

# Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity	2145.8 cd per klm.
(Luminaire orientation as tested.)	0.0 degrees vertical
	0.0 degrees horizontal

Beam Spread	At 10% of Imax	46.0V x 46.0H
	At 50% of Imax	25.7V x 25.9H
	At 90% of Imax	11.7V x 12.1H

Beam Flux	Total	627.2 lumens per klm.
	To 10% of Imax	418.5 lumens per klm.
	To 50% of Imax	245.3 lumens per klm.
	To 90% of Imax	63.9 lumens per klm.

Upward LOR	0.0 %
Downward LOR	62.7 %

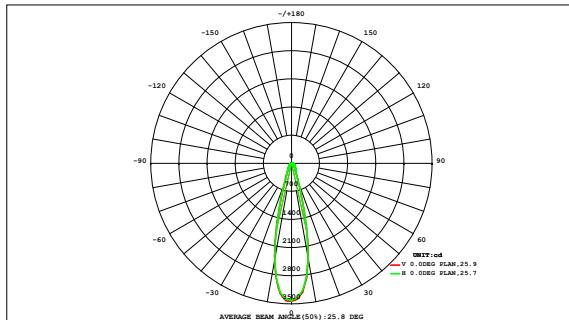
Luminaire Efficiency (Light Output Ratio)	62.5 %
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C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 01 September 2022

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:

## LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 96GRF1/1830220	TYPE: 96GRF1/1830220	WEIGHT: 1
SPEC.:	DIM.: F 200 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: 18 Circle	Shielding Angle:



DATA OF LAMP		PHOTOMETRIC DATA	
MODEL	96GRF1/1830220	Imax (cd)	3433
NOMINAL POWER (W)	18	AVAILABILITY (%)	42.1
RATED VOLTAGE (V)	230	Avai. FLUX (lm)	673.7
NOMINAL FLUX (lm)	1600	LOR (%)	62.5
LAMPS INSIDE	1	TOTAL FLUX (lm)	1000
TEST VOLTAGE (V)	230	θ @50% (H,V)	26,26DEG

VERTICAL (DEG)	AREA FLUX DIAGRAM																UNIT: lm		Φ t	Φ a
	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.22	0.00
90	0.00	0.00	0.01	0.04	0.09	0.15	0.22	0.28	0.31	0.30	0.26	0.21	0.15	0.09	0.04	0.01	0.00	0.00	2.17	0.00
80	0.00	0.01	0.05	0.14	0.29	0.47	0.65	0.81	0.89	0.88	0.79	0.65	0.47	0.30	0.15	0.05	0.01	0.00	6.61	0.00
70	0.00	0.02	0.11	0.29	0.57	0.91	1.23	1.48	1.63	1.61	1.47	1.22	0.91	0.59	0.30	0.11	0.02	0.00	12.5	0.00
60	0.00	0.03	0.18	0.47	0.89	1.38	1.89	2.33	2.56	2.54	2.28	1.84	1.35	0.89	0.47	0.18	0.03	0.00	19.3	0.00
50	0.00	0.05	0.25	0.64	1.18	1.90	2.72	3.72	4.41	4.42	3.64	2.60	1.81	1.16	0.63	0.24	0.05	0.00	29.4	0.00
40	0.00	0.06	0.31	0.78	1.46	2.43	4.14	6.14	8.47	8.54	6.09	4.01	2.34	1.42	0.77	0.31	0.06	0.00	47.3	5.74
30	0.00	0.07	0.35	0.88	1.68	3.11	5.74	14.4	34.2	34.8	14.7	5.66	3.06	1.63	0.86	0.35	0.07	0.00	121	93.0
20	0.00	0.08	0.38	0.93	1.80	3.59	7.69	33.0	83.4	84.1	33.8	7.82	3.56	1.75	0.92	0.37	0.08	0.00	263	240
10	0.00	0.08	0.38	0.92	1.79	3.56	7.59	32.5	82.1	83.7	33.9	7.92	3.59	1.76	0.92	0.37	0.08	0.00	261	238
0	0.00	0.07	0.35	0.86	1.65	3.05	5.68	14.3	33.7	34.2	14.8	5.83	3.09	1.63	0.86	0.35	0.08	0.00	120	92.0
-10	0.00	0.06	0.30	0.76	1.43	2.36	4.06	6.07	8.37	8.43	6.13	4.09	2.41	1.42	0.76	0.31	0.07	0.00	47.0	5.70
-20	0.00	0.05	0.24	0.62	1.16	1.82	2.64	3.67	4.41	4.38	3.65	2.68	1.83	1.15	0.63	0.25	0.05	0.00	29.2	0.00
-30	0.00	0.03	0.17	0.46	0.88	1.35	1.84	2.28	2.55	2.54	2.26	1.83	1.33	0.86	0.47	0.18	0.04	0.00	19.1	0.00
-40	0.00	0.02	0.10	0.29	0.57	0.89	1.20	1.46	1.60	1.59	1.45	1.19	0.88	0.56	0.29	0.11	0.02	0.00	12.2	0.00
-50	0.00	0.01	0.05	0.14	0.29	0.46	0.63	0.78	0.86	0.88	0.79	0.64	0.46	0.28	0.14	0.05	0.01	0.00	6.48	0.00
-60	0.00	0.00	0.01	0.04	0.08	0.14	0.20	0.25	0.29	0.30	0.27	0.21	0.14	0.08	0.04	0.01	0.00	0.00	2.07	0.00
-70	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.03	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.19	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	0.03	0.66	3.23	8.28	15.8	27.6	48.1	123	270	273	126	48.4	27.4	15.6	8.26	3.26	0.68	0.03	1000	---
Φ a	0.00	0.00	0.00	0.00	0.00	0.00	4.87	89.0	239	243	92.5	5.88	0.00	0.00	0.00	0.00	0.00	0.00	---	674

one-half-peak spread: U:12.9,D:13.0 , L:12.9,R:13.1

NEMA Beam Type: Type 4 x 3 (H x V)

C Range: 0 - 360DEG

C Interval: 10.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:01 September 2022

γ Range: 0 - 90DEG

γ Interval: 2.5DEG

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

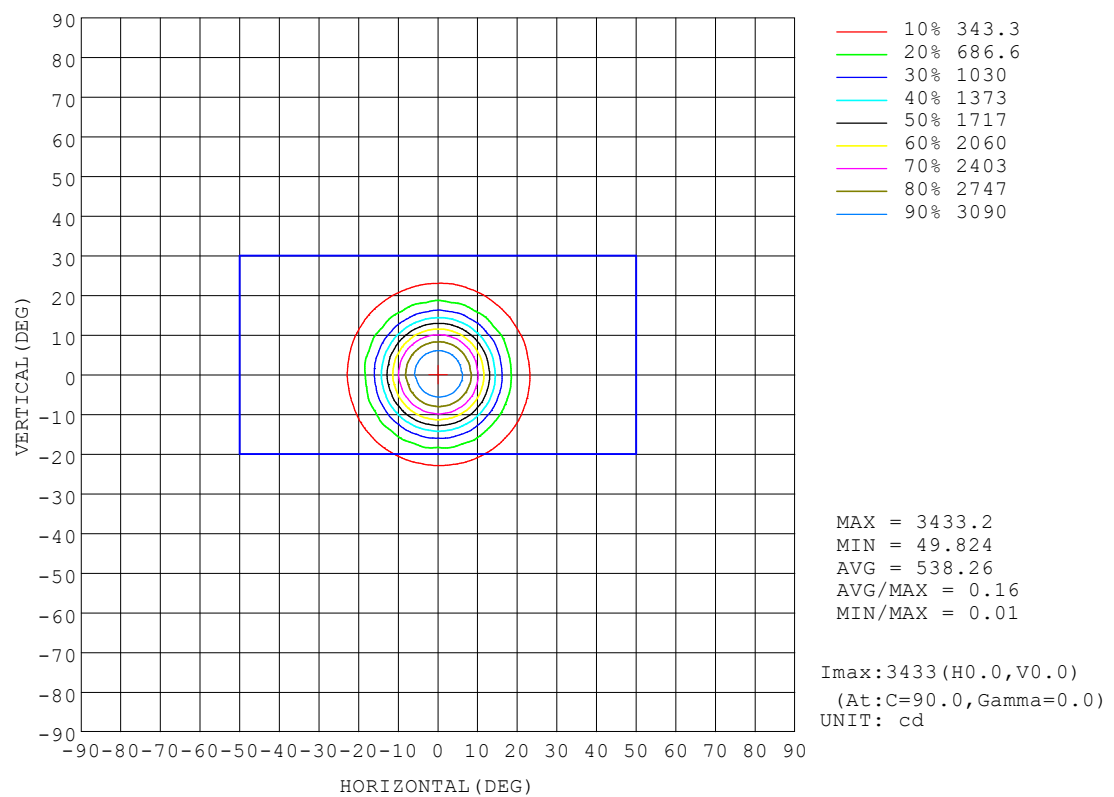
Humidity:65.0%

Test Distance:6.265m [K=1.0000]

Remarks:

**ISOCANDELA DIAGRAM**

NAME: 96GRF1/1830220	TYPE: 96GRF1/1830220	WEIGHT: 1
SPEC.:	DIM.: F 200 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: 18 Circle	Shielding Angle:

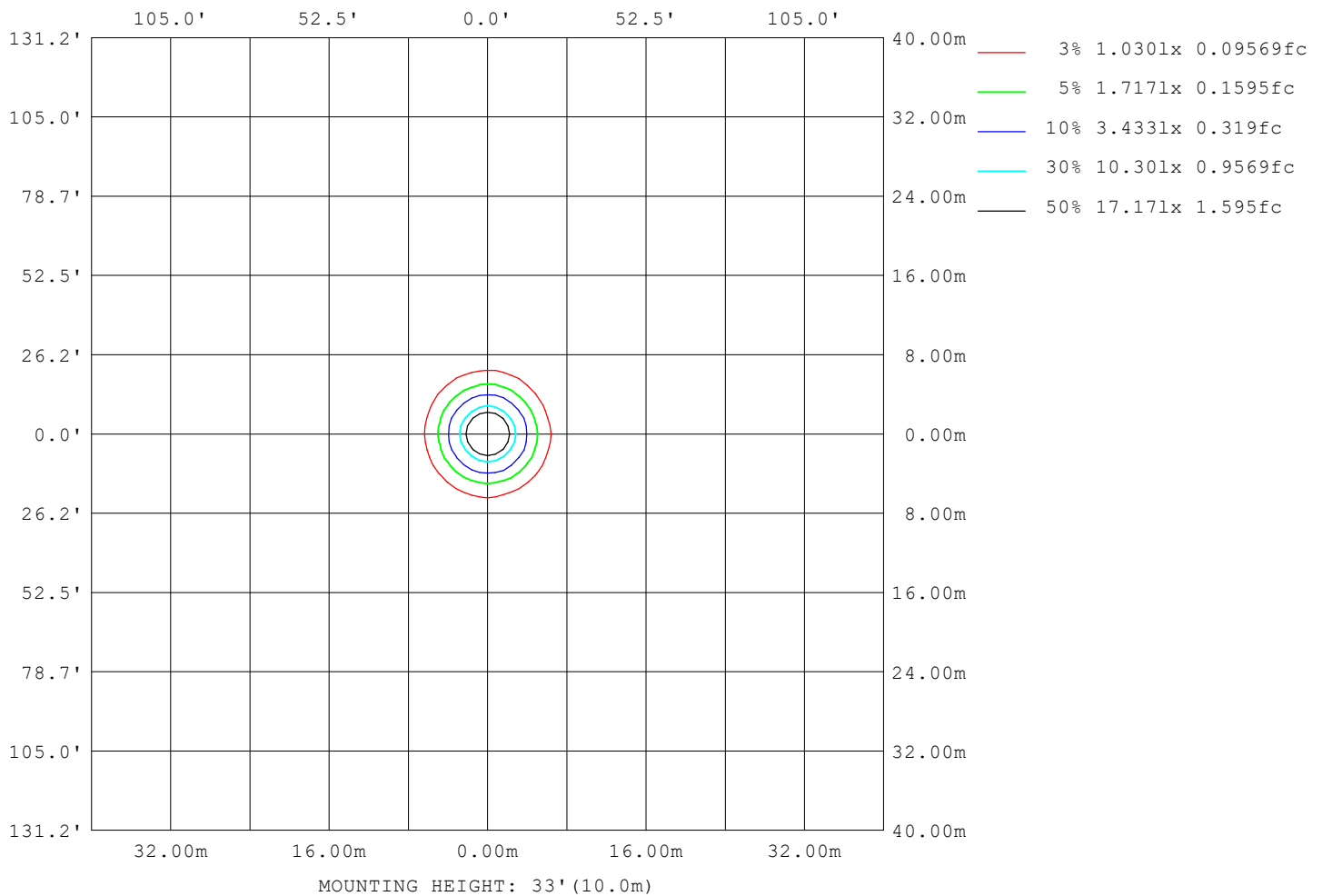


C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 01 September 2022

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

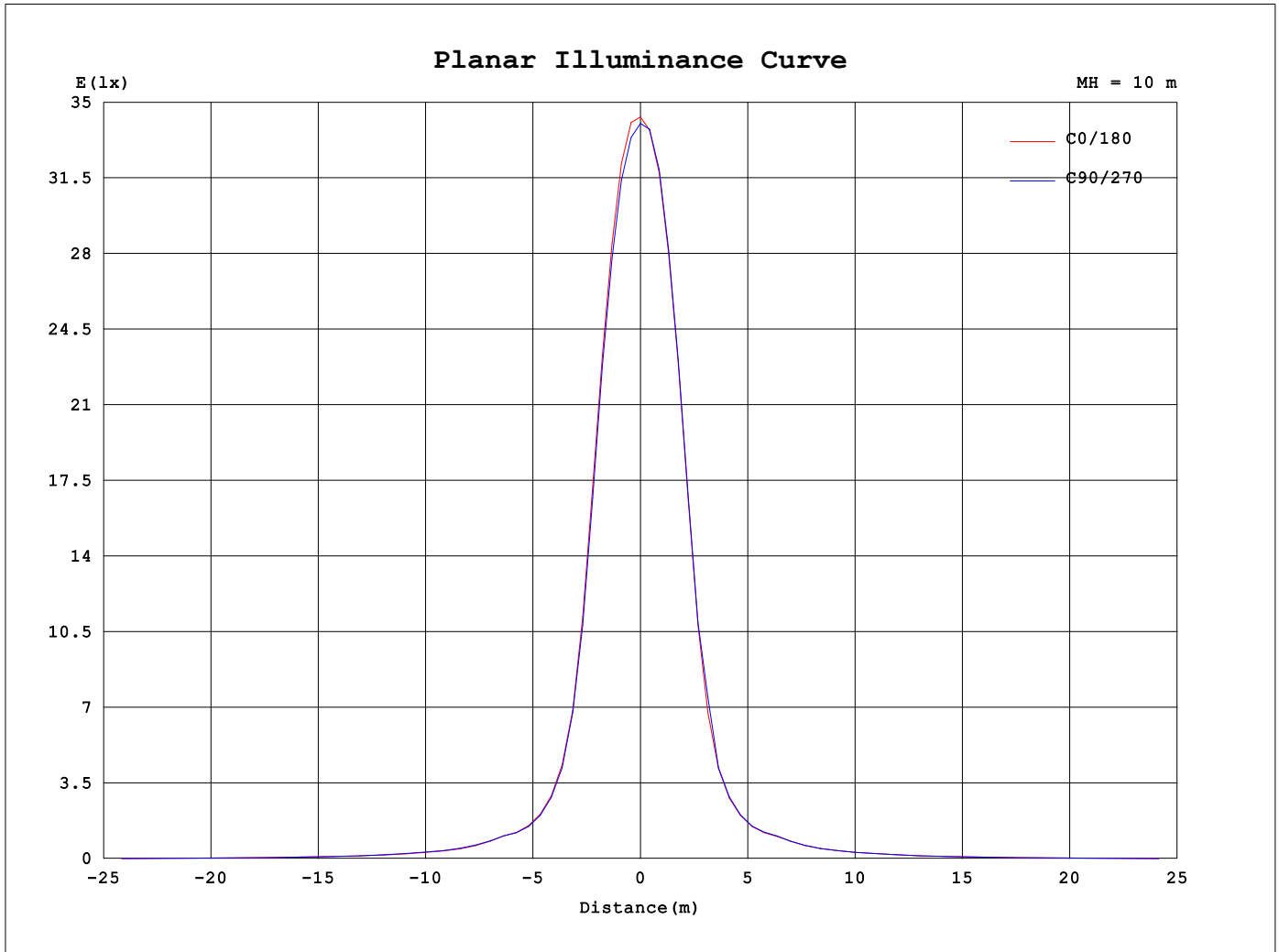
NAME: 96GRF1/1830220	TYPE: 96GRF1/1830220	WEIGHT: 1
SPEC.:	DIM.: F 200 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: 18 Circle	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 01 September 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

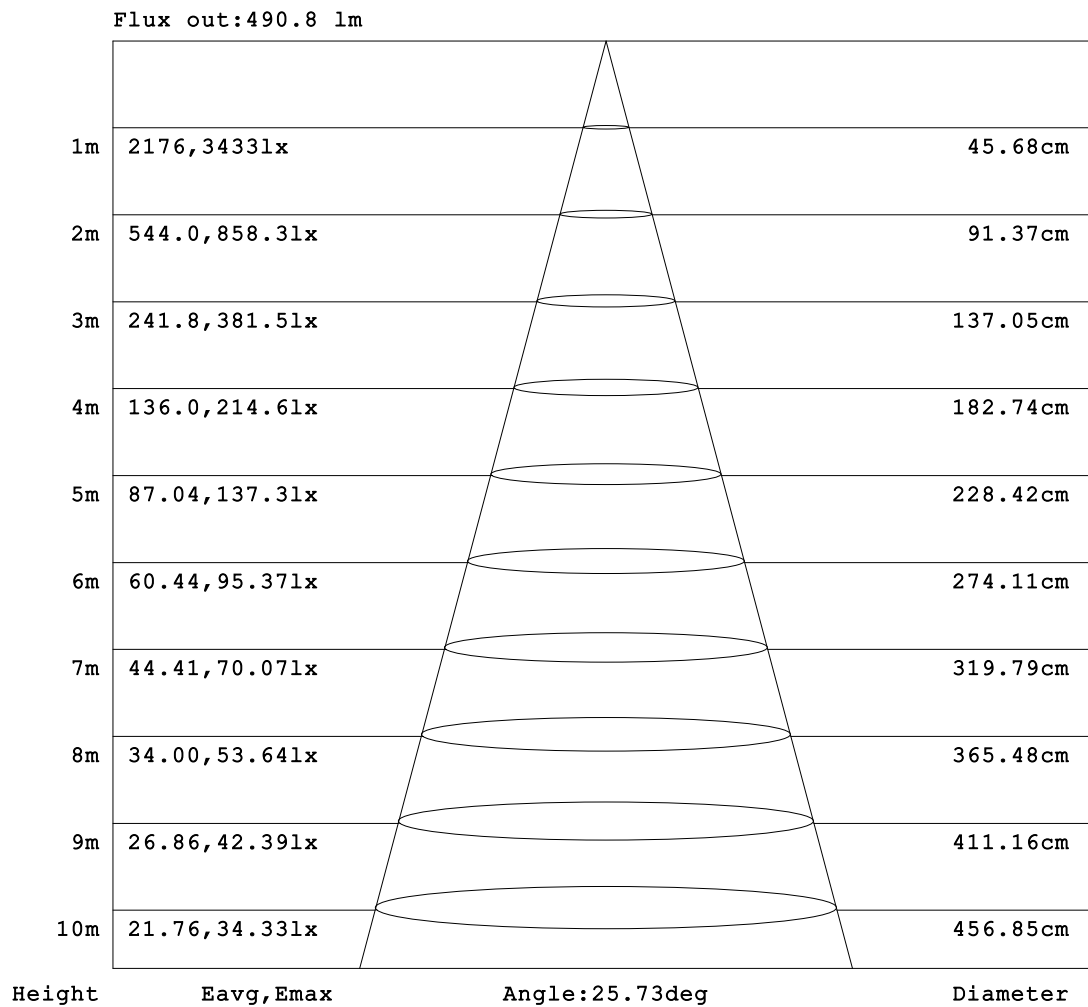


C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 01 September 2022

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: 96GRF1/1830220	TYPE: 96GRF1/1830220	WEIGHT: 1
SPEC.:	DIM.: F 200 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: 18 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: 10.0DEG

Test Speed: HIGH

Temperature: 25.3°C

Operators:

Test Date: 01 September 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:

## LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 96GRF1/1830220	TYPE: 96GRF1/1830220	WEIGHT: 1
SPEC.:	DIM.: F 200 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: 18 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	0.13	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.17	0.16
-85	0.13	0.14	0.15	0.16	0.18	0.19	0.19	0.22	0.25	0.25	0.25	0.26	0.27	0.27	0.28	0.30	0.32	0.33	0.33
-80	0.13	0.15	0.16	0.20	0.26	0.29	0.32	0.58	0.81	1.04	1.32	1.66	1.96	2.26	2.54	2.74	2.87	3.03	3.13
-75	0.13	0.16	0.19	0.27	0.38	0.79	1.19	1.95	2.69	3.65	4.66	5.40	6.05	6.82	7.52	8.15	8.62	9.00	9.22
-70	0.13	0.17	0.24	0.37	0.94	1.77	2.91	4.52	6.11	7.79	9.46	11.1	12.5	13.9	15.2	16.2	16.9	17.6	18.1
-65	0.13	0.17	0.29	0.79	1.76	3.25	5.46	7.79	10.4	13.2	15.8	18.2	20.6	22.7	24.7	26.3	27.4	28.4	28.9
-60	0.13	0.18	0.34	1.20	2.80	5.31	8.27	11.9	15.6	19.3	23.0	26.7	30.0	33.2	35.8	37.8	39.0	40.1	40.8
-55	0.13	0.21	0.60	1.94	4.28	7.58	11.7	16.4	21.2	26.2	31.3	35.9	39.9	43.7	47.1	49.6	51.4	52.6	52.9
-50	0.13	0.23	0.85	2.66	5.77	10.0	15.2	21.0	27.4	33.9	39.7	44.9	49.9	54.4	58.8	62.7	65.4	66.8	67.1
-45	0.13	0.25	1.08	3.50	7.43	12.5	18.8	26.0	33.9	40.8	47.6	53.9	60.3	66.7	72.5	77.6	81.6	83.9	84.5
-40	0.13	0.27	1.35	4.38	9.01	15.2	22.6	30.9	39.3	47.3	55.0	63.3	71.7	79.6	86.8	94.2	101	105	107
-35	0.13	0.29	1.73	5.19	10.7	17.8	26.3	35.3	44.3	53.3	63.0	73.1	82.9	93.5	106	123	137	145	149
-30	0.13	0.30	2.08	6.06	12.2	20.4	29.7	39.2	49.1	59.4	71.1	82.5	95.5	117	142	166	179	186	186
-25	0.13	0.32	2.37	6.88	13.7	22.6	32.8	42.9	53.7	65.9	78.8	92.5	116	148	177	198	228	257	269
-20	0.13	0.33	2.63	7.56	15.1	24.6	35.5	46.1	57.8	71.6	85.7	104	141	176	205	273	365	466	508
-15	0.13	0.34	2.83	8.11	16.2	26.2	37.6	48.8	61.7	76.2	91.8	119	163	197	271	434	750	1060	1200
-10	0.13	0.34	2.98	8.51	17.0	27.4	39.2	50.8	64.8	79.7	97.7	133	177	225	365	733	1388	2084	2387
-5	0.13	0.35	3.08	8.76	17.5	28.2	40.3	52.1	66.7	82.3	101	142	183	255	460	1058	2081	2882	3175
0	0.13	0.35	3.12	8.86	17.8	28.5	40.9	52.7	67.4	83.5	103	146	186	269	503	1203	2397	3210	3433
5	0.13	0.35	3.09	8.84	17.6	28.4	40.5	52.5	66.7	82.9	102	144	186	259	467	1068	2104	2939	3225
10	0.13	0.35	3.00	8.67	17.2	27.8	39.5	51.5	65.0	80.8	98.4	135	179	231	369	759	1405	2125	2412
15	0.13	0.34	2.86	8.34	16.5	26.7	38.0	49.7	62.4	77.7	93.7	122	165	197	276	436	747	1085	1214
20	0.13	0.34	2.67	7.86	15.5	25.2	36.2	47.2	58.9	73.1	88.0	106	143	179	208	274	370	471	508
25	0.13	0.33	2.42	7.24	14.3	23.2	33.9	44.3	54.9	67.3	81.3	95.4	118	151	180	199	229	262	273
30	0.13	0.31	2.13	6.48	12.9	21.0	30.8	40.9	50.4	60.6	73.5	86.3	99.5	118	144	169	183	188	189
35	0.13	0.30	1.78	5.62	11.4	18.6	27.3	36.9	45.5	54.2	64.6	76.2	87.0	97.1	109	123	137	145	148
40	0.13	0.28	1.40	4.74	9.62	16.1	23.3	31.9	40.0	47.9	56.3	65.2	74.3	82.8	90.6	96.3	101	105	105
45	0.13	0.26	1.13	3.74	7.99	13.4	19.6	26.5	34.1	41.0	48.0	54.9	61.6	68.4	74.2	79.0	82.5	84.3	84.2
50	0.13	0.24	0.89	2.82	6.29	10.7	15.9	21.3	27.6	34.0	39.8	45.6	50.8	55.4	59.6	63.3	66.2	67.7	67.8
55	0.13	0.22	0.64	2.07	4.69	8.10	12.2	16.6	21.3	26.6	31.6	36.5	40.8	44.5	47.6	50.3	52.4	53.3	53.3
60	0.13	0.20	0.37	1.30	3.10	5.73	8.65	12.2	15.8	19.5	23.2	27.0	30.5	33.8	36.4	38.6	40.6	41.4	41.4
65	0.13	0.19	0.32	0.87	1.96	3.57	5.72	8.05	10.7	13.3	15.9	18.5	21.0	23.2	25.4	27.2	28.7	29.4	29.5
70	0.13	0.18	0.27	0.42	1.06	1.98	3.13	4.70	6.29	7.96	9.50	11.3	13.0	14.6	16.0	17.1	18.0	18.3	18.2
75	0.13	0.17	0.22	0.30	0.43	0.90	1.35	2.16	2.91	3.78	4.64	5.50	6.47	7.50	8.42	9.07	9.56	9.65	9.54
80	0.13	0.15	0.19	0.21	0.27	0.34	0.41	0.70	0.99	1.23	1.47	1.90	2.30	2.64	2.93	3.18	3.39	3.40	3.34
85	0.13	0.14	0.16	0.17	0.17	0.19	0.22	0.24	0.26	0.31	0.34	0.35	0.35	0.37	0.38	0.40	0.43	0.45	0.47
90	0.13	0.13	0.13	0.13	0.13	0.13	0.14	0.13	0.13	0.13	0.14	0.14	0.14	0.15	0.16	0.16	0.16	0.17	0.19

C Range: 0 - 360DEG

C Interval: 10.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:01 September 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:

## LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 96GRF1/1830220	TYPE: 96GRF1/1830220	WEIGHT: 1
SPEC.:	DIM.: F 200 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: 18 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	0.16	0.17	0.15	0.14	0.14	0.14	0.13	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.14	
-85	0.36	0.38	0.38	0.37	0.37	0.36	0.34	0.31	0.30	0.29	0.25	0.22	0.21	0.21	0.18	0.16	0.15	0.14	
-80	3.08	2.97	2.88	2.73	2.46	2.14	1.80	1.42	1.16	0.93	0.68	0.40	0.36	0.31	0.23	0.19	0.17	0.14	
-75	9.11	8.87	8.56	8.05	7.20	6.24	5.32	4.51	3.65	2.79	2.09	1.34	0.91	0.46	0.33	0.22	0.18	0.14	
-70	18.0	17.6	16.8	15.7	14.3	12.7	11.1	9.40	7.74	6.07	4.61	3.08	1.96	1.09	0.45	0.28	0.20	0.14	
-65	28.7	28.1	26.9	25.2	22.9	20.8	18.4	15.7	13.0	10.4	7.97	5.68	3.51	1.98	0.92	0.35	0.22	0.14	
-60	40.7	39.9	38.0	35.8	33.1	30.0	26.6	22.9	19.0	15.5	12.1	8.60	5.66	3.10	1.38	0.40	0.23	0.14	
-55	52.3	51.1	49.3	46.4	42.9	39.5	35.5	30.8	25.9	21.1	16.6	12.2	8.01	4.69	2.19	0.69	0.26	0.14	
-50	66.3	64.5	61.9	58.0	53.6	49.1	44.1	38.5	33.1	27.3	21.3	15.8	10.6	6.29	2.98	0.96	0.29	0.14	
-45	83.1	80.5	76.6	71.8	66.1	59.7	53.1	46.2	39.7	33.5	26.3	19.4	13.4	8.02	3.92	1.21	0.31	0.14	
-40	105	101	94.6	87.5	79.9	71.7	63.1	54.5	46.4	39.0	31.4	23.1	16.1	9.68	4.90	1.49	0.33	0.14	
-35	144	135	122	108	96.3	83.9	73.3	63.0	52.9	44.2	36.1	26.9	18.5	11.5	5.74	1.89	0.35	0.14	
-30	183	178	165	141	118	98.3	83.3	71.3	59.4	49.0	40.0	30.3	21.0	13.1	6.58	2.25	0.37	0.14	
-25	259	229	198	177	148	118	94.9	78.6	65.8	53.4	43.3	33.3	23.1	14.5	7.35	2.55	0.39	0.14	
-20	475	379	282	210	178	142	107	85.5	71.0	57.6	46.1	35.7	25.1	15.7	7.97	2.79	0.40	0.14	
-15	1078	777	455	284	201	165	121	92.0	75.3	61.3	48.7	37.4	26.6	16.6	8.44	2.99	0.41	0.14	
-10	2121	1442	753	385	236	178	134	98.0	78.5	64.0	50.6	38.8	27.7	17.2	8.77	3.12	0.42	0.14	
-5	2944	2156	1099	489	268	184	143	102	80.6	65.8	51.8	39.6	28.4	17.6	8.94	3.20	0.42	0.14	
0	3254	2438	1241	524	276	186	146	103	81.5	66.4	52.2	39.9	28.6	17.7	8.95	3.22	0.42	0.14	
5	2962	2148	1105	483	262	181	141	101	80.4	65.7	51.7	39.7	28.3	17.5	8.88	3.18	0.42	0.14	
10	2157	1452	787	379	231	177	133	96.5	78.0	63.9	50.5	38.9	27.6	17.1	8.66	3.09	0.42	0.14	
15	1111	770	445	276	192	164	120	91.1	75.1	61.4	48.6	37.5	26.4	16.4	8.29	2.94	0.41	0.14	
20	477	375	277	204	173	138	104	84.8	71.1	57.9	46.3	35.7	24.8	15.4	7.76	2.74	0.40	0.14	
25	266	231	196	174	146	114	91.3	77.8	66.0	54.3	43.5	33.2	22.9	14.1	7.07	2.48	0.39	0.14	
30	188	181	168	140	115	95.1	81.4	70.5	59.7	49.8	39.9	30.3	20.8	12.6	6.24	2.16	0.38	0.14	
35	146	135	121	106	91.9	81.6	72.3	63.1	53.5	44.9	36.0	27.0	18.3	11.1	5.37	1.80	0.36	0.14	
40	104	99.6	93.0	86.7	78.9	71.2	63.4	55.2	47.4	39.8	31.7	23.2	15.8	9.47	4.56	1.39	0.34	0.14	
45	83.6	81.2	77.4	72.7	67.0	60.4	54.0	47.9	41.4	34.5	26.7	19.4	13.2	7.85	3.70	1.13	0.32	0.14	
50	67.3	65.6	62.9	59.1	54.8	50.2	45.2	40.3	34.7	28.1	21.6	15.8	10.7	6.11	2.84	0.90	0.30	0.14	
55	53.1	51.9	49.6	47.1	44.1	40.4	36.4	32.2	27.2	21.8	16.8	12.3	8.15	4.61	2.07	0.67	0.27	0.14	
60	40.7	39.6	38.2	36.3	33.7	30.7	27.3	23.5	20.0	16.2	12.5	8.83	5.71	3.10	1.27	0.42	0.24	0.14	
65	29.0	28.1	26.7	25.0	23.2	21.1	18.7	16.3	13.7	11.0	8.27	5.77	3.56	1.96	0.87	0.37	0.23	0.14	
70	17.9	17.4	16.6	15.6	14.4	13.1	11.6	9.94	8.28	6.45	4.80	3.14	1.99	1.07	0.45	0.31	0.21	0.14	
75	9.47	9.23	8.64	7.95	7.34	6.58	5.79	4.96	3.98	3.07	2.23	1.38	0.92	0.45	0.34	0.25	0.19	0.14	
80	3.29	3.18	3.02	2.80	2.58	2.31	1.96	1.56	1.31	1.05	0.74	0.45	0.37	0.29	0.24	0.21	0.17	0.14	
85	0.48	0.48	0.48	0.46	0.44	0.42	0.40	0.38	0.33	0.29	0.26	0.24	0.22	0.19	0.19	0.17	0.16	0.14	
90	0.19	0.19	0.18	0.18	0.17	0.16	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	

C Range: 0 - 360DEG

C Interval: 10.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:01 September 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: