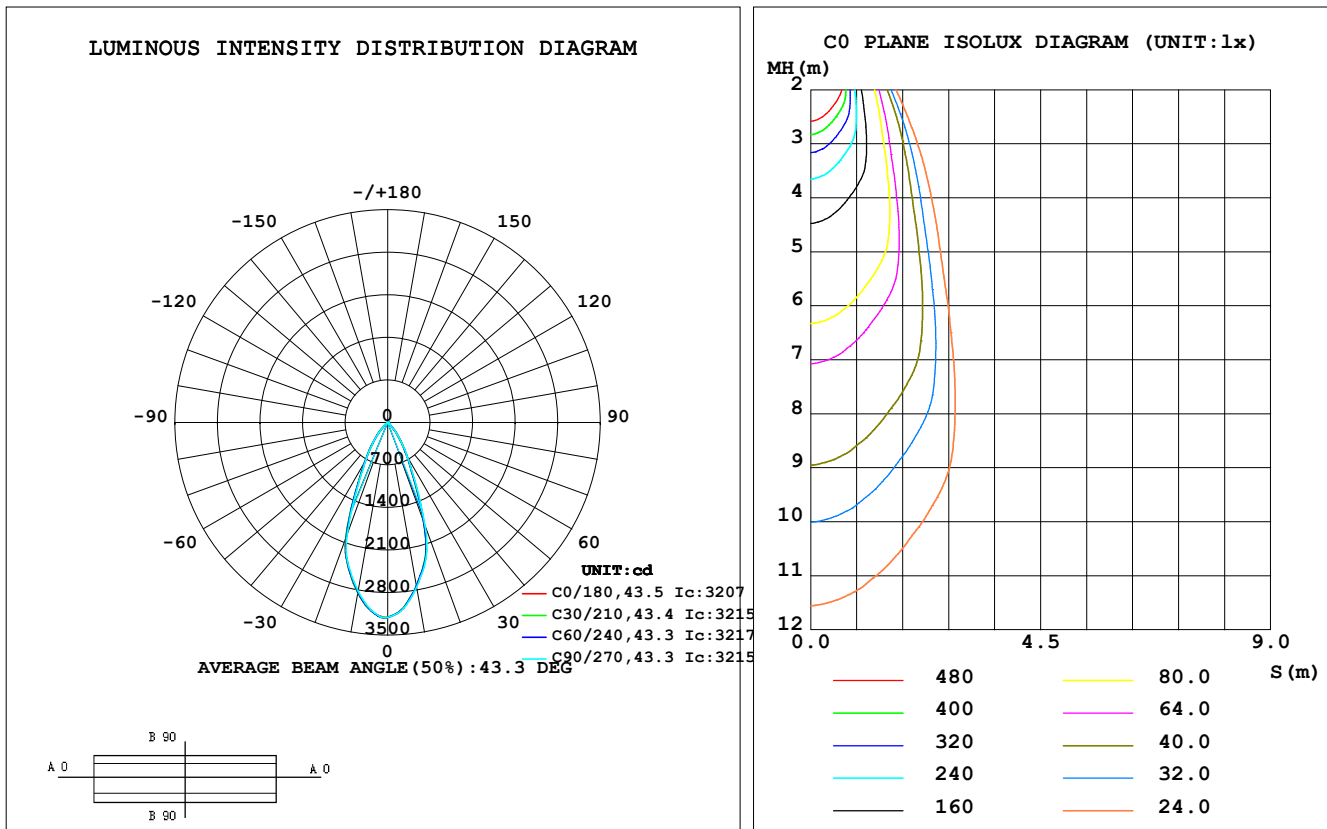


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:225.0V I:0.1410A P:30.60W PF:0.9610 Freq:0Hz Lamp Flux:1856.02x1 lm		
NAME: ALST85-32G30-WF	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:76	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 60.65 lm/W			
MODEL	3000K CRI90	I _{max} (cd)	3218	S/MH (C0/180)	0.69
NOMINAL POWER (W)	32	LOR (%)	100.0	S/MH (C90/270)	0.68
RATED VOLTAGE (V)	220-240	TOTAL FLUX (lm)	1856.0	η UP, DN (C0-180)	0.0, 48.4
NOMINAL FLUX (lm)	1856.02	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 51.6
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	0.65



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:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	2741	2739	2753	2805	2846	2826	2817	2770	0- 10	284.6	284.6	15.3,15.3
20	1747	1747	1794	1936	2018	1979	1940	1825	10- 20	666.3	950.9	51.2,51.2
30	636.2	631.4	639.6	703.2	750.7	757.0	735.1	683.4	20- 30	531.9	1483	79.9,79.9
40	206.4	199.4	208.3	241.4	269.0	269.7	259.9	232.9	30- 40	269.6	1752	94.4,94.4
50	30.13	28.11	28.56	32.72	37.11	37.59	38.43	35.81	40- 50	79.40	1832	98.7,98.7
60	8.275	7.934	7.474	7.555	8.197	8.422	9.414	9.269	50- 60	14.98	1847	99.5,99.5
70	3.648	3.486	3.393	3.360	3.714	3.742	3.860	3.913	60- 70	5.615	1852	99.8,99.8
80	1.160	1.127	1.255	1.169	1.148	1.187	1.171	1.051	70- 80	2.427	1855	99.9,99.9
90	1.585	1.616	1.558	1.503	0.9900	0.9662	0.9981	1.029	80- 90	1.204	1856	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): 1810.3 lm

%lum = 97.5%

%lamp = 97.5%

Conical surface Flux(120deg): 1846.8 lm

%lum = 99.5%

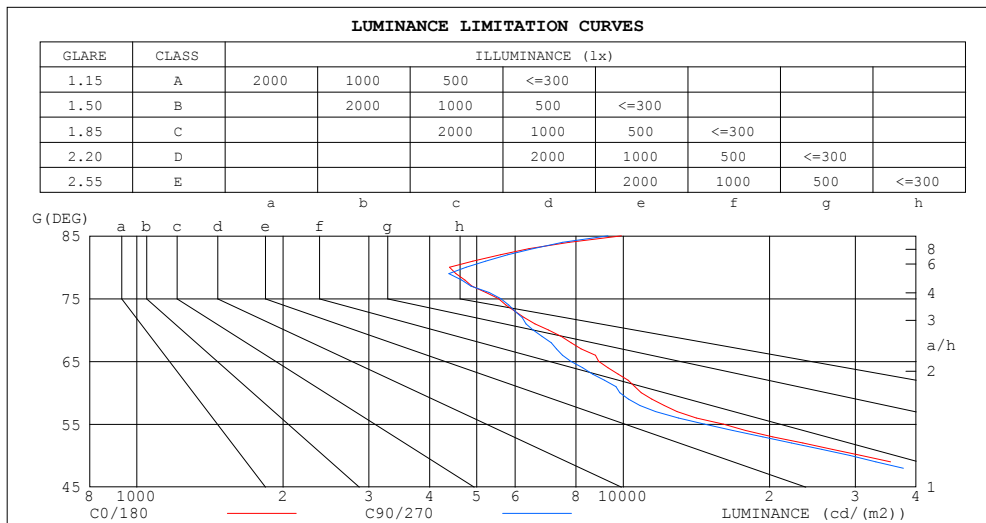
%lamp = 99.5%

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

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:

LUMINANCE LIMITATION CURVES

Test:U:225.0V I:0.1410A P:30.60W PF:0.9610 Freq:0Hz Lamp Flux:1856.02x1 lm		
NAME: ALST85-32G30-WF	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:76	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	9924	9307
80	4397	4757
75	5541	5601
70	7021	6529
65	8902	7805
60	10896	9838
55	16059	14679
50	30859	29241
45	64516	59488

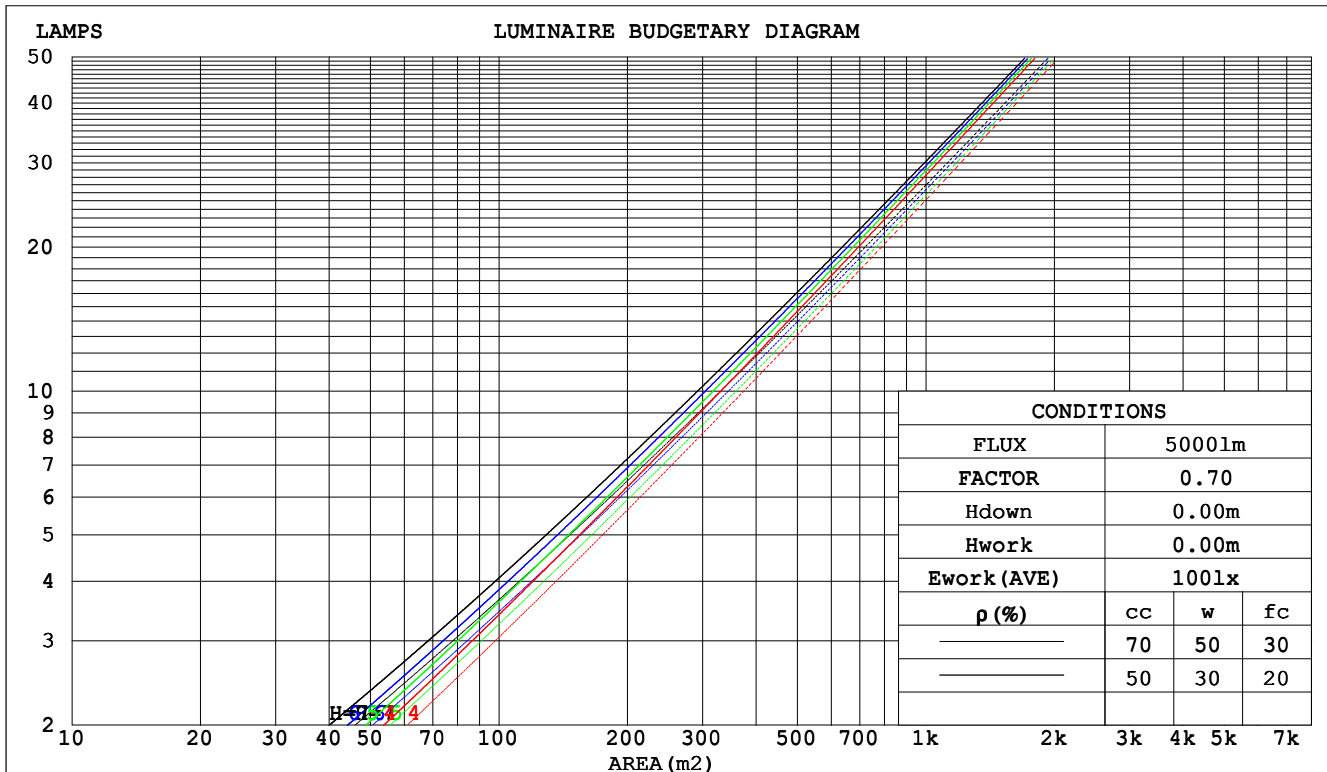
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-10-29

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:225.0V I:0.1410A P:30.60W PF:0.9610 Freq:0Hz Lamp Flux:1856.02x1 lm		
NAME: ALST85-32G30-WF	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	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.04	1.02	1.01	1.00	.99	.98	.97	.96	.94
2.0	1.04	1.01	.97	1.03	.99	.96	.99	.97	.94	.96	.94	.92	.94	.92	.90	.89
3.0	.98	.93	.90	.97	.92	.89	.94	.91	.88	.92	.89	.86	.90	.87	.85	.84
4.0	.92	.87	.83	.91	.87	.83	.89	.85	.82	.87	.84	.81	.85	.83	.80	.79
5.0	.87	.82	.78	.86	.81	.78	.85	.80	.77	.83	.79	.76	.81	.78	.76	.74
6.0	.83	.77	.73	.82	.77	.73	.80	.76	.73	.79	.75	.72	.78	.74	.72	.70
7.0	.78	.73	.69	.78	.73	.69	.77	.72	.69	.75	.71	.68	.74	.71	.68	.67
8.0	.75	.69	.65	.74	.69	.65	.73	.68	.65	.72	.68	.65	.71	.67	.64	.63
9.0	.71	.66	.62	.71	.65	.62	.70	.65	.62	.69	.65	.61	.68	.64	.61	.60
10.0	.68	.62	.59	.67	.62	.59	.67	.62	.59	.66	.62	.59	.65	.61	.58	.57



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:30.60W PF:0.9610 Freq:0Hz Lamp Flux:1856.02x1 lm		
NAME: ALST85-32G30-WF	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	.167	.095	.030	.160	.091	.029	.148	.085	.027	.136	.078	.025	.125	.073	.023		
2.0	.158	.087	.027	.153	.084	.026	.142	.079	.025	.133	.074	.023	.124	.070	.022		
3.0	.150	.080	.024	.145	.078	.023	.137	.074	.022	.128	.070	.022	.121	.067	.021		
4.0	.143	.074	.022	.139	.073	.021	.131	.069	.021	.124	.066	.020	.117	.064	.019		
5.0	.136	.069	.020	.132	.068	.020	.126	.065	.019	.119	.063	.019	.114	.061	.018		
6.0	.129	.065	.019	.126	.064	.018	.121	.062	.018	.115	.060	.018	.110	.058	.017		
7.0	.124	.061	.017	.121	.060	.017	.116	.059	.017	.111	.057	.017	.107	.055	.016		
8.0	.118	.058	.016	.116	.057	.016	.111	.056	.016	.107	.054	.016	.103	.053	.015		
9.0	.113	.055	.015	.111	.054	.015	.107	.053	.015	.103	.052	.015	.100	.051	.015		
10.0	.109	.052	.014	.107	.052	.014	.103	.051	.014	.100	.050	.014	.097	.049	.014		

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	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016	
2.0	.154	.133	.114	.132	.114	.099	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.141	.113	.091	.121	.098	.079	.083	.068	.055	.048	.040	.033	.015	.013	.011	
4.0	.131	.099	.074	.112	.085	.064	.077	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.121	.087	.061	.104	.075	.053	.072	.052	.038	.042	.031	.022	.013	.010	.007	
6.0	.114	.077	.051	.098	.067	.045	.067	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.107	.070	.043	.092	.060	.038	.064	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.101	.063	.037	.087	.055	.033	.060	.039	.023	.035	.023	.014	.011	.007	.005	
9.0	.096	.058	.032	.083	.050	.028	.057	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.091	.054	.028	.079	.046	.025	.055	.033	.018	.032	.019	.010	.010	.006	.003	

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:30.60W PF:0.9610 Freq:0Hz Lamp Flux:1856.02x1 lm											
NAME: ALST85-32G30-WF						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	19.7	20.6	19.9	20.8	20.9	19.7	20.6	19.9	20.7	20.9	
	3H	19.6	20.4	19.8	20.6	20.8	19.5	20.3	19.8	20.5	20.7
	4H	19.5	20.3	19.8	20.5	20.7	19.5	20.2	19.7	20.4	20.7
	6H	19.4	20.1	19.7	20.4	20.6	19.4	20.1	19.7	20.3	20.6
	8H	19.4	20.1	19.7	20.3	20.6	19.4	20.0	19.7	20.3	20.6
	12H	19.4	20.0	19.7	20.3	20.6	19.3	20.0	19.6	20.2	20.5
4H	2H	19.5	20.3	19.8	20.5	20.7	19.5	20.2	19.7	20.4	20.7
	3H	19.4	20.0	19.7	20.3	20.6	19.3	20.0	19.6	20.2	20.5
	4H	19.3	19.9	19.6	20.2	20.5	19.2	19.8	19.6	20.1	20.4
	6H	19.2	19.7	19.6	20.1	20.4	19.2	19.7	19.5	20.0	20.4
	8H	19.2	19.6	19.5	20.0	20.4	19.1	19.6	19.5	20.0	20.3
	12H	19.1	19.6	19.5	19.9	20.3	19.1	19.5	19.5	19.9	20.3
8H	4H	19.1	19.6	19.5	20.0	20.3	19.1	19.6	19.5	19.9	20.3
	6H	19.1	19.5	19.5	19.9	20.3	19.0	19.4	19.4	19.8	20.2
	8H	19.0	19.4	19.5	19.8	20.2	19.0	19.3	19.4	19.7	20.2
	12H	19.0	19.3	19.5	19.7	20.2	19.0	19.3	19.4	19.7	20.2
12H	4H	19.1	19.5	19.5	19.9	20.3	19.1	19.5	19.5	19.9	20.3
	6H	19.0	19.4	19.5	19.8	20.2	19.0	19.3	19.4	19.7	20.2
	8H	19.0	19.3	19.4	19.7	20.2	18.9	19.2	19.4	19.7	20.1
Variations with the observer position at spacings:											
S = 1.0H	+ 3.3 / - 9.5					+ 3.3 / - 9.7					
1.5H	+ 5.6 / - 8.7					+ 5.6 / - 8.8					
2.0H	+ 5.8 / - 3.7					+ 5.5 / - 3.7					

CIE Pub.117, 1856 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.1)

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:30.60W PF:0.9610 Freq:0Hz Lamp Flux:1856.02x1 lm		
NAME: ALST85-32G30-WF	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:76	Shielding Angle:

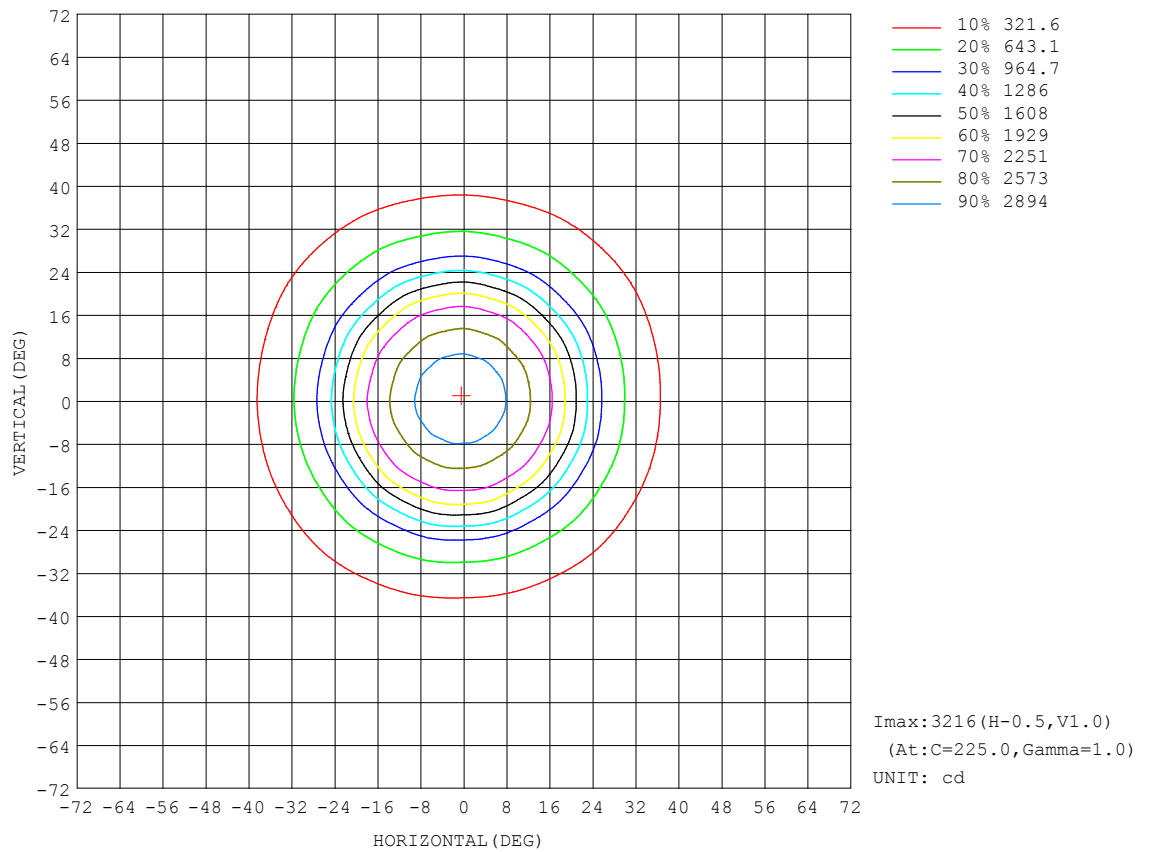
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	78	88	82	78	87	81	78	74
0.80	95	90	86	95	89	86	94	89	86	82
1.00	100	94	91	99	94	91	97	94	90	86
1.25	104	99	95	103	98	95	101	97	94	90
1.50	106	102	99	105	101	98	103	100	97	93
2.00	109	105	102	107	104	101	105	102	99	94
2.50	111	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	96
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: 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:

ISOCANDELA DIAGRAM

Test:U:225.0V I:0.1410A P:30.60W PF:0.9610 Freq:0Hz Lamp Flux:1856.02x1 lm		
NAME: ALST85-32G30-WF	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:76	Shielding Angle:

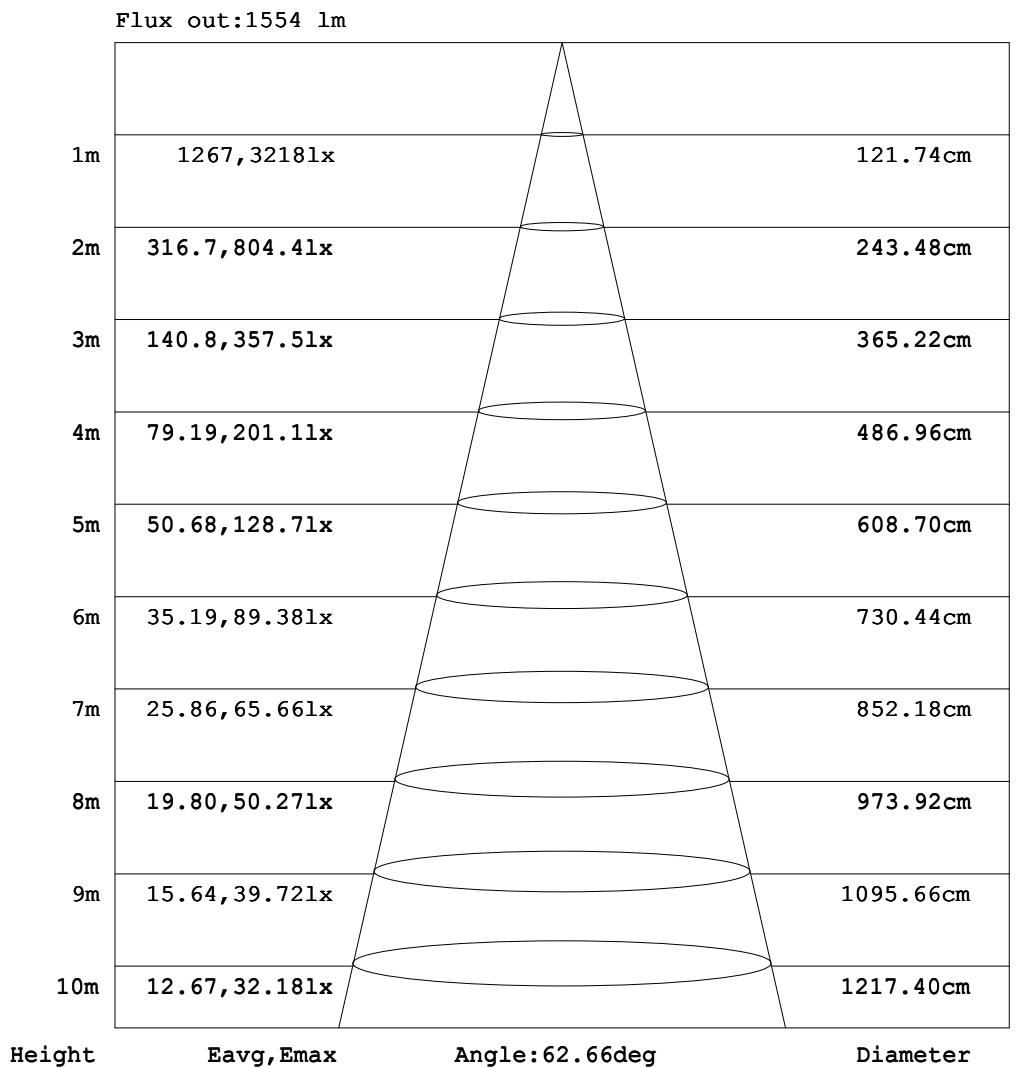


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-10-29

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:30.60W PF:0.9610 Freq:0Hz Lamp Flux:1856.02x1 lm		
NAME: ALST85-32G30-WF	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:76	Shielding Angle:



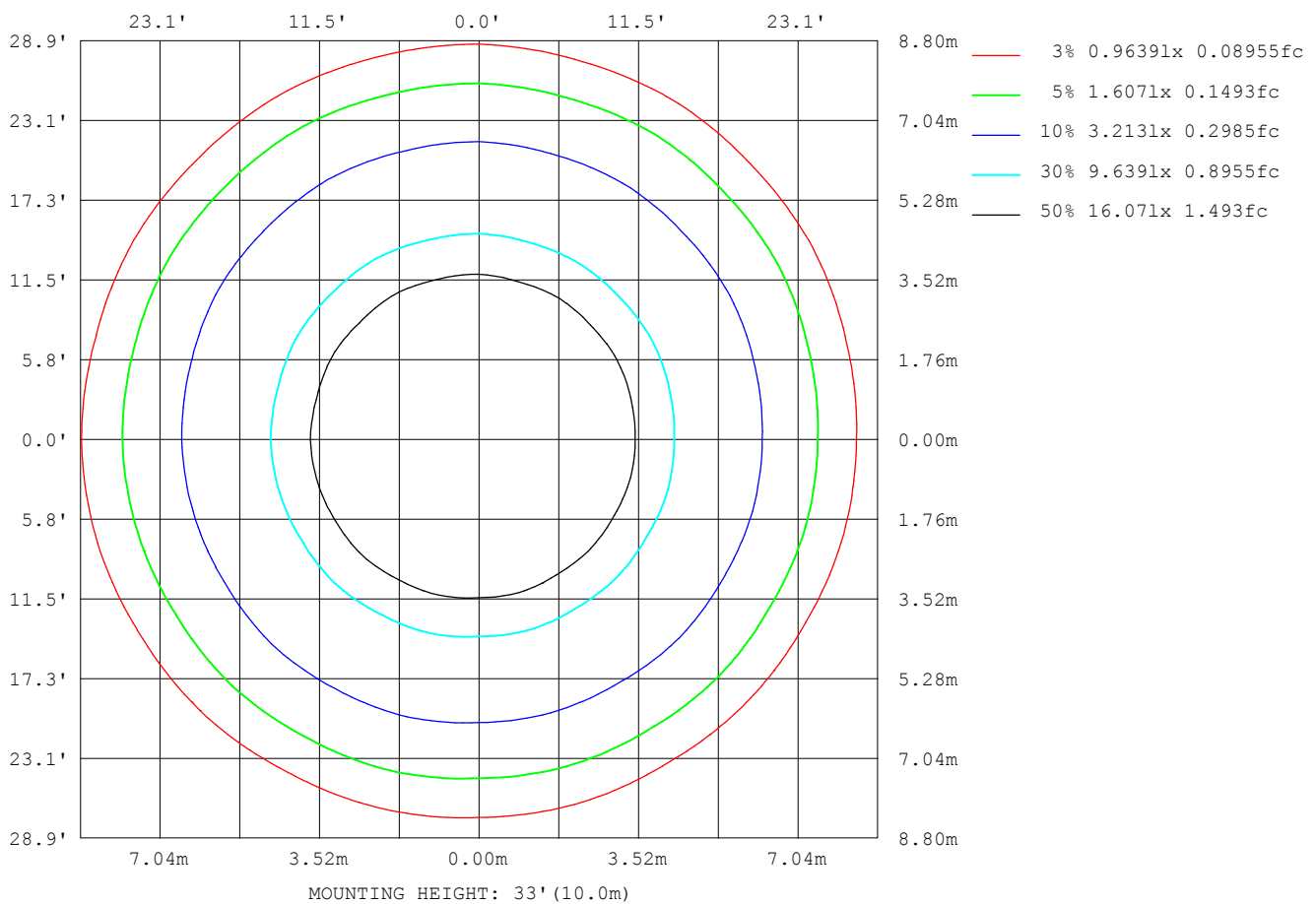
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:30.60W PF:0.9610 Freq:0Hz Lamp Flux:1856.02x1 lm		
NAME: ALST85-32G30-WF	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:

LED Avg.L Report

Test:U:225.0V I:0.1410A P:30.60W PF:0.9610 Freq:0Hz Lamp Flux:1856.02x1 lm		
NAME: ALST85-32G30-WF	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:76	Shielding Angle:

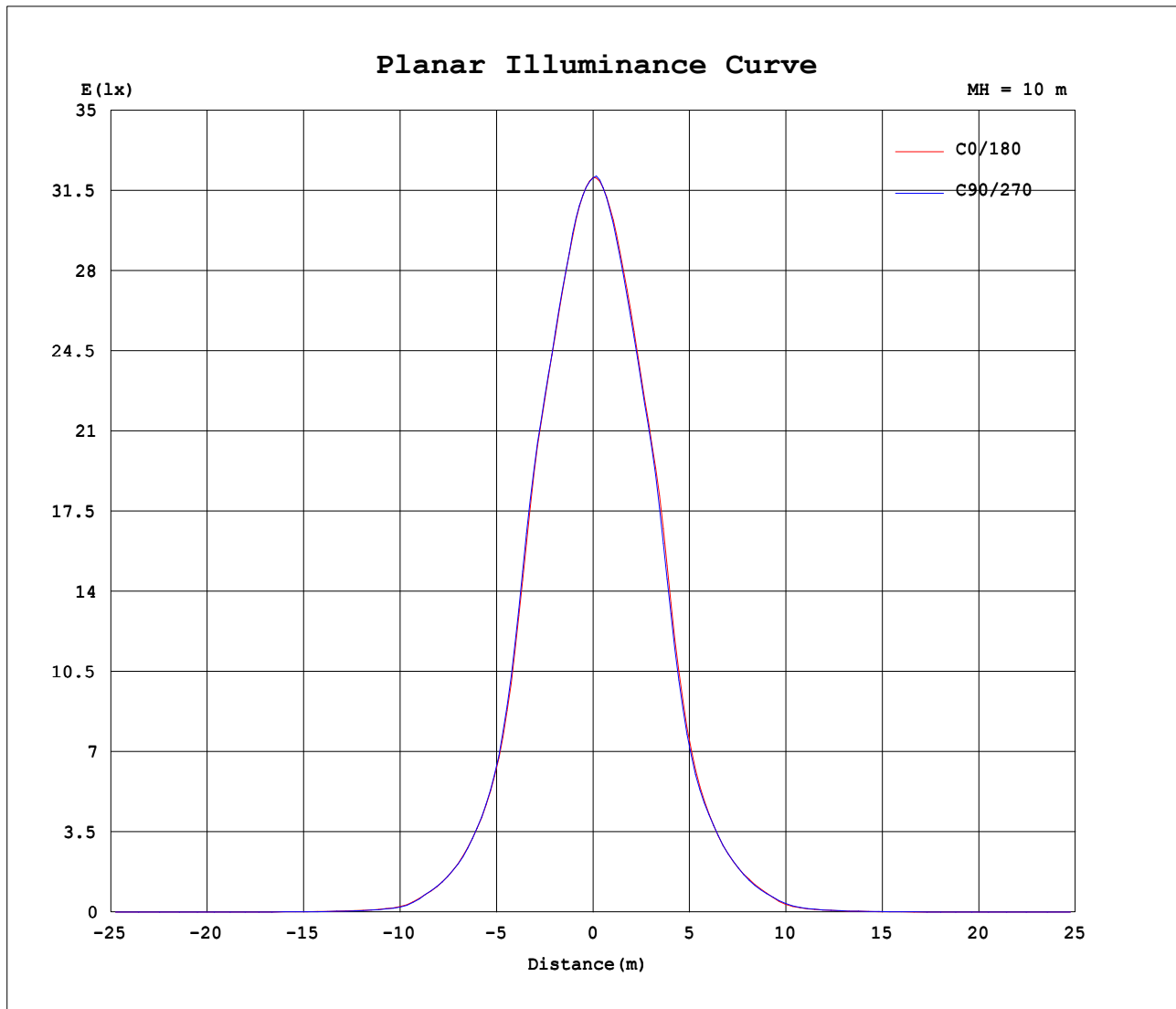
AvgL	cd/m2
L_0~180 (65) av	8754
L_0~180 (75) av	5868
L_0~180 (85) av	8377
L_90~270 (65) av	8548
L_90~270 (75) av	5874
L_90~270 (85) av	7996
L_45 (65) av	8554
L_45 (75) av	5776
L_45 (85) av	8139

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

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:

Planar Illuminance Curve



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:

```

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:

```