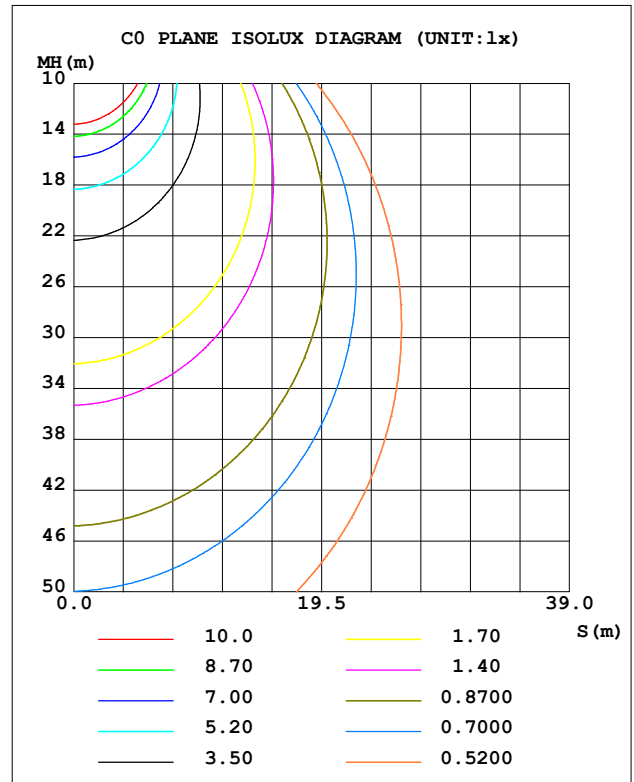
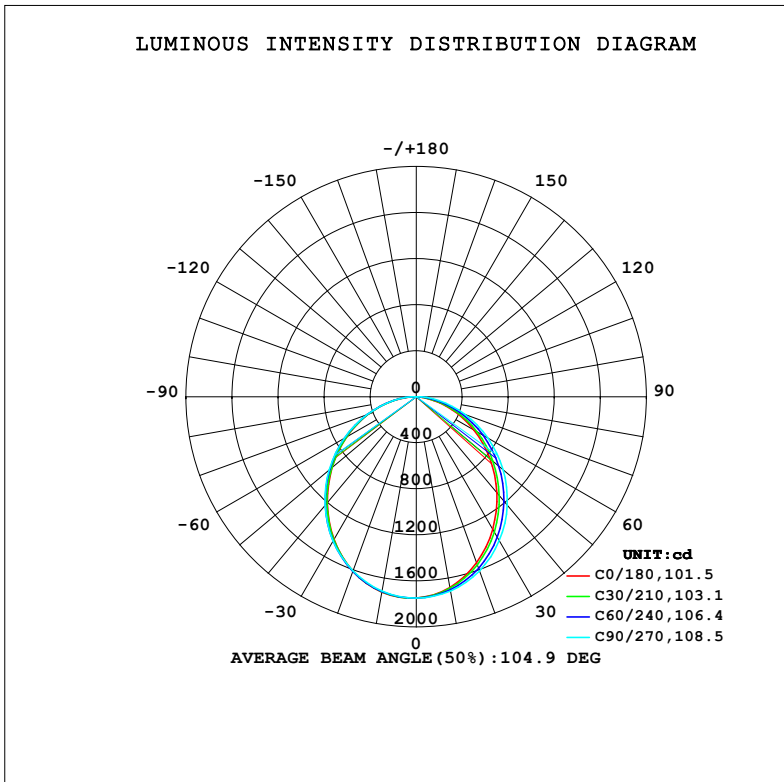


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 99PFM1505030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 35	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	99PFM1505030/BL	Imax (cd)	1751	S/MH (C0/180)	1.22
NOMINAL POWER (W)	50	LOR (%)	102.6	S/MH (C90/270)	1.24
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	4617.2	η UP, DN (C0-180)	0.0, 50.7
NOMINAL FLUX (lm)	4500	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 51.9
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	102.6	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 02 December 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	1681	1696	1713	1713	1724	1720	1714	1702	0- 10	165.0	165.0	3.57, 3.67
20	1534	1569	1608	1600	1612	1613	1611	1580	10- 20	467.4	632.4	13.7, 14.1
30	1329	1381	1443	1423	1430	1440	1447	1395	20- 30	694.2	1327	28.7, 29.5
40	1089	1152	1230	1199	1203	1219	1233	1168	30- 40	814.7	2141	46.4, 47.6
50	836.2	900.6	983.9	949.0	954.1	969.8	987.4	916.6	40- 50	820.6	2962	64.1, 65.8
60	579.6	640.1	719.0	687.6	698.0	708.9	722.9	655.2	50- 60	721.6	3683	79.8, 81.9
70	330.8	382.8	451.9	427.6	443.8	448.2	454.7	396.1	60- 70	539.9	4223	91.5, 93.9
80	105.9	147.3	203.0	185.4	204.8	203.4	204.2	157.2	70- 80	309.8	4533	98.2, 101
90	2.473	2.812	4.224	3.288	12.55	7.452	4.330	2.384	80- 90	84.09	4617	100, 103
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): 2557.7 lm

%lum = 55.4%
%lamp = 56.8%

Conical surface Flux(130deg): 3980.1 lm

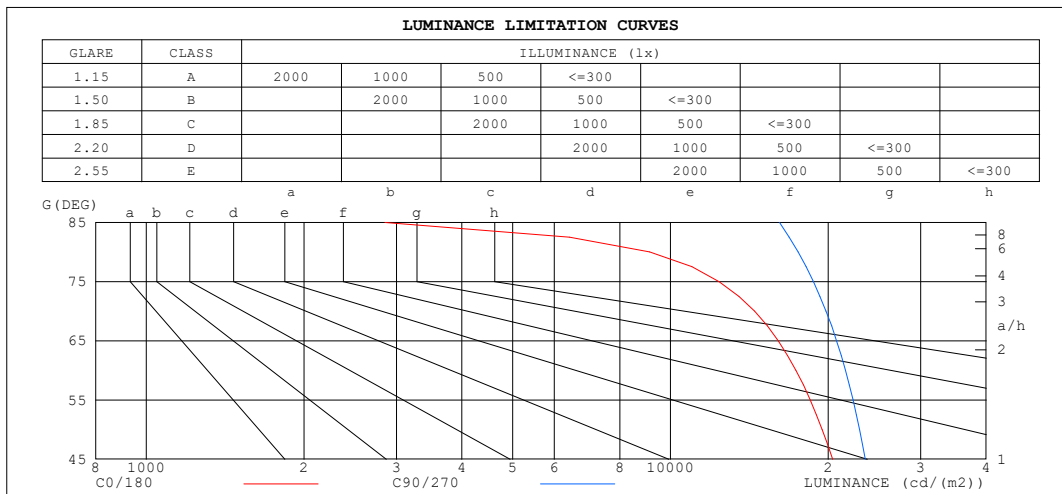
%lum = 86.2%
%lamp = 88.4%

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:02 December 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: 99PFM1505030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 35	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2853	16141
80	9126	17519
75	12377	18729
70	14474	19803
65	16057	20743
60	17349	21551
55	18470	22293
50	19469	22940
45	20396	23530

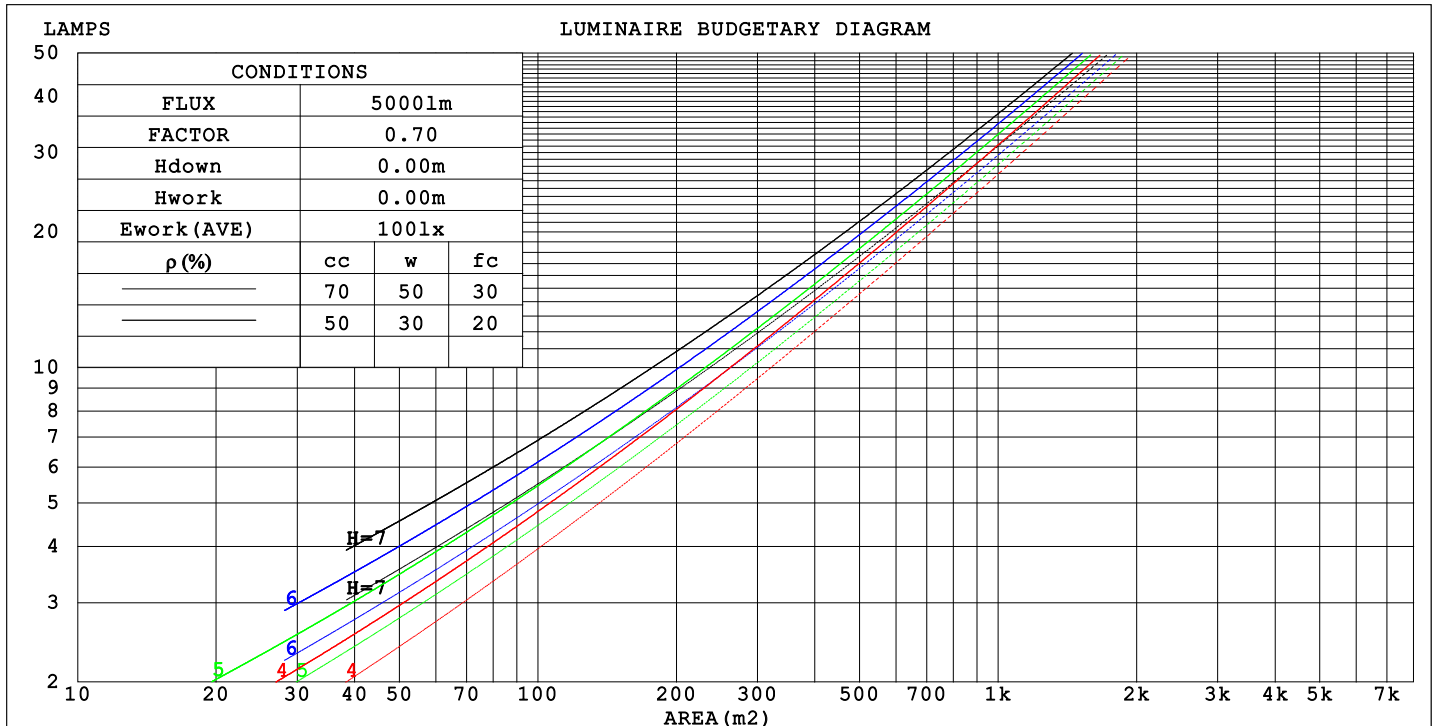
C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 02 December 2022

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: 99PFM1505030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 35	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	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: HIGH
Temperature: 25.3°C
Operators:
Test Date: 02 December 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: 99PFM1505030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 35	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	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	.312	.178	.056	.305	.174	.055	.292	.167	.053	.279	.161	.052	.268	.155	.050	
2.0	.294	.161	.049	.288	.159	.049	.276	.153	.048	.265	.149	.047	.255	.144	.045	
3.0	.273	.145	.043	.267	.143	.043	.257	.139	.042	.247	.135	.041	.238	.132	.041	
4.0	.252	.131	.038	.247	.129	.038	.238	.126	.038	.229	.123	.037	.221	.120	.037	
5.0	.233	.119	.034	.229	.117	.034	.220	.115	.034	.213	.112	.033	.205	.110	.033	
6.0	.216	.109	.031	.213	.107	.031	.205	.105	.031	.198	.103	.030	.192	.101	.030	
7.0	.202	.100	.028	.198	.099	.028	.192	.097	.028	.185	.095	.028	.180	.093	.027	
8.0	.188	.092	.026	.185	.091	.026	.179	.090	.026	.174	.088	.025	.169	.087	.025	
9.0	.177	.085	.024	.174	.085	.024	.169	.083	.024	.164	.082	.023	.159	.081	.023	
10.0	.166	.080	.022	.164	.079	.022	.159	.078	.022	.154	.077	.022	.150	.076	.022	

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	.195	.195	.195	.167	.167	.167	.114	.114	.114	.065	.065	.065	.021	.021	.021	
1.0	.185	.160	.138	.158	.138	.119	.108	.095	.082	.062	.055	.048	.020	.018	.015	
2.0	.176	.135	.101	.151	.117	.087	.103	.081	.061	.060	.047	.036	.019	.015	.012	
3.0	.168	.117	.077	.144	.101	.067	.099	.070	.047	.057	.041	.028	.018	.013	.009	
4.0	.160	.104	.060	.137	.089	.052	.094	.062	.037	.055	.037	.022	.018	.012	.007	
5.0	.152	.093	.049	.131	.080	.043	.090	.056	.030	.052	.033	.018	.017	.011	.006	
6.0	.145	.084	.041	.125	.073	.035	.086	.051	.025	.050	.030	.015	.016	.010	.005	
7.0	.138	.077	.034	.119	.067	.030	.082	.047	.021	.048	.028	.013	.015	.009	.004	
8.0	.131	.071	.030	.113	.062	.026	.078	.043	.018	.046	.026	.011	.015	.008	.004	
9.0	.125	.066	.026	.108	.057	.023	.075	.040	.016	.044	.024	.010	.014	.008	.003	
10.0	.119	.062	.023	.103	.054	.020	.071	.038	.014	.042	.022	.009	.014	.007	.003	

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:02 December 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: 99PFM1505030/BL					TYPE:			WEIGHT: 1			
SPEC.:					DIM.: 1500 x 50 x 35			SERIAL No.: 0			
MFR.: Elmark Industries JSC					SUR.:			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	17.4	18.9	17.7	19.1	19.3	18.3	19.8	18.6	20.0	20.2
	3H	18.6	20.0	18.9	20.2	20.5	19.8	21.2	20.1	21.5	21.7
	4H	19.1	20.4	19.4	20.6	20.9	20.5	21.8	20.8	22.0	22.3
	6H	19.3	20.5	19.6	20.8	21.1	20.9	22.2	21.3	22.5	22.7
	8H	19.3	20.5	19.6	20.8	21.1	21.1	22.3	21.5	22.6	22.9
	12H	19.2	20.4	19.6	20.7	21.0	21.2	22.4	21.6	22.7	23.0
4H	2H	18.0	19.4	18.4	19.6	19.9	18.8	20.1	19.1	20.3	20.6
	3H	19.5	20.6	19.8	20.9	21.2	20.5	21.6	20.8	21.9	22.2
	4H	20.0	21.0	20.4	21.4	21.7	21.2	22.3	21.6	22.6	23.0
	6H	20.3	21.2	20.7	21.6	22.0	21.9	22.8	22.3	23.1	23.5
	8H	20.3	21.2	20.8	21.6	22.0	22.1	23.0	22.5	23.3	23.7
	12H	20.3	21.1	20.7	21.5	21.9	22.2	23.1	22.7	23.4	23.8
8H	4H	20.3	21.2	20.7	21.5	21.9	21.4	22.3	21.8	22.6	23.0
	6H	20.7	21.4	21.2	21.8	22.3	22.2	22.9	22.6	23.3	23.7
	8H	20.8	21.4	21.2	21.9	22.3	22.5	23.1	22.9	23.5	24.0
	12H	20.8	21.3	21.3	21.8	22.3	22.7	23.3	23.2	23.7	24.2
12H	4H	20.3	21.1	20.7	21.5	21.9	21.4	22.2	21.8	22.6	23.0
	6H	20.8	21.4	21.2	21.8	22.3	22.2	22.8	22.6	23.2	23.7
	8H	20.9	21.4	21.3	21.9	22.3	22.5	23.1	23.0	23.5	24.0
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 0.2 / - 0.3					+ 0.2 / - 0.2				
1.5H		+ 0.2 / - 0.3					+ 0.1 / - 0.3				
2.0H		+ 0.3 / - 0.4					+ 0.2 / - 0.3				

CIE Pub.117, 4500 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 5.2)
Area: 0.06678 m2

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:02 December 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: 99PFM1505030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 35	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:

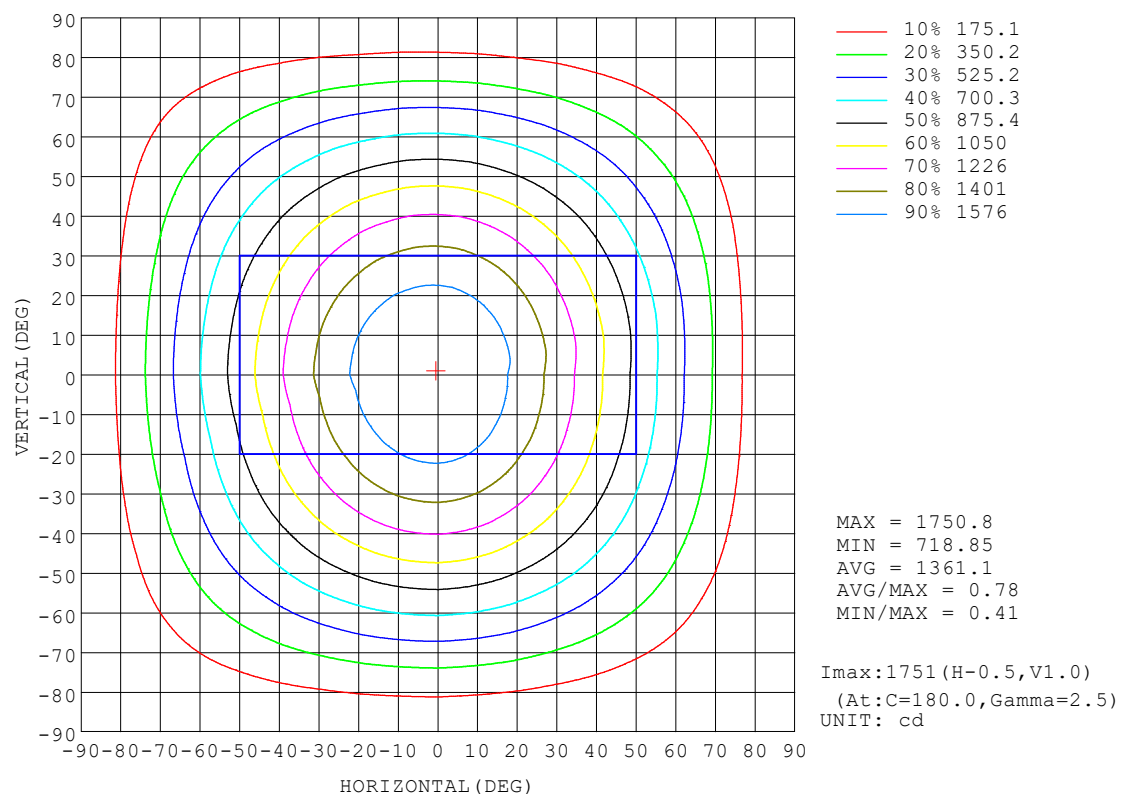
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	60	48	41	59	48	41	58	48	41	35
0.80	70	59	51	69	58	51	67	57	51	44
1.00	79	68	60	78	67	60	75	68	59	52
1.25	86	75	68	85	75	68	82	73	67	60
1.50	91	81	74	89	80	74	86	78	73	65
2.00	98	89	83	96	88	82	93	86	81	73
2.50	102	94	88	100	93	87	96	90	85	77
3.00	105	98	93	103	97	92	99	94	89	81
4.00	109	104	99	107	102	97	103	98	95	86
5.00	112	107	103	109	105	101	105	101	98	89
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: 02 December 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: 99PFM1505030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 35	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:

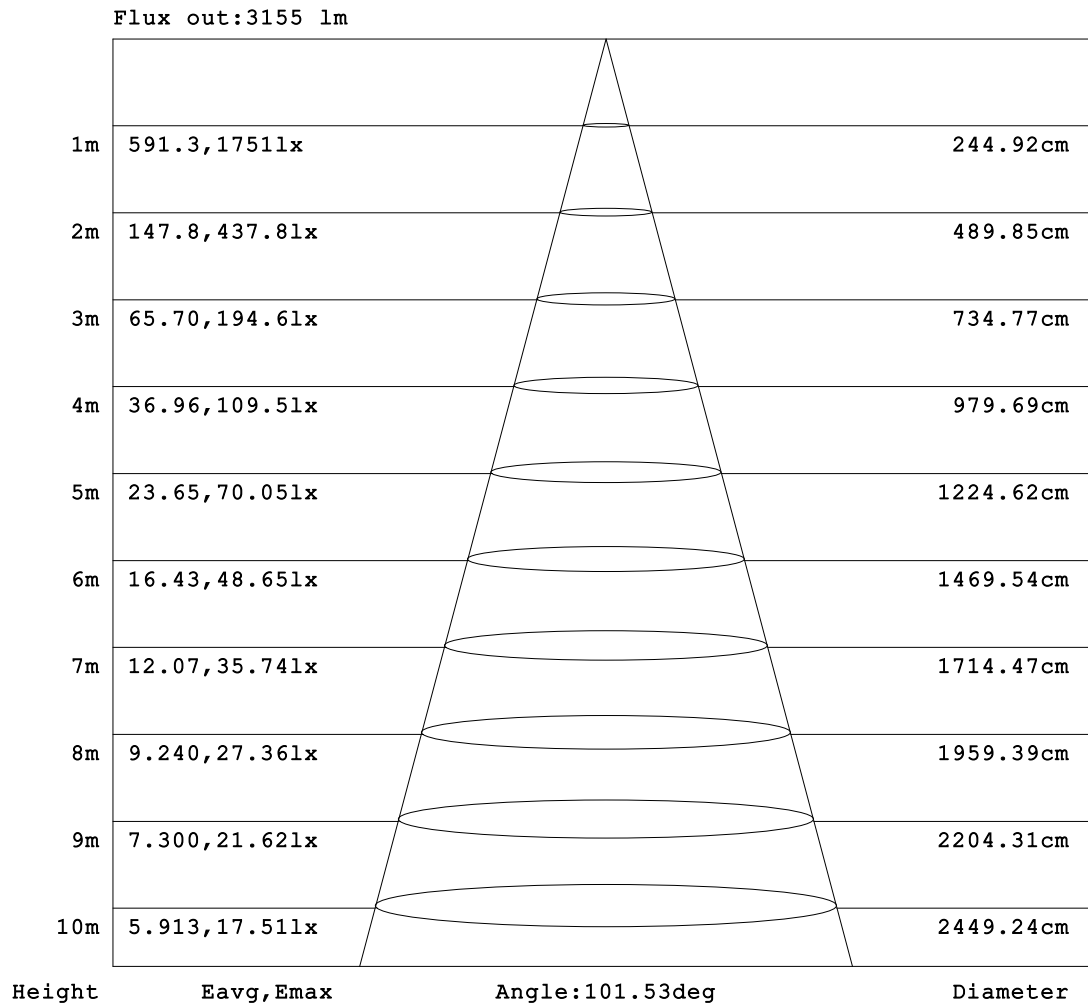


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 02 December 2022

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: 99PFM1505030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 35	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:



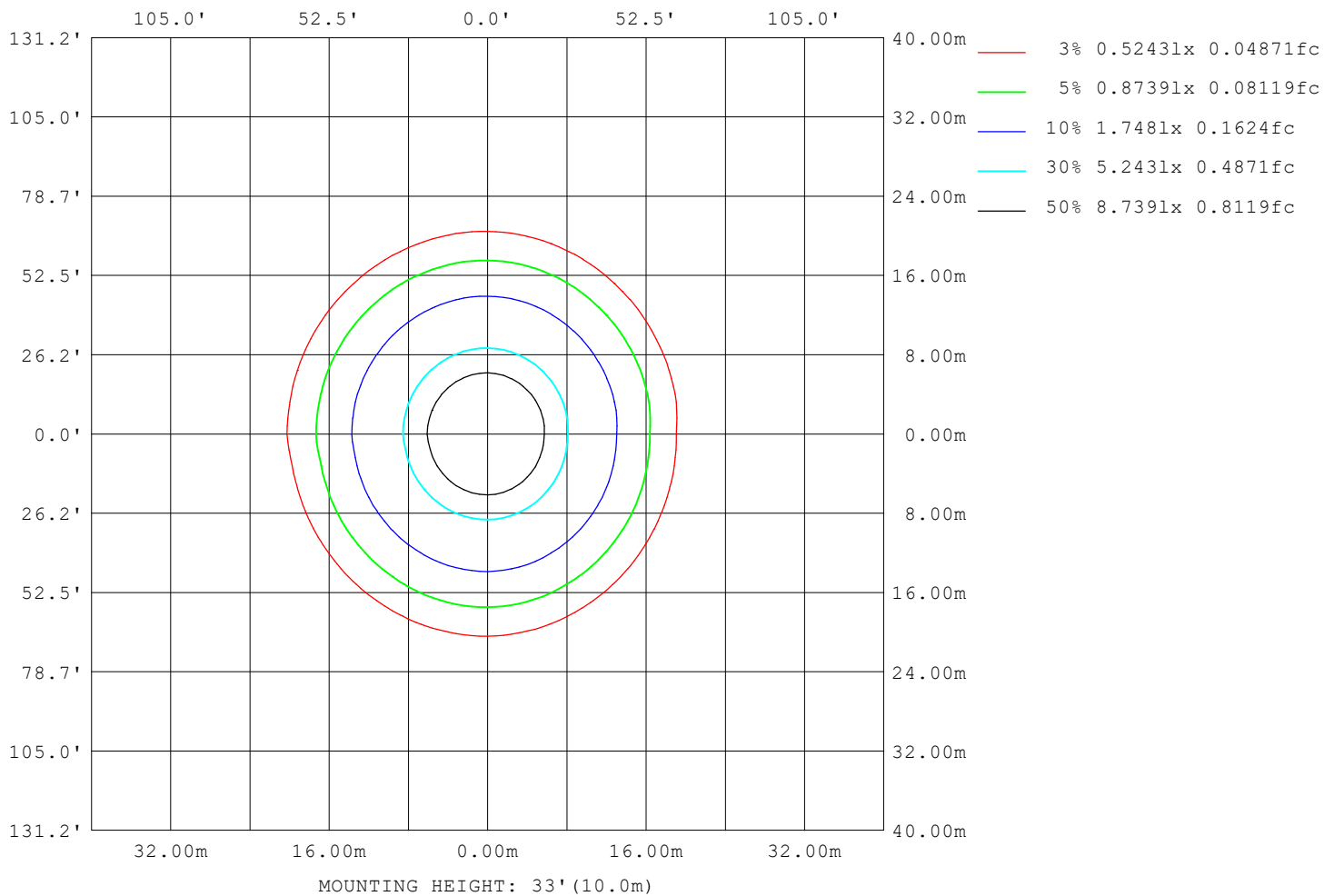
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 02 December 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: 99PFM1505030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 35	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 02 December 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: 99PFM1505030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 35	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:

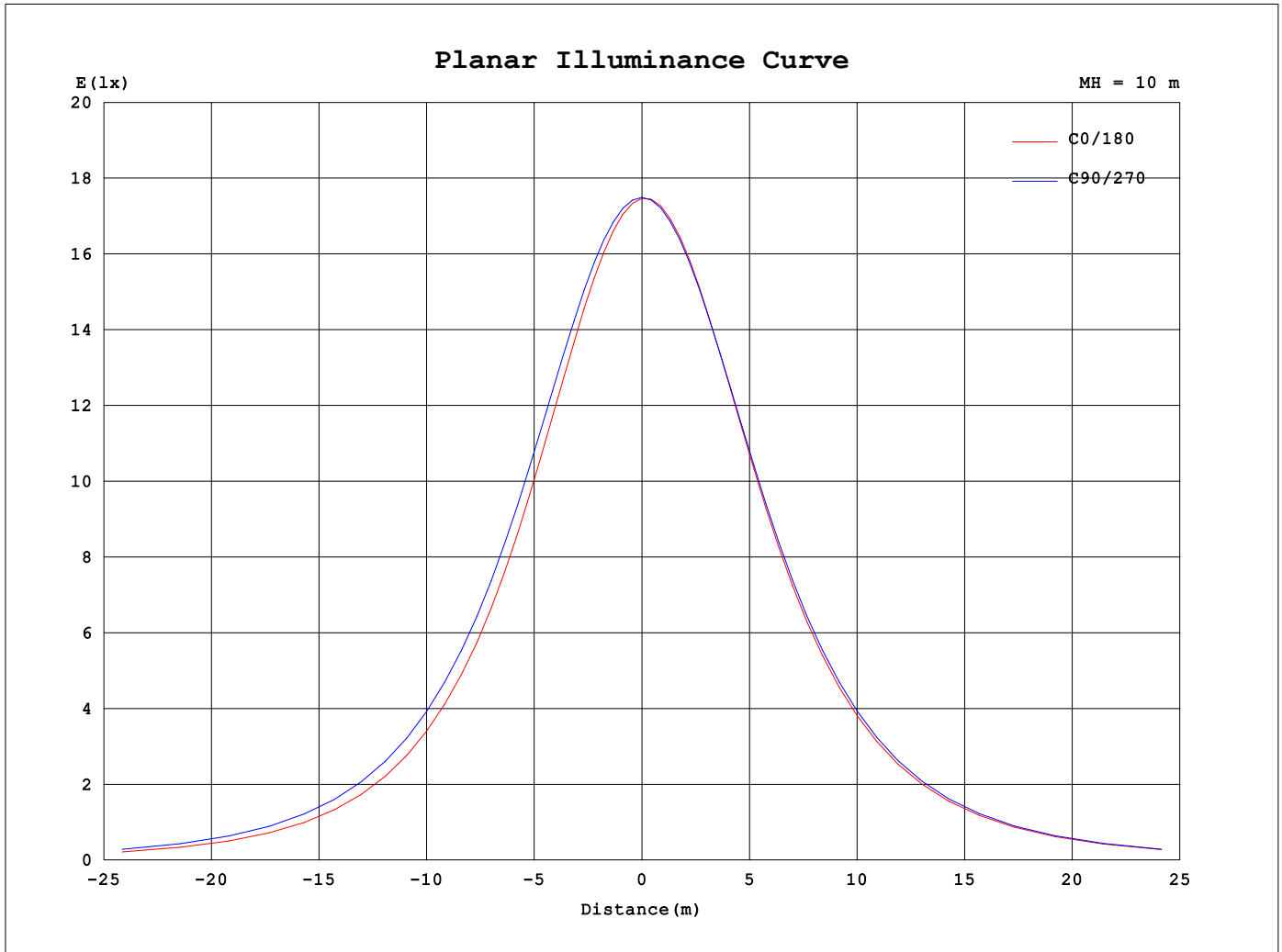
AvgL	cd/m2
L_0~180 (65) av	18131
L_0~180 (75) av	15490
L_0~180 (85) av	9738
L_90~270 (65) av	20783
L_90~270 (75) av	18777
L_90~270 (85) av	16179
L_45 (65) av	19210
L_45 (75) av	16750
L_45 (85) av	11450

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:02 December 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: 02 December 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:

```