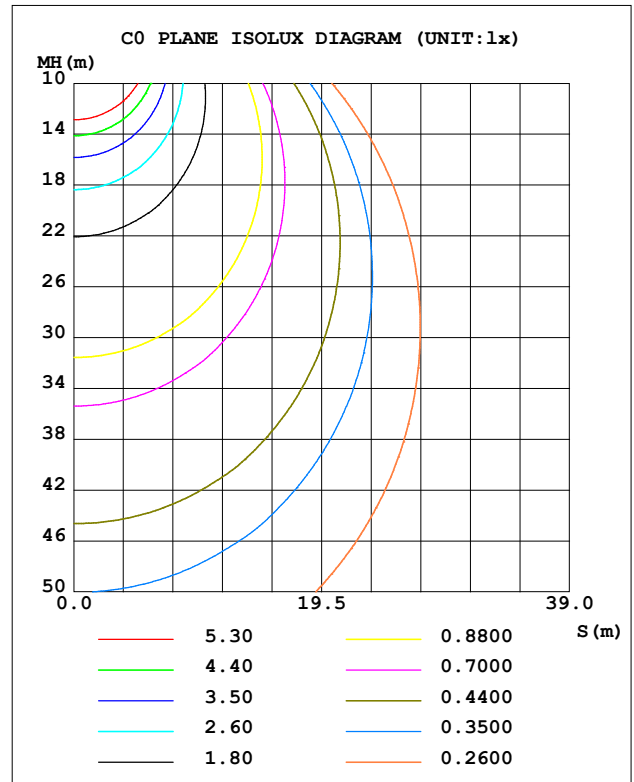
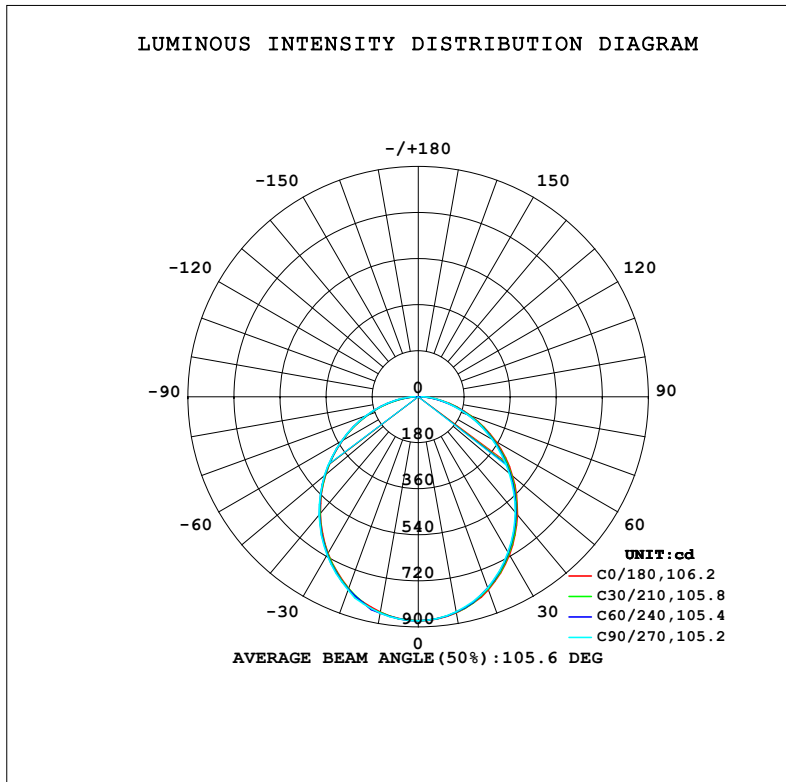


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 99PFMX30/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	99PFMX30/WH	Imax (cd)	875.4	S/MH (C0/180)	1.21
NOMINAL POWER (W)	20	LOR (%)	117.0	S/MH (C90/270)	1.22
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	2339.8	η UP, DN (C0-180)	0.0, 58.0
NOMINAL FLUX (lm)	2000	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 59.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	117.0	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:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	857.7	855.6	854.2	852.9	854.7	857.4	858.6	858.5	0- 10	82.65	82.65	3.53,4.13
20	802.3	796.7	796.2	792.1	796.8	799.0	803.8	802.6	10- 20	234.6	317.3	13.6,15.9
30	713.0	706.9	702.4	700.8	706.1	710.1	714.0	714.6	20- 30	348.6	665.8	28.5,33.3
40	603.2	595.8	589.7	588.9	595.5	599.2	602.9	604.2	30- 40	409.8	1076	46,53.8
50	480.9	471.7	464.6	464.9	472.9	475.5	478.2	480.8	40- 50	414.1	1490	63.7,74.5
60	351.3	341.0	334.2	334.9	343.3	344.9	347.5	350.5	50- 60	365.7	1855	79.3,92.8
70	220.0	211.0	205.7	205.6	213.0	214.3	217.8	220.0	60- 70	275.1	2131	91.1,107
80	97.51	91.10	92.08	87.29	91.67	93.65	100.9	98.50	70- 80	160.5	2291	97.9,115
90	5.751	2.309	12.07	2.546	6.477	2.717	12.28	3.817	80- 90	48.68	2340	100,117
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): 1285.6 lm

%lum = 54.9%

%lamp = 64.3%

Conical surface Flux(130deg): 2006.3 lm

%lum = 85.7%

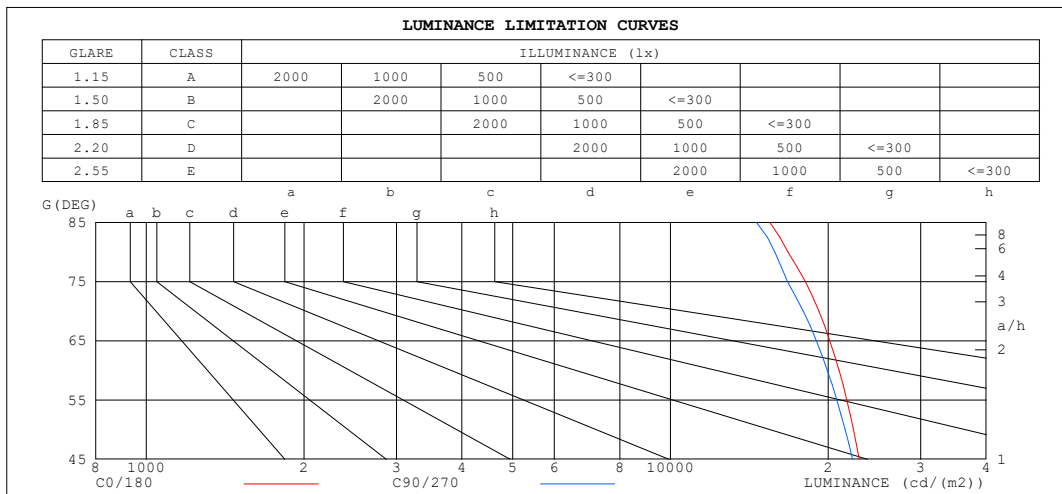
%lamp = 100.3%

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:

LUMINANCE LIMITATION CURVES

NAME: 99PFMX30/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	15479	14596
80	16754	15796
75	18081	16715
70	19190	17918
65	20134	18970
60	20964	19912
55	21698	20762
50	22323	21533
45	22922	22257

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:

```

WEC AND CCEC

NAME: 99PFMX30/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	.361	.205	.065	.352	.201	.064	.337	.193	.062	.323	.186	.060	.309	.179	.058	
2.0	.338	.185	.057	.331	.182	.056	.317	.176	.055	.305	.171	.054	.293	.166	.052	
3.0	.313	.166	.050	.306	.164	.049	.294	.160	.048	.283	.155	.048	.273	.151	.047	
4.0	.289	.150	.044	.283	.148	.044	.272	.144	.043	.262	.141	.043	.253	.138	.042	
5.0	.267	.136	.039	.262	.134	.039	.252	.131	.039	.244	.129	.038	.235	.126	.038	
6.0	.248	.124	.036	.243	.123	.035	.235	.120	.035	.227	.118	.035	.219	.116	.034	
7.0	.231	.114	.032	.227	.113	.032	.219	.111	.032	.212	.109	.032	.205	.107	.031	
8.0	.215	.105	.030	.212	.104	.029	.205	.102	.029	.199	.101	.029	.193	.099	.029	
9.0	.202	.098	.027	.199	.097	.027	.193	.095	.027	.187	.094	.027	.182	.092	.027	
10.0	.190	.091	.025	.187	.090	.025	.182	.089	.025	.177	.088	.025	.172	.086	.025	

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	.223	.223	.223	.190	.190	.190	.130	.130	.130	.075	.075	.075	.024	.024	.024	
1.0	.211	.183	.157	.180	.157	.135	.123	.108	.094	.071	.062	.054	.023	.020	.018	
2.0	.201	.154	.115	.172	.133	.099	.118	.092	.069	.068	.053	.041	.022	.017	.013	
3.0	.192	.134	.087	.164	.115	.076	.113	.080	.053	.065	.047	.031	.021	.015	.010	
4.0	.183	.118	.069	.157	.102	.060	.108	.071	.042	.062	.042	.025	.020	.014	.008	
5.0	.174	.106	.056	.149	.092	.048	.103	.064	.034	.060	.038	.020	.019	.012	.007	
6.0	.166	.096	.046	.142	.083	.040	.098	.058	.028	.057	.034	.017	.018	.011	.006	
7.0	.158	.088	.039	.136	.076	.034	.094	.053	.024	.054	.031	.014	.018	.010	.005	
8.0	.150	.081	.034	.129	.070	.029	.089	.049	.021	.052	.029	.012	.017	.010	.004	
9.0	.143	.075	.030	.123	.065	.026	.085	.046	.018	.050	.027	.011	.016	.009	.004	
10.0	.136	.070	.026	.118	.061	.023	.082	.043	.016	.048	.025	.010	.015	.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: 99PFMX30/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	21.1	22.6	21.3	22.8	23.0	20.9	22.4	21.1	22.6	22.8	
	22.6	24.0	22.9	24.2	24.4	22.3	23.7	22.6	23.9	24.2	
	23.2	24.5	23.5	24.8	25.0	22.9	24.2	23.2	24.5	24.7	
	23.7	24.9	24.0	25.2	25.5	23.3	24.6	23.7	24.8	25.1	
	23.8	25.0	24.2	25.3	25.6	23.5	24.7	23.8	25.0	25.3	
12H	23.9	25.1	24.3	25.4	25.7	23.6	24.7	23.9	25.0	25.3	
4H	2H	21.6	22.9	21.9	23.2	23.5	21.5	22.8	21.8	23.0	23.3
	3H	23.3	24.5	23.7	24.8	25.1	23.1	24.3	23.4	24.5	24.9
	4H	24.1	25.1	24.5	25.5	25.8	23.8	24.9	24.2	25.2	25.5
	6H	24.7	25.6	25.1	26.0	26.3	24.4	25.3	24.8	25.7	26.0
	8H	24.9	25.8	25.3	26.2	26.5	24.6	25.5	25.0	25.8	26.2
12H	25.1	25.9	25.5	26.3	26.7	24.7	25.5	25.2	25.9	26.3	
8H	4H	24.3	25.2	24.7	25.6	26.0	24.1	25.0	24.5	25.3	25.7
	6H	25.1	25.8	25.5	26.2	26.6	24.8	25.5	25.2	25.9	26.4
	8H	25.4	26.0	25.9	26.5	26.9	25.1	25.7	25.6	26.2	26.6
	12H	25.6	26.2	26.1	26.6	27.1	25.3	25.9	25.8	26.3	26.8
12H	4H	24.3	25.1	24.8	25.5	25.9	24.1	24.9	24.5	25.3	25.7
	6H	25.1	25.8	25.6	26.2	26.7	24.9	25.5	25.3	25.9	26.4
	8H	25.5	26.0	26.0	26.5	27.0	25.2	25.8	25.7	26.2	26.7
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, 2000 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.4)
Area: 0.03355 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: 99PFMX30/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:

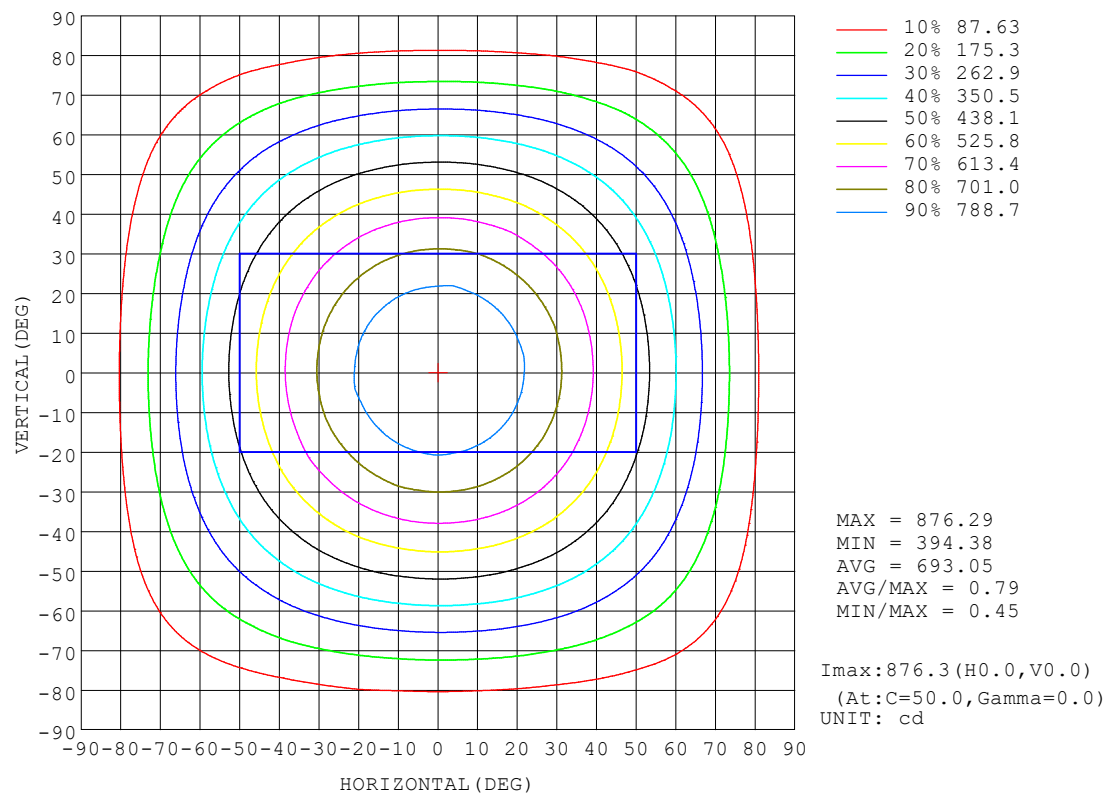
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	68	55	47	67	55	47	66	54	46	39
0.80	80	66	58	79	66	58	77	65	57	49
1.00	90	77	68	88	76	68	86	78	67	59
1.25	98	86	77	96	85	77	93	83	76	68
1.50	104	92	84	102	91	83	98	89	82	74
2.00	111	102	94	109	100	93	105	98	91	82
2.50	116	107	100	114	105	99	109	102	97	87
3.00	120	112	105	117	110	104	113	107	102	92
4.00	124	118	112	122	116	111	117	112	108	97
5.00	127	122	117	124	119	115	119	115	111	101
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: 99PFMX30/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:

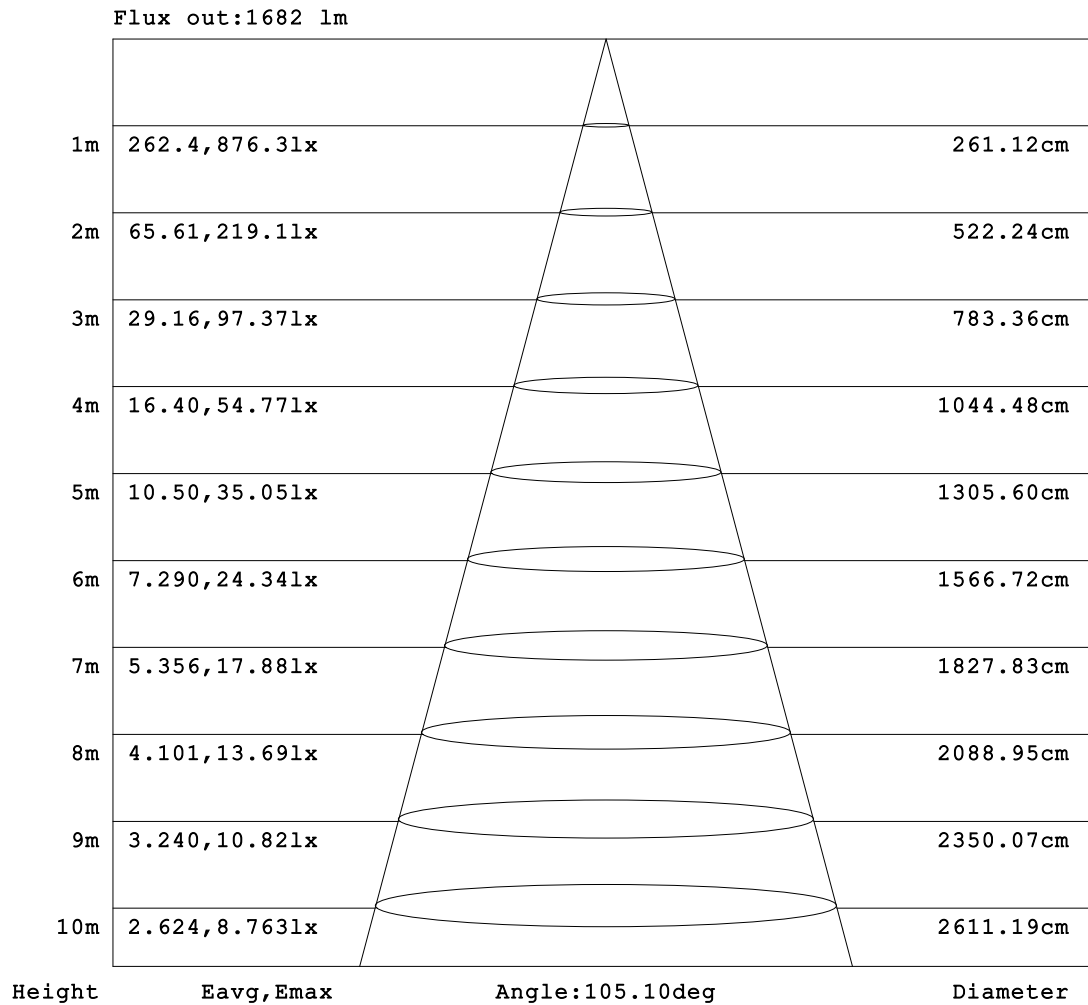


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature: 25.3°C
Operators:
Test Date: 15 November 2022

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:

AAI Figure

NAME: 99PFMX30/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:



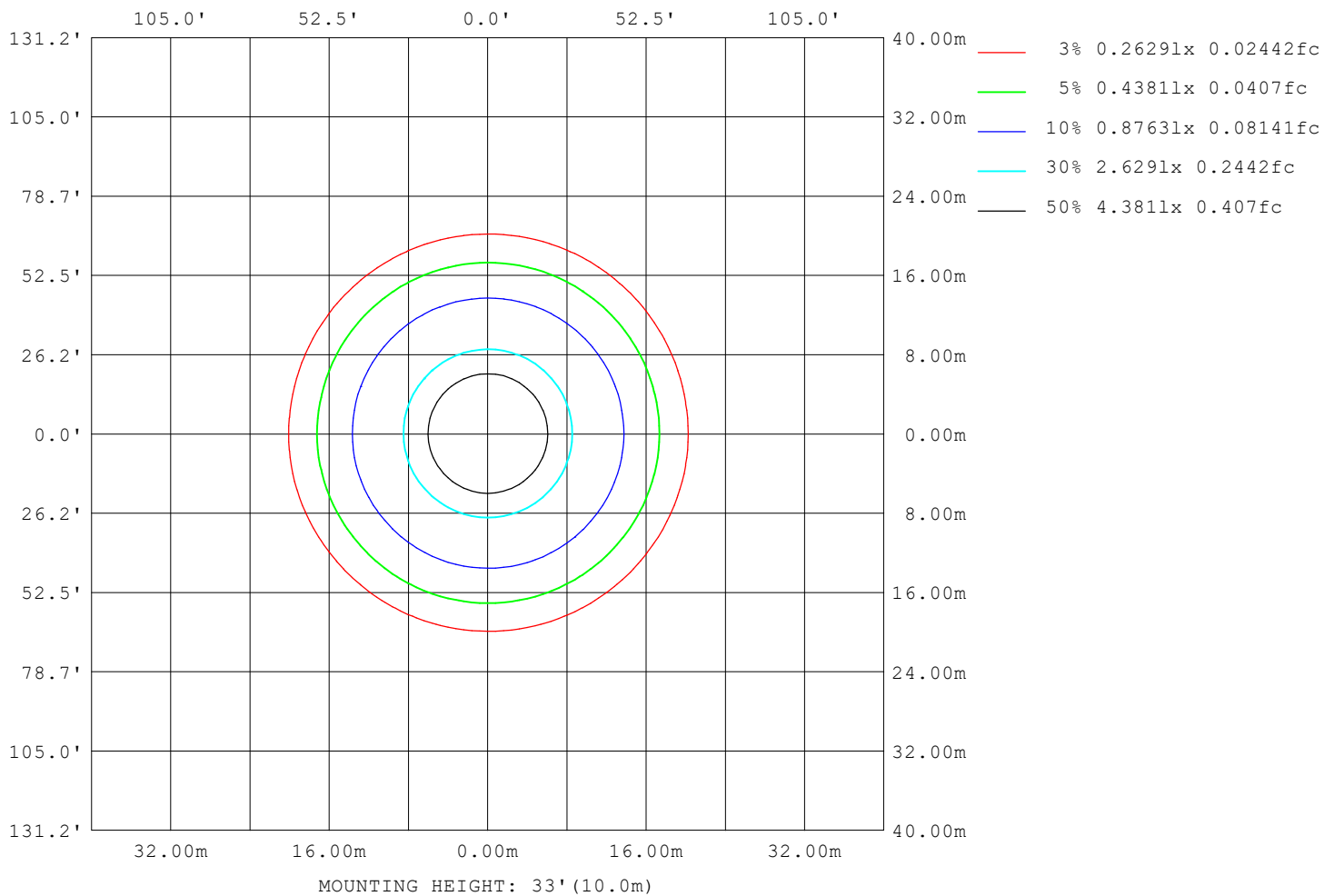
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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: 99PFMX30/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: 99PFMX30/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:

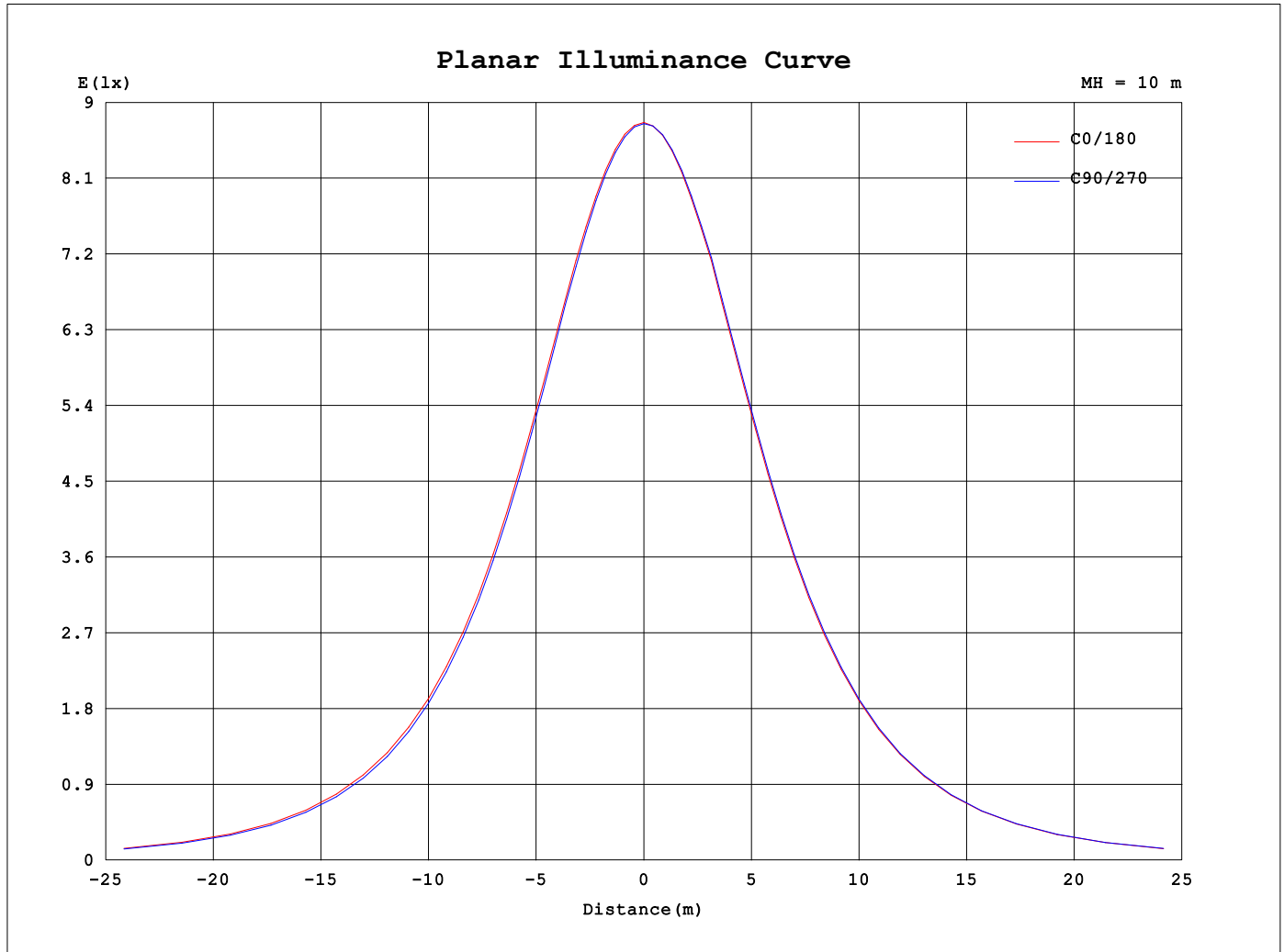
AvgL	cd/m2
L_0~180 (65) av	19834
L_0~180 (75) av	17810
L_0~180 (85) av	14573
L_90~270 (65) av	19433
L_90~270 (75) av	17341
L_90~270 (85) av	15913
L_45 (65) av	19544
L_45 (75) av	17361
L_45 (85) av	13478

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:

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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:

```