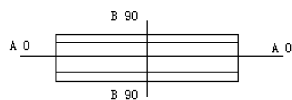
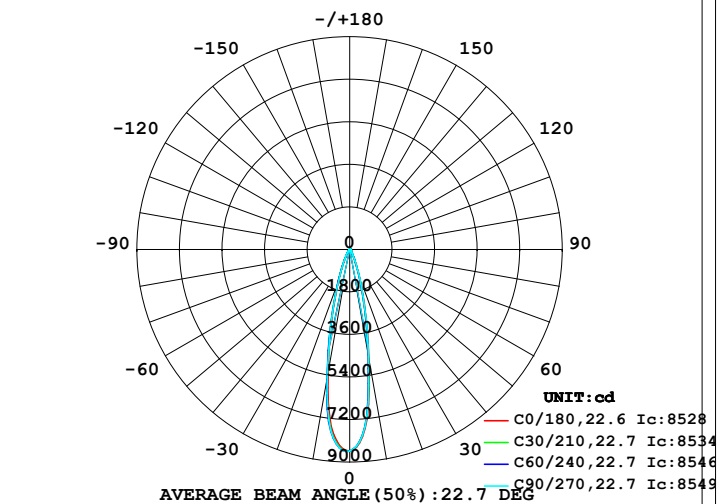


## LUMINAIRE PHOTOMETRIC TEST REPORT

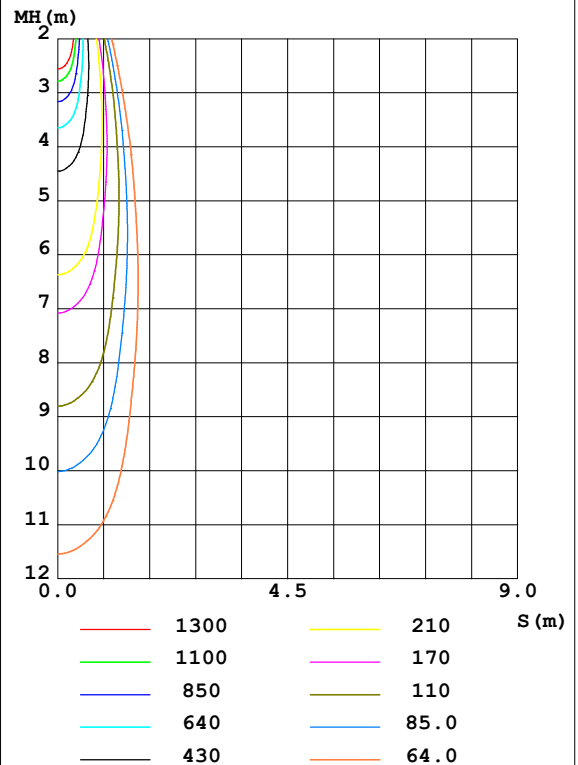
Test:U:225.0V I:0.1410A P:30.70W PF:0.9620 Freq:0Hz Lamp Flux:1869.32x1 lm		
NAME: ALST85-32G30-M	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:76	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 60.89 lm/W			
MODEL	3000K CRI90	I <sub>max</sub> (cd)	8549	S/MH (C0/180)	0.40
NOMINAL POWER (W)	32	LOR (%)	100.0	S/MH (C90/270)	0.41
RATED VOLTAGE (V)	220-240	TOTAL FLUX (lm)	1869.3	η UP, DN (C0-180)	0.0, 47.7
NOMINAL FLUX (lm)	1869.32	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 52.3
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

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: AE  
 Test Date: 2020-10-29

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 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	4690	4590	4608	4865	5288	5453	5510	5060	0- 10	649.2	649.2	34.7, 34.7
20	1149	1139	1154	1256	1386	1385	1385	1233	10- 20	736.4	1386	74.1, 74.1
30	282.2	287.6	292.0	317.9	345.7	341.6	328.0	292.8	20- 30	294.3	1680	89.9, 89.9
40	95.02	96.45	96.84	103.8	112.1	111.0	105.0	96.68	30- 40	113.4	1793	95.9, 95.9
50	34.64	34.43	35.13	37.20	41.44	40.60	37.70	35.64	40- 50	49.55	1843	98.6, 98.6
60	5.808	5.528	5.197	5.877	8.216	8.219	7.596	6.883	50- 60	18.98	1862	99.6, 99.6
70	2.766	2.541	2.488	2.748	3.235	3.237	2.844	2.974	60- 70	4.118	1866	99.8, 99.8
80	1.211	1.197	1.195	1.162	1.223	1.293	1.220	1.210	70- 80	2.097	1868	99.9, 99.9
90	1.609	1.604	1.554	1.545	0.8651	0.8685	0.8731	0.8763	80- 90	1.268	1869	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): 1823.2 lm

%lum = 97.5%

%lamp = 97.5%

Conical surface Flux(120deg): 1861.8 lm

%lum = 99.6%

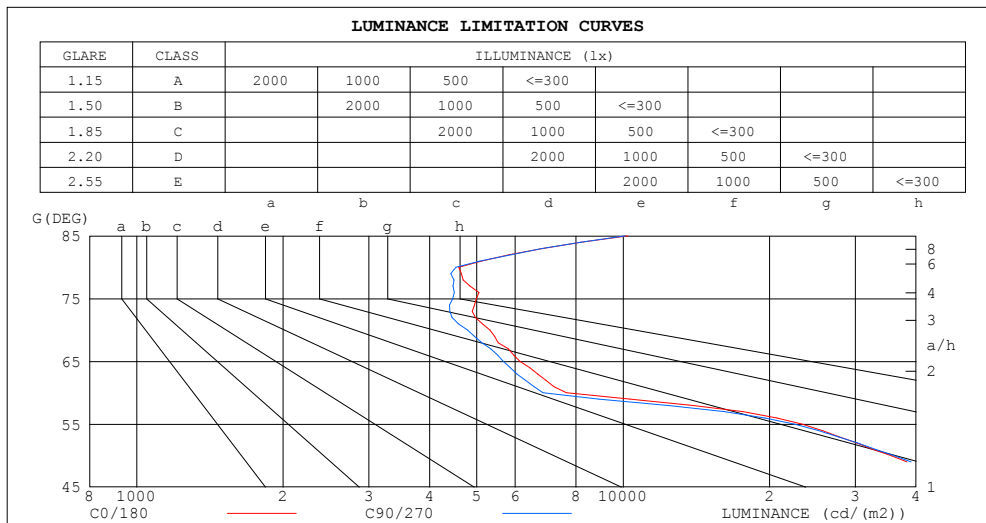
%lamp = 99.6%

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:AE  
 Test Date:2020-10-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:7.240m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:225.0V I:0.1410A P:30.70W PF:0.9620 Freq:0Hz Lamp Flux:1869.32x1 lm		
NAME: ALST85-32G30-M	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:76	Shielding Angle:



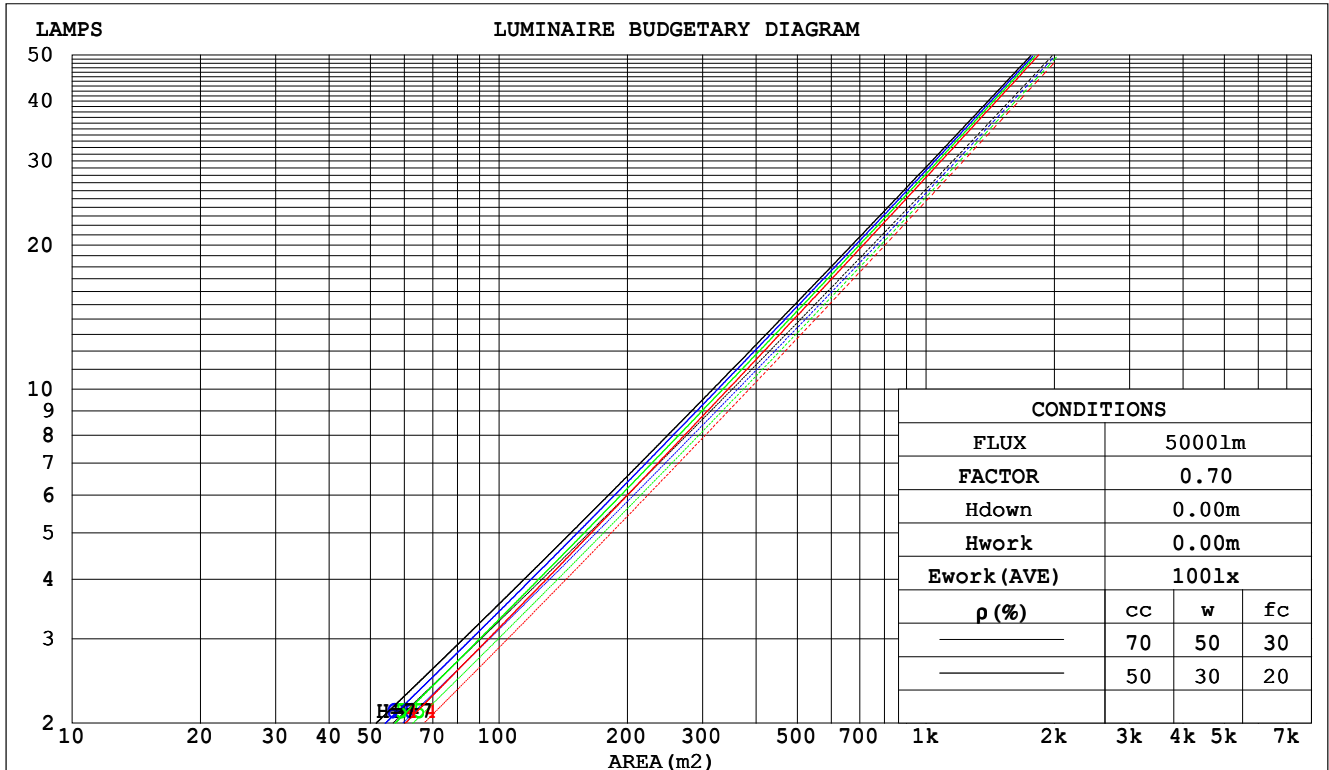
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:AE  
Test Date:2020-10-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:7.240m [K=1.0000]  
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:225.0V I:0.1410A P:30.70W PF:0.9620 Freq:0Hz Lamp Flux:1869.32x1 lm		
NAME: ALST85-32G30-M	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:76	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	.00	1.02	.00	.98	.99	.97	.96	.97	.95	.94	.92
3.0	1.02	.98	.95	1.01	.97	.94	.98	.95	.93	.96	.93	.91	.94	.92	.90	.89
4.0	.98	.93	.90	.97	.93	.90	.95	.91	.89	.93	.90	.88	.91	.89	.87	.85
5.0	.94	.89	.86	.93	.89	.86	.91	.88	.85	.90	.87	.84	.88	.86	.84	.82
6.0	.90	.86	.83	.90	.85	.82	.88	.85	.82	.87	.84	.81	.86	.83	.81	.80
7.0	.87	.83	.80	.86	.82	.79	.85	.82	.79	.84	.81	.79	.83	.80	.78	.77
8.0	.84	.80	.77	.84	.80	.77	.83	.79	.76	.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:2020-10-29

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:7.240m [K=1.0000]  
 Remarks:

### WEC AND CCEC

Test:U:225.0V I:0.1410A P:30.70W PF:0.9620 Freq:0Hz Lamp Flux:1869.32x1 lm					
NAME: ALST85-32G30-M			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:76		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	.144	.082	.026	.137	.078	.025	.125	.072	.023	.113	.065	.021	.103	.060	.019		
2.0	.134	.073	.023	.128	.071	.022	.118	.066	.020	.109	.061	.019	.100	.057	.018		
3.0	.125	.067	.020	.121	.065	.019	.112	.061	.018	.104	.057	.018	.097	.054	.017		
4.0	.118	.061	.018	.114	.060	.018	.106	.056	.017	.100	.054	.016	.093	.051	.015		
5.0	.111	.057	.016	.108	.055	.016	.101	.053	.016	.096	.050	.015	.090	.048	.014		
6.0	.105	.053	.015	.102	.052	.015	.097	.050	.014	.092	.048	.014	.087	.046	.014		
7.0	.100	.049	.014	.097	.048	.014	.093	.047	.013	.088	.045	.013	.084	.044	.013		
8.0	.095	.046	.013	.093	.046	.013	.089	.044	.013	.085	.043	.012	.081	.042	.012		
9.0	.091	.044	.012	.089	.043	.012	.085	.042	.012	.082	.041	.012	.078	.040	.012		
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	.013	
3.0	.137	.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	.056	.068	.052	.040	.039	.030	.024	.013	.010	.008	
6.0	.105	.076	.055	.091	.066	.048	.063	.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	.092	.061	.040	.079	.053	.035	.055	.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:2020-10-29

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:7.240m [K=1.0000]  
Remarks:

## UGR(Unified Glare Rating) Table

Test:U:225.0V I:0.1410A P:30.70W PF:0.9620 Freq:0Hz Lamp Flux:1869.32x1 lm										
NAME: ALST85-32G30-M					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.:76			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	15.4	16.1	15.6	16.2	16.4	15.5	16.2	15.7	16.3	16.5
3H	15.3	15.9	15.5	16.1	16.3	15.4	16.0	15.6	16.2	16.4
4H	15.2	15.8	15.5	16.1	16.3	15.3	15.9	15.6	16.1	16.4
6H	15.2	15.8	15.5	16.0	16.2	15.3	15.8	15.5	16.1	16.3
8H	15.1	15.7	15.4	16.0	16.2	15.2	15.8	15.5	16.0	16.3
12H	15.1	15.7	15.4	15.9	16.2	15.2	15.8	15.5	16.0	16.3
4H 2H	15.2	15.8	15.5	16.0	16.3	15.3	15.9	15.6	16.1	16.4
3H	15.1	15.7	15.4	15.9	16.2	15.2	15.8	15.5	16.0	16.3
4H	15.1	15.6	15.4	15.8	16.1	15.2	15.7	15.5	15.9	16.2
6H	15.0	15.4	15.4	15.8	16.1	15.1	15.5	15.5	15.9	16.2
8H	15.0	15.4	15.4	15.7	16.1	15.1	15.5	15.5	15.8	16.2
12H	15.0	15.4	15.4	15.8	16.1	15.1	15.5	15.5	15.8	16.2
8H 4H	14.9	15.3	15.3	15.7	16.0	15.0	15.4	15.4	15.8	16.1
6H	14.9	15.2	15.3	15.6	16.0	15.0	15.3	15.4	15.7	16.1
8H	14.9	15.2	15.3	15.6	16.0	15.0	15.3	15.4	15.7	16.1
12H	15.0	15.2	15.4	15.7	16.1	15.0	15.3	15.5	15.7	16.2
12H 4H	14.9	15.3	15.3	15.6	16.0	15.0	15.4	15.4	15.7	16.1
6H	14.8	15.1	15.3	15.6	16.0	14.9	15.2	15.4	15.6	16.1
8H	14.9	15.1	15.3	15.6	16.0	14.9	15.2	15.4	15.6	16.1
Variations with the observer position at spacings:										
S = 1.0H	+ 2.3 / - 4.7					+ 2.3 / - 5.0				
1.5H	+ 3.2 / - 3.3					+ 3.2 / - 3.3				
2.0H	+ 4.3 / - 5.6					+ 4.5 / - 5.6				

CIE Pub.117, 1869 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 2.2$ )

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:AE  
Test Date:2020-10-29

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:7.240m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

Test:U:225.0V I:0.1410A P:30.70W PF:0.9620 Freq:0Hz Lamp Flux:1869.32x1 lm		
NAME: ALST85-32G30-M	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:76	Shielding Angle:

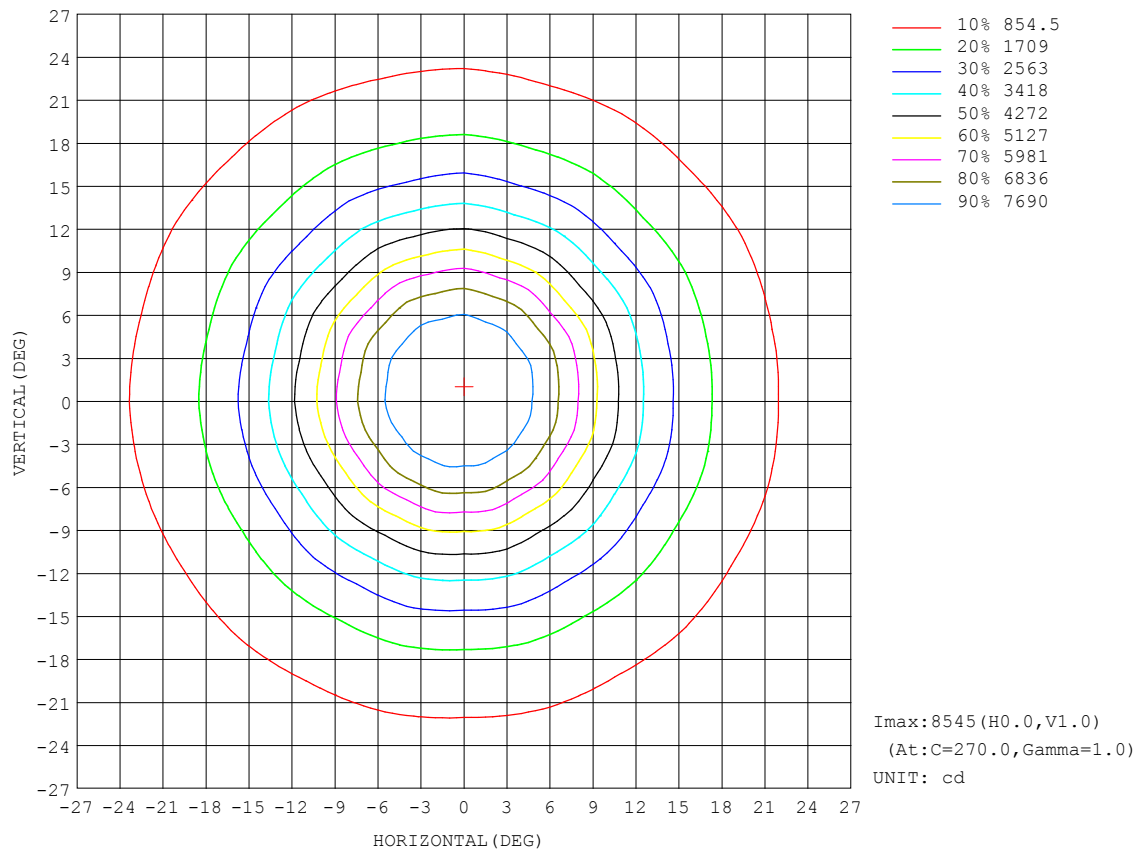
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	79	88	83	79	88	82	79	76
0.80	96	91	87	96	90	87	94	90	87	83
1.00	100	95	92	100	95	91	98	94	91	87
1.25	104	99	96	103	99	96	101	98	95	91
1.50	107	102	99	106	102	99	103	100	98	93
2.00	109	105	102	108	104	101	105	102	100	95
2.50	111	107	104	109	106	103	106	104	101	96
3.00	112	109	106	110	108	105	107	105	103	97
4.00	114	112	109	112	110	108	109	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: HIGH  
Temperature:25.3DEG  
Operators:AE  
Test Date:2020-10-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:7.240m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

Test:U:225.0V I:0.1410A P:30.70W PF:0.9620 Freq:0Hz Lamp Flux:1869.32x1 lm		
NAME: ALST85-32G30-M	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:76	Shielding Angle:

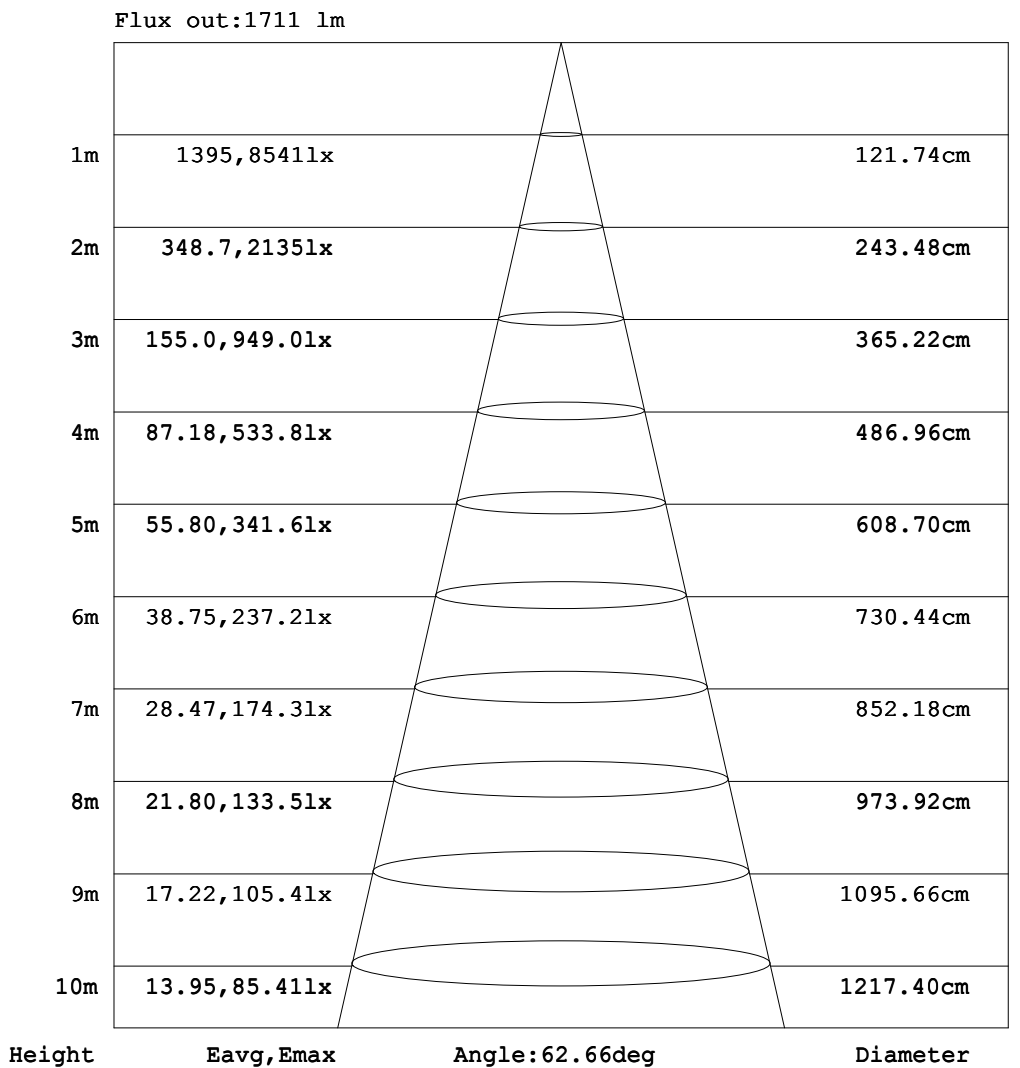


C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:AE  
Test Date:2020-10-29

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:7.240m [K=1.0000]  
Remarks:

### AAI Figure

Test:U:225.0V I:0.1410A P:30.70W PF:0.9620 Freq:0Hz Lamp Flux:1869.32x1 lm		
NAME: ALST85-32G30-M	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:76	Shielding Angle:



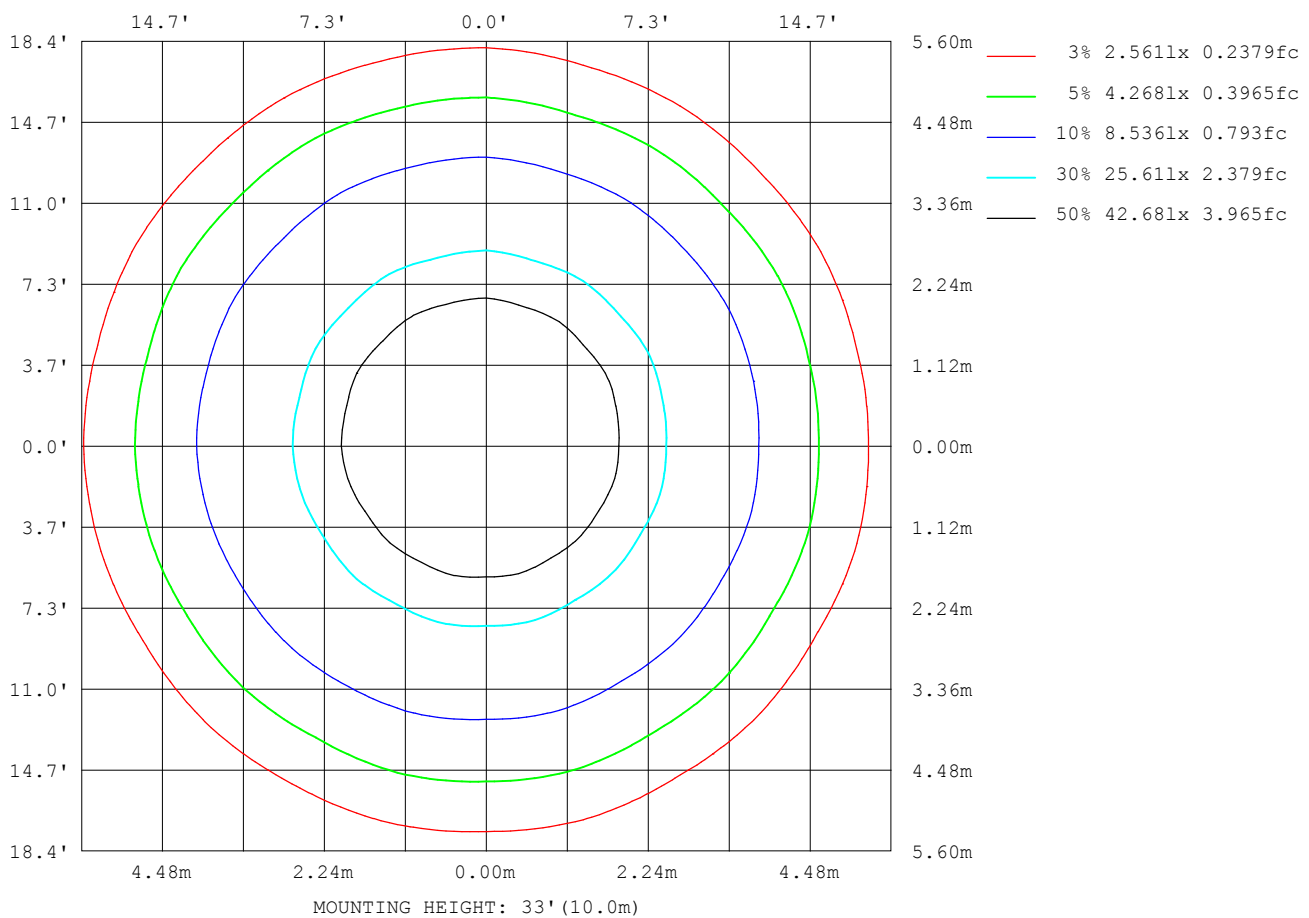
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: AE  
 Test Date: 2020-10-29

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity: 65.0%  
 Test Distance: 7.240m [K=1.0000]  
 Remarks:

## ISOLUX DIAGRAM

Test:U:225.0V I:0.1410A P:30.70W PF:0.9620 Freq:0Hz Lamp Flux:1869.32x1 lm		
NAME: ALST85-32G30-M	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:76	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: AE  
 Test Date: 2020-10-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity: 65.0%  
 Test Distance: 7.240m [K=1.0000]  
 Remarks:

## LED Avg.L Report

Test:U:225.0V I:0.1410A P:30.70W PF:0.9620 Freq:0Hz Lamp Flux:1869.32x1 lm		
NAME: ALST85-32G30-M	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:76	Shielding Angle:

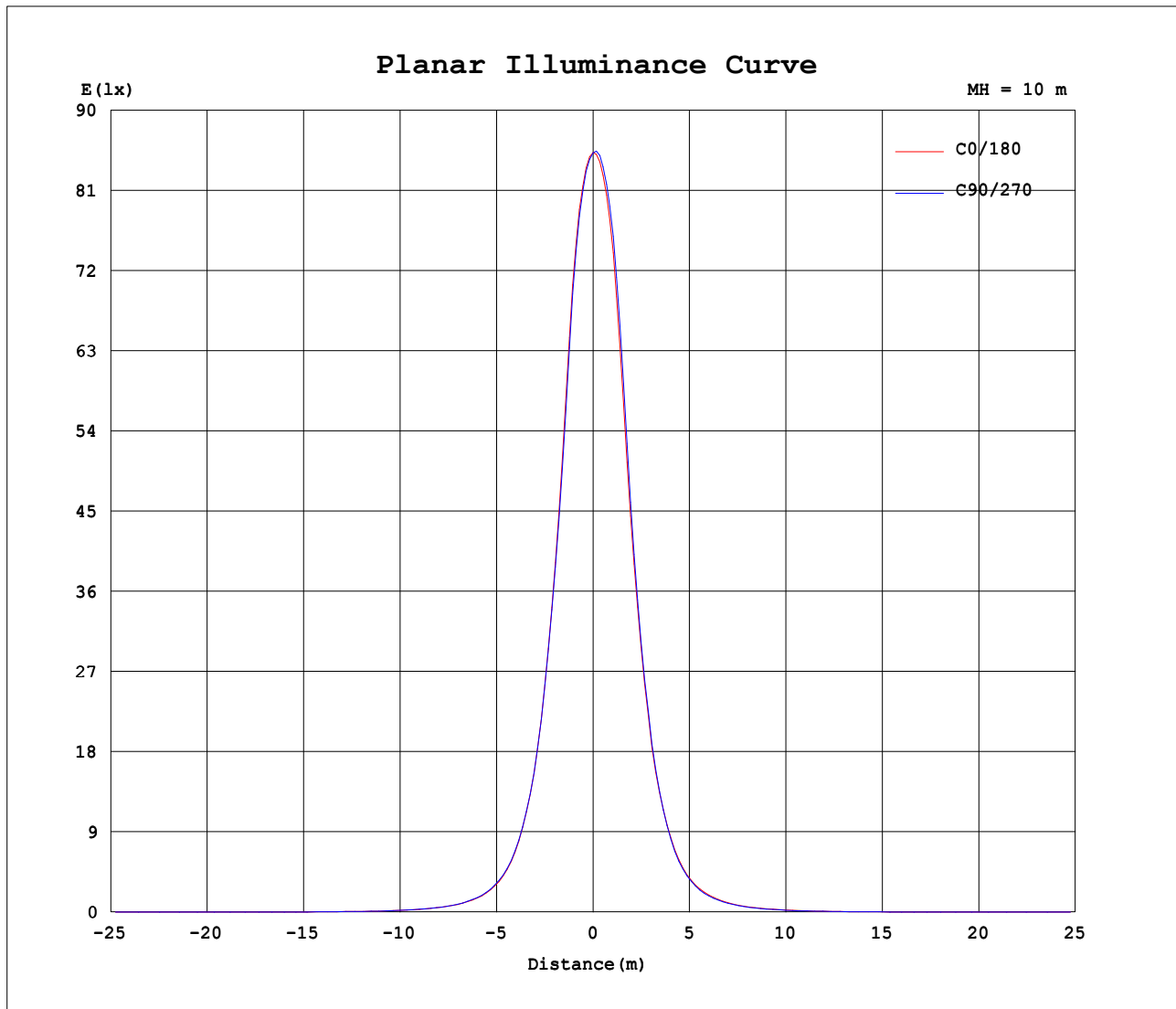
AvgL	cd/m2
L_0~180 (65) av	6578
L_0~180 (75) av	5256
L_0~180 (85) av	8630
L_90~270 (65) av	5928
L_90~270 (75) av	4795
L_90~270 (85) av	8574
L_45 (65) av	6344
L_45 (75) av	5075
L_45 (85) av	8816

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:AE  
Test Date:2020-10-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
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: 2020-10-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
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 V2.0.362
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 V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

```