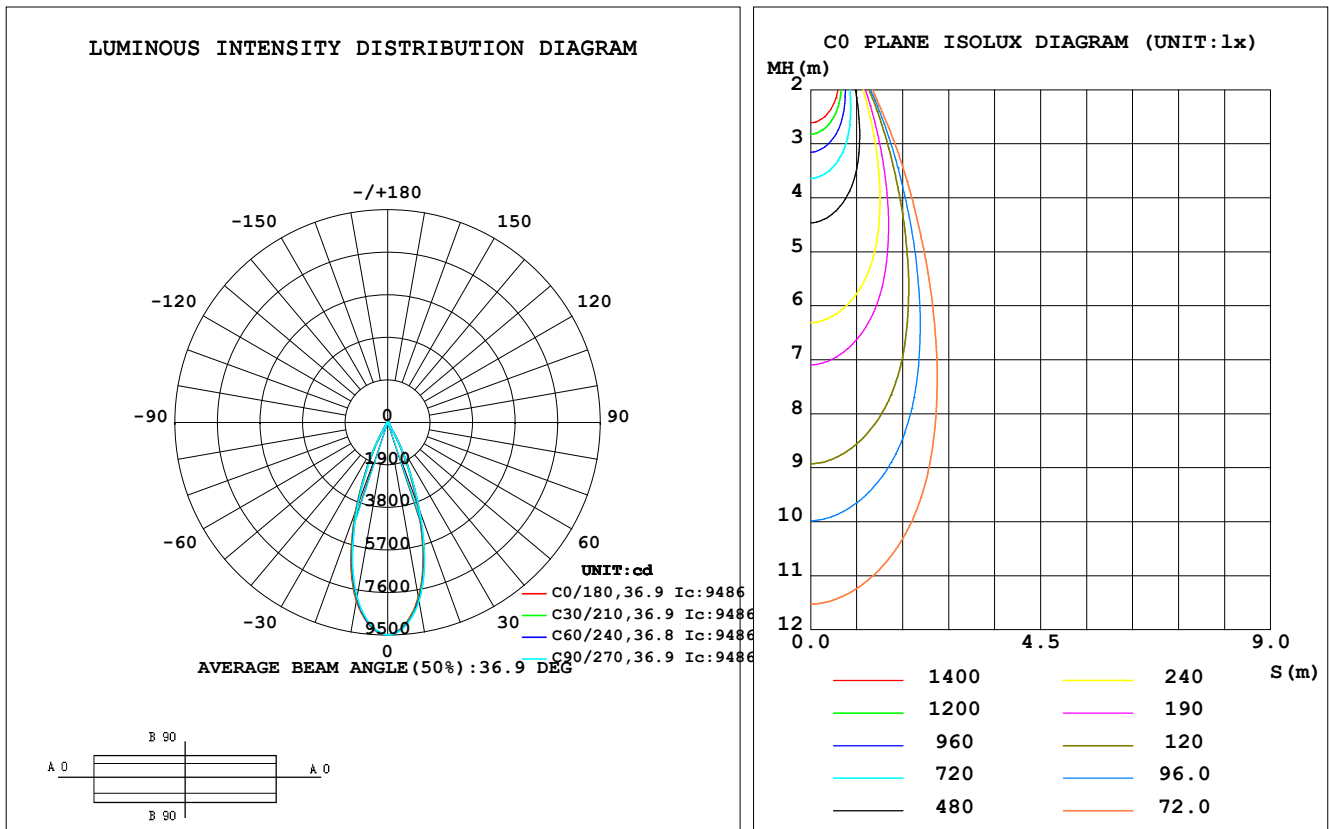


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:3741.92x1 lm		
NAME: ALT85Z-40G30-Z2-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 93.78 lm/W			
MODEL	3000K CRI90	I _{max} (cd)	9494	S/MH (C0/180)	0.59
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH (C90/270)	0.58
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	3741.9	η UP,DN(C0-180)	0.0,51.2
NOMINAL FLUX(lm)	3741.92	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,48.8
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	225.2	η down(%)	100.0	CIBSE SHR MAX	0.60



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: AE
 Test Date: 2020-06-01

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:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	7917	8054	8092	8259	8076	7928	7905	7729	0- 10	832.2	832.2	22.2,22.2
20	3926	4147	4177	4456	4180	3960	3947	3657	10- 20	1684	2516	67.3,67.3
30	664.7	755.0	718.8	858.0	723.2	671.8	669.2	566.1	20- 30	961.3	3478	92.9,92.9
40	103.9	105.8	101.8	110.2	100.9	102.2	104.5	97.38	30- 40	141.4	3619	96.7,96.7
50	64.49	65.51	60.54	68.33	61.36	63.10	67.08	59.21	40- 50	64.32	3684	98.4,98.4
60	23.64	24.56	23.13	25.60	24.46	24.05	25.58	23.28	50- 60	39.21	3723	99.5,99.5
70	5.664	5.918	5.293	6.218	6.076	5.709	6.383	5.464	60- 70	13.22	3736	99.8,99.8
80	2.523	2.502	2.469	2.456	2.183	2.213	2.160	2.199	70- 80	3.188	3739	99.9,99.9
90	3.343	3.332	3.303	3.267	2.166	2.170	2.156	2.148	80- 90	2.739	3742	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): 3653.9 lm

%lum = 97.6%

%lamp = 97.6%

Conical surface Flux(120deg): 3722.8 lm

%lum = 99.5%

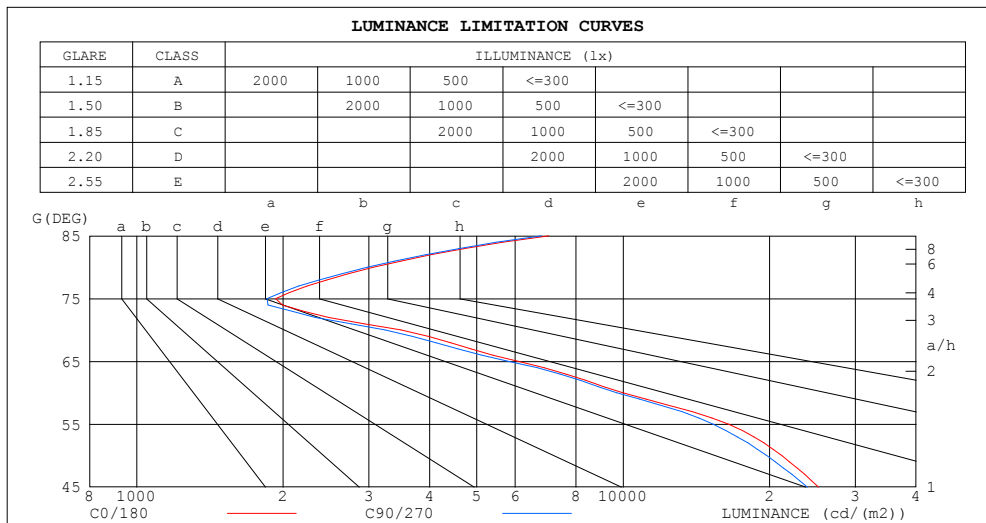
%lamp = 99.5%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2020-06-01

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:

LUMINANCE LIMITATION CURVES

Test:U:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:3741.92x1 lm		
NAME: ALT85Z-40G30-Z2-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	7030	6786
80	3067	2977
75	1931	1854
70	3496	3241
65	6084	5809
60	9982	9687
55	16439	15302
50	21177	19725
45	25209	23915

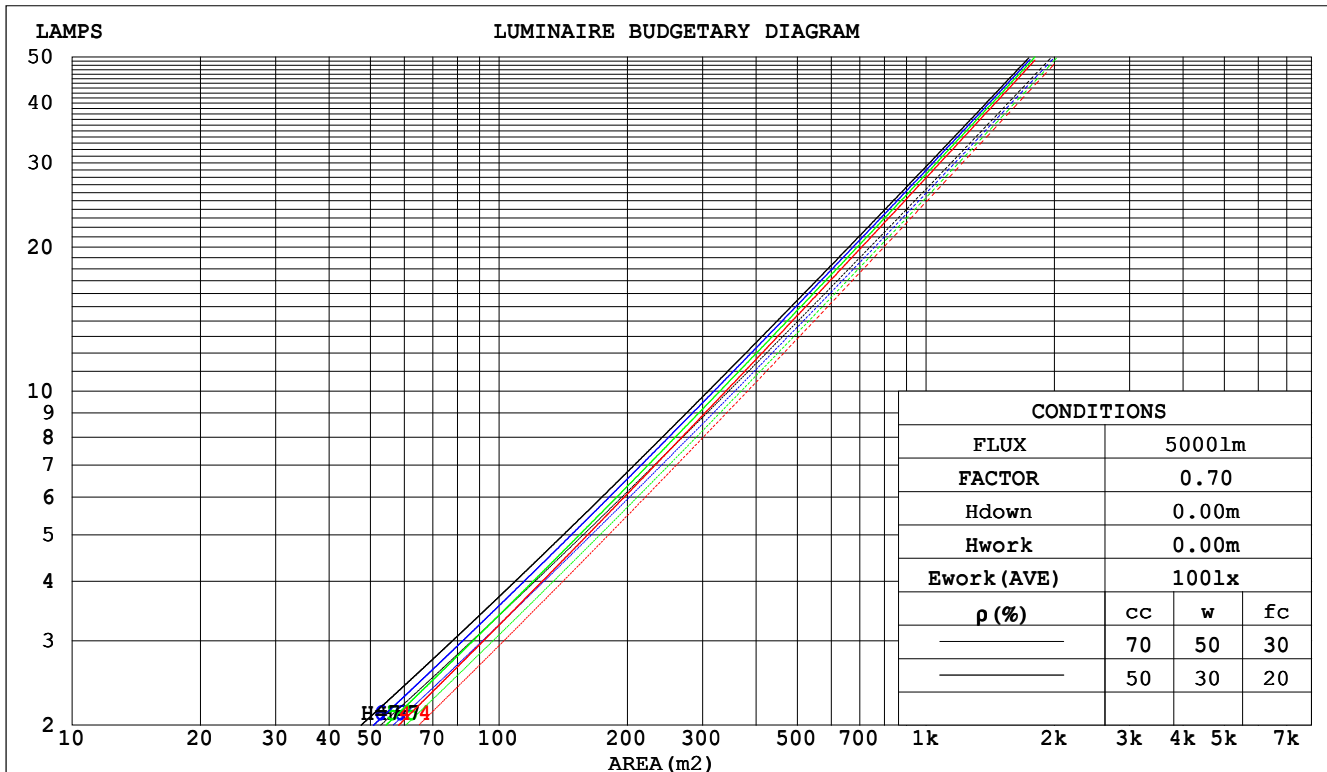
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-06-01

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:3741.92x1 lm		
NAME: ALT85Z-40G30-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	1.12	1.10	1.08	1.10	1.08	1.06	1.06	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.95
2.0	1.06	1.03	.90	1.04	1.01	.99	1.01	.99	.97	.98	.96	.95	.96	.94	.93	.91
3.0	1.01	.97	.93	.99	.96	.93	.97	.94	.91	.95	.92	.90	.92	.90	.88	.87
4.0	.96	.91	.88	.95	.91	.88	.93	.89	.87	.91	.88	.86	.89	.87	.85	.83
5.0	.92	.87	.83	.91	.86	.83	.89	.85	.82	.87	.84	.82	.86	.83	.81	.80
6.0	.88	.83	.79	.87	.82	.79	.86	.82	.79	.84	.81	.78	.83	.80	.78	.77
7.0	.84	.79	.76	.83	.79	.76	.82	.78	.75	.81	.78	.75	.80	.77	.75	.74
8.0	.81	.76	.73	.80	.76	.73	.79	.75	.72	.78	.75	.72	.78	.74	.72	.71
9.0	.78	.73	.70	.77	.73	.70	.76	.72	.70	.76	.72	.69	.75	.72	.69	.68
10.0	.75	.70	.67	.75	.70	.67	.74	.70	.67	.73	.69	.67	.73	.69	.67	.66



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2020-06-01

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:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:3741.92x1 lm					
NAME: ALT85Z-40G30-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	.152	.086	.027	.145	.083	.026	.133	.076	.024	.121	.070	.022	.110	.064	.021	
2.0	.142	.078	.024	.136	.075	.023	.126	.070	.022	.117	.065	.020	.108	.061	.019	
3.0	.133	.071	.021	.129	.069	.021	.120	.065	.020	.112	.061	.019	.104	.058	.018	
4.0	.126	.065	.019	.122	.064	.019	.114	.061	.018	.108	.058	.017	.101	.055	.017	
5.0	.119	.061	.018	.116	.059	.017	.109	.057	.017	.103	.055	.016	.098	.052	.016	
6.0	.113	.057	.016	.110	.056	.016	.105	.054	.016	.100	.052	.015	.095	.050	.015	
7.0	.108	.053	.015	.105	.052	.015	.100	.051	.015	.096	.049	.014	.092	.048	.014	
8.0	.103	.050	.014	.101	.050	.014	.097	.048	.014	.093	.047	.014	.089	.046	.013	
9.0	.099	.048	.013	.097	.047	.013	.093	.046	.013	.089	.045	.013	.086	.044	.013	
10.0	.095	.045	.013	.093	.045	.013	.090	.044	.012	.086	.043	.012	.083	.042	.012	

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	.147	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.152	.133	.116	.130	.114	.100	.089	.079	.070	.052	.046	.041	.017	.015	.013	
3.0	.138	.113	.094	.118	.098	.081	.081	.068	.057	.047	.040	.034	.015	.013	.011	
4.0	.126	.098	.077	.108	.085	.067	.075	.059	.047	.043	.035	.028	.014	.011	.009	
5.0	.117	.086	.064	.100	.075	.055	.069	.052	.039	.040	.031	.023	.013	.010	.008	
6.0	.108	.076	.054	.093	.066	.047	.064	.046	.033	.037	.027	.020	.012	.009	.006	
7.0	.101	.068	.046	.087	.059	.040	.060	.042	.028	.035	.025	.017	.011	.008	.006	
8.0	.095	.062	.039	.082	.054	.034	.057	.038	.024	.033	.022	.014	.011	.007	.005	
9.0	.090	.056	.034	.077	.049	.030	.053	.034	.021	.031	.020	.013	.010	.007	.004	
10.0	.085	.052	.030	.073	.045	.026	.051	.032	.019	.030	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-06-01

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:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:3741.92x1 lm											
NAME: ALT85Z-40G30-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	9.9	10.6	10.1	10.8	11.0	9.7	10.5	9.9	10.6	10.8	
	3H	9.9	10.6	10.1	10.8	11.0	9.7	10.4	10.0	10.6	10.8
	4H	9.8	10.5	10.1	10.7	10.9	9.7	10.3	9.9	10.5	10.7
	6H	9.8	10.4	10.1	10.6	10.9	9.6	10.2	9.9	10.5	10.7
	8H	9.8	10.4	10.1	10.6	10.9	9.6	10.2	9.9	10.4	10.7
	12H	9.8	10.4	10.1	10.6	10.9	9.6	10.2	9.9	10.5	10.7
4H	2H	9.9	10.5	10.1	10.7	11.0	9.7	10.4	10.0	10.6	10.8
	3H	9.9	10.5	10.2	10.7	11.0	9.7	10.3	10.0	10.6	10.8
	4H	9.8	10.3	10.1	10.6	10.9	9.7	10.2	10.0	10.5	10.8
	6H	9.8	10.2	10.1	10.6	10.9	9.6	10.1	10.0	10.4	10.8
	8H	9.8	10.2	10.2	10.6	10.9	9.6	10.1	10.0	10.4	10.8
	12H	9.8	10.2	10.2	10.6	11.0	9.7	10.1	10.1	10.5	10.8
8H	4H	9.7	10.1	10.1	10.5	10.8	9.5	10.0	9.9	10.3	10.7
	6H	9.7	10.0	10.1	10.4	10.8	9.5	9.9	9.9	10.3	10.7
	8H	9.7	10.0	10.2	10.4	10.9	9.6	9.9	10.0	10.3	10.7
	12H	9.8	10.1	10.3	10.6	11.0	9.7	10.0	10.2	10.4	10.9
12H	4H	9.6	10.0	10.0	10.4	10.8	9.5	9.9	9.9	10.3	10.6
	6H	9.6	9.9	10.1	10.4	10.8	9.5	9.8	9.9	10.2	10.7
	8H	9.7	10.0	10.2	10.4	10.9	9.5	9.8	10.0	10.3	10.7
Variations with the observer position at spacings:											
S = 1.0H	+ 1.0 / - 1.5					+ 1.0 / - 1.6					
1.5H	+ 0.5 / - 0.6					+ 0.4 / - 0.6					
2.0H	+ 2.3 / - 3.5					+ 2.2 / - 3.2					

CIE Pub.117, 3742 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 4.6$)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-06-01

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:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:3741.92x1 lm		
NAME: ALT85Z-40G30-Z2-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:

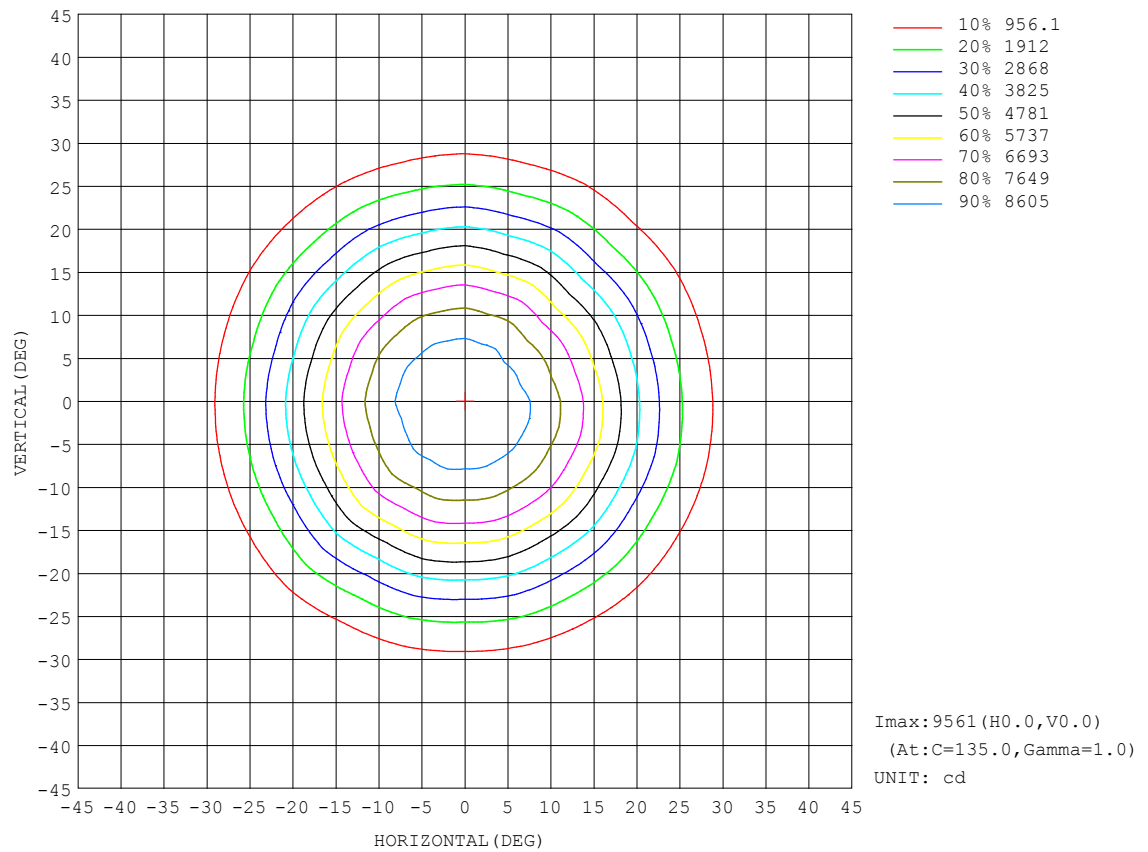
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	80	89	83	80	88	83	80	76
0.80	97	91	88	96	91	88	95	90	87	84
1.00	101	95	92	100	95	92	98	95	91	88
1.25	104	100	96	103	99	96	101	98	95	91
1.50	107	102	99	106	102	99	104	100	98	94
2.00	109	105	102	108	104	102	105	102	100	95
2.50	111	107	104	109	106	104	106	104	102	96
3.00	112	109	107	111	108	105	107	105	103	97
4.00	114	112	110	112	110	108	109	107	105	98
5.00	115	113	112	113	112	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:2020-06-01

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:

ISOCANDELA DIAGRAM

Test:U:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:3741.92x1 lm		
NAME: ALT85Z-40G30-Z2-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:

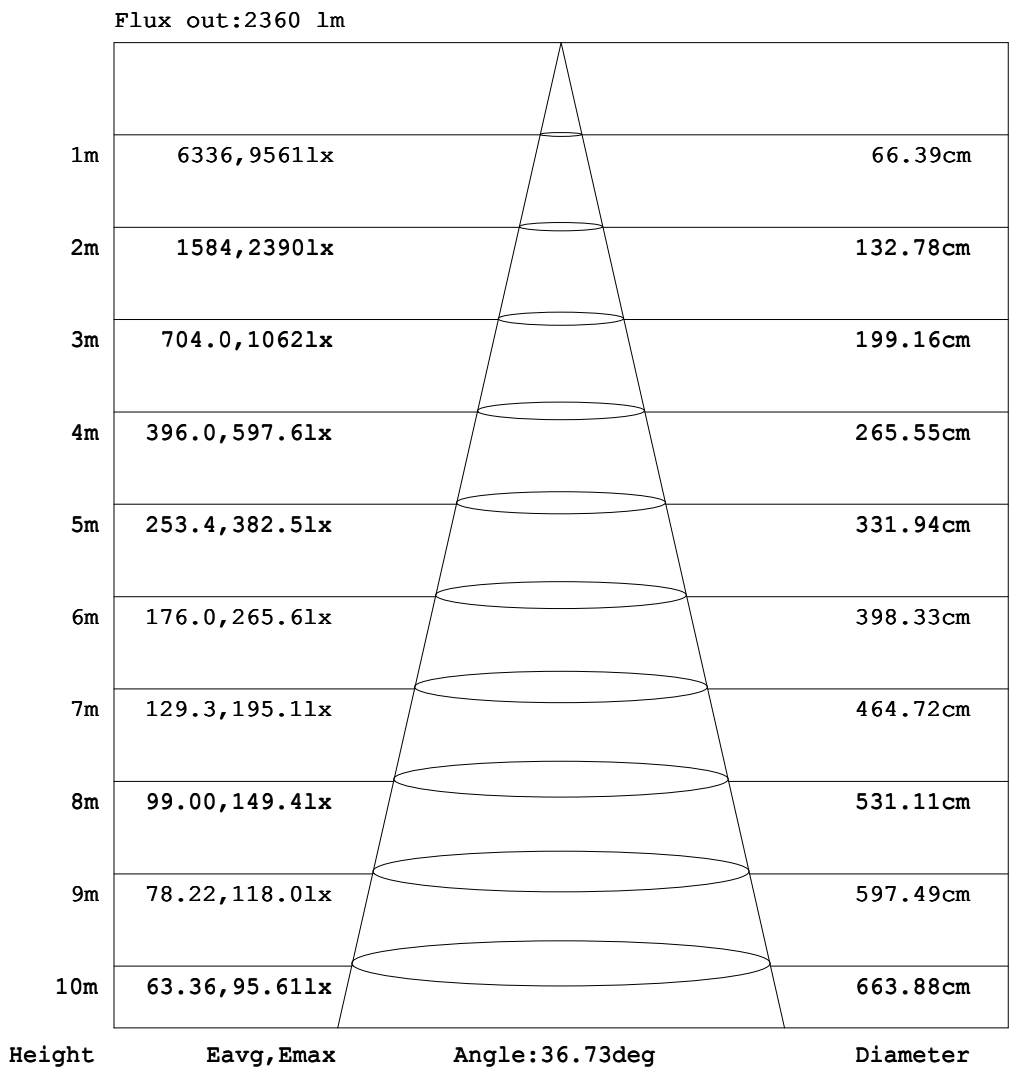


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-06-01

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:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:3741.92x1 lm		
NAME: ALT85Z-40G30-Z2-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:



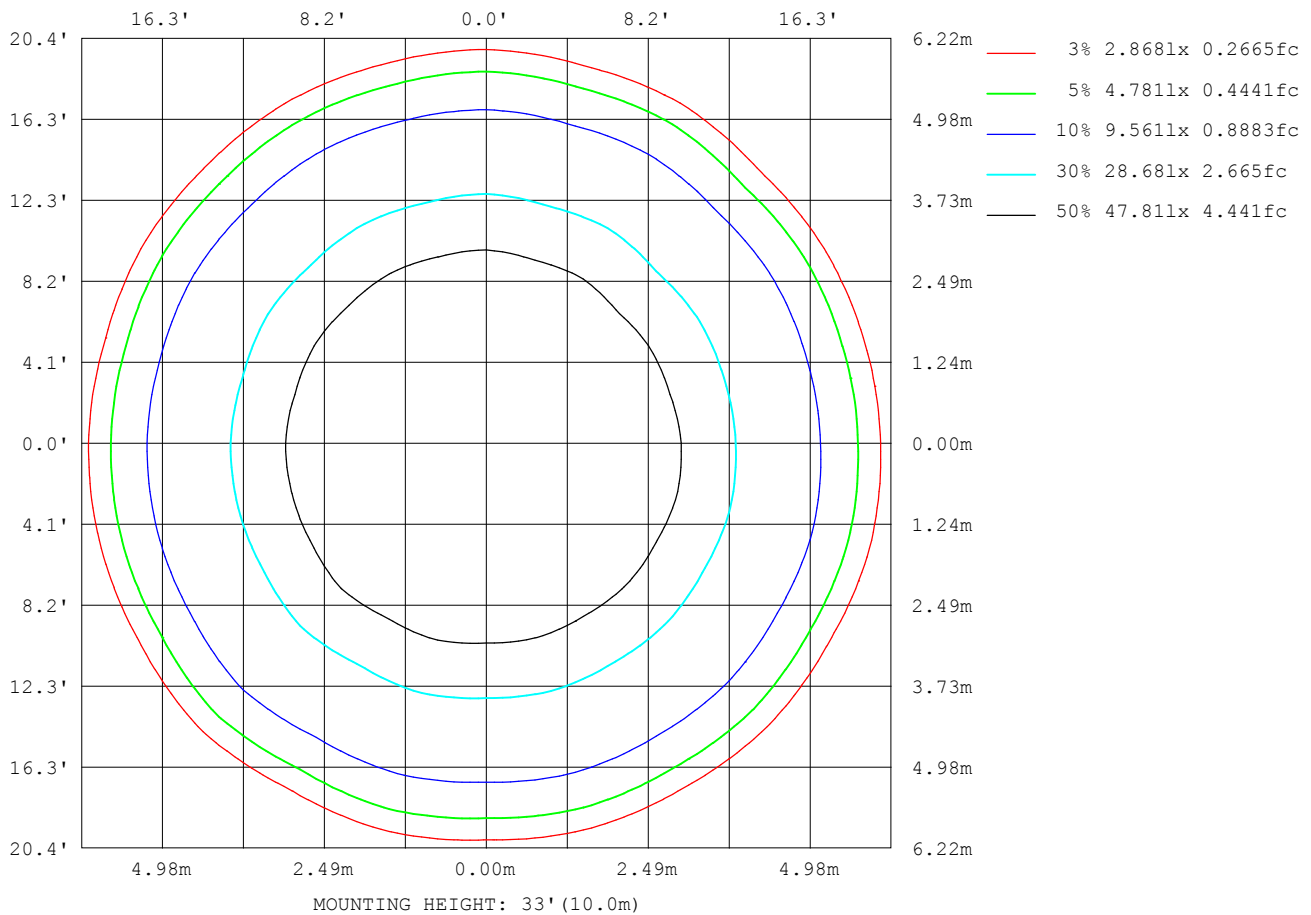
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-06-01

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:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:3741.92x1 lm		
NAME: ALT85Z-40G30-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:2020-06-01

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:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:3741.92x1 lm		
NAME: ALT85Z-40G30-Z2-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:

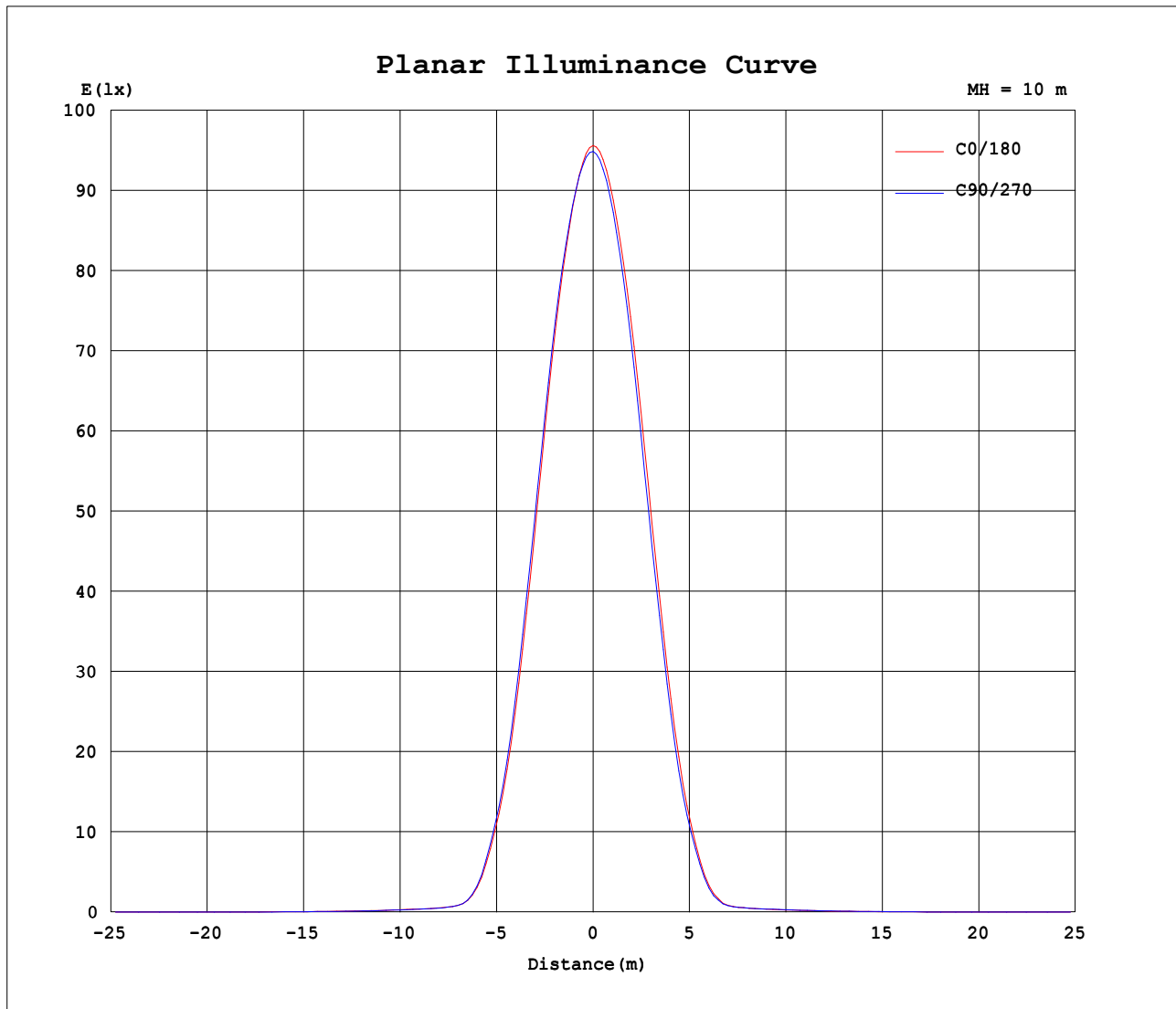
AvgL	cd/m2
L_0~180 (65) av	6152
L_0~180 (75) av	1881
L_0~180 (85) av	6090
L_90~270 (65) av	6232
L_90~270 (75) av	1856
L_90~270 (85) av	5968
L_45 (65) av	6251
L_45 (75) av	1877
L_45 (85) av	5994

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-06-01

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: 2020-06-01

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]
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