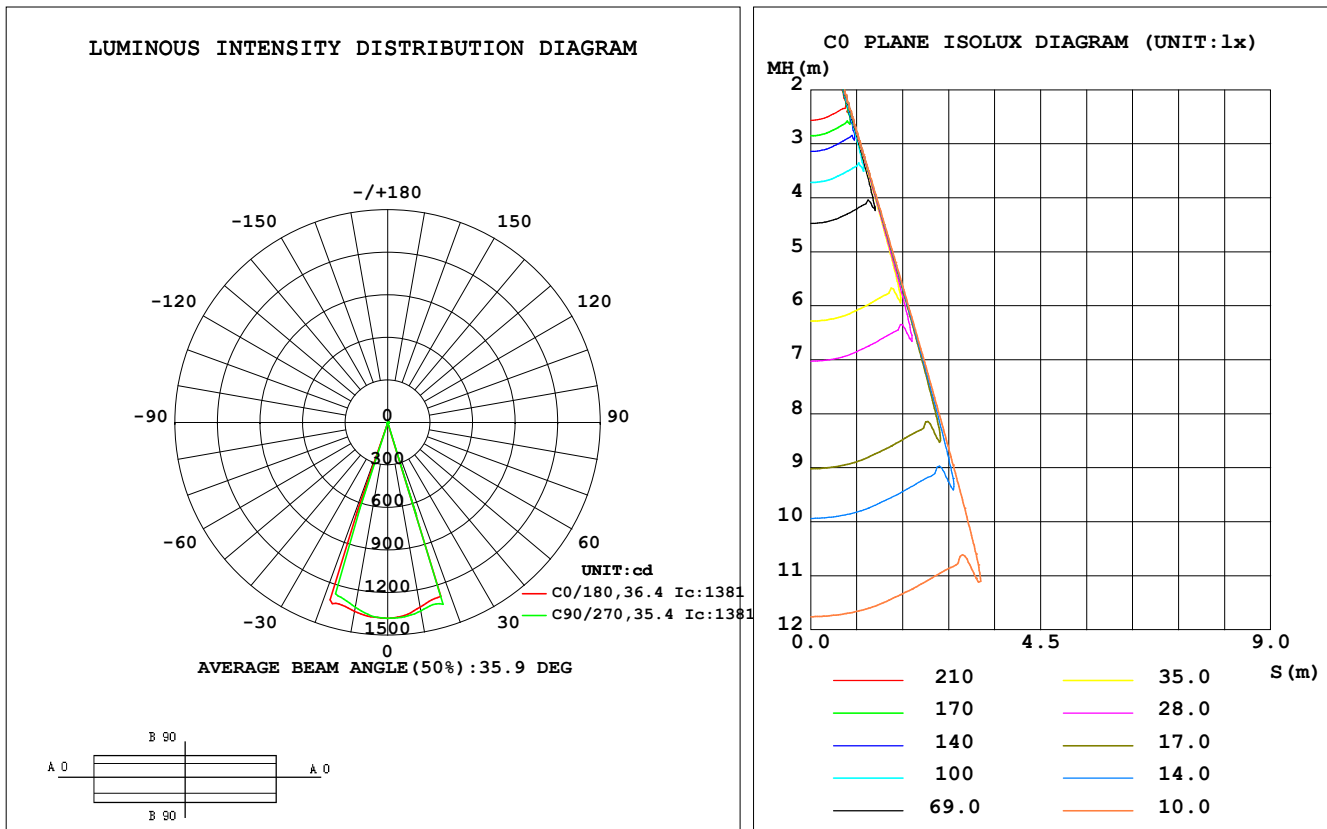


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:225.0V I:0.0580A P:11.60W PF:0.8890 Freq:50.00Hz Lamp Flux:427.895x1 lm		
NAME: ALT55F-12G40-Z2-Max	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:25	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 36.89 lm/W			
MODEL	4000K CRI90	I _{max} (cd)	1381	S/MH(C0/180)	0.50
NOMINAL POWER(W)	12	LOR(%)	100.0	S/MH(C90/270)	0.47
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	427.89	η UP,DN(C0-180)	0.0,47.5
NOMINAL FLUX(lm)	427.895	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,52.5
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	1323	1334	1349	1355	1352	1340	1322	1319	0- 10	129.8	129.8	30.3,30.3
20	1.402	1.224	1.088	6.641	5.816	5.755	5.864	6.083	10- 20	290.2	420.0	98.2,98.2
30	0	0	0	0	5.627	5.628	5.715	5.750	20- 30	1.323	421.3	98.5,98.5
40	0	0	0	0	5.929	5.878	5.875	5.879	30- 40	1.864	423.2	98.9,98.9
50	0	0	0	0	3.360	3.353	3.329	3.310	40- 50	1.795	425.0	99.3,99.3
60	0	0	0	0	2.303	2.285	2.270	2.245	50- 60	1.186	426.2	99.6,99.6
70	0	0	0	0	1.325	1.316	1.307	1.302	60- 70	0.8689	427.0	99.8,99.8
80	0	0	0	0	0.7416	0.7319	0.7270	0.7221	70- 80	0.5436	427.6	99.9,99.9
90	0	0	0	0	0.4210	0.4162	0.4112	0.4114	80- 90	0.3141	427.9	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): 424.18 lm

%lum = 99.1%

%lamp = 99.1%

Conical surface Flux(120deg): 426.17 lm

%lum = 99.6%

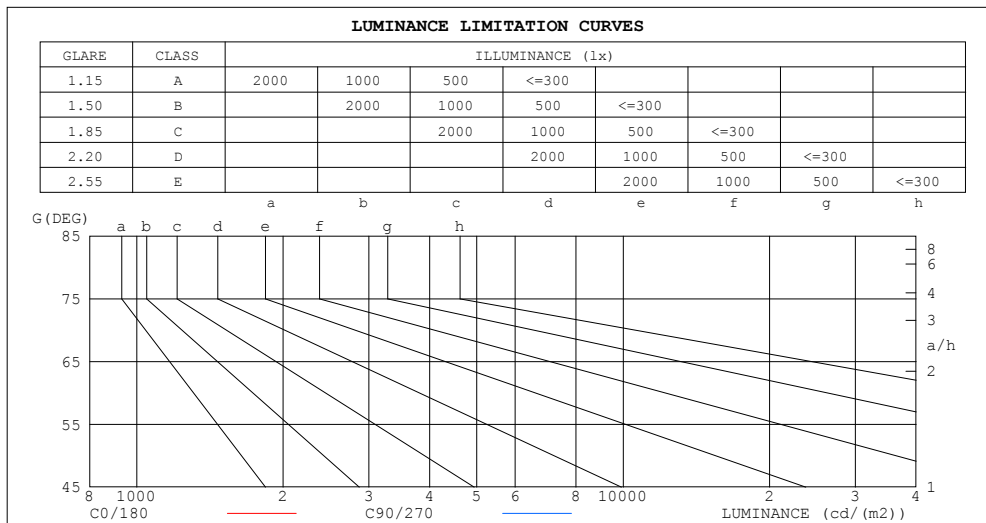
%lamp = 99.6%

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:225.0V I:0.0580A P:11.60W PF:0.8890 Freq:50.00Hz Lamp Flux:427.895x1 lm		
NAME: ALT55F-12G40-Z2-Max	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	0

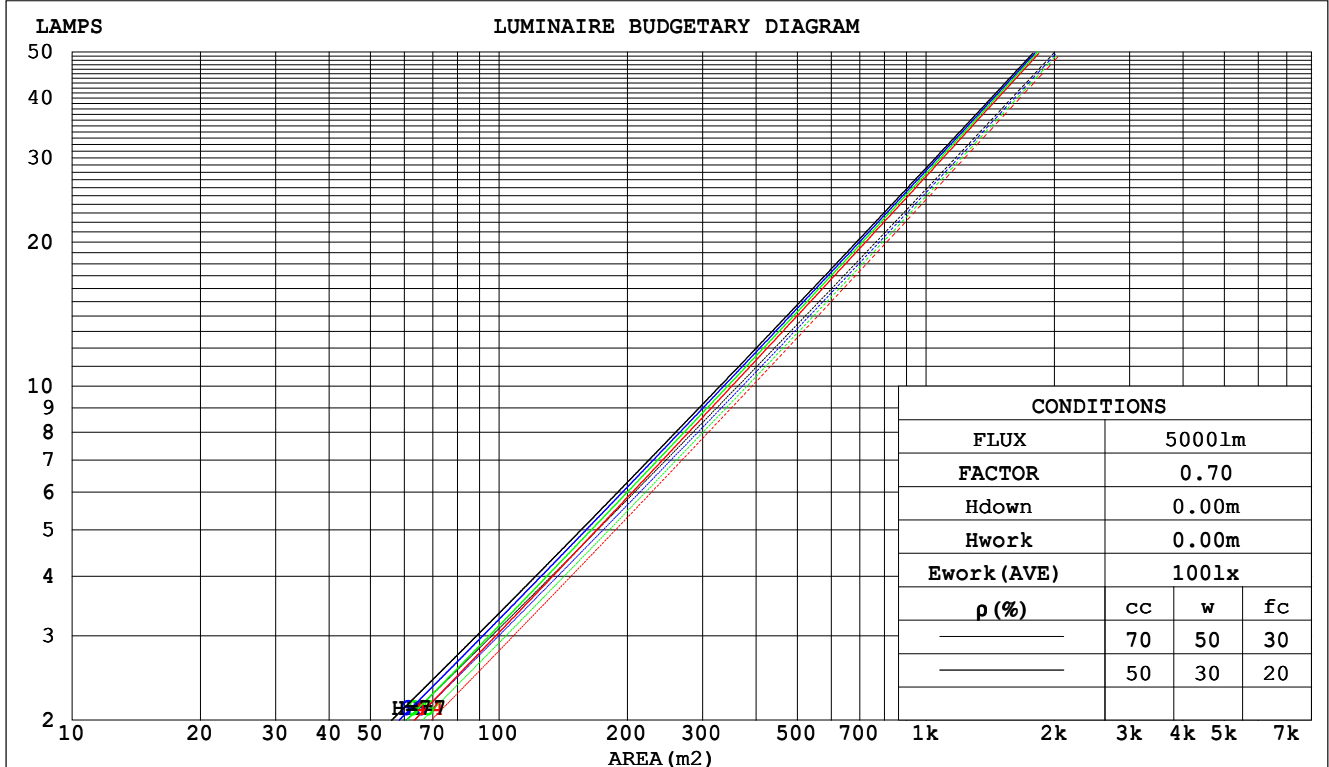
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

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:225.0V I:0.0580A P:11.60W PF:0.8890 Freq:50.00Hz Lamp Flux:427.895x1 lm		
NAME: ALT55F-12G40-Z2-Max	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	1.13	1.11	1.10	1.11	1.09	1.08	1.07	1.06	1.05	1.03	1.02	1.02	1.00	.99	.99	.97
2.0	1.08	1.05	1.03	1.07	1.04	1.02	1.03	1.01	.00	1.01	.99	.98	.98	.97	.96	.94
3.0	1.04	1.01	.98	1.03	.00	.97	1.00	.98	.96	.98	.96	.94	.96	.94	.93	.91
4.0	1.00	.97	.94	.99	.96	.93	.97	.94	.92	.95	.93	.91	.94	.92	.90	.89
5.0	.97	.93	.90	.96	.93	.90	.95	.92	.89	.93	.90	.88	.92	.90	.88	.87
6.0	.94	.90	.87	.93	.90	.87	.92	.89	.86	.91	.88	.86	.90	.87	.85	.84
7.0	.91	.87	.85	.91	.87	.84	.90	.86	.84	.89	.86	.84	.88	.85	.83	.82
8.0	.89	.85	.82	.88	.85	.82	.87	.84	.82	.87	.84	.81	.86	.83	.81	.80
9.0	.86	.83	.80	.86	.82	.80	.85	.82	.80	.85	.82	.79	.84	.81	.79	.78
10.0	.84	.80	.78	.84	.80	.78	.83	.80	.78	.83	.80	.78	.82	.79	.77	.77



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:225.0V I:0.0580A P:11.60W PF:0.8890 Freq:50.00Hz Lamp Flux:427.895x1 lm					
NAME: ALT55F-12G40-Z2-Max			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	.133	.075	.024	.126	.072	.023	.114	.065	.021	.102	.059	.019	.092	.053	.017	
2.0	.121	.067	.020	.116	.064	.020	.106	.059	.018	.096	.054	.017	.088	.050	.016	
3.0	.112	.060	.018	.108	.058	.017	.099	.054	.016	.092	.050	.015	.084	.047	.014	
4.0	.105	.054	.016	.101	.053	.016	.094	.050	.015	.087	.047	.014	.081	.044	.013	
5.0	.098	.050	.015	.095	.049	.014	.089	.046	.014	.083	.044	.013	.078	.042	.013	
6.0	.093	.047	.013	.090	.045	.013	.085	.043	.013	.080	.042	.012	.076	.040	.012	
7.0	.088	.044	.012	.086	.043	.012	.081	.041	.012	.077	.039	.011	.073	.038	.011	
8.0	.084	.041	.012	.082	.040	.011	.078	.039	.011	.074	.038	.011	.071	.036	.011	
9.0	.080	.039	.011	.078	.038	.011	.075	.037	.010	.072	.036	.010	.069	.035	.010	
10.0	.077	.037	.010	.075	.036	.010	.072	.035	.010	.069	.034	.010	.067	.033	.010	

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	.168	.158	.148	.144	.135	.128	.098	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.150	.133	.119	.128	.114	.103	.088	.079	.072	.051	.046	.042	.016	.015	.014	
3.0	.134	.113	.097	.115	.098	.084	.079	.068	.059	.046	.040	.035	.015	.013	.011	
4.0	.121	.098	.080	.104	.084	.069	.072	.059	.049	.041	.034	.029	.013	.011	.009	
5.0	.110	.085	.067	.095	.074	.058	.065	.052	.041	.038	.030	.024	.012	.010	.008	
6.0	.101	.075	.057	.087	.065	.049	.060	.046	.035	.035	.027	.021	.011	.009	.007	
7.0	.094	.067	.048	.080	.058	.042	.056	.041	.030	.032	.024	.018	.010	.008	.006	
8.0	.087	.060	.042	.075	.052	.036	.052	.037	.026	.030	.022	.015	.010	.007	.005	
9.0	.081	.054	.036	.070	.047	.032	.049	.033	.022	.028	.020	.013	.009	.006	.004	
10.0	.076	.050	.032	.066	.043	.028	.046	.030	.020	.027	.018	.012	.009	.006	.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:225.0V I:0.0580A P:11.60W PF:0.8890 Freq:50.00Hz Lamp Flux:427.895x1 lm												
NAME: ALT55F-12G40-Z2-Max					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	---	---	---	---	---	---	---	---	---		
	4H	---	---	---	---	-40.0	-39.5	-39.8	-39.3	-39.1		
	6H	-34.4	-33.9	-34.2	-33.7	-33.5	-33.8	-33.3	-33.5	-33.1	-32.8	
	8H	-33.2	-32.7	-32.9	-32.4	-32.2	-32.7	-32.2	-32.5	-32.0	-31.8	
	12H	-32.4	-31.9	-32.1	-31.7	-31.4	-32.1	-31.6	-31.8	-31.3	-31.1	
	4H	2H	---	---	---	---	---	---	---	---	---	
		3H	---	---	---	---	---	---	---	---	---	
		4H	-34.7	-34.3	-34.4	-34.0	-33.7	-32.0	-31.6	-31.7	-31.3	-31.0
		6H	-27.8	-27.4	-27.5	-27.1	-26.8	-27.3	-26.9	-27.0	-26.6	-26.3
		8H	-26.6	-26.3	-26.2	-25.9	-25.6	-26.3	-25.9	-25.9	-25.6	-25.2
12H		-25.8	-25.5	-25.4	-25.1	-24.7	-25.5	-25.2	-25.1	-24.8	-24.5	
8H	4H	-32.9	-32.5	-32.5	-32.2	-31.8	-31.1	-30.7	-30.7	-30.4	-30.0	
	6H	-25.8	-25.5	-25.4	-25.1	-24.7	-25.5	-25.2	-25.1	-24.8	-24.4	
	8H	-23.6	-23.3	-23.1	-22.9	-22.5	-23.4	-23.2	-23.0	-22.7	-22.3	
	12H	-21.9	-21.7	-21.4	-21.2	-20.7	-21.8	-21.6	-21.3	-21.1	-20.7	
12H	4H	-31.4	-31.1	-31.0	-30.7	-30.4	-30.2	-29.8	-29.8	-29.5	-29.1	
	6H	-25.6	-25.3	-25.1	-24.9	-24.5	-25.3	-25.0	-24.9	-24.6	-24.2	
	8H	-23.3	-23.0	-22.8	-22.6	-22.1	-23.2	-22.9	-22.7	-22.5	-22.0	
Variations with the observer position at spacings:												
S = 1.0H	+ 0.3 / - 0.2					+ 0.2 / - 0.3						
1.5H	+ 0.3 / - 0.5					+ 0.2 / - 0.2						
2.0H	+ 0.9 / - 0.4					+ 0.8 / - 0.7						

CIE Pub.117, 427.9 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -2.9)

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:225.0V I:0.0580A P:11.60W PF:0.8890 Freq:50.00Hz Lamp Flux:427.895x1 lm		
NAME: ALT55F-12G40-Z2-Max	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:25	Shielding Angle:

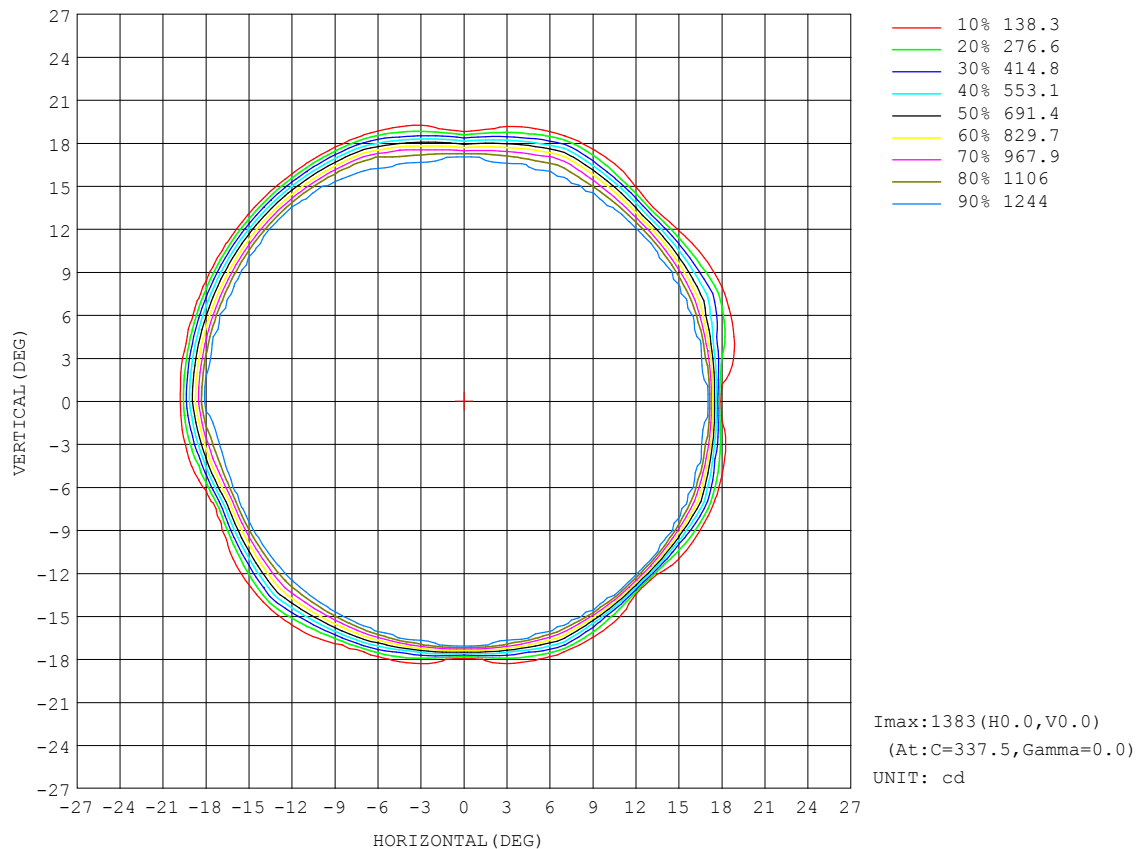
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	91	85	82	90	85	82	90	85	82	78
0.80	98	93	89	97	92	89	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	97
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:225.0V I:0.0580A P:11.60W PF:0.8890 Freq:50.00Hz Lamp Flux:427.895x1 lm		
NAME: ALT55F-12G40-Z2-Max	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:25	Shielding Angle:

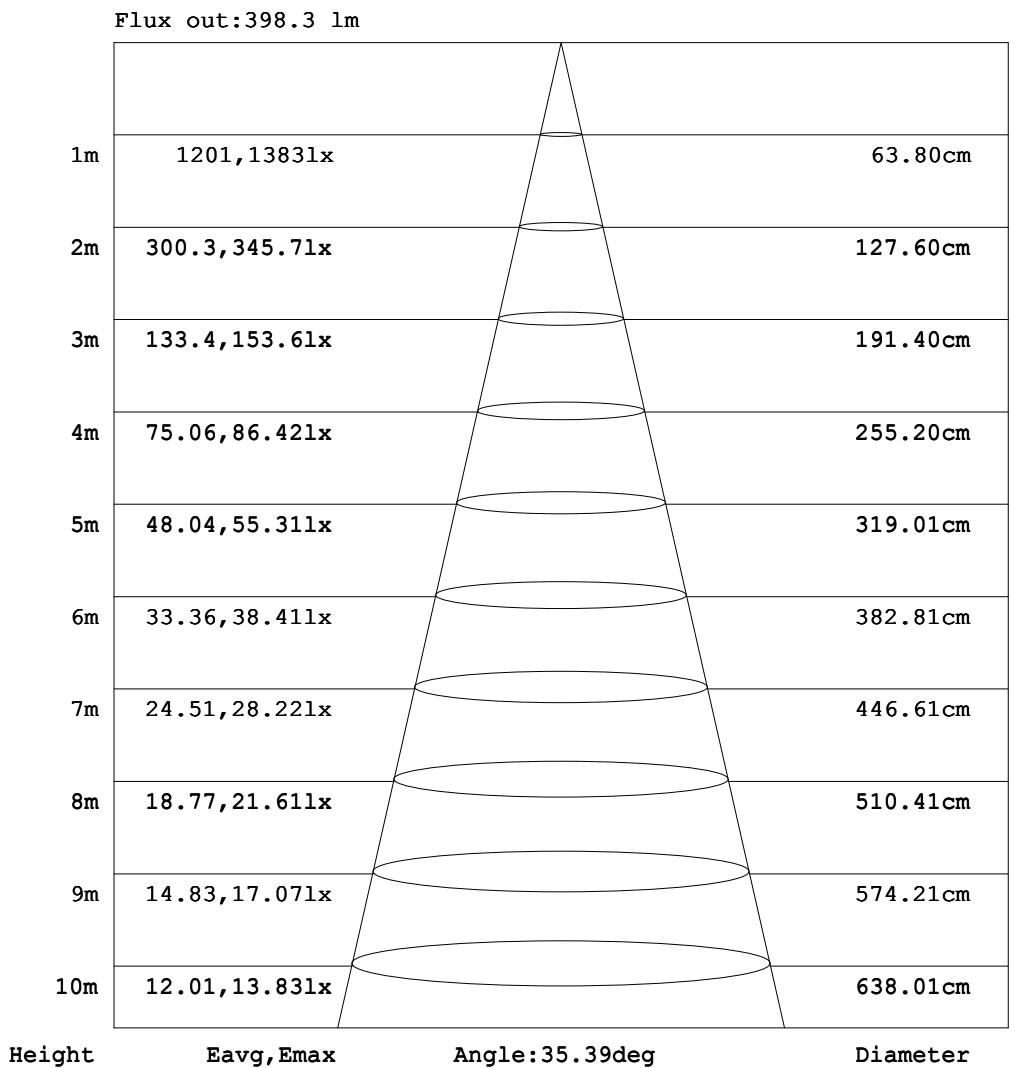


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-07-16

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:225.0V I:0.0580A P:11.60W PF:0.8890 Freq:50.00Hz Lamp Flux:427.895x1 lm		
NAME: ALT55F-12G40-Z2-Max	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:25	Shielding Angle:



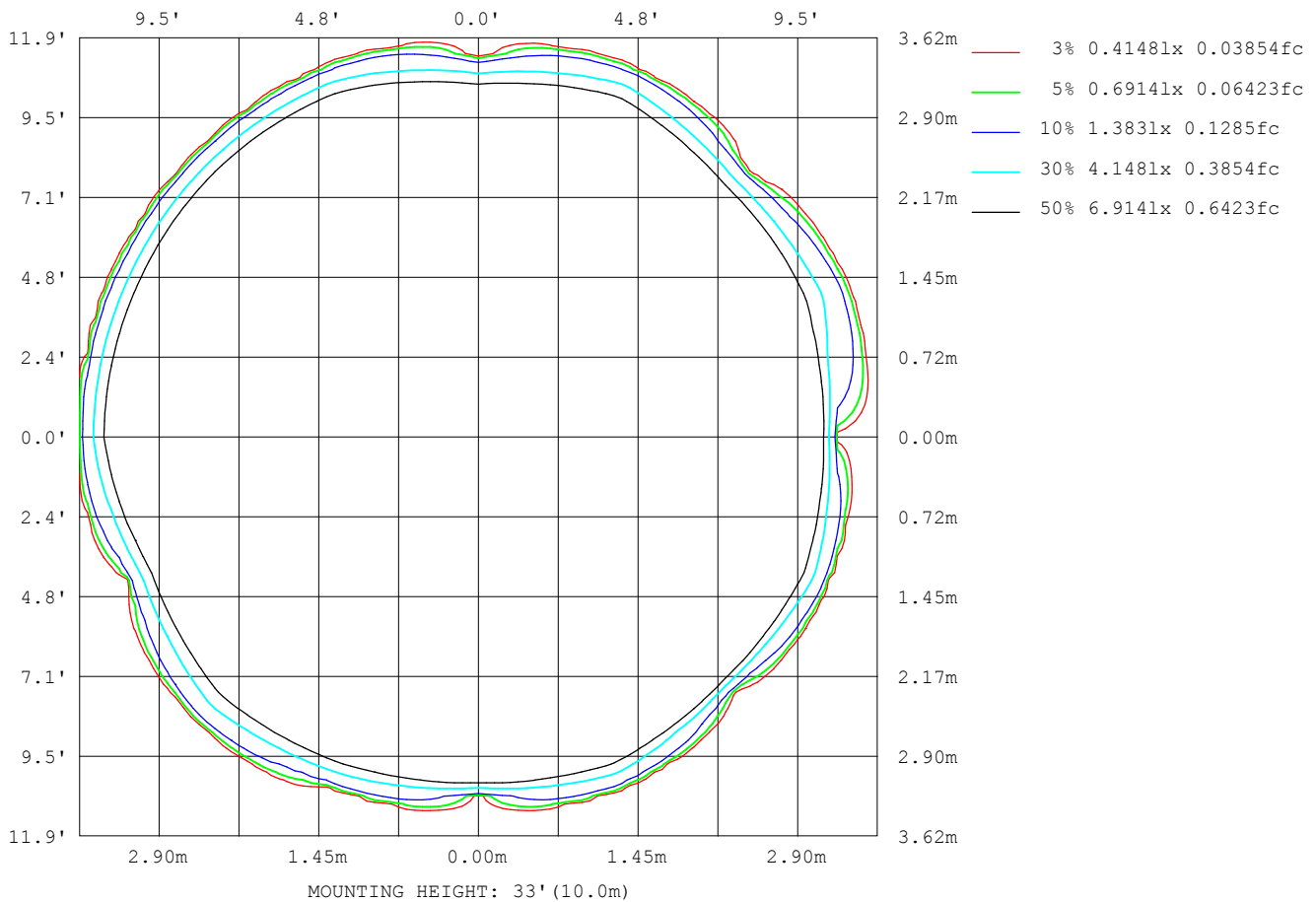
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:225.0V I:0.0580A P:11.60W PF:0.8890 Freq:50.00Hz Lamp Flux:427.895x1 lm		
NAME: ALT55F-12G40-Z2-Max	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:225.0V I:0.0580A P:11.60W PF:0.8890 Freq:50.00Hz Lamp Flux:427.895x1 lm		
NAME: ALT55F-12G40-Z2-Max	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:25	Shielding Angle:

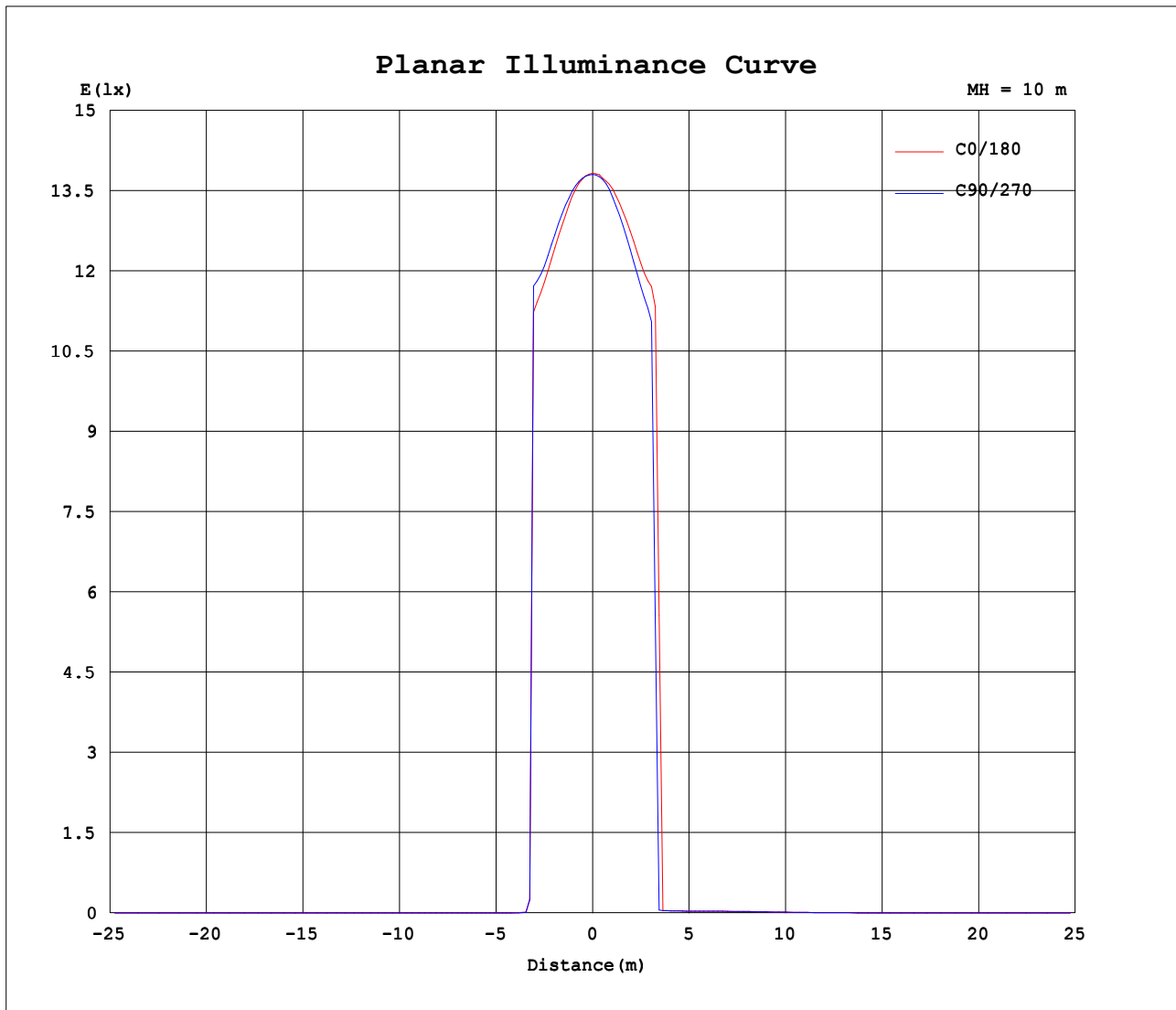
AvgL	cd/m2
L_0~180 (65) av	4204
L_0~180 (75) av	4002
L_0~180 (85) av	6645
L_90~270 (65) av	4134
L_90~270 (75) av	3905
L_90~270 (85) av	6350
L_45 (65) av	4134
L_45 (75) av	3905
L_45 (85) av	6260

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:

```