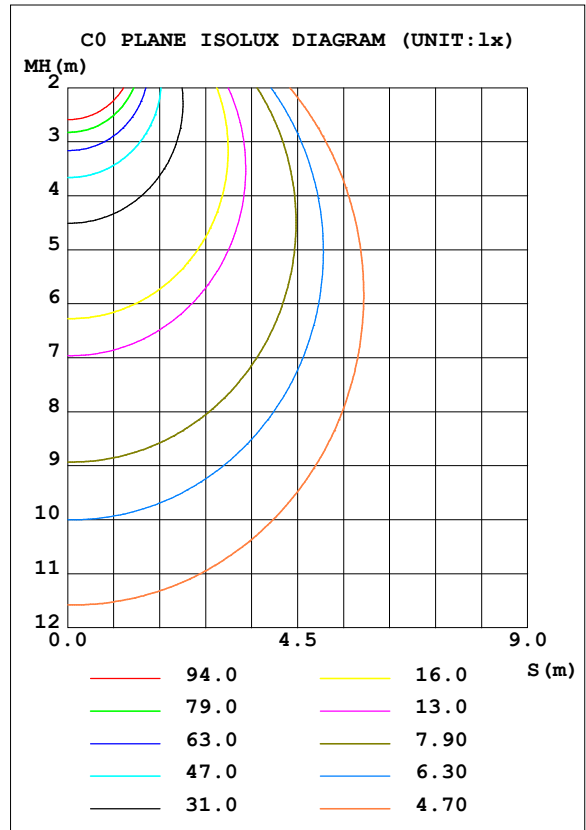
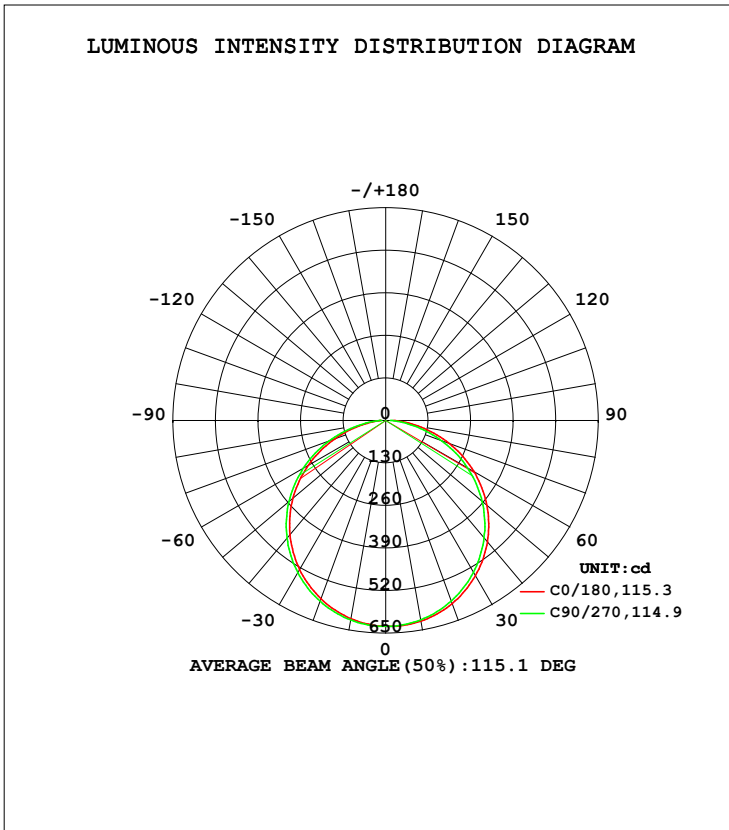


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:230.19V I:0.0810A P:17.166W PF:0.9370 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-18W-C3-4000K	TYPE: 18W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 108.55 lm/W			
MODEL	AL117-11-18W-C3-4000K	I <sub>max</sub> (cd)	629.6	S/MH (C0/180)	1.24
NOMINAL POWER (W)	18	LOR (%)	114.1	S/MH (C90/270)	1.27
RATED VOLTAGE (V)	200-240	TOTAL FLUX (lm)	1863.4	η UP, DN (C0-180)	0.0,58.5
NOMINAL FLUX (lm)	1633.45	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0,55.6
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	114.1	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:

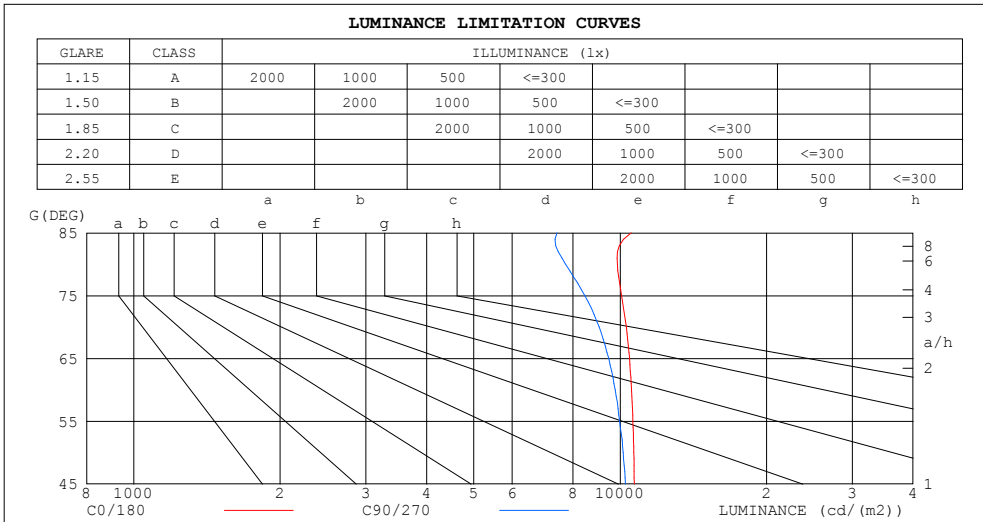
$\gamma$	C0	C90	C180	C270				$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	622.9	618.7	615.0	619.0				0- 10	59.58	59.58	3.2,3.65
20	595.2	586.8	579.8	587.5				10- 20	171.0	230.5	12.4,14.1
30	548.7	536.1	526.0	537.3				20- 30	260.2	490.7	26.3,30
40	484.0	468.2	455.1	469.5				30- 40	316.0	806.7	43.3,49.4
50	403.9	385.1	370.3	386.1				40- 50	331.3	1138	61.1,69.7
60	310.7	288.4	272.0	290.1				50- 60	303.5	1441	77.4,88.2
70	207.5	182.9	166.0	184.2				60- 70	235.8	1677	90,103
80	101.0	79.26	65.15	79.62				70- 80	139.4	1817	97.5,111
90	24.31	13.93	14.61	12.35				80- 90	46.75	1863	100,114
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:230.19V I:0.0810A P:17.166W PF:0.9370 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: AL117-11-18W-C3-4000K	TYPE: 18W	WEIGHT:	
SPEC.: 4000K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:	



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	10540	7416
80	9866	7727
75	10075	8463
70	10293	9055
65	10456	9474
60	10544	9766
55	10622	9980
50	10662	10143
45	10695	10256

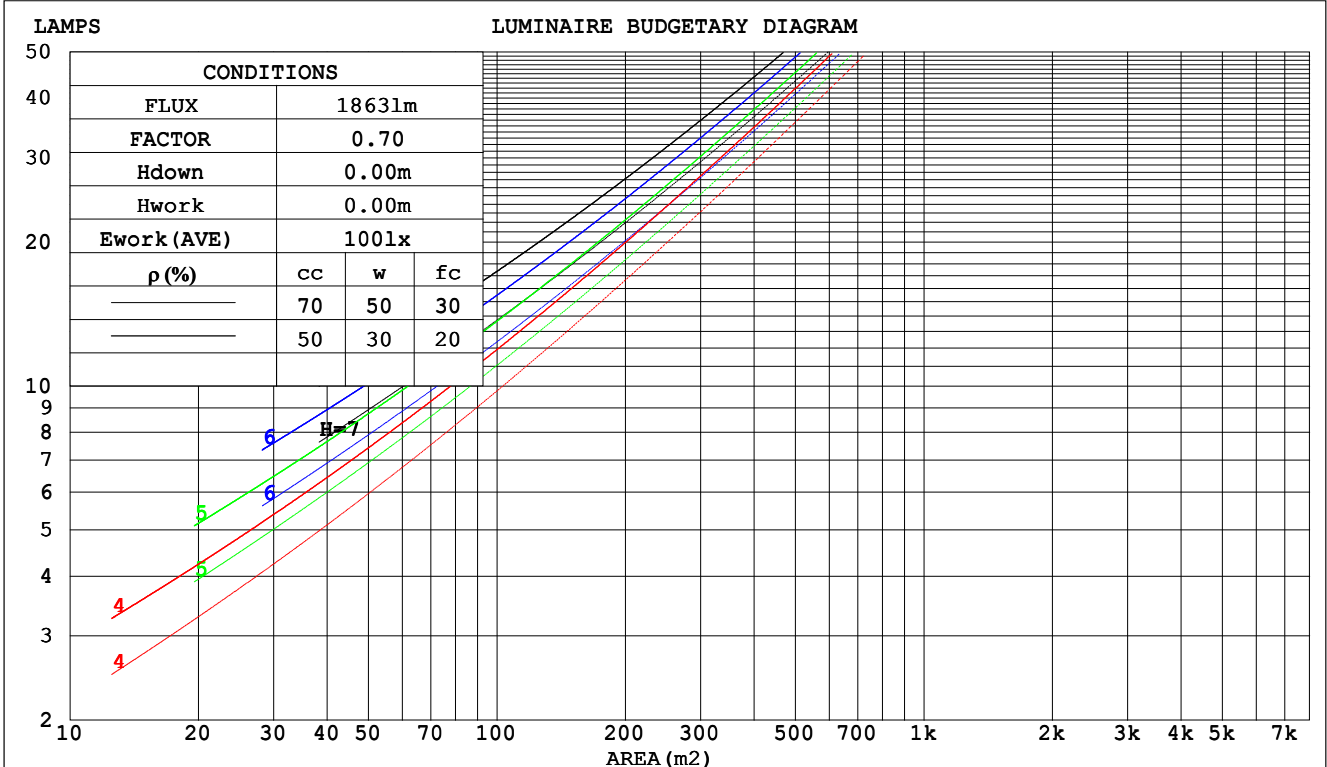
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-11

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:230.19V I:0.0810A P:17.166W PF:0.9370 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-18W-C3-4000K	TYPE: 18W	WEIGHT:
SPEC.: 4000K	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
p <sub>w</sub>	20%			20%			20%			20%			20%			0
p <sub>fc</sub>	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.36	1.36	1.36	1.33	1.33	1.33	1.27	1.27	1.27	1.21	1.21	1.21	1.16	1.16	1.16	1.14
1.0	1.18	1.13	1.08	1.15	1.11	1.06	1.10	1.07	1.03	1.06	1.03	.00	1.02	.99	.97	.95
2.0	1.02	.94	.88	1.00	.93	.87	.96	.90	.85	.92	.87	.83	.89	.85	.81	.78
3.0	.90	.80	.72	.88	.79	.72	.84	.77	.71	.81	.75	.69	.78	.73	.68	.66
4.0	.79	.69	.61	.78	.68	.61	.75	.66	.60	.72	.65	.59	.70	.63	.58	.56
5.0	.71	.60	.53	.69	.60	.52	.67	.58	.52	.65	.57	.51	.63	.56	.50	.48
6.0	.64	.53	.46	.62	.53	.46	.60	.52	.45	.58	.51	.45	.57	.50	.44	.42
7.0	.58	.47	.40	.57	.47	.40	.55	.46	.40	.53	.45	.40	.52	.45	.39	.37
8.0	.52	.43	.36	.52	.42	.36	.50	.42	.36	.49	.41	.35	.47	.40	.35	.33
9.0	.48	.39	.32	.47	.38	.32	.46	.38	.32	.45	.37	.32	.44	.37	.32	.30
10.0	.44	.35	.29	.44	.35	.29	.43	.35	.29	.42	.34	.29	.41	.34	.29	.27



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:230.19V I:0.0810A P:17.166W PF:0.9370 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm		
NAME: AL117-11-18W-C3-4000K		TYPE: 18W		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	.365	.208	.066	.357	.204	.065	.342	.196	.063	.328	.189	.061	.315	.183	.059	
2.0	.340	.187	.057	.333	.184	.057	.320	.178	.055	.307	.173	.054	.296	.167	.053	
3.0	.314	.167	.050	.307	.165	.050	.295	.160	.049	.284	.156	.048	.274	.152	.047	
4.0	.289	.150	.044	.283	.148	.044	.272	.144	.043	.263	.141	.043	.254	.138	.042	
5.0	.266	.136	.039	.261	.134	.039	.252	.131	.039	.243	.128	.038	.235	.126	.038	
6.0	.246	.124	.035	.242	.122	.035	.234	.120	.035	.226	.117	.035	.219	.115	.034	
7.0	.229	.113	.032	.225	.112	.032	.218	.110	.032	.211	.108	.031	.204	.106	.031	
8.0	.214	.104	.029	.210	.103	.029	.204	.102	.029	.197	.100	.029	.191	.098	.029	
9.0	.200	.097	.027	.197	.096	.027	.191	.094	.027	.185	.093	.027	.180	.091	.026	
10.0	.188	.090	.025	.185	.089	.025	.180	.088	.025	.175	.087	.025	.170	.085	.025	

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	.217	.217	.217	.186	.186	.186	.127	.127	.127	.073	.073	.073	.023	.023	.023	
1.0	.206	.178	.152	.177	.153	.131	.121	.105	.091	.070	.061	.053	.022	.020	.017	
2.0	.198	.150	.111	.169	.130	.096	.116	.090	.067	.067	.052	.039	.021	.017	.013	
3.0	.189	.130	.084	.162	.113	.073	.111	.078	.051	.064	.046	.030	.021	.015	.010	
4.0	.180	.115	.066	.154	.100	.057	.106	.069	.040	.061	.041	.024	.020	.013	.008	
5.0	.171	.103	.053	.147	.090	.046	.101	.063	.033	.059	.037	.019	.019	.012	.006	
6.0	.163	.094	.044	.140	.081	.039	.097	.057	.027	.056	.034	.016	.018	.011	.005	
7.0	.155	.086	.038	.134	.075	.033	.092	.052	.023	.054	.031	.014	.017	.010	.005	
8.0	.148	.079	.032	.127	.069	.028	.088	.048	.020	.051	.029	.012	.017	.009	.004	
9.0	.141	.074	.029	.121	.064	.025	.084	.045	.018	.049	.027	.011	.016	.009	.003	
10.0	.134	.069	.025	.116	.060	.022	.080	.042	.016	.047	.025	.009	.015	.008	.003	

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:230.19V I:0.0810A P:17.166W PF:0.9370 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm		
NAME: AL117-11-18W-C3-4000K		TYPE: 18W		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	21.2	22.8	21.5	23.0	23.2	21.0	22.5	21.2	22.7	22.9
3H	23.0	24.4	23.3	24.6	24.9	22.5	24.0	22.8	24.2	24.4
4H	23.7	25.1	24.0	25.3	25.6	23.2	24.5	23.5	24.8	25.0
6H	24.3	25.6	24.6	25.8	26.1	23.6	24.9	24.0	25.2	25.5
8H	24.5	25.8	24.9	26.0	26.3	23.8	25.0	24.1	25.3	25.6
12H	24.7	25.9	25.1	26.2	26.5	23.9	25.1	24.3	25.4	25.7
4H 2H	21.9	23.2	22.2	23.5	23.7	21.7	23.0	22.0	23.3	23.5
3H	23.8	25.0	24.1	25.3	25.6	23.4	24.6	23.8	24.9	25.2
4H	24.6	25.7	25.0	26.0	26.4	24.2	25.3	24.6	25.6	25.9
6H	25.4	26.3	25.8	26.7	27.1	24.8	25.8	25.2	26.1	26.5
8H	25.7	26.6	26.1	26.9	27.3	25.0	25.9	25.4	26.3	26.7
12H	25.9	26.8	26.3	27.1	27.5	25.2	26.0	25.6	26.4	26.8
8H 4H	24.9	25.8	25.3	26.2	26.6	24.5	25.4	24.9	25.8	26.2
6H	25.8	26.6	26.3	27.0	27.4	25.3	26.0	25.7	26.4	26.9
8H	26.2	26.9	26.7	27.3	27.8	25.6	26.3	26.1	26.7	27.1
12H	26.6	27.2	27.1	27.6	28.1	25.9	26.4	26.3	26.9	27.4
12H 4H	24.9	25.8	25.4	26.2	26.6	24.6	25.4	25.0	25.8	26.2
6H	25.9	26.6	26.4	27.0	27.4	25.4	26.1	25.8	26.5	26.9
8H	26.3	26.9	26.8	27.4	27.8	25.7	26.3	26.2	26.8	27.2
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:230.19V I:0.0810A P:17.166W PF:0.9370 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: AL117-11-18W-C3-4000K	TYPE: 18W	WEIGHT:	
SPEC.: 4000K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:	

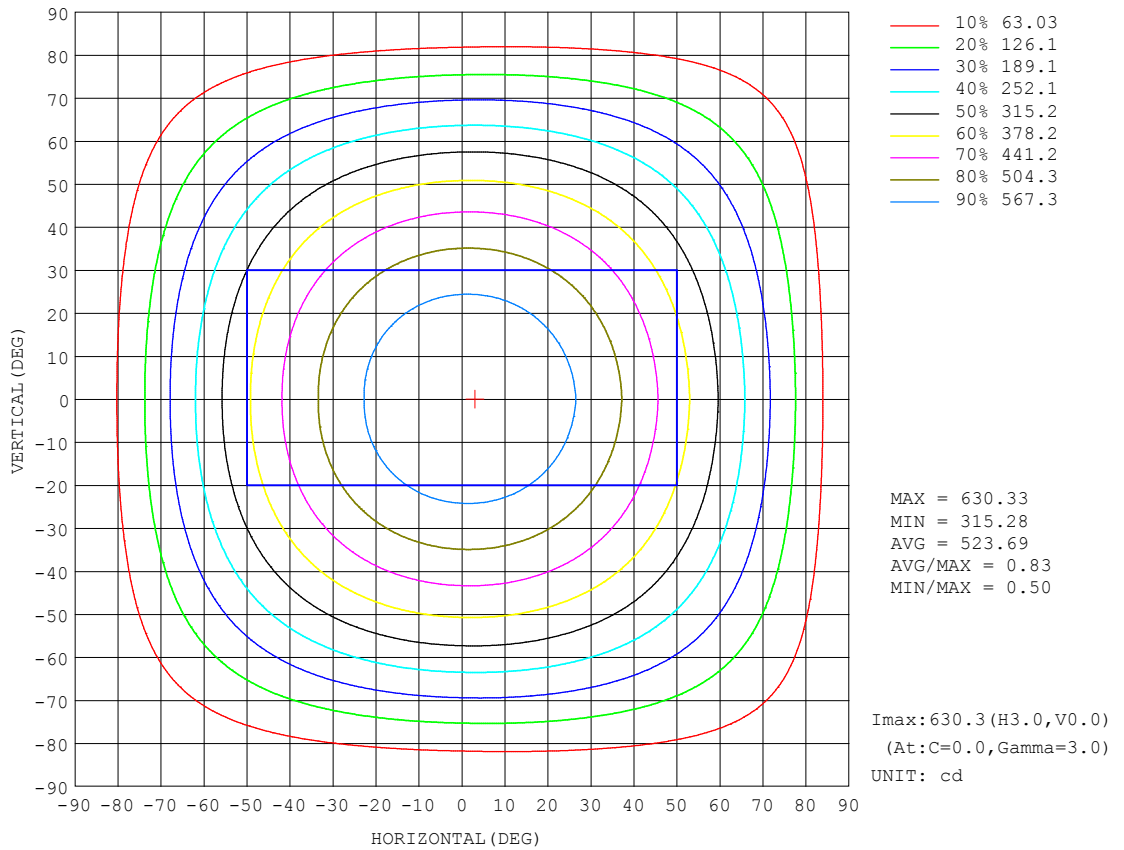
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	65	51	43	64	51	43	63	51	43	36
0.80	76	63	54	75	62	54	73	61	54	46
1.00	86	73	64	84	72	64	82	74	63	55
1.25	94	82	73	92	81	73	89	79	72	63
1.50	100	88	80	98	87	79	94	85	78	69
2.00	108	98	90	105	96	89	101	94	87	78
2.50	112	103	96	110	101	95	105	98	93	83
3.00	116	108	101	114	106	100	109	103	98	88
4.00	121	114	108	118	112	107	113	108	104	94
5.00	123	118	113	121	116	111	115	111	108	97
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:230.19V I:0.0810A P:17.166W PF:0.9370 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-18W-C3-4000K	TYPE: 18W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:



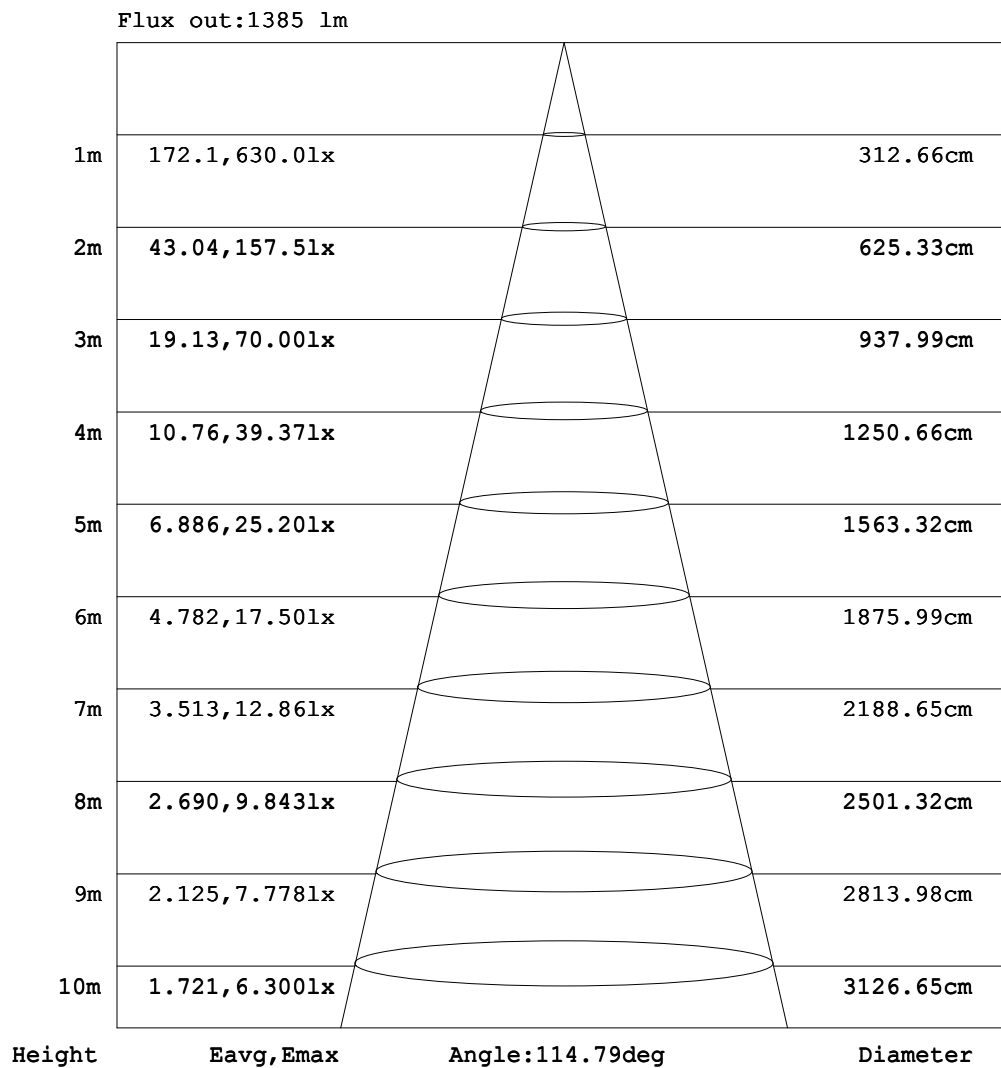
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2020-09-11

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:230.19V I:0.0810A P:17.166W PF:0.9370 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-18W-C3-4000K	TYPE: 18W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:



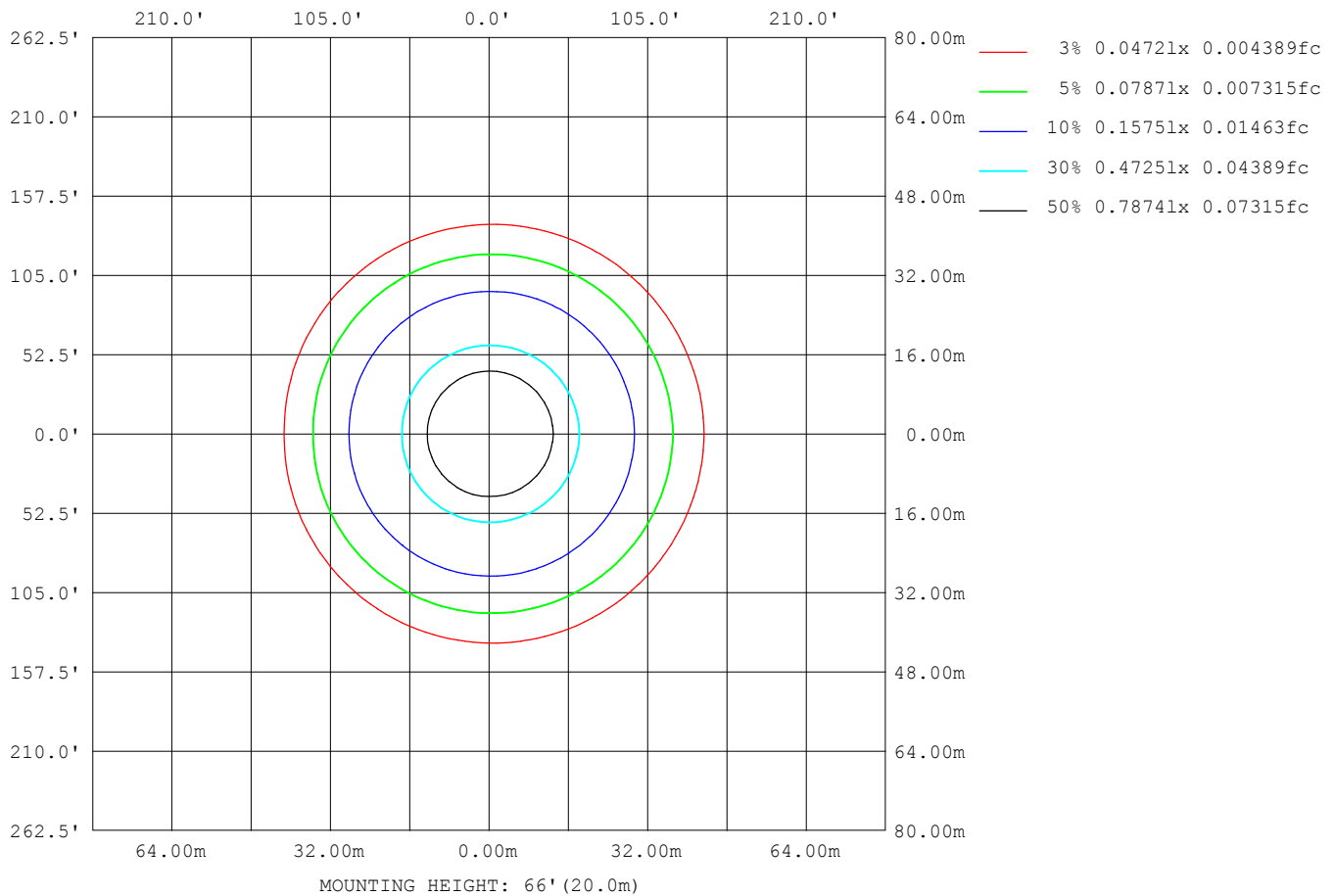
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:230.19V I:0.0810A P:17.166W PF:0.9370 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-18W-C3-4000K	TYPE: 18W	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:230.19V I:0.0810A P:17.166W PF:0.9370 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-18W-C3-4000K	TYPE: 18W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.059	Shielding Angle:

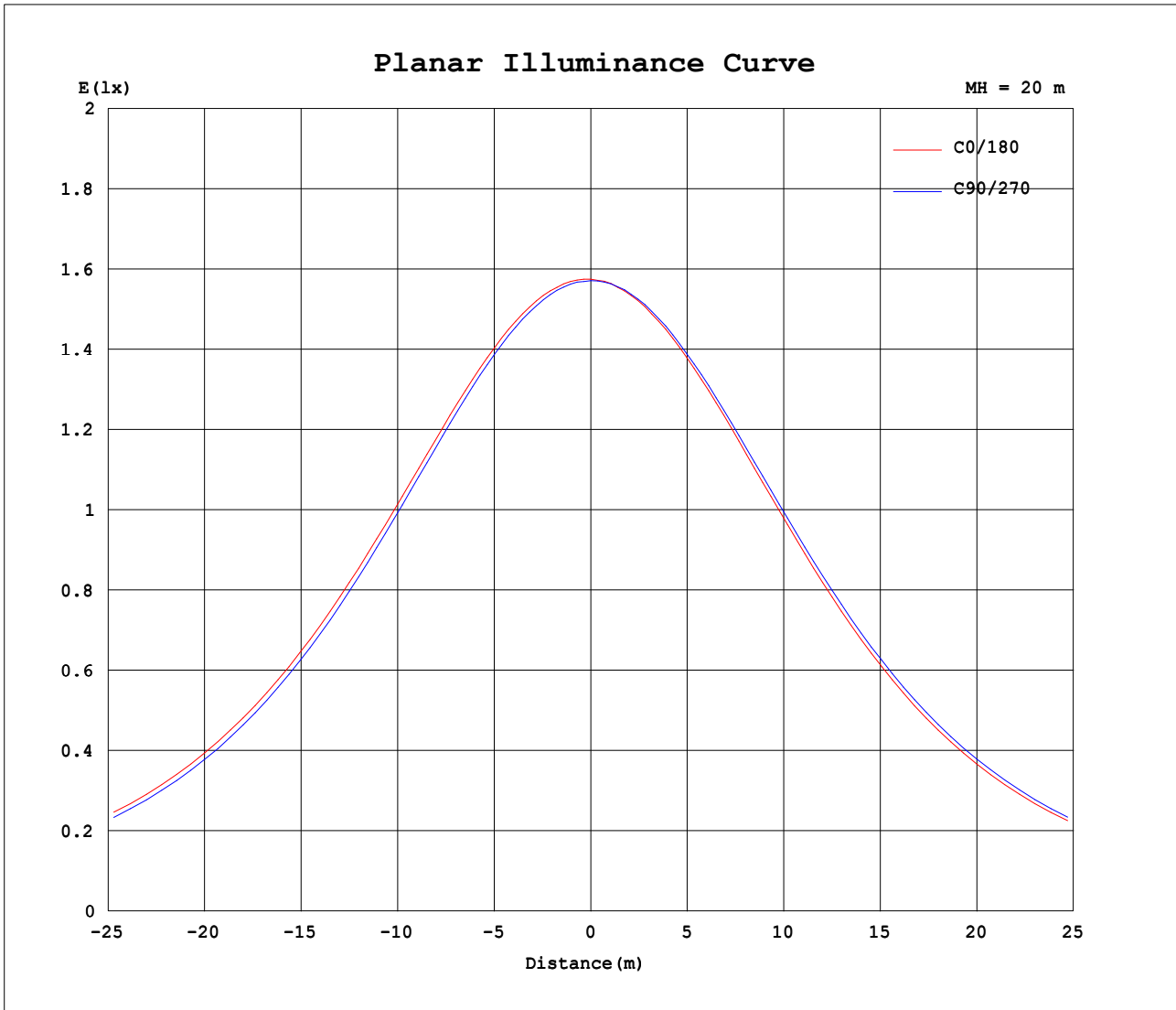
AvgL	cd/m2
L_0~180 (65) av	9626
L_0~180 (75) av	8737
L_0~180 (85) av	8088
L_90~270 (65) av	9512
L_90~270 (75) av	8506
L_90~270 (85) av	7363
L_45 (65) av	9504
L_45 (75) av	8510
L_45 (85) av	7483

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

$\gamma$  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:

**LUMINOUS DISTRIBUTION INTENSITY DATA**

Test:U:230.19V I:0.0810A P:17.166W PF:0.9370 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-11-18W-C3-4000K	TYPE: 18W	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	629	629	629	629																
5	628	627	625	627																
10	623	619	615	619																
15	612	605	599	606																
20	595	587	580	587																
25	574	564	555	565																
30	549	536	526	537																
35	518	504	493	505																
40	484	468	455	470																
45	446	428	414	429																
50	404	385	370	386																
55	359	338	322	339																
60	311	288	272	290																
65	260	236	220	238																
70	207	183	166	184																
75	154	129	113	130																
80	101	79.3	65.1	79.6																
85	54.1	38.2	29.0	37.5																
90	24.3	13.9	14.6	12.4																

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: