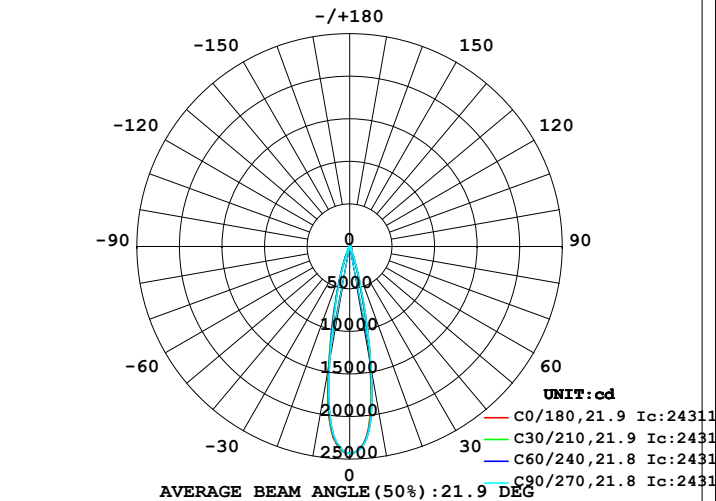


LUMINAIRE PHOTOMETRIC TEST REPORT

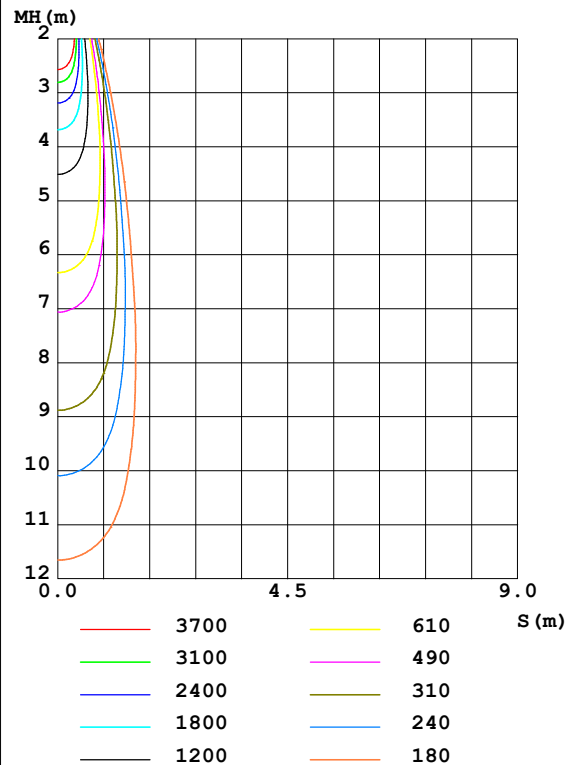
Test:U:225.1V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4040.02x1 lm					
NAME: ALT85Z-40G30-Z1-Min		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.:		SUR.:78		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 101.25 lm/W
MODEL	3000K CRI90	I _{max} (cd)	24311	S/MH(C0/180)	0.37	
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	0.36	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	4040.0	η UP,DN(C0-180)	0.0,50.4	
NOMINAL FLUX(lm)	4040.02	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.6	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.00	
TEST VOLTAGE(V)	225.1	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: 2020-05-28

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	1383	1456	1461	1482	1445	1366	1356	1330	0- 10	1877	1877	46.5, 46.5
20	146.9	151.3	168.3	213.5	220.0	211.1	203.3	166.7	10- 20	1648	3526	87.3, 87.3
30	23.86	25.85	26.40	26.12	25.03	25.80	24.01	23.77	20- 30	295.6	3821	94.6, 94.6
40	11.04	11.67	11.80	11.46	10.81	11.11	10.84	10.68	30- 40	105.3	3926	97.2, 97.2
50	5.890	5.893	5.522	5.603	5.559	5.523	5.696	5.616	40- 50	62.47	3989	98.7, 98.7
60	2.307	2.328	2.054	2.002	2.032	1.859	2.058	2.188	50- 60	33.67	4023	99.6, 99.6
70	0.4603	0.4675	0.4018	0.3976	0.4567	0.4289	0.4610	0.4785	60- 70	10.70	4033	99.8, 99.8
80	0.3153	0.3111	0.3073	0.3006	0.3040	0.3087	0.3006	0.3092	70- 80	3.358	4037	99.9, 99.9
90	0.4045	0.4033	0.4001	0.3978	0.2321	0.2313	0.2255	0.2272	80- 90	3.398	4040	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: $\times 10\text{cd}$									UNIT: lm		

Conical surface Flux(90deg): 3961.4 lm

%lum = 98.1%

%lamp = 98.1%

Conical surface Flux(120deg): 4022.6 lm

%lum = 99.6%

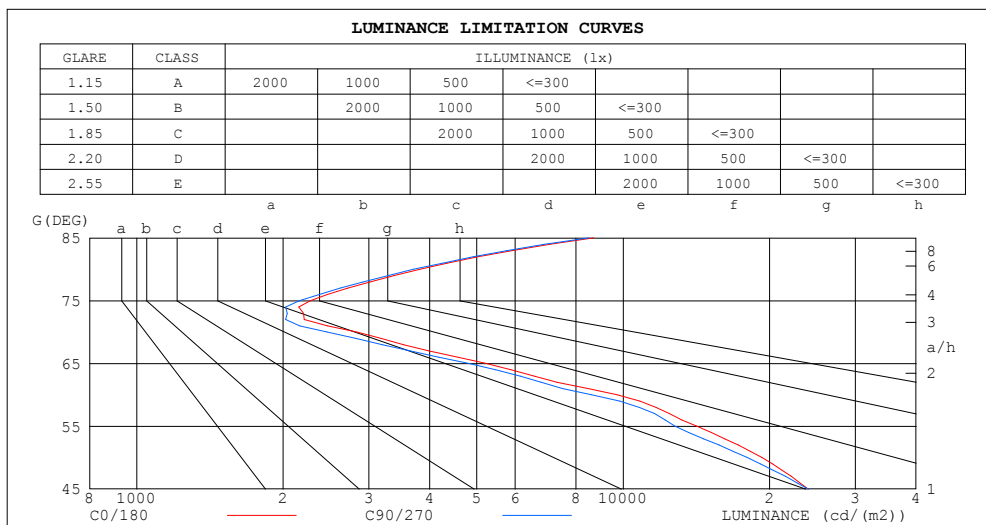
%lamp = 99.6%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: AE
 Test Date: 2020-05-28

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:225.1V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4040.02x1 lm		
NAME: ALT85Z-40G30-Z1-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	8686	8516
80	3821	3704
75	2277	2163
70	2833	2459
65	5213	4804
60	9713	8597
55	14149	12771
50	19287	17982
45	24030	24011

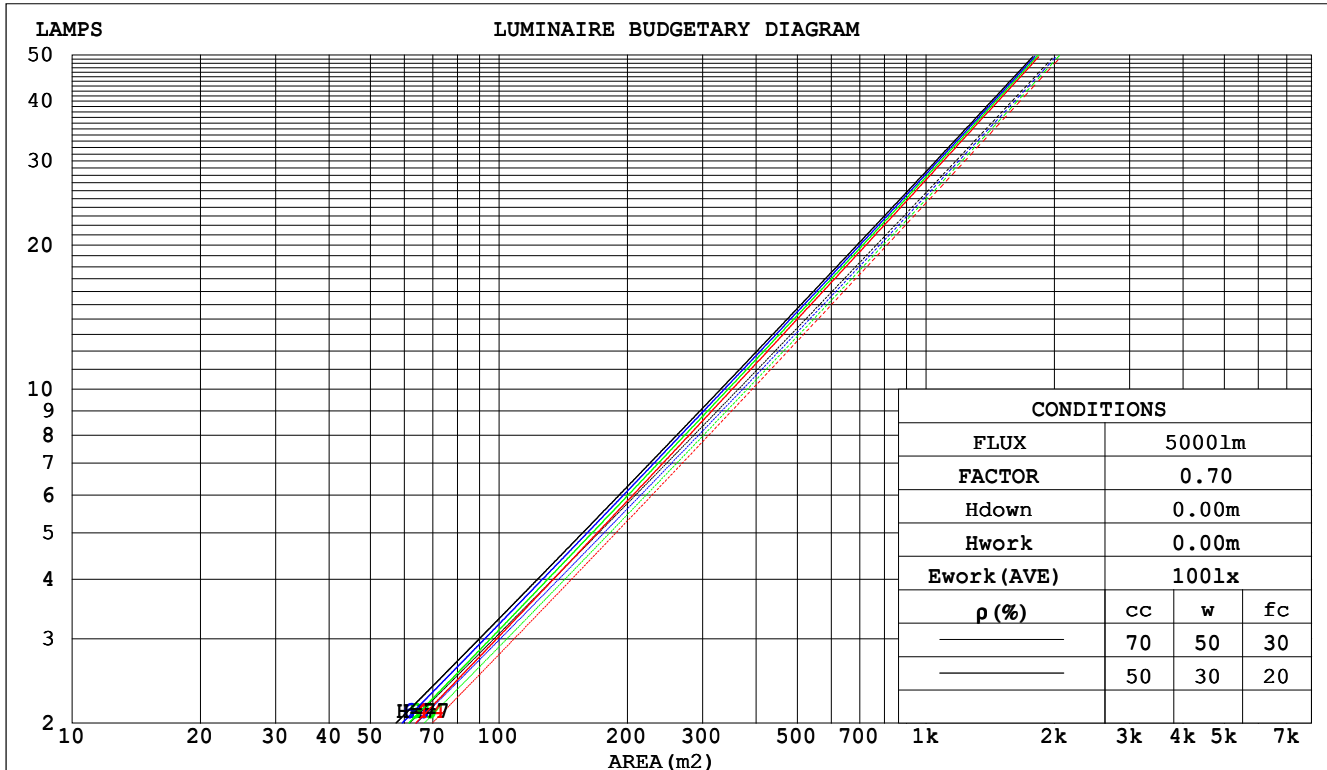
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-05-28

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:225.1V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4040.02x1 lm		
NAME: ALT85Z-40G30-Z1-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	1.10	1.11	1.10	1.08	1.07	1.06	1.05	1.04	1.03	1.02	1.00	.99	.99	.97
2.0	1.08	1.06	1.03	1.07	1.04	1.02	1.04	1.02	.00	1.01	.99	.98	.98	.97	.96	.94
3.0	1.04	1.01	.98	1.03	.00	.97	1.00	.98	.96	.98	.96	.94	.96	.94	.93	.92
4.0	1.01	.97	.94	.00	.96	.94	.98	.95	.93	.96	.93	.92	.94	.92	.91	.89
5.0	.97	.94	.91	.97	.93	.90	.95	.92	.90	.94	.91	.89	.92	.90	.88	.87
6.0	.95	.91	.88	.94	.90	.88	.93	.90	.87	.91	.89	.87	.90	.88	.86	.85
7.0	.92	.88	.86	.92	.88	.85	.90	.87	.85	.89	.87	.85	.89	.86	.84	.83
8.0	.90	.86	.83	.89	.86	.83	.88	.85	.83	.88	.85	.83	.87	.84	.82	.82
9.0	.88	.84	.82	.87	.84	.81	.87	.83	.81	.86	.83	.81	.85	.83	.81	.80
10.0	.86	.82	.80	.85	.82	.80	.85	.82	.79	.84	.81	.79	.84	.81	.79	.78



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2020-05-28

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:225.1V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4040.02x1 lm					
NAME: ALT85Z-40G30-Z1-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	.130	.074	.023	.124	.071	.022	.111	.064	.020	.100	.058	.019	.090	.052	.017	
2.0	.120	.066	.020	.114	.063	.019	.104	.058	.018	.095	.053	.017	.086	.049	.015	
3.0	.111	.059	.018	.106	.057	.017	.098	.053	.016	.090	.049	.015	.083	.046	.014	
4.0	.103	.054	.016	.099	.052	.015	.092	.049	.015	.086	.046	.014	.080	.043	.013	
5.0	.097	.049	.014	.093	.048	.014	.087	.045	.013	.082	.043	.013	.077	.041	.012	
6.0	.091	.046	.013	.088	.045	.013	.083	.043	.012	.078	.041	.012	.074	.039	.012	
7.0	.086	.042	.012	.083	.042	.012	.079	.040	.012	.075	.038	.011	.071	.037	.011	
8.0	.081	.040	.011	.079	.039	.011	.075	.038	.011	.072	.036	.010	.068	.035	.010	
9.0	.077	.037	.010	.076	.037	.010	.072	.036	.010	.069	.035	.010	.066	.034	.010	
10.0	.074	.035	.010	.072	.035	.010	.069	.034	.010	.066	.033	.009	.064	.032	.009	

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	.168	.158	.149	.144	.135	.128	.098	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.149	.133	.119	.128	.114	.103	.088	.079	.072	.051	.046	.042	.016	.015	.014	
3.0	.134	.113	.097	.115	.098	.084	.079	.068	.059	.045	.040	.035	.015	.013	.011	
4.0	.121	.098	.080	.104	.084	.070	.071	.059	.049	.041	.034	.029	.013	.011	.010	
5.0	.110	.085	.067	.094	.074	.058	.065	.052	.041	.038	.030	.024	.012	.010	.008	
6.0	.101	.075	.057	.087	.065	.049	.060	.046	.035	.035	.027	.021	.011	.009	.007	
7.0	.093	.067	.049	.080	.058	.042	.055	.041	.030	.032	.024	.018	.010	.008	.006	
8.0	.086	.060	.042	.074	.052	.037	.051	.036	.026	.030	.022	.015	.010	.007	.005	
9.0	.080	.054	.037	.069	.047	.032	.048	.033	.023	.028	.019	.014	.009	.006	.004	
10.0	.075	.049	.032	.065	.043	.028	.045	.030	.020	.026	.018	.012	.008	.006	.004	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-05-28

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:225.1V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4040.02x1 lm										
NAME: ALT85Z-40G30-Z1-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	8.4	9.0	8.6	9.1	9.3	8.3	8.9	8.5	9.0	9.2
3H	8.4	8.9	8.6	9.1	9.3	8.3	8.8	8.5	9.0	9.2
4H	8.3	8.9	8.6	9.1	9.3	8.2	8.8	8.5	9.0	9.2
6H	8.3	8.8	8.6	9.1	9.3	8.2	8.7	8.5	8.9	9.2
8H	8.4	8.8	8.6	9.1	9.3	8.2	8.7	8.5	9.0	9.2
12H	8.4	8.9	8.7	9.2	9.4	8.3	8.8	8.6	9.1	9.3
4H 2H	8.4	8.9	8.7	9.1	9.3	8.3	8.9	8.6	9.1	9.3
3H	8.4	8.9	8.7	9.1	9.4	8.3	8.8	8.6	9.0	9.3
4H	8.3	8.8	8.7	9.1	9.4	8.2	8.7	8.6	9.0	9.3
6H	8.4	8.7	8.7	9.1	9.4	8.3	8.6	8.6	9.0	9.3
8H	8.4	8.8	8.8	9.1	9.5	8.3	8.7	8.7	9.0	9.4
12H	8.6	8.9	9.0	9.3	9.7	8.5	8.8	8.9	9.2	9.6
8H 4H	8.2	8.6	8.6	8.9	9.3	8.1	8.5	8.5	8.8	9.2
6H	8.3	8.6	8.7	9.0	9.4	8.2	8.5	8.6	8.9	9.3
8H	8.4	8.7	8.9	9.1	9.6	8.3	8.6	8.8	9.0	9.4
12H	8.7	9.0	9.2	9.4	9.9	8.6	8.9	9.1	9.3	9.8
12H 4H	8.2	8.5	8.6	8.9	9.3	8.1	8.4	8.5	8.8	9.2
6H	8.3	8.5	8.7	9.0	9.4	8.2	8.4	8.6	8.9	9.3
8H	8.5	8.7	8.9	9.1	9.6	8.4	8.6	8.8	9.0	9.5
Variations with the observer position at spacings:										
S = 1.0H	+ 1.2 / - 2.0					+ 1.3 / - 2.2				
1.5H	+ 1.2 / - 1.2					+ 1.7 / - 1.4				
2.0H	+ 2.4 / - 3.2					+ 2.6 / - 3.1				

CIE Pub.117, 4040 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 4.9$)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-05-28

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:225.1V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4040.02x1 lm		
NAME: ALT85Z-40G30-Z1-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:

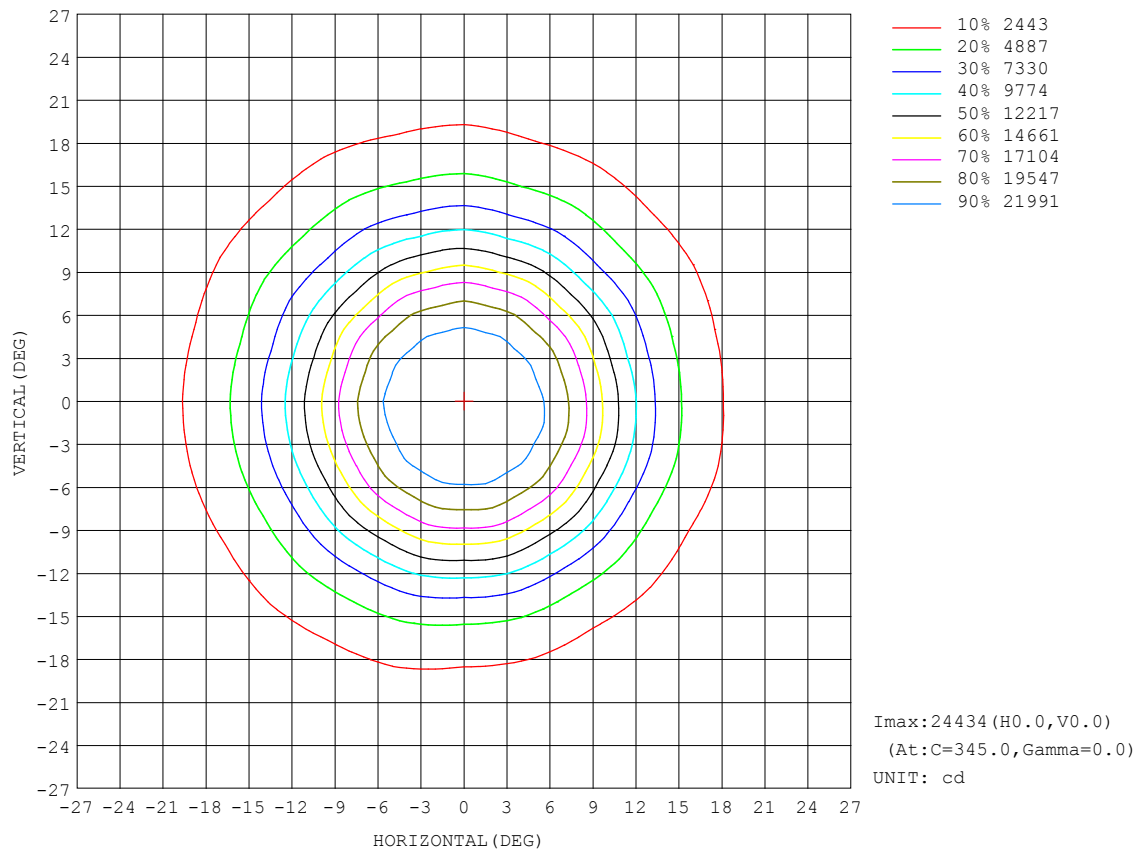
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) k(RI) x RCR = 5									
k = 0.60	90	84	80	89	84	80	89	83	80	77
0.80	97	91	88	96	91	88	95	91	88	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	106	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										
SHRNM = 1.25										

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-05-28

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:225.1V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4040.02x1 lm		
NAME: ALT85Z-40G30-Z1-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:

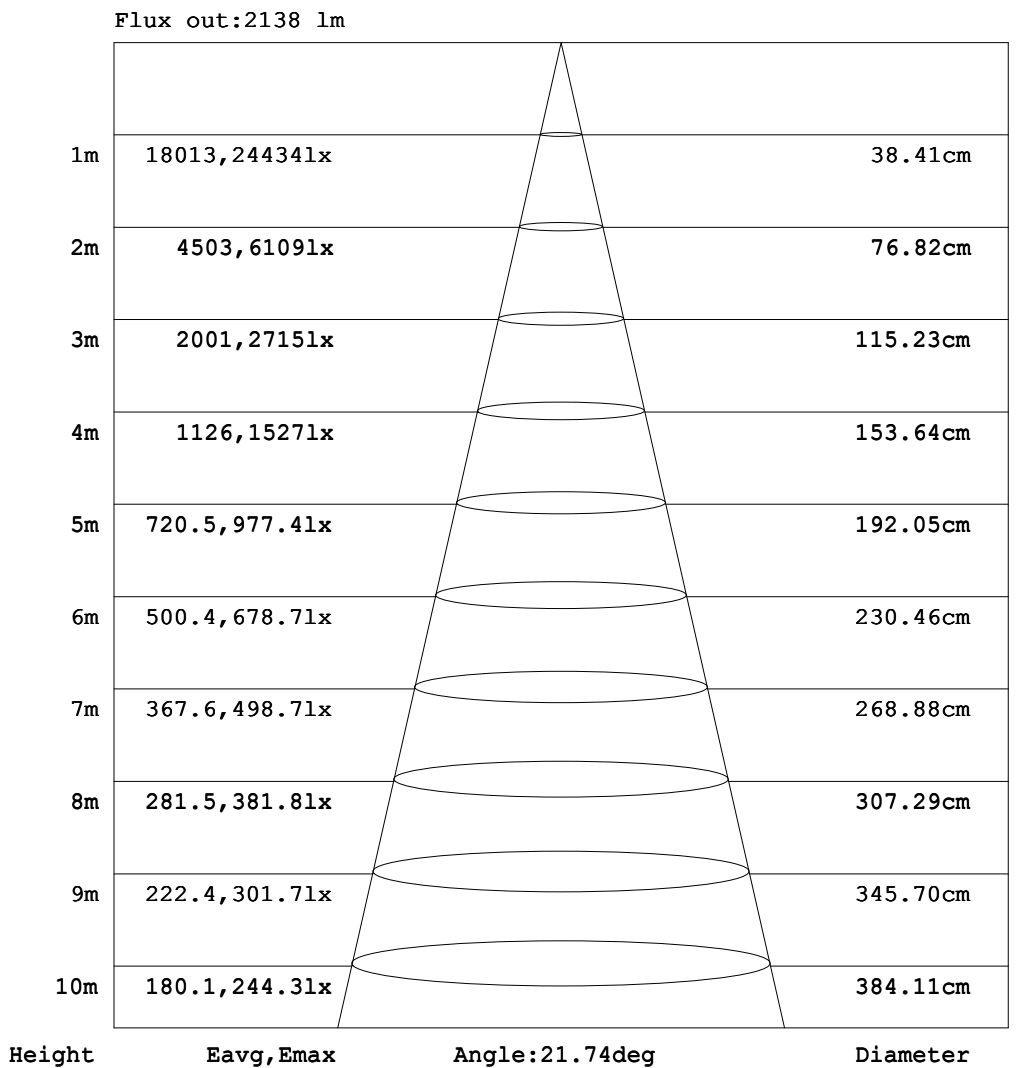


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-05-28

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:225.1V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4040.02x1 lm		
NAME: ALT85Z-40G30-Z1-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:



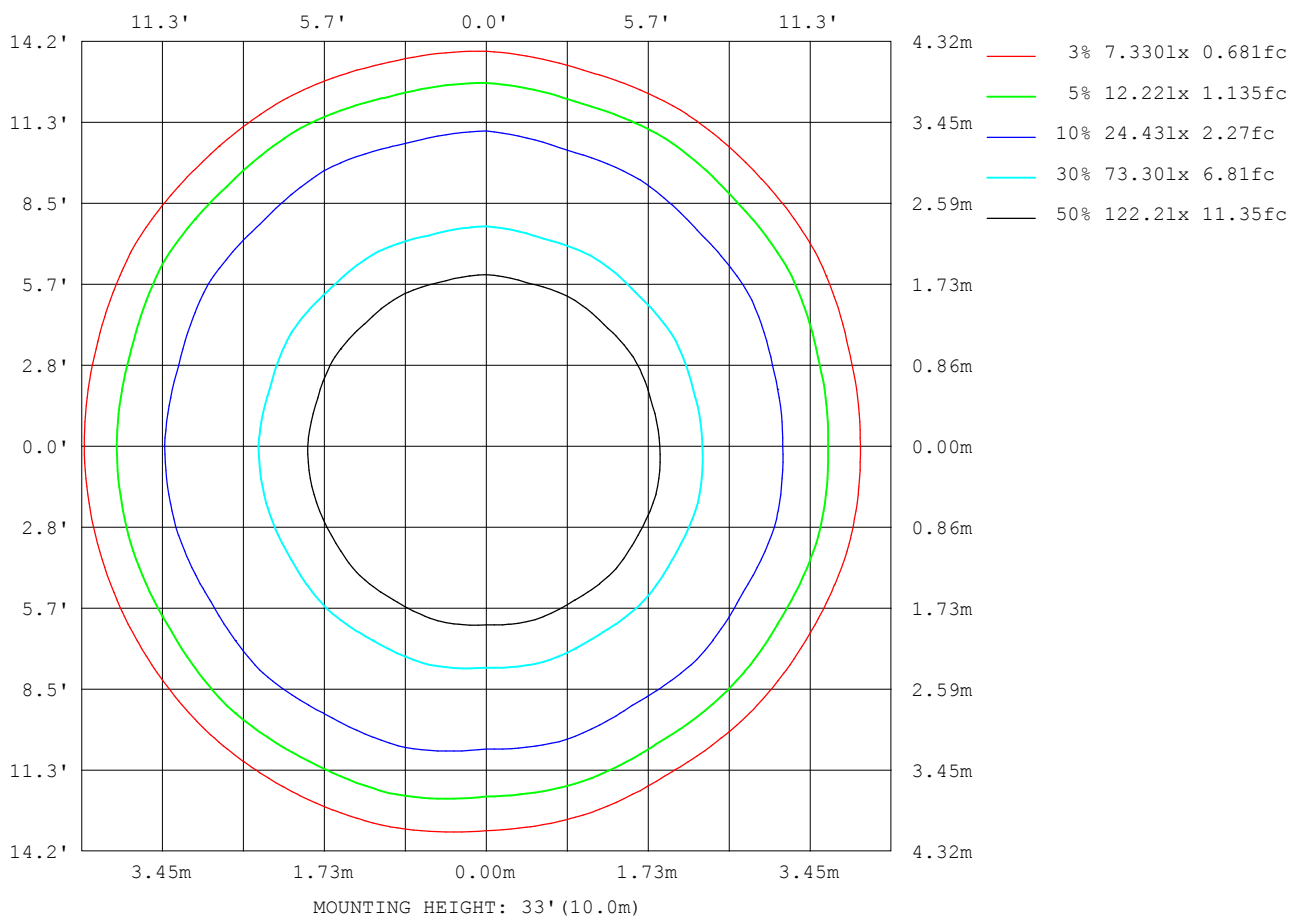
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-05-28

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:225.1V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4040.02x1 lm		
NAME: ALT85Z-40G30-Z1-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:2020-05-28

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:225.1V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4040.02x1 lm		
NAME: ALT85Z-40G30-Z1-Min	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:

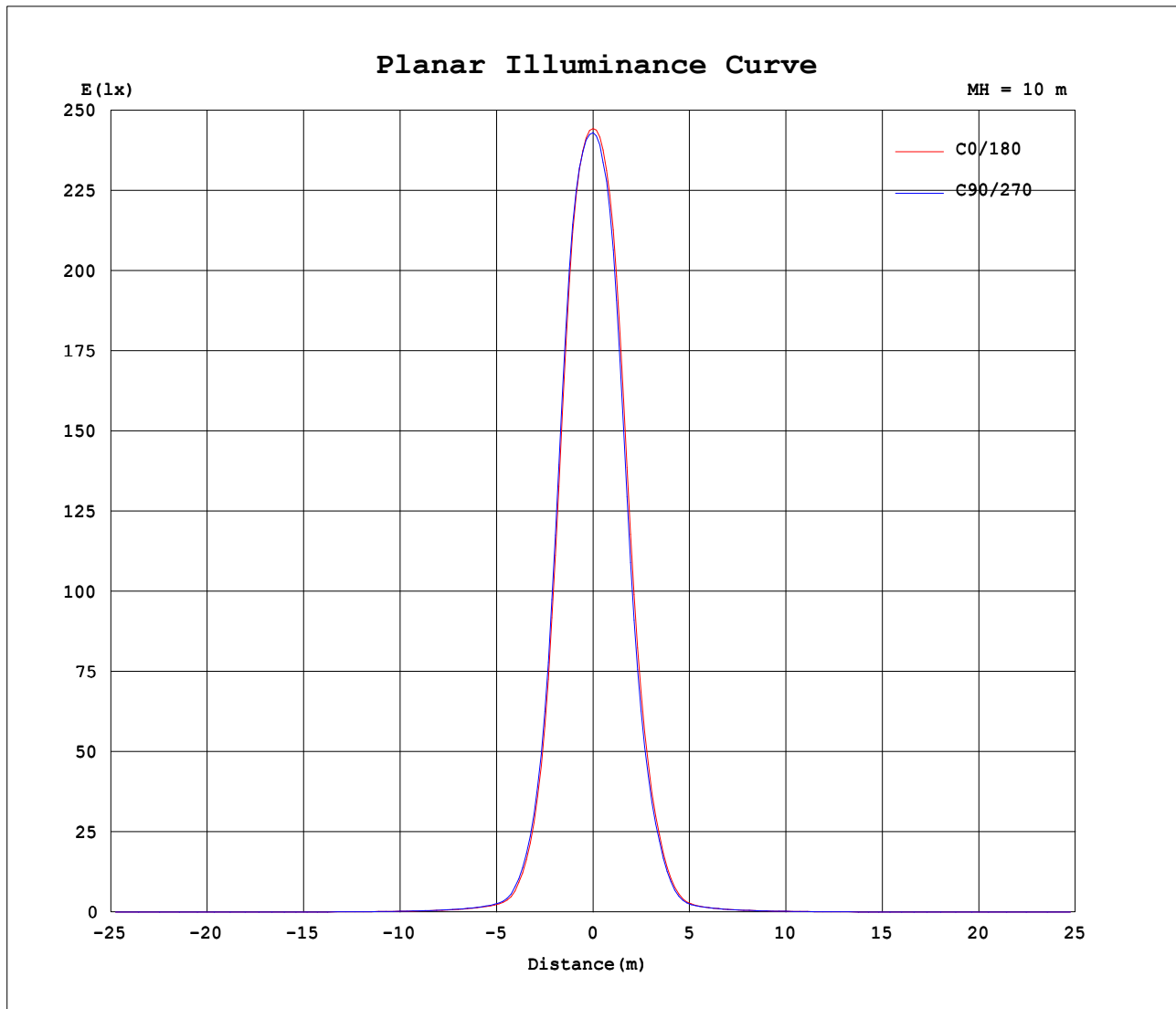
AvgL	cd/m2
L_0~180 (65) av	5099
L_0~180 (75) av	2383
L_0~180 (85) av	7571
L_90~270 (65) av	4814
L_90~270 (75) av	2344
L_90~270 (85) av	7416
L_45 (65) av	4957
L_45 (75) av	2360
L_45 (85) av	7515

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2020-05-28

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: 2020-05-28

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:

```

```

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:

```