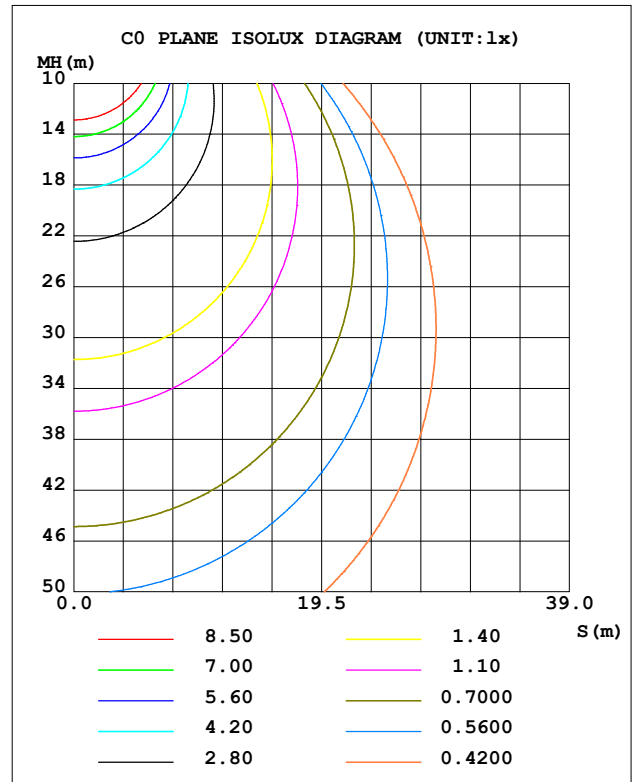
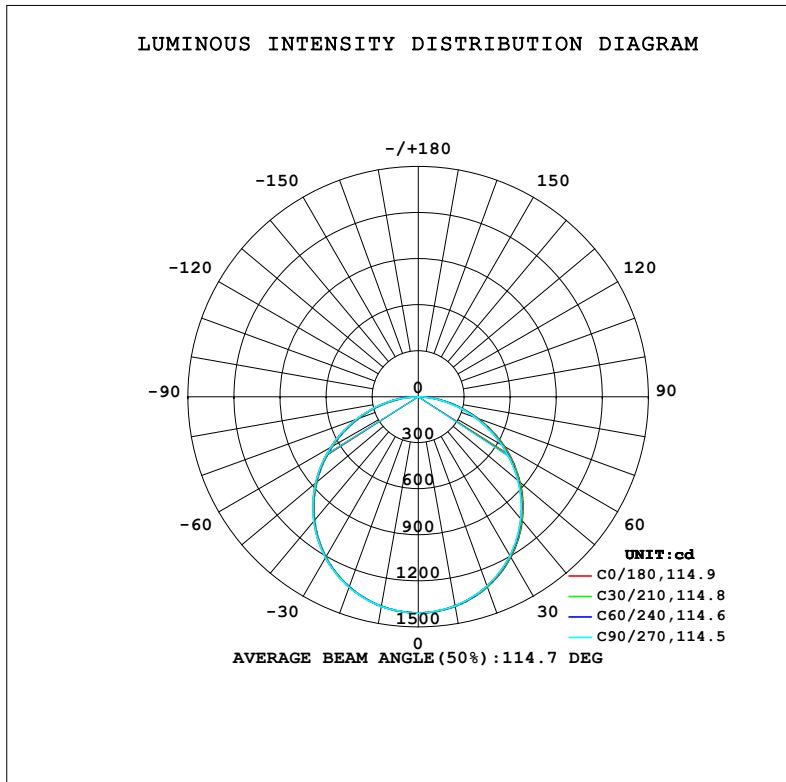


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 92Panel023CW	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 596 x 596 x 40	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: square	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	92Panel023CW	Imax(cd)	1409	S/MH(C0/180)	1.27
NOMINAL POWER(W)	30	LOR(%)	98.6	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	4140.2	η UP,DN(C0-180)	0.0,48.7
NOMINAL FLUX(lm)	4200	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.9
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230	η down (%)	98.6	CIBSE SHR MAX	1.35



H(β) Range:-90 - 90DEG
H(β) Interval: 2.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:19 December 2022

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
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	1387	1383	1384	1382	1386	1386	1388	1386	0- 10	133.3	133.3	3.22, 3.17
20	1318	1313	1312	1312	1317	1319	1321	1320	10- 20	382.8	516.1	12.5, 12.3
30	1207	1199	1196	1197	1204	1208	1211	1209	20- 30	583.0	1099	26.5, 26.2
40	1054	1045	1039	1042	1051	1057	1060	1058	30- 40	707.8	1807	43.6, 43
50	866.1	854.4	847.2	851.8	862.5	871.0	874.2	872.2	40- 50	740.4	2547	61.5, 60.6
60	648.9	635.1	627.2	632.4	645.0	656.0	659.6	656.5	50- 60	675.6	3223	77.8, 76.7
70	415.0	400.1	392.3	398.0	411.2	424.5	428.1	424.1	60- 70	523.3	3746	90.5, 89.2
80	183.3	172.7	167.0	171.5	181.2	197.2	201.2	195.9	70- 80	312.4	4059	98, 96.6
90	2.267	0	0	0	2.450	0	0	0	80- 90	81.67	4140	100, 98.6
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): 2179.1 lm

%lum = 52.6%
%lamp = 51.9%

Conical surface Flux(130deg): 3508.2 lm

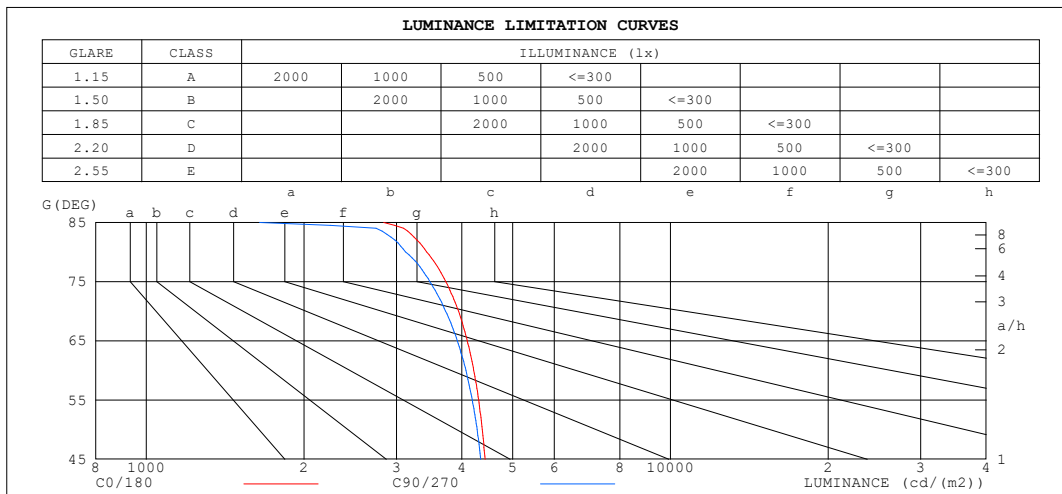
%lum = 84.7%
%lamp = 83.5%

H(β) Range:-90 - 90DEG
H(β) Interval: 2.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:19 December 2022

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
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: 92Panel023CW	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 596 x 596 x 40	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: square	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2836	1645
80	3426	3123
75	3727	3476
70	3939	3723
65	4094	3919
60	4213	4072
55	4304	4186
50	4374	4279
45	4427	4346

H(β) Range:-90 - 90DEG
H(β) Interval: 2.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:19 December 2022

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
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: 92Panel023CW	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 596 x 596 x 40	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	.310	.176	.056	.303	.173	.055	.290	.166	.053	.278	.160	.051	.267	.155	.050	
2.0	.291	.160	.049	.285	.157	.048	.274	.152	.047	.263	.148	.046	.253	.143	.045	
3.0	.269	.143	.043	.264	.141	.043	.254	.137	.042	.244	.134	.041	.235	.130	.040	
4.0	.248	.129	.038	.243	.127	.038	.234	.124	.037	.226	.121	.037	.218	.118	.036	
5.0	.229	.117	.034	.225	.115	.034	.217	.113	.033	.209	.110	.033	.202	.108	.032	
6.0	.212	.106	.030	.208	.105	.030	.201	.103	.030	.195	.101	.030	.188	.099	.029	
7.0	.197	.098	.028	.194	.097	.028	.188	.095	.027	.182	.093	.027	.176	.091	.027	
8.0	.184	.090	.025	.181	.089	.025	.175	.088	.025	.170	.086	.025	.165	.085	.025	
9.0	.173	.083	.023	.170	.083	.023	.165	.081	.023	.160	.080	.023	.155	.079	.023	
10.0	.162	.078	.022	.160	.077	.022	.155	.076	.021	.151	.075	.021	.147	.074	.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	.188	.188	.188	.160	.160	.160	.110	.110	.110	.063	.063	.063	.020	.020	.020	
1.0	.178	.154	.132	.152	.132	.114	.104	.091	.079	.060	.053	.046	.019	.017	.015	
2.0	.170	.130	.096	.146	.112	.083	.100	.077	.058	.058	.045	.034	.018	.015	.011	
3.0	.163	.113	.073	.140	.097	.063	.096	.068	.044	.055	.039	.026	.018	.013	.009	
4.0	.155	.100	.057	.133	.086	.050	.092	.060	.035	.053	.035	.021	.017	.011	.007	
5.0	.148	.089	.046	.127	.077	.040	.087	.054	.028	.051	.032	.017	.016	.010	.006	
6.0	.141	.081	.038	.121	.070	.033	.083	.049	.024	.048	.029	.014	.016	.009	.005	
7.0	.134	.074	.033	.115	.064	.028	.080	.045	.020	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.028	.110	.060	.025	.076	.042	.017	.044	.025	.010	.014	.008	.003	
9.0	.122	.064	.025	.105	.055	.022	.073	.039	.015	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.022	.100	.052	.019	.069	.036	.014	.040	.022	.008	.013	.007	.003	

H(β) Range:-90 - 90DEG
H(β) Interval: 2.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:19 December 2022

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
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: 92Panel023CW					TYPE:			WEIGHT: 1			
SPEC.:					DIM.: 596 x 596 x 40			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		13.0	14.5	13.2	14.7	14.9	12.8	14.4	13.1	14.6	14.8
	3H	14.5	16.0	14.8	16.2	16.4	14.4	15.8	14.7	16.0	16.2
	4H	15.2	16.6	15.5	16.8	17.1	15.0	16.3	15.3	16.6	16.8
	6H	15.7	17.0	16.0	17.2	17.5	15.4	16.7	15.7	17.0	17.2
	8H	15.8	17.1	16.2	17.3	17.6	15.5	16.8	15.9	17.1	17.4
	12H	15.9	17.1	16.2	17.4	17.7	15.6	16.8	16.0	17.1	17.4
4H	2H	13.6	14.9	13.9	15.2	15.4	13.5	14.8	13.8	15.1	15.3
	3H	15.3	16.5	15.7	16.8	17.1	15.2	16.4	15.5	16.7	17.0
	4H	16.1	17.2	16.5	17.5	17.9	15.9	17.0	16.3	17.3	17.7
	6H	16.7	17.7	17.1	18.0	18.4	16.5	17.4	16.9	17.8	18.2
	8H	16.9	17.8	17.3	18.2	18.6	16.7	17.6	17.1	17.9	18.3
	12H	17.0	17.8	17.4	18.2	18.6	16.8	17.6	17.2	18.0	18.4
8H	4H	16.4	17.3	16.8	17.6	18.0	16.2	17.1	16.6	17.5	17.9
	6H	17.1	17.9	17.6	18.3	18.7	16.9	17.7	17.4	18.1	18.5
	8H	17.4	18.1	17.9	18.5	19.0	17.2	17.9	17.7	18.3	18.7
	12H	17.6	18.1	18.1	18.6	19.1	17.4	17.9	17.8	18.4	18.9
12H	4H	16.4	17.2	16.8	17.6	18.0	16.2	17.0	16.6	17.4	17.8
	6H	17.2	17.9	17.7	18.3	18.7	17.0	17.7	17.4	18.1	18.5
	8H	17.5	18.1	18.0	18.5	19.0	17.3	17.9	17.8	18.3	18.8
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 / - 0.2					+ 0.2 / - 0.3					

CIE Pub.117, 4200 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 5.0)
Area: 0.308025 m2

H(β) Range:-90 - 90DEG
H(β) Interval: 2.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:19 December 2022

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
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: 92Panel023CW	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 596 x 596 x 40	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: square	Shielding Angle:

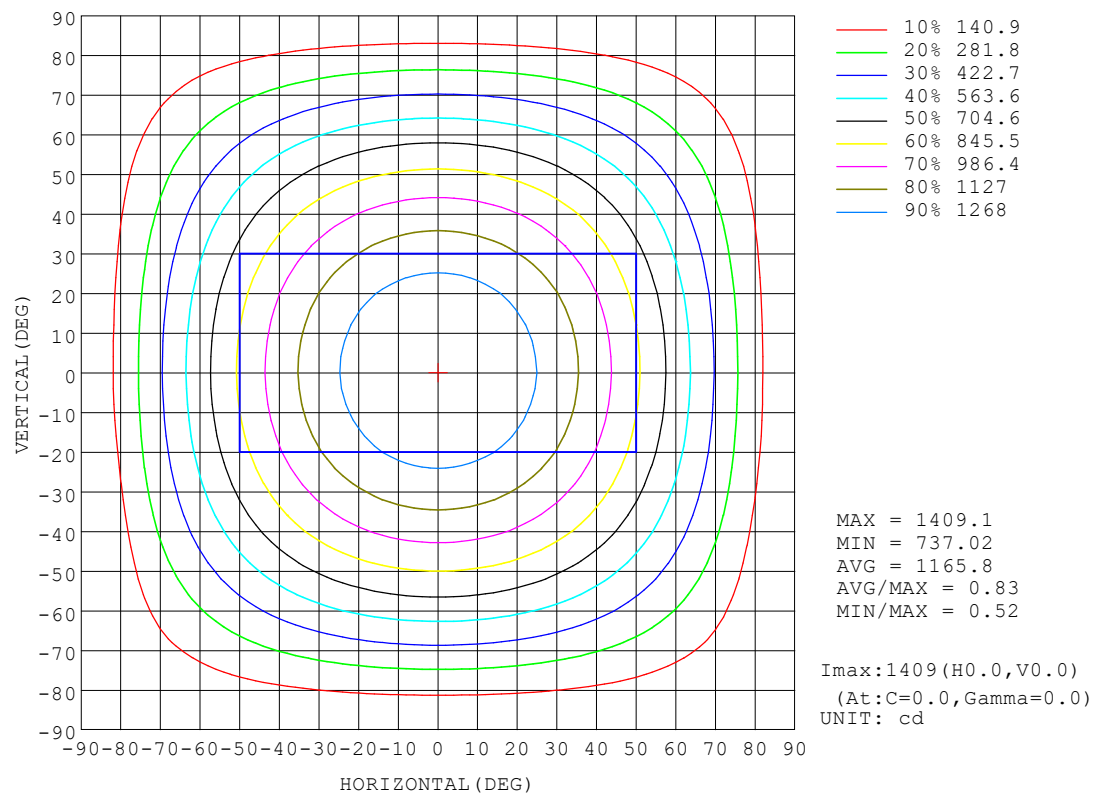
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	56	45	38	55	44	38	54	44	37	31
0.80	66	54	47	65	54	47	63	53	47	40
1.00	74	63	56	73	63	56	71	64	55	48
1.25	81	71	64	80	70	63	77	69	63	55
1.50	86	76	69	85	76	69	82	74	68	60
2.00	93	85	78	91	83	77	88	81	76	68
2.50	97	89	83	95	88	82	91	85	81	72
3.00	100	94	88	98	92	87	94	89	85	76
4.00	104	99	94	102	97	93	98	94	90	81
5.00	107	102	98	105	100	96	100	97	93	84
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

H(β) Range:-90 - 90DEG
H(β) Interval: 2.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:19 December 2022

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: 92Panel023CW	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 596 x 596 x 40	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: square	Shielding Angle:

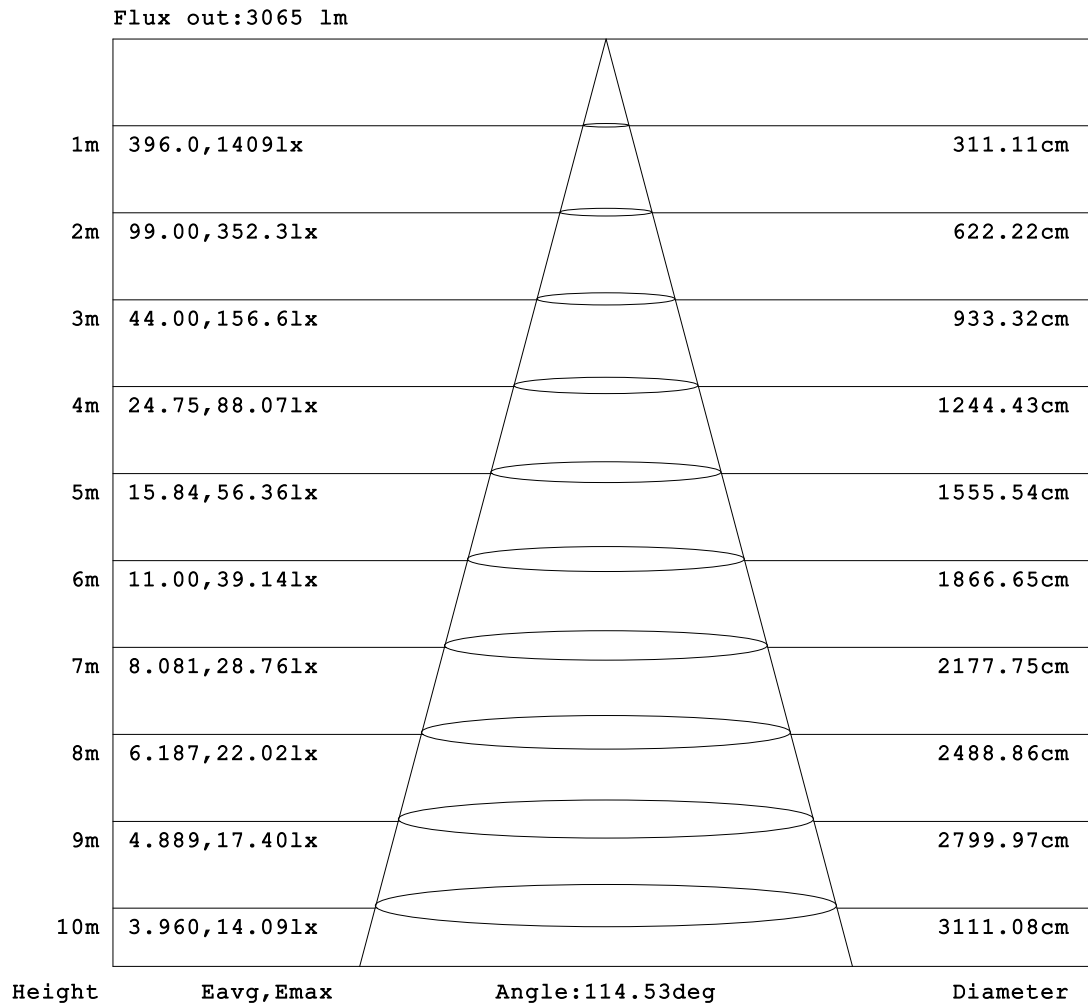


H(β) Range:-90 - 90DEG
 H(β) Interval: 2.0DEG
 Test Speed: MEDIUM
 Temperature:25.3°C
 Operators:
 Test Date:19 December 2022

V(B) Range:-85 - 85DEG
 V(B) Interval: 2.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
 Humidity:65.0%
 Test Distance:6.265m [K=1.0000]
 Remarks:

AAI Figure

NAME: 92Panel023CW	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 596 x 596 x 40	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: square	Shielding Angle:



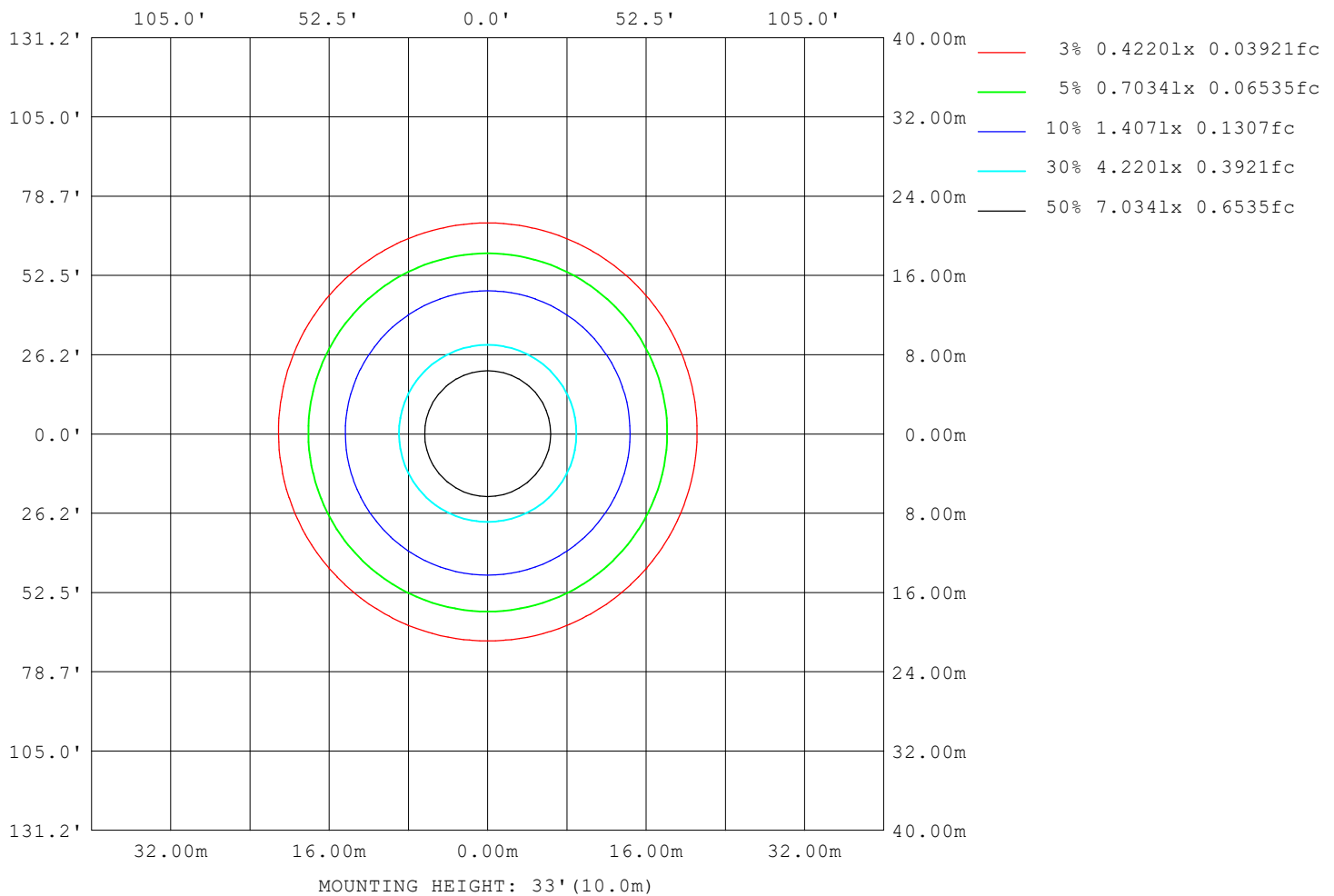
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range:-90 - 90DEG
 H(β) Interval: 2.0DEG
 Test Speed: MEDIUM
 Temperature:25.3°C
 Operators:
 Test Date:19 December 2022

V(B) Range:-85 - 85DEG
 V(B) Interval: 2.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
 Humidity:65.0%
 Test Distance:6.265m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

NAME: 92Panel023CW	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 596 x 596 x 40	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: square	Shielding Angle:



H(β) Range:-90 - 90DEG
H(β) Interval: 2.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:19 December 2022

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
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: 92Panel023CW	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 596 x 596 x 40	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: square	Shielding Angle:

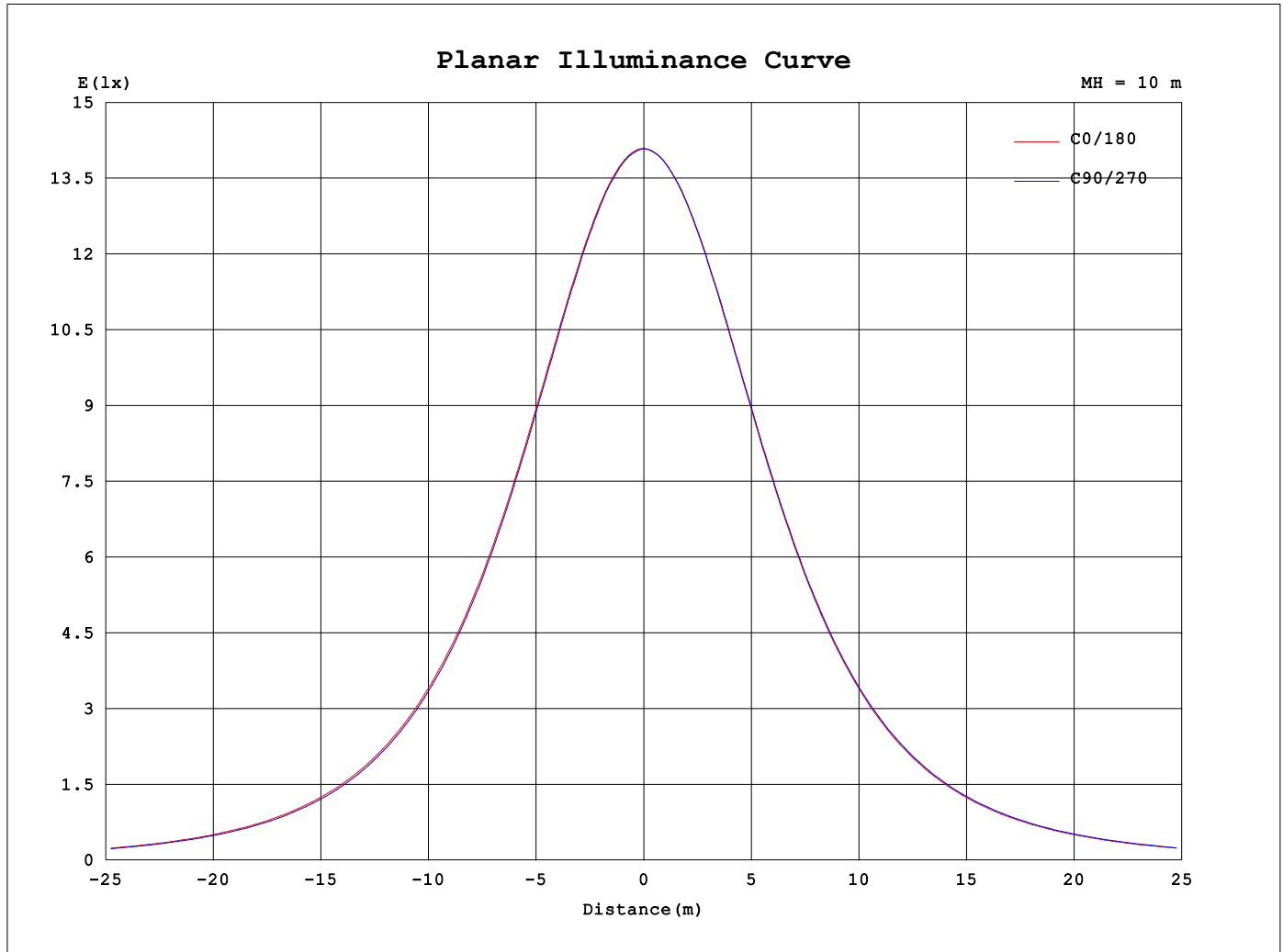
AvgL	cd/m2
L_0~180 (65) av	4080
L_0~180 (75) av	3707
L_0~180 (85) av	2733
L_90~270 (65) av	4052
L_90~270 (75) av	3699
L_90~270 (85) av	1956
L_45 (65) av	4065
L_45 (75) av	3708
L_45 (85) av	3086

Standard: GB/T 29293-2012

H(β) Range:-90 - 90DEG
H(β) Interval: 2.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:19 December 2022

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
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: 2.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:19 December 2022

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks: