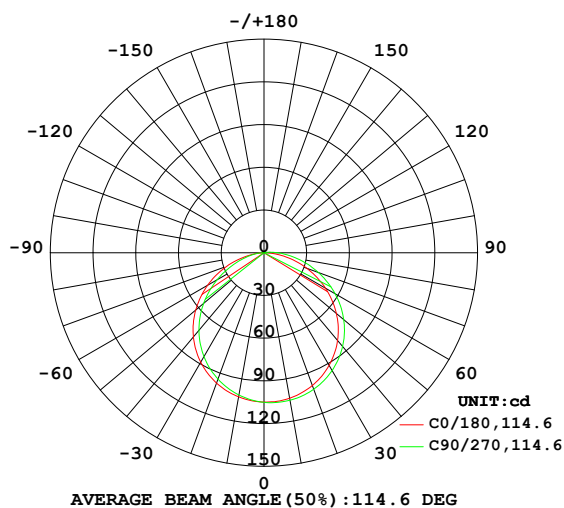


LUMINAIRE PHOTOMETRIC TEST REPORT

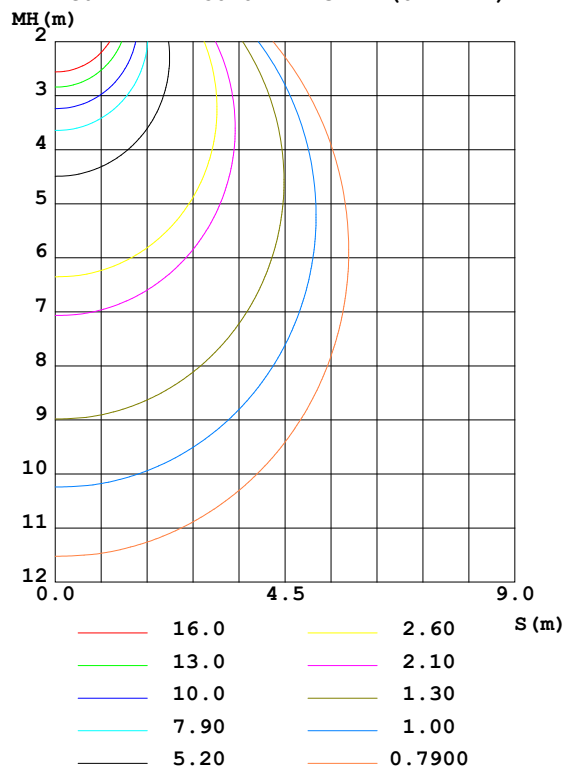
Test:U:24.001V I:0.1643A P:3.9434W PF:1.0000 Freq:0Hz Lamp Flux:315.037x1 lm		
NAME: VL10-50K	TYPE: LED Strip	WEIGHT:
SPEC.: 3.9W	DIM.: 1000*10*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs	SUR.: 0.01*1	Shielding Angle: 120

DATA OF LAMP		PHOTOMETRIC DATA Eff: 79.90 lm/W			
MODEL		I _{max} (cd)	105.5	S/MH (C0/180)	1.26
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.20
RATED VOLTAGE (V)		TOTAL FLUX (lm)	315.06	η UP,DN (C0-180)	0.7,54.1
NOMINAL FLUX (lm)	315.037	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.4,44.8
LAMPS INSIDE	1	η up (%)	1.1	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)		η down (%)	98.9	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:

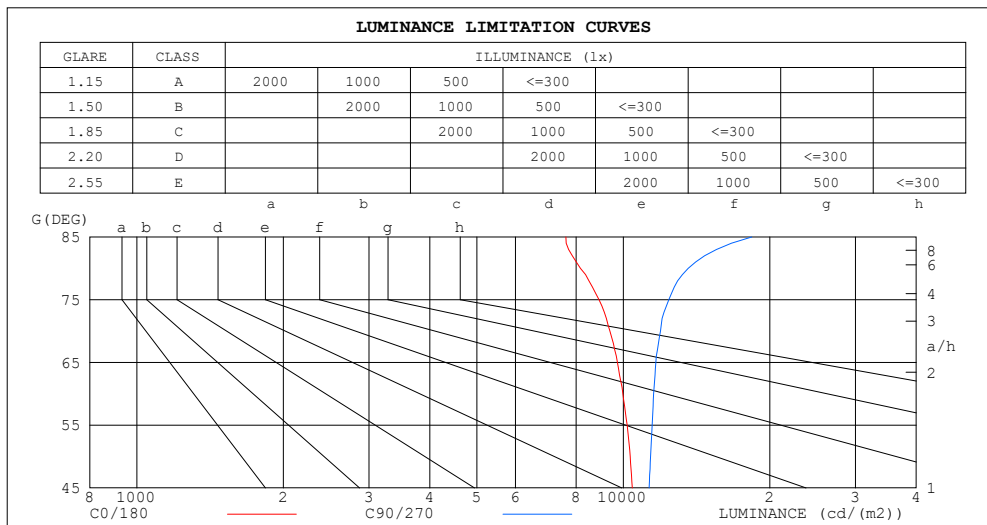
γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	103.8	105.2	102.8	101.5					0- 10	9.939	9.939	3.15,3.15
20	99.23	102.0	97.45	94.45					10- 20	28.57	38.51	12.2,12.2
30	91.42	95.63	88.83	84.29					20- 30	43.59	82.10	26.1,26.1
40	80.39	85.89	77.18	71.09					30- 40	52.99	135.1	42.9,42.9
50	66.40	73.12	62.57	55.35					40- 50	55.39	190.5	60.5,60.5
60	49.90	57.72	45.71	38.08					50- 60	50.31	240.8	76.4,76.4
70	32.10	40.76	27.94	21.16					60- 70	38.76	279.6	88.7,88.7
80	14.17	23.61	10.56	8.198					70- 80	23.31	302.9	96.1,96.1
90	1.020	9.634	0.1352	1.961					80- 90	8.752	311.6	98.9,98.9
100	0.0985	2.237	0.1650	0.3946					90-100	1.817	313.4	99.5,99.5
110	0.1390	0.1626	0.2218	0.2423					100-110	0.3409	313.8	99.6,99.6
120	0.1661	0.2203	0.2834	0.2354					110-120	0.2095	314.0	99.7,99.7
130	0.2460	0.2874	0.3524	0.2955					120-130	0.2306	314.2	99.7,99.7
140	0.3446	0.3449	0.3993	0.3571					130-140	0.2577	314.5	99.8,99.8
150	0.3562	0.3959	0.4318	0.3828					140-150	0.2360	314.7	99.9,99.9
160	0.3729	0.4588	0.4361	0.3941					150-160	0.1865	314.9	99.9,100
170	0.4165	0.4767	0.4404	0.4281					160-170	0.1210	315.0	100,100
180	0.4434	0.4557	0.4434	0.4434					170-180	0.0425	315.1	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:0.1643A P:3.9434W PF:1.0000 Freq:0Hz Lamp Flux:315.037x1 lm		
NAME: VL10-50K	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	7621	18369
80	8160	13596
75	8912	12406
70	9386	11918
65	9727	11660
60	9980	11545
55	10181	11460
50	10330	11375
45	10432	11299

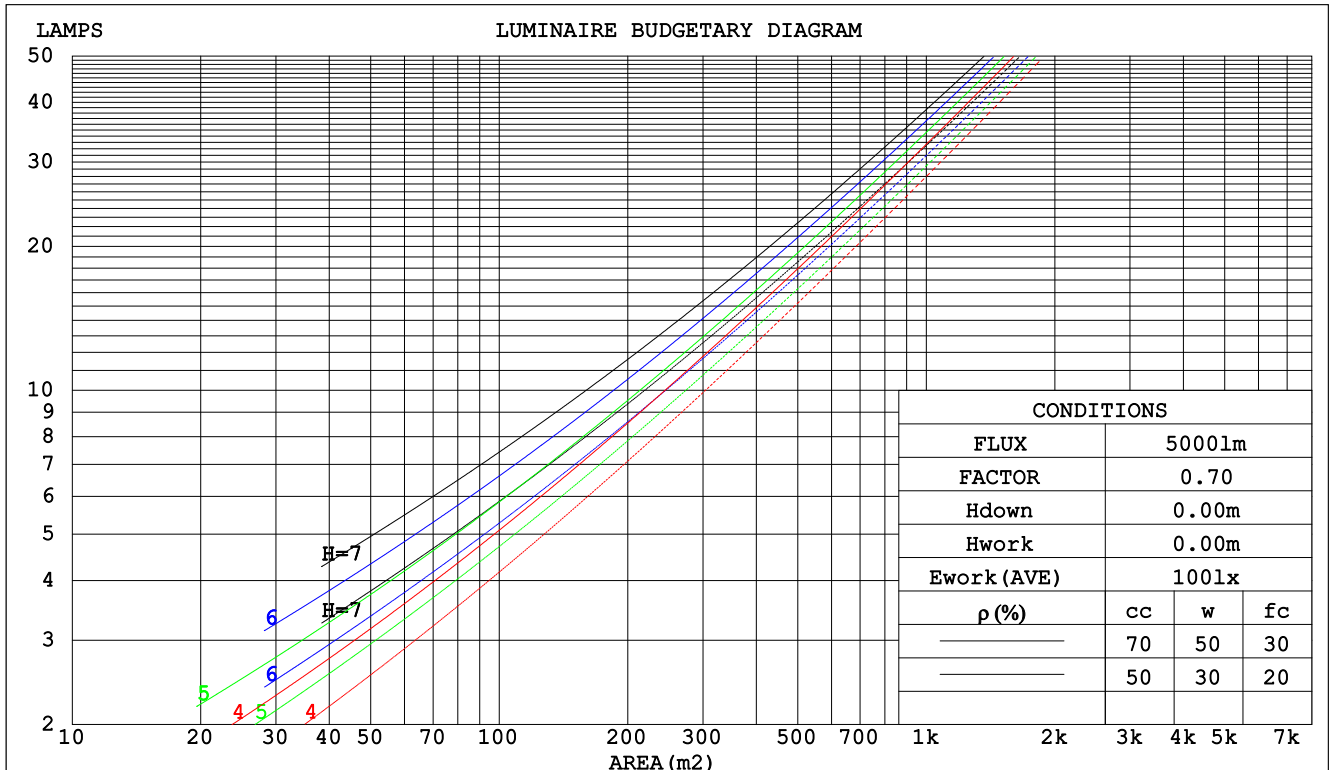
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Test Date:2023-11-07

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:0.1643A P:3.9434W PF:1.0000 Freq:0Hz Lamp Flux:315.037x1 lm		
NAME: VL10-50K	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						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	.94	1.01	.97	.93	.96	.93	.90	.92	.89	.87	.88	.86	.84	.82
2.0	.89	.82	.77	.87	.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	.60	.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	.56	.47	.40	.55	.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	.29
9.0	.42	.34	.28	.41	.34	.28	.40	.33	.28	.39	.32	.28	.38	.32	.27	.26
10.0	.39	.31	.26	.38	.31	.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:2023-11-07

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:0.1643A P:3.9434W PF:1.0000 Freq:0Hz Lamp Flux:315.037x1 lm					
NAME: VL10-50K			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	.322	.183	.058	.314	.179	.057	.300	.172	.055	.288	.166	.053	.276	.160	.052		
2.0	.299	.164	.050	.292	.161	.050	.280	.156	.048	.268	.151	.047	.258	.146	.046		
3.0	.275	.146	.044	.269	.144	.043	.258	.140	.042	.248	.136	.042	.238	.132	.041		
4.0	.253	.131	.039	.247	.129	.038	.238	.126	.038	.229	.123	.037	.220	.120	.036		
5.0	.233	.119	.034	.228	.117	.034	.220	.114	.034	.212	.112	.033	.204	.109	.033		
6.0	.216	.108	.031	.212	.107	.031	.204	.104	.030	.197	.102	.030	.190	.100	.030		
7.0	.200	.099	.028	.197	.098	.028	.190	.096	.028	.183	.094	.027	.177	.092	.027		
8.0	.187	.091	.026	.184	.090	.026	.177	.089	.025	.172	.087	.025	.166	.085	.025		
9.0	.175	.085	.024	.172	.084	.024	.167	.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	.199	.199	.199	.170	.170	.170	.116	.116	.116	.067	.067	.067	.021	.021	.021	
1.0	.190	.164	.142	.162	.141	.122	.111	.097	.084	.064	.056	.049	.020	.018	.016	
2.0	.182	.140	.106	.156	.121	.091	.107	.084	.064	.061	.049	.037	.020	.016	.012	
3.0	.174	.123	.082	.149	.106	.071	.102	.074	.050	.059	.043	.029	.019	.014	.010	
4.0	.166	.110	.066	.143	.095	.058	.098	.066	.041	.057	.039	.024	.018	.013	.008	
5.0	.159	.099	.055	.136	.086	.048	.094	.060	.034	.054	.035	.020	.018	.011	.007	
6.0	.152	.091	.047	.130	.079	.041	.090	.055	.029	.052	.032	.017	.017	.011	.006	
7.0	.145	.084	.042	.124	.073	.036	.086	.051	.026	.050	.030	.015	.016	.010	.005	
8.0	.138	.078	.037	.119	.068	.032	.082	.048	.023	.048	.028	.014	.015	.009	.005	
9.0	.132	.073	.034	.114	.064	.029	.079	.045	.021	.046	.026	.012	.015	.009	.004	
10.0	.126	.069	.031	.109	.060	.027	.075	.042	.019	.044	.025	.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:0.1643A P:3.9434W PF:1.0000 Freq:0Hz Lamp Flux:315.037x1 lm											
NAME: VL10-50K					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	26.7	25.5	26.9	27.2	25.7	27.2	26.0	27.5	27.7	
	3H	26.8	28.2	27.1	28.5	28.7	27.6	29.0	27.9	29.3	29.5
	4H	27.5	28.8	27.8	29.1	29.4	28.5	29.8	28.8	30.1	30.4
	6H	28.0	29.2	28.3	29.5	29.8	29.3	30.6	29.6	30.9	31.2
	8H	28.1	29.4	28.5	29.7	30.0	29.7	30.9	30.0	31.2	31.5
	12H	28.2	29.4	28.6	29.7	30.1	30.1	31.2	30.4	31.6	31.9
4H	2H	25.9	27.3	26.3	27.6	27.8	26.3	27.7	26.7	27.9	28.2
	3H	27.8	28.9	28.1	29.2	29.6	28.4	29.6	28.8	29.9	30.2
	4H	28.6	29.6	29.0	30.0	30.3	29.4	30.5	29.8	30.9	31.2
	6H	29.2	30.2	29.6	30.5	30.9	30.4	31.4	30.8	31.7	32.1
	8H	29.4	30.3	29.9	30.7	31.1	30.9	31.8	31.3	32.2	32.6
	12H	29.6	30.4	30.0	30.8	31.3	31.4	32.2	31.8	32.6	33.0
8H	4H	29.0	29.9	29.4	30.3	30.7	29.7	30.6	30.2	31.0	31.4
	6H	29.8	30.6	30.3	31.0	31.4	30.9	31.7	31.4	32.1	32.5
	8H	30.2	30.8	30.6	31.3	31.7	31.5	32.2	32.0	32.6	33.1
	12H	30.4	31.0	30.9	31.5	32.0	32.2	32.7	32.7	33.2	33.7
12H	4H	29.0	29.9	29.5	30.3	30.7	29.8	30.6	30.2	31.0	31.4
	6H	30.0	30.6	30.4	31.1	31.5	31.0	31.7	31.5	32.1	32.6
	8H	30.4	30.9	30.9	31.4	31.9	31.7	32.2	32.2	32.7	33.2
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, 315.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -4.0)
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:0.1643A P:3.9434W PF:1.0000 Freq:0Hz Lamp Flux:315.037x1 lm		
NAME: VL10-50K	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

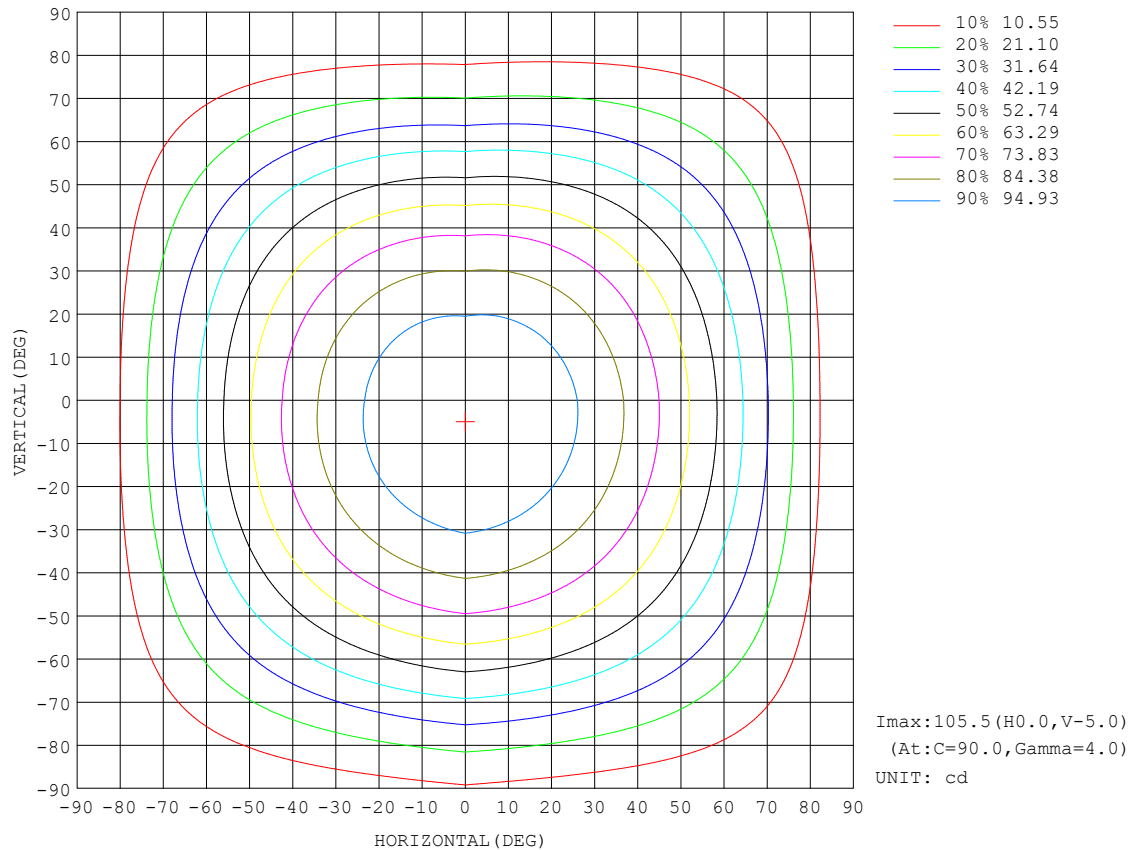
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	56	45	38	56	44	38	54	44	37	31
0.80	66	55	47	65	54	47	64	53	47	40
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	81	76	68
2.50	98	90	83	96	88	83	92	86	81	72
3.00	101	94	88	99	92	87	95	89	85	76
4.00	105	99	94	103	97	93	98	94	90	81
5.00	108	103	98	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: 2023-11-07

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:0.1643A P:3.9434W PF:1.0000 Freq:0Hz Lamp Flux:315.037x1 lm		
NAME: VL10-50K	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

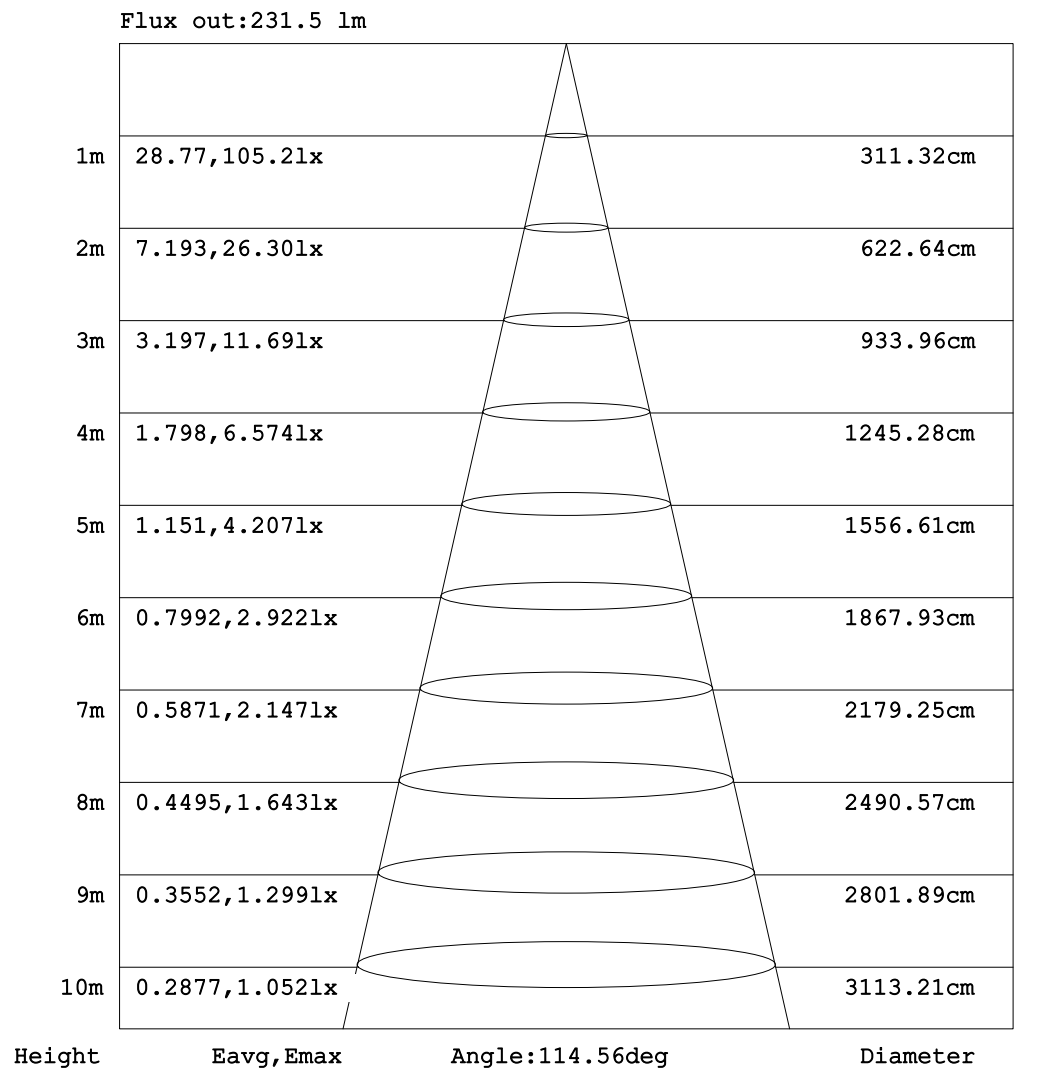


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Test Date:2023-11-07

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:0.1643A P:3.9434W PF:1.0000 Freq:0Hz Lamp Flux:315.037x1 lm		
NAME: VL10-50K	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



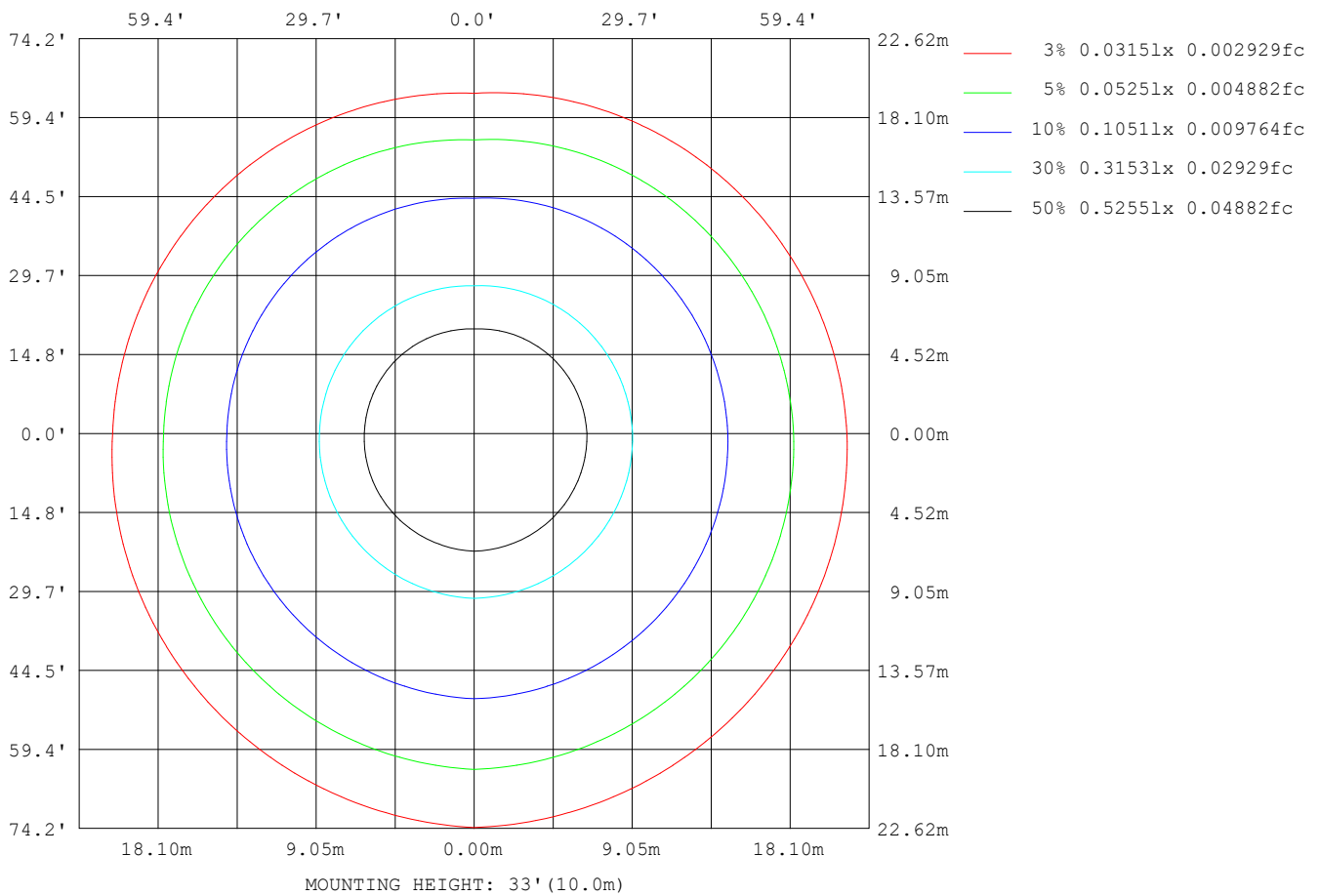
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.1643A P:3.9434W PF:1.0000 Freq:0Hz Lamp Flux:315.037x1 lm		
NAME: VL10-50K	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:0.1643A P:3.9434W PF:1.0000 Freq:0Hz Lamp Flux:315.037x1 lm		
NAME: VL10-50K	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

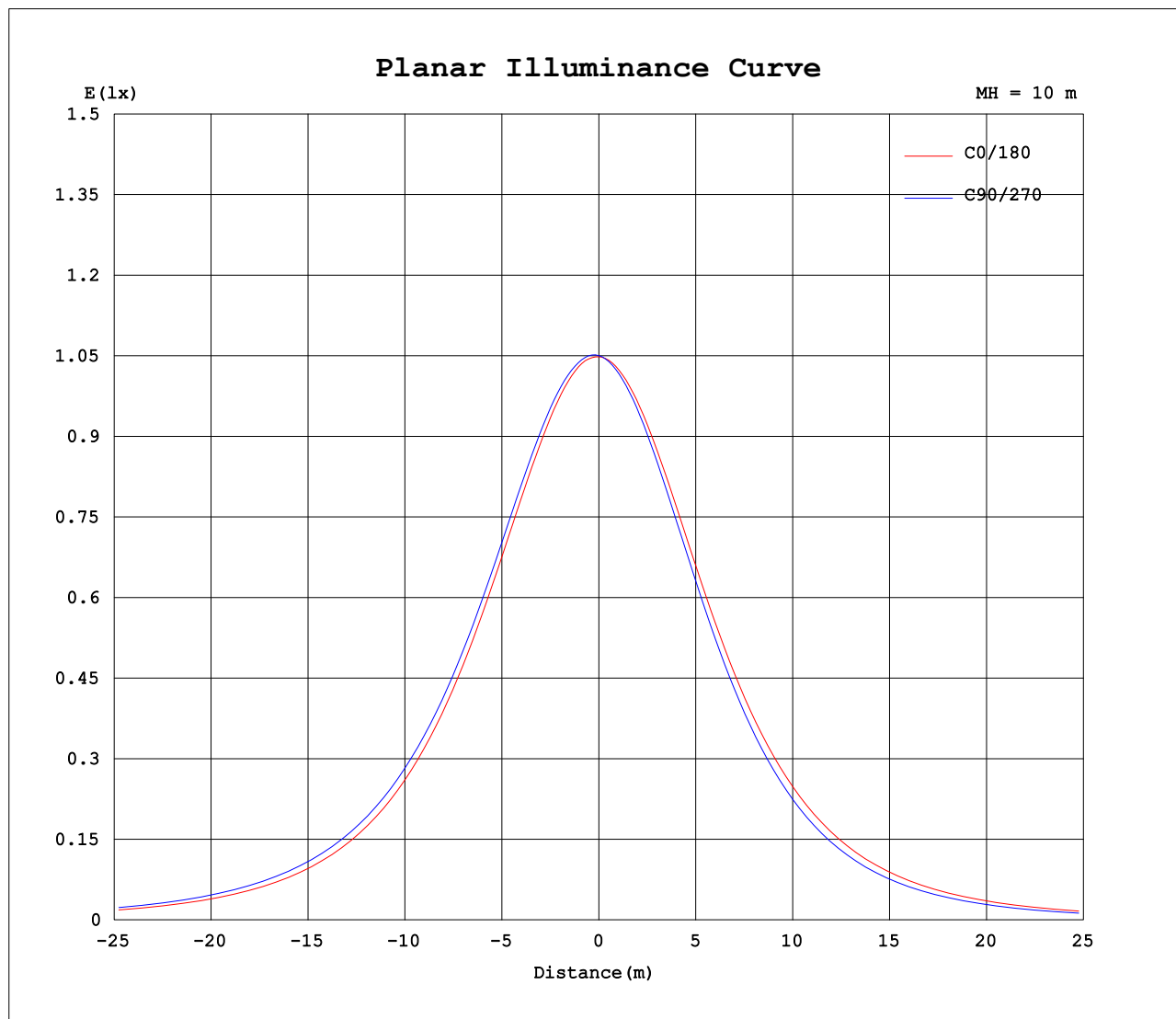
AvgL	cd/m2
L_0~180 (65) av	9225
L_0~180 (75) av	8107
L_0~180 (85) av	6078
L_90~270 (65) av	9305
L_90~270 (75) av	8896
L_90~270 (85) av	11605
L_45 (65) av	9244
L_45 (75) av	8550
L_45 (85) av	9436

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:0.1643A P:3.9434W PF:1.0000 Freq:0Hz Lamp Flux:315.037x1 lm		
NAME: VL10-50K	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	105	105	105	105														
5	105	105	104	104														
10	104	105	103	101														
15	102	104	101	98.4														
20	99.2	102	97.5	94.4														
25	95.7	99.3	93.5	89.8														
30	91.4	95.6	88.8	84.3														
35	86.3	91.2	83.4	78.1														
40	80.4	85.9	77.2	71.1														
45	73.8	79.9	70.2	63.5														
50	66.4	73.1	62.6	55.4														
55	58.4	65.7	54.3	46.9														
60	49.9	57.7	45.7	38.1														
65	41.1	49.3	36.9	29.4														
70	32.1	40.8	27.9	21.2														
75	23.1	32.1	18.9	13.9														
80	14.2	23.6	10.6	8.20														
85	6.64	16.0	3.95	4.22														
90	1.02	9.63	0.14	1.96														
95	0.10	5.08	0.14	0.91														
100	0.10	2.24	0.17	0.39														
105	0.11	0.52	0.19	0.25														
110	0.14	0.16	0.22	0.24														
115	0.16	0.20	0.25	0.24														
120	0.17	0.22	0.28	0.24														
125	0.20	0.25	0.32	0.26														
130	0.25	0.29	0.35	0.30														
135	0.30	0.32	0.39	0.36														
140	0.34	0.34	0.40	0.36														
145	0.35	0.38	0.41	0.37														
150	0.36	0.40	0.43	0.38														
155	0.36	0.43	0.43	0.39														
160	0.37	0.46	0.44	0.39														
165	0.41	0.47	0.44	0.41														
170	0.42	0.48	0.44	0.43														
175	0.43	0.48	0.44	0.44														
180	0.44	0.46	0.44	0.44														

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: