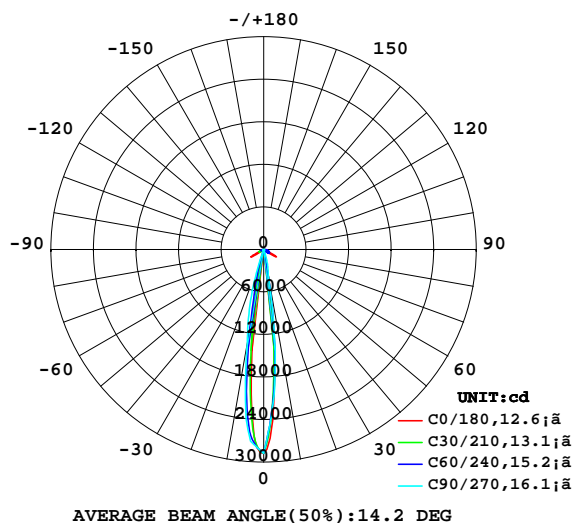


## LUMINAIRE PHOTOMETRIC TEST REPORT

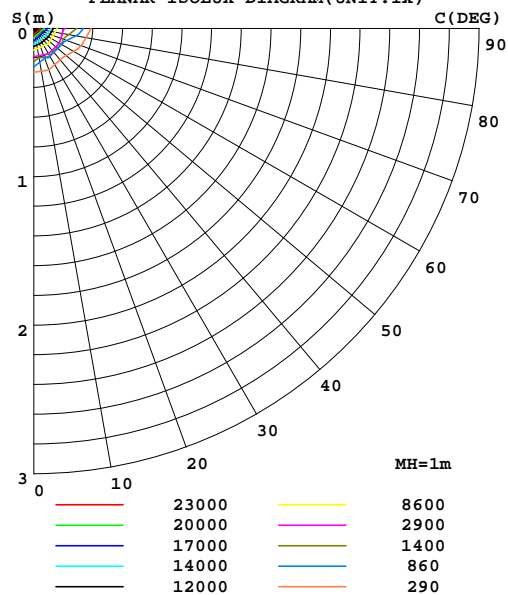
Test:U:221.2V I:0.532A P:117.62W PF:0.9705 Lamp Flux:13106.4x1 lm		
NAME: SVT-Str P-S-120-400-10	TYPE:	WEIGHT:4
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 111.43 lm/W			
MODEL	LED	I <sub>max</sub> (cd)	86301	S/MH(C0/180)	0.21
NOMINAL POWER(W)	120	LOR(%)	100.0	S/MH(C90/270)	0.22
RATED VOLTAGE(V)	222	TOTAL FLUX(lm)	13106.4	η UP,DN(C0-180)	0.0,46.4
NOMINAL FLUX(lm)	13106.4	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,53.6
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	221.2	η down(%)	100.0	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



PLANAR ISOLUX DIAGRAM(UNIT:lx)



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:18DEG  
 Operators:Sergei  
 Test Date:2015-04-15

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
 Humidity:65.0%  
 Test Distance:9.000m [K=1.0000]  
 Remarks: LED

# ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
5	1767	1748	1835	1814	2043	2318	2555	2111	0- 5	568.7	568.7	13.9,13.9
10	402.7	441.6	381.2	461.1	495.8	868.4	1332	693.6	5- 10	871.4	1440	35.2,35.2
15	33.84	32.51	200.7	30.71	32.41	54.82	677.7	39.41	10- 15	338.0	1778	43.4,43.4
20	21.16	22.08	20.22	21.08	20.60	24.13	23.42	23.39	15- 20	119.8	1898	46.4,46.4
25	17.27	17.81	19.62	17.89	17.28	18.01	20.55	17.95	20- 25	41.93	1940	47.4,47.4
30	19.12	18.40	19.02	18.77	19.45	17.21	17.68	17.38	25- 30	46.33	1986	48.5,48.5
35	19.38	17.69	19.63	18.17	19.75	18.56	18.04	18.16	30- 35	55.27	2041	49.9,49.9
40	19.07	21.00	20.25	21.25	18.61	19.43	18.40	19.27	35- 40	63.64	2105	51.4,51.4
45	19.24	52.48	20.86	53.77	19.07	39.21	18.77	39.39	40- 45	82.74	2188	53.4,53.4
50	20.97	94.21	21.48	96.08	20.99	74.33	19.13	75.57	45- 50	127.3	2315	56.5,56.5
55	73.83	142.4	18.87	145.0	81.83	122.7	16.83	124.0	50- 55	224.1	2539	62.6,62.6
60	212.6	180.1	16.26	182.0	209.8	169.9	14.52	172.4	55- 60	447.5	2987	72.9,72.9
65	41.24	146.9	13.65	148.1	31.00	151.8	12.22	154.4	60- 65	444.3	3431	83.8,83.8
70	10.51	109.0	11.04	109.2	8.832	122.6	9.918	125.6	65- 70	260.2	3691	90.2,90.2
75	5.002	73.84	8.425	73.39	4.010	88.81	7.615	91.91	70- 75	179.3	3870	94.5,94.5
80	2.411	43.88	5.814	43.53	1.611	56.00	5.313	58.41	75- 80	124.6	3995	97.6,97.6
85	0.6048	20.14	3.204	19.91	0.2100	26.78	3.010	28.12	80- 85	73.63	4069	99.4,99.4
90	0.2519	0.3830	0.5928	0.3640	0.2760	0.2319	0.7075	0.2404	85- 90	25.47	4094	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY: $\pm 10\text{cd}$								UNIT: lm			

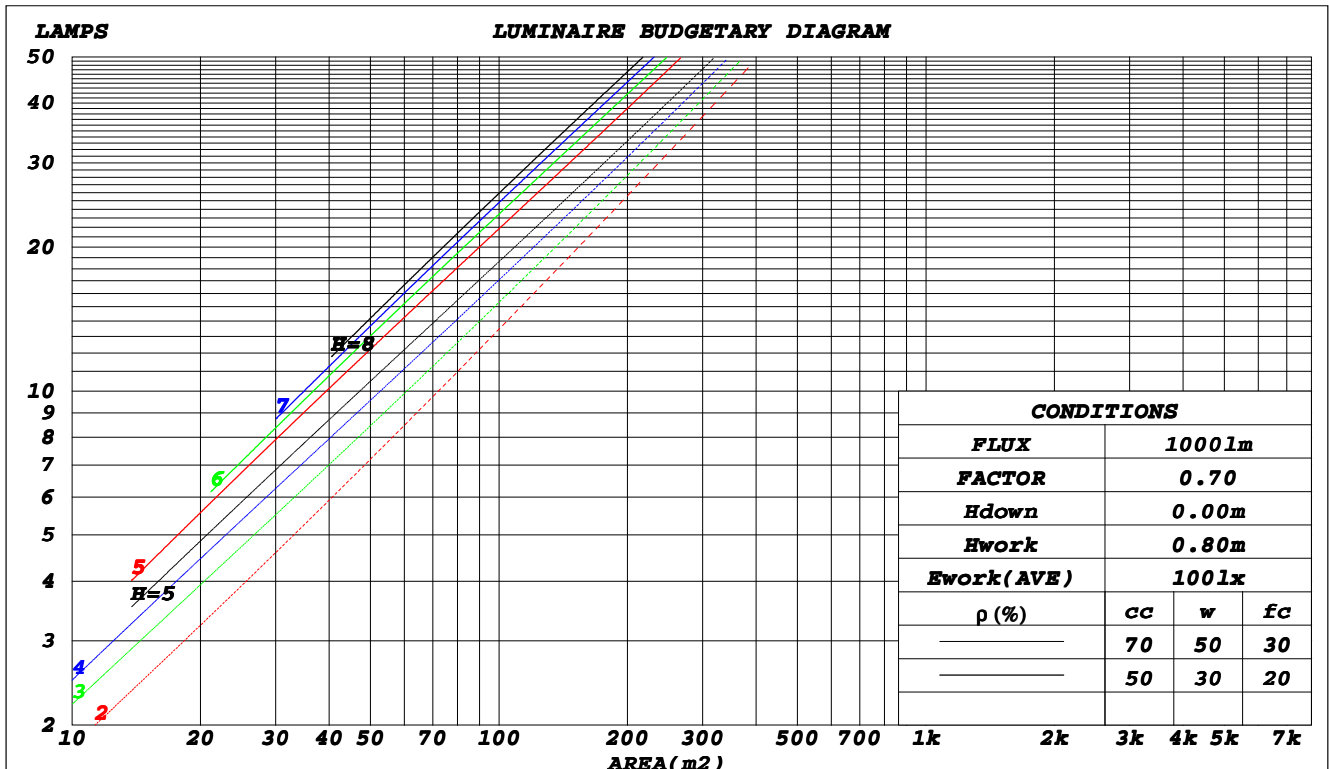
C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 18DEG  
 Operators: Sergei  
 Test Date: 2015-04-15

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
 Humidity: 65.0%  
 Test Distance: 9.000m [K=1.0000]  
 Remarks: LED

### CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:221.2V I:0.532A P:117.62W PF:0.9705 Lamp Flux:13106.4x1 lm		
NAME: SVT-Str P-S-120-400-10	TYPE:	WEIGHT:4
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	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	1.00
1.0	1.05	1.01	.98	1.03	.99	.96	.99	.96	.93	.95	.92	.90	.91	.89	.87	.85
2.0	.93	.87	.82	.92	.86	.81	.88	.83	.79	.85	.81	.77	.82	.79	.76	.74
3.0	.84	.77	.72	.83	.76	.71	.80	.74	.70	.77	.73	.68	.75	.71	.67	.65
4.0	.78	.70	.64	.76	.69	.64	.74	.68	.63	.72	.66	.62	.70	.65	.61	.59
5.0	.72	.65	.59	.71	.64	.59	.69	.63	.58	.67	.62	.58	.66	.61	.57	.55
6.0	.68	.61	.55	.67	.60	.55	.66	.59	.55	.64	.59	.54	.63	.58	.54	.52
7.0	.65	.58	.53	.64	.57	.52	.63	.57	.52	.61	.56	.52	.60	.55	.52	.50
8.0	.62	.55	.51	.61	.55	.50	.60	.54	.50	.59	.54	.50	.58	.53	.50	.48
9.0	.60	.53	.49	.59	.53	.49	.58	.53	.49	.57	.52	.49	.57	.52	.48	.47
10.0	.58	.52	.48	.58	.52	.48	.57	.51	.48	.56	.51	.47	.55	.51	.47	.46



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:18DEG  
Operators:Sergei  
Test Date:2015-04-15

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks: LED

**WEC AND CCEC**

Test:U:221.2V I:0.532A P:117.62W PF:0.9705 Lamp Flux:13106.4x1 lm		
NAME: SVT-Str P-S-120-400-10	TYPE:	WEIGHT:4
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

$\rho_{cc}$	80%			70%			50%			30%			10%			0	
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
$\rho_{fc}$	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.287	.163	.052	.280	.159	.051	.266	.153	.049	.254	.147	.047	.243	.141	.045		
2.0	.263	.144	.044	.256	.141	.044	.245	.136	.042	.234	.132	.041	.225	.127	.040		
3.0	.237	.126	.038	.232	.124	.037	.222	.120	.037	.213	.117	.036	.204	.113	.035		
4.0	.214	.111	.033	.209	.110	.032	.201	.106	.032	.193	.103	.031	.185	.101	.031		
5.0	.194	.099	.029	.190	.097	.028	.182	.095	.028	.175	.092	.027	.168	.090	.027		
6.0	.176	.088	.025	.173	.087	.025	.166	.085	.025	.160	.083	.024	.154	.081	.024		
7.0	.161	.080	.023	.158	.079	.022	.152	.077	.022	.147	.075	.022	.142	.074	.022		
8.0	.148	.073	.020	.146	.072	.020	.141	.070	.020	.136	.069	.020	.131	.067	.020		
9.0	.137	.066	.019	.135	.066	.018	.130	.064	.018	.126	.063	.018	.122	.062	.018		
10.0	.128	.061	.017	.126	.061	.017	.122	.060	.017	.118	.058	.017	.114	.057	.016		

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.168	.132	.102	.144	.114	.088	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.158	.114	.079	.136	.098	.068	.093	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.148	.100	.064	.127	.087	.055	.087	.060	.039	.051	.035	.023	.016	.012	.008	
5.0	.139	.089	.053	.119	.077	.046	.082	.054	.032	.047	.032	.019	.015	.010	.006	
6.0	.130	.080	.045	.111	.069	.039	.077	.049	.027	.045	.029	.016	.014	.009	.005	
7.0	.121	.072	.038	.104	.063	.033	.072	.044	.024	.042	.026	.014	.014	.008	.005	
8.0	.114	.066	.033	.098	.057	.029	.068	.040	.021	.039	.024	.012	.013	.008	.004	
9.0	.107	.061	.030	.092	.053	.026	.064	.037	.018	.037	.022	.011	.012	.007	.004	
10.0	.100	.056	.026	.086	.049	.023	.060	.034	.016	.035	.020	.010	.011	.007	.003	

**C Range: 0 - 360DEG**  
**C Interval: 5.0DEG**  
**Test Speed: HIGH**  
**Temperature:18DEG**  
**Operators:Sergei**  
**Test Date:2015-04-15**

**$\gamma$  Range: 0 - 90DEG**  
 **$\gamma$  Interval: 0.5DEG**  
**Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265**  
**Humidity:65.0%**  
**Test Distance:9.000m [K=1.0000]**  
**Remarks: LED**

### Uncorrected UGR Table

Test:U:221.2V I:0.532A P:117.62W PF:0.9705    Lamp Flux:13106.4x1 lm											
NAME: SVT-Str P-S-120-400-10					TYPE:			WEIGHT:4			
DIM.:					SPEC.:			SERIAL No.:			
MFR.:					SUR.:			PROTECTION ANGLE:			
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	18.0	19.2	18.3	19.4	19.6	12.0	13.2	12.2	13.4	13.5	
3H	18.2	19.3	18.4	19.5	19.8	12.5	13.6	12.7	13.8	14.1	
4H	18.1	19.2	18.4	19.4	19.7	12.6	13.7	12.9	13.9	14.2	
6H	18.0	19.1	18.3	19.3	19.6	12.6	13.7	13.0	14.0	14.2	
8H	17.9	19.0	18.3	19.2	19.5	12.7	13.7	13.0	14.0	14.3	
12H	17.9	18.9	18.2	19.2	19.5	12.7	13.7	13.0	14.0	14.3	
4H	2H	18.9	20.0	19.2	20.3	20.5	16.3	17.5	16.6	17.7	17.9
3H	19.2	20.2	19.5	20.5	20.7	17.8	18.8	18.2	19.1	19.4	
4H	19.1	20.1	19.5	20.4	20.7	18.1	19.1	18.5	19.4	19.7	
6H	19.1	19.9	19.4	20.2	20.6	18.2	19.1	18.6	19.4	19.8	
8H	19.0	19.8	19.4	20.2	20.5	18.2	19.0	18.6	19.3	19.7	
12H	19.0	19.7	19.4	20.1	20.5	18.2	18.9	18.6	19.3	19.7	
8H	4H	19.9	20.7	20.3	21.0	21.4	19.4	20.1	19.8	20.5	20.9
6H	19.9	20.6	20.3	21.0	21.4	20.1	20.8	20.5	21.2	21.6	
8H	19.9	20.5	20.3	20.9	21.3	20.3	20.8	20.7	21.3	21.7	
12H	19.8	20.4	20.3	20.8	21.3	20.3	20.8	20.8	21.2	21.7	
12H	4H	20.0	20.7	20.4	21.1	21.5	19.3	20.1	19.8	20.5	20.9
6H	20.2	20.8	20.6	21.2	21.7	20.3	20.9	20.8	21.3	21.8	
8H	20.2	20.7	20.7	21.2	21.6	20.7	21.2	21.2	21.7	22.1	
Variations with the observer position at spacings:											
S = 1.0H	+ 0.6 / - 1.7					+ 0.1 / - 0.1					
1.5H	+ 1.0 / - 1.2					+ 0.4 / - 0.6					
2.0H	+ 3.1 / - 4.6					+ 1.6 / - 1.2					

CIE Pub.117 Corrected 13106 lm Total Lamp Luminous Flux.(8log(F/F0) = 4.9)

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:18DEG  
Operators:Sergei  
Test Date:2015-04-15

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks: LED

# UTILIZATION FACTORS TABLE

Test:U:221.2V I:0.532A P:117.62W PF:0.9705 Lamp Flux:13106.4x1 lm		
NAME: SVT-Str P-S-120-400-10	TYPE:	WEIGHT:4
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

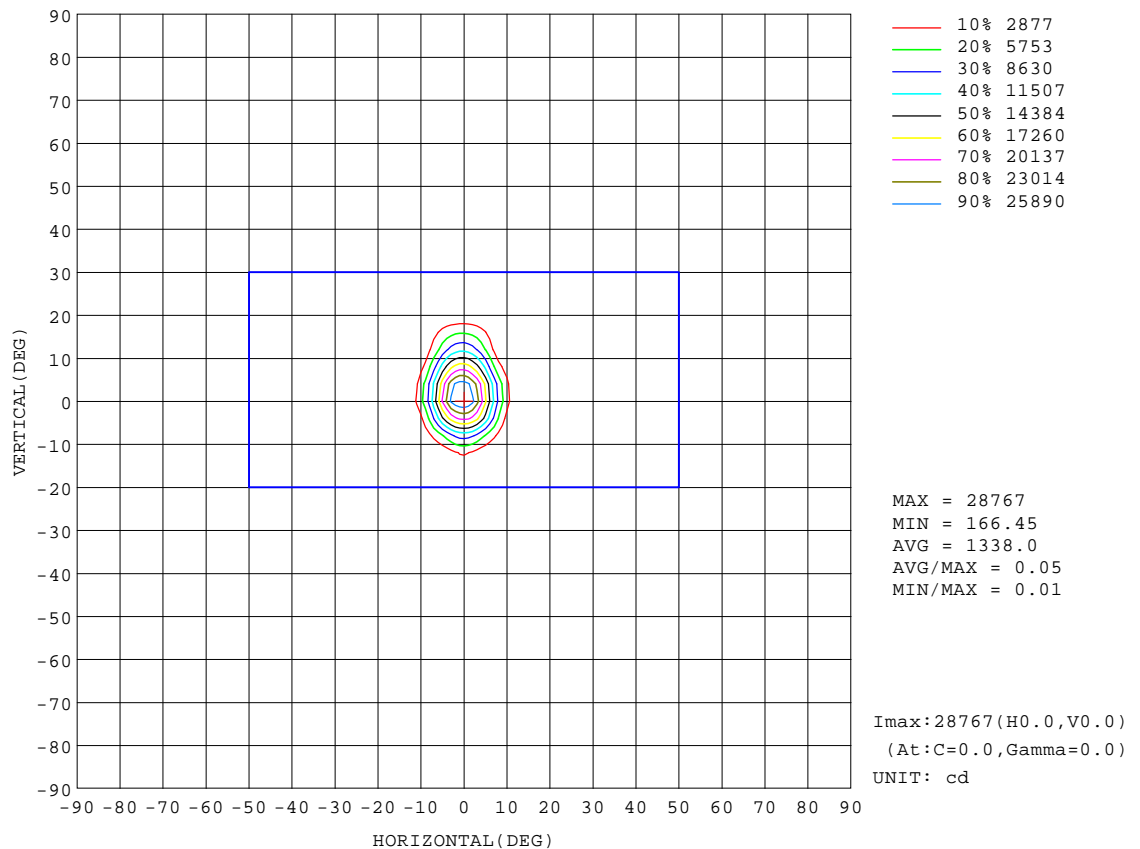
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	63	52	45	62	52	45	61	51	45	39
0.80	71	60	53	70	60	53	68	59	53	46
1.00	78	67	60	76	66	60	74	68	59	52
1.25	84	74	67	82	73	66	80	71	65	58
1.50	89	79	72	87	78	71	84	76	70	63
2.00	95	86	80	93	85	79	90	83	78	70
2.50	99	91	85	97	90	84	93	87	82	74
3.00	102	95	90	100	94	89	96	91	87	78
4.00	107	101	96	104	99	95	100	96	92	84
5.00	109	105	101	107	103	99	102	99	96	87
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

**C Range: 0 - 360DEG**  
**C Interval: 5.0DEG**  
**Test Speed: HIGH**  
**Temperature:18DEG**  
**Operators:Sergei**  
**Test Date:2015-04-15**

**$\gamma$  Range: 0 - 90DEG**  
 **$\gamma$  Interval: 0.5DEG**  
**Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265**  
**Humidity:65.0%**  
**Test Distance:9.000m [K=1.0000]**  
**Remarks: LED**

# ISOCANDELA DIAGRAM

Test:U:221.2V I:0.532A P:117.62W PF:0.9705 Lamp Flux:13106.4x1 lm		
NAME: SVT-Str P-S-120-400-10	TYPE:	WEIGHT:4
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



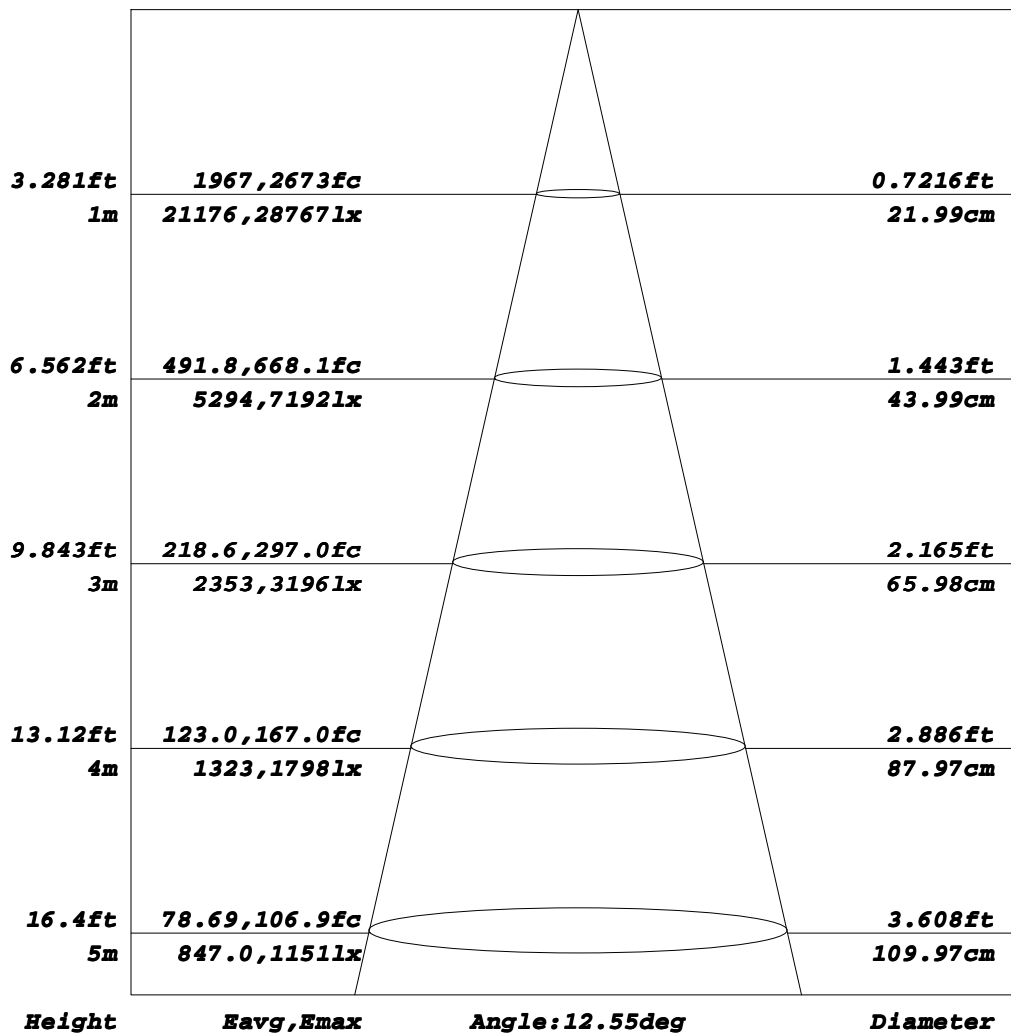
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:18DEG  
Operators:Sergei  
Test Date:2015-04-15

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks: LED

**AAI Figure**

Test:U:221.2V I:0.532A P:117.62W PF:0.9705 Lamp Flux:13106.4x1 lm		
NAME: SVT-Str P-S-120-400-10	TYPE:	WEIGHT:4
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

**Flux out:863.6 lm**



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

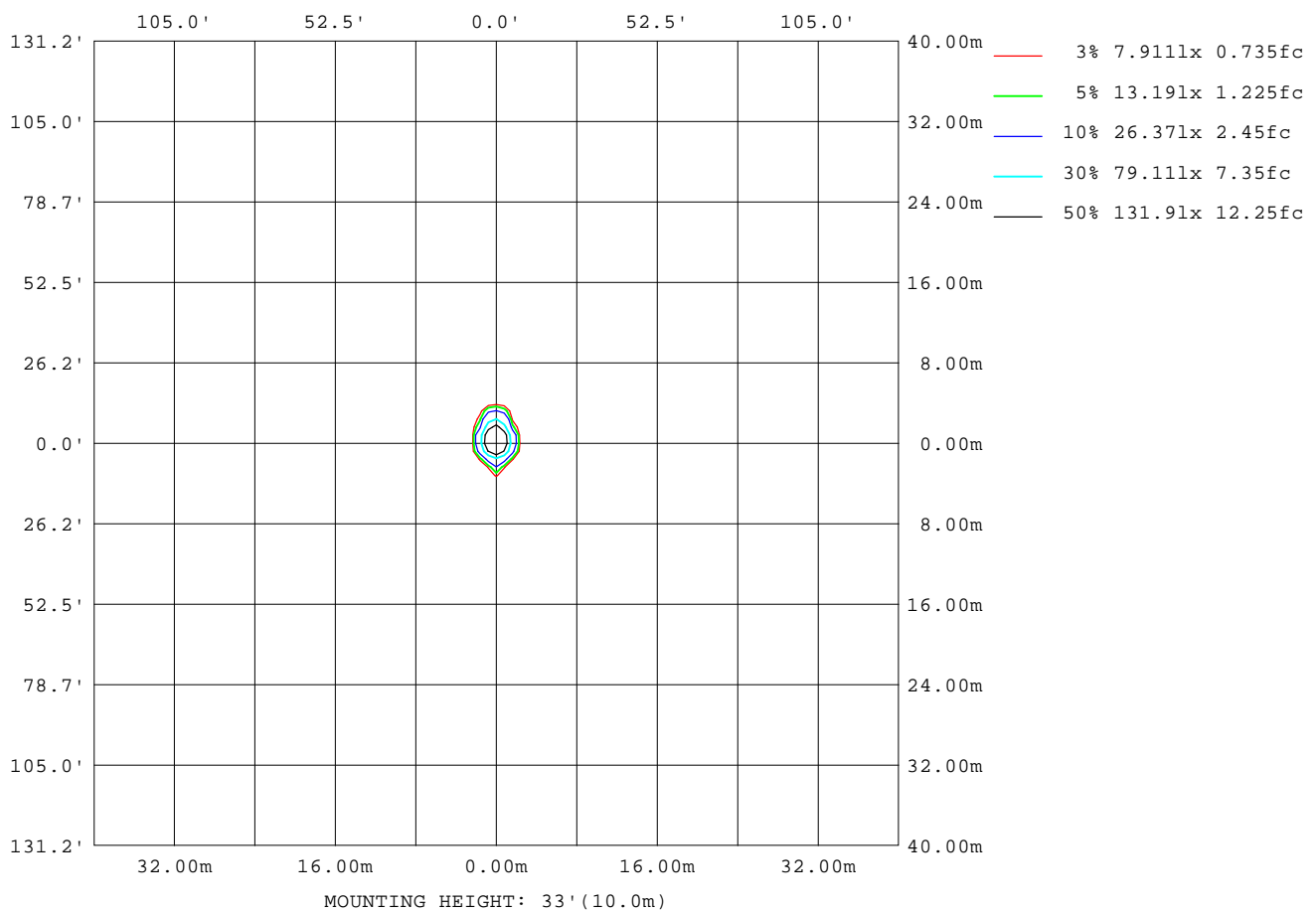
**C Range: 0 - 360DEG**  
**C Interval: 5.0DEG**  
**Test Speed: HIGH**  
**Temperature: 18DEG**  
**Operators: Sergei**  
**Test Date: 2015-04-15**

**γ Range: 0 - 90DEG**  
**γ Interval: 0.5DEG**  
**Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.265**  
**Humidity: 65.0%**  
**Test Distance: 9.000m [K=1.0000]**  
**Remarks: LED**



# ISOLUX DIAGRAM

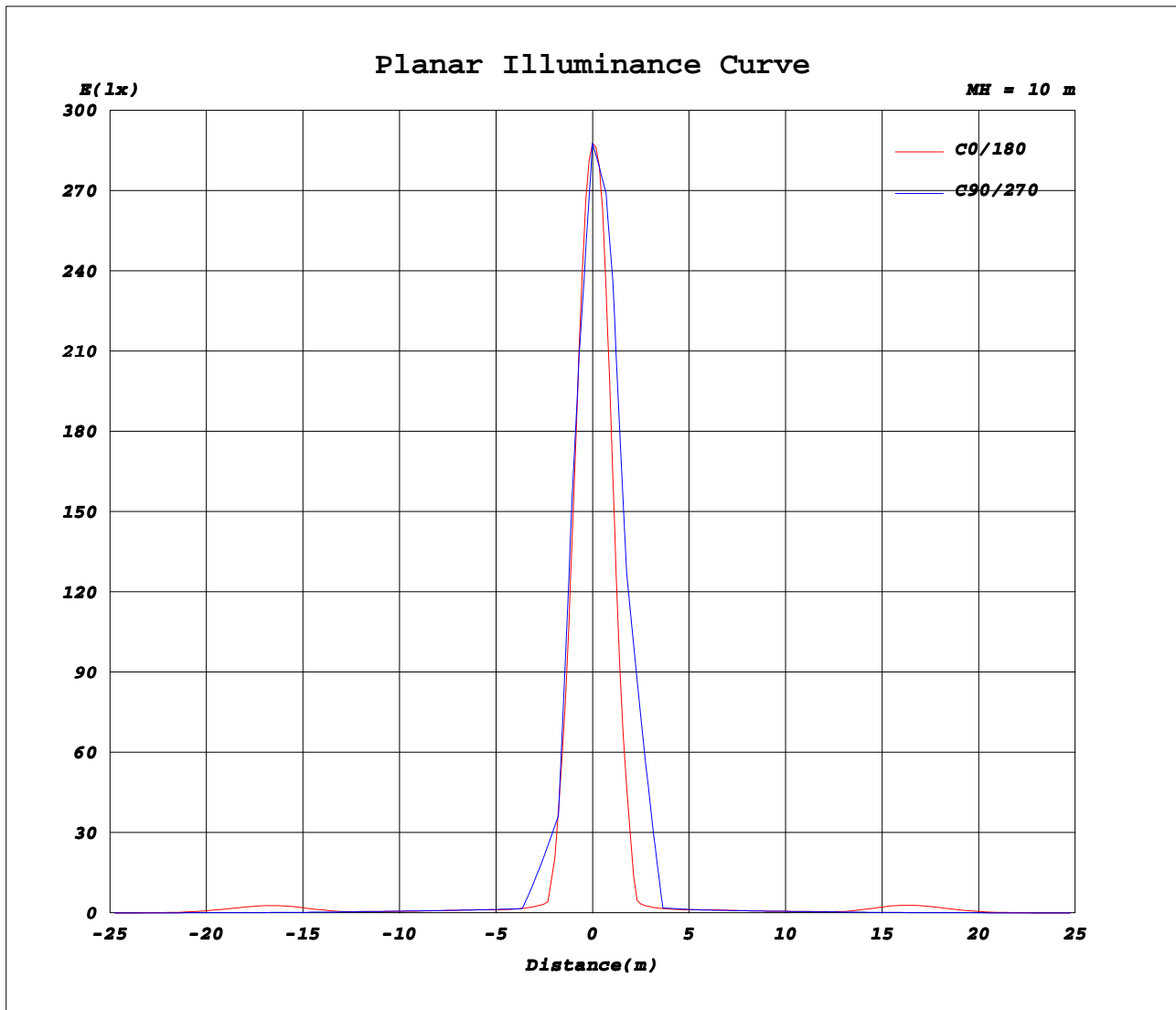
Test:U:221.2V I:0.532A P:117.62W PF:0.9705 Lamp Flux:13106.4x1 lm		
NAME: SVT-Str P-S-120-400-10	TYPE:	WEIGHT:4
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:18DEG  
Operators:Sergei  
Test Date:2015-04-15

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks: LED

## Planar Illuminance Curve



**C Range:** 0 - 360DEG  
**C Interval:** 5.0DEG  
**Test Speed:** HIGH  
**Temperature:** 18DEG  
**Operators:** Sergei  
**Test Date:** 2015-04-15

**γ Range:** 0 - 90DEG  
**γ Interval:** 0.5DEG  
**Test System:** EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
**Humidity:** 65.0%  
**Test Distance:** 9.000m [K=1.0000]  
**Remarks:** LED

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:221.2V I:0.532A P:117.62W PF:0.9705 Lamp Flux:13106.4x1 lm		
NAME: SVT-Str P-S-120-400-10	TYPE:	WEIGHT:4
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: ;Á10cd

[illegible]

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 18DEG  
Operators: Sergei  
Test Date: 2015-04-15

```

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks: LED

```

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:221.2V I:0.532A P:117.62W PF:0.9705 Lamp Flux:13106.4x1 lm		
NAME: SVT-Str P-S-120-400-10	TYPE:	WEIGHT:4
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: 10cd

[illegible]

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 18DEG  
Operators: Sergei  
Test Date: 2015-04-15

```

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks: LED

```

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:221.2V I:0.532A P:117.62W PF:0.9705 Lamp Flux:13106.4x1 lm		
NAME: SVT-Str P-S-120-400-10	TYPE:	WEIGHT:4
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table--3

UNIT: ;Á10cd

[illegible]

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 18DEG  
Operators: Sergei  
Test Date: 2015-04-15

```

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks: LED

```

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:221.2V I:0.532A P:117.62W PF:0.9705 Lamp Flux:13106.4x1 lm		
NAME: SVT-Str P-S-120-400-10	TYPE:	WEIGHT:4
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table--4

UNIT: 10cd

[illegible]

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 18DEG  
Operators: Sergei  
Test Date: 2015-04-15

```

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks: LED

```