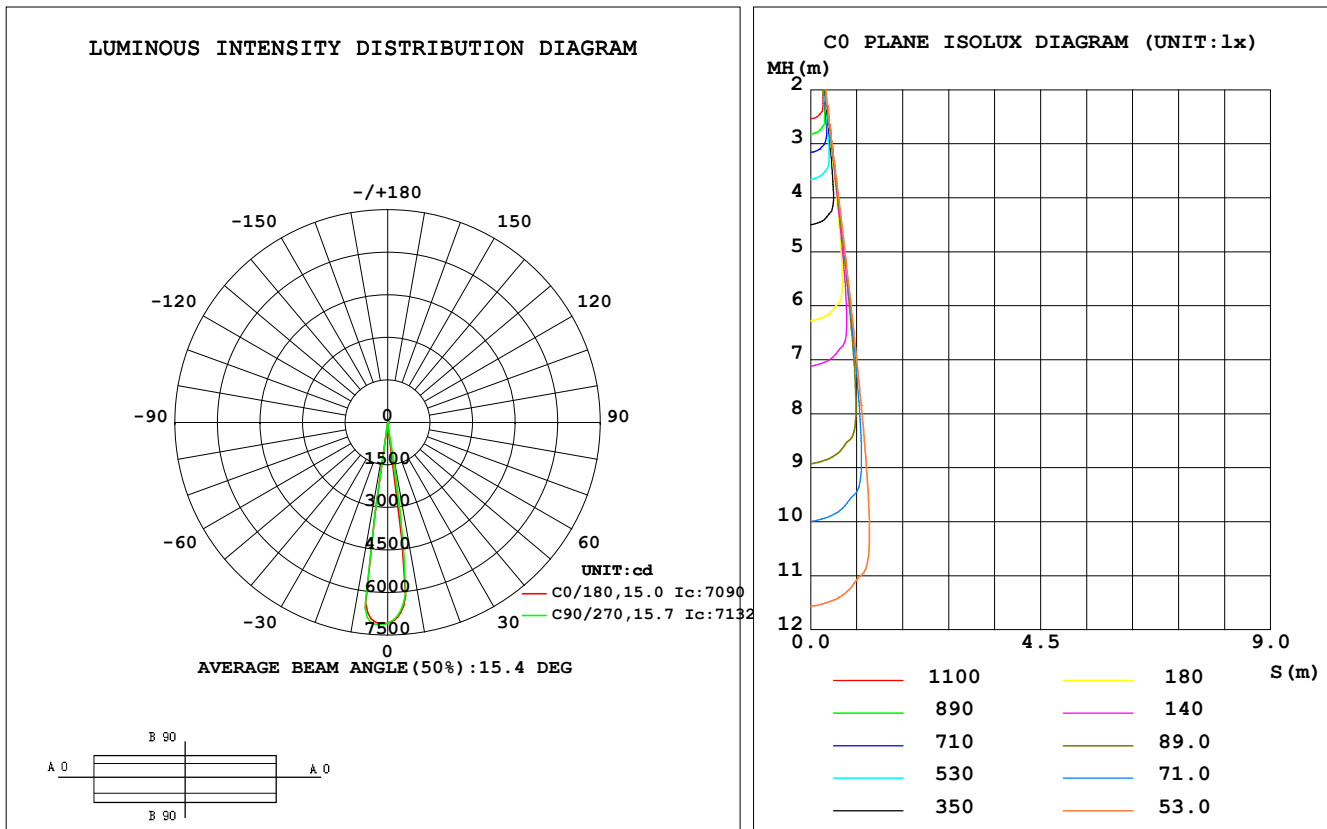


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:224.8V I:0.0590A P:11.90W PF:0.8910 Freq:50.00Hz Lamp Flux:404.044x1 lm					
NAME: ALT55F-12G40-Z1-Min		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.:		SUR.:25		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 33.95 lm/W
MODEL	4000K CRI90	I _{max} (cd)	7144	S/MH(C0/180)	0.21	
NOMINAL POWER(W)	12	LOR(%)	100.0	S/MH(C90/270)	0.21	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	404.04	η UP,DN(C0-180)	0.0,44.5	
NOMINAL FLUX(lm)	404.044	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,55.5	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.00	
TEST VOLTAGE(V)	36	η down(%)	100.0	CIBSE SHR MAX	1.00	



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	2.872	2.770	20.86	25.49	4.156	4.423	4.220	3.702	0- 10	393.8	393.8	97.5,97.5
20	0.4010	0.4230	0.5293	0.7882	5.582	5.374	5.350	5.613	10- 20	0.7418	394.5	97.6,97.6
30	0.2416	0.4103	0.3158	0.4902	12.63	12.95	12.51	12.23	20- 30	2.363	396.9	98.2,98.2
40	0.1479	0.0906	0.2224	0.2859	5.357	5.417	5.336	4.881	30- 40	2.837	399.7	98.9,98.9
50	0	0	0	0.0528	3.946	4.060	3.962	3.707	40- 50	1.646	401.4	99.3,99.3
60	0	0	0	0.0372	2.028	2.074	2.002	1.909	50- 60	1.284	402.6	99.7,99.7
70	0	0	0	0	1.046	1.059	1.028	1.002	60- 70	0.7113	403.4	99.8,99.8
80	0	0	0	0	0.6410	0.6320	0.6167	0.5961	70- 80	0.4312	403.8	99.9,99.9
90	0	0	0	0	0.2945	0.2793	0.2742	0.2639	80- 90	0.2512	404.0	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		

Conical surface Flux(90deg): 400.53 lm

%lum = 99.1%

%lamp = 99.1%

Conical surface Flux(120deg): 402.65 lm

%lum = 99.7%

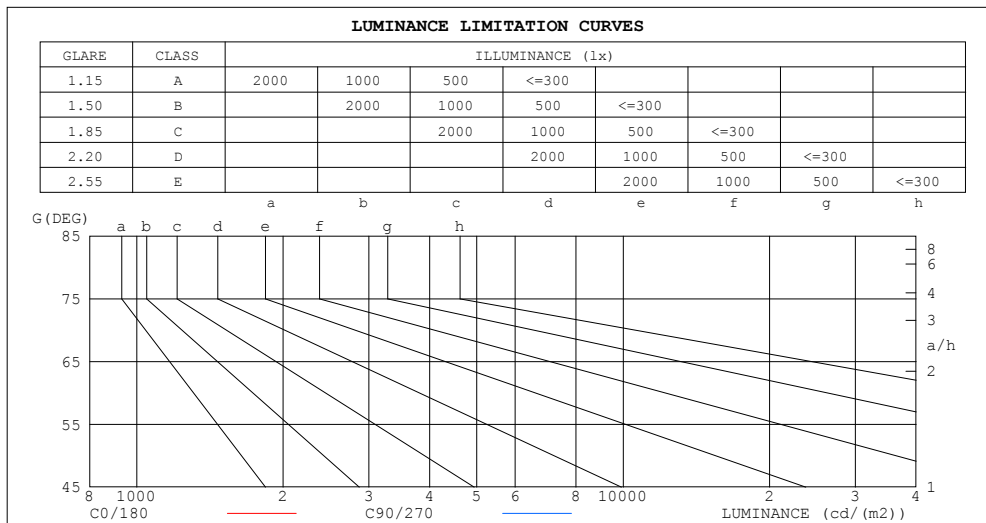
%lamp = 99.7%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:ZR
 Test Date:2021-07-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity:65.0%
 Test Distance:8.402m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:224.8V I:0.0590A P:11.90W PF:0.8910 Freq:50.00Hz Lamp Flux:404.044x1 lm		
NAME: ALT55F-12G40-Z1-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:25	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	0	0
80	0	0
75	0	0
70	0	0
65	0	0
60	0	0
55	0	0
50	0	0
45	0	1

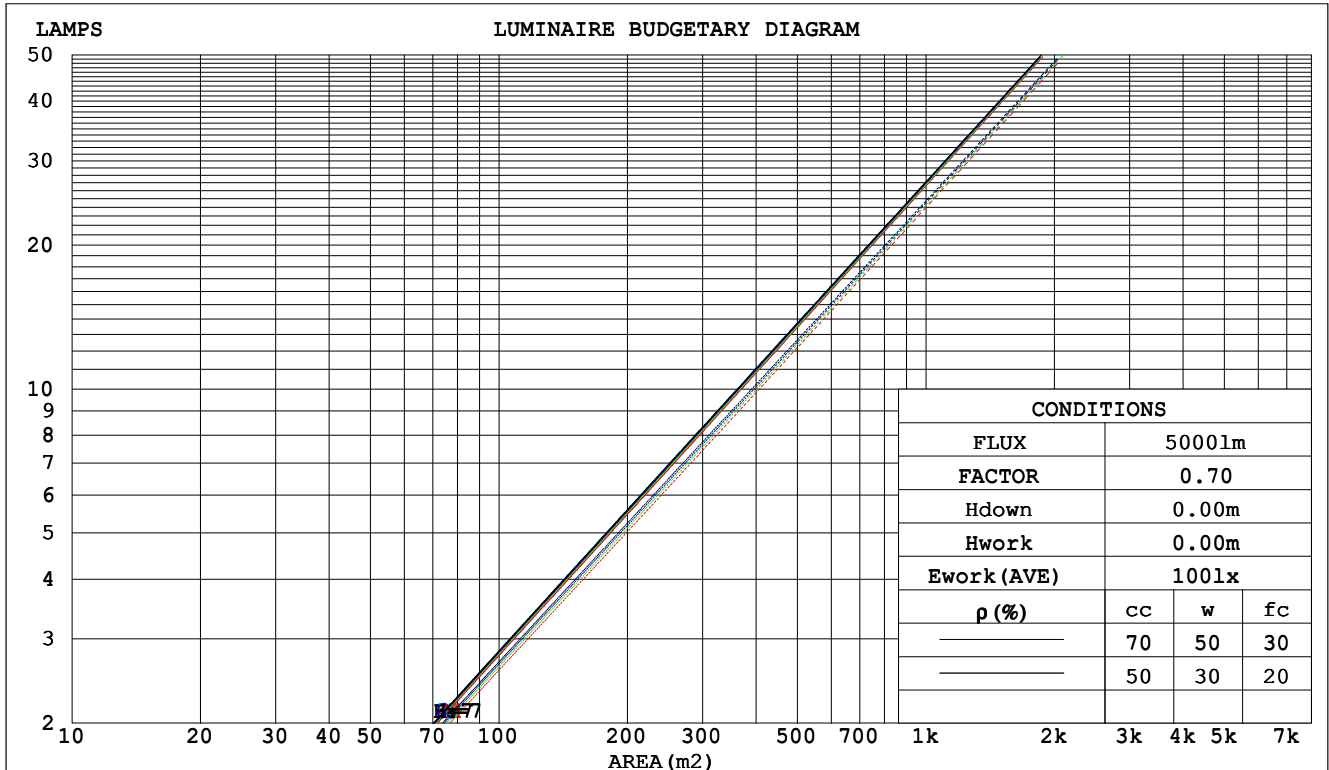
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:224.8V I:0.0590A P:11.90W PF:0.8910 Freq:50.00Hz Lamp Flux:404.044x1 lm		
NAME: ALT55F-12G40-Z1-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:25	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
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	1.15	1.14	1.12	1.13	1.12	1.11	1.09	1.08	1.07	1.05	1.05	1.04	1.02	1.02	1.01	.00
2.0	1.12	1.10	1.08	1.10	1.09	1.07	1.07	1.06	1.05	1.05	1.04	1.03	1.02	1.01	1.01	.99
3.0	1.10	1.07	1.05	1.08	1.06	1.05	1.06	1.04	1.03	1.04	1.03	1.02	1.02	1.01	1.00	.99
4.0	1.08	1.05	1.04	1.07	1.05	1.03	1.05	1.03	1.02	1.03	1.02	1.01	1.02	1.01	.00	.99
5.0	1.06	1.04	1.02	1.06	1.03	1.02	1.04	1.02	1.01	1.03	1.01	1.00	1.02	1.00	.99	.99
6.0	1.05	1.03	1.01	1.05	1.03	1.01	1.04	1.02	1.00	1.03	1.01	.00	1.02	1.00	.99	.99
7.0	1.04	1.02	1.01	1.04	1.02	1.00	1.03	1.01	.00	1.02	1.01	.99	1.01	1.00	.99	.98
8.0	1.04	1.01	.00	1.03	1.01	.00	1.03	1.01	.99	1.02	1.00	.99	1.01	.00	.99	.98
9.0	1.03	1.01	.00	1.03	1.01	.99	1.02	1.00	.99	1.02	1.00	.99	1.01	.00	.99	.98
10.0	1.03	1.01	.99	1.02	1.00	.99	1.02	1.00	.99	1.01	.00	.99	1.01	.00	.99	.98



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:224.8V I:0.0590A P:11.90W PF:0.8910 Freq:50.00Hz Lamp Flux:404.044x1 lm					
NAME: ALT55F-12G40-Z1-Min			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:25		Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.097	.055	.017	.090	.051	.016	.078	.045	.014	.067	.039	.012	.056	.033	.011	
2.0	.085	.047	.014	.080	.044	.014	.070	.039	.012	.061	.034	.011	.053	.030	.009	
3.0	.076	.040	.012	.072	.038	.012	.064	.035	.011	.056	.031	.009	.050	.027	.008	
4.0	.068	.036	.010	.065	.034	.010	.058	.031	.009	.052	.028	.008	.047	.025	.008	
5.0	.062	.032	.009	.059	.030	.009	.054	.028	.008	.048	.026	.008	.044	.023	.007	
6.0	.056	.028	.008	.054	.027	.008	.049	.025	.007	.045	.023	.007	.041	.022	.006	
7.0	.052	.026	.007	.050	.025	.007	.046	.023	.007	.042	.022	.006	.039	.020	.006	
8.0	.048	.023	.007	.046	.023	.006	.043	.021	.006	.040	.020	.006	.037	.019	.006	
9.0	.044	.021	.006	.043	.021	.006	.040	.020	.006	.037	.019	.005	.035	.018	.005	
10.0	.041	.020	.005	.040	.019	.005	.037	.018	.005	.035	.017	.005	.033	.017	.005	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	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	.166	.158	.151	.142	.136	.130	.097	.093	.090	.056	.054	.052	.018	.017	.017	
2.0	.145	.133	.123	.124	.114	.106	.085	.079	.074	.049	.046	.043	.016	.015	.014	
3.0	.127	.113	.102	.109	.097	.088	.075	.068	.062	.043	.040	.036	.014	.013	.012	
4.0	.112	.097	.085	.096	.084	.074	.066	.058	.052	.038	.034	.031	.012	.011	.010	
5.0	.100	.084	.072	.086	.073	.063	.059	.051	.044	.034	.030	.026	.011	.010	.009	
6.0	.089	.073	.062	.076	.063	.054	.053	.044	.038	.031	.026	.023	.010	.009	.007	
7.0	.080	.064	.053	.069	.056	.046	.047	.039	.033	.028	.023	.020	.009	.008	.006	
8.0	.072	.057	.046	.062	.049	.040	.043	.035	.029	.025	.020	.017	.008	.007	.006	
9.0	.065	.051	.041	.056	.044	.035	.039	.031	.025	.023	.018	.015	.007	.006	.005	
10.0	.059	.045	.036	.051	.039	.031	.036	.028	.022	.021	.016	.013	.007	.005	.004	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:224.8V I:0.0590A P:11.90W PF:0.8910 Freq:50.00Hz Lamp Flux:404.044x1 lm											
NAME: ALT55F-12G40-Z1-Min					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
MFR.:					SUR.:25			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	3H	-16.8	-16.5	-16.7	-16.3	-16.2	-16.2	-15.8	-16.0	-15.7	-15.6
	4H	-17.0	-16.6	-16.7	-16.4	-16.3	-16.3	-16.0	-16.1	-15.8	-15.6
	6H	-17.0	-16.7	-16.8	-16.5	-16.3	-16.4	-16.0	-16.1	-15.8	-15.7
	8H	-17.1	-16.8	-16.9	-16.6	-16.3	-16.5	-16.1	-16.2	-15.9	-15.7
	12H	-17.2	-16.8	-16.9	-16.6	-16.4	-16.5	-16.2	-16.2	-16.0	-15.7
	12H	-17.2	-16.9	-16.9	-16.6	-16.4	-16.6	-16.2	-16.3	-16.0	-15.7
4H	2H	-17.0	-16.7	-16.8	-16.5	-16.3	-16.4	-16.0	-16.1	-15.8	-15.7
	3H	-17.2	-16.9	-16.9	-16.6	-16.4	-16.6	-16.2	-16.3	-16.0	-15.7
	4H	-17.3	-17.0	-17.0	-16.7	-16.4	-16.6	-16.4	-16.3	-16.1	-15.8
	6H	-17.4	-17.1	-17.1	-16.8	-16.5	-16.8	-16.5	-16.4	-16.2	-15.8
	8H	-17.5	-17.2	-17.1	-16.9	-16.5	-16.8	-16.6	-16.4	-16.2	-15.9
	12H	-17.5	-17.3	-17.1	-16.9	-16.6	-16.9	-16.6	-16.5	-16.3	-15.9
8H	4H	-17.5	-17.2	-17.1	-16.9	-16.5	-16.8	-16.6	-16.4	-16.2	-15.9
	6H	-17.6	-17.4	-17.2	-17.0	-16.6	-16.9	-16.7	-16.5	-16.3	-15.9
	8H	-17.7	-17.5	-17.2	-17.1	-16.6	-17.0	-16.8	-16.6	-16.4	-16.0
	12H	-17.7	-17.6	-17.3	-17.1	-16.7	-17.1	-16.9	-16.6	-16.5	-16.0
12H	4H	-17.5	-17.3	-17.1	-16.9	-16.6	-16.9	-16.6	-16.5	-16.3	-15.9
	6H	-17.7	-17.5	-17.2	-17.1	-16.6	-17.0	-16.8	-16.6	-16.4	-16.0
	8H	-17.7	-17.6	-17.3	-17.1	-16.7	-17.1	-16.9	-16.6	-16.5	-16.0
Variations with the observer position at spacings:											
S = 1.0H	+ 4.0 / - 1.\$					+ 3.5 / - 1.\$					
1.5H	+ 6.8 / - 1.\$					+ 6.3 / - 1.\$					
2.0H	+ 0.0 / - 0.0					+12.0 / - 1.\$					

CIE Pub.117, 404.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.1)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:224.8V I:0.0590A P:11.90W PF:0.8910 Freq:50.00Hz Lamp Flux:404.044x1 lm		
NAME: ALT55F-12G40-Z1-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:25	Shielding Angle:

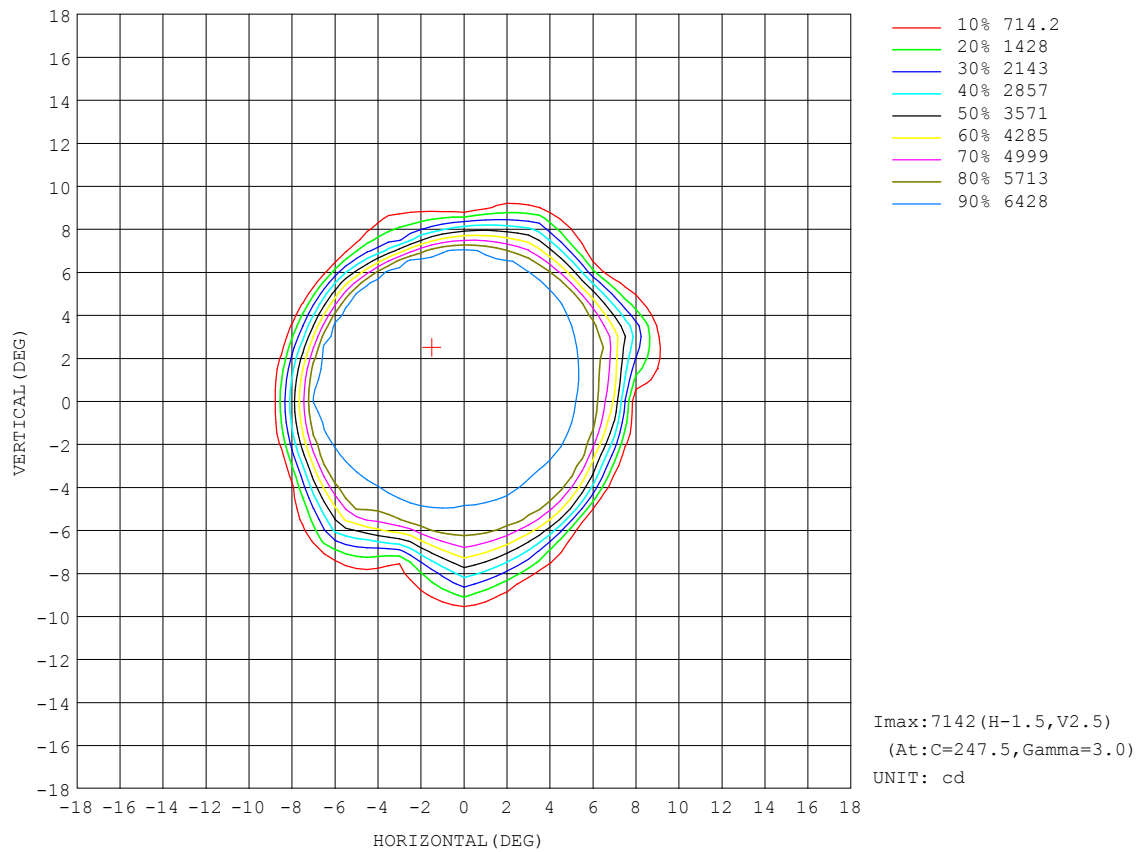
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	91	85	82	90	85	82	90	85	82	78
0.80	98	93	89	97	92	89	96	92	89	86
1.00	102	97	93	101	96	93	99	96	93	89
1.25	105	100	97	104	100	97	102	99	96	92
1.50	108	103	100	106	103	100	104	101	99	95
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	107	104	107	104	102	97
3.00	113	109	107	111	108	106	108	105	104	98
4.00	114	112	110	112	110	109	109	107	106	99
5.00	116	114	112	114	112	110	110	108	107	100
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:224.8V I:0.0590A P:11.90W PF:0.8910 Freq:50.00Hz Lamp Flux:404.044x1 lm		
NAME: ALT55F-12G40-Z1-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:25	Shielding Angle:

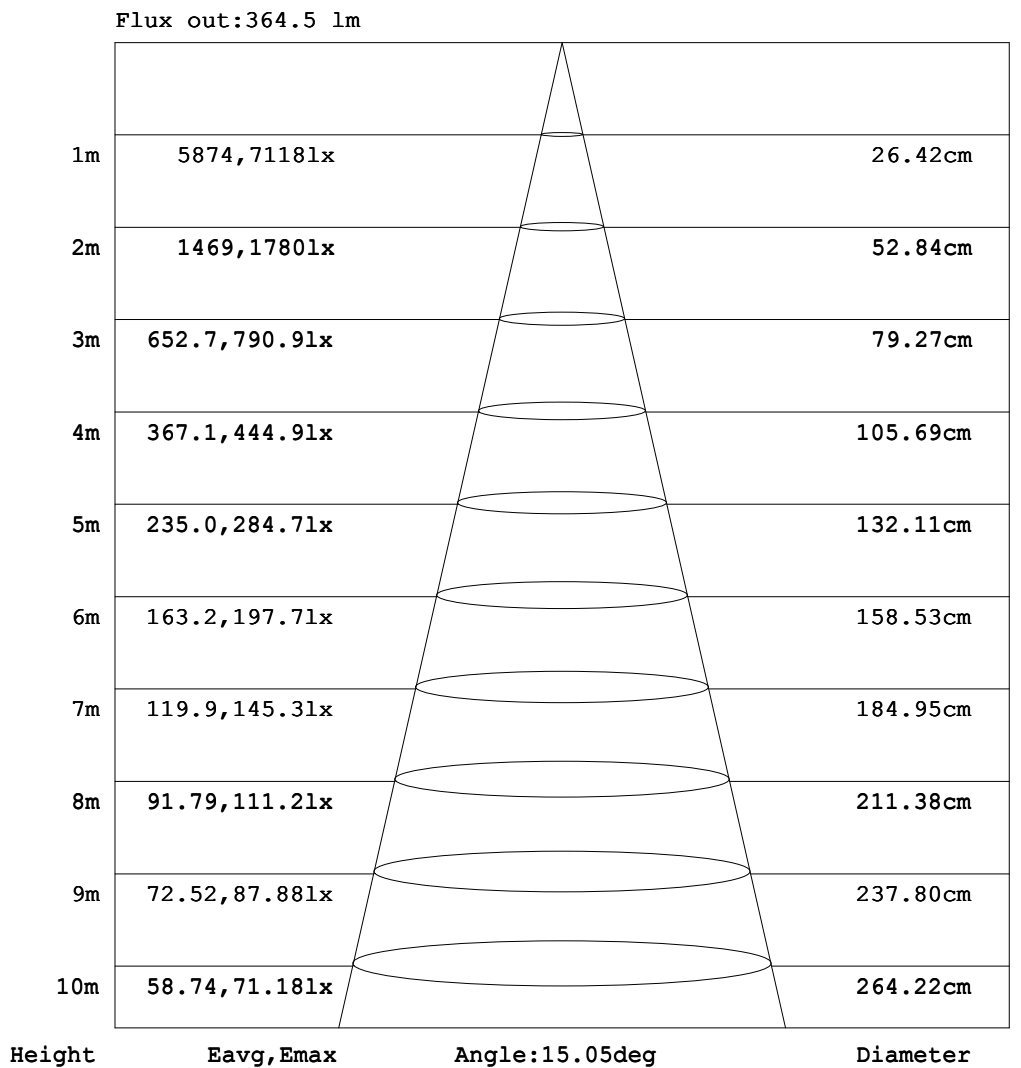


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: ZR
Test Date: 2021-07-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity: 65.0%
Test Distance: 8.402m [K=1.0000]
Remarks:

AAI Figure

Test:U:224.8V I:0.0590A P:11.90W PF:0.8910 Freq:50.00Hz Lamp Flux:404.044x1 lm		
NAME: ALT55F-12G40-Z1-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:25	Shielding Angle:



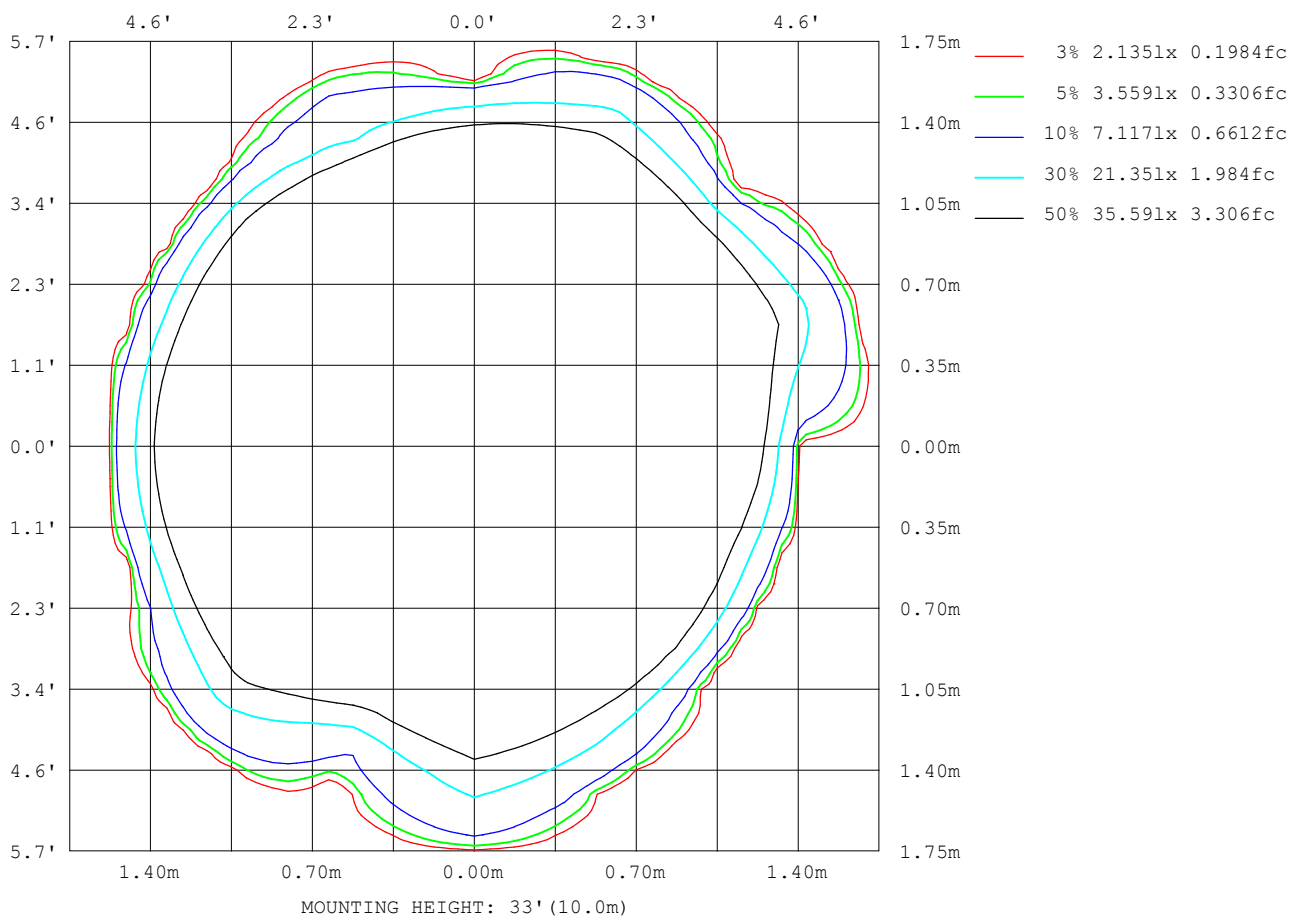
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: ZR
 Test Date: 2021-07-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity: 65.0%
 Test Distance: 8.402m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:224.8V I:0.0590A P:11.90W PF:0.8910 Freq:50.00Hz Lamp Flux:404.044x1 lm		
NAME: ALT55F-12G40-Z1-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:25	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:224.8V I:0.0590A P:11.90W PF:0.8910 Freq:50.00Hz Lamp Flux:404.044x1 lm		
NAME: ALT55F-12G40-Z1-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:25	Shielding Angle:

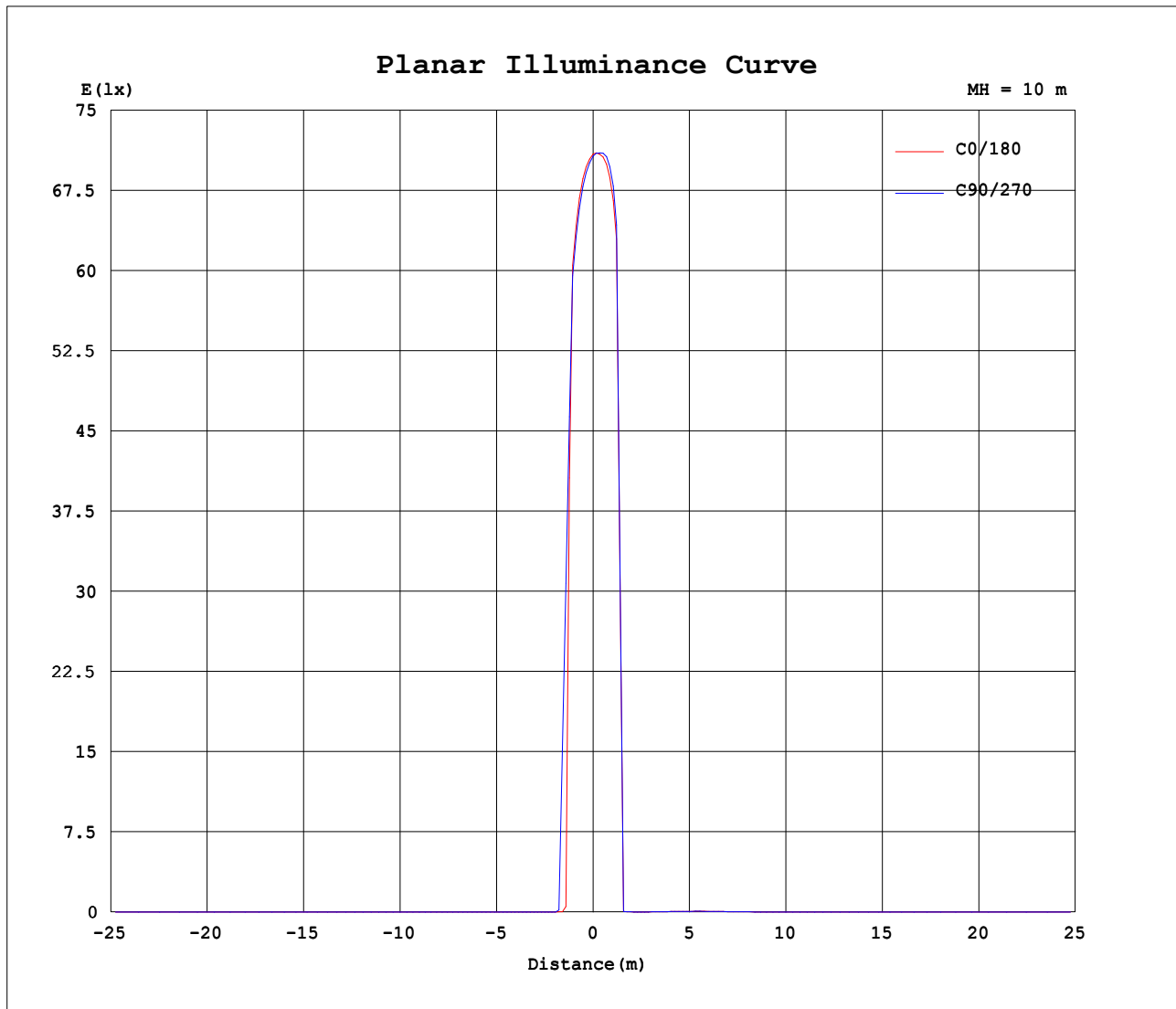
AvgL	cd/m2
L_0~180 (65) av	3388
L_0~180 (75) av	3190
L_0~180 (85) av	5409
L_90~270 (65) av	3346
L_90~270 (75) av	3136
L_90~270 (85) av	4995
L_45 (65) av	3321
L_45 (75) av	3065
L_45 (85) av	5148

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:ZR
 Test Date:2021-07-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity:65.0%
 Test Distance:8.402m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: ZR
Test Date: 2021-07-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity: 65.0%
Test Distance: 8.402m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

```