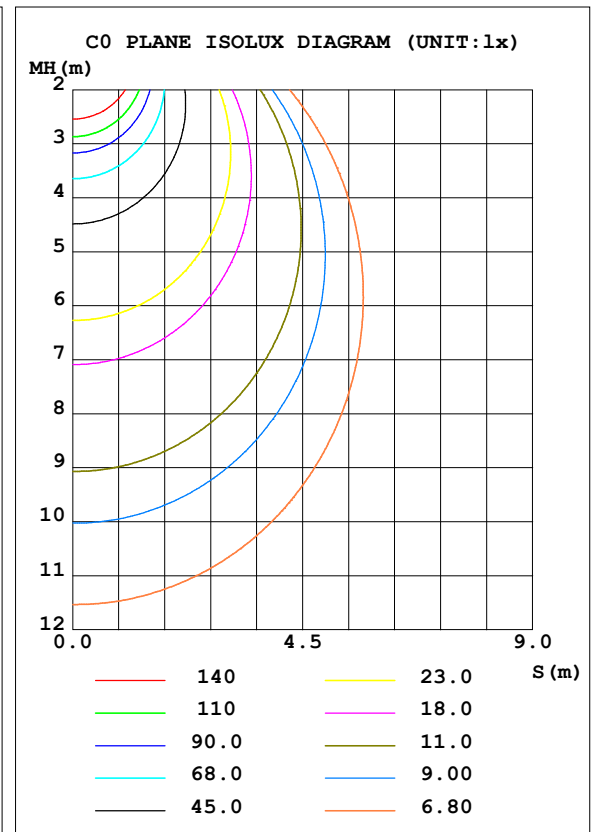
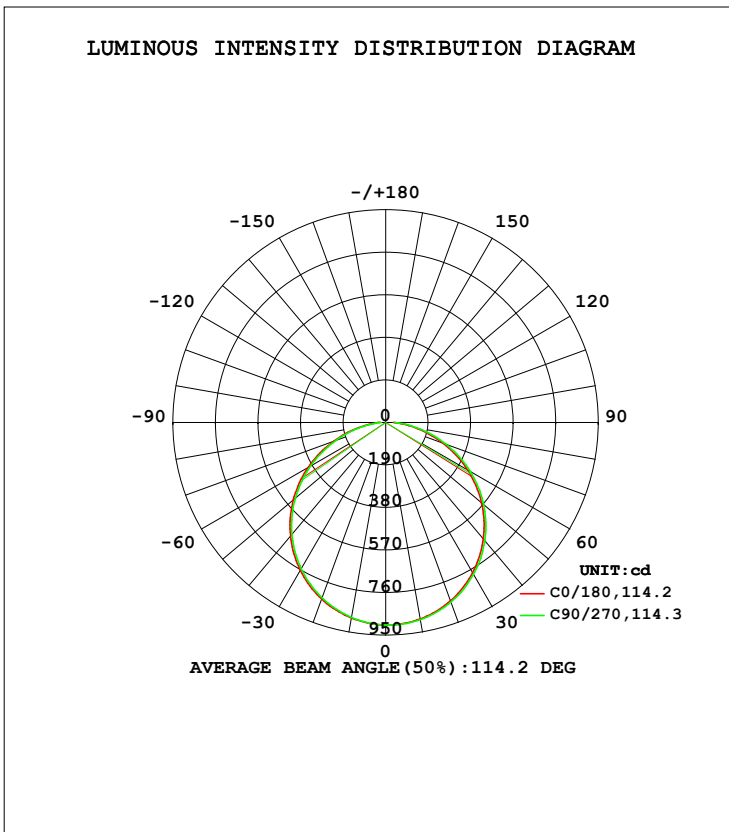


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.19V I:0.1104A P:24.217W PF:0.9531 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: UP-AL117-14-24W-4000K	TYPE: 24W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.096	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 110.09 lm/W			
MODEL UP-AL117-14-24W-4000K		I _{max} (cd)	904.7	S/MH (C0/180)	1.25
NOMINAL POWER (W)	24	LOR (%)	163.2	S/MH (C90/270)	1.24
RATED VOLTAGE (V)	200-240	TOTAL FLUX (lm)	2666.0	η UP, DN (C0-180)	0.0, 84.4
NOMINAL FLUX (lm)	1633.45	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 78.8
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	163.2	CIBSE SHR MAX	1.35



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

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:

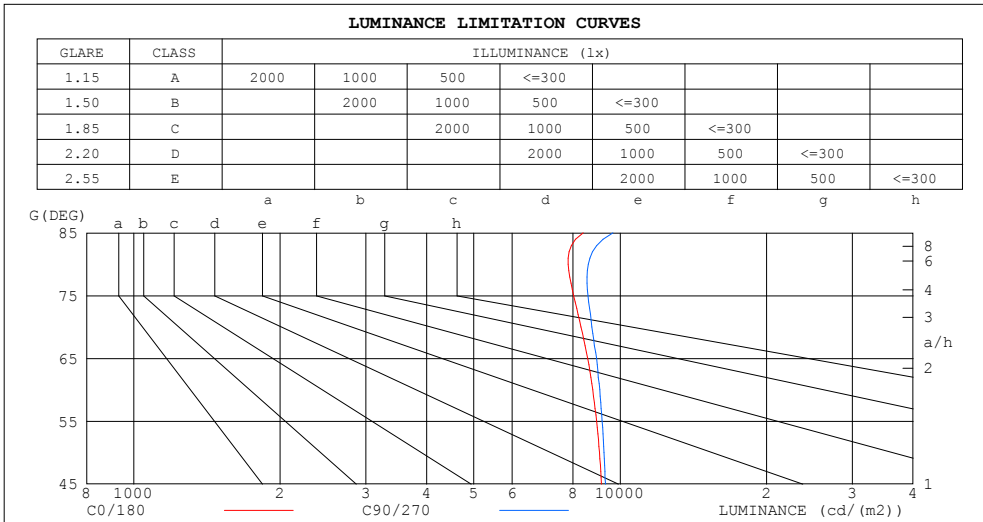
γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum,lamp
10	891.0	894.3	886.8	883.8				0- 10	85.60	85.60	3.21,5.24
20	847.8	853.7	839.1	832.9				10- 20	245.5	331.1	12.4,20.3
30	775.8	784.0	763.0	755.0				20- 30	373.2	704.3	26.4,43.1
40	678.8	689.4	661.8	651.7				30- 40	452.2	1157	43.4,70.8
50	559.2	571.5	539.1	527.5				40- 50	472.2	1629	61.1,99.7
60	421.7	435.8	398.7	386.2				50- 60	430.4	2059	77.2,126
70	272.8	287.3	248.7	237.1				60- 70	332.8	2392	89.7,146
80	130.3	143.4	109.9	99.42				70- 80	199.8	2592	97.2,159
90	33.57	39.69	25.91	21.03				80- 90	74.26	2666	100,163
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:230.19V I:0.1104A P:24.217W PF:0.9531 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: UP-AL117-14-24W-4000K	TYPE: 24W	WEIGHT:	
SPEC.: 4000K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.096	Shielding Angle:	



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	8400	9666
80	7816	8602
75	8025	8585
70	8309	8750
65	8574	8942
60	8786	9078
55	8940	9182
50	9063	9262
45	9157	9327

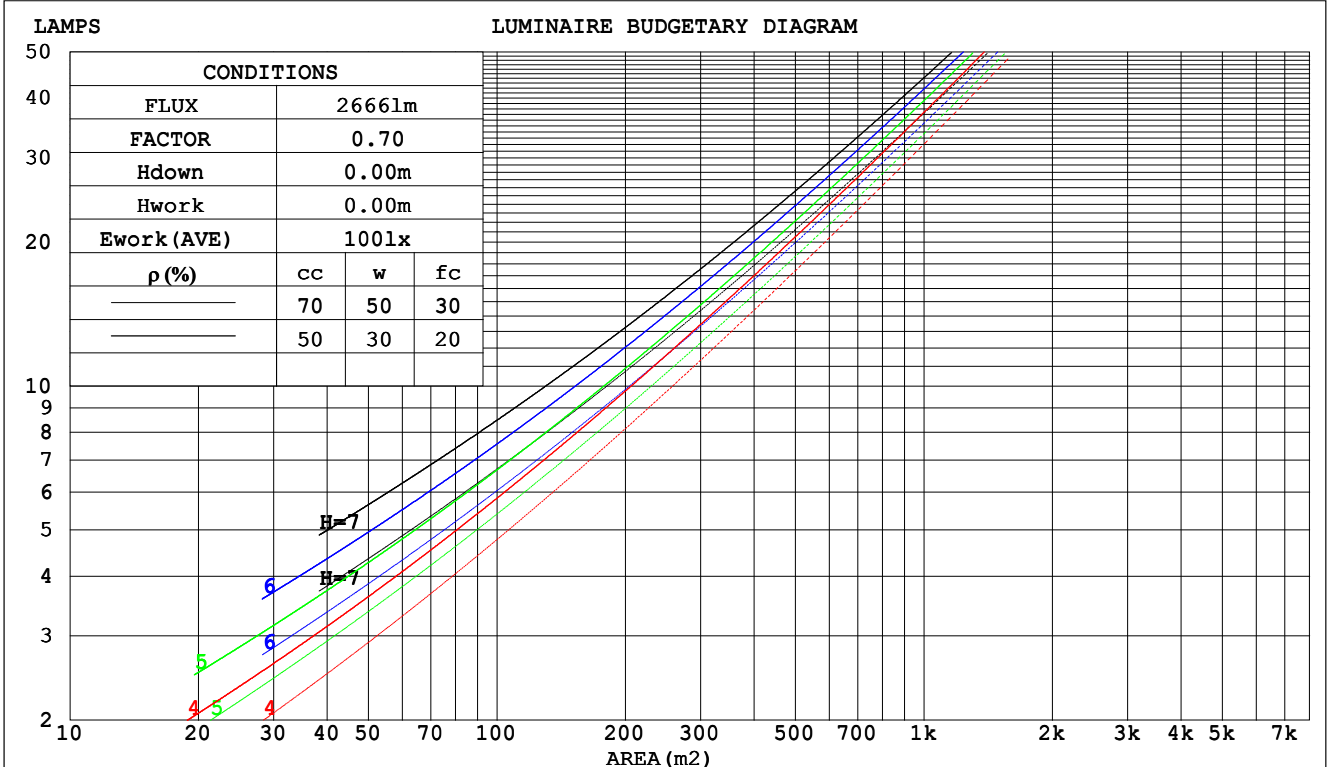
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2020-09-10

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:230.19V I:0.1104A P:24.217W PF:0.9531 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: UP-AL117-14-24W-4000K	TYPE: 24W	WEIGHT:	
SPEC.: 4000K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.096	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%
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.94	1.94	1.94	1.90	1.90	1.90	1.81	1.81	1.81	1.74	1.74	1.74	1.67	1.67	1.67	1.63
1.0	1.68	1.61	1.55	1.65	1.58	1.52	1.58	1.52	1.47	1.51	1.47	1.43	1.45	1.42	1.38	1.35
2.0	1.46	1.35	1.25	1.43	1.33	1.24	1.37	1.28	1.21	1.32	1.24	1.18	1.27	1.21	1.15	1.12
3.0	1.28	1.14	1.04	1.26	1.13	1.03	1.21	1.10	1.01	1.16	1.07	.99	1.12	1.04	.97	.94
4.0	1.13	.99	.87	1.11	.97	.87	1.07	.95	.86	1.03	.93	.84	.90	.81	.73	.69
5.0	1.01	.86	.75	.99	.85	.75	.96	.83	.74	.93	.82	.73	.89	.80	.72	.69
6.0	.91	.76	.65	.89	.75	.65	.86	.74	.65	.84	.72	.64	.81	.71	.63	.60
7.0	.82	.68	.58	.81	.67	.57	.79	.66	.57	.76	.65	.57	.74	.64	.56	.53
8.0	.75	.61	.51	.74	.61	.51	.72	.60	.51	.70	.59	.51	.68	.58	.50	.47
9.0	.69	.55	.46	.68	.55	.46	.66	.54	.46	.64	.53	.46	.63	.53	.45	.42
10.0	.64	.51	.42	.63	.50	.42	.61	.50	.42	.60	.49	.41	.58	.48	.41	.38



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:230.19V I:0.1104A P:24.217W PF:0.9531 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm		
NAME: UP-AL117-14-24W-4000K		TYPE: 24W		WEIGHT:	
SPEC.: 4000K		DIM.:		SERIAL No.:	
MFR.: EVERFINE		SUR.: 0.096		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	.526	.299	.095	.515	.293	.093	.493	.283	.090	.473	.273	.088	.454	.263	.085	
2.0	.489	.268	.082	.478	.263	.081	.459	.255	.079	.441	.248	.077	.425	.240	.076	
3.0	.449	.239	.072	.440	.236	.071	.423	.229	.070	.407	.223	.068	.393	.218	.067	
4.0	.413	.215	.063	.405	.212	.063	.390	.207	.062	.376	.202	.061	.363	.197	.060	
5.0	.381	.194	.056	.374	.192	.056	.360	.188	.055	.348	.184	.055	.336	.180	.054	
6.0	.353	.177	.051	.346	.175	.050	.334	.171	.050	.323	.168	.049	.313	.165	.049	
7.0	.328	.162	.046	.322	.160	.046	.311	.157	.045	.301	.155	.045	.292	.152	.045	
8.0	.306	.149	.042	.301	.148	.042	.291	.145	.042	.282	.143	.041	.274	.141	.041	
9.0	.286	.138	.039	.282	.137	.039	.273	.135	.038	.265	.133	.038	.258	.131	.038	
10.0	.269	.129	.036	.265	.128	.036	.257	.126	.035	.250	.124	.035	.243	.122	.035	

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	.311	.311	.311	.266	.266	.266	.181	.181	.181	.104	.104	.104	.033	.033	.033	
1.0	.296	.255	.218	.253	.219	.187	.173	.150	.130	.100	.087	.075	.032	.028	.024	
2.0	.283	.215	.158	.242	.185	.137	.166	.128	.096	.096	.075	.056	.031	.024	.018	
3.0	.270	.187	.120	.232	.161	.104	.159	.112	.073	.092	.065	.043	.030	.021	.014	
4.0	.258	.165	.094	.221	.143	.082	.152	.099	.058	.088	.058	.034	.028	.019	.011	
5.0	.245	.148	.076	.211	.128	.066	.145	.089	.047	.084	.053	.028	.027	.017	.009	
6.0	.233	.134	.063	.201	.116	.055	.138	.081	.039	.080	.048	.023	.026	.016	.008	
7.0	.222	.123	.054	.191	.107	.047	.132	.075	.033	.077	.044	.020	.025	.014	.007	
8.0	.212	.114	.047	.182	.099	.041	.126	.069	.029	.073	.041	.017	.024	.013	.006	
9.0	.201	.106	.041	.174	.092	.036	.120	.064	.025	.070	.038	.015	.023	.012	.005	
10.0	.192	.099	.036	.166	.086	.032	.115	.060	.023	.067	.036	.013	.022	.012	.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:230.19V I:0.1104A P:24.217W PF:0.9531 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm		
NAME: UP-AL117-14-24W-4000K		TYPE: 24W		WEIGHT:	
SPEC.: 4000K		DIM.:		SERIAL No.:	
MFR.: EVERFINE		SUR.: 0.096		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	20.6	22.1	20.9	22.3	22.6	20.7	22.3	21.0	22.5	22.7
3H	22.2	23.7	22.5	23.9	24.1	22.4	23.8	22.7	24.1	24.3
4H	22.9	24.3	23.2	24.5	24.8	23.1	24.5	23.4	24.7	25.0
6H	23.5	24.7	23.8	25.0	25.3	23.7	25.0	24.1	25.3	25.6
8H	23.7	24.9	24.0	25.2	25.5	24.0	25.2	24.3	25.5	25.8
12H	23.8	25.0	24.2	25.3	25.6	24.2	25.4	24.5	25.7	26.0
4H 2H	21.3	22.6	21.6	22.9	23.1	21.4	22.7	21.7	23.0	23.2
3H	23.1	24.3	23.4	24.6	24.9	23.2	24.4	23.6	24.7	25.0
4H	23.9	25.0	24.3	25.3	25.7	24.1	25.2	24.5	25.5	25.8
6H	24.6	25.6	25.0	25.9	26.3	24.8	25.8	25.2	26.2	26.5
8H	24.9	25.8	25.3	26.2	26.5	25.2	26.1	25.6	26.4	26.8
12H	25.1	26.0	25.5	26.3	26.7	25.4	26.3	25.9	26.7	27.1
8H 4H	24.2	25.2	24.7	25.5	25.9	24.4	25.3	24.8	25.7	26.1
6H	25.1	25.9	25.6	26.3	26.7	25.3	26.1	25.8	26.5	26.9
8H	25.5	26.2	26.0	26.6	27.1	25.8	26.4	26.2	26.9	27.3
12H	25.9	26.5	26.3	26.9	27.4	26.2	26.8	26.7	27.2	27.7
12H 4H	24.3	25.1	24.7	25.5	25.9	24.4	25.3	24.9	25.7	26.1
6H	25.2	25.9	25.7	26.3	26.8	25.4	26.1	25.9	26.5	27.0
8H	25.7	26.3	26.1	26.7	27.2	25.9	26.5	26.4	26.9	27.4
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:230.19V I:0.1104A P:24.217W PF:0.9531 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: UP-AL117-14-24W-4000K	TYPE: 24W	WEIGHT:	
SPEC.: 4000K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.096	Shielding Angle:	

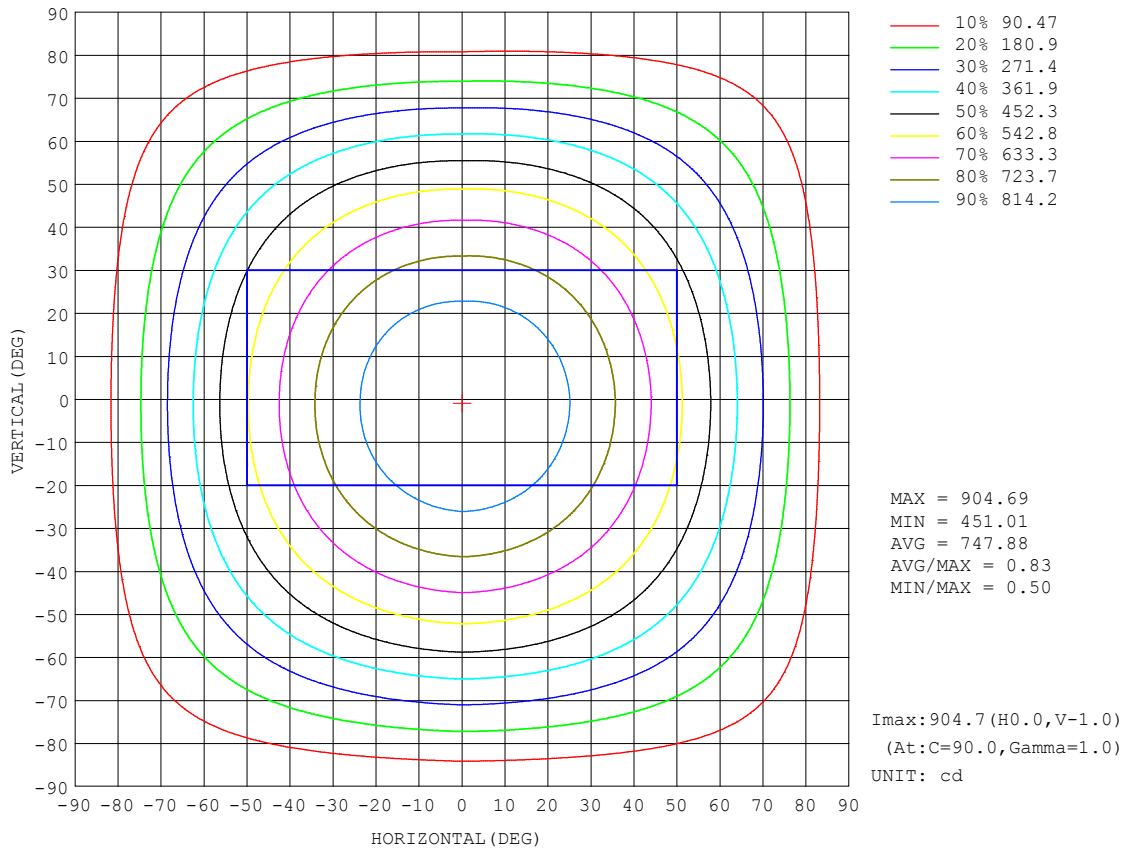
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	93	74	62	92	73	62	90	72	62	51
0.80	109	90	78	107	89	77	104	88	77	65
1.00	123	104	92	121	103	92	117	106	91	79
1.25	134	117	105	132	116	104	127	113	103	91
1.50	143	126	114	140	125	113	135	122	112	99
2.00	154	139	129	151	137	127	145	134	125	112
2.50	160	147	137	157	145	136	151	141	133	119
3.00	166	154	145	162	152	143	156	147	140	126
4.00	172	163	155	169	160	153	162	154	148	134
5.00	177	168	161	173	165	159	165	159	154	139
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:230.19V I:0.1104A P:24.217W PF:0.9531 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: UP-AL117-14-24W-4000K	TYPE: 24W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.096	Shielding Angle:

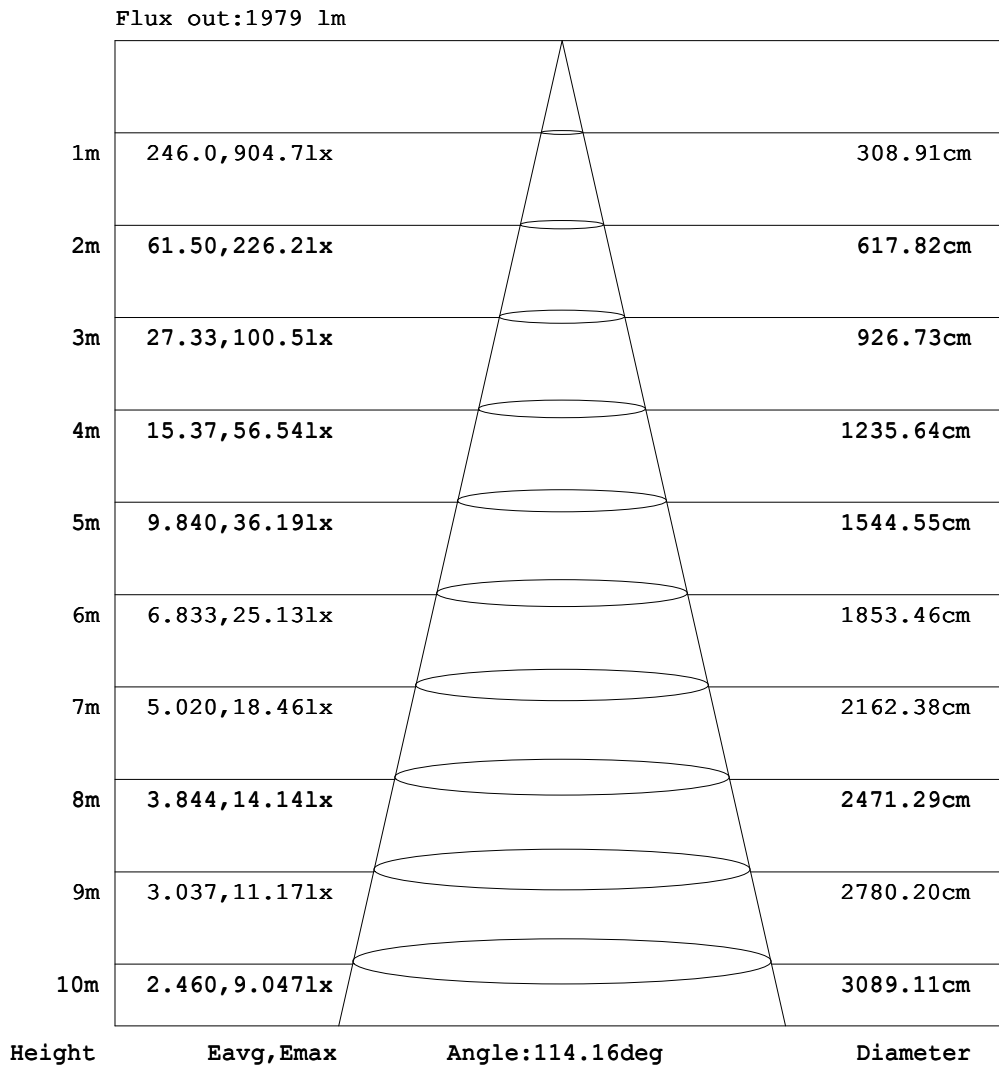


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2020-09-10

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:230.19V I:0.1104A P:24.217W PF:0.9531 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: UP-AL117-14-24W-4000K	TYPE: 24W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.096	Shielding Angle:



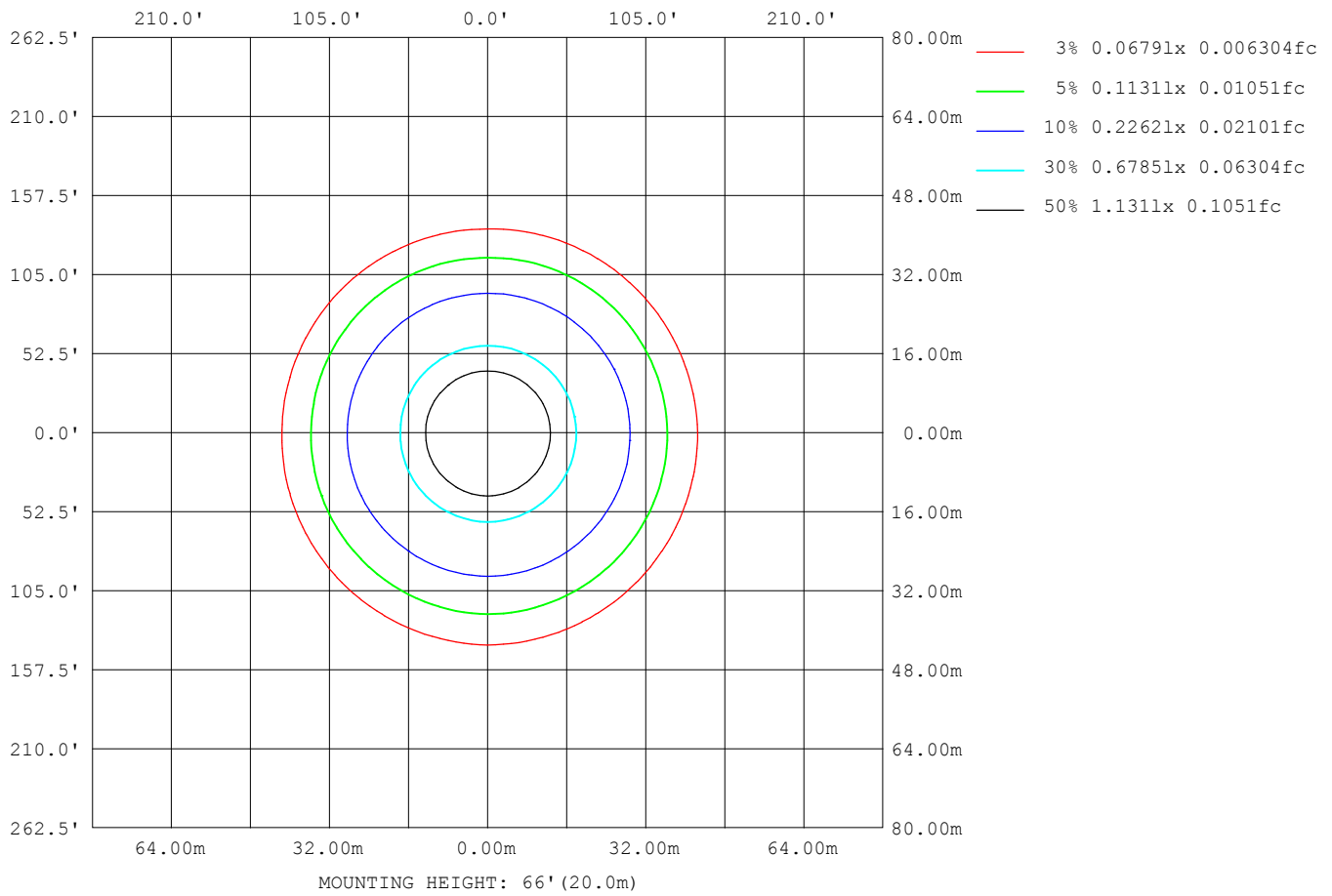
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:230.19V I:0.1104A P:24.217W PF:0.9531 Freq:49.99Hz UTHDi:0% ITHDi:0%		Lamp Flux:1633.45x1 lm
NAME: UP-AL117-14-24W-4000K	TYPE: 24W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.096	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:230.19V I:0.1104A P:24.217W PF:0.9531 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: UP-AL117-14-24W-4000K	TYPE: 24W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.096	Shielding Angle:

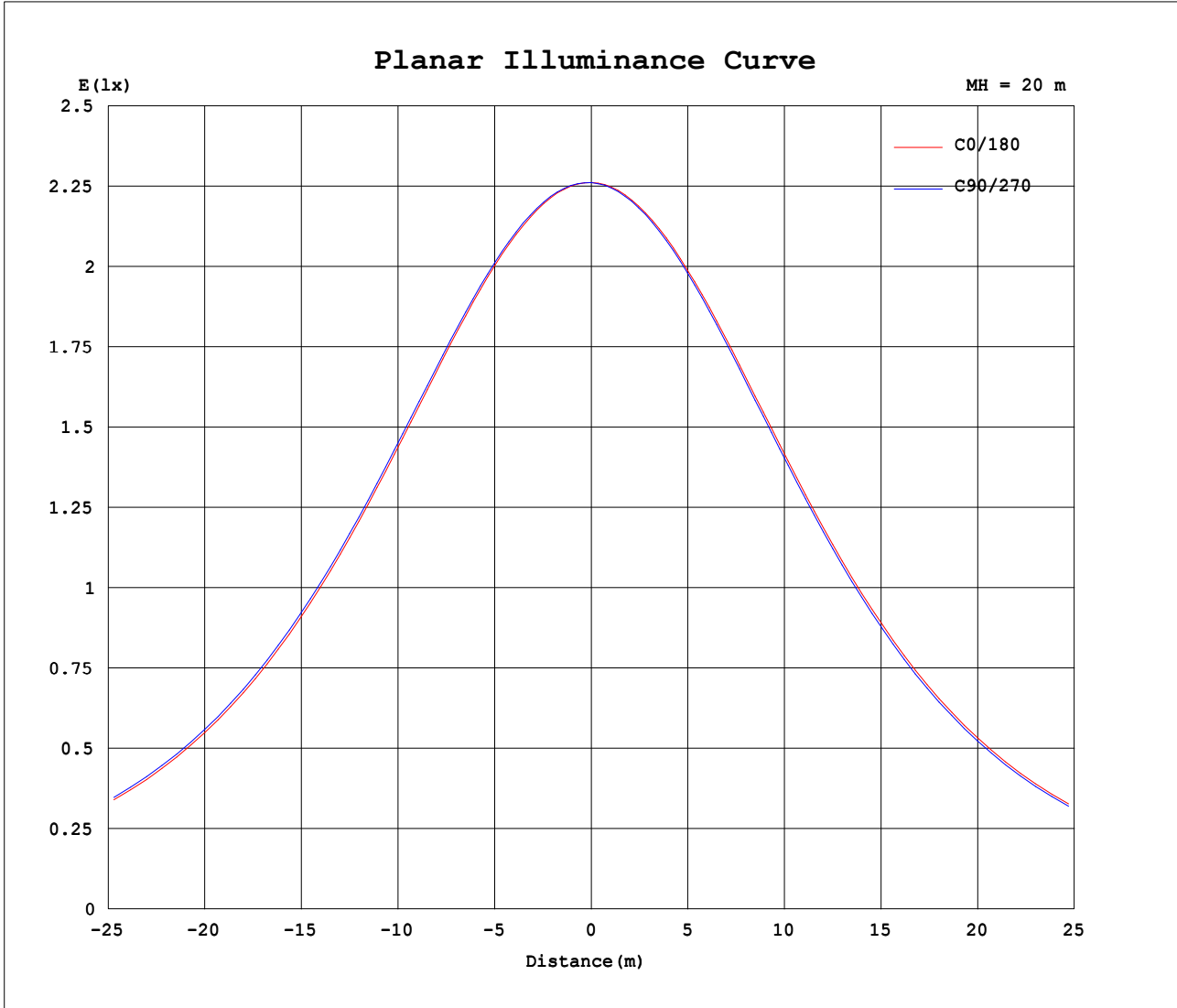
AvgL	cd/m2
L_0~180 (65) av	8275
L_0~180 (75) av	7558
L_0~180 (85) av	7504
L_90~270 (65) av	8310
L_90~270 (75) av	7618
L_90~270 (85) av	7818
L_45 (65) av	8279
L_45 (75) av	7566
L_45 (85) av	7644

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
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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:230.19V I:0.1104A P:24.217W PF:0.9531 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: UP-AL117-14-24W-4000K	TYPE: 24W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.096	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270																
0	905	905	905	905																
5	902	903	899	898																
10	891	894	887	884																
15	873	877	866	862																
20	848	854	839	833																
25	815	822	804	797																
30	776	784	763	755																
35	730	740	715	706																
40	679	689	662	652																
45	622	633	603	592																
50	559	572	539	528																
55	492	506	471	458																
60	422	436	399	386																
65	348	363	324	311																
70	273	287	249	237																
75	199	213	176	165																
80	130	143	110	99.4																
85	70.3	80.9	55.3	49.9																
90	33.6	39.7	25.9	21.0																

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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 Remarks: