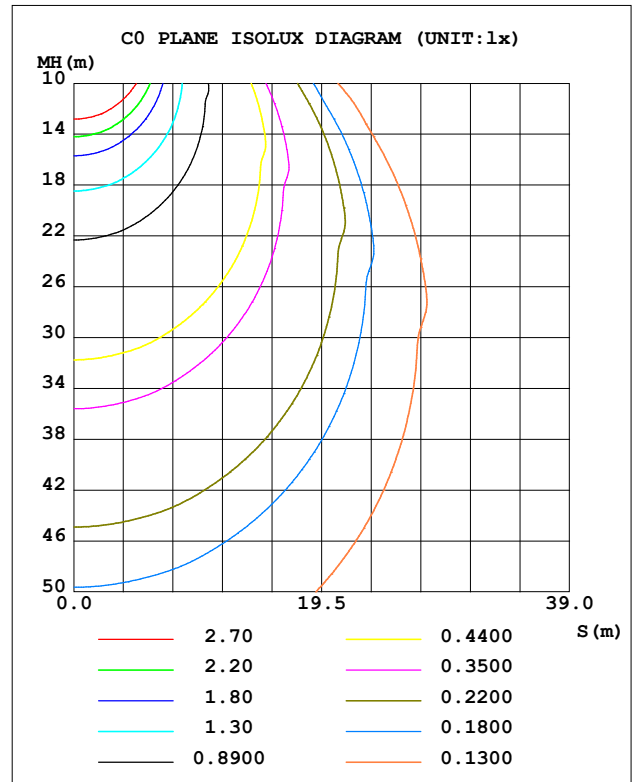
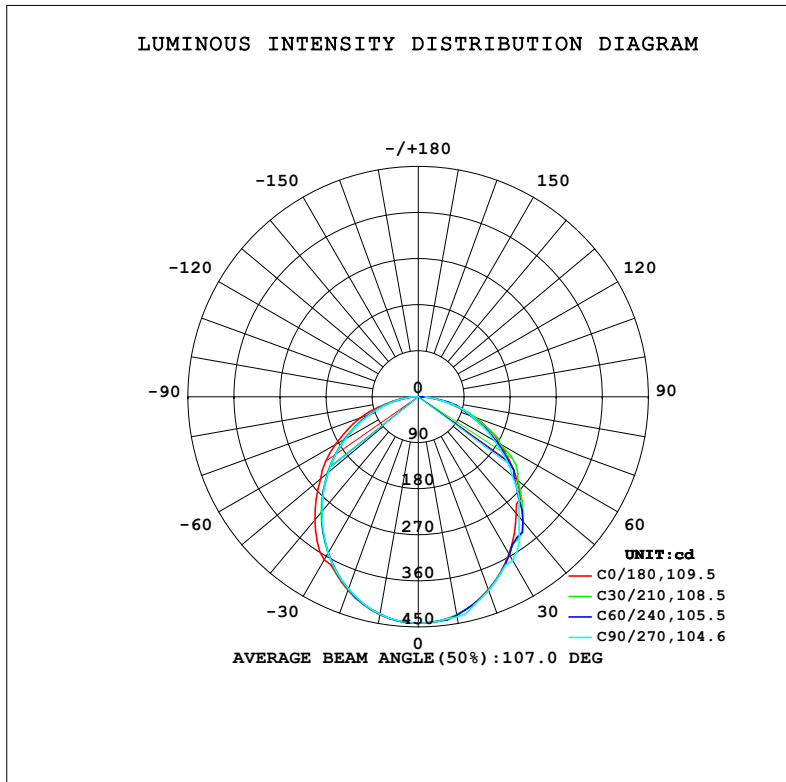


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 99PFML30/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	99PFML30/WH	I _{max} (cd)	442.8	S/MH (C0/180)	1.24
NOMINAL POWER (W)	10	LOR (%)	119.4	S/MH (C90/270)	1.19
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	1194.5	η UP, DN (C0-180)	0.0, 61.5
NOMINAL FLUX (lm)	1000	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 58.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	119.4	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
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	433.0	432.7	436.7	432.9	432.5	431.7	431.4	431.5	0- 10	41.79	41.79	3.5,4.18
20	401.0	402.0	402.5	404.6	402.4	400.2	399.7	400.0	10- 20	118.2	160.0	13.4,16
30	354.5	356.5	369.1	374.4	367.5	352.6	352.6	352.8	20- 30	176.3	336.3	28.2,33.6
40	297.7	318.9	306.8	314.6	314.1	294.4	293.5	294.9	30- 40	208.5	544.8	45.6,54.5
50	251.8	249.4	239.1	257.7	249.1	230.9	229.8	231.7	40- 50	212.3	757.1	63.4,75.7
60	184.4	184.9	172.7	186.0	187.1	165.8	164.5	166.3	50- 60	188.2	945.2	79.1,94.5
70	115.7	115.8	112.3	114.6	120.2	101.9	100.7	102.3	60- 70	141.7	1087	91,109
80	49.89	52.42	51.13	53.69	50.09	43.40	42.85	43.92	70- 80	83.43	1170	98,117
90	3.877	1.300	13.14	1.778	4.255	0.9468	0.6592	0.9409	80- 90	24.13	1194	100,119
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): 652.29 lm

%lum = 54.6%

%lamp = 65.2%

Conical surface Flux(130deg): 1022.9 lm

%lum = 85.6%

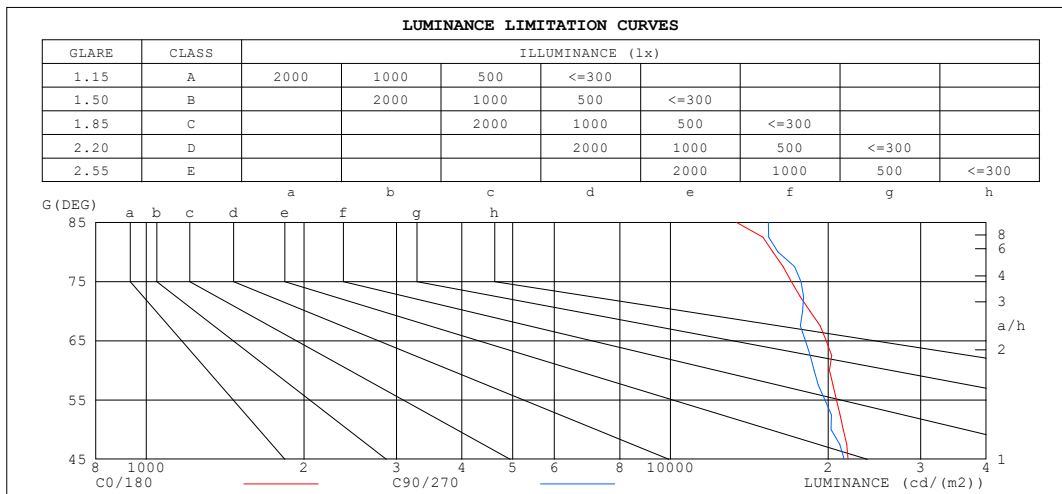
%lamp = 102.3%

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 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: 99PFML30/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	13370	15377
80	15669	16020
75	16994	17736
70	18444	17866
65	19811	18081
60	20108	18790
55	20736	19717
50	21366	20235
45	21796	21437

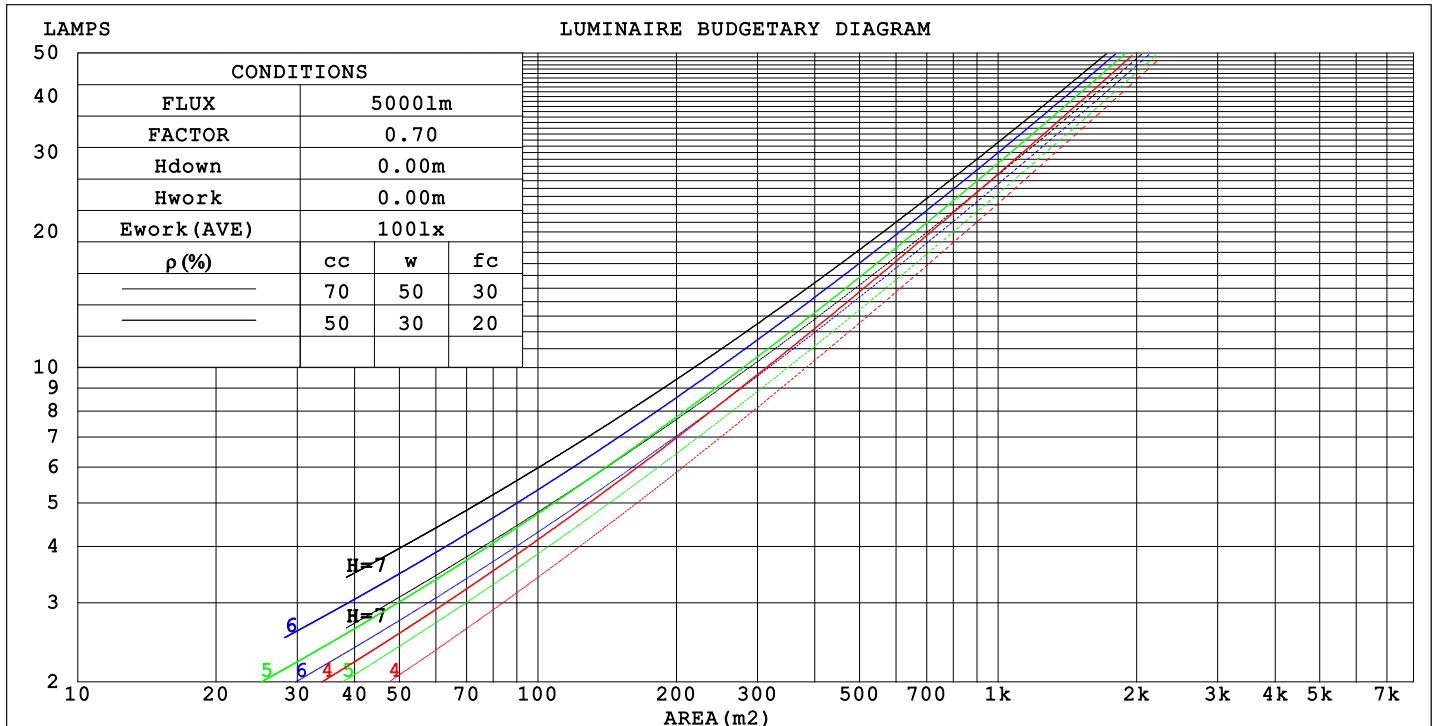
C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3°C
 Operators:
 Test Date: 16 November 2022

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: 99PFML30/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															



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
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:

WEC AND CCEC

NAME: 99PFML30/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	.369	.210	.066	.360	.206	.065	.345	.198	.063	.330	.190	.061	.317	.184	.059	
2.0	.346	.190	.058	.339	.187	.058	.325	.181	.056	.312	.175	.055	.300	.170	.054	
3.0	.320	.170	.051	.314	.168	.051	.301	.163	.050	.290	.159	.049	.279	.155	.048	
4.0	.296	.154	.045	.290	.152	.045	.279	.148	.044	.269	.144	.044	.259	.141	.043	
5.0	.273	.139	.040	.268	.138	.040	.258	.135	.040	.249	.132	.039	.241	.129	.039	
6.0	.253	.127	.036	.249	.126	.036	.240	.123	.036	.232	.121	.035	.225	.118	.035	
7.0	.236	.117	.033	.232	.116	.033	.224	.113	.033	.217	.111	.032	.210	.109	.032	
8.0	.220	.108	.030	.217	.107	.030	.210	.105	.030	.203	.103	.030	.197	.101	.030	
9.0	.207	.100	.028	.203	.099	.028	.197	.098	.028	.191	.096	.027	.186	.094	.027	
10.0	.194	.093	.026	.191	.092	.026	.186	.091	.026	.181	.090	.025	.176	.088	.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	.228	.228	.228	.194	.194	.194	.133	.133	.133	.076	.076	.076	.024	.024	.024	
1.0	.215	.187	.161	.184	.160	.138	.126	.110	.096	.073	.064	.056	.023	.021	.018	
2.0	.205	.158	.117	.176	.136	.101	.121	.094	.071	.070	.055	.041	.022	.018	.014	
3.0	.196	.137	.089	.168	.118	.077	.115	.082	.054	.067	.048	.032	.021	.016	.010	
4.0	.187	.121	.070	.160	.104	.061	.110	.073	.043	.064	.043	.025	.021	.014	.008	
5.0	.178	.108	.057	.153	.094	.049	.105	.065	.035	.061	.038	.021	.020	.013	.007	
6.0	.169	.098	.047	.146	.085	.041	.100	.059	.029	.058	.035	.017	.019	.011	.006	
7.0	.161	.090	.040	.139	.078	.035	.096	.055	.025	.056	.032	.015	.018	.011	.005	
8.0	.153	.083	.034	.132	.072	.030	.091	.050	.021	.053	.030	.013	.017	.010	.004	
9.0	.146	.077	.030	.126	.067	.026	.087	.047	.019	.051	.028	.011	.016	.009	.004	
10.0	.139	.072	.027	.120	.062	.023	.083	.044	.017	.049	.026	.010	.016	.009	.003	

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
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: 99PFML30/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	23.6	25.2	23.9	25.4	25.6	23.2	24.7	23.5	24.9	25.1
	3H	25.2	26.6	25.5	26.8	27.0	24.7	26.1	25.0	26.3	26.5
	4H	25.7	27.1	26.1	27.3	27.6	25.4	26.7	25.7	27.0	27.2
	6H	26.2	27.4	26.5	27.7	28.0	25.9	27.2	26.2	27.4	27.7
	8H	26.3	27.5	26.6	27.8	28.1	26.1	27.3	26.4	27.5	27.8
	12H	26.4	27.5	26.7	27.8	28.1	26.2	27.3	26.5	27.6	27.9
4H	2H	24.2	25.5	24.5	25.8	26.1	23.9	25.2	24.2	25.5	25.7
	3H	25.9	27.1	26.3	27.4	27.7	25.5	26.7	25.9	27.0	27.3
	4H	26.6	27.7	27.0	28.0	28.4	26.4	27.5	26.8	27.8	28.1
	6H	27.2	28.1	27.6	28.5	28.8	27.1	28.0	27.5	28.4	28.7
	8H	27.4	28.2	27.8	28.6	29.0	27.3	28.1	27.7	28.5	28.9
	12H	27.5	28.3	27.9	28.7	29.1	27.4	28.2	27.8	28.6	29.0
8H	4H	26.9	27.8	27.3	28.2	28.5	26.7	27.6	27.1	28.0	28.4
	6H	27.6	28.3	28.0	28.7	29.1	27.6	28.3	28.0	28.7	29.1
	8H	27.8	28.5	28.3	28.9	29.4	27.8	28.5	28.3	28.9	29.4
	12H	28.0	28.6	28.5	29.0	29.5	28.1	28.6	28.5	29.1	29.6
12H	4H	26.9	27.7	27.4	28.1	28.5	26.7	27.6	27.2	27.9	28.3
	6H	27.7	28.3	28.1	28.7	29.2	27.6	28.3	28.1	28.7	29.2
	8H	28.0	28.5	28.4	29.0	29.4	28.0	28.5	28.4	29.0	29.4
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 0.2 / - 0.2					+ 0.1 / - 0.2				
1.5H		+ 0.3 / - 0.4					+ 0.2 / - 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: 0.01837 m2

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
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: 99PFML30/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 204	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: L	Shielding Angle:

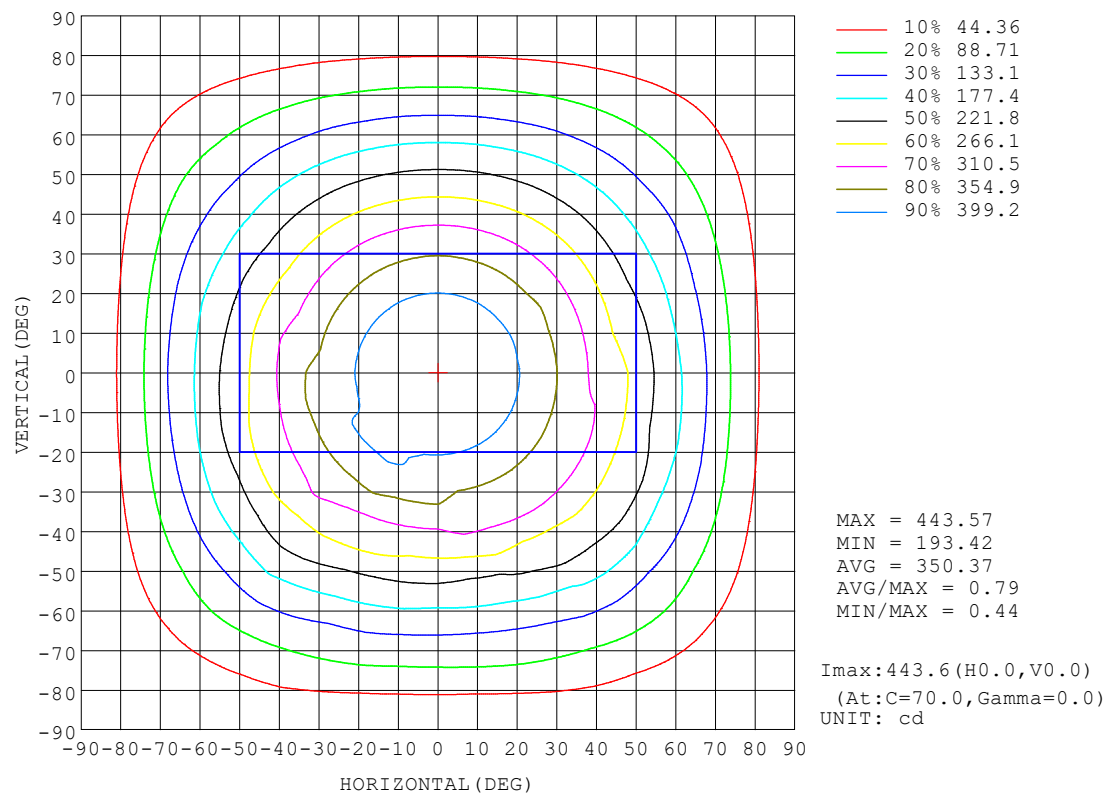
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	69	56	47	69	55	47	67	55	47	39
0.80	81	68	59	80	67	59	78	66	58	50
1.00	91	78	69	90	77	69	87	79	69	60
1.25	100	87	79	98	86	78	95	85	77	69
1.50	106	94	86	104	93	85	100	91	84	75
2.00	114	104	96	111	102	95	107	99	93	84
2.50	118	109	102	116	107	101	111	104	99	89
3.00	122	114	108	120	112	106	115	109	104	94
4.00	127	120	115	124	118	113	119	114	110	99
5.00	130	124	119	127	122	117	122	117	114	103
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: 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: 99PFML30/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 204	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: L	Shielding Angle:

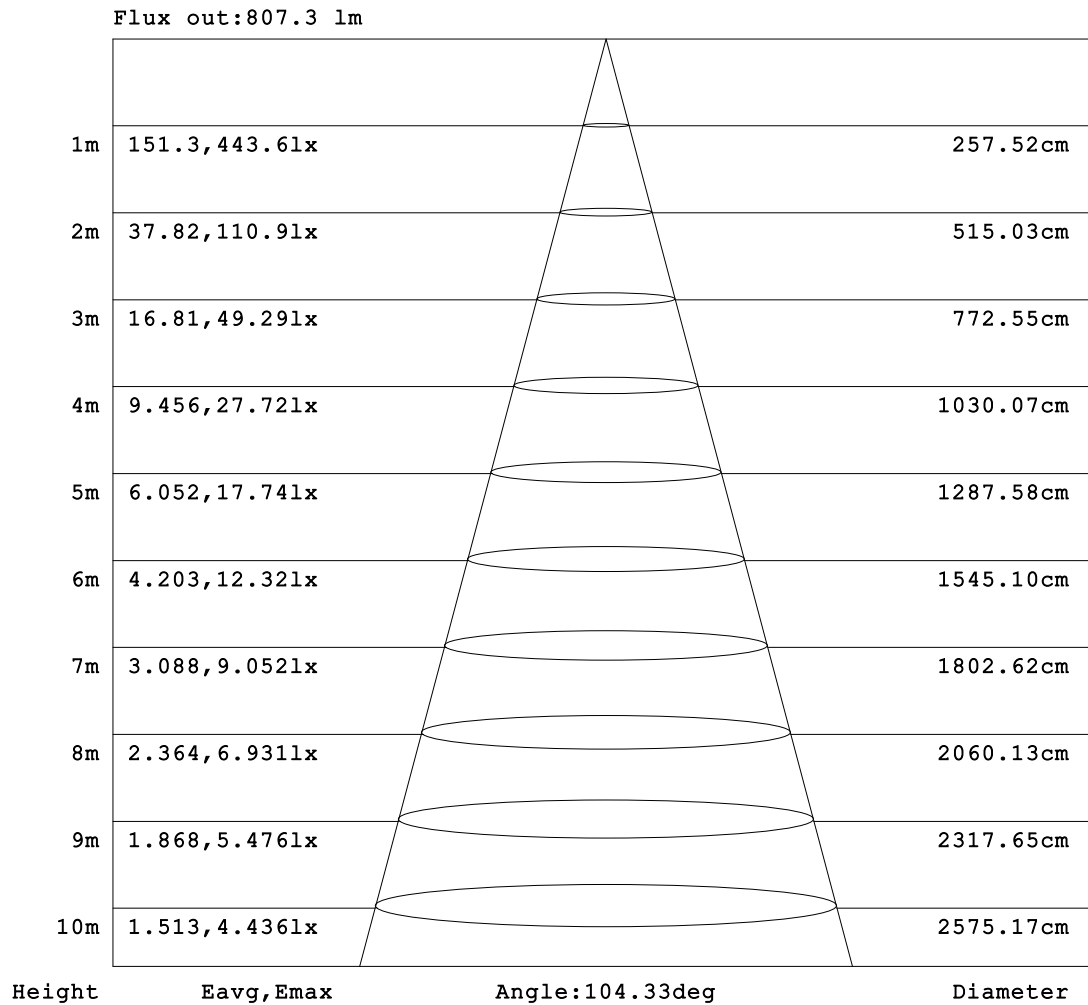


C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3°C
 Operators:
 Test Date: 16 November 2022

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: 99PFML30/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 204	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: L	Shielding Angle:



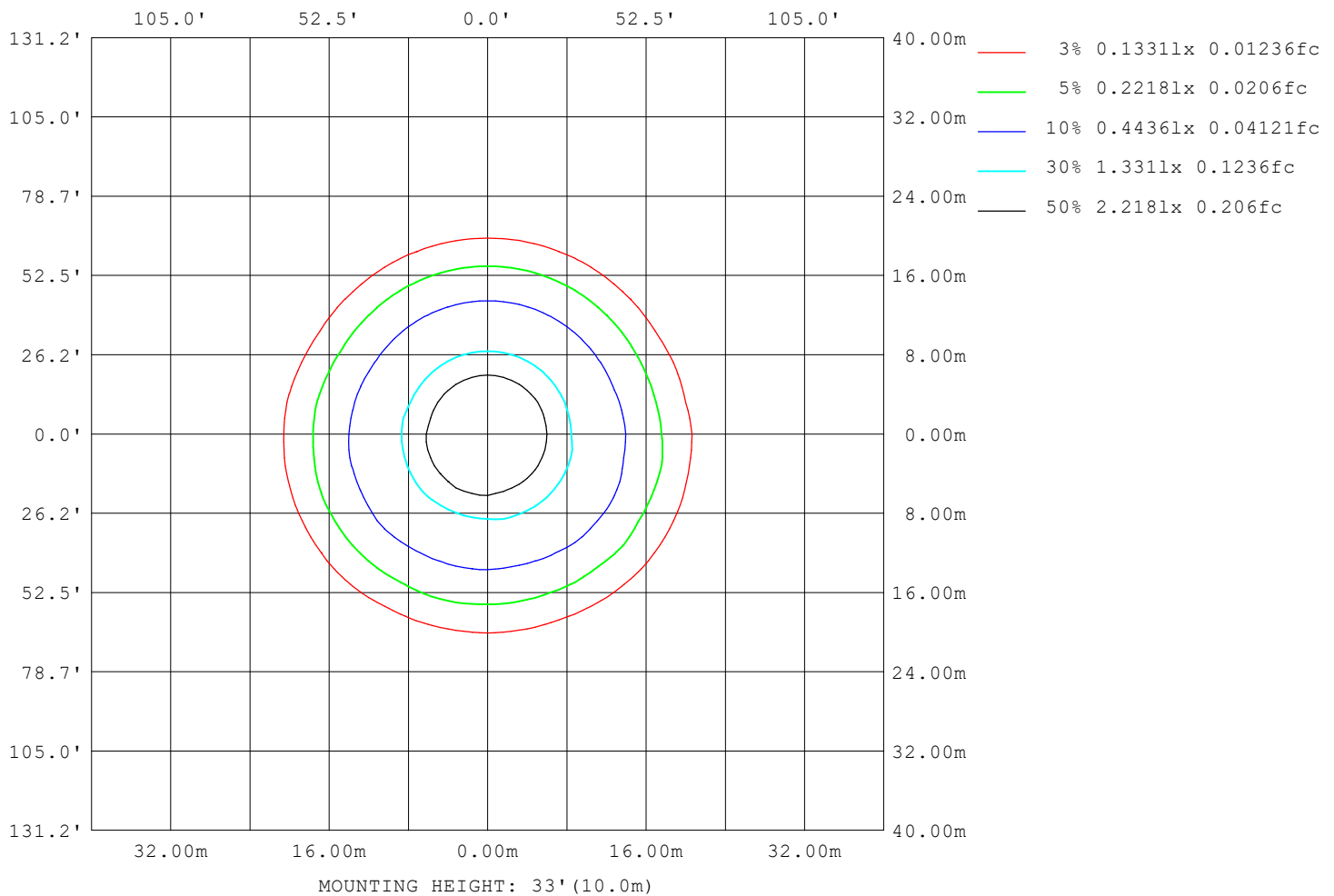
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 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: 99PFML30/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: MEDIUM
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: 99PFML30/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 35 x 75 x 204	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: L	Shielding Angle:

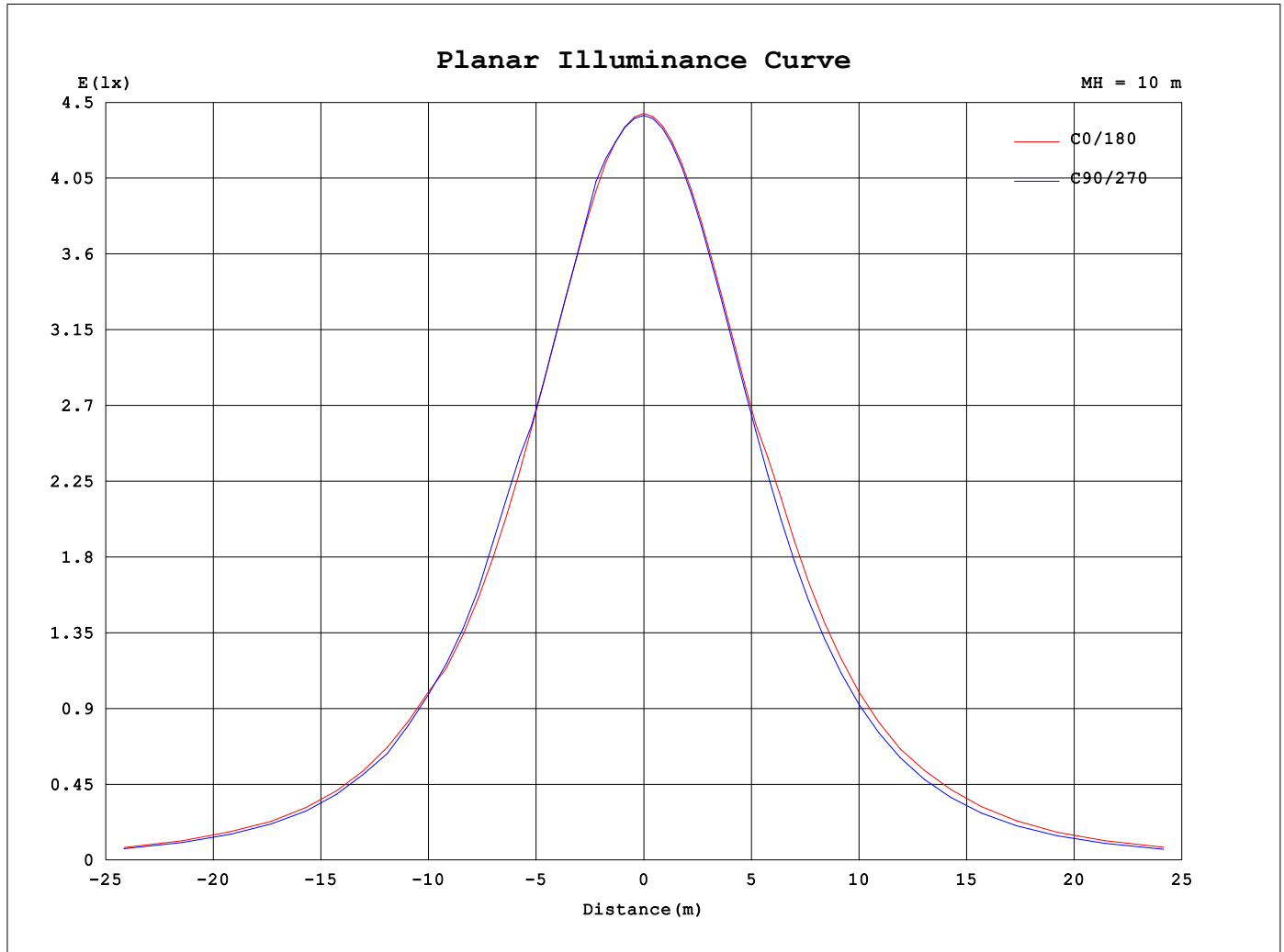
AvgL	cd/m2
L_0~180 (65) av	19712
L_0~180 (75) av	17083
L_0~180 (85) av	13461
L_90~270 (65) av	17560
L_90~270 (75) av	16338
L_90~270 (85) av	13194
L_45 (65) av	18340
L_45 (75) av	16389
L_45 (85) av	11997

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
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: MEDIUM
 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:

```

```

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:

```