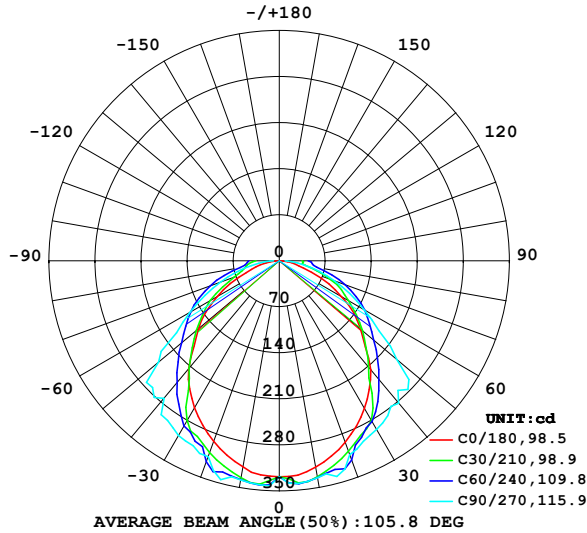


LUMINAIRE PHOTOMETRIC TEST REPORT

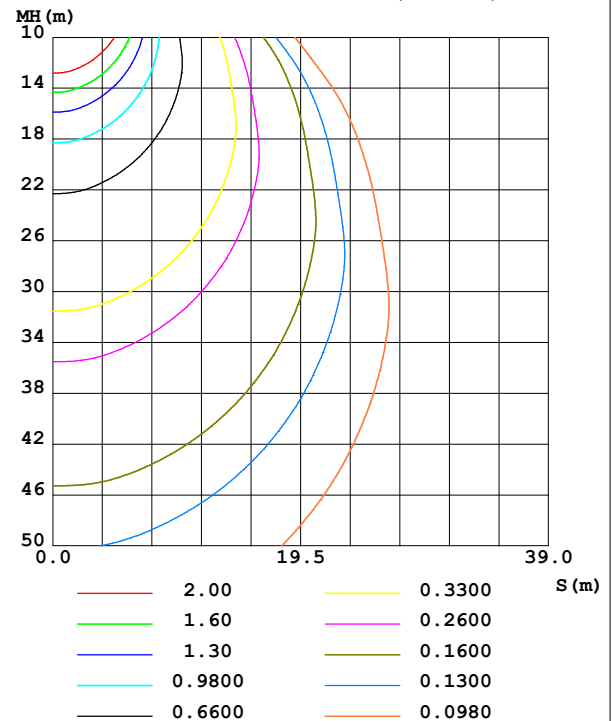
NAME: 99PFMI40/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 204	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: L	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	99PFMI40/BL	I _{max} (cd)	345.5	S/MH (C0/180)	1.18
NOMINAL POWER (W)	10	LOR (%)	94.2	S/MH (C90/270)	1.40
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	941.82	η UP, DN (C0-180)	0.0, 46.7
NOMINAL FLUX (lm)	1000	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 47.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	94.2	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



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:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	318.7	334.0	335.1	333.3	318.0	336.6	338.6	336.0	0- 10	32.07	32.07	3.41, 3.21
20	293.5	317.2	313.8	315.9	292.2	320.4	316.7	323.0	10- 20	92.18	124.3	13.2, 12.4
30	258.9	270.0	296.3	270.0	257.7	274.3	307.0	276.7	20- 30	137.1	261.3	27.7, 26.1
40	216.6	221.6	282.7	220.9	214.7	224.1	272.9	228.2	30- 40	162.1	423.4	45, 42.3
50	161.3	175.9	233.1	175.3	160.3	179.0	239.4	180.5	40- 50	162.3	585.7	62.2, 58.6
60	109.2	138.8	149.3	139.2	108.9	140.7	156.7	142.5	50- 60	141.4	727.0	77.2, 72.7
70	52.31	96.00	89.58	97.54	53.65	96.98	95.33	99.29	60- 70	110.2	837.2	88.9, 83.7
80	19.55	50.05	39.26	51.29	21.08	45.78	43.35	47.12	70- 80	68.10	905.3	96.1, 90.5
90	0.7785	26.48	8.976	25.40	0.7867	29.01	8.989	27.61	80- 90	36.48	941.8	100, 94.2
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): 505.86 lm

%lum = 53.7%

%lamp = 50.6%

Conical surface Flux(130deg): 787.01 lm

%lum = 83.6%

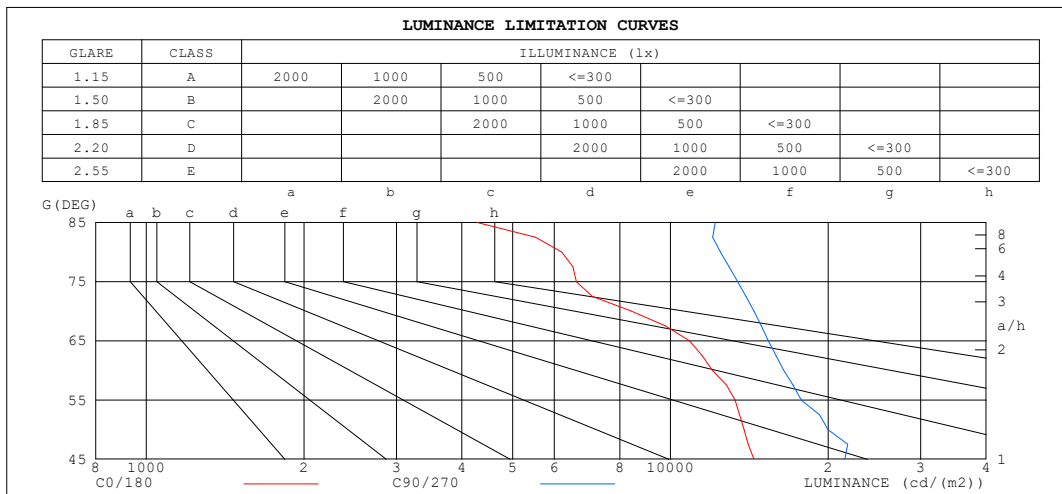
%lamp = 78.7%

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:

LUMINANCE LIMITATION CURVES

NAME: 99PFMI40/BL	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	4275	12177
80	6195	12444
75	6614	13423
70	8418	14418
65	10870	15374
60	12020	16436
55	13270	17755
50	13806	19966
45	14436	21516

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/BL	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	.309	.176	.056	.302	.173	.055	.290	.166	.053	.278	.161	.052	.268	.155	.050	
2.0	.282	.155	.047	.276	.152	.047	.265	.148	.046	.255	.143	.045	.246	.139	.044	
3.0	.258	.137	.041	.253	.135	.041	.243	.132	.040	.234	.128	.039	.226	.125	.039	
4.0	.237	.123	.036	.232	.121	.036	.223	.118	.035	.215	.116	.035	.208	.113	.034	
5.0	.218	.111	.032	.214	.110	.032	.206	.107	.032	.199	.105	.031	.192	.103	.031	
6.0	.202	.101	.029	.198	.100	.029	.191	.098	.029	.185	.096	.028	.179	.094	.028	
7.0	.187	.093	.026	.184	.092	.026	.178	.090	.026	.172	.088	.026	.167	.087	.026	
8.0	.175	.085	.024	.172	.085	.024	.167	.083	.024	.161	.082	.024	.157	.080	.023	
9.0	.164	.079	.022	.161	.079	.022	.156	.077	.022	.152	.076	.022	.147	.075	.022	
10.0	.154	.074	.020	.152	.073	.020	.147	.072	.020	.143	.071	.020	.139	.070	.020	

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	.179	.179	.179	.153	.153	.153	.105	.105	.105	.060	.060	.060	.019	.019	.019	
1.0	.171	.147	.125	.146	.126	.108	.100	.087	.075	.058	.050	.043	.018	.016	.014	
2.0	.163	.124	.091	.140	.107	.079	.096	.074	.055	.055	.043	.032	.018	.014	.011	
3.0	.156	.108	.069	.133	.093	.060	.092	.065	.042	.053	.038	.025	.017	.012	.008	
4.0	.148	.095	.055	.127	.082	.047	.087	.057	.033	.051	.034	.020	.016	.011	.006	
5.0	.141	.085	.044	.121	.074	.039	.083	.052	.027	.048	.030	.016	.016	.010	.005	
6.0	.134	.077	.037	.115	.067	.032	.080	.047	.023	.046	.028	.013	.015	.009	.004	
7.0	.128	.071	.031	.110	.061	.027	.076	.043	.019	.044	.025	.011	.014	.008	.004	
8.0	.121	.065	.027	.105	.057	.024	.072	.040	.017	.042	.024	.010	.014	.008	.003	
9.0	.116	.061	.024	.100	.053	.021	.069	.037	.015	.040	.022	.009	.013	.007	.003	
10.0	.110	.057	.021	.095	.049	.018	.066	.035	.013	.038	.021	.008	.012	.007	.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/BL					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	21.2	22.7	21.5	23.0	23.2	22.8	24.3	23.0	24.5	24.7
	3H	22.3	23.7	22.6	23.9	24.2	24.3	25.7	24.6	26.0	26.2
	4H	22.5	23.9	22.8	24.1	24.4	25.0	26.3	25.3	26.6	26.8
	6H	22.7	24.0	23.0	24.3	24.5	25.4	26.7	25.8	27.0	27.3
	8H	22.8	24.0	23.1	24.3	24.6	25.6	26.8	25.9	27.1	27.4
	12H	22.8	24.0	23.2	24.3	24.6	25.7	26.9	26.1	27.2	27.5
4H	2H	22.2	23.5	22.5	23.8	24.0	23.3	24.7	23.7	24.9	25.2
	3H	23.5	24.7	23.9	25.0	25.3	25.2	26.4	25.6	26.7	27.0
	4H	23.9	25.0	24.3	25.3	25.6	26.1	27.2	26.5	27.5	27.8
	6H	24.3	25.3	24.7	25.6	26.0	26.8	27.8	27.2	28.1	28.5
	8H	24.4	25.4	24.9	25.7	26.1	27.0	27.9	27.5	28.3	28.7
	12H	24.6	25.4	25.0	25.8	26.2	27.2	28.1	27.6	28.4	28.8
8H	4H	24.6	25.5	25.0	25.8	26.2	26.4	27.3	26.8	27.7	28.1
	6H	25.2	26.0	25.7	26.4	26.8	27.4	28.2	27.8	28.6	29.0
	8H	25.6	26.3	26.0	26.7	27.1	27.9	28.6	28.3	29.0	29.4
	12H	25.9	26.5	26.4	27.0	27.5	28.3	28.9	28.8	29.3	29.8
12H	4H	24.7	25.5	25.1	25.9	26.3	26.4	27.3	26.9	27.7	28.1
	6H	25.5	26.2	25.9	26.6	27.0	27.5	28.2	27.9	28.6	29.0
	8H	26.0	26.6	26.5	27.0	27.5	28.1	28.7	28.5	29.1	29.6
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 0.1 / - 0.2					+ 0.1 / - 0.1				
1.5H		+ 0.1 / - 0.2					+ 0.1 / - 0.3				
2.0H		+ 0.2 / - 0.3					+ 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/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 204	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: L	Shielding Angle:

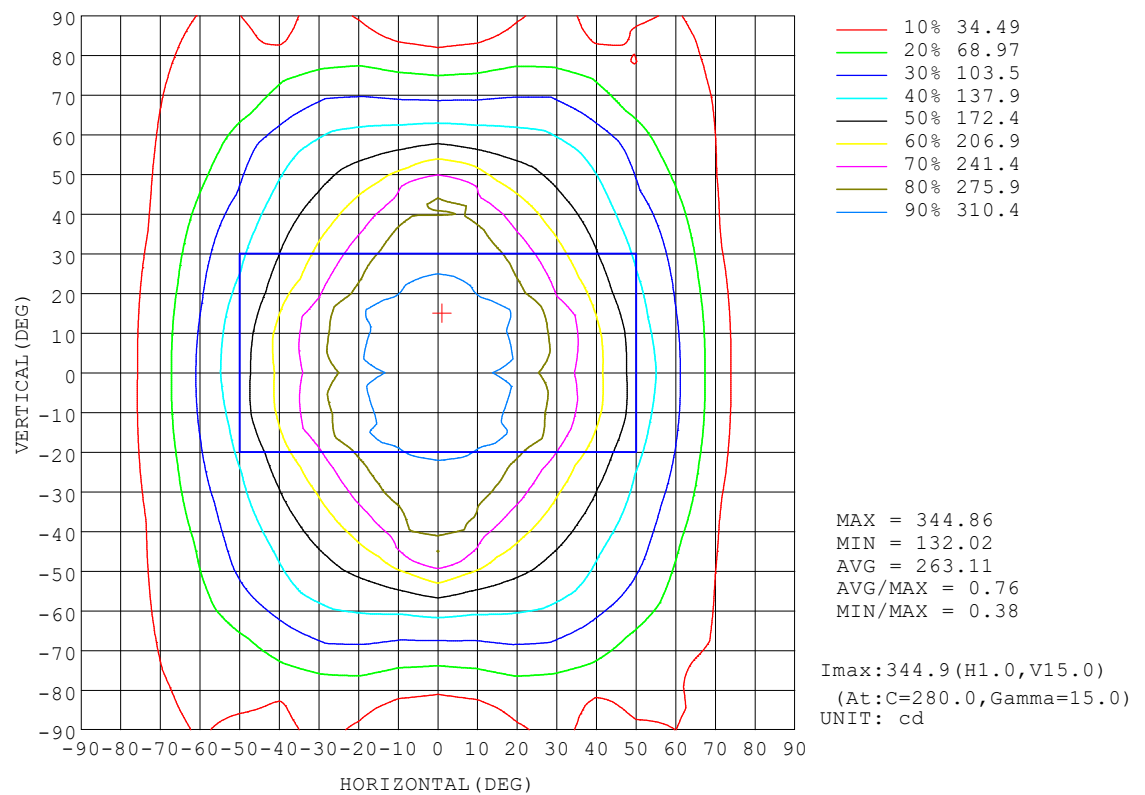
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	54	44	37	54	43	37	53	43	37	31
0.80	64	53	46	63	52	46	61	52	45	39
1.00	71	61	54	70	60	54	68	62	53	47
1.25	78	68	61	77	67	61	74	66	60	53
1.50	83	73	66	81	72	66	78	71	65	58
2.00	89	81	74	87	79	74	84	77	72	65
2.50	92	85	79	91	84	78	87	81	76	69
3.00	96	89	84	94	87	82	90	85	80	72
4.00	99	94	89	97	92	88	93	89	85	77
5.00	102	97	93	99	95	91	95	92	88	80
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/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 204	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: L	Shielding Angle:

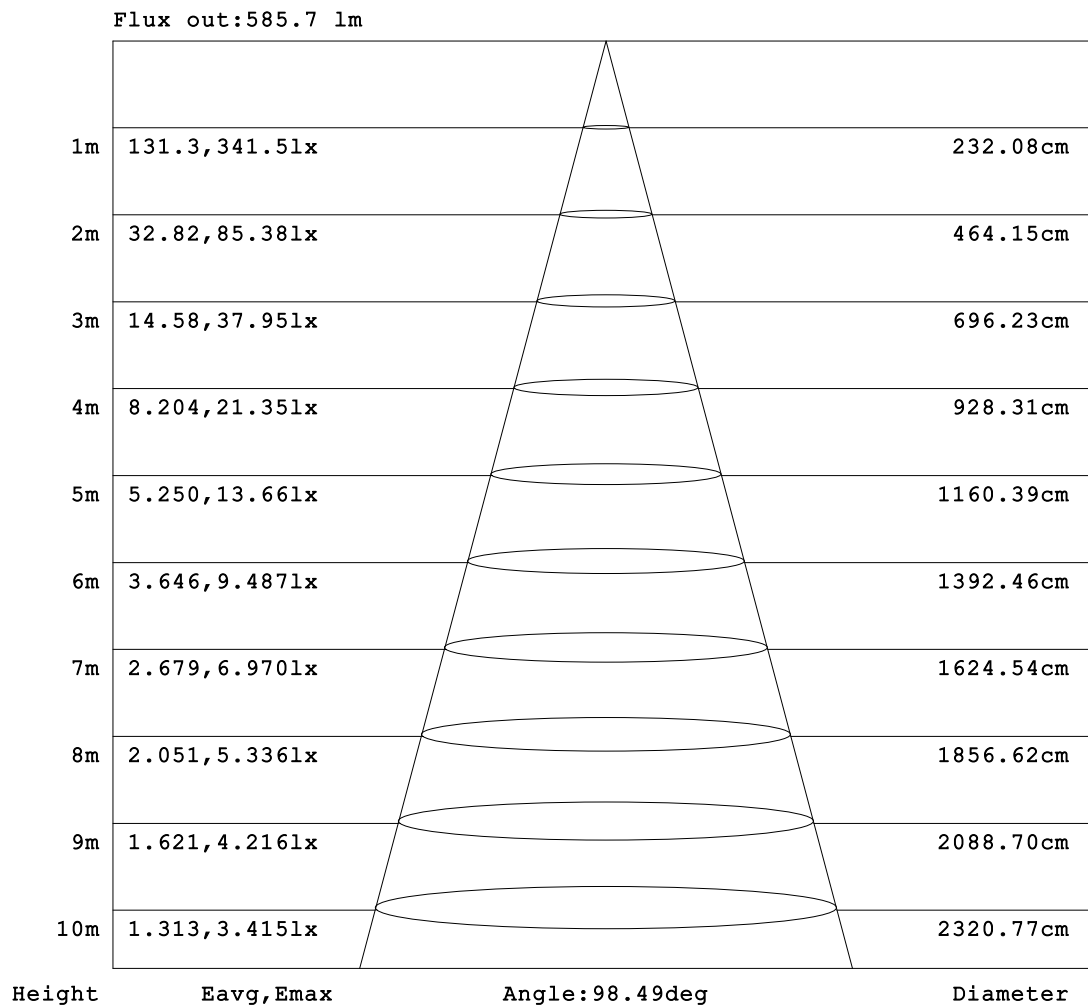


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:16 November 2022

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



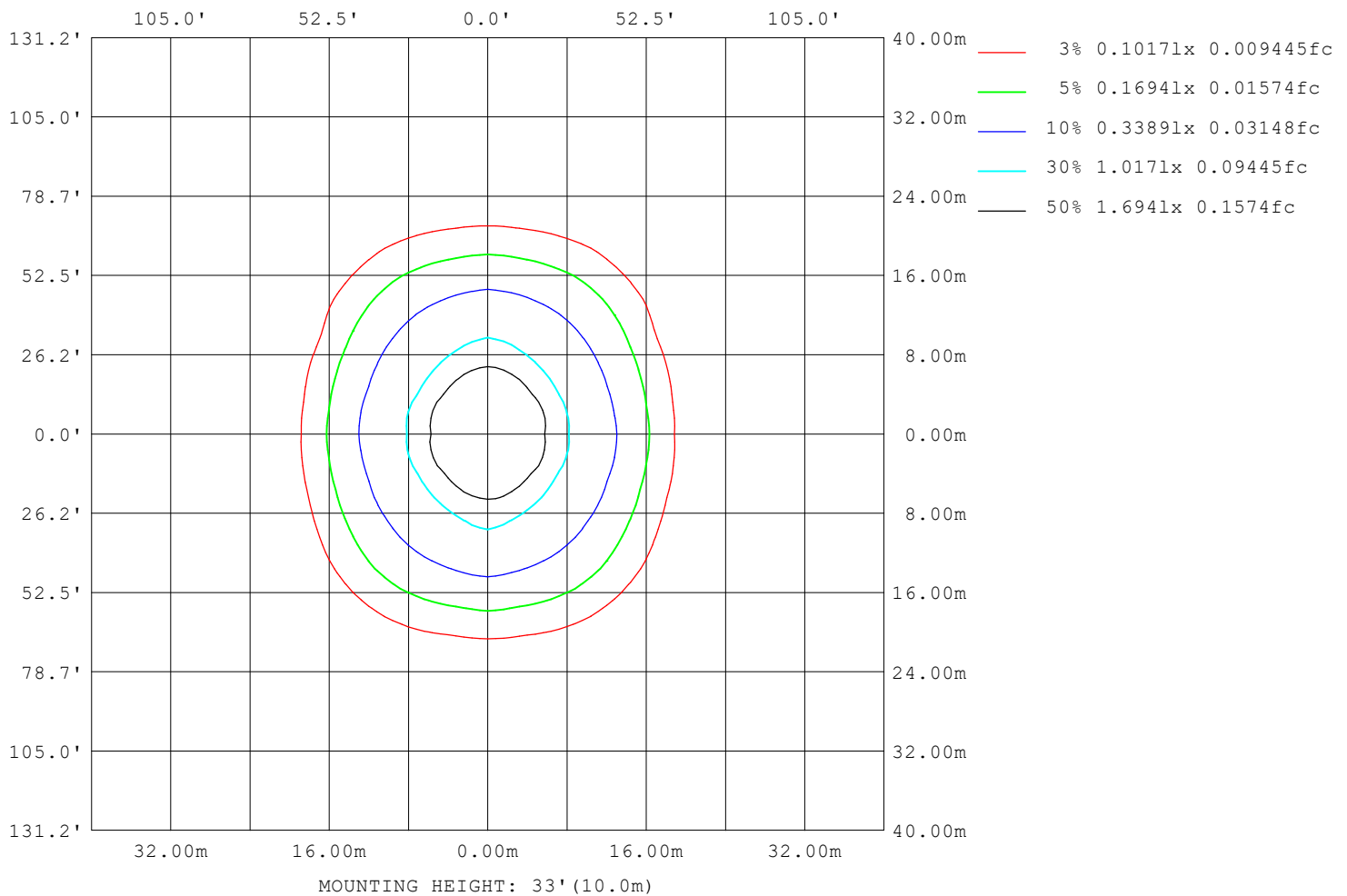
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

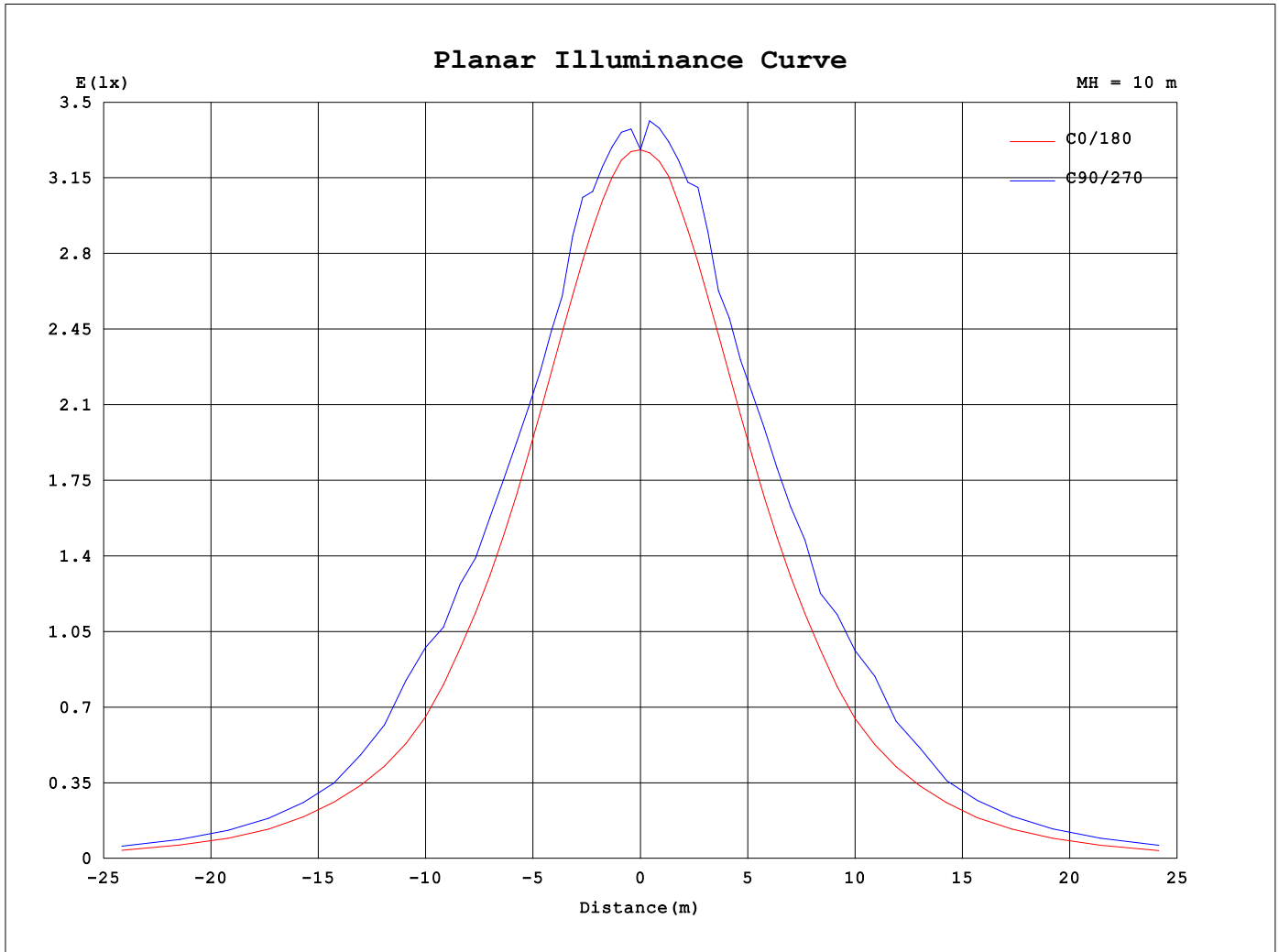
AvgL	cd/m2
L_0~180 (65) av	10811
L_0~180 (75) av	7229
L_0~180 (85) av	4221
L_90~270 (65) av	15808
L_90~270 (75) av	13973
L_90~270 (85) av	13055
L_45 (65) av	16103
L_45 (75) av	15471
L_45 (85) av	21525

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

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:

```