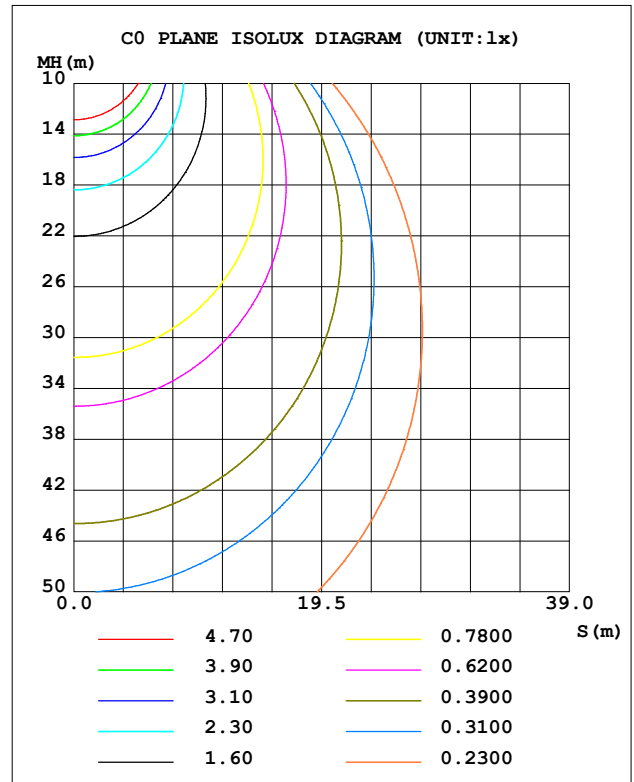
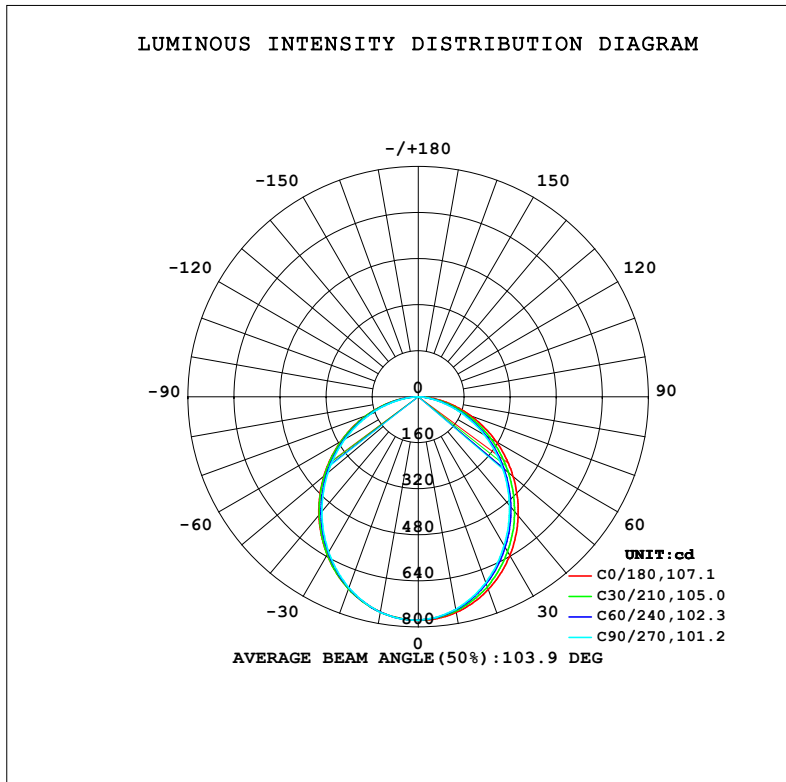


## LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 99XPOM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 70	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	99XPOM602440/BL	I <sub>max</sub> (cd)	777.0	S/MH (C0/180)	1.22
NOMINAL POWER (W)	24	LOR (%)	93.0	S/MH (C90/270)	1.20
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	2009.6	η UP, DN (C0-180)	0.0, 45.4
NOMINAL FLUX (lm)	2160	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 47.6
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	93.0	CIBSE SHR MAX	1.35



H(β) Range:-90 - 90DEG  
H(β) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 01 December 2022

V(B) Range:-85 - 85DEG  
V(B) Interval: 2.0DEG  
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:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	760.8	753.2	750.3	752.4	759.4	759.7	760.7	760.4	0- 10	73.15	73.15	3.64, 3.39
20	712.4	696.2	687.3	695.1	710.1	708.9	706.4	710.1	10- 20	206.8	279.9	13.9, 13
30	636.7	612.0	597.4	610.3	633.7	629.1	623.2	630.7	20- 30	306.2	586.1	29.2, 27.1
40	540.5	509.9	493.2	508.1	537.5	530.5	521.6	531.9	30- 40	358.4	944.5	47, 43.7
50	430.5	398.4	381.1	396.8	428.0	420.0	410.1	420.9	40- 50	360.0	1305	64.9, 60.4
60	313.1	281.8	265.6	280.9	311.2	303.6	293.5	303.7	50- 60	315.0	1619	80.6, 75
70	194.5	166.2	152.2	166.2	193.2	186.5	176.9	185.6	60- 70	232.7	1852	92.2, 85.7
80	84.23	60.20	48.88	60.38	83.81	77.08	68.66	75.80	70- 80	129.0	1981	98.6, 91.7
90	0.9908	0	0	0	1.127	0	0	0	80- 90	28.42	2010	100, 93
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): 1127.4 lm

%lum = 56.1%

%lamp = 52.2%

Conical surface Flux(130deg): 1747.9 lm

%lum = 87.0%

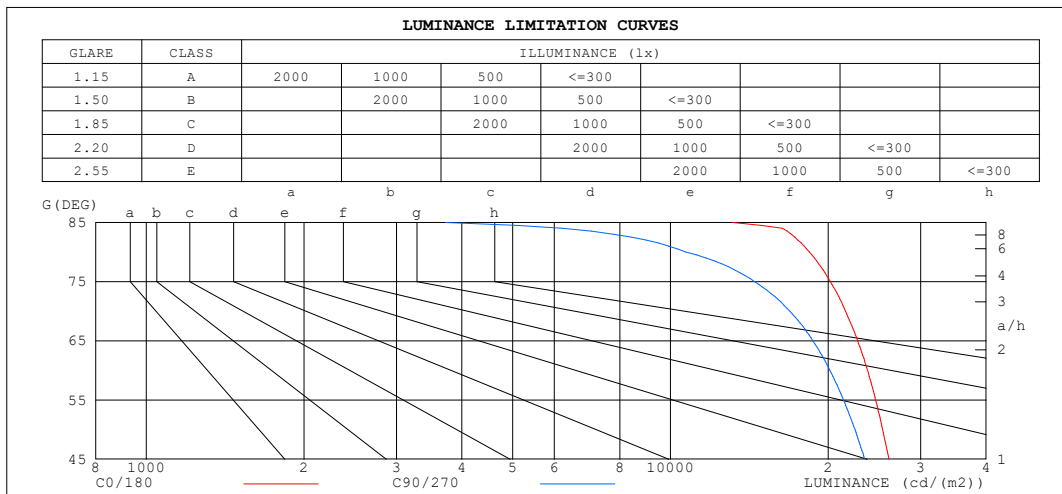
%lamp = 80.9%

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:01 December 2022

V(B) Range:-85 - 85DEG  
V(B) Interval: 2.0DEG  
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: 99XPOM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 70	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	13134	3720
80	18394	10675
75	20188	14472
70	21567	16875
65	22752	18690
60	23750	20142
55	24625	21380
50	25400	22482
45	26104	23475

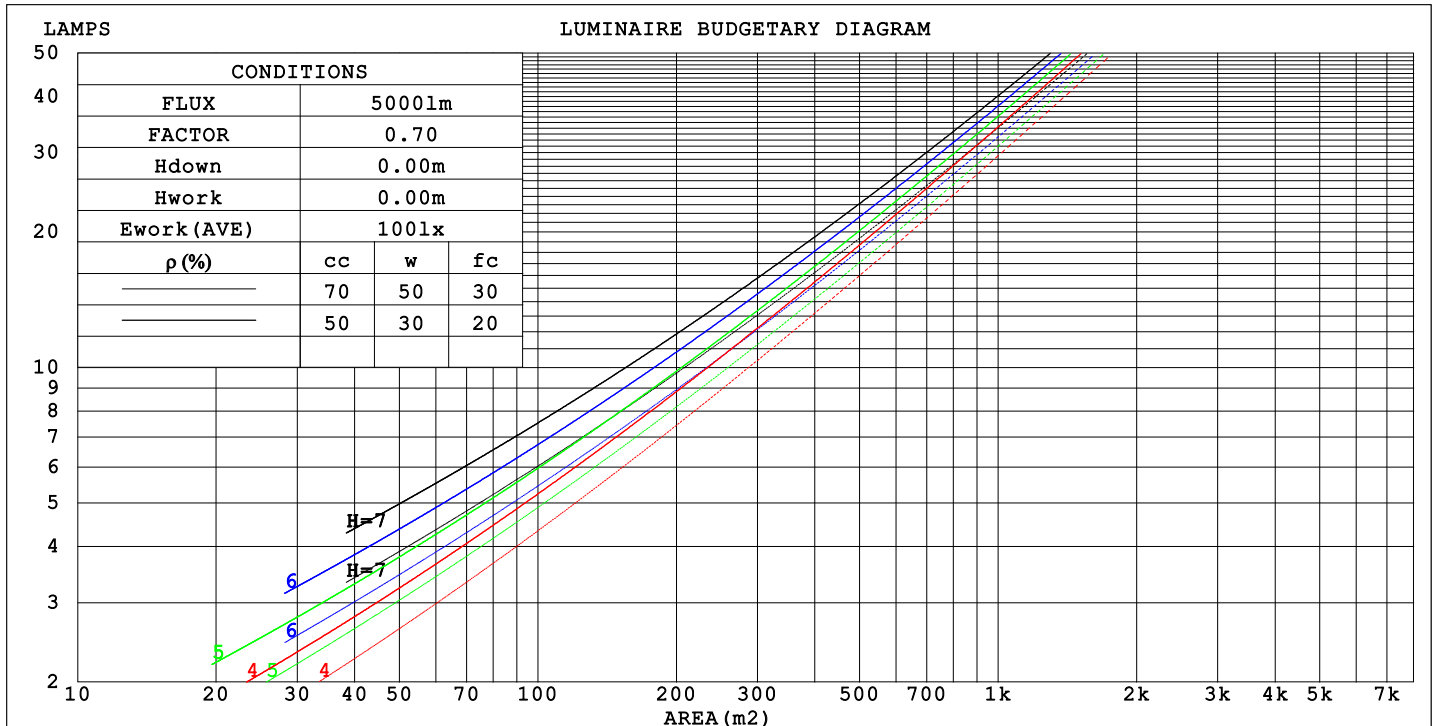
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:01 December 2022

V(B) Range:-85 - 85DEG  
V(B) Interval: 2.0DEG  
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: 99XPOM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 70	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	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															



H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:01 December 2022

V(B) Range:-85 - 85DEG  
V(B) Interval: 2.0DEG  
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: 99XPOM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 70	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	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	.278	.158	.050	.271	.155	.049	.259	.148	.047	.247	.143	.046	.237	.137	.044	
2.0	.263	.144	.044	.258	.142	.044	.247	.137	.043	.237	.133	.042	.228	.129	.041	
3.0	.245	.130	.039	.240	.128	.039	.230	.125	.038	.221	.121	.037	.213	.118	.037	
4.0	.227	.118	.035	.222	.116	.034	.214	.113	.034	.206	.111	.033	.199	.108	.033	
5.0	.210	.107	.031	.206	.106	.031	.199	.103	.030	.192	.101	.030	.185	.099	.030	
6.0	.195	.098	.028	.192	.097	.028	.185	.095	.028	.179	.093	.027	.173	.091	.027	
7.0	.182	.090	.025	.179	.089	.025	.173	.087	.025	.167	.086	.025	.162	.084	.025	
8.0	.170	.083	.023	.167	.082	.023	.162	.081	.023	.157	.080	.023	.152	.078	.023	
9.0	.160	.077	.022	.157	.077	.021	.152	.075	.021	.148	.074	.021	.144	.073	.021	
10.0	.150	.072	.020	.148	.071	.020	.144	.070	.020	.140	.069	.020	.136	.068	.020	

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	.177	.177	.177	.151	.151	.151	.103	.103	.103	.059	.059	.059	.019	.019	.019	
1.0	.167	.145	.126	.143	.125	.108	.098	.086	.075	.056	.050	.044	.018	.016	.014	
2.0	.159	.123	.092	.136	.106	.080	.093	.073	.056	.054	.043	.033	.017	.014	.011	
3.0	.152	.106	.070	.130	.092	.061	.089	.064	.043	.052	.037	.025	.017	.012	.008	
4.0	.145	.094	.055	.124	.081	.048	.085	.057	.034	.049	.033	.020	.016	.011	.007	
5.0	.138	.084	.045	.118	.073	.039	.081	.051	.027	.047	.030	.016	.015	.010	.005	
6.0	.131	.076	.037	.113	.066	.032	.078	.046	.023	.045	.027	.014	.015	.009	.004	
7.0	.125	.070	.031	.107	.061	.027	.074	.042	.019	.043	.025	.012	.014	.008	.004	
8.0	.119	.064	.027	.102	.056	.024	.071	.039	.017	.041	.023	.010	.013	.008	.003	
9.0	.113	.060	.024	.098	.052	.021	.068	.036	.015	.039	.022	.009	.013	.007	.003	
10.0	.108	.056	.021	.093	.048	.018	.065	.034	.013	.038	.020	.008	.012	.007	.003	

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:01 December 2022

V(B) Range:-85 - 85DEG  
V(B) Interval: 2.0DEG  
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: 99XPOM602440/BL					TYPE:			WEIGHT: 1		
SPEC.:					DIM.: 600 x 50 x 70			SERIAL No.: 0		
MFR.: Elmark Industries JSC					SUR.:			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	21.2	22.7	21.4	22.9	23.1	20.5	22.0	20.8	22.2	22.4
3H	22.7	24.0	23.0	24.3	24.5	21.8	23.2	22.1	23.4	23.6
4H	23.3	24.6	23.6	24.8	25.1	22.2	23.5	22.5	23.8	24.0
6H	23.7	25.0	24.1	25.2	25.5	22.5	23.7	22.8	24.0	24.2
8H	23.9	25.1	24.2	25.3	25.6	22.5	23.7	22.8	24.0	24.2
12H	23.9	25.1	24.3	25.4	25.7	22.5	23.6	22.8	23.9	24.2
4H 2H	21.7	23.0	22.0	23.2	23.5	21.1	22.4	21.4	22.7	22.9
3H	23.3	24.5	23.7	24.8	25.1	22.6	23.7	22.9	24.0	24.3
4H	24.0	25.1	24.4	25.4	25.7	23.1	24.2	23.5	24.5	24.8
6H	24.6	25.5	25.0	25.9	26.3	23.4	24.4	23.8	24.7	25.1
8H	24.8	25.7	25.2	26.0	26.4	23.5	24.4	23.9	24.7	25.1
12H	24.9	25.7	25.4	26.1	26.5	23.5	24.3	23.9	24.7	25.1
8H 4H	24.2	25.1	24.6	25.4	25.8	23.4	24.2	23.8	24.6	25.0
6H	24.9	25.6	25.3	26.0	26.4	23.8	24.5	24.2	24.9	25.3
8H	25.2	25.8	25.6	26.2	26.7	23.9	24.5	24.4	25.0	25.4
12H	25.4	25.9	25.8	26.4	26.8	23.9	24.5	24.4	24.9	25.4
12H 4H	24.2	25.0	24.6	25.4	25.8	23.4	24.2	23.8	24.6	25.0
6H	24.9	25.5	25.4	26.0	26.4	23.8	24.5	24.3	24.9	25.3
8H	25.2	25.7	25.7	26.2	26.7	24.0	24.5	24.4	25.0	25.4
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
1.5H	+ 0.1 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.3				

CIE Pub.117, 2160 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.7)  
Area: 0.02637 m2

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:01 December 2022

V(B) Range:-85 - 85DEG  
V(B) Interval: 2.0DEG  
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: 99XPOM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 70	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:

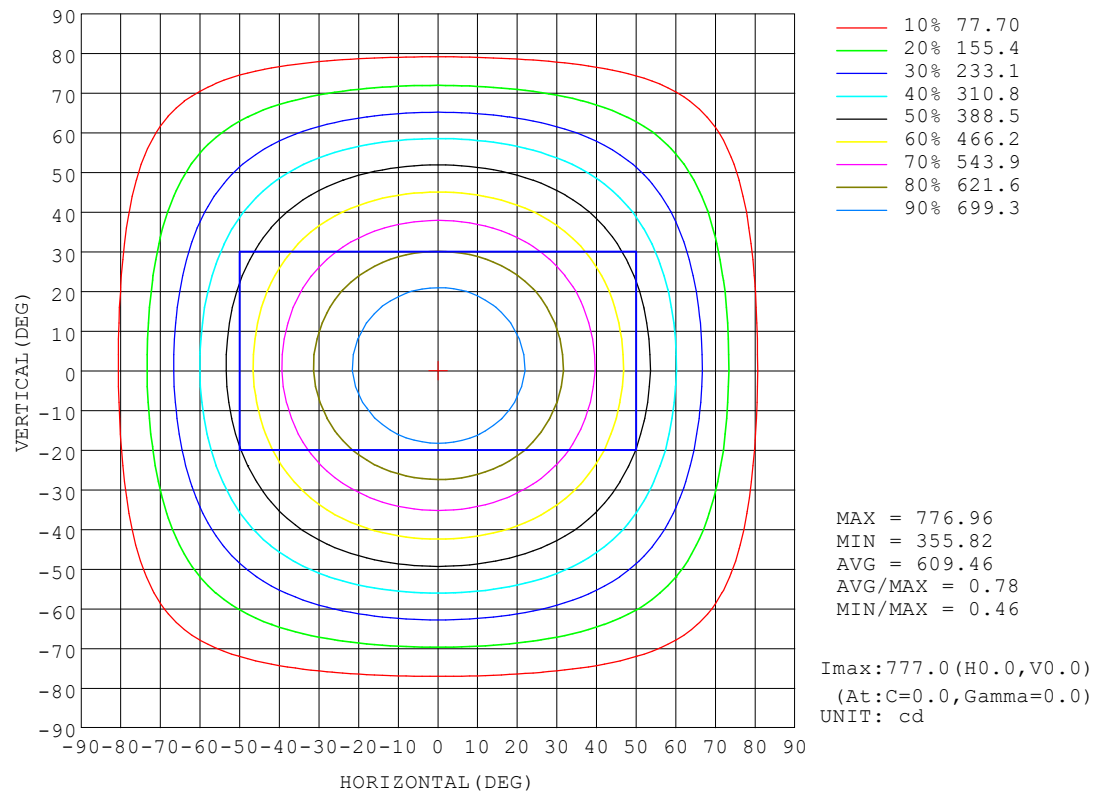
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	55	44	38	54	44	38	53	44	38	32
0.80	64	54	47	63	53	47	62	52	46	40
1.00	72	62	55	71	61	55	69	63	54	48
1.25	78	69	62	77	68	62	75	67	61	55
1.50	83	74	68	81	73	67	79	72	66	59
2.00	89	82	76	87	80	75	84	78	74	66
2.50	93	86	80	91	84	79	87	82	78	70
3.00	96	90	85	94	88	84	90	85	82	74
4.00	99	94	90	97	93	89	93	90	86	78
5.00	102	97	94	99	95	92	95	92	89	81
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:01 December 2022

V(B) Range:-85 - 85DEG  
V(B) Interval: 2.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.265m [K=1.0000]  
Remarks:

# ISOCANDELA DIAGRAM

NAME: 99XPOM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 70	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:



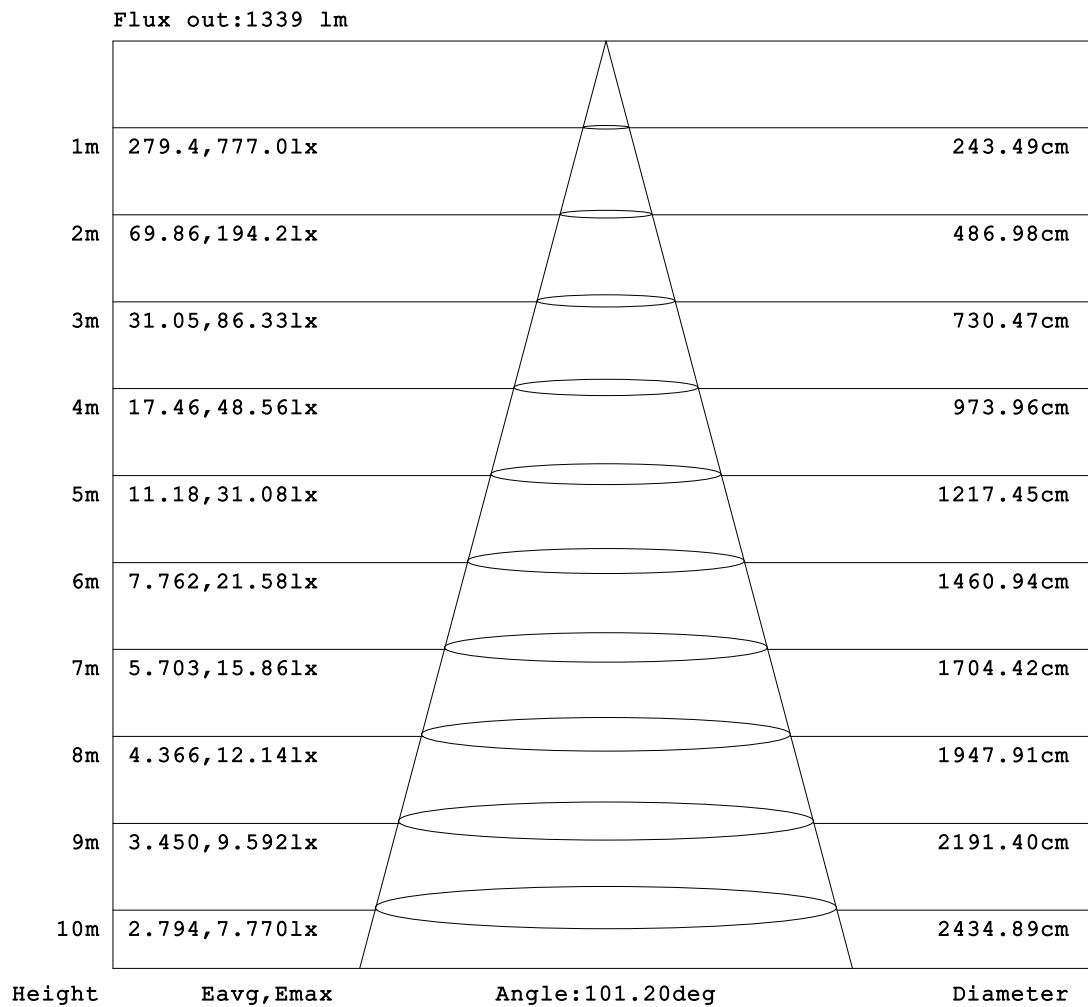
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 01 December 2022

V(B) Range:-85 - 85DEG  
V(B) Interval: 2.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity: 65.0%  
Test Distance: 6.265m [K=1.0000]  
Remarks:



**AAI Figure**

NAME: 99XPOM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 70	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:



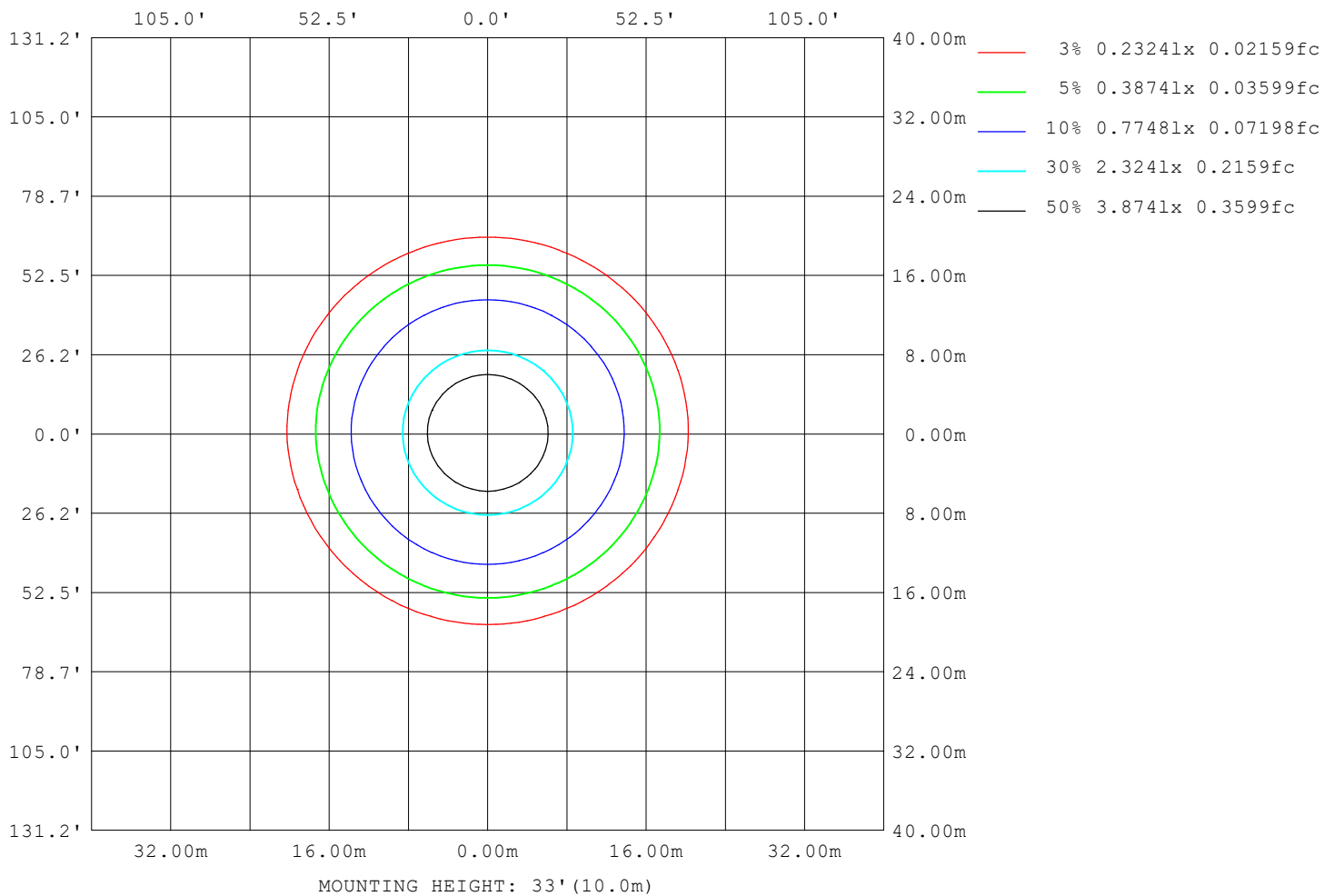
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H( $\beta$ ) Range:-90 - 90DEG  
 H( $\beta$ ) Interval: 2.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:01 December 2022

V(B) Range:-85 - 85DEG  
 V(B) Interval: 2.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
 Humidity:65.0%  
 Test Distance:6.265m [K=1.0000]  
 Remarks:

### ISOLUX DIAGRAM

NAME: 99XPOM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 70	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:



H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:01 December 2022

V(B) Range:-85 - 85DEG  
V(B) Interval: 2.0DEG  
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: 99XPOM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 70	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:

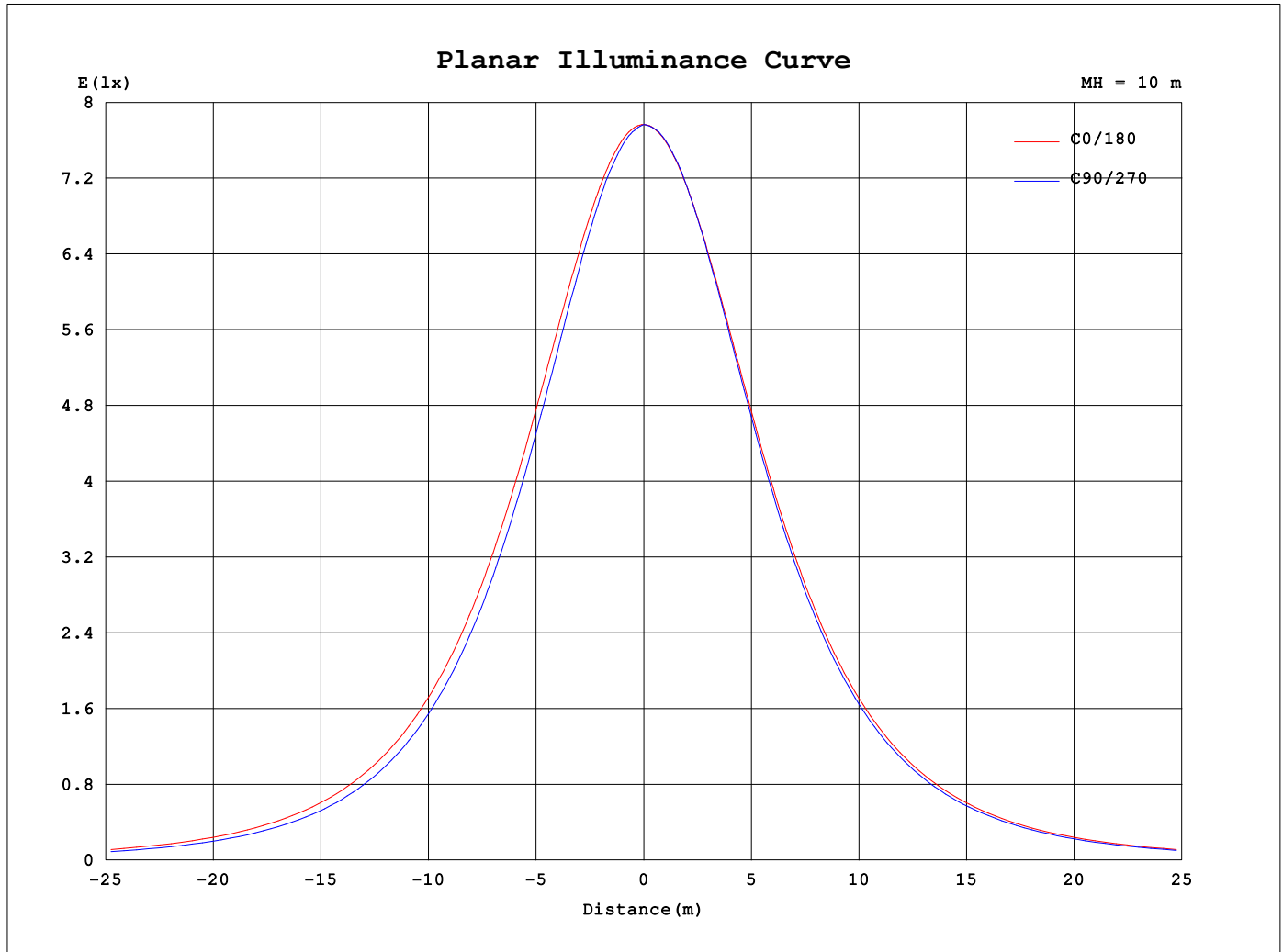
AvgL	cd/m2
L_0~180 (65) av	22682
L_0~180 (75) av	20103
L_0~180 (85) av	13011
L_90~270 (65) av	19880
L_90~270 (75) av	16139
L_90~270 (85) av	5363
L_45 (65) av	20984
L_45 (75) av	17659
L_45 (85) av	9876

Standard: GB/T 29293-2012

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:01 December 2022

V(B) Range:-85 - 85DEG  
V(B) Interval: 2.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.265m [K=1.0000]  
Remarks:

# Planar Illuminance Curve



H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:01 December 2022

V(B) Range:-85 - 85DEG  
V(B) Interval: 2.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.265m [K=1.0000]  
Remarks:

V(B) Range:-85 - 85DEG  
V(B) Interval: 2.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.265m [K=1.0000]  
Remarks:

V(B) Range:-85 - 85DEG  
V(B) Interval: 2.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.265m [K=1.0000]  
Remarks:

V(B) Range:-85 - 85DEG  
V(B) Interval: 2.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.265m [K=1.0000]  
Remarks:

V(B) Range:-85 - 85DEG  
V(B) Interval: 2.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.265m [K=1.0000]  
Remarks: