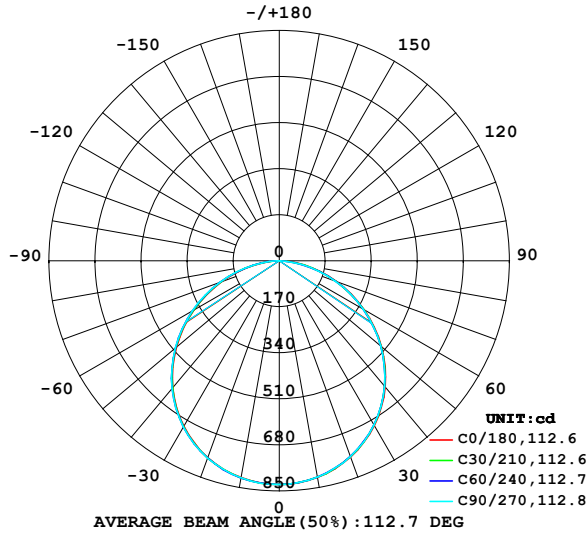


LUMINAIRE PHOTOMETRIC TEST REPORT

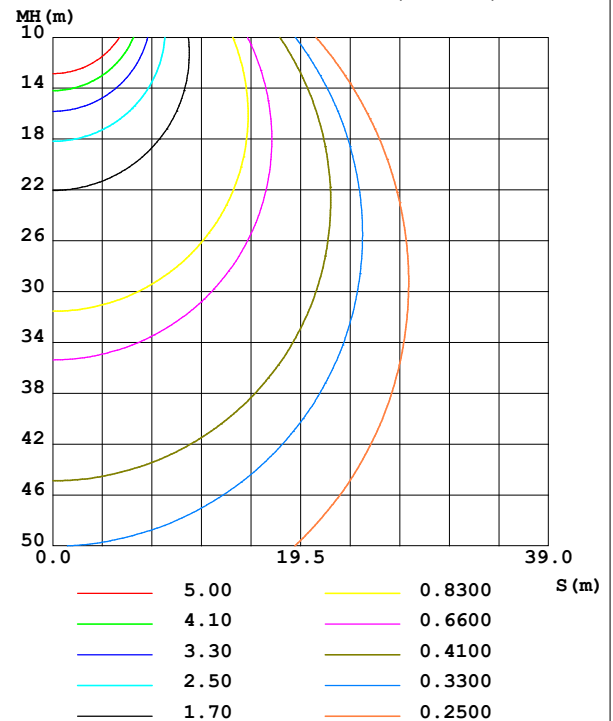
NAME: 99LED623IP65	TYPE: 99LED623IP65	WEIGHT: 1
SPEC.:	DIM.: F 240	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: round	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	99LED623IP65	I _{max} (cd)	827.1	S/MH (C0/180)	1.27
NOMINAL POWER (W)	23	LOR (%)	135.5	S/MH (C90/270)	1.27
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	2370.7	η UP, DN (C0-180)	0.0, 67.2
NOMINAL FLUX (lm)	1750	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 68.3
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	135.5	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: MEDIUM
Temperature: 25.3°C
Operators:
Test Date: 12 August 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	812.3	810.6	810.9	811.8	812.6	814.3	813.7	813.1	0- 10	78.20	78.20	3.3,4.47
20	770.7	768.5	769.0	770.3	773.7	774.2	775.3	773.0	10- 20	224.5	302.7	12.8,17.3
30	702.0	699.5	699.6	701.5	705.3	707.6	708.5	705.0	20- 30	341.5	644.2	27.2,36.8
40	608.4	604.8	605.1	606.7	611.9	614.6	615.8	612.7	30- 40	412.7	1057	44.6,60.4
50	492.9	488.6	489.0	490.1	495.6	499.1	501.1	497.1	40- 50	427.5	1484	62.6,84.8
60	361.9	358.2	358.3	359.3	364.1	368.2	370.8	367.3	50- 60	384.5	1869	78.8,107
70	225.0	222.1	221.1	222.1	226.3	231.4	232.8	230.0	60- 70	292.0	2161	91.1,123
80	94.61	90.97	86.65	90.51	95.35	97.44	97.54	95.86	70- 80	167.9	2329	98.2,133
90	1.337	1.358	1.334	1.376	1.162	1.188	1.160	1.187	80- 90	41.90	2371	100,135
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): 1272.5 lm

%lum = 53.7%

%lamp = 72.7%

Conical surface Flux(130deg): 2028.9 lm

%lum = 85.6%

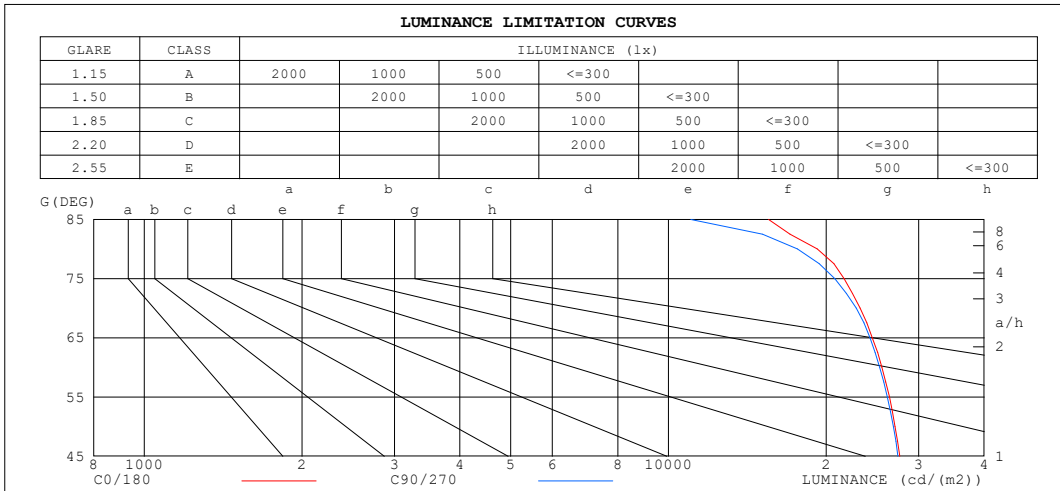
%lamp = 115.9%

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:12 August 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: 99LED623IP65	TYPE: 99LED623IP65	WEIGHT: 1
SPEC.:	DIM.: F 240	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: round	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	15526	11031
80	19223	17603
75	21614	20758
70	23211	22800
65	24478	24242
60	25539	25282
55	26400	26144
50	27058	26836
45	27608	27400

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature: 25.3°C
Operators:
Test Date: 12 August 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: 99LED623IP65	TYPE: 99LED623IP65	WEIGHT: 1
SPEC.:	DIM.: F 240	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: round	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	.419	.238	.075	.409	.233	.074	.391	.224	.072	.375	.216	.069	.359	.208	.067	
2.0	.395	.216	.066	.386	.213	.066	.371	.206	.064	.356	.200	.063	.342	.194	.061	
3.0	.366	.195	.058	.358	.192	.058	.344	.187	.057	.331	.182	.056	.319	.177	.055	
4.0	.338	.175	.052	.331	.173	.051	.319	.169	.050	.307	.165	.050	.296	.161	.049	
5.0	.312	.159	.046	.306	.157	.046	.295	.154	.045	.285	.150	.045	.275	.147	.044	
6.0	.290	.145	.042	.284	.144	.041	.275	.141	.041	.265	.138	.041	.257	.135	.040	
7.0	.269	.133	.038	.265	.132	.038	.256	.129	.037	.248	.127	.037	.240	.125	.037	
8.0	.252	.123	.035	.248	.122	.034	.240	.120	.034	.232	.118	.034	.225	.116	.034	
9.0	.236	.114	.032	.232	.113	.032	.225	.111	.032	.218	.110	.031	.212	.108	.031	
10.0	.222	.106	.030	.218	.106	.029	.212	.104	.029	.206	.102	.029	.200	.101	.029	

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	.258	.258	.258	.221	.221	.221	.151	.151	.151	.086	.086	.086	.028	.028	.028	
1.0	.244	.212	.182	.209	.182	.157	.143	.125	.108	.082	.072	.063	.026	.023	.020	
2.0	.233	.179	.133	.200	.154	.115	.137	.106	.080	.079	.062	.047	.025	.020	.015	
3.0	.223	.155	.101	.191	.134	.087	.131	.093	.061	.076	.054	.036	.024	.018	.012	
4.0	.213	.137	.079	.182	.118	.069	.125	.082	.048	.073	.048	.029	.023	.016	.009	
5.0	.202	.123	.064	.174	.106	.056	.120	.074	.039	.069	.044	.023	.022	.014	.008	
6.0	.193	.111	.053	.166	.096	.046	.114	.068	.033	.066	.040	.019	.021	.013	.006	
7.0	.183	.102	.045	.158	.088	.039	.109	.062	.028	.063	.037	.017	.020	.012	.005	
8.0	.175	.094	.039	.150	.082	.034	.104	.057	.024	.061	.034	.014	.020	.011	.005	
9.0	.167	.087	.034	.143	.076	.030	.099	.053	.021	.058	.032	.013	.019	.010	.004	
10.0	.159	.082	.030	.137	.071	.026	.095	.050	.019	.055	.030	.011	.018	.010	.004	

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:12 August 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: 99LED623IP65					TYPE: 99LED623IP65			WEIGHT: 1		
SPEC.:					DIM.: F 240			SERIAL No.: 0		
MFR.: Elmark Industries JSC					SUR.: round			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	22.3	23.8	22.5	24.0	24.2	22.2	23.7	22.5	23.9	24.2
3H	23.8	25.2	24.1	25.4	25.6	23.7	25.1	24.0	25.4	25.6
4H	24.4	25.7	24.7	26.0	26.2	24.3	25.6	24.6	25.9	26.1
6H	24.8	26.1	25.1	26.3	26.6	24.7	25.9	25.0	26.2	26.5
8H	24.9	26.1	25.3	26.4	26.7	24.7	26.0	25.1	26.2	26.5
12H	25.0	26.2	25.3	26.5	26.8	24.8	25.9	25.1	26.2	26.5
4H 2H	22.9	24.2	23.2	24.4	24.7	22.8	24.2	23.1	24.4	24.7
3H	24.5	25.7	24.9	26.0	26.3	24.5	25.7	24.8	26.0	26.3
4H	25.3	26.3	25.6	26.7	27.0	25.2	26.3	25.6	26.6	26.9
6H	25.8	26.8	26.2	27.1	27.5	25.7	26.6	26.1	27.0	27.3
8H	26.0	26.9	26.4	27.3	27.6	25.8	26.7	26.2	27.1	27.5
12H	26.1	26.9	26.5	27.3	27.7	25.9	26.7	26.3	27.1	27.5
8H 4H	25.5	26.4	25.9	26.8	27.2	25.4	26.3	25.9	26.7	27.1
6H	26.2	27.0	26.7	27.4	27.8	26.1	26.8	26.5	27.2	27.6
8H	26.5	27.1	26.9	27.6	28.0	26.3	26.9	26.7	27.4	27.8
12H	26.7	27.2	27.1	27.7	28.1	26.4	26.9	26.8	27.4	27.9
12H 4H	25.5	26.3	26.0	26.7	27.1	25.5	26.3	25.9	26.7	27.1
6H	26.3	26.9	26.7	27.3	27.8	26.1	26.8	26.6	27.2	27.7
8H	26.6	27.1	27.0	27.6	28.1	26.4	26.9	26.8	27.4	27.8
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 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, 1750 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.9)
Area: 0.02834 m2

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:12 August 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: 99LED623IP65	TYPE: 99LED623IP65	WEIGHT: 1
SPEC.:	DIM.: F 240	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: round	Shielding Angle:

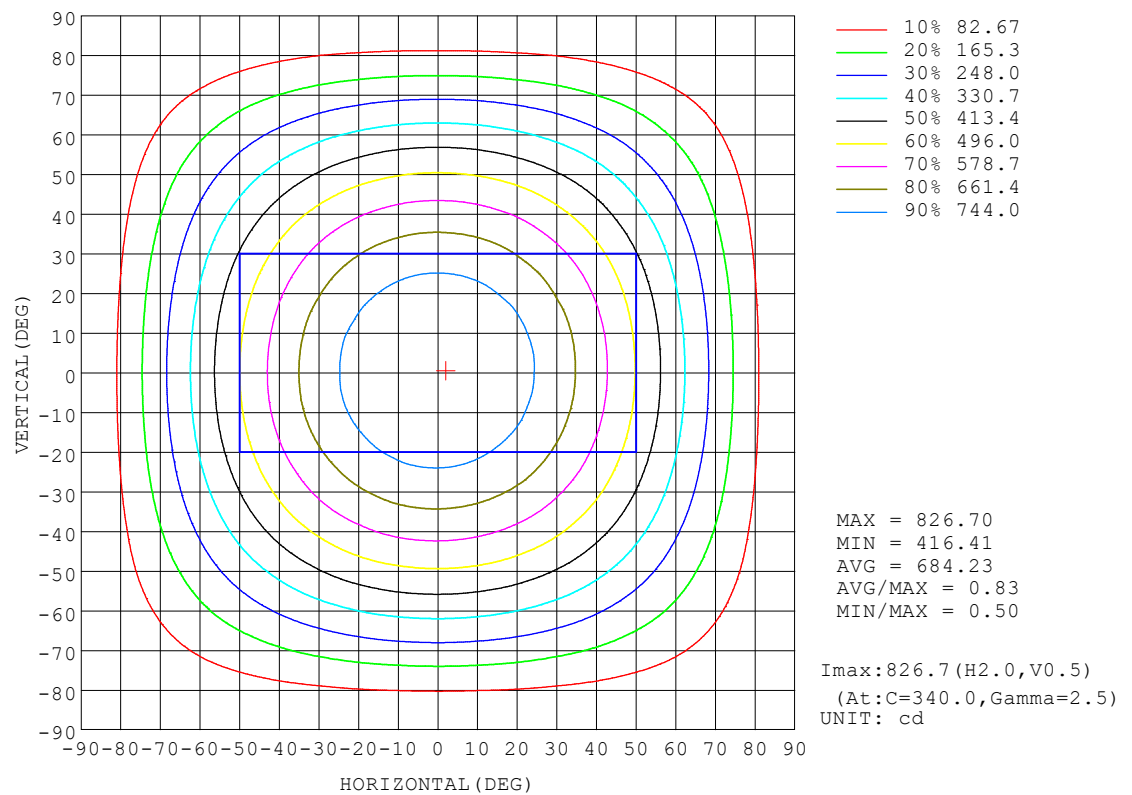
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	78	62	53	77	62	53	75	61	52	44
0.80	91	76	66	90	75	66	88	74	65	56
1.00	103	88	78	101	87	78	98	89	77	67
1.25	113	98	89	111	97	88	107	95	87	77
1.50	119	106	96	117	105	96	113	102	94	84
2.00	129	117	108	126	115	107	121	112	105	95
2.50	134	123	115	131	122	114	126	118	111	100
3.00	139	129	122	136	127	120	130	123	117	106
4.00	144	136	130	141	134	128	135	129	124	112
5.00	147	141	135	144	138	133	138	133	129	117
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: 12 August 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: 99LED623IP65	TYPE: 99LED623IP65	WEIGHT: 1
SPEC.:	DIM.: F 240	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: round	Shielding Angle:

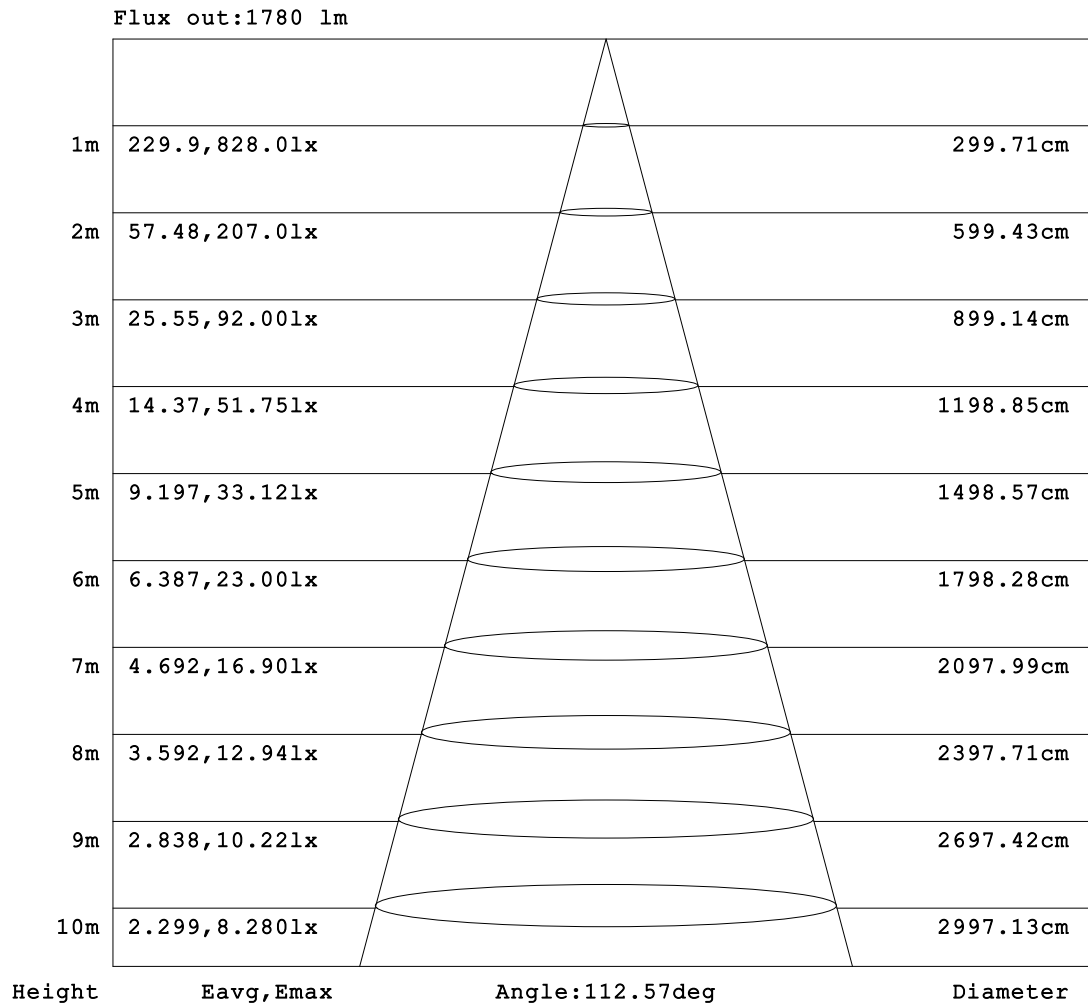


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature: 25.3°C
Operators:
Test Date: 12 August 2022

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: 99LED623IP65	TYPE: 99LED623IP65	WEIGHT: 1
SPEC.:	DIM.: F 240	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: round	Shielding Angle:



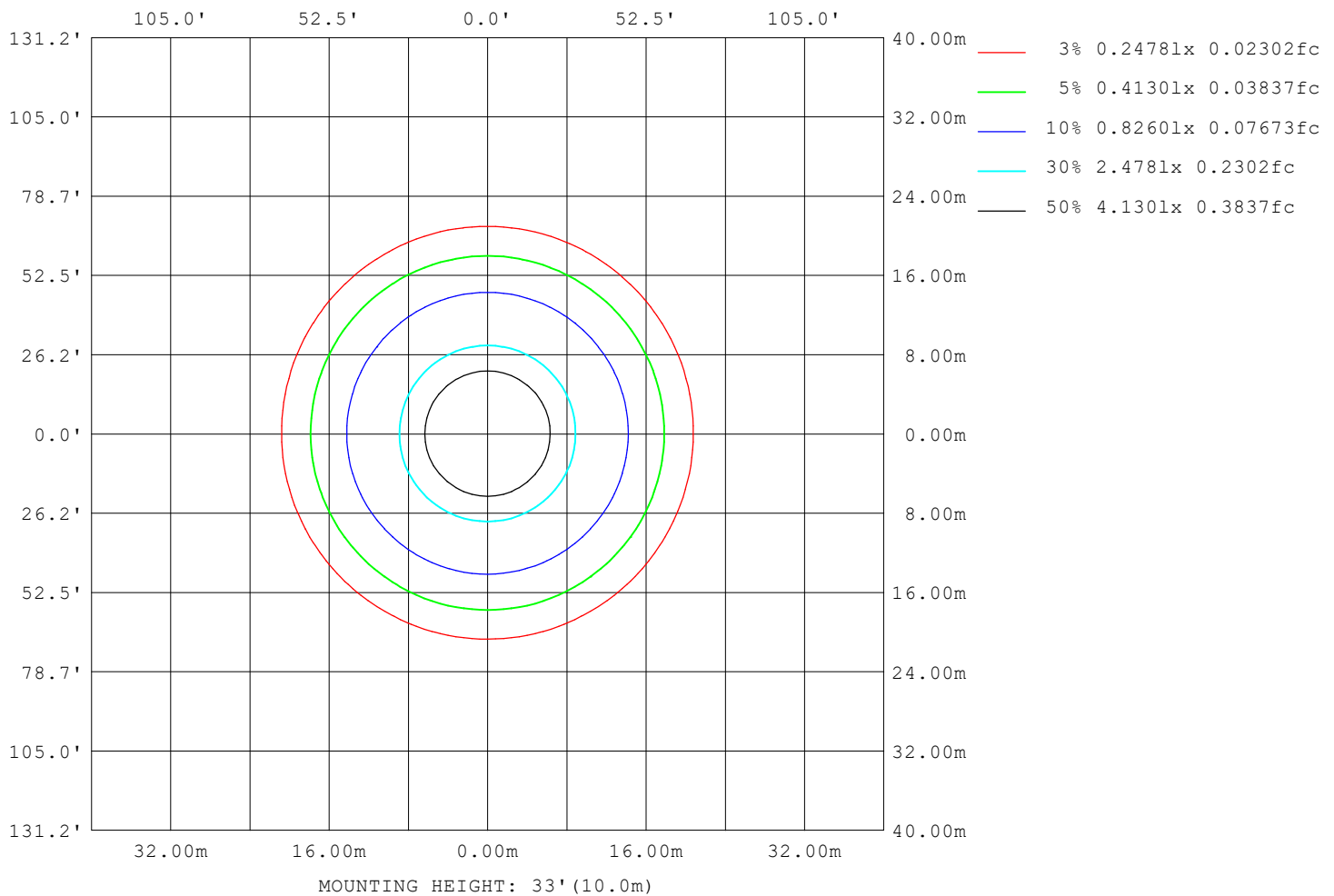
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3°C
 Operators:
 Test Date: 12 August 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: 99LED623IP65	TYPE: 99LED623IP65	WEIGHT: 1
SPEC.:	DIM.: F 240	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: round	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3°C
 Operators:
 Test Date: 12 August 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: 99LED623IP65	TYPE: 99LED623IP65	WEIGHT: 1
SPEC.:	DIM.: F 240	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: round	Shielding Angle:

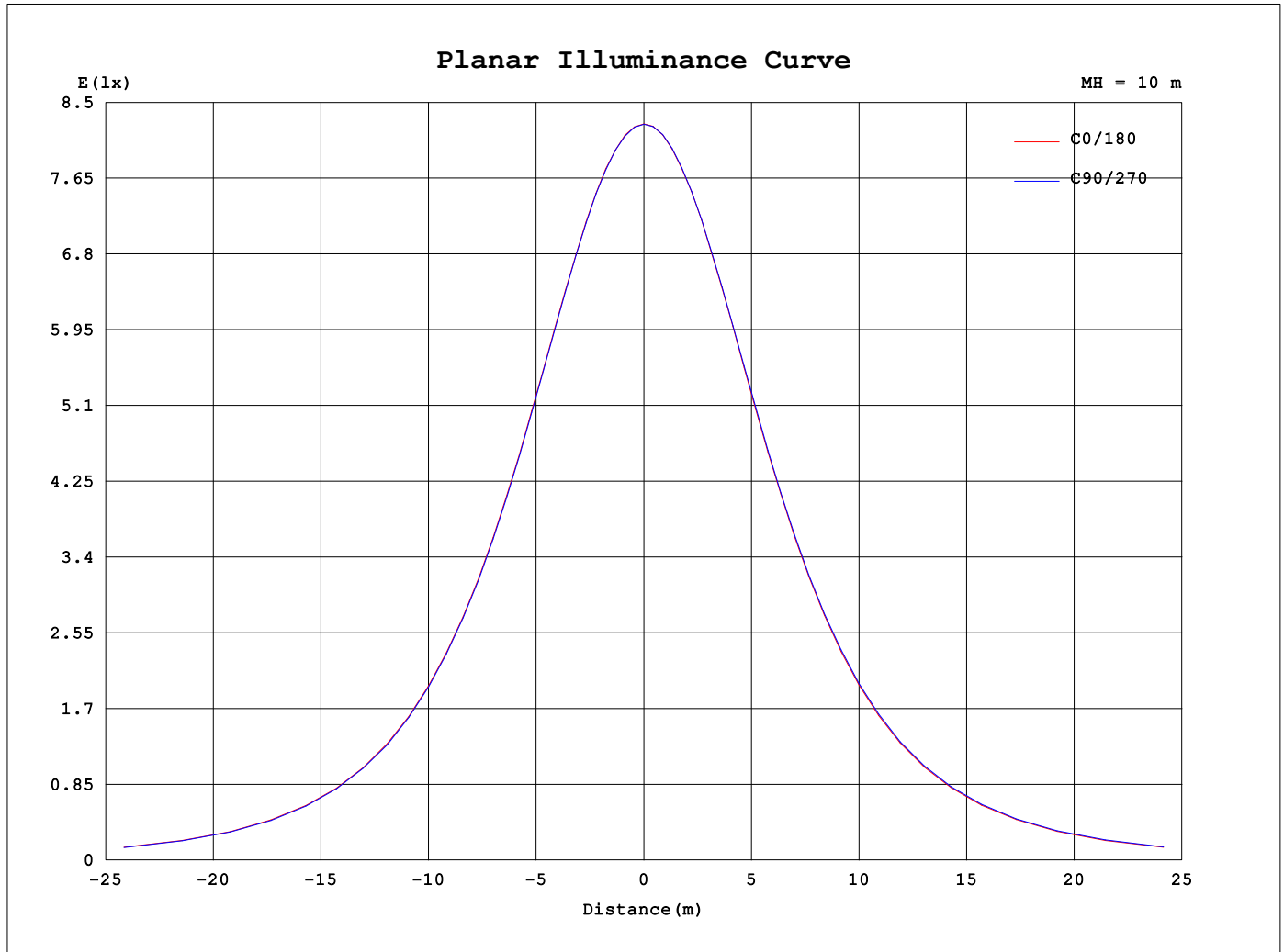
AvgL	cd/m2
L_0~180 (65) av	24549
L_0~180 (75) av	21718
L_0~180 (85) av	15426
L_90~270 (65) av	24749
L_90~270 (75) av	21550
L_90~270 (85) av	12967
L_45 (65) av	24618
L_45 (75) av	21673
L_45 (85) av	13724

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:12 August 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: 12 August 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:

```