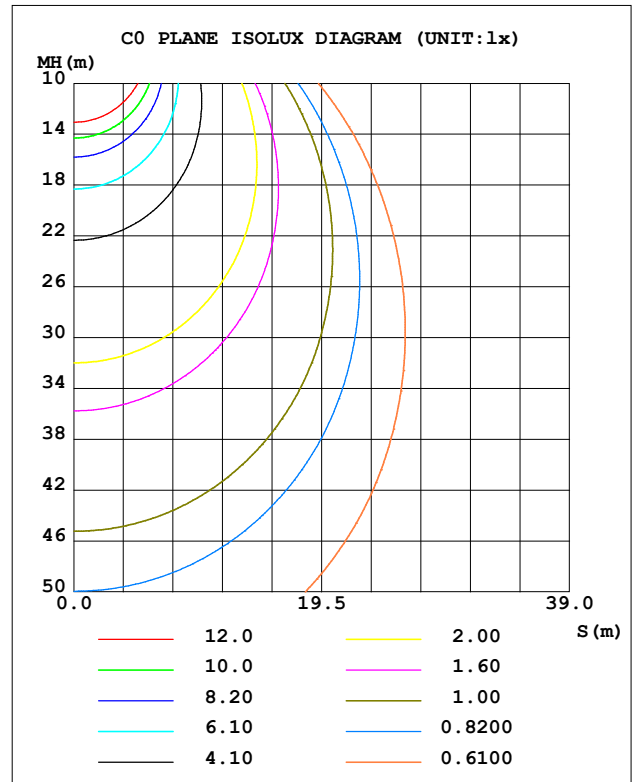
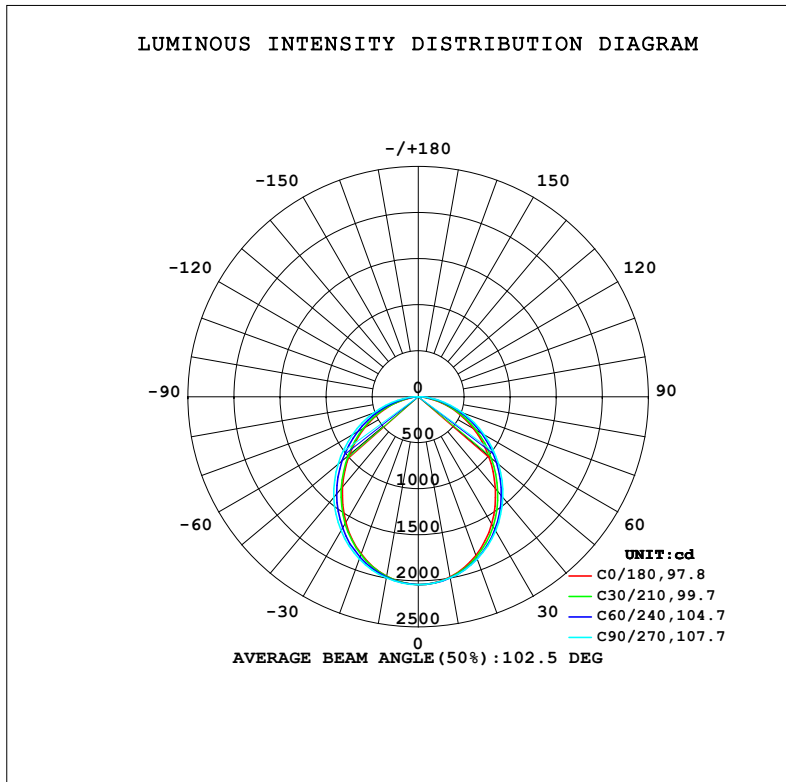


## LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 99POM1505040/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 70	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	99POM1505040/WH	Imax (cd)	2040	S/MH (C0/180)	1.16
NOMINAL POWER (W)	50	LOR (%)	115.7	S/MH (C90/270)	1.23
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	5208.5	$\eta$ UP, DN (C0-180)	0.0, 57.8
NOMINAL FLUX (lm)	4500	CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	0.0, 57.9
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	$\eta$ down (%)	115.7	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3°C  
Operators:  
Test Date: 01 December 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	1988	1997	1998	1983	1979	1984	1998	1999	0- 10	192.4	192.4	3.69,4.28
20	1833	1861	1874	1835	1817	1838	1875	1865	10- 20	544.2	736.5	14.1,16.4
30	1596	1648	1681	1613	1576	1616	1679	1653	20- 30	805.7	1542	29.6,34.3
40	1304	1376	1429	1336	1281	1339	1427	1383	30- 40	938.4	2481	47.6,55.1
50	997.2	1071	1138	1030	974.2	1033	1137	1078	40- 50	933.5	3414	65.6,75.9
60	695.6	760.0	827.7	720.1	670.1	723.4	826.8	766.8	50- 60	807.4	4222	81.1,93.8
70	402.9	455.9	516.0	419.2	379.7	422.4	518.0	461.9	60- 70	590.2	4812	92.4,107
80	140.2	177.8	226.5	147.7	122.0	150.3	228.2	182.8	70- 80	321.9	5134	98.6,114
90	2.752	3.940	3.482	2.883	2.063	2.516	3.133	4.316	80- 90	74.72	5208	100,116
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): 2956.2 lm

%lum = 56.8%

%lamp = 65.7%

Conical surface Flux(130deg): 4548.3 lm

%lum = 87.3%

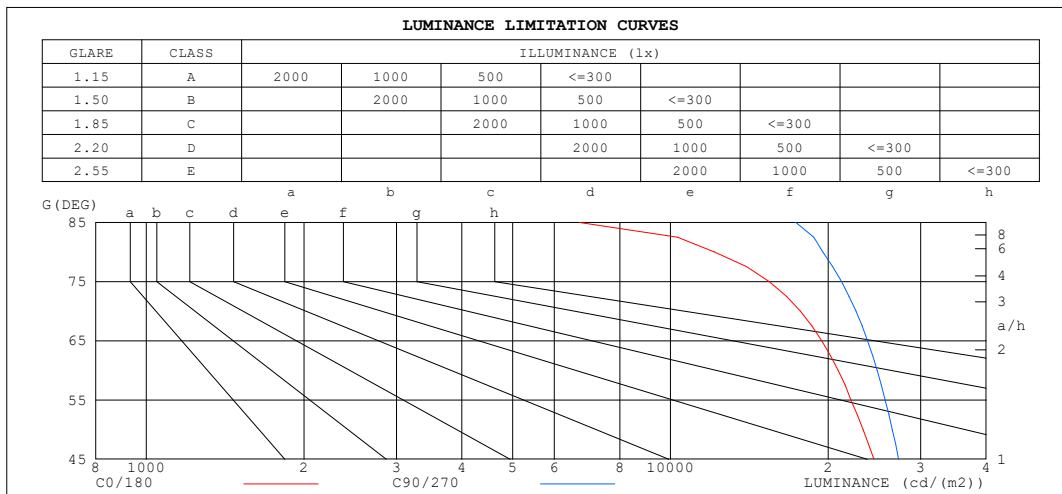
%lamp = 101.1%

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: MEDIUM  
Temperature:25.3°C  
Operators:  
Test Date:01 December 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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: 99POM1505040/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 70	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	6707	17336
80	12125	19518
75	15431	21193
70	17689	22576
65	19430	23751
60	20893	24770
55	22102	25678
50	23296	26489
45	24447	27240

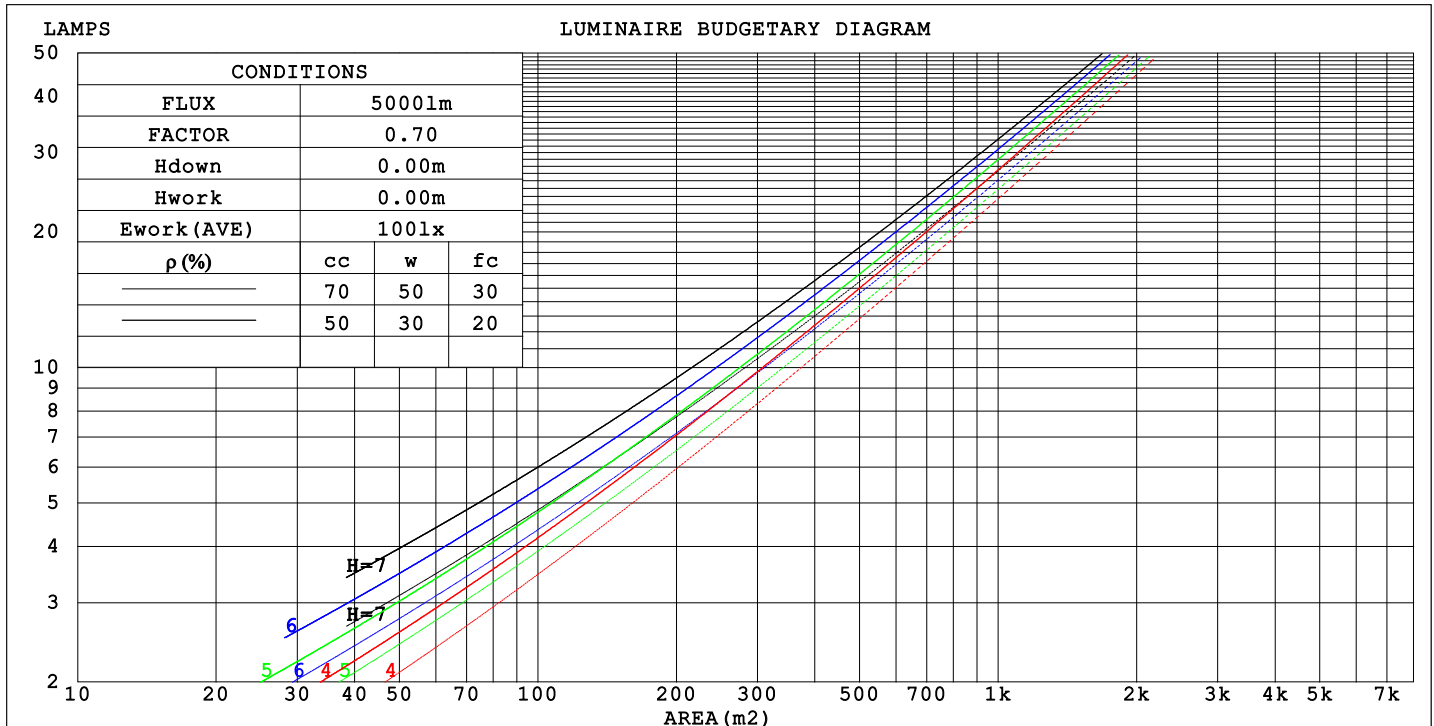
C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 01 December 2022

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: 99POM1505040/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 70	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: MEDIUM  
Temperature:25.3°C  
Operators:  
Test Date:01 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: 99POM1505040/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 70	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	.343	.195	.062	.335	.191	.061	.320	.183	.059	.306	.176	.057	.293	.170	.055	
2.0	.325	.178	.055	.318	.175	.054	.305	.169	.053	.292	.164	.051	.281	.159	.050	
3.0	.303	.161	.048	.296	.159	.048	.284	.154	.047	.273	.150	.046	.263	.146	.045	
4.0	.280	.146	.043	.275	.144	.042	.264	.140	.042	.255	.137	.041	.245	.133	.041	
5.0	.260	.132	.038	.255	.131	.038	.246	.128	.038	.237	.125	.037	.229	.122	.037	
6.0	.242	.121	.035	.237	.120	.034	.229	.117	.034	.221	.115	.034	.214	.113	.033	
7.0	.225	.111	.032	.221	.110	.031	.214	.108	.031	.207	.106	.031	.201	.104	.031	
8.0	.211	.103	.029	.207	.102	.029	.201	.100	.029	.194	.099	.028	.189	.097	.028	
9.0	.198	.096	.027	.195	.095	.027	.189	.093	.026	.183	.092	.026	.178	.090	.026	
10.0	.186	.089	.025	.184	.089	.025	.178	.087	.025	.173	.086	.024	.168	.085	.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	.220	.220	.220	.188	.188	.188	.129	.129	.129	.074	.074	.074	.024	.024	.024	
1.0	.208	.181	.157	.178	.155	.135	.122	.107	.093	.070	.062	.054	.022	.020	.018	
2.0	.198	.153	.115	.169	.131	.099	.116	.091	.069	.067	.053	.041	.021	.017	.013	
3.0	.188	.132	.087	.162	.114	.076	.111	.079	.053	.064	.046	.031	.021	.015	.010	
4.0	.180	.117	.069	.154	.101	.060	.106	.070	.042	.061	.041	.025	.020	.013	.008	
5.0	.171	.105	.056	.147	.090	.048	.101	.063	.034	.059	.037	.020	.019	.012	.007	
6.0	.163	.095	.046	.140	.082	.040	.097	.057	.028	.056	.034	.017	.018	.011	.006	
7.0	.155	.087	.039	.133	.075	.034	.092	.053	.024	.054	.031	.014	.017	.010	.005	
8.0	.148	.080	.034	.127	.069	.029	.088	.049	.021	.051	.029	.012	.017	.009	.004	
9.0	.141	.074	.030	.121	.065	.026	.084	.045	.018	.049	.027	.011	.016	.009	.004	
10.0	.134	.069	.026	.116	.060	.023	.080	.042	.016	.047	.025	.010	.015	.008	.003	

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: MEDIUM  
Temperature:25.3°C  
Operators:  
Test Date:01 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: 99POM1505040/WH					TYPE:					WEIGHT: 1				
SPEC.:					DIM.: 1500 x 50 x 70					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	18.2	19.7	18.5	19.9	20.1	19.0	20.5	19.2	20.7	20.9				
3H	19.5	20.9	19.8	21.1	21.3	20.5	21.9	20.8	22.1	22.3				
4H	19.9	21.2	20.3	21.5	21.8	21.1	22.4	21.4	22.7	22.9				
6H	20.2	21.4	20.5	21.7	22.0	21.6	22.8	21.9	23.1	23.3				
8H	20.3	21.4	20.6	21.7	22.0	21.7	22.9	22.1	23.2	23.5				
12H	20.2	21.4	20.6	21.7	22.0	21.8	22.9	22.2	23.2	23.5				
4H 2H	18.9	20.2	19.2	20.4	20.7	19.5	20.8	19.8	21.0	21.3				
3H	20.3	21.5	20.7	21.7	22.0	21.2	22.3	21.5	22.6	22.9				
4H	20.9	21.9	21.3	22.2	22.6	21.9	22.9	22.3	23.3	23.6				
6H	21.2	22.2	21.6	22.5	22.9	22.5	23.4	22.9	23.8	24.1				
8H	21.3	22.2	21.7	22.5	22.9	22.7	23.6	23.1	23.9	24.3				
12H	21.3	22.1	21.7	22.5	22.9	22.8	23.6	23.3	24.0	24.4				
8H 4H	21.2	22.0	21.6	22.4	22.8	22.1	22.9	22.5	23.3	23.7				
6H	21.6	22.4	22.1	22.8	23.2	22.8	23.5	23.3	23.9	24.4				
8H	21.8	22.4	22.2	22.8	23.3	23.1	23.7	23.6	24.2	24.6				
12H	21.8	22.3	22.3	22.8	23.3	23.3	23.8	23.8	24.3	24.8				
12H 4H	21.2	22.0	21.6	22.4	22.8	22.1	22.9	22.5	23.2	23.7				
6H	21.7	22.3	22.2	22.8	23.2	22.8	23.5	23.3	23.9	24.3				
8H	21.8	22.4	22.3	22.8	23.3	23.1	23.7	23.6	24.1	24.6				
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	+ 0.3 / - 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: MEDIUM  
Temperature:25.3°C  
Operators:  
Test Date:01 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: 99POM1505040/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 70	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:

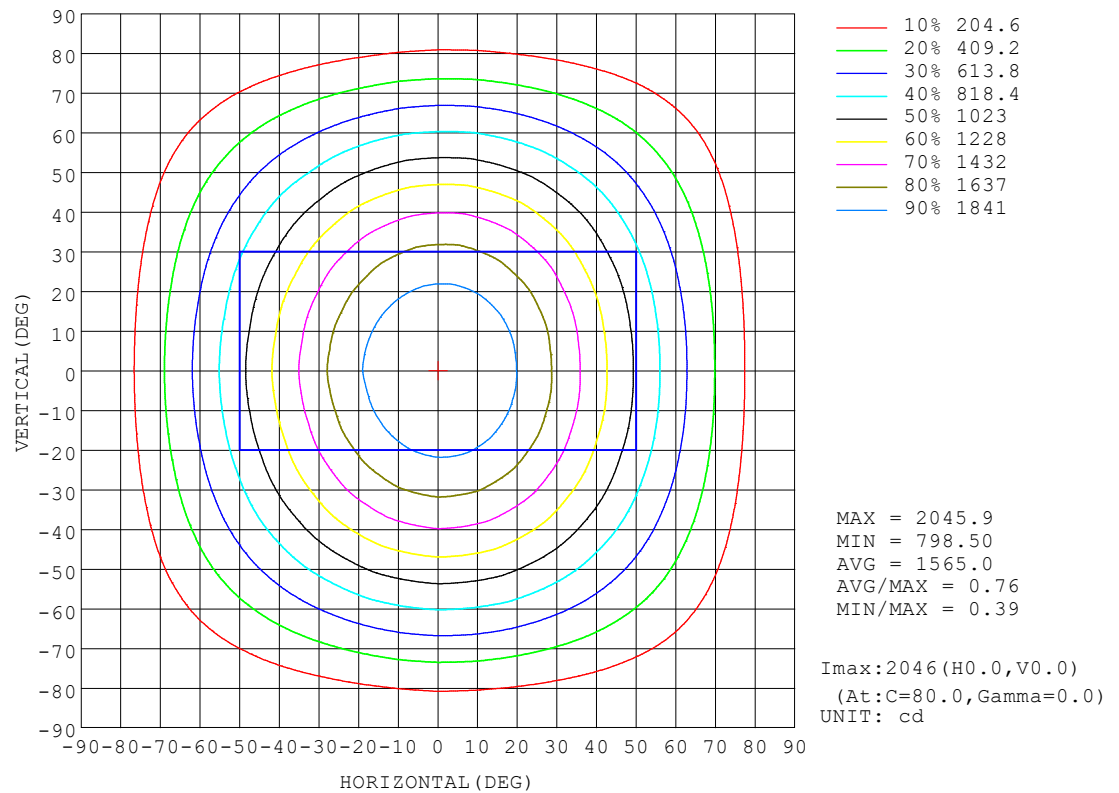
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	69	55	48	68	55	47	66	55	47	40
0.80	80	67	59	79	67	59	77	66	58	50
1.00	90	77	69	88	77	69	86	78	68	60
1.25	98	86	78	96	85	78	93	84	77	69
1.50	104	93	85	102	92	84	98	89	83	74
2.00	111	102	95	109	100	94	105	98	92	83
2.50	116	107	100	113	105	99	109	102	97	88
3.00	119	112	106	117	110	104	112	107	102	92
4.00	124	117	112	121	115	111	116	112	108	98
5.00	126	121	117	124	119	115	118	115	111	101
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: 01 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: 99POM1505040/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 70	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:

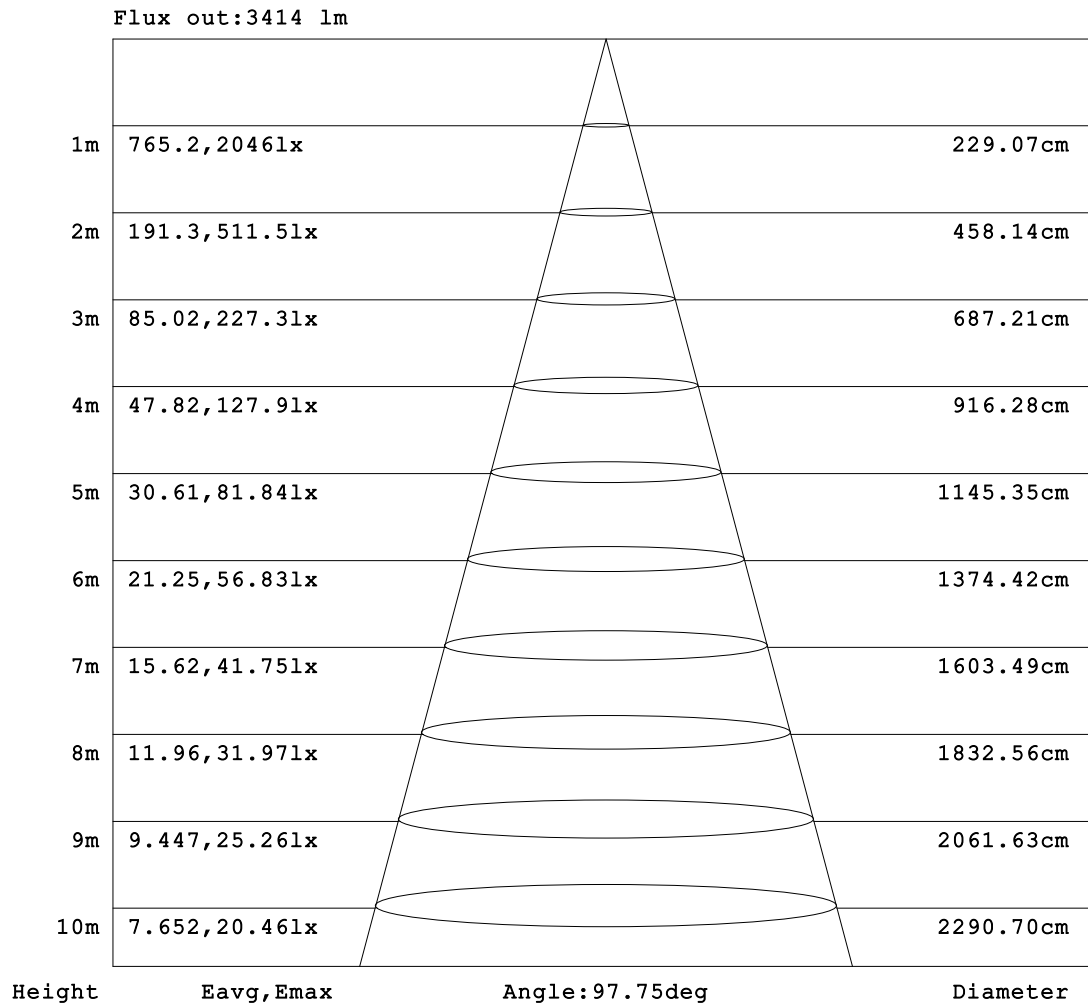


C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: MEDIUM  
Temperature:25.3°C  
Operators:  
Test Date:01 December 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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: 99POM1505040/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 70	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:



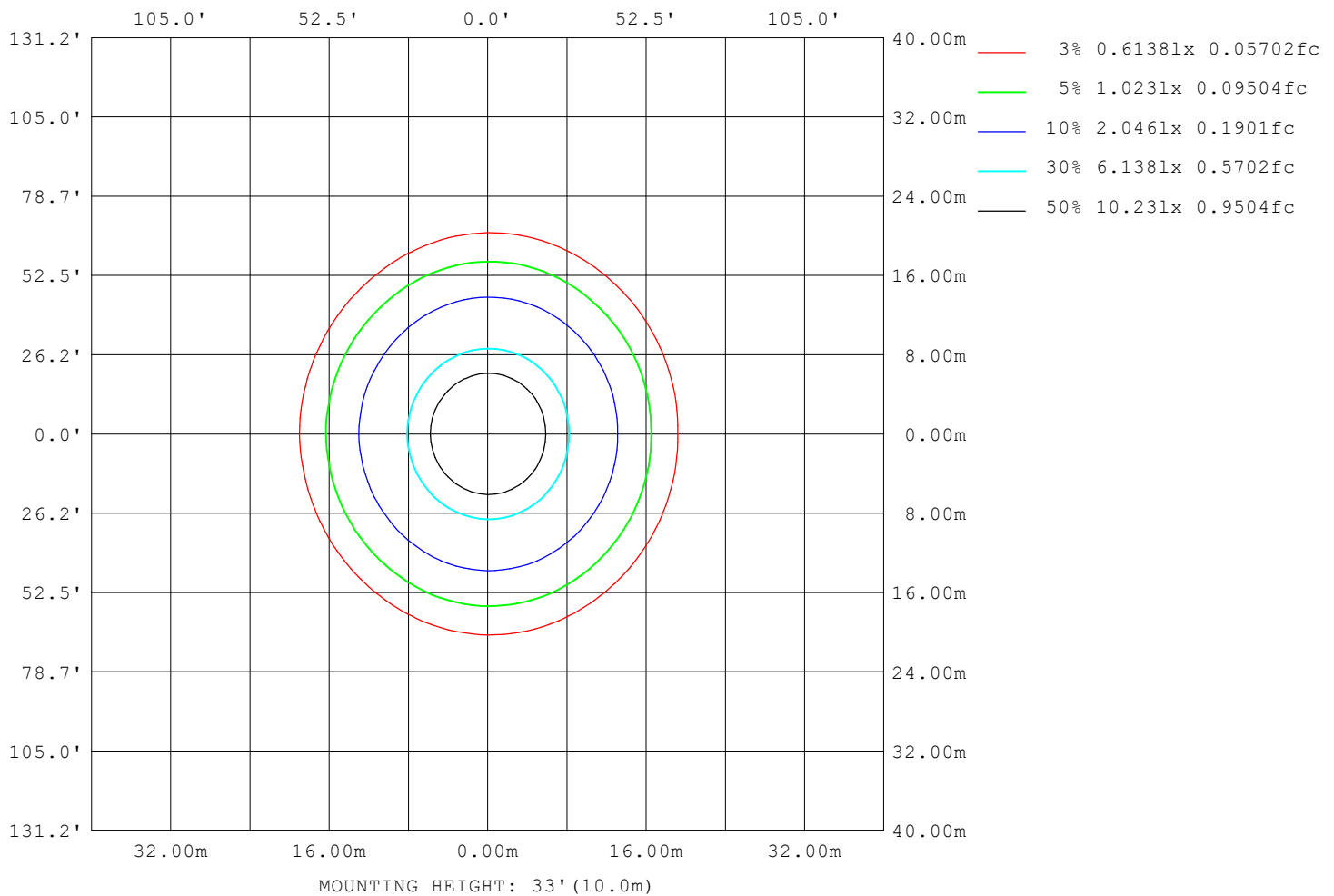
**Note:** The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 01 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: 99POM1505040/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 70	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3°C  
Operators:  
Test Date: 01 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: 99POM1505040/WH	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 1500 x 50 x 70	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.:	Shielding Angle:

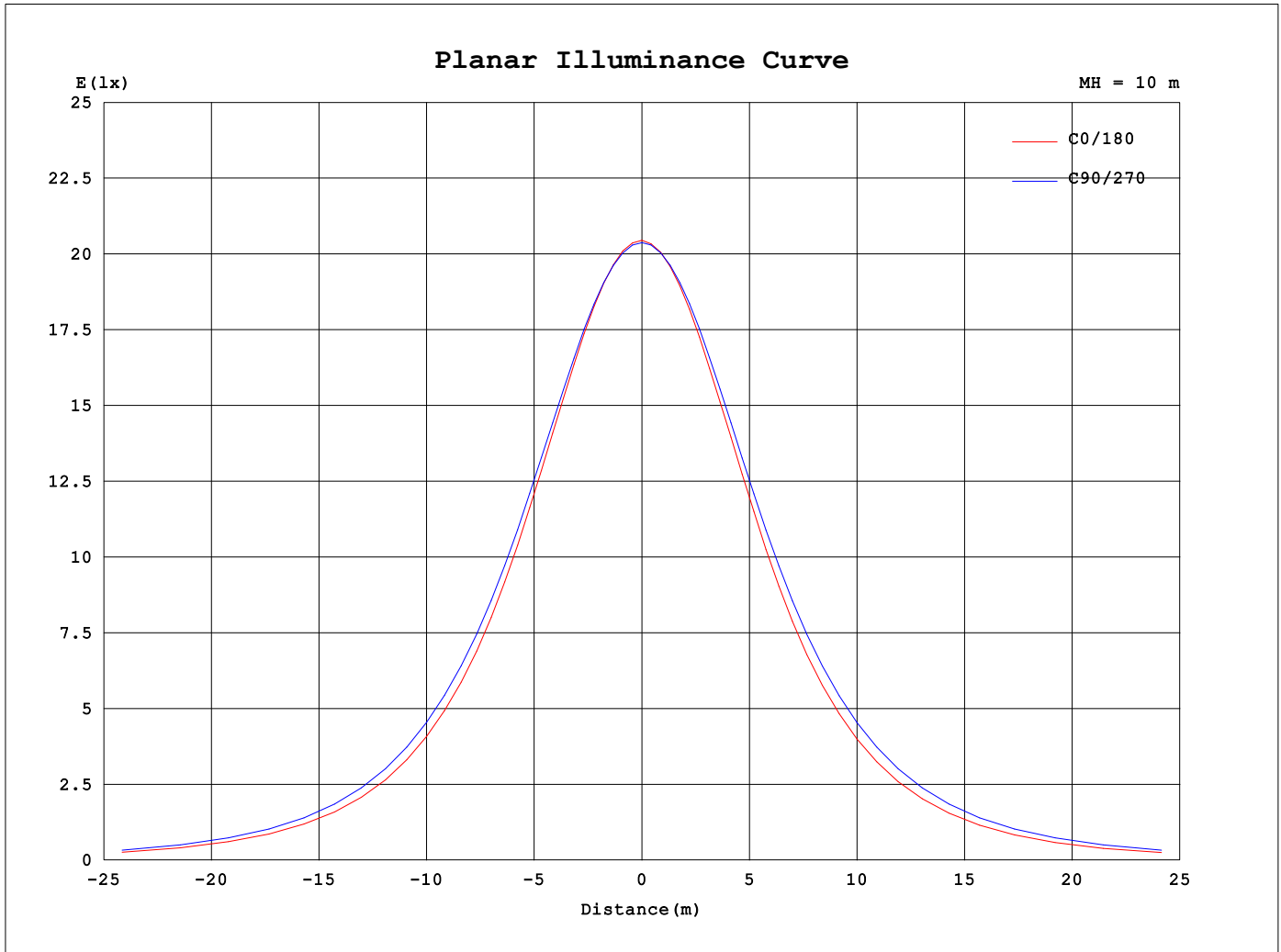
AvgL	cd/m2
L_0~180 (65) av	18938
L_0~180 (75) av	14773
L_0~180 (85) av	5747
L_90~270 (65) av	23809
L_90~270 (75) av	21268
L_90~270 (85) av	17461
L_45 (65) av	20860
L_45 (75) av	17177
L_45 (85) av	8515

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: MEDIUM  
Temperature:25.3°C  
Operators:  
Test Date:01 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: MEDIUM  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 01 December 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:

```