

# Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity	3075.0 cd per klm.
(Luminaire orientation as tested.)	-1.5 degrees vertical
	2.0 degrees horizontal

Beam Spread	At 10% of Imax	66.7V x 67.3H
	At 50% of Imax	24.5V x 24.7H
	At 90% of Imax	9.6V x 9.7H

Beam Flux	Total	980.6 lumens per klm.
	To 10% of Imax	835.7 lumens per klm.
	To 50% of Imax	325.2 lumens per klm.
	To 90% of Imax	71.3 lumens per klm.

Upward LOR	0.0 %
Downward LOR	98.1 %

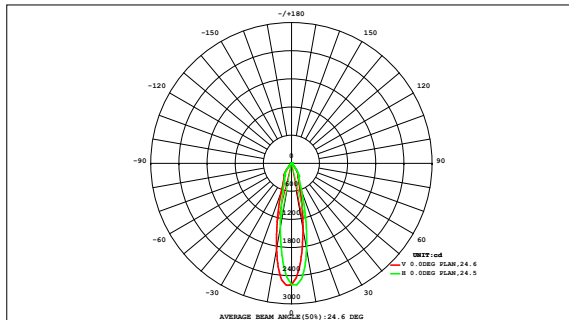
Luminaire Efficiency (Light Output Ratio)	97.8 %
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C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3°C  
Operators:  
Test Date: 30 January 2023

γ Range: 0 - 90DEG  
γ Interval: 2.5DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity: 65.0%  
Test Distance: 6.340m [K=1.0000]  
Remarks:

## LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 96GRF330WW/1BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 160 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Circle	Shielding Angle:



DATA OF LAMP		PHOTOMETRIC DATA	
MODEL	96GRF330WW/1BL	Imax (cd)	2614
NOMINAL POWER (W)	10	AVAILABILITY (%)	83.3
RATED VOLTAGE (V)	230	Avai. FLUX (lm)	707.9
NOMINAL FLUX (lm)	850	LOR (%)	97.8
LAMPS INSIDE	1	TOTAL FLUX (lm)	831.1
TEST VOLTAGE (V)	230	θ @50% (H,V)	25,25DEG

VERTICAL (DEG)	AREA FLUX DIAGRAM																UNIT: lm		Φ t	Φ a
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00
90	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.16	0.00
80	0.00	0.00	0.00	0.01	0.01	0.02	0.03	0.04	0.05	0.05	0.05	0.04	0.03	0.02	0.01	0.01	0.00	0.00	0.39	0.00
70	0.00	0.00	0.01	0.01	0.03	0.06	0.11	0.17	0.20	0.21	0.19	0.15	0.09	0.05	0.02	0.01	0.00	0.00	1.33	0.00
60	0.00	0.00	0.01	0.03	0.08	0.18	0.29	0.58	1.05	1.16	0.78	0.36	0.22	0.12	0.04	0.01	0.00	0.00	4.91	0.00
50	0.00	0.00	0.01	0.05	0.16	0.37	1.81	4.48	6.25	6.46	5.12	2.63	0.59	0.21	0.08	0.02	0.00	0.00	28.2	5.05
40	0.00	0.00	0.02	0.08	0.23	1.57	5.76	8.89	10.8	11.1	9.45	6.66	2.56	0.32	0.12	0.03	0.01	0.00	57.6	43.7
30	0.00	0.00	0.02	0.11	0.39	3.64	8.34	13.2	22.2	24.6	15.7	9.17	4.83	0.74	0.15	0.04	0.01	0.00	103	93.4
20	0.00	0.00	0.03	0.13	0.62	4.88	9.73	22.0	50.9	58.2	29.6	11.3	6.01	1.17	0.17	0.04	0.01	0.00	195	186
10	0.00	0.00	0.03	0.13	0.62	4.85	9.84	24.4	58.9	66.4	32.4	11.7	6.04	1.18	0.17	0.04	0.01	0.00	217	208
0	0.00	0.00	0.03	0.12	0.39	3.64	8.48	15.5	30.5	33.2	18.7	9.52	4.88	0.73	0.15	0.04	0.01	0.00	126	116
-10	0.00	0.00	0.02	0.09	0.23	1.62	5.82	9.30	12.1	12.6	10.0	6.83	2.51	0.31	0.12	0.03	0.01	0.00	61.6	48.5
-20	0.00	0.00	0.01	0.06	0.17	0.37	1.87	4.61	6.50	6.73	5.29	2.58	0.55	0.20	0.08	0.02	0.01	0.00	29.1	6.54
-30	0.00	0.00	0.01	0.03	0.09	0.19	0.30	0.60	1.10	1.18	0.76	0.35	0.23	0.12	0.04	0.01	0.00	0.00	5.03	0.00
-40	0.00	0.00	0.01	0.02	0.04	0.08	0.14	0.20	0.23	0.24	0.21	0.16	0.10	0.05	0.02	0.01	0.00	0.00	1.52	0.00
-50	0.00	0.00	0.00	0.01	0.02	0.03	0.04	0.06	0.07	0.07	0.07	0.05	0.03	0.02	0.01	0.01	0.00	0.00	0.50	0.00
-60	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.17	0.00
-70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00
-80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HORIZONTAL (DEG)																				
Φ t	0.00	0.05	0.22	0.90	3.09	21.5	52.6	104	201	222	128	61.6	28.7	5.27	1.23	0.32	0.07	0.01	831	---
Φ a	0.00	0.00	0.00	0.00	0.00	2.73	38.2	92.4	190	211	117	47.9	8.66	0.00	0.00	0.00	0.00	0.00	---	708

one-half-peak spread: U:11.4,D:10.8 , L:13.5,R:11.4

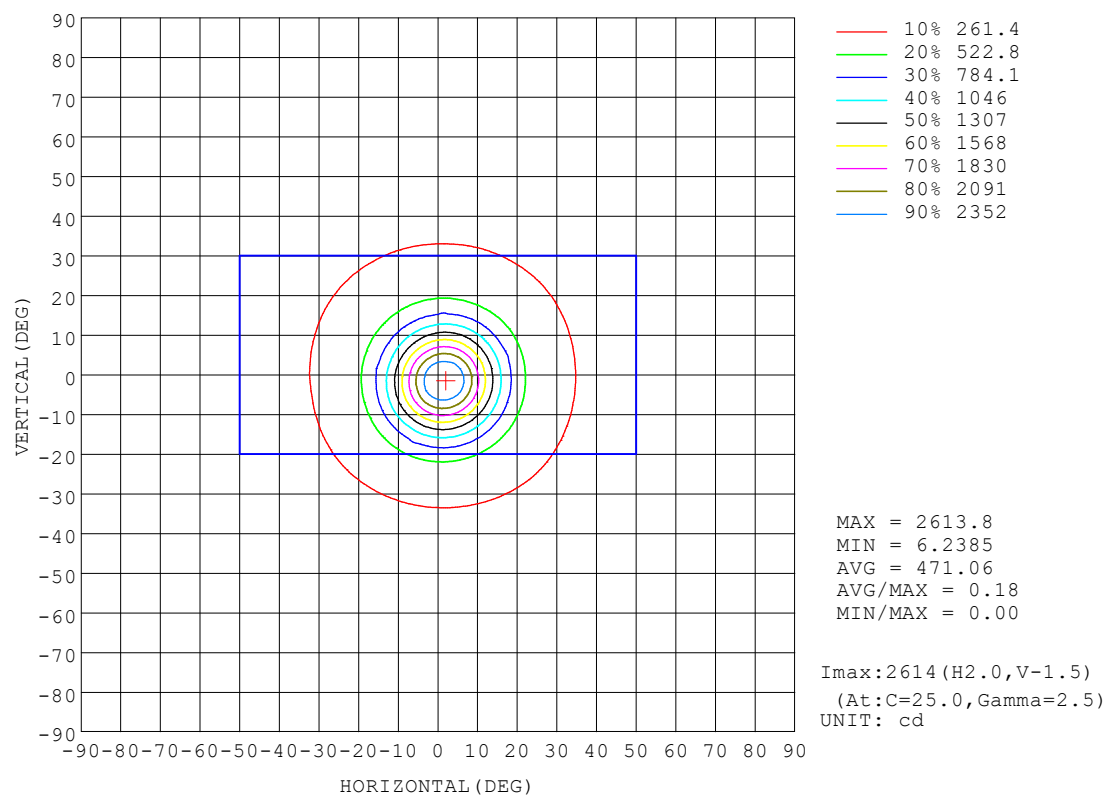
NEMA Beam Type: Type 4

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3°C  
Operators:  
Test Date:30 January 2023

γ Range: 0 - 90DEG  
γ Interval: 2.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.340m [K=1.0000]  
Remarks:

# ISOCANDELA DIAGRAM

NAME: 96GRF330WW/1BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 160 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Circle	Shielding Angle:

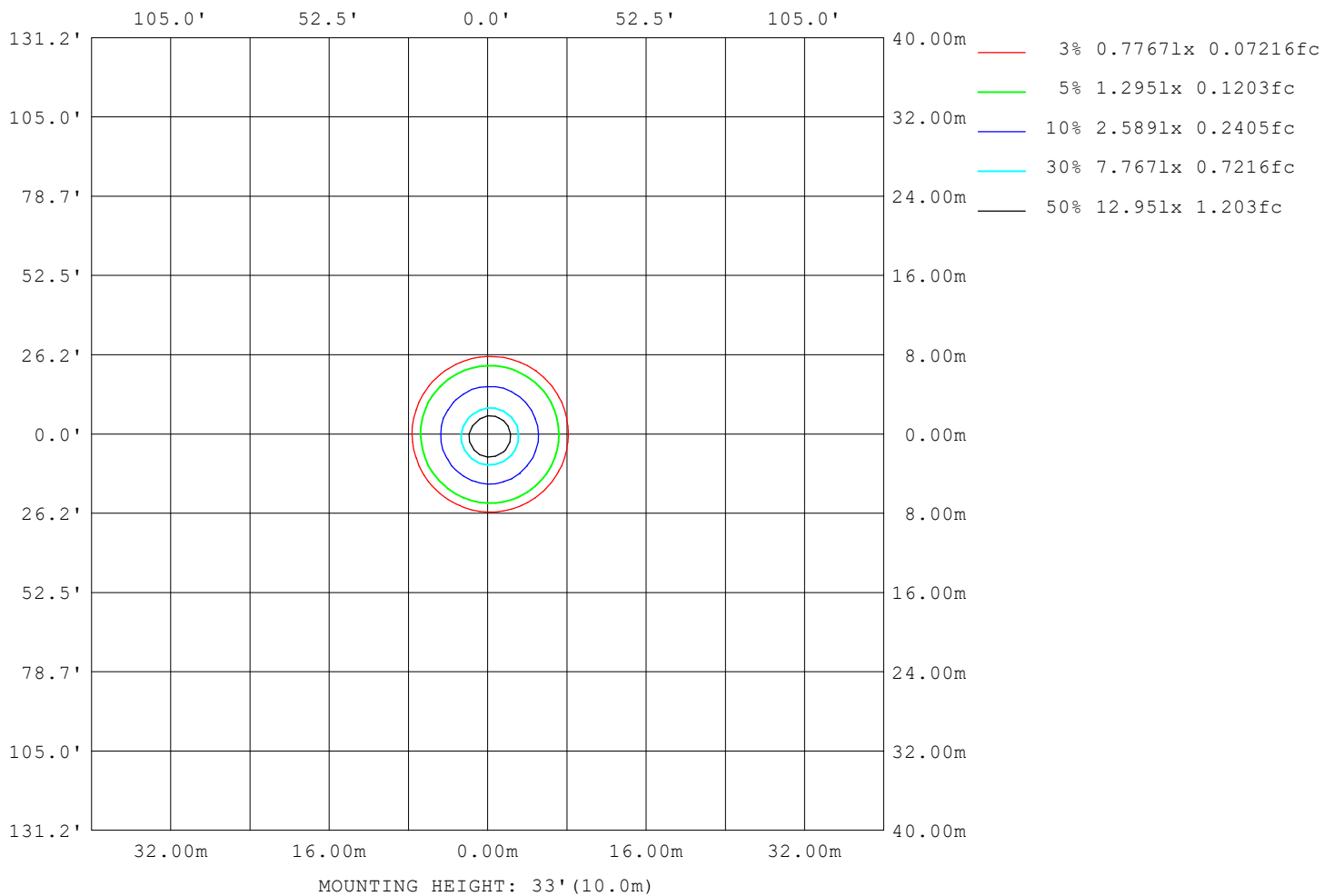


C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3°C  
Operators:  
Test Date: 30 January 2023

γ Range: 0 - 90DEG  
γ Interval: 2.5DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity: 65.0%  
Test Distance: 6.340m [K=1.0000]  
Remarks:

## ISOLUX DIAGRAM

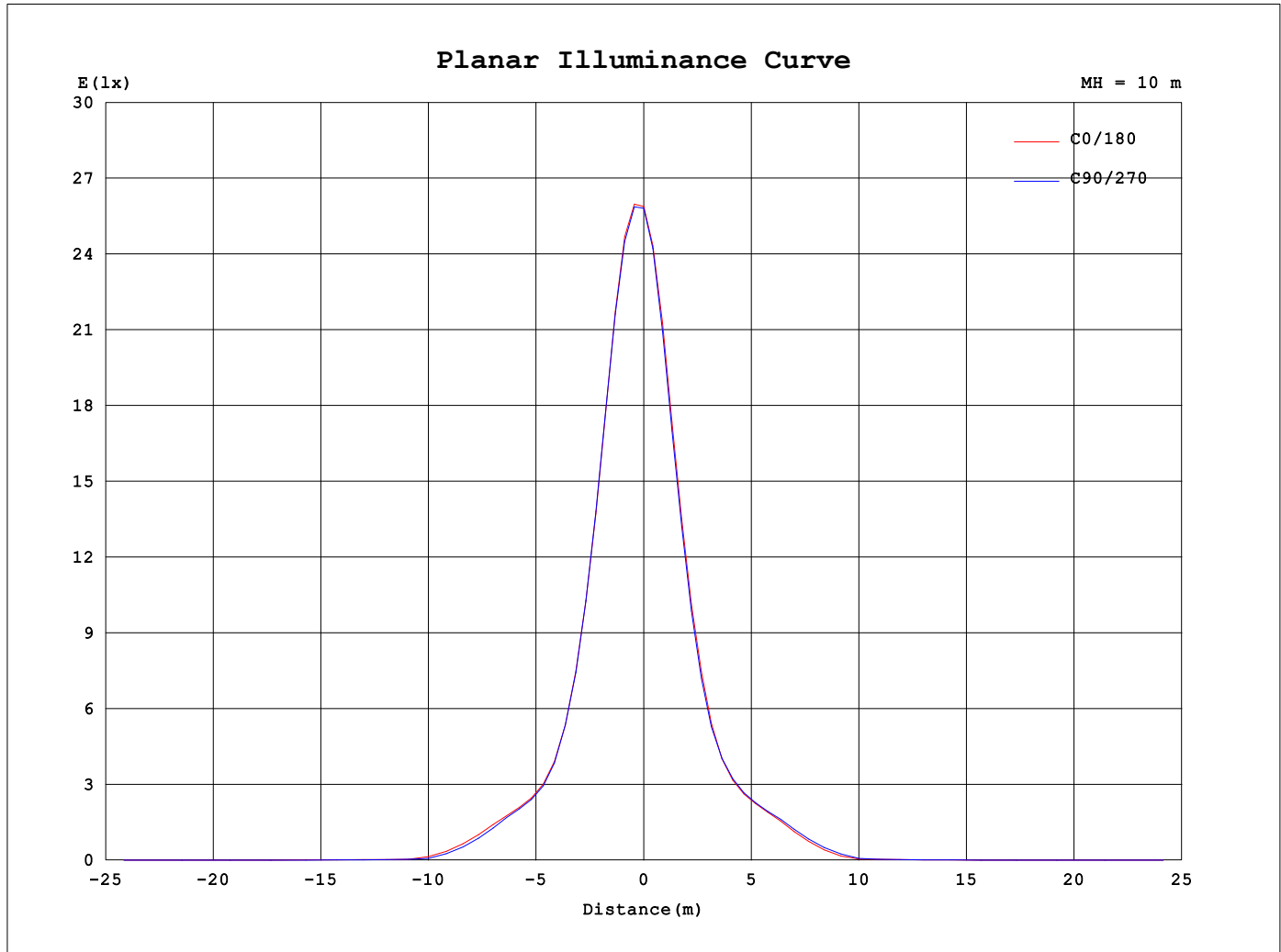
NAME: 96GRF330WW/1BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 160 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Circle	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3°C  
Operators:  
Test Date: 30 January 2023

γ Range: 0 - 90DEG  
γ Interval: 2.5DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity: 65.0%  
Test Distance: 6.340m [K=1.0000]  
Remarks:

## Planar Illuminance Curve

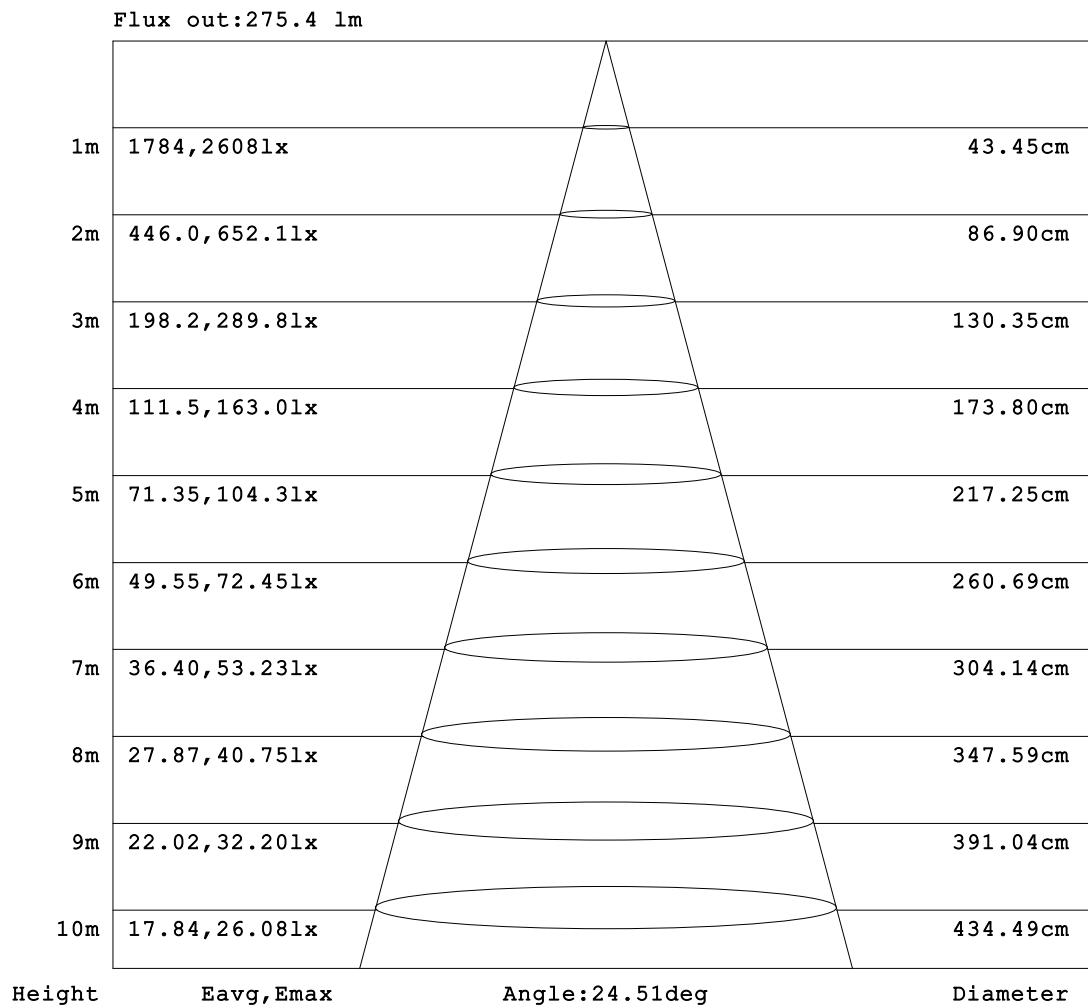


C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3°C  
Operators:  
Test Date: 30 January 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.5DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity: 65.0%  
Test Distance: 6.340m [K=1.0000]  
Remarks:

**AAI Figure**

NAME: 96GRF330WW/1BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 160 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Circle	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: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3°C  
Operators:  
Test Date:30 January 2023

γ Range: 0 - 90DEG  
γ Interval: 2.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.340m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 96GRF330WW/1BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 160 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Circle	Shielding Angle:

Table--1

UNIT: cd

H(DEC) V(DEC)	-90	-85	-80	-75	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
-90	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
-85	0.03	0.01	0.01	0.01	0.02	0.01	0.03	0.02	0.05	0.03	0.07	0.05	0.09	0.07	0.11	0.09	0.13	0.11	0.14
-80	0.03	0.01	0.02	0.01	0.05	0.05	0.09	0.09	0.14	0.14	0.19	0.20	0.25	0.26	0.31	0.32	0.35	0.35	0.38
-75	0.03	0.01	0.02	0.04	0.09	0.12	0.18	0.21	0.27	0.31	0.38	0.41	0.48	0.51	0.57	0.59	0.64	0.64	0.67
-70	0.03	0.01	0.05	0.07	0.15	0.20	0.28	0.35	0.43	0.50	0.58	0.65	0.73	0.81	0.91	0.97	1.04	1.05	1.09
-65	0.03	0.01	0.07	0.12	0.21	0.30	0.40	0.50	0.61	0.72	0.86	1.03	1.26	1.46	1.72	1.93	2.09	2.19	2.25
-60	0.03	0.01	0.09	0.16	0.28	0.41	0.53	0.67	0.83	1.09	1.42	1.88	2.34	2.85	3.33	3.77	4.11	4.31	4.41
-55	0.03	0.02	0.11	0.22	0.35	0.51	0.65	0.90	1.23	1.80	2.46	3.24	4.11	5.05	5.93	6.73	7.36	7.80	8.01
-50	0.03	0.03	0.13	0.27	0.42	0.62	0.83	1.23	1.92	2.81	3.93	5.31	6.74	8.07	9.21	9.85	10.3	10.5	10.6
-45	0.03	0.04	0.15	0.32	0.49	0.72	1.06	1.76	2.82	4.17	5.97	7.85	9.51	10.6	11.1	13.0	17.3	20.9	22.9
-40	0.03	0.05	0.17	0.37	0.57	0.84	1.36	2.45	3.94	6.01	8.25	10.1	11.1	14.4	32.7	60.9	90.1	108	117
-35	0.03	0.06	0.19	0.41	0.65	0.97	1.81	3.24	5.34	7.91	10.2	11.5	18.4	61.1	111	157	196	220	232
-30	0.03	0.06	0.21	0.44	0.71	1.17	2.27	4.06	6.76	9.59	11.4	17.8	71.0	139	202	256	288	307	315
-25	0.03	0.07	0.23	0.47	0.77	1.34	2.75	5.00	8.08	10.8	13.7	56.2	136	214	280	316	348	380	396
-20	0.03	0.08	0.25	0.49	0.82	1.56	3.19	5.81	9.17	11.5	27.5	103	196	277	323	373	469	589	646
-15	0.03	0.08	0.27	0.52	0.86	1.72	3.59	6.55	9.93	12.6	48.5	144	246	309	364	501	738	1003	1139
-10	0.03	0.09	0.28	0.53	0.88	1.84	3.88	7.10	10.5	13.8	72.3	177	273	331	423	672	1091	1565	1860
-5	0.03	0.09	0.29	0.54	0.88	1.88	4.02	7.40	10.8	14.5	86.9	197	288	346	475	809	1375	2061	2479
0	0.03	0.09	0.29	0.55	0.88	1.88	4.03	7.46	10.9	14.5	92.1	206	293	352	484	829	1416	2151	2589
5	0.03	0.09	0.30	0.55	0.88	1.83	3.92	7.32	10.8	14.3	85.8	199	288	345	454	724	1180	1733	2117
10	0.03	0.09	0.30	0.55	0.87	1.74	3.70	6.96	10.5	13.6	71.5	178	274	328	401	558	841	1168	1385
15	0.03	0.09	0.30	0.55	0.84	1.60	3.36	6.36	9.91	12.5	47.8	145	246	304	352	433	554	709	800
20	0.03	0.09	0.29	0.53	0.80	1.41	2.92	5.47	8.99	11.7	26.6	101	197	273	313	353	404	457	487
25	0.03	0.09	0.28	0.50	0.74	1.18	2.45	4.57	7.78	11.0	13.8	52.8	134	216	273	304	330	349	359
30	0.03	0.09	0.27	0.47	0.68	1.05	1.97	3.60	6.24	9.38	11.9	17.1	68.3	136	200	249	277	292	298
35	0.03	0.08	0.24	0.43	0.64	0.92	1.52	2.77	4.66	7.38	10.2	12.1	17.5	57.2	109	153	190	213	223
40	0.03	0.07	0.22	0.39	0.60	0.81	1.14	2.02	3.30	5.20	7.70	10.2	11.8	14.2	30.5	57.0	84.8	104	113
45	0.03	0.07	0.19	0.34	0.55	0.72	0.94	1.40	2.23	3.38	5.05	7.11	9.13	10.7	11.6	13.1	15.8	18.8	21.8
50	0.03	0.06	0.16	0.30	0.49	0.63	0.80	1.01	1.42	2.12	3.05	4.26	5.74	7.17	8.42	9.44	10.2	10.6	10.9
55	0.03	0.05	0.13	0.26	0.41	0.54	0.70	0.80	0.99	1.27	1.74	2.32	3.03	3.89	4.61	5.45	6.13	6.61	6.94
60	0.03	0.04	0.10	0.22	0.33	0.46	0.58	0.67	0.78	0.88	1.03	1.25	1.54	1.86	2.24	2.61	2.93	3.20	3.41
65	0.03	0.04	0.08	0.17	0.26	0.37	0.46	0.55	0.62	0.69	0.77	0.85	0.93	1.01	1.12	1.25	1.33	1.43	1.48
70	0.03	0.04	0.06	0.13	0.19	0.28	0.34	0.41	0.46	0.53	0.58	0.64	0.68	0.74	0.77	0.83	0.84	0.88	0.86
75	0.03	0.04	0.03	0.09	0.12	0.20	0.23	0.28	0.30	0.36	0.39	0.44	0.46	0.52	0.54	0.59	0.59	0.63	0.60
80	0.03	0.03	0.03	0.05	0.06	0.12	0.14	0.18	0.17	0.21	0.22	0.27	0.27	0.32	0.31	0.36	0.35	0.38	0.35
85	0.03	0.03	0.03	0.04	0.03	0.05	0.03	0.07	0.06	0.09	0.08	0.11	0.10	0.13	0.12	0.16	0.14	0.18	0.15
90	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3°C  
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Test Date:30 January 2023

γ Range: 0 - 90DEG  
γ Interval: 2.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.340m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 96GRF330WW/1BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: 160 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Circle	Shielding Angle:

Table--2

UNIT: cd

H (DEG) V (DEG)	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	
-90	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.03	
-85	0.12	0.15	0.13	0.15	0.13	0.15	0.12	0.14	0.11	0.12	0.09	0.11	0.08	0.09	0.06	0.06	0.04	0.03	
-80	0.36	0.40	0.37	0.39	0.35	0.36	0.31	0.31	0.27	0.26	0.21	0.20	0.15	0.15	0.10	0.09	0.05	0.03	
-75	0.66	0.68	0.65	0.66	0.62	0.60	0.55	0.53	0.47	0.44	0.37	0.33	0.25	0.21	0.15	0.12	0.06	0.03	
-70	1.07	1.09	1.05	1.01	0.93	0.88	0.81	0.76	0.69	0.63	0.54	0.47	0.36	0.29	0.19	0.15	0.07	0.03	
-65	2.25	2.21	2.10	1.93	1.70	1.50	1.25	1.08	0.93	0.82	0.72	0.61	0.49	0.38	0.26	0.18	0.08	0.03	
-60	4.40	4.29	4.03	3.66	3.24	2.80	2.33	1.81	1.41	1.09	0.90	0.75	0.61	0.47	0.33	0.21	0.09	0.03	
-55	8.05	7.79	7.31	6.64	5.79	4.83	3.97	3.13	2.34	1.65	1.18	0.90	0.74	0.56	0.40	0.24	0.11	0.03	
-50	10.6	10.5	10.3	9.87	9.15	8.00	6.53	4.96	3.69	2.56	1.69	1.12	0.87	0.64	0.46	0.28	0.12	0.03	
-45	23.3	21.4	16.0	12.1	10.9	10.4	9.37	7.55	5.45	3.77	2.44	1.48	0.98	0.73	0.52	0.31	0.14	0.03	
-40	115	103	78.4	49.1	23.5	12.4	10.9	9.86	7.82	5.29	3.37	1.95	1.16	0.81	0.59	0.34	0.15	0.03	
-35	230	213	184	140	90.2	36.5	13.1	11.1	9.85	7.16	4.46	2.58	1.37	0.90	0.63	0.37	0.16	0.03	
-30	313	300	276	239	177	109	39.3	12.8	11.0	8.88	5.67	3.24	1.70	0.98	0.67	0.39	0.18	0.03	
-25	393	369	337	302	259	181	97.9	28.2	11.5	10.2	7.01	3.92	1.98	1.07	0.70	0.42	0.19	0.03	
-20	627	526	422	351	304	245	152	60.8	13.3	11.0	8.18	4.57	2.32	1.15	0.73	0.44	0.19	0.03	
-15	1089	869	613	425	339	283	199	95.7	20.6	11.4	9.02	5.21	2.59	1.22	0.76	0.46	0.20	0.03	
-10	1758	1338	873	533	373	306	232	124	32.4	11.7	9.66	5.68	2.78	1.28	0.79	0.48	0.21	0.03	
-5	2356	1761	1096	631	401	318	252	141	40.2	11.8	10.0	5.95	2.91	1.32	0.80	0.49	0.21	0.03	
0	2497	1853	1141	646	406	322	258	147	42.1	12.0	10.2	6.03	2.95	1.34	0.81	0.50	0.21	0.03	
5	2023	1539	1002	590	392	317	250	141	39.6	11.8	9.93	5.88	2.87	1.31	0.80	0.49	0.21	0.03	
10	1342	1067	734	480	361	303	229	124	32.8	11.6	9.56	5.57	2.70	1.26	0.78	0.48	0.21	0.03	
15	788	660	509	392	329	279	198	96.1	20.9	11.5	9.00	5.12	2.49	1.19	0.75	0.47	0.21	0.03	
20	481	436	381	336	297	241	151	62.6	13.6	11.1	8.15	4.50	2.21	1.10	0.72	0.45	0.21	0.03	
25	357	342	321	294	250	179	99.7	30.8	11.8	10.2	6.98	3.80	1.86	1.00	0.68	0.43	0.20	0.03	
30	297	289	267	227	175	111	44.6	13.3	11.2	8.88	5.63	3.12	1.60	0.90	0.63	0.41	0.19	0.03	
35	221	205	176	139	92.4	42.1	13.6	11.3	9.82	7.13	4.34	2.44	1.31	0.84	0.59	0.38	0.19	0.03	
40	112	100	78.3	52.0	26.4	12.7	11.1	9.89	7.76	5.20	3.21	1.78	1.10	0.77	0.53	0.34	0.18	0.03	
45	23.1	21.9	16.7	12.3	11.2	10.5	9.25	7.48	5.33	3.57	2.24	1.36	0.90	0.70	0.49	0.31	0.17	0.03	
50	10.8	10.5	10.1	9.56	8.75	7.64	6.27	4.77	3.41	2.33	1.52	1.06	0.78	0.62	0.44	0.28	0.15	0.03	
55	7.04	6.93	6.56	5.96	5.31	4.45	3.62	2.79	2.05	1.48	1.07	0.85	0.67	0.54	0.38	0.24	0.14	0.03	
60	3.50	3.48	3.34	3.06	2.72	2.32	1.91	1.51	1.23	1.02	0.82	0.70	0.57	0.45	0.32	0.20	0.13	0.03	
65	1.54	1.54	1.52	1.44	1.31	1.22	1.07	0.96	0.85	0.76	0.67	0.57	0.47	0.36	0.27	0.17	0.11	0.03	
70	0.89	0.87	0.88	0.85	0.83	0.78	0.75	0.69	0.65	0.58	0.52	0.44	0.37	0.28	0.22	0.14	0.10	0.03	
75	0.63	0.60	0.61	0.58	0.59	0.55	0.54	0.48	0.46	0.41	0.38	0.31	0.28	0.20	0.18	0.10	0.08	0.03	
80	0.38	0.35	0.38	0.35	0.37	0.33	0.33	0.29	0.30	0.25	0.25	0.20	0.20	0.14	0.13	0.08	0.07	0.03	
85	0.18	0.15	0.18	0.15	0.18	0.14	0.16	0.13	0.15	0.12	0.14	0.10	0.12	0.08	0.08	0.06	0.05	0.03	
90	0.03	0.03	0.04	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.03	

C Range: 0 - 360DEG

C Interval: 5.0DEG

Test Speed: MEDIUM

Temperature:25.3°C

Operators:

Test Date:30 January 2023

γ Range: 0 - 90DEG

γ Interval: 2.5DEG

Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456

Humidity:65.0%

Test Distance:6.340m [K=1.0000]

Remarks: