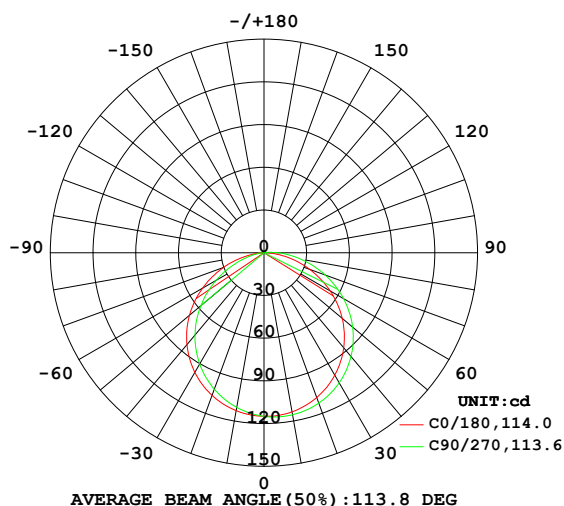


LUMINAIRE PHOTOMETRIC TEST REPORT

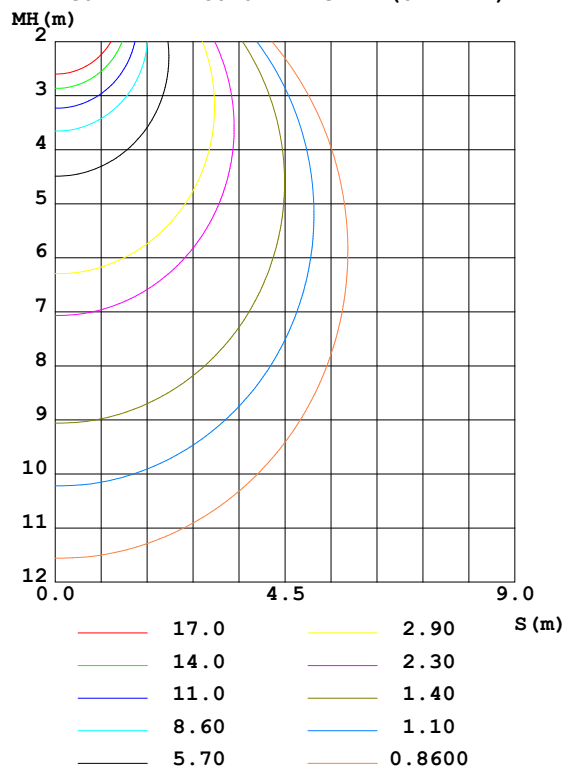
Test:U:24.001V I:0.1666A P:3.9986W PF:1.0000 Freq:0Hz Lamp Flux:340.026x1 lm		
NAME: VL10-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 3.9W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs	SUR.: 0.01*1	Shielding Angle: 120

DATA OF LAMP		PHOTOMETRIC DATA Eff: 85.07 lm/W			
MODEL		I _{max} (cd)	115.7	S/MH (C0/180)	1.26
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.18
RATED VOLTAGE (V)		TOTAL FLUX (lm)	340.15	η UP,DN (C0-180)	0.6,54.9
NOMINAL FLUX (lm)	340.026	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.3,44.2
LAMPS INSIDE	1	η up (%)	0.9	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)		η down (%)	99.1	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:

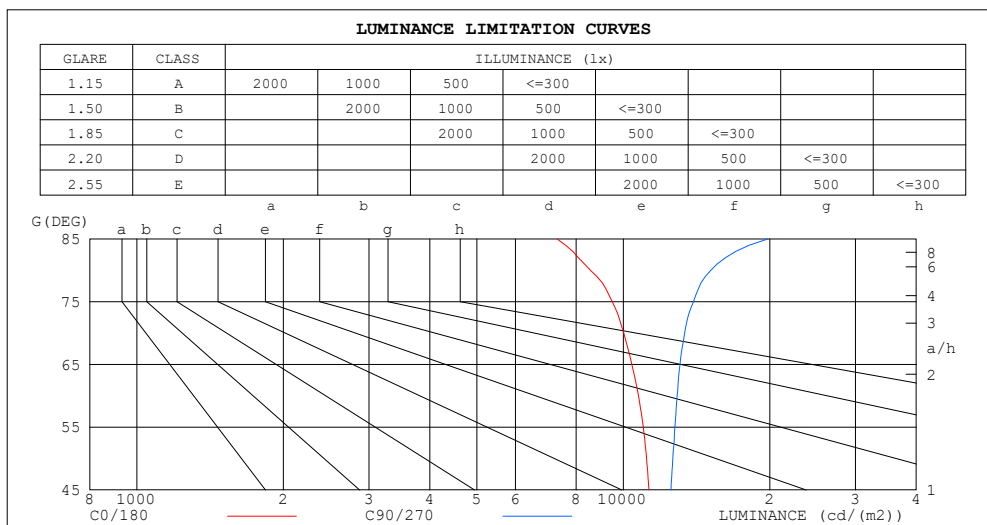
γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	113.4	115.5	112.6	110.3					0- 10	10.88	10.88	3.2,3.2
20	108.2	112.4	106.6	102.0					10- 20	31.22	42.10	12.4,12.4
30	99.36	105.6	97.09	90.29					20- 30	47.54	89.63	26.4,26.4
40	87.12	95.08	84.21	75.48					30- 40	57.65	147.3	43.3,43.3
50	71.74	81.24	68.25	57.92					40- 50	60.14	207.4	61,61
60	53.73	64.51	49.80	38.90					50- 60	54.51	261.9	77,77
70	34.27	45.74	30.37	20.01					60- 70	41.72	303.7	89.3,89.3
80	14.86	26.27	11.30	6.018					70- 80	24.67	328.3	96.5,96.6
90	0.7001	9.793	0.7101	0.7653					80- 90	8.637	337.0	99.1,99.1
100	0.0985	1.278	0.2371	0.1849					90-100	1.547	338.5	99.5,99.6
110	0.1578	0.1700	0.2317	0.1848					100-110	0.2413	338.7	99.6,99.6
120	0.1906	0.2173	0.3163	0.2232					110-120	0.2085	339.0	99.6,99.7
130	0.3042	0.2932	0.3981	0.3352					120-130	0.2552	339.2	99.7,99.8
140	0.3653	0.3605	0.4434	0.3615					130-140	0.2788	339.5	99.8,99.8
150	0.3858	0.4311	0.4872	0.4382					140-150	0.2586	339.8	99.9,99.9
160	0.4211	0.4882	0.5353	0.4615					150-160	0.2108	340.0	99.9,100
170	0.4650	0.5377	0.5319	0.5050					160-170	0.1394	340.1	100,100
180	0.5296	0.5542	0.5296	0.5173					170-180	0.0498	340.2	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:0.1666A P:3.9986W PF:1.0000 Freq:0Hz Lamp Flux:340.026x1 lm		
NAME: VL10-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 3.9W	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	7314	19808
80	8559	15126
75	9493	13937
70	10020	13373
65	10409	13073
60	10746	12902
55	10991	12765
50	11161	12638
45	11287	12532

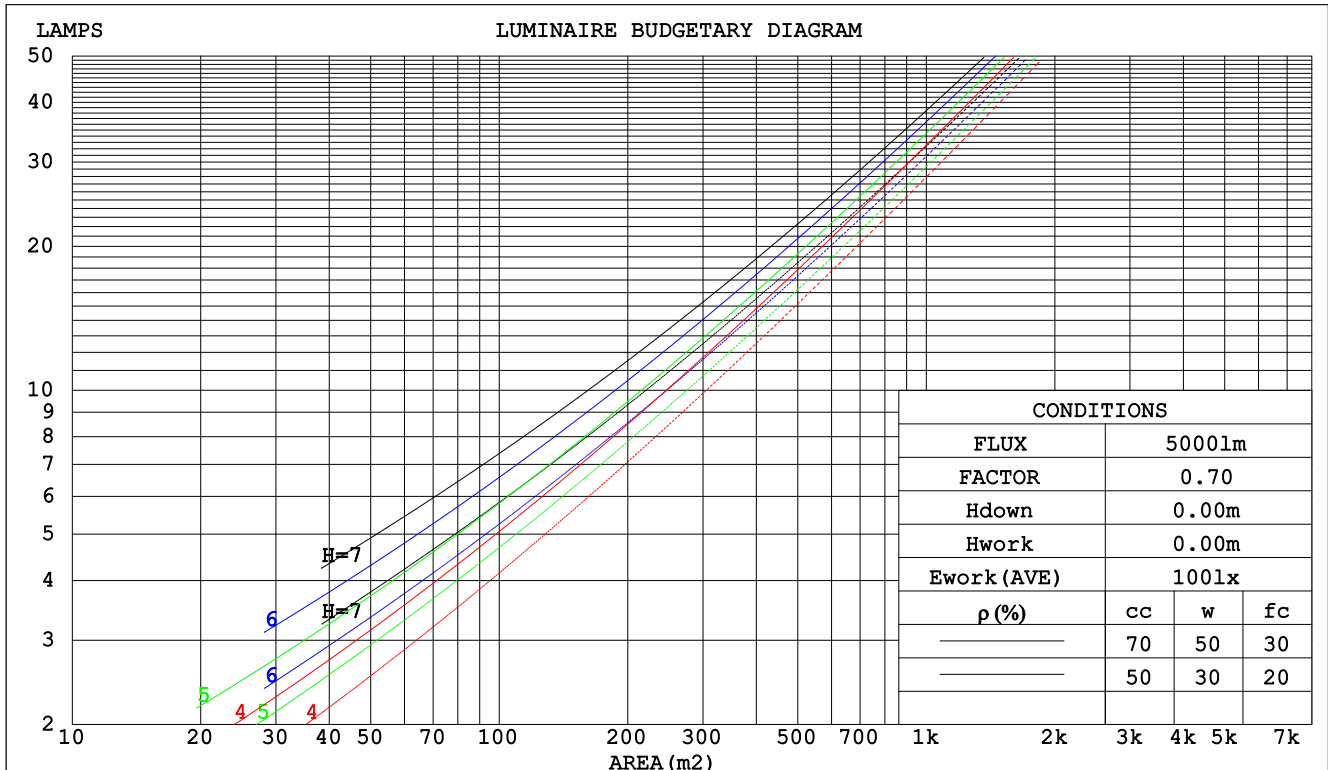
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Test Date:2023-11-07

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:0.1666A P:3.9986W PF:1.0000 Freq:0Hz Lamp Flux:340.026x1 lm		
NAME: VL10-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 3.9W	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															



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:0.1666A P:3.9986W PF:1.0000 Freq:0Hz Lamp Flux:340.026x1 lm					
NAME: VL10-30K			TYPE: LED Strip		WEIGHT:
SPEC.: 3.9W			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	.318	.181	.057	.311	.177	.056	.297	.171	.054	.285	.164	.053	.273	.158	.051		
2.0	.297	.163	.050	.290	.160	.049	.278	.155	.048	.267	.150	.047	.256	.145	.046		
3.0	.273	.145	.044	.268	.143	.043	.257	.139	.042	.247	.135	.041	.237	.131	.041		
4.0	.252	.131	.038	.246	.129	.038	.237	.126	.038	.228	.122	.037	.220	.119	.036		
5.0	.232	.118	.034	.228	.117	.034	.219	.114	.034	.211	.111	.033	.204	.109	.033		
6.0	.215	.108	.031	.211	.107	.031	.203	.104	.030	.196	.102	.030	.190	.100	.030		
7.0	.200	.099	.028	.196	.098	.028	.189	.096	.028	.183	.094	.027	.177	.092	.027		
8.0	.187	.091	.026	.183	.090	.026	.177	.089	.025	.171	.087	.025	.166	.085	.025		
9.0	.175	.085	.024	.172	.084	.024	.166	.082	.023	.161	.081	.023	.156	.079	.023		
10.0	.164	.079	.022	.162	.078	.022	.157	.077	.022	.152	.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	.198	.198	.198	.169	.169	.169	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.188	.163	.141	.161	.140	.121	.110	.096	.084	.063	.056	.049	.020	.018	.016	
2.0	.180	.139	.105	.154	.120	.091	.106	.083	.063	.061	.048	.037	.020	.016	.012	
3.0	.172	.122	.081	.148	.105	.070	.102	.073	.049	.059	.043	.029	.019	.014	.010	
4.0	.165	.108	.065	.141	.094	.057	.097	.065	.040	.056	.038	.024	.018	.012	.008	
5.0	.157	.098	.054	.135	.085	.047	.093	.059	.033	.054	.035	.020	.017	.011	.007	
6.0	.150	.090	.046	.129	.078	.040	.089	.054	.029	.052	.032	.017	.017	.010	.006	
7.0	.143	.083	.040	.123	.072	.035	.085	.050	.025	.049	.030	.015	.016	.010	.005	
8.0	.137	.077	.036	.118	.067	.031	.081	.047	.022	.047	.028	.013	.015	.009	.004	
9.0	.131	.072	.033	.113	.063	.028	.078	.044	.020	.045	.026	.012	.015	.009	.004	
10.0	.125	.068	.030	.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:2023-11-07

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:0.1666A P:3.9986W PF:1.0000 Freq:0Hz Lamp Flux:340.026x1 lm											
NAME: VL10-30K					TYPE: LED Strip			WEIGHT:			
SPEC.: 3.9W					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	25.2	26.8	25.5	27.0	27.2	25.9	27.4	26.2	27.6	27.9	
	3H	26.8	28.2	27.1	28.5	28.7	27.8	29.2	28.1	29.5	29.7
	4H	27.5	28.8	27.8	29.1	29.4	28.7	30.0	29.0	30.3	30.6
	6H	28.0	29.2	28.3	29.5	29.8	29.5	30.8	29.9	31.1	31.4
	8H	28.1	29.3	28.5	29.6	30.0	29.9	31.1	30.3	31.4	31.7
	12H	28.2	29.4	28.6	29.7	30.0	30.3	31.4	30.6	31.7	32.1
4H	2H	26.0	27.3	26.3	27.6	27.9	26.5	27.8	26.8	28.1	28.4
	3H	27.8	29.0	28.2	29.3	29.6	28.6	29.8	29.0	30.1	30.4
	4H	28.6	29.7	29.0	30.0	30.4	29.6	30.7	30.0	31.1	31.4
	6H	29.2	30.2	29.6	30.5	30.9	30.6	31.6	31.0	31.9	32.3
	8H	29.4	30.3	29.9	30.7	31.1	31.1	32.0	31.5	32.4	32.8
	12H	29.6	30.4	30.0	30.8	31.2	31.5	32.4	32.0	32.8	33.2
8H	4H	29.0	29.9	29.5	30.3	30.7	29.9	30.8	30.4	31.2	31.6
	6H	29.8	30.6	30.3	31.0	31.5	31.1	31.8	31.6	32.3	32.7
	8H	30.2	30.8	30.6	31.3	31.7	31.7	32.4	32.2	32.8	33.3
	12H	30.4	31.0	30.9	31.4	31.9	32.3	32.9	32.8	33.4	33.8
12H	4H	29.1	29.9	29.5	30.3	30.7	30.0	30.8	30.4	31.2	31.6
	6H	30.0	30.7	30.5	31.1	31.6	31.2	31.8	31.7	32.3	32.8
	8H	30.4	31.0	30.9	31.4	31.9	31.8	32.4	32.3	32.9	33.4
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 / - 0.2					
2.0H	+ 0.1 / - 0.4					+ 0.1 / - 0.3					

CIE Pub.117, 340.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.7)
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:0.1666A P:3.9986W PF:1.0000 Freq:0Hz Lamp Flux:340.026x1 lm		
NAME: VL10-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 3.9W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs	SUR.: 0.01*1	Shielding Angle: 120

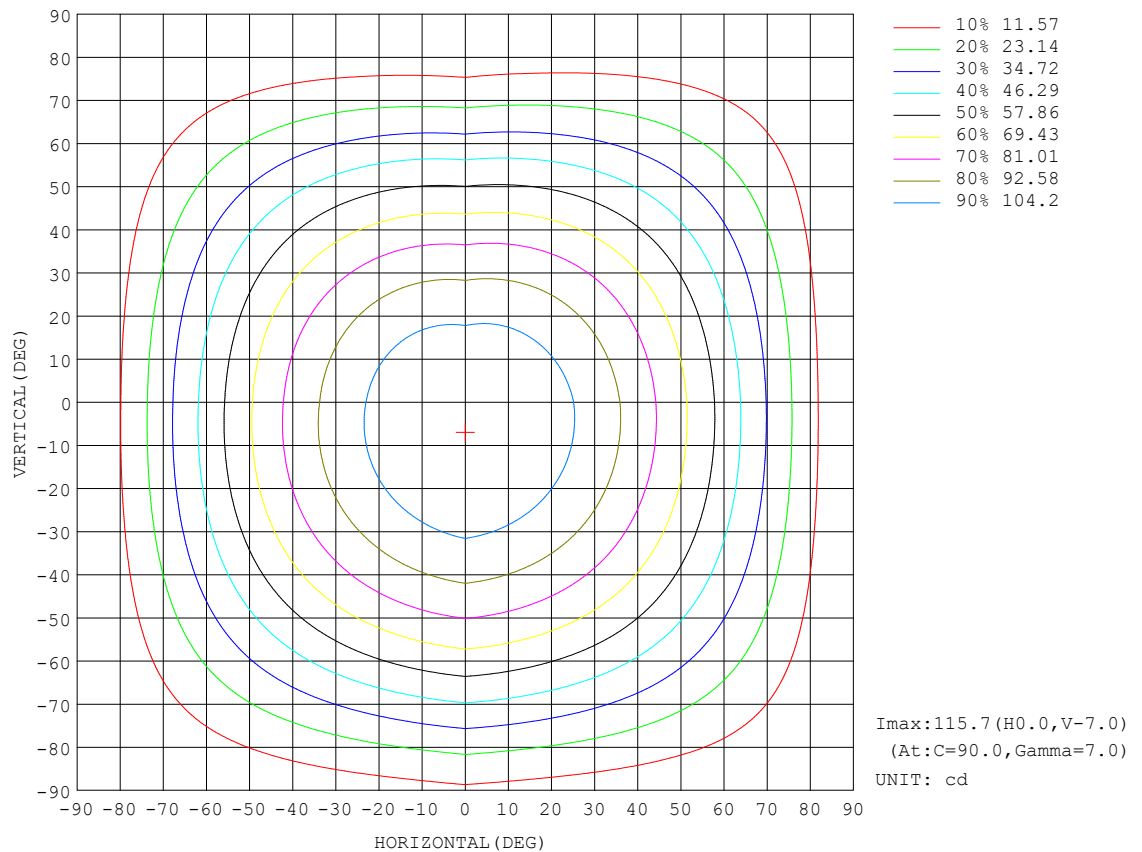
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	57	45	38	56	45	38	55	44	38	31
0.80	67	55	48	66	55	47	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	55
1.50	87	77	70	86	76	69	82	74	68	61
2.00	94	85	79	92	84	78	89	82	76	68
2.50	98	90	84	96	89	83	92	86	81	72
3.00	101	94	89	99	93	88	95	90	85	77
4.00	106	100	95	103	98	93	99	94	91	81
5.00	108	103	99	106	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: 2023-11-07

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:0.1666A P:3.9986W PF:1.0000 Freq:0Hz Lamp Flux:340.026x1 lm		
NAME: VL10-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 3.9W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs	SUR.: 0.01*1	Shielding Angle: 120

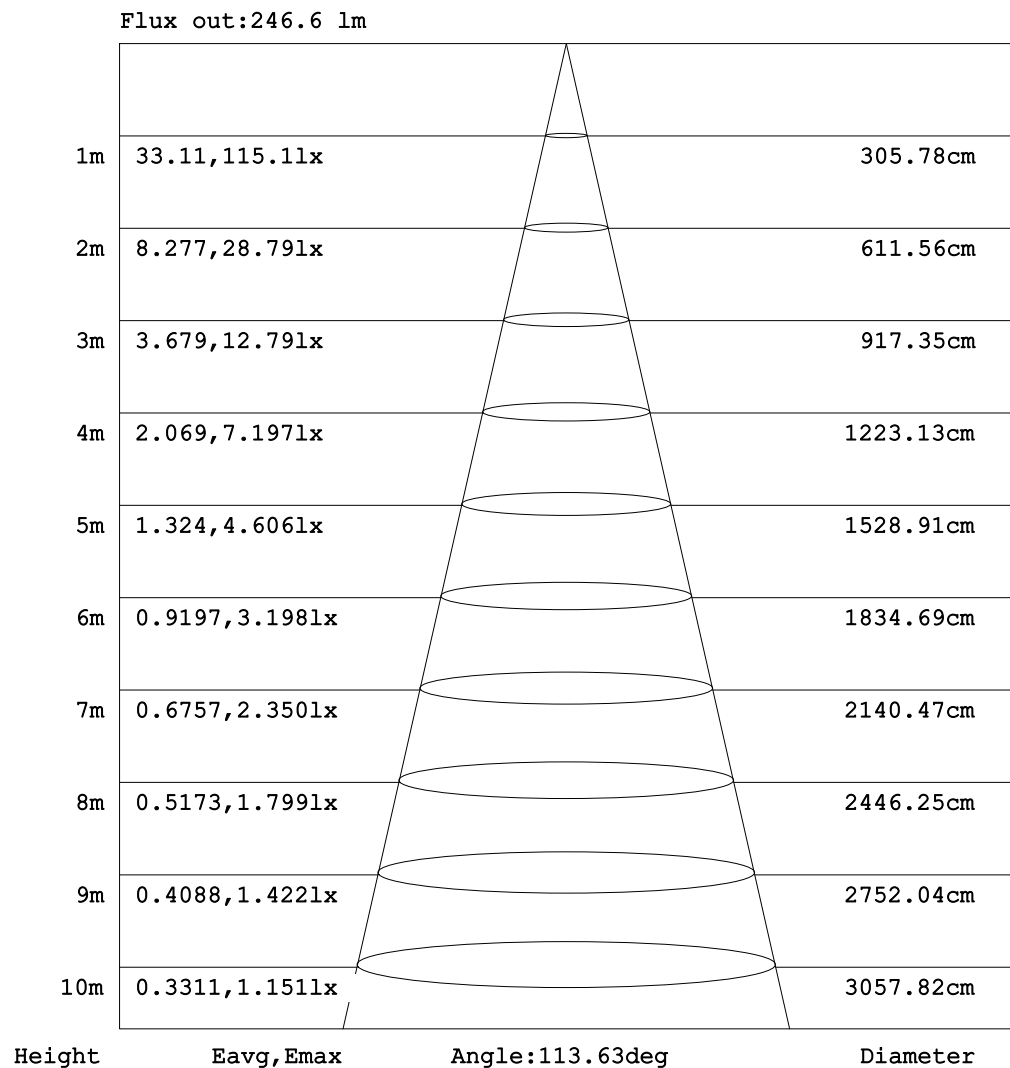


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Test Date:2023-11-07

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:0.1666A P:3.9986W PF:1.0000 Freq:0Hz Lamp Flux:340.026x1 lm		
NAME: VL10-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 3.9W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs	SUR.: 0.01*1	Shielding Angle: 120



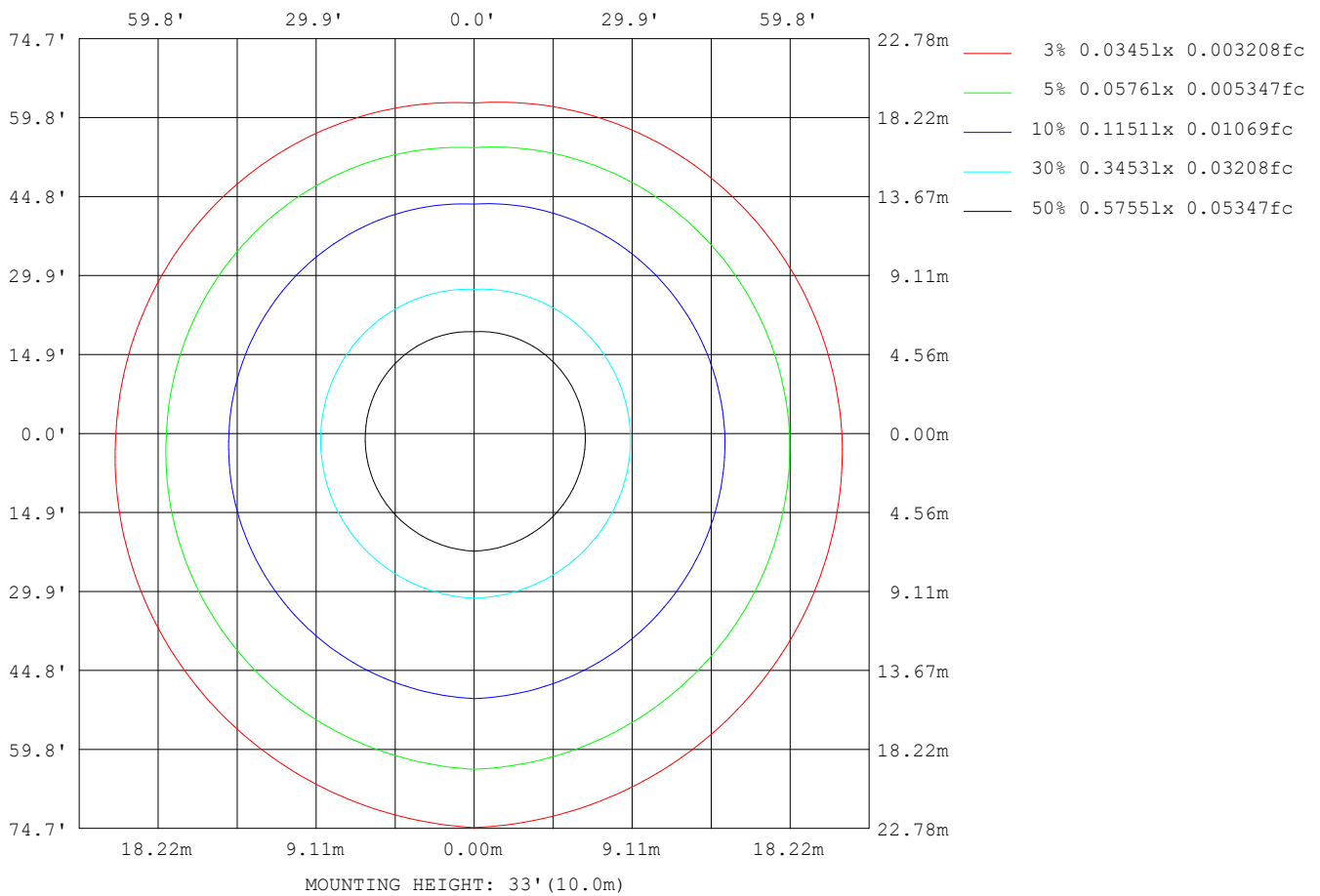
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.1666A P:3.9986W PF:1.0000 Freq:0Hz Lamp Flux:340.026x1 lm		
NAME: VL10-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 3.9W	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

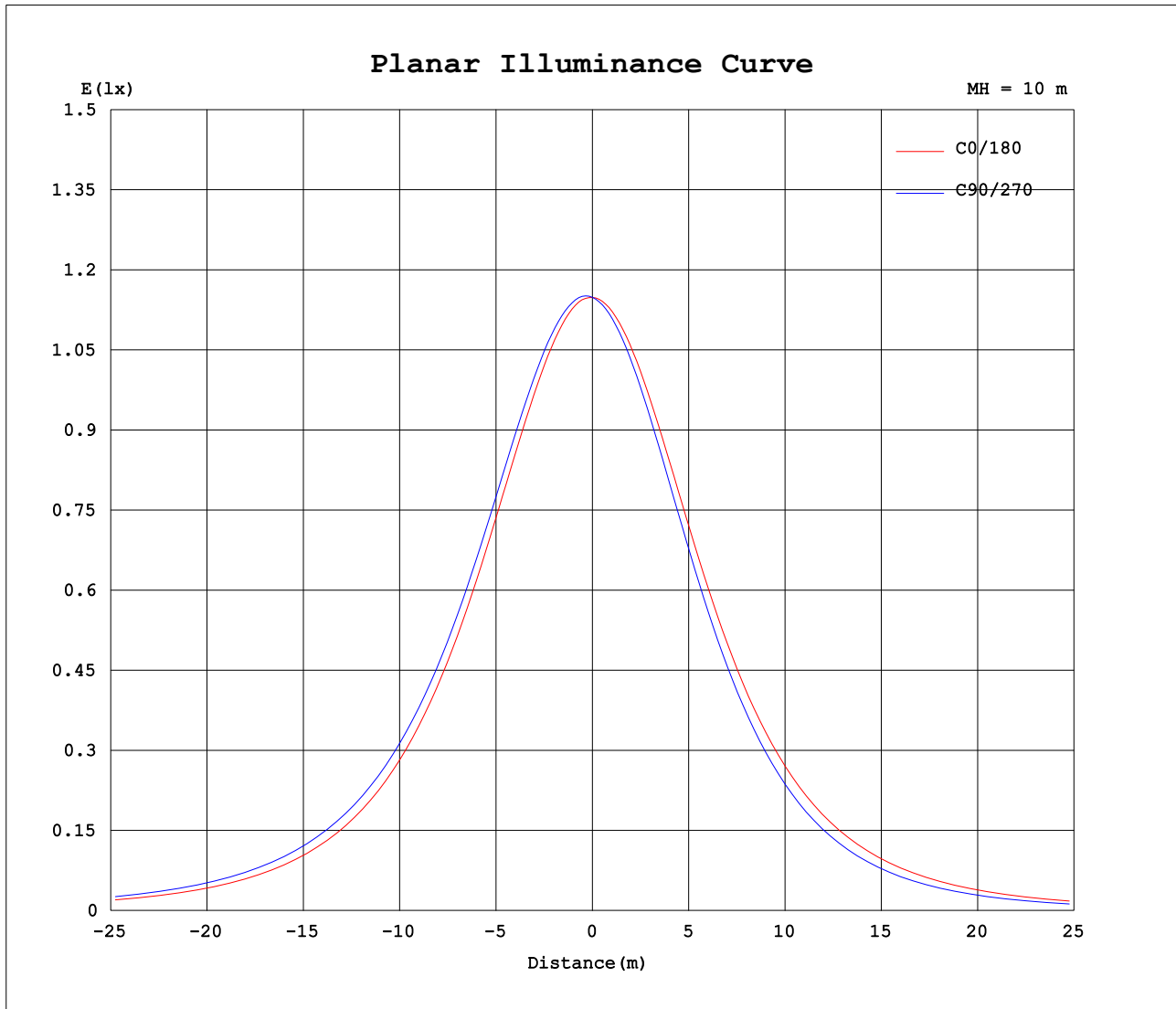
Test:U:24.001V I:0.1666A P:3.9986W PF:1.0000 Freq:0Hz Lamp Flux:340.026x1 lm		
NAME: VL10-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 3.9W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs	SUR.: 0.01*1	Shielding Angle: 120

AvgL	cd/m2
L_0~180 (65) av	9950
L_0~180 (75) av	8733
L_0~180 (85) av	5839
L_90~270 (65) av	9999
L_90~270 (75) av	9284
L_90~270 (85) av	11349
L_45 (65) av	9952
L_45 (75) av	9030
L_45 (85) av	9190

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:0.1666A P:3.9986W PF:1.0000 Freq:0Hz Lamp Flux:340.026x1 lm		
NAME: VL10-30K	TYPE: LED Strip	WEIGHT:
SPEC.: 3.9W	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	115	115	115	115														
5	115	116	114	113														
10	113	116	113	110														
15	111	114	110	107														
20	108	112	107	102														
25	104	109	102	96.6														
30	99.4	106	97.1	90.3														
35	93.6	101	91.1	83.2														
40	87.1	95.1	84.2	75.5														
45	79.8	88.6	76.6	67.0														
50	71.7	81.2	68.2	57.9														
55	63.0	73.2	59.3	48.6														
60	53.7	64.5	49.8	38.9														
65	44.0	55.2	40.1	29.3														
70	34.3	45.7	30.4	20.0														
75	24.6	36.1	20.6	12.0														
80	14.9	26.3	11.3	6.02														
85	6.37	17.3	3.80	2.52														
90	0.70	9.79	0.71	0.77														
95	0.10	4.43	0.37	0.23														
100	0.10	1.28	0.24	0.18														
105	0.14	0.19	0.20	0.18														
110	0.16	0.17	0.23	0.18														
115	0.17	0.19	0.28	0.19														
120	0.19	0.22	0.32	0.22														
125	0.27	0.25	0.36	0.30														
130	0.30	0.29	0.40	0.34														
135	0.36	0.34	0.42	0.35														
140	0.37	0.36	0.44	0.36														
145	0.38	0.40	0.47	0.41														
150	0.39	0.43	0.49	0.44														
155	0.39	0.46	0.51	0.45														
160	0.42	0.49	0.54	0.46														
165	0.44	0.51	0.53	0.49														
170	0.47	0.54	0.53	0.50														
175	0.50	0.54	0.53	0.53														
180	0.53	0.55	0.53	0.52														

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
γ Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
Humidity:65.0%
Test Distance:8.700m [K=1.0000]
Remarks: