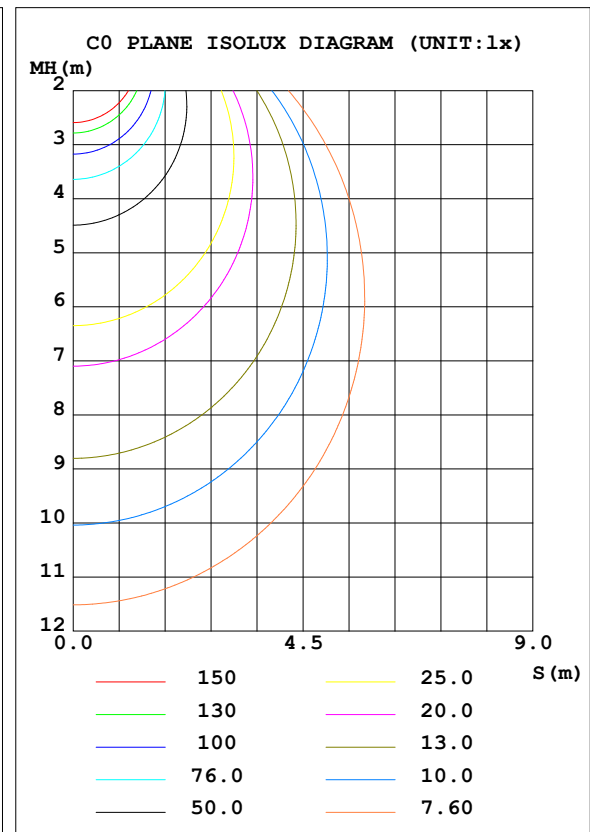
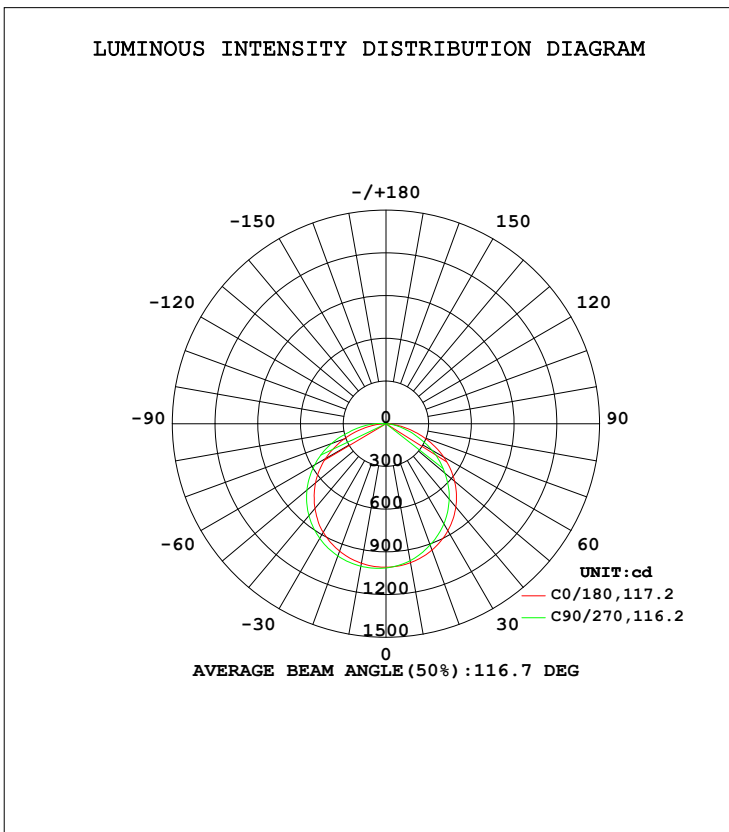


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:12.001V I:1.7458A P:20.951W PF:1.0000 Freq:0Hz Lamp Flux:3069.51x1 lm		
NAME: UB-IS-62K90C	TYPE: LED Strip	WEIGHT:
SPEC.: 21.7W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.01*1	Shielding Angle: 120

DATA OF LAMP		PHOTOMETRIC DATA Eff: 146.51 lm/W			
MODEL		I _{max} (cd)	1018	S/MH (C0/180)	1.30
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.36
RATED VOLTAGE (V)		TOTAL FLUX (lm)	3069.5	η UP, DN (C0-180)	0.3, 45.1
NOMINAL FLUX (lm)	3069.51	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.6, 54.0
LAMPS INSIDE	1	η up (%)	0.9	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)		η down (%)	99.1	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Test Date: 2023-07-22

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:

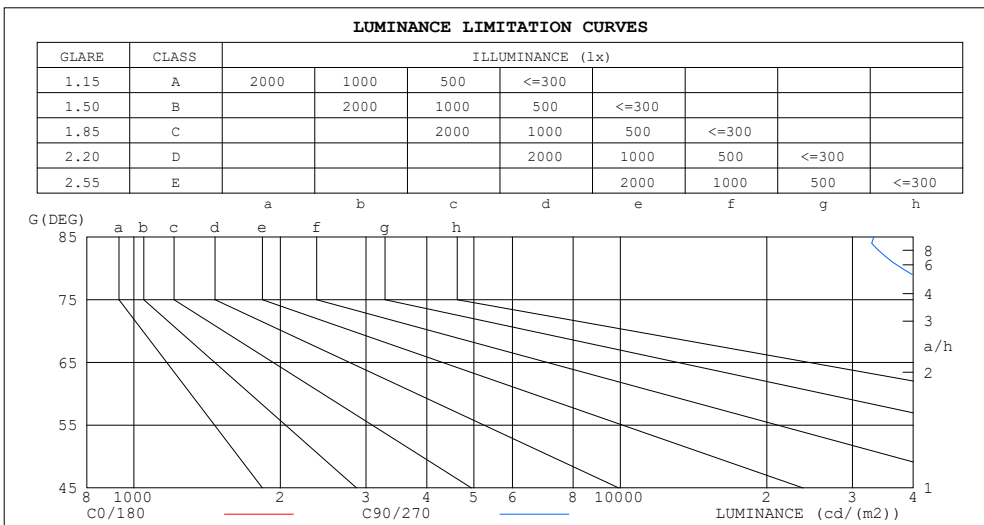
γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum, lamp
10	990.8	976.6	994.9	1016				0- 10	95.68	95.68	3.12,3.12
20	944.2	906.2	952.5	988.2				10- 20	275.3	371.0	12.1,12.1
30	868.4	813.0	880.7	930.3				20- 30	421.4	792.4	25.8,25.8
40	763.0	690.9	776.0	842.1				30- 40	515.8	1308	42.6,42.6
50	629.1	540.6	646.6	725.0				40- 50	543.7	1852	60.3,60.3
60	468.7	374.9	492.5	578.6				50- 60	500.3	2352	76.6,76.6
70	286.4	200.2	312.9	408.9				60- 70	386.4	2739	89.2,89.2
80	109.6	65.87	133.2	222.4				70- 80	226.0	2965	96.6,96.6
90	1.106	11.88	5.506	75.60				80- 90	77.65	3042	99.1,99.1
100	1.182	1.712	1.306	9.468				90-100	11.88	3054	99.5,99.5
110	1.736	2.205	1.861	2.070				100-110	2.340	3056	99.6,99.6
120	2.388	2.698	2.501	2.054				110-120	2.172	3059	99.6,99.6
130	2.992	3.277	3.117	2.537				120-130	2.414	3061	99.7,99.7
140	3.510	3.794	3.646	3.128				130-140	2.518	3064	99.8,99.8
150	3.953	4.163	4.077	3.658				140-150	2.347	3066	99.9,99.9
160	4.286	4.508	4.372	4.089				150-160	1.909	3068	99.9,99.9
170	4.495	4.791	4.607	4.508				160-170	1.262	3069	100,100
180	4.680	4.828	4.680	4.779				170-180	0.4449	3070	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2023-07-22

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:12.001V I:1.7458A P:20.951W PF:1.0000 Freq:0Hz Lamp Flux:3069.5lx1 lm		
NAME: UB-IS-62K90C	TYPE: LED Strip	WEIGHT:
SPEC.: 21.7W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.01*1	Shielding Angle: 120



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	47110	33185
80	63102	37936
75	74862	48871
70	83729	58547
65	89632	66388
60	93733	74988
55	96288	80386
50	97874	84109
45	98914	87560

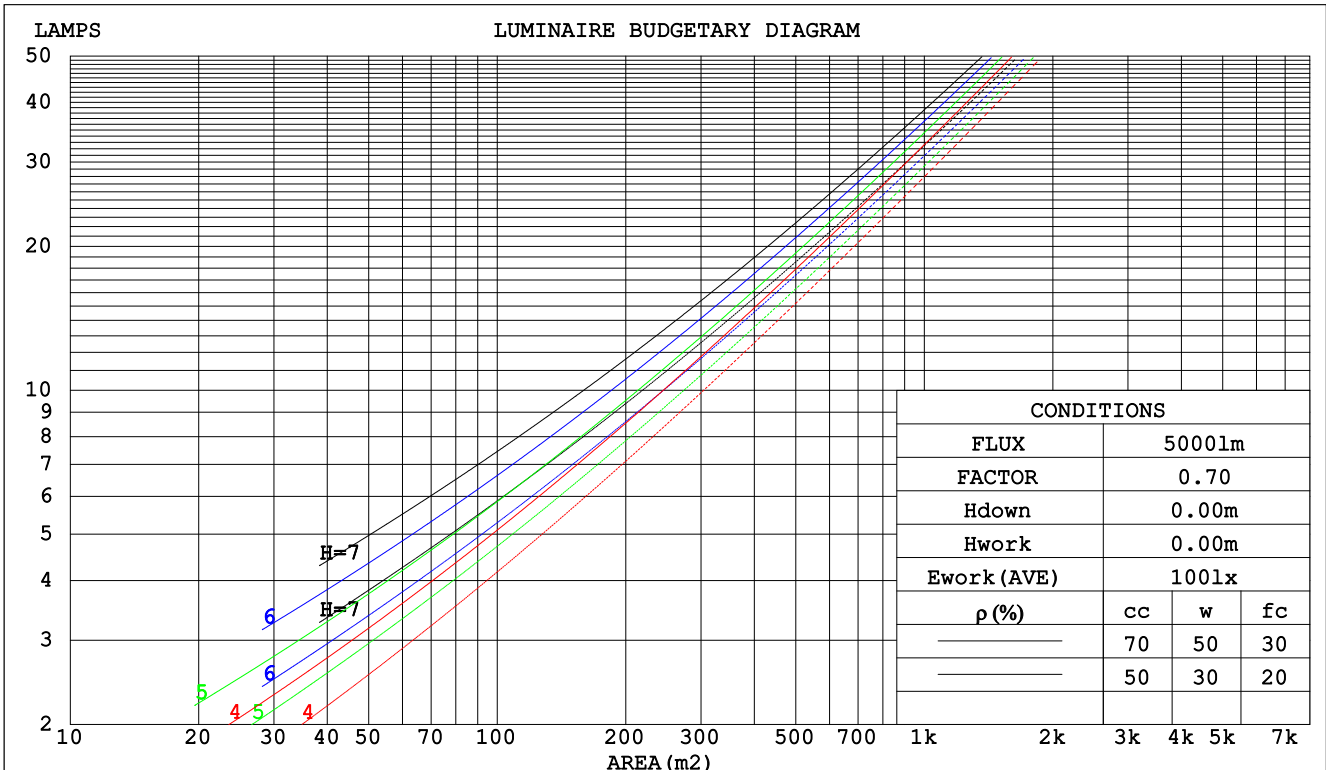
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2023-07-22

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:12.001V I:1.7458A P:20.951W PF:1.0000 Freq:0Hz Lamp Flux:3069.51x1 lm		
NAME: UB-IS-62K90C	TYPE: LED Strip	WEIGHT:
SPEC.: 21.7W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.01*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	1.01	1.01	1.01	.99
1.0	1.03	.99	.95	1.01	.97	.93	.96	.93	.90	.92	.90	.87	.88	.86	.84	.82
2.0	.90	.82	.77	.88	.81	.76	.84	.78	.74	.80	.76	.72	.77	.73	.70	.68
3.0	.78	.70	.63	.77	.69	.63	.74	.67	.61	.71	.65	.60	.68	.63	.59	.57
4.0	.69	.60	.53	.68	.59	.53	.65	.58	.52	.63	.56	.51	.60	.55	.51	.48
5.0	.62	.53	.46	.61	.52	.46	.58	.51	.45	.56	.50	.44	.54	.48	.44	.42
6.0	.55	.46	.40	.54	.46	.40	.53	.45	.39	.51	.44	.39	.49	.43	.38	.36
7.0	.50	.41	.35	.49	.41	.35	.48	.40	.35	.46	.39	.34	.45	.39	.34	.32
8.0	.46	.37	.31	.45	.37	.31	.44	.36	.31	.42	.36	.31	.41	.35	.30	.28
9.0	.42	.34	.28	.41	.33	.28	.40	.33	.28	.39	.32	.28	.38	.32	.27	.25
10.0	.39	.31	.25	.38	.30	.25	.37	.30	.25	.36	.30	.25	.35	.29	.25	.23



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2023-07-22

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:12.001V I:1.7458A P:20.951W PF:1.0000 Freq:0Hz Lamp Flux:3069.51x1 lm								
NAME: UB-IS-62K90C			TYPE: LED Strip			WEIGHT:		
SPEC.: 21.7W			DIM.: 1000*10*2 (MM)			SERIAL No.: 001		
MFR.: Flexfire LEDs, Inc.			SUR.: 0.01*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	.286	.165	.053	.275	.159	.051	
2.0	.298	.164	.050	.292	.161	.050	.280	.156	.048	.268	.151	.047	.258	.146	.046	
3.0	.275	.146	.044	.269	.144	.043	.258	.140	.043	.248	.136	.042	.239	.132	.041	
4.0	.253	.131	.039	.248	.130	.038	.238	.126	.038	.229	.123	.037	.221	.120	.037	
5.0	.233	.119	.034	.229	.117	.034	.220	.115	.034	.212	.112	.033	.205	.109	.033	
6.0	.216	.108	.031	.212	.107	.031	.204	.105	.030	.197	.102	.030	.191	.100	.030	
7.0	.201	.099	.028	.197	.098	.028	.190	.096	.028	.184	.094	.027	.178	.092	.027	
8.0	.187	.092	.026	.184	.091	.026	.178	.089	.025	.172	.087	.025	.167	.086	.025	
9.0	.175	.085	.024	.173	.084	.024	.167	.083	.023	.162	.081	.023	.157	.080	.023	
10.0	.165	.079	.022	.162	.078	.022	.157	.077	.022	.152	.076	.022	.148	.074	.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	.197	.197	.197	.169	.169	.169	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.188	.163	.140	.161	.140	.121	.110	.096	.084	.063	.056	.049	.020	.018	.016	
2.0	.180	.139	.104	.154	.119	.090	.106	.083	.063	.061	.048	.037	.020	.016	.012	
3.0	.172	.121	.081	.148	.105	.070	.101	.073	.049	.059	.042	.029	.019	.014	.009	
4.0	.165	.108	.065	.141	.093	.056	.097	.065	.040	.056	.038	.023	.018	.012	.008	
5.0	.157	.098	.054	.135	.085	.047	.093	.059	.033	.054	.035	.020	.017	.011	.006	
6.0	.150	.089	.046	.129	.077	.040	.089	.054	.028	.052	.032	.017	.017	.010	.006	
7.0	.143	.082	.040	.123	.071	.035	.085	.050	.025	.049	.030	.015	.016	.010	.005	
8.0	.137	.077	.035	.118	.067	.031	.081	.047	.022	.047	.028	.013	.015	.009	.004	
9.0	.131	.072	.032	.112	.062	.028	.078	.044	.020	.045	.026	.012	.015	.008	.004	
10.0	.125	.067	.029	.108	.059	.026	.075	.041	.018	.044	.024	.011	.014	.008	.004	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2023-07-22

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:12.001V I:1.7458A P:20.951W PF:1.0000 Freq:0Hz Lamp Flux:3069.51x1 lm										
NAME: UB-IS-62K90C				TYPE: LED Strip			WEIGHT:			
SPEC.: 21.7W				DIM.: 1000*10*2 (MM)			SERIAL No.: 001			
MFR.: Flexfire LEDs, Inc.				SUR.: 0.01*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	24.5	26.1	24.8	26.3	26.5	23.8	25.3	24.0	25.5	25.7
3H	26.0	27.4	26.3	27.7	27.9	24.9	26.3	25.2	26.6	26.8
4H	26.6	27.9	26.9	28.2	28.5	25.3	26.6	25.6	26.9	27.2
6H	26.9	28.2	27.3	28.5	28.8	25.5	26.7	25.8	27.0	27.3
8H	27.0	28.3	27.4	28.6	28.9	25.5	26.7	25.9	27.0	27.3
12H	27.1	28.3	27.4	28.6	28.9	25.5	26.7	25.9	27.0	27.3
4H 2H	25.0	26.3	25.3	26.6	26.9	24.4	25.7	24.7	26.0	26.3
3H	26.7	27.8	27.0	28.1	28.5	25.7	26.9	26.1	27.2	27.5
4H	27.3	28.4	27.7	28.7	29.1	26.2	27.3	26.6	27.6	28.0
6H	27.8	28.8	28.2	29.1	29.5	26.5	27.4	26.9	27.8	28.2
8H	27.9	28.8	28.4	29.2	29.6	26.6	27.5	27.0	27.8	28.2
12H	28.0	28.8	28.5	29.2	29.7	26.6	27.4	27.0	27.8	28.3
8H 4H	27.5	28.4	27.9	28.7	29.2	26.4	27.3	26.9	27.7	28.1
6H	28.1	28.8	28.5	29.2	29.7	26.9	27.6	27.3	28.0	28.5
8H	28.3	28.9	28.7	29.4	29.8	27.0	27.7	27.5	28.1	28.6
12H	28.4	29.0	28.9	29.4	29.9	27.1	27.7	27.6	28.1	28.6
12H 4H	27.5	28.3	27.9	28.7	29.1	26.5	27.3	26.9	27.7	28.1
6H	28.1	28.7	28.6	29.2	29.7	26.9	27.6	27.4	28.0	28.5
8H	28.3	28.9	28.8	29.4	29.8	27.1	27.6	27.6	28.1	28.6
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
1.5H	+ 0.2 / - 0.3					+ 0.3 / - 0.4				
2.0H	+ 0.3 / - 0.4					+ 0.2 / - 0.4				

CIE Pub.117, 3070 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 3.9)
 Area: 0.01 m2

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2023-07-22

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:12.001V I:1.7458A P:20.951W PF:1.0000 Freq:0Hz Lamp Flux:3069.51x1 lm		
NAME: UB-IS-62K90C	TYPE: LED Strip	WEIGHT:
SPEC.: 21.7W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.01*1	Shielding Angle: 120

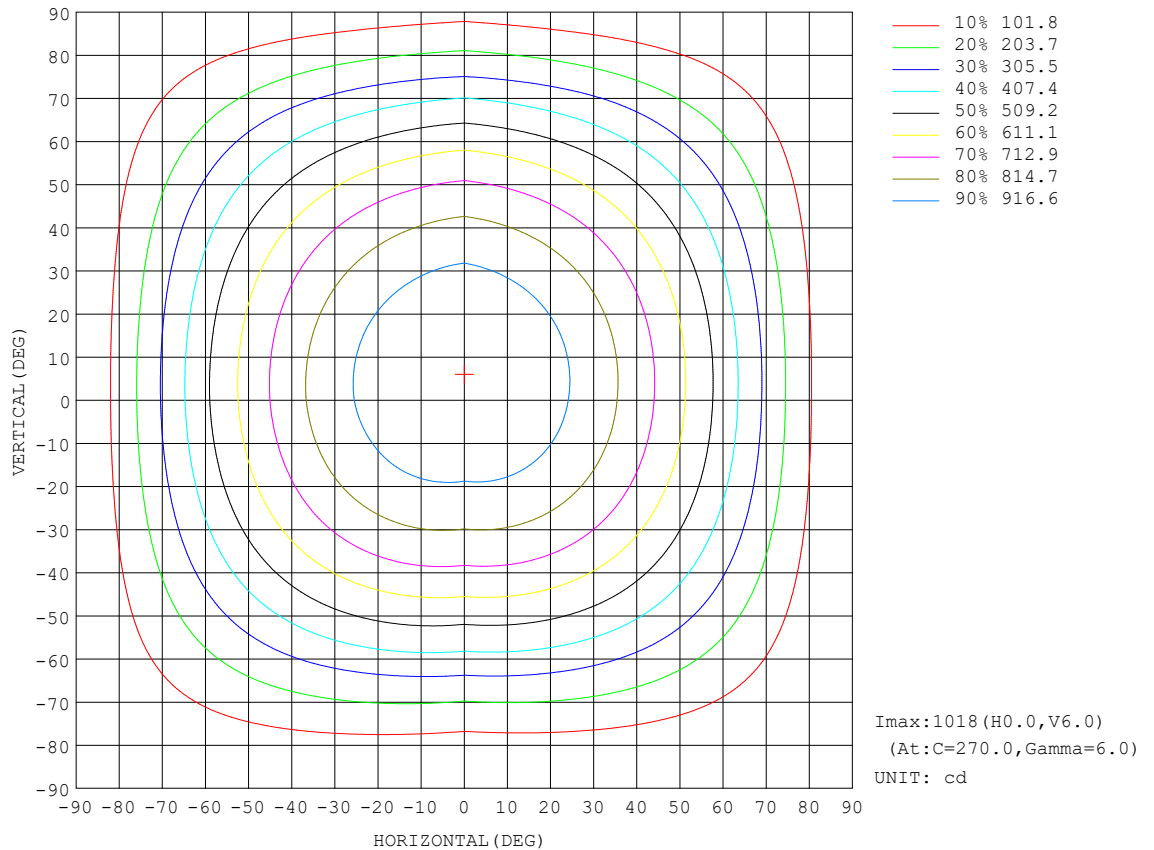
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	45	37	56	44	37	54	44	37	31
0.80	66	54	47	65	54	47	63	53	46	39
1.00	75	63	56	74	63	56	71	64	55	48
1.25	82	71	64	80	70	63	78	69	63	55
1.50	87	77	70	85	76	69	82	74	68	60
2.00	94	85	78	92	84	78	88	82	76	68
2.50	98	90	84	96	88	83	92	86	81	72
3.00	101	94	88	99	93	87	95	90	85	76
4.00	105	100	95	103	98	93	99	94	90	81
5.00	108	103	99	105	101	97	101	97	94	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:2023-07-22

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:12.001V I:1.7458A P:20.951W PF:1.0000 Freq:0Hz Lamp Flux:3069.5lx1 lm		
NAME: UB-IS-62K90C	TYPE: LED Strip	WEIGHT:
SPEC.: 21.7W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.01*1	Shielding Angle: 120

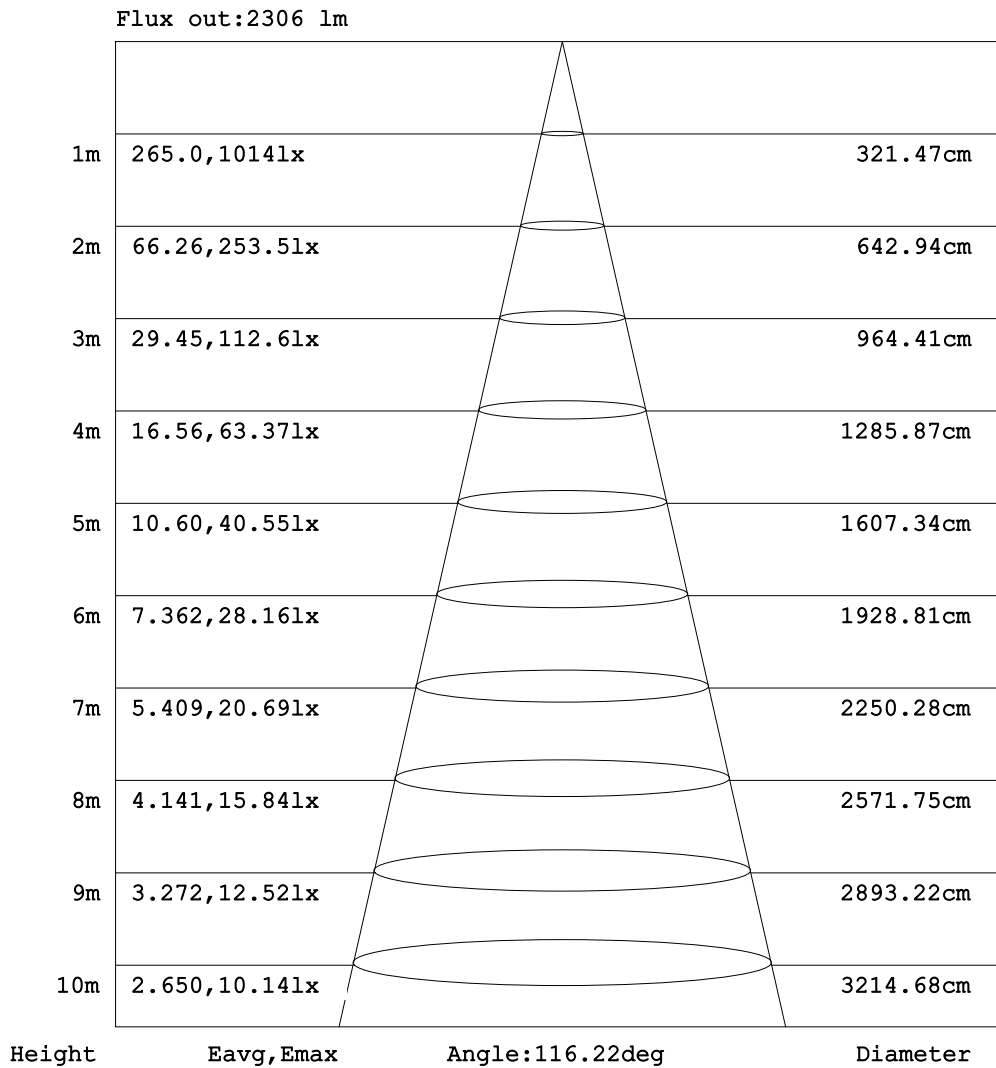


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2023-07-22

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:12.001V I:1.7458A P:20.951W PF:1.0000 Freq:0Hz Lamp Flux:3069.51x1 lm		
NAME: UB-IS-62K90C	TYPE: LED Strip	WEIGHT:
SPEC.: 21.7W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.01*1	Shielding Angle: 120



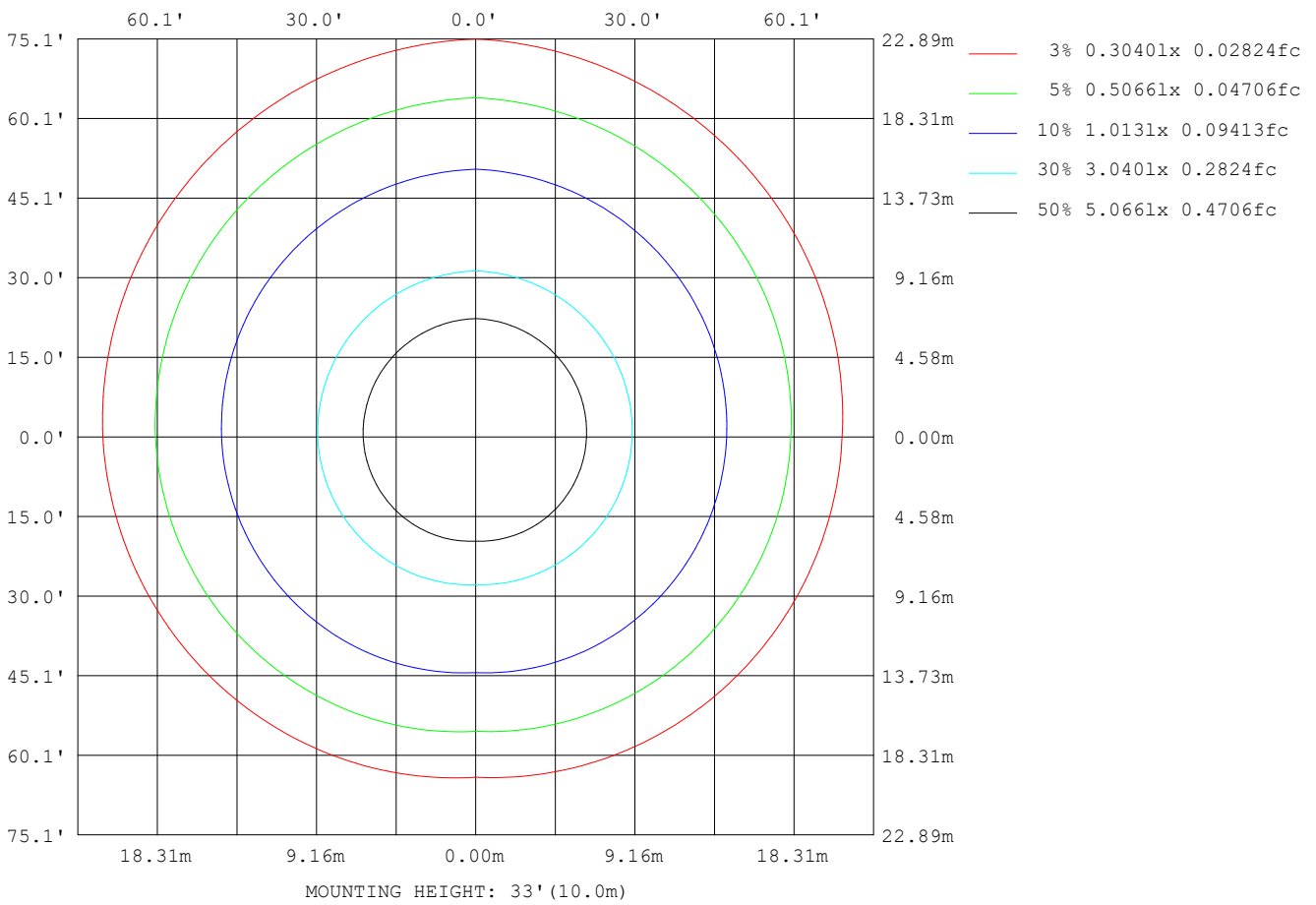
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2023-07-22

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:12.001V I:1.7458A P:20.951W PF:1.0000 Freq:0Hz Lamp Flux:3069.5lx1 lm		
NAME: UB-IS-62K90C	TYPE: LED Strip	WEIGHT:
SPEC.: 21.7W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.01*1	Shielding Angle: 120



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2023-07-22

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:12.001V I:1.7458A P:20.951W PF:1.0000 Freq:0Hz Lamp Flux:3069.51x1 lm		
NAME: UB-IS-62K90C	TYPE: LED Strip	WEIGHT:
SPEC.: 21.7W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.01*1	Shielding Angle: 120

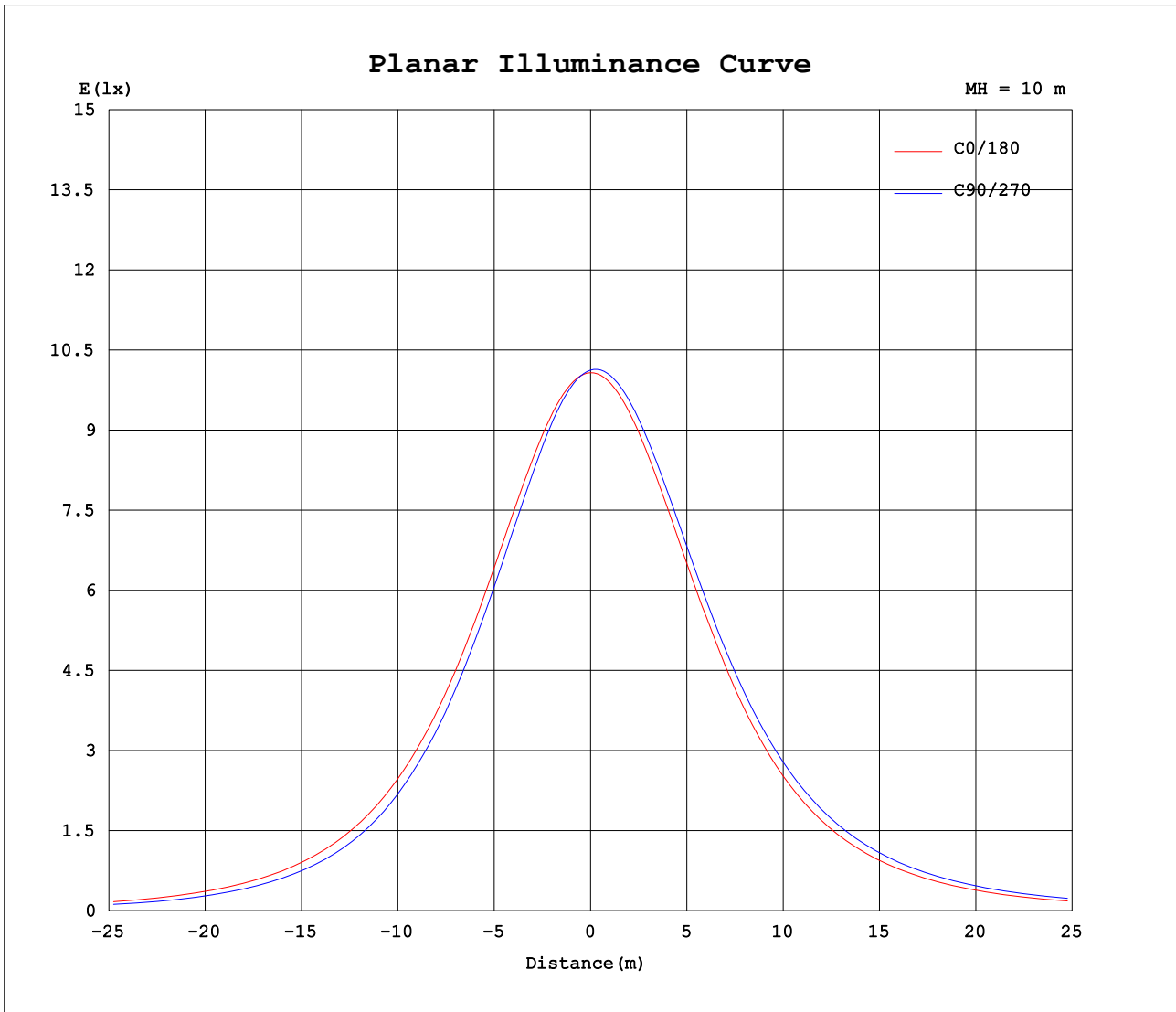
AvgL	cd/m2
L_0~180 (65) av	92435
L_0~180 (75) av	79937
L_0~180 (85) av	57376
L_90~270 (65) av	91958
L_90~270 (75) av	83711
L_90~270 (85) av	97925
L_45 (65) av	92312
L_45 (75) av	82613
L_45 (85) av	83360

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2023-07-22

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: 2023-07-22

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:12.001V I:1.7458A P:20.951W PF:1.0000 Freq:0Hz Lamp Flux:3069.51x1 lm		
NAME: UB-IS-62K90C	TYPE: LED Strip	WEIGHT:
SPEC.: 21.7W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.01*1	Shielding Angle: 120

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	90	180	270															
0	1008	1012	1008	1012															
5	1003	999	1005	1018															
10	991	977	995	1016															
15	971	945	977	1006															
20	944	906	953	988															
25	910	863	920	963															
30	868	813	881	930															
35	819	756	833	890															
40	763	691	776	842															
45	699	619	714	787															
50	629	541	647	725															
55	552	461	573	656															
60	469	375	493	579															
65	379	281	402	497															
70	286	200	313	409															
75	194	126	220	307															
80	110	65.9	133	222															
85	41.1	28.9	59.0	142															
90	1.11	11.9	5.51	75.6															
95	0.92	4.27	1.18	31.1															
100	1.18	1.71	1.31	9.47															
105	1.46	1.85	1.58	3.03															
110	1.74	2.21	1.86	2.07															
115	2.09	2.45	2.21	2.03															
120	2.39	2.70	2.50	2.05															
125	2.71	2.98	2.83	2.29															
130	2.99	3.28	3.12	2.54															
135	3.29	3.54	3.38	2.86															
140	3.51	3.79	3.65	3.13															
145	3.73	4.00	3.86	3.41															
150	3.95	4.16	4.08	3.66															
155	4.08	4.30	4.21	3.90															
160	4.29	4.51	4.37	4.09															
165	4.37	4.68	4.50	4.31															
170	4.50	4.79	4.61	4.51															
175	4.57	4.82	4.69	4.66															
180	4.68	4.83	4.68	4.78															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2023-07-22

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: