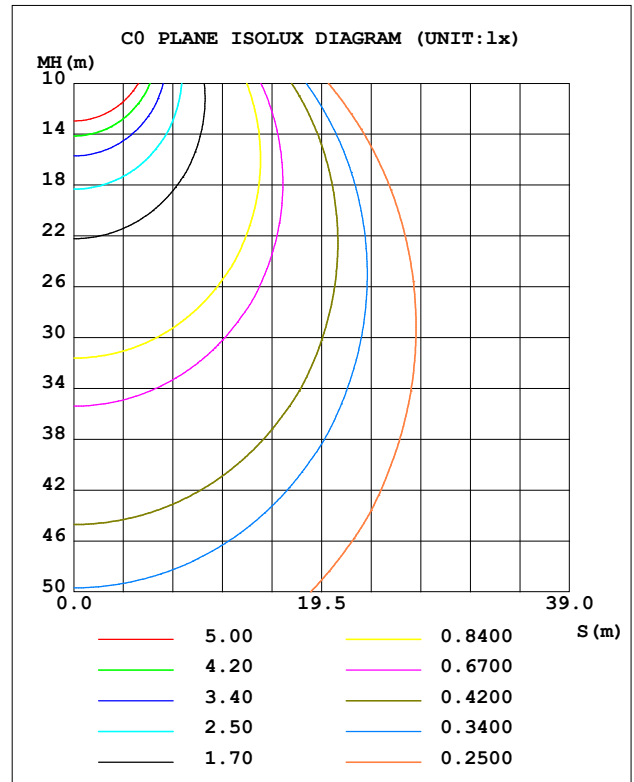
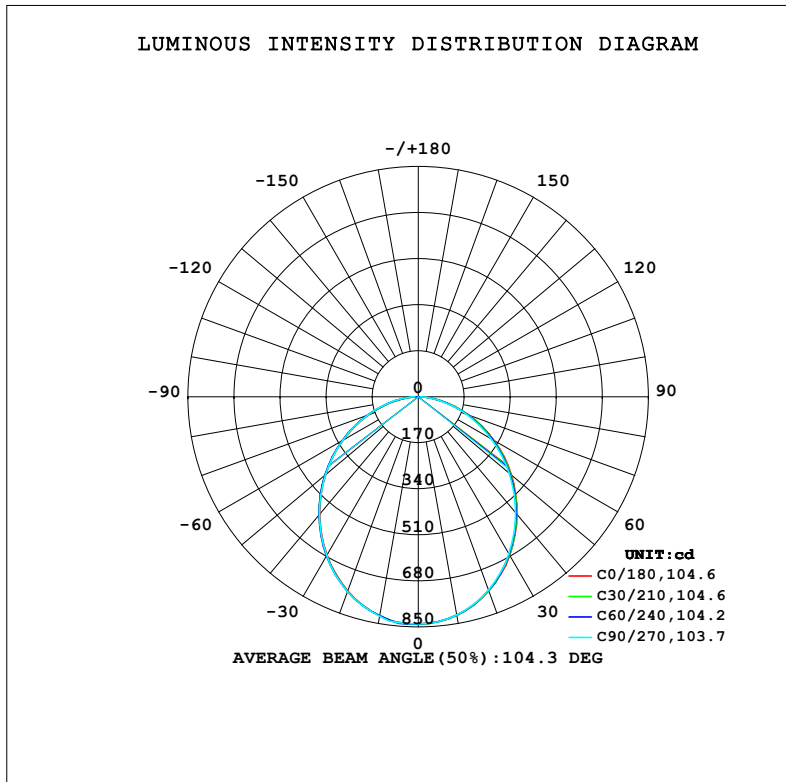


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 99PFMX30/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	99PFMX30/BL	Imax (cd)	839.5	S/MH (C0/180)	1.20
NOMINAL POWER (W)	20	LOR (%)	109.9	S/MH (C90/270)	1.21
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	2198.1	η UP, DN (C0-180)	0.0, 54.6
NOMINAL FLUX (lm)	2000	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 55.4
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	109.9	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	819.7	819.0	818.5	818.0	821.4	821.1	822.6	820.0	0- 10	79.25	79.25	3.61,3.96
20	762.6	762.7	759.4	758.6	762.8	764.8	765.1	763.1	10- 20	224.2	303.5	13.8,15.2
30	676.0	672.7	670.3	668.8	674.6	678.0	677.4	675.9	20- 30	332.2	635.7	28.9,31.8
40	567.4	564.0	559.0	559.1	566.1	570.4	568.6	567.7	30- 40	388.7	1024	46.6,51.2
50	449.1	444.2	437.8	438.5	446.8	450.7	447.6	448.4	40- 50	390.6	1415	64.4,70.7
60	324.4	318.9	312.1	313.3	321.4	324.8	322.1	322.6	50- 60	342.4	1757	80,87.9
70	199.7	194.8	189.0	189.7	196.8	199.9	198.6	199.4	60- 70	254.8	2012	91.5,101
80	84.14	81.39	79.04	77.33	81.89	85.71	92.00	84.17	70- 80	145.3	2157	98.1,108
90	4.805	1.800	9.139	2.094	4.792	2.374	12.66	2.515	80- 90	40.68	2198	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): 1222.7 lm

%lum = 55.6%
%lamp = 61.1%

Conical surface Flux(130deg): 1897.5 lm

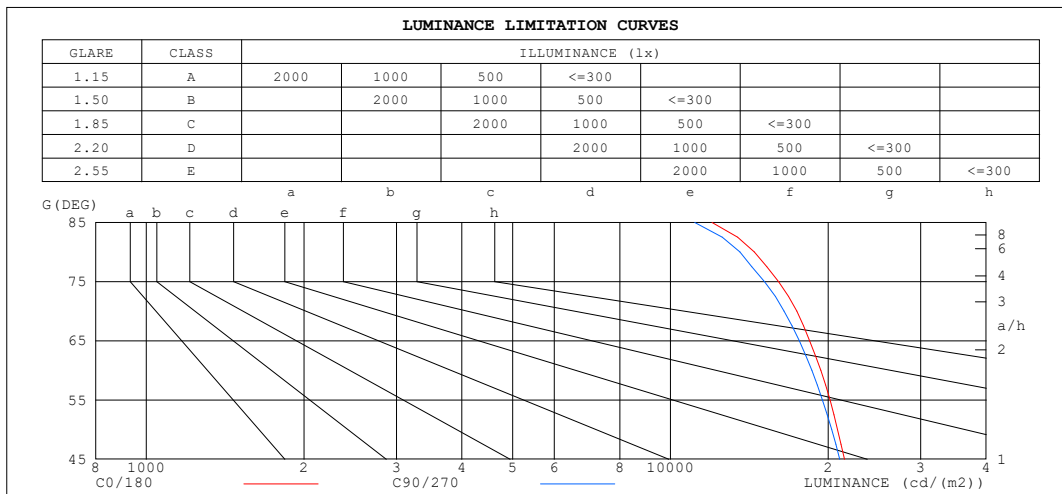
%lum = 86.3%
%lamp = 94.9%

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: 99PFMX30/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	12004	11119
80	14448	13562
75	16075	15114
70	17412	16465
65	18423	17605
60	19345	18596
55	20165	19482
50	20834	20294
45	21467	21039

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/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	.334	.190	.060	.326	.186	.059	.312	.179	.057	.298	.172	.055	.286	.166	.053	
2.0	.315	.172	.053	.308	.169	.052	.295	.164	.051	.283	.159	.050	.272	.154	.049	
3.0	.291	.155	.046	.285	.153	.046	.274	.149	.045	.264	.144	.044	.254	.141	.044	
4.0	.269	.140	.041	.264	.138	.041	.254	.135	.040	.245	.131	.040	.236	.128	.039	
5.0	.249	.127	.037	.245	.126	.037	.236	.123	.036	.227	.120	.036	.220	.117	.035	
6.0	.231	.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	.179	.179	.179	.122	.122	.122	.070	.070	.070	.022	.022	.022	
1.0	.198	.172	.148	.169	.147	.128	.116	.101	.088	.067	.059	.051	.021	.019	.017	
2.0	.188	.145	.108	.161	.125	.094	.111	.086	.065	.064	.050	.038	.020	.016	.012	
3.0	.180	.126	.082	.154	.108	.071	.106	.075	.050	.061	.044	.030	.020	.014	.010	
4.0	.171	.111	.065	.147	.096	.056	.101	.067	.040	.058	.039	.023	.019	.013	.008	
5.0	.163	.099	.052	.140	.086	.046	.096	.060	.032	.056	.035	.019	.018	.012	.006	
6.0	.155	.090	.044	.133	.078	.038	.092	.055	.027	.053	.032	.016	.017	.011	.005	
7.0	.148	.083	.037	.127	.072	.032	.088	.050	.023	.051	.030	.014	.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: 99PFMX30/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	20.8	22.3	21.1	22.5	22.7	20.6	22.1	20.9	22.3	22.5
	3H	22.3	23.6	22.6	23.9	24.1	22.0	23.4	22.3	23.6	23.9
	4H	22.8	24.2	23.2	24.4	24.7	22.6	23.9	22.9	24.1	24.4
	6H	23.3	24.5	23.6	24.8	25.1	23.0	24.2	23.3	24.5	24.8
	8H	23.4	24.6	23.7	24.9	25.2	23.1	24.3	23.4	24.6	24.9
	12H	23.5	24.6	23.8	24.9	25.2	23.2	24.3	23.5	24.6	24.9
4H	2H	21.4	22.7	21.7	22.9	23.2	21.2	22.5	21.5	22.8	23.1
	3H	23.0	24.2	23.4	24.5	24.8	22.8	24.0	23.2	24.3	24.6
	4H	23.7	24.8	24.1	25.1	25.4	23.5	24.5	23.9	24.9	25.2
	6H	24.3	25.2	24.7	25.6	25.9	24.0	25.0	24.4	25.3	25.7
	8H	24.5	25.3	24.9	25.7	26.1	24.2	25.1	24.6	25.4	25.8
	12H	24.6	25.4	25.0	25.8	26.2	24.3	25.1	24.7	25.5	25.9
8H	4H	24.0	24.8	24.4	25.2	25.6	23.8	24.6	24.2	25.0	25.4
	6H	24.7	25.4	25.1	25.8	26.2	24.4	25.2	24.9	25.6	26.0
	8H	24.9	25.6	25.4	26.0	26.4	24.7	25.3	25.1	25.8	26.2
	12H	25.1	25.7	25.6	26.1	26.6	24.9	25.4	25.3	25.9	26.3
12H	4H	24.0	24.8	24.4	25.2	25.6	23.8	24.6	24.2	24.9	25.4
	6H	24.7	25.3	25.2	25.8	26.2	24.5	25.1	24.9	25.6	26.0
	8H	25.0	25.6	25.5	26.0	26.5	24.8	25.3	25.3	25.8	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: 99PFMX30/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:

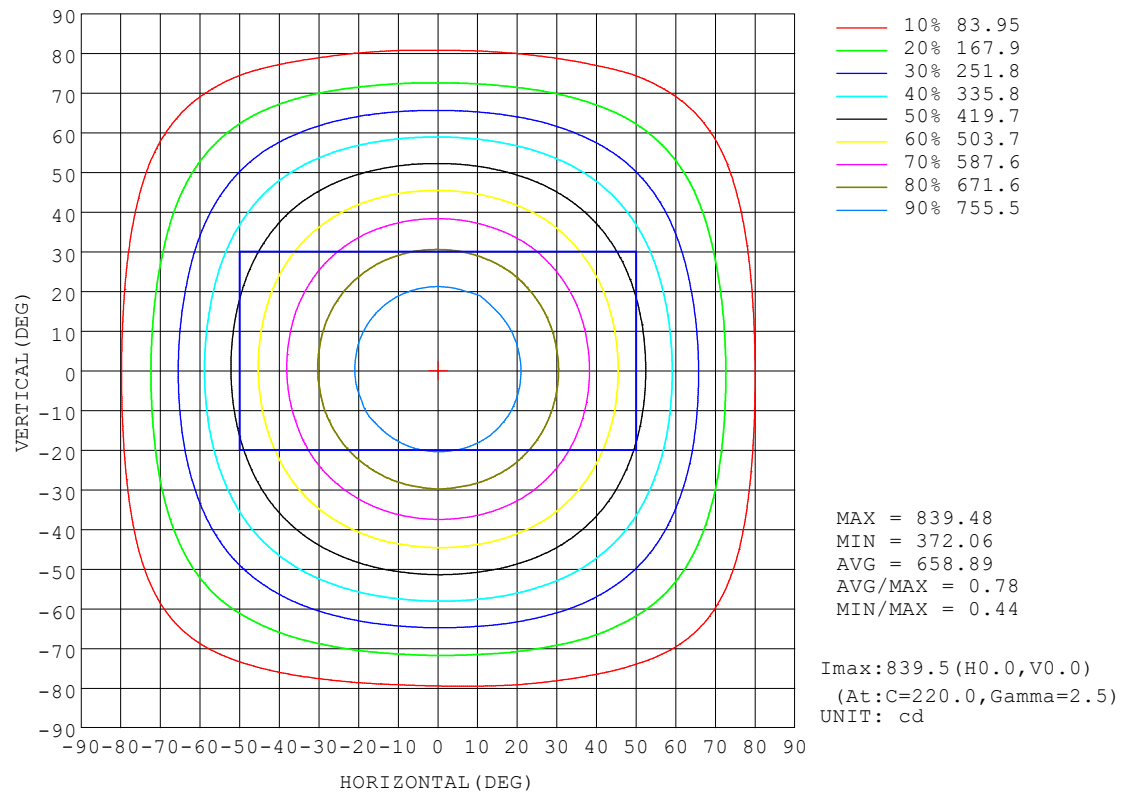
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	64	52	44	64	52	44	62	51	44	37
0.80	75	63	55	74	62	55	72	62	54	47
1.00	85	73	65	83	72	64	81	73	64	56
1.25	92	81	73	91	80	73	88	79	72	64
1.50	98	87	80	96	86	79	93	84	78	70
2.00	105	96	89	103	95	88	99	92	86	78
2.50	109	101	94	107	99	93	103	96	91	82
3.00	113	105	100	110	104	98	106	101	96	87
4.00	117	111	106	115	109	104	110	105	102	92
5.00	120	115	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: 99PFMX30/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 334	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cross	Shielding Angle:

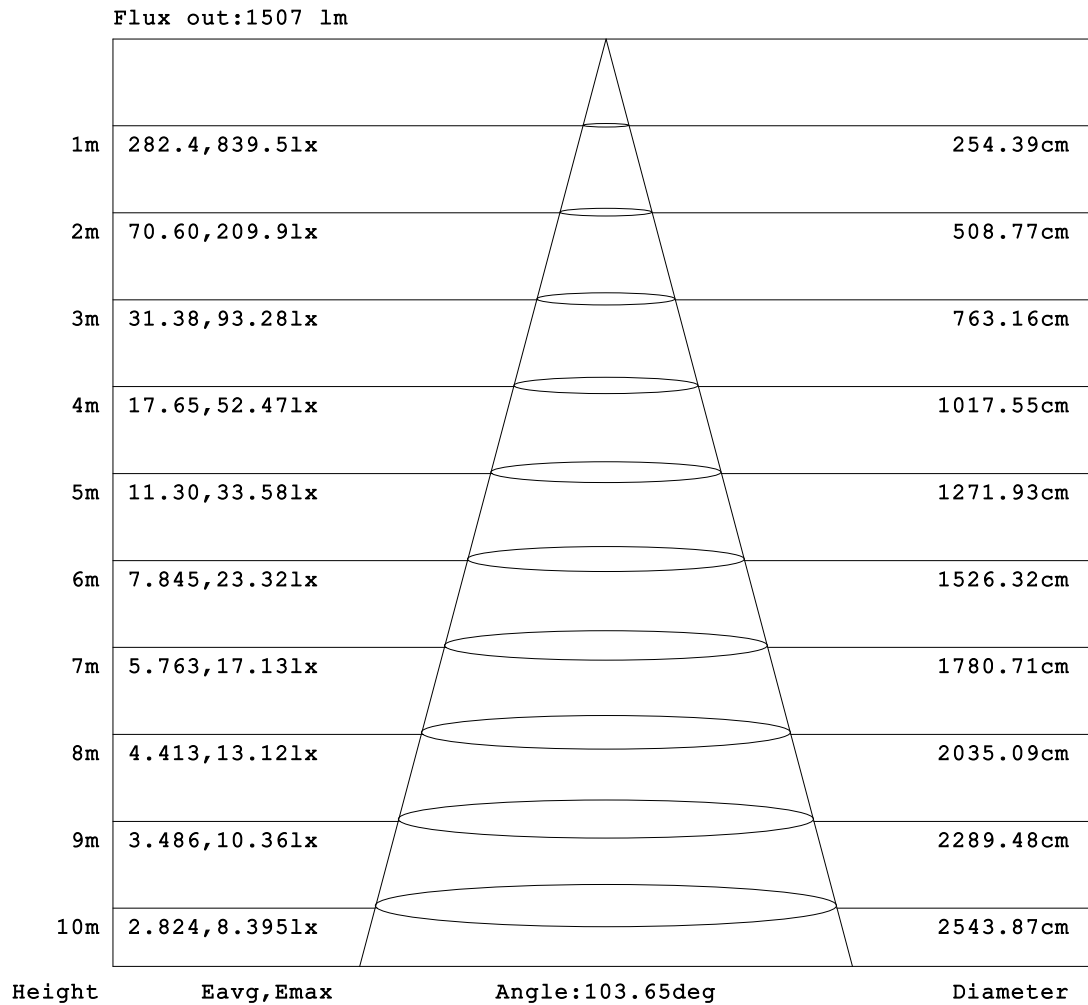


C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3°C
 Operators:
 Test Date:15 November 2022

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



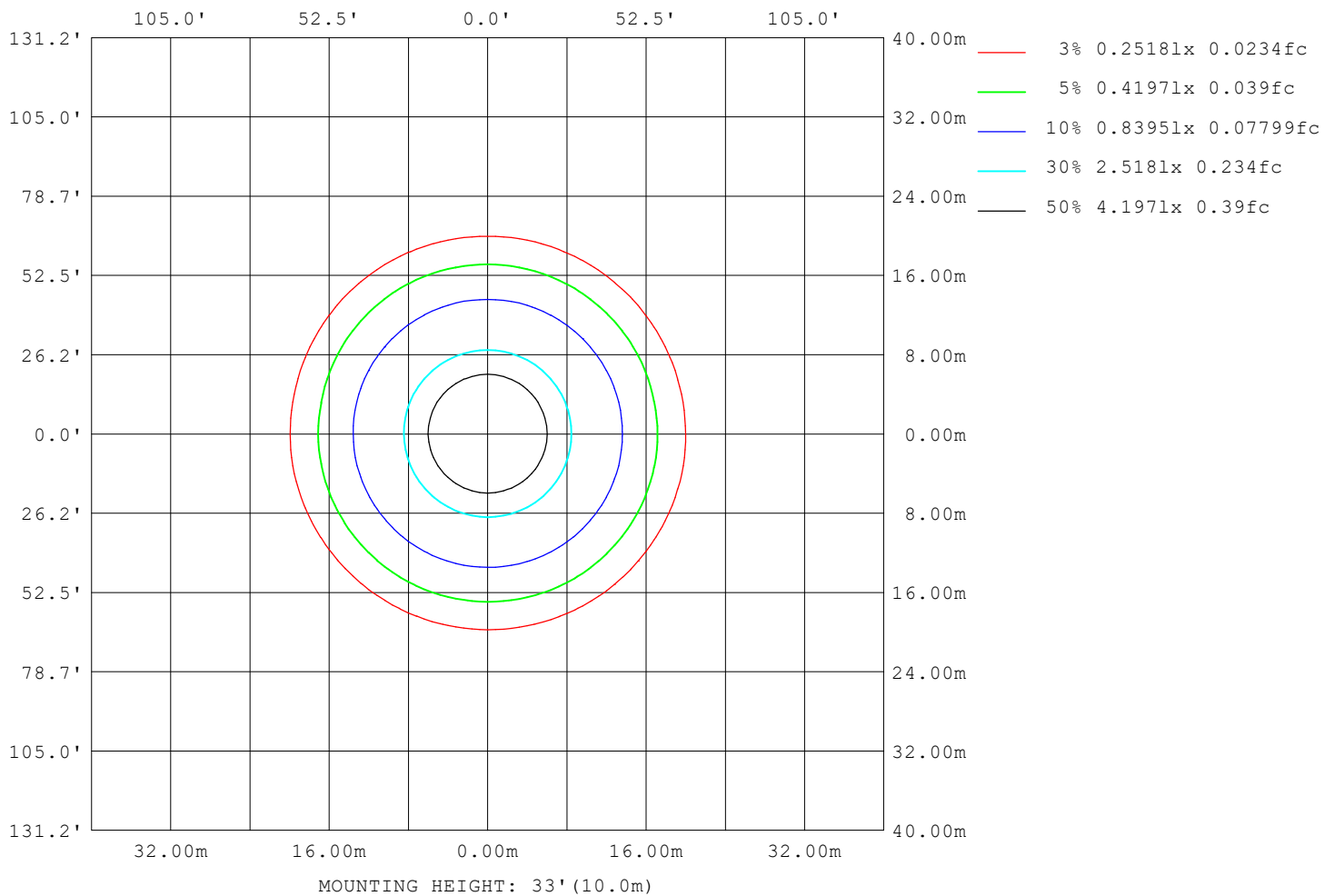
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

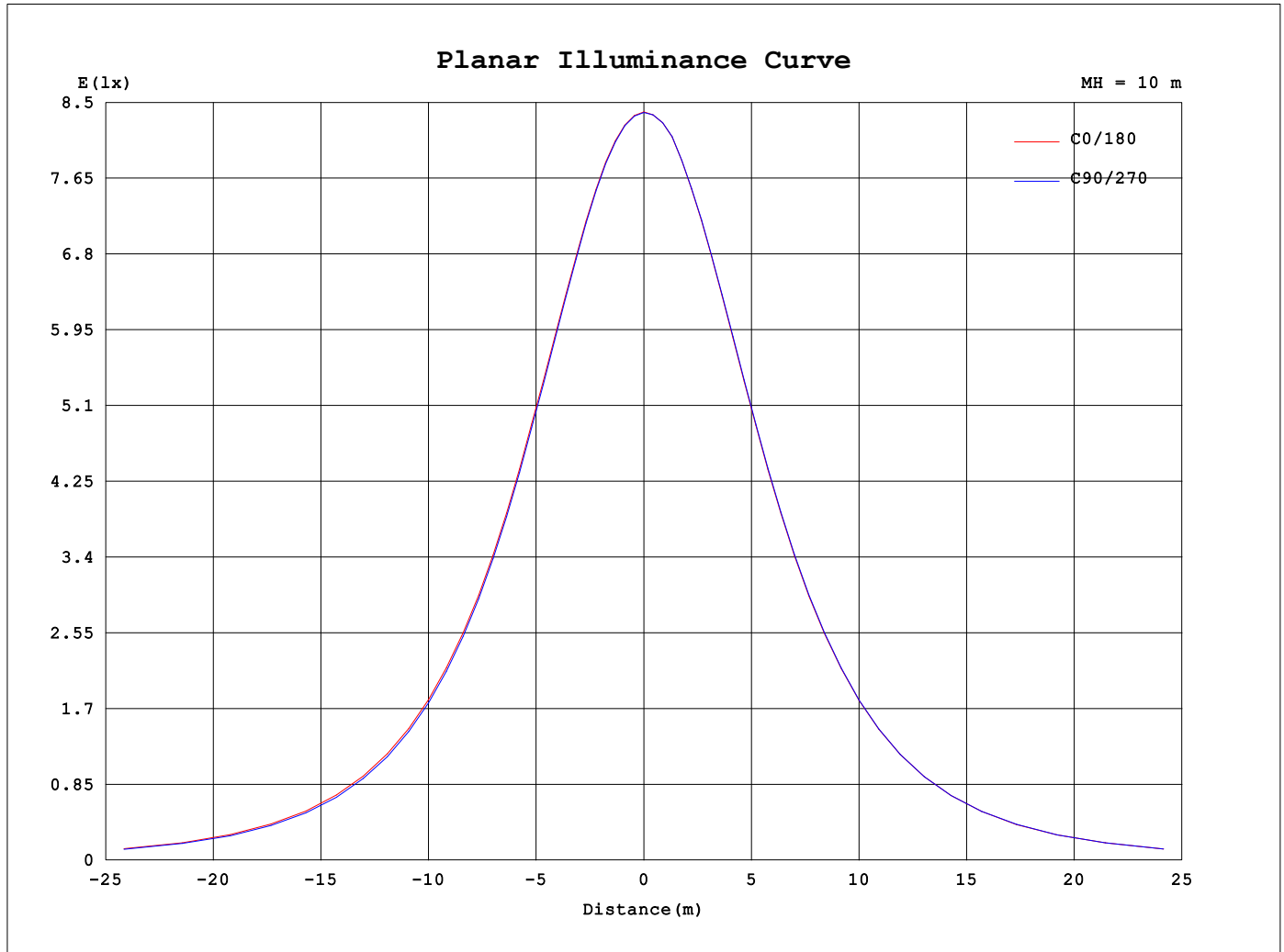
AvgL	cd/m2
L_0~180 (65) av	18310
L_0~180 (75) av	15932
L_0~180 (85) av	11648
L_90~270 (65) av	17954
L_90~270 (75) av	15610
L_90~270 (85) av	13022
L_45 (65) av	18134
L_45 (75) av	15772
L_45 (85) av	10999

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:

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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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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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