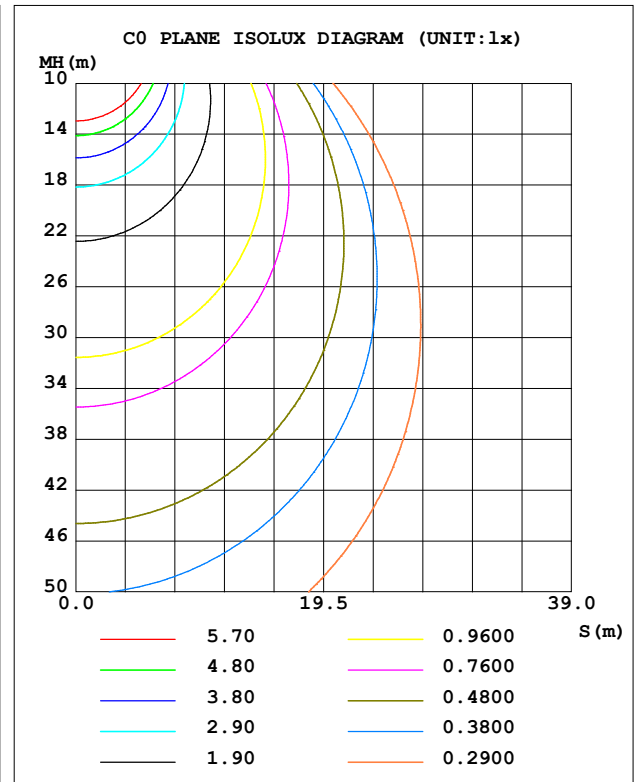
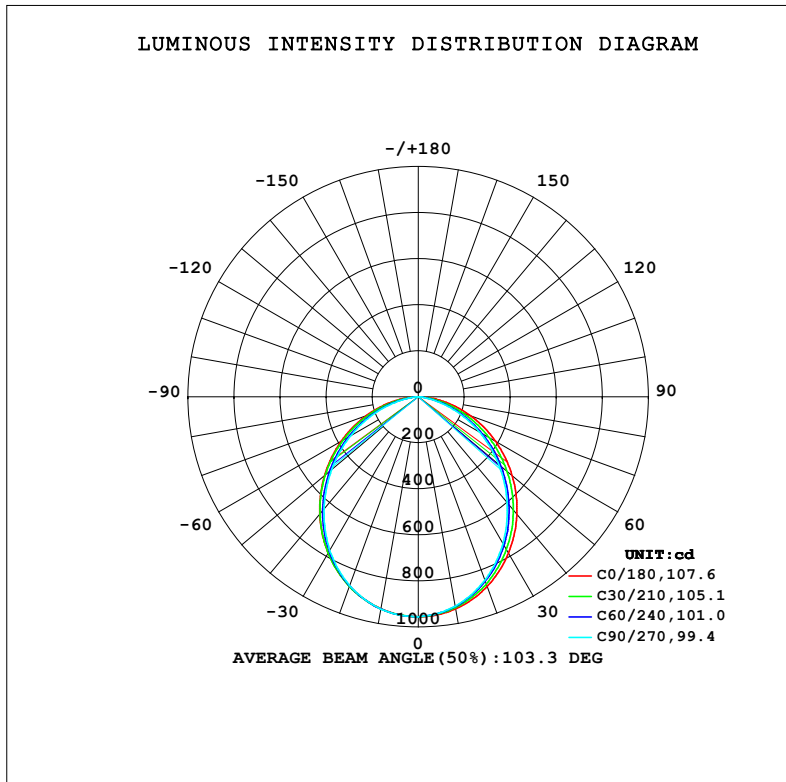


## LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 99POM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 75	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	99POM602440/BL	I <sub>max</sub> (cd)	955.9	S/MH (C0/180)	1.22
NOMINAL POWER (W)	24	LOR (%)	112.4	S/MH (C90/270)	1.20
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	2428.3	η UP, DN (C0-180)	0.0, 54.9
NOMINAL FLUX (lm)	2160	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 57.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	112.4	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:30 November 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	935.7	927.0	924.4	926.7	935.1	935.7	937.0	935.8	0- 10	90.03	90.03	3.71,4.17
20	876.5	858.3	848.1	858.1	875.4	875.5	873.2	875.7	10- 20	254.9	344.9	14.2,16
30	784.2	754.9	736.7	754.5	783.3	779.3	770.1	779.2	20- 30	378.0	722.9	29.8,33.5
40	666.8	628.0	601.5	626.9	666.1	656.7	637.3	656.1	30- 40	442.1	1165	48,53.9
50	532.7	485.3	456.3	484.9	531.2	514.5	491.2	513.4	40- 50	441.6	1607	66.2,74.4
60	388.3	336.3	307.0	335.8	386.6	363.2	338.9	362.1	50- 60	381.6	1988	81.9,92
70	241.5	188.7	162.6	188.3	239.5	211.7	188.4	210.4	60- 70	274.3	2262	93.2,105
80	104.3	56.21	33.69	55.73	101.9	72.18	52.18	71.26	70- 80	141.1	2403	99,111
90	1.203	0	0	0	1.369	0	0	0	80- 90	24.83	2428	100,112
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): 1389.7 lm

%lum = 57.2%

%lamp = 64.3%

Conical surface Flux(130deg): 2140.9 lm

%lum = 88.2%

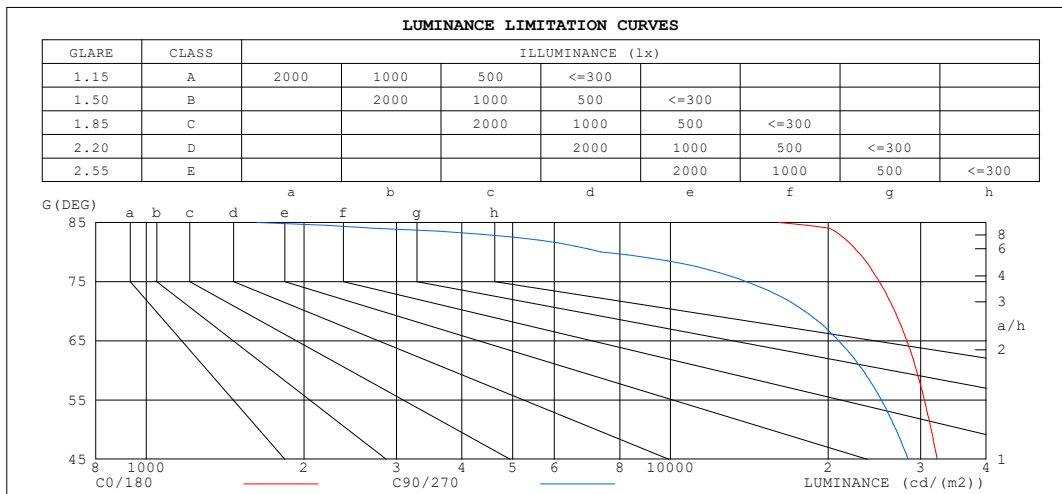
%lamp = 99.1%

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:30 November 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: 99POM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 75	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	16105	1627
80	22768	7358
75	25014	13951
70	26777	18024
65	28239	20930
60	29451	23288
55	30499	25243
50	31426	26918
45	32253	28400

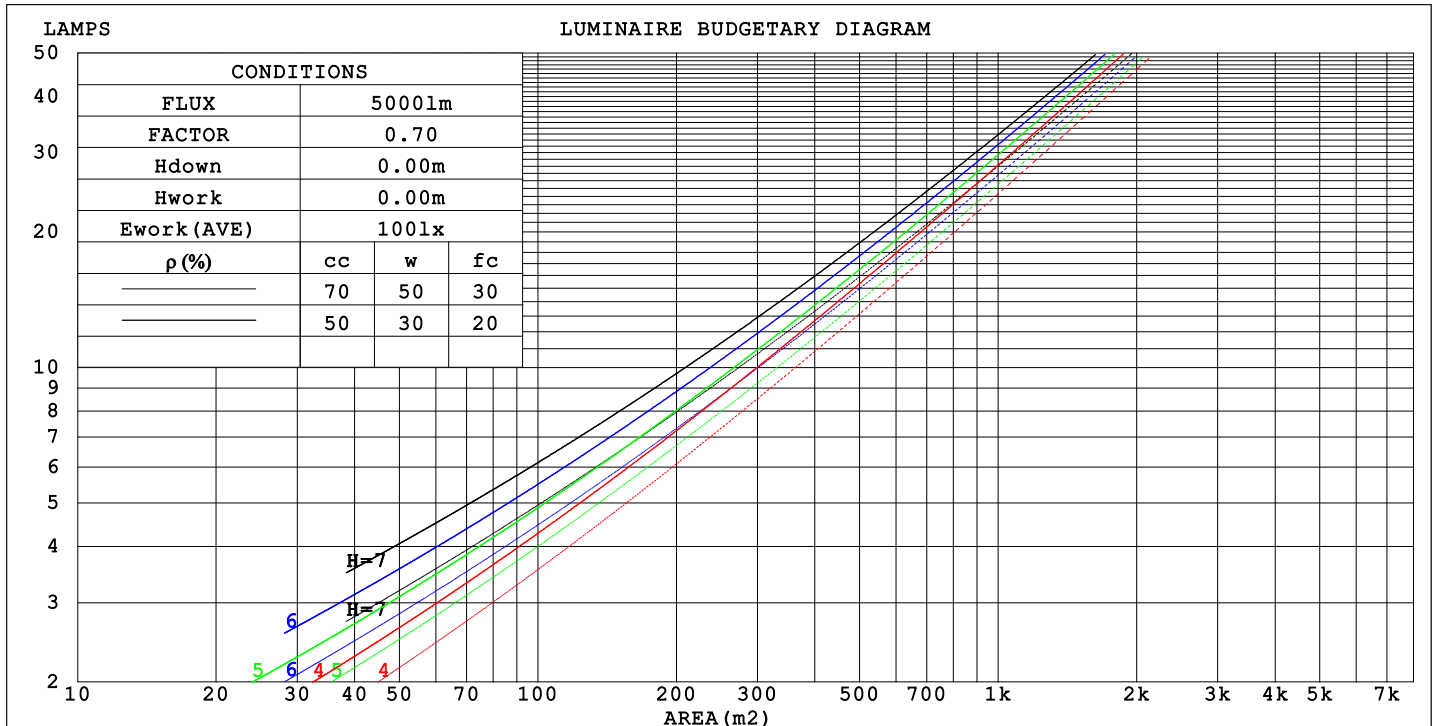
H( $\beta$ ) Range:-90 - 90DEG  
 H( $\beta$ ) Interval: 2.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:30 November 2022

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: 99POM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 75	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:30 November 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: 99POM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 75	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	.326	.186	.059	.319	.182	.058	.304	.174	.056	.290	.167	.054	.278	.161	.052	
2.0	.312	.171	.052	.305	.168	.052	.292	.162	.050	.280	.157	.049	.269	.152	.048	
3.0	.291	.155	.046	.285	.153	.046	.274	.148	.045	.263	.144	.044	.253	.140	.043	
4.0	.270	.141	.041	.265	.139	.041	.255	.135	.040	.245	.132	.040	.237	.129	.039	
5.0	.251	.128	.037	.246	.126	.037	.237	.124	.036	.229	.121	.036	.221	.118	.035	
6.0	.234	.117	.034	.230	.116	.033	.221	.114	.033	.214	.111	.033	.207	.109	.032	
7.0	.218	.108	.031	.214	.107	.030	.207	.105	.030	.200	.103	.030	.194	.101	.030	
8.0	.204	.100	.028	.201	.099	.028	.194	.097	.028	.188	.095	.028	.183	.094	.027	
9.0	.192	.093	.026	.189	.092	.026	.183	.090	.026	.178	.089	.025	.172	.088	.025	
10.0	.181	.087	.024	.178	.086	.024	.173	.085	.024	.168	.083	.024	.163	.082	.024	

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	.214	.214	.214	.183	.183	.183	.125	.125	.125	.072	.072	.072	.023	.023	.023	
1.0	.201	.176	.153	.172	.151	.131	.118	.104	.091	.068	.060	.053	.022	.019	.017	
2.0	.192	.148	.112	.164	.128	.097	.112	.088	.068	.065	.051	.040	.021	.017	.013	
3.0	.183	.128	.085	.157	.111	.074	.107	.077	.052	.062	.045	.031	.020	.015	.010	
4.0	.174	.113	.067	.149	.098	.058	.103	.068	.041	.059	.040	.024	.019	.013	.008	
5.0	.166	.102	.054	.142	.088	.047	.098	.061	.033	.057	.036	.020	.018	.012	.007	
6.0	.158	.092	.045	.136	.080	.039	.094	.056	.028	.054	.033	.016	.018	.011	.005	
7.0	.150	.084	.038	.129	.073	.033	.089	.051	.023	.052	.030	.014	.017	.010	.005	
8.0	.143	.078	.033	.123	.067	.029	.085	.047	.020	.050	.028	.012	.016	.009	.004	
9.0	.136	.072	.029	.118	.063	.025	.081	.044	.018	.047	.026	.011	.015	.009	.004	
10.0	.130	.067	.026	.112	.058	.022	.078	.041	.016	.045	.024	.009	.015	.008	.003	

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:30 November 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: 99POM602440/BL					TYPE:					WEIGHT: 1				
SPEC.:					DIM.: 600 x 50 x 75					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	22.0	23.4	22.2	23.6	23.8	21.0	22.5	21.3	22.7	22.9				
3H	23.5	24.8	23.8	25.1	25.3	22.1	23.5	22.4	23.7	23.9				
4H	24.1	25.4	24.4	25.6	25.9	22.4	23.7	22.7	24.0	24.2				
6H	24.5	25.7	24.8	26.0	26.3	22.5	23.7	22.8	24.0	24.3				
8H	24.7	25.8	25.0	26.1	26.4	22.5	23.7	22.8	23.9	24.2				
12H	24.7	25.9	25.1	26.2	26.5	22.4	23.6	22.8	23.9	24.2				
4H 2H	22.4	23.7	22.7	23.9	24.2	21.6	22.9	22.0	23.2	23.4				
3H	24.0	25.2	24.4	25.5	25.8	22.9	24.0	23.2	24.3	24.6				
4H	24.8	25.8	25.1	26.1	26.4	23.3	24.3	23.7	24.6	25.0				
6H	25.3	26.2	25.7	26.6	26.9	23.4	24.3	23.8	24.7	25.0				
8H	25.5	26.4	25.9	26.7	27.1	23.4	24.3	23.8	24.6	25.0				
12H	25.6	26.4	26.1	26.8	27.2	23.4	24.2	23.8	24.5	24.9				
8H 4H	24.9	25.7	25.3	26.1	26.5	23.5	24.4	23.9	24.7	25.1				
6H	25.5	26.2	26.0	26.6	27.0	23.7	24.4	24.2	24.8	25.2				
8H	25.8	26.4	26.2	26.8	27.3	23.7	24.3	24.2	24.8	25.2				
12H	25.9	26.5	26.4	26.9	27.4	23.7	24.2	24.2	24.7	25.2				
12H 4H	24.8	25.6	25.3	26.0	26.4	23.5	24.3	23.9	24.7	25.1				
6H	25.5	26.1	26.0	26.5	27.0	23.7	24.4	24.2	24.8	25.2				
8H	25.8	26.3	26.2	26.7	27.2	23.8	24.3	24.2	24.7	25.2				
Variations with the observer position at spacings(CIE Pub.117):														
S = 1.0H	+ 0.2 / - 0.2					+ 0.3 / - 0.3								
1.5H	+ 0.1 / - 0.3					+ 0.2 / - 0.4								
2.0H	+ 0.3 / - 0.4					+ 0.4 / - 0.4								

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:30 November 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: 99POM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 75	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:

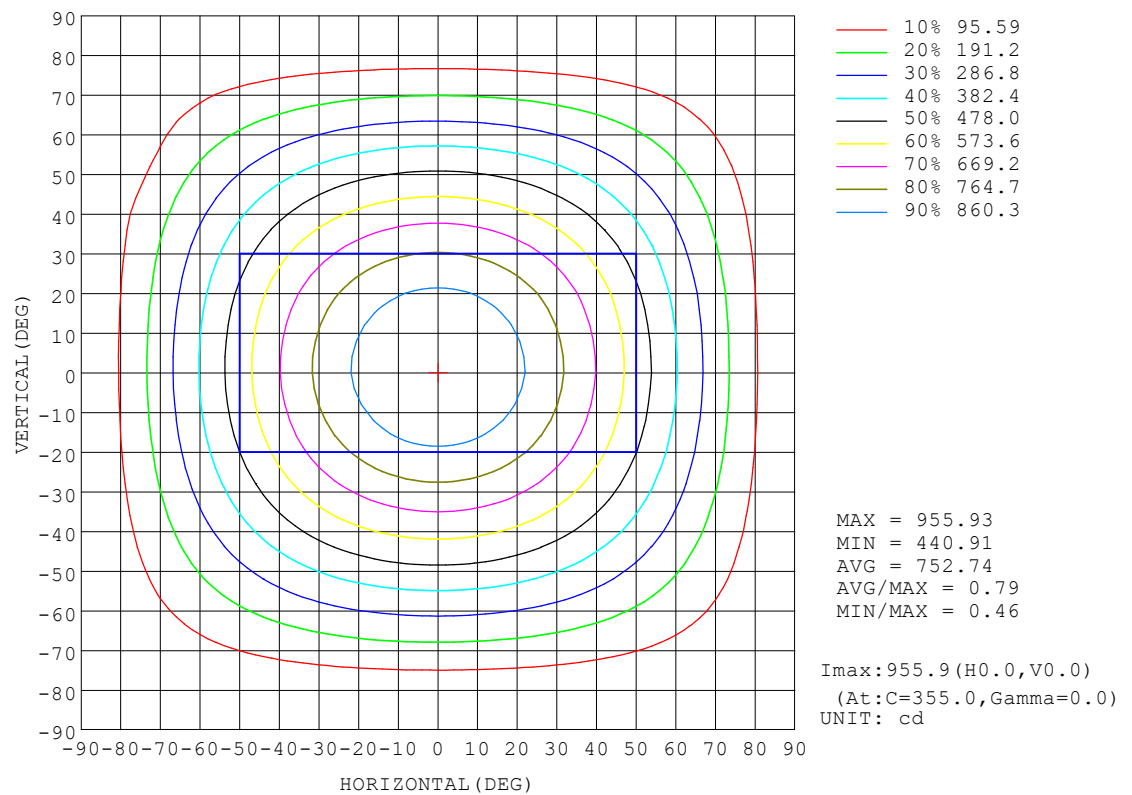
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	67	54	46	66	54	46	65	53	46	39
0.80	78	65	57	77	65	57	75	64	57	49
1.00	88	76	68	86	75	67	84	76	67	59
1.25	95	84	76	94	83	76	91	82	75	67
1.50	101	90	83	99	89	82	96	87	81	73
2.00	108	99	92	106	98	92	103	95	90	81
2.50	113	104	98	110	103	97	106	100	95	86
3.00	116	109	103	114	107	102	109	104	99	90
4.00	120	114	110	118	113	108	113	109	105	95
5.00	123	118	114	120	116	112	115	112	108	98
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:30 November 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: 99POM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 75	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:



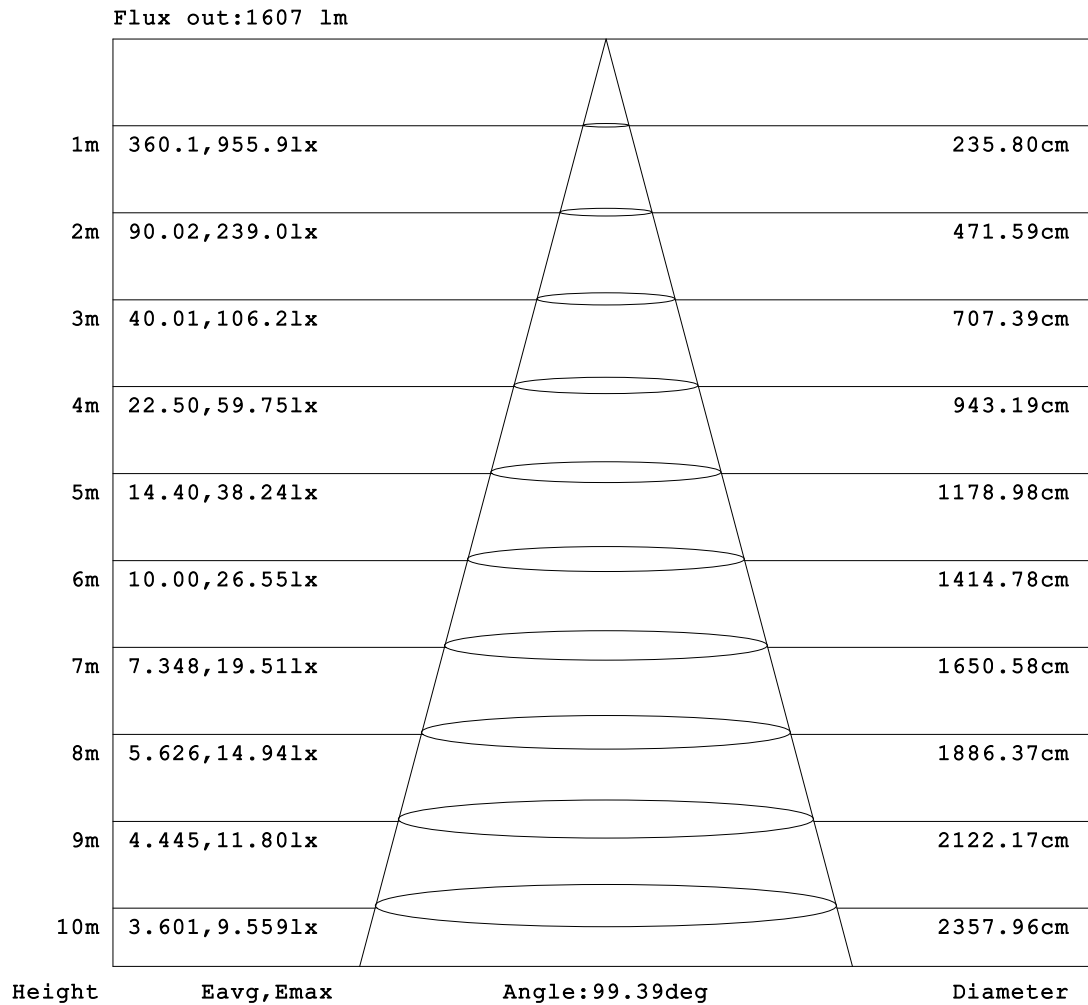
H( $\beta$ ) Range:-90 - 90DEG  
 H( $\beta$ ) Interval: 2.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:30 November 2022

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: 99POM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 75	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:



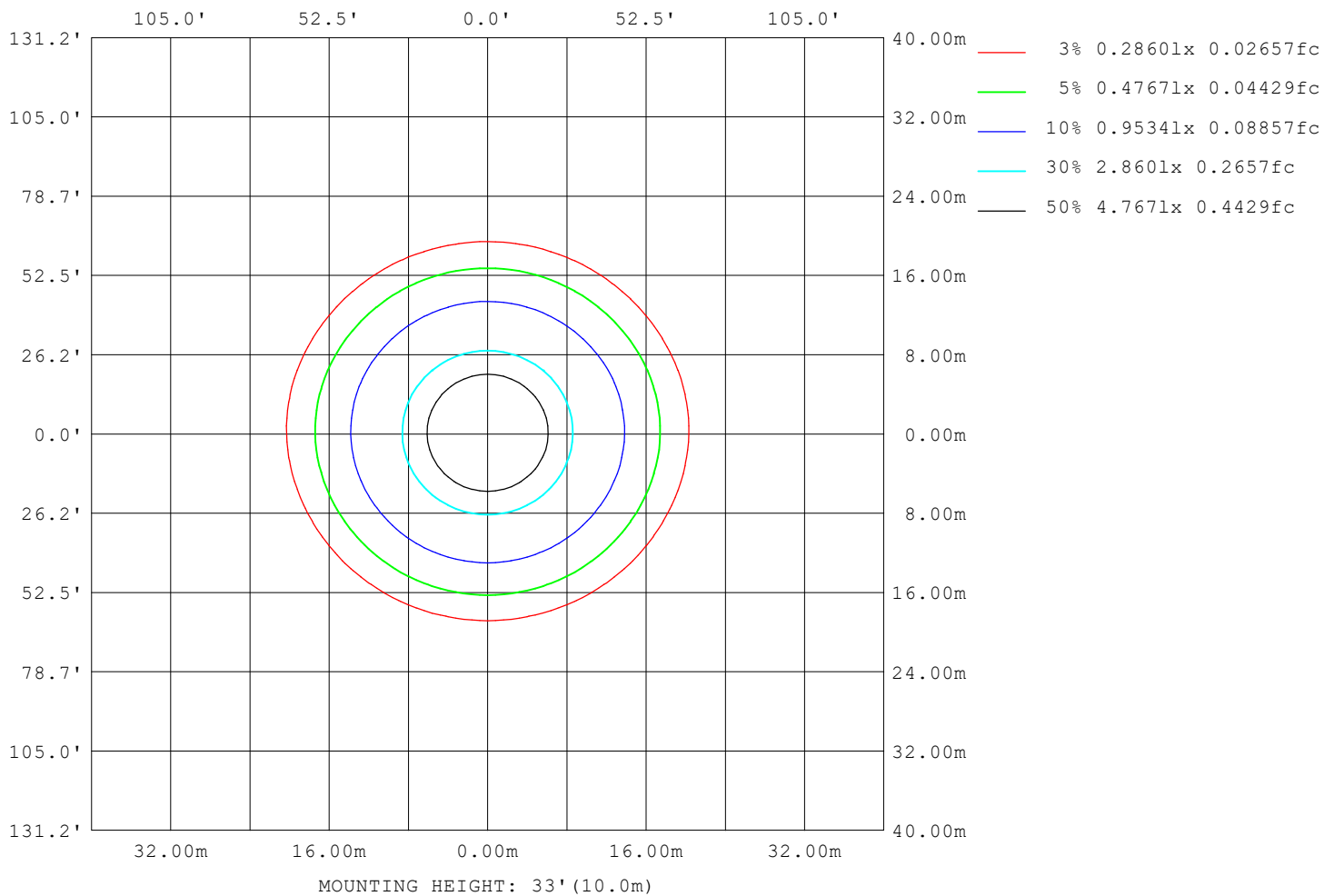
**Note:** The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H( $\beta$ ) Range:-90 - 90DEG  
 H( $\beta$ ) Interval: 2.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 30 November 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: 99POM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 75	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:30 November 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: 99POM602440/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 600 x 50 x 75	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:

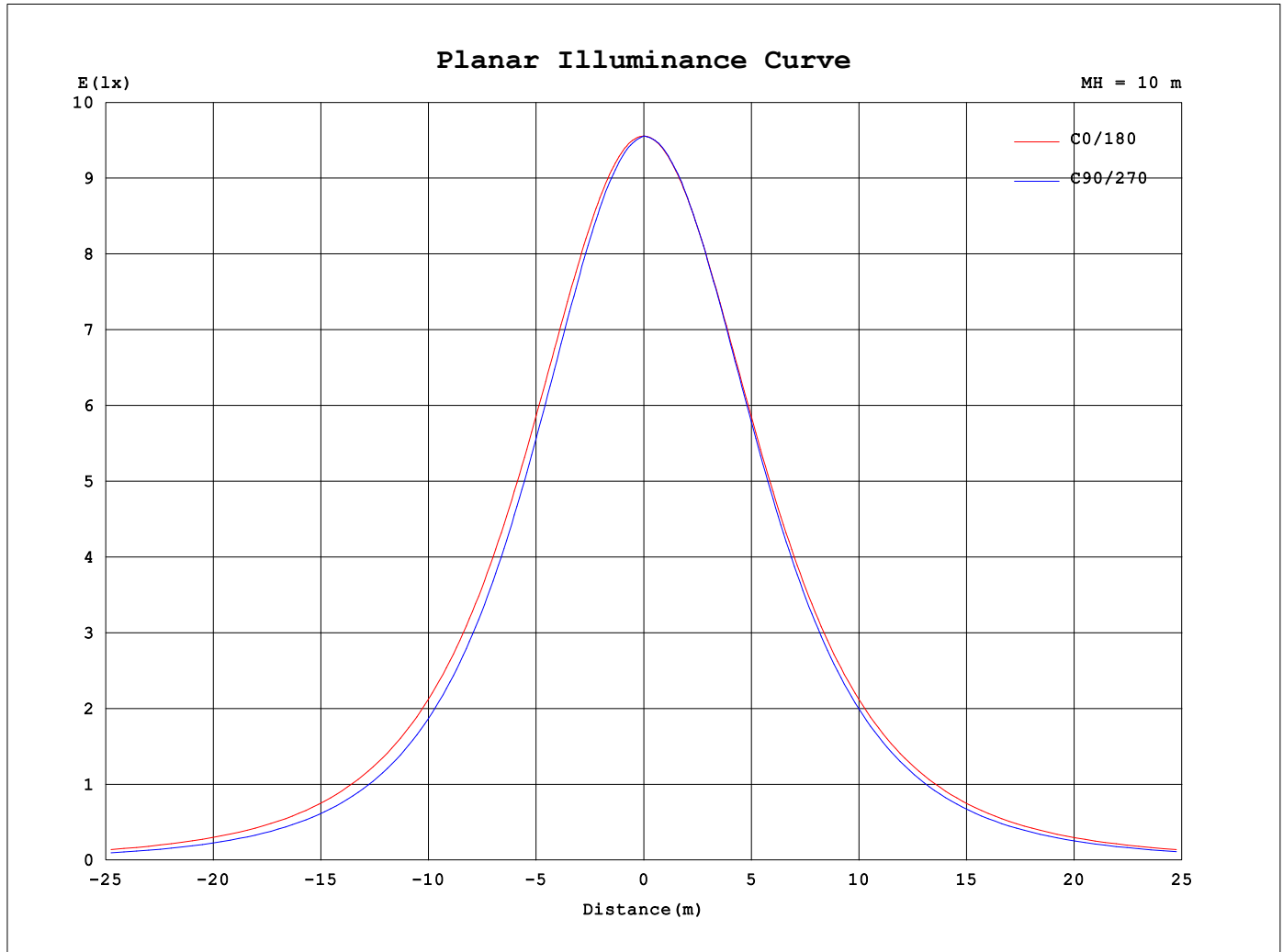
AvgL	cd/m2
L_0~180 (65) av	28158
L_0~180 (75) av	24859
L_0~180 (85) av	15692
L_90~270 (65) av	22267
L_90~270 (75) av	15622
L_90~270 (85) av	2309
L_45 (65) av	24578
L_45 (75) av	18944
L_45 (85) av	5760

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:30 November 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:30 November 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: