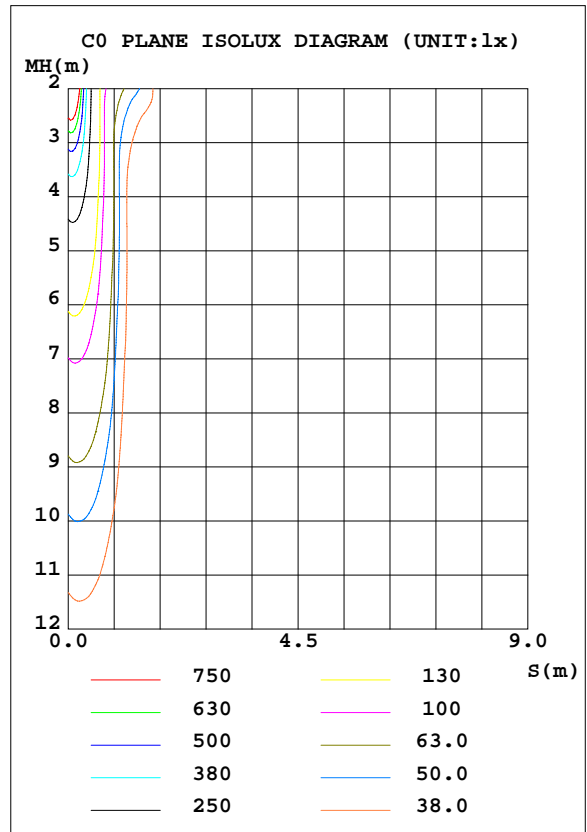
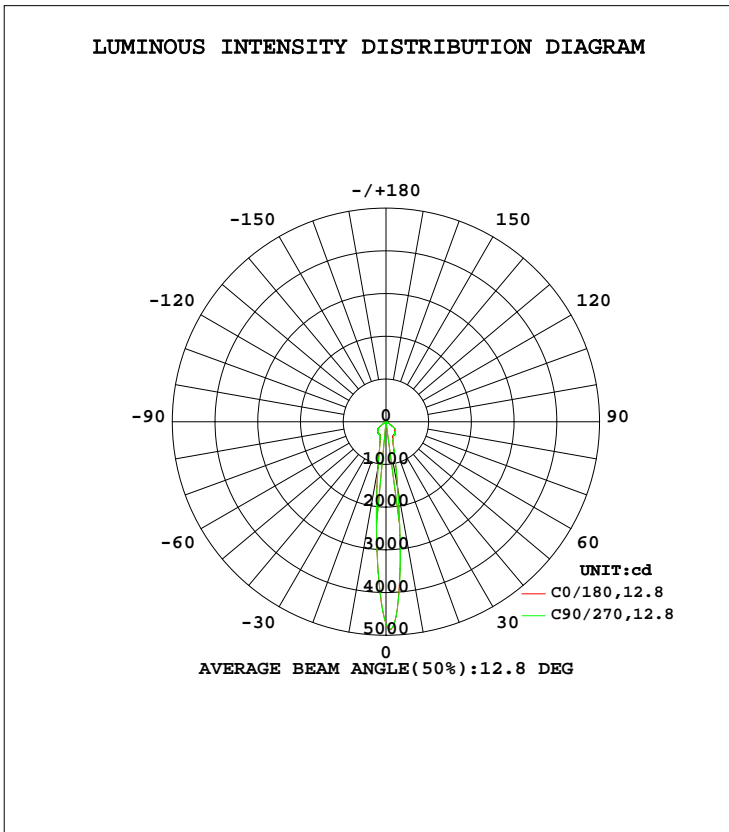


**LUMINAIRE PHOTOMETRIC TEST REPORT**

NAME: AR111-14W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	1030	I <sub>max</sub> (cd)	4994	S/MH(C0/180)	0.19
NOMINAL POWER(W)	14	LOR(%)	100.0	S/MH(C90/270)	0.19
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	1156.4	η UP, DN(C0-180)	0.0,55.3
NOMINAL FLUX(lm)	1156.38	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,44.7
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

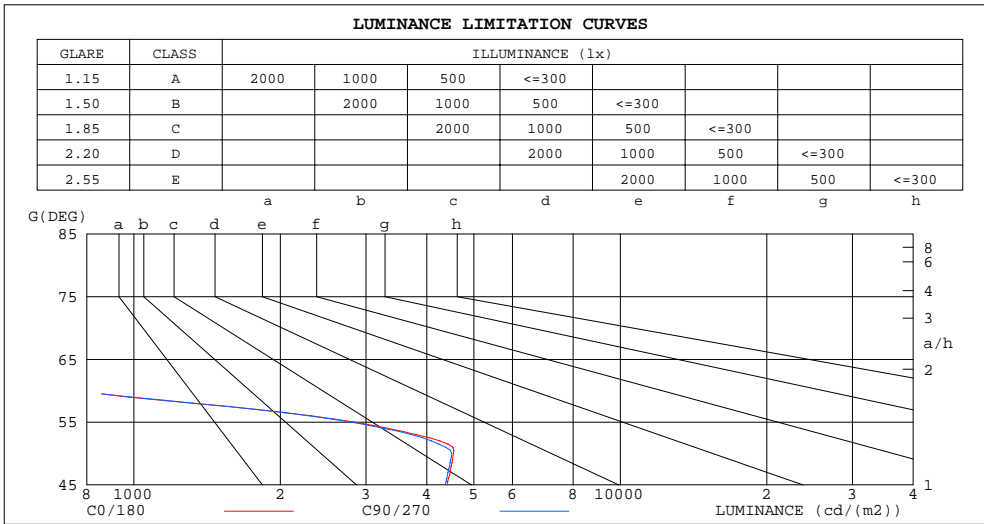
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum,lamp
10	1596	1824	1596	1299	1103	1036	1069	1240	0- 10	237.3	237.3	20.5,20.5
20	478.6	489.4	492.0	466.5	404.2	370.3	412.6	456.3	10- 20	197.1	434.3	37.6,37.6
30	356.9	332.1	371.4	378.5	335.3	290.3	337.2	363.5	20- 30	174.5	608.9	52.7,52.7
40	321.4	289.7	326.7	319.4	291.9	243.7	286.8	309.0	30- 40	205.2	814.1	70.4,70.4
50	283.4	258.5	293.3	276.0	231.3	178.6	222.5	256.6	40- 50	214.6	1029	89,89
60	37.66	41.64	38.28	30.15	23.30	20.40	24.56	29.57	50- 60	113.1	1142	98.7,98.7
70	5.265	5.549	4.160	2.620	1.577	1.782	1.659	3.249	60- 70	13.67	1155	99.9,99.9
80	0.2732	0.1962	0.1675	0.1300	0.1456	0.1124	0.2131	0.1889	70- 80	0.8963	1156	100,100
90	0.0170	0.0058	0.0089	0	0.0043	0.0022	0	0.0022	80- 90	0.0795	1156	100,100
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: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

**LUMINANCE LIMITATION CURVES**

NAME: AR111-14W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	14	8
80	16	10
75	33	21
70	158	120
65	363	362
60	775	756
55	2833	2793
50	4538	4503
45	4397	4364

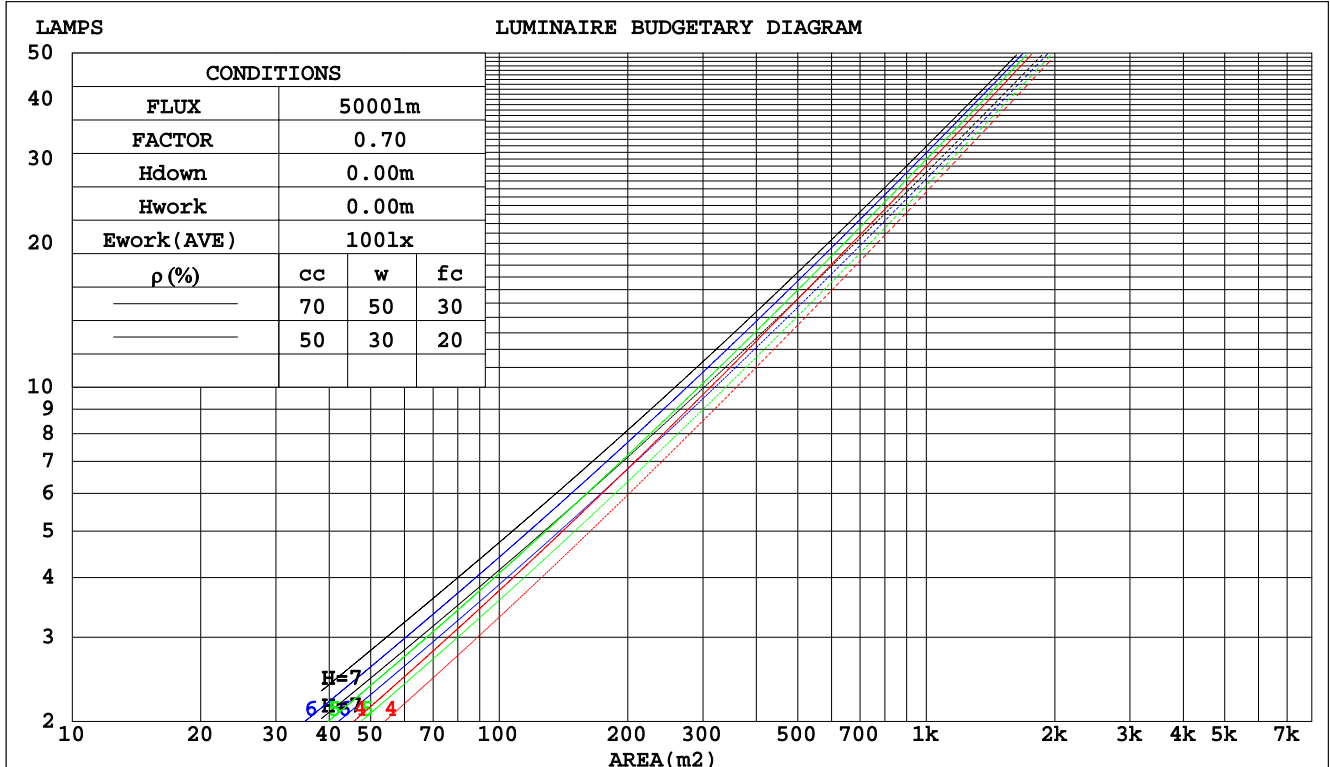
C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: AR111-14W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	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																
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.10	1.07	1.05	1.08	1.05	1.03	1.04	1.02	.00	.00	.98	.97	.96	.95	.94	.92
2.0	1.01	.96	.93	.99	.95	.92	.96	.93	.90	.93	.90	.88	.90	.88	.86	.84
3.0	.93	.87	.83	.92	.86	.82	.89	.84	.81	.86	.83	.80	.84	.81	.78	.77
4.0	.86	.80	.75	.85	.79	.75	.82	.78	.74	.80	.76	.73	.79	.75	.72	.70
5.0	.80	.73	.68	.79	.73	.68	.77	.72	.68	.75	.71	.67	.74	.70	.66	.65
6.0	.74	.68	.63	.73	.67	.63	.72	.66	.62	.70	.66	.62	.69	.65	.61	.60
7.0	.70	.63	.58	.69	.63	.58	.68	.62	.58	.66	.61	.58	.65	.61	.57	.56
8.0	.65	.59	.55	.65	.59	.54	.64	.58	.54	.63	.58	.54	.62	.57	.54	.52
9.0	.62	.56	.51	.61	.55	.51	.60	.55	.51	.59	.54	.51	.59	.54	.51	.49
10.0	.59	.53	.48	.58	.52	.48	.57	.52	.48	.57	.52	.48	.56	.51	.48	.47



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: fu  
 Test Date: 09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity: 65.0%  
 Test Distance: 3.161m [K=1.0000]  
 Remarks:

WEC AND CCEC

NAME: AR111-14W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	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	.196	.111	.035	.189	.108	.034	.176	.101	.032	.164	.095	.030	.154	.089	.029	
2.0	.191	.105	.032	.185	.102	.031	.174	.097	.030	.164	.092	.029	.155	.088	.028	
3.0	.183	.097	.029	.178	.095	.029	.169	.091	.028	.160	.088	.027	.152	.084	.026	
4.0	.174	.090	.027	.170	.089	.026	.162	.086	.026	.154	.083	.025	.147	.080	.024	
5.0	.165	.084	.024	.161	.083	.024	.154	.080	.024	.147	.078	.023	.141	.075	.023	
6.0	.156	.078	.022	.153	.077	.022	.147	.075	.022	.141	.073	.021	.135	.071	.021	
7.0	.148	.073	.021	.145	.072	.021	.139	.070	.020	.134	.069	.020	.129	.067	.020	
8.0	.140	.068	.019	.138	.068	.019	.133	.066	.019	.128	.065	.019	.124	.063	.018	
9.0	.133	.064	.018	.131	.064	.018	.126	.062	.018	.122	.061	.018	.118	.060	.017	
10.0	.126	.061	.017	.124	.060	.017	.120	.059	.017	.117	.058	.016	.113	.057	.016	

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.172	.157	.143	.148	.135	.123	.101	.093	.085	.058	.054	.050	.019	.017	.016	
2.0	.159	.132	.110	.136	.114	.095	.093	.079	.066	.054	.046	.039	.017	.015	.013	
3.0	.148	.114	.087	.127	.098	.075	.087	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.138	.099	.070	.119	.086	.060	.082	.060	.043	.047	.035	.025	.015	.011	.008	
5.0	.130	.088	.057	.112	.076	.050	.077	.053	.035	.045	.031	.021	.014	.010	.007	
6.0	.123	.079	.047	.106	.068	.041	.073	.048	.029	.042	.028	.017	.014	.009	.006	
7.0	.116	.071	.040	.100	.062	.035	.069	.043	.025	.040	.026	.015	.013	.008	.005	
8.0	.110	.065	.035	.095	.057	.030	.066	.040	.021	.038	.023	.013	.012	.008	.004	
9.0	.105	.060	.030	.090	.052	.026	.062	.037	.019	.036	.022	.011	.012	.007	.004	
10.0	.100	.056	.026	.086	.048	.023	.060	.034	.016	.035	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

NAME: AR111-14W-4000K					TYPE:					WEIGHT:				
SPEC.:					DIM.:					SERIAL No.:				
MFR.: EVERFINE					SUR.:0.005					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	14.8	15.9	15.0	16.1	16.2	14.8	15.8	15.0	16.0	16.2				
3H	14.7	15.6	14.9	15.8	16.1	14.6	15.6	14.9	15.8	16.0				
4H	14.6	15.5	14.8	15.7	15.9	14.5	15.4	14.8	15.7	15.9				
6H	14.5	15.3	14.8	15.6	15.8	14.4	15.3	14.7	15.5	15.8				
8H	14.4	15.3	14.7	15.5	15.8	14.4	15.2	14.7	15.5	15.7				
12H	14.4	15.2	14.7	15.5	15.7	14.3	15.1	14.7	15.4	15.7				
4H 2H	14.7	15.6	15.0	15.9	16.1	14.7	15.6	14.9	15.8	16.0				
3H	14.5	15.3	14.9	15.6	15.9	14.5	15.3	14.8	15.6	15.9				
4H	14.4	15.2	14.8	15.5	15.8	14.4	15.1	14.8	15.4	15.7				
6H	14.3	15.0	14.7	15.3	15.7	14.3	14.9	14.7	15.3	15.6				
8H	14.3	14.9	14.7	15.2	15.6	14.3	14.8	14.7	15.2	15.6				
12H	14.3	14.8	14.7	15.2	15.6	14.2	14.7	14.6	15.1	15.5				
8H 4H	14.3	14.9	14.7	15.2	15.6	14.3	14.8	14.7	15.2	15.6				
6H	14.2	14.7	14.6	15.1	15.5	14.2	14.6	14.6	15.0	15.5				
8H	14.2	14.6	14.6	15.0	15.4	14.1	14.5	14.6	15.0	15.4				
12H	14.1	14.5	14.6	14.9	15.4	14.1	14.4	14.5	14.9	15.3				
12H 4H	14.3	14.8	14.7	15.2	15.6	14.2	14.7	14.6	15.1	15.5				
6H	14.2	14.6	14.6	15.0	15.4	14.1	14.5	14.6	15.0	15.4				
8H	14.1	14.5	14.6	14.9	15.4	14.1	14.4	14.5	14.9	15.3				
Variations with the observer position at spacings:														
S = 1.0H	+ 1.6 / - 2.5					+ 1.6 / - 2.4								
1.5H	+ 1.2 / - 1.5					+ 1.1 / - 1.6								
2.0H	+ 3.7 / -11.1					+ 3.6 / -11.1								

CIE Pub.117, 1156 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.5)

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

UTILIZATION FACTORS TABLE

NAME: AR111-14W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

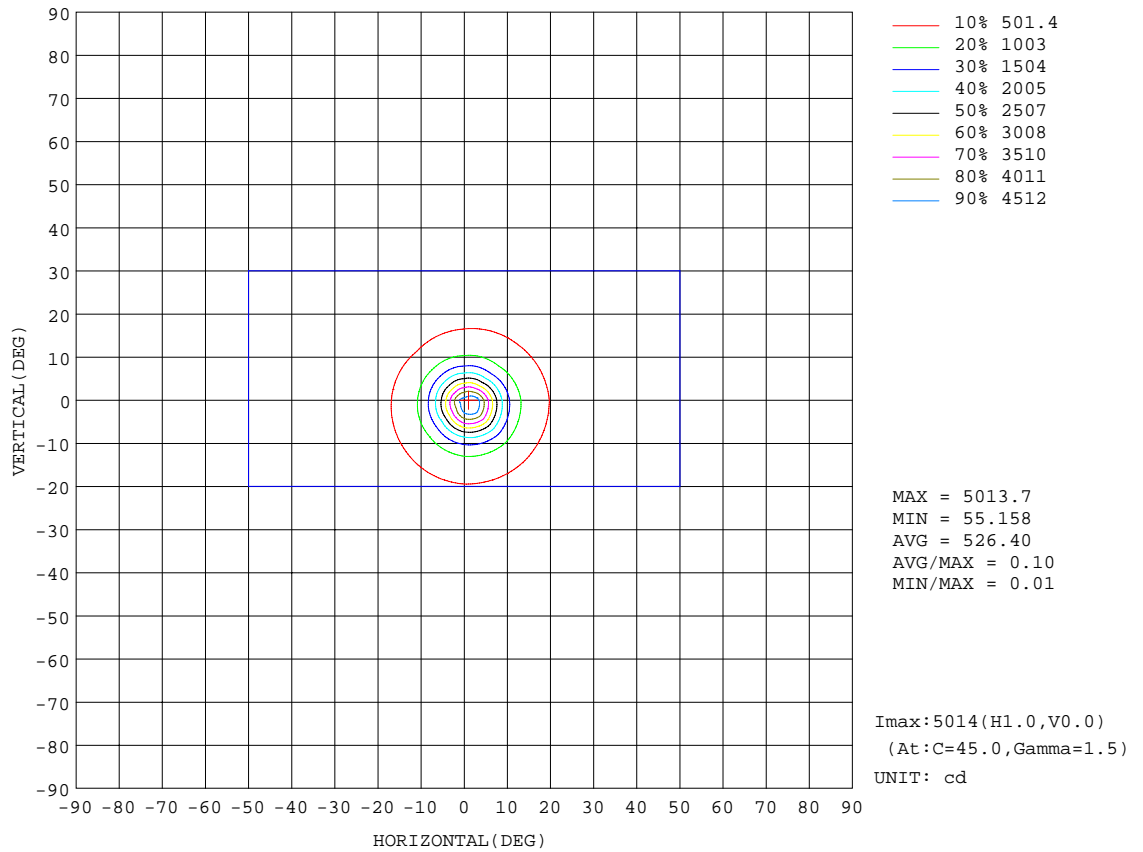
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	72	63	58	71	63	58	71	62	57	52
0.80	82	74	68	81	73	68	80	72	68	62
1.00	90	82	77	89	81	77	87	82	76	71
1.25	96	89	84	95	88	83	92	87	83	77
1.50	100	93	89	98	92	88	96	91	87	81
2.00	104	99	95	103	98	94	100	96	92	86
2.50	107	102	98	105	100	97	102	98	95	88
3.00	109	104	101	107	103	100	103	100	97	90
4.00	111	108	104	109	106	103	105	103	100	93
5.00	113	109	107	110	108	105	106	104	102	94
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

NAME: AR111-14W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

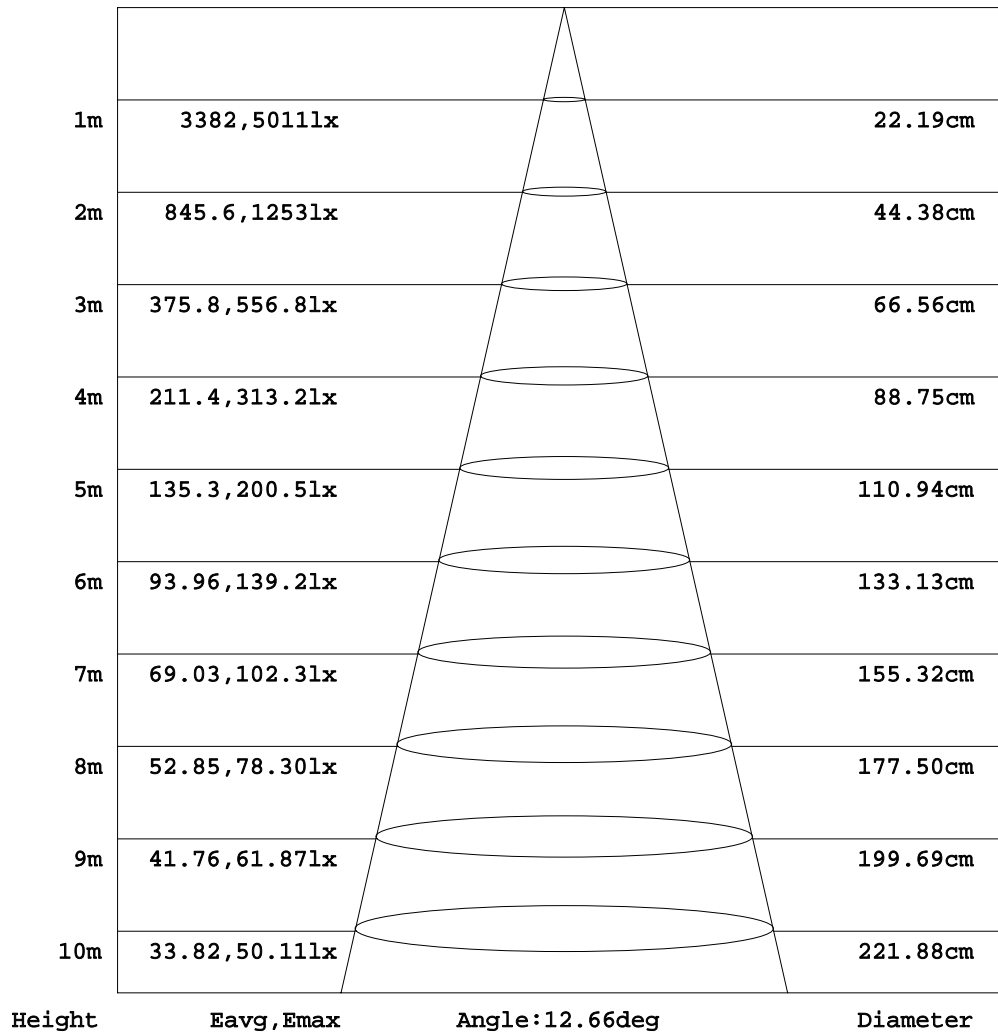
γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:



**AAI Figure**

NAME: AR111-14W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

Flux out:137.9 lm



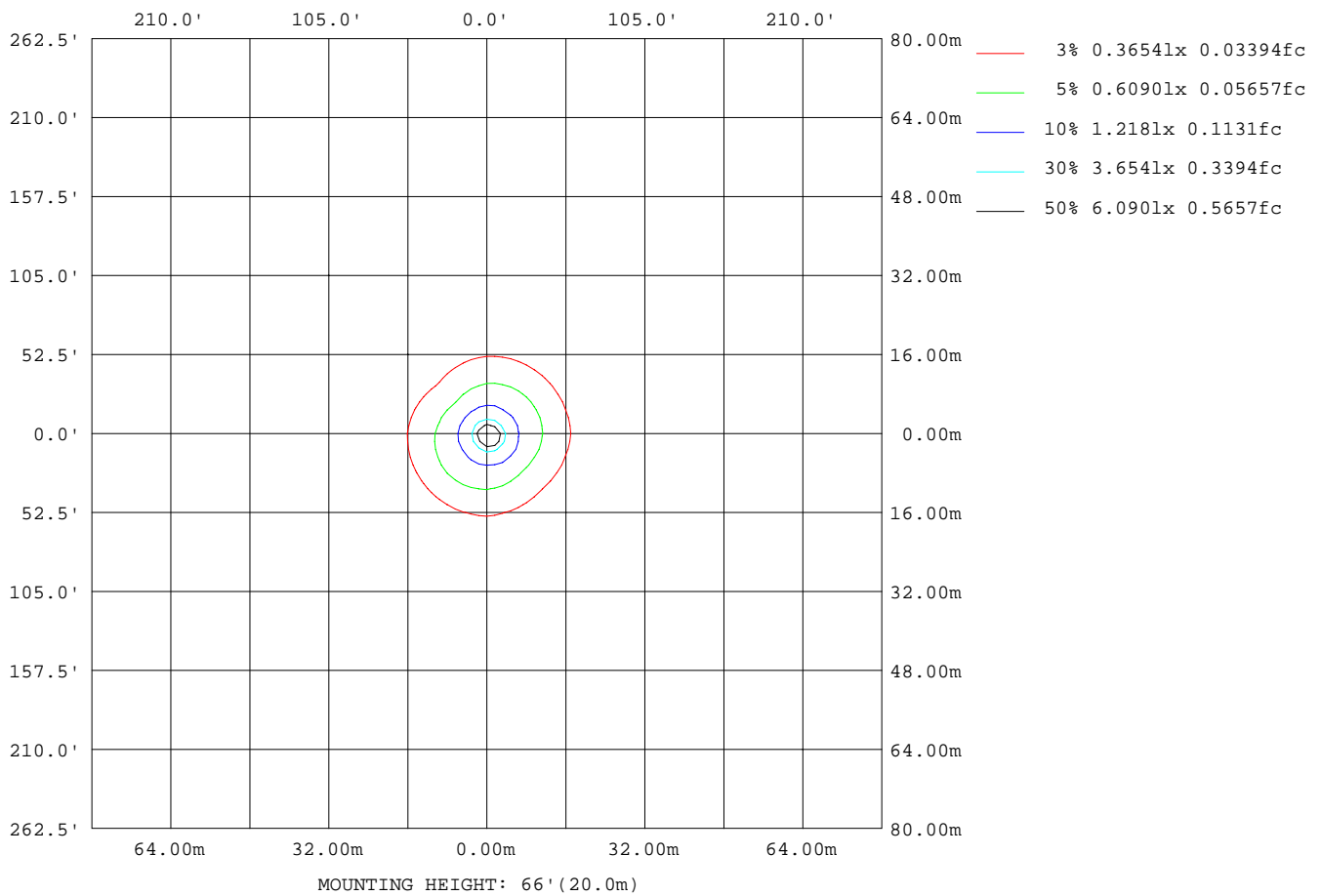
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

**ISOLUX DIAGRAM**

NAME: AR111-14W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

LED Avg.L Report

NAME: AR111-14W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

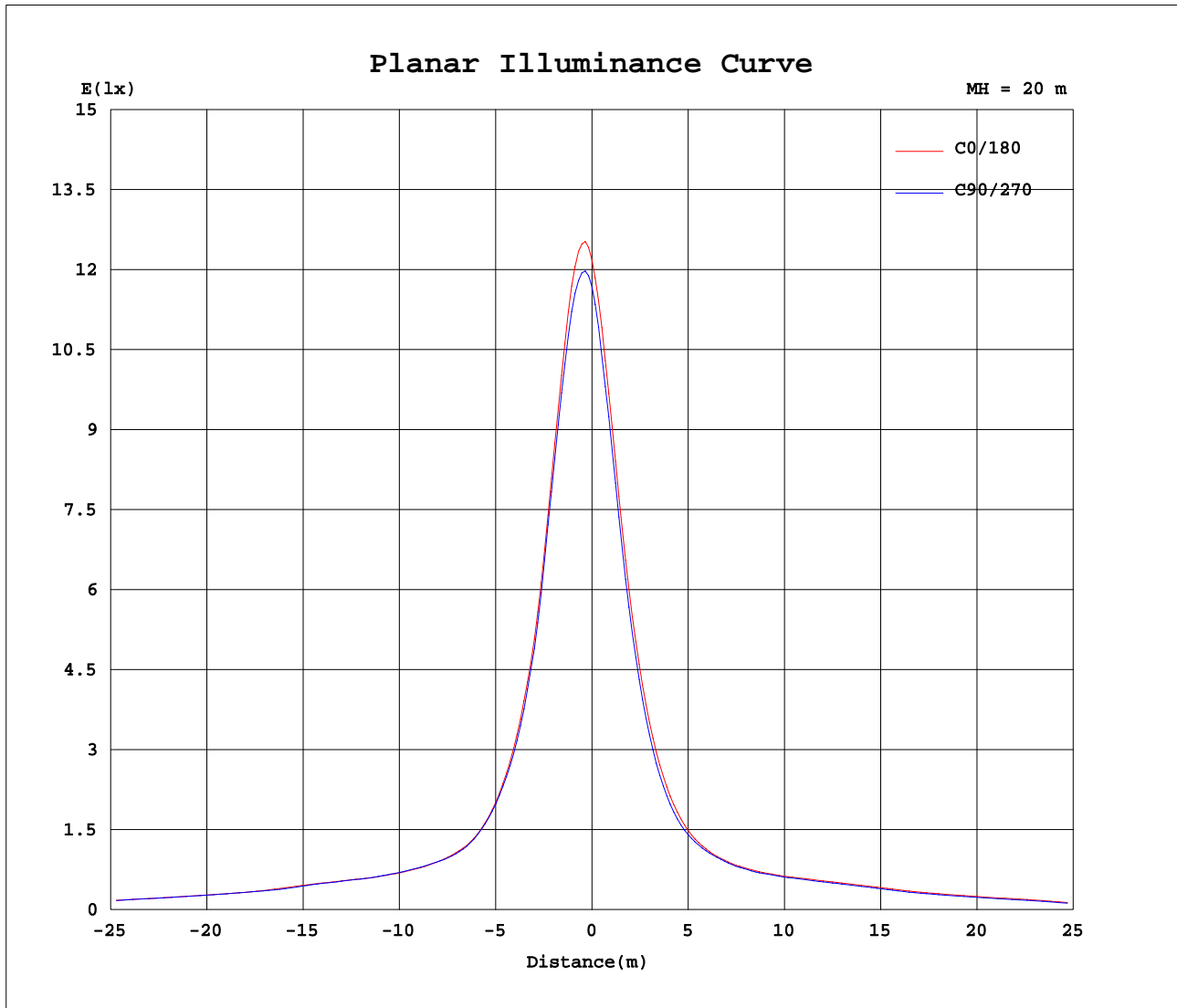
AvgL	cd/m2
L_0~180(65)av	315
L_0~180(75)av	25
L_0~180(85)av	9
L_90~270(65)av	317
L_90~270(75)av	23
L_90~270(85)av	9
L_45(65)av	303
L_45(75)av	21
L_45(85)av	7

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: fu  
 Test Date: 09 August 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity: 65.0%  
 Test Distance: 3.161m [K=1.0000]  
 Remarks:

