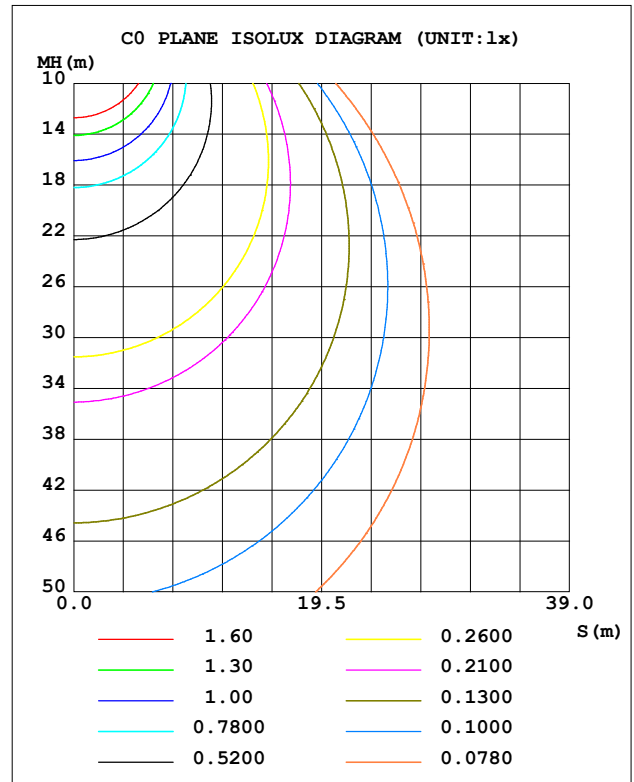
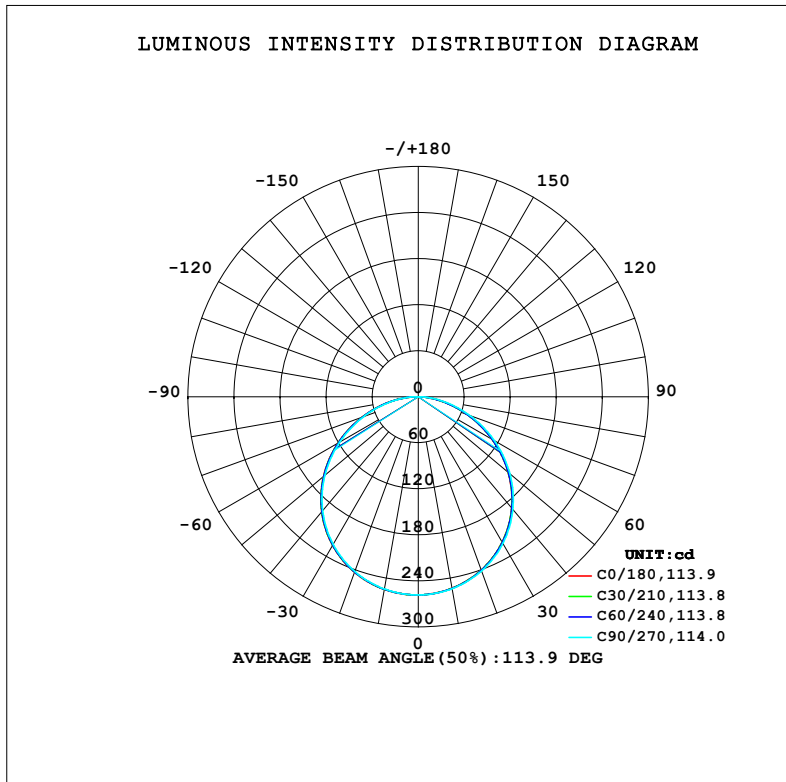


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 99XLED611CW	TYPE: 99XLED611CW	WEIGHT: 1
SPEC.:	DIM.: F168	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: circle F126	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	99XLED611CW	Imax(cd)	258.3	S/MH(C0/180)	1.29
NOMINAL POWER(W)	12	LOR(%)	90.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	755.66	η UP,DN(C0-180)	0.0,44.4
NOMINAL FLUX(lm)	840	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,45.6
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230	η down(%)	90.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 14 July 2022

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity: 65.0%
Test Distance: 6.265m [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	253.4	253.5	254.0	254.5	254.9	254.7	254.3	253.8	0- 10	24.46	24.46	3.24,2.91
20	240.3	240.5	241.5	242.6	243.3	243.1	242.3	241.3	10- 20	70.30	94.76	12.5,11.3
30	218.9	219.1	220.6	222.4	223.5	223.2	222.0	220.4	20- 30	107.2	202.0	26.7,24
40	189.5	189.7	191.7	194.2	195.9	195.5	193.9	191.7	30- 40	130.1	332.0	43.9,39.5
50	153.0	153.2	155.9	159.0	160.9	160.8	158.7	156.1	40- 50	135.5	467.6	61.9,55.7
60	111.5	111.5	114.6	118.4	120.9	120.4	118.2	115.2	50- 60	122.7	590.2	78.1,70.3
70	68.65	68.05	71.23	75.46	77.86	77.34	75.57	72.41	60- 70	93.85	684.1	90.5,81.4
80	27.88	27.32	30.37	34.27	36.51	36.07	34.49	31.77	70- 80	55.26	739.3	97.8,88
90	0.6531	0.4573	0.4410	1.092	2.659	2.990	1.402	0.4016	80- 90	16.33	755.7	100,90
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): 400.26 lm

%lum = 53.0%

%lamp = 47.7%

Conical surface Flux(130deg): 641.52 lm

%lum = 84.9%

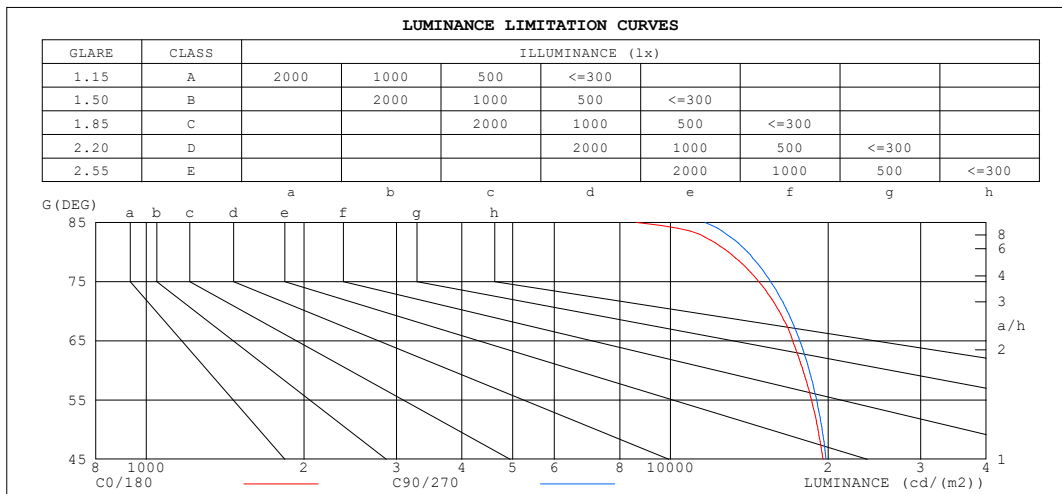
%lamp = 76.4%

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:14 July 2022

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

NAME: 99XLED611CW	TYPE: 99XLED611CW	WEIGHT: 1
SPEC.:	DIM.: F168	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: circle F126	Shielding Angle:



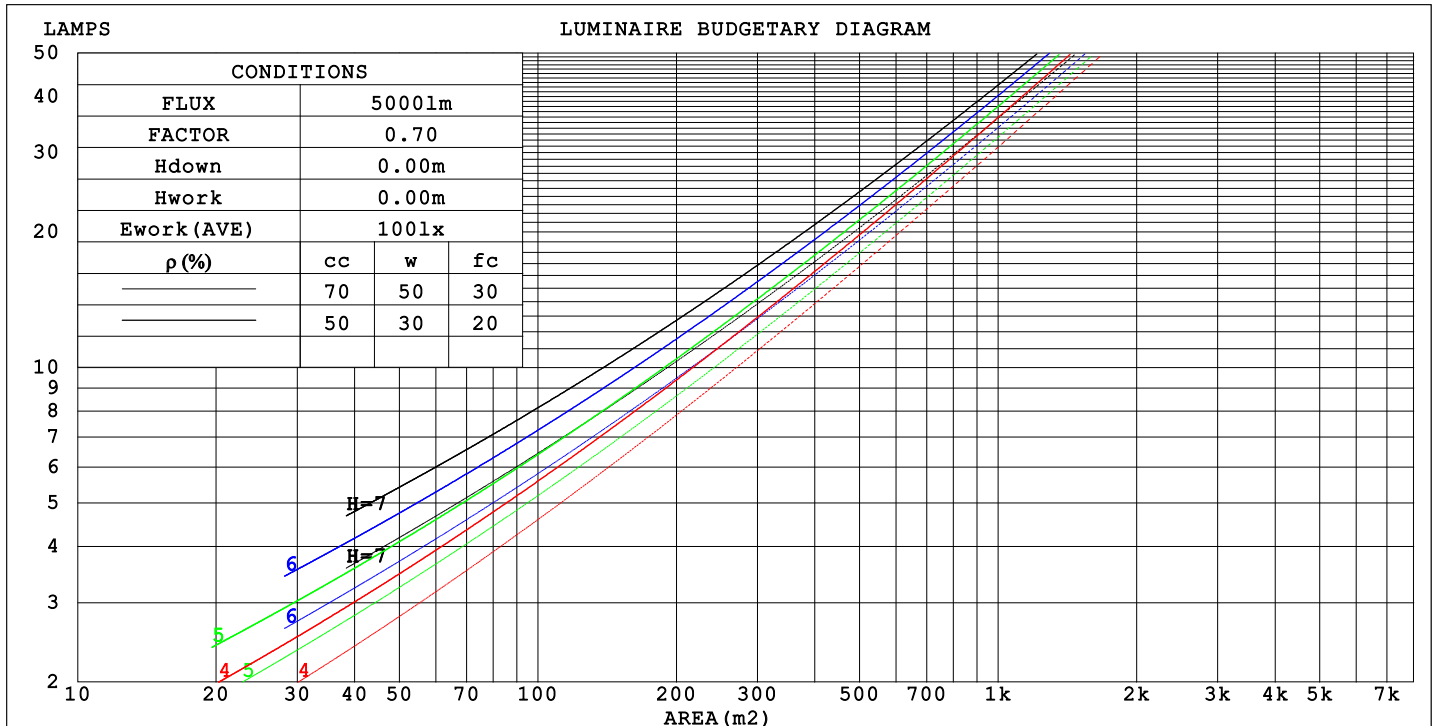
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 14 July 2022

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.456
 Humidity: 65.0%
 Test Distance: 6.265m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: 99XLED611CW	TYPE: 99XLED611CW	WEIGHT: 1
SPEC.:	DIM.: F168	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: circle F126	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															



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:14 July 2022

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

WEC AND CCEC

NAME: 99XLED611CW	TYPE: 99XLED611CW	WEIGHT: 1
SPEC.:	DIM.: F168	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: circle F126	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	.283	.161	.051	.277	.158	.050	.265	.152	.049	.254	.146	.047	.244	.141	.046	
2.0	.265	.145	.045	.260	.143	.044	.249	.139	.043	.240	.134	.042	.231	.130	.041	
3.0	.245	.130	.039	.240	.129	.039	.231	.125	.038	.222	.122	.037	.214	.119	.037	
4.0	.226	.117	.035	.222	.116	.034	.213	.113	.034	.206	.110	.033	.198	.108	.033	
5.0	.209	.106	.031	.205	.105	.031	.197	.103	.030	.191	.101	.030	.184	.098	.030	
6.0	.193	.097	.028	.190	.096	.028	.183	.094	.027	.177	.092	.027	.171	.090	.027	
7.0	.180	.089	.025	.177	.088	.025	.171	.086	.025	.165	.085	.025	.160	.083	.024	
8.0	.168	.082	.023	.165	.081	.023	.160	.080	.023	.155	.079	.023	.150	.077	.022	
9.0	.157	.076	.021	.155	.075	.021	.150	.074	.021	.146	.073	.021	.141	.072	.021	
10.0	.148	.071	.020	.146	.070	.020	.141	.069	.020	.137	.068	.019	.134	.067	.019	

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	.171	.171	.171	.146	.146	.146	.100	.100	.100	.057	.057	.057	.018	.018	.018	
1.0	.163	.140	.121	.139	.121	.104	.095	.083	.072	.055	.048	.042	.018	.015	.013	
2.0	.155	.119	.088	.133	.102	.076	.091	.071	.053	.053	.041	.031	.017	.013	.010	
3.0	.148	.103	.067	.127	.089	.058	.087	.062	.040	.050	.036	.024	.016	.012	.008	
4.0	.142	.091	.052	.121	.079	.045	.084	.055	.032	.048	.032	.019	.016	.010	.006	
5.0	.135	.082	.042	.116	.071	.037	.080	.049	.026	.046	.029	.015	.015	.009	.005	
6.0	.128	.074	.035	.110	.064	.031	.076	.045	.022	.044	.026	.013	.014	.009	.004	
7.0	.122	.068	.030	.105	.059	.026	.073	.041	.018	.042	.024	.011	.014	.008	.004	
8.0	.116	.063	.026	.100	.054	.022	.069	.038	.016	.040	.022	.009	.013	.007	.003	
9.0	.111	.058	.023	.095	.050	.020	.066	.035	.014	.039	.021	.008	.012	.007	.003	
10.0	.106	.054	.020	.091	.047	.018	.063	.033	.012	.037	.020	.007	.012	.006	.002	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:14 July 2022

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

NAME: 99XLED611CW						TYPE: 99XLED611CW			WEIGHT: 1		
SPEC.:						DIM.: F168			SERIAL No.: 0		
MFR.: Elmark Industries JSC						SUR.: circle F126			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	23.5	25.0	23.8	25.2	25.4	23.6	25.1	23.9	25.3	25.5
	3H	25.0	26.4	25.3	26.6	26.9	25.1	26.5	25.4	26.7	27.0
	4H	25.5	26.9	25.9	27.1	27.4	25.7	27.0	26.0	27.3	27.5
	6H	25.9	27.2	26.3	27.5	27.8	26.1	27.4	26.4	27.7	27.9
	8H	26.0	27.3	26.4	27.6	27.9	26.3	27.5	26.6	27.8	28.1
	12H	26.1	27.3	26.4	27.6	27.9	26.3	27.5	26.7	27.8	28.1
4H	2H	24.1	25.4	24.4	25.7	26.0	24.2	25.5	24.5	25.8	26.0
	3H	25.7	26.9	26.1	27.2	27.5	25.8	27.0	26.2	27.3	27.6
	4H	26.4	27.5	26.8	27.8	28.2	26.5	27.6	26.9	28.0	28.3
	6H	26.9	27.9	27.3	28.2	28.6	27.1	28.1	27.5	28.4	28.8
	8H	27.1	28.0	27.5	28.4	28.7	27.3	28.2	27.7	28.6	28.9
	12H	27.2	28.0	27.6	28.4	28.8	27.4	28.2	27.8	28.6	29.0
8H	4H	26.7	27.6	27.1	27.9	28.3	26.8	27.7	27.2	28.0	28.4
	6H	27.3	28.1	27.8	28.5	28.9	27.5	28.2	27.9	28.6	29.0
	8H	27.5	28.2	28.0	28.6	29.1	27.7	28.4	28.2	28.8	29.3
	12H	27.7	28.3	28.2	28.7	29.2	27.9	28.5	28.4	28.9	29.4
12H	4H	26.7	27.5	27.1	27.9	28.3	26.8	27.6	27.2	28.0	28.4
	6H	27.4	28.0	27.8	28.5	28.9	27.5	28.2	28.0	28.6	29.1
	8H	27.6	28.2	28.1	28.6	29.1	27.8	28.4	28.3	28.8	29.3
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H		+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H		+ 0.2 / - 0.3					+ 0.2 / - 0.2				

CIE Pub.117, 840.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.6)
Area: 0.0124627 m2

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:14 July 2022

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

NAME: 99XLED611CW	TYPE: 99XLED611CW	WEIGHT: 1
SPEC.:	DIM.: F168	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: circle F126	Shielding Angle:

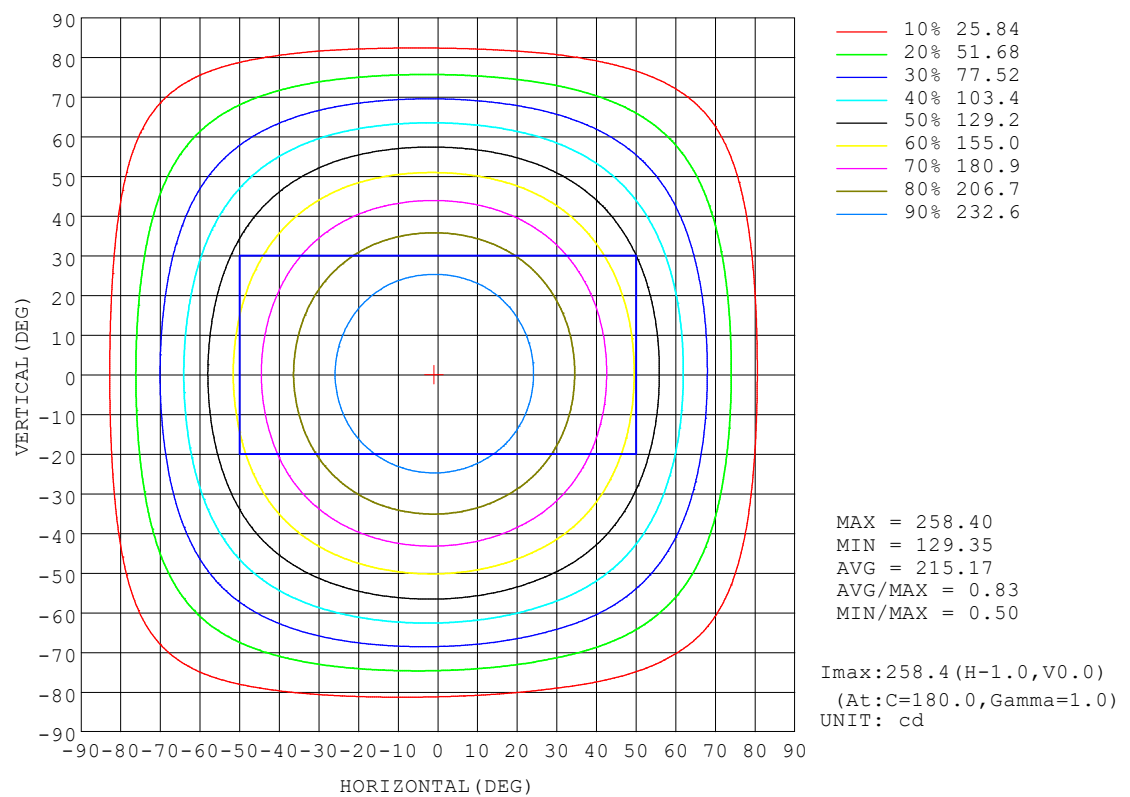
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	51	41	35	51	41	34	50	40	34	28
0.80	60	50	43	59	49	43	58	49	43	36
1.00	68	58	51	67	57	51	65	59	51	44
1.25	74	65	58	73	64	58	71	63	57	51
1.50	79	70	64	77	69	63	75	67	62	55
2.00	85	77	71	83	76	71	80	74	69	62
2.50	89	82	76	87	80	75	83	78	74	66
3.00	92	85	80	90	84	79	86	81	77	70
4.00	95	90	86	93	89	85	89	86	82	74
5.00	98	93	89	95	91	88	91	88	85	77
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:14 July 2022

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: 99XLED611CW	TYPE: 99XLED611CW	WEIGHT: 1
SPEC.:	DIM.: F168	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: circle F126	Shielding Angle:

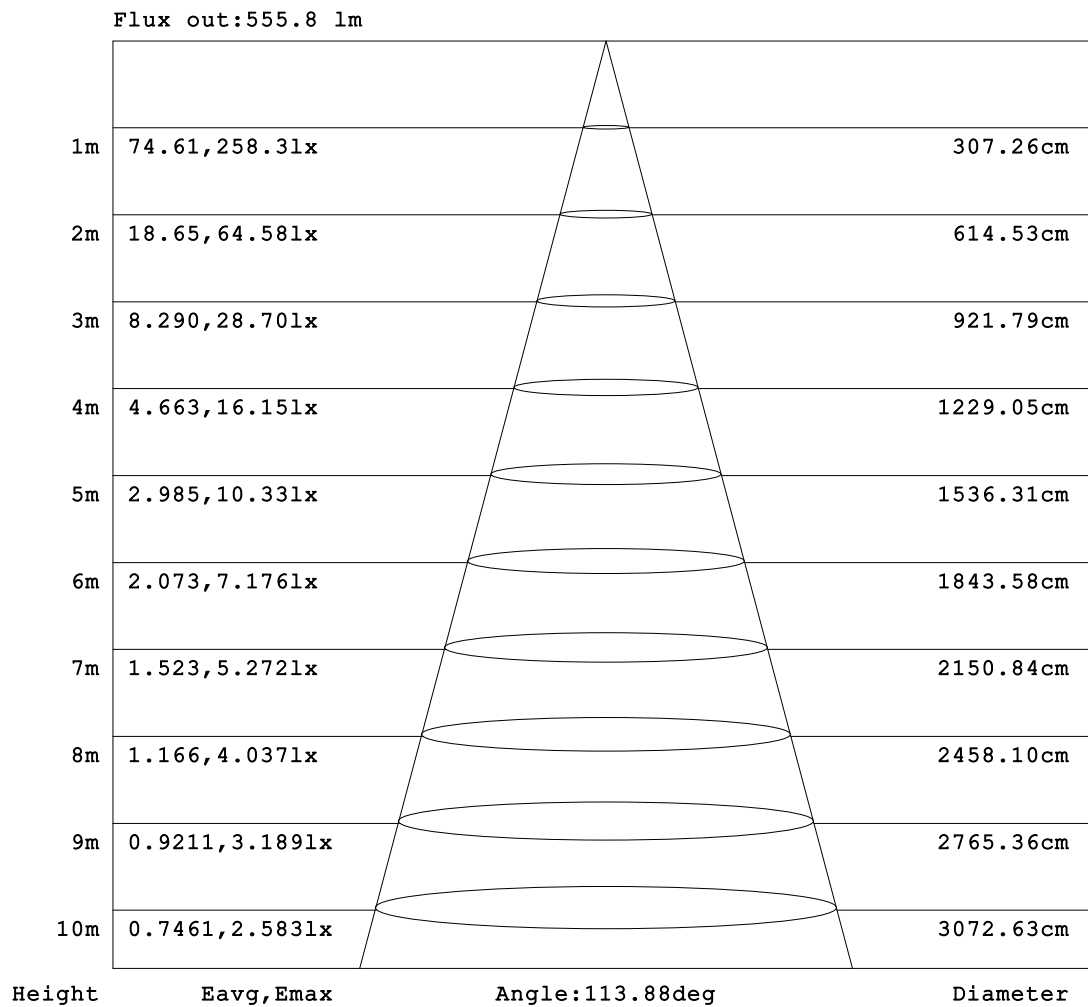


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 14 July 2022

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.456
 Humidity: 65.0%
 Test Distance: 6.265m [K=1.0000]
 Remarks:

AAI Figure

NAME: 99XLED611CW	TYPE: 99XLED611CW	WEIGHT: 1
SPEC.:	DIM.: F168	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: circle F126	Shielding Angle:



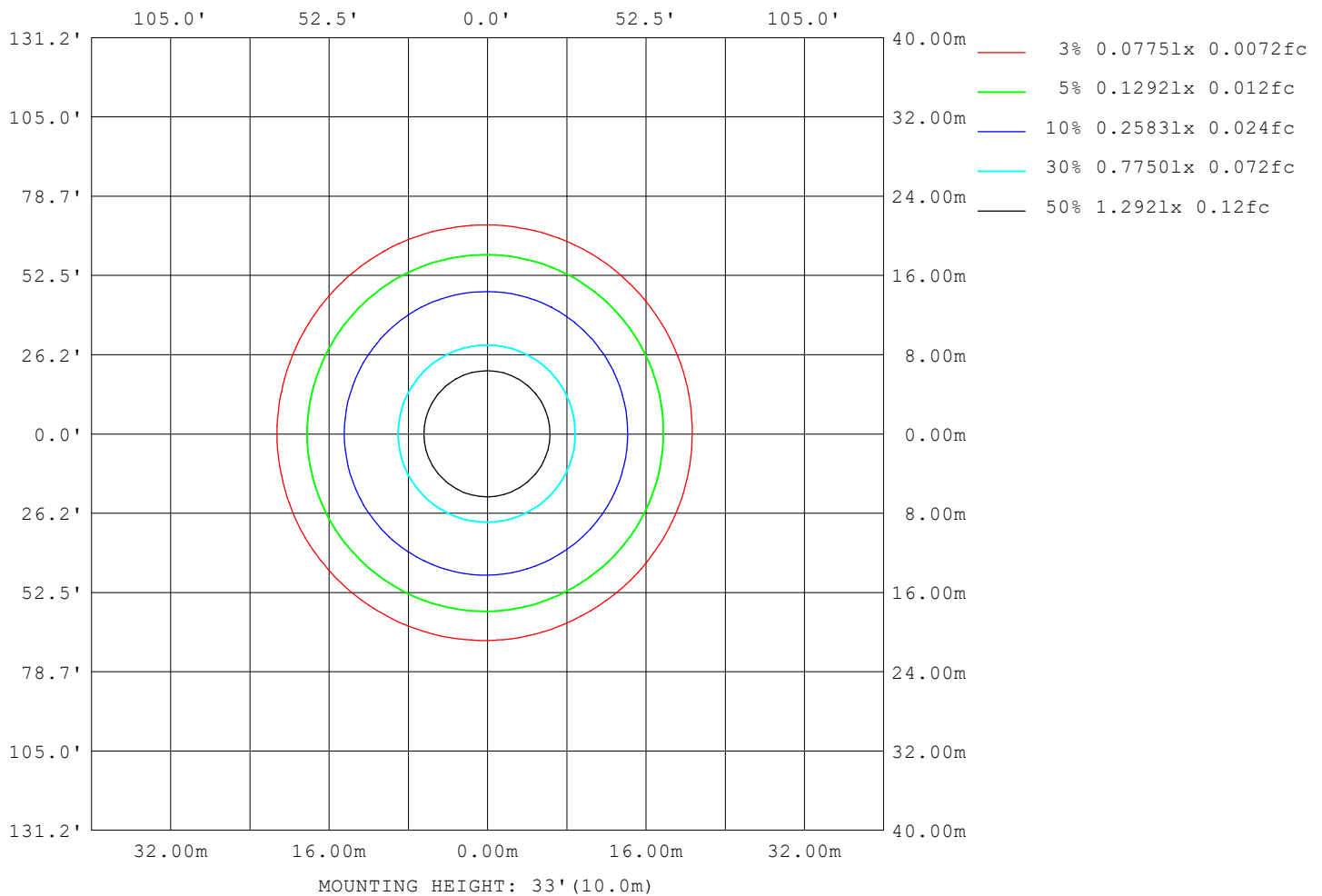
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 14 July 2022

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity: 65.0%
Test Distance: 6.265m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

NAME: 99XLED611CW	TYPE: 99XLED611CW	WEIGHT: 1
SPEC.:	DIM.: F168	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: circle F126	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 14 July 2022

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity: 65.0%
Test Distance: 6.265m [K=1.0000]
Remarks:

LED Avg.L Report

NAME: 99XLED611CW	TYPE: 99XLED611CW	WEIGHT: 1
SPEC.:	DIM.: F168	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: circle F126	Shielding Angle:

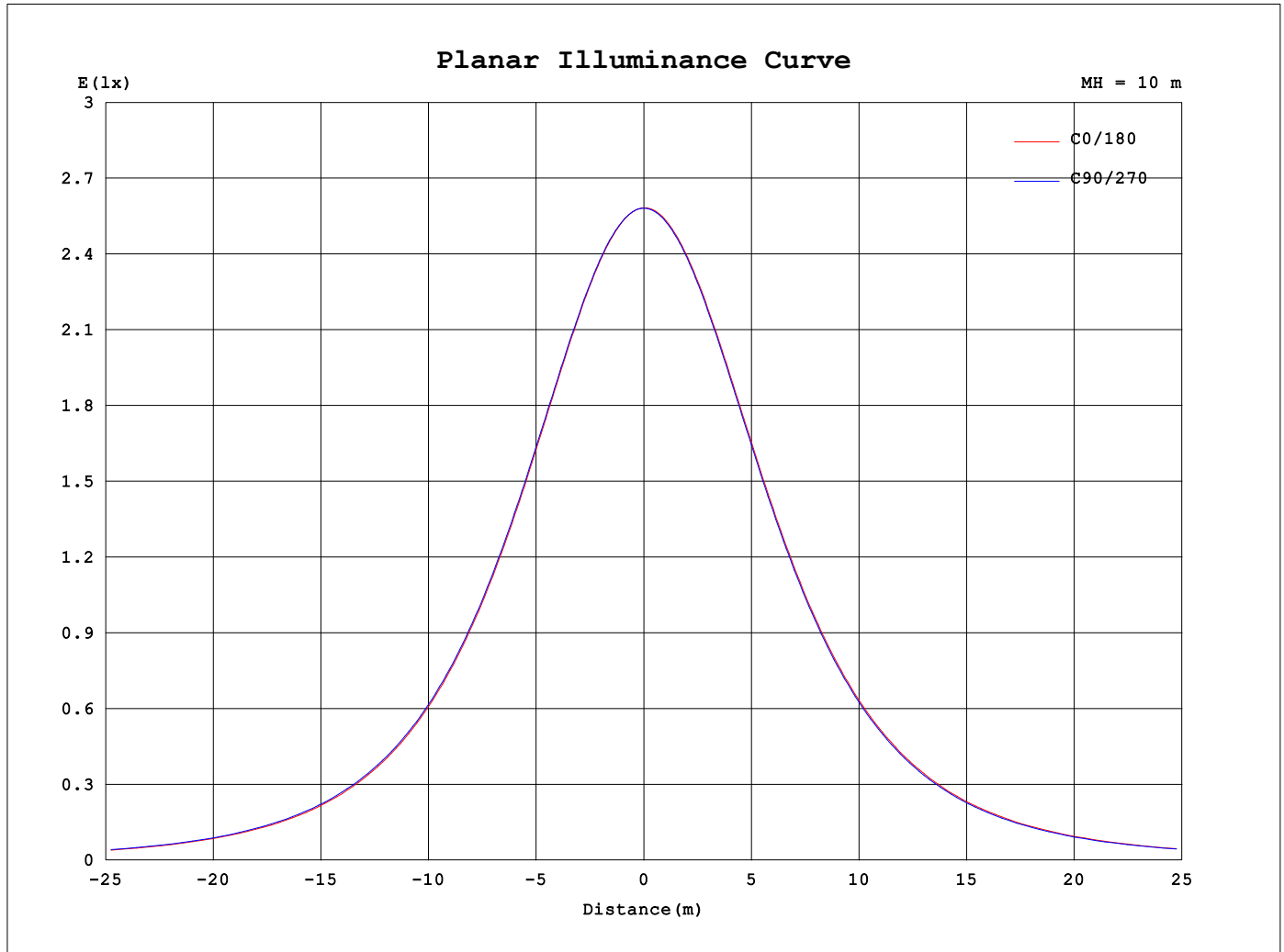
AvgL	cd/m2
L_0~180 (65) av	17993
L_0~180 (75) av	16141
L_0~180 (85) av	11701
L_90~270 (65) av	18012
L_90~270 (75) av	16211
L_90~270 (85) av	13444
L_45 (65) av	18002
L_45 (75) av	16182
L_45 (85) av	13300

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:14 July 2022

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 14 July 2022

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.456
 Humidity: 65.0%
 Test Distance: 6.265m [K=1.0000]
 Remarks:

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γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

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