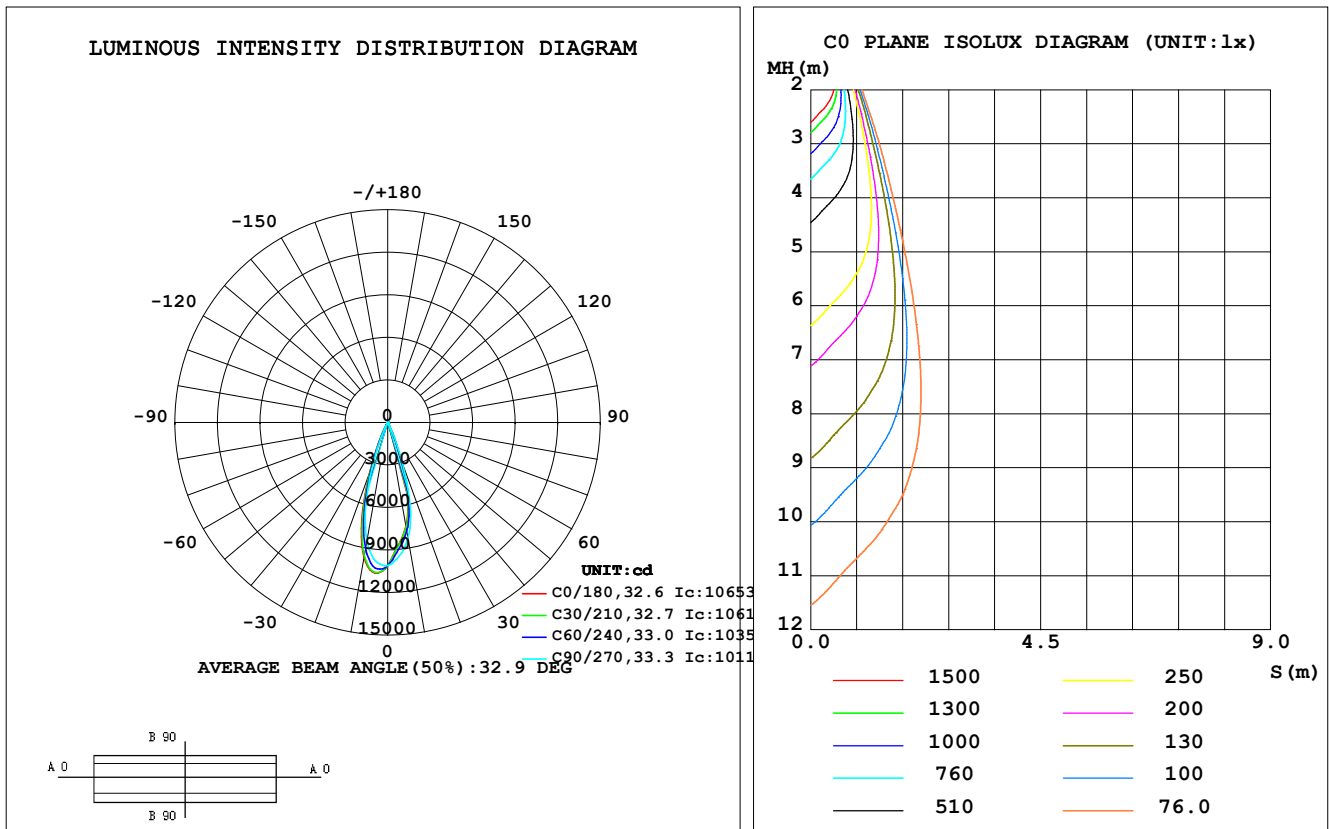


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:225.3V I:0.1630A P:35.10W PF:0.9520 Freq:50.00Hz Lamp Flux:3158.64x1 lm		
NAME: ALT85Z-35G30-Z2-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 89.99 lm/W			
MODEL	3000K CRI90	I <sub>max</sub> (cd)	10653	S/MH(C0/180)	0.54
NOMINAL POWER(W)	35	LOR(%)	100.0	S/MH(C90/270)	0.51
RATED VOLTAGE(V)	226	TOTAL FLUX(lm)	3158.6	η UP,DN(C0-180)	0.0,49.7
NOMINAL FLUX(lm)	3158.64	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.3
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	225.3	η down(%)	100.0	CIBSE SHR MAX	0.50



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

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
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	742.7	762.4	825.7	922.0	964.8	920.3	846.0	771.3	0- 10	883.8	883.8	28,28
20	241.6	275.2	303.8	350.6	363.0	319.7	286.9	245.6	10- 20	1608	2492	78.9,78.9
30	16.15	17.82	21.08	29.56	30.72	25.66	22.33	17.81	20- 30	510.3	3003	95.1,95.1
40	7.552	7.602	7.232	7.276	7.407	7.235	7.239	7.515	30- 40	68.30	3071	97.2,97.2
50	4.815	4.761	4.270	4.190	4.126	3.940	3.963	4.466	40- 50	44.01	3115	98.6,98.6
60	2.489	2.549	2.215	2.072	1.940	1.849	1.964	2.381	50- 60	28.70	3144	99.5,99.5
70	0.4210	0.3900	0.3030	0.2304	0.2489	0.2435	0.3149	0.4010	60- 70	10.48	3154	99.9,99.9
80	0.2293	0.2224	0.2110	0.2026	0.1837	0.1884	0.1852	0.1943	70- 80	2.298	3156	99.9,99.9
90	0.2929	0.2879	0.2815	0.2795	0.1810	0.1799	0.1746	0.1707	80- 90	2.333	3159	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:×10cd									UNIT:lm		

Conical surface Flux(90deg): 3094.8 lm

%lum = 98.0%

%lamp = 98.0%

Conical surface Flux(120deg): 3143.5 lm

%lum = 99.5%

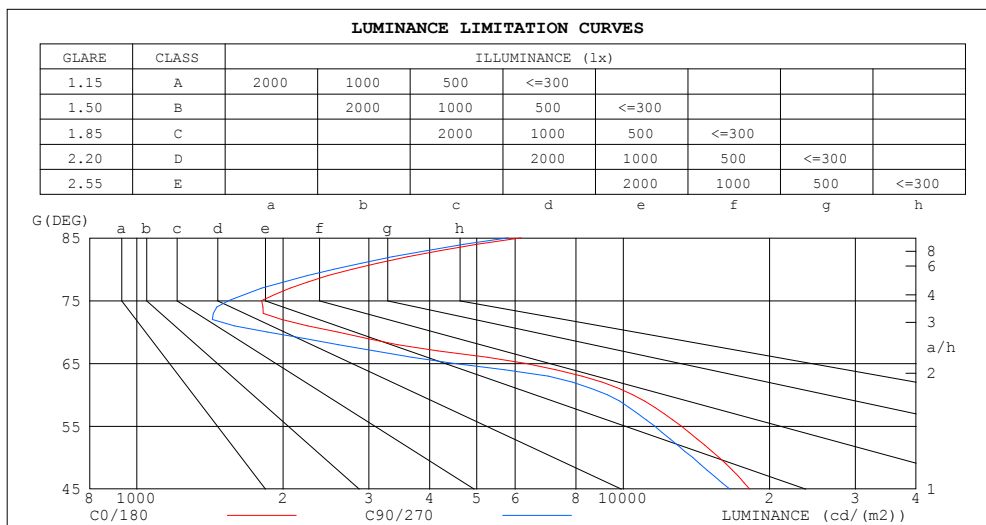
%lamp = 99.5%

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

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 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:225.3V I:0.1630A P:35.10W PF:0.9520 Freq:50.00Hz Lamp Flux:3158.64x1 lm		
NAME: ALT85Z-35G30-Z2-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	6166	5800
80	2774	2543
75	1806	1545
70	2586	1855
65	6293	4479
60	10458	9271
55	13164	11608
50	15738	13906
45	18195	16571

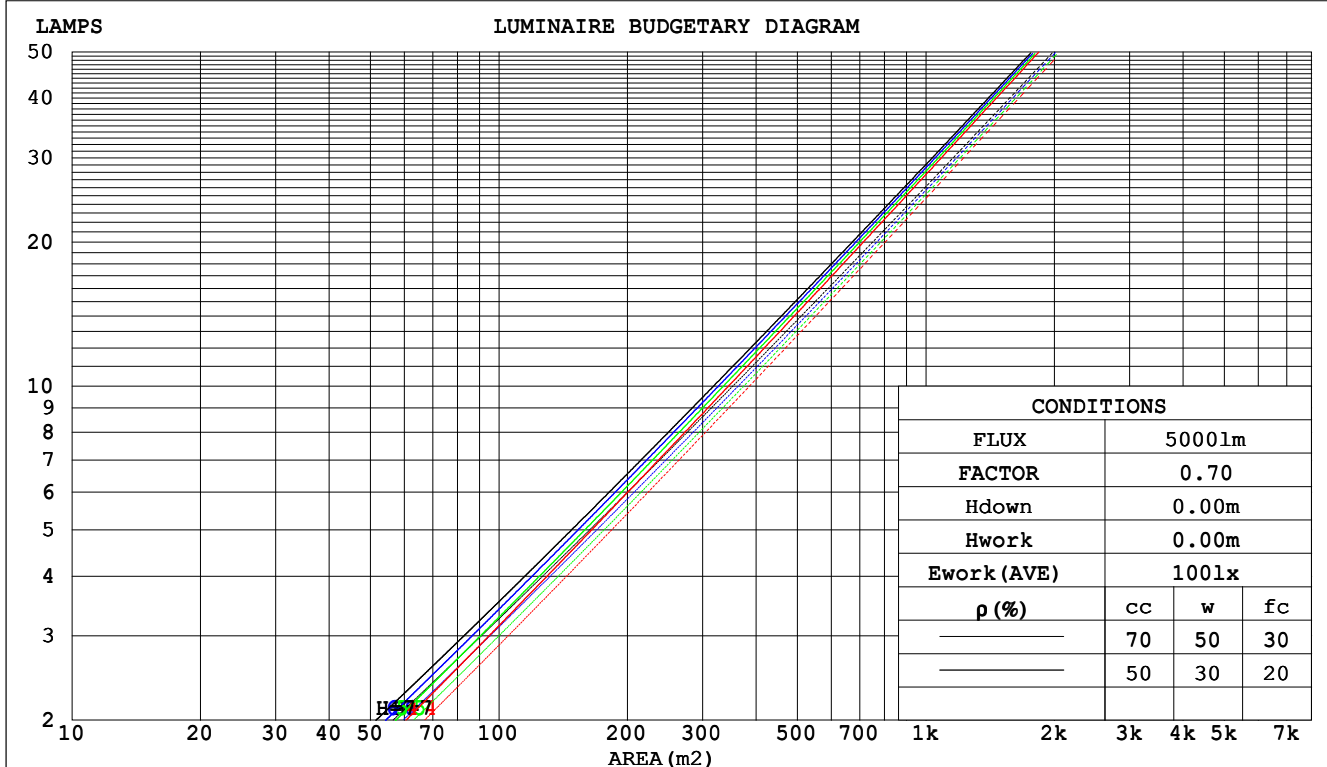
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:AE  
Test Date:2020-06-03

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
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:225.3V I:0.1630A P:35.10W PF:0.9520 Freq:50.00Hz Lamp Flux:3158.64x1 lm		
NAME: ALT85Z-35G30-Z2-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	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	1.09	1.10	1.09	1.07	1.06	1.05	1.04	1.03	1.02	1.01	.99	.99	.98	.96
2.0	1.07	1.04	1.01	1.05	1.02	1.00	1.02	.99	.98	.99	.97	.96	.97	.95	.94	.92
3.0	1.02	.98	.95	1.01	.97	.95	.98	.95	.93	.96	.94	.92	.94	.92	.90	.89
4.0	.98	.94	.91	.97	.93	.90	.95	.92	.89	.93	.90	.88	.91	.89	.87	.86
5.0	.94	.90	.86	.93	.89	.86	.91	.88	.85	.90	.87	.85	.89	.86	.84	.83
6.0	.90	.86	.83	.90	.86	.83	.88	.85	.82	.87	.84	.82	.86	.83	.81	.80
7.0	.87	.83	.80	.87	.83	.80	.86	.82	.79	.85	.81	.79	.84	.81	.78	.77
8.0	.84	.80	.77	.84	.80	.77	.83	.79	.77	.82	.79	.76	.81	.78	.76	.75
9.0	.82	.77	.74	.81	.77	.74	.80	.77	.74	.80	.76	.74	.79	.76	.74	.73
10.0	.79	.75	.72	.79	.75	.72	.78	.74	.72	.77	.74	.72	.77	.74	.72	.71



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

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 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:225.3V I:0.1630A P:35.10W PF:0.9520 Freq:50.00Hz Lamp Flux:3158.64x1 lm					
NAME: ALT85Z-35G30-Z2-Min			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:78		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	.143	.081	.026	.137	.078	.025	.124	.071	.023	.113	.065	.021	.102	.059	.019		
2.0	.133	.073	.022	.127	.070	.022	.117	.065	.020	.108	.060	.019	.099	.056	.018		
3.0	.124	.066	.020	.120	.064	.019	.111	.060	.018	.103	.056	.017	.096	.053	.016		
4.0	.117	.061	.018	.113	.059	.017	.105	.056	.017	.099	.053	.016	.092	.050	.015		
5.0	.110	.056	.016	.107	.055	.016	.100	.052	.015	.095	.050	.015	.089	.048	.014		
6.0	.104	.052	.015	.101	.051	.015	.096	.049	.014	.091	.047	.014	.086	.045	.013		
7.0	.099	.049	.014	.097	.048	.014	.092	.046	.013	.088	.045	.013	.083	.043	.013		
8.0	.094	.046	.013	.092	.045	.013	.088	.044	.013	.084	.043	.012	.081	.041	.012		
9.0	.090	.044	.012	.088	.043	.012	.085	.042	.012	.081	.041	.012	.078	.040	.011		
10.0	.087	.042	.012	.085	.041	.011	.082	.040	.011	.079	.039	.011	.076	.038	.011		

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	.169	.158	.148	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.151	.133	.117	.129	.114	.101	.089	.079	.071	.051	.046	.041	.016	.015	.014	
3.0	.136	.113	.095	.117	.098	.082	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.124	.098	.078	.107	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.114	.086	.065	.098	.074	.057	.067	.052	.040	.039	.030	.024	.013	.010	.008	
6.0	.105	.076	.055	.090	.066	.048	.062	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.098	.068	.047	.084	.059	.041	.058	.041	.029	.034	.024	.017	.011	.008	.006	
8.0	.091	.061	.040	.079	.053	.035	.054	.037	.025	.032	.022	.015	.010	.007	.005	
9.0	.086	.056	.035	.074	.048	.031	.051	.034	.022	.030	.020	.013	.010	.007	.004	
10.0	.081	.051	.031	.070	.044	.027	.048	.031	.019	.028	.018	.011	.009	.006	.004	

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

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
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:225.3V I:0.1630A P:35.10W PF:0.9520 Freq:50.00Hz Lamp Flux:3158.64x1 lm											
NAME: ALT85Z-35G30-Z2-Min					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
MFR.:					SUR.:78			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	8.6	9.3	8.8	9.4	9.6	8.2	8.9	8.5	9.1	9.2	
	3H	8.7	9.3	8.9	9.5	9.7	8.2	8.9	8.5	9.1	9.3
	4H	8.6	9.3	8.9	9.5	9.7	8.2	8.8	8.5	9.0	9.2
	6H	8.6	9.2	8.9	9.4	9.7	8.2	8.7	8.4	9.0	9.2
	8H	8.6	9.2	8.9	9.4	9.7	8.2	8.7	8.5	9.0	9.2
	12H	8.7	9.2	9.0	9.5	9.7	8.2	8.8	8.5	9.0	9.3
4H	2H	8.8	9.4	9.0	9.6	9.8	8.5	9.1	8.7	9.3	9.5
	3H	8.8	9.4	9.2	9.6	9.9	8.4	9.0	8.8	9.2	9.5
	4H	8.8	9.3	9.1	9.6	9.9	8.4	8.9	8.7	9.2	9.5
	6H	8.8	9.2	9.2	9.5	9.9	8.4	8.8	8.7	9.1	9.5
	8H	8.8	9.2	9.2	9.6	9.9	8.4	8.8	8.8	9.2	9.5
	12H	8.9	9.3	9.3	9.7	10.1	8.5	8.9	8.9	9.3	9.7
8H	4H	8.7	9.1	9.1	9.4	9.8	8.3	8.7	8.7	9.0	9.4
	6H	8.7	9.0	9.1	9.4	9.8	8.3	8.6	8.7	9.0	9.4
	8H	8.8	9.1	9.2	9.5	9.9	8.4	8.7	8.8	9.1	9.5
	12H	9.0	9.3	9.5	9.7	10.2	8.6	8.9	9.1	9.3	9.8
12H	4H	8.6	9.0	9.0	9.4	9.8	8.2	8.6	8.6	9.0	9.4
	6H	8.7	9.0	9.1	9.4	9.8	8.3	8.6	8.7	9.0	9.4
	8H	8.8	9.1	9.3	9.5	10.0	8.4	8.7	8.9	9.1	9.6
Variations with the observer position at spacings:											
S = 1.0H	+ 0.8 / - 1.1					+ 0.9 / - 1.2					
1.5H	+ 0.4 / - 0.7					+ 0.3 / - 0.6					
2.0H	+ 1.3 / - 1.6					+ 1.3 / - 1.7					

CIE Pub.117, 3159 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 4.0)

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

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
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:225.3V I:0.1630A P:35.10W PF:0.9520 Freq:50.00Hz Lamp Flux:3158.64x1 lm		
NAME: ALT85Z-35G30-Z2-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:

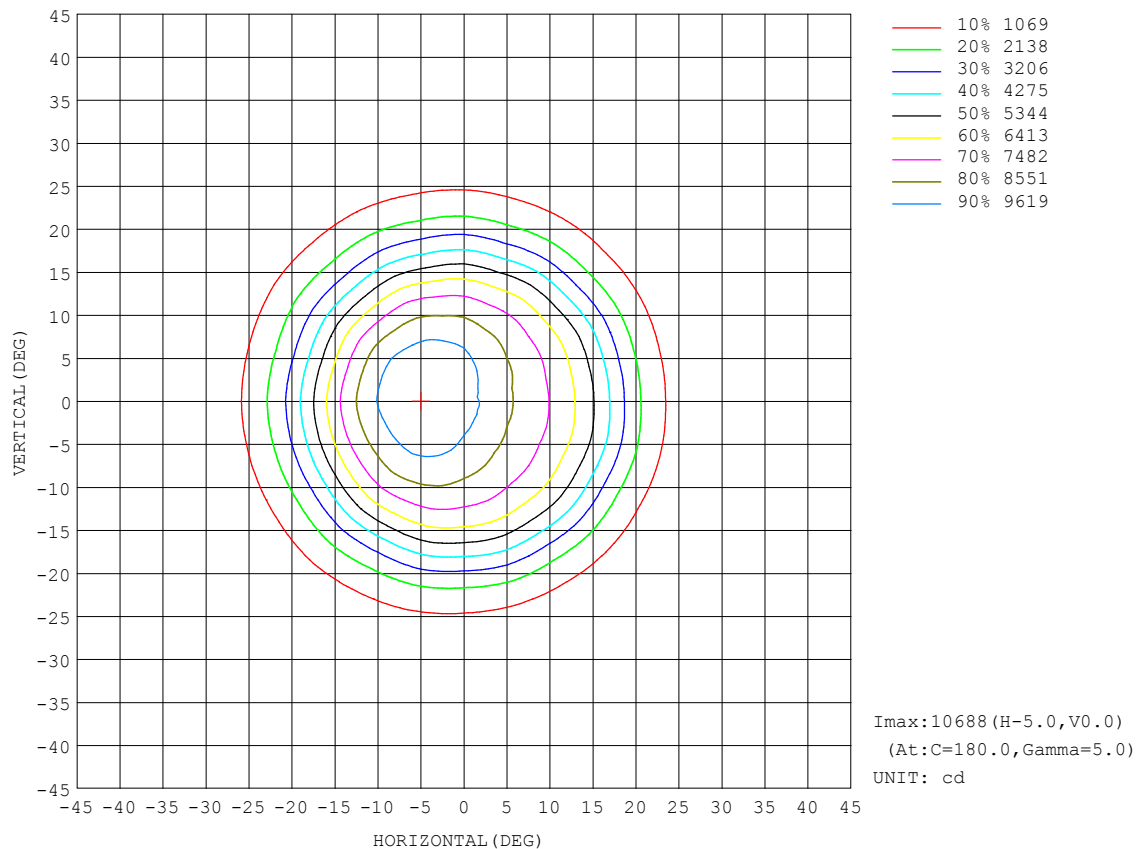
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	84	80	89	84	80	89	83	80	77
0.80	97	91	88	96	91	88	95	91	88	84
1.00	101	96	92	100	95	92	99	95	92	88
1.25	105	100	97	104	99	96	102	98	95	91
1.50	107	103	100	106	102	99	104	100	98	94
2.00	109	105	103	108	104	102	105	103	100	95
2.50	111	107	105	109	106	104	106	104	102	96
3.00	112	109	107	111	108	106	107	105	103	97
4.00	114	112	110	112	110	108	109	107	106	99
5.00	115	113	112	113	112	110	109	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: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:AE  
Test Date:2020-06-03

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
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:225.3V I:0.1630A P:35.10W PF:0.9520 Freq:50.00Hz Lamp Flux:3158.64x1 lm		
NAME: ALT85Z-35G30-Z2-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:



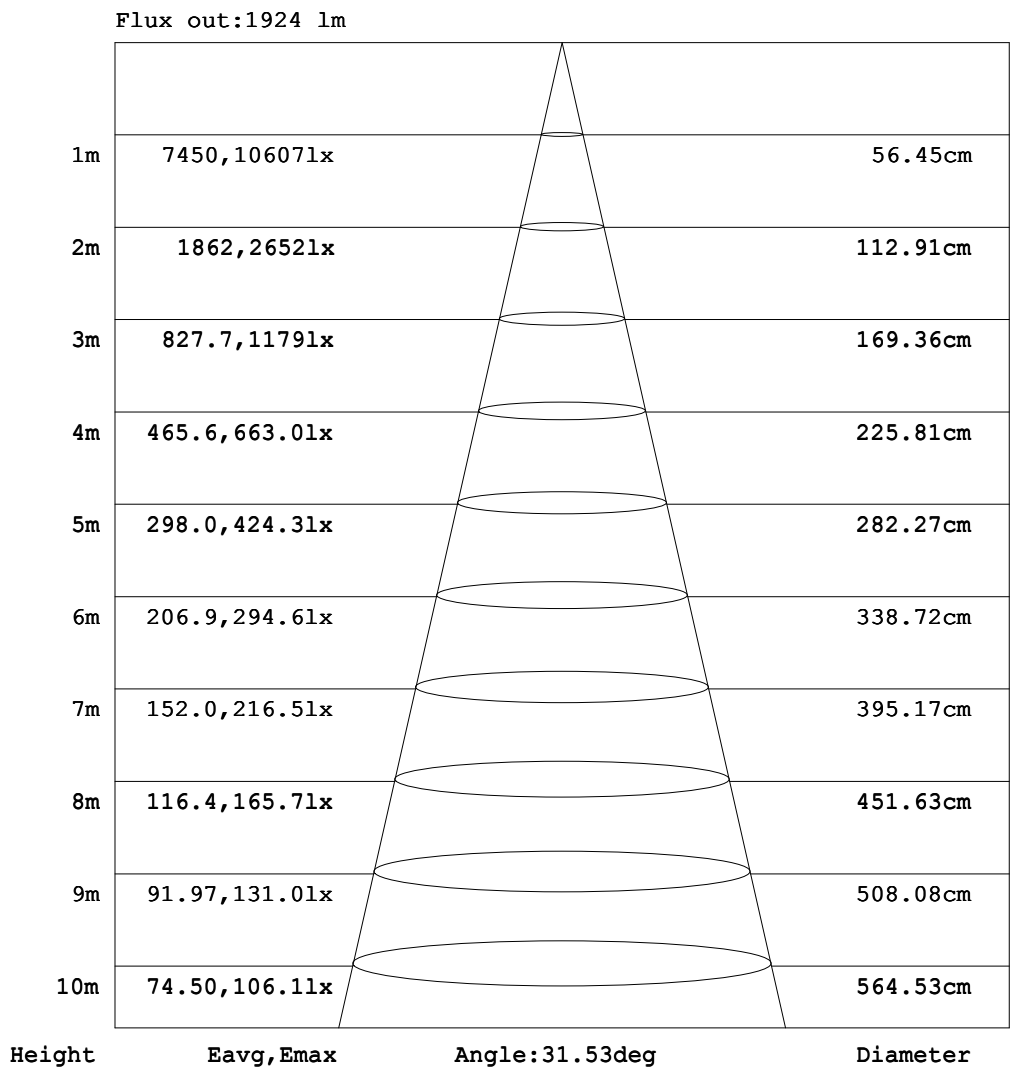
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:AE  
Test Date:2020-06-03

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
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:225.3V I:0.1630A P:35.10W PF:0.9520 Freq:50.00Hz Lamp Flux:3158.64x1 lm		
NAME: ALT85Z-35G30-Z2-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:



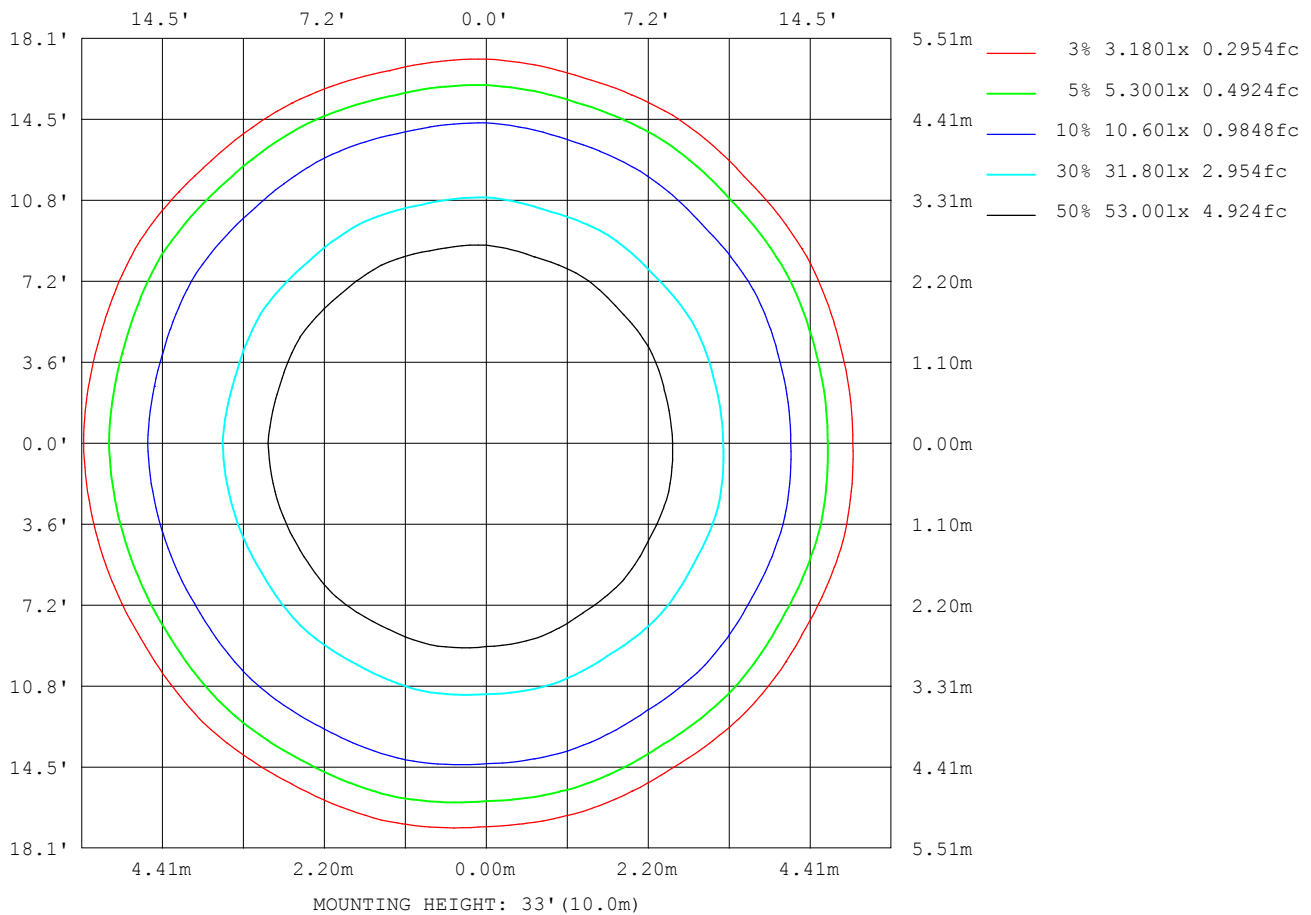
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
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:225.3V I:0.1630A P:35.10W PF:0.9520 Freq:50.00Hz Lamp Flux:3158.64x1 lm		
NAME: ALT85Z-35G30-Z2-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:



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

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
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:225.3V I:0.1630A P:35.10W PF:0.9520 Freq:50.00Hz Lamp Flux:3158.64x1 lm		
NAME: ALT85Z-35G30-Z2-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:

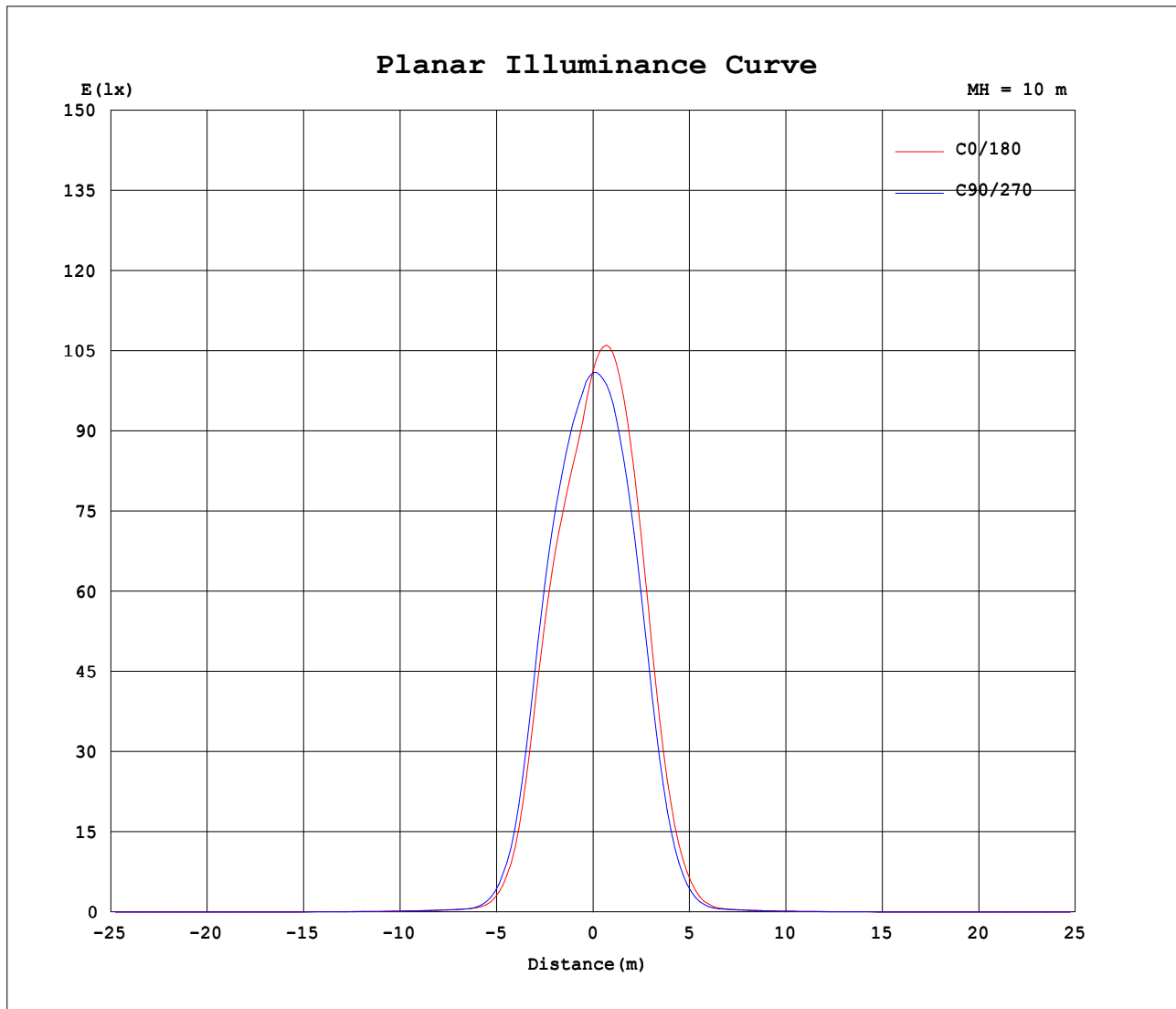
AvgL	cd/m2
L_0~180 (65) av	4762
L_0~180 (75) av	1656
L_0~180 (85) av	5247
L_90~270 (65) av	4381
L_90~270 (75) av	1576
L_90~270 (85) av	5027
L_45 (65) av	4621
L_45 (75) av	1610
L_45 (85) av	5135

Standard: GB/T 29293-2012

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

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
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: HIGH  
Temperature: 25.3DEG  
Operators: AE  
Test Date: 2020-06-03

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
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: 1.0DEG
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: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

```