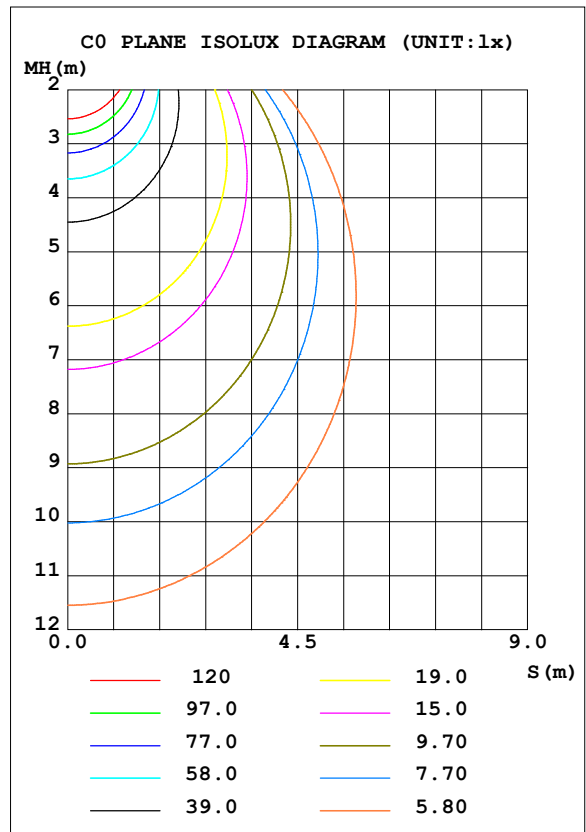
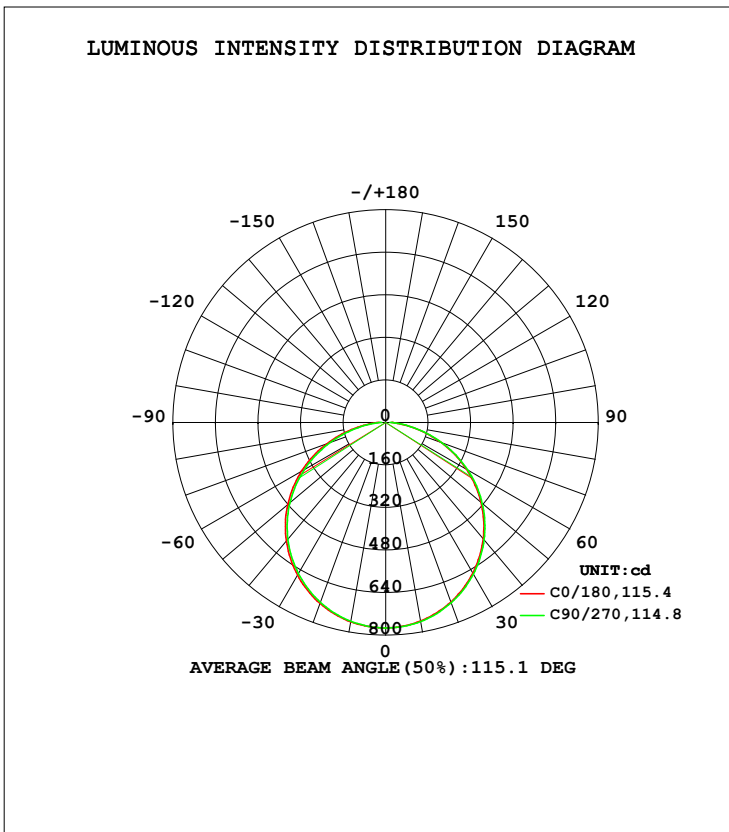


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:230.14V I:0.1078A P:24.141W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-14-24W-3000K	TYPE: 24W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 94.65 lm/W			
MODEL	AL117-14-24W-3000K	I <sub>max</sub> (cd)	772.8	S/MH (C0/180)	1.28
NOMINAL POWER (W)	24	LOR (%)	139.9	S/MH (C90/270)	1.26
RATED VOLTAGE (V)	200-240	TOTAL FLUX (lm)	2284.9	η UP, DN (C0-180)	0.0, 69.5
NOMINAL FLUX (lm)	1633.45	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 70.4
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	139.9	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2020-09-10

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:

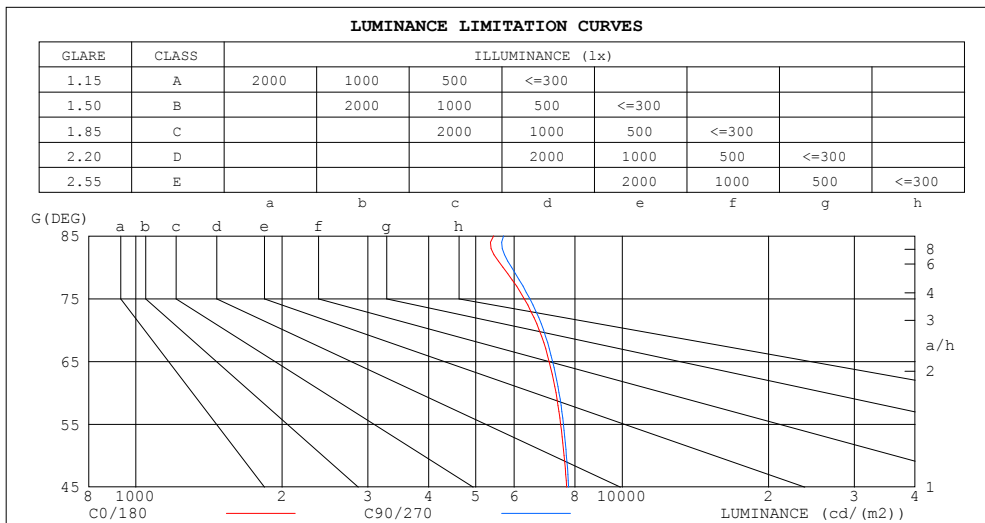
$\gamma$	C0	C90	C180	C270				$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	758.2	760.1	761.1	759.2				0- 10	73.14	73.14	3.2,4.48
20	718.2	721.4	724.1	719.7				10- 20	209.8	283.0	12.4,17.3
30	654.8	659.5	663.4	657.0				20- 30	319.2	602.2	26.4,36.9
40	570.9	576.1	581.7	572.8				30- 40	387.5	989.7	43.3,60.6
50	468.3	474.2	481.3	470.6				40- 50	406.1	1396	61.1,85.5
60	350.5	356.3	365.4	352.4				50- 60	372.2	1768	77.4,108
70	221.5	226.4	236.7	223.0				60- 70	289.1	2057	90,126
80	94.76	98.79	108.0	95.86				70- 80	170.8	2228	97.5,136
90	21.76	15.74	24.35	15.24				80- 90	56.87	2285	100,140
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:2020-09-10

$\gamma$  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:230.14V I:0.1078A P:24.141W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: AL117-14-24W-3000K	TYPE: 24W	WEIGHT:	
SPEC.: 3000K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:	



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	5443	5706
80	5689	5921
75	6289	6459
70	6752	6891
65	7077	7197
60	7308	7417
55	7473	7572
50	7596	7678
45	7690	7763

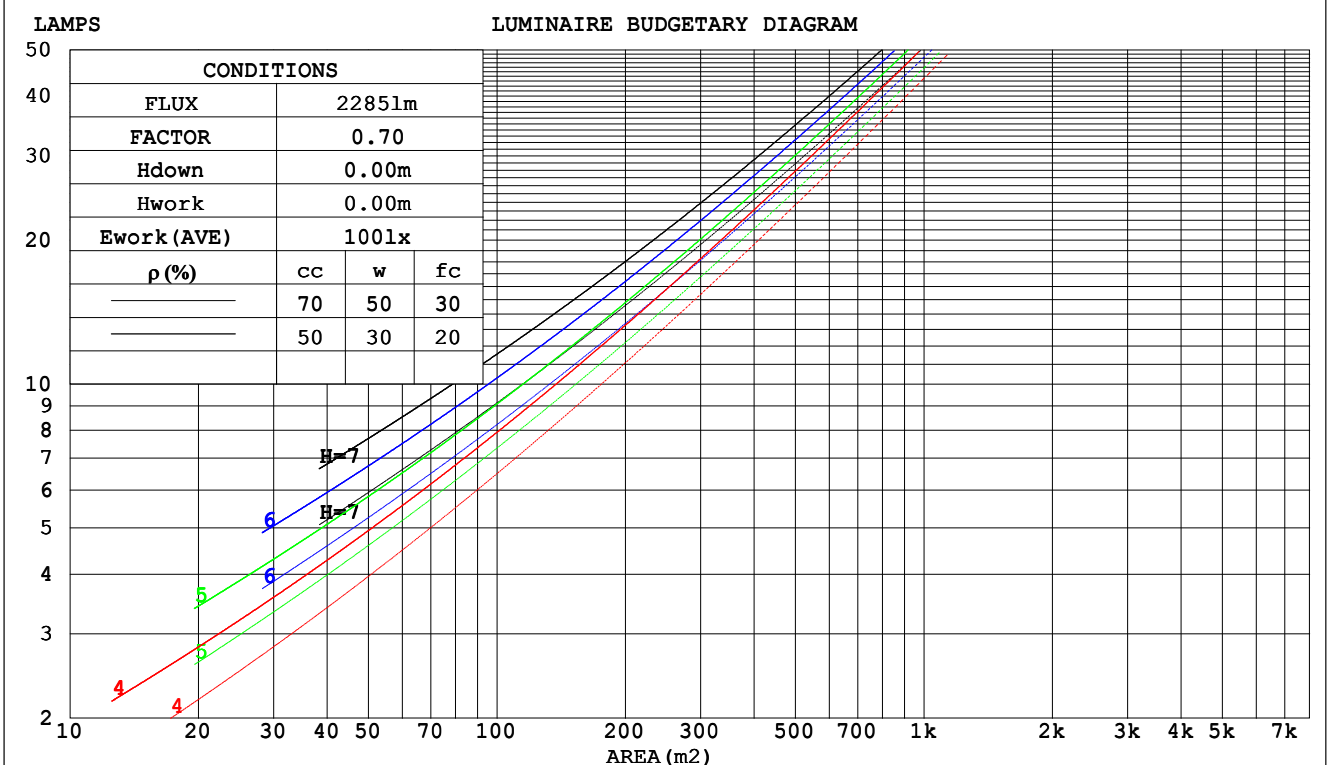
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-10

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:230.14V I:0.1078A P:24.141W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: AL117-14-24W-3000K	TYPE: 24W	WEIGHT:	
SPEC.: 3000K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.35	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																0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.67	1.67	1.67	1.63	1.63	1.63	1.55	1.55	1.55	1.49	1.49	1.49	1.43	1.43	1.43	1.40
1.0	1.45	1.38	1.33	1.41	1.36	1.31	1.35	1.31	1.26	1.30	1.26	1.23	1.25	1.22	1.19	1.16
2.0	1.26	1.16	1.07	1.23	1.14	1.06	1.18	1.10	1.04	1.13	1.07	1.01	1.09	1.04	.99	.96
3.0	1.10	.98	.89	1.08	.97	.88	1.04	.94	.87	.90	.92	.85	.96	.89	.84	.80
4.0	.97	.85	.75	.95	.84	.75	.92	.82	.73	.88	.80	.72	.85	.78	.71	.68
5.0	.87	.74	.64	.85	.73	.64	.82	.71	.63	.79	.70	.63	.77	.69	.62	.59
6.0	.78	.65	.56	.77	.65	.56	.74	.63	.55	.72	.62	.55	.69	.61	.54	.51
7.0	.71	.58	.49	.69	.58	.49	.67	.57	.49	.65	.56	.49	.63	.55	.48	.45
8.0	.64	.52	.44	.63	.52	.44	.62	.51	.44	.60	.50	.43	.58	.49	.43	.40
9.0	.59	.47	.40	.58	.47	.39	.57	.46	.39	.55	.46	.39	.54	.45	.39	.36
10.0	.54	.43	.36	.54	.43	.36	.52	.42	.36	.51	.42	.35	.50	.41	.35	.33



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-10

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:230.14V I:0.1078A P:24.141W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm		
NAME: AL117-14-24W-3000K		TYPE: 24W		WEIGHT:	
SPEC.: 3000K		DIM.:		SERIAL No.:	
MFR.: EVERFINE		SUR.: 0.35		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	.447	.254	.081	.437	.249	.079	.419	.240	.077	.402	.232	.074	.386	.224	.072	
2.0	.417	.229	.070	.408	.225	.069	.392	.218	.068	.377	.211	.066	.363	.205	.065	
3.0	.384	.205	.061	.377	.202	.061	.362	.196	.060	.349	.191	.059	.336	.186	.058	
4.0	.354	.184	.054	.347	.182	.054	.334	.177	.053	.322	.173	.052	.311	.169	.051	
5.0	.326	.166	.048	.320	.164	.048	.309	.161	.047	.298	.157	.047	.288	.154	.046	
6.0	.302	.151	.043	.297	.150	.043	.287	.147	.043	.277	.144	.042	.268	.141	.042	
7.0	.281	.139	.039	.276	.138	.039	.267	.135	.039	.258	.132	.039	.250	.130	.038	
8.0	.262	.128	.036	.258	.127	.036	.250	.125	.036	.242	.123	.035	.235	.120	.035	
9.0	.245	.119	.033	.241	.118	.033	.234	.116	.033	.227	.114	.033	.221	.112	.032	
10.0	.230	.111	.031	.227	.110	.031	.220	.108	.030	.214	.106	.030	.208	.105	.030	

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	.266	.266	.266	.228	.228	.228	.155	.155	.155	.089	.089	.089	.029	.029	.029	
1.0	.253	.218	.187	.217	.187	.161	.148	.129	.111	.085	.075	.065	.027	.024	.021	
2.0	.242	.184	.136	.207	.159	.118	.142	.110	.082	.082	.064	.048	.026	.021	.016	
3.0	.231	.160	.103	.198	.138	.089	.136	.096	.063	.079	.056	.037	.025	.018	.012	
4.0	.221	.141	.081	.189	.122	.070	.130	.085	.049	.075	.050	.029	.024	.016	.010	
5.0	.210	.127	.065	.181	.110	.057	.124	.077	.040	.072	.045	.024	.023	.015	.008	
6.0	.200	.115	.054	.172	.100	.047	.119	.070	.033	.069	.041	.020	.022	.013	.007	
7.0	.190	.106	.046	.164	.091	.040	.113	.064	.028	.066	.038	.017	.021	.012	.006	
8.0	.181	.097	.040	.156	.085	.035	.108	.059	.025	.063	.035	.015	.020	.011	.005	
9.0	.173	.091	.035	.149	.079	.031	.103	.055	.022	.060	.033	.013	.019	.011	.004	
10.0	.165	.085	.031	.142	.073	.027	.098	.052	.019	.057	.031	.012	.019	.010	.004	

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-10

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:230.14V I:0.1078A P:24.141W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm		
NAME: AL117-14-24W-3000K		TYPE: 24W		WEIGHT:	
SPEC.: 3000K		DIM.:		SERIAL No.:	
MFR.: EVERFINE		SUR.: 0.35		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	19.9	21.4	20.1	21.6	21.8	19.9	21.5	20.2	21.7	21.9
3H	21.4	22.9	21.7	23.1	23.3	21.5	22.9	21.8	23.2	23.4
4H	22.0	23.4	22.4	23.7	23.9	22.1	23.5	22.4	23.7	24.0
6H	22.5	23.8	22.8	24.1	24.3	22.6	23.9	22.9	24.2	24.4
8H	22.6	23.9	23.0	24.2	24.5	22.8	24.0	23.1	24.3	24.6
12H	22.7	23.9	23.1	24.2	24.5	22.9	24.1	23.2	24.4	24.7
4H 2H	20.5	21.9	20.8	22.1	22.4	20.5	21.9	20.9	22.1	22.4
3H	22.2	23.4	22.6	23.7	24.0	22.3	23.5	22.7	23.8	24.1
4H	23.0	24.1	23.4	24.4	24.7	23.1	24.2	23.4	24.5	24.8
6H	23.6	24.5	24.0	24.9	25.3	23.7	24.6	24.1	25.0	25.4
8H	23.8	24.7	24.2	25.0	25.4	23.9	24.8	24.3	25.2	25.5
12H	23.9	24.8	24.4	25.1	25.5	24.0	24.9	24.5	25.3	25.7
8H 4H	23.3	24.2	23.7	24.6	24.9	23.3	24.2	23.8	24.6	25.0
6H	24.0	24.8	24.5	25.2	25.6	24.1	24.8	24.5	25.3	25.7
8H	24.3	25.0	24.8	25.4	25.8	24.4	25.1	24.9	25.5	25.9
12H	24.5	25.1	25.0	25.6	26.0	24.7	25.2	25.1	25.7	26.2
12H 4H	23.3	24.1	23.7	24.5	24.9	23.4	24.2	23.8	24.6	25.0
6H	24.1	24.7	24.5	25.2	25.6	24.2	24.8	24.6	25.3	25.7
8H	24.4	25.0	24.9	25.4	25.9	24.5	25.1	25.0	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	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 1633 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 1.7)  
 Area: 0.096 m2

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-10

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:230.14V I:0.1078A P:24.141W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: AL117-14-24W-3000K	TYPE: 24W	WEIGHT:	
SPEC.: 3000K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:	

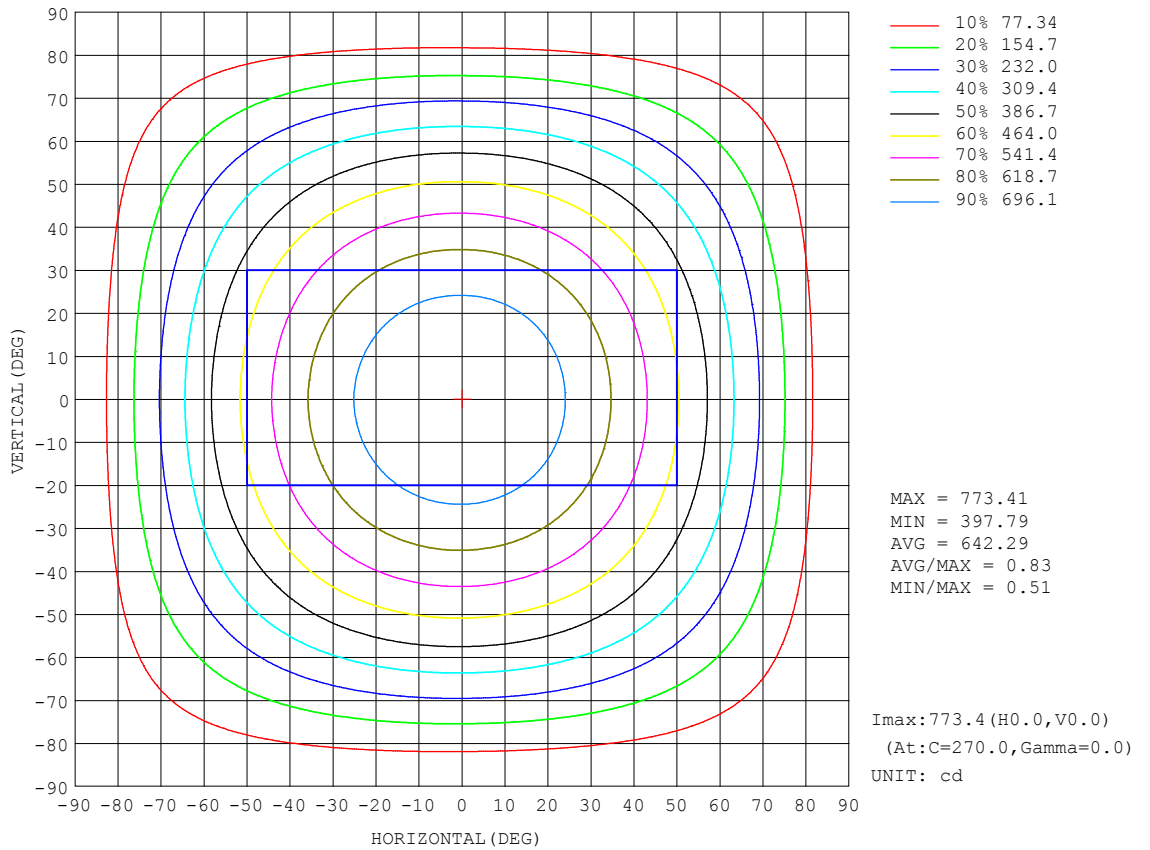
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	79	63	53	78	63	53	77	62	53	44
0.80	93	77	66	92	76	66	89	75	66	56
1.00	105	89	79	104	89	79	100	91	78	68
1.25	115	100	90	113	99	89	109	97	88	78
1.50	122	108	98	120	107	97	116	104	96	85
2.00	132	120	110	129	118	109	124	115	107	96
2.50	137	126	118	135	124	116	129	121	114	102
3.00	142	132	124	139	130	123	133	126	120	108
4.00	148	140	133	145	137	131	139	133	127	115
5.00	151	144	139	148	142	136	142	137	132	119
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:2020-09-10

$\gamma$  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:230.14V I:0.1078A P:24.141W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-14-24W-3000K	TYPE: 24W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:



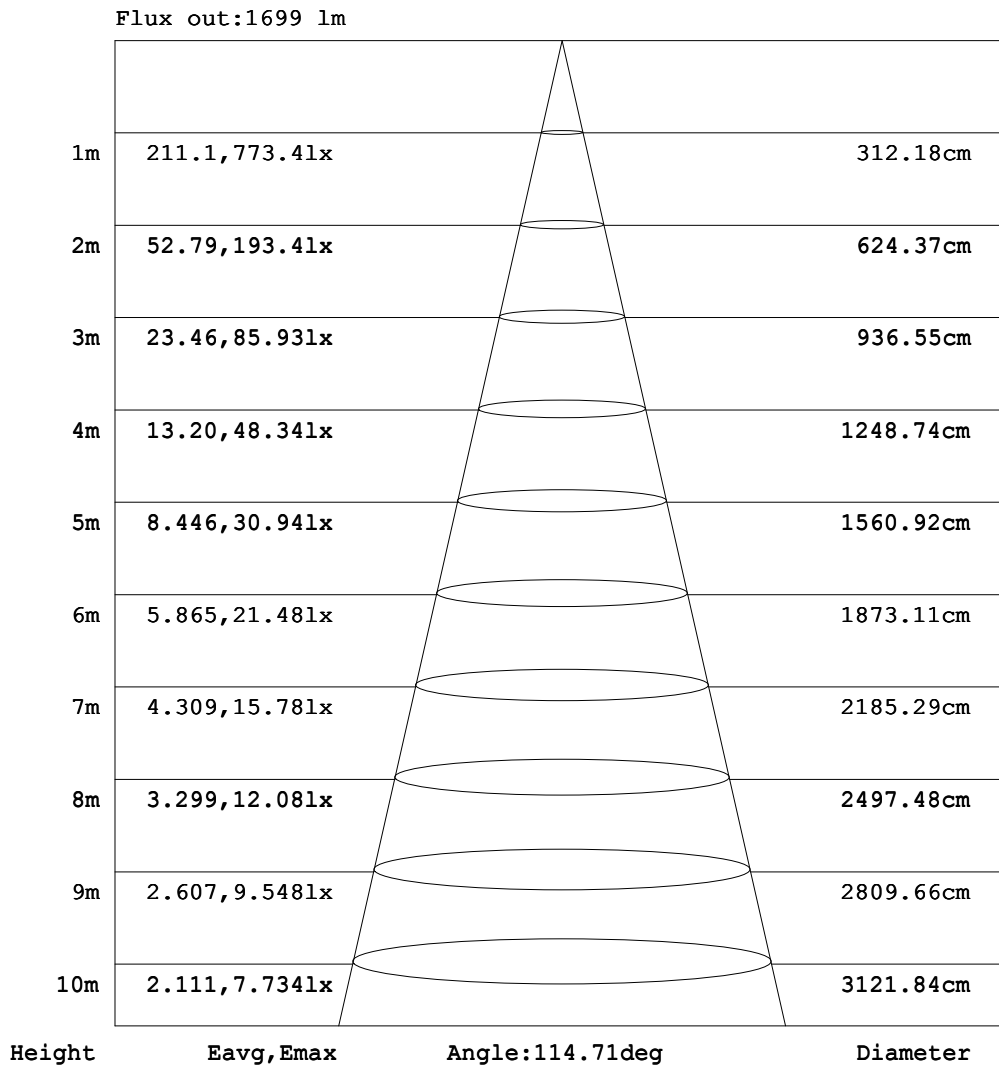
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2020-09-10

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:230.14V I:0.1078A P:24.141W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-14-24W-3000K	TYPE: 24W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:



