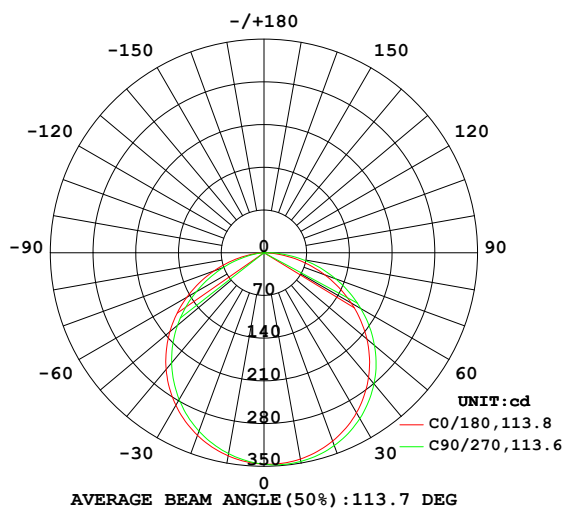


LUMINAIRE PHOTOMETRIC TEST REPORT

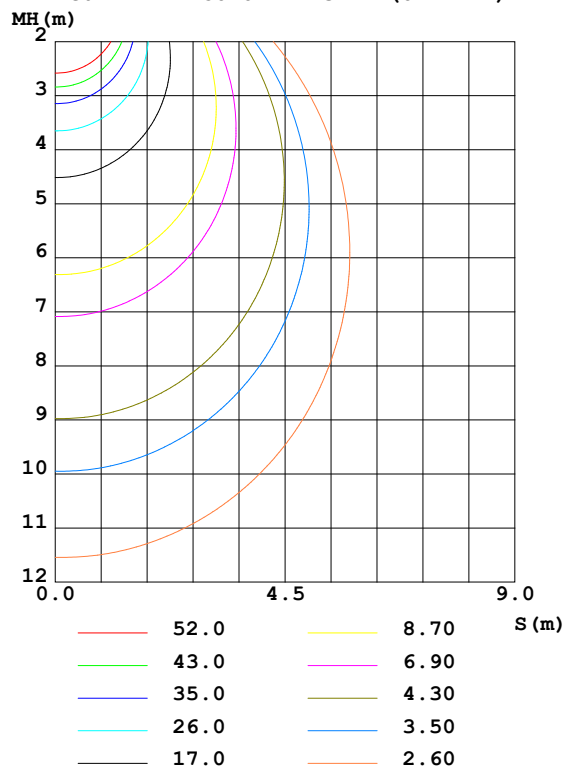
Test:U:24.001V I:0.4766A P:11.439W PF:1.0000 Freq:0Hz Lamp Flux:1014.54x1 lm		
NAME: VL30-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 11.4W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs	SUR.: 0.01*1	Shielding Angle: 120

DATA OF LAMP		PHOTOMETRIC DATA Eff: 88.69 lm/W			
MODEL		I _{max} (cd)	348.3	S/MH (C0/180)	1.24
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.20
RATED VOLTAGE (V)		TOTAL FLUX (lm)	1014.6	η UP,DN (C0-180)	0.3,54.2
NOMINAL FLUX (lm)	1014.54	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.3,45.2
LAMPS INSIDE	1	η up (%)	0.6	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)		η down (%)	99.4	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Test Date:2023-11-07

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:

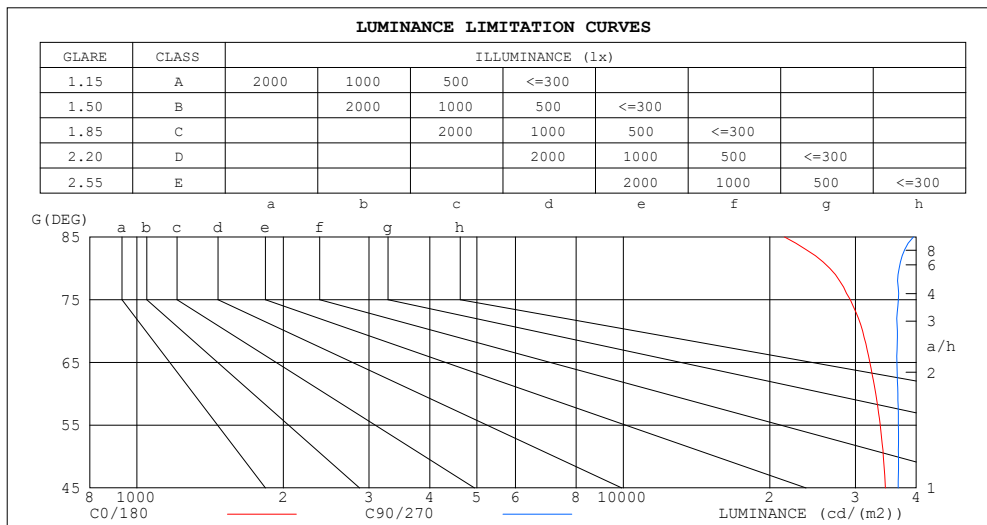
γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	343.2	347.2	338.0	334.3					0- 10	32.80	32.80	3.23,3.23
20	328.6	336.3	318.5	311.3					10- 20	94.15	126.9	12.5,12.5
30	303.0	313.9	288.7	277.9					20- 30	143.4	270.3	26.6,26.6
40	266.6	280.4	249.5	235.5					30- 40	174.0	444.3	43.8,43.8
50	220.1	236.4	201.4	185.1					40- 50	181.6	625.9	61.7,61.7
60	165.2	183.3	146.1	128.5					50- 60	164.4	790.3	77.9,77.9
70	106.2	125.1	87.46	71.17					60- 70	125.3	915.6	90.2,90.2
80	46.14	64.07	32.10	20.44					70- 80	72.33	987.9	97.4,97.4
90	1.727	10.32	0.3325	0.7413					80- 90	20.79	1009	99.4,99.4
100	0.3488	0.3697	0.4926	0.4513					90-100	0.9693	1010	99.5,99.5
110	0.5295	0.4927	0.7268	0.5788					100-110	0.5121	1010	99.6,99.6
120	0.7510	0.6777	0.9485	0.8125					110-120	0.6819	1011	99.6,99.6
130	0.9480	0.8870	1.146	1.022					120-130	0.8041	1012	99.7,99.7
140	1.143	1.109	1.330	1.194					130-140	0.8509	1013	99.8,99.8
150	1.306	1.293	1.478	1.347					140-150	0.7996	1013	99.9,99.9
160	1.416	1.478	1.577	1.478					150-160	0.6551	1014	99.9,99.9
170	1.519	1.604	1.595	1.552					160-170	0.4334	1014	100,100
180	1.601	1.613	1.589	1.601					170-180	0.1510	1015	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2023-11-07

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:24.001V I:0.4766A P:11.439W PF:1.0000 Freq:0Hz Lamp Flux:1014.54x1 lm		
NAME: VL30-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 11.4W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs	SUR.: 0.01*1	Shielding Angle: 120



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	21450	39464
80	26570	36895
75	29274	36767
70	31044	36581
65	32126	36502
60	33036	36665
55	33751	36756
50	34240	36775
45	34583	36741

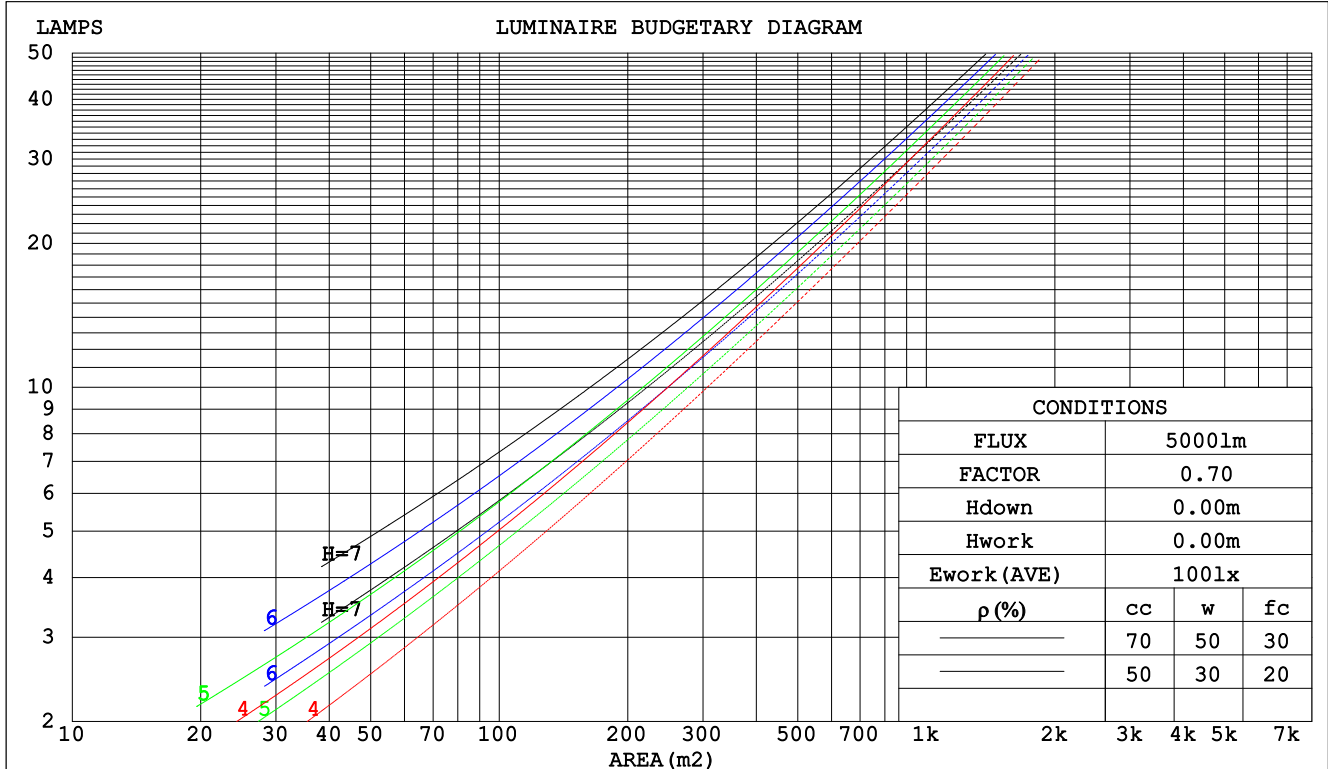
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Test Date:2023-11-07

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:24.001V I:0.4766A P:11.439W PF:1.0000 Freq:0Hz Lamp Flux:1014.54x1 lm		
NAME: VL30-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 11.4W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs	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	1.02	1.02	1.02	.99
1.0	1.04	.99	.95	1.01	.97	.94	.97	.94	.91	.93	.90	.88	.89	.87	.85	.83
2.0	.90	.83	.77	.88	.82	.76	.84	.79	.75	.81	.77	.73	.78	.74	.71	.69
3.0	.79	.71	.64	.77	.70	.64	.74	.68	.62	.71	.66	.61	.69	.64	.60	.58
4.0	.70	.61	.54	.69	.60	.54	.66	.59	.53	.63	.57	.52	.61	.56	.51	.49
5.0	.62	.53	.47	.61	.53	.46	.59	.51	.46	.57	.50	.45	.55	.49	.45	.42
6.0	.56	.47	.41	.55	.47	.40	.53	.46	.40	.51	.45	.40	.50	.44	.39	.37
7.0	.51	.42	.36	.50	.42	.36	.48	.41	.35	.47	.40	.35	.45	.39	.35	.33
8.0	.46	.38	.32	.46	.37	.32	.44	.37	.32	.43	.36	.31	.42	.36	.31	.29
9.0	.42	.34	.29	.42	.34	.29	.41	.33	.28	.40	.33	.28	.38	.32	.28	.26
10.0	.39	.31	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.25	.24



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Test Date:2023-11-07

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:24.001V I:0.4766A P:11.439W PF:1.0000 Freq:0Hz Lamp Flux:1014.54x1 lm					
NAME: VL30-30K			TYPE: LED Strip		WEIGHT:
SPEC.: 11.4W			DIM.: 1000*10*2 (MM)		SERIAL No.: 001
MFR.: Flexfire LEDs			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						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.313	.178	.056	.306	.174	.055	.292	.167	.053	.279	.161	.052	.268	.155	.050		
2.0	.294	.161	.049	.287	.158	.049	.275	.153	.048	.264	.148	.046	.254	.144	.045		
3.0	.271	.144	.043	.266	.142	.043	.255	.138	.042	.245	.134	.041	.236	.131	.040		
4.0	.250	.130	.038	.245	.128	.038	.236	.125	.037	.227	.122	.037	.219	.119	.036		
5.0	.231	.118	.034	.227	.116	.034	.218	.114	.033	.211	.111	.033	.203	.109	.033		
6.0	.214	.107	.031	.210	.106	.031	.203	.104	.030	.196	.102	.030	.189	.100	.030		
7.0	.199	.099	.028	.196	.098	.028	.189	.096	.028	.183	.094	.027	.177	.092	.027		
8.0	.186	.091	.026	.183	.090	.025	.177	.088	.025	.171	.087	.025	.166	.085	.025		
9.0	.174	.084	.024	.172	.084	.023	.166	.082	.023	.161	.081	.023	.156	.079	.023		
10.0	.164	.079	.022	.161	.078	.022	.157	.077	.022	.152	.075	.021	.148	.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	.195	.195	.195	.167	.167	.167	.114	.114	.114	.065	.065	.065	.021	.021	.021	
1.0	.185	.161	.139	.158	.138	.119	.108	.095	.082	.062	.055	.048	.020	.018	.016	
2.0	.177	.136	.102	.152	.117	.088	.104	.081	.062	.060	.047	.036	.019	.015	.012	
3.0	.169	.119	.079	.145	.102	.068	.100	.071	.048	.058	.042	.028	.018	.013	.009	
4.0	.162	.106	.063	.139	.091	.054	.095	.064	.038	.055	.037	.023	.018	.012	.007	
5.0	.154	.095	.052	.132	.082	.045	.091	.058	.032	.053	.034	.019	.017	.011	.006	
6.0	.147	.087	.044	.126	.075	.038	.087	.053	.027	.051	.031	.016	.016	.010	.005	
7.0	.140	.080	.038	.121	.069	.033	.083	.049	.023	.048	.029	.014	.016	.009	.005	
8.0	.134	.074	.033	.115	.064	.029	.080	.045	.021	.046	.027	.012	.015	.009	.004	
9.0	.128	.069	.030	.110	.060	.026	.076	.042	.018	.044	.025	.011	.014	.008	.004	
10.0	.122	.065	.027	.105	.056	.024	.073	.040	.017	.043	.023	.010	.014	.008	.003	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Test Date:2023-11-07

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:24.001V I:0.4766A P:11.439W PF:1.0000 Freq:0Hz Lamp Flux:1014.54x1 lm										
NAME: VL30-30K					TYPE: LED Strip			WEIGHT:		
SPEC.: 11.4W					DIM.: 1000*10*2 (MM)			SERIAL No.: 001		
MFR.: Flexfire LEDs					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	25.3	26.9	25.6	27.1	27.3	25.7	27.2	26.0	27.5	27.7
3H	27.0	28.4	27.3	28.6	28.9	27.5	28.9	27.8	29.2	29.4
4H	27.6	28.9	27.9	29.2	29.5	28.3	29.6	28.6	29.9	30.2
6H	28.1	29.4	28.4	29.6	29.9	29.0	30.2	29.3	30.5	30.8
8H	28.2	29.5	28.6	29.7	30.1	29.2	30.4	29.6	30.7	31.0
12H	28.3	29.5	28.7	29.8	30.1	29.4	30.6	29.8	30.9	31.2
4H 2H	26.1	27.4	26.4	27.7	27.9	26.3	27.7	26.7	27.9	28.2
3H	27.9	29.0	28.2	29.3	29.7	28.3	29.5	28.7	29.8	30.1
4H	28.7	29.7	29.0	30.1	30.4	29.3	30.3	29.6	30.7	31.0
6H	29.3	30.2	29.7	30.6	31.0	30.1	31.0	30.5	31.4	31.8
8H	29.5	30.4	29.9	30.7	31.1	30.4	31.3	30.8	31.7	32.1
12H	29.6	30.4	30.0	30.8	31.2	30.7	31.5	31.1	31.9	32.3
8H 4H	29.0	29.9	29.4	30.3	30.7	29.5	30.4	30.0	30.8	31.2
6H	29.8	30.5	30.3	31.0	31.4	30.5	31.3	31.0	31.7	32.1
8H	30.1	30.8	30.6	31.2	31.7	31.0	31.6	31.4	32.1	32.5
12H	30.3	30.9	30.8	31.3	31.8	31.4	31.9	31.8	32.4	32.9
12H 4H	29.1	29.9	29.5	30.3	30.7	29.6	30.4	30.0	30.8	31.2
6H	29.9	30.6	30.4	31.0	31.5	30.6	31.2	31.1	31.7	32.1
8H	30.3	30.8	30.7	31.3	31.8	31.1	31.6	31.6	32.1	32.6
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.4					+ 0.1 / - 0.3				

CIE Pub.117, 1015 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 0.1$)
Area: 0.01 m²

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Test Date:2023-11-07

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:24.001V I:0.4766A P:11.439W PF:1.0000 Freq:0Hz Lamp Flux:1014.54x1 lm		
NAME: VL30-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 11.4W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs	SUR.: 0.01*1	Shielding Angle: 120

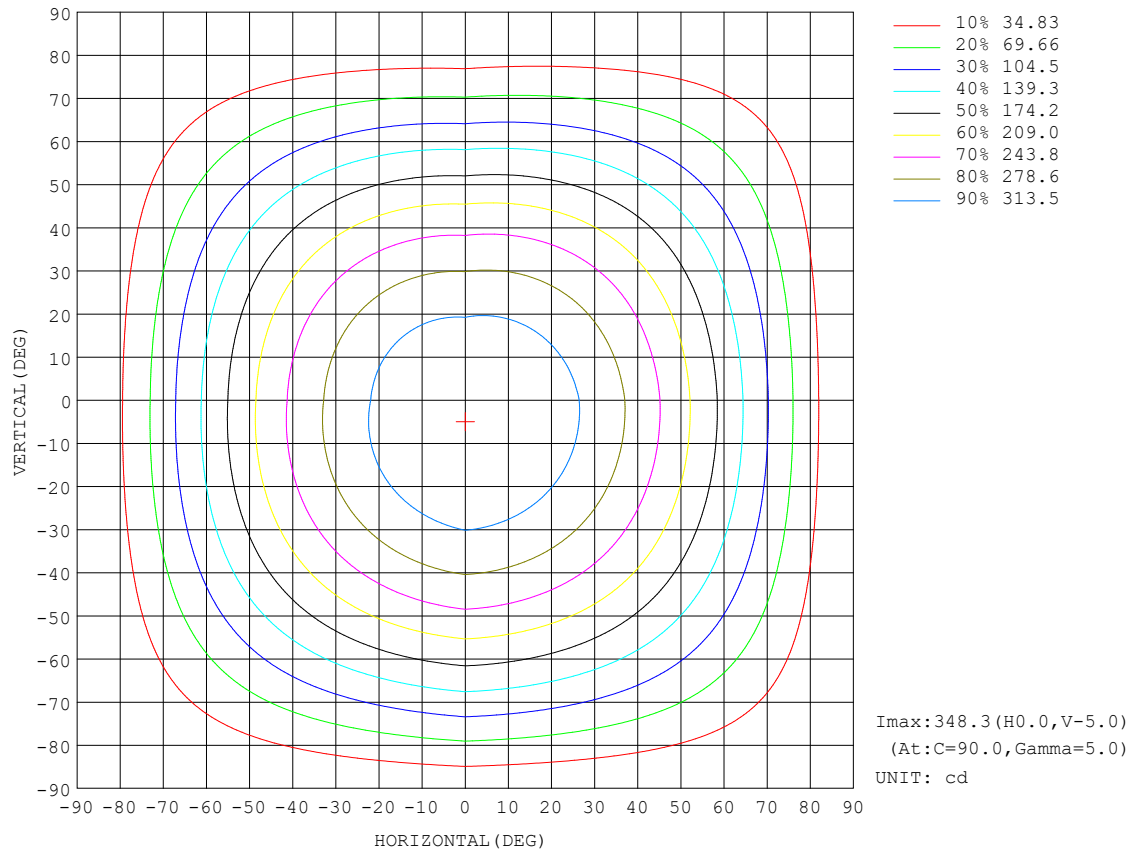
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	57	45	38	56	45	38	55	45	38	32
0.80	67	55	48	66	55	48	64	54	47	40
1.00	75	64	57	74	64	57	72	65	56	49
1.25	83	72	65	81	71	64	78	70	64	56
1.50	88	78	71	86	77	70	83	75	69	61
2.00	95	86	79	93	85	79	89	82	77	69
2.50	98	91	84	96	89	84	92	86	82	73
3.00	102	95	89	100	93	88	96	90	86	77
4.00	106	100	95	103	98	94	99	95	91	82
5.00	108	103	99	106	101	98	101	98	95	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: 2023-11-07

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:24.001V I:0.4766A P:11.439W PF:1.0000 Freq:0Hz Lamp Flux:1014.54x1 lm		
NAME: VL30-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 11.4W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs	SUR.: 0.01*1	Shielding Angle: 120

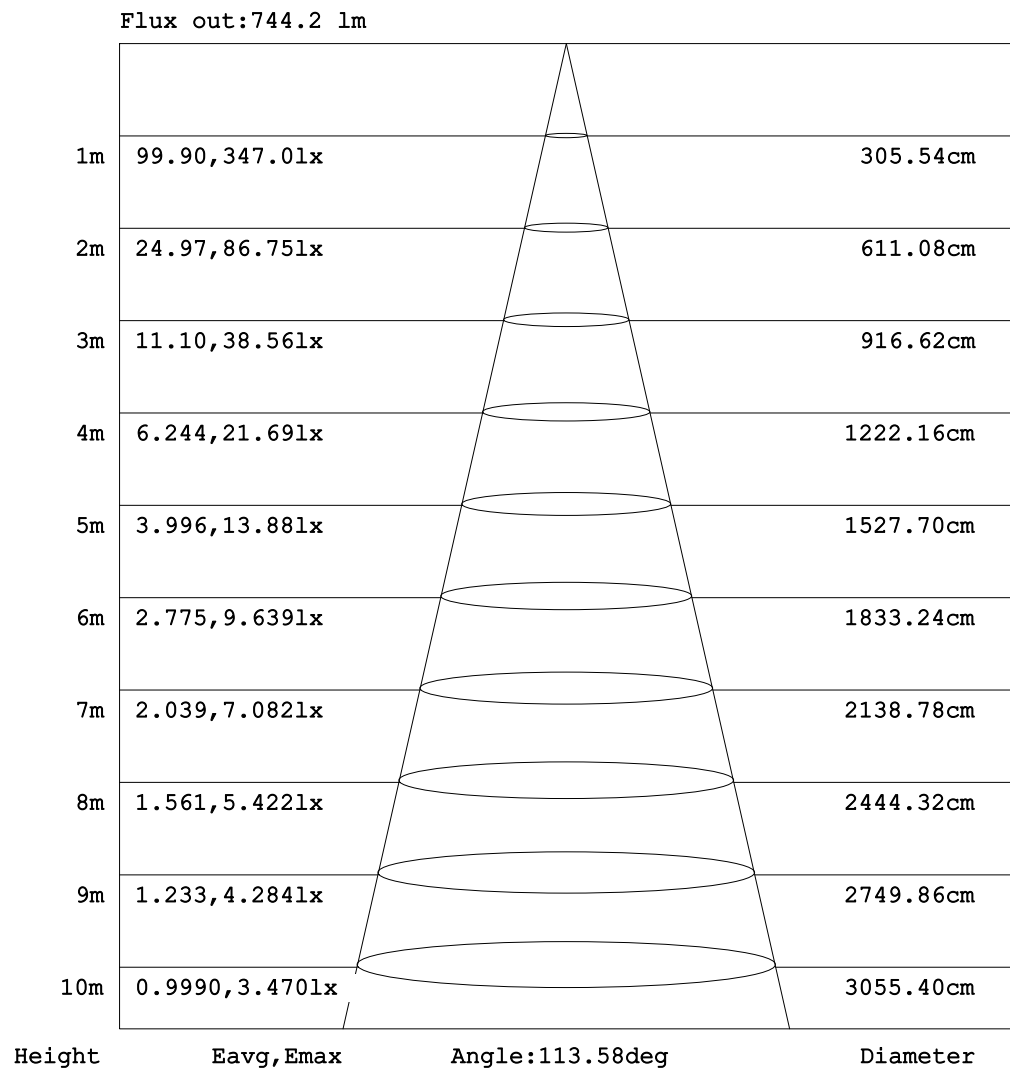


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Test Date: 2023-11-07

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:24.001V I:0.4766A P:11.439W PF:1.0000 Freq:0Hz Lamp Flux:1014.54x1 lm		
NAME: VL30-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 11.4W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs	SUR.: 0.01*1	Shielding Angle: 120



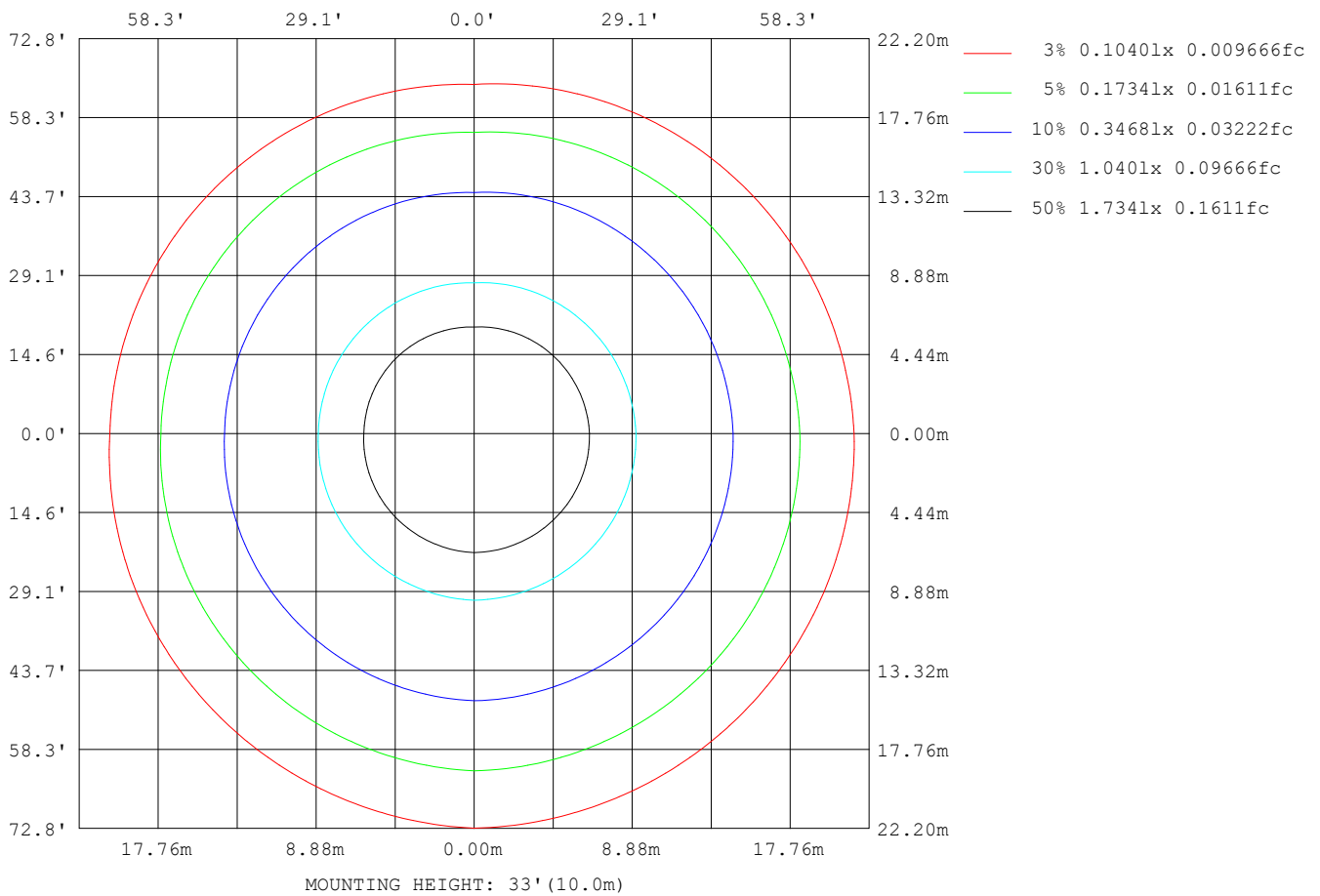
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Test Date: 2023-11-07

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:24.001V I:0.4766A P:11.439W PF:1.0000 Freq:0Hz Lamp Flux:1014.54x1 lm		
NAME: VL30-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 11.4W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs	SUR.: 0.01*1	Shielding Angle: 120



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Test Date: 2023-11-07

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:24.001V I:0.4766A P:11.439W PF:1.0000 Freq:0Hz Lamp Flux:1014.54x1 lm		
NAME: VL30-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 11.4W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs	SUR.: 0.01*1	Shielding Angle: 120

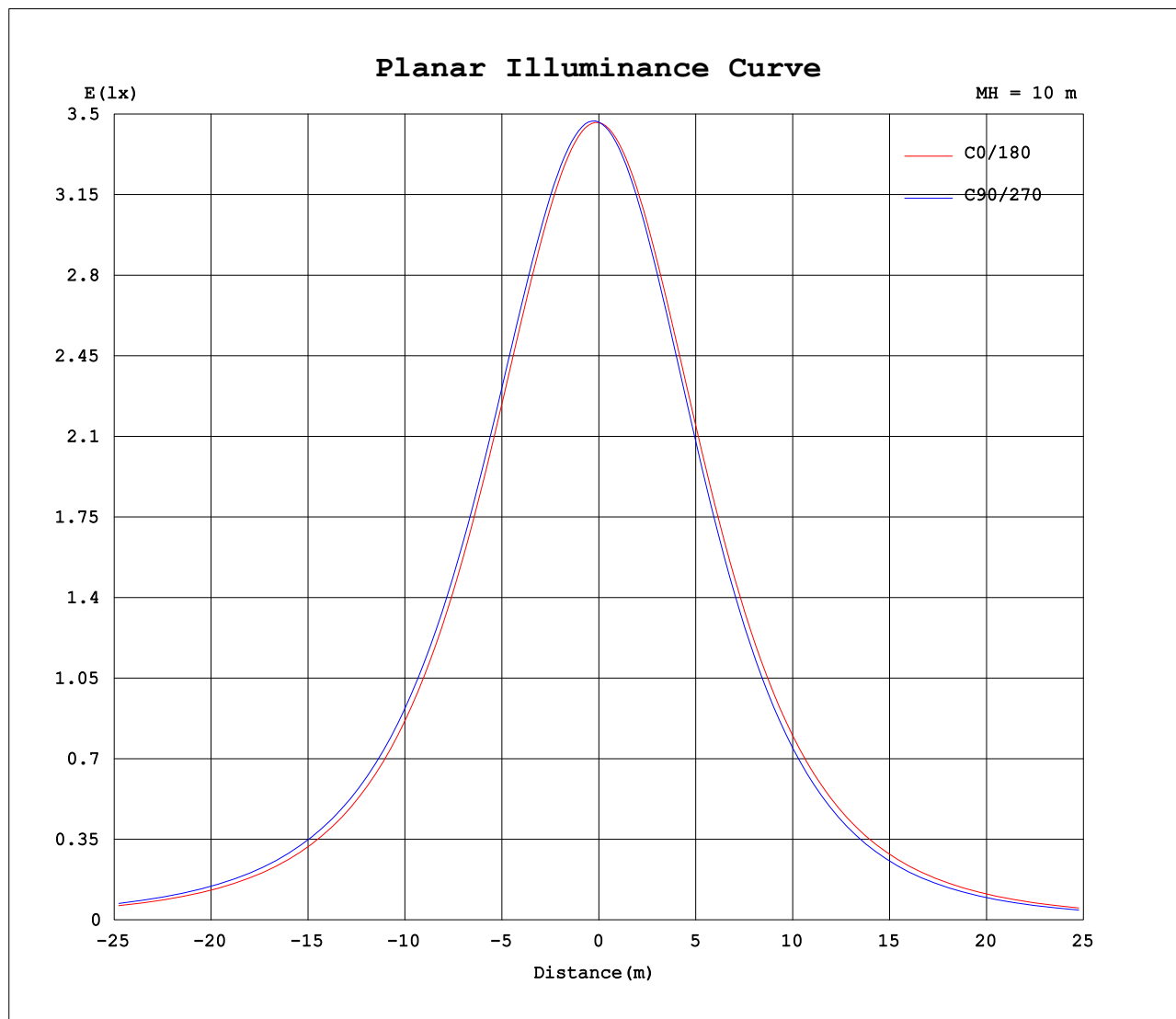
AvgL	cd/m2
L_0~180 (65) av	29903
L_0~180 (75) av	25976
L_0~180 (85) av	17127
L_90~270 (65) av	30018
L_90~270 (75) av	26915
L_90~270 (85) av	23072
L_45 (65) av	29836
L_45 (75) av	26357
L_45 (85) av	20572

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Test Date:2023-11-07

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: 2023-11-07

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:24.001V I:0.4766A P:11.439W PF:1.0000 Freq:0Hz Lamp Flux:1014.54x1 lm		
NAME: VL30-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 11.4W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs	SUR.: 0.01*1	Shielding Angle: 120

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	346	347	346	347															
5	346	348	344	342															
10	343	347	338	334															
15	337	343	330	324															
20	329	336	319	311															
25	317	327	305	296															
30	303	314	289	278															
35	286	298	270	258															
40	267	280	250	235															
45	245	260	226	211															
50	220	236	201	185															
55	194	211	174	157															
60	165	183	146	128															
65	136	154	117	99.5															
70	106	125	87.5	71.2															
75	75.8	95.2	58.7	44.2															
80	46.1	64.1	32.1	20.4															
85	18.7	34.4	11.2	5.82															
90	1.73	10.3	0.33	0.74															
95	0.33	0.74	0.39	0.45															
100	0.35	0.37	0.49	0.45															
105	0.41	0.42	0.59	0.50															
110	0.53	0.49	0.73	0.58															
115	0.62	0.59	0.81	0.73															
120	0.75	0.68	0.95	0.81															
125	0.82	0.80	1.05	0.92															
130	0.95	0.89	1.15	1.02															
135	1.06	1.01	1.24	1.12															
140	1.14	1.11	1.33	1.19															
145	1.18	1.21	1.40	1.31															
150	1.31	1.29	1.48	1.35															
155	1.34	1.38	1.54	1.43															
160	1.42	1.48	1.58	1.48															
165	1.50	1.55	1.59	1.52															
170	1.52	1.60	1.60	1.55															
175	1.56	1.61	1.60	1.58															
180	1.60	1.61	1.59	1.60															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2023-11-07

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: