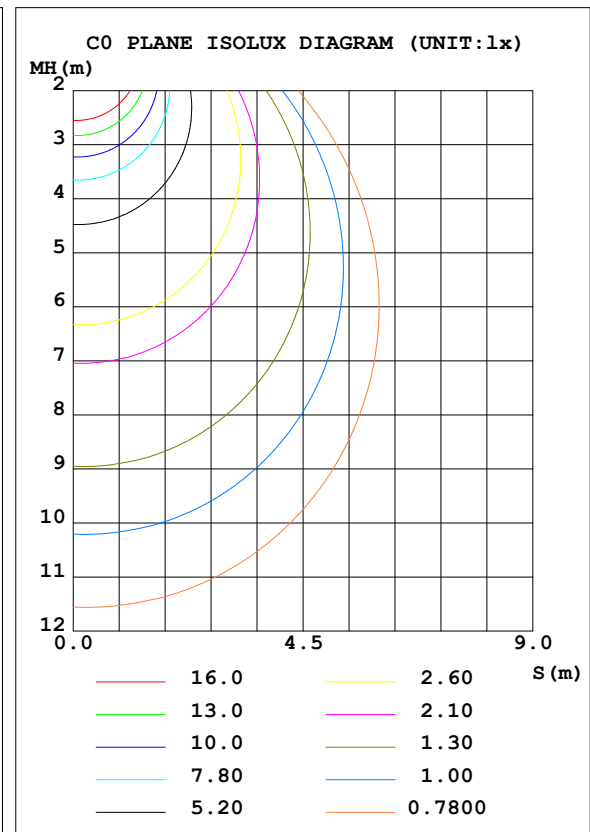
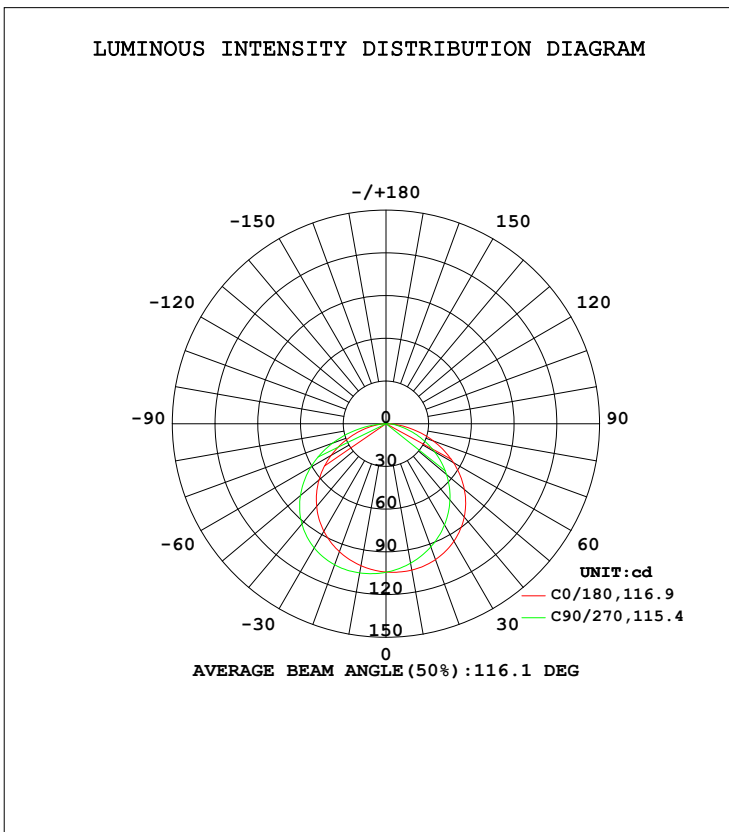


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.001V I:0.8275A P:19.861W PF:1.0000 Freq:0Hz Lamp Flux:317.402x1 lm		
NAME: LST-RGB	TYPE: LED Sheet	WEIGHT:
SPEC.: 60W	DIM.: 480*240 (MMO	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.24*0.48	Shielding Angle: 120

DATA OF LAMP		PHOTOMETRIC DATA Eff: 15.98 lm/W			
MODEL		I _{max} (cd)	106.4	S/MH (C0/180)	1.25
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.43
RATED VOLTAGE (V)		TOTAL FLUX (lm)	317.43	η UP, DN (C0-180)	0.3, 47.9
NOMINAL FLUX (lm)	317.402	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.2, 51.6
LAMPS INSIDE	1	η up (%)	0.5	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)		η down (%)	99.5	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Test Date: 2024-08-01

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:

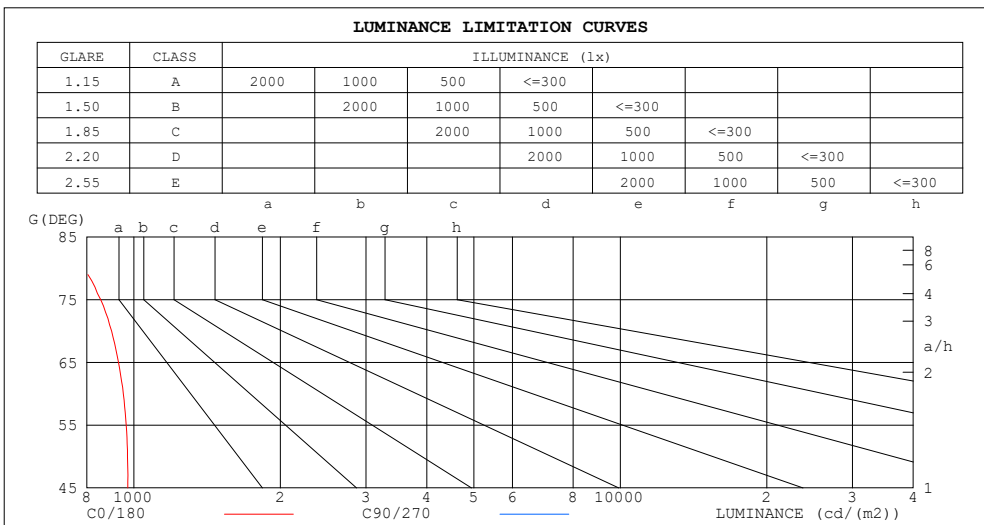
γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum, lamp
10	104.4	99.49	101.2	106.4				0- 10	9.883	9.883	3.11,3.11
20	101.5	92.06	95.64	105.4				10- 20	28.57	38.45	12.1,12.1
30	95.35	82.13	87.20	100.8				20- 30	44.00	82.45	26,26
40	85.53	69.89	75.79	91.89				30- 40	54.10	136.6	43,43
50	71.86	55.49	61.44	78.47				40- 50	57.20	193.8	61,61
60	54.78	39.42	44.51	60.94				50- 60	52.40	246.2	77.5,77.6
70	35.45	22.97	26.41	39.98				60- 70	40.20	286.4	90.2,90.2
80	15.75	9.204	9.640	17.22				70- 80	23.08	309.4	97.5,97.5
90	1.364	1.731	0.4401	0.0866				80- 90	6.426	315.9	99.5,99.5
100	0.1389	0.1541	0.1692	0.0862				90-100	0.2470	316.1	99.6,99.6
110	0.1232	0.2339	0.2182	0.0984				100-110	0.1573	316.3	99.6,99.6
120	0.1555	0.2834	0.2809	0.1663				110-120	0.1958	316.5	99.7,99.7
130	0.1773	0.3451	0.3432	0.1868				120-130	0.2172	316.7	99.8,99.8
140	0.2320	0.4049	0.3748	0.2094				130-140	0.2211	316.9	99.8,99.8
150	0.3325	0.4086	0.3924	0.3176				140-150	0.2097	317.1	99.9,99.9
160	0.3570	0.4077	0.3899	0.3533				150-160	0.1728	317.3	100,100
170	0.3633	0.4067	0.3851	0.3854				160-170	0.1074	317.4	100,100
180	0.3695	0.4064	0.3818	0.4434				170-180	0.0375	317.4	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2024-08-01

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:0.8275A P:19.861W PF:1.0000 Freq:0Hz Lamp Flux:317.402x1 lm		
NAME: LST-RGB	TYPE: LED Sheet	WEIGHT:
SPEC.: 60W	DIM.: 480*240 (MMO	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.24*0.48	Shielding Angle: 120



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	699	489
80	787	460
75	855	518
70	900	583
65	930	637
60	951	684
55	964	722
50	970	749
45	972	773

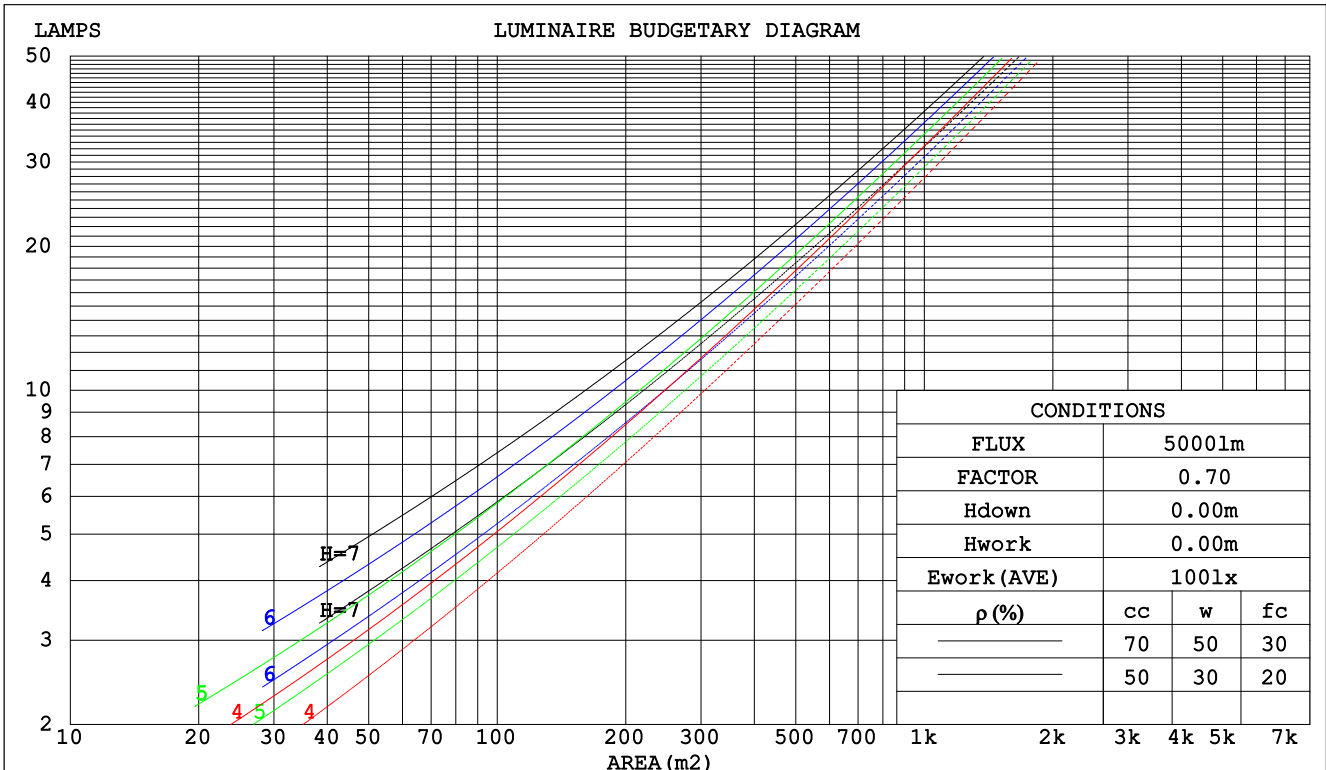
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2024-08-01

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:0.8275A P:19.861W PF:1.0000 Freq:0Hz Lamp Flux:317.402x1 lm		
NAME: LST-RGB	TYPE: LED Sheet	WEIGHT:
SPEC.: 60W	DIM.: 480*240 (MMO	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.24*0.48	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	.00
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	.74	.81	.76	.72	.78	.74	.71	.69
3.0	.79	.70	.64	.77	.69	.63	.74	.67	.62	.71	.66	.61	.69	.64	.60	.57
4.0	.70	.61	.54	.68	.60	.53	.66	.58	.53	.63	.57	.52	.61	.56	.51	.49
5.0	.62	.53	.46	.61	.52	.46	.59	.51	.45	.57	.50	.45	.55	.49	.44	.42
6.0	.56	.47	.40	.55	.46	.40	.53	.45	.39	.51	.44	.39	.49	.43	.39	.37
7.0	.50	.42	.35	.50	.41	.35	.48	.40	.35	.46	.40	.35	.45	.39	.34	.32
8.0	.46	.37	.31	.45	.37	.31	.44	.36	.31	.43	.36	.31	.41	.35	.31	.29
9.0	.42	.34	.28	.41	.34	.28	.40	.33	.28	.39	.33	.28	.38	.32	.28	.26
10.0	.39	.31	.25	.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:2024-08-01

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:0.8275A P:19.861W PF:1.0000 Freq:0Hz Lamp Flux:317.402x1 lm									
NAME: LST-RGB				TYPE: LED Sheet				WEIGHT:	
SPEC.: 60W				DIM.: 480*240 (MMO				SERIAL No.: 001	
MFR.: Flexfire LEDs, Inc.				SUR.: 0.24*0.48				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	.315	.179	.057	.308	.175	.056	.294	.169	.054	.281	.162	.052	.270	.156	.050	
2.0	.296	.162	.050	.289	.159	.049	.277	.154	.048	.266	.149	.047	.256	.145	.046	
3.0	.273	.145	.044	.268	.143	.043	.257	.139	.042	.247	.135	.042	.238	.132	.041	
4.0	.252	.131	.039	.247	.129	.038	.238	.126	.038	.229	.123	.037	.221	.120	.037	
5.0	.233	.119	.034	.228	.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	.093	.027	
8.0	.187	.091	.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	.153	.076	.022	.148	.075	.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	.194	.194	.194	.166	.166	.166	.113	.113	.113	.065	.065	.065	.021	.021	.021	
1.0	.184	.160	.138	.158	.137	.119	.108	.094	.082	.062	.055	.048	.020	.018	.015	
2.0	.177	.136	.101	.151	.117	.088	.104	.081	.061	.060	.047	.036	.019	.015	.012	
3.0	.169	.118	.078	.145	.102	.067	.099	.071	.047	.057	.041	.028	.018	.013	.009	
4.0	.161	.105	.062	.139	.091	.054	.095	.063	.038	.055	.037	.022	.018	.012	.007	
5.0	.154	.095	.051	.132	.082	.044	.091	.057	.031	.053	.034	.018	.017	.011	.006	
6.0	.147	.086	.043	.126	.075	.037	.087	.052	.026	.051	.031	.016	.016	.010	.005	
7.0	.140	.079	.037	.120	.069	.032	.083	.048	.023	.048	.028	.014	.016	.009	.004	
8.0	.133	.074	.032	.115	.064	.028	.080	.045	.020	.046	.026	.012	.015	.009	.004	
9.0	.127	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
10.0	.122	.064	.026	.105	.056	.023	.073	.039	.016	.042	.023	.010	.014	.008	.003	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2024-08-01

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:0.8275A P:19.861W PF:1.0000 Freq:0Hz Lamp Flux:317.402x1 lm										
NAME: LST-RGB			TYPE: LED Sheet			WEIGHT:				
SPEC.: 60W			DIM.: 480*240 (MMO			SERIAL No.: 001				
MFR.: Flexfire LEDs, Inc.			SUR.: 0.24*0.48			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	16.7	18.2	17.0	18.4	18.7	15.5	17.0	15.8	17.3	17.5
3H	18.4	19.8	18.7	20.0	20.3	16.8	18.2	17.1	18.5	18.7
4H	19.1	20.4	19.4	20.7	21.0	17.3	18.6	17.6	18.9	19.2
6H	19.6	20.9	19.9	21.1	21.4	17.6	18.9	17.9	19.2	19.4
8H	19.8	21.0	20.1	21.3	21.6	17.7	18.9	18.1	19.2	19.5
12H	19.9	21.1	20.2	21.4	21.7	17.8	19.0	18.2	19.3	19.6
4H 2H	17.2	18.5	17.5	18.8	19.1	16.3	17.6	16.6	17.9	18.1
3H	19.0	20.2	19.4	20.5	20.8	17.8	18.9	18.1	19.2	19.6
4H	19.9	20.9	20.2	21.3	21.6	18.4	19.4	18.7	19.8	20.1
6H	20.5	21.5	20.9	21.8	22.2	18.8	19.8	19.2	20.1	20.5
8H	20.8	21.7	21.2	22.0	22.4	19.0	19.8	19.4	20.2	20.6
12H	20.9	21.8	21.4	22.1	22.6	19.1	19.9	19.5	20.3	20.7
8H 4H	20.1	20.9	20.5	21.3	21.7	18.7	19.6	19.1	20.0	20.4
6H	20.9	21.6	21.3	22.0	22.5	19.3	20.1	19.8	20.5	20.9
8H	21.2	21.9	21.7	22.3	22.7	19.6	20.2	20.0	20.7	21.1
12H	21.5	22.0	21.9	22.5	23.0	19.8	20.4	20.3	20.8	21.3
12H 4H	20.0	20.9	20.5	21.3	21.7	18.8	19.6	19.2	20.0	20.4
6H	20.9	21.6	21.4	22.0	22.5	19.4	20.1	19.9	20.5	21.0
8H	21.3	21.8	21.8	22.3	22.8	19.7	20.3	20.2	20.7	21.2
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.1 / - 0.2					+ 0.2 / - 0.4				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.5				

CIE Pub.117, 317.4 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -4.0)
 Area: 0.1152 m2

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2024-08-01

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:0.8275A P:19.861W PF:1.0000 Freq:0Hz Lamp Flux:317.402x1 lm		
NAME: LST-RGB	TYPE: LED Sheet	WEIGHT:
SPEC.: 60W	DIM.: 480*240 (MMO	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.24*0.48	Shielding Angle: 120

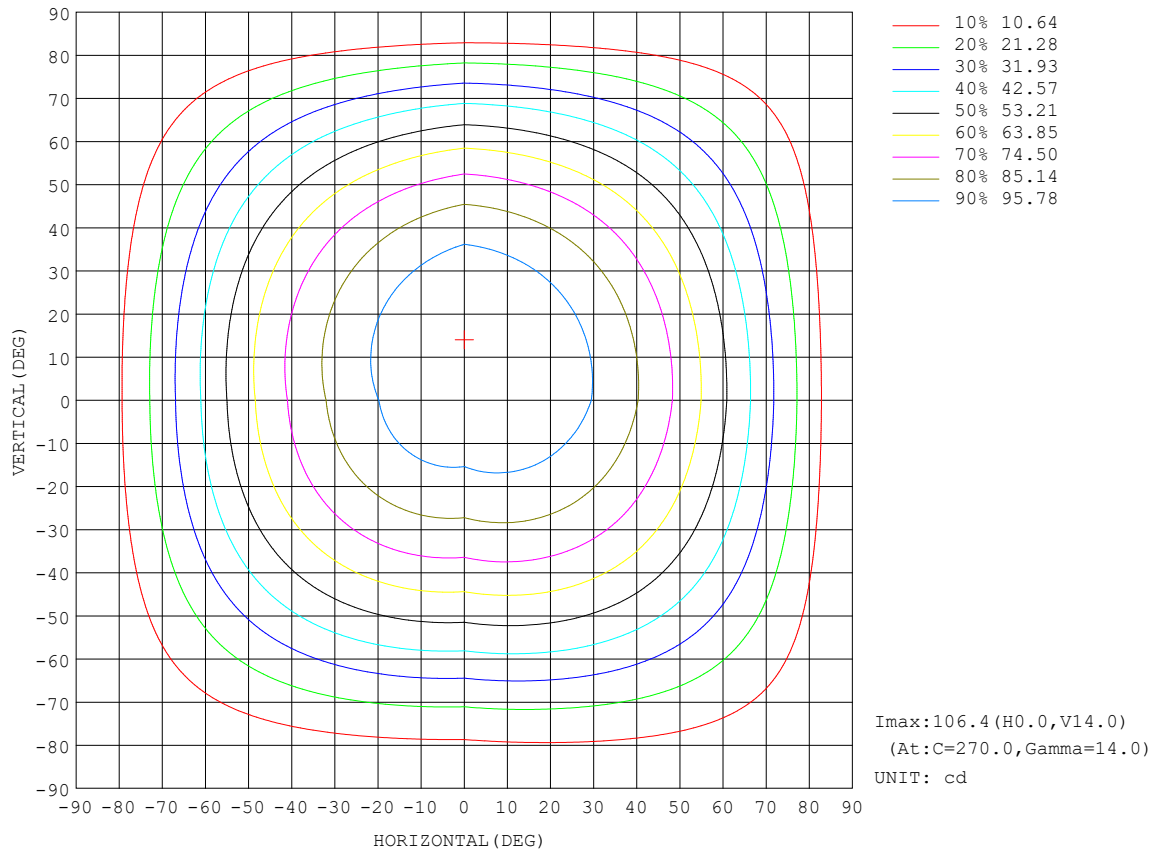
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	45	38	56	45	38	55	44	37	31
0.80	67	55	47	66	54	47	64	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	83	75	69	61
2.00	94	86	79	92	84	78	89	82	77	69
2.50	98	90	84	96	89	83	92	86	81	73
3.00	102	95	89	100	93	88	95	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	94	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:2024-08-01

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:0.8275A P:19.861W PF:1.0000 Freq:0Hz Lamp Flux:317.402x1 lm		
NAME: LST-RGB	TYPE: LED Sheet	WEIGHT:
SPEC.: 60W	DIM.: 480*240 (MMO	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.24*0.48	Shielding Angle: 120



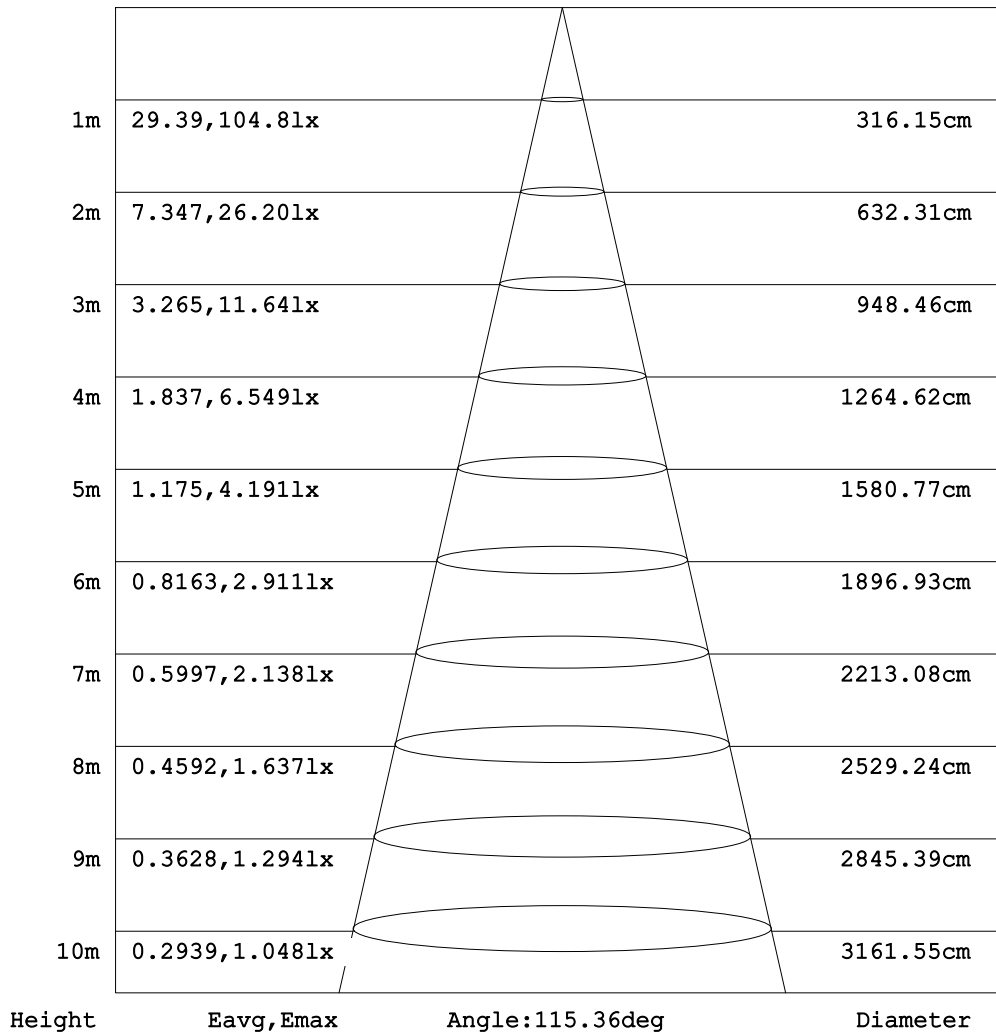
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2024-08-01

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:0.8275A P:19.861W PF:1.0000 Freq:0Hz Lamp Flux:317.402x1 lm		
NAME: LST-RGB	TYPE: LED Sheet	WEIGHT:
SPEC.: 60W	DIM.: 480*240 (MMO	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.24*0.48	Shielding Angle: 120

Flux out:236.4 lm



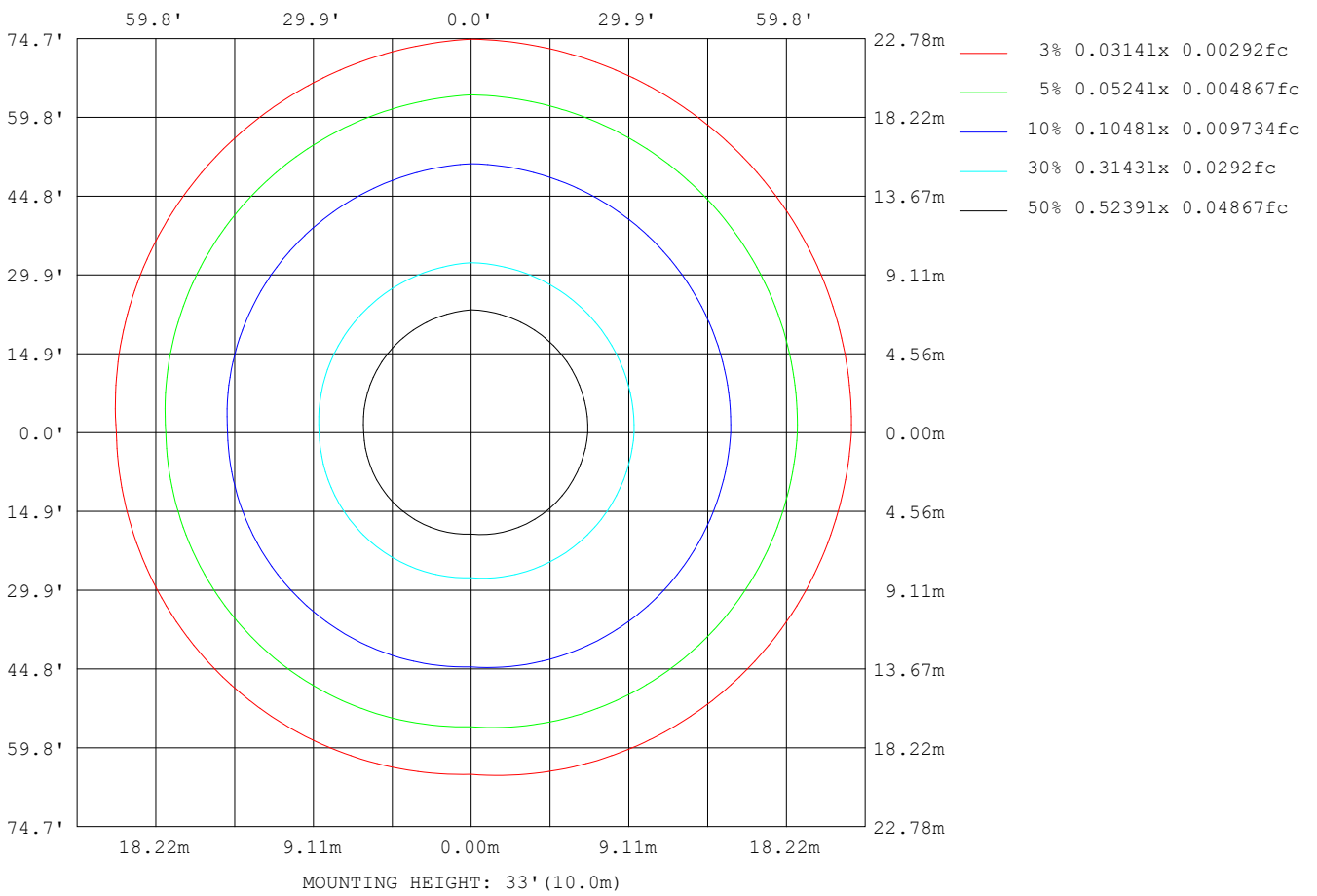
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2024-08-01

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:0.8275A P:19.861W PF:1.0000 Freq:0Hz Lamp Flux:317.402x1 lm		
NAME: LST-RGB	TYPE: LED Sheet	WEIGHT:
SPEC.: 60W	DIM.: 480*240 (MMO	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.24*0.48	Shielding Angle: 120



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2024-08-01

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:0.8275A P:19.861W PF:1.0000 Freq:0Hz Lamp Flux:317.402x1 lm		
NAME: LST-RGB	TYPE: LED Sheet	WEIGHT:
SPEC.: 60W	DIM.: 480*240 (MMO	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.24*0.48	Shielding Angle: 120

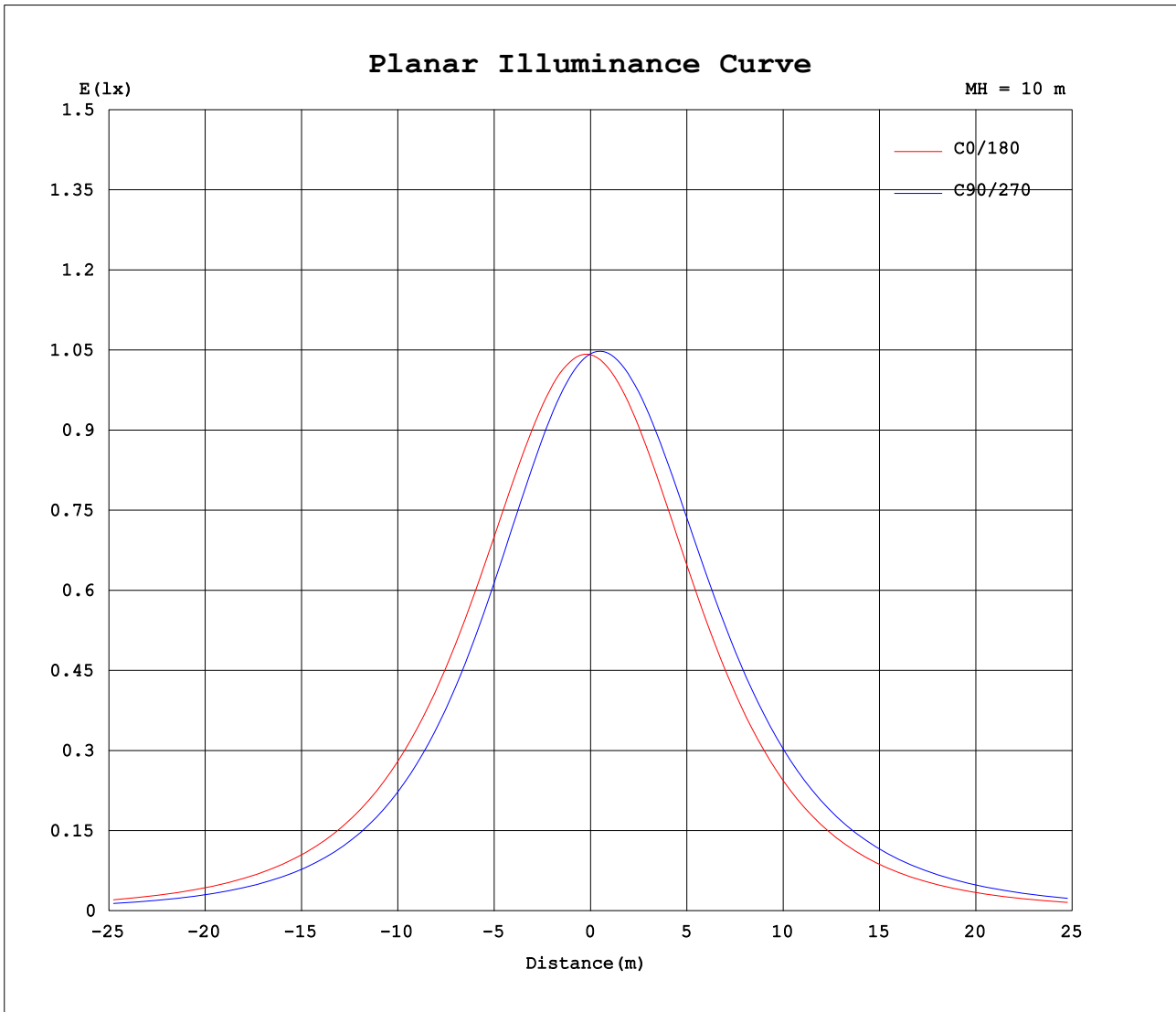
AvgL	cd/m2
L_0~180 (65) av	829
L_0~180 (75) av	724
L_0~180 (85) av	542
L_90~270 (65) av	841
L_90~270 (75) av	739
L_90~270 (85) av	539
L_45 (65) av	830
L_45 (75) av	725
L_45 (85) av	530

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2024-08-01

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



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 C Interval: 90.0DEG
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 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.001V I:0.8275A P:19.861W PF:1.0000 Freq:0Hz Lamp Flux:317.402x1 lm		
NAME: LST-RGB	TYPE: LED Sheet	WEIGHT:
SPEC.: 60W	DIM.: 480*240 (MMO	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.24*0.48	Shielding Angle: 120

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	90	180	270															
0	104	104	104	104															
5	105	102	103	106															
10	104	99.5	101	106															
15	103	96.1	98.8	106															
20	102	92.1	95.6	105															
25	98.9	87.4	91.8	104															
30	95.3	82.1	87.2	101															
35	90.9	76.3	81.9	96.8															
40	85.5	69.9	75.8	91.9															
45	79.2	63.0	69.0	85.7															
50	71.9	55.5	61.4	78.5															
55	63.7	47.7	53.2	70.2															
60	54.8	39.4	44.5	60.9															
65	45.3	31.0	35.5	50.8															
70	35.5	23.0	26.4	40.0															
75	25.5	15.5	17.7	28.6															
80	15.7	9.20	9.64	17.2															
85	7.02	4.91	3.87	5.91															
90	1.36	1.73	0.44	0.09															
95	0.15	0.14	0.15	0.09															
100	0.14	0.15	0.17	0.09															
105	0.13	0.19	0.19	0.09															
110	0.12	0.23	0.22	0.10															
115	0.15	0.25	0.25	0.15															
120	0.16	0.28	0.28	0.17															
125	0.16	0.32	0.31	0.18															
130	0.18	0.35	0.34	0.19															
135	0.20	0.38	0.36	0.20															
140	0.23	0.40	0.37	0.21															
145	0.28	0.41	0.38	0.26															
150	0.33	0.41	0.39	0.32															
155	0.36	0.41	0.39	0.34															
160	0.36	0.41	0.39	0.35															
165	0.36	0.41	0.39	0.36															
170	0.36	0.41	0.39	0.39															
175	0.37	0.41	0.38	0.43															
180	0.37	0.41	0.38	0.44															

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