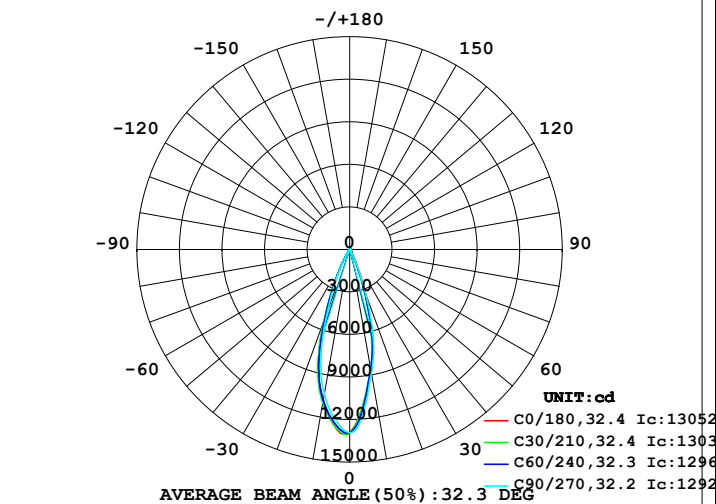


LUMINAIRE PHOTOMETRIC TEST REPORT

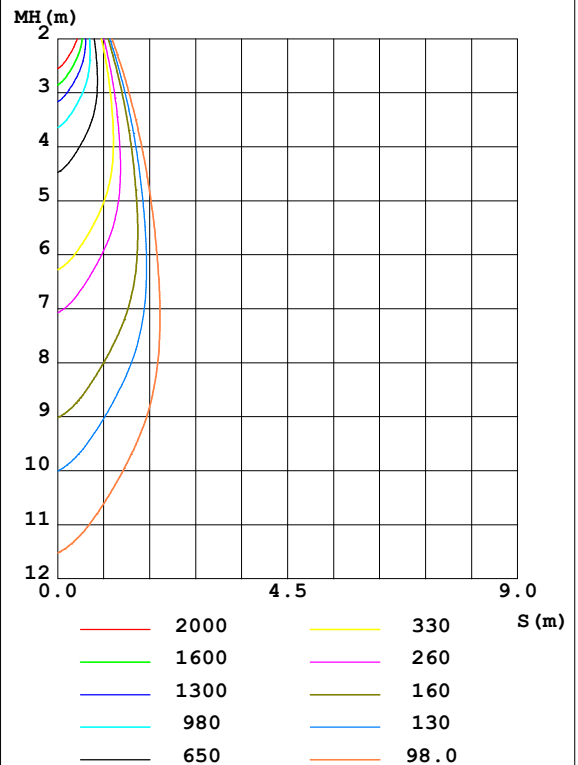
Test:U:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4115.05x1 lm		
NAME: ALT85Z-40G30-Z1-Max	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 103.13 lm/W			
MODEL	3000K CRI90	I _{max} (cd)	13052	S/MH(C0/180)	0.57
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	0.54
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	4115.0	η UP,DN(C0-180)	0.0,45.6
NOMINAL FLUX(lm)	4115.05	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,54.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	225.2	η down(%)	100.0	CIBSE SHR MAX	0.55

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	877.4	858.3	885.7	988.6	1078	1088	1035	950.7	0- 10	1055	1055	25.6, 25.6
20	296.4	291.3	326.4	425.9	518.6	509.7	452.4	356.0	10- 20	1914	2969	72.1, 72.1
30	31.59	28.61	31.46	48.30	77.04	84.74	71.86	44.61	20- 30	817.5	3786	92, 92
40	10.50	10.24	10.38	11.52	12.02	12.47	11.95	11.09	30- 40	130.5	3917	95.2, 95.2
50	7.861	7.708	7.974	8.575	8.804	8.963	8.672	8.315	40- 50	74.23	3991	97, 97
60	5.929	5.756	5.972	6.401	6.732	6.774	6.547	6.180	50- 60	66.27	4057	98.6, 98.6
70	2.083	2.121	2.252	2.394	2.563	2.524	2.449	2.258	60- 70	43.68	4101	99.7, 99.7
80	0.4089	0.3967	0.3850	0.3671	0.3454	0.3589	0.3528	0.3595	70- 80	10.19	4111	99.9, 99.9
90	0.4285	0.4342	0.4200	0.4053	0.2679	0.2692	0.2693	0.2717	80- 90	3.761	4115	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): 3955.1 lm

%lum = 96.1%

%lamp = 96.1%

Conical surface Flux(120deg): 4057.4 lm

%lum = 98.6%

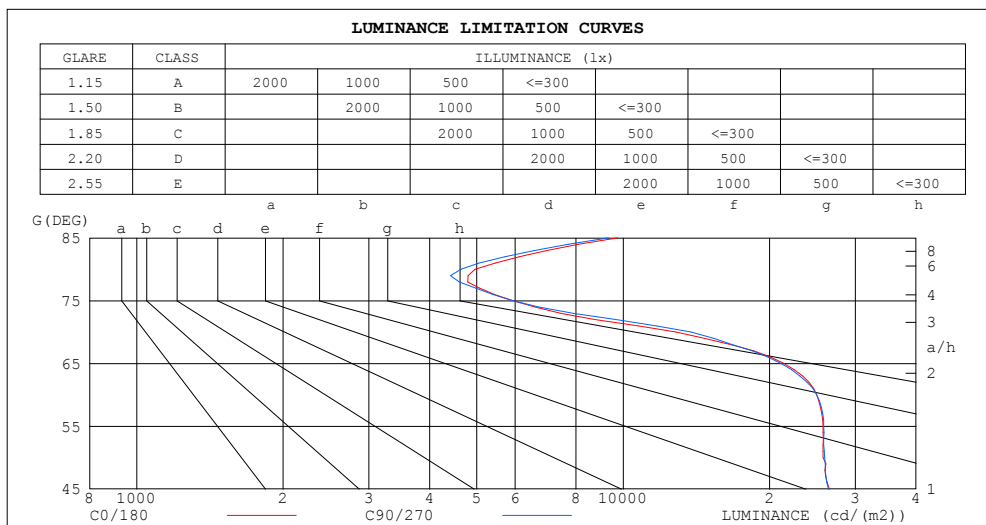
%lamp = 98.6%

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:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4115.05x1 lm		
NAME: ALT85Z-40G30-Z1-Max	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:



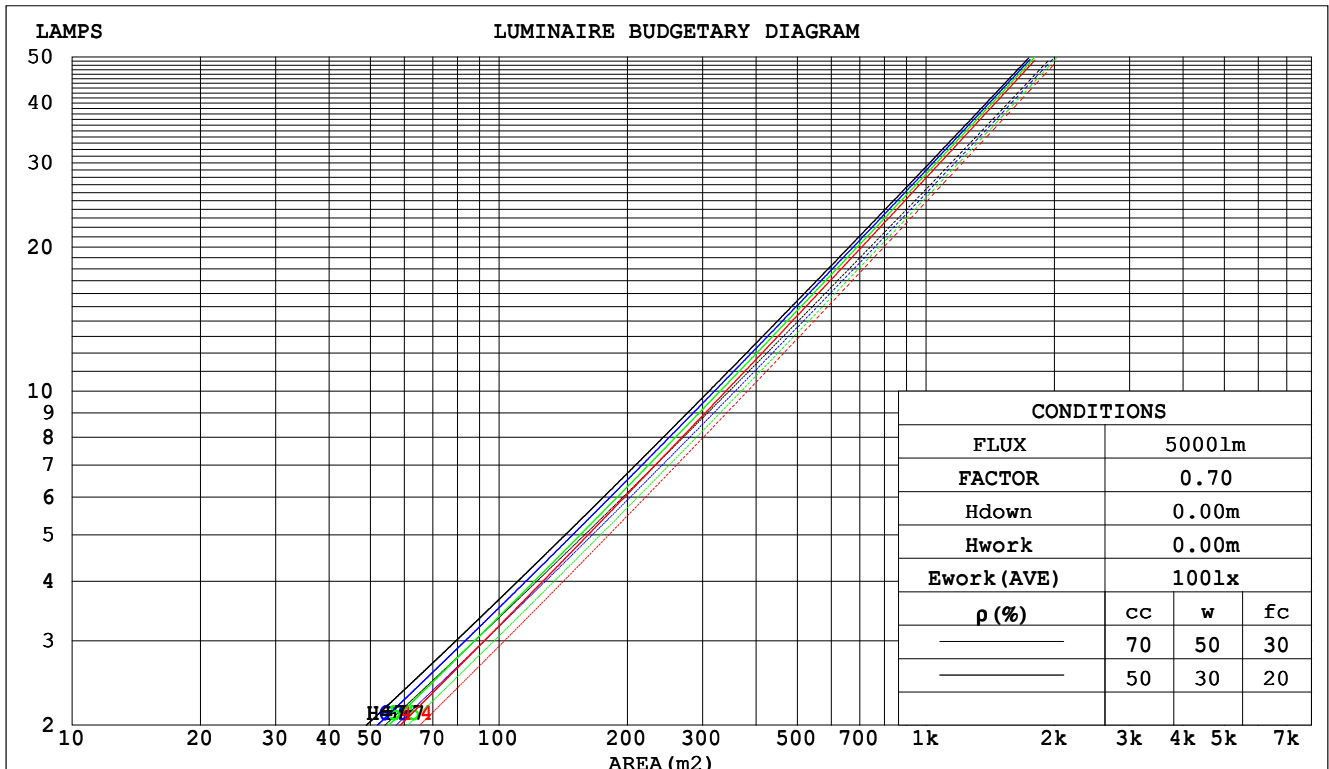
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-05-28

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4115.05x1 lm		
NAME: ALT85Z-40G30-Z1-Max	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	.94	.99	.96	.93	.97	.94	.91	.95	.92	.90	.92	.90	.89	.87
4.0	.96	.92	.88	.95	.91	.88	.93	.90	.87	.91	.88	.86	.89	.87	.85	.84
5.0	.92	.87	.84	.91	.87	.84	.89	.86	.83	.88	.85	.82	.86	.84	.82	.80
6.0	.88	.84	.80	.88	.83	.80	.86	.82	.79	.85	.82	.79	.84	.81	.78	.77
7.0	.85	.80	.77	.84	.80	.77	.83	.79	.76	.82	.79	.76	.81	.78	.76	.75
8.0	.82	.77	.74	.81	.77	.74	.80	.76	.74	.79	.76	.73	.79	.75	.73	.72
9.0	.79	.74	.71	.79	.74	.71	.78	.74	.71	.77	.73	.71	.76	.73	.71	.70
10.0	.76	.72	.69	.76	.72	.69	.75	.71	.69	.75	.71	.68	.74	.71	.68	.67



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:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4115.05x1 lm					
NAME: ALT85Z-40G30-Z1-Max			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	.111	.064	.021		
2.0	.142	.078	.024	.136	.075	.023	.126	.070	.022	.116	.065	.020	.107	.061	.019		
3.0	.133	.071	.021	.128	.069	.021	.119	.065	.020	.111	.061	.019	.104	.057	.018		
4.0	.124	.065	.019	.121	.063	.019	.113	.060	.018	.106	.057	.017	.100	.054	.017		
5.0	.117	.060	.017	.114	.059	.017	.108	.056	.017	.102	.054	.016	.096	.051	.015		
6.0	.111	.056	.016	.108	.055	.016	.103	.053	.015	.098	.051	.015	.093	.049	.015		
7.0	.106	.052	.015	.103	.051	.015	.098	.050	.014	.094	.048	.014	.090	.047	.014		
8.0	.101	.049	.014	.098	.048	.014	.094	.047	.013	.090	.046	.013	.086	.044	.013		
9.0	.096	.047	.013	.094	.046	.013	.090	.045	.013	.087	.044	.012	.084	.042	.012		
10.0	.092	.044	.012	.090	.044	.012	.087	.043	.012	.084	.042	.012	.081	.041	.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	.074	.059	.047	.043	.035	.028	.014	.011	.009	
5.0	.116	.086	.064	.100	.074	.056	.069	.052	.039	.040	.031	.023	.013	.010	.008	
6.0	.108	.076	.054	.092	.066	.047	.064	.046	.033	.037	.027	.020	.012	.009	.007	
7.0	.100	.068	.046	.086	.059	.040	.060	.042	.028	.035	.024	.017	.011	.008	.006	
8.0	.094	.062	.040	.081	.053	.034	.056	.038	.024	.033	.022	.015	.011	.007	.005	
9.0	.088	.056	.034	.076	.049	.030	.053	.034	.021	.031	.020	.013	.010	.007	.004	
10.0	.084	.051	.030	.072	.045	.026	.050	.031	.019	.029	.019	.011	.009	.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:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4115.05x1 lm										
NAME: ALT85Z-40G30-Z1-Max					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	11.2	11.9	11.4	12.1	12.2	11.2	11.9	11.4	12.0	12.2
3H	12.0	12.7	12.2	12.9	13.1	12.0	12.7	12.2	12.9	13.1
4H	12.0	12.7	12.3	12.9	13.1	12.0	12.7	12.3	12.9	13.1
6H	12.0	12.6	12.3	12.8	13.1	12.0	12.6	12.3	12.8	13.1
8H	12.0	12.6	12.3	12.8	13.1	12.0	12.6	12.3	12.8	13.1
12H	12.0	12.5	12.3	12.8	13.1	12.0	12.5	12.3	12.8	13.1
4H 2H	11.7	12.3	12.0	12.6	12.8	11.7	12.3	11.9	12.5	12.8
3H	12.5	13.1	12.8	13.3	13.6	12.5	13.1	12.8	13.4	13.6
4H	12.5	13.0	12.9	13.3	13.6	12.6	13.1	12.9	13.4	13.7
6H	12.5	13.0	12.9	13.3	13.6	12.5	13.0	12.9	13.3	13.7
8H	12.5	12.9	12.9	13.3	13.6	12.5	12.9	12.9	13.3	13.7
12H	12.5	12.9	12.9	13.3	13.7	12.5	12.9	12.9	13.3	13.7
8H 4H	12.5	12.9	12.8	13.2	13.6	12.5	12.9	12.9	13.3	13.6
6H	12.5	12.8	12.9	13.2	13.6	12.5	12.8	12.9	13.2	13.6
8H	12.5	12.8	12.9	13.2	13.6	12.5	12.8	12.9	13.2	13.7
12H	12.6	12.8	13.0	13.3	13.8	12.6	12.8	13.0	13.3	13.7
12H 4H	12.4	12.8	12.8	13.2	13.6	12.4	12.8	12.8	13.2	13.6
6H	12.4	12.7	12.9	13.1	13.6	12.4	12.7	12.9	13.2	13.6
8H	12.5	12.7	12.9	13.2	13.6	12.5	12.7	12.9	13.2	13.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.5					+ 0.3 / - 0.4				
1.5H	+ 0.2 / - 0.4					+ 0.4 / - 0.4				
2.0H	+ 0.5 / - 1.1					+ 0.4 / - 1.0				

CIE Pub.117, 4115 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 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:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4115.05x1 lm		
NAME: ALT85Z-40G30-Z1-Max	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:

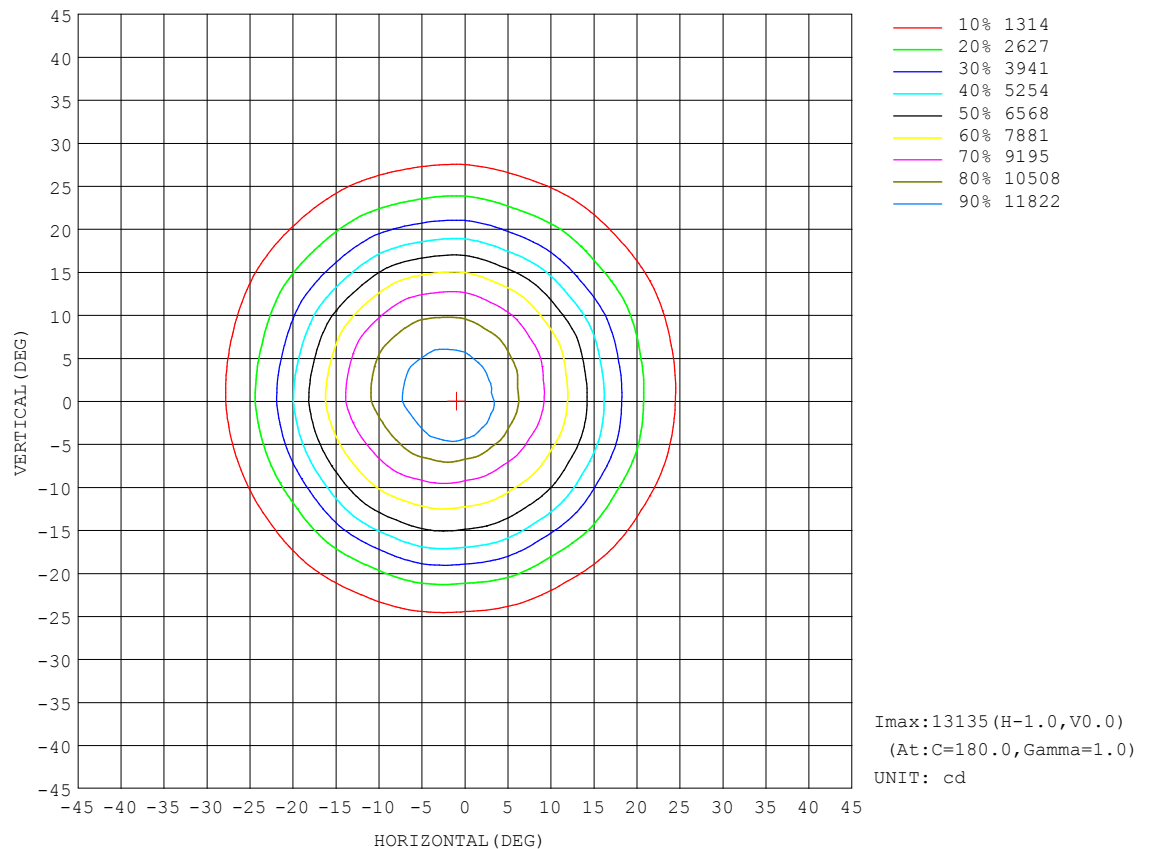
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	82	79	88	82	79	87	82	79	75
0.80	96	90	87	95	90	86	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	98	105	101	98	103	99	97	93
2.00	109	105	102	107	104	101	105	102	99	94
2.50	110	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:2020-05-28

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:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4115.05x1 lm		
NAME: ALT85Z-40G30-Z1-Max	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:

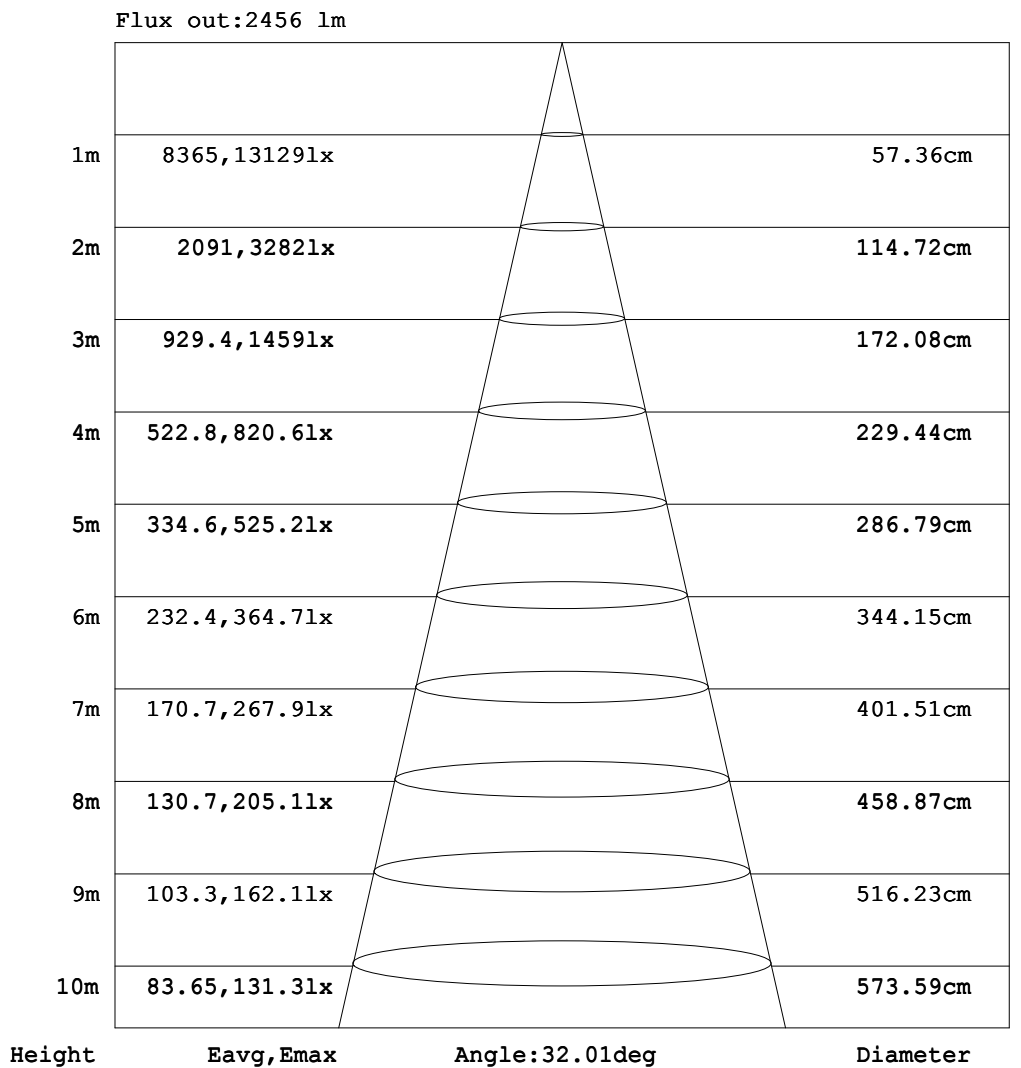


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-05-28

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:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4115.05x1 lm		
NAME: ALT85Z-40G30-Z1-Max	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:



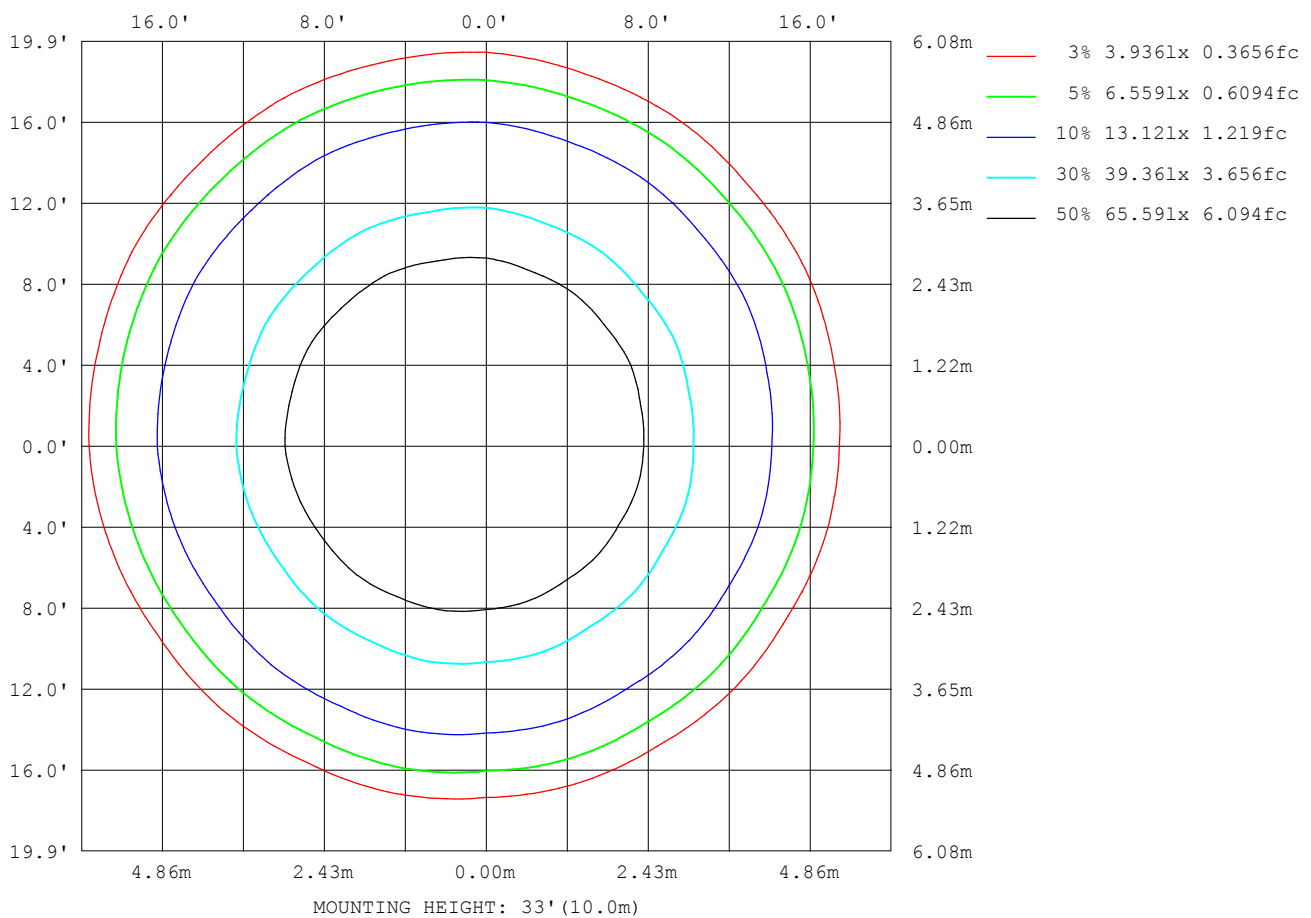
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4115.05x1 lm		
NAME: ALT85Z-40G30-Z1-Max	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:225.2V I:0.1830A P:39.90W PF:0.9660 Freq:50.00Hz Lamp Flux:4115.05x1 lm		
NAME: ALT85Z-40G30-Z1-Max	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:78	Shielding Angle:

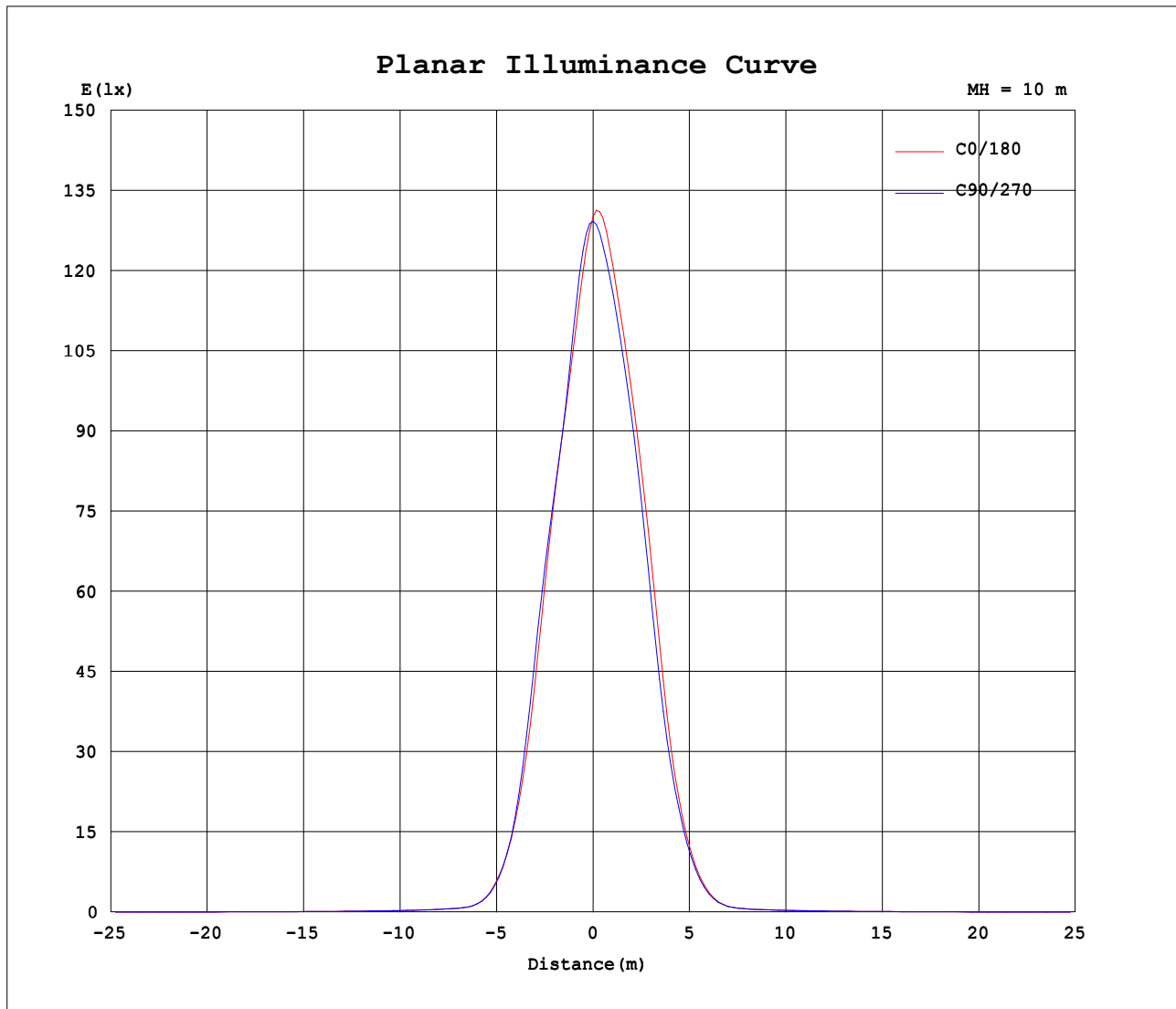
AvgL	cd/m2
L_0~180 (65) av	22360
L_0~180 (75) av	6354
L_0~180 (85) av	8351
L_90~270 (65) av	22255
L_90~270 (75) av	6387
L_90~270 (85) av	8173
L_45 (65) av	22253
L_45 (75) av	6385
L_45 (85) av	8216

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:

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γ Interval: 1.0DEG
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