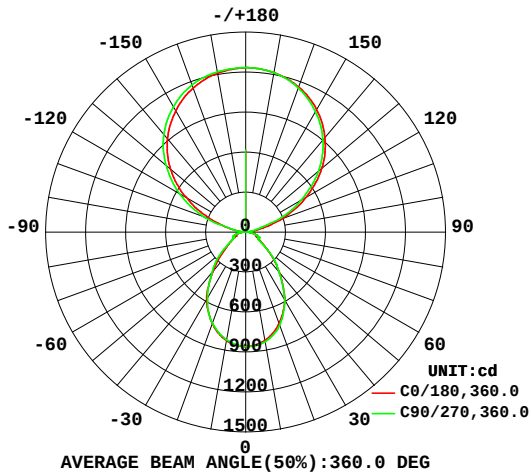


LUMINAIRE PHOTOMETRIC TEST REPORT

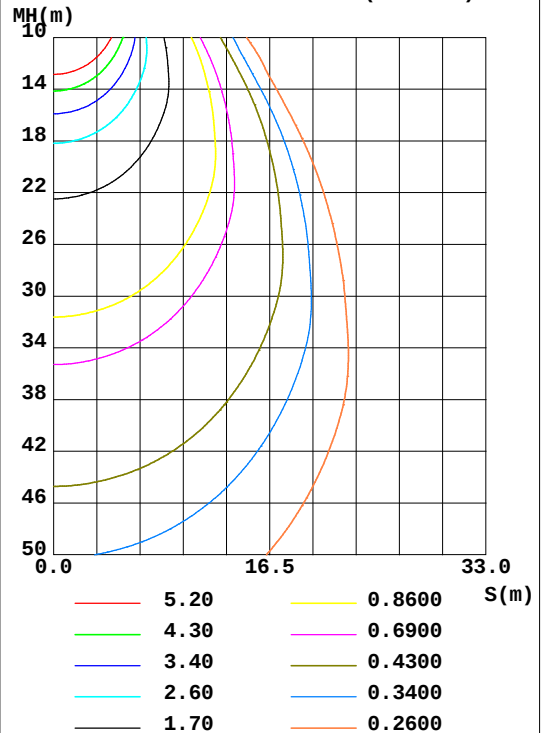
Test:U:220.8V I:0.1860A P:40.30W PF:0.9760 Lamp Flux:4864.02x1 lm		
NAME: LAFA壁灯 上下 3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 120.70 lm/W			
MODEL		I _{max} (cd)	1235	S/MH(C0/180)	1.06
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.06
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	4864.0	η UP, DN(C0-180)	35.8,15.4
NOMINAL FLUX(lm)	4864.02	CIE CLASS	SEMI-IND.	η UP, DN(C180-360)	33.8,15.0
LAMPS INSIDE	1	η up(%)	69.6	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	220.0	η down(%)	30.4	CIBSE SHR MAX	1.10

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0498]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	ϕ zone	ϕ total	%lum,lamp
5	851.0	849.5	847.3	848.2	850.9	853.2	855.6	853.3	0- 5	20.44	20.44	0.42,0.42
10	827.5	825.5	821.5	823.0	826.7	830.6	836.0	831.2	5- 10	60.06	80.51	1.66,1.66
15	787.5	785.6	781.7	782.5	786.9	789.7	799.6	791.7	10- 15	95.86	176.4	3.63,3.63
20	731.5	730.9	729.4	727.9	731.6	731.9	745.8	734.8	15- 20	125.4	301.7	6.2,6.2
25	663.8	666.0	664.4	663.8	664.7	655.1	670.7	658.5	20- 25	146.4	448.2	9.21,9.21
30	587.9	586.3	575.4	590.6	587.5	571.3	586.3	573.0	25- 30	157.6	605.7	12.5,12.5
35	483.4	489.4	484.4	490.3	486.4	472.7	483.8	479.9	30- 35	157.0	762.8	15.7,15.7
40	382.6	385.0	395.1	383.2	392.2	359.3	389.5	368.0	35- 40	143.6	906.4	18.6,18.6
45	289.8	322.7	319.0	324.4	309.4	302.7	316.6	303.6	40- 45	127.6	1034	21.3,21.3
50	206.1	254.8	240.9	263.4	225.3	237.5	228.4	238.1	45- 50	111.0	1145	23.5,23.5
55	154.9	187.8	164.7	202.4	160.4	177.8	149.8	174.3	50- 55	88.47	1233	25.4,25.4
60	116.3	122.2	117.7	126.7	120.8	109.5	108.5	111.9	55- 60	66.30	1300	26.7,26.7
65	90.89	74.04	100.5	80.86	97.13	63.43	107.9	70.20	60- 65	47.99	1348	27.7,27.7
70	82.19	54.26	101.9	58.40	80.76	55.32	101.6	55.67	65- 70	39.04	1387	28.5,28.5
75	77.52	62.72	86.36	57.16	80.04	52.41	80.41	54.26	70- 75	37.08	1424	29.3,29.3
80	52.54	57.20	59.09	51.02	54.66	41.07	45.60	45.61	75- 80	32.29	1456	29.9,29.9
85	21.29	26.18	26.61	26.59	21.19	12.11	10.02	14.92	80- 85	19.54	1476	30.3,30.3
90	2.580	4.865	3.572	4.917	2.511	5.961	3.178	4.906	85- 90	4.110	1480	30.4,30.4
95	14.46	17.59	20.01	19.30	13.87	10.10	7.083	9.814	90- 95	4.007	1484	30.5,30.5
100	67.87	64.33	68.71	65.08	66.10	41.34	35.01	41.78	95-100	16.72	1501	30.8,30.8
105	162.2	180.1	146.0	179.0	157.8	134.5	94.71	136.4	100-105	51.71	1552	31.9,31.9
110	268.8	294.9	333.2	295.2	286.3	249.7	199.5	255.0	105-110	109.8	1662	34.2,34.2
115	392.0	420.7	454.8	419.1	400.7	364.0	361.7	367.8	110-115	170.0	1832	37.7,37.7
120	506.6	537.6	568.9	538.5	524.0	493.7	478.5	494.8	115-120	222.8	2055	42.2,42.2
125	630.7	655.0	679.1	658.4	638.5	614.3	602.3	613.2	120-125	266.8	2322	47.7,47.7
130	736.3	761.2	779.6	766.9	746.8	724.8	714.6	720.9	125-130	300.3	2622	53.9,53.9
135	830.6	855.1	874.5	862.3	841.9	825.4	814.5	818.3	130-135	320.2	2942	60.5,60.5
140	913.7	938.8	956.3	946.1	925.6	913.7	902.7	905.9	135-140	327.1	3269	67.2,67.2
145	986.3	1012	1026	1019	1000	991.0	980.0	984.2	140-145	321.3	3591	73.8,73.8
150	1051	1075	1086	1081	1064	1058	1046	1051	145-150	304.0	3895	80.1,80.1
155	1107	1126	1137	1131	1118	1113	1104	1107	150-155	276.2	4171	85.7,85.7
160	1152	1165	1176	1170	1160	1159	1153	1154	155-160	239.1	4410	90.7,90.7
165	1186	1195	1204	1199	1193	1193	1190	1190	160-165	194.1	4604	94.7,94.7
170	1211	1216	1221	1219	1216	1217	1215	1215	165-170	143.0	4747	97.6,97.6
175	1226	1229	1231	1230	1229	1231	1230	1229	170-175	87.49	4835	99.4,99.4
180	1234	1234	1234	1234	1234	1234	1234	1234	175-180	29.45	4864	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 1034 lm

%lum = 21.3%

%lamp = 21.3%

Conical surface Flux(120deg): 1299.7 lm

%lum = 26.7%

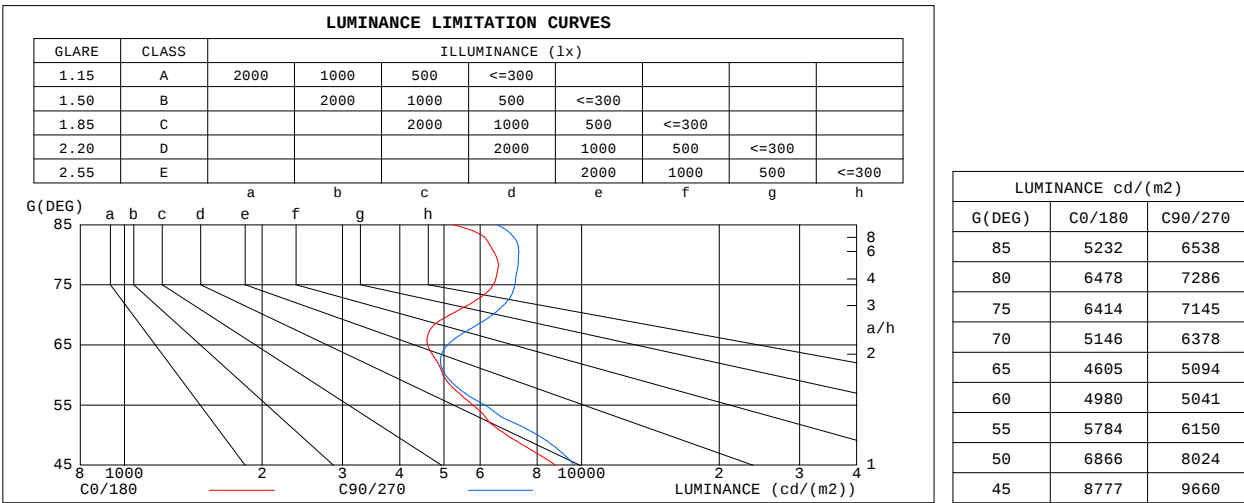
%lamp = 26.7%

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.526m [K=1.0498]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.8V I:0.1860A P:40.30W PF:0.9760 Lamp Flux:4864.02x1 lm		
NAME: LAFA壁灯 上下 3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



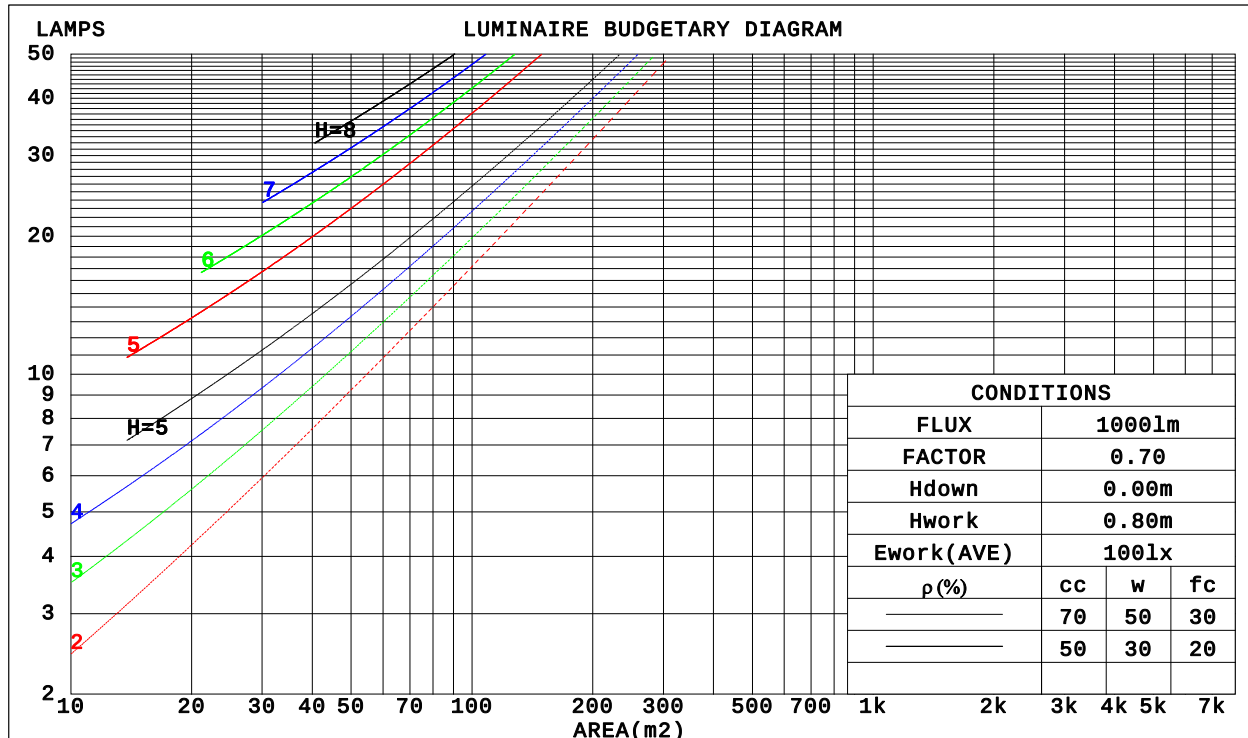
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0498]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.8V I:0.1860A P:40.30W PF:0.9760 Lamp Flux:4864.02x1 lm		
NAME: LAFA壁灯 上下 3000K	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	1.02	1.02	1.02	.92	.92	.92	.72	.72	.72	.55	.55	.55	.38	.38	.38	.30
1.0	.90	.86	.83	.81	.78	.75	.64	.62	.60	.49	.47	.46	.34	.34	.33	.26
2.0	.79	.73	.69	.71	.66	.62	.57	.53	.51	.43	.41	.39	.31	.30	.29	.23
3.0	.70	.63	.58	.63	.57	.53	.50	.46	.43	.39	.36	.34	.28	.26	.25	.20
4.0	.62	.55	.49	.56	.50	.45	.45	.41	.37	.35	.32	.30	.25	.24	.22	.18
5.0	.56	.48	.43	.50	.44	.39	.41	.36	.32	.32	.28	.26	.23	.21	.20	.16
6.0	.50	.43	.37	.46	.39	.34	.37	.32	.29	.29	.26	.23	.21	.19	.18	.14
7.0	.45	.38	.33	.41	.35	.30	.34	.29	.25	.26	.23	.21	.20	.17	.16	.13
8.0	.41	.34	.29	.38	.31	.27	.31	.26	.23	.24	.21	.18	.18	.16	.14	.12
9.0	.38	.31	.26	.34	.28	.24	.28	.24	.20	.22	.19	.17	.17	.15	.13	.11
10.0	.35	.28	.23	.32	.26	.22	.26	.21	.18	.21	.17	.15	.16	.14	.12	.10



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE G0-2000_V1 SYSTEM V2.0.295T
 Humidity: 65.0%
 Test Distance: 9.526m [K=1.0498]
 Remarks:

WEC AND CCEC

Test:U:220.8V I:0.1860A P:40.30W PF:0.9760 Lamp Flux:4864.02x1 lm														
NAME: LAFA壁灯 上下 3000K							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	.259	.148	.047	.232	.132	.042	.179	.103	.033	.131	.076	.024	.087	.050	.016	
2.0	.240	.132	.040	.215	.118	.036	.167	.093	.029	.123	.069	.022	.082	.046	.015	
3.0	.222	.118	.035	.199	.107	.032	.155	.084	.026	.115	.063	.019	.077	.043	.013	
4.0	.206	.107	.032	.185	.097	.029	.145	.077	.023	.107	.058	.017	.072	.039	.012	
5.0	.192	.098	.028	.172	.088	.026	.135	.070	.021	.100	.053	.016	.068	.036	.011	
6.0	.179	.090	.026	.161	.081	.023	.126	.065	.019	.094	.049	.014	.064	.034	.010	
7.0	.168	.083	.024	.151	.075	.021	.119	.060	.017	.089	.045	.013	.060	.031	.009	
8.0	.158	.077	.022	.142	.070	.020	.112	.056	.016	.084	.042	.012	.057	.029	.009	
9.0	.148	.072	.020	.134	.065	.018	.106	.052	.015	.079	.040	.011	.054	.028	.008	
10.0	.140	.067	.019	.126	.061	.017	.100	.049	.014	.075	.037	.011	.051	.026	.007	

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 Ceiling Cavity Exitance Coefficients(CCEC)															
0.0	.721	.721	.721	.616	.616	.616	.420	.420	.420	.241	.241	.241	.077	.077	.077	
1.0	.711	.691	.673	.609	.593	.579	.416	.408	.400	.240	.236	.233	.077	.076	.075	
2.0	.703	.670	.642	.602	.577	.555	.413	.399	.387	.238	.232	.227	.076	.075	.074	
3.0	.696	.655	.622	.597	.565	.539	.410	.393	.378	.237	.229	.223	.076	.074	.073	
4.0	.690	.643	.608	.592	.556	.528	.407	.387	.372	.235	.227	.220	.076	.074	.072	
5.0	.683	.634	.598	.587	.549	.520	.404	.383	.367	.234	.225	.218	.075	.073	.072	
6.0	.677	.627	.591	.582	.543	.515	.402	.380	.364	.233	.224	.216	.075	.073	.071	
7.0	.672	.621	.586	.578	.538	.510	.399	.378	.362	.232	.222	.215	.075	.073	.071	
8.0	.667	.616	.582	.574	.535	.507	.397	.375	.360	.231	.221	.214	.075	.073	.071	
9.0	.662	.612	.578	.570	.531	.505	.395	.373	.358	.230	.221	.214	.075	.072	.071	
10.0	.657	.608	.576	.566	.528	.503	.393	.372	.357	.229	.220	.213	.074	.072	.071	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.526m [K=1.0498]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.8V I:0.1860A P:40.30W PF:0.9760 Lamp Flux:4864.02x1 lm											
NAME: LAFA壁灯 上下 3000K					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	13.0	13.7	14.0	14.8	16.1	13.1	13.9	14.2	14.9	16.3	
	3H	13.6	14.2	14.6	15.3	16.7	14.1	14.8	15.2	15.8	17.2
	4H	14.2	14.9	15.3	15.9	17.4	15.0	15.6	16.0	16.6	18.1
	6H	15.0	15.6	16.1	16.6	18.1	15.7	16.3	16.8	17.3	18.8
	8H	15.2	15.8	16.3	16.9	18.3	16.0	16.5	17.1	17.6	19.1
	12H	15.4	15.9	16.5	17.0	18.4	16.1	16.7	17.2	17.7	19.2
4H	2H	12.9	13.5	14.0	14.6	16.0	13.1	13.7	14.1	14.7	16.2
	3H	13.7	14.2	14.7	15.3	16.7	14.3	14.8	15.3	15.9	17.3
	4H	14.6	15.0	15.7	16.1	17.6	15.3	15.8	16.4	16.9	18.4
	6H	15.6	16.0	16.7	17.1	18.6	16.3	16.7	17.4	17.8	19.3
	8H	16.0	16.3	17.1	17.5	19.0	16.7	17.1	17.8	18.2	19.7
	12H	16.2	16.5	17.3	17.6	19.2	16.9	17.3	18.1	18.4	19.9
8H	4H	14.8	15.2	15.9	16.3	17.8	15.4	15.8	16.6	16.9	18.4
	6H	16.1	16.4	17.2	17.5	19.1	16.7	17.0	17.8	18.1	19.7
	8H	16.6	16.8	17.7	18.0	19.5	17.2	17.5	18.3	18.6	20.2
	12H	16.9	17.1	18.0	18.2	19.8	17.5	17.8	18.7	18.9	20.5
12H	4H	14.8	15.2	16.0	16.3	17.8	15.4	15.8	16.6	16.9	18.4
	6H	16.2	16.4	17.3	17.6	19.1	16.8	17.0	17.9	18.2	19.7
	8H	16.7	17.0	17.9	18.1	19.7	17.3	17.5	18.5	18.7	20.3
Variations with the observer position at spacings:											
S = 1.0H	+ 0.3 / - 0.3					+ 0.2 / - 0.3					
1.5H	+ 0.1 / - 0.3					+ 0.1 / - 0.1					
2.0H	+ 0.5 / - 0.4					+ 0.6 / - 0.5					

CIE Pub.117 Corrected 4864 lm Total Lamp Luminous Flux.(8log(F/F0) = 5.5)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.526m [K=1.0498]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.8V I:0.1860A P:40.30W PF:0.9760 Lamp Flux:4864.02x1 lm		
NAME: LAFA壁灯 上下 3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

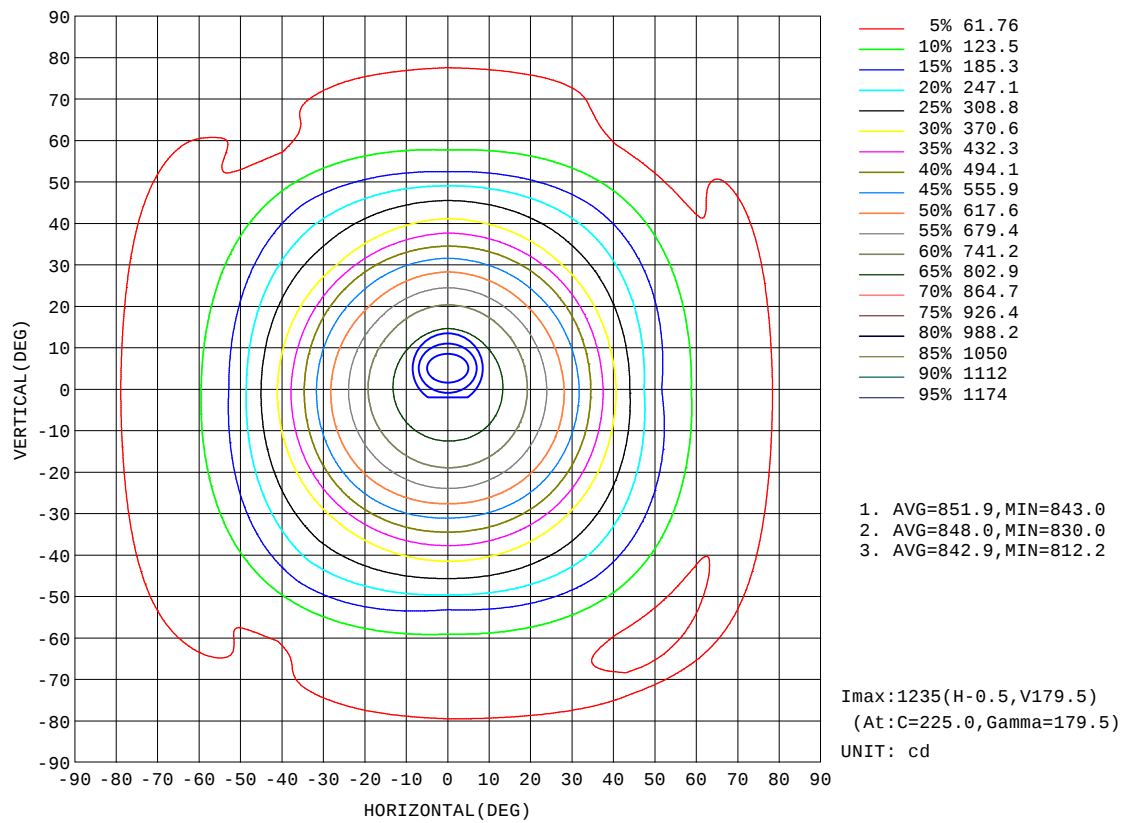
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	53	41	34	47	38	32	38	31	27	13
0.80	61	50	43	55	46	39	44	37	33	16
1.00	67	57	50	61	52	45	48	42	38	18
1.25	73	63	56	66	58	51	52	46	42	20
1.50	77	68	62	69	62	56	55	50	46	21
2.00	83	75	69	75	68	63	59	55	51	23
2.50	87	80	74	78	72	68	61	58	55	24
3.00	89	83	78	80	75	71	63	60	57	25
4.00	92	87	83	83	79	75	65	63	60	26
5.00	94	90	87	84	81	78	67	64	62	27
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Ceiling Mounted					SHRNOM = 1.00		

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.526m [K=1.0498]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.8V I:0.1860A P:40.30W PF:0.9760 Lamp Flux:4864.02x1 lm		
NAME: LAFA壁灯 上下 3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



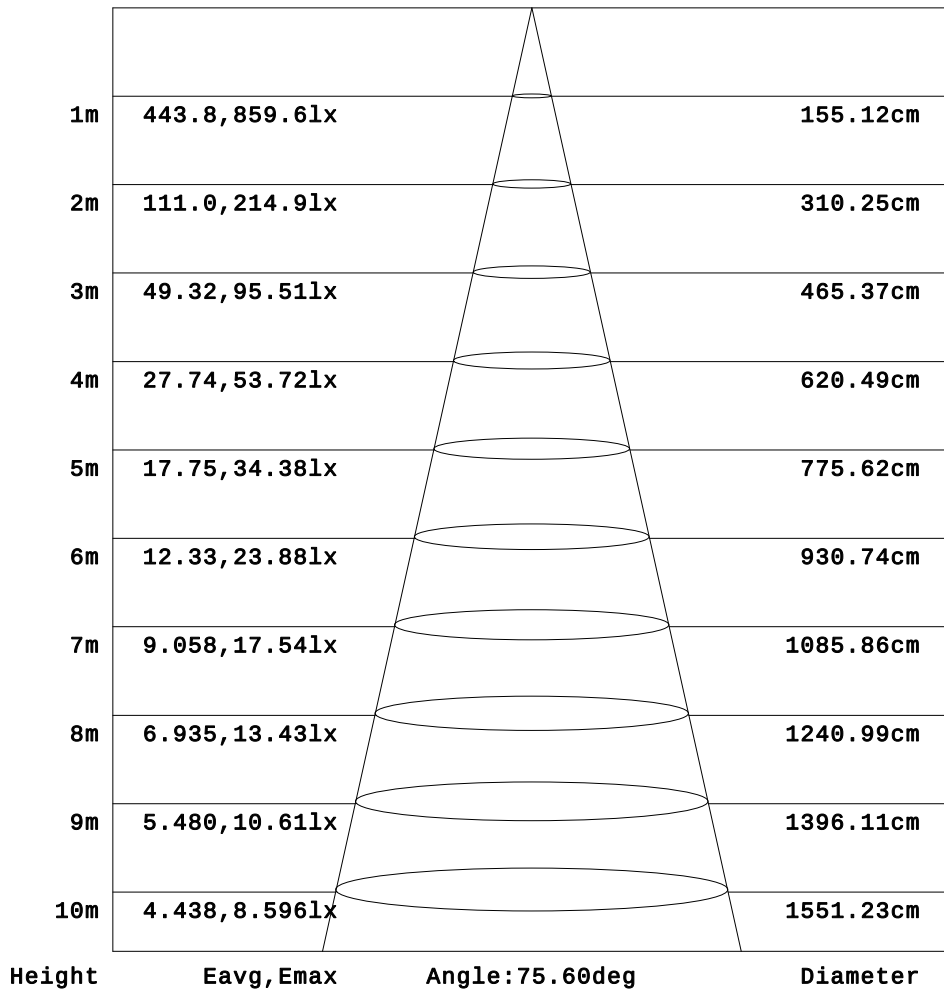
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0498]
Remarks:

AAI Figure

Test:U:220.8V I:0.1860A P:40.30W PF:0.9760 Lamp Flux:4864.02x1 lm		
NAME: LAFA壁灯 上下 3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:851.1 lm



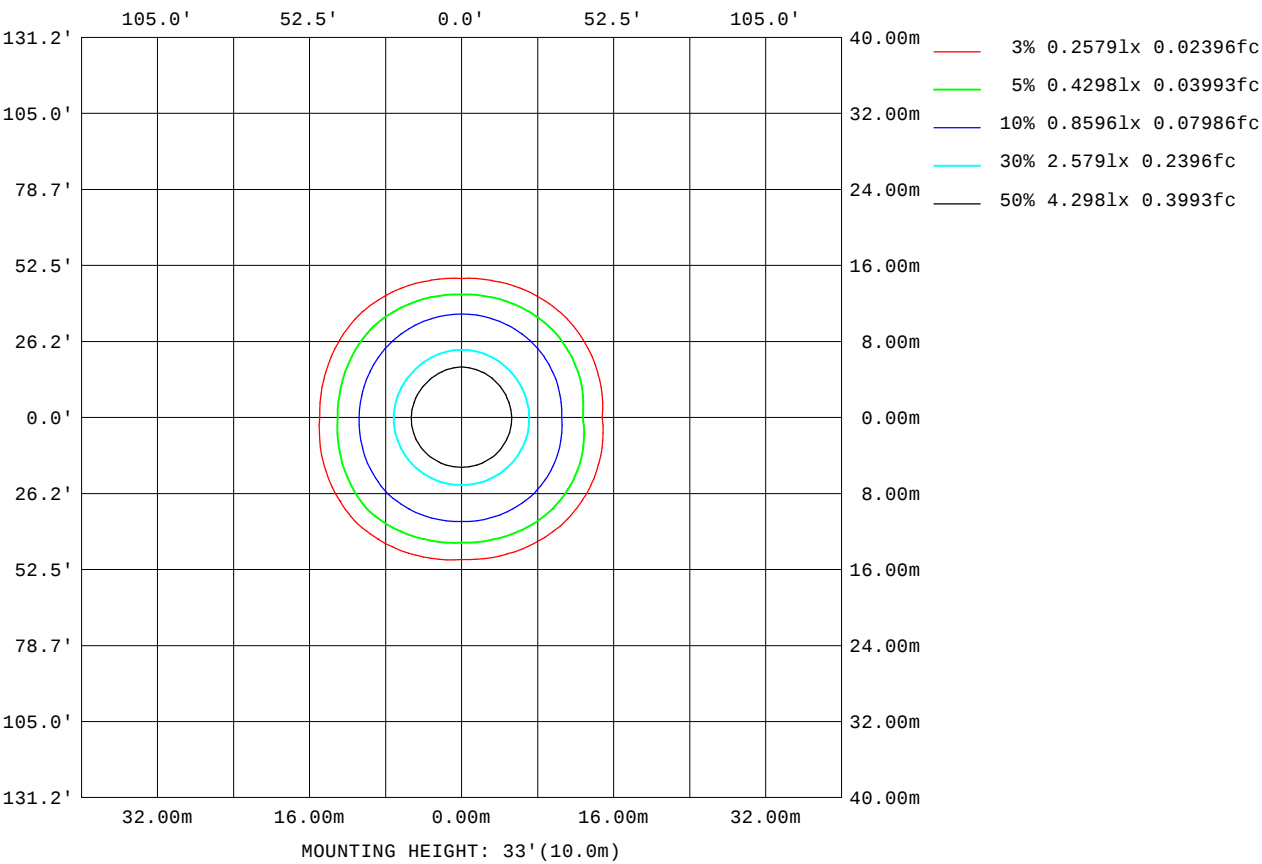
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators:
 Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE G0-2000_V1 SYSTEM V2.0.295T
 Humidity: 65.0%
 Test Distance: 9.526m [K=1.0498]
 Remarks:

ISOLUX DIAGRAM

Test:U:220.8V I:0.1860A P:40.30W PF:0.9760 Lamp Flux:4864.02x1 lm		
NAME: LAFA壁灯 上下 3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0498]
Remarks:

LED Avg.L Report

Test:U:220.8V I:0.1860A P:40.30W PF:0.9760 Lamp Flux:4864.02x1 lm		
NAME: LAFA壁灯 上下 3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

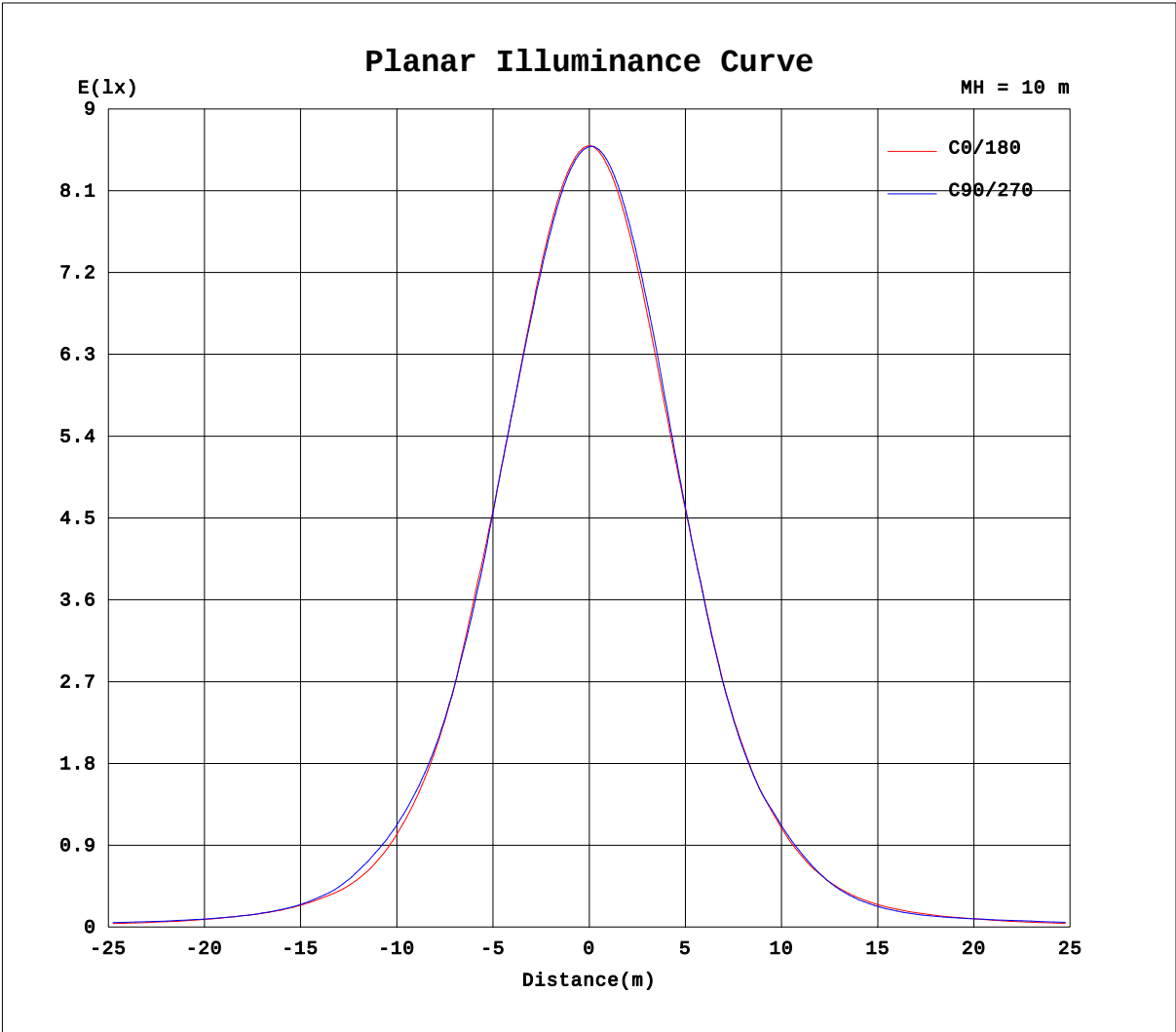
AvgL	cd/m2
L_0~180(65)av	4763
L_0~180(75)av	6518
L_0~180(85)av	5219
L_90~270(65)av	5280
L_90~270(75)av	6899
L_90~270(85)av	4500
L_45(65)av	3655
L_45(75)av	4686
L_45(85)av	4901

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0498]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0498]
Remarks: