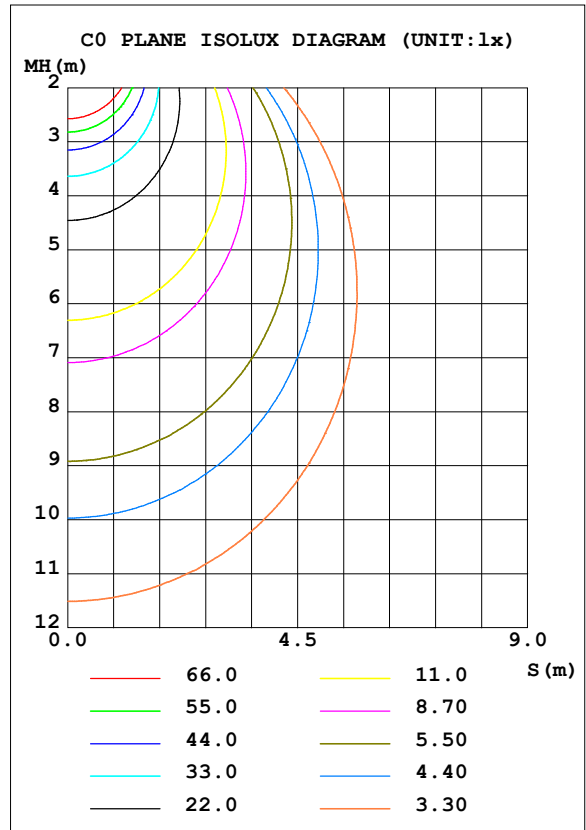
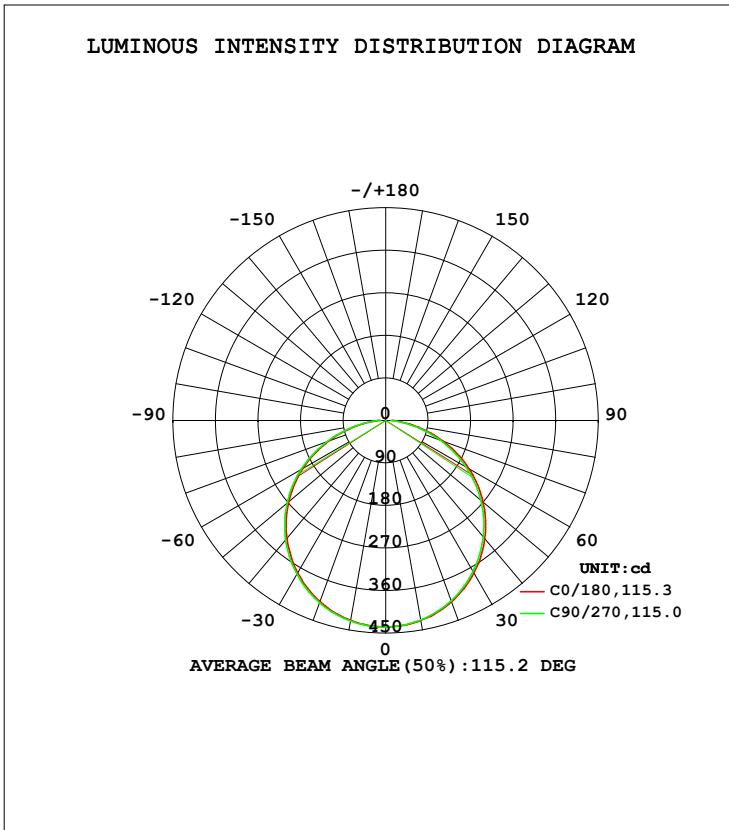


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:230.16V I:0.0544A P:11.488W PF:0.9169 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-12W-C3-4000K	TYPE: 12W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 112.64 lm/W			
MODEL	AL117-11-12W-C3-4000K	I <sub>max</sub> (cd)	437.1	S/MH (C0/180)	1.27
NOMINAL POWER (W)	12	LOR (%)	79.2	S/MH (C90/270)	1.28
RATED VOLTAGE (V)	200-240	TOTAL FLUX (lm)	1294.1	η UP, DN (C0-180)	0.0, 39.3
NOMINAL FLUX (lm)	1633.45	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 39.9
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	79.2	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2020-09-11

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.426  
 Humidity: 65.0%  
 Test Distance: 8.692m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

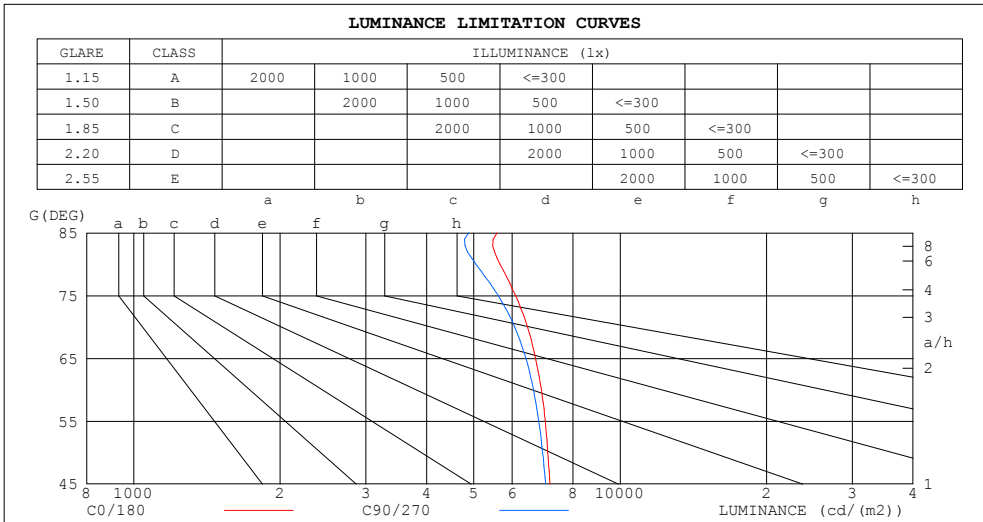
$\gamma$	C0	C90	C180	C270				$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	429.4	428.5	429.4	430.7				0- 10	41.35	41.35	3.2,2.53
20	408.3	405.7	407.5	410.3				10- 20	118.7	160.1	12.4,9.8
30	373.0	369.4	372.5	375.6				20- 30	180.7	340.7	26.3,20.9
40	326.2	321.2	325.1	329.6				30- 40	219.3	560.0	43.3,34.3
50	268.9	263.0	267.9	272.5				40- 50	229.9	789.9	61,48.4
60	203.1	195.8	201.6	206.5				50- 60	210.8	1001	77.3,61.3
70	130.0	122.7	128.5	133.2				60- 70	163.8	1164	90,71.3
80	57.96	51.83	56.40	60.19				70- 80	96.91	1261	97.5,77.2
90	13.04	11.30	12.05	10.72				80- 90	32.72	1294	100,79.2
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		

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-11

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.426  
 Humidity:65.0%  
 Test Distance:8.692m [K=1.0000]  
 Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:230.16V I:0.0544A P:11.488W PF:0.9169 Freq:49.99Hz UTHDi:0% ITHDi:0%		Lamp Flux:1633.45x1 lm
NAME: AL117-11-12W-C3-4000K	TYPE: 12W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	5586	4879
80	5661	5056
75	6095	5615
70	6449	6074
65	6703	6403
60	6890	6634
55	7015	6802
50	7096	6930
45	7168	7026

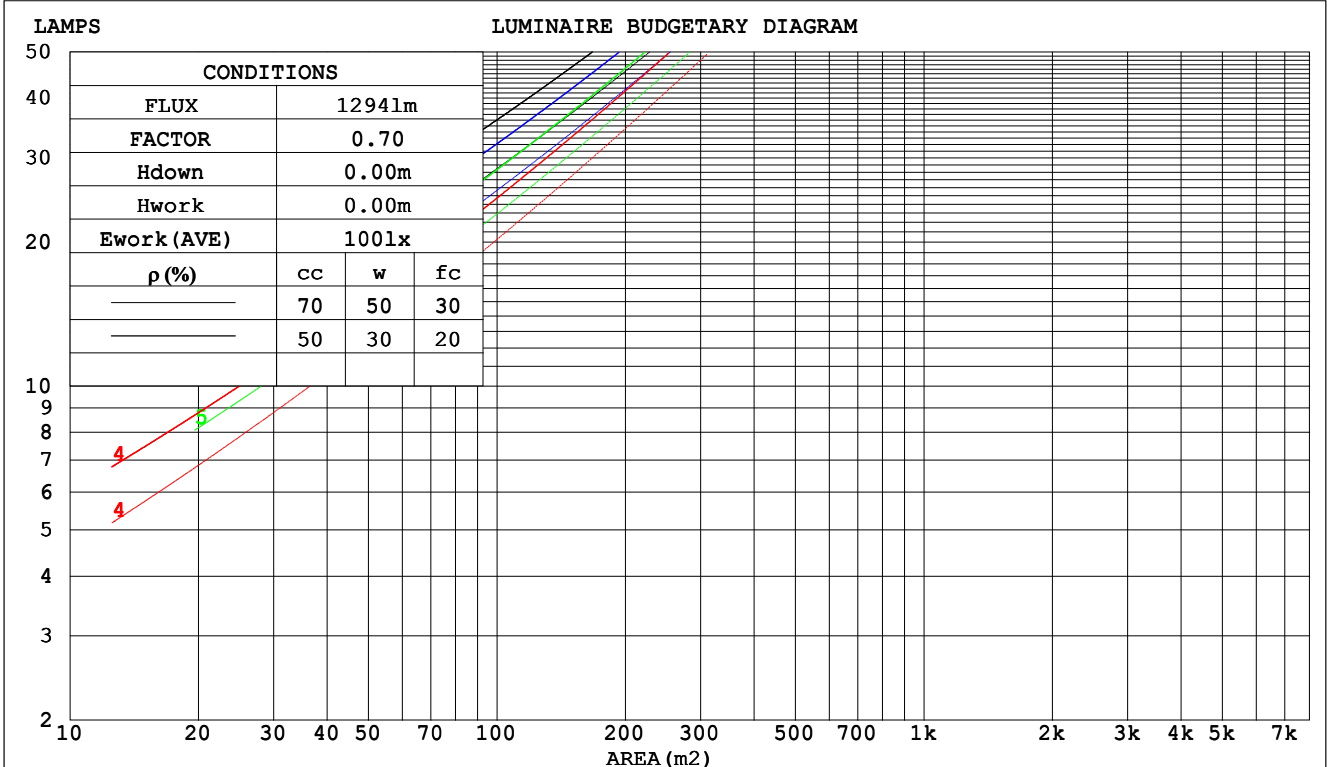
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-11

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.426  
 Humidity:65.0%  
 Test Distance:8.692m [K=1.0000]  
 Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:230.16V I:0.0544A P:11.488W PF:0.9169 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-12W-C3-4000K	TYPE: 12W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
	pw	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	.94	.94	.94	.92	.92	.92	.88	.88	.88	.84	.84	.84	.81	.81	.81	.79
1.0	.82	.78	.75	.80	.77	.74	.77	.74	.72	.74	.71	.69	.71	.69	.67	.66
2.0	.71	.66	.61	.70	.64	.60	.67	.62	.59	.64	.61	.57	.62	.59	.56	.54
3.0	.62	.56	.50	.61	.55	.50	.59	.53	.49	.56	.52	.48	.54	.51	.47	.45
4.0	.55	.48	.42	.54	.47	.42	.52	.46	.42	.50	.45	.41	.48	.44	.40	.39
5.0	.49	.42	.36	.48	.41	.36	.46	.40	.36	.45	.40	.35	.43	.39	.35	.33
6.0	.44	.37	.32	.43	.37	.32	.42	.36	.31	.41	.35	.31	.39	.35	.31	.29
7.0	.40	.33	.28	.39	.33	.28	.38	.32	.28	.37	.31	.27	.36	.31	.27	.26
8.0	.36	.30	.25	.36	.29	.25	.35	.29	.25	.34	.28	.25	.33	.28	.24	.23
9.0	.33	.27	.22	.33	.27	.22	.32	.26	.22	.31	.26	.22	.30	.26	.22	.20
10.0	.31	.24	.20	.30	.24	.20	.30	.24	.20	.29	.24	.20	.28	.23	.20	.19



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-11

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.426  
 Humidity:65.0%  
 Test Distance:8.692m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:230.16V I:0.0544A P:11.488W PF:0.9169 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm		
NAME: AL117-11-12W-C3-4000K		TYPE: 12W		WEIGHT:	
SPEC.: 4000K		DIM.:		SERIAL No.:	
MFR.: EVERFINE		SUR.: 0.059		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	.254	.144	.046	.248	.142	.045	.238	.136	.044	.228	.131	.042	.219	.127	.041	
2.0	.237	.130	.040	.232	.128	.039	.222	.124	.038	.214	.120	.038	.206	.116	.037	
3.0	.218	.116	.035	.213	.114	.034	.205	.111	.034	.198	.108	.033	.190	.105	.033	
4.0	.200	.104	.031	.197	.103	.030	.189	.100	.030	.182	.098	.030	.176	.096	.029	
5.0	.185	.094	.027	.181	.093	.027	.175	.091	.027	.169	.089	.027	.163	.087	.026	
6.0	.171	.086	.025	.168	.085	.024	.162	.083	.024	.157	.082	.024	.152	.080	.024	
7.0	.159	.079	.022	.156	.078	.022	.151	.076	.022	.146	.075	.022	.142	.074	.022	
8.0	.148	.073	.020	.146	.072	.020	.141	.071	.020	.137	.069	.020	.133	.068	.020	
9.0	.139	.067	.019	.137	.067	.019	.133	.066	.019	.129	.065	.018	.125	.064	.018	
10.0	.131	.063	.017	.129	.062	.017	.125	.061	.017	.121	.060	.017	.118	.059	.017	

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	.151	.151	.151	.129	.129	.129	.088	.088	.088	.051	.051	.051	.016	.016	.016	
1.0	.143	.124	.106	.123	.106	.091	.084	.073	.063	.048	.042	.037	.015	.014	.012	
2.0	.137	.104	.077	.117	.090	.067	.081	.062	.046	.046	.036	.027	.015	.012	.009	
3.0	.131	.091	.058	.112	.078	.051	.077	.054	.035	.045	.032	.021	.014	.010	.007	
4.0	.125	.080	.046	.107	.069	.040	.074	.048	.028	.043	.028	.017	.014	.009	.005	
5.0	.119	.072	.037	.102	.062	.032	.070	.043	.023	.041	.026	.013	.013	.008	.004	
6.0	.113	.065	.031	.097	.057	.027	.067	.040	.019	.039	.023	.011	.013	.008	.004	
7.0	.108	.060	.026	.093	.052	.023	.064	.036	.016	.037	.021	.010	.012	.007	.003	
8.0	.103	.055	.023	.088	.048	.020	.061	.034	.014	.036	.020	.008	.012	.007	.003	
9.0	.098	.051	.020	.084	.045	.017	.058	.031	.012	.034	.018	.007	.011	.006	.002	
10.0	.093	.048	.018	.080	.042	.015	.056	.029	.011	.033	.017	.007	.011	.006	.002	

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-11

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.426  
 Humidity:65.0%  
 Test Distance:8.692m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.16V I:0.0544A P:11.488W PF:0.9169 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm		
NAME: AL117-11-12W-C3-4000K		TYPE: 12W		WEIGHT:	
SPEC.: 4000K		DIM.:		SERIAL No.:	
MFR.: EVERFINE		SUR.: 0.059		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	19.6	21.2	19.9	21.4	21.6	19.5	21.1	19.8	21.3	21.5
3H	21.2	22.7	21.5	22.9	23.2	21.1	22.5	21.4	22.7	23.0
4H	21.9	23.3	22.2	23.5	23.8	21.7	23.0	22.0	23.3	23.5
6H	22.4	23.7	22.7	23.9	24.2	22.1	23.4	22.4	23.6	23.9
8H	22.6	23.8	22.9	24.1	24.4	22.2	23.5	22.6	23.8	24.0
12H	22.7	23.9	23.0	24.2	24.5	22.3	23.5	22.7	23.8	24.1
4H 2H	20.3	21.6	20.6	21.9	22.1	20.2	21.5	20.5	21.8	22.0
3H	22.0	23.2	22.4	23.5	23.8	21.9	23.1	22.2	23.4	23.7
4H	22.8	23.9	23.2	24.2	24.6	22.6	23.7	23.0	24.0	24.4
6H	23.4	24.4	23.8	24.8	25.1	23.2	24.1	23.6	24.5	24.9
8H	23.7	24.6	24.1	24.9	25.3	23.4	24.3	23.8	24.6	25.0
12H	23.9	24.7	24.3	25.1	25.5	23.5	24.4	23.9	24.7	25.1
8H 4H	23.1	24.0	23.5	24.4	24.8	22.9	23.8	23.3	24.2	24.6
6H	23.9	24.6	24.3	25.0	25.5	23.6	24.4	24.1	24.8	25.2
8H	24.2	24.9	24.7	25.3	25.7	23.9	24.6	24.4	25.0	25.5
12H	24.5	25.0	24.9	25.5	26.0	24.2	24.7	24.6	25.2	25.7
12H 4H	23.1	23.9	23.5	24.3	24.7	22.9	23.8	23.4	24.1	24.6
6H	23.9	24.6	24.4	25.0	25.5	23.7	24.4	24.2	24.8	25.2
8H	24.3	24.9	24.8	25.3	25.8	24.0	24.6	24.5	25.1	25.5
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 1633 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 1.7)  
 Area: 0.059 m2

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-11

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.426  
 Humidity:65.0%  
 Test Distance:8.692m [K=1.0000]  
 Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:230.16V I:0.0544A P:11.488W PF:0.9169 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: AL117-11-12W-C3-4000K	TYPE: 12W	WEIGHT:	
SPEC.: 4000K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:	

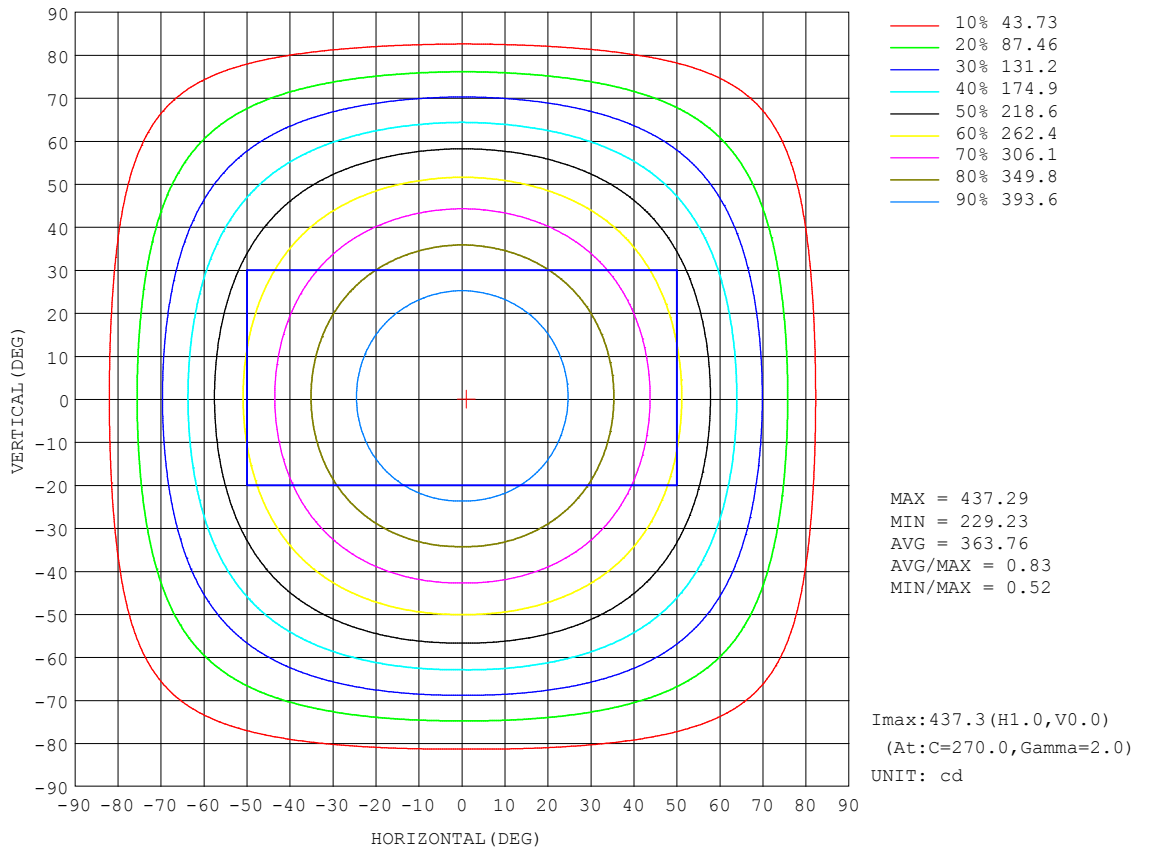
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	45	36	30	44	35	30	43	35	30	25
0.80	53	44	38	52	43	37	51	43	37	32
1.00	60	51	45	59	50	44	57	51	44	38
1.25	65	57	51	64	56	51	62	55	50	44
1.50	69	61	55	68	60	55	65	59	54	48
2.00	75	68	62	73	67	62	70	65	61	54
2.50	78	72	67	76	70	66	73	68	64	58
3.00	81	75	70	79	74	70	76	71	68	61
4.00	84	79	75	82	78	74	78	75	72	65
5.00	86	82	78	84	80	77	80	77	75	67
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:  
 Test Date:2020-09-11

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.426  
 Humidity:65.0%  
 Test Distance:8.692m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

Test:U:230.16V I:0.0544A P:11.488W PF:0.9169 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-12W-C3-4000K	TYPE: 12W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:



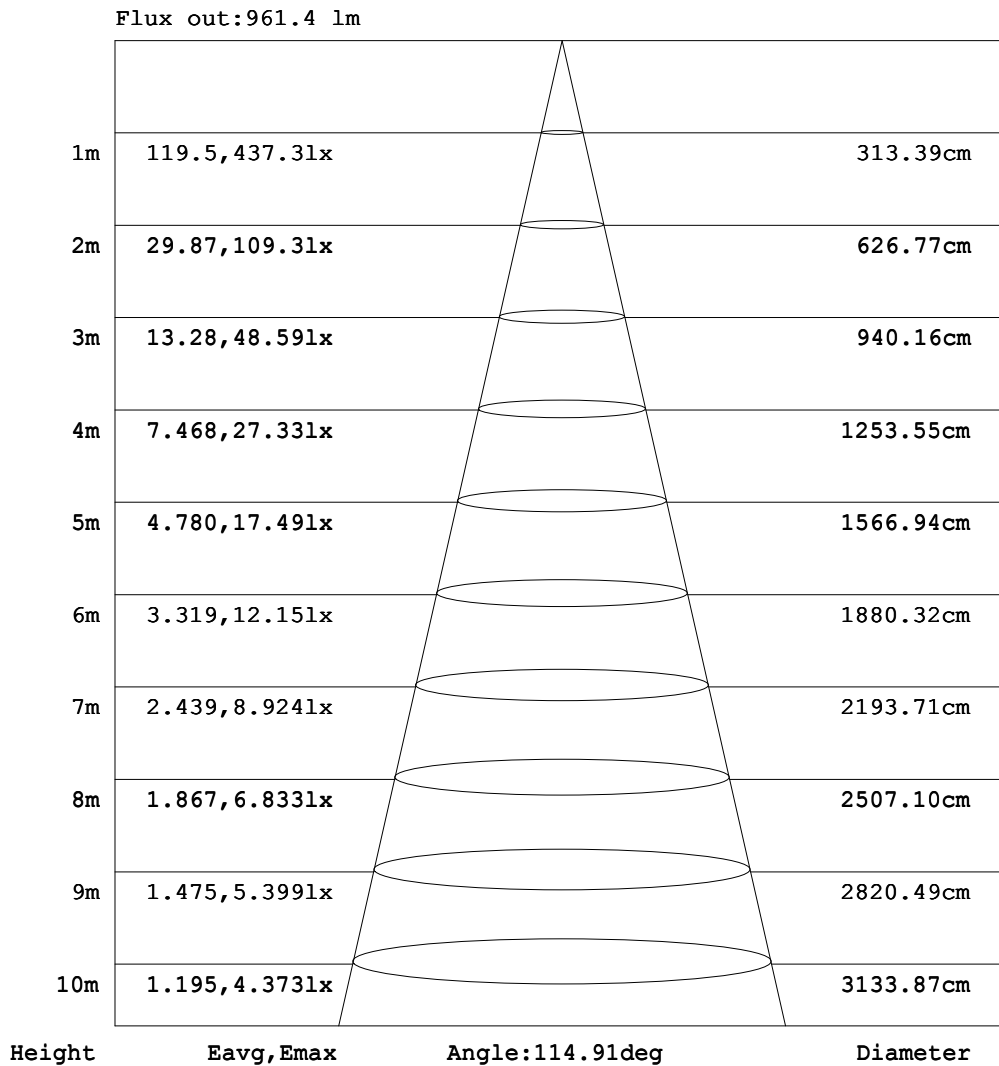
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-11

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.426  
 Humidity:65.0%  
 Test Distance:8.692m [K=1.0000]  
 Remarks:



**AAI Figure**

Test:U:230.16V I:0.0544A P:11.488W PF:0.9169 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-12W-C3-4000K	TYPE: 12W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:



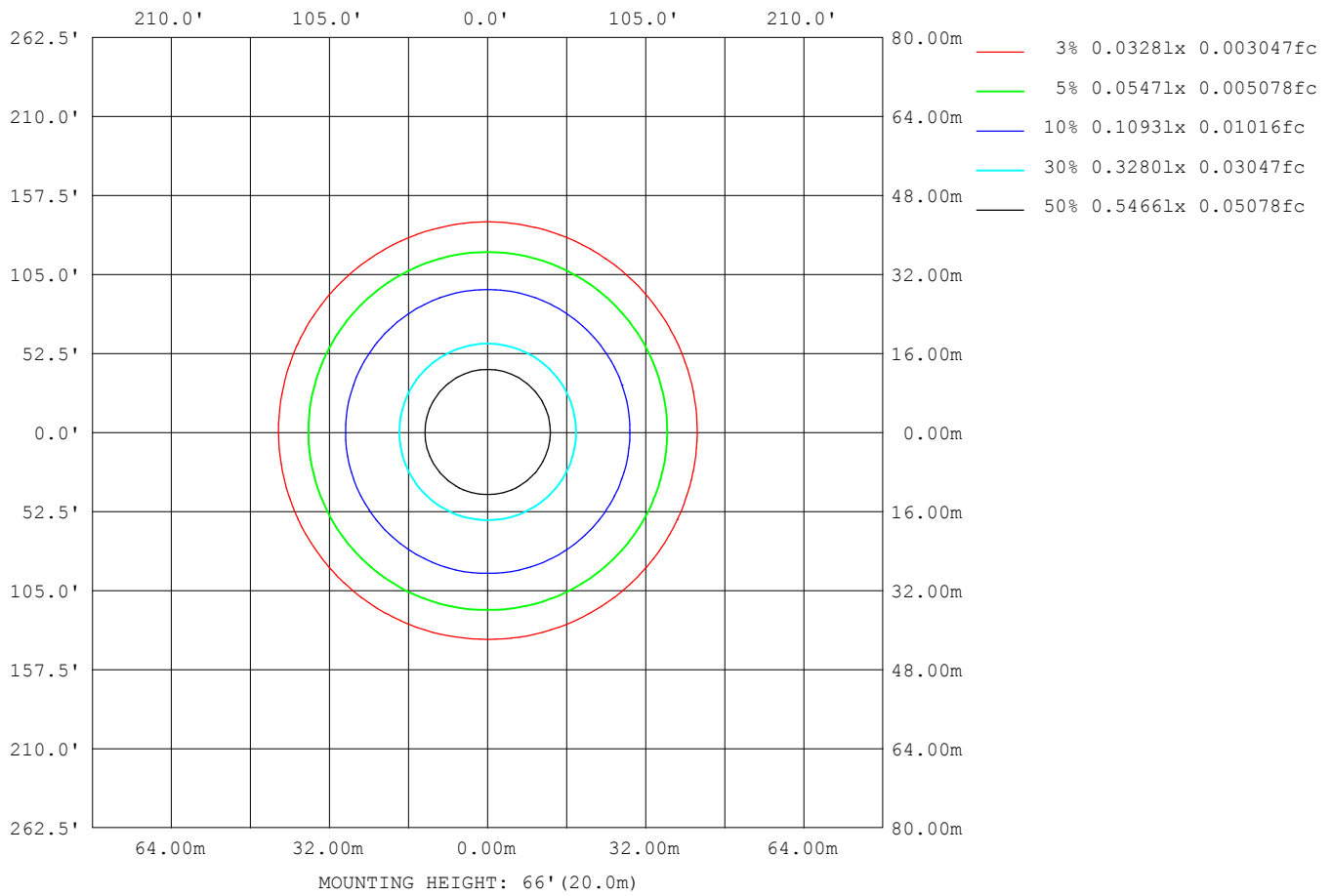
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-11

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.426  
 Humidity:65.0%  
 Test Distance:8.692m [K=1.0000]  
 Remarks:

**ISOLUX DIAGRAM**

Test:U:230.16V I:0.0544A P:11.488W PF:0.9169 Freq:49.99Hz UTHDi:0% ITHDi:0%		Lamp Flux:1633.45x1 lm
NAME: AL117-11-12W-C3-4000K	TYPE: 12W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-11

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.426  
 Humidity:65.0%  
 Test Distance:8.692m [K=1.0000]  
 Remarks:

LED Avg.L Report

Test:U:230.16V I:0.0544A P:11.488W PF:0.9169 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-12W-C3-4000K	TYPE: 12W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:

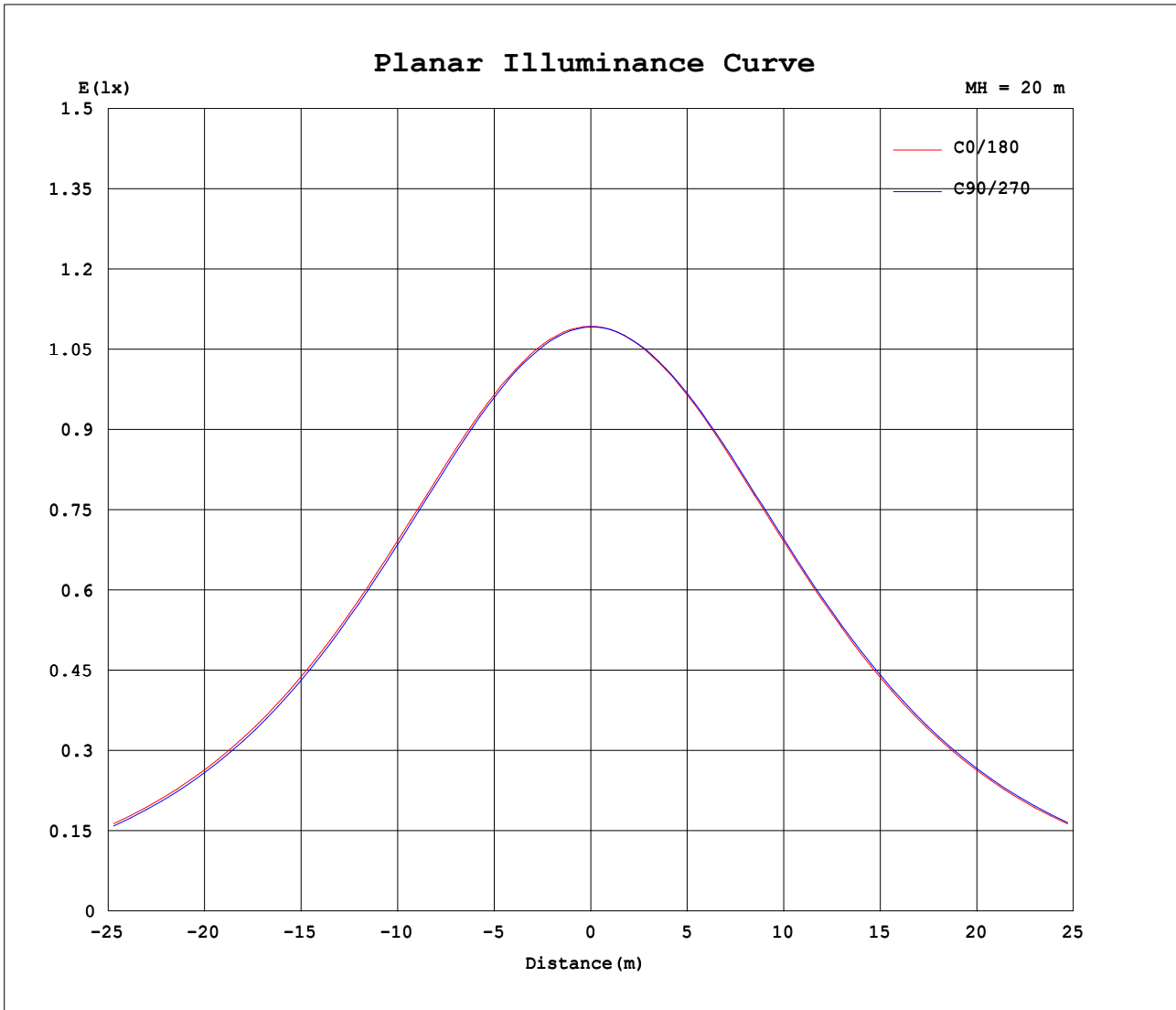
AvgL	cd/m2
L_0~180 (65) av	6670
L_0~180 (75) av	6040
L_0~180 (85) av	5456
L_90~270 (65) av	6617
L_90~270 (75) av	5949
L_90~270 (85) av	5371
L_45 (65) av	6635
L_45 (75) av	5980
L_45 (85) av	5395

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-11

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.426  
 Humidity:65.0%  
 Test Distance:8.692m [K=1.0000]  
 Remarks:

**Planar Illuminance Curve**



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2020-09-11

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.426  
 Humidity: 65.0%  
 Test Distance: 8.692m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.16V I:0.0544A P:11.488W PF:0.9169 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-12W-C3-4000K	TYPE: 12W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270													
0	437	437	437	437													
5	435	434	435	436													
10	429	428	429	431													
15	421	419	421	422													
20	408	406	408	410													
25	392	389	392	395													
30	373	369	372	376													
35	351	347	350	354													
40	326	321	325	330													
45	299	293	298	302													
50	269	263	268	273													
55	237	230	236	240													
60	203	196	202	206													
65	167	160	166	170													
70	130	123	129	133													
75	93.0	85.8	91.5	95.9													
80	58.0	51.8	56.4	60.2													
85	28.7	25.1	27.4	30.1													
90	13.0	11.3	12.0	10.7													

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-11

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.426  
 Humidity:65.0%  
 Test Distance:8.692m [K=1.0000]  
 Remarks: