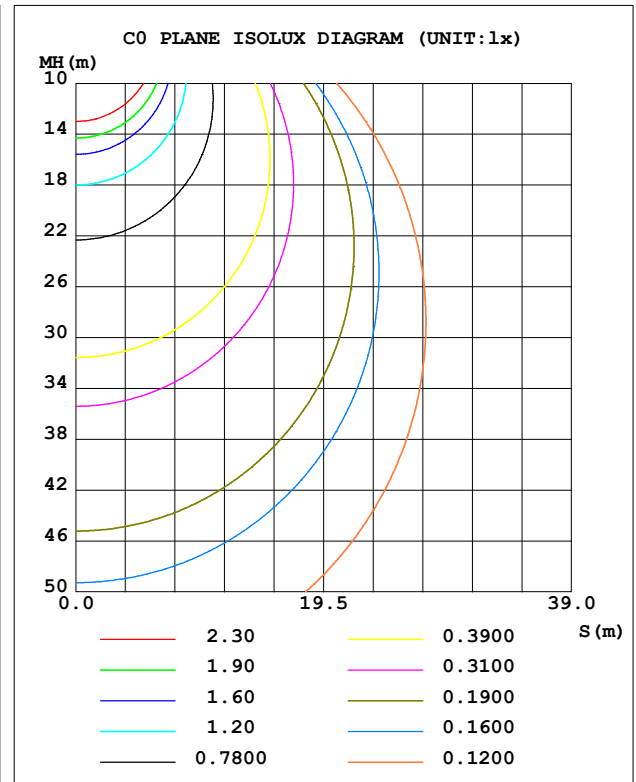
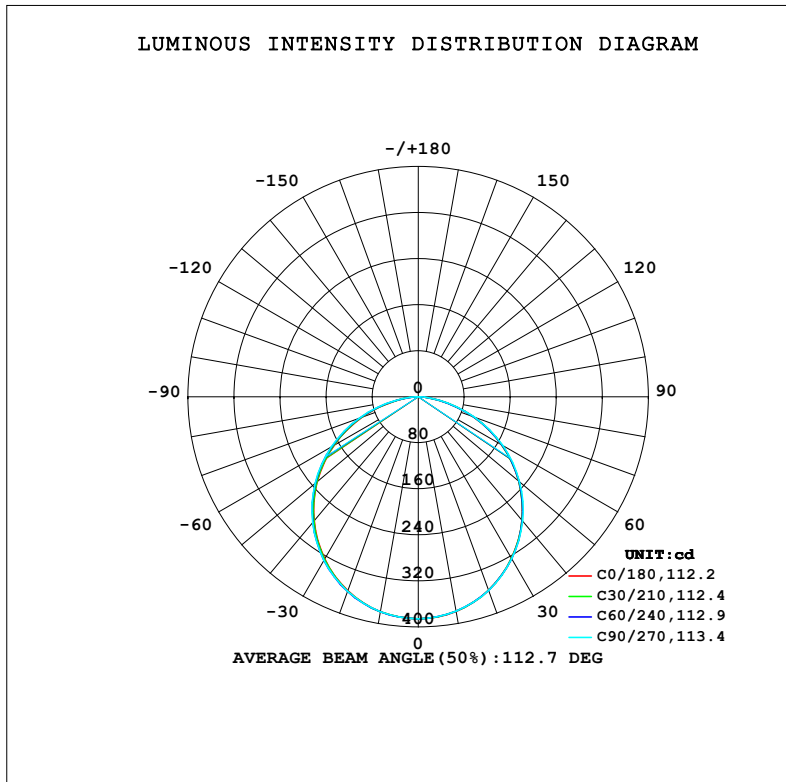


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 93FGNL2040/BL	TYPE: 93FGNL2040/BL	WEIGHT: 1
SPEC.:	DIM.: 342 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: square	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	93FGNL2040/BL	I _{max} (cd)	385.6	S/MH (C0/180)	1.25
NOMINAL POWER (W)	20	LOR (%)	109.6	S/MH (C90/270)	1.26
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	1096.1	η UP, DN (C0-180)	0.0, 54.4
NOMINAL FLUX (lm)	1000	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 55.2
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	109.6	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
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	378.6	378.4	378.3	378.5	379.2	379.4	379.2	379.2	0- 10	36.49	36.49	3.33,3.65
20	357.6	357.7	357.7	358.1	358.5	359.6	359.7	359.2	10- 20	104.5	141.0	12.9,14.1
30	324.2	324.5	325.2	324.8	325.3	327.0	327.9	326.7	20- 30	158.3	299.3	27.3,29.9
40	280.4	280.8	282.1	281.1	281.7	283.9	285.5	283.6	30- 40	191.0	490.3	44.7,49
50	227.8	228.1	229.9	228.4	229.2	231.7	234.1	231.5	40- 50	198.4	688.8	62.8,68.9
60	167.9	167.9	170.0	168.2	169.3	171.9	174.8	171.9	50- 60	179.6	868.3	79.2,86.8
70	102.4	102.1	103.9	102.3	103.9	106.4	109.2	106.4	60- 70	136.3	1005	91.7,100
80	37.21	36.69	37.75	36.81	38.28	40.58	42.87	40.59	70- 80	75.10	1080	98.5,108
90	0.7050	0.6723	0.6188	0.6131	0.5349	0.5460	0.6106	0.6199	80- 90	16.31	1096	100,110
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): 590.25 lm

%lum = 53.9%

%lamp = 59.0%

Conical surface Flux(130deg): 943.27 lm

%lum = 86.1%

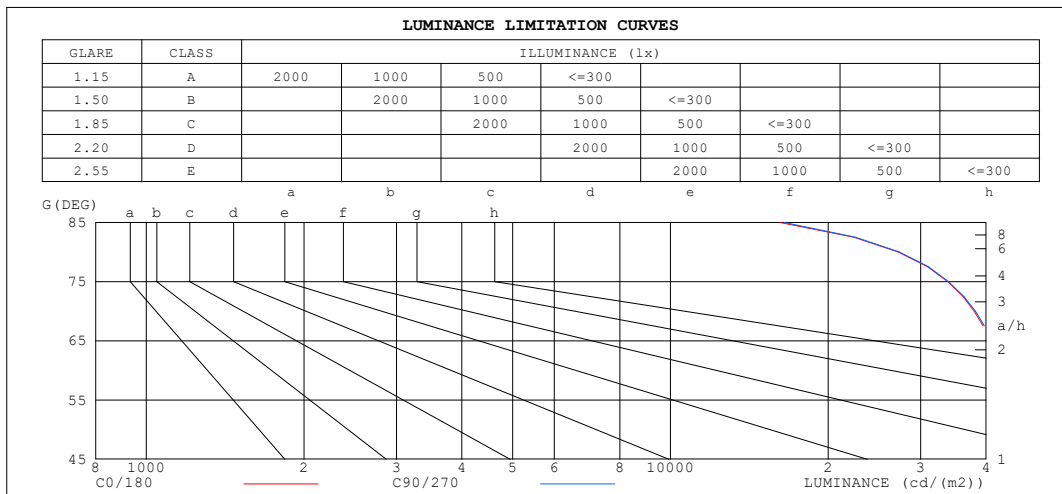
%lamp = 94.3%

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
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: 93FGNL2040/BL	TYPE: 93FGNL2040/BL	WEIGHT: 1
SPEC.:	DIM.: 342 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: square	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	16175	16479
80	27159	27309
75	33836	33934
70	37945	38163
65	40686	40888
60	42567	42712
55	43916	43987
50	44922	44924
45	45726	45663

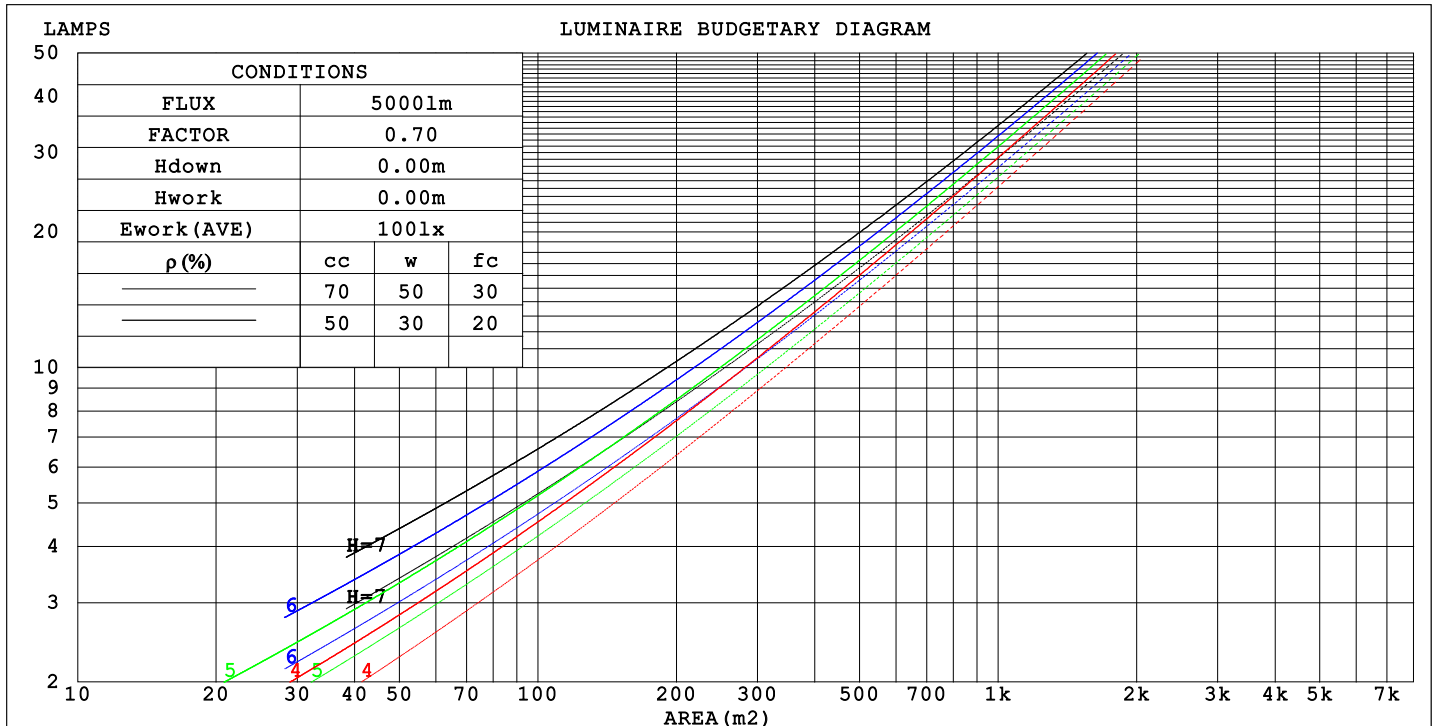
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 29 August 2022

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: 93FGNL2040/BL	TYPE: 93FGNL2040/BL	WEIGHT: 1
SPEC.:	DIM.: 342 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: square	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: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:

WEC AND CCEC

NAME: 93FGNL2040/BL	TYPE: 93FGNL2040/BL	WEIGHT: 1
SPEC.:	DIM.: 342 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: square	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	.335	.190	.060	.327	.187	.059	.312	.179	.057	.299	.173	.055	.287	.166	.054	
2.0	.317	.174	.053	.310	.171	.053	.298	.166	.051	.286	.160	.050	.275	.156	.049	
3.0	.294	.157	.047	.288	.154	.047	.277	.150	.046	.267	.146	.045	.257	.142	.044	
4.0	.272	.141	.042	.267	.140	.041	.257	.136	.041	.248	.133	.040	.239	.130	.040	
5.0	.252	.128	.037	.247	.127	.037	.238	.124	.037	.230	.121	.036	.222	.119	.036	
6.0	.234	.117	.034	.230	.116	.033	.222	.114	.033	.214	.111	.033	.207	.109	.032	
7.0	.218	.108	.031	.214	.107	.030	.207	.105	.030	.200	.103	.030	.194	.101	.030	
8.0	.203	.099	.028	.200	.098	.028	.194	.097	.028	.188	.095	.027	.182	.093	.027	
9.0	.191	.092	.026	.188	.091	.026	.182	.090	.025	.177	.088	.025	.171	.087	.025	
10.0	.179	.086	.024	.177	.085	.024	.171	.084	.024	.167	.083	.024	.162	.081	.023	

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	.209	.209	.209	.178	.178	.178	.122	.122	.122	.070	.070	.070	.022	.022	.022	
1.0	.197	.171	.148	.169	.147	.127	.115	.101	.088	.066	.058	.051	.021	.019	.017	
2.0	.188	.145	.108	.161	.124	.093	.111	.086	.065	.064	.050	.038	.020	.016	.012	
3.0	.180	.125	.082	.154	.108	.071	.106	.075	.050	.061	.044	.029	.020	.014	.010	
4.0	.172	.111	.064	.147	.096	.056	.101	.067	.039	.059	.039	.023	.019	.013	.008	
5.0	.164	.099	.052	.141	.086	.045	.097	.060	.032	.056	.035	.019	.018	.011	.006	
6.0	.156	.090	.043	.134	.078	.037	.092	.055	.026	.054	.032	.016	.017	.011	.005	
7.0	.148	.083	.036	.128	.072	.032	.088	.050	.022	.051	.030	.013	.017	.010	.004	
8.0	.141	.076	.031	.122	.066	.027	.084	.046	.019	.049	.027	.012	.016	.009	.004	
9.0	.135	.071	.028	.116	.061	.024	.080	.043	.017	.047	.025	.010	.015	.008	.003	
10.0	.128	.066	.025	.111	.057	.021	.077	.040	.015	.045	.024	.009	.015	.008	.003	

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
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: 93FGNL2040/BL					TYPE: 93FGNL2040/BL			WEIGHT: 1		
SPEC.:					DIM.: 342 x 34 x 34			SERIAL No.: 0		
MFR.: Elmark Industries JSC					SUR.: square			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	26.0	27.5	26.3	27.7	27.9	26.0	27.6	26.3	27.8	28.0
3H	27.5	28.9	27.8	29.1	29.4	27.5	28.9	27.8	29.1	29.4
4H	28.0	29.4	28.4	29.6	29.9	28.1	29.4	28.4	29.6	29.9
6H	28.4	29.6	28.7	29.9	30.2	28.4	29.6	28.7	29.9	30.2
8H	28.4	29.6	28.8	29.9	30.2	28.4	29.6	28.8	29.9	30.2
12H	28.4	29.6	28.8	29.9	30.2	28.4	29.6	28.8	29.9	30.2
4H 2H	26.6	28.0	26.9	28.2	28.5	26.6	28.0	26.9	28.2	28.5
3H	28.3	29.4	28.6	29.7	30.0	28.3	29.4	28.6	29.7	30.0
4H	28.9	30.0	29.3	30.3	30.6	28.9	30.0	29.3	30.3	30.7
6H	29.3	30.3	29.7	30.6	31.0	29.4	30.3	29.8	30.7	31.0
8H	29.4	30.3	29.8	30.7	31.1	29.4	30.3	29.9	30.7	31.1
12H	29.5	30.3	29.9	30.7	31.1	29.5	30.3	29.9	30.7	31.1
8H 4H	29.1	30.0	29.6	30.4	30.8	29.2	30.0	29.6	30.4	30.8
6H	29.7	30.4	30.1	30.8	31.2	29.7	30.4	30.1	30.8	31.2
8H	29.8	30.5	30.3	30.9	31.3	29.8	30.5	30.3	30.9	31.4
12H	29.9	30.4	30.3	30.9	31.4	29.9	30.4	30.4	30.9	31.4
12H 4H	29.1	29.9	29.6	30.3	30.7	29.1	30.0	29.6	30.3	30.7
6H	29.7	30.3	30.2	30.8	31.2	29.7	30.4	30.2	30.8	31.2
8H	29.9	30.4	30.3	30.9	31.3	29.9	30.4	30.4	30.9	31.4
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, 1000 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.0)
Area: 0.00795 m2

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
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: 93FGNL2040/BL	TYPE: 93FGNL2040/BL	WEIGHT: 1
SPEC.:	DIM.: 342 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: square	Shielding Angle:

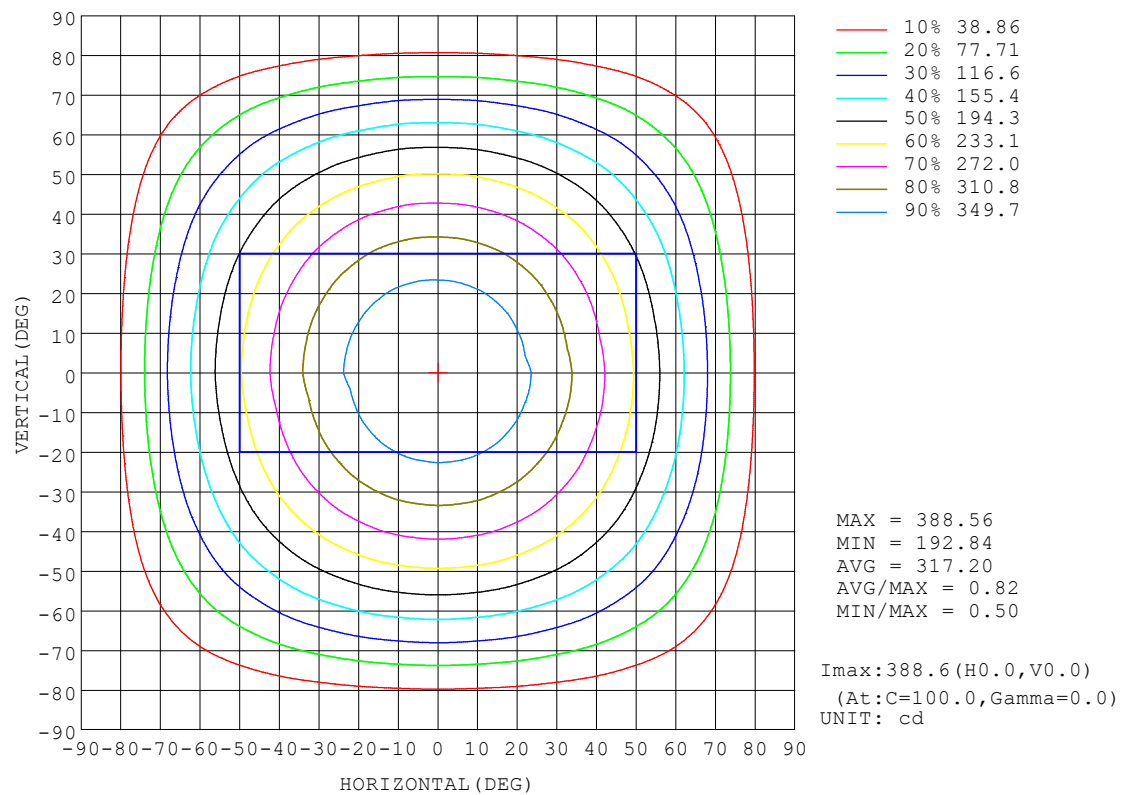
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	63	50	43	62	50	43	61	50	42	35
0.80	74	61	53	73	61	53	71	60	53	45
1.00	83	71	63	82	71	63	80	72	62	55
1.25	91	80	72	90	79	72	87	77	71	63
1.50	97	86	78	95	85	78	92	83	77	68
2.00	104	95	88	102	94	87	98	91	85	77
2.50	109	100	94	106	99	93	102	96	90	81
3.00	112	105	99	110	103	98	105	100	95	86
4.00	117	110	105	114	109	104	109	105	101	91
5.00	119	114	110	117	112	108	112	108	105	95
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: 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: 93FGNL2040/BL	TYPE: 93FGNL2040/BL	WEIGHT: 1
SPEC.:	DIM.: 342 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: square	Shielding Angle:

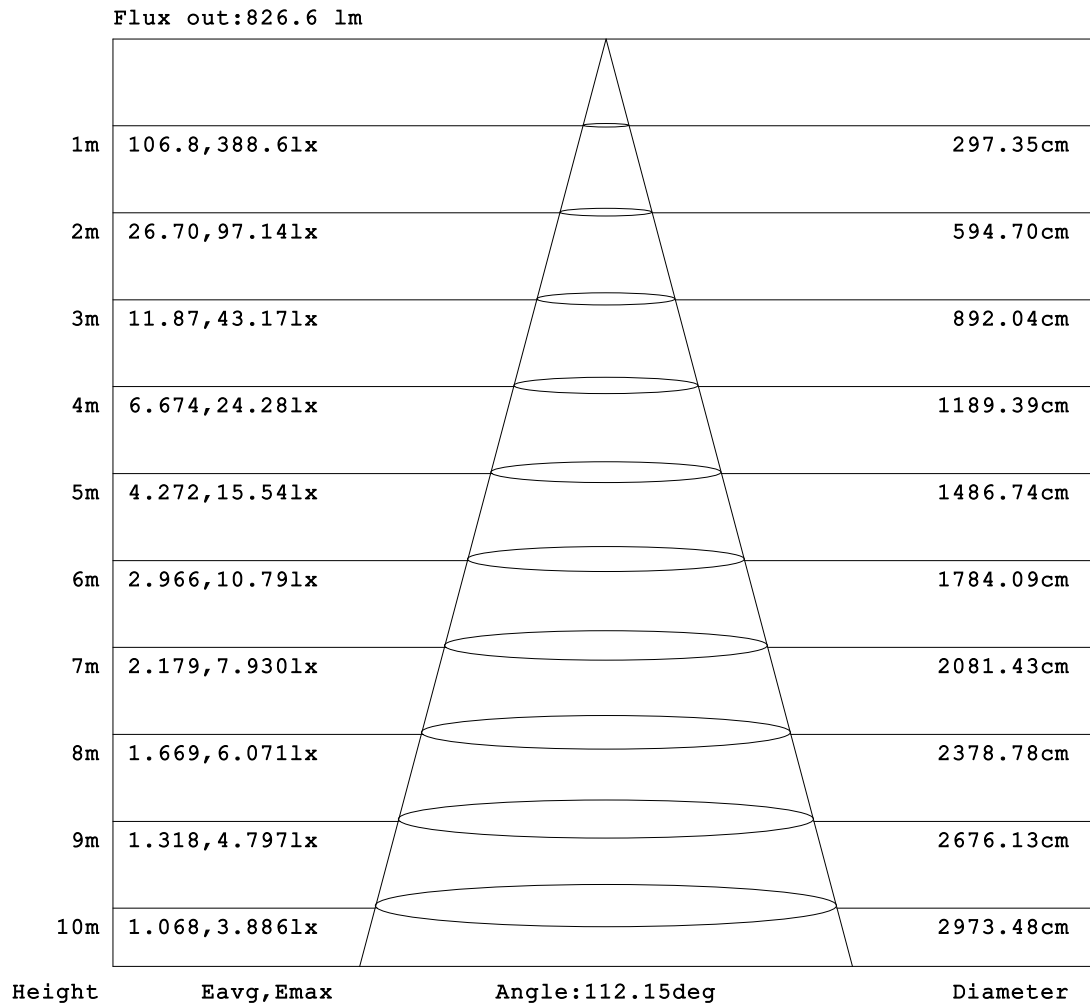


C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 29 August 2022

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: 93FGNL2040/BL	TYPE: 93FGNL2040/BL	WEIGHT: 1
SPEC.:	DIM.: 342 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: square	Shielding Angle:



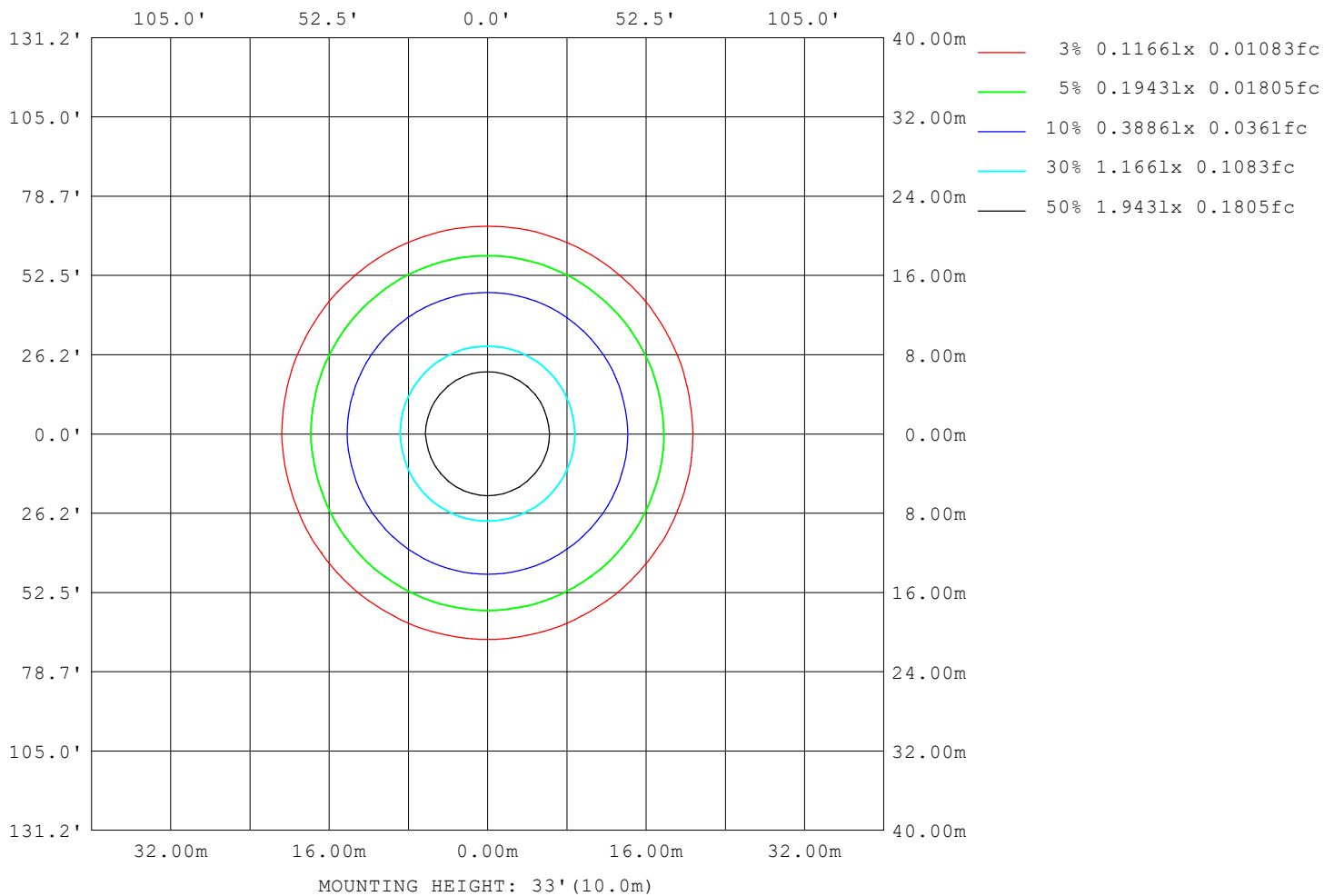
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date: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: 93FGNL2040/BL	TYPE: 93FGNL2040/BL	WEIGHT: 1
SPEC.:	DIM.: 342 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: square	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 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: 93FGNL2040/BL	TYPE: 93FGNL2040/BL	WEIGHT: 1
SPEC.:	DIM.: 342 x 34 x 34	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: square	Shielding Angle:

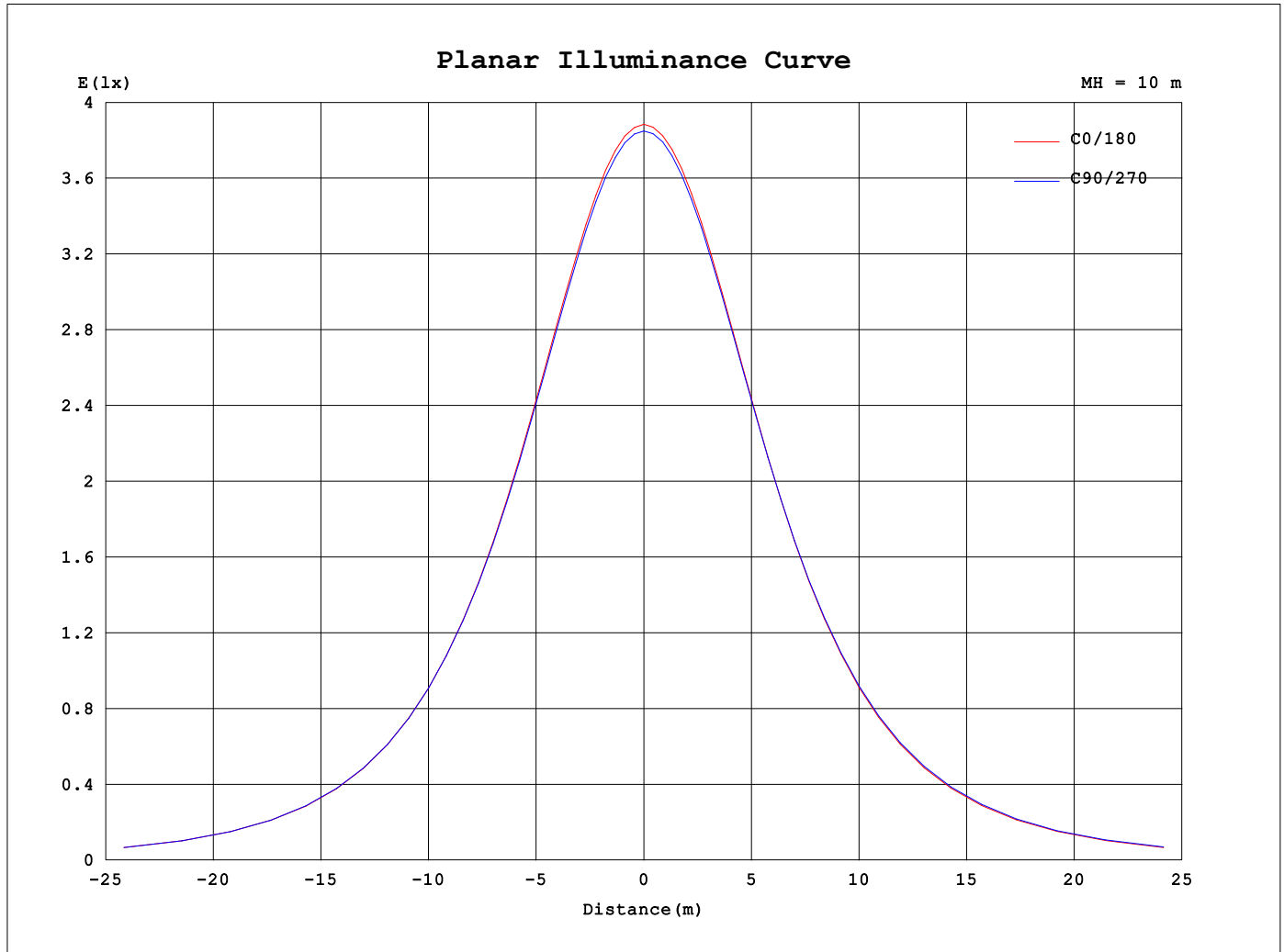
AvgL	cd/m2
L_0~180 (65) av	40605
L_0~180 (75) av	33884
L_0~180 (85) av	16493
L_90~270 (65) av	41692
L_90~270 (75) av	35347
L_90~270 (85) av	19218
L_45 (65) av	40983
L_45 (75) av	34399
L_45 (85) av	17514

Standard: GB/T 29293-2012

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

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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:

```