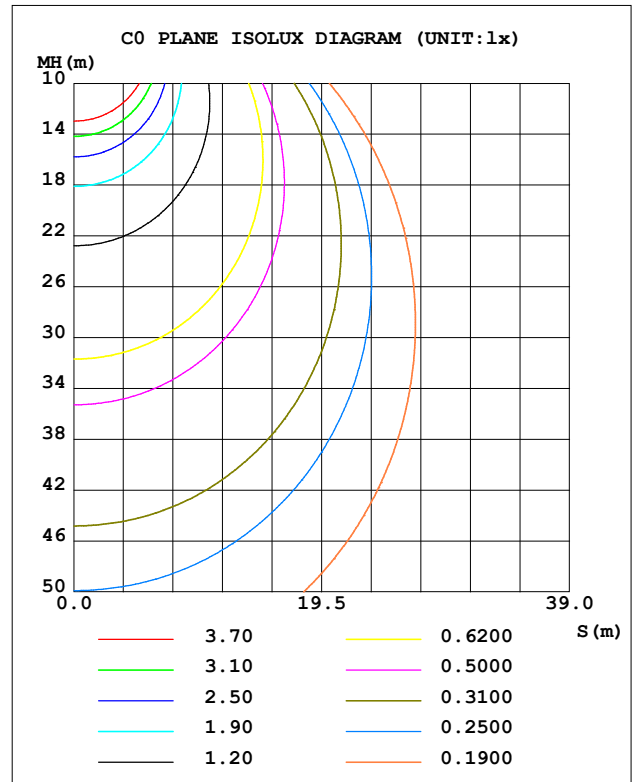
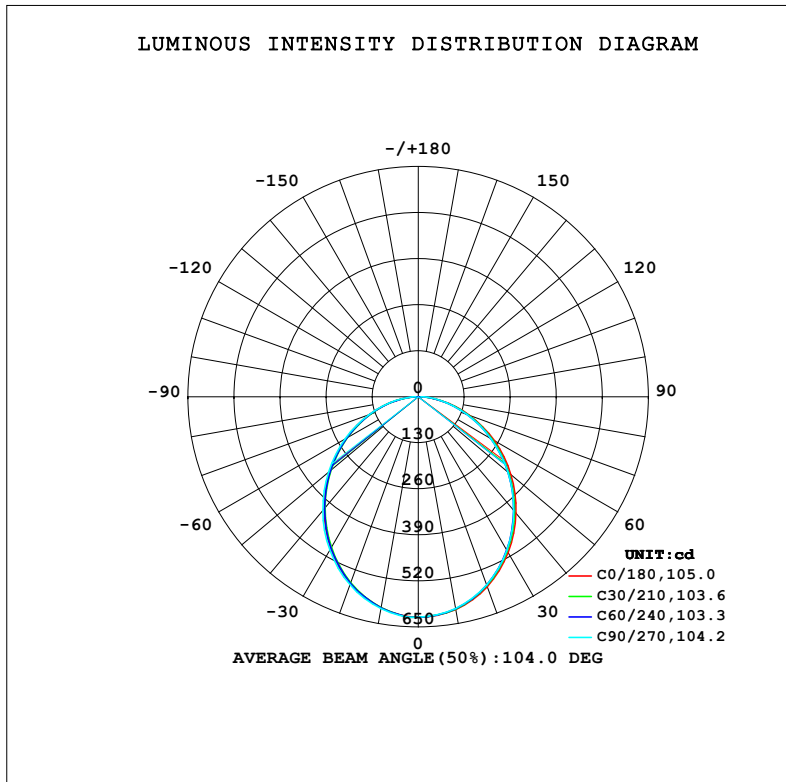


## LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 99PFMT40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	99PFMT40/WH	I <sub>max</sub> (cd)	623.2	S/MH (C0/180)	1.19
NOMINAL POWER (W)	15	LOR (%)	109.6	S/MH (C90/270)	1.20
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	1644.1	η UP, DN (C0-180)	0.0, 54.8
NOMINAL FLUX (lm)	1500	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 54.8
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	109.6	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3°C  
Operators:  
Test Date: 15 November 2022

γ Range: 0 - 90DEG  
γ Interval: 2.5DEG  
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:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	609.8	608.2	607.2	607.0	604.8	604.4	607.0	610.5	0- 10	58.69	58.69	3.57,3.91
20	570.3	566.0	565.2	565.7	560.6	558.8	564.8	571.8	10- 20	166.1	224.8	13.7,15
30	507.5	500.8	500.3	501.5	494.7	491.0	499.9	509.7	20- 30	246.5	471.3	28.7,31.4
40	428.9	420.3	419.8	421.5	414.3	409.2	419.6	431.0	30- 40	288.9	760.2	46.2,50.7
50	341.6	331.5	330.6	333.0	326.3	320.9	330.9	342.7	40- 50	290.9	1051	63.9,70.1
60	248.7	239.0	237.5	240.1	235.6	230.7	239.0	249.4	50- 60	256.0	1307	79.5,87.1
70	154.5	147.6	146.6	148.0	146.4	142.5	148.6	155.8	60- 70	192.0	1499	91.2,99.9
80	67.79	63.23	64.52	63.56	63.68	61.98	66.67	68.67	70- 80	111.7	1611	98,107
90	4.421	1.684	7.951	1.563	2.636	1.482	6.723	2.141	80- 90	33.27	1644	100,110
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): 907.87 lm

%lum = 55.2%

%lamp = 60.5%

Conical surface Flux(130deg): 1412.5 lm

%lum = 85.9%

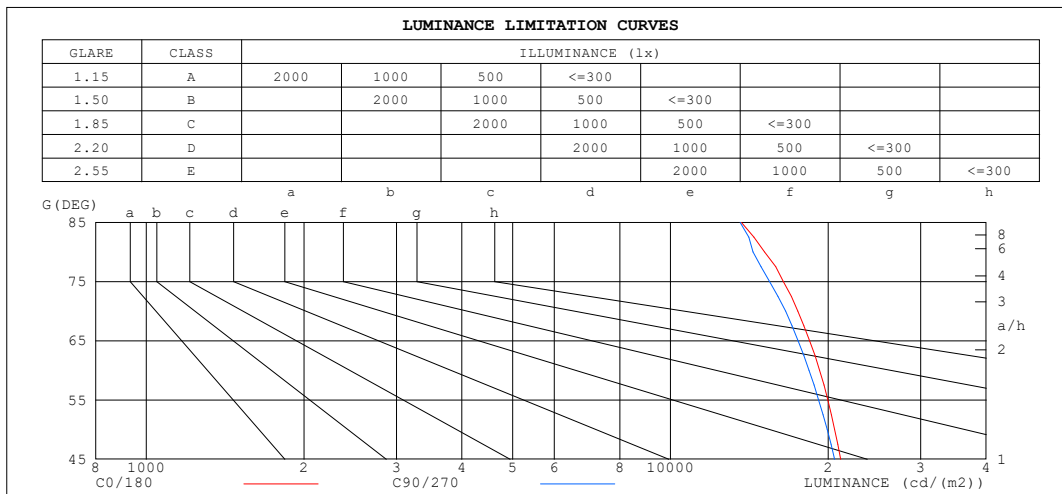
%lamp = 94.2%

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: MEDIUM  
Temperature:25.3°C  
Operators:  
Test Date:15 November 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.5DEG  
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: 99PFMT40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	13666	13579
80	15110	14375
75	16418	15462
70	17482	16583
65	18426	17515
60	19256	18380
55	19973	19175
50	20568	19895
45	21127	20570

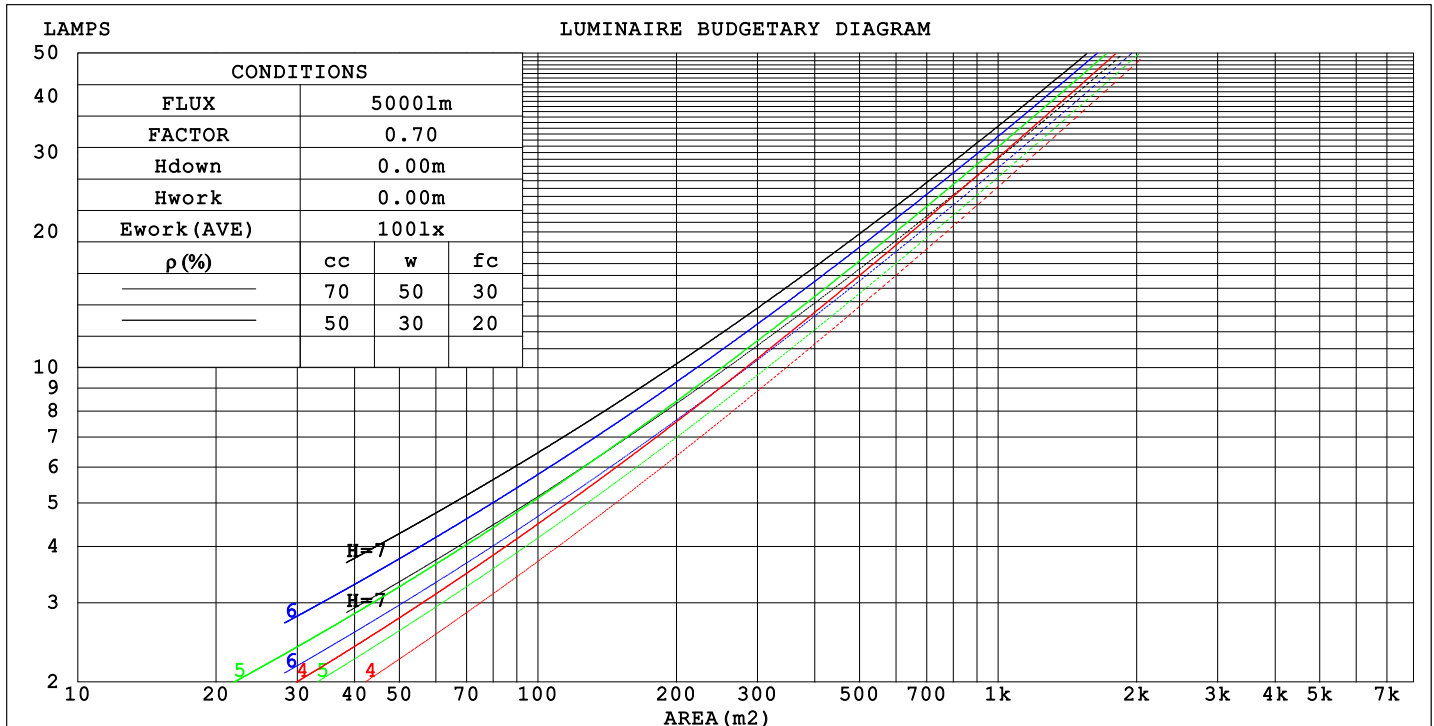
C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3°C  
Operators:  
Test Date: 15 November 2022

γ Range: 0 - 90DEG  
γ Interval: 2.5DEG  
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: 99PFMT40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	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: 10.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3°C  
Operators:  
Test Date: 15 November 2022

γ Range: 0 - 90DEG  
γ Interval: 2.5DEG  
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: 99PFMT40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	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	.336	.191	.061	.329	.187	.060	.314	.180	.058	.301	.174	.056	.289	.167	.054	
2.0	.316	.173	.053	.309	.170	.052	.296	.165	.051	.285	.160	.050	.274	.155	.049	
3.0	.292	.156	.047	.286	.153	.046	.275	.149	.045	.264	.145	.044	.255	.141	.044	
4.0	.270	.140	.041	.264	.138	.041	.254	.135	.040	.245	.132	.040	.237	.129	.039	
5.0	.250	.127	.037	.245	.126	.037	.236	.123	.036	.228	.120	.036	.220	.118	.035	
6.0	.232	.116	.033	.227	.115	.033	.219	.112	.033	.212	.110	.032	.205	.108	.032	
7.0	.216	.107	.030	.212	.106	.030	.205	.104	.030	.198	.102	.030	.192	.100	.029	
8.0	.202	.098	.028	.198	.098	.028	.192	.096	.027	.186	.094	.027	.180	.093	.027	
9.0	.189	.091	.026	.186	.091	.025	.180	.089	.025	.175	.088	.025	.170	.086	.025	
10.0	.178	.085	.024	.175	.085	.024	.170	.083	.023	.165	.082	.023	.161	.081	.023	

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	.209	.209	.209	.178	.178	.178	.122	.122	.122	.070	.070	.070	.022	.022	.022	
1.0	.197	.171	.148	.169	.147	.127	.116	.101	.088	.067	.058	.051	.021	.019	.017	
2.0	.188	.145	.108	.161	.124	.093	.111	.086	.065	.064	.050	.038	.020	.016	.012	
3.0	.180	.125	.082	.154	.108	.071	.106	.075	.050	.061	.044	.029	.020	.014	.010	
4.0	.171	.111	.064	.147	.096	.056	.101	.067	.039	.058	.039	.023	.019	.013	.008	
5.0	.163	.099	.052	.140	.086	.045	.096	.060	.032	.056	.035	.019	.018	.011	.006	
6.0	.155	.090	.043	.133	.078	.038	.092	.055	.027	.053	.032	.016	.017	.010	.005	
7.0	.148	.082	.037	.127	.071	.032	.088	.050	.023	.051	.029	.013	.016	.010	.004	
8.0	.141	.076	.032	.121	.066	.028	.084	.046	.020	.049	.027	.012	.016	.009	.004	
9.0	.134	.071	.028	.115	.061	.024	.080	.043	.017	.047	.025	.010	.015	.008	.003	
10.0	.128	.066	.025	.110	.057	.022	.076	.040	.015	.045	.024	.009	.014	.008	.003	

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: MEDIUM  
Temperature:25.3°C  
Operators:  
Test Date:15 November 2022

γ Range: 0 - 90DEG  
γ Interval: 2.5DEG  
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: 99PFMT40/WH					TYPE:			WEIGHT: 1			
SPEC.:					DIM.: 35 x 75 x 334			SERIAL No.: 0			
MFR.: Elmark Industries JSC					SUR.: cross			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	21.8	23.3	22.0	23.5	23.7	21.6	23.1	21.8	23.3	23.5	
	23.3	24.7	23.6	24.9	25.1	23.0	24.4	23.3	24.6	24.9	
	23.9	25.2	24.2	25.5	25.7	23.6	24.9	23.9	25.2	25.4	
	24.4	25.6	24.7	25.9	26.2	24.0	25.3	24.4	25.6	25.8	
	24.5	25.7	24.9	26.0	26.3	24.2	25.4	24.5	25.7	26.0	
	24.6	25.8	25.0	26.1	26.4	24.3	25.5	24.7	25.8	26.1	
4H	2H	22.3	23.6	22.6	23.9	24.1	22.2	23.5	22.5	23.7	24.0
	3H	24.0	25.2	24.4	25.5	25.8	23.8	25.0	24.2	25.3	25.6
	4H	24.8	25.8	25.1	26.2	26.5	24.5	25.6	24.9	25.9	26.2
	6H	25.4	26.3	25.8	26.7	27.0	25.1	26.0	25.5	26.4	26.7
	8H	25.6	26.5	26.0	26.8	27.2	25.3	26.2	25.7	26.6	26.9
	12H	25.7	26.5	26.2	26.9	27.3	25.5	26.3	25.9	26.6	27.1
8H	4H	25.0	25.9	25.4	26.3	26.6	24.8	25.7	25.2	26.0	26.4
	6H	25.8	26.5	26.2	26.9	27.3	25.5	26.2	26.0	26.6	27.1
	8H	26.1	26.7	26.5	27.1	27.6	25.8	26.5	26.3	26.9	27.3
	12H	26.3	26.8	26.8	27.3	27.8	26.1	26.6	26.5	27.1	27.5
12H	4H	25.0	25.8	25.5	26.2	26.6	24.8	25.6	25.2	26.0	26.4
	6H	25.8	26.5	26.3	26.9	27.3	25.6	26.2	26.0	26.6	27.1
	8H	26.2	26.7	26.6	27.2	27.6	25.9	26.5	26.4	26.9	27.4
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 / - 0.2					+ 0.2 / - 0.2					

CIE Pub.117, 1500 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.4)  
Area: 0.02585 m2

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: MEDIUM  
Temperature:25.3°C  
Operators:  
Test Date:15 November 2022

γ Range: 0 - 90DEG  
γ Interval: 2.5DEG  
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: 99PFMT40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:

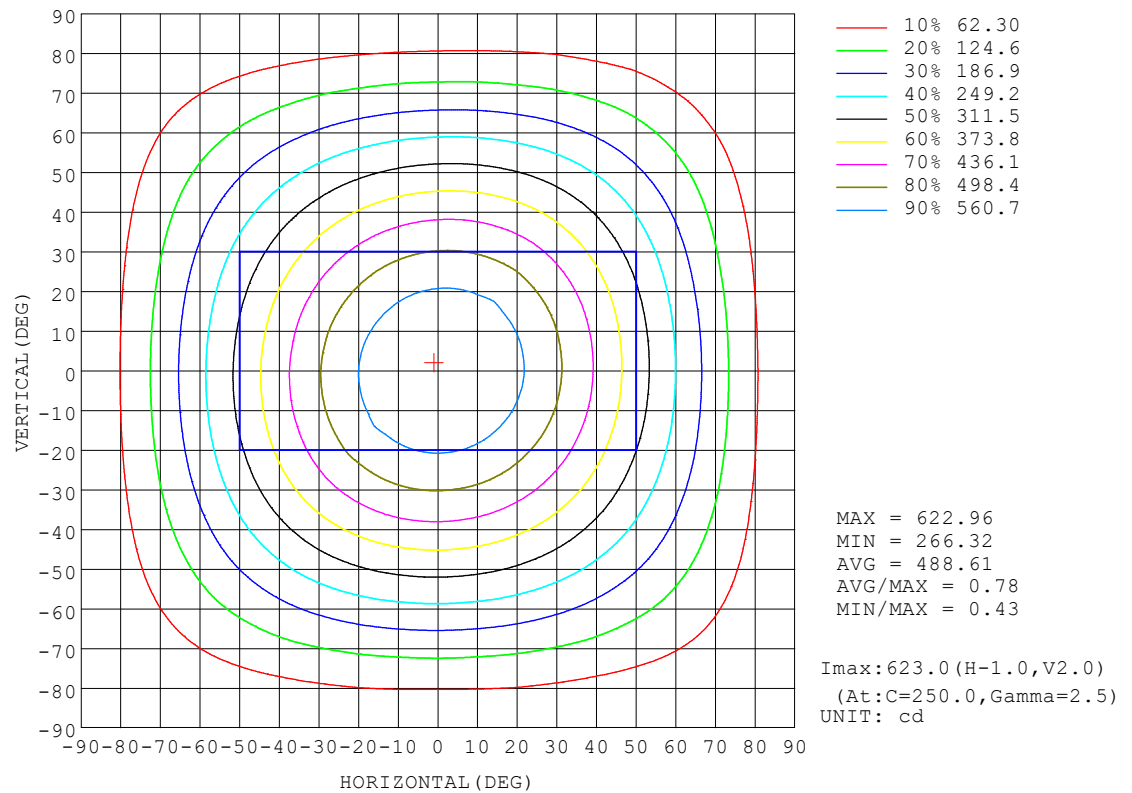
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	64	52	44	63	51	44	62	51	44	37
0.80	75	62	55	74	62	54	72	61	54	46
1.00	84	72	64	83	72	64	80	73	63	56
1.25	92	80	73	90	80	72	87	78	71	64
1.50	97	87	79	95	86	78	92	84	77	69
2.00	105	95	88	103	94	87	99	92	86	77
2.50	109	100	94	106	99	93	102	96	91	82
3.00	112	105	99	110	103	98	106	100	95	86
4.00	117	110	105	114	109	104	109	105	101	91
5.00	119	114	110	117	112	108	112	108	105	95
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3°C  
Operators:  
Test Date: 15 November 2022

γ Range: 0 - 90DEG  
γ Interval: 2.5DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity: 65.0%  
Test Distance: 6.265m [K=1.0000]  
Remarks:

# ISOCANDELA DIAGRAM

NAME: 99PFMT40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:

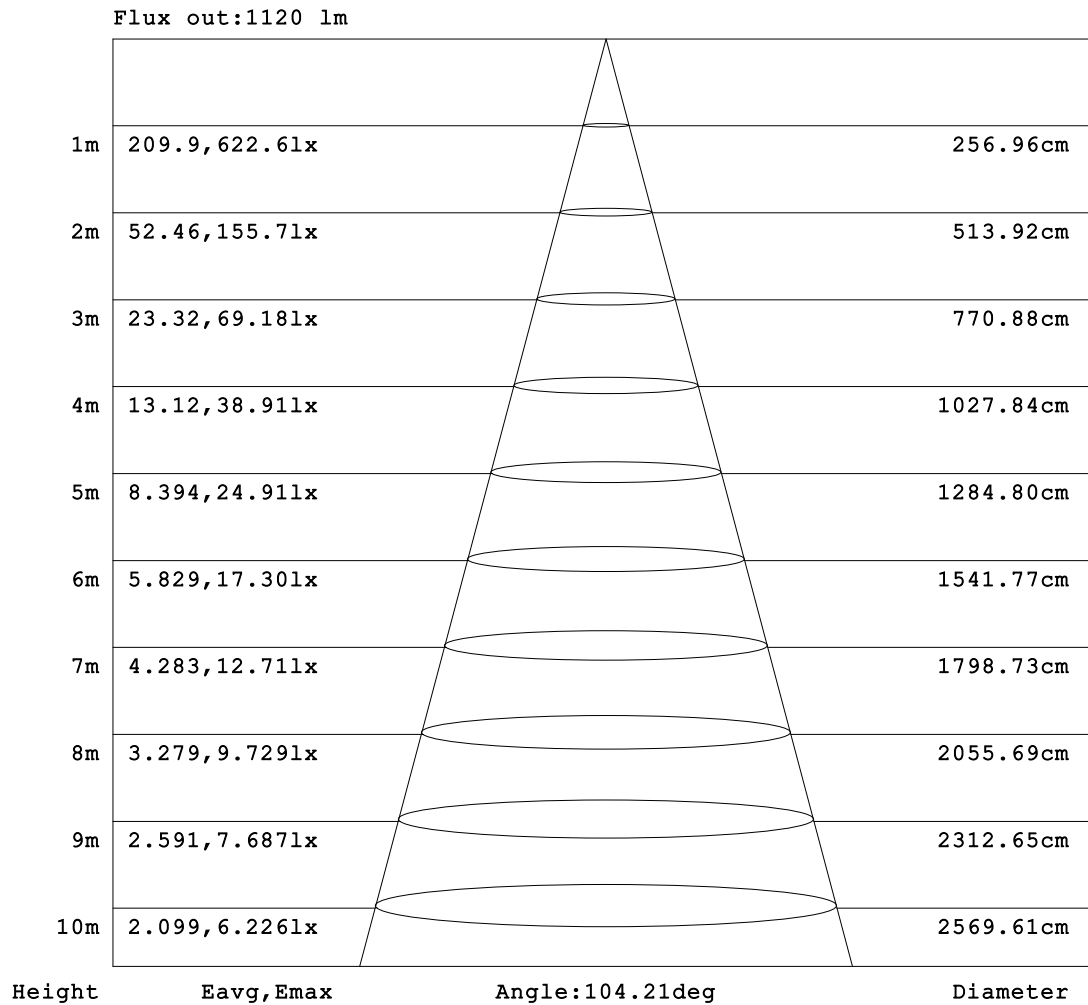


C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3°C  
 Operators:  
 Test Date:15 November 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.5DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
 Humidity:65.0%  
 Test Distance:6.265m [K=1.0000]  
 Remarks:

**AAI Figure**

NAME: 99PFMT40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:



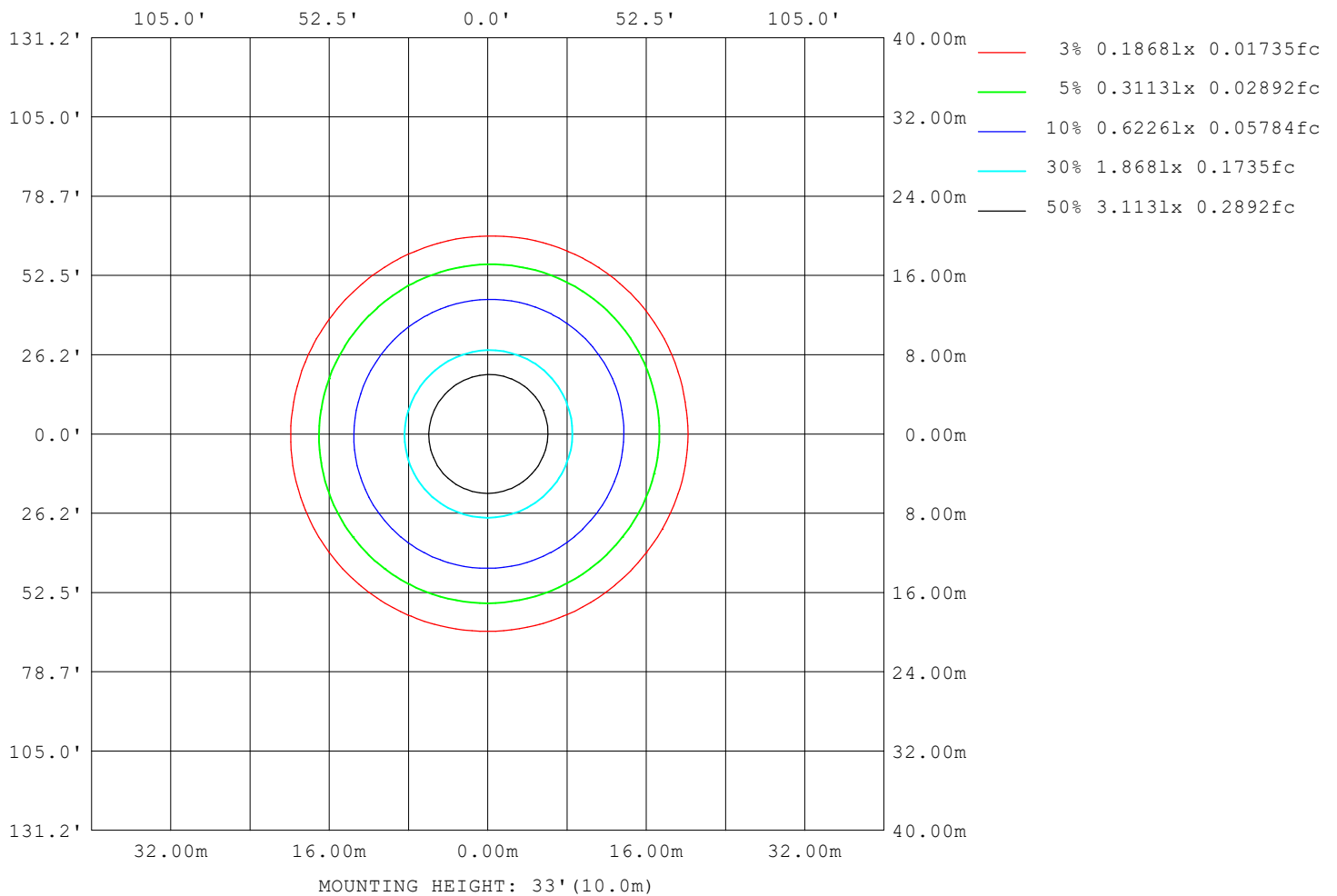
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3°C  
 Operators:  
 Test Date:15 November 2022

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
 Humidity:65.0%  
 Test Distance:6.265m [K=1.0000]  
 Remarks:

## ISOLUX DIAGRAM

NAME: 99PFMT40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3°C  
Operators:  
Test Date: 15 November 2022

γ Range: 0 - 90DEG  
γ Interval: 2.5DEG  
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: 99PFMT40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:

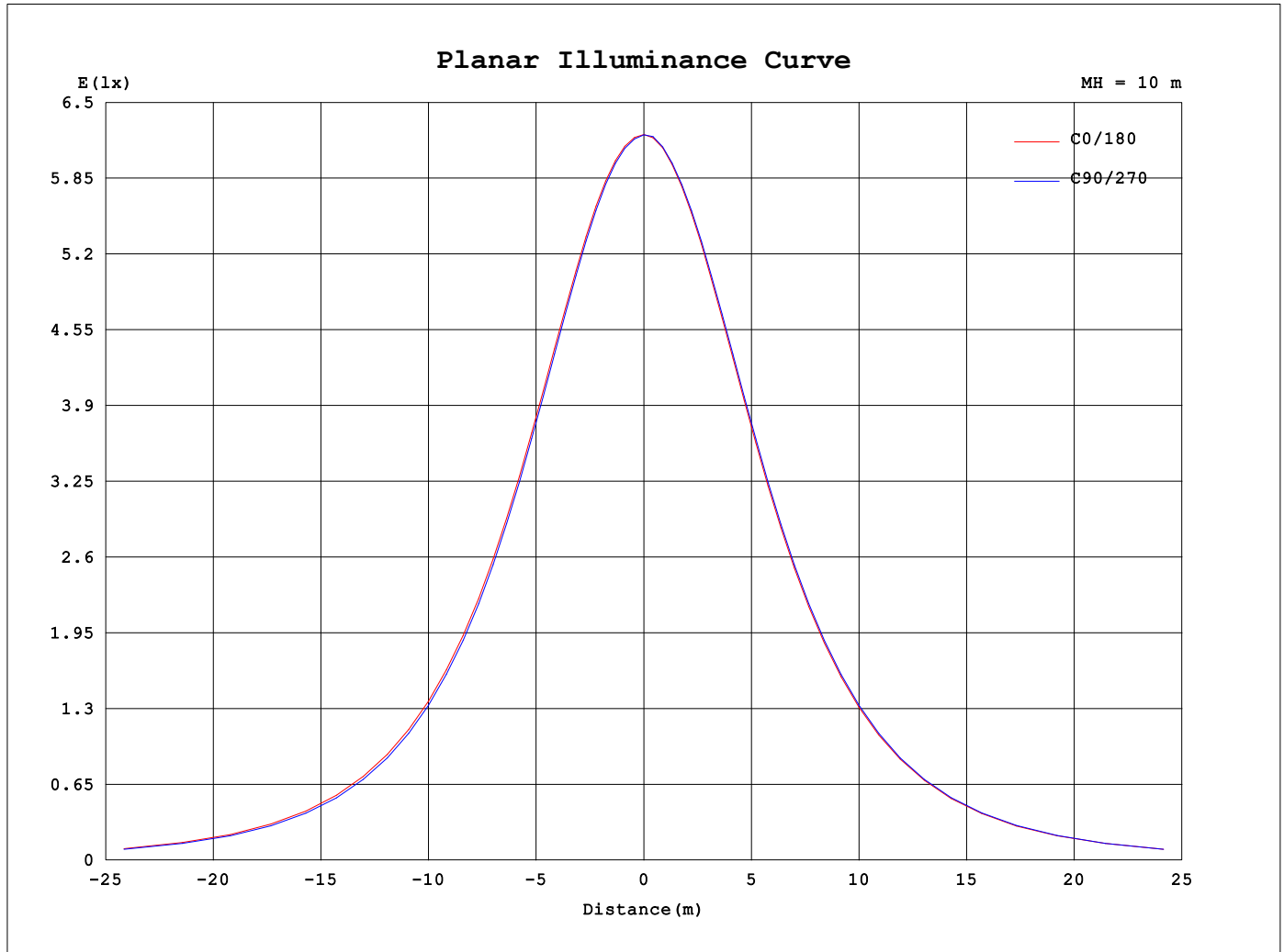
AvgL	cd/m2
L_0~180 (65) av	17921
L_0~180 (75) av	15955
L_0~180 (85) av	12952
L_90~270 (65) av	17601
L_90~270 (75) av	15641
L_90~270 (85) av	13906
L_45 (65) av	17716
L_45 (75) av	15687
L_45 (85) av	11939

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: MEDIUM  
Temperature:25.3°C  
Operators:  
Test Date:15 November 2022

γ Range: 0 - 90DEG  
γ Interval: 2.5DEG  
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: 10.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 15 November 2022

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
 Humidity: 65.0%  
 Test Distance: 6.265m [K=1.0000]  
 Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 2.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

```

