









WEC AND CCEC

Test:U:24.00V I:0.6058A P:14.54W PF:1.000 Freq:0Hz Lamp Flux:1079.16x1 lm		
NAME: UB-AS-24K90C-24V	TYPE: LED Strip	WEIGHT:Kg
SPEC.:14.4W	DIM.: 1000*10*2(MM)	SERIAL No.:001
MFR.: Flexfire LEDs, Inc.	SUR.:1000*10(MM)	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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.314	.179	.057	.307	.175	.056	.293	.168	.054	.280	.162	.052	.268	.155	.050	
2.0	.294	.161	.050	.288	.159	.049	.276	.153	.048	.264	.148	.046	.254	.143	.045	
3.0	.272	.145	.043	.266	.143	.043	.255	.138	.042	.245	.134	.041	.236	.130	.040	
4.0	.251	.130	.038	.246	.128	.038	.236	.125	.037	.227	.122	.037	.218	.119	.036	
5.0	.232	.118	.034	.227	.117	.034	.218	.114	.033	.210	.111	.033	.203	.108	.033	
6.0	.215	.108	.031	.210	.106	.031	.203	.104	.030	.195	.102	.030	.189	.099	.029	
7.0	.200	.099	.028	.196	.098	.028	.189	.096	.028	.182	.094	.027	.176	.092	.027	
8.0	.186	.091	.026	.183	.090	.025	.177	.088	.025	.171	.087	.025	.165	.085	.025	
9.0	.175	.084	.024	.172	.084	.023	.166	.082	.023	.161	.081	.023	.156	.079	.023	
10.0	.164	.079	.022	.161	.078	.022	.156	.077	.022	.151	.075	.021	.147	.074	.021	

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.200	.200	.200	.171	.171	.171	.116	.116	.116	.067	.067	.067	.021	.021	.021	
1.0	.190	.165	.143	.162	.142	.123	.111	.098	.085	.064	.056	.050	.020	.018	.016	
2.0	.182	.141	.107	.156	.122	.092	.107	.084	.065	.062	.049	.038	.020	.016	.012	
3.0	.174	.124	.083	.149	.107	.072	.103	.074	.051	.059	.043	.030	.019	.014	.010	
4.0	.167	.110	.068	.143	.095	.059	.098	.067	.041	.057	.039	.024	.018	.013	.008	
5.0	.159	.100	.056	.137	.087	.049	.094	.060	.035	.055	.036	.021	.018	.012	.007	
6.0	.152	.092	.048	.131	.079	.042	.090	.056	.030	.052	.033	.018	.017	.011	.006	
7.0	.145	.085	.043	.125	.074	.037	.086	.052	.026	.050	.030	.016	.016	.010	.005	
8.0	.139	.079	.038	.119	.069	.033	.083	.048	.024	.048	.028	.014	.016	.009	.005	
9.0	.133	.074	.035	.114	.064	.030	.079	.045	.021	.046	.027	.013	.015	.009	.004	
10.0	.127	.070	.032	.109	.061	.028	.076	.043	.020	.044	.025	.012	.014	.008	.004	

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.0DEG  
 Test Date:2019-7-31

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:7.000m [K=1.0000]

**UGR(Unified Glare Rating) Table**

Test:U:24.00V I:0.6058A P:14.54W PF:1.000 Freq:0Hz Lamp Flux:1079.16x1 lm										
NAME: UB-AS-24K90C-24V					TYPE: LED Strip			WEIGHT:Kg		
SPEC.:14.4W					DIM.: 1000*10*2(MM)			SERIAL No.:001		
MFR.: Flexfire LEDs, Inc.					SUR.:1000*10(MM)			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	24.9	26.4	25.1	26.6	26.8	24.9	26.4	25.2	26.7	26.9
3H	26.4	27.8	26.7	28.1	28.3	26.5	27.9	26.8	28.1	28.4
4H	27.0	28.3	27.3	28.6	28.9	27.1	28.4	27.4	28.7	29.0
6H	27.5	28.7	27.8	29.0	29.3	27.6	28.8	27.9	29.1	29.4
8H	27.6	28.8	28.0	29.1	29.4	27.7	28.9	28.1	29.2	29.6
12H	27.7	28.8	28.1	29.2	29.5	27.8	29.0	28.2	29.3	29.6
4H 2H	25.5	26.8	25.8	27.1	27.4	25.5	26.9	25.9	27.1	27.4
3H	27.2	28.4	27.6	28.7	29.0	27.3	28.5	27.7	28.8	29.1
4H	28.0	29.0	28.4	29.4	29.7	28.0	29.1	28.4	29.5	29.8
6H	28.5	29.5	28.9	29.8	30.2	28.6	29.6	29.1	30.0	30.4
8H	28.7	29.6	29.2	30.0	30.4	28.9	29.7	29.3	30.1	30.5
12H	28.9	29.7	29.3	30.1	30.5	29.0	29.8	29.5	30.2	30.7
8H 4H	28.2	29.1	28.7	29.5	29.9	28.3	29.2	28.8	29.6	30.0
6H	29.0	29.7	29.4	30.1	30.6	29.1	29.8	29.5	30.2	30.7
8H	29.3	29.9	29.7	30.3	30.8	29.4	30.0	29.9	30.5	31.0
12H	29.5	30.0	30.0	30.5	31.0	29.6	30.2	30.1	30.7	31.2
12H 4H	28.3	29.1	28.7	29.5	29.9	28.3	29.1	28.8	29.6	30.0
6H	29.0	29.7	29.5	30.1	30.6	29.1	29.8	29.6	30.2	30.7
8H	29.4	29.9	29.9	30.4	30.9	29.5	30.1	30.0	30.5	31.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 1079 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.3)

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.0DEG  
 Test Date:2019-7-31

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:7.000m [K=1.0000]

**UTILIZATION FACTORS TABLE**

Test:U:24.00V I:0.6058A P:14.54W PF:1.000 Freq:0Hz Lamp Flux:1079.16x1 lm		
NAME: UB-AS-24K90C-24V	TYPE: LED Strip	WEIGHT:Kg
SPEC.:14.4W	DIM.: 1000*10*2(MM)	SERIAL No.:001
MFR.: Flexfire LEDs, Inc.	SUR.:1000*10(MM)	Shielding Angle:120

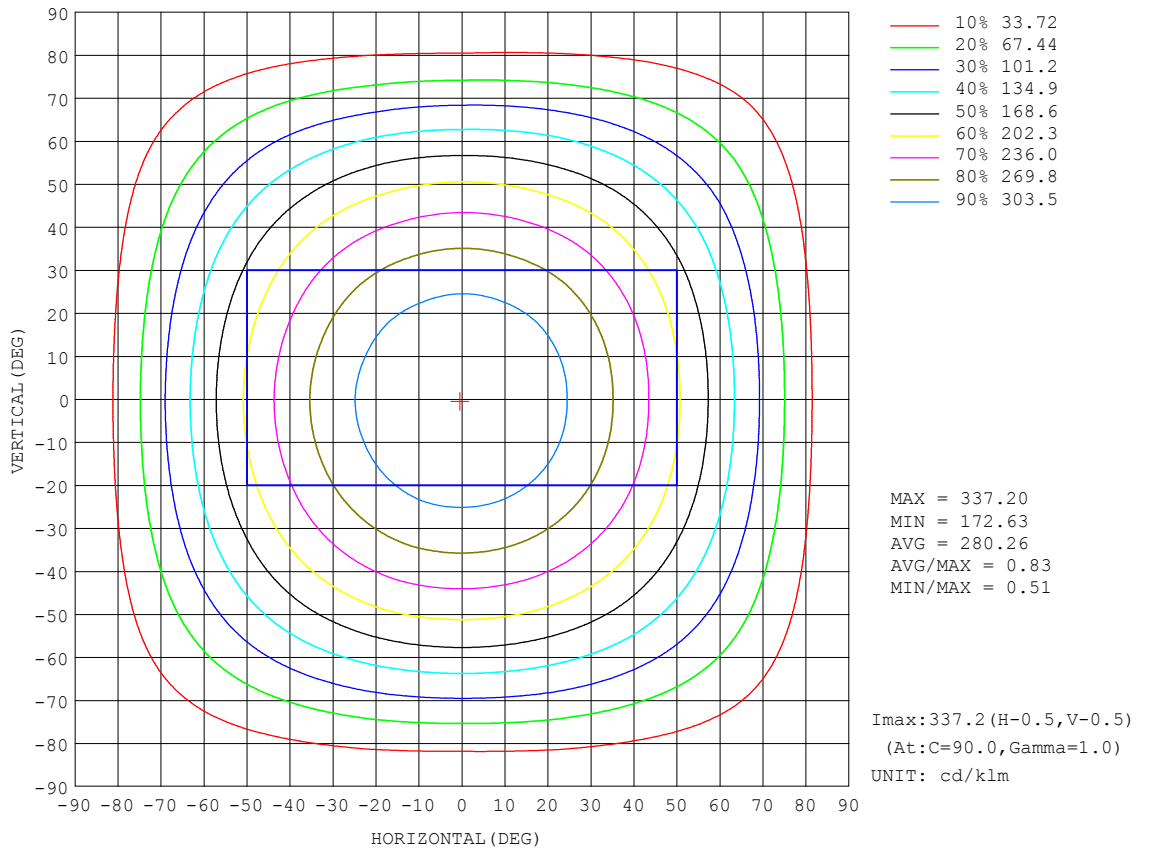
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	45	38	56	45	38	55	44	38	31
0.80	67	55	48	66	55	47	64	54	47	40
1.00	75	64	56	74	63	56	72	65	56	48
1.25	82	72	64	81	71	64	78	69	63	56
1.50	87	77	70	86	76	70	82	74	68	61
2.00	94	86	79	92	84	78	89	82	76	68
2.50	98	90	84	96	89	83	92	86	81	73
3.00	102	95	89	99	93	88	95	90	85	77
4.00	106	100	95	103	98	94	99	94	91	81
5.00	108	103	99	106	101	97	101	97	94	85
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.0DEG  
 Test Date:2019-7-31

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:7.000m [K=1.0000]

**ISOCANDELA DIAGRAM**

Test:U:24.00V I:0.6058A P:14.54W PF:1.000 Freq:0Hz Lamp Flux:1079.16x1 lm		
NAME: UB-AS-24K90C-24V	TYPE: LED Strip	WEIGHT:Kg
SPEC.:14.4W	DIM.: 1000*10*2 (MM)	SERIAL No.:001
MFR.: Flexfire LEDs, Inc.	SUR.:1000*10 (MM)	Shielding Angle:120



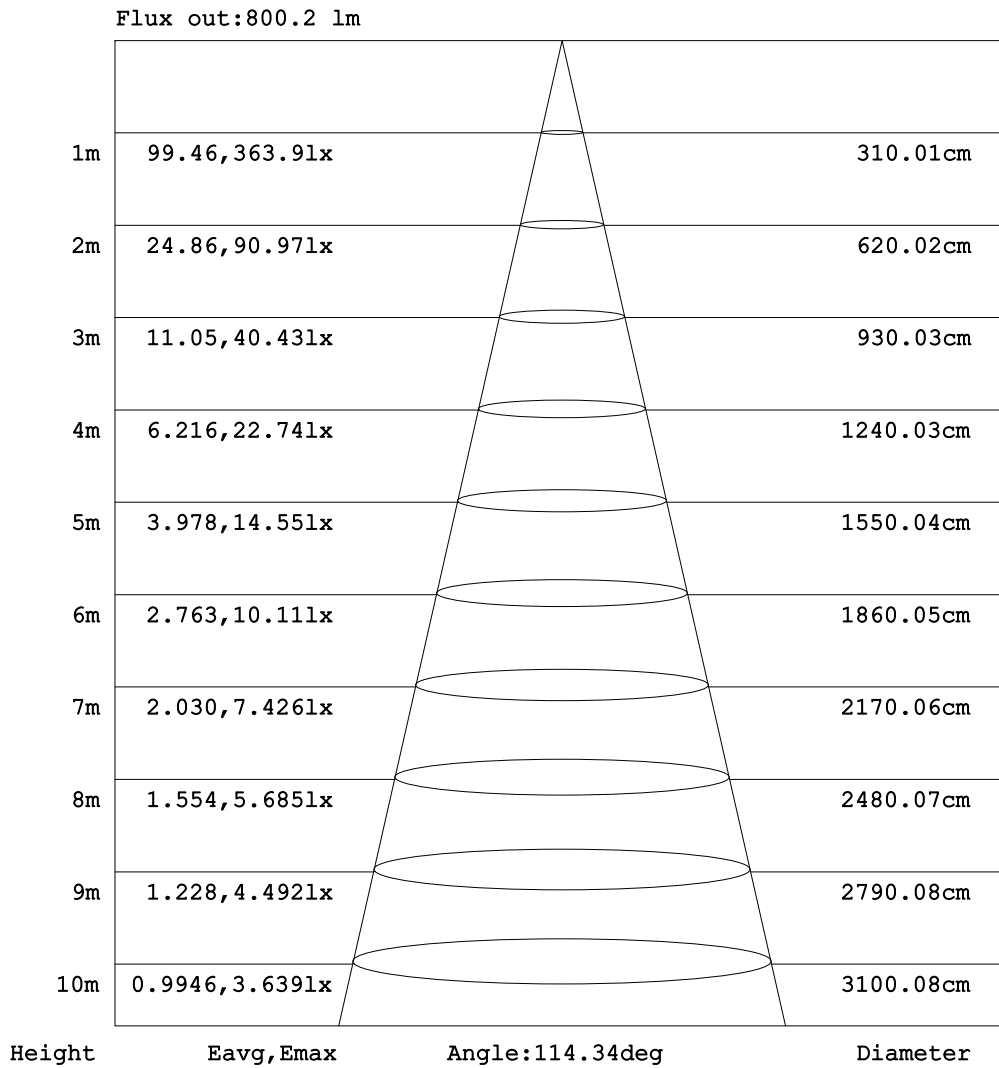
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.0DEG  
 Test Date:2019-7-31

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:7.000m [K=1.0000]



**AAI Figure**

Test:U:24.00V I:0.6058A P:14.54W PF:1.000 Freq:0Hz Lamp Flux:1079.16x1 lm		
NAME: UB-AS-24K90C-24V	TYPE: LED Strip	WEIGHT:Kg
SPEC.:14.4W	DIM.: 1000*10*2(MM)	SERIAL No.:001
MFR.: Flexfire LEDs, Inc.	SUR.:1000*10(MM)	Shielding Angle:120



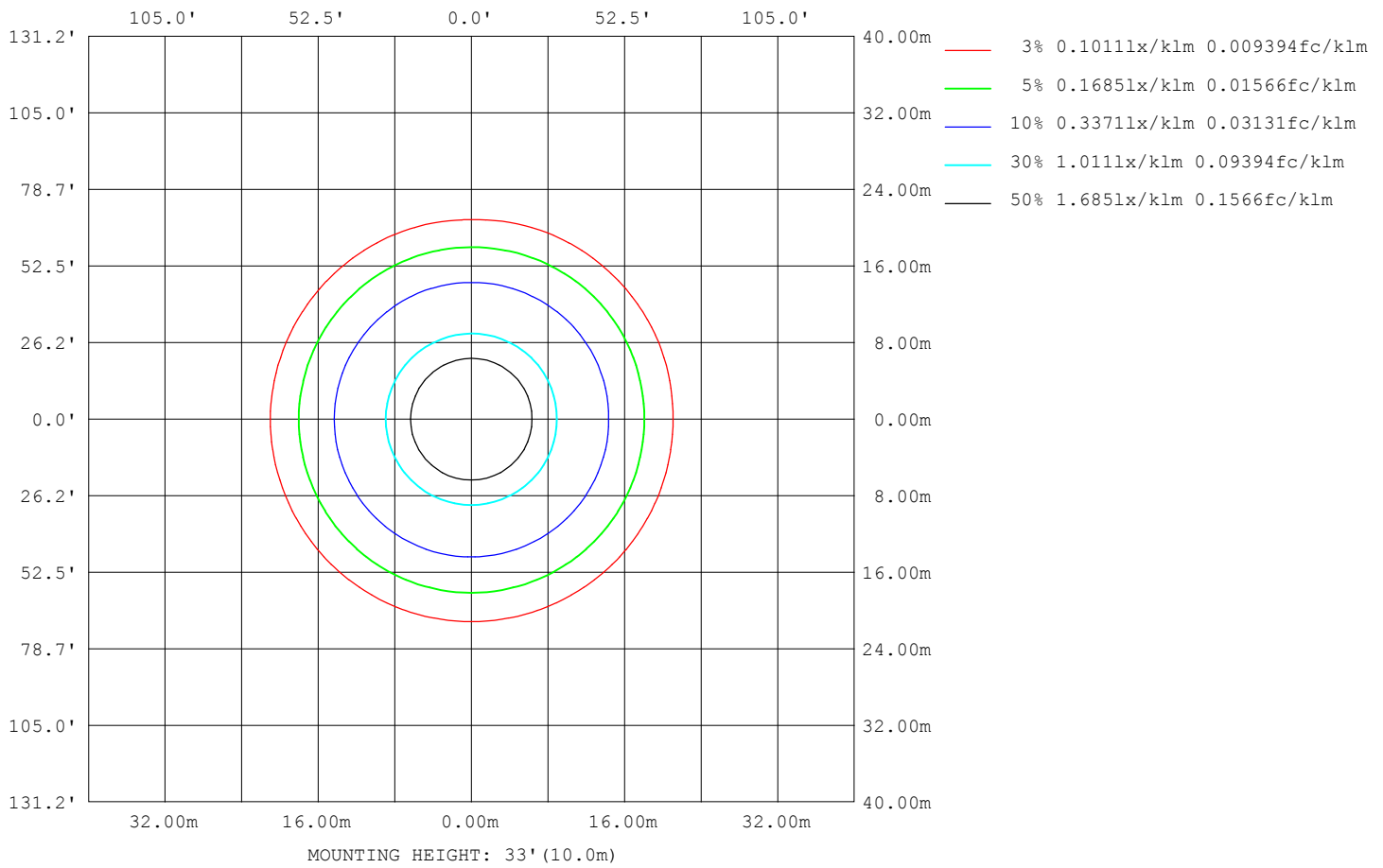
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.0DEG  
 Test Date:2019-7-31

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:7.000m [K=1.0000]

**ISOLUX DIAGRAM**

Test:U:24.00V I:0.6058A P:14.54W PF:1.000 Freq:0Hz Lamp Flux:1079.16x1 lm		
NAME: UB-AS-24K90C-24V	TYPE: LED Strip	WEIGHT:Kg
SPEC.:14.4W	DIM.: 1000*10*2 (MM)	SERIAL No.:001
MFR.: Flexfire LEDs, Inc.	SUR.:1000*10 (MM)	Shielding Angle:120



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.0DEG  
 Test Date:2019-7-31

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:7.000m [K=1.0000]

**LED Avg.L Report**

Test:U:24.00V I:0.6058A P:14.54W PF:1.000 Freq:0Hz Lamp Flux:1079.16x1 lm		
NAME: UB-AS-24K90C-24V	TYPE: LED Strip	WEIGHT:Kg
SPEC.:14.4W	DIM.: 1000*10*2(MM)	SERIAL No.:001
MFR.: Flexfire LEDs, Inc.	SUR.:1000*10(MM)	Shielding Angle:120

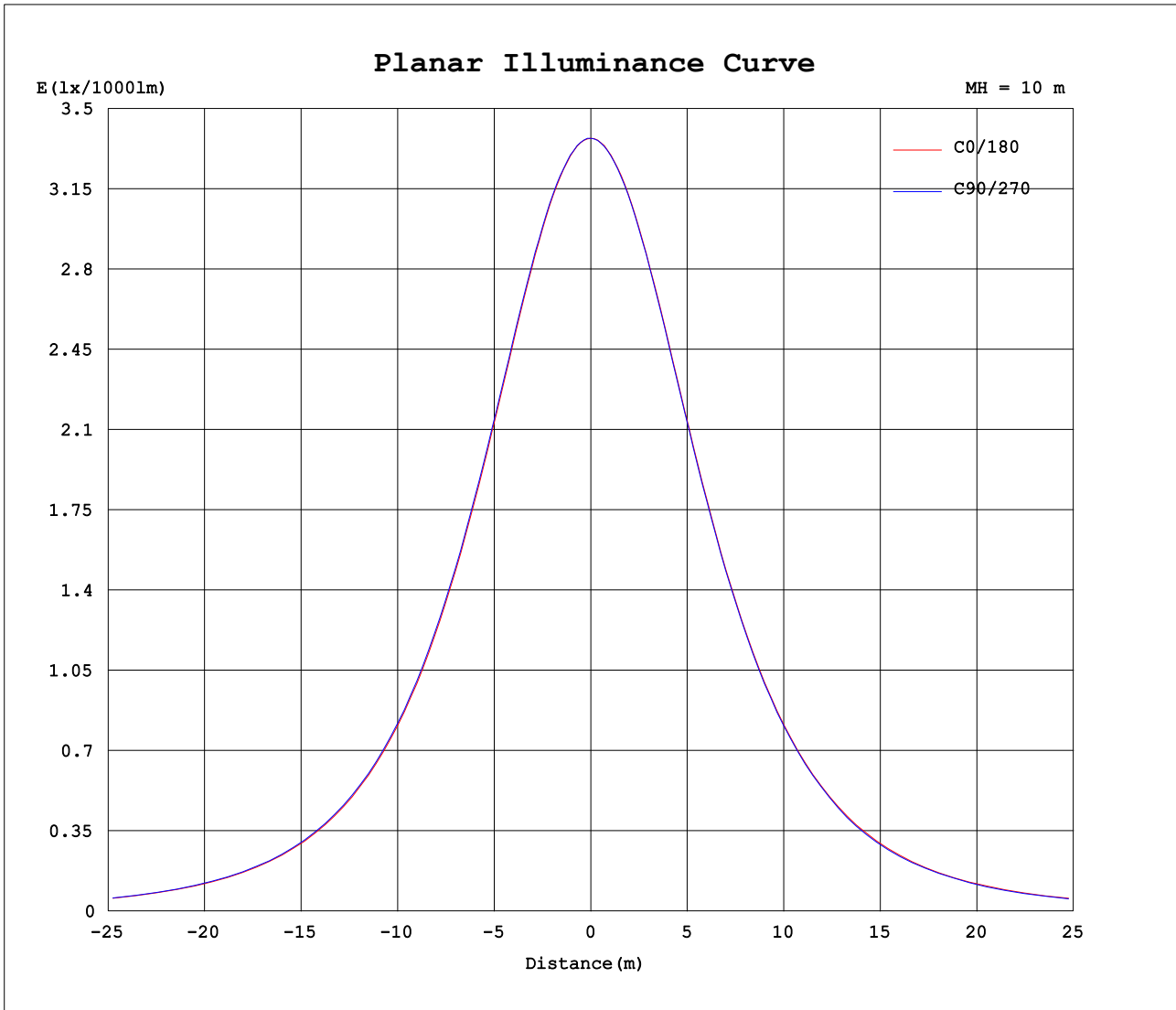
AvgL	cd/m2
L_0~180 (65) av	31950
L_0~180 (75) av	27932
L_0~180 (85) av	22535
L_90~270 (65) av	31789
L_90~270 (75) av	27560
L_90~270 (85) av	20941
L_45 (65) av	32059
L_45 (75) av	28078
L_45 (85) av	23699

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.0DEG  
 Test Date:2019-7-31

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:7.000m [K=1.0000]

**Planar Illuminance Curve**



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Test Date: 2019-7-31

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity: 65.0%  
 Test Distance: 7.000m [K=1.0000]

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.6058A P:14.54W PF:1.000 Freq:0Hz Lamp Flux:1079.16x1 lm		
NAME: UB-AS-24K90C-24V	TYPE:LED Strip	WEIGHT:Kg
SPEC.:14.4W	DIM.: 1000*10*2(MM)	SERIAL No.:001
MFR.: Flexfire LEDs, Inc.	SUR.:1000*10(MM)	Shielding Angle:120

Table--1

UNIT: cd/klm

C (DEG) \ γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337			
5	335	336	336	336	336	336	336	336	336	336	335	335	335	335	335	336			
10	331	332	332	332	332	332	332	332	332	331	331	331	331	331	331	331			
15	324	325	325	325	325	325	325	325	325	324	324	324	324	324	324	324			
20	314	315	315	316	316	316	315	315	315	315	314	314	314	314	315	315			
25	302	303	303	304	304	304	303	303	303	302	302	302	302	302	303	302			
30	287	288	289	290	289	290	289	288	288	287	287	287	287	287	288	288			
35	270	271	272	273	273	273	272	271	271	270	270	270	270	270	271	271			
40	251	252	252	254	253	254	252	251	252	250	250	250	250	250	252	252			
45	229	230	231	232	232	232	231	230	230	229	228	228	229	229	230	230			
50	206	207	208	209	208	209	207	206	206	205	204	204	205	205	207	207			
55	180	181	182	183	183	183	182	180	180	179	178	178	177	179	181	182			
60	154	155	156	156	156	156	155	153	153	152	151	151	150	152	154	155			
65	126	127	128	128	128	128	126	125	125	123	122	122	121	125	126	127			
70	96.4	98.0	98.3	99.3	98.4	98.7	96.8	95.5	95.3	93.2	92.7	89.9	91.7	93.7	95.5	98.2			
75	67.6	69.2	69.6	70.5	69.7	69.9	68.0	66.5	66.3	64.3	63.9	62.9	62.5	65.5	67.9	69.5			
80	40.7	42.2	42.7	44.0	43.0	43.3	41.2	39.7	39.3	37.7	37.6	36.1	35.6	38.9	41.8	42.5			
85	18.7	19.9	20.4	21.2	19.9	20.7	19.4	18.4	17.7	16.8	17.0	16.0	14.0	16.8	19.8	20.1			
90	5.60	6.38	6.47	6.36	2.24	6.30	6.01	5.09	4.11	4.03	4.29	4.00	0.44	4.64	6.26	5.98			
95	2.08	2.64	2.73	1.88	0.67	1.79	2.29	1.71	0.91	1.31	1.80	1.29	0.60	1.23	2.26	2.33			
100	0.97	1.33	1.39	0.97	0.87	0.96	1.41	1.25	0.74	1.13	1.15	0.78	0.78	0.83	1.25	1.12			
105	1.03	1.16	1.17	1.06	1.08	1.12	1.21	1.23	0.86	1.01	0.96	0.95	0.98	0.93	1.05	0.99			
110	1.18	1.23	1.20	1.25	1.29	1.34	1.33	1.31	1.02	1.06	1.13	1.16	1.18	1.12	1.10	1.05			
115	1.36	1.37	1.38	1.46	1.51	1.56	1.53	1.50	1.22	1.25	1.34	1.38	1.39	1.31	1.27	1.19			
120	1.56	1.57	1.55	1.67	1.71	1.77	1.75	1.70	1.43	1.48	1.56	1.59	1.59	1.51	1.46	1.39			
125	1.77	1.78	1.78	1.87	1.91	1.98	1.95	1.92	1.64	1.68	1.79	1.81	1.80	1.70	1.66	1.62			
130	1.97	1.98	2.00	2.06	2.10	2.17	2.14	2.12	1.83	1.88	1.98	1.99	1.98	1.89	1.85	1.81			
135	2.15	2.17	2.18	2.24	2.28	2.33	2.32	2.30	2.03	2.08	2.17	2.18	2.16	2.07	2.04	2.01			
140	2.33	2.34	2.36	2.42	2.45	2.49	2.48	2.47	2.22	2.24	2.35	2.35	2.33	2.24	2.21	2.21			
145	2.52	2.53	2.54	2.59	2.61	2.65	2.64	2.65	2.41	2.43	2.53	2.52	2.50	2.43	2.41	2.41			
150	2.70	2.70	2.71	2.75	2.76	2.79	2.79	2.81	2.60	2.61	2.70	2.69	2.66	2.60	2.57	2.59			
155	2.84	2.84	2.83	2.87	2.86	2.90	2.90	2.93	2.77	2.75	2.83	2.80	2.79	2.73	2.72	2.75			
160	2.95	2.94	2.95	2.96	2.96	2.98	3.00	3.03	2.90	2.85	2.94	2.90	2.89	2.83	2.84	2.88			
165	3.05	3.04	3.04	3.04	3.02	3.05	3.06	3.12	3.01	2.97	3.03	3.00	2.99	2.93	2.94	3.00			
170	3.12	3.10	3.10	3.10	3.08	3.10	3.11	3.17	3.10	3.05	3.10	3.06	3.06	3.00	3.02	3.07			
175	3.17	3.12	3.16	3.12	3.11	3.11	3.13	3.20	3.12	3.09	3.12	3.11	3.09	3.05	3.07	3.11			
180	3.15	3.10	3.14	3.12	3.10	3.09	3.11	3.16	3.14	3.11	3.13	3.12	3.10	3.08	3.11	3.15			

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.0DEG  
 Test Date:2019-7-31

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:7.000m [K=1.0000]