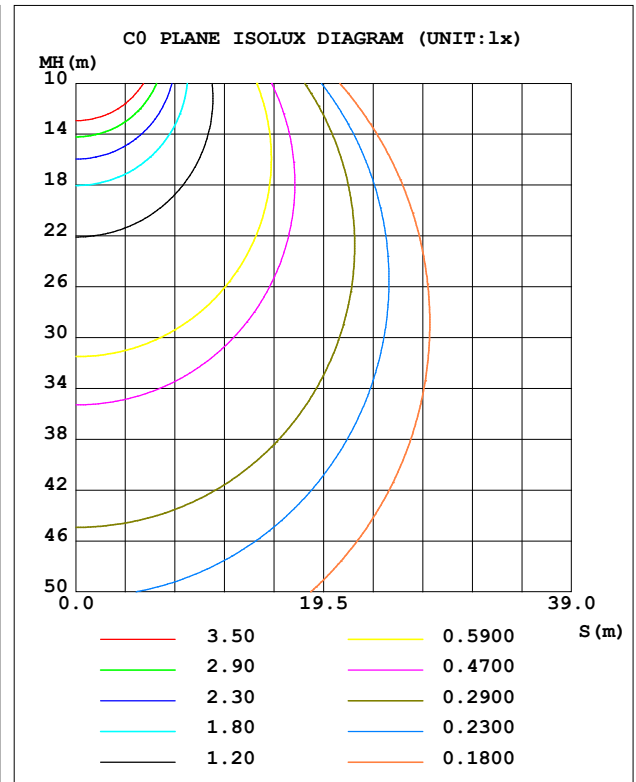
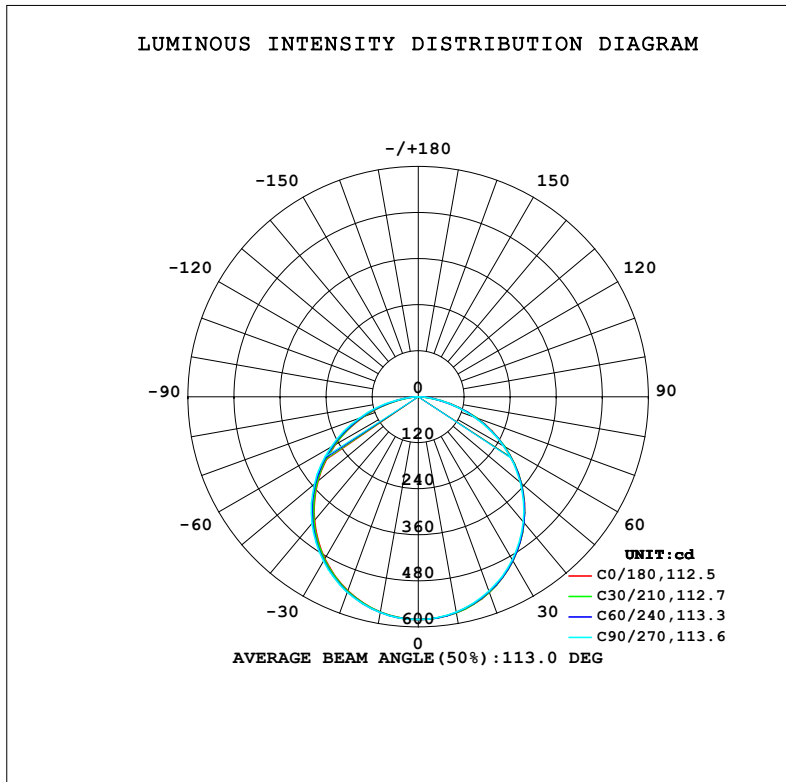


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 93FGNL3030/BL	TYPE: 93FGNL3030/BL	WEIGHT: 1
SPEC.:	DIM.: 477 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	93FGNL3030/BL	I _{max} (cd)	580.6	S/MH (C0/180)	1.25
NOMINAL POWER (W)	30	LOR (%)	118.2	S/MH (C90/270)	1.27
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	1655.2	η UP, DN (C0-180)	0.0, 58.8
NOMINAL FLUX (lm)	1400	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 59.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	118.2	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature: 25.3°C
Operators:
Test Date: 29 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	571.7	571.0	569.8	569.1	569.7	570.3	571.1	572.1	0- 10	54.95	54.95	3.32,3.92
20	542.3	541.6	539.1	537.9	538.0	540.0	542.0	543.8	10- 20	157.5	212.4	12.8,15.2
30	493.4	493.1	490.5	487.8	487.5	490.8	494.5	496.3	20- 30	238.9	451.3	27.3,32.2
40	429.0	428.5	425.8	421.6	421.0	425.3	431.0	432.3	30- 40	288.5	739.9	44.7,52.8
50	350.6	349.8	347.3	341.7	341.2	346.1	353.4	354.6	40- 50	300.1	1040	62.8,74.3
60	260.4	259.2	256.5	250.0	249.8	255.1	263.5	264.6	50- 60	271.7	1312	79.2,93.7
70	161.6	159.7	156.7	149.9	150.3	155.3	163.9	165.3	60- 70	206.0	1518	91.7,108
80	62.46	60.18	56.84	51.30	51.63	56.02	63.45	65.19	70- 80	113.1	1631	98.5,116
90	0.9748	0.9147	0.9270	0.9293	0.8128	0.8046	0.8861	1.028	80- 90	24.46	1655	100,118
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): 890.95 lm

%lum = 53.8%

%lamp = 63.6%

Conical surface Flux(130deg): 1424.9 lm

%lum = 86.1%

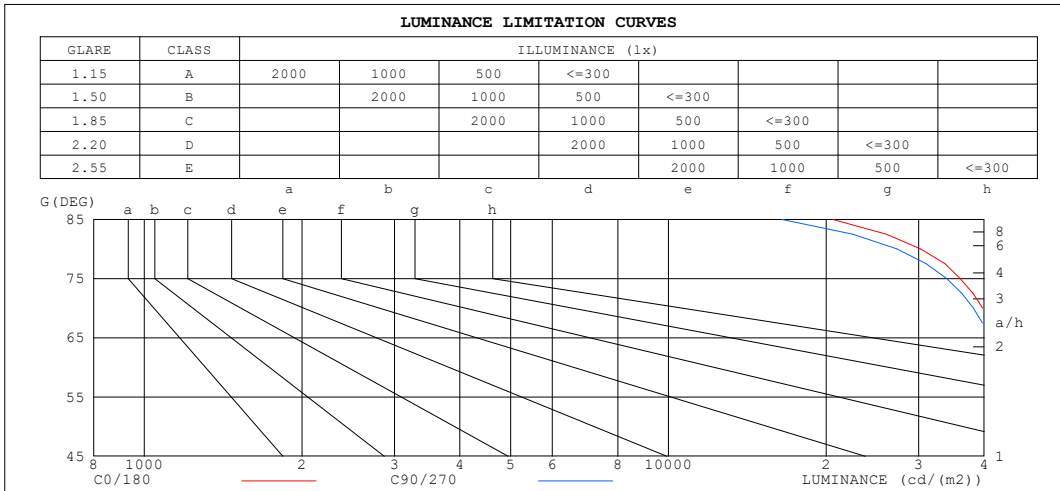
%lamp = 101.8%

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:29 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: 93FGNL3030/BL	TYPE: 93FGNL3030/BL	WEIGHT: 1
SPEC.:	DIM.: 477 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	20582	16472
80	30268	27280
75	36032	33942
70	39747	38178
65	42172	40887
60	43830	42745
55	45019	44063
50	45894	45024
45	46572	45750

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3°C
 Operators:
 Test Date: 29 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: 93FGNL3030/BL	TYPE: 93FGNL3030/BL	WEIGHT: 1
SPEC.:	DIM.: 477 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle	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	.361	.205	.065	.353	.201	.064	.337	.193	.062	.323	.186	.060	.309	.179	.058	
2.0	.342	.188	.058	.335	.184	.057	.321	.179	.055	.308	.173	.054	.297	.168	.053	
3.0	.318	.169	.051	.311	.167	.050	.299	.162	.049	.288	.158	.048	.277	.153	.047	
4.0	.294	.153	.045	.288	.151	.045	.277	.147	.044	.267	.143	.043	.258	.140	.043	
5.0	.272	.138	.040	.267	.137	.040	.257	.134	.039	.248	.131	.039	.240	.128	.038	
6.0	.252	.126	.036	.248	.125	.036	.239	.123	.036	.231	.120	.035	.224	.118	.035	
7.0	.235	.116	.033	.231	.115	.033	.223	.113	.032	.216	.111	.032	.209	.109	.032	
8.0	.219	.107	.030	.216	.106	.030	.209	.104	.030	.203	.103	.030	.196	.101	.029	
9.0	.206	.099	.028	.202	.099	.028	.196	.097	.028	.190	.095	.027	.185	.094	.027	
10.0	.193	.093	.026	.190	.092	.026	.185	.091	.026	.180	.089	.025	.175	.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	.225	.225	.225	.192	.192	.192	.131	.131	.131	.075	.075	.075	.024	.024	.024	
1.0	.213	.185	.159	.182	.158	.137	.125	.109	.095	.072	.063	.055	.023	.020	.018	
2.0	.203	.156	.116	.174	.134	.100	.119	.093	.070	.069	.054	.041	.022	.017	.013	
3.0	.194	.135	.088	.166	.117	.076	.114	.081	.054	.066	.047	.032	.021	.015	.010	
4.0	.185	.119	.069	.159	.103	.060	.109	.072	.042	.063	.042	.025	.020	.014	.008	
5.0	.176	.107	.056	.152	.093	.049	.104	.065	.034	.060	.038	.020	.019	.012	.007	
6.0	.168	.097	.046	.144	.084	.040	.100	.059	.029	.058	.035	.017	.019	.011	.006	
7.0	.160	.089	.039	.138	.077	.034	.095	.054	.024	.055	.032	.014	.018	.010	.005	
8.0	.152	.082	.034	.131	.071	.030	.091	.050	.021	.053	.030	.013	.017	.010	.004	
9.0	.145	.076	.030	.125	.066	.026	.087	.047	.018	.050	.028	.011	.016	.009	.004	
10.0	.139	.071	.027	.119	.062	.023	.083	.044	.016	.048	.026	.010	.016	.008	.003	

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:29 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: 93FGNL3030/BL					TYPE: 93FGNL3030/BL			WEIGHT: 1			
SPEC.:					DIM.: 477 x 34 x 34			SERIAL No.: 0			
MFR.: Elmark Industries JSC					SUR.: rectangle			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	25.0	26.5	25.3	26.7	26.9	24.9	26.4	25.2	26.6	26.9
	3H	26.5	27.9	26.8	28.2	28.4	26.4	27.8	26.7	28.0	28.3
	4H	27.1	28.4	27.4	28.7	28.9	26.9	28.3	27.3	28.5	28.8
	6H	27.5	28.7	27.8	29.0	29.3	27.3	28.5	27.6	28.8	29.1
	8H	27.6	28.8	27.9	29.1	29.3	27.3	28.5	27.7	28.8	29.1
	12H	27.6	28.7	27.9	29.0	29.3	27.3	28.5	27.7	28.8	29.1
4H	2H	25.6	26.9	25.9	27.2	27.5	25.5	26.9	25.9	27.1	27.4
	3H	27.3	28.5	27.7	28.8	29.1	27.2	28.4	27.6	28.7	29.0
	4H	28.0	29.1	28.4	29.4	29.7	27.9	28.9	28.2	29.3	29.6
	6H	28.5	29.4	28.9	29.8	30.1	28.3	29.2	28.7	29.6	30.0
	8H	28.6	29.5	29.0	29.9	30.2	28.4	29.3	28.8	29.6	30.0
	12H	28.7	29.5	29.1	29.8	30.3	28.4	29.2	28.8	29.6	30.0
8H	4H	28.2	29.1	28.6	29.5	29.9	28.1	29.0	28.5	29.4	29.7
	6H	28.8	29.6	29.3	30.0	30.4	28.7	29.4	29.1	29.8	30.2
	8H	29.0	29.7	29.5	30.1	30.5	28.8	29.5	29.3	29.9	30.3
	12H	29.1	29.7	29.6	30.1	30.6	28.9	29.4	29.3	29.9	30.4
12H	4H	28.2	29.0	28.7	29.4	29.8	28.1	28.9	28.5	29.3	29.7
	6H	28.9	29.5	29.3	29.9	30.4	28.7	29.3	29.2	29.8	30.2
	8H	29.1	29.6	29.5	30.1	30.6	28.9	29.4	29.3	29.9	30.3
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		+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 1400 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.2)
Area: 0.01198 m2

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:29 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: 93FGNL3030/BL	TYPE: 93FGNL3030/BL	WEIGHT: 1
SPEC.:	DIM.: 477 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle	Shielding Angle:

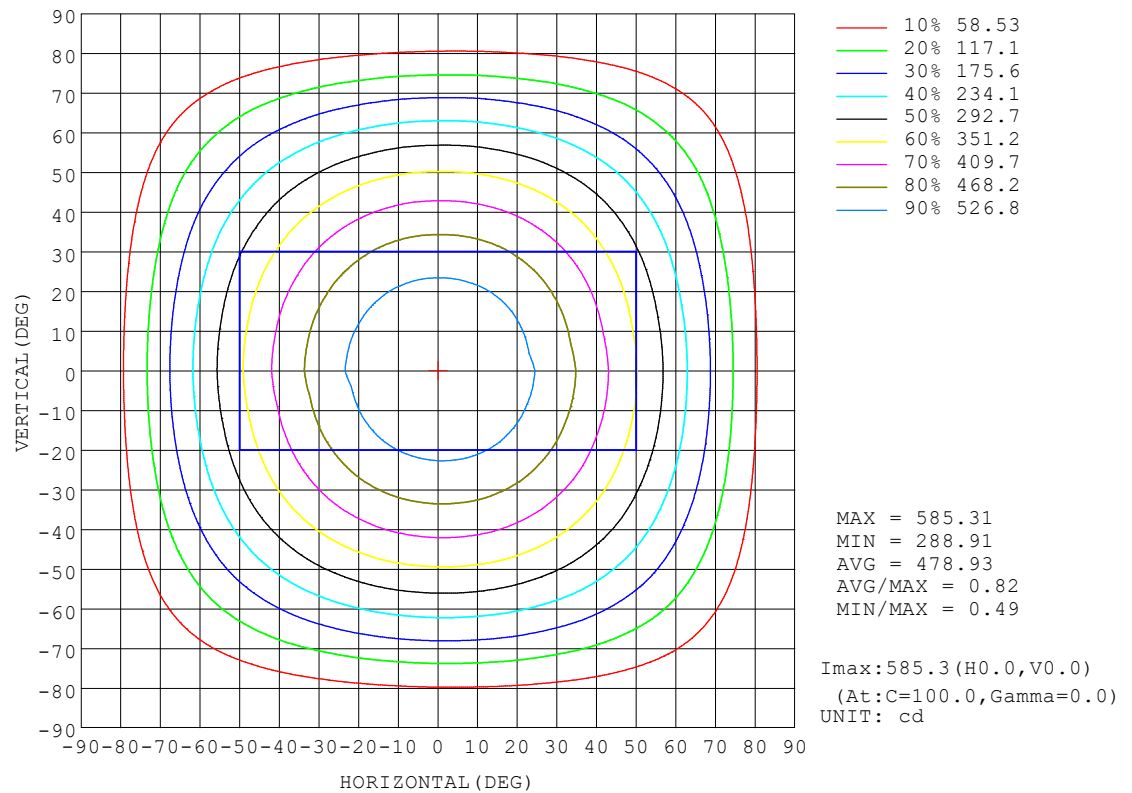
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	68	54	46	67	54	46	66	53	46	38
0.80	80	66	57	79	66	57	77	65	57	49
1.00	90	77	68	89	76	68	86	78	67	59
1.25	98	86	78	97	85	77	94	83	76	68
1.50	104	93	84	102	92	84	99	90	83	74
2.00	112	102	95	110	101	94	106	98	92	83
2.50	117	108	101	115	106	100	110	103	98	88
3.00	121	113	107	119	111	105	114	108	103	93
4.00	126	119	114	123	117	112	118	113	109	98
5.00	129	123	118	126	121	116	120	116	113	102
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: 29 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: 93FGNL3030/BL	TYPE: 93FGNL3030/BL	WEIGHT: 1
SPEC.:	DIM.: 477 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle	Shielding Angle:

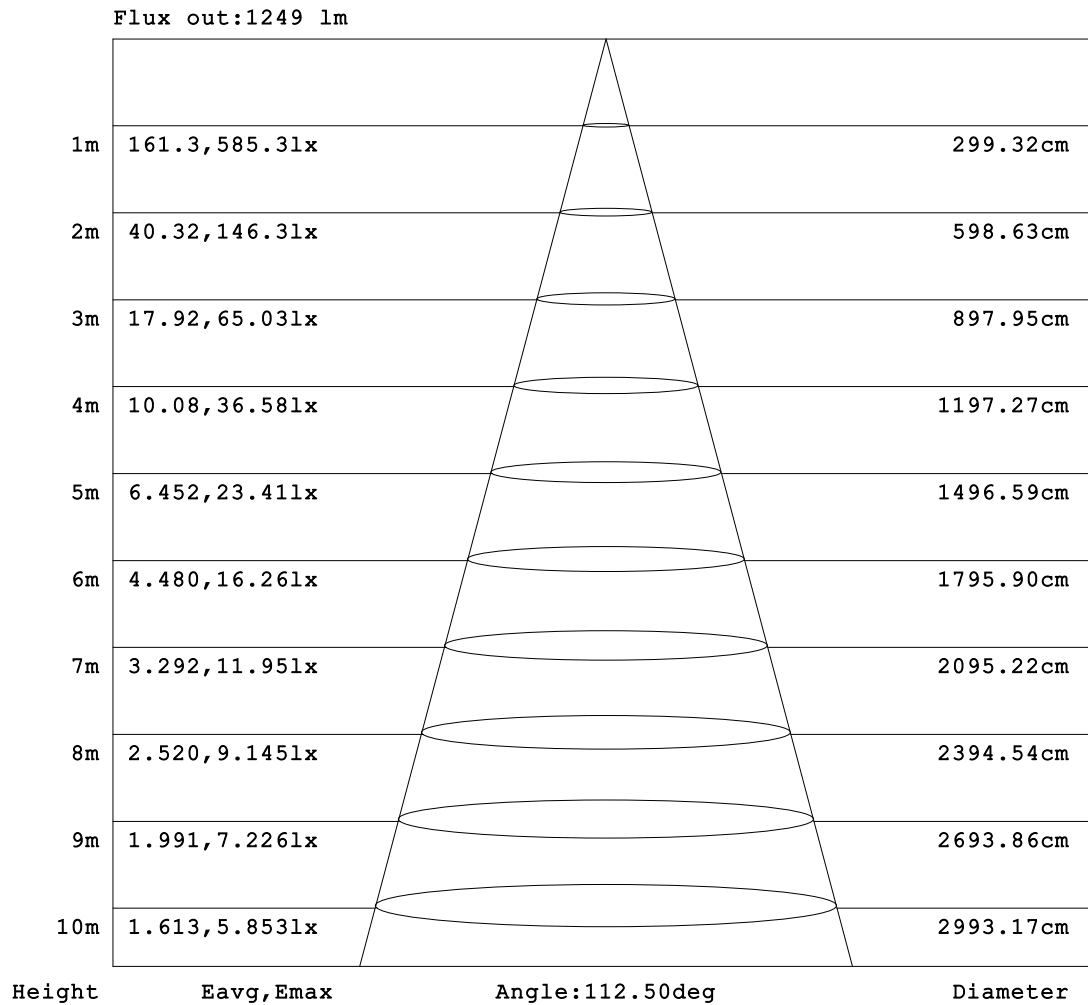


C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3°C
 Operators:
 Test Date:29 August 2022

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: 93FGNL3030/BL	TYPE: 93FGNL3030/BL	WEIGHT: 1
SPEC.:	DIM.: 477 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle	Shielding Angle:



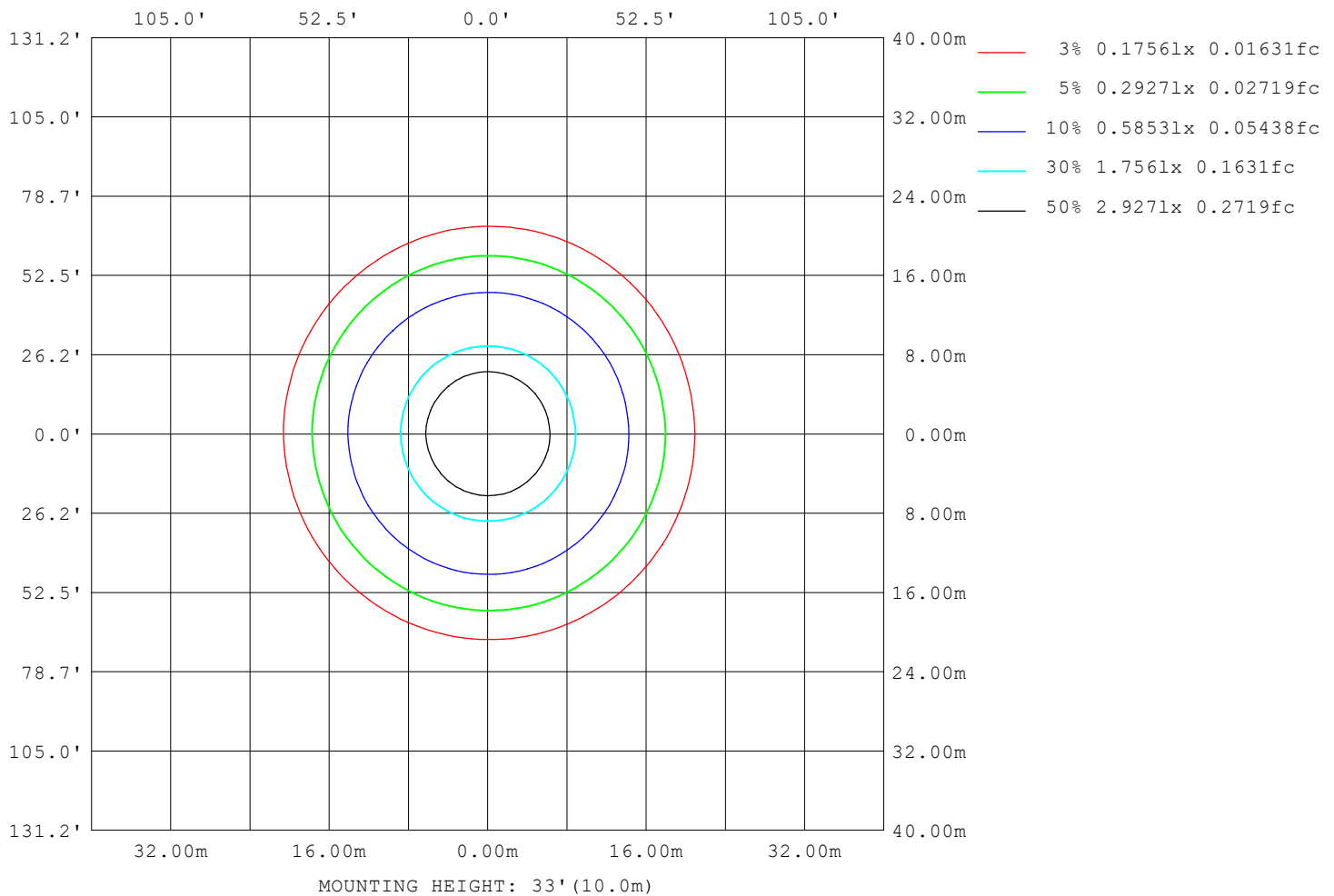
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3°C
 Operators:
 Test Date: 29 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: 93FGNL3030/BL	TYPE: 93FGNL3030/BL	WEIGHT: 1
SPEC.:	DIM.: 477 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature: 25.3°C
Operators:
Test Date: 29 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: 93FGNL3030/BL	TYPE: 93FGNL3030/BL	WEIGHT: 1
SPEC.:	DIM.: 477 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle	Shielding Angle:

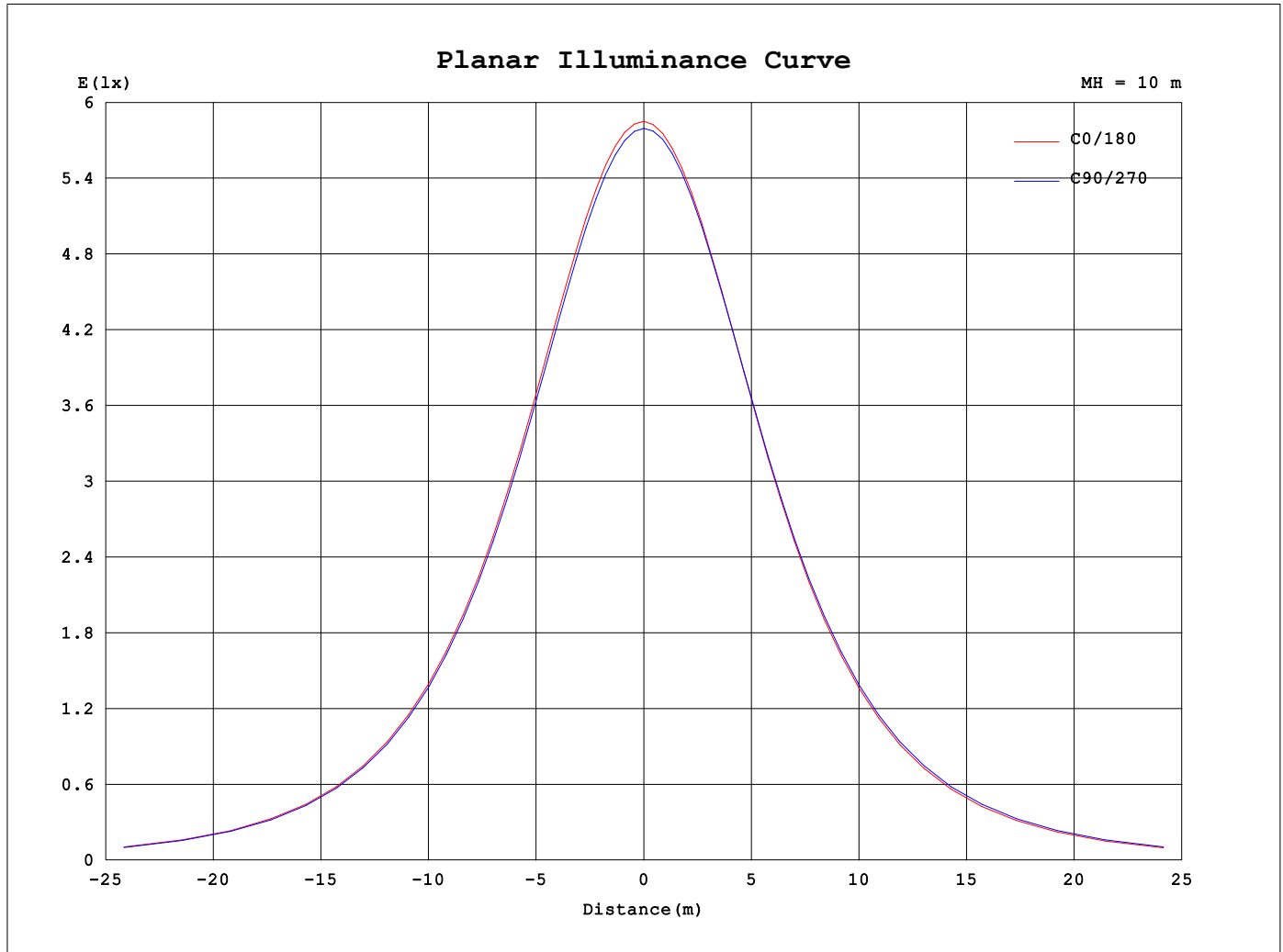
AvgL	cd/m2
L_0~180 (65) av	40735
L_0~180 (75) av	33915
L_0~180 (85) av	16714
L_90~270 (65) av	41683
L_90~270 (75) av	35165
L_90~270 (85) av	18723
L_45 (65) av	41119
L_45 (75) av	34366
L_45 (85) av	17495

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:29 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: 29 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:

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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:

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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:

```