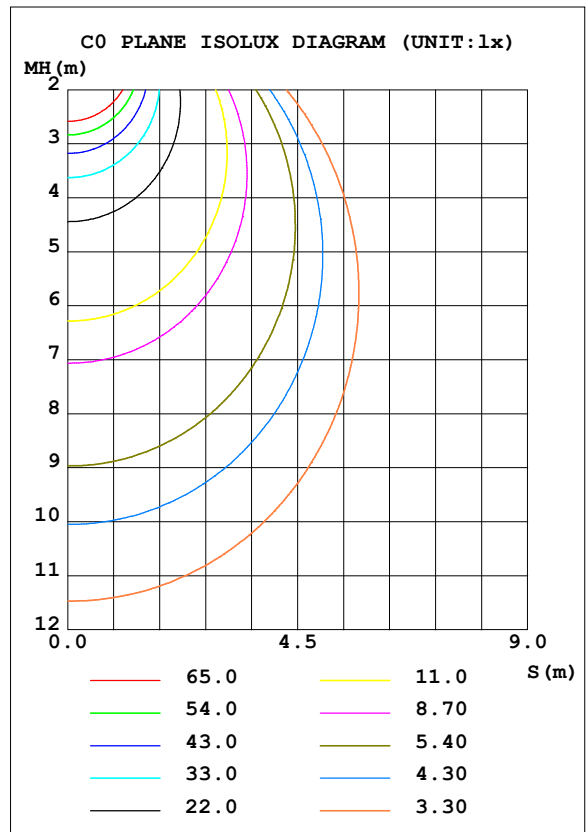
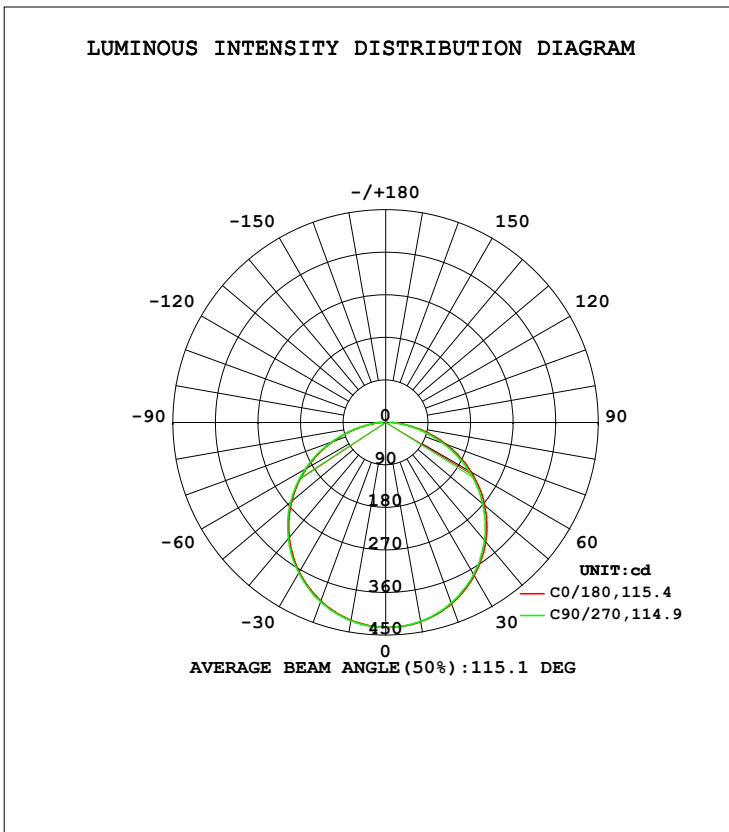


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:230.15V I:0.0558A P:11.808W PF:0.9192 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-12W-5700K	TYPE: 12W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 108.53 lm/W			
MODEL	AL117-11-12W-5700K	I <sub>max</sub> (cd)	433.7	S/MH (C0/180)	1.25
NOMINAL POWER (W)	12	LOR (%)	78.5	S/MH (C90/270)	1.26
RATED VOLTAGE (V)	200-240	TOTAL FLUX (lm)	1281.5	η UP, DN (C0-180)	0.0, 40.1
NOMINAL FLUX (lm)	1633.45	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 38.4
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	78.5	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:

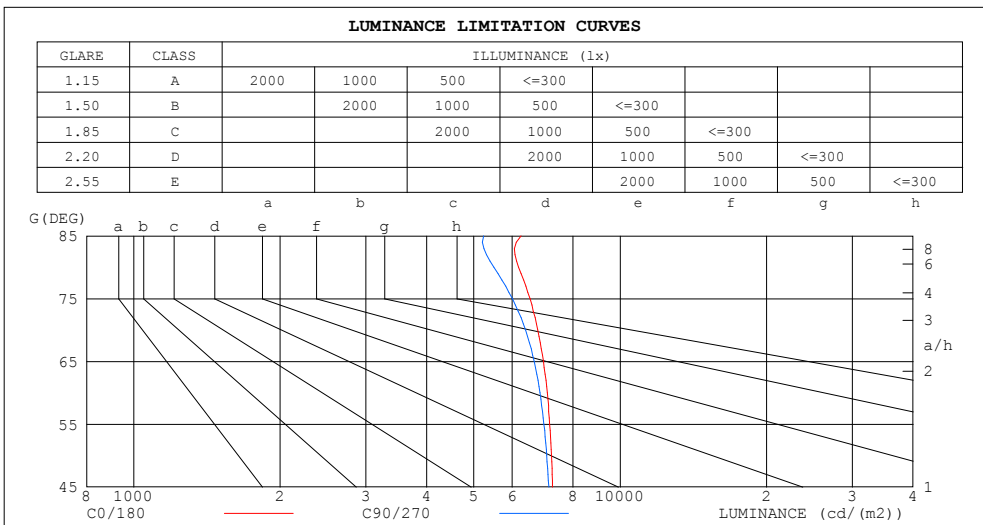
$\gamma$	C0	C90	C180	C270				$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	427.9	427.2	424.7	425.9				0- 10	41.04	41.04	3.2,2.51
20	408.2	406.0	401.6	403.4				10- 20	117.8	158.9	12.4,9.73
30	374.5	371.8	365.7	367.8				20- 30	179.3	338.1	26.4,20.7
40	329.3	325.0	317.5	320.5				30- 40	217.7	555.8	43.4,34
50	273.6	268.3	259.7	263.0				40- 50	228.2	784.0	61.2,48
60	208.9	202.0	193.0	196.3				50- 60	209.1	993.1	77.5,60.8
70	136.4	129.1	119.9	123.0				60- 70	162.3	1155	90.2,70.7
80	63.30	56.46	48.69	51.29				70- 80	95.38	1251	97.6,76.6
90	14.00	8.304	9.687	7.071				80- 90	30.78	1282	100,78.5
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:230.15V I:0.0558A P:11.808W PF:0.9192 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: AL117-11-12W-5700K	TYPE: 12W	WEIGHT:	
SPEC.: 5700K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:	



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	6255	5238
80	6185	5504
75	6527	6008
70	6769	6392
65	6954	6657
60	7089	6839
55	7165	6972
50	7222	7066
45	7258	7134

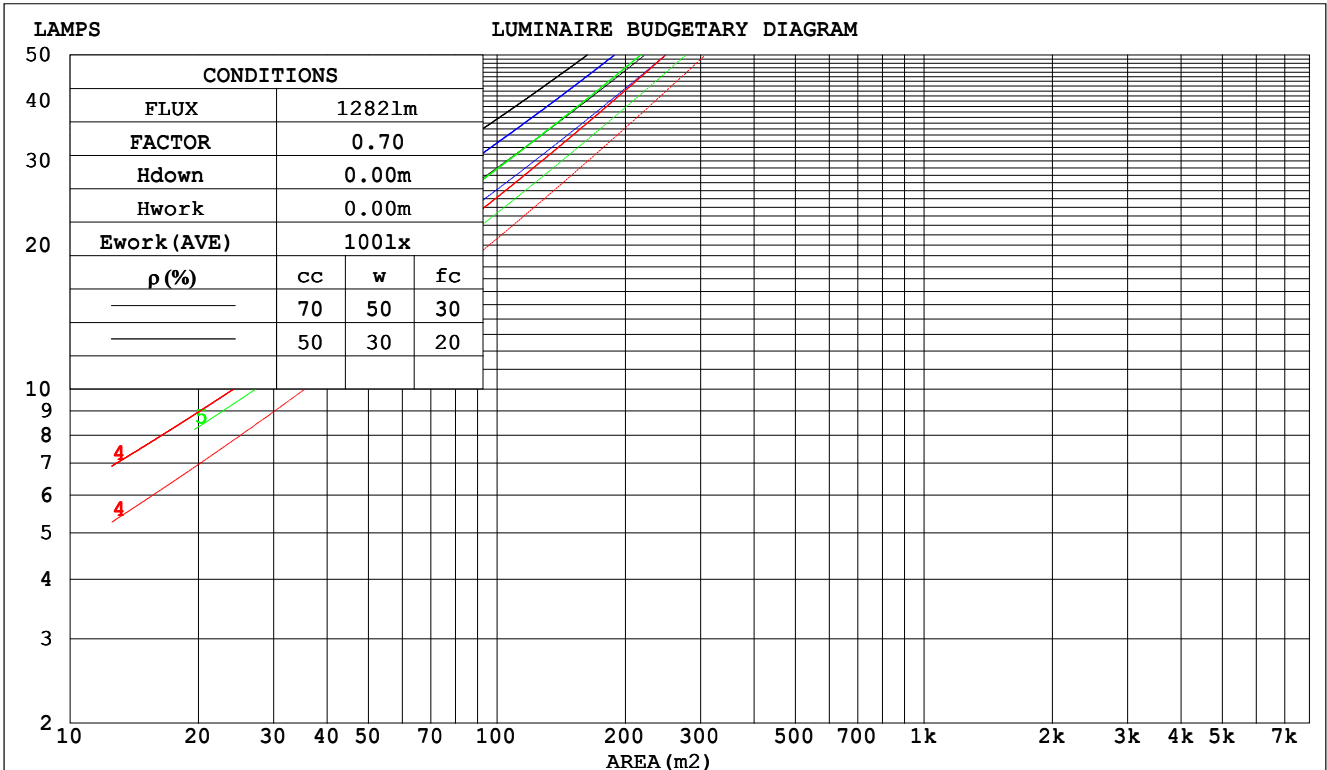
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-11

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:230.15V I:0.0558A P:11.808W PF:0.9192 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-12W-5700K	TYPE: 12W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	.93	.93	.93	.91	.91	.91	.87	.87	.87	.83	.83	.83	.80	.80	.80	.78
1.0	.81	.78	.75	.79	.76	.73	.76	.73	.71	.73	.71	.69	.70	.68	.67	.65
2.0	.70	.65	.60	.69	.64	.60	.66	.62	.58	.64	.60	.57	.61	.58	.56	.54
3.0	.62	.55	.50	.60	.54	.49	.58	.53	.49	.56	.51	.48	.54	.50	.47	.45
4.0	.55	.48	.42	.54	.47	.42	.52	.46	.41	.50	.45	.41	.48	.44	.40	.38
5.0	.49	.41	.36	.48	.41	.36	.46	.40	.36	.45	.39	.35	.43	.38	.35	.33
6.0	.44	.37	.32	.43	.36	.31	.42	.36	.31	.40	.35	.31	.39	.34	.31	.29
7.0	.40	.33	.28	.39	.32	.28	.38	.32	.27	.37	.31	.27	.36	.31	.27	.25
8.0	.36	.29	.25	.36	.29	.25	.35	.29	.24	.34	.28	.24	.33	.28	.24	.23
9.0	.33	.27	.22	.33	.26	.22	.32	.26	.22	.31	.26	.22	.30	.25	.22	.20
10.0	.31	.24	.20	.30	.24	.20	.29	.24	.20	.29	.23	.20	.28	.23	.20	.18



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:230.15V I:0.0558A P:11.808W PF:0.9192 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm		
NAME: AL117-11-12W-5700K		TYPE: 12W		WEIGHT:	
SPEC.: 5700K		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	.250	.142	.045	.245	.139	.044	.234	.134	.043	.224	.129	.042	.216	.125	.040	
2.0	.234	.128	.039	.229	.126	.039	.219	.122	.038	.211	.118	.037	.203	.115	.036	
3.0	.215	.115	.034	.211	.113	.034	.203	.110	.033	.195	.107	.033	.188	.104	.032	
4.0	.198	.103	.030	.194	.102	.030	.187	.099	.030	.180	.097	.029	.174	.095	.029	
5.0	.183	.093	.027	.179	.092	.027	.173	.090	.027	.167	.088	.026	.161	.086	.026	
6.0	.169	.085	.024	.166	.084	.024	.161	.082	.024	.155	.081	.024	.150	.079	.023	
7.0	.157	.078	.022	.155	.077	.022	.150	.076	.022	.145	.074	.022	.140	.073	.021	
8.0	.147	.072	.020	.144	.071	.020	.140	.070	.020	.136	.069	.020	.132	.068	.020	
9.0	.138	.067	.019	.135	.066	.019	.131	.065	.018	.127	.064	.018	.124	.063	.018	
10.0	.129	.062	.017	.127	.061	.017	.124	.061	.017	.120	.060	.017	.117	.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	.149	.149	.149	.128	.128	.128	.087	.087	.087	.050	.050	.050	.016	.016	.016	
1.0	.142	.122	.105	.121	.105	.090	.083	.072	.062	.048	.042	.036	.015	.013	.012	
2.0	.136	.103	.076	.116	.089	.066	.080	.062	.046	.046	.036	.027	.015	.012	.009	
3.0	.130	.090	.058	.111	.077	.050	.076	.054	.035	.044	.031	.021	.014	.010	.007	
4.0	.124	.079	.045	.106	.069	.039	.073	.048	.028	.042	.028	.016	.014	.009	.005	
5.0	.118	.071	.037	.101	.062	.032	.070	.043	.023	.040	.025	.013	.013	.008	.004	
6.0	.112	.065	.030	.096	.056	.027	.067	.039	.019	.039	.023	.011	.012	.008	.004	
7.0	.107	.059	.026	.092	.051	.023	.063	.036	.016	.037	.021	.010	.012	.007	.003	
8.0	.102	.055	.022	.088	.047	.019	.061	.033	.014	.035	.020	.008	.011	.006	.003	
9.0	.097	.051	.020	.083	.044	.017	.058	.031	.012	.034	.018	.007	.011	.006	.002	
10.0	.092	.047	.017	.080	.041	.015	.055	.029	.011	.032	.017	.006	.010	.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:230.15V I:0.0558A P:11.808W PF:0.9192 Freq:49.99Hz UTHDi:0% ITHDi:0%		Lamp Flux:1633.45x1 lm
NAME: AL117-11-12W-5700K	TYPE: 12W	WEIGHT:
SPEC.: 5700K	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	19.8	21.4	20.1	21.6	21.8	19.7	21.3	20.0	21.5	21.7
3H	21.5	22.9	21.8	23.2	23.4	21.3	22.7	21.6	23.0	23.2
4H	22.2	23.6	22.5	23.8	24.1	22.0	23.3	22.3	23.6	23.8
6H	22.7	24.0	23.1	24.3	24.6	22.4	23.7	22.8	24.0	24.3
8H	22.9	24.2	23.3	24.5	24.8	22.6	23.8	22.9	24.1	24.4
12H	23.1	24.3	23.4	24.6	24.9	22.7	23.9	23.1	24.2	24.5
4H 2H	20.5	21.8	20.8	22.1	22.3	20.4	21.7	20.7	22.0	22.3
3H	22.3	23.5	22.7	23.8	24.1	22.2	23.4	22.5	23.7	24.0
4H	23.2	24.2	23.5	24.6	24.9	22.9	24.0	23.3	24.4	24.7
6H	23.8	24.8	24.2	25.2	25.5	23.6	24.5	24.0	24.9	25.2
8H	24.1	25.0	24.5	25.4	25.7	23.8	24.7	24.2	25.0	25.4
12H	24.3	25.1	24.7	25.5	25.9	23.9	24.8	24.4	25.2	25.6
8H 4H	23.4	24.3	23.9	24.7	25.1	23.3	24.2	23.7	24.5	24.9
6H	24.3	25.0	24.7	25.4	25.9	24.0	24.8	24.5	25.2	25.6
8H	24.6	25.3	25.1	25.7	26.2	24.3	25.0	24.8	25.4	25.9
12H	24.9	25.5	25.4	26.0	26.4	24.6	25.2	25.1	25.6	26.1
12H 4H	23.5	24.3	23.9	24.7	25.1	23.3	24.1	23.7	24.5	24.9
6H	24.4	25.0	24.8	25.4	25.9	24.1	24.8	24.6	25.2	25.7
8H	24.8	25.3	25.2	25.8	26.3	24.5	25.0	24.9	25.5	26.0
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					+ 0.1 / - 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:230.15V I:0.0558A P:11.808W PF:0.9192 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: AL117-11-12W-5700K	TYPE: 12W	WEIGHT:	
SPEC.: 5700K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:	

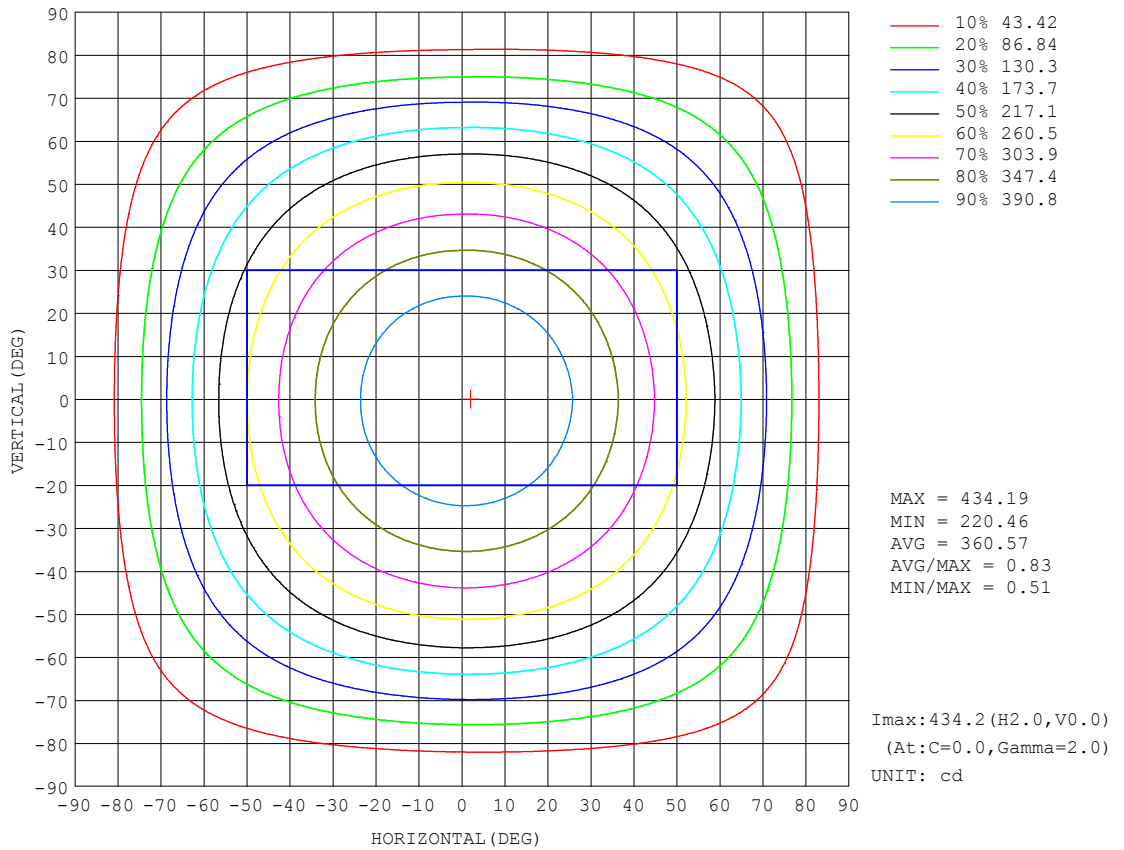
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	45	35	30	44	35	30	43	35	30	25
0.80	52	43	37	52	43	37	50	42	37	31
1.00	59	50	44	58	50	44	56	51	44	38
1.25	65	56	51	63	56	50	61	55	50	44
1.50	69	61	55	67	60	55	65	59	54	48
2.00	74	67	62	73	66	61	70	64	60	54
2.50	77	71	66	76	70	65	72	68	64	57
3.00	80	74	70	78	73	69	75	71	67	61
4.00	83	78	75	81	77	74	78	74	71	64
5.00	85	81	78	83	80	77	79	77	74	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:230.15V I:0.0558A P:11.808W PF:0.9192 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-12W-5700K	TYPE: 12W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:



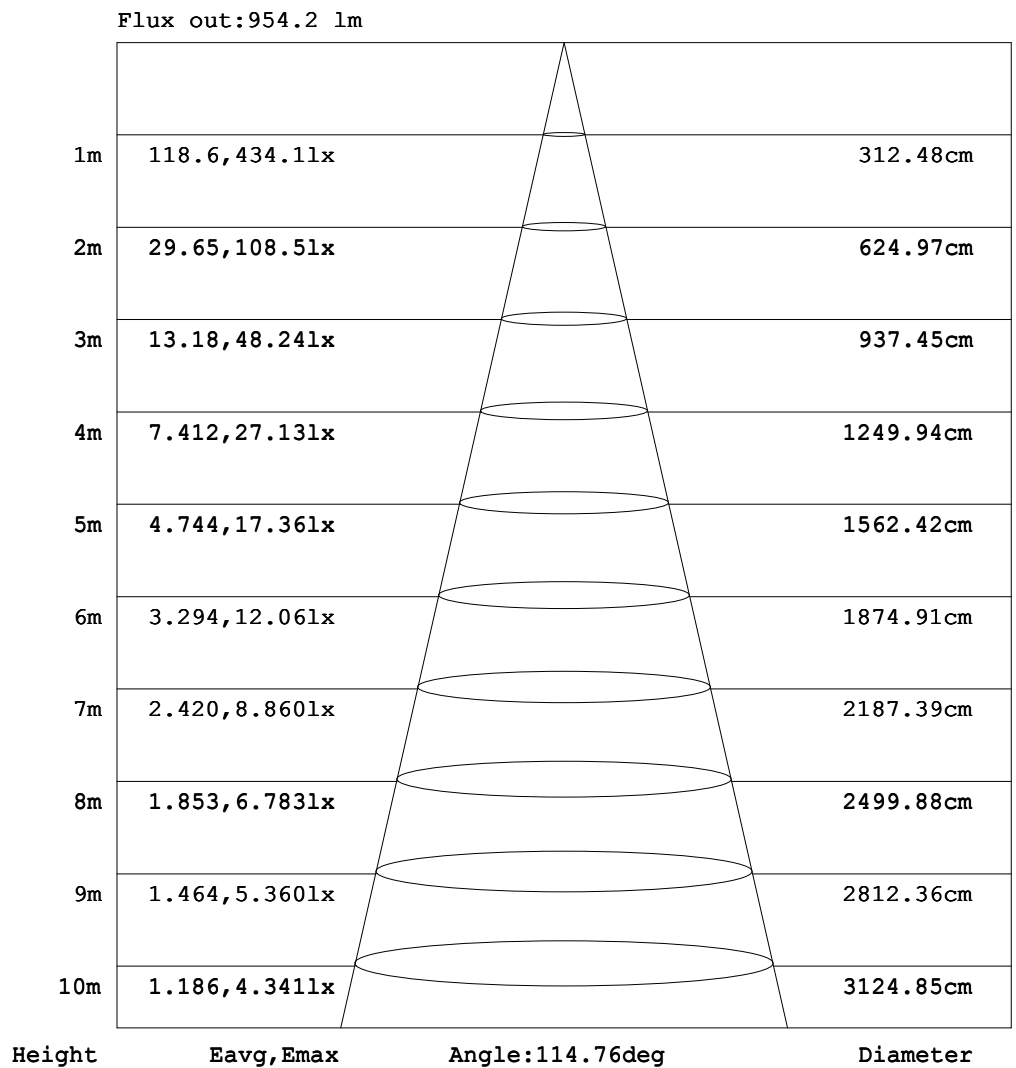
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-11

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:230.15V I:0.0558A P:11.808W PF:0.9192 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-12W-5700K	TYPE: 12W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:



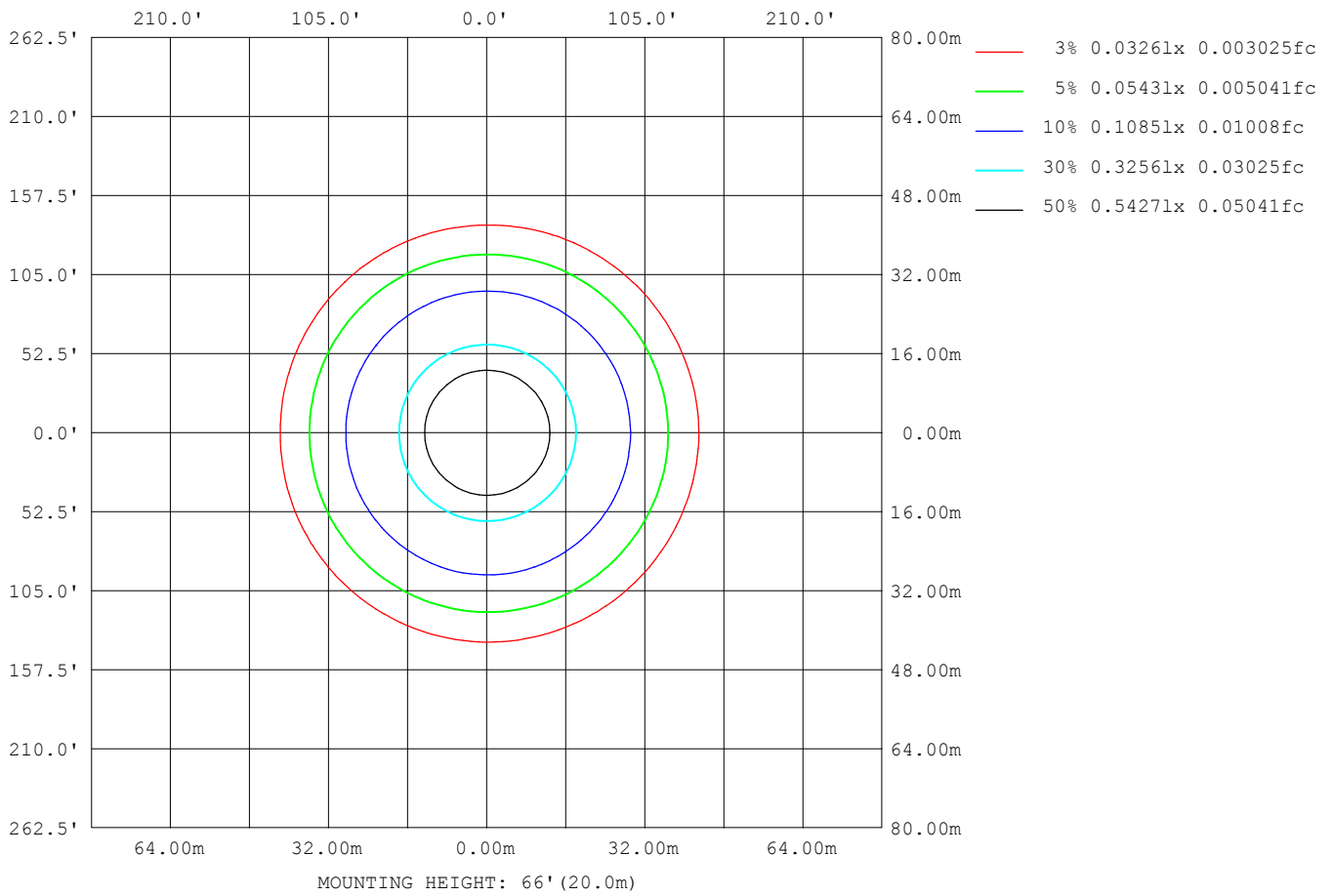
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:230.15V I:0.0558A P:11.808W PF:0.9192 Freq:49.99Hz UTHDi:0% ITHDi:0%		Lamp Flux:1633.45x1 lm
NAME: AL117-11-12W-5700K	TYPE: 12W	WEIGHT:
SPEC.: 5700K	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:230.15V I:0.0558A P:11.808W PF:0.9192 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-12W-5700K	TYPE: 12W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:

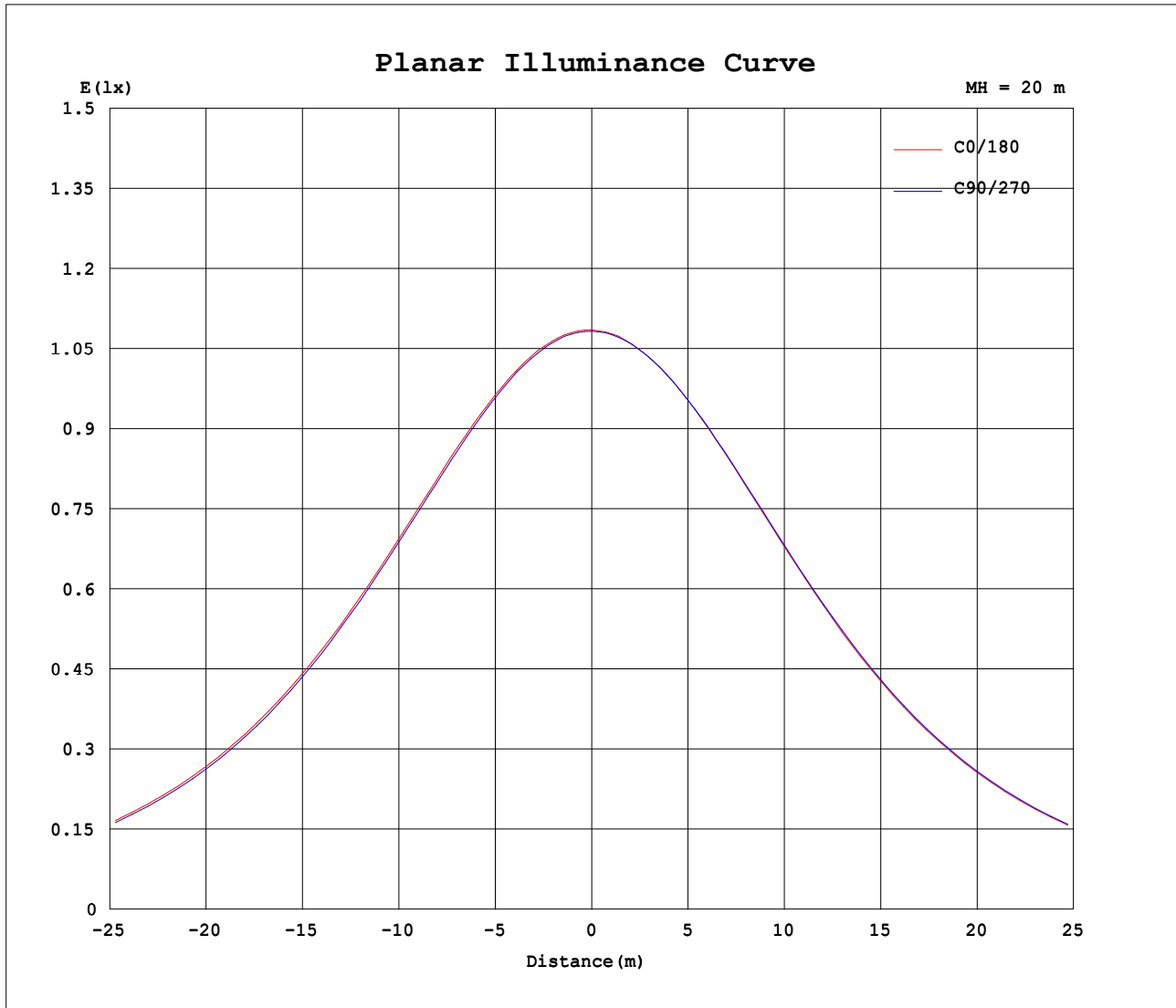
AvgL	cd/m2
L_0~180 (65) av	6621
L_0~180 (75) av	5986
L_0~180 (85) av	5232
L_90~270 (65) av	6543
L_90~270 (75) av	5823
L_90~270 (85) av	4883
L_45 (65) av	6552
L_45 (75) av	5851
L_45 (85) av	4951

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:230.15V I:0.0558A P:11.808W PF:0.9192 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: AL117-11-12W-5700K	TYPE: 12W	WEIGHT:	
SPEC.: 5700K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:	

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	434	434	434	434															
5	432	432	431	431															
10	428	427	425	426															
15	420	418	415	416															
20	408	406	402	403															
25	393	390	385	387															
30	374	372	366	368															
35	353	350	343	346															
40	329	325	318	321															
45	302	298	290	293															
50	274	268	260	263															
55	242	236	227	231															
60	209	202	193	196															
65	173	166	157	160															
70	136	129	120	123															
75	99.5	91.9	83.3	86.0															
80	63.3	56.5	48.7	51.3															
85	32.1	27.0	21.7	23.3															
90	14.0	8.30	9.69	7.07															

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: