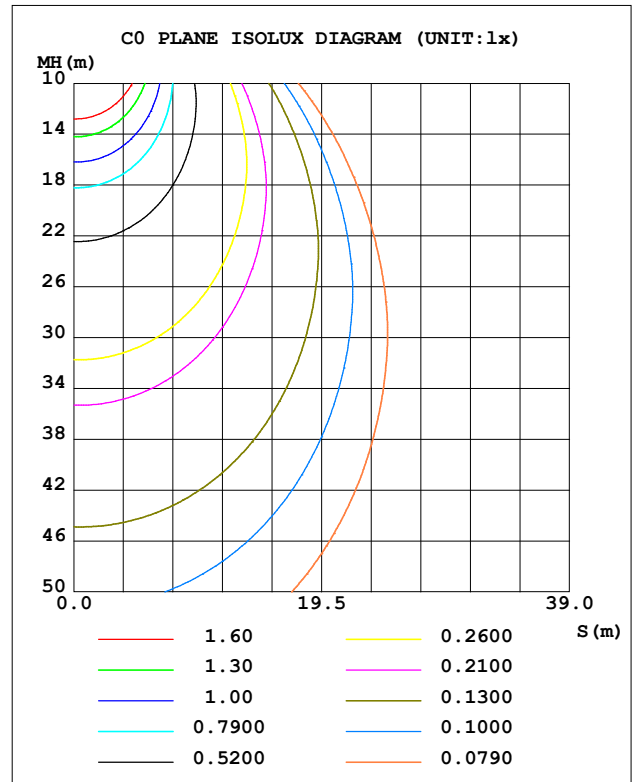
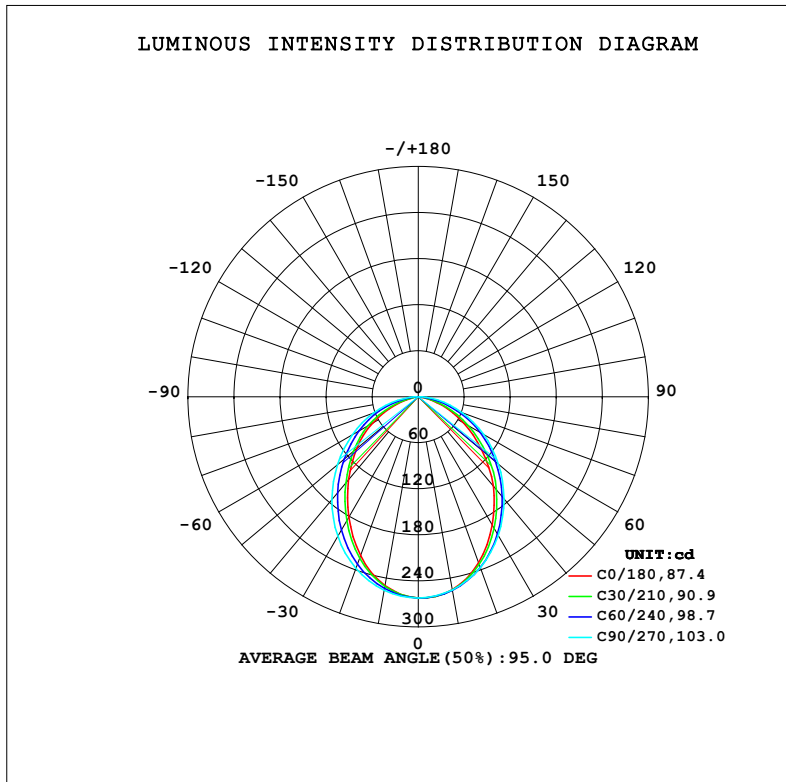


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 93M20FL1030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 332 x 20 x 40	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: paralelepiped	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	93M20FL1030/BL	Imax (cd)	262.4	S/MH (C0/180)	1.06
NOMINAL POWER (W)	10	LOR (%)	100.9	S/MH (C90/270)	1.20
RATED VOLTAGE (V)	48	TOTAL FLUX (lm)	605.61	η UP, DN (C0-180)	0.0, 50.3
NOMINAL FLUX (lm)	600	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.6
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	48	η down (%)	100.9	CIBSE SHR MAX	1.30



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature: 25.3°C
Operators:
Test Date: 03 November 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	255.2	255.9	255.6	251.7	249.9	252.3	256.1	256.5	0- 10	24.64	24.64	4.07,4.11
20	230.2	234.8	236.9	226.9	220.3	227.9	237.9	235.9	10- 20	68.77	93.40	15.4,15.6
30	193.0	202.3	208.5	192.3	181.0	193.2	209.7	203.5	20- 30	99.17	192.6	31.8,32.1
40	152.4	164.0	173.8	153.9	141.3	154.9	175.1	165.7	30- 40	112.1	304.7	50.3,50.8
50	107.8	124.9	136.4	116.3	104.7	117.1	137.4	126.3	40- 50	108.6	413.2	68.2,68.9
60	68.05	83.93	98.23	81.32	68.48	82.15	99.21	85.19	50- 60	91.44	504.7	83.3,84.1
70	32.86	45.20	61.02	45.11	32.18	45.92	62.35	46.42	60- 70	64.15	568.8	93.9,94.8
80	5.386	12.09	26.03	11.19	4.423	11.85	27.21	13.04	70- 80	31.28	600.1	99.1,100
90	0.2316	0.2953	1.347	0.3185	0.1989	0.2817	1.755	0.2763	80- 90	5.505	605.6	100,101
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): 360.34 lm

%lum = 59.5%

%lamp = 60.1%

Conical surface Flux(130deg): 540.67 lm

%lum = 89.3%

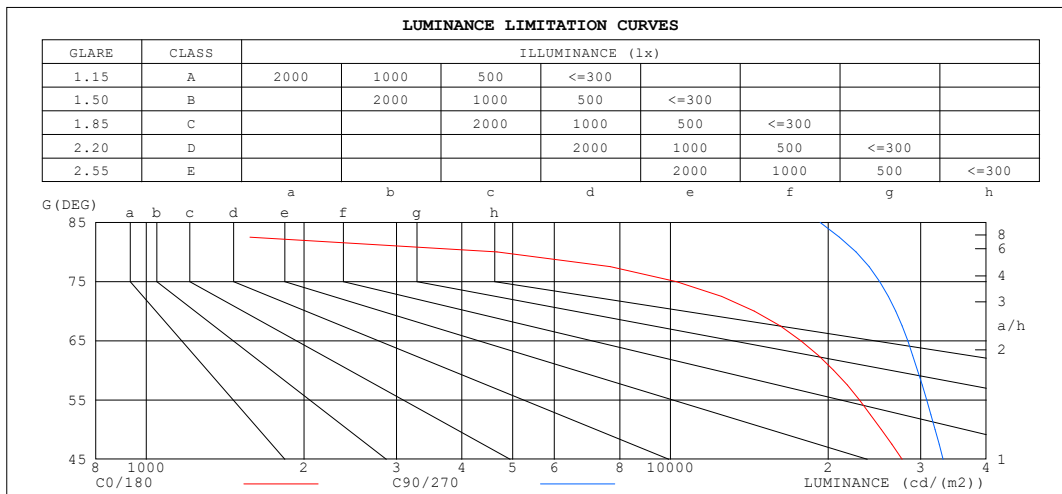
%lamp = 90.1%

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:03 November 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: 93M20FL1030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 332 x 20 x 40	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: paralelepiped	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	551	19293
80	4667	22589
75	10272	25071
70	14455	26881
65	17733	28349
60	20480	29603
55	22956	30817
50	25246	31977
45	27648	33132

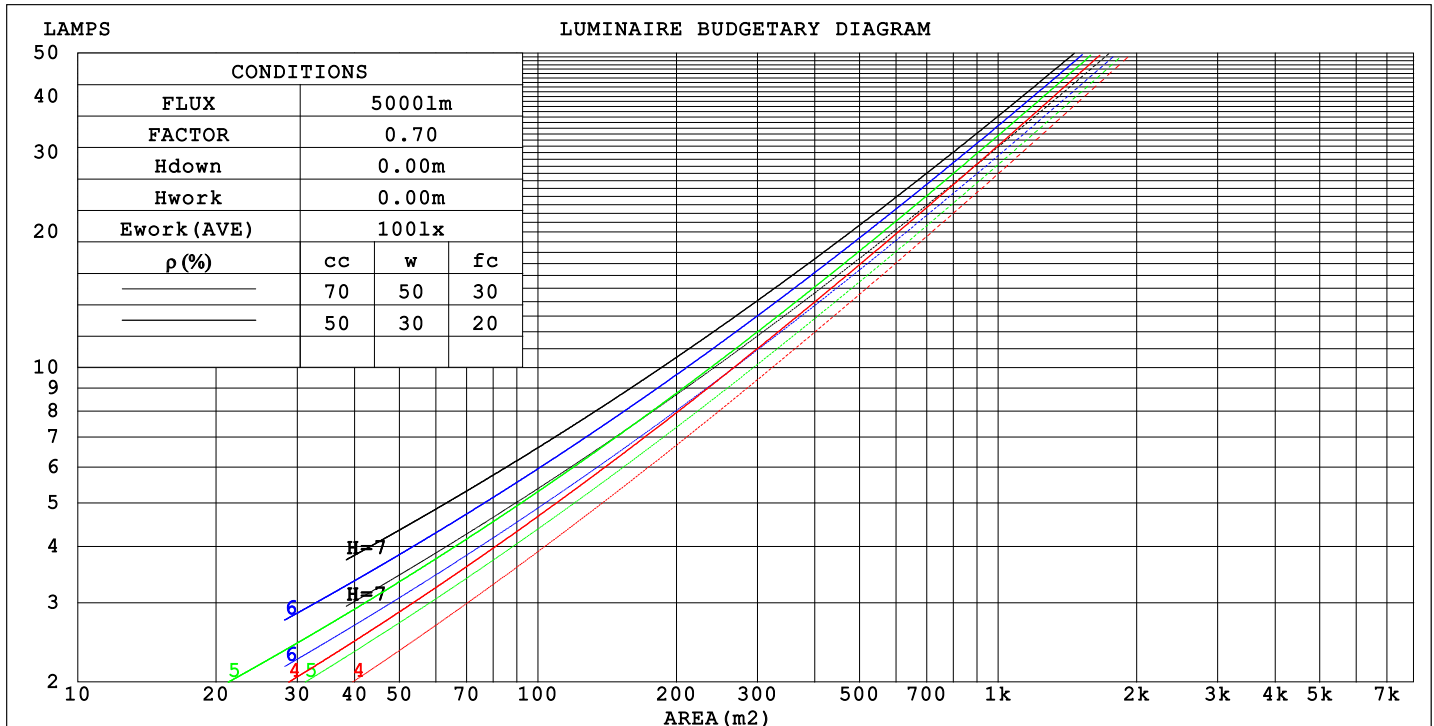
C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3°C
 Operators:
 Test Date: 03 November 2022

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: 93M20FL1030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 332 x 20 x 40	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: paralelepiped	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: 03 November 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: 93M20FL1030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 332 x 20 x 40	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: paralelepiped	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	.285	.162	.051	.278	.158	.050	.265	.152	.048	.252	.146	.047	.241	.140	.045	
2.0	.273	.150	.046	.267	.147	.045	.255	.142	.044	.244	.137	.043	.234	.133	.042	
3.0	.255	.136	.041	.250	.134	.040	.240	.130	.039	.230	.126	.039	.221	.123	.038	
4.0	.238	.123	.036	.233	.122	.036	.224	.119	.035	.215	.116	.035	.208	.113	.034	
5.0	.221	.113	.033	.217	.111	.032	.209	.109	.032	.201	.106	.032	.194	.104	.031	
6.0	.206	.103	.030	.202	.102	.029	.195	.100	.029	.188	.098	.029	.182	.096	.028	
7.0	.193	.095	.027	.189	.094	.027	.183	.092	.027	.177	.091	.026	.171	.089	.026	
8.0	.181	.088	.025	.178	.087	.025	.172	.086	.025	.166	.084	.024	.161	.083	.024	
9.0	.170	.082	.023	.167	.081	.023	.162	.080	.023	.157	.079	.023	.152	.077	.022	
10.0	.160	.077	.021	.158	.076	.021	.153	.075	.021	.148	.074	.021	.144	.073	.021	

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	.192	.192	.192	.164	.164	.164	.112	.112	.112	.064	.064	.064	.021	.021	.021	
1.0	.180	.158	.138	.154	.135	.119	.105	.093	.082	.061	.054	.048	.019	.017	.015	
2.0	.171	.133	.102	.146	.115	.088	.100	.079	.061	.058	.046	.036	.019	.015	.012	
3.0	.163	.115	.077	.140	.099	.067	.096	.069	.047	.055	.040	.028	.018	.013	.009	
4.0	.155	.102	.061	.133	.088	.053	.091	.061	.037	.053	.036	.022	.017	.012	.007	
5.0	.147	.091	.049	.127	.079	.043	.087	.055	.030	.051	.032	.018	.016	.011	.006	
6.0	.140	.082	.041	.121	.071	.036	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.035	.115	.065	.030	.079	.046	.021	.046	.027	.013	.015	.009	.004	
8.0	.127	.070	.030	.110	.060	.026	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.121	.065	.026	.105	.056	.023	.072	.039	.016	.042	.023	.010	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.069	.037	.014	.040	.022	.009	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:03 November 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: 93M20FL1030/BL					TYPE:			WEIGHT: 1		
SPEC.:					DIM.: 332 x 20 x 40			SERIAL No.: 0		
MFR.: Elmark Industries JSC					SUR.: paralelepiped			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	25.1	26.6	25.4	26.8	27.0	26.7	28.1	27.0	28.3	28.5
3H	25.9	27.3	26.2	27.5	27.7	28.2	29.5	28.5	29.8	30.0
4H	26.1	27.4	26.4	27.6	27.9	28.8	30.1	29.1	30.3	30.6
6H	26.1	27.3	26.5	27.6	27.9	29.3	30.5	29.6	30.7	31.0
8H	26.1	27.2	26.4	27.5	27.8	29.4	30.5	29.7	30.8	31.1
12H	26.0	27.1	26.4	27.4	27.7	29.5	30.6	29.8	30.9	31.2
4H 2H	25.8	27.1	26.1	27.3	27.6	27.1	28.3	27.4	28.6	28.8
3H	26.8	27.9	27.1	28.2	28.5	28.8	29.9	29.1	30.2	30.5
4H	27.0	28.0	27.4	28.3	28.7	29.5	30.5	29.9	30.8	31.1
6H	27.0	27.9	27.4	28.3	28.6	30.1	31.0	30.5	31.3	31.7
8H	27.0	27.8	27.4	28.2	28.6	30.3	31.1	30.7	31.4	31.8
12H	27.0	27.7	27.4	28.1	28.5	30.4	31.1	30.8	31.5	31.9
8H 4H	27.3	28.1	27.7	28.5	28.8	29.5	30.4	30.0	30.7	31.1
6H	27.3	28.0	27.8	28.4	28.8	30.2	30.9	30.6	31.3	31.7
8H	27.3	27.9	27.8	28.3	28.8	30.4	31.1	30.9	31.5	31.9
12H	27.3	27.8	27.7	28.2	28.7	30.6	31.1	31.1	31.6	32.1
12H 4H	27.3	28.0	27.7	28.4	28.8	29.5	30.3	29.9	30.6	31.0
6H	27.4	28.0	27.8	28.4	28.8	30.2	30.8	30.6	31.2	31.7
8H	27.3	27.8	27.8	28.3	28.8	30.4	30.9	30.9	31.4	31.9
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.3 / - 0.4					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.4				
2.0H	+ 0.4 / - 0.7					+ 0.3 / - 0.3				

CIE Pub.117, 600.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.8)
Area: 0.00664 m2

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:03 November 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: 93M20FL1030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 332 x 20 x 40	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: paralelepiped	Shielding Angle:

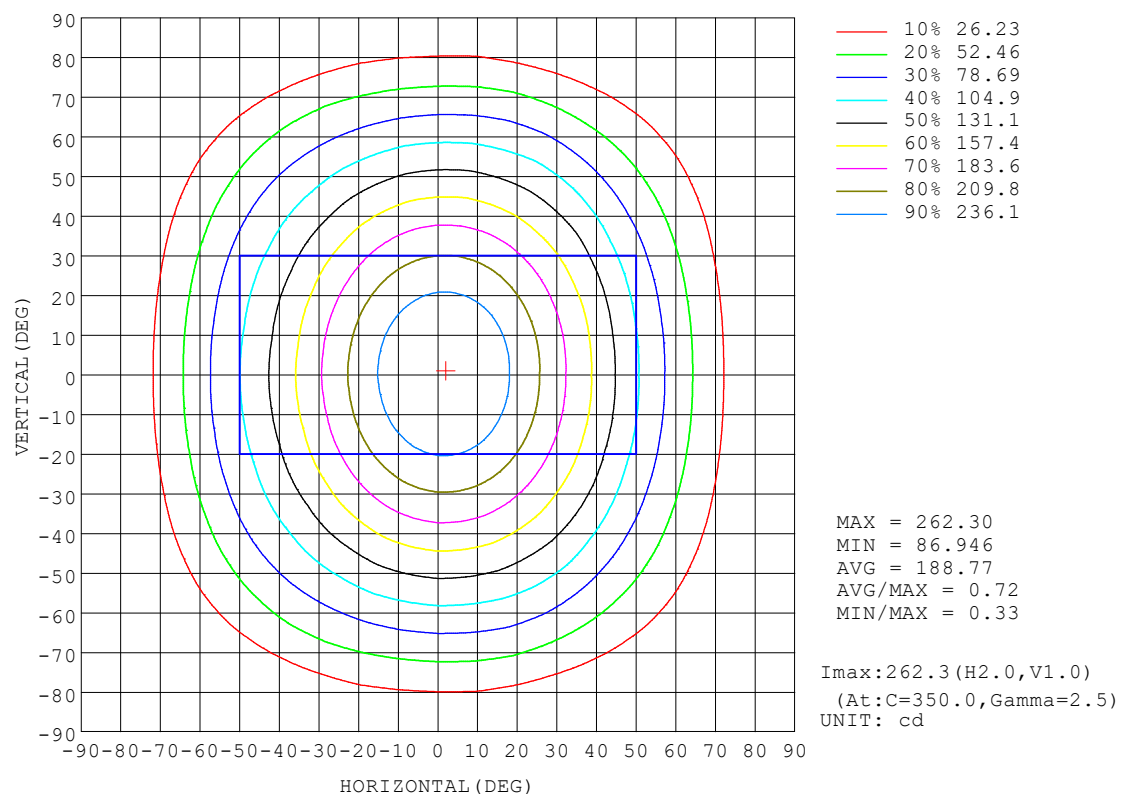
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	61	50	43	61	50	43	59	49	43	37
0.80	71	60	53	70	60	53	69	59	53	46
1.00	80	69	62	79	69	62	76	70	62	55
1.25	87	77	70	85	76	70	83	75	69	62
1.50	92	82	76	90	81	75	87	80	74	67
2.00	98	90	84	96	89	83	93	87	82	74
2.50	102	95	89	100	93	88	96	91	86	78
3.00	105	99	93	103	97	92	99	94	90	82
4.00	109	103	99	106	102	98	102	98	95	86
5.00	111	106	103	108	104	101	104	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: MEDIUM
Temperature: 25.3°C
Operators:
Test Date: 03 November 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: 93M20FL1030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 332 x 20 x 40	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: paralelepiped	Shielding Angle:

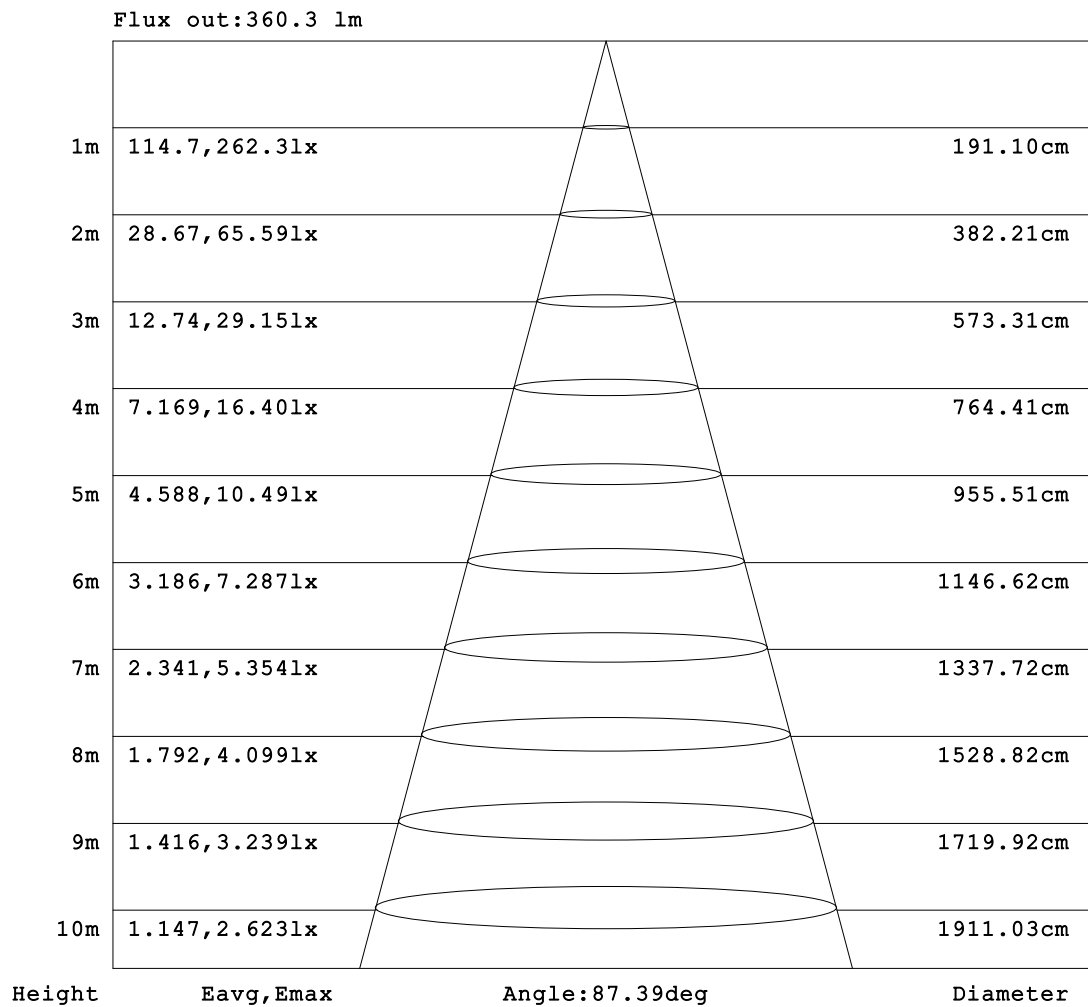


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:03 November 2022

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: 93M20FL1030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 332 x 20 x 40	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: paralelepiped	Shielding Angle:



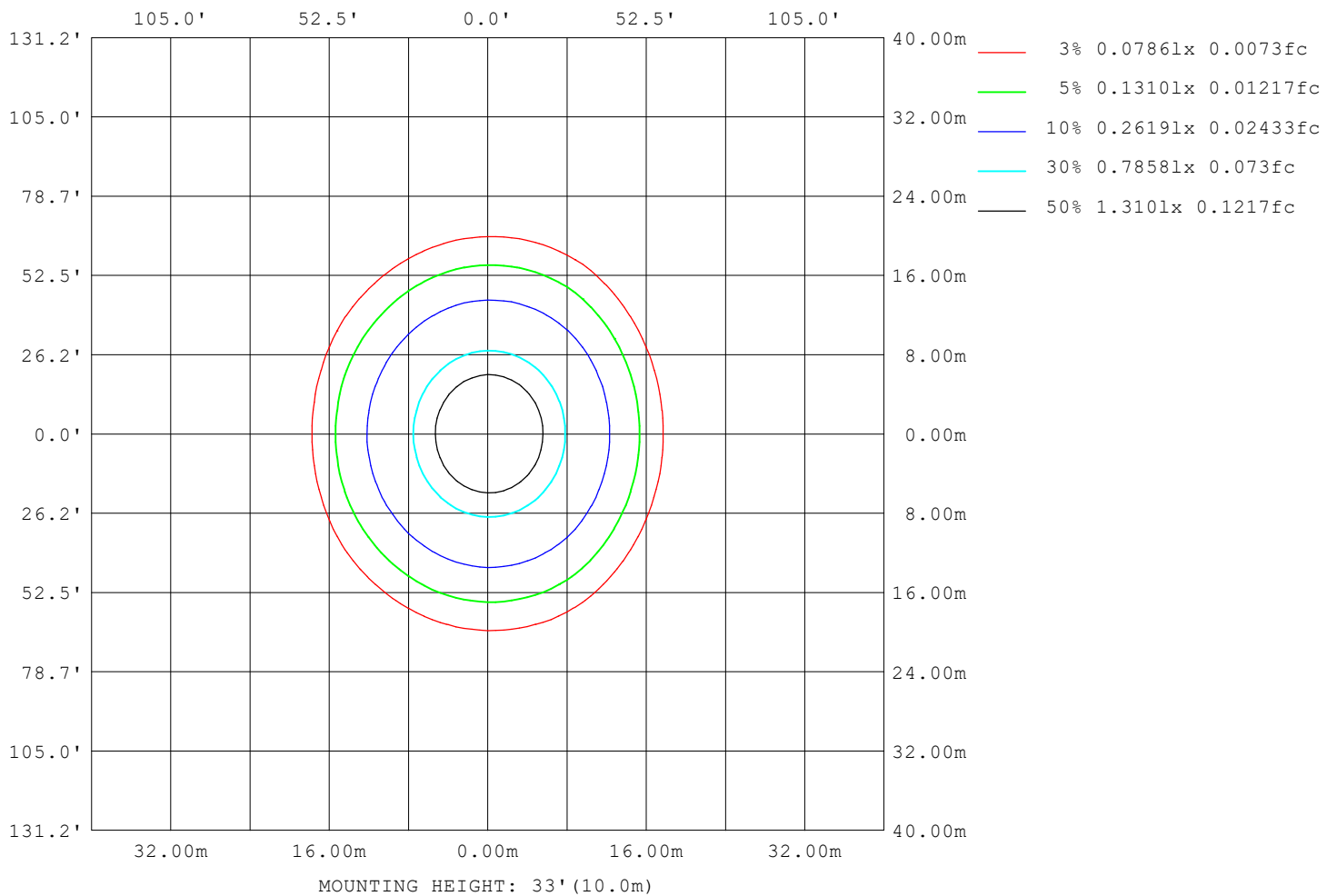
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3°C
 Operators:
 Test Date: 03 November 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: 93M20FL1030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 332 x 20 x 40	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: paralelepiped	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature: 25.3°C
Operators:
Test Date: 03 November 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: 93M20FL1030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 332 x 20 x 40	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: paralelepiped	Shielding Angle:

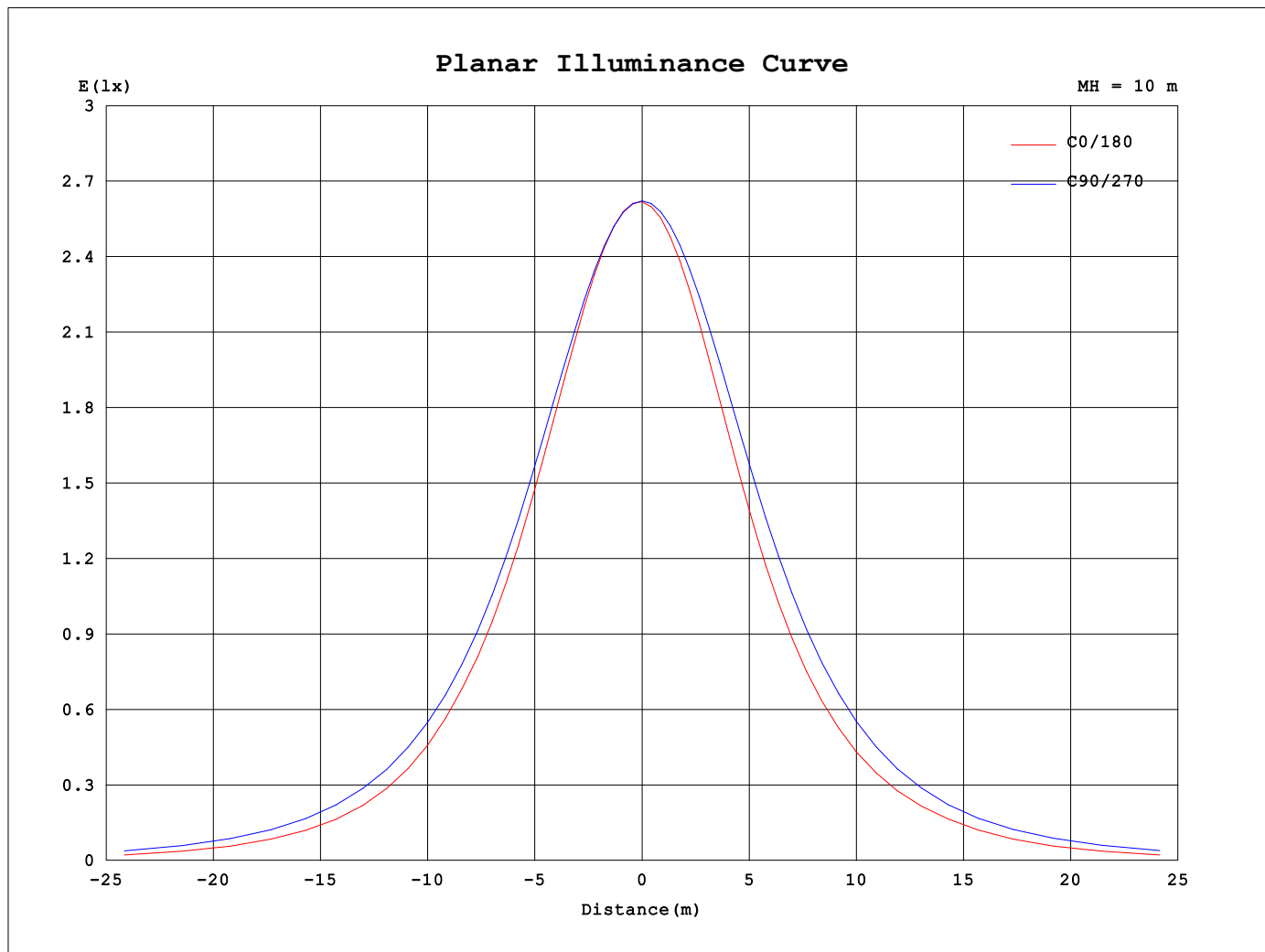
AvgL	cd/m2
L_0~180 (65) av	17730
L_0~180 (75) av	9969
L_0~180 (85) av	617
L_90~270 (65) av	28563
L_90~270 (75) av	25429
L_90~270 (85) av	20078
L_45 (65) av	22982
L_45 (75) av	16061
L_45 (85) av	2313

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:03 November 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: 03 November 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:

```