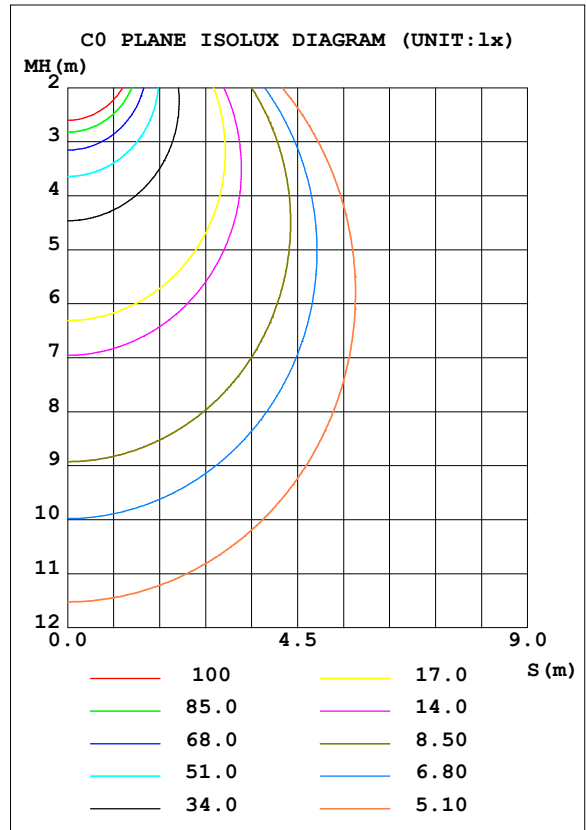
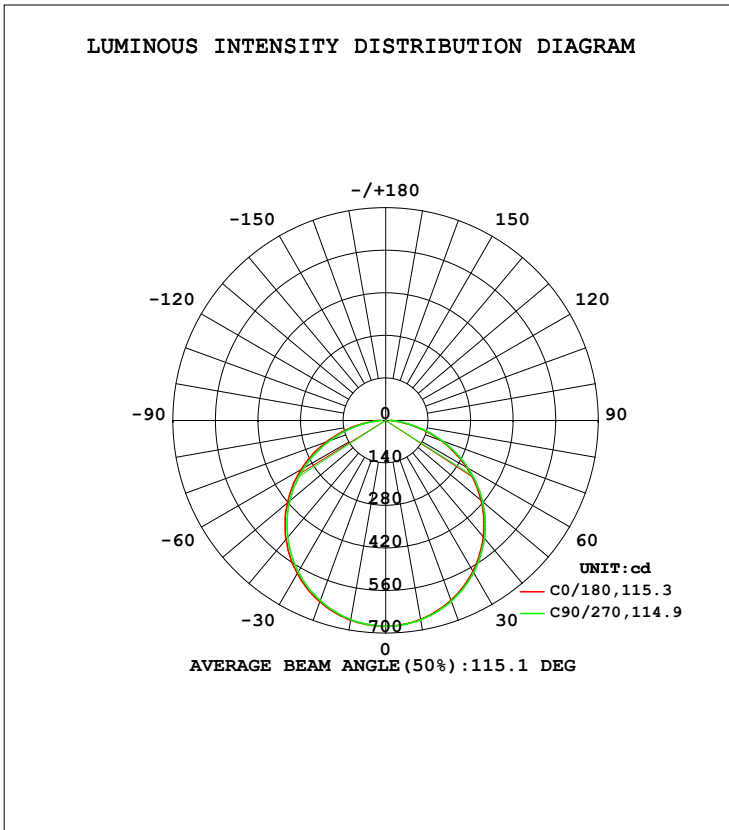


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.15V I:0.0894A P:19.796W PF:0.9622 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-14-20W-5700K	TYPE: 20W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 101.10 lm/W			
MODEL	AL117-14-20W-5700K	I _{max} (cd)	677.1	S/MH (C0/180)	1.28
NOMINAL POWER (W)	20	LOR (%)	122.5	S/MH (C90/270)	1.26
RATED VOLTAGE (V)	200-240	TOTAL FLUX (lm)	2001.4	η UP, DN (C0-180)	0.0, 60.9
NOMINAL FLUX (lm)	1633.45	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 61.6
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	122.5	CIBSE SHR MAX	1.35



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

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:

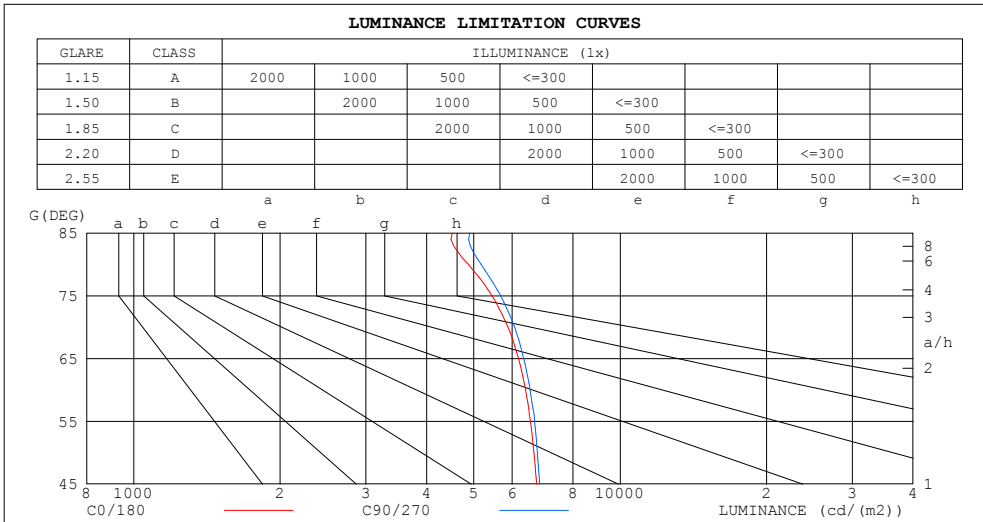
γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum, lamp
10	664.3	666.1	667.1	664.9				0- 10	64.08	64.08	3.2,3.92
20	629.4	632.7	635.1	630.5				10- 20	183.9	248.0	12.4,15.2
30	573.9	578.8	582.0	575.5				20- 30	279.9	527.8	26.4,32.3
40	500.3	506.0	510.6	501.7				30- 40	339.9	867.7	43.4,53.1
50	410.4	417.1	422.8	412.2				40- 50	356.3	1224	61.2,74.9
60	306.8	313.1	320.3	308.6				50- 60	326.5	1551	77.5,94.9
70	193.0	199.2	207.7	195.0				60- 70	253.4	1804	90.1,110
80	81.18	86.33	93.91	82.65				70- 80	149.1	1953	97.6,120
90	17.10	13.07	19.81	12.17				80- 90	48.36	2001	100,123
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:230.15V I:0.0894A P:19.796W PF:0.9622 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: AL117-14-20W-5700K	TYPE: 20W	WEIGHT:	
SPEC.: 5700K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:	



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	4520	4909
80	4869	5179
75	5451	5678
70	5878	6066
65	6182	6337
60	6390	6523
55	6539	6668
50	6649	6759
45	6735	6828

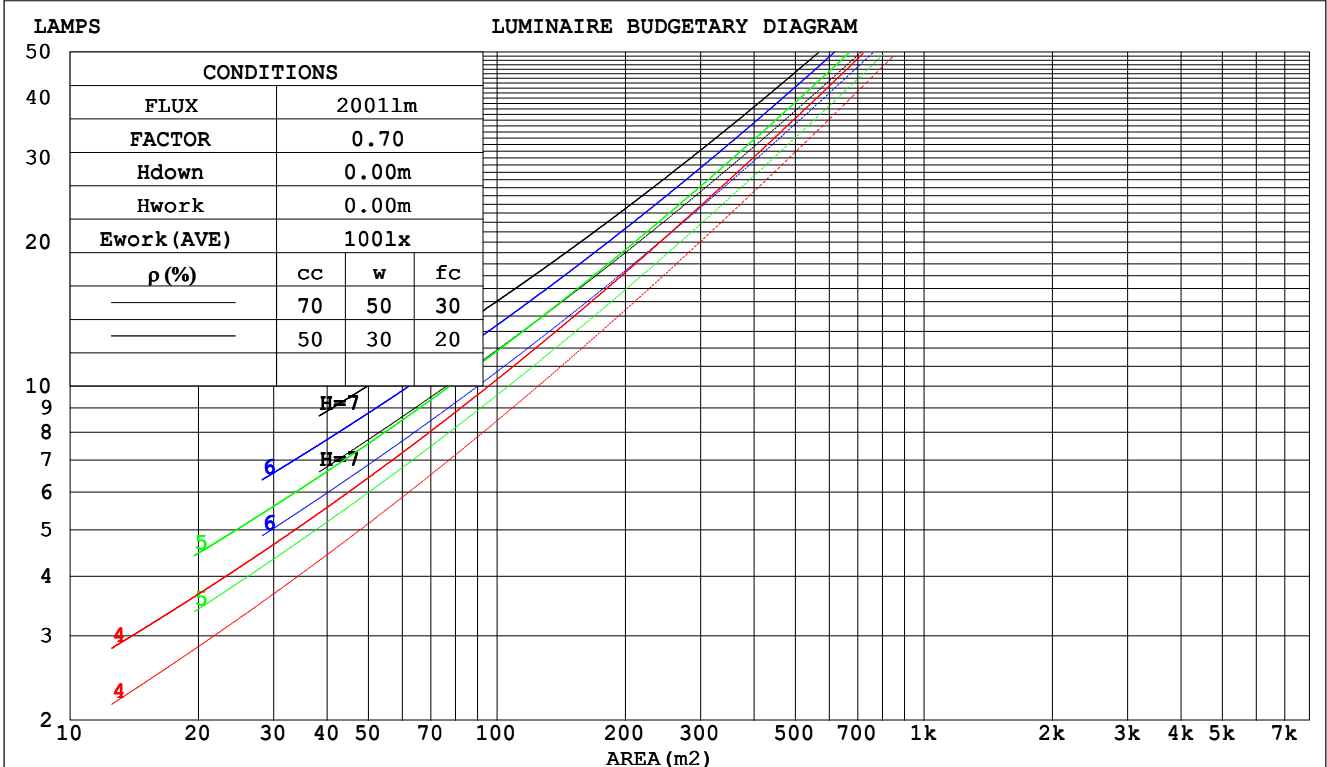
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2020-09-10

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:230.15V I:0.0894A P:19.796W PF:0.9622 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: AL117-14-20W-5700K	TYPE: 20W	WEIGHT:	
SPEC.: 5700K	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	1.46	1.46	1.46	1.42	1.42	1.42	1.36	1.36	1.36	1.30	1.30	1.30	1.25	1.25	1.25	1.23
1.0	1.27	1.21	1.16	1.24	1.19	1.14	1.19	1.15	1.11	1.14	1.10	1.07	1.09	1.07	1.04	1.02
2.0	1.10	1.01	.94	1.08	.00	.93	1.03	.97	.91	.99	.94	.89	.96	.91	.87	.84
3.0	.96	.86	.78	.94	.85	.77	.91	.83	.76	.87	.80	.75	.84	.78	.73	.70
4.0	.85	.74	.66	.84	.73	.65	.80	.72	.64	.78	.70	.64	.75	.68	.63	.60
5.0	.76	.65	.56	.75	.64	.56	.72	.63	.56	.70	.61	.55	.67	.60	.54	.52
6.0	.68	.57	.49	.67	.57	.49	.65	.56	.49	.63	.54	.48	.61	.53	.48	.45
7.0	.62	.51	.43	.61	.51	.43	.59	.50	.43	.57	.49	.43	.56	.48	.42	.40
8.0	.56	.46	.39	.56	.45	.38	.54	.45	.38	.52	.44	.38	.51	.43	.38	.35
9.0	.52	.42	.35	.51	.41	.35	.50	.41	.34	.48	.40	.34	.47	.40	.34	.32
10.0	.48	.38	.31	.47	.38	.31	.46	.37	.31	.45	.37	.31	.44	.36	.31	.29



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:230.15V I:0.0894A P:19.796W PF:0.9622 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm		
NAME: AL117-14-20W-5700K		TYPE: 20W		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	.391	.222	.070	.382	.218	.069	.366	.210	.067	.351	.202	.065	.337	.195	.063	
2.0	.365	.200	.061	.357	.197	.061	.343	.191	.059	.330	.185	.058	.317	.179	.057	
3.0	.336	.179	.054	.330	.177	.053	.317	.172	.052	.305	.167	.051	.294	.163	.050	
4.0	.310	.161	.047	.304	.159	.047	.292	.155	.046	.282	.151	.046	.272	.148	.045	
5.0	.286	.146	.042	.280	.144	.042	.270	.141	.041	.261	.138	.041	.252	.135	.040	
6.0	.265	.133	.038	.260	.131	.038	.251	.129	.037	.243	.126	.037	.235	.124	.037	
7.0	.246	.122	.034	.242	.120	.034	.234	.118	.034	.226	.116	.034	.219	.114	.033	
8.0	.229	.112	.032	.226	.111	.031	.219	.109	.031	.212	.107	.031	.206	.106	.031	
9.0	.215	.104	.029	.211	.103	.029	.205	.101	.029	.199	.100	.029	.193	.098	.028	
10.0	.202	.097	.027	.199	.096	.027	.193	.095	.027	.188	.093	.026	.182	.092	.026	

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	.233	.233	.233	.199	.199	.199	.136	.136	.136	.078	.078	.078	.025	.025	.025	
1.0	.222	.191	.164	.190	.164	.141	.130	.113	.097	.075	.065	.057	.024	.021	.018	
2.0	.212	.162	.119	.182	.139	.103	.124	.096	.072	.072	.056	.042	.023	.018	.014	
3.0	.203	.140	.090	.174	.121	.078	.119	.084	.055	.069	.049	.032	.022	.016	.011	
4.0	.193	.124	.071	.166	.107	.062	.114	.075	.043	.066	.044	.026	.021	.014	.008	
5.0	.184	.111	.057	.158	.096	.050	.109	.067	.035	.063	.039	.021	.020	.013	.007	
6.0	.175	.101	.048	.151	.087	.041	.104	.061	.029	.060	.036	.017	.019	.012	.006	
7.0	.167	.092	.040	.143	.080	.035	.099	.056	.025	.058	.033	.015	.019	.011	.005	
8.0	.159	.085	.035	.137	.074	.030	.095	.052	.022	.055	.031	.013	.018	.010	.004	
9.0	.151	.079	.031	.130	.069	.027	.090	.048	.019	.053	.029	.011	.017	.009	.004	
10.0	.144	.074	.027	.124	.064	.024	.086	.045	.017	.050	.027	.010	.016	.009	.003	

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:230.15V I:0.0894A P:19.796W PF:0.9622 Freq:49.99Hz UTHDi:0% ITHDi:0%		Lamp Flux:1633.45x1 lm
NAME: AL117-14-20W-5700K	TYPE: 20W	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	19.4	20.9	19.7	21.1	21.4	19.5	21.0	19.7	21.2	21.4
3H	21.0	22.4	21.3	22.6	22.9	21.1	22.5	21.4	22.7	23.0
4H	21.6	22.9	21.9	23.2	23.4	21.7	23.1	22.0	23.3	23.6
6H	22.0	23.3	22.3	23.6	23.8	22.2	23.4	22.5	23.7	24.0
8H	22.1	23.4	22.5	23.7	24.0	22.3	23.6	22.7	23.8	24.1
12H	22.2	23.4	22.6	23.7	24.0	22.4	23.6	22.8	23.9	24.2
4H 2H	20.0	21.4	20.4	21.6	21.9	20.1	21.5	20.4	21.7	22.0
3H	21.8	23.0	22.1	23.3	23.6	21.9	23.1	22.2	23.3	23.7
4H	22.5	23.6	22.9	23.9	24.3	22.6	23.7	23.0	24.0	24.4
6H	23.1	24.0	23.5	24.4	24.8	23.2	24.2	23.6	24.5	24.9
8H	23.3	24.2	23.7	24.5	24.9	23.4	24.3	23.8	24.7	25.1
12H	23.4	24.2	23.8	24.6	25.0	23.6	24.4	24.0	24.8	25.2
8H 4H	22.8	23.7	23.2	24.1	24.5	22.9	23.8	23.3	24.2	24.6
6H	23.5	24.3	24.0	24.7	25.1	23.6	24.4	24.1	24.8	25.2
8H	23.8	24.5	24.2	24.9	25.3	23.9	24.6	24.4	25.0	25.5
12H	24.0	24.6	24.5	25.0	25.5	24.2	24.8	24.7	25.2	25.7
12H 4H	22.8	23.6	23.2	24.0	24.4	22.9	23.7	23.3	24.1	24.5
6H	23.6	24.2	24.0	24.7	25.1	23.7	24.4	24.2	24.8	25.2
8H	23.9	24.5	24.4	24.9	25.4	24.0	24.6	24.5	25.1	25.5
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					+ 0.1 / - 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:230.15V I:0.0894A P:19.796W PF:0.9622 Freq:49.99Hz UTHDi:0% ITHDi:0%			Lamp Flux:1633.45x1 lm
NAME: AL117-14-20W-5700K	TYPE: 20W	WEIGHT:	
SPEC.: 5700K	DIM.:	SERIAL No.:	
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:	

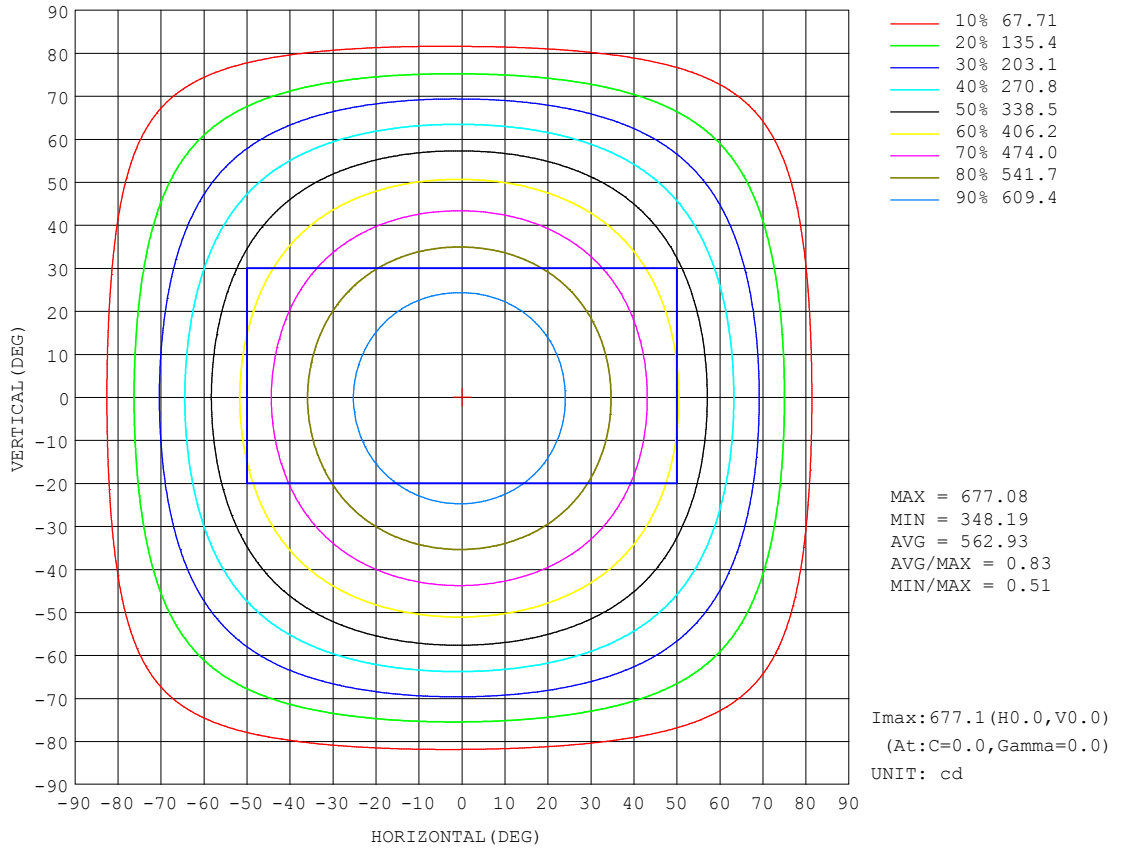
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	70	55	47	69	55	46	67	54	46	38
0.80	82	67	58	81	67	58	78	66	58	49
1.00	92	78	69	91	78	69	88	79	68	59
1.25	101	88	79	99	87	78	96	85	77	68
1.50	107	95	86	105	94	85	101	91	84	75
2.00	116	105	97	113	103	96	109	101	94	84
2.50	120	111	103	118	109	102	113	106	100	89
3.00	125	116	109	122	114	108	117	110	105	95
4.00	130	122	117	127	120	115	121	116	112	101
5.00	133	127	121	130	124	120	124	120	116	104
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:230.15V I:0.0894A P:19.796W PF:0.9622 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-14-20W-5700K	TYPE: 20W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:

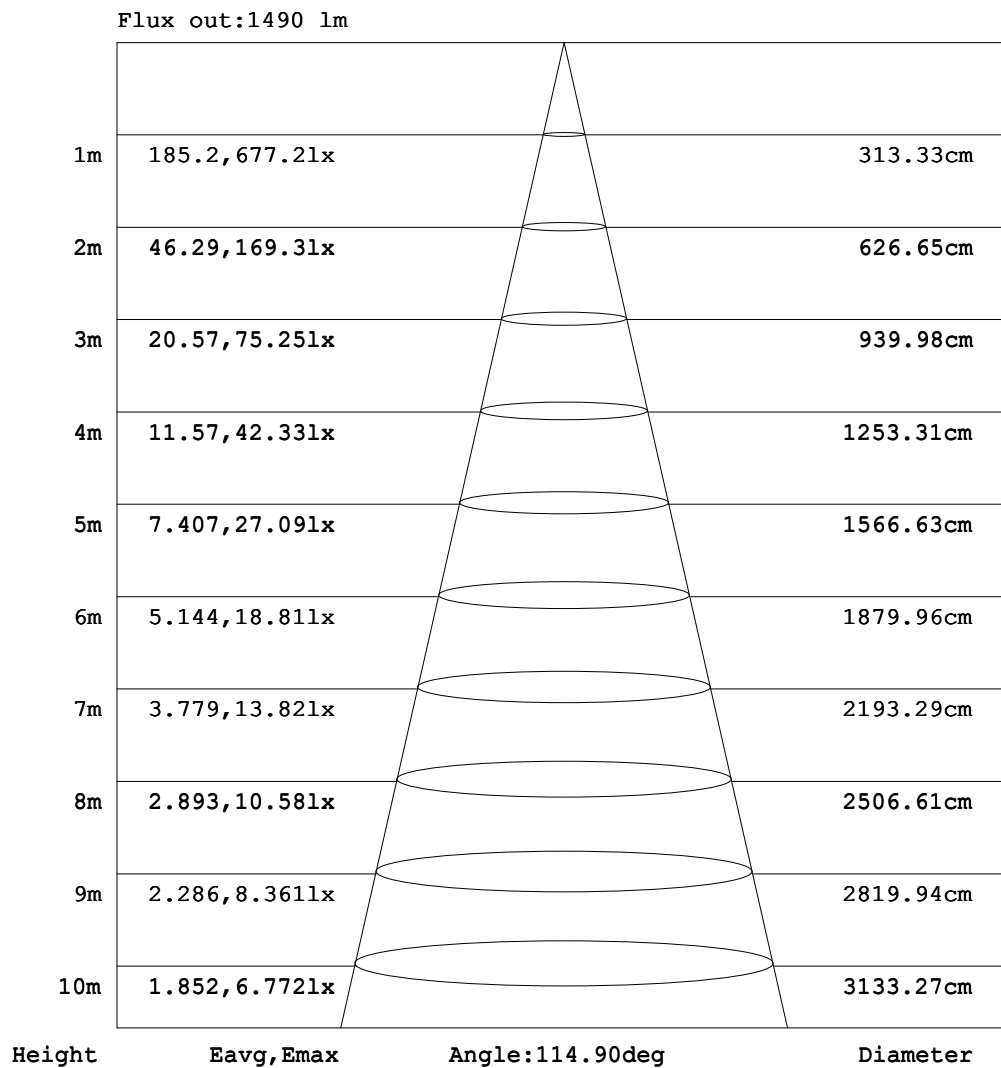


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2020-09-10

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:230.15V I:0.0894A P:19.796W PF:0.9622 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-14-20W-5700K	TYPE: 20W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:



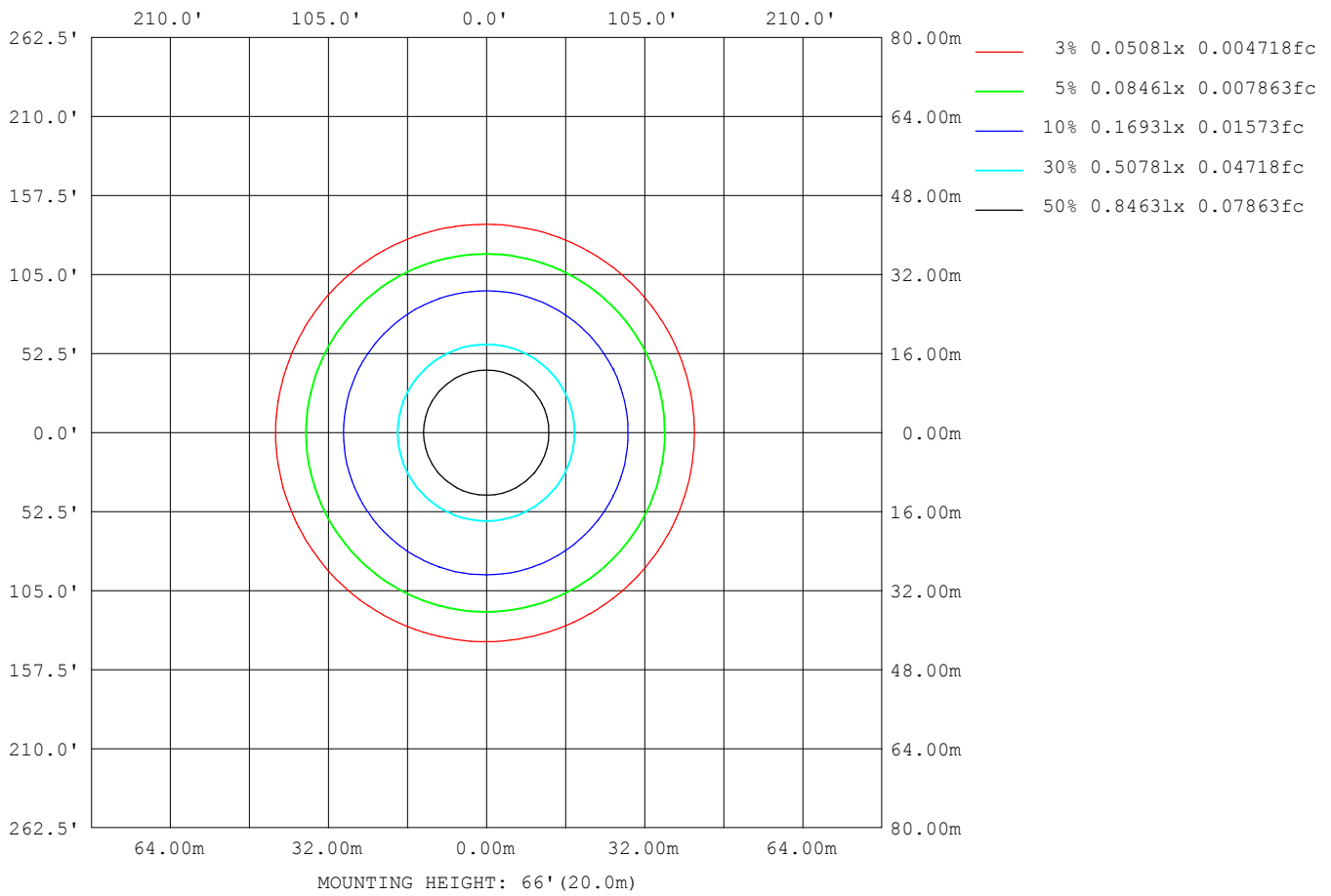
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:230.15V I:0.0894A P:19.796W PF:0.9622 Freq:49.99Hz UTHDi:0% ITHDi:0%		Lamp Flux:1633.45x1 lm
NAME: AL117-14-20W-5700K	TYPE: 20W	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:230.15V I:0.0894A P:19.796W PF:0.9622 Freq:49.99Hz UTHDi:0% ITHDi:0% Lamp Flux:1633.45x1 lm		
NAME: AL117-14-20W-5700K	TYPE: 20W	WEIGHT:
SPEC.: 5700K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.35	Shielding Angle:

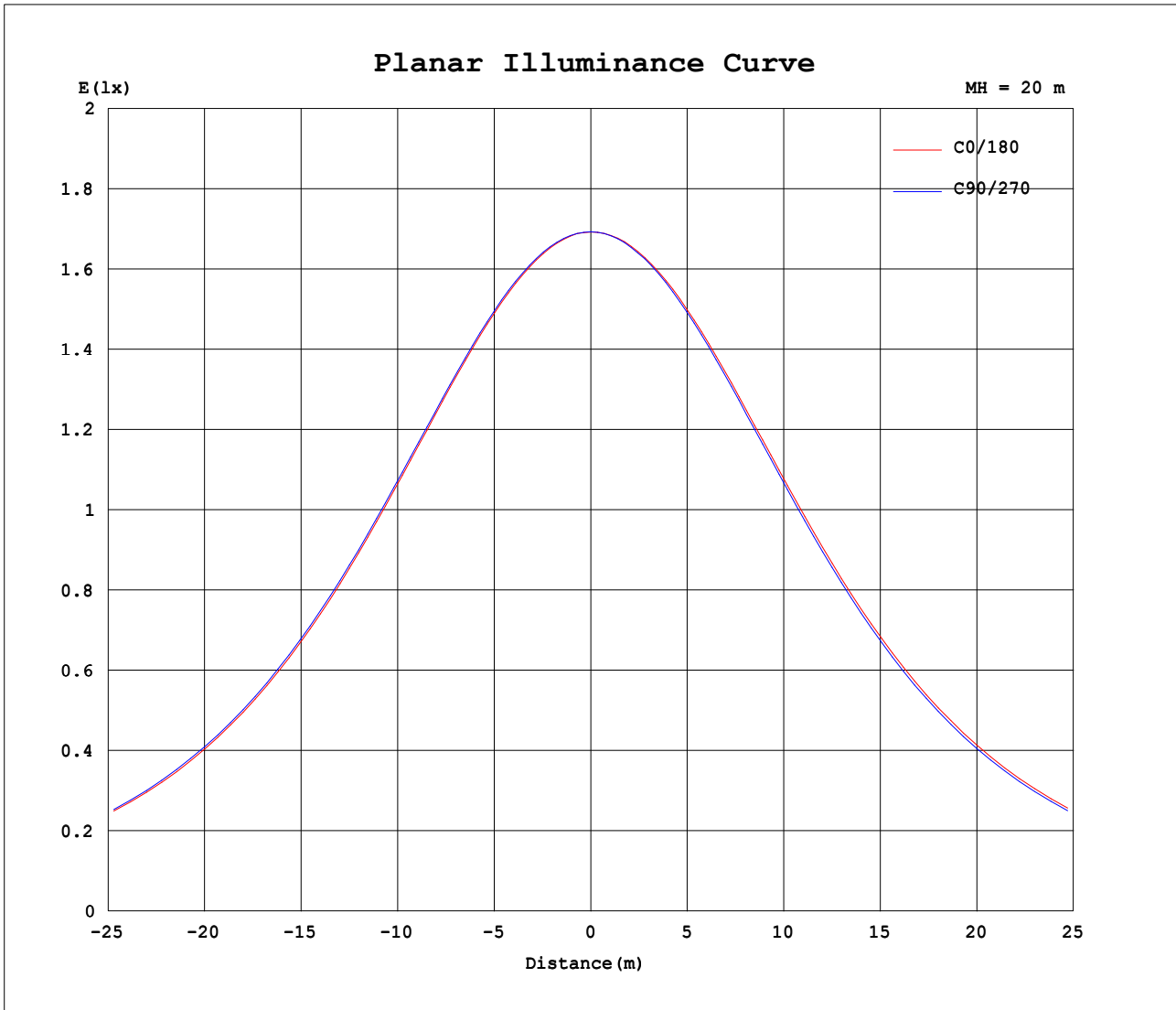
AvgL	cd/m2
L_0~180 (65) av	6357
L_0~180 (75) av	5744
L_0~180 (85) av	5037
L_90~270 (65) av	6281
L_90~270 (75) av	5596
L_90~270 (85) av	4748
L_45 (65) av	6320
L_45 (75) av	5670
L_45 (85) av	4889

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:

