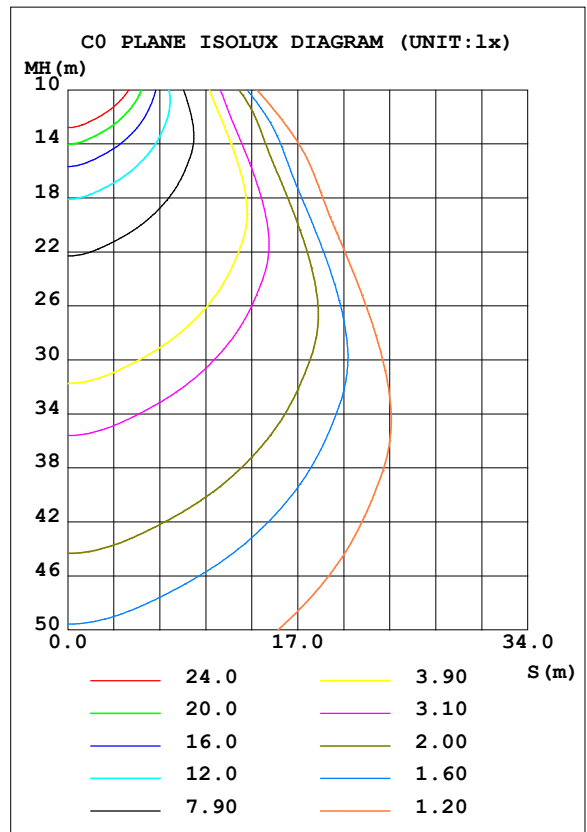
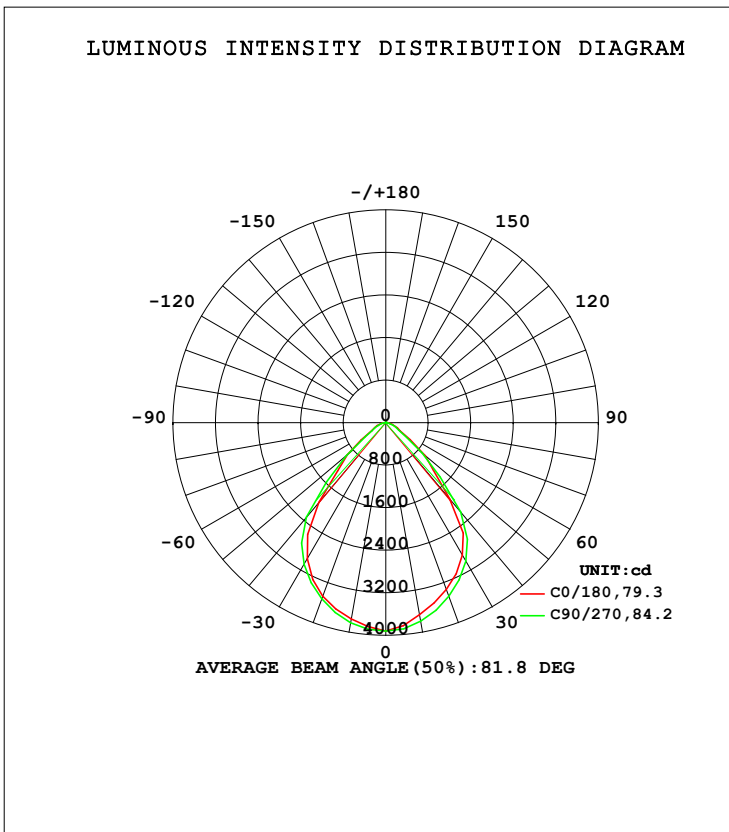


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.22V I:0.2958A P:64.125W PF:0.9844 Freq:49.99Hz Lamp Flux:6500.83x1 lm		
NAME: FLORENCIA-193100	TYPE:LED	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 101.38 lm/W			
MODEL	PL6060-TF-72W-UGR16	I <sub>max</sub> (cd)	3921	S/MH (C0/180)	1.14
NOMINAL POWER (W)	72	LOR (%)	100.0	S/MH (C90/270)	1.18
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	6500.8	η UP, DN (C0-180)	0.1, 49.3
NOMINAL FLUX (lm)	6500.83	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.1, 50.6
LAMPS INSIDE	1	η up (%)	0.2	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220.0	η down (%)	99.8	CIBSE SHR MAX	1.25



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: King  
 Test Date: 2023-06-08

γ Range: 0 - 120DEG  
 γ Interval: 5.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity: 65.0%  
 Test Distance: 9.950m [K=1.0000]  
 Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

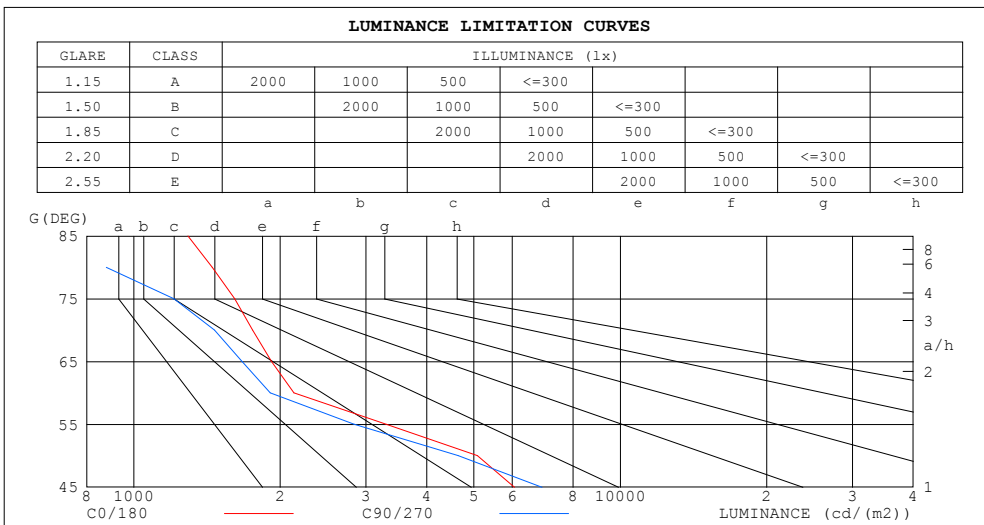
$\gamma$	C0	C90	C180	C270					$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	3665	3792	3746	3820					0- 10	365.8	365.8	5.63,5.63
20	3336	3472	3473	3525					10- 20	1021	1386	21.3,21.3
30	2877	3013	2958	3079					20- 30	1490	2877	44.2,44.2
40	1867	2197	1959	2321					30- 40	1616	4492	69.1,69.1
50	968.3	888.2	942.4	970.4					40- 50	1117	5609	86.3,86.3
60	316.3	283.8	310.4	301.0					50- 60	508.6	6117	94.1,94.1
70	177.9	149.1	173.1	158.5					60- 70	227.9	6345	97.6,97.6
80	74.65	45.36	69.04	52.78					70- 80	117.0	6462	99.4,99.4
90	3.056	1.125	1.224	1.958					80- 90	28.53	6491	99.8,99.8
100	1.411	1.522	1.979	1.687					90-100	1.599	6492	99.9,99.9
110	2.739	3.211	3.682	3.533					100-110	2.526	6495	99.9,99.9
120	5.166	6.050	6.397	6.384					110-120	4.558	6499	100,100
130	0	0	0	0					120-130	1.387	6501	100,100
140	0	0	0	0					130-140	0	6501	100,100
150	0	0	0	0					140-150	0	6501	100,100
160	0	0	0	0					150-160	0	6501	100,100
170	0	0	0	0					160-170	0	6501	100,100
180	0	0	0	0					170-180	0	6501	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:King  
 Test Date:2023-06-08

$\gamma$  Range: 0 - 120DEG  
 $\gamma$  Interval: 5.0DEG  
 $\gamma$  Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity:65.0%  
 Test Distance:9.950m [K=1.0000]  
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.22V I:0.2958A P:64.125W PF:0.9844 Freq:49.99Hz Lamp Flux:6500.83x1 lm		
NAME: FLORENCIA-193100	TYPE:LED	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:



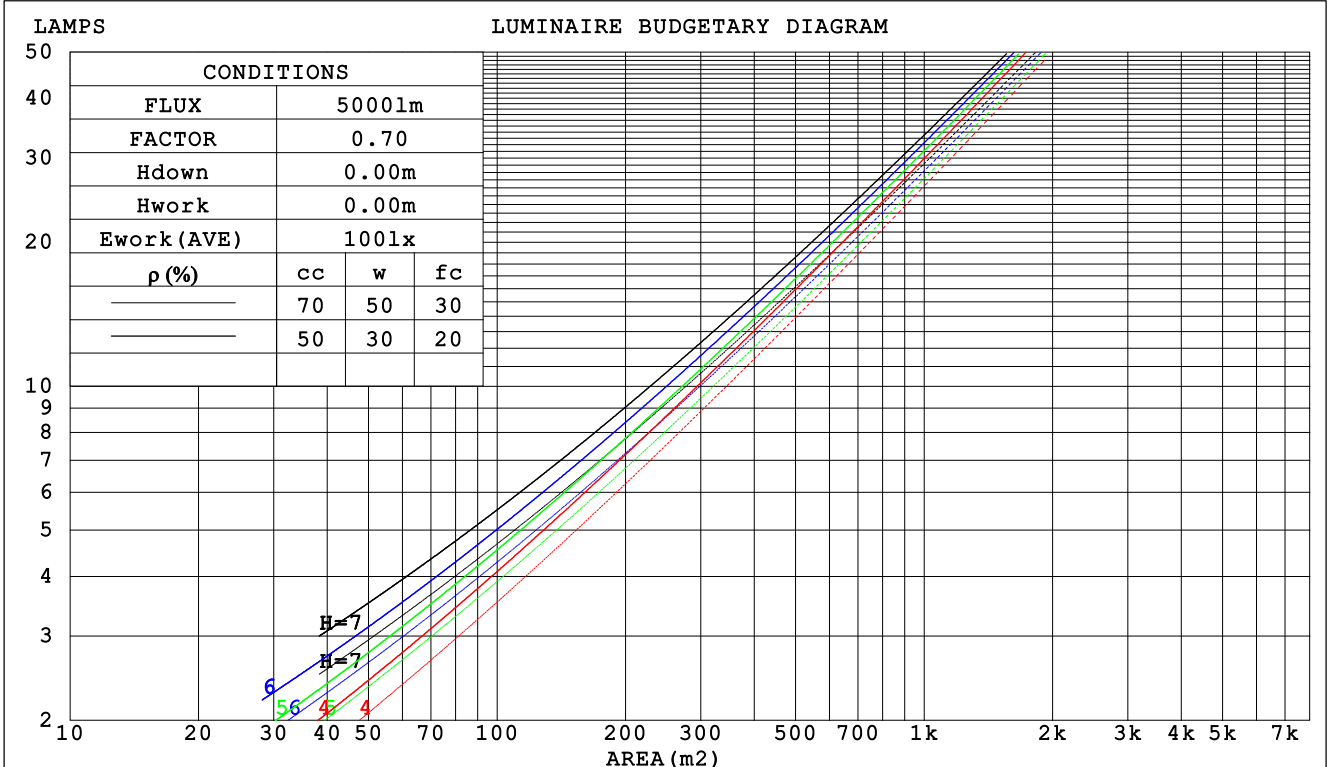
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:King  
 Test Date:2023-06-08

$\gamma$  Range: 0 - 120DEG  
 $\gamma$  Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity:65.0%  
 Test Distance:9.950m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.22V I:0.2958A P:64.125W PF:0.9844 Freq:49.99Hz Lamp Flux:6500.83x1 lm		
NAME: FLORENCIA-193100	TYPE:LED	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:

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															
	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	1.08	1.05	1.02	1.06	1.03	1.00	1.02	.99	.97	.98	.96	.94	.94	.93	.91	.90
2.0	.98	.93	.88	.96	.91	.87	.93	.89	.85	.89	.86	.83	.87	.84	.82	.80
3.0	.89	.82	.77	.87	.81	.77	.84	.79	.75	.82	.78	.74	.79	.76	.73	.71
4.0	.81	.74	.68	.80	.73	.68	.77	.72	.67	.75	.70	.66	.73	.69	.65	.64
5.0	.74	.66	.61	.73	.66	.61	.71	.65	.60	.69	.64	.59	.67	.63	.59	.57
6.0	.68	.60	.55	.67	.60	.55	.65	.59	.54	.64	.58	.54	.62	.57	.53	.52
7.0	.62	.55	.50	.62	.55	.49	.60	.54	.49	.59	.53	.49	.58	.52	.49	.47
8.0	.58	.50	.45	.57	.50	.45	.56	.49	.45	.55	.49	.45	.53	.48	.44	.43
9.0	.53	.46	.41	.53	.46	.41	.52	.46	.41	.51	.45	.41	.50	.45	.41	.39
10.0	.50	.43	.38	.49	.43	.38	.48	.42	.38	.47	.42	.38	.47	.41	.38	.36



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:King  
 Test Date:2023-06-08

γ Range: 0 - 120DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity:65.0%  
 Test Distance:9.950m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:220.22V I:0.2958A P:64.125W PF:0.9844 Freq:49.99Hz Lamp Flux:6500.83x1 lm		
NAME: FLORENCIA-193100	TYPE:LED	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:

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	.229	.130	.041	.222	.126	.040	.209	.120	.038	.197	.114	.036	.186	.108	.035	
2.0	.221	.121	.037	.215	.118	.036	.204	.113	.035	.193	.108	.034	.184	.104	.033	
3.0	.210	.112	.033	.205	.110	.033	.195	.106	.032	.186	.102	.031	.178	.098	.030	
4.0	.198	.103	.030	.194	.101	.030	.185	.098	.029	.177	.095	.029	.170	.092	.028	
5.0	.188	.096	.028	.184	.094	.027	.176	.092	.027	.169	.089	.027	.163	.087	.026	
6.0	.177	.089	.025	.174	.088	.025	.167	.086	.025	.161	.084	.025	.155	.082	.024	
7.0	.168	.083	.024	.165	.082	.023	.159	.080	.023	.153	.079	.023	.148	.077	.023	
8.0	.159	.078	.022	.156	.077	.022	.151	.075	.022	.146	.074	.021	.141	.073	.021	
9.0	.151	.073	.020	.149	.072	.020	.144	.071	.020	.139	.070	.020	.135	.069	.020	
10.0	.144	.069	.019	.141	.068	.019	.137	.067	.019	.133	.066	.019	.129	.065	.019	

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																
1.0	.192	.192	.192	.164	.164	.164	.112	.112	.112	.064	.064	.064	.021	.021	.021	
2.0	.176	.158	.142	.150	.136	.122	.103	.093	.085	.059	.054	.049	.019	.017	.016	
3.0	.164	.133	.108	.140	.115	.093	.096	.079	.065	.055	.046	.038	.018	.015	.012	
4.0	.154	.115	.084	.132	.099	.073	.091	.069	.051	.052	.040	.030	.017	.013	.010	
5.0	.146	.101	.067	.125	.087	.058	.086	.061	.041	.050	.036	.024	.016	.012	.008	
6.0	.138	.090	.055	.119	.078	.048	.082	.054	.034	.047	.032	.020	.015	.010	.007	
7.0	.131	.081	.046	.113	.070	.040	.078	.049	.028	.045	.029	.017	.015	.009	.006	
8.0	.125	.074	.039	.108	.064	.034	.074	.045	.024	.043	.027	.014	.014	.009	.005	
9.0	.119	.068	.033	.103	.059	.029	.071	.042	.021	.041	.025	.012	.013	.008	.004	
10.0	.114	.063	.029	.098	.055	.025	.068	.039	.018	.040	.023	.011	.013	.007	.004	

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:King  
 Test Date:2023-06-08

γ Range: 0 - 120DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity:65.0%  
 Test Distance:9.950m [K=1.0000]  
 Remarks:

## UGR(Unified Glare Rating) Table

Test:U:220.22V I:0.2958A P:64.125W PF:0.9844 Freq:49.99Hz Lamp Flux:6500.83x1 lm										
NAME: FLORENCIA-193100					TYPE:LED			WEIGHT:		
SPEC.:4000K					DIM.:			SERIAL No.:01		
MANUFACTURE:BBT LIGHTING					SUR.:			Shielding 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	15.9	17.2	16.2	17.3	17.5	15.9	17.2	16.2	17.4	17.6
3H	16.2	17.3	16.5	17.6	17.8	16.1	17.3	16.4	17.5	17.7
4H	16.3	17.4	16.6	17.7	17.9	16.2	17.3	16.5	17.5	17.7
6H	16.4	17.4	16.8	17.7	18.0	16.2	17.2	16.5	17.4	17.7
8H	16.5	17.4	16.8	17.7	18.0	16.1	17.1	16.5	17.4	17.7
12H	16.5	17.4	16.8	17.7	18.0	16.1	17.0	16.4	17.3	17.6
4H 2H	15.9	17.0	16.2	17.2	17.4	15.9	17.0	16.2	17.2	17.5
3H	16.3	17.2	16.7	17.5	17.8	16.2	17.2	16.6	17.4	17.7
4H	16.6	17.4	16.9	17.7	18.0	16.4	17.2	16.7	17.5	17.8
6H	16.7	17.5	17.1	17.8	18.2	16.4	17.1	16.8	17.5	17.9
8H	16.8	17.5	17.2	17.8	18.2	16.4	17.1	16.8	17.4	17.8
12H	16.8	17.4	17.2	17.8	18.2	16.3	17.0	16.8	17.3	17.7
8H 4H	16.6	17.2	17.0	17.6	18.0	16.4	17.1	16.8	17.4	17.8
6H	16.8	17.4	17.2	17.8	18.2	16.5	17.0	16.9	17.4	17.9
8H	16.9	17.4	17.3	17.8	18.3	16.5	16.9	16.9	17.4	17.8
12H	17.0	17.4	17.4	17.8	18.3	16.4	16.8	16.9	17.3	17.8
12H 4H	16.5	17.1	16.9	17.5	17.9	16.4	17.0	16.8	17.4	17.8
6H	16.8	17.3	17.2	17.7	18.1	16.5	16.9	16.9	17.4	17.8
8H	16.9	17.3	17.4	17.7	18.2	16.4	16.9	16.9	17.3	17.8
Variations with the observer position at spacings:										
S = 1.0H	+ 1.3 / - 1.8					+ 1.6 / - 2.6				
1.5H	+ 1.4 / - 2.4					+ 2.2 / - 3.0				
2.0H	+ 3.0 / - 1.8					+ 3.7 / - 2.4				

CIE Pub.117, 6501 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = 6.5$ )

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:King  
Test Date:2023-06-08

$\gamma$  Range: 0 - 120DEG  
 $\gamma$  Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
Humidity:65.0%  
Test Distance:9.950m [K=1.0000]  
Remarks:

## UTILIZATION FACTORS TABLE

Test:U:220.22V I:0.2958A P:64.125W PF:0.9844 Freq:49.99Hz Lamp Flux:6500.83x1 lm		
NAME:FLORENCIA-193100	TYPE:LED	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:

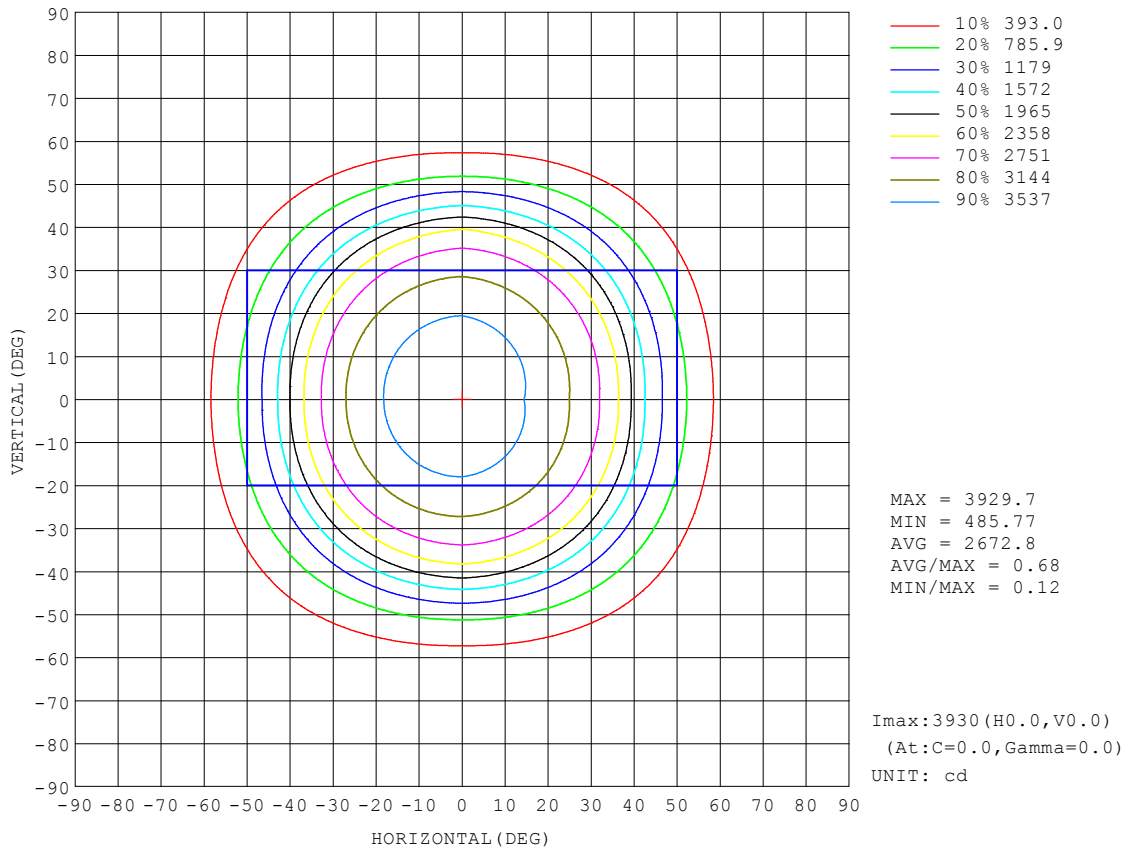
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	72	63	58	71	63	57	70	62	57	52
0.80	81	73	67	81	72	67	79	72	67	61
1.00	89	81	75	88	80	75	86	81	74	69
1.25	94	87	82	93	86	81	91	85	81	75
1.50	98	91	86	97	91	86	94	89	85	79
2.00	103	97	93	101	96	92	98	94	90	84
2.50	106	100	96	104	99	95	100	96	93	86
3.00	108	103	99	106	102	98	102	99	96	89
4.00	111	107	103	108	105	102	105	102	99	91
5.00	112	109	106	110	107	104	106	103	101	93
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  
Operators:King  
Test Date:2023-06-08

$\gamma$  Range: 0 - 120DEG  
 $\gamma$  Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
Humidity:65.0%  
Test Distance:9.950m [K=1.0000]  
Remarks:

### ISOCANDELA DIAGRAM

Test:U:220.22V I:0.2958A P:64.125W PF:0.9844 Freq:49.99Hz Lamp Flux:6500.83x1 lm		
NAME: FLORENCIA-193100	TYPE:LED	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:



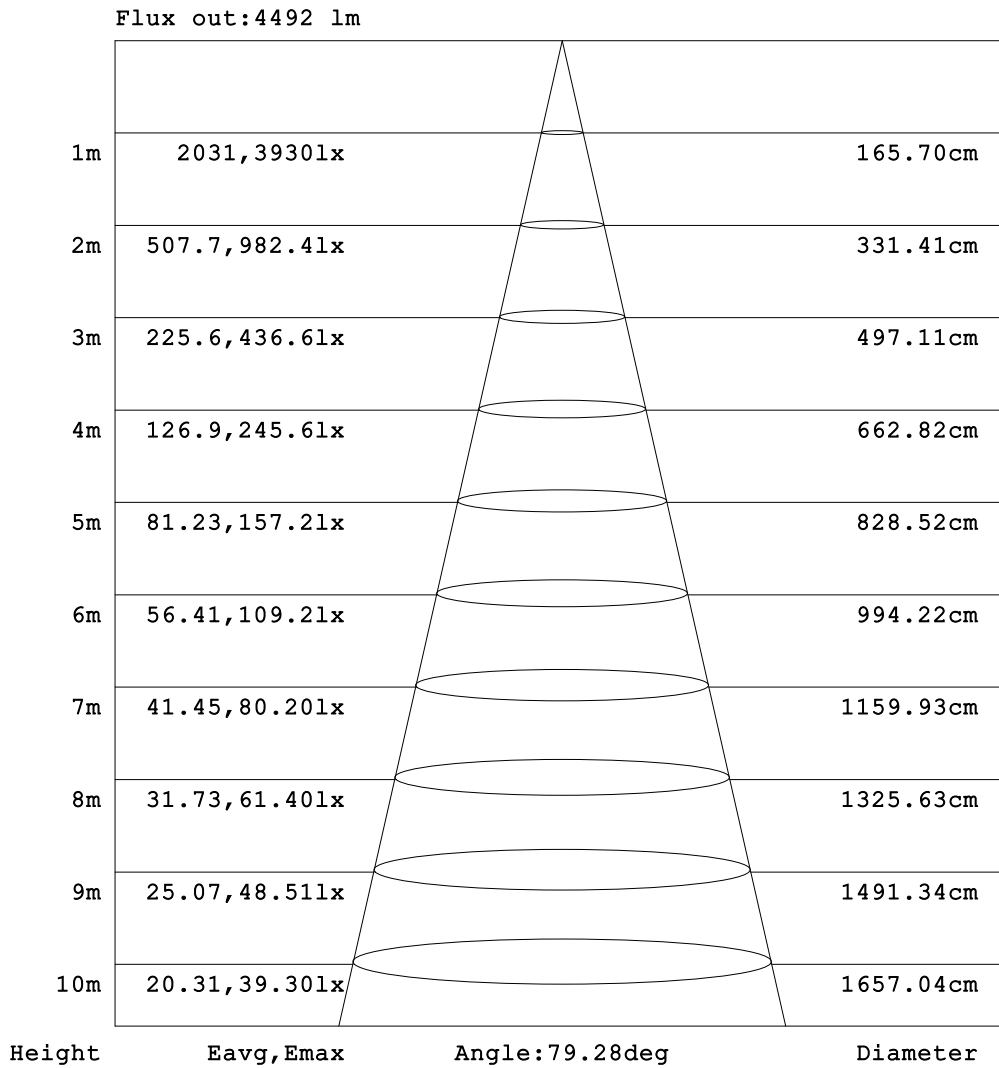
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:King  
 Test Date:2023-06-08

γ Range: 0 - 120DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity:65.0%  
 Test Distance:9.950m [K=1.0000]  
 Remarks:



**AAI Figure**

Test:U:220.22V I:0.2958A P:64.125W PF:0.9844 Freq:49.99Hz Lamp Flux:6500.83x1 lm		
NAME: FLORENCIA-193100	TYPE:LED	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:



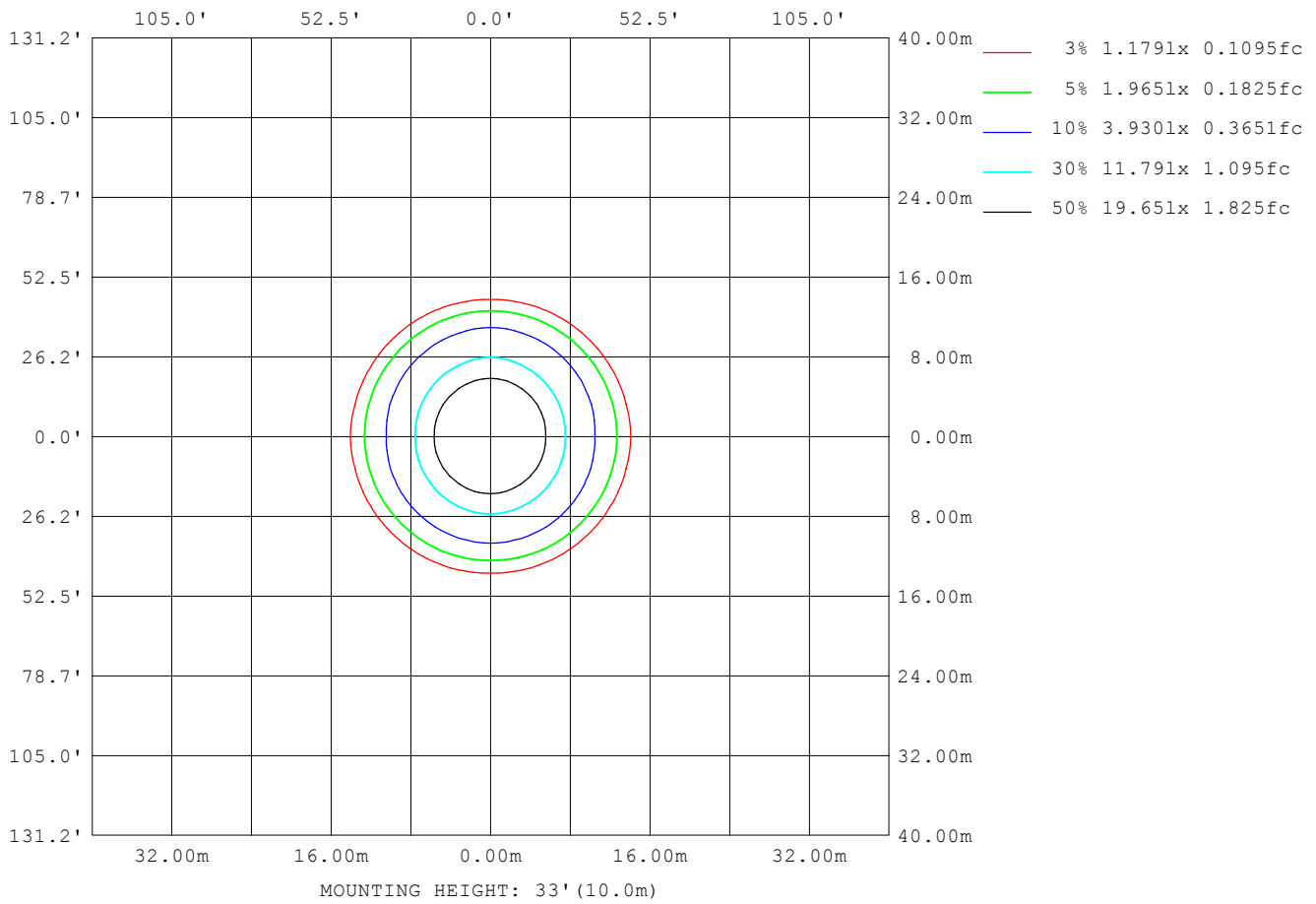
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:King  
 Test Date:2023-06-08

γ Range: 0 - 120DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity:65.0%  
 Test Distance:9.950m [K=1.0000]  
 Remarks:

ISOLUX DIAGRAM

Test:U:220.22V I:0.2958A P:64.125W PF:0.9844 Freq:49.99Hz Lamp Flux:6500.83x1 lm		
NAME: FLORENCIA-193100	TYPE:LED	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:King  
 Test Date:2023-06-08

$\gamma$  Range: 0 - 120DEG  
 $\gamma$  Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity:65.0%  
 Test Distance:9.950m [K=1.0000]  
 Remarks:

## LED Avg.L Report

Test:U:220.22V I:0.2958A P:64.125W PF:0.9844 Freq:49.99Hz Lamp Flux:6500.83x1 lm		
NAME: FLORENCIA-193100	TYPE:LED	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:

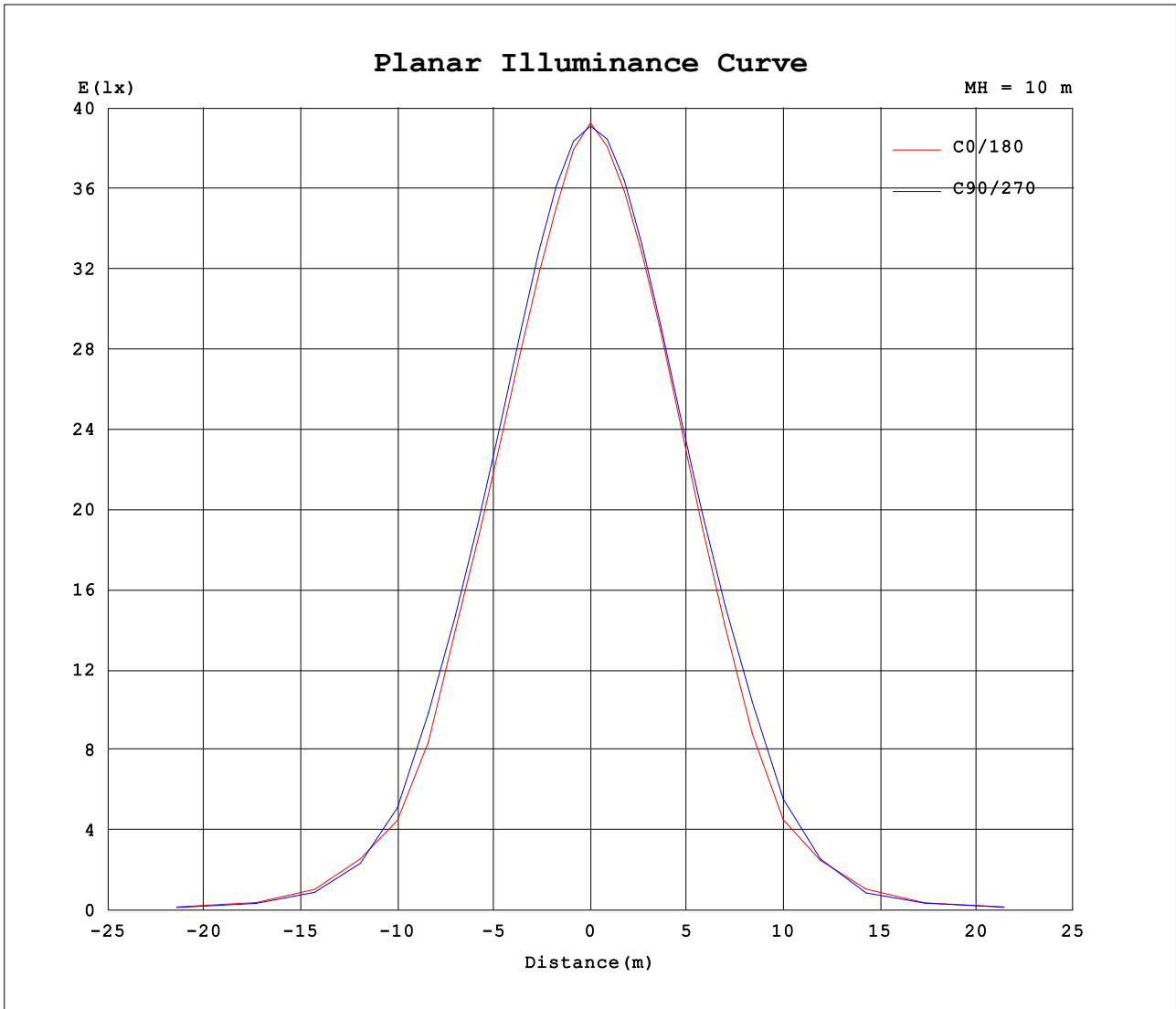
AvgL	cd/m2
L_0~180 (65) av	1890
L_0~180 (75) av	1570
L_0~180 (85) av	1199
L_90~270 (65) av	1722
L_90~270 (75) av	1269
L_90~270 (85) av	441
L_45 (65) av	1784
L_45 (75) av	1380
L_45 (85) av	721

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:King  
Test Date:2023-06-08

$\gamma$  Range: 0 - 120DEG  
 $\gamma$  Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
Humidity:65.0%  
Test Distance:9.950m [K=1.0000]  
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: King  
 Test Date: 2023-06-08

$\gamma$  Range: 0 - 120DEG  
 $\gamma$  Interval: 5.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity: 65.0%  
 Test Distance: 9.950m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.22V I:0.2958A P:64.125W PF:0.9844 Freq:49.99Hz Lamp Flux:6500.83x1 lm		
NAME: FLORENCIA-193100	TYPE:LED	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	90	180	270															
0	3921	3921	3921	3921															
5	3831	3889	3846	3900															
10	3665	3792	3746	3820															
15	3512	3654	3630	3693															
20	3336	3472	3473	3525															
25	3133	3265	3256	3322															
30	2877	3013	2958	3079															
35	2539	2680	2565	2767															
40	1867	2197	1959	2321															
45	1270	1453	1278	1579															
50	968	888	942	970															
55	561	484	567	471															
60	316	284	310	301															
65	240	210	234	222															
70	178	149	173	158															
75	124	93.1	118	102															
80	74.7	45.4	69.0	52.8															
85	33.4	9.41	28.7	13.4															
90	3.06	1.12	1.22	1.96															
95	1.04	1.09	1.48	1.12															
100	1.41	1.52	1.98	1.69															
105	1.95	2.19	2.66	2.46															
110	2.74	3.21	3.68	3.53															
115	3.88	4.53	4.95	4.90															
120	5.17	6.05	6.40	6.38															
125	0.00	0.00	0.00	0.00															
130	0.00	0.00	0.00	0.00															
135	0.00	0.00	0.00	0.00															
140	0.00	0.00	0.00	0.00															
145	0.00	0.00	0.00	0.00															
150	0.00	0.00	0.00	0.00															
155	0.00	0.00	0.00	0.00															
160	0.00	0.00	0.00	0.00															
165	0.00	0.00	0.00	0.00															
170	0.00	0.00	0.00	0.00															
175	0.00	0.00	0.00	0.00															
180	0.00	0.00	0.00	0.00															

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:King  
 Test Date:2023-06-08

γ Range: 0 - 120DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity:65.0%  
 Test Distance:9.950m [K=1.0000]  
 Remarks: