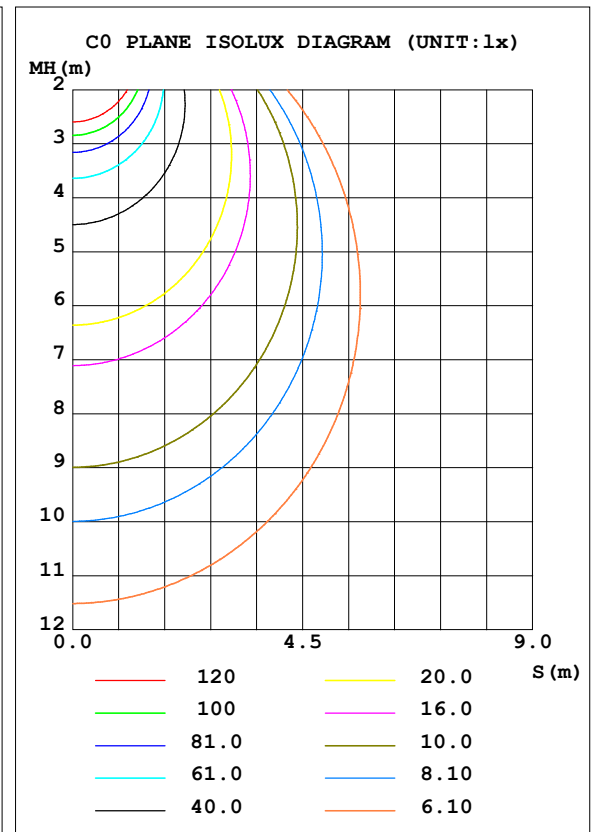
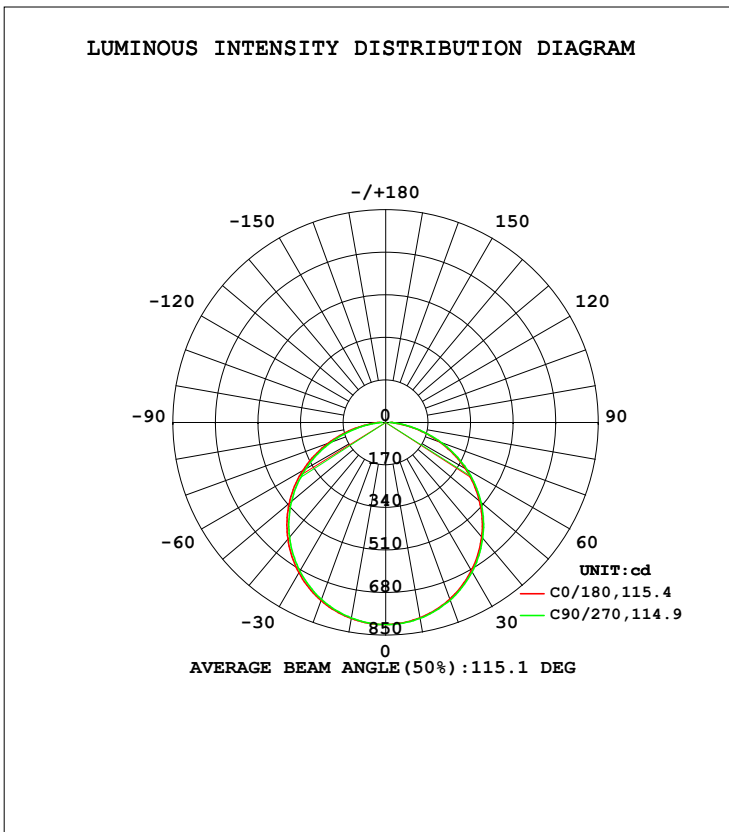


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.13V I:0.1080A P:24.173W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-14-24W-5700K	TYPE: 24W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 98.75 lm/W			
MODEL	AL117-14-24W-5700K	I _{max} (cd)	807.6	S/MH (C0/180)	1.28
NOMINAL POWER (W)	24	LOR (%)	146.1	S/MH (C90/270)	1.26
RATED VOLTAGE (V)	200-240	TOTAL FLUX (lm)	2387.0	η UP, DN (C0-180)	0.0, 72.7
NOMINAL FLUX (lm)	1633.45	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 73.4
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	146.1	CIBSE SHR MAX	1.35



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

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:

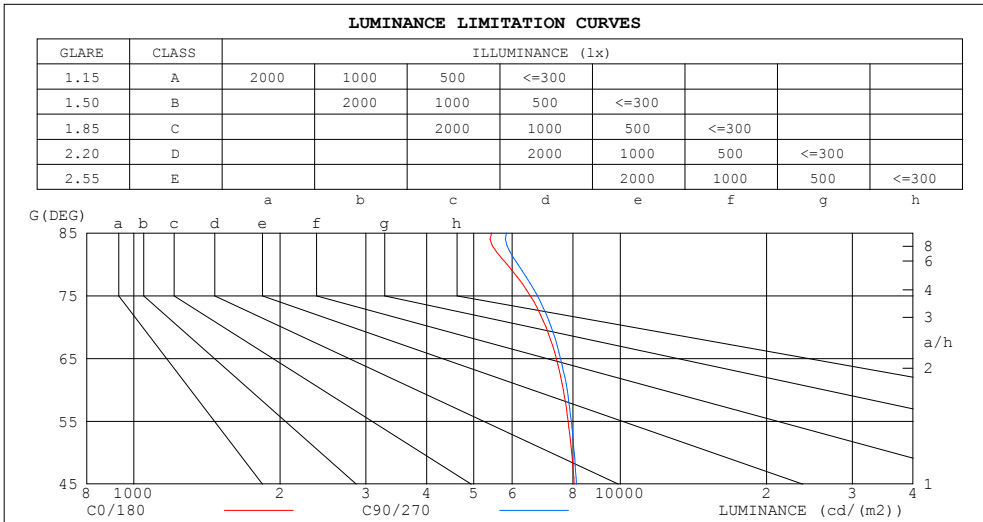
γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum, lamp
10	792.4	794.6	795.3	793.1				0- 10	76.43	76.43	3.2,4.68
20	750.9	755.0	757.2	751.9				10- 20	219.3	295.8	12.4,18.1
30	684.7	690.4	693.6	686.2				20- 30	333.8	629.5	26.4,38.5
40	596.8	603.8	608.3	598.3				30- 40	405.3	1035	43.4,63.4
50	489.7	497.3	503.6	491.7				40- 50	424.9	1460	61.2,89.4
60	366.3	373.9	382.1	368.2				50- 60	389.4	1849	77.5,113
70	230.8	237.3	247.0	232.6				60- 70	302.2	2151	90.1,132
80	97.38	102.9	111.5	98.90				70- 80	177.8	2329	97.6,143
90	20.52	15.51	23.39	14.64				80- 90	57.71	2387	100,146
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

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:

LUMINANCE LIMITATION CURVES

Test:U:230.13V I:0.1080A P:24.173W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: AL117-14-24W-5700K	TYPE: 24W	WEIGHT:	
SPEC.: 5700K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:	



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	5444	5839
80	5850	6163
75	6527	6759
70	7039	7218
65	7394	7544
60	7641	7779
55	7819	7937
50	7947	8047
45	8047	8133

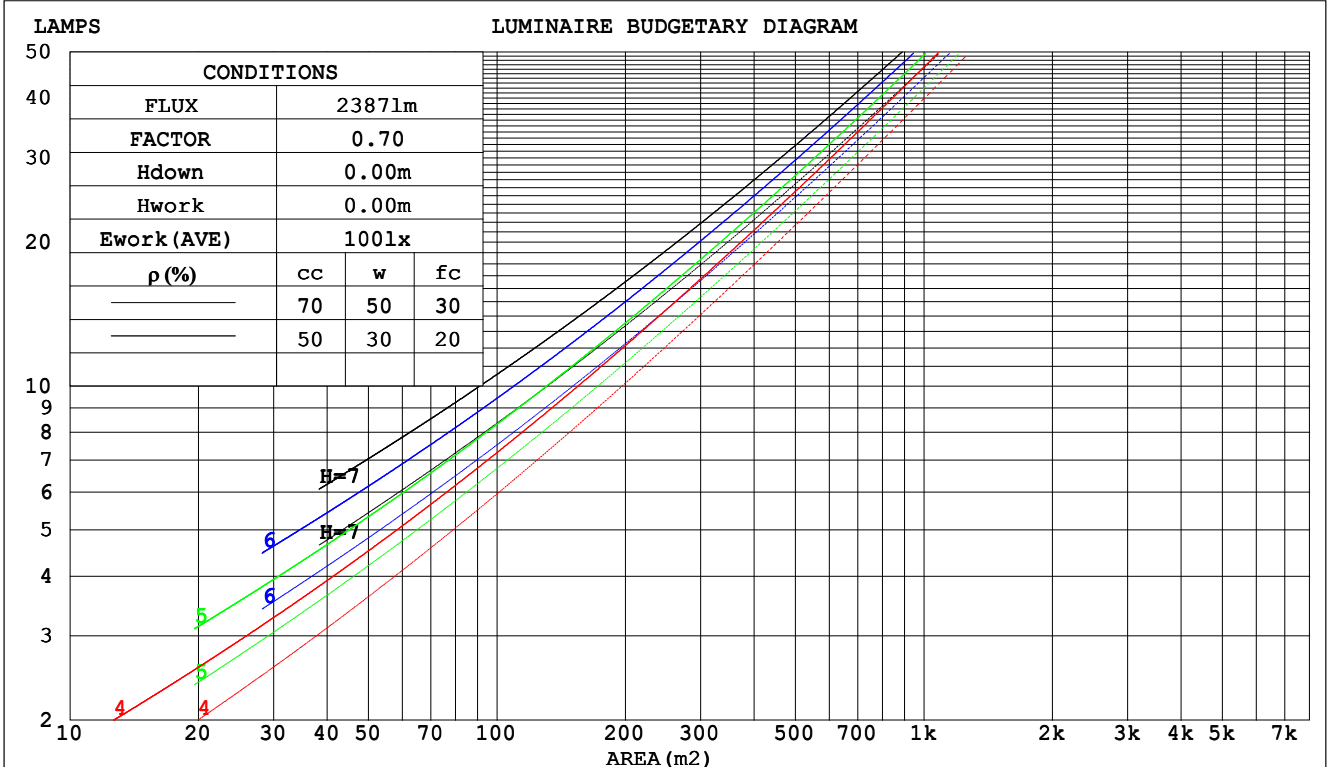
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2020-09-10

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:230.13V I:0.1080A P:24.173W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: AL117-14-24W-5700K	TYPE: 24W	WEIGHT:	
SPEC.: 5700K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:	

ρcc	80%			70%			50%			30%			10%			0
	ρw	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															
	Coefficients of Utilization(CU)															
0.0	1.74	1.74	1.74	1.70	1.70	1.70	1.62	1.62	1.62	1.55	1.55	1.55	1.49	1.49	1.49	1.46
1.0	1.51	1.45	1.39	1.48	1.42	1.37	1.42	1.37	1.32	1.36	1.32	1.28	1.30	1.27	1.24	1.21
2.0	1.31	1.21	1.12	1.28	1.19	1.11	1.23	1.15	1.08	1.18	1.12	1.06	1.14	1.08	1.04	1.00
3.0	1.15	1.03	.93	1.13	1.01	.92	1.08	.98	.90	1.04	.96	.89	1.00	.93	.87	.84
4.0	1.02	.89	.78	.90	.87	.78	.96	.85	.77	.93	.83	.76	.89	.81	.75	.71
5.0	.91	.77	.67	.89	.76	.67	.86	.75	.66	.83	.73	.65	.80	.72	.65	.62
6.0	.81	.68	.59	.80	.68	.58	.77	.66	.58	.75	.65	.57	.73	.64	.57	.54
7.0	.74	.61	.52	.73	.60	.52	.70	.59	.51	.68	.58	.51	.66	.57	.50	.47
8.0	.67	.55	.46	.66	.54	.46	.64	.53	.46	.62	.53	.45	.61	.52	.45	.42
9.0	.62	.50	.41	.61	.49	.41	.59	.48	.41	.58	.48	.41	.56	.47	.41	.38
10.0	.57	.45	.37	.56	.45	.37	.55	.44	.37	.53	.44	.37	.52	.43	.37	.34



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:230.13V I:0.1080A P:24.173W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm		
NAME: AL117-14-24W-5700K		TYPE: 24W		WEIGHT:	
SPEC.: 5700K		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	.466	.265	.084	.456	.260	.083	.436	.250	.080	.418	.241	.077	.402	.233	.075	
2.0	.435	.239	.073	.426	.235	.072	.409	.227	.071	.393	.221	.069	.378	.214	.067	
3.0	.401	.214	.064	.393	.211	.063	.378	.205	.062	.364	.199	.061	.351	.194	.060	
4.0	.369	.192	.056	.362	.189	.056	.349	.185	.055	.336	.180	.054	.324	.176	.054	
5.0	.341	.174	.050	.334	.172	.050	.322	.168	.049	.311	.164	.049	.301	.161	.048	
6.0	.315	.158	.045	.310	.157	.045	.299	.153	.045	.289	.150	.044	.280	.147	.044	
7.0	.293	.145	.041	.288	.144	.041	.279	.141	.041	.270	.138	.040	.261	.136	.040	
8.0	.274	.134	.038	.269	.133	.037	.261	.130	.037	.253	.128	.037	.245	.126	.037	
9.0	.256	.124	.035	.252	.123	.034	.245	.121	.034	.237	.119	.034	.231	.117	.034	
10.0	.241	.115	.032	.237	.115	.032	.230	.113	.032	.224	.111	.032	.218	.109	.031	

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	.278	.278	.278	.238	.238	.238	.162	.162	.162	.093	.093	.093	.030	.030	.030	
1.0	.264	.228	.195	.226	.196	.168	.155	.135	.116	.089	.078	.068	.029	.025	.022	
2.0	.253	.193	.142	.217	.166	.123	.148	.115	.086	.086	.067	.050	.027	.022	.016	
3.0	.242	.167	.108	.207	.144	.093	.142	.100	.065	.082	.058	.039	.026	.019	.013	
4.0	.230	.148	.084	.198	.128	.073	.136	.089	.052	.079	.052	.031	.025	.017	.010	
5.0	.220	.133	.068	.189	.115	.059	.130	.080	.042	.075	.047	.025	.024	.015	.008	
6.0	.209	.120	.057	.180	.104	.049	.124	.073	.035	.072	.043	.021	.023	.014	.007	
7.0	.199	.110	.048	.171	.096	.042	.118	.067	.030	.069	.039	.018	.022	.013	.006	
8.0	.189	.102	.042	.163	.088	.036	.113	.062	.026	.066	.037	.015	.021	.012	.005	
9.0	.180	.095	.037	.155	.082	.032	.108	.058	.023	.063	.034	.014	.020	.011	.004	
10.0	.172	.088	.033	.148	.077	.028	.103	.054	.020	.060	.032	.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:230.13V I:0.1080A P:24.173W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm		
NAME: AL117-14-24W-5700K		TYPE: 24W		WEIGHT:	
SPEC.: 5700K		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	20.0	21.6	20.3	21.8	22.0	20.1	21.6	20.4	21.8	22.0
3H	21.6	23.0	21.9	23.2	23.5	21.7	23.1	22.0	23.3	23.6
4H	22.2	23.6	22.5	23.8	24.1	22.3	23.7	22.6	23.9	24.2
6H	22.6	23.9	23.0	24.2	24.5	22.8	24.0	23.1	24.3	24.6
8H	22.8	24.0	23.1	24.3	24.6	22.9	24.2	23.3	24.4	24.7
12H	22.9	24.1	23.2	24.4	24.7	23.0	24.2	23.4	24.5	24.8
4H 2H	20.7	22.0	21.0	22.3	22.5	20.7	22.1	21.0	22.3	22.6
3H	22.4	23.6	22.8	23.9	24.2	22.5	23.7	22.8	24.0	24.3
4H	23.1	24.2	23.5	24.6	24.9	23.2	24.3	23.6	24.6	25.0
6H	23.7	24.7	24.1	25.0	25.4	23.8	24.8	24.2	25.1	25.5
8H	23.9	24.8	24.3	25.2	25.6	24.0	24.9	24.4	25.3	25.7
12H	24.0	24.9	24.5	25.3	25.7	24.2	25.0	24.6	25.4	25.8
8H 4H	23.4	24.3	23.8	24.7	25.1	23.5	24.4	23.9	24.8	25.2
6H	24.1	24.9	24.6	25.3	25.7	24.2	25.0	24.7	25.4	25.8
8H	24.4	25.1	24.9	25.5	26.0	24.5	25.2	25.0	25.6	26.1
12H	24.6	25.2	25.1	25.7	26.1	24.8	25.4	25.3	25.8	26.3
12H 4H	23.4	24.3	23.9	24.7	25.1	23.5	24.3	23.9	24.7	25.1
6H	24.2	24.9	24.7	25.3	25.8	24.3	25.0	24.8	25.4	25.9
8H	24.5	25.1	25.0	25.6	26.0	24.6	25.2	25.1	25.7	26.2
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					+ 0.1 / - 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:230.13V I:0.1080A P:24.173W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: AL117-14-24W-5700K	TYPE: 24W	WEIGHT:	
SPEC.: 5700K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:	

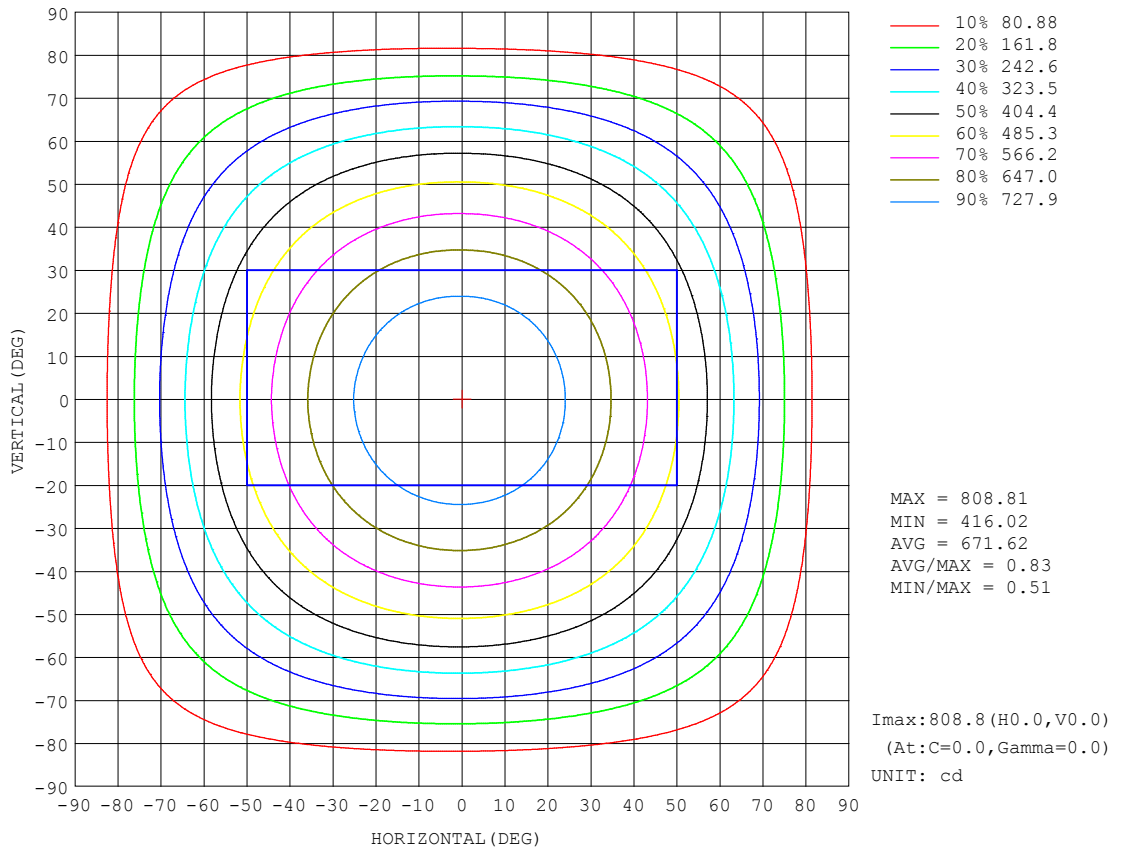
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	83	66	56	82	66	55	80	65	55	46
0.80	98	80	69	96	80	69	94	79	69	58
1.00	110	93	83	108	93	82	105	95	81	71
1.25	120	105	94	118	104	93	114	102	92	81
1.50	128	113	103	125	112	102	121	109	100	89
2.00	138	125	115	135	123	114	130	120	112	100
2.50	144	132	123	141	130	122	135	126	119	107
3.00	149	138	130	145	136	129	139	132	125	113
4.00	155	146	139	151	143	137	145	139	133	120
5.00	158	151	145	155	148	143	148	143	138	125
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

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:

ISOCANDELA DIAGRAM

Test:U:230.13V I:0.1080A P:24.173W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-14-24W-5700K	TYPE: 24W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:

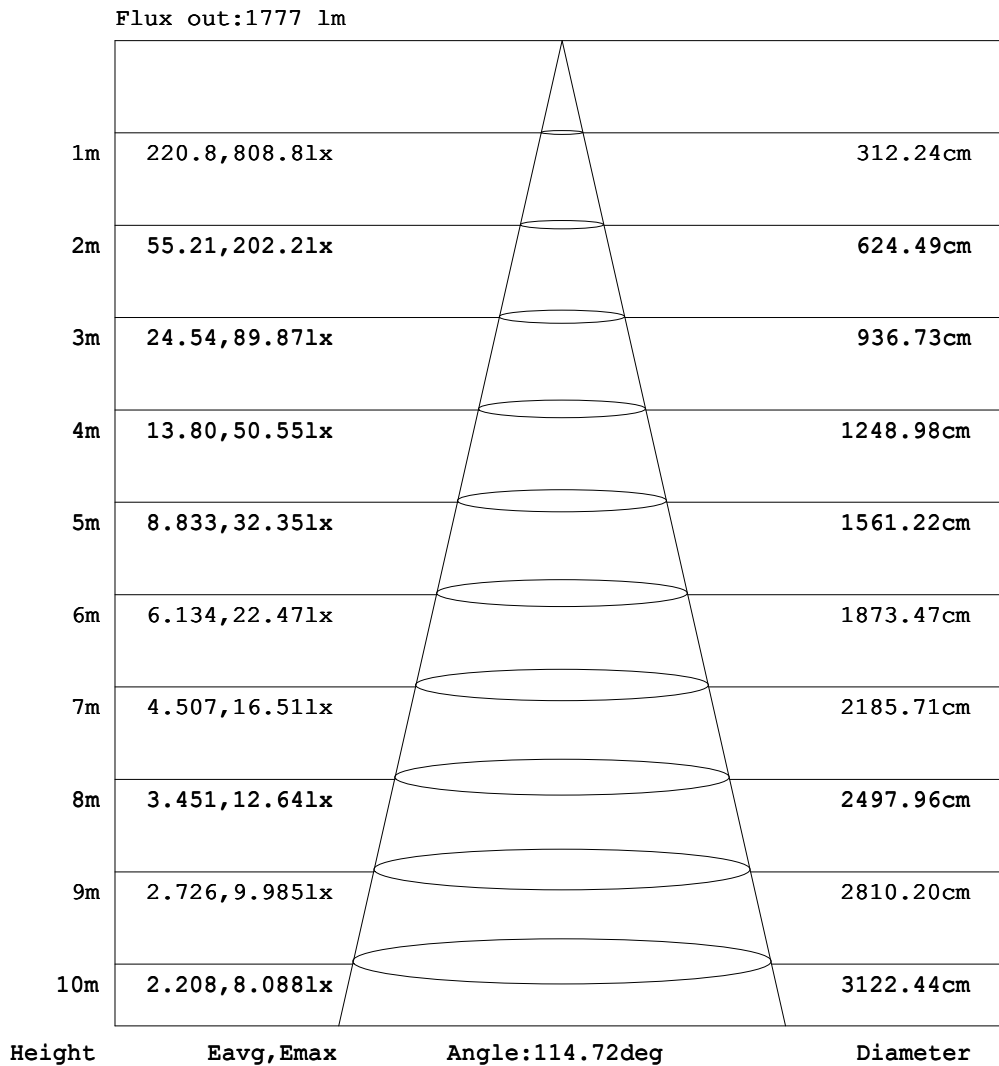


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2020-09-10

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:230.13V I:0.1080A P:24.173W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-14-24W-5700K	TYPE: 24W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:



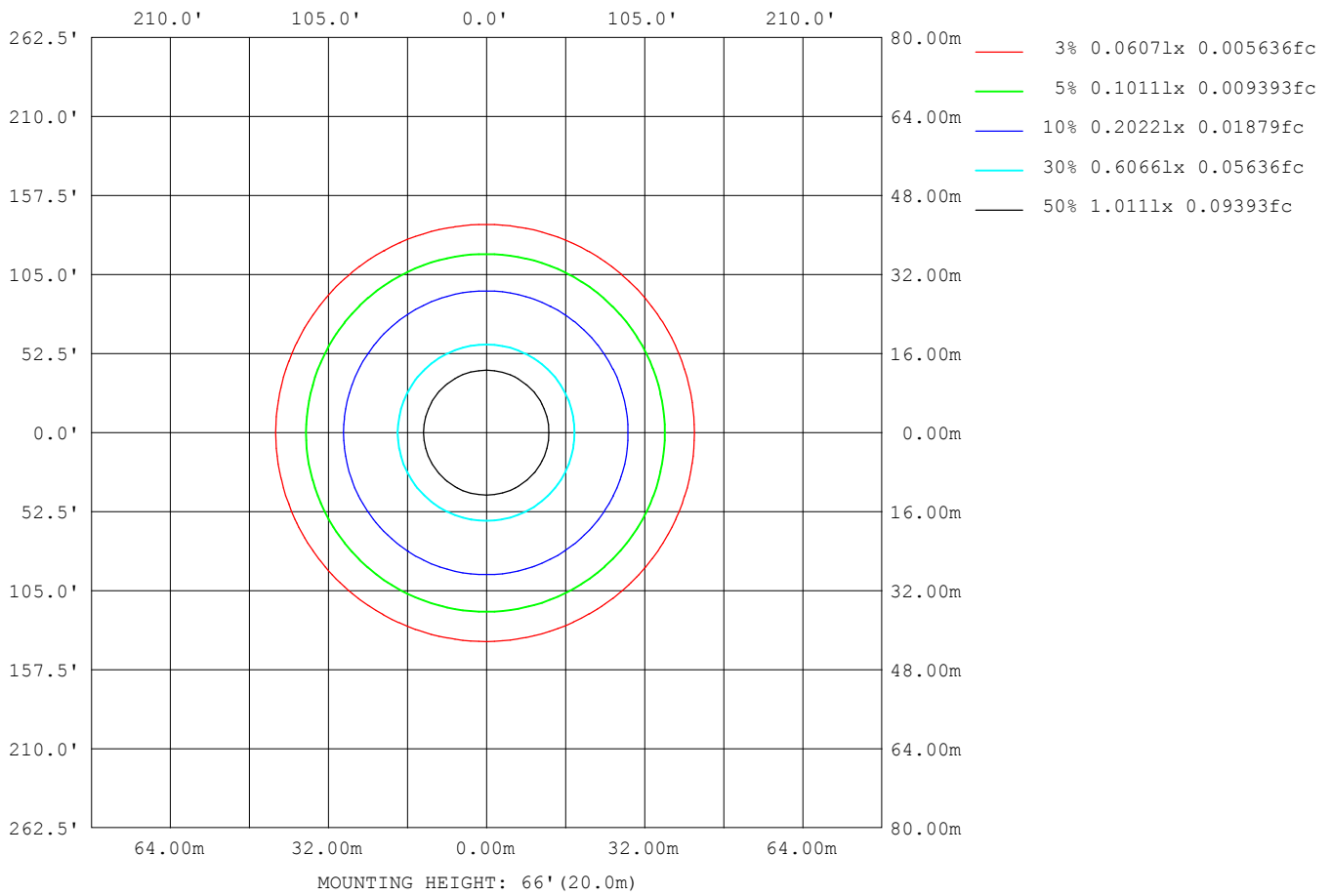
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:230.13V I:0.1080A P:24.173W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0%		Lamp Flux:1633.45x1 lm
NAME: AL117-14-24W-5700K	TYPE: 24W	WEIGHT:
SPEC.: 5700K	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:230.13V I:0.1080A P:24.173W PF:0.9729 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-14-24W-5700K	TYPE: 24W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:

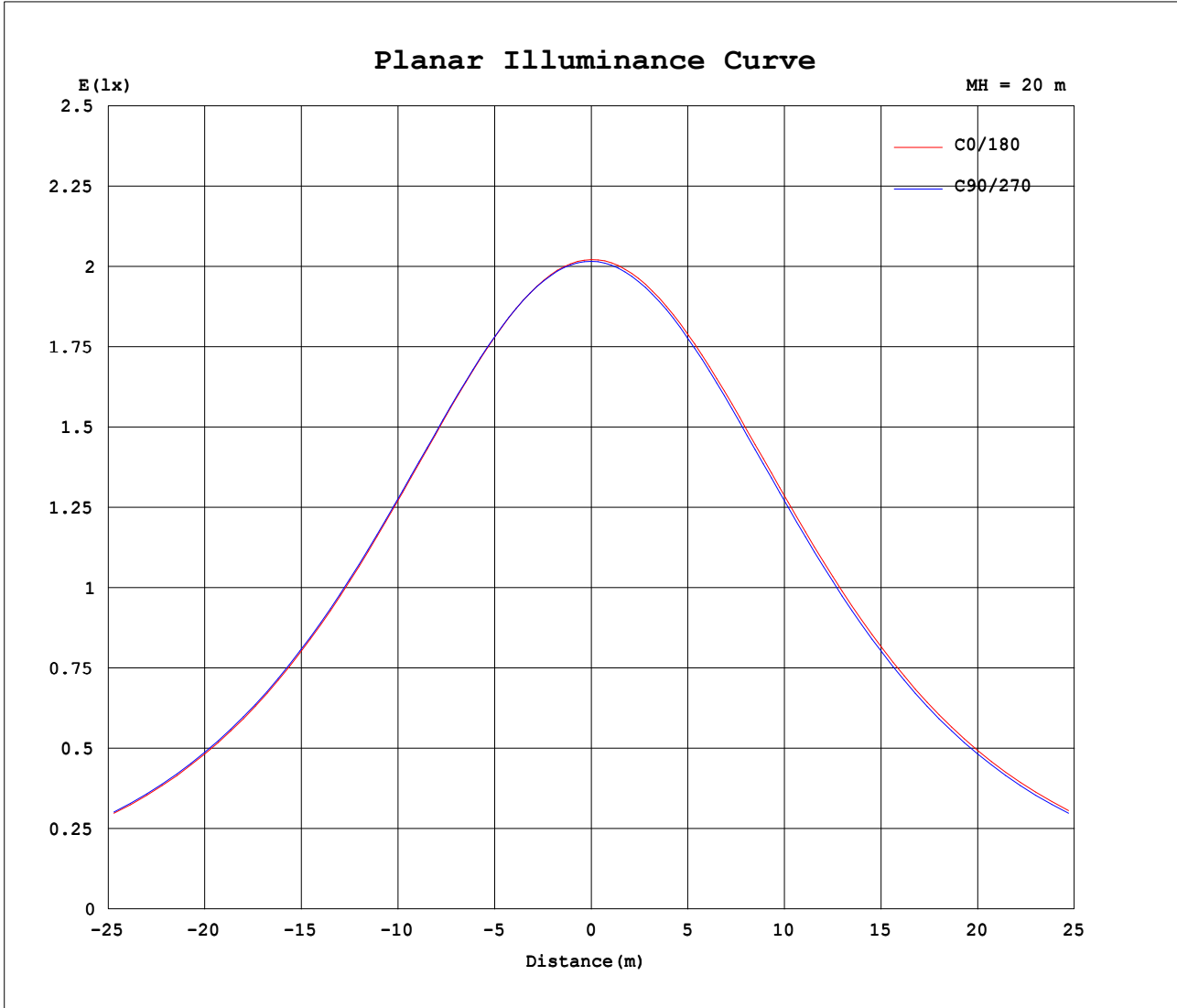
AvgL	cd/m2
L_0~180 (65) av	7578
L_0~180 (75) av	6847
L_0~180 (85) av	6005
L_90~270 (65) av	7490
L_90~270 (75) av	6678
L_90~270 (85) av	5672
L_45 (65) av	7535
L_45 (75) av	6762
L_45 (85) av	5832

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.426
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 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:

