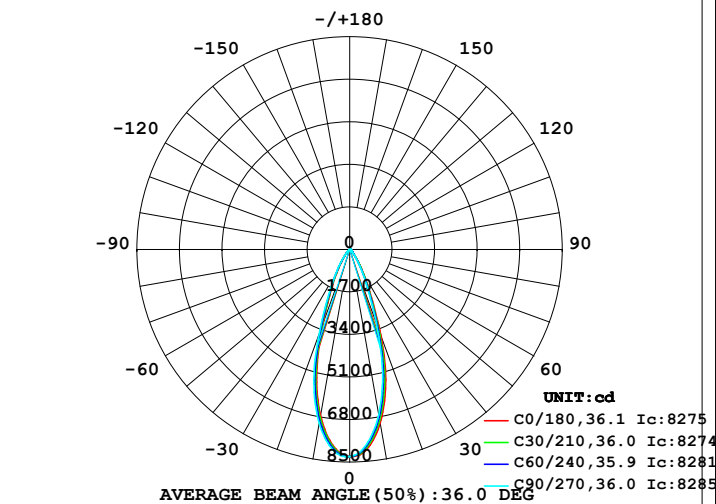


## LUMINAIRE PHOTOMETRIC TEST REPORT

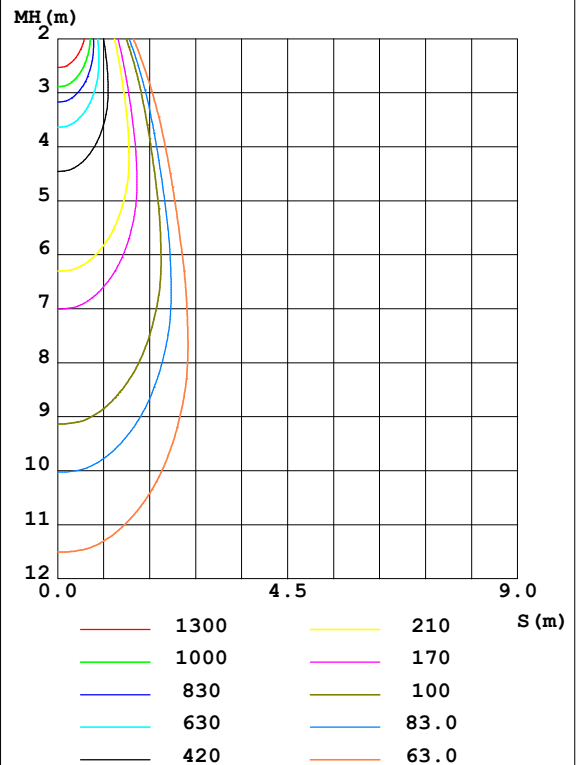
Test:U:225.1V I:0.1830A P:40.00W PF:0.9670 Freq:0Hz Lamp Flux:3563.14x1 lm		
NAME: ALT85-40G30-F	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:75	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 89.08 lm/W			
MODEL	3000K CRI90	I <sub>max</sub> (cd)	8287	S/MH(C0/180)	0.56
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	0.59
RATED VOLTAGE(V)	226	TOTAL FLUX(lm)	3563.1	η UP,DN(C0-180)	0.0,48.7
NOMINAL FLUX(lm)	3563.14	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.3
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	225.1	η down(%)	100.0	CIBSE SHR MAX	0.60

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:AE  
 Test Date:2020-03-06

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
 Humidity:65.0%  
 Test Distance:7.240m [K=1.0000]  
 Remarks:

## ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	7044	6886	6701	6651	6737	6845	7050	7120	0- 10	722.4	722.4	20.3,20.3
20	3631	3408	3109	3027	3092	3233	3583	3710	10- 20	1432	2154	60.5,60.5
30	1120	1043	948.2	936.6	977.9	1041	1145	1167	20- 30	879.9	3034	85.2,85.2
40	301.8	296.9	275.8	263.4	265.7	272.0	293.5	306.3	30- 40	361.9	3396	95.3,95.3
50	73.47	69.52	63.16	57.20	62.44	64.98	71.61	75.35	40- 50	115.6	3512	98.6,98.6
60	17.67	16.84	14.79	13.72	15.18	15.14	17.11	18.86	50- 60	32.08	3544	99.5,99.5
70	8.558	7.841	7.986	6.841	7.300	6.889	7.961	8.179	60- 70	11.20	3555	99.8,99.8
80	3.125	2.983	2.635	2.553	2.208	2.234	2.612	2.910	70- 80	5.113	3560	99.9,99.9
90	3.218	3.311	3.378	3.398	2.341	2.253	2.254	2.255	80- 90	2.778	3563	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): 3472.4 lm

%lum = 97.5%

%lamp = 97.5%

Conical surface Flux(120deg): 3544.1 lm

%lum = 99.5%

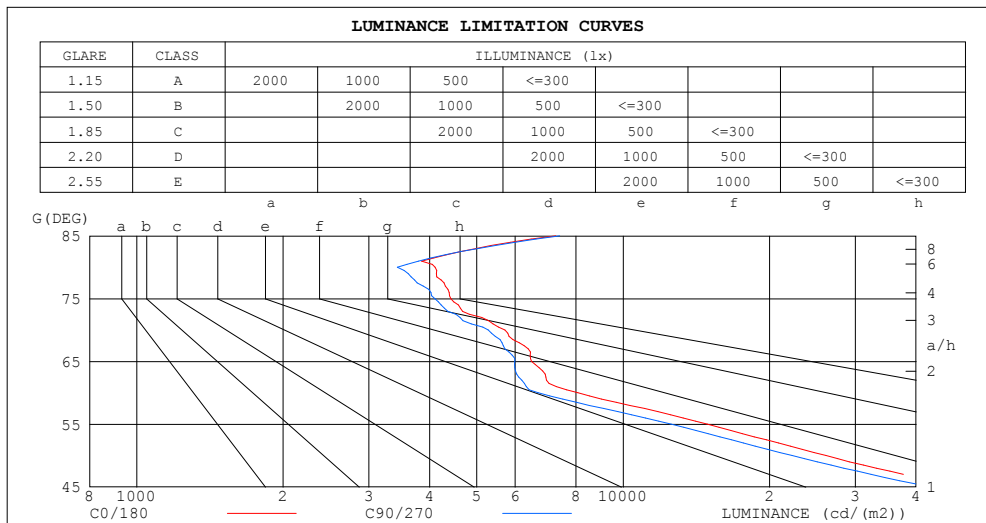
%lamp = 99.5%

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:AE  
 Test Date:2020-03-06

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
 Humidity:65.0%  
 Test Distance:7.240m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:225.1V I:0.1830A P:40.00W PF:0.9670 Freq:0Hz Lamp Flux:3563.14x1 lm		
NAME: ALT85-40G30-F	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:75	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	7267	7400
80	4109	3431
75	4419	4101
70	5713	5281
65	6476	5992
60	8068	6691
55	14878	12541
50	26099	22221
45	49770	42892

