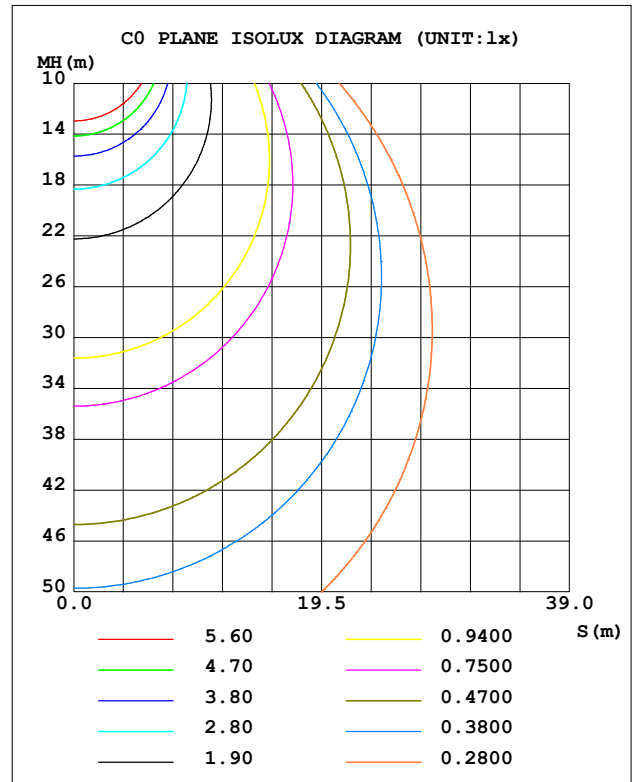
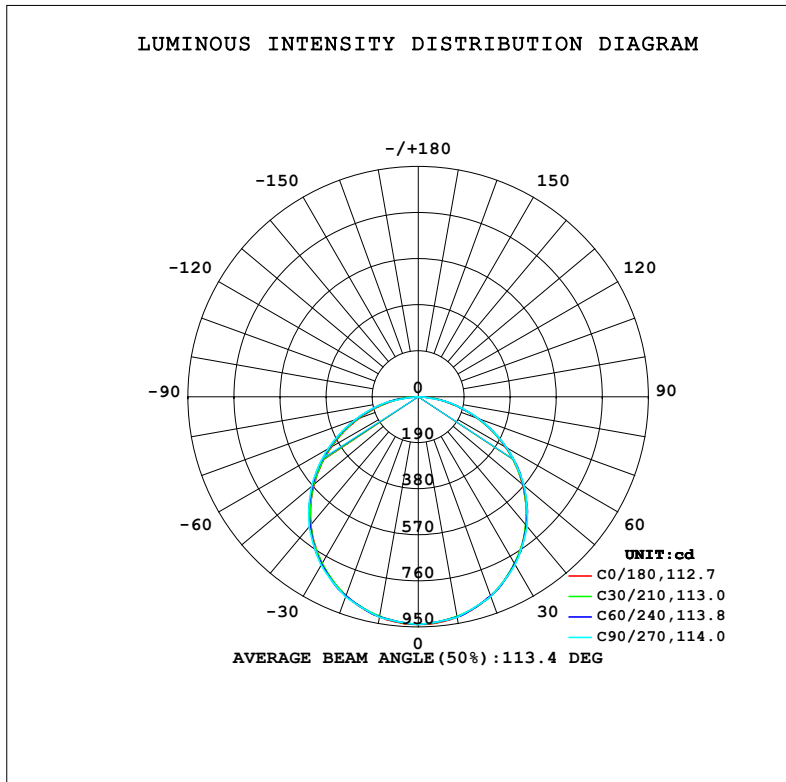


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 92Panel013W	TYPE: 92Panel013W	WEIGHT: 1
SPEC.:	DIM.: 595 x 295	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	92Panel013W	Imax(cd)	939.5	S/MH(C0/180)	1.26
NOMINAL POWER(W)	36	LOR(%)	75.3	S/MH(C90/270)	1.27
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	2709.7	η UP,DN(C0-180)	0.0,37.5
NOMINAL FLUX(lm)	3600	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,37.8
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230	η down (%)	75.3	CIBSE SHR MAX	1.35



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:07 September 2022

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
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	923.1	920.4	923.7	920.0	922.6	919.7	923.6	920.6	0- 10	88.65	88.65	3.27, 2.46
20	874.6	872.4	876.5	871.2	873.4	871.6	878.0	872.5	10- 20	254.2	342.9	12.7, 9.52
30	795.8	795.6	799.8	794.6	794.3	796.5	802.4	797.1	20- 30	386.2	729.1	26.9, 20.3
40	690.6	693.0	698.4	691.0	689.3	693.7	700.4	695.4	30- 40	467.4	1197	44.2, 33.2
50	561.8	567.4	569.5	565.9	560.8	568.8	574.8	569.0	40- 50	487.1	1684	62.1, 46.8
60	415.9	419.7	421.6	417.2	414.4	423.3	430.7	424.0	50- 60	441.9	2126	78.4, 59
70	260.6	261.7	263.6	260.3	258.9	269.0	275.5	268.6	60- 70	339.1	2465	91, 68.5
80	111.5	112.7	113.5	113.8	114.5	124.2	127.9	121.4	70- 80	200.0	2665	98.3, 74
90	1.364	0	0	0	1.576	0	0	0	80- 90	45.04	2710	100, 75.3
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): 1441.8 lm

%lum = 53.2%
%lamp = 40.0%

Conical surface Flux(130deg): 2310.9 lm

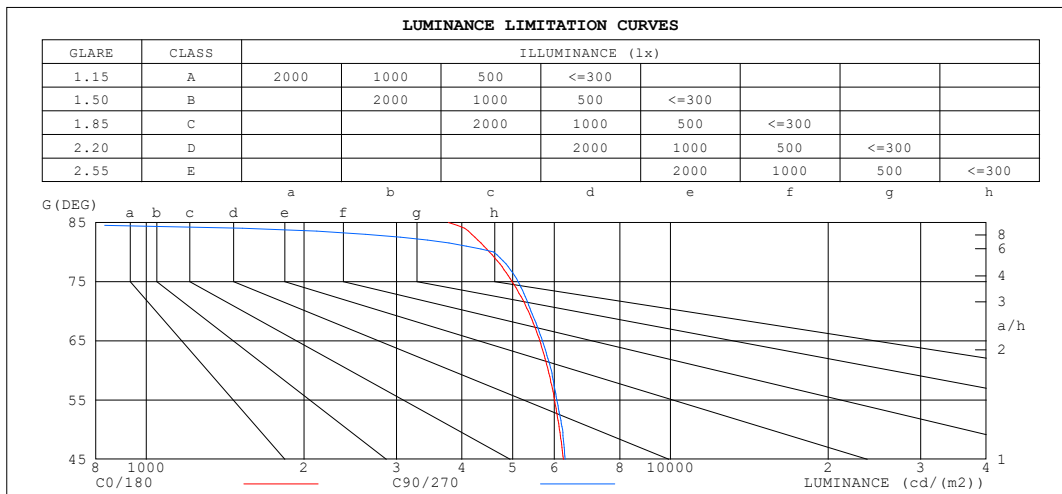
%lum = 85.3%
%lamp = 64.2%

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:07 September 2022

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
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: 92Panel013W	TYPE: 92Panel013W	WEIGHT: 1
SPEC.:	DIM.: 595 x 295	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	3766	0
80	4509	4594
75	4986	5118
70	5353	5414
65	5633	5695
60	5844	5924
55	6008	6070
50	6140	6224
45	6248	6299

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:07 September 2022

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
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: 92Panel013W	TYPE: 92Panel013W	WEIGHT: 1
SPEC.:	DIM.: 595 x 295	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	.233	.133	.042	.228	.130	.041	.218	.125	.040	.209	.121	.039	.200	.116	.037	
2.0	.220	.121	.037	.216	.119	.037	.207	.115	.036	.199	.112	.035	.191	.108	.034	
3.0	.204	.109	.033	.200	.107	.032	.192	.104	.032	.185	.101	.031	.178	.099	.031	
4.0	.188	.098	.029	.185	.097	.029	.178	.094	.028	.171	.092	.028	.165	.090	.027	
5.0	.174	.089	.026	.171	.088	.026	.165	.086	.025	.159	.084	.025	.154	.082	.025	
6.0	.161	.081	.023	.158	.080	.023	.153	.078	.023	.148	.077	.023	.143	.075	.022	
7.0	.150	.074	.021	.148	.074	.021	.143	.072	.021	.138	.071	.021	.134	.070	.020	
8.0	.140	.069	.019	.138	.068	.019	.134	.067	.019	.129	.066	.019	.126	.064	.019	
9.0	.131	.064	.018	.129	.063	.018	.125	.062	.018	.122	.061	.017	.118	.060	.017	
10.0	.123	.059	.016	.122	.059	.016	.118	.058	.016	.115	.057	.016	.112	.056	.016	

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	.143	.143	.143	.123	.123	.123	.084	.084	.084	.048	.048	.048	.015	.015	.015	
1.0	.136	.118	.101	.116	.101	.087	.079	.069	.060	.046	.040	.035	.015	.013	.011	
2.0	.130	.099	.074	.111	.085	.064	.076	.059	.044	.044	.034	.026	.014	.011	.008	
3.0	.124	.086	.056	.106	.074	.048	.073	.052	.034	.042	.030	.020	.014	.010	.007	
4.0	.118	.076	.044	.101	.066	.038	.070	.046	.027	.040	.027	.016	.013	.009	.005	
5.0	.113	.068	.035	.097	.059	.031	.067	.041	.022	.039	.024	.013	.012	.008	.004	
6.0	.107	.062	.029	.092	.054	.026	.064	.038	.018	.037	.022	.011	.012	.007	.004	
7.0	.102	.057	.025	.088	.049	.022	.061	.034	.015	.035	.020	.009	.011	.007	.003	
8.0	.097	.052	.022	.084	.045	.019	.058	.032	.013	.034	.019	.008	.011	.006	.003	
9.0	.093	.049	.019	.080	.042	.017	.055	.030	.012	.032	.018	.007	.010	.006	.002	
10.0	.088	.045	.017	.076	.039	.015	.053	.028	.010	.031	.016	.006	.010	.005	.002	

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:07 September 2022

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
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: 92Panel013W					TYPE: 92Panel013W					WEIGHT: 1				
SPEC.:					DIM.: 595 x 295					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	14.7	16.2	14.9	16.4	16.6	14.7	16.3	15.0	16.5	16.7				
3H	16.2	17.6	16.5	17.8	18.1	16.3	17.7	16.6	17.9	18.1				
4H	16.8	18.1	17.1	18.4	18.6	16.9	18.2	17.2	18.5	18.7				
6H	17.2	18.5	17.6	18.8	19.1	17.3	18.6	17.7	18.9	19.2				
8H	17.4	18.6	17.7	18.9	19.2	17.4	18.7	17.8	18.9	19.2				
12H	17.4	18.6	17.8	18.9	19.2	17.4	18.6	17.8	18.9	19.2				
4H 2H	15.3	16.6	15.6	16.9	17.1	15.3	16.7	15.6	16.9	17.2				
3H	17.0	18.2	17.3	18.5	18.8	17.1	18.2	17.4	18.5	18.8				
4H	17.7	18.8	18.1	19.1	19.5	17.8	18.9	18.2	19.2	19.5				
6H	18.3	19.2	18.7	19.6	20.0	18.4	19.4	18.8	19.7	20.1				
8H	18.5	19.4	18.9	19.7	20.1	18.5	19.4	18.9	19.8	20.2				
12H	18.6	19.4	19.0	19.8	20.2	18.5	19.3	18.9	19.7	20.1				
8H 4H	18.0	18.9	18.4	19.3	19.6	18.1	19.0	18.5	19.3	19.7				
6H	18.7	19.5	19.2	19.9	20.3	18.8	19.6	19.3	20.0	20.4				
8H	19.0	19.7	19.5	20.1	20.5	19.0	19.7	19.5	20.1	20.5				
12H	19.2	19.8	19.7	20.2	20.7	19.0	19.6	19.5	20.0	20.5				
12H 4H	18.0	18.8	18.4	19.2	19.6	18.1	18.9	18.5	19.3	19.7				
6H	18.8	19.4	19.2	19.9	20.3	18.9	19.5	19.3	20.0	20.4				
8H	19.1	19.7	19.6	20.1	20.6	19.1	19.7	19.6	20.1	20.6				
Variations with the observer position at spacings(CIE Pub.117):														
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 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, 3600 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 4.5)
Area: 0.142336 m2

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:07 September 2022

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
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: 92Panel013W	TYPE: 92Panel013W	WEIGHT: 1
SPEC.:	DIM.: 595 x 295	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle	Shielding Angle:

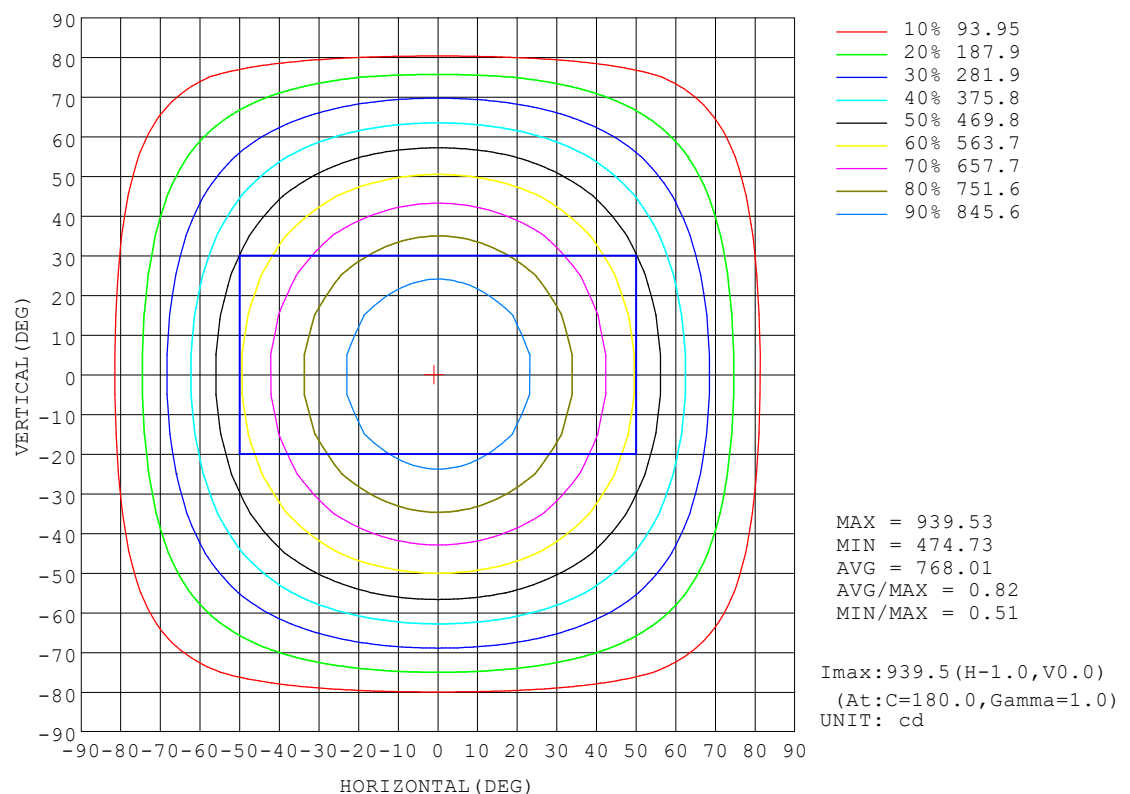
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	43	34	29	43	34	29	42	34	29	24
0.80	51	42	36	50	42	36	49	41	36	31
1.00	57	49	43	56	48	43	54	49	42	37
1.25	62	54	49	61	54	49	59	53	48	43
1.50	66	59	53	65	58	53	63	57	52	46
2.00	71	65	60	70	64	59	67	62	58	52
2.50	74	68	64	73	67	63	70	65	62	56
3.00	77	72	68	75	71	67	72	68	65	59
4.00	80	76	72	78	74	71	75	72	69	62
5.00	82	78	75	80	77	74	77	74	72	65
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:07 September 2022

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: 92Panel013W	TYPE: 92Panel013W	WEIGHT: 1
SPEC.:	DIM.: 595 x 295	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle	Shielding Angle:

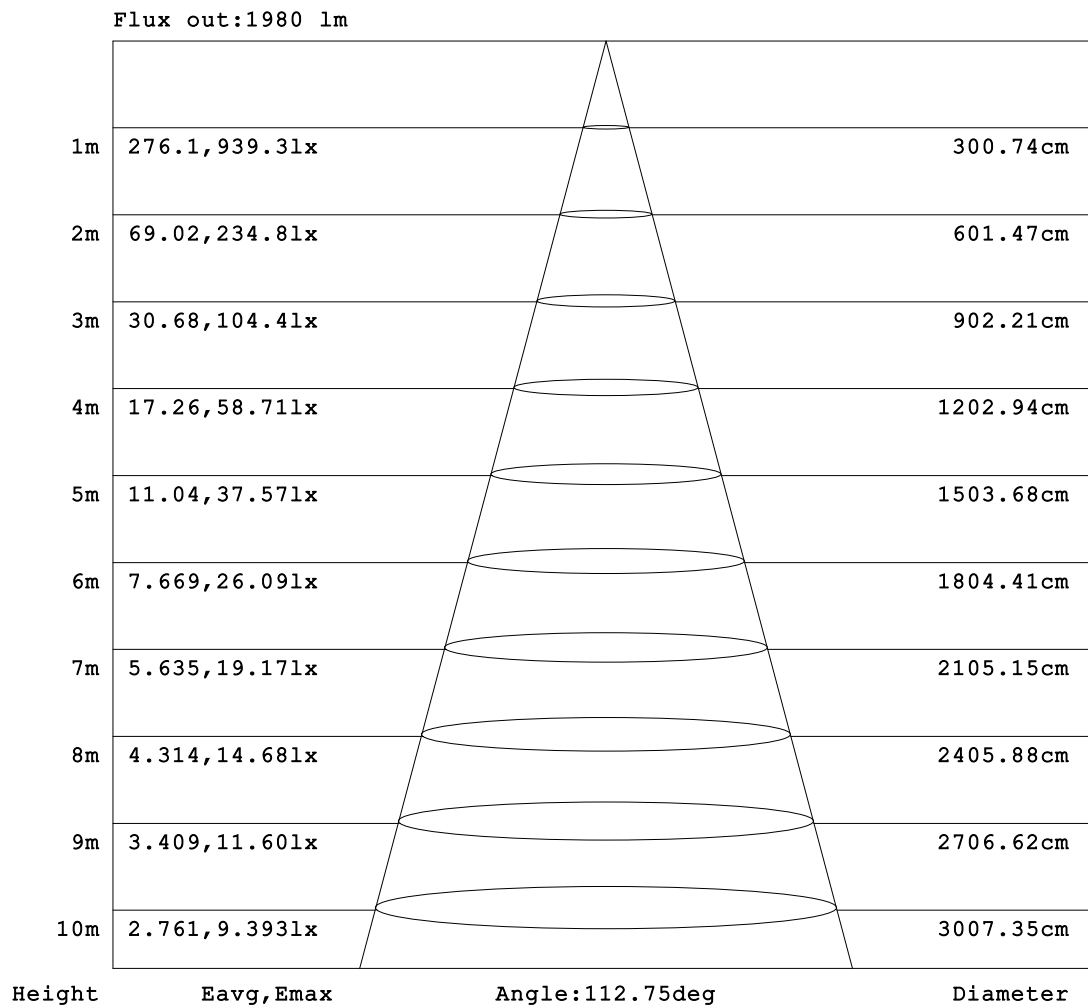


H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 07 September 2022

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity: 65.0%
Test Distance: 6.265m [K=1.0000]
Remarks:

AAI Figure

NAME: 92Panel013W	TYPE: 92Panel013W	WEIGHT: 1
SPEC.:	DIM.: 595 x 295	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle	Shielding Angle:



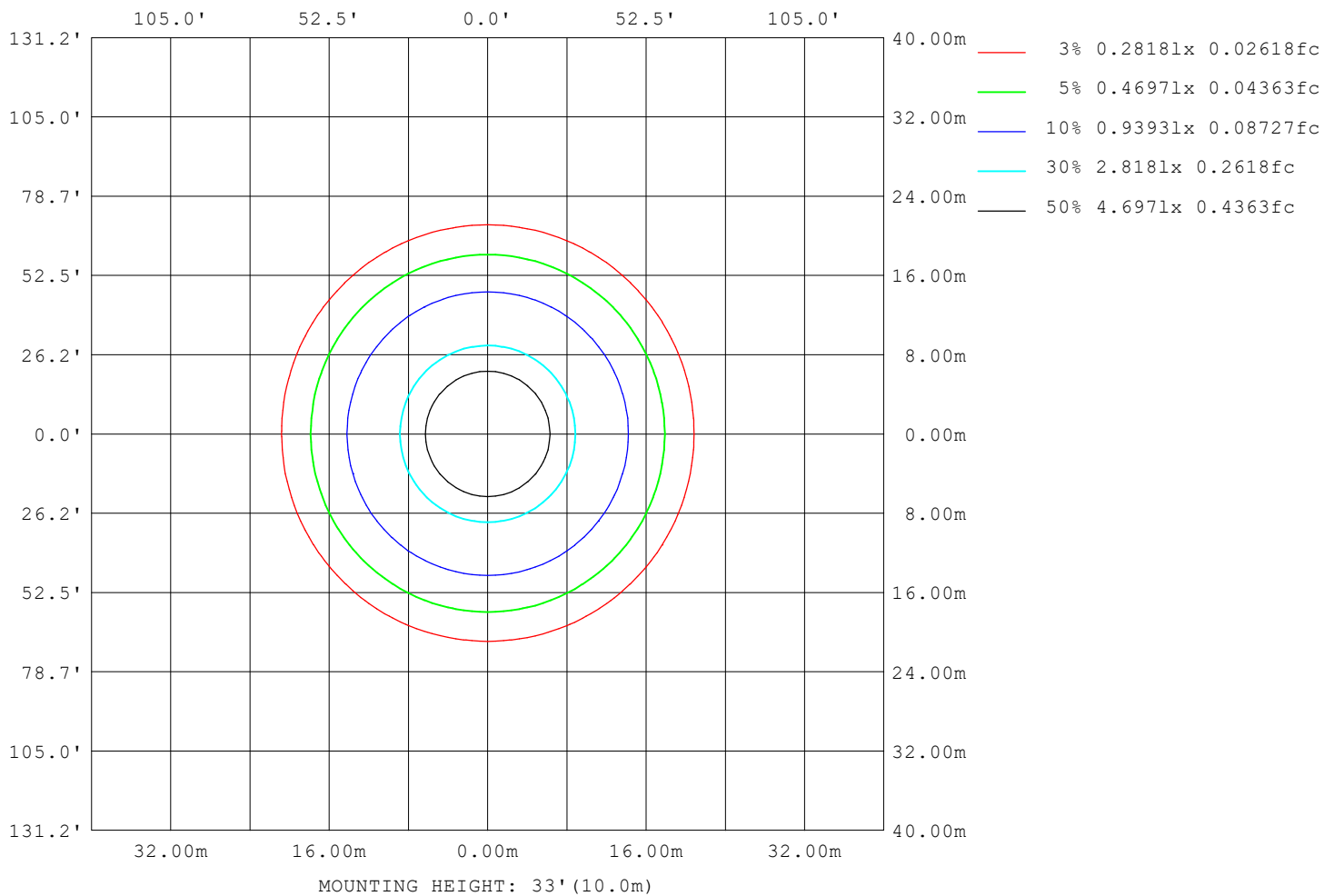
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range:-90 - 90DEG
 H(β) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 07 September 2022

V(B) Range:-80 - 80DEG
 V(B) Interval: 5.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.456
 Humidity: 65.0%
 Test Distance: 6.265m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

NAME: 92Panel013W	TYPE: 92Panel013W	WEIGHT: 1
SPEC.:	DIM.: 595 x 295	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle	Shielding Angle:



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:07 September 2022

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
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: 92Panel013W	TYPE: 92Panel013W	WEIGHT: 1
SPEC.:	DIM.: 595 x 295	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle	Shielding Angle:

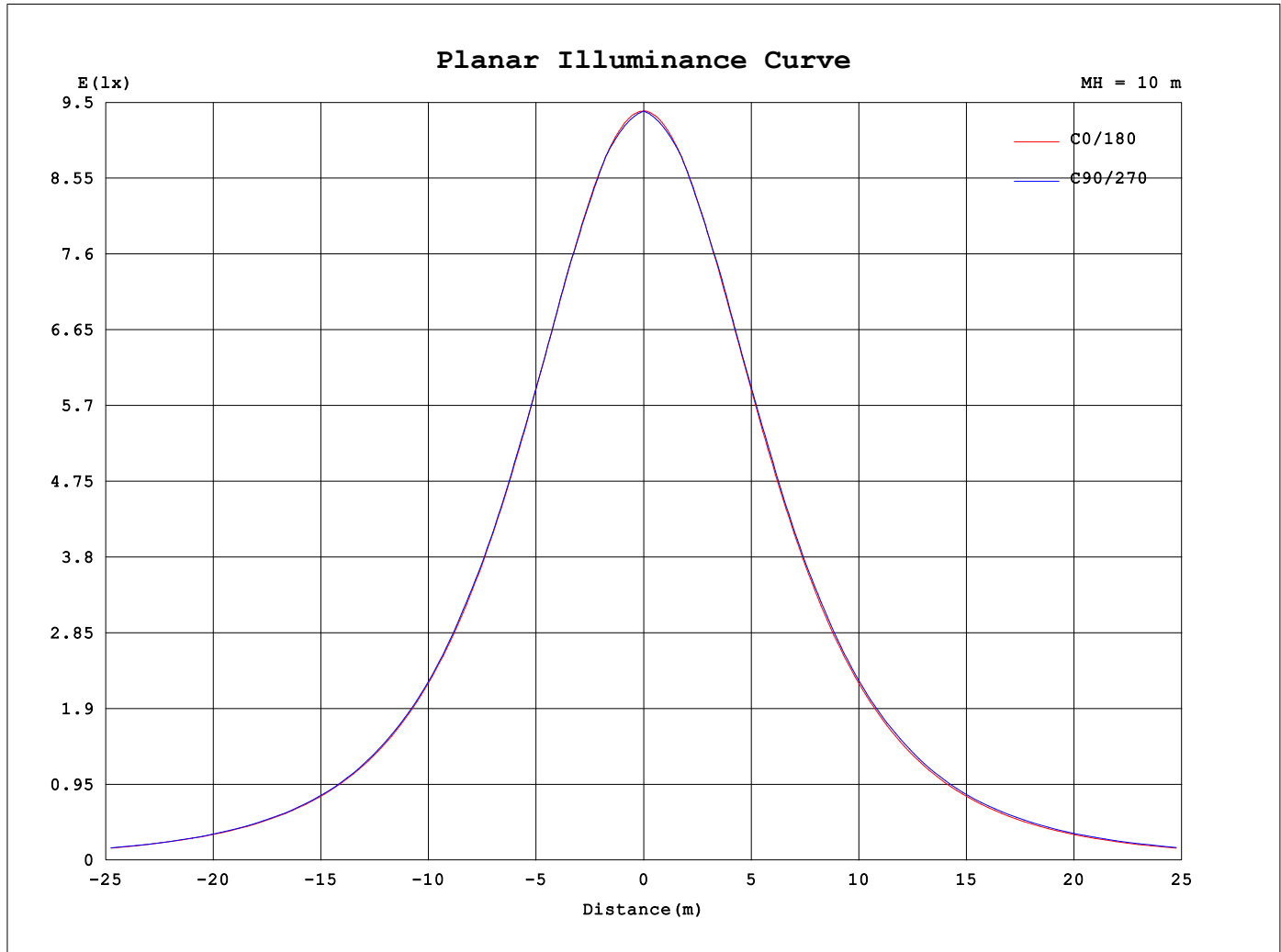
AvgL	cd/m2
L_0~180 (65) av	5616
L_0~180 (75) av	4984
L_0~180 (85) av	3917
L_90~270 (65) av	5783
L_90~270 (75) av	5297
L_90~270 (85) av	0
L_45 (65) av	5695
L_45 (75) av	5105
L_45 (85) av	2589

Standard: GB/T 29293-2012

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:07 September 2022

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

Planar Illuminance Curve



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:07 September 2022

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
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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V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
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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V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
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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V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:
```

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks: