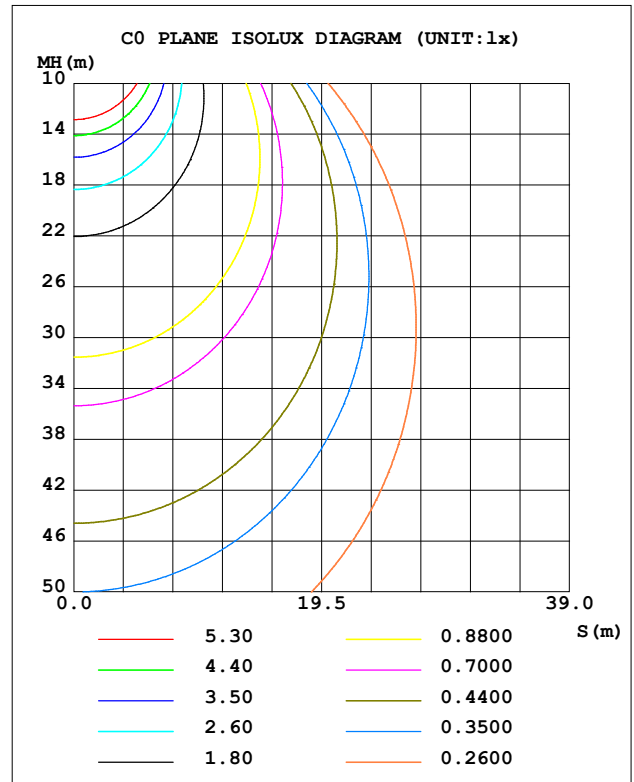
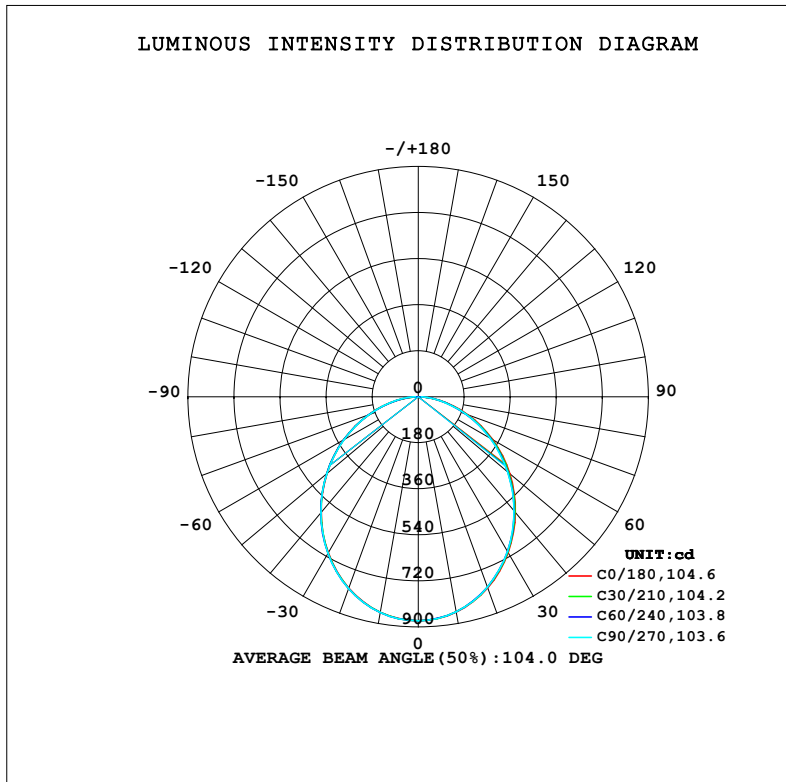


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 99PFMX40/BL	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	99PFMX40/BL	Imax (cd)	875.3	S/MH (C0/180)	1.20
NOMINAL POWER (W)	20	LOR (%)	114.4	S/MH (C90/270)	1.21
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	2288.9	η UP, DN (C0-180)	0.0, 56.8
NOMINAL FLUX (lm)	2000	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 57.6
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	114.4	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	854.9	853.4	853.6	854.0	855.8	856.2	856.8	855.9	0- 10	82.59	82.59	3.61,4.13
20	794.9	791.9	791.7	792.6	796.0	797.2	798.1	796.8	10- 20	233.8	316.4	13.8,15.8
30	703.3	699.0	697.7	699.8	704.2	705.7	706.4	705.6	20- 30	346.4	662.8	29,33.1
40	590.8	585.3	582.7	586.0	591.1	592.5	592.6	592.9	30- 40	405.3	1068	46.7,53.4
50	467.3	459.9	455.7	460.8	466.5	467.2	466.2	468.2	40- 50	407.1	1475	64.4,73.8
60	336.8	328.6	324.4	329.7	336.5	336.5	335.1	337.4	50- 60	356.7	1832	80,91.6
70	206.1	199.4	195.9	200.0	205.8	206.6	205.8	207.6	60- 70	264.9	2097	91.6,105
80	86.28	81.45	86.72	81.88	85.85	87.66	91.14	88.33	70- 80	150.6	2247	98.2,112
90	5.343	2.198	12.31	2.479	5.123	2.410	10.25	2.538	80- 90	41.57	2289	100,114
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): 1274.8 lm

%lum = 55.7%

%lamp = 63.7%

Conical surface Flux(130deg): 1977.7 lm

%lum = 86.4%

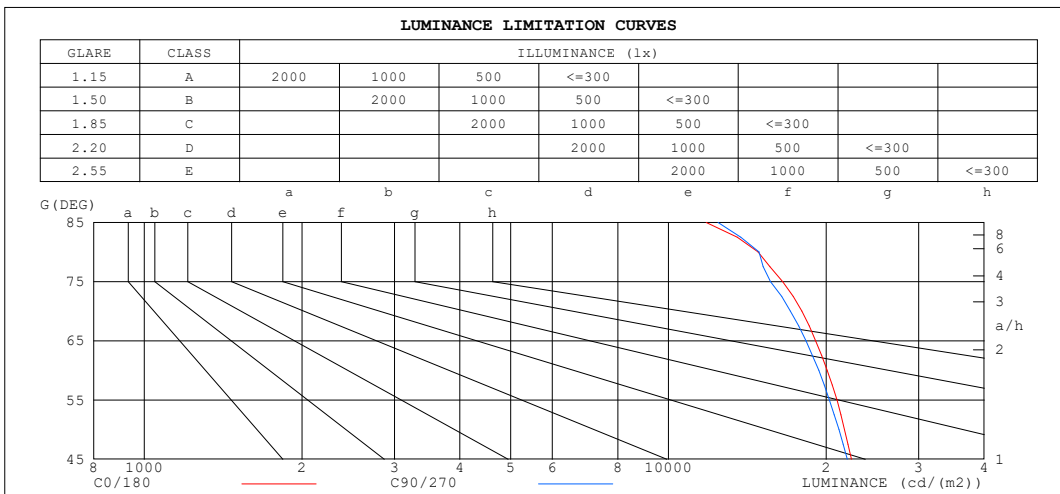
%lamp = 98.9%

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: 99PFMX40/BL	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	11794	12422
80	14811	14886
75	16519	15649
70	17966	17077
65	19087	18290
60	20081	19339
55	20958	20279
50	21671	21132
45	22342	21926

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: 99PFMX40/BL	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	.347	.197	.063	.339	.193	.061	.324	.186	.059	.310	.179	.057	.297	.172	.056	
2.0	.327	.179	.055	.320	.176	.054	.307	.171	.053	.294	.165	.052	.283	.160	.050	
3.0	.303	.161	.048	.297	.159	.048	.285	.155	.047	.274	.150	.046	.264	.146	.045	
4.0	.280	.146	.043	.275	.144	.042	.264	.140	.042	.255	.137	.041	.246	.133	.041	
5.0	.259	.132	.038	.255	.131	.038	.245	.128	.038	.237	.125	.037	.229	.122	.037	
6.0	.241	.121	.035	.237	.119	.034	.228	.117	.034	.221	.115	.034	.213	.112	.033	
7.0	.224	.111	.031	.221	.110	.031	.213	.108	.031	.206	.106	.031	.200	.104	.031	
8.0	.210	.103	.029	.206	.102	.029	.200	.100	.028	.194	.098	.028	.188	.096	.028	
9.0	.197	.095	.027	.194	.094	.026	.188	.093	.026	.182	.091	.026	.177	.090	.026	
10.0	.185	.089	.025	.182	.088	.025	.177	.087	.024	.172	.085	.024	.167	.084	.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	.218	.218	.218	.186	.186	.186	.127	.127	.127	.073	.073	.073	.023	.023	.023	
1.0	.206	.179	.154	.176	.153	.133	.120	.106	.092	.069	.061	.053	.022	.020	.017	
2.0	.196	.151	.113	.168	.130	.098	.115	.090	.068	.066	.052	.040	.021	.017	.013	
3.0	.187	.131	.086	.160	.113	.074	.110	.078	.052	.064	.046	.031	.020	.015	.010	
4.0	.178	.115	.067	.153	.100	.059	.105	.070	.041	.061	.041	.024	.020	.013	.008	
5.0	.170	.104	.055	.146	.090	.048	.100	.063	.034	.058	.037	.020	.019	.012	.007	
6.0	.162	.094	.045	.139	.081	.039	.096	.057	.028	.056	.033	.017	.018	.011	.005	
7.0	.154	.086	.038	.132	.075	.033	.091	.052	.024	.053	.031	.014	.017	.010	.005	
8.0	.146	.079	.033	.126	.069	.029	.087	.048	.021	.051	.028	.012	.016	.009	.004	
9.0	.140	.074	.029	.120	.064	.025	.083	.045	.018	.049	.027	.011	.016	.009	.004	
10.0	.133	.069	.026	.115	.060	.023	.080	.042	.016	.046	.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: 99PFMX40/BL					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	20.9	22.4	21.2	22.6	22.8	20.7	22.2	21.0	22.4	22.6	
	22.3	23.7	22.6	24.0	24.2	22.1	23.5	22.4	23.8	24.0	
	22.9	24.2	23.2	24.5	24.7	22.7	24.0	23.0	24.2	24.5	
	23.3	24.6	23.7	24.8	25.1	23.1	24.3	23.4	24.6	24.9	
	23.5	24.6	23.8	24.9	25.2	23.2	24.4	23.6	24.7	25.0	
	23.5	24.7	23.9	25.0	25.3	23.3	24.5	23.6	24.7	25.0	
4H 2H	21.4	22.8	21.8	23.0	23.3	21.3	22.6	21.6	22.9	23.1	
	23.1	24.2	23.4	24.5	24.8	22.9	24.1	23.3	24.3	24.7	
	23.8	24.8	24.2	25.2	25.5	23.6	24.6	23.9	24.9	25.3	
	24.3	25.3	24.7	25.6	26.0	24.1	25.0	24.5	25.4	25.8	
	24.5	25.4	24.9	25.7	26.1	24.3	25.2	24.7	25.5	25.9	
	24.6	25.4	25.0	25.8	26.2	24.4	25.2	24.8	25.6	26.0	
8H 4H	24.0	24.9	24.4	25.2	25.6	23.8	24.7	24.2	25.1	25.4	
	24.7	25.4	25.1	25.8	26.2	24.5	25.2	24.9	25.6	26.1	
	24.9	25.6	25.4	26.0	26.5	24.8	25.4	25.2	25.8	26.3	
	25.1	25.6	25.6	26.1	26.6	25.0	25.5	25.4	26.0	26.4	
12H 4H	24.0	24.8	24.4	25.2	25.6	23.8	24.6	24.3	25.0	25.4	
	24.7	25.4	25.2	25.8	26.2	24.6	25.2	25.0	25.6	26.1	
	25.0	25.6	25.5	26.0	26.5	24.9	25.4	25.3	25.9	26.3	
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 / - 0.3					+ 0.2 / - 0.3					

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: 99PFMX40/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:

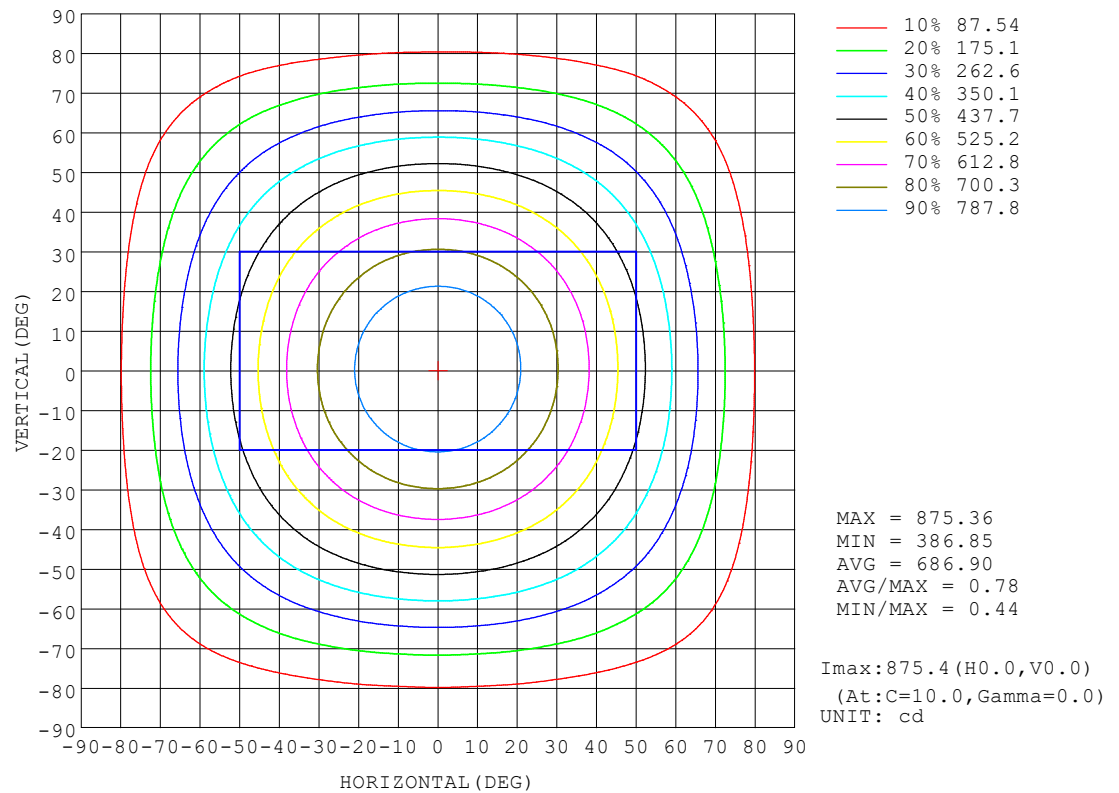
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	67	54	46	66	54	46	65	53	46	39
0.80	79	66	57	77	65	57	75	64	57	49
1.00	88	76	67	87	75	67	84	77	67	59
1.25	96	84	76	95	84	76	91	82	75	67
1.50	102	91	83	100	90	82	96	88	81	73
2.00	109	100	93	107	98	92	103	96	90	81
2.50	114	105	98	111	104	97	107	100	95	86
3.00	118	110	104	115	108	102	110	105	100	90
4.00	122	116	110	119	114	109	114	110	106	96
5.00	125	119	115	122	117	113	117	113	109	99
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: 99PFMX40/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:

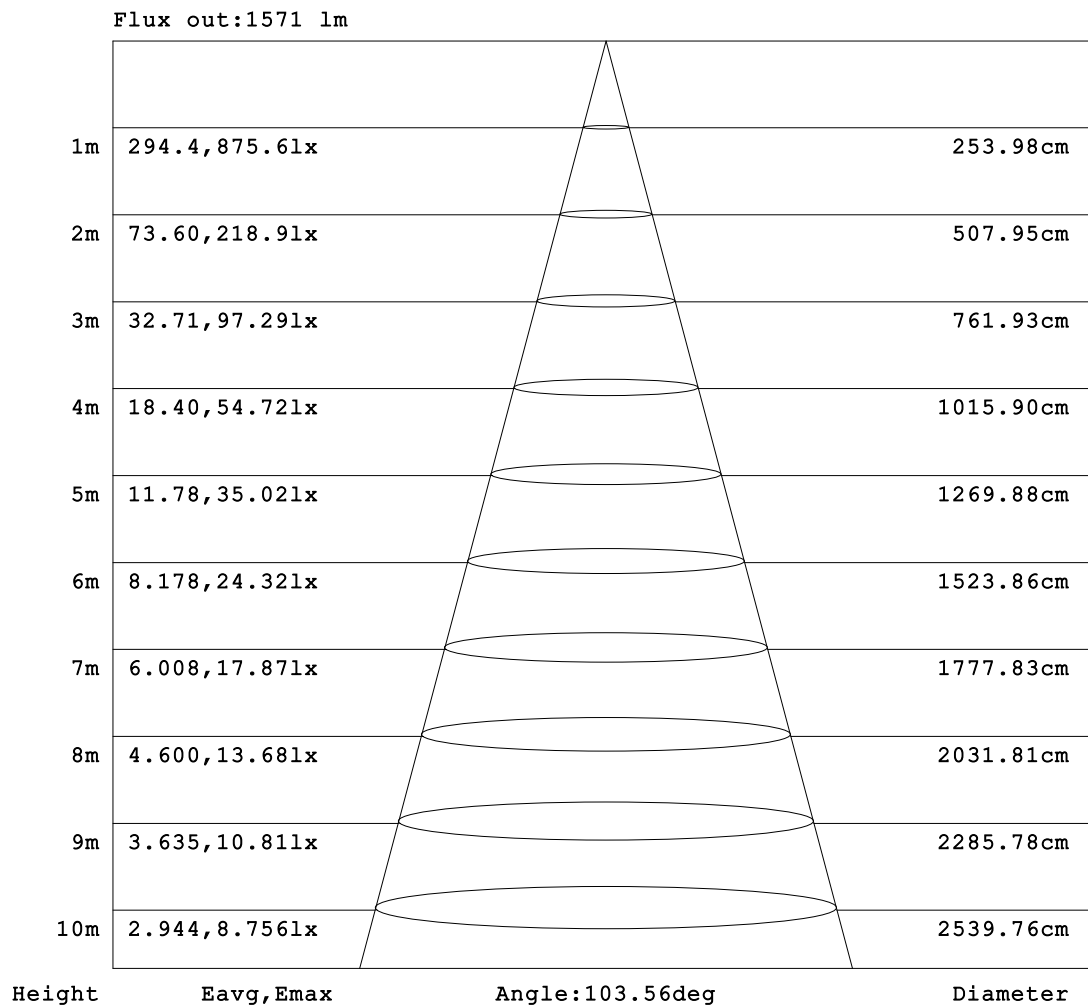


C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3°C
 Operators:
 Test Date: 15 November 2022

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: 99PFMX40/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:



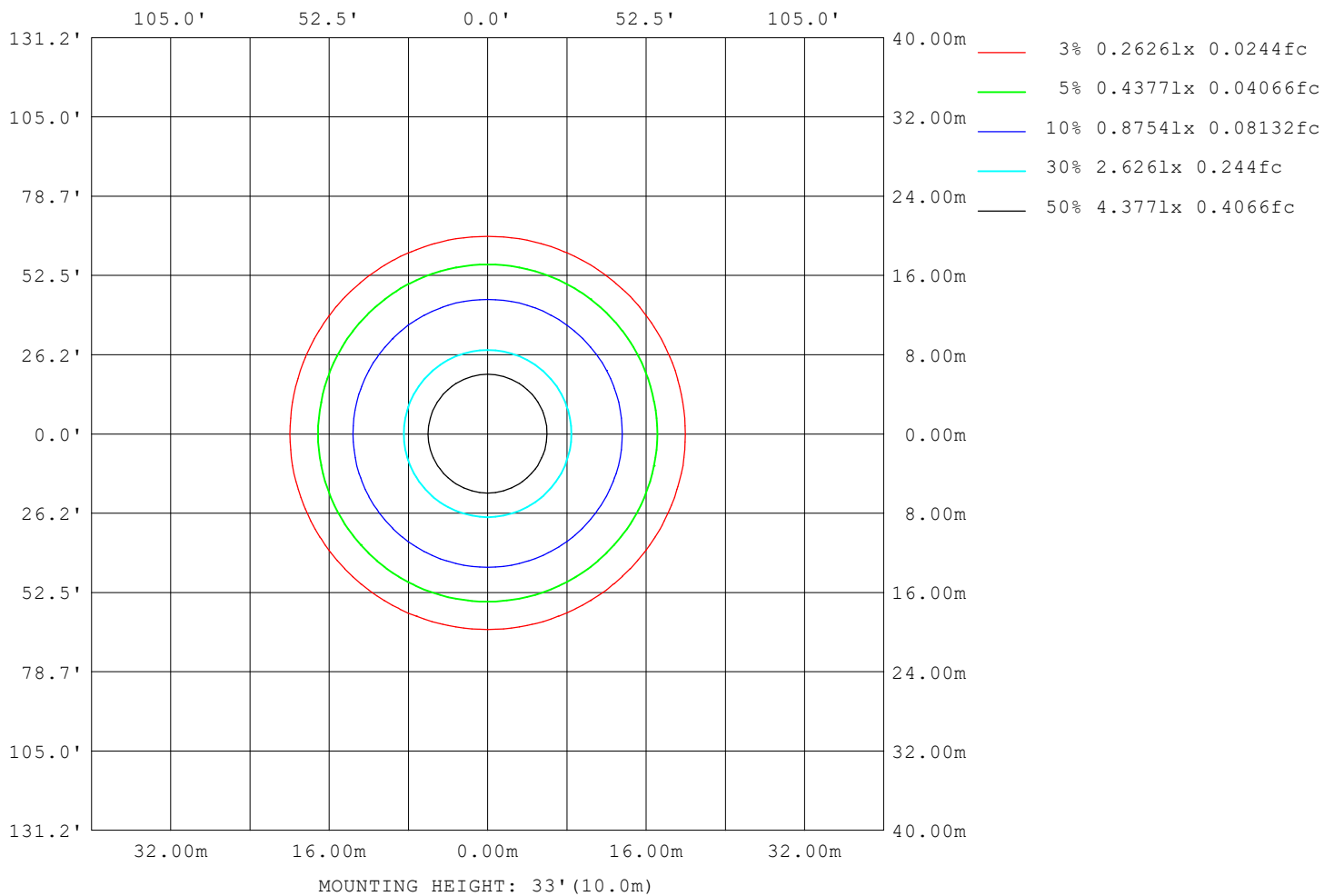
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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: 99PFMX40/BL	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: 99PFMX40/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:

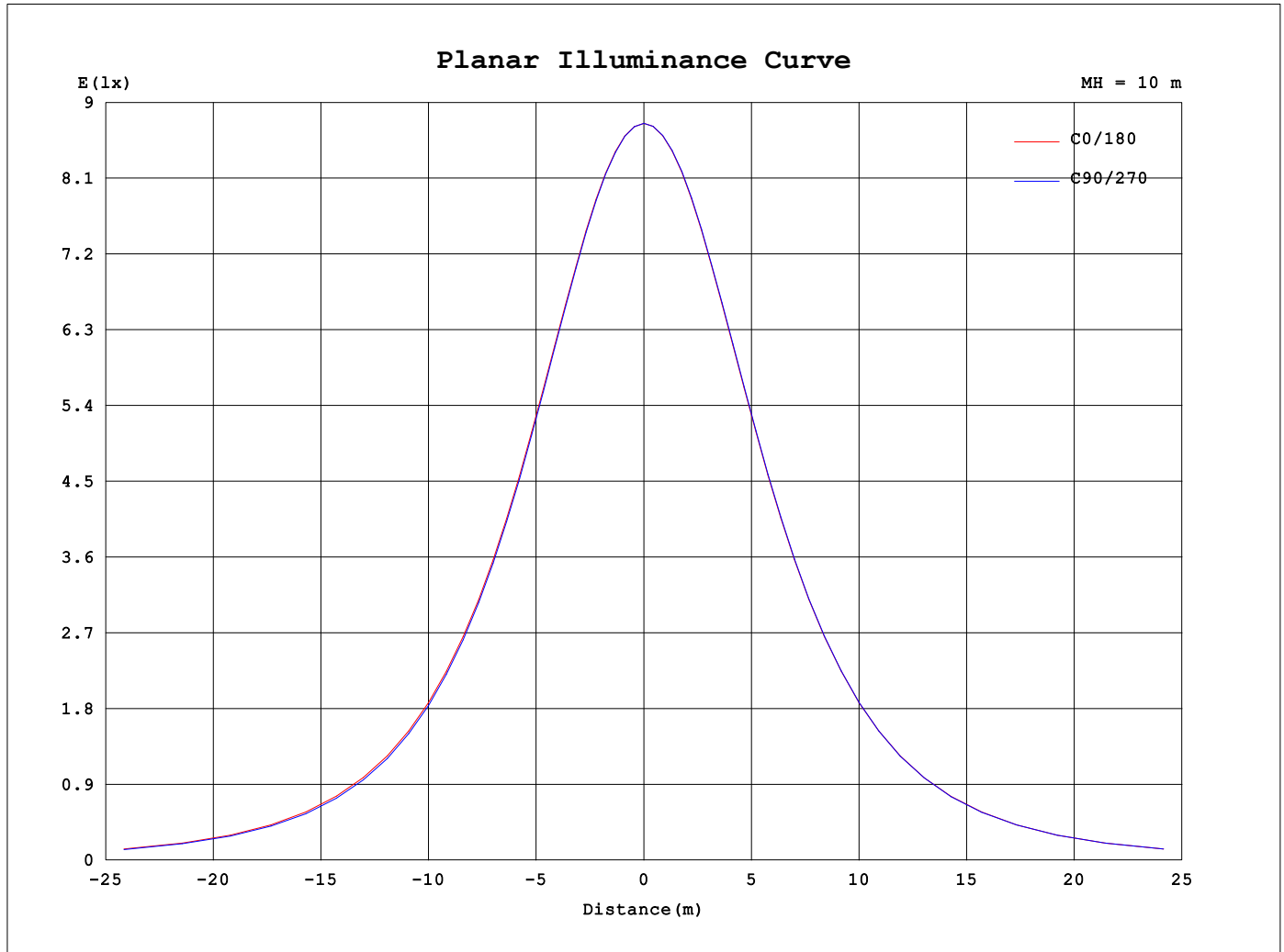
AvgL	cd/m2
L_0~180 (65) av	19085
L_0~180 (75) av	16544
L_0~180 (85) av	11754
L_90~270 (65) av	18653
L_90~270 (75) av	16149
L_90~270 (85) av	13145
L_45 (65) av	18863
L_45 (75) av	16349
L_45 (85) av	11171

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:

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