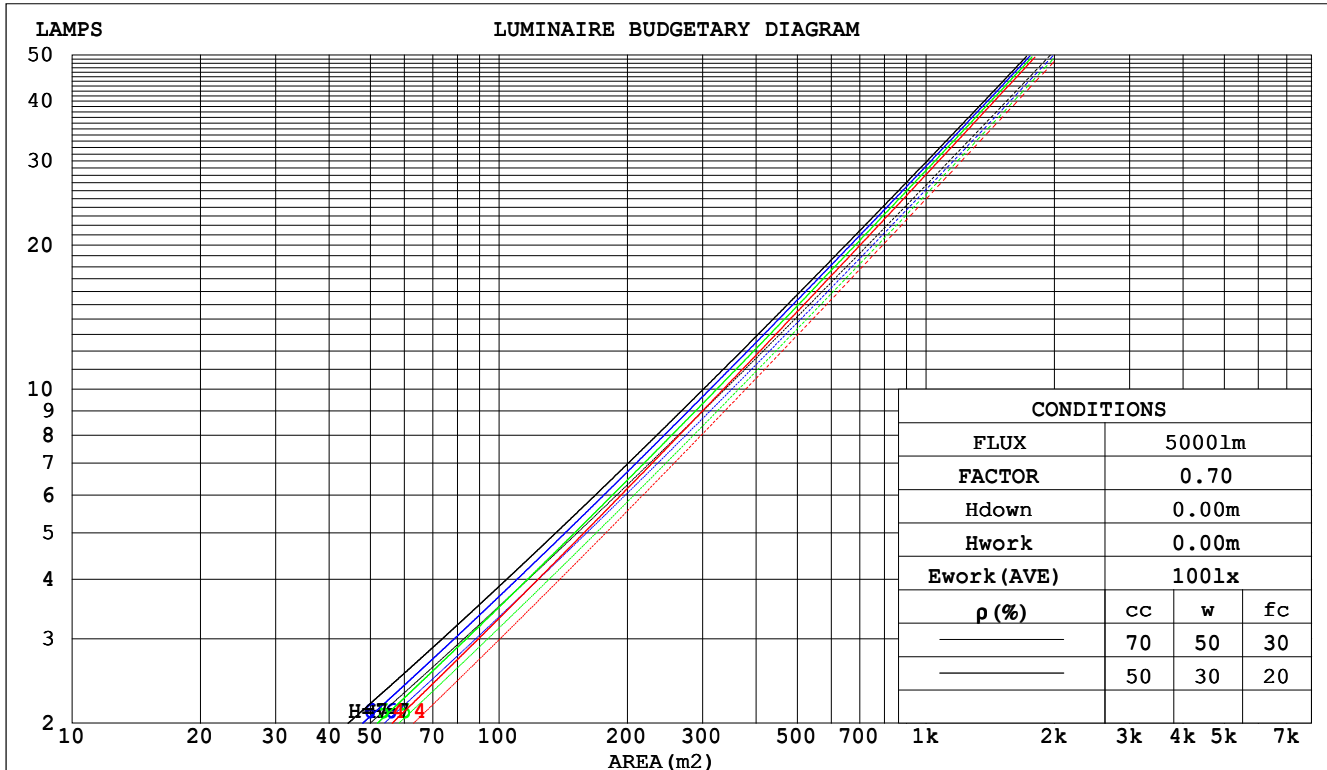
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:AE  
Test Date:2020-03-06

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:7.240m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:225.1V I:0.1830A P:40.00W PF:0.9670 Freq:0Hz Lamp Flux:3563.14x1 lm		
NAME: ALT85-40G30-F	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:75	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	1.12	1.10	1.08	1.10	1.08	1.06	1.06	1.04	1.03	1.02	1.01	.00	.99	.98	.97	.95
2.0	1.05	1.02	.99	1.04	1.00	.98	1.00	.98	.96	.97	.95	.94	.95	.93	.92	.90
3.0	.99	.95	.92	.98	.94	.91	.96	.92	.90	.93	.90	.88	.91	.89	.87	.85
4.0	.94	.90	.86	.93	.89	.85	.91	.87	.84	.89	.86	.83	.87	.85	.83	.81
5.0	.90	.85	.81	.89	.84	.81	.87	.83	.80	.85	.82	.79	.84	.81	.79	.77
6.0	.85	.80	.77	.85	.80	.76	.83	.79	.76	.82	.78	.75	.81	.77	.75	.74
7.0	.82	.76	.73	.81	.76	.73	.80	.75	.72	.79	.75	.72	.78	.74	.72	.70
8.0	.78	.73	.69	.77	.73	.69	.76	.72	.69	.75	.72	.69	.75	.71	.68	.67
9.0	.75	.70	.66	.74	.70	.66	.73	.69	.66	.73	.69	.66	.72	.68	.66	.64
10.0	.72	.67	.64	.71	.67	.63	.71	.66	.63	.70	.66	.63	.69	.66	.63	.62



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:AE  
 Test Date:2020-03-06

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
 Humidity:65.0%  
 Test Distance:7.240m [K=1.0000]  
 Remarks:

## WEC AND CCEC

Test:U:225.1V I:0.1830A P:40.00W PF:0.9670 Freq:0Hz Lamp Flux:3563.14x1 lm					
NAME: ALT85-40G30-F			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:75		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	.159	.090	.029	.152	.087	.028	.140	.080	.026	.128	.074	.024	.118	.068	.022	
2.0	.150	.082	.025	.144	.079	.024	.134	.074	.023	.124	.070	.022	.115	.065	.021	
3.0	.141	.075	.023	.137	.073	.022	.128	.069	.021	.120	.066	.020	.112	.062	.019	
4.0	.134	.069	.020	.130	.068	.020	.122	.065	.019	.115	.062	.019	.109	.059	.018	
5.0	.127	.065	.019	.123	.063	.018	.117	.061	.018	.111	.058	.017	.105	.056	.017	
6.0	.121	.060	.017	.118	.059	.017	.112	.057	.017	.107	.055	.016	.102	.054	.016	
7.0	.115	.057	.016	.112	.056	.016	.107	.054	.016	.103	.053	.015	.098	.051	.015	
8.0	.110	.054	.015	.108	.053	.015	.103	.052	.015	.099	.050	.014	.095	.049	.014	
9.0	.105	.051	.014	.103	.050	.014	.099	.049	.014	.096	.048	.014	.092	.047	.014	
10.0	.101	.048	.013	.099	.048	.013	.096	.047	.013	.092	.046	.013	.089	.045	.013	

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	.170	.157	.146	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.153	.133	.115	.131	.114	.100	.090	.079	.069	.052	.046	.041	.017	.015	.013	
3.0	.140	.113	.093	.120	.098	.080	.082	.068	.056	.047	.040	.033	.015	.013	.011	
4.0	.128	.098	.076	.110	.085	.066	.076	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.119	.086	.063	.102	.075	.054	.070	.052	.038	.041	.031	.023	.013	.010	.008	
6.0	.111	.077	.053	.095	.067	.046	.066	.047	.032	.038	.027	.019	.012	.009	.006	
7.0	.104	.069	.045	.089	.060	.039	.062	.042	.028	.036	.025	.016	.012	.008	.005	
8.0	.098	.063	.038	.084	.054	.033	.058	.038	.024	.034	.022	.014	.011	.007	.005	
9.0	.092	.057	.033	.080	.050	.029	.055	.035	.021	.032	.021	.012	.010	.007	.004	
10.0	.088	.053	.029	.076	.046	.025	.052	.032	.018	.031	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:AE  
Test Date:2020-03-06

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:7.240m [K=1.0000]  
Remarks:

## UGR(Unified Glare Rating) Table

Test:U:225.1V I:0.1830A P:40.00W PF:0.9670 Freq:0Hz Lamp Flux:3563.14x1 lm											
NAME: ALT85-40G30-F					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
MFR.:					SUR.:75			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		15.2	16.0	15.4	16.1	16.3	14.5	15.3	14.7	15.5	15.6
	3H	15.0	15.8	15.3	16.0	16.2	14.4	15.1	14.7	15.3	15.5
	4H	15.0	15.7	15.2	15.9	16.1	14.3	15.1	14.6	15.3	15.5
	6H	14.9	15.6	15.2	15.8	16.1	14.3	14.9	14.6	15.2	15.4
	8H	14.9	15.5	15.2	15.8	16.0	14.2	14.9	14.5	15.1	15.4
	12H	14.9	15.5	15.2	15.7	16.0	14.2	14.8	14.5	15.1	15.4
4H	2H	14.9	15.7	15.2	15.9	16.1	14.3	15.0	14.6	15.2	15.4
	3H	14.8	15.5	15.2	15.7	16.0	14.2	14.8	14.5	15.1	15.4
	4H	14.8	15.3	15.1	15.6	15.9	14.2	14.7	14.5	15.0	15.3
	6H	14.7	15.2	15.1	15.5	15.9	14.1	14.6	14.5	14.9	15.3
	8H	14.7	15.1	15.1	15.5	15.9	14.1	14.5	14.5	14.9	15.2
	12H	14.7	15.1	15.1	15.5	15.8	14.1	14.5	14.5	14.8	15.2
8H	4H	14.7	15.1	15.0	15.5	15.8	14.0	14.5	14.4	14.8	15.2
	6H	14.6	15.0	15.0	15.4	15.8	14.0	14.4	14.4	14.7	15.2
	8H	14.6	14.9	15.0	15.3	15.8	14.0	14.3	14.4	14.7	15.1
	12H	14.6	14.8	15.0	15.3	15.8	14.0	14.3	14.4	14.7	15.2
12H	4H	14.6	15.0	15.0	15.4	15.8	14.0	14.4	14.4	14.8	15.2
	6H	14.5	14.9	15.0	15.3	15.7	13.9	14.3	14.4	14.7	15.1
	8H	14.5	14.8	15.0	15.2	15.7	13.9	14.2	14.4	14.6	15.1
Variations with the observer position at spacings:											
S = 1.0H	+ 2.9 / - 6.6					+ 2.5 / - 6.7					
1.5H	+ 4.7 / - 5.6					+ 4.2 / - 5.3					
2.0H	+ 5.3 / - 4.5					+ 4.9 / - 4.2					

CIE Pub.117, 3563 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 4.4)

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:AE  
Test Date:2020-03-06

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:7.240m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

Test:U:225.1V I:0.1830A P:40.00W PF:0.9670 Freq:0Hz Lamp Flux:3563.14x1 lm		
NAME: ALT85-40G30-F	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:75	Shielding Angle:

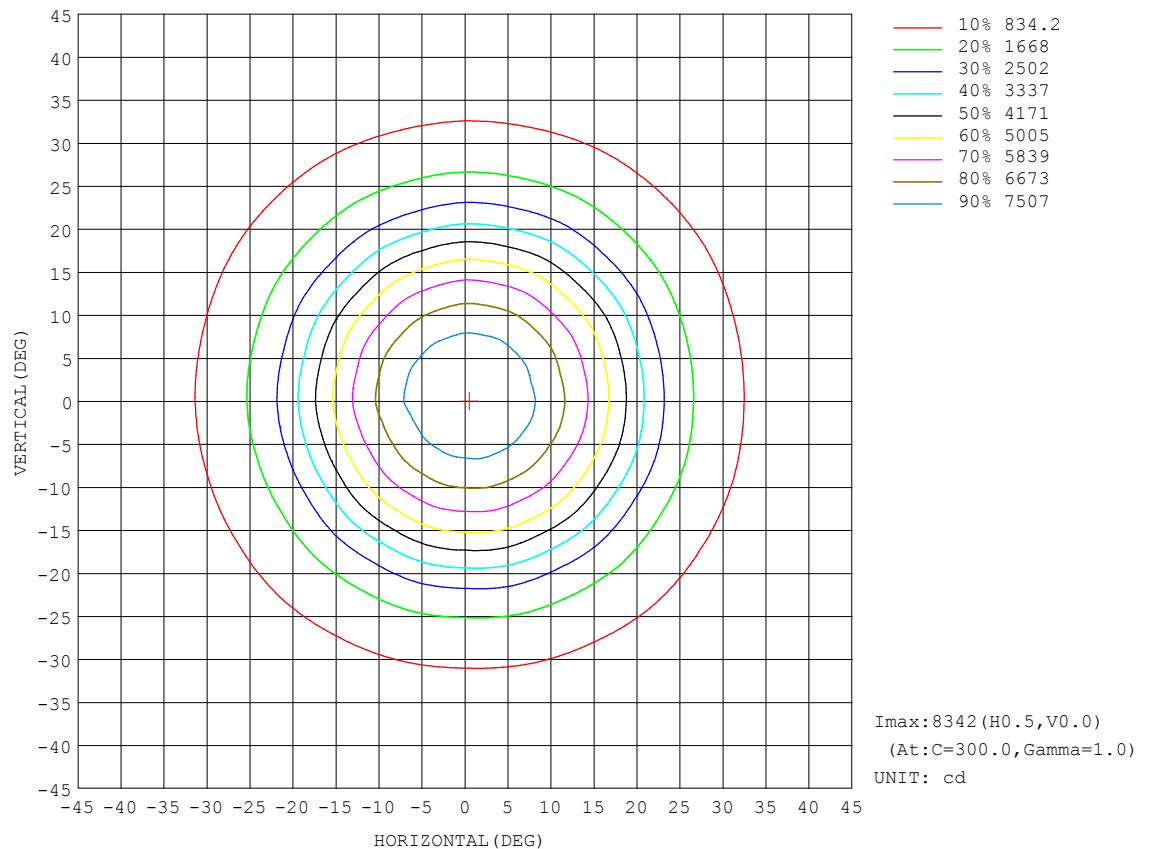
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	82	79	88	82	79	87	82	79	75
0.80	96	90	87	95	90	87	94	89	86	83
1.00	100	95	91	99	94	91	98	94	90	87
1.25	104	99	96	103	98	95	101	97	94	90
1.50	107	102	99	105	101	98	103	100	97	93
2.00	109	105	102	108	104	101	105	102	100	95
2.50	111	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	97
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	110	109	108	107	99
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators: AE  
Test Date: 2020-03-06

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity: 65.0%  
Test Distance: 7.240m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

Test:U:225.1V I:0.1830A P:40.00W PF:0.9670 Freq:0Hz Lamp Flux:3563.14x1 lm		
NAME: ALT85-40G30-F	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:75	Shielding Angle:



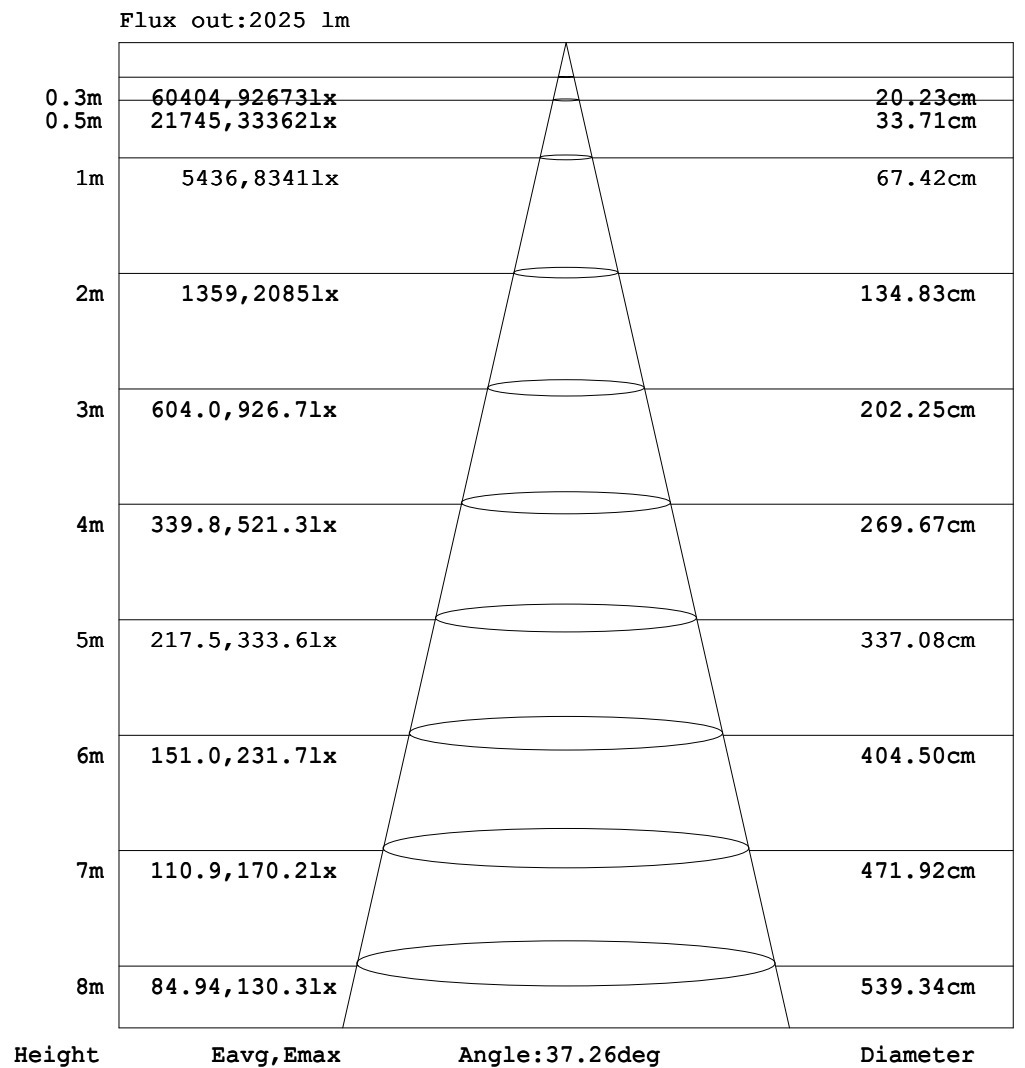
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:AE  
Test Date:2020-03-06

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:7.240m [K=1.0000]  
Remarks:



### AAI Figure

Test:U:225.1V I:0.1830A P:40.00W PF:0.9670 Freq:0Hz Lamp Flux:3563.14x1 lm		
NAME: ALT85-40G30-F	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:75	Shielding Angle:



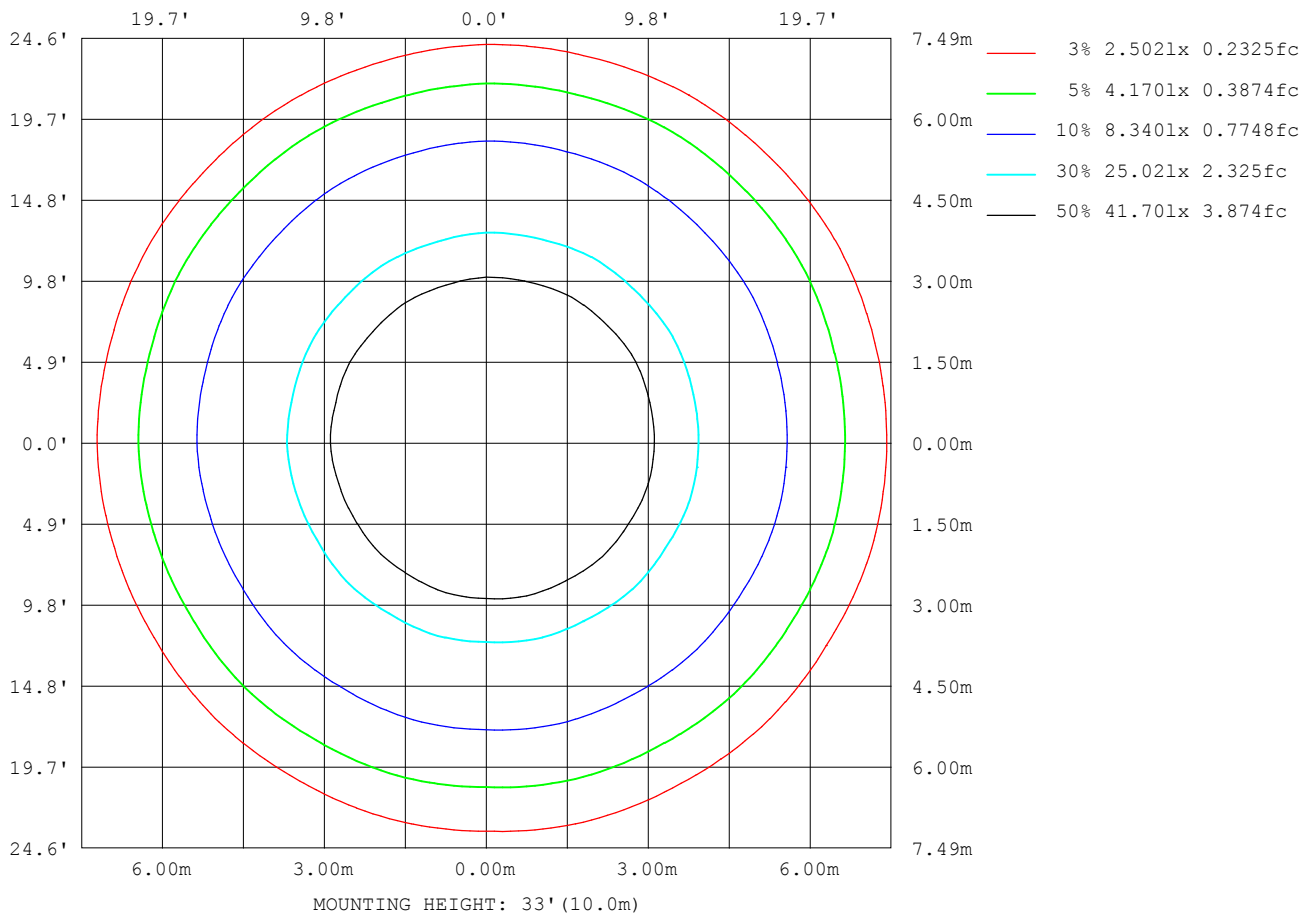
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:AE  
Test Date:2020-03-06

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:7.240m [K=1.0000]  
Remarks:

### ISOLUX DIAGRAM

Test:U:225.1V I:0.1830A P:40.00W PF:0.9670 Freq:0Hz Lamp Flux:3563.14x1 lm		
NAME: ALT85-40G30-F	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:75	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:AE  
Test Date:2020-03-06

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:7.240m [K=1.0000]  
Remarks:

## LED Avg.L Report

Test:U:225.1V I:0.1830A P:40.00W PF:0.9670 Freq:0Hz Lamp Flux:3563.14x1 lm		
NAME: ALT85-40G30-F	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:75	Shielding Angle:

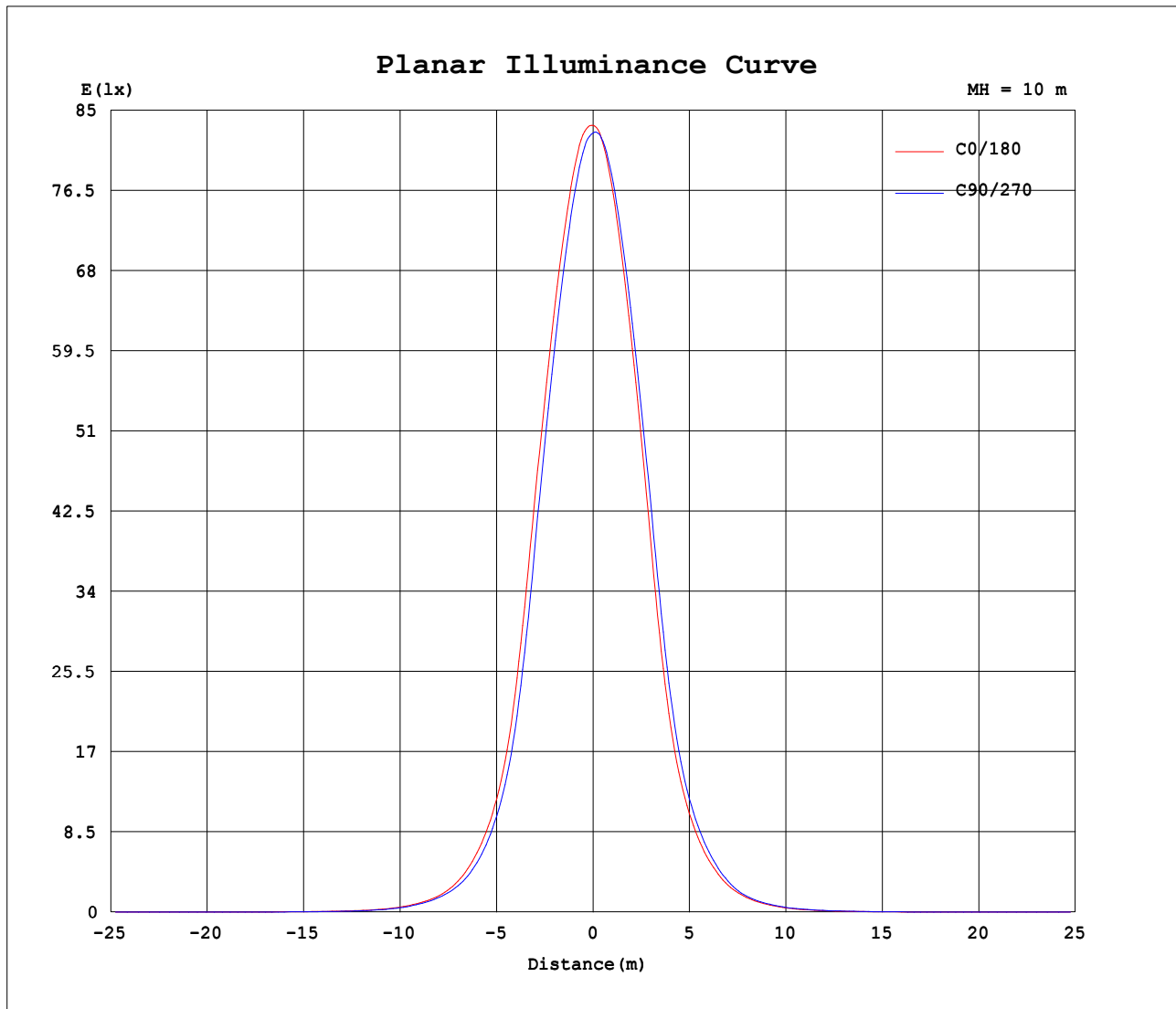
AvgL	cd/m2
L_0~180 (65) av	6110
L_0~180 (75) av	4203
L_0~180 (85) av	6424
L_90~270 (65) av	6147
L_90~270 (75) av	4113
L_90~270 (85) av	6482
L_45 (65) av	5883
L_45 (75) av	4115
L_45 (85) av	6530

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:AE  
 Test Date:2020-03-06

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
 Humidity:65.0%  
 Test Distance:7.240m [K=1.0000]  
 Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators: AE  
Test Date: 2020-03-06

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity: 65.0%  
Test Distance: 7.240m [K=1.0000]  
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

```