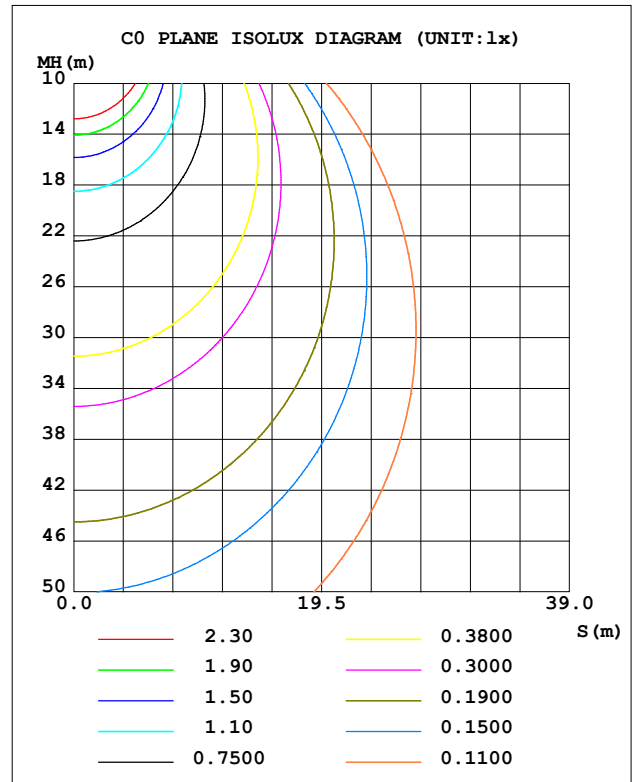
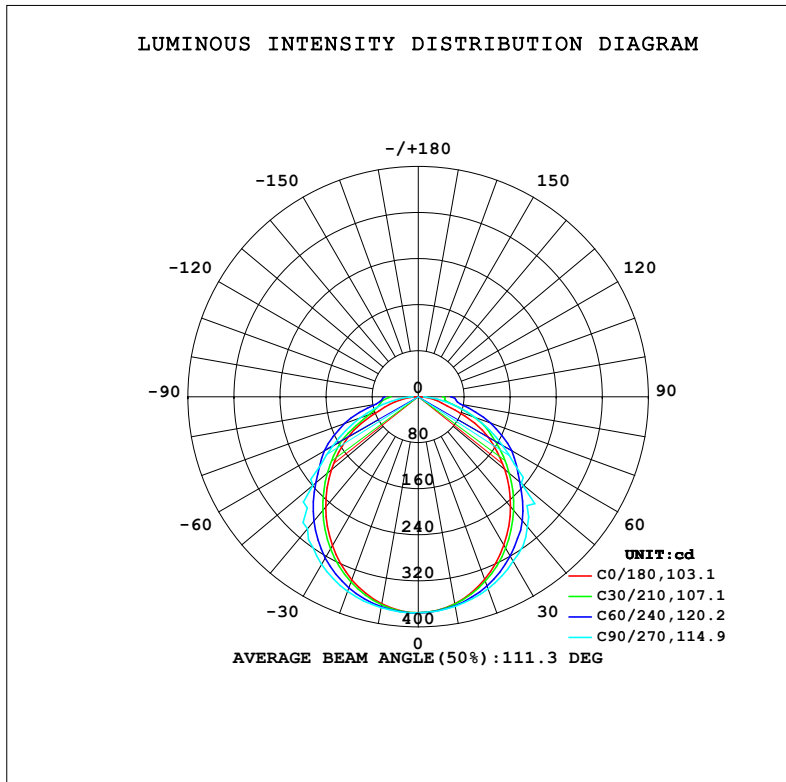


## LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 99PFMI40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 204	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: L	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	99PFMI40/WH	I <sub>max</sub> (cd)	375.5	S/MH (C0/180)	1.19
NOMINAL POWER (W)	10	LOR (%)	110.7	S/MH (C90/270)	1.33
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	1106.8	η UP, DN (C0-180)	0.0, 55.2
NOMINAL FLUX (lm)	1000	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 55.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	110.7	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 16 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	365.2	367.2	369.7	367.4	365.5	368.7	372.1	369.0	0- 10	35.48	35.48	3.21,3.55
20	337.6	345.2	354.9	346.1	338.2	347.6	359.6	348.6	10- 20	101.4	136.9	12.4,13.7
30	297.8	311.2	329.8	312.7	298.5	313.4	336.2	315.1	20- 30	153.1	289.9	26.2,29
40	249.4	268.2	295.2	270.5	250.3	268.9	299.5	271.1	30- 40	184.1	474.0	42.8,47.4
50	195.9	219.1	234.0	221.1	196.9	219.3	238.9	221.9	40- 50	190.3	664.3	60,66.4
60	140.0	174.4	169.2	177.8	141.3	174.3	172.3	178.0	50- 60	172.2	836.5	75.6,83.7
70	69.09	120.5	104.9	125.3	73.36	120.1	108.0	125.0	60- 70	137.1	973.6	88,97.4
80	29.02	63.08	46.26	66.91	32.11	58.59	49.63	61.06	70- 80	85.69	1059	95.7,106
90	1.961	34.02	9.423	33.54	2.093	37.80	9.189	36.79	80- 90	47.51	1107	100,111
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): 569.97 lm

%lum = 51.5%  
%lamp = 57.0%

Conical surface Flux(130deg): 911 lm

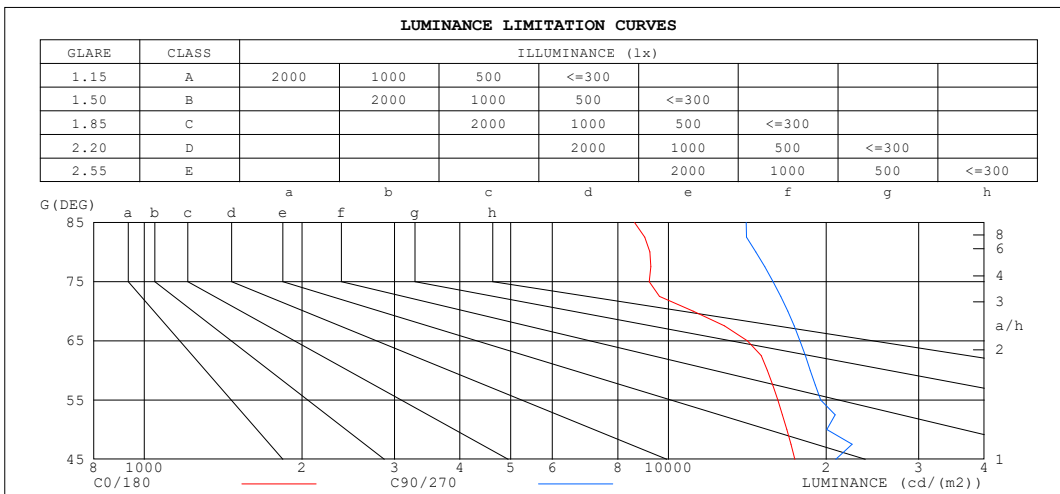
%lum = 82.3%  
%lamp = 91.1%

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:16 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: 99PFMI40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 204	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: L	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	8617	14056
80	9218	14662
75	9181	15827
70	11144	16877
65	14152	17803
60	15440	18629
55	16159	19525
50	16812	20037
45	17408	20840

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 16 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:

```

## WEC AND CCEC

NAME: 99PFMI40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 204	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: L	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	.374	.213	.067	.367	.209	.066	.352	.202	.064	.338	.195	.063	.325	.189	.061	
2.0	.340	.186	.057	.333	.184	.057	.320	.178	.055	.308	.173	.054	.297	.168	.053	
3.0	.310	.165	.049	.304	.163	.049	.292	.158	.048	.282	.154	.047	.272	.150	.047	
4.0	.284	.147	.043	.278	.146	.043	.268	.142	.042	.258	.139	.042	.249	.136	.041	
5.0	.261	.133	.038	.256	.131	.038	.247	.128	.038	.238	.126	.037	.230	.123	.037	
6.0	.241	.121	.035	.236	.119	.034	.228	.117	.034	.221	.115	.034	.214	.113	.033	
7.0	.223	.110	.031	.220	.109	.031	.212	.107	.031	.206	.105	.031	.199	.104	.030	
8.0	.208	.102	.029	.205	.101	.028	.198	.099	.028	.192	.097	.028	.187	.096	.028	
9.0	.195	.094	.026	.192	.093	.026	.186	.092	.026	.180	.090	.026	.175	.089	.026	
10.0	.183	.088	.024	.180	.087	.024	.175	.086	.024	.170	.084	.024	.165	.083	.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
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.211	.211	.211	.180	.180	.180	.123	.123	.123	.071	.071	.071	.023	.023	.023	
1.0	.202	.173	.146	.173	.148	.126	.118	.102	.087	.068	.059	.051	.022	.019	.016	
2.0	.193	.146	.106	.165	.126	.092	.113	.087	.064	.065	.051	.038	.021	.016	.012	
3.0	.184	.127	.081	.158	.109	.070	.108	.076	.049	.063	.044	.029	.020	.014	.009	
4.0	.176	.112	.063	.151	.097	.055	.104	.067	.039	.060	.039	.023	.019	.013	.008	
5.0	.167	.100	.051	.143	.087	.045	.099	.061	.032	.057	.036	.019	.018	.012	.006	
6.0	.159	.091	.043	.137	.079	.037	.094	.055	.026	.055	.033	.016	.018	.011	.005	
7.0	.151	.084	.036	.130	.072	.032	.090	.051	.022	.052	.030	.013	.017	.010	.004	
8.0	.144	.077	.031	.124	.067	.027	.086	.047	.019	.050	.028	.012	.016	.009	.004	
9.0	.137	.072	.028	.118	.062	.024	.082	.044	.017	.048	.026	.010	.015	.008	.003	
10.0	.131	.067	.025	.113	.058	.021	.078	.041	.015	.046	.024	.009	.015	.008	.003	

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:16 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: 99PFMI40/WH					TYPE:			WEIGHT: 1			
SPEC.:					DIM.: 35 x 75 x 204			SERIAL No.: 0			
MFR.: Elmark Industries JSC					SUR.: L			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	22.2	23.8	22.5	24.0	24.2	23.4	24.9	23.7	25.1	25.4
	3H	23.4	24.8	23.7	25.0	25.3	25.0	26.4	25.3	26.7	26.9
	4H	23.6	25.0	24.0	25.3	25.5	25.7	27.0	26.0	27.3	27.5
	6H	23.9	25.2	24.2	25.5	25.7	26.2	27.4	26.5	27.7	28.0
	8H	24.0	25.3	24.3	25.5	25.8	26.3	27.6	26.7	27.9	28.2
	12H	24.1	25.3	24.4	25.6	25.9	26.4	27.6	26.8	27.9	28.2
4H	2H	23.2	24.6	23.5	24.8	25.1	24.1	25.4	24.4	25.7	25.9
	3H	24.6	25.8	24.9	26.1	26.4	26.0	27.2	26.4	27.5	27.8
	4H	25.0	26.1	25.4	26.4	26.8	26.9	28.0	27.3	28.3	28.7
	6H	25.4	26.4	25.8	26.8	27.1	27.6	28.6	28.0	29.0	29.3
	8H	25.6	26.5	26.0	26.9	27.3	27.9	28.8	28.3	29.2	29.6
	12H	25.7	26.6	26.2	27.0	27.4	28.1	28.9	28.5	29.3	29.7
8H	4H	25.6	26.6	26.0	26.9	27.3	27.2	28.2	27.7	28.5	28.9
	6H	26.3	27.1	26.8	27.5	27.9	28.3	29.0	28.7	29.4	29.9
	8H	26.7	27.4	27.2	27.8	28.3	28.8	29.5	29.2	29.9	30.3
	12H	27.1	27.7	27.6	28.2	28.6	29.2	29.8	29.7	30.3	30.8
12H	4H	25.8	26.6	26.2	27.0	27.4	27.3	28.1	27.7	28.5	28.9
	6H	26.6	27.3	27.0	27.7	28.2	28.4	29.1	28.8	29.5	29.9
	8H	27.1	27.7	27.6	28.2	28.7	29.0	29.6	29.5	30.0	30.5
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 0.2 / - 0.2					+ 0.1 / - 0.1				
1.5H		+ 0.1 / - 0.2					+ 0.2 / - 0.3				
2.0H		+ 0.2 / - 0.4					+ 0.2 / - 0.3				

CIE Pub.117, 1000 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.0)  
Area: 0.01817 m2

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:16 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: 99PFMI40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 204	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: L	Shielding Angle:

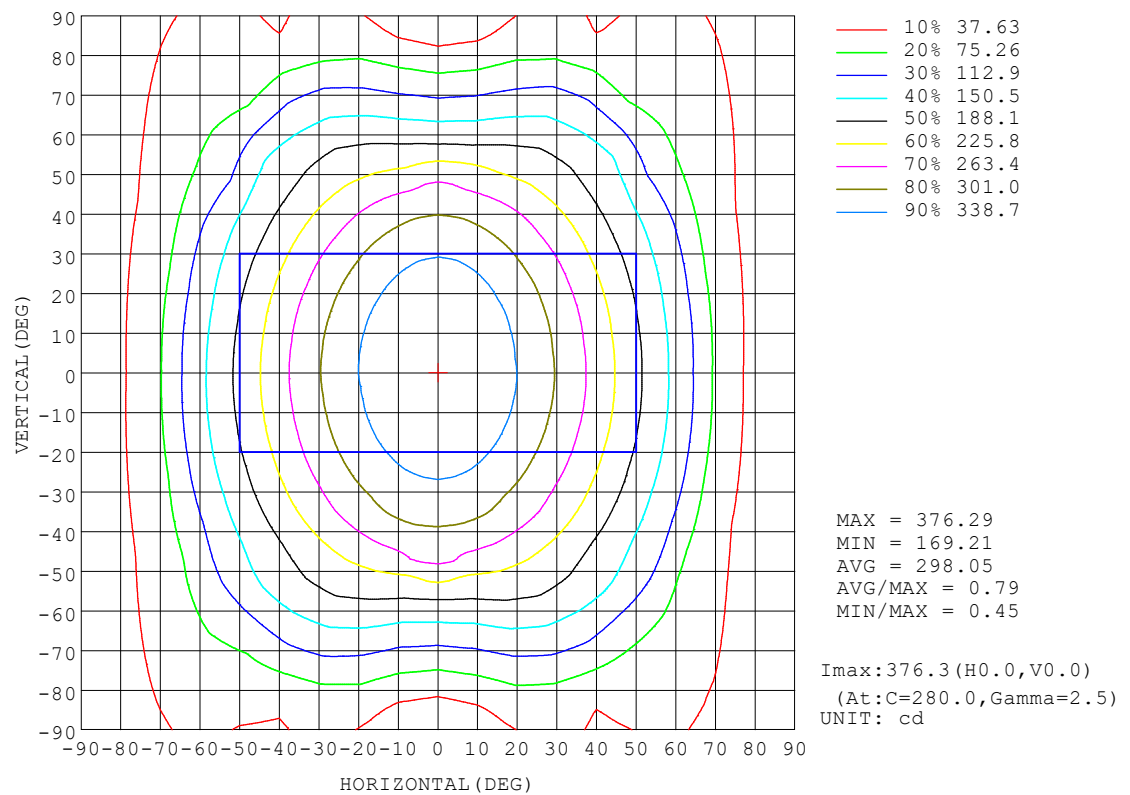
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	63	50	42	62	49	42	61	49	41	34
0.80	74	60	52	72	60	52	70	59	51	44
1.00	83	70	62	81	69	61	79	71	61	53
1.25	90	78	70	89	78	70	86	76	69	60
1.50	96	85	76	94	84	76	91	82	75	66
2.00	104	94	86	101	92	85	97	90	83	74
2.50	108	99	92	106	97	91	101	94	89	79
3.00	112	104	97	109	102	96	105	99	93	84
4.00	116	109	104	114	107	102	109	104	99	89
5.00	119	113	108	116	111	107	111	107	103	93
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: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 16 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: 99PFMI40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 204	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: L	Shielding Angle:



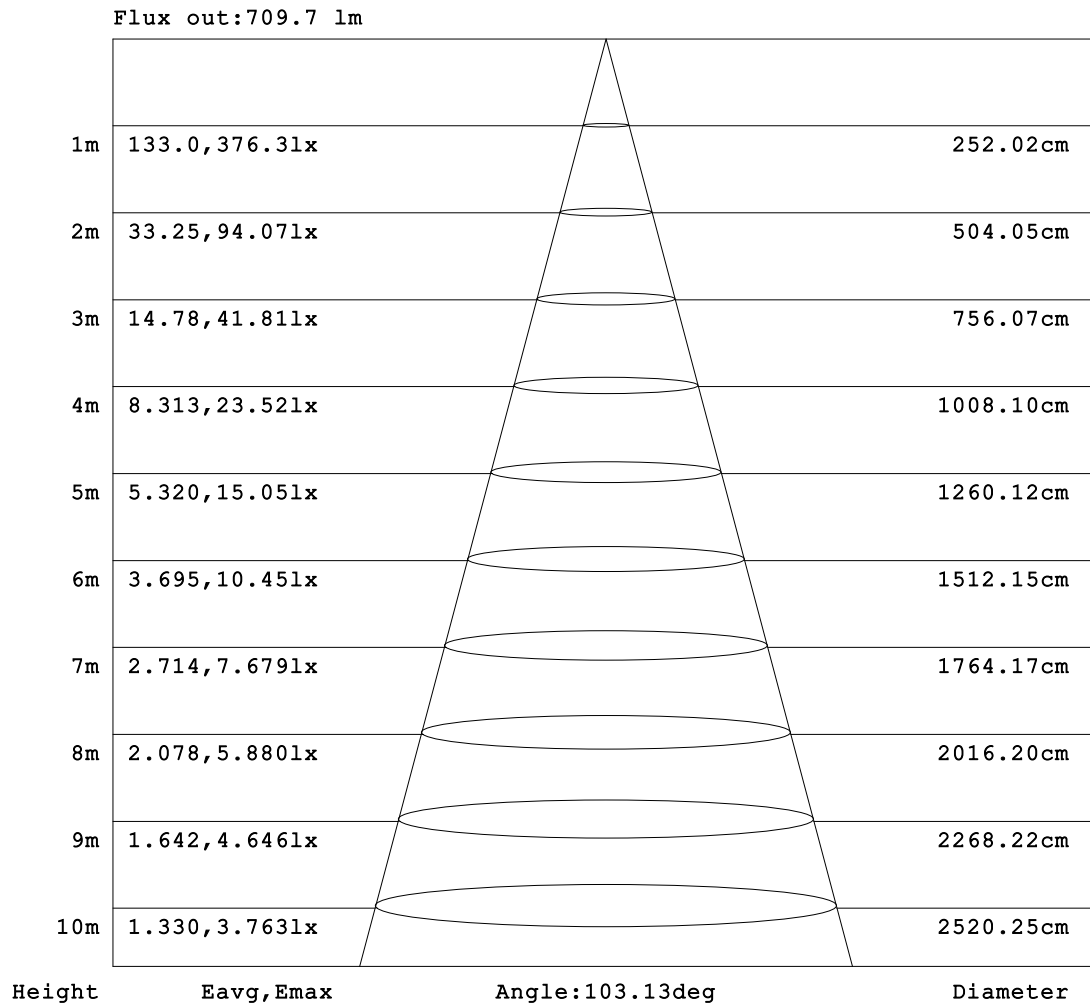
C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 16 November 2022

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:



**AAI Figure**

NAME: 99PFMI40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 204	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: L	Shielding Angle:



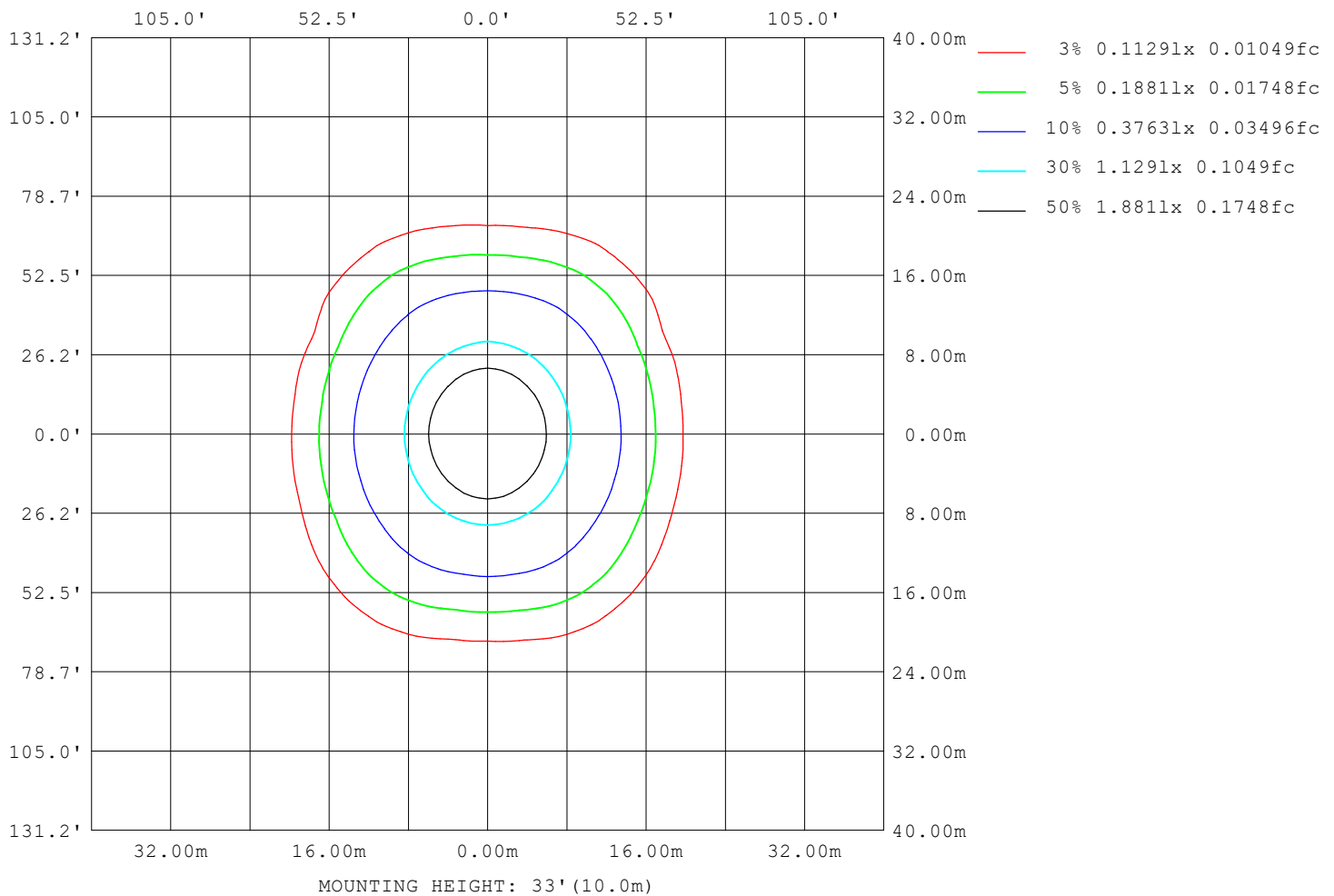
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:16 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: 99PFMI40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 204	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: L	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 16 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: 99PFMI40/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 204	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: L	Shielding Angle:

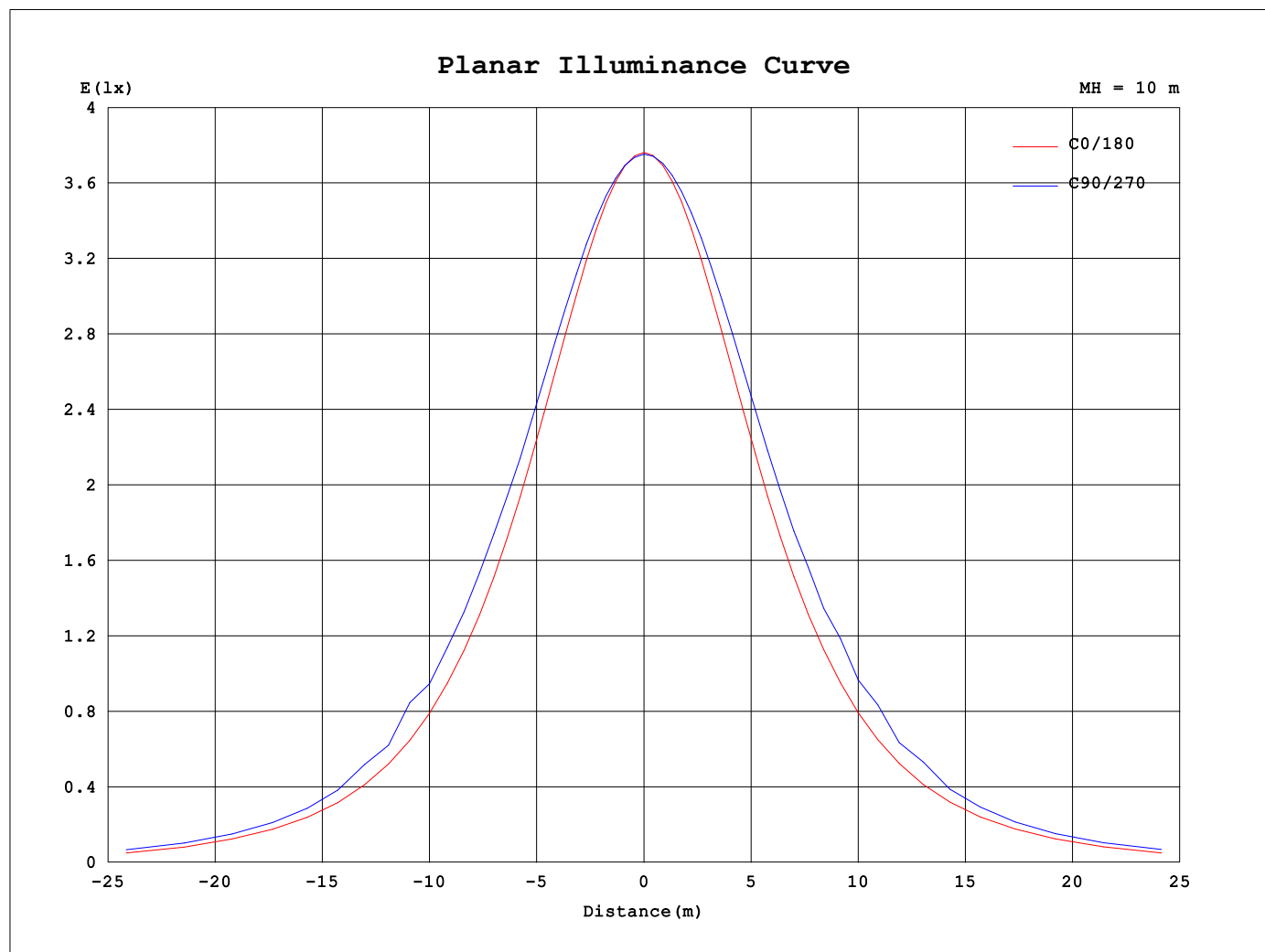
AvgL	cd/m2
L_0~180 (65) av	14192
L_0~180 (75) av	10092
L_0~180 (85) av	8662
L_90~270 (65) av	17982
L_90~270 (75) av	16208
L_90~270 (85) av	14973
L_45 (65) av	20235
L_45 (75) av	19518
L_45 (85) av	28415

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:16 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: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 16 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:

```

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:

```