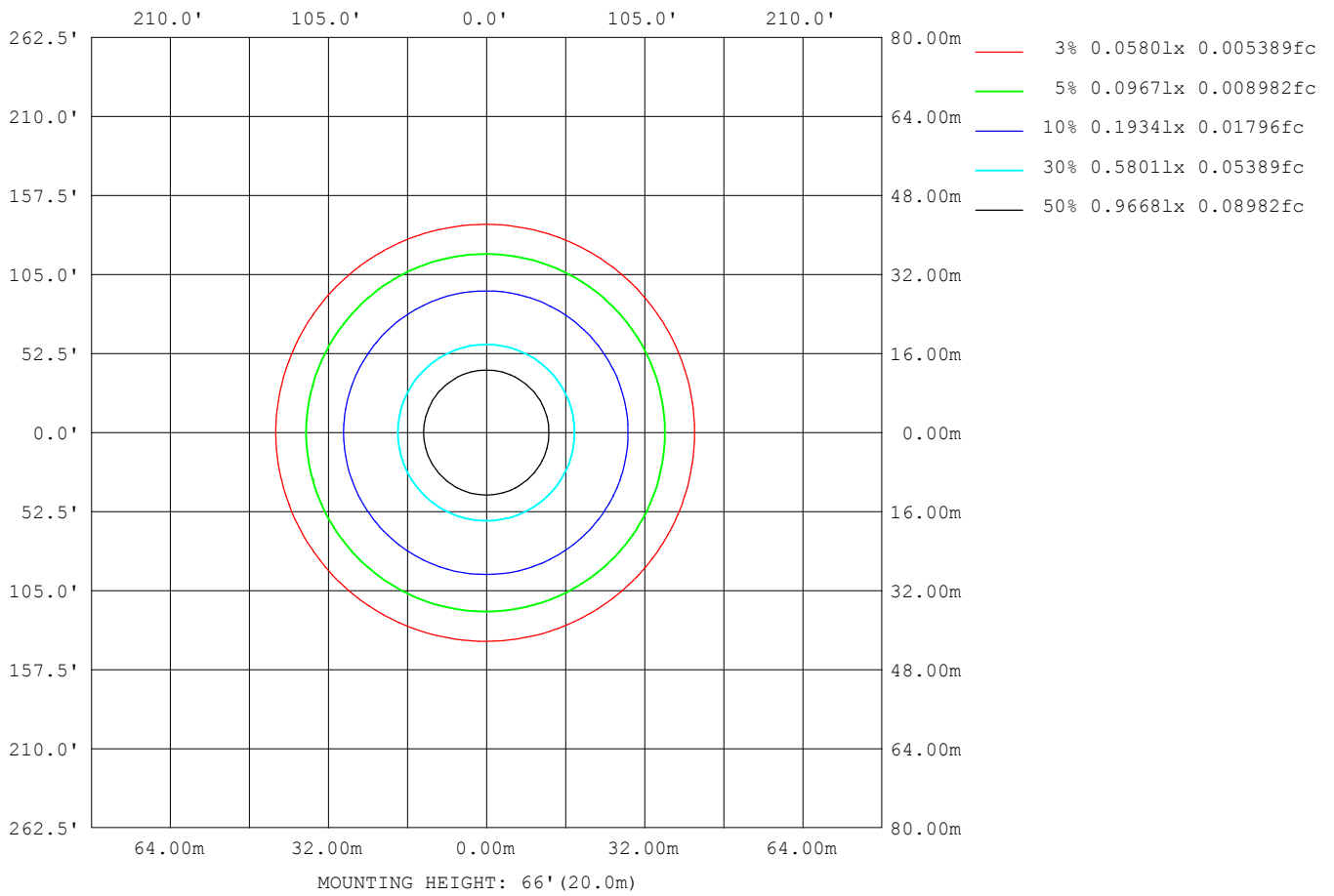
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-10

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:230.14V I:0.1078A P:24.141W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0%		Lamp Flux:1633.45x1 lm
NAME: AL117-14-24W-3000K	TYPE: 24W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-10

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:230.14V I:0.1078A P:24.141W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-14-24W-3000K	TYPE: 24W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:

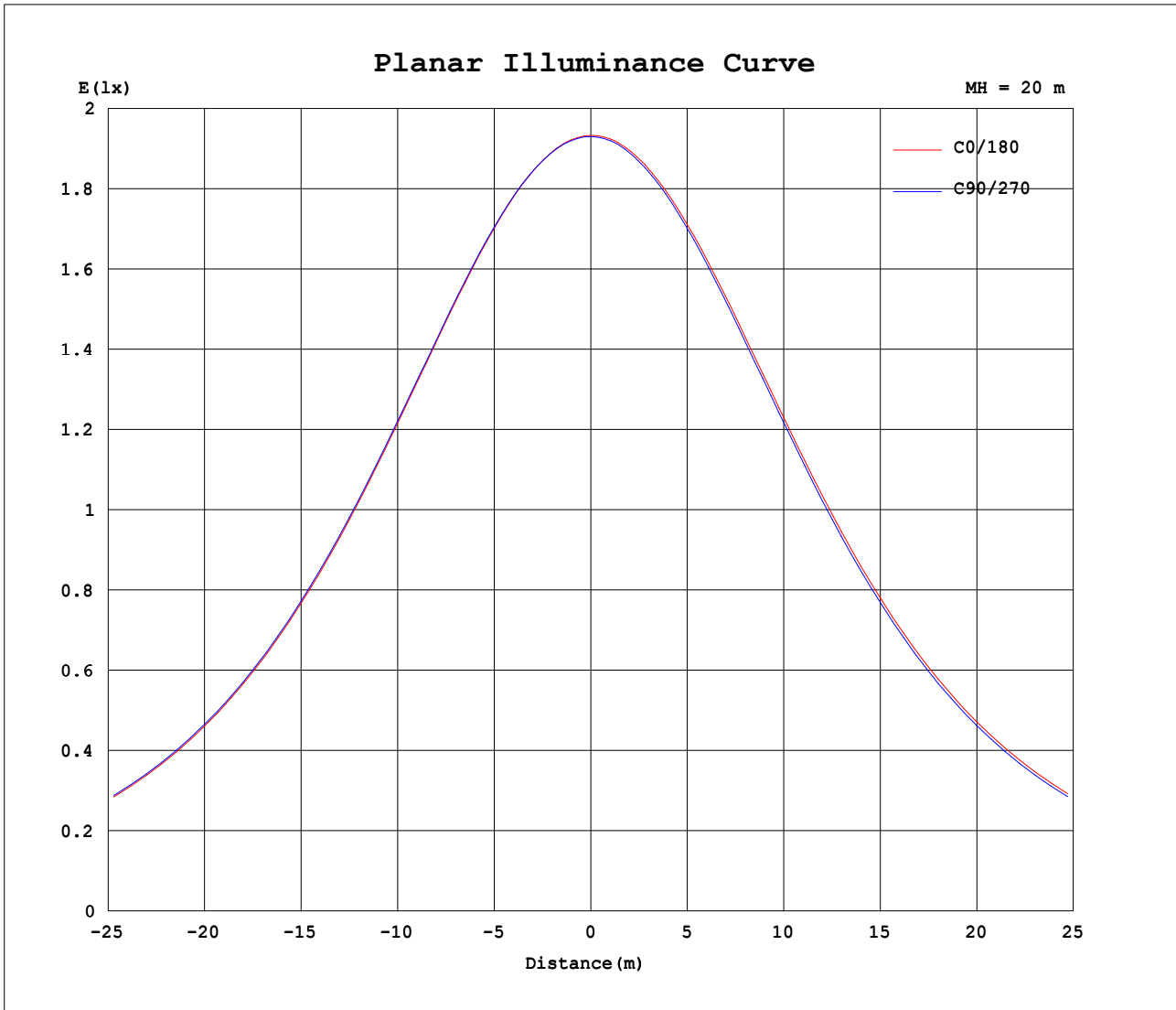
AvgL	cd/m2
L_0~180 (65) av	7255
L_0~180 (75) av	6591
L_0~180 (85) av	5973
L_90~270 (65) av	7159
L_90~270 (75) av	6398
L_90~270 (85) av	5578
L_45 (65) av	7206
L_45 (75) av	6490
L_45 (85) av	5760

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-10

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: 2020-09-10

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:230.14V I:0.1078A P:24.141W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-14-24W-3000K	TYPE: 24W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:

Table--1

UNIT: cd

C (DEG) \ y (DEG)	0	90	180	270															
0	773	773	773	773															
5	769	770	770	769															
10	758	760	761	759															
15	741	744	746	743															
20	718	721	724	720															
25	689	693	697	691															
30	655	659	663	657															
35	615	620	625	617															
40	571	576	582	573															
45	522	527	534	524															
50	468	474	481	471															
55	411	417	425	413															
60	350	356	365	352															
65	287	292	302	289															
70	221	226	237	223															
75	156	161	171	157															
80	94.8	98.8	108	95.9															
85	45.5	47.8	54.5	45.6															
90	21.8	15.7	24.4	15.2															

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-10

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