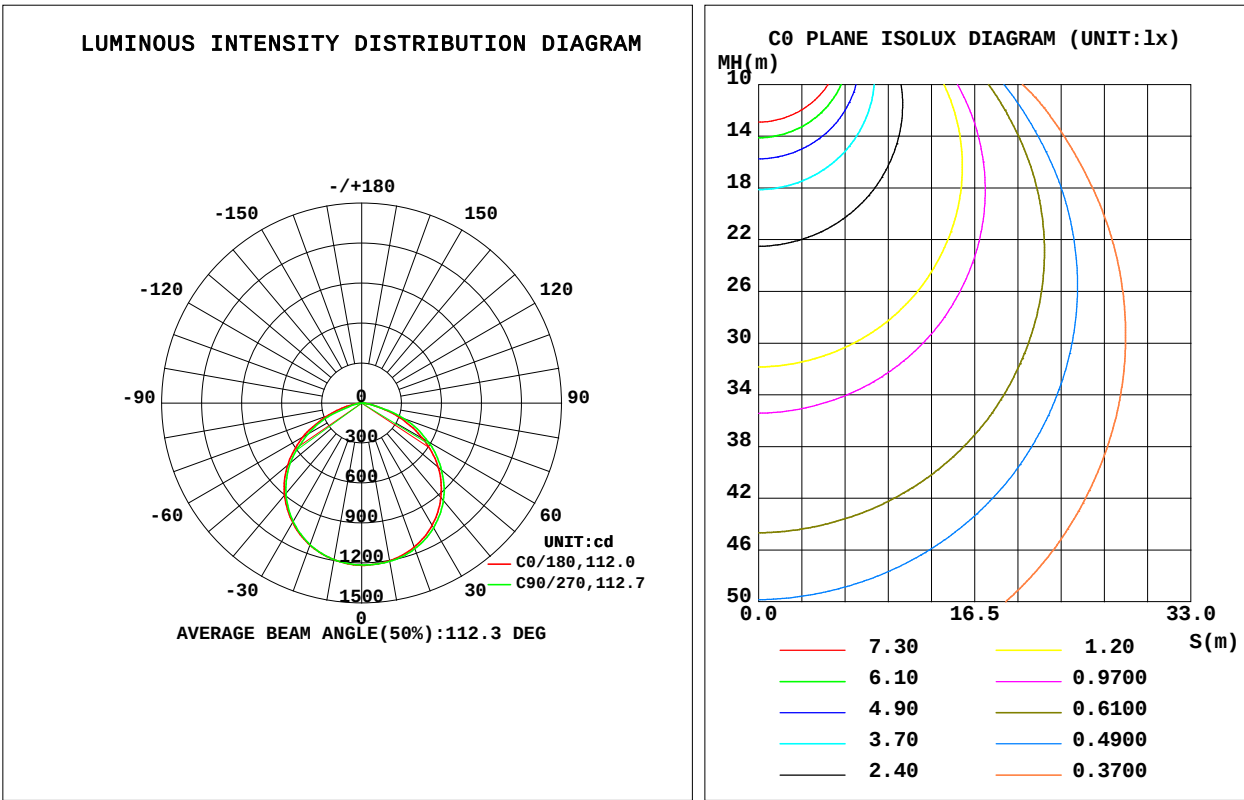


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.8V I:0.1860A P:40.20W PF:0.9770 Lamp Flux:3352.3x1 lm		
NAME: LAFA壁灯 上 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 83.39 lm/W			
MODEL		I _{max} (cd)	1217	S/MH(C0/180)	1.29
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.32
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	3352.3	η UP, DN(C0-180)	0.0,48.0
NOMINAL FLUX(lm)	3352.3	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,52.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	ϕ zone	ϕ total	%lum, lamp
10	1194	1194	1193	1197	1202	1204	1206	1198	0- 10	115.2	115.2	3.44, 3.44
20	1135	1133	1132	1141	1151	1160	1164	1150	10- 20	332.4	447.6	13.4, 13.4
30	1036	1031	1028	1043	1059	1077	1080	1062	20- 30	508.9	956.4	28.5, 28.5
40	901.5	886.8	884.1	900.2	924.7	947.2	954.8	930.8	30- 40	618.6	1575	47, 47
50	725.9	702.6	699.3	714.2	750.8	772.2	781.7	760.0	40- 50	641.7	2217	66.1, 66.1
60	510.3	475.8	464.9	487.3	528.4	547.3	573.2	536.0	50- 60	563.1	2780	82.9, 82.9
70	264.8	240.4	181.4	243.5	280.4	305.8	331.3	298.6	60- 70	389.6	3169	94.5, 94.5
80	64.78	39.32	36.26	41.56	67.75	71.95	73.77	67.02	70- 80	161.3	3331	99.4, 99.4
90	2.575	5.793	3.775	5.891	1.537	5.561	3.833	4.836	80- 90	21.50	3352	100, 100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 1899.1 lm

%lum = 56.7%
 %lamp = 56.7%

Conical surface Flux(120deg): 2779.9 lm

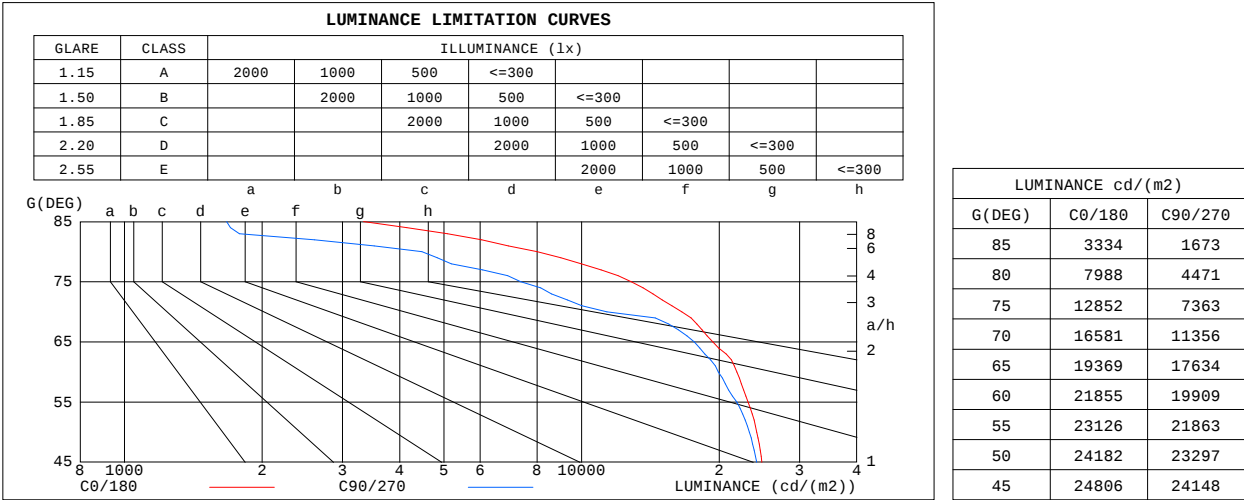
%lum = 82.9%
 %lamp = 82.9%

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
 Humidity: 65.0%
 Test Distance: 9.526m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.8V I:0.1860A P:40.20W PF:0.9770 Lamp Flux:3352.3x1 lm		
NAME: LAFA壁灯 上 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



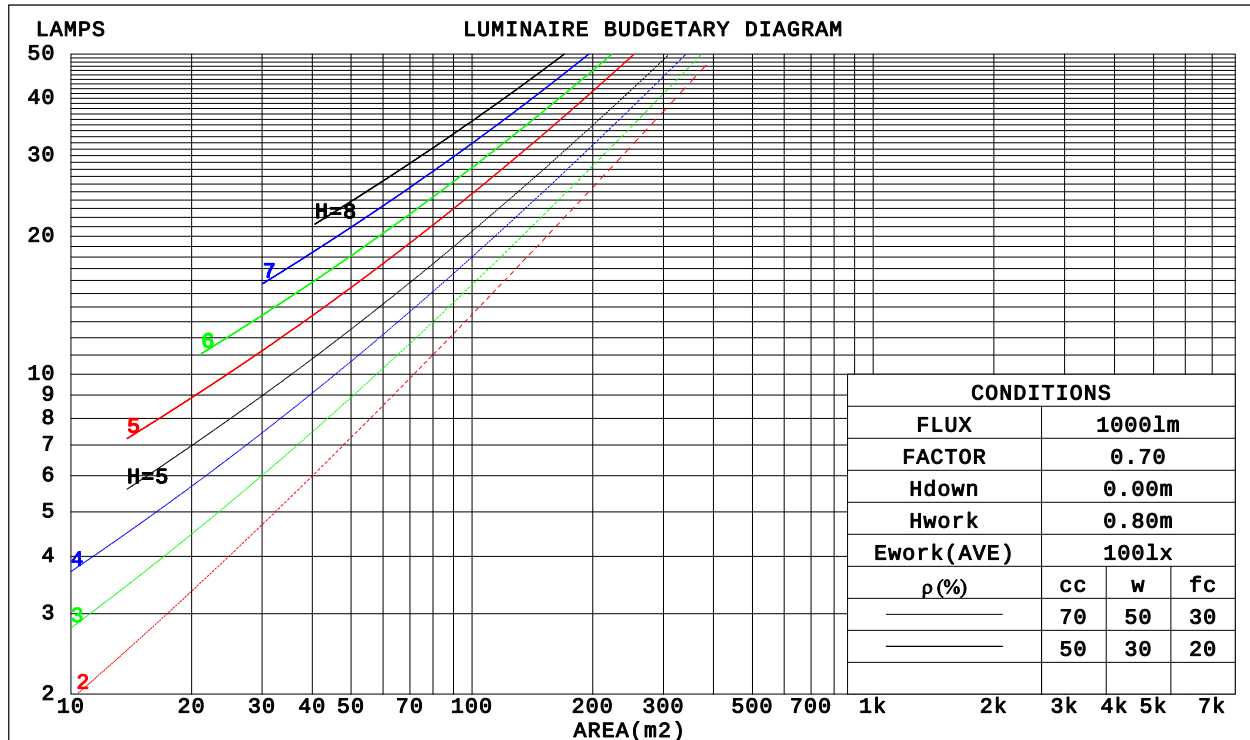
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.8V I:0.1860A P:40.20W PF:0.9770 Lamp Flux:3352.3x1 lm		
NAME: LAFA壁灯 上 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{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	.88	.86
2.0	.92	.86	.80	.90	.84	.79	.87	.82	.77	.84	.79	.76	.81	.77	.74	.72
3.0	.81	.73	.67	.80	.72	.66	.77	.70	.65	.74	.69	.64	.71	.67	.63	.61
4.0	.72	.63	.57	.71	.63	.57	.68	.61	.56	.66	.60	.55	.64	.59	.54	.52
5.0	.64	.56	.49	.63	.55	.49	.61	.54	.48	.59	.53	.48	.57	.52	.47	.45
6.0	.58	.49	.43	.57	.49	.43	.55	.48	.42	.54	.47	.42	.52	.46	.42	.40
7.0	.53	.44	.38	.52	.44	.38	.50	.43	.37	.49	.42	.37	.47	.41	.37	.35
8.0	.48	.40	.34	.47	.39	.34	.46	.39	.33	.45	.38	.33	.43	.37	.33	.31
9.0	.44	.36	.30	.43	.36	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.28
10.0	.41	.33	.27	.40	.32	.27	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295T
 Humidity: 65.0%
 Test Distance: 9.526m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:220.8V I:0.1860A P:40.20W PF:0.9770 Lamp Flux:3352.3x1 lm					
NAME: LAFA壁灯 上 4000K			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:		Shielding Angle:

ρ_{CC}	80%			70%			50%			30%			10%			0			
ρ_W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0			
ρ_{fc}	20%			20%			20%			20%			20%			0			
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)												
0.0																			
1.0	.285	.162	.051	.278	.158	.050	.264	.152	.048	.252	.146	.047	.241	.140	.045				
2.0	.275	.151	.046	.269	.148	.046	.257	.143	.044	.247	.138	.043	.237	.134	.042				
3.0	.258	.137	.041	.253	.135	.041	.243	.131	.040	.233	.128	.039	.224	.124	.038				
4.0	.241	.125	.037	.236	.123	.036	.227	.120	.036	.218	.117	.035	.211	.114	.035				
5.0	.224	.114	.033	.220	.113	.033	.212	.110	.032	.204	.108	.032	.197	.105	.032				
6.0	.209	.105	.030	.205	.104	.030	.198	.101	.030	.191	.099	.029	.185	.097	.029				
7.0	.195	.096	.027	.192	.096	.027	.185	.094	.027	.179	.092	.027	.174	.090	.027				
8.0	.183	.089	.025	.180	.088	.025	.174	.087	.025	.169	.085	.025	.163	.084	.024				
9.0	.172	.083	.023	.169	.082	.023	.164	.081	.023	.159	.080	.023	.154	.078	.023				
10.0	.162	.078	.022	.159	.077	.021	.155	.076	.021	.150	.075	.021	.146	.073	.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	.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	.170	.132	.100	.146	.114	.086	.100	.079	.060	.058	.046	.035	.018	.015	.012	
3.0	.162	.114	.076	.139	.099	.066	.095	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.060	.133	.087	.052	.091	.061	.036	.053	.036	.022	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.087	.055	.030	.051	.032	.018	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.526m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.8V I:0.1860A P:40.20W PF:0.9770 Lamp Flux:3352.3x1 lm											
NAME: LAFA壁灯 上 4000K						TYPE:			WEIGHT:		
SPEC.:						DIM.:			SERIAL No.:		
MFR.:						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	2H	23.7	25.1	23.9	25.3	25.5	23.4	24.9	23.7	25.1	25.3
	3H	24.8	26.1	25.1	26.4	26.6	24.3	25.6	24.6	25.9	26.1
	4H	25.1	26.4	25.4	26.6	26.9	24.4	25.7	24.7	25.9	26.2
	6H	25.2	26.4	25.5	26.7	26.9	24.4	25.6	24.7	25.8	26.1
	8H	25.2	26.3	25.5	26.6	26.9	24.3	25.5	24.6	25.8	26.1
	12H	25.1	26.3	25.5	26.5	26.8	24.3	25.4	24.6	25.7	26.0
4H	2H	24.1	25.4	24.4	25.6	25.9	23.9	25.2	24.2	25.4	25.7
	3H	25.3	26.5	25.7	26.8	27.1	24.9	26.0	25.2	26.3	26.6
	4H	25.7	26.7	26.1	27.1	27.4	25.1	26.1	25.4	26.4	26.7
	6H	25.9	26.8	26.3	27.1	27.5	25.1	26.0	25.5	26.3	26.7
	8H	25.9	26.7	26.3	27.1	27.5	25.0	25.9	25.4	26.2	26.6
	12H	25.8	26.6	26.3	27.0	27.4	25.0	25.8	25.4	26.1	26.6
8H	4H	25.7	26.6	26.2	27.0	27.3	25.1	26.0	25.5	26.3	26.7
	6H	25.9	26.6	26.4	27.0	27.4	25.2	25.9	25.6	26.3	26.7
	8H	26.0	26.6	26.4	27.0	27.4	25.1	25.8	25.6	26.2	26.6
	12H	25.9	26.5	26.4	26.9	27.4	25.1	25.6	25.6	26.1	26.6
12H	4H	25.7	26.5	26.1	26.9	27.3	25.1	25.9	25.5	26.2	26.6
	6H	25.9	26.5	26.4	26.9	27.4	25.1	25.8	25.6	26.2	26.6
	8H	25.9	26.5	26.4	26.9	27.4	25.1	25.7	25.6	26.1	26.6
Variations with the observer position at spacings:											
S = 1.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.3					
1.5H	+ 0.2 / - 0.5					+ 0.2 / - 0.5					
2.0H	+ 0.5 / - 0.5					+ 0.5 / - 0.5					

CIE Pub.117 Corrected 3352 lm Total Lamp Luminous Flux.(8log(F/F0) = 4.2)

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.526m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.8V I:0.1860A P:40.20W PF:0.9770 Lamp Flux:3352.3x1 lm		
NAME: LAFA壁灯 上 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

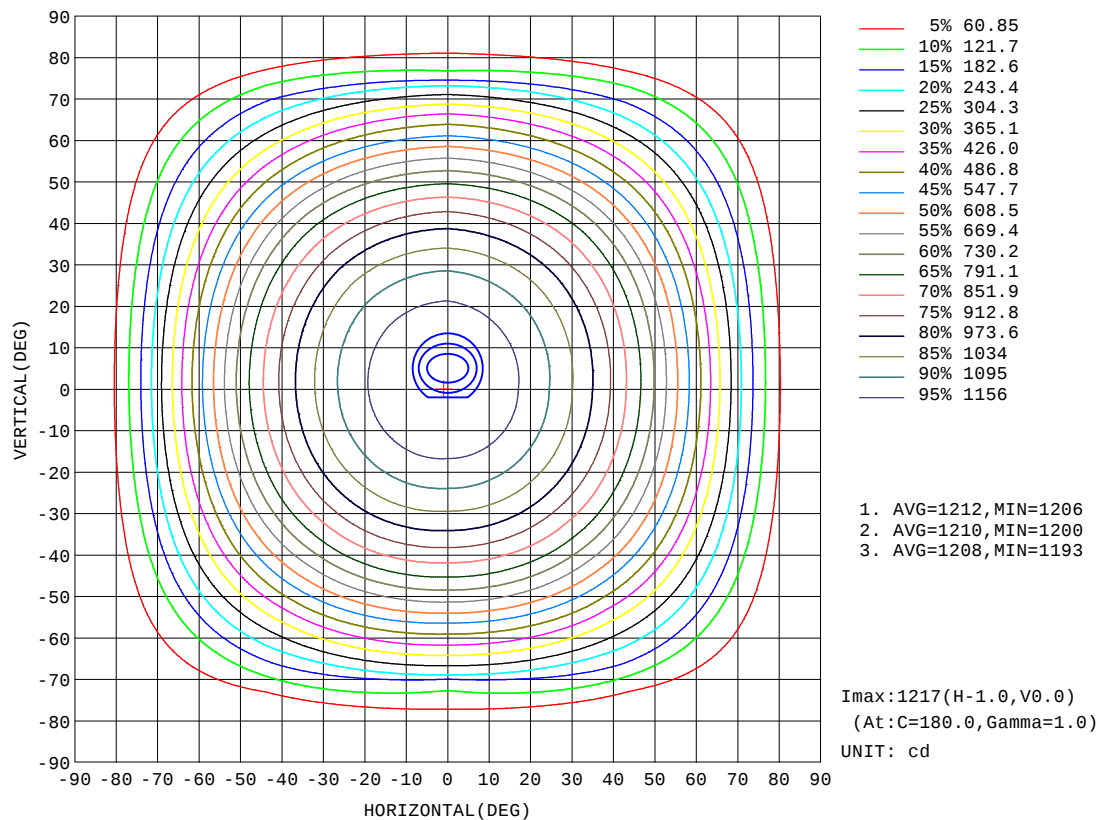
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	61	48	40	60	47	40	57	46	39	32
0.80	71	59	50	70	58	50	66	56	49	41
1.00	79	67	59	77	66	58	73	64	57	49
1.25	86	75	67	84	74	66	80	71	65	56
1.50	91	81	73	89	80	73	85	77	71	62
2.00	98	90	83	96	88	82	91	85	80	71
2.50	102	95	89	99	93	87	95	89	85	75
3.00	105	98	93	102	96	91	97	93	89	79
4.00	108	103	99	105	101	97	101	97	94	84
5.00	110	106	102	108	104	100	103	100	97	87
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Ceiling Mounted					SHRNOM = 1.00		

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
 Humidity: 65.0%
 Test Distance: 9.526m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.8V I:0.1860A P:40.20W PF:0.9770 Lamp Flux:3352.3x1 lm		
NAME: LAFA壁灯 上 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



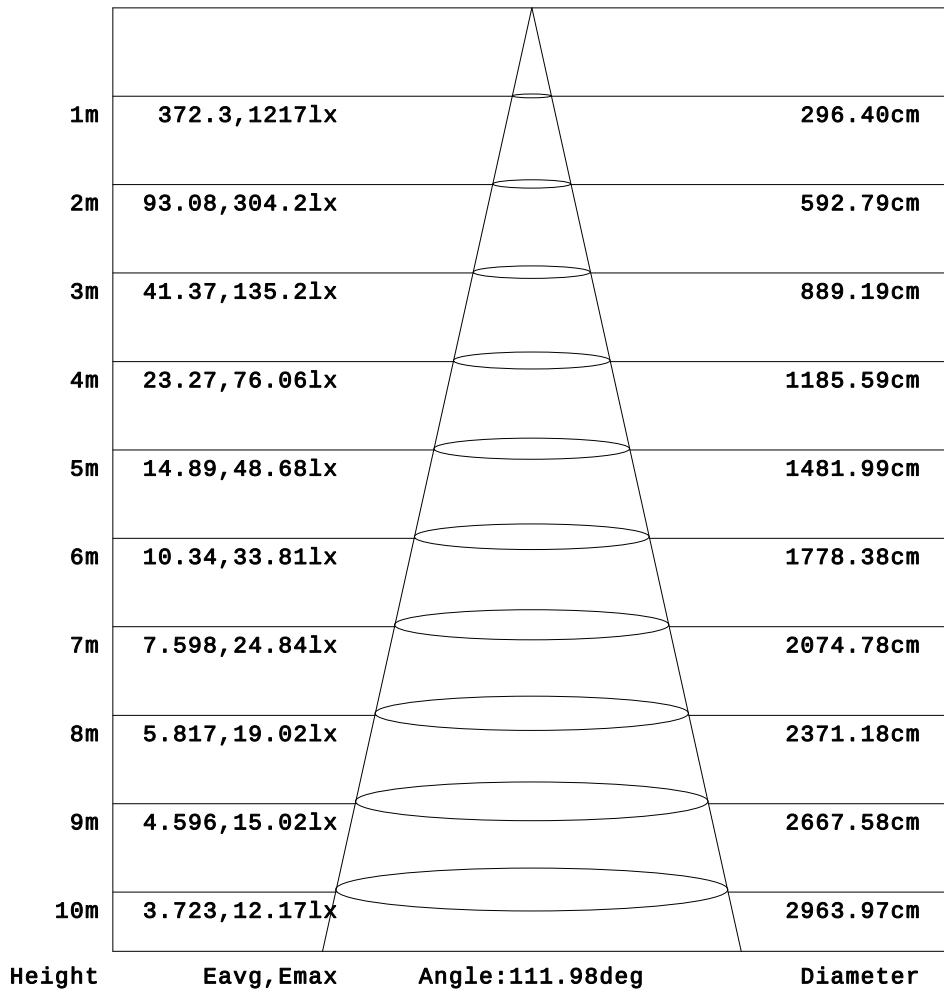
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.8V I:0.1860A P:40.20W PF:0.9770 Lamp Flux:3352.3x1 lm		
NAME: LAFA壁灯 上 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:2571 lm



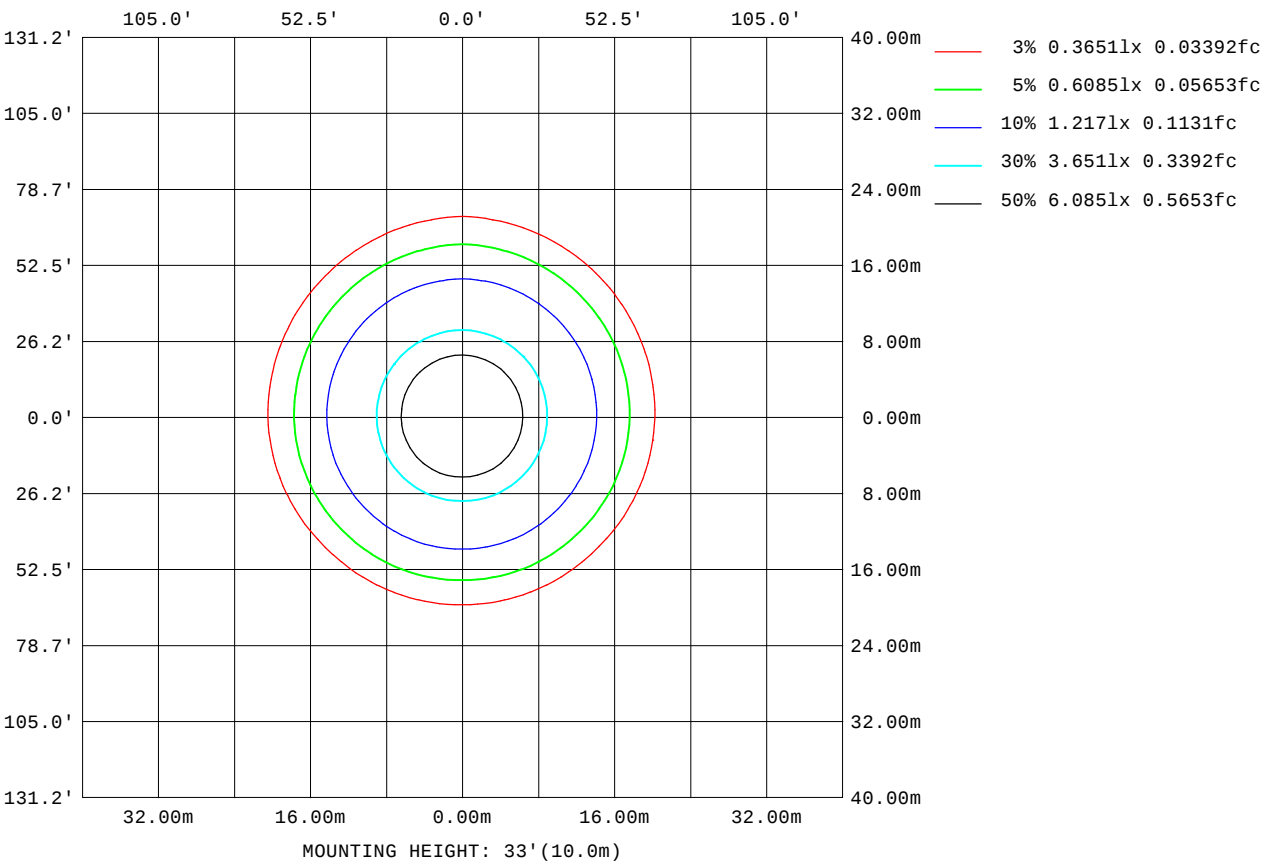
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
 Humidity: 65.0%
 Test Distance: 9.526m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:220.8V I:0.1860A P:40.20W PF:0.9770 Lamp Flux:3352.3x1 lm		
NAME: LAFA壁灯 上 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:220.8V I:0.1860A P:40.20W PF:0.9770 Lamp Flux:3352.3x1 lm		
NAME: LAFA壁灯 上 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

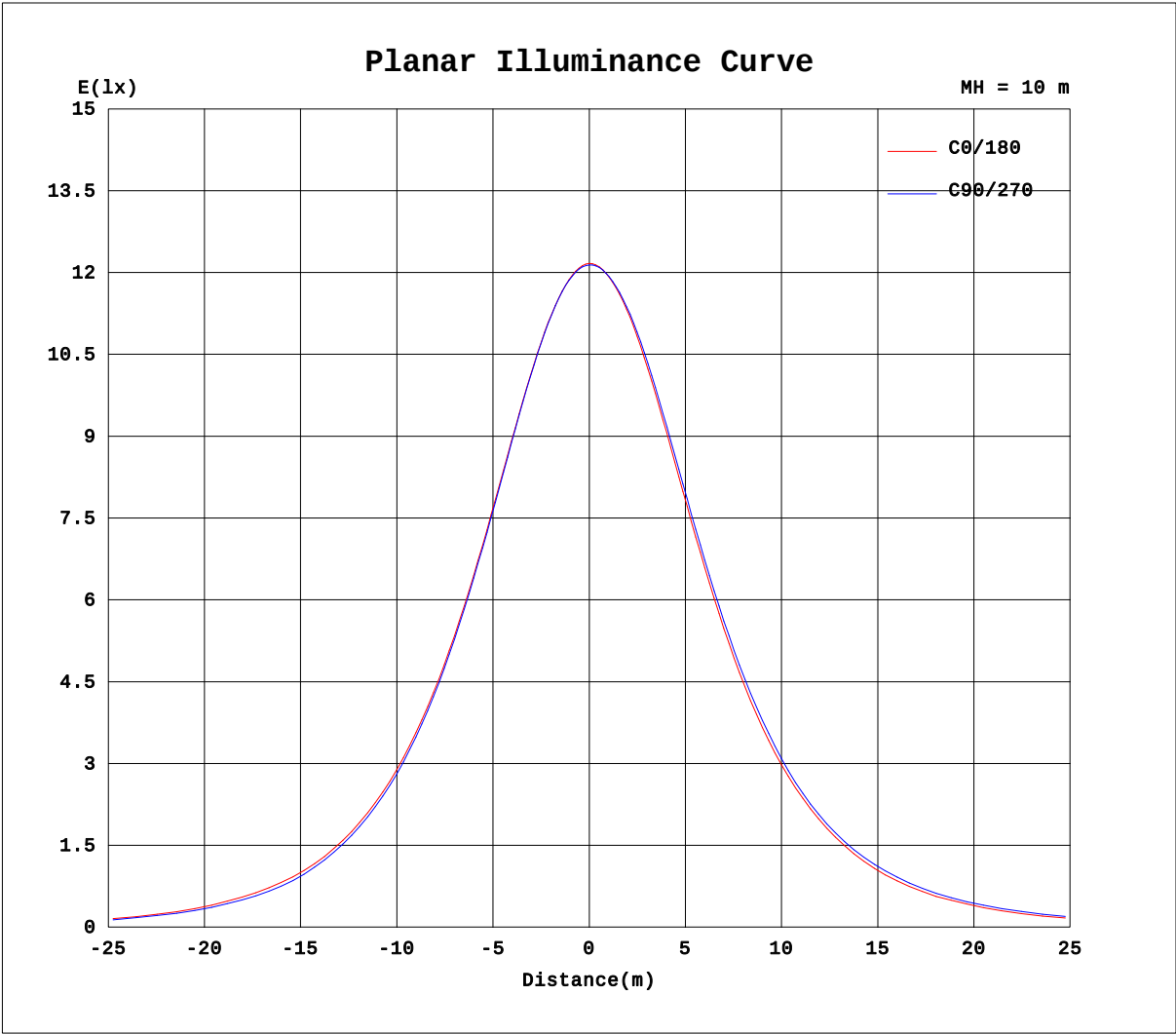
AvgL	cd/m2
L_0~180(65)av	19911
L_0~180(75)av	13209
L_0~180(85)av	3402
L_90~270(65)av	20430
L_90~270(75)av	10140
L_90~270(85)av	3769
L_45(65)av	19740
L_45(75)av	12865
L_45(85)av	3525

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0000]
Remarks: