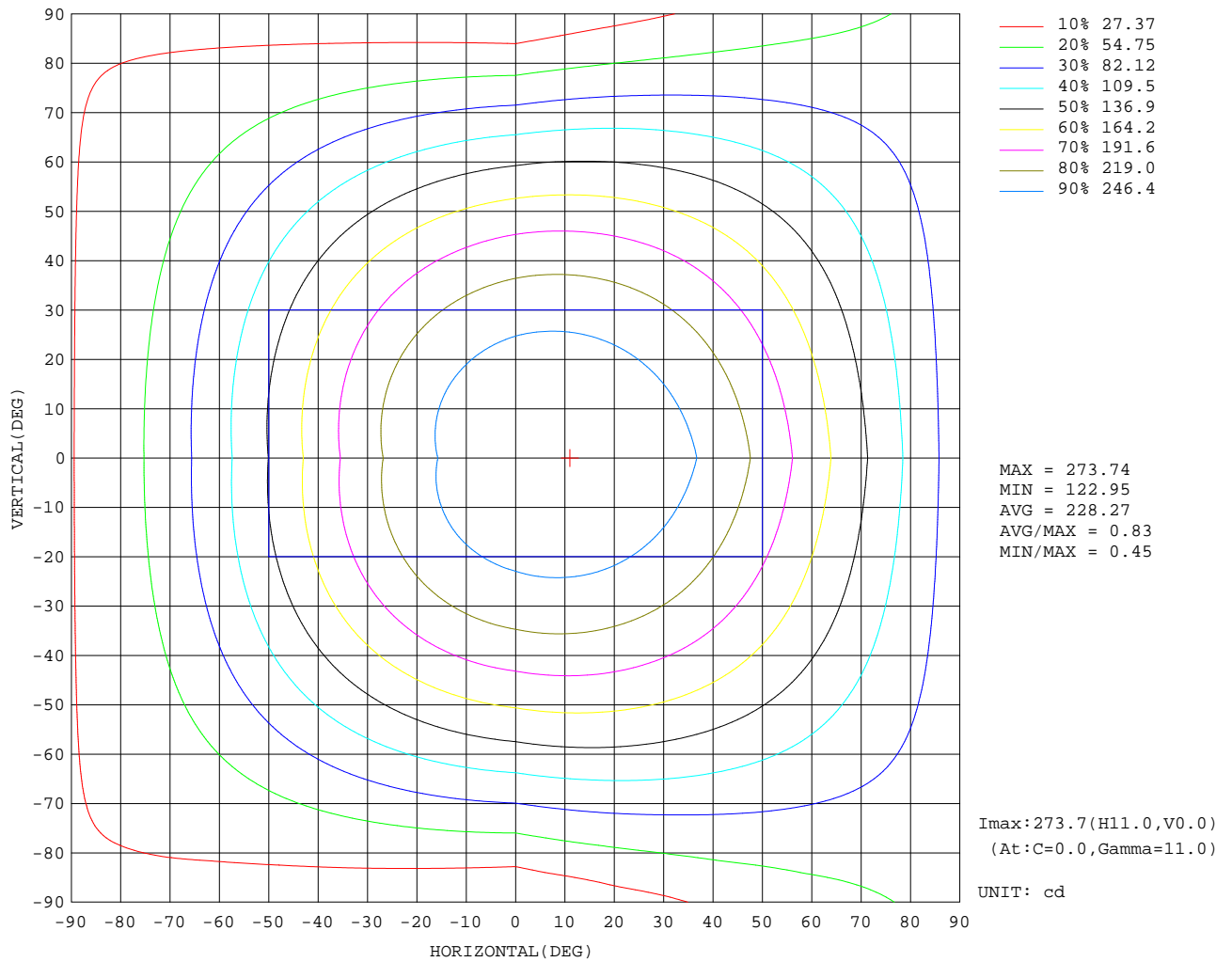
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	54	42	35	53	42	35	52	41	35	28
0.80	64	52	44	63	51	44	61	50	43	36
1.00	72	60	52	71	59	52	68	61	51	44
1.25	79	68	60	77	67	59	74	65	58	50
1.50	84	73	65	82	72	65	79	70	64	55
2.00	91	81	74	89	80	73	85	78	72	63
2.50	95	86	80	93	85	79	89	82	76	67
3.00	99	91	85	96	89	83	92	86	81	71
4.00	103	96	91	100	94	89	96	91	86	76
5.00	106	100	95	103	98	93	98	94	90	80
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:

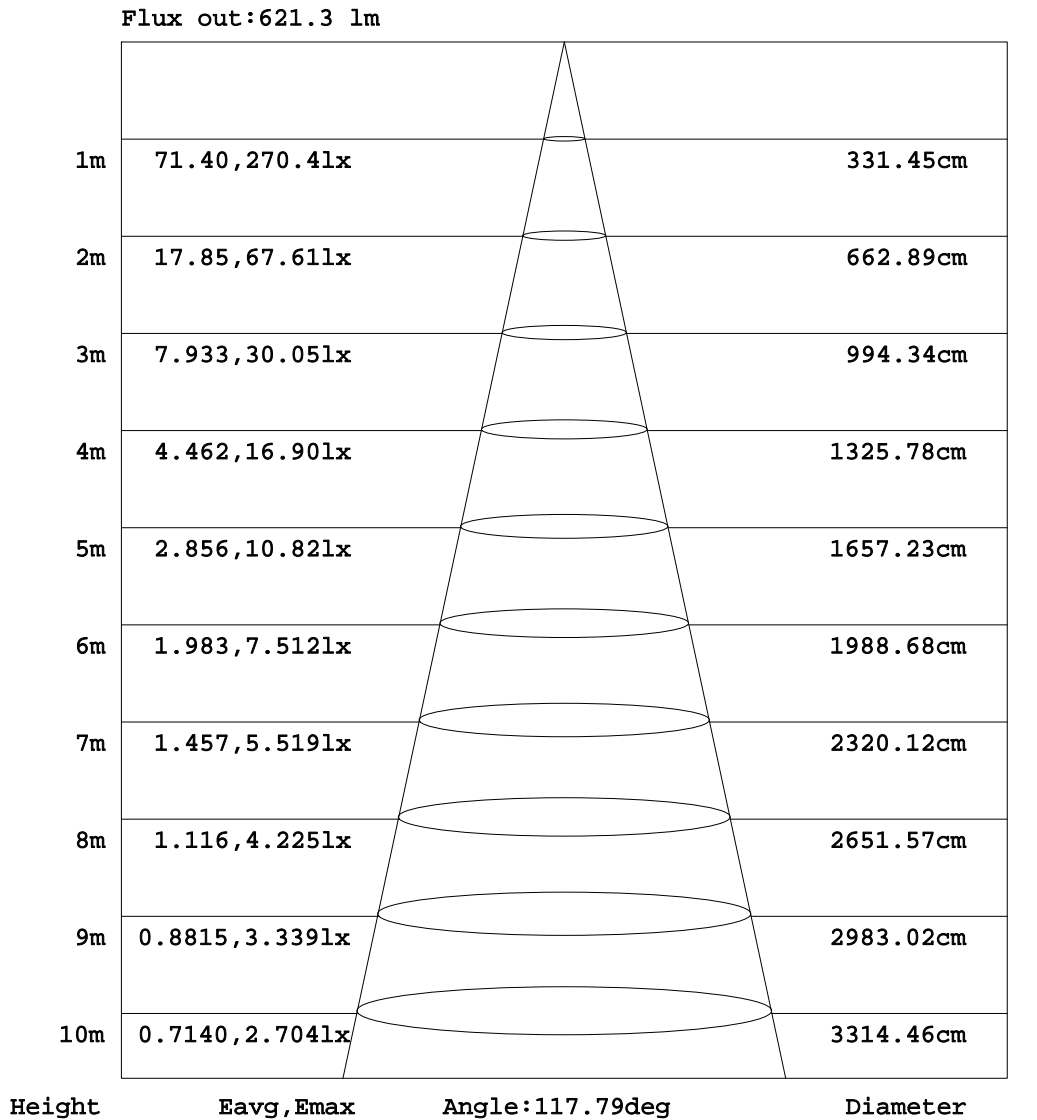
ISOCANDELA DIAGRAM



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

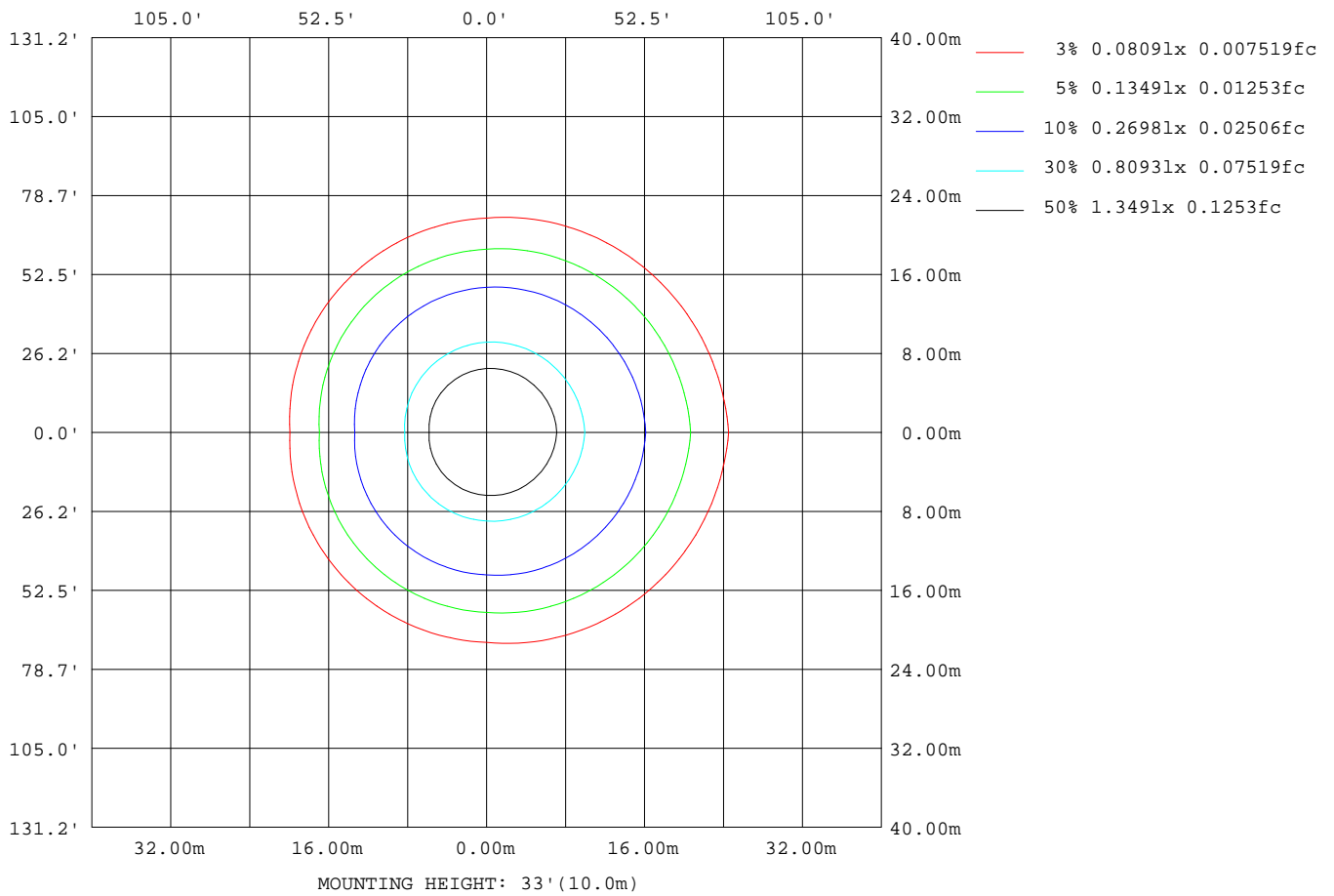


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:901.731x1 lm		
NAME: UB-AT1-30K97C	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

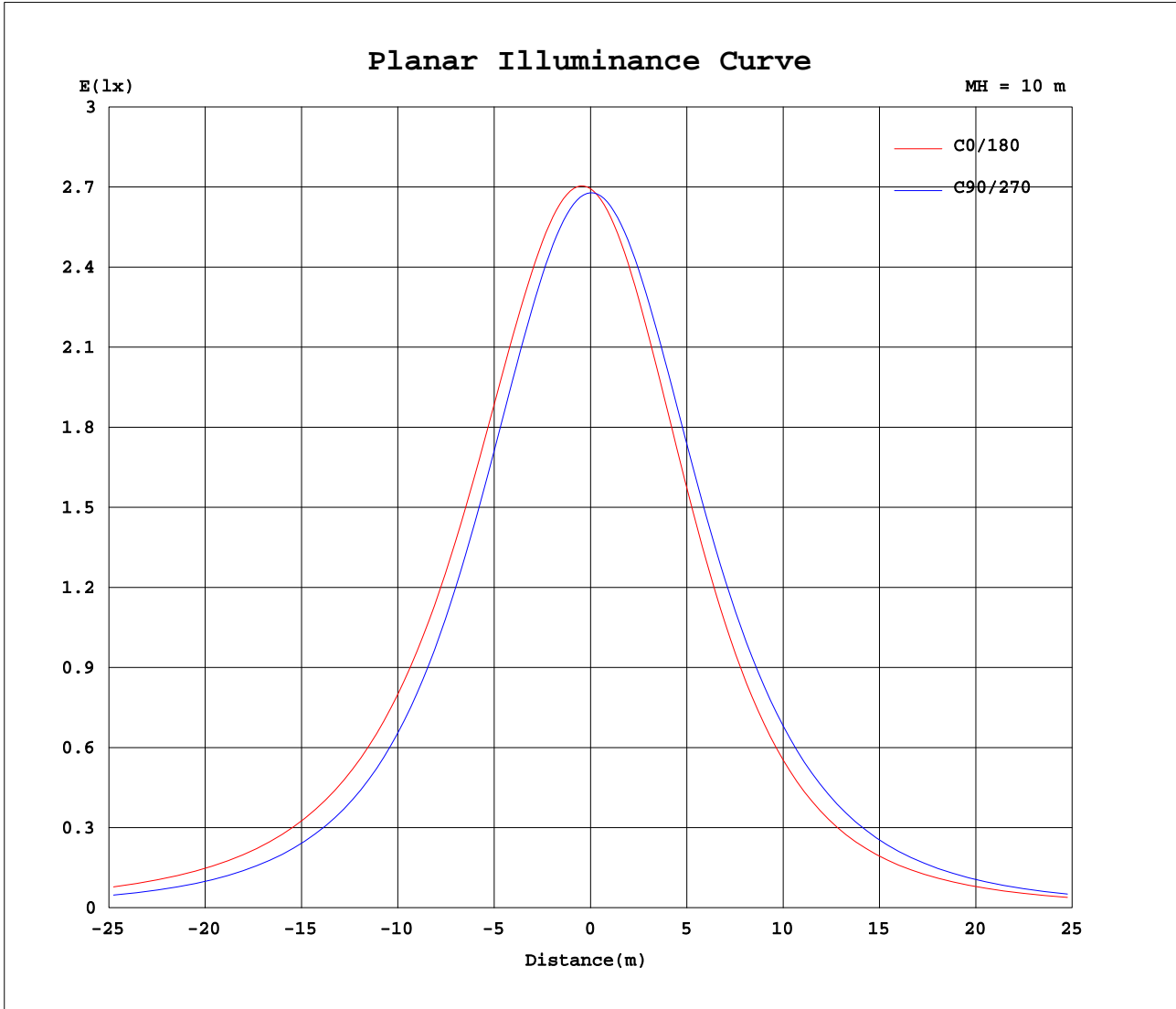
AvgL	cd/m2
L_0~180(65)av	14418
L_0~180(75)av	17131
L_0~180(85)av	34295
L_90~270(65)av	12803
L_90~270(75)av	12112
L_90~270(85)av	12143
L_45(65)av	13131
L_45(75)av	13599
L_45(85)av	19574

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	269	269	269	269															
5	272	267	264	268															
10	273	264	256	266															
15	272	259	247	262															
20	269	252	236	255															
25	265	243	223	246															
30	258	232	209	236															
35	249	219	193	223															
40	238	203	175	209															
45	226	186	156	193															
50	211	167	137	175															
55	195	147	118	155															
60	177	127	100	134															
65	160	104	83.9	112															
70	141	82.1	68.7	89.6															
75	122	59.2	55.3	66.2															
80	104	38.4	43.8	43.7															
85	85.0	18.9	34.5	23.4															
90	63.3	4.55	26.4	7.31															
95	34.2	0.94	19.4	0.93															
100	12.2	1.10	13.5	1.05															
105	5.55	1.20	8.90	1.19															
110	2.25	1.33	5.45	1.33															
115	1.37	1.46	2.99	1.46															
120	1.41	1.59	2.01	1.58															
125	1.48	1.70	1.99	1.69															
130	1.59	1.80	2.03	1.80															
135	1.70	1.90	2.10	1.91															
140	1.82	2.01	2.17	2.01															
145	1.92	2.16	2.24	2.09															
150	2.02	2.26	2.30	2.19															
155	2.14	2.34	2.37	2.29															
160	2.26	2.43	2.45	2.38															
165	2.37	2.51	2.51	2.47															
170	2.47	2.58	2.59	2.56															
175	2.55	2.64	2.61	2.62															
180	2.61	2.65	2.61	2.66															

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: