

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity	2957.1 cd per klm.
(Luminaire orientation as tested.)	-90.0 degrees vertical
	0.0 degrees horizontal

Beam Spread	At 10% of Imax	307.0V x 180.0H
	At 50% of Imax	306.8V x 65.4H
	At 90% of Imax	306.6V x 30.7H

Beam Flux	Total	1888.7 lumens per klm.
	To 10% of Imax	1643.4 lumens per klm.
	To 50% of Imax	642.9 lumens per klm.
	To 90% of Imax	188.2 lumens per klm.

Upward LOR	98.3 %
Downward LOR	90.6 %

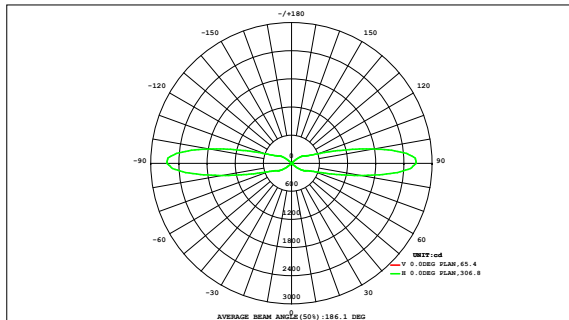
Luminaire Efficiency (Light Output Ratio)	188.9 %
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C Range: 0 - 180DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 24 January 2023

γ Range: 0 - 150DEG
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: 96GRF328WW/1BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F 160 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Circle	Shielding Angle:



DATA OF LAMP		PHOTOMETRIC DATA	
MODEL	96GRF328WW/1BL	Imax (cd)	2661
NOMINAL POWER (W)	10	AVAILABILITY (%)	160.5
RATED VOLTAGE (V)	230	Avai. FLUX (lm)	1445
NOMINAL FLUX (lm)	900	LOR (%)	188.9
LAMPS INSIDE	1	TOTAL FLUX (lm)	1700
TEST VOLTAGE (V)	230	θ @50% (H,V)	65,307DEG

VERTICAL (DEG)	AREA FLUX DIAGRAM																UNIT:lm		Φ t	Φ a
	0.00	0.01	0.05	0.16	1.04	5.95	11.7	30.3	60.3	53.2	23.2	10.2	5.01	0.74	0.17	0.05	0.01	0.00	202	193
90	0.00	0.01	0.04	0.15	0.66	4.63	9.37	16.2	26.1	24.2	14.2	8.73	3.74	0.50	0.15	0.05	0.01	0.00	109	98.7
80	0.00	0.01	0.04	0.13	0.34	2.29	6.61	9.71	11.6	11.4	9.44	5.97	1.65	0.28	0.12	0.04	0.01	0.00	59.6	46.0
70	0.00	0.01	0.03	0.09	0.23	0.57	2.42	5.04	6.58	6.49	4.64	1.86	0.42	0.19	0.08	0.03	0.01	0.00	28.7	5.77
60	0.00	0.01	0.02	0.06	0.15	0.28	0.43	0.77	1.13	1.06	0.63	0.35	0.22	0.11	0.05	0.03	0.01	0.00	5.32	0.00
50	0.00	0.00	0.01	0.03	0.08	0.14	0.22	0.29	0.31	0.29	0.24	0.17	0.11	0.07	0.04	0.02	0.01	0.00	2.03	0.00
40	0.00	0.00	0.01	0.02	0.04	0.06	0.08	0.11	0.12	0.11	0.10	0.08	0.06	0.04	0.02	0.01	0.00	0.00	0.85	0.00
30	0.00	0.00	0.00	0.01	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.02	0.01	0.01	0.00	0.00	0.35	0.00
20	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.07	0.00
10	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.07	0.00
0	0.00	0.00	0.00	0.01	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.02	0.01	0.01	0.00	0.00	0.35	0.00
-10	0.00	0.00	0.01	0.02	0.04	0.06	0.08	0.11	0.12	0.11	0.10	0.08	0.06	0.04	0.02	0.01	0.00	0.00	0.85	0.00
-20	0.00	0.00	0.01	0.03	0.08	0.14	0.22	0.29	0.31	0.29	0.24	0.17	0.11	0.07	0.04	0.02	0.01	0.00	2.03	0.00
-30	0.00	0.01	0.02	0.06	0.15	0.28	0.43	0.77	1.13	1.06	0.63	0.35	0.22	0.11	0.05	0.03	0.01	0.00	5.32	0.00
-40	0.00	0.01	0.03	0.09	0.23	0.57	2.42	5.04	6.58	6.49	4.64	1.86	0.42	0.19	0.08	0.03	0.01	0.00	28.7	5.77
-50	0.00	0.01	0.04	0.13	0.34	2.29	6.61	9.71	11.6	11.4	9.44	5.97	1.65	0.28	0.12	0.04	0.01	0.00	59.6	46.0
-60	0.00	0.01	0.04	0.15	0.66	4.63	9.37	16.2	26.1	24.2	14.2	8.73	3.74	0.50	0.15	0.05	0.01	0.00	109	98.7
-70	0.00	0.01	0.04	0.13	0.34	2.29	6.61	9.71	11.6	11.4	9.44	5.97	1.65	0.28	0.12	0.04	0.01	0.00	59.6	46.0
-80	0.00	0.01	0.04	0.15	0.66	4.63	9.37	16.2	26.1	24.2	14.2	8.73	3.74	0.50	0.15	0.05	0.01	0.00	109	98.7
-90	0.00	0.01	0.05	0.16	1.04	5.95	11.7	30.3	60.3	53.2	23.2	10.2	5.01	0.74	0.17	0.05	0.01	0.00	202	193
HORIZONTAL (DEG)																				
Φ t	0.01	0.10	0.41	1.33	5.11	27.9	61.8	125	212	194	105	54.8	22.5	3.92	1.30	0.46	0.13	0.01	816	---
Φ a	0.00	0.00	0.00	0.00	0.00	7.15	47.6	113	201	182	93.3	40.2	2.95	0.00	0.00	0.00	0.00	0.00	---	687

one-half-peak spread: U:243.4,D:243.4 , L:0.8,R:0.8

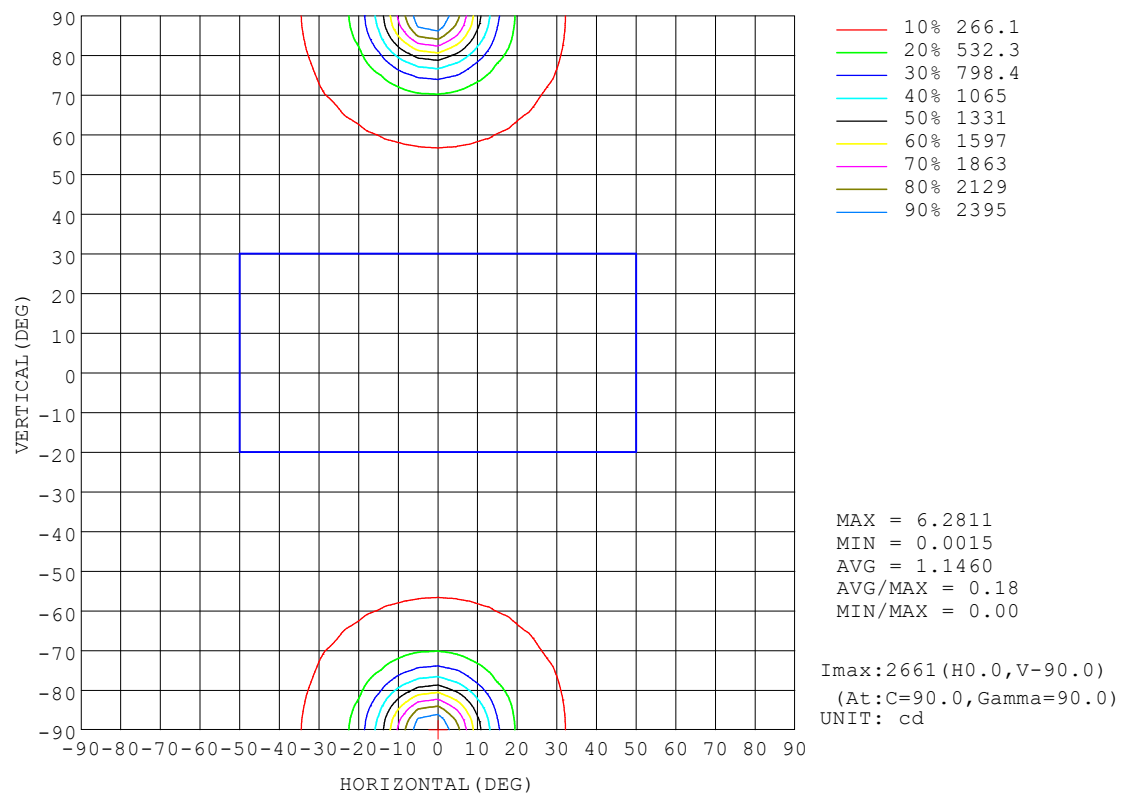
NEMA Beam Type: Type 7

C Range: 0 - 180DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:24 January 2023

γ Range: 0 - 150DEG
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: 96GRF328WW/1BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F 160 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Circle	Shielding Angle:

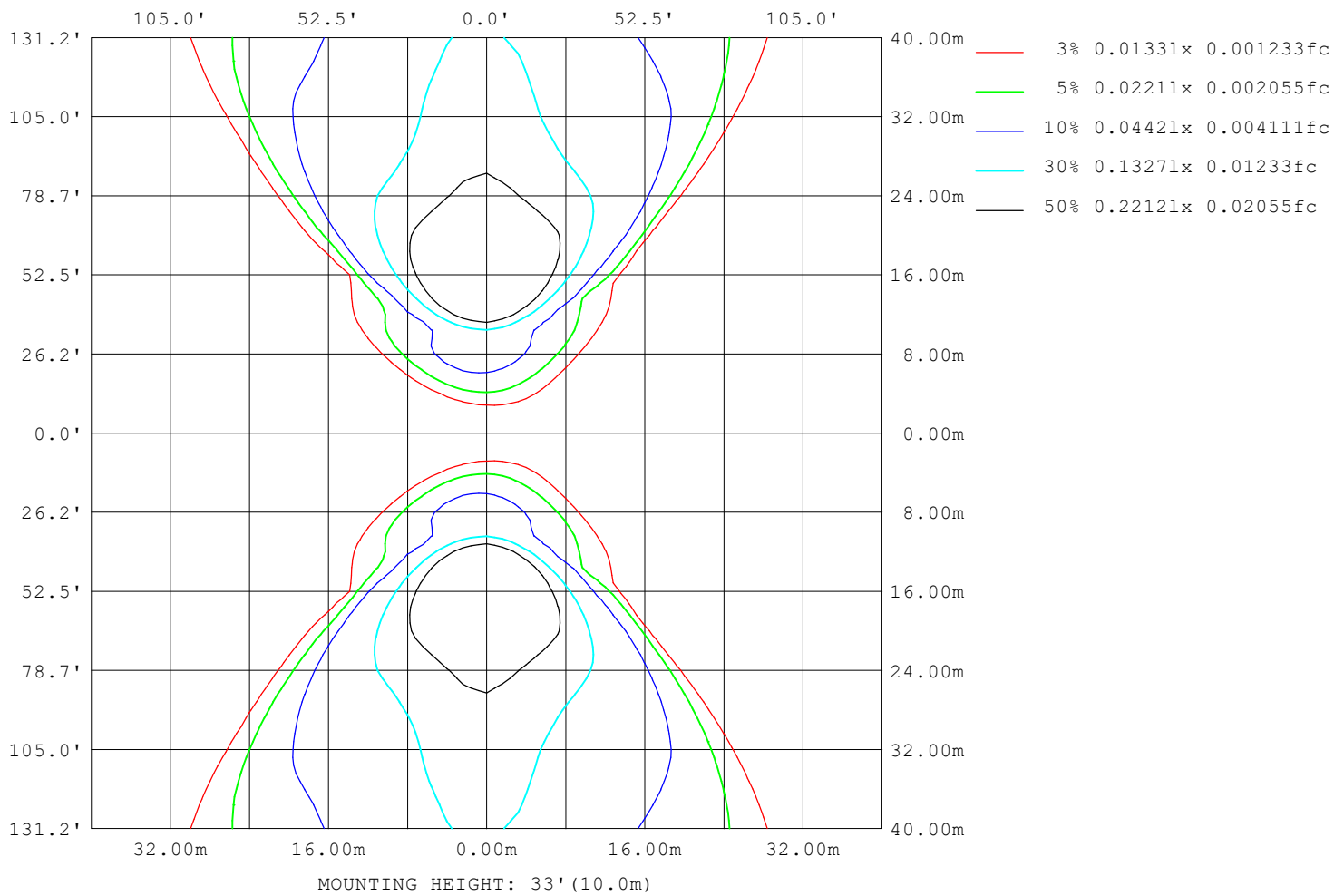


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Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.456
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Test Distance: 6.340m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

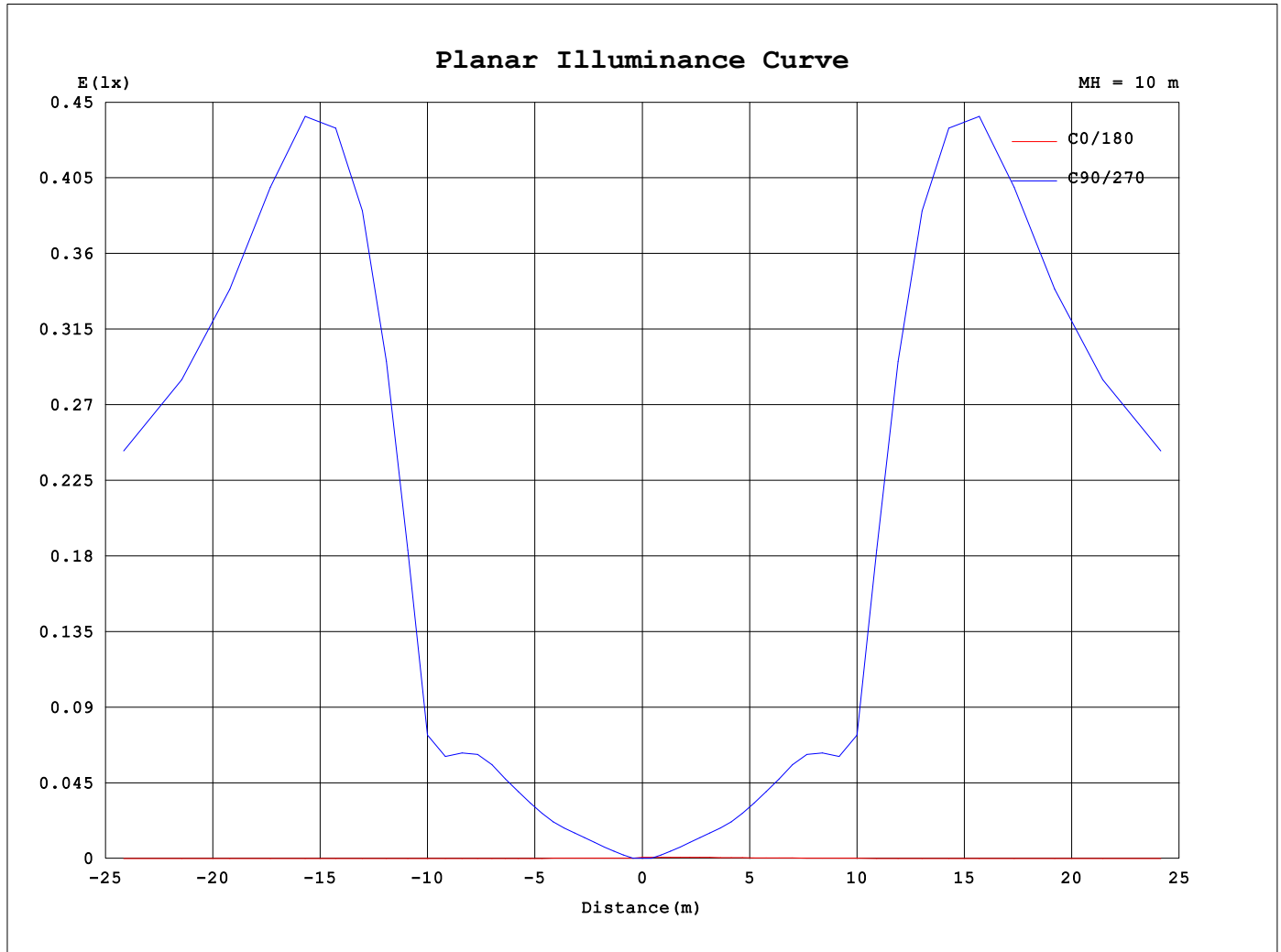
NAME: 96GRF328WW/1BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F 160 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Circle	Shielding Angle:



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 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.456
 Humidity: 65.0%
 Test Distance: 6.340m [K=1.0000]
 Remarks:

Planar Illuminance Curve

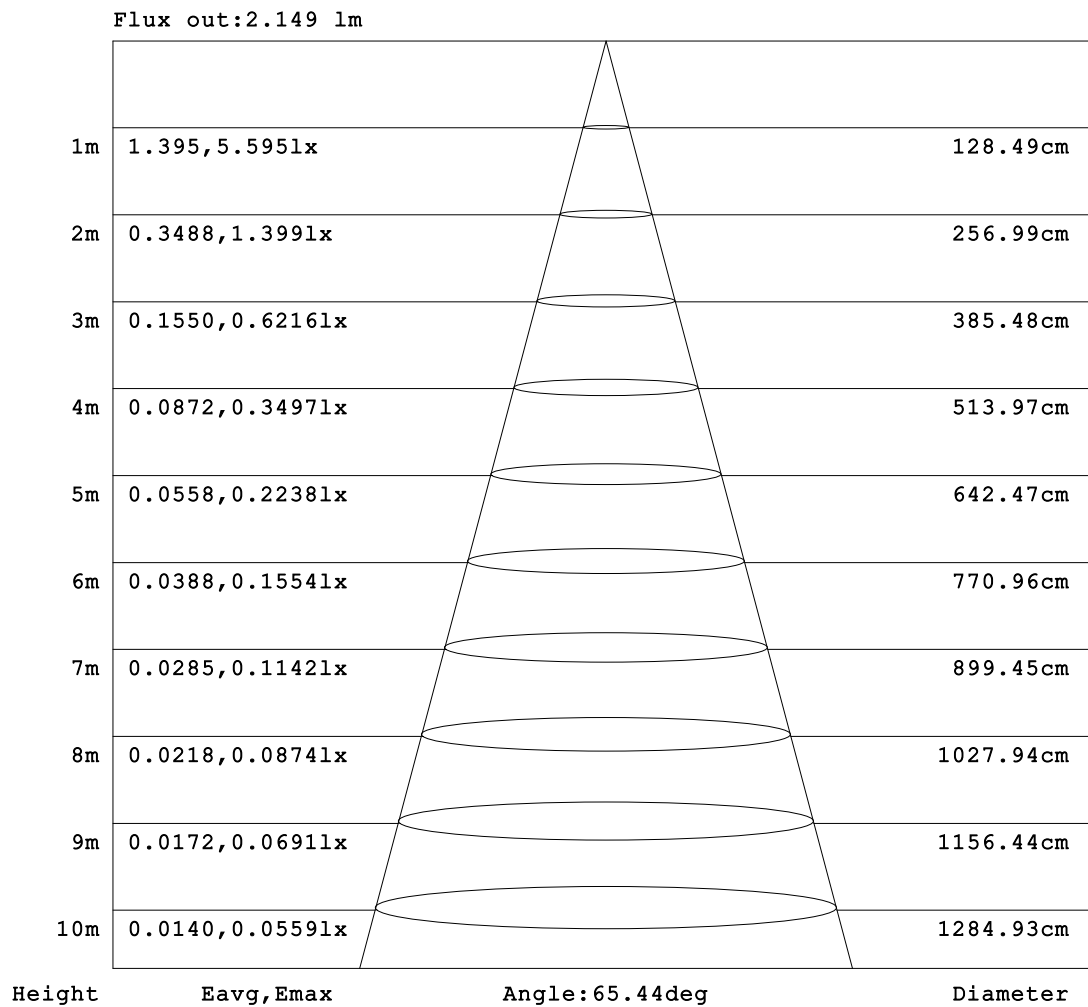


C Range: 0 - 180DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 24 January 2023

γ Range: 0 - 150DEG
 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:

AAI Figure

NAME: 96GRF328WW/1BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F 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 - 180DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 24 January 2023

γ Range: 0 - 150DEG
 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: 96GRF328WW/1BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F 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
-180	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-170	0.02	0.04	0.05	0.06	0.07	0.08	0.12	0.18	0.23	0.27	0.32	0.35	0.40	0.00	0.00	0.00	0.00	0.00	0.00
-160	0.02	0.05	0.09	0.13	0.27	0.40	0.54	0.68	0.82	0.99	1.13	1.26	1.41	1.51	0.36	0.00	0.00	0.00	0.00
-150	0.02	0.07	0.12	0.34	0.55	0.79	1.05	1.33	1.62	1.93	2.29	2.66	3.14	3.62	4.13	4.64	5.14	5.52	5.77
-140	0.02	0.09	0.25	0.53	0.86	1.23	1.65	2.12	2.82	3.65	4.69	5.86	7.14	8.51	9.78	11.0	11.9	12.7	13.2
-130	0.02	0.10	0.36	0.73	1.16	1.68	2.40	3.45	4.86	6.54	8.46	10.3	12.9	22.8	49.1	84.9	115	135	141
-120	0.02	0.11	0.45	0.90	1.47	2.25	3.43	5.18	7.39	9.81	14.5	36.9	106	185	250	289	310	324	325
-110	0.02	0.12	0.51	1.04	1.71	2.74	4.51	6.97	9.78	13.4	57.1	149	249	313	362	431	519	597	605
-100	0.02	0.13	0.55	1.11	1.86	3.10	5.36	8.33	11.5	20.6	113	233	314	383	530	845	1291	1703	1779
-90	0.02	0.13	0.56	1.15	1.90	3.26	5.76	9.12	12.3	27.6	136	259	333	415	649	1149	1903	2552	2661
-80	0.02	0.13	0.55	1.12	1.86	3.19	5.63	9.04	12.3	20.7	111	227	310	367	485	747	1114	1417	1502
-70	0.02	0.12	0.51	1.05	1.72	2.90	4.99	8.08	11.4	14.8	56.0	140	236	301	342	390	454	505	521
-60	0.02	0.12	0.45	0.92	1.50	2.39	3.89	6.21	9.38	12.5	16.6	35.8	97.7	167	226	270	299	313	320
-50	0.02	0.11	0.36	0.75	1.22	1.75	2.72	4.19	6.34	9.02	11.7	13.7	15.6	23.6	44.8	73.2	94.1	107	111
-40	0.02	0.09	0.26	0.53	0.92	1.32	1.77	2.51	3.53	4.87	6.57	8.48	10.4	12.1	13.2	13.7	13.9	14.0	14.0
-30	0.02	0.08	0.13	0.35	0.58	0.87	1.17	1.46	1.87	2.34	2.87	3.53	4.19	4.84	5.40	5.91	6.24	6.28	6.14
-20	0.02	0.06	0.10	0.15	0.30	0.44	0.62	0.80	0.98	1.13	1.31	1.49	1.64	1.80	1.93	2.03	2.12	2.19	2.20
-10	0.02	0.04	0.06	0.09	0.11	0.13	0.18	0.25	0.31	0.35	0.44	0.50	0.55	0.58	0.63	0.65	0.68	0.71	0.73
0	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.05	0.06	0.06	0.06	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.02
10	0.02	0.04	0.06	0.09	0.11	0.13	0.18	0.25	0.31	0.35	0.44	0.50	0.55	0.58	0.63	0.65	0.68	0.71	0.73
20	0.02	0.06	0.10	0.15	0.30	0.44	0.62	0.80	0.98	1.13	1.31	1.49	1.64	1.80	1.93	2.03	2.12	2.19	2.20
30	0.02	0.08	0.13	0.35	0.58	0.87	1.17	1.46	1.87	2.34	2.87	3.53	4.19	4.84	5.40	5.91	6.24	6.28	6.14
40	0.02	0.09	0.26	0.53	0.92	1.32	1.77	2.51	3.53	4.87	6.57	8.48	10.4	12.1	13.2	13.7	13.9	14.0	14.0
50	0.02	0.11	0.36	0.75	1.22	1.75	2.72	4.19	6.34	9.02	11.7	13.7	15.6	23.6	44.8	73.2	94.1	107	111
60	0.02	0.12	0.45	0.92	1.50	2.39	3.89	6.21	9.38	12.5	16.6	35.8	97.7	167	226	270	299	313	320
70	0.02	0.12	0.51	1.05	1.72	2.90	4.99	8.08	11.4	14.8	56.0	140	236	301	342	390	454	505	521
80	0.02	0.13	0.55	1.12	1.86	3.19	5.63	9.04	12.3	20.7	111	227	310	367	485	747	1114	1417	1502
90	0.02	0.13	0.56	1.15	1.90	3.26	5.76	9.12	12.3	27.6	136	259	333	415	649	1149	1903	2552	2661
100	0.02	0.13	0.55	1.11	1.86	3.10	5.36	8.33	11.5	20.6	113	233	314	383	530	845	1291	1703	1779
110	0.02	0.12	0.51	1.04	1.71	2.74	4.51	6.97	9.78	13.4	57.1	149	249	313	362	431	519	597	605
120	0.02	0.11	0.45	0.90	1.47	2.25	3.43	5.18	7.39	9.81	14.5	36.9	106	185	250	289	310	324	325
130	0.02	0.10	0.36	0.73	1.16	1.68	2.40	3.45	4.86	6.54	8.46	10.3	12.9	22.8	49.1	84.9	115	135	141
140	0.02	0.09	0.25	0.53	0.86	1.23	1.65	2.12	2.82	3.65	4.69	5.86	7.14	8.51	9.78	11.0	11.9	12.7	13.2
150	0.02	0.07	0.12	0.34	0.55	0.79	1.05	1.33	1.62	1.93	2.29	2.66	3.14	3.62	4.13	4.64	5.14	5.52	5.77
160	0.02	0.05	0.09	0.13	0.27	0.40	0.54	0.68	0.82	0.99	1.13	1.26	1.41	1.51	0.36	0.00	0.00	0.00	0.00
170	0.02	0.04	0.05	0.06	0.07	0.08	0.12	0.18	0.23	0.27	0.32	0.35	0.40	0.00	0.00	0.00	0.00	0.00	0.00
180	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 180DEG

C Interval: 5.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:24 January 2023

γ Range: 0 - 150DEG

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: 96GRF328WW/1BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F 160 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Circle	Shielding Angle:

Table--2

UNIT: cd

H(DEC) V(DEC)	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	
-180	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
-170	0.00	0.00	0.00	0.00	0.00	0.49	0.45	0.42	0.37	0.32	0.26	0.18	0.12	0.11	0.10	0.08	0.05	0.02	
-160	0.00	0.00	0.00	0.41	1.73	1.63	1.50	1.38	1.23	1.06	0.89	0.73	0.56	0.39	0.20	0.13	0.08	0.02	
-150	5.85	5.78	5.50	5.11	4.59	4.03	3.47	2.97	2.51	2.09	1.71	1.38	1.07	0.77	0.49	0.19	0.11	0.02	
-140	13.3	13.1	12.7	12.0	11.1	9.80	8.33	6.70	5.21	3.88	2.84	2.16	1.63	1.17	0.75	0.37	0.13	0.02	
-130	133	113	83.5	50.1	24.6	15.6	13.7	11.9	9.48	6.89	4.74	3.18	2.21	1.55	1.01	0.52	0.16	0.02	
-120	317	302	274	227	159	88.3	32.0	16.2	13.2	10.2	6.99	4.47	2.89	1.92	1.23	0.65	0.17	0.02	
-110	547	456	383	333	286	211	117	42.7	15.5	12.5	9.01	5.63	3.41	2.19	1.39	0.74	0.19	0.02	
-100	1494	1021	642	427	343	288	189	81.7	17.5	13.7	10.1	6.25	3.70	2.33	1.50	0.79	0.20	0.02	
-90	2196	1439	836	494	364	306	214	96.0	17.9	13.7	10.2	6.25	3.73	2.37	1.53	0.81	0.20	0.02	
-80	1260	906	590	422	341	286	185	75.1	16.4	12.7	9.21	5.69	3.52	2.31	1.50	0.79	0.20	0.02	
-70	485	430	375	331	282	203	105	34.9	13.7	10.7	7.47	4.80	3.15	2.15	1.40	0.74	0.19	0.02	
-60	312	295	261	208	140	67.8	25.1	13.6	10.7	7.77	5.38	3.72	2.67	1.91	1.25	0.64	0.18	0.02	
-50	101	83.6	57.3	27.9	16.2	13.6	11.4	9.00	6.81	4.99	3.68	2.79	2.15	1.59	1.03	0.53	0.16	0.02	
-40	13.6	13.0	12.0	10.7	9.15	7.54	6.06	4.84	3.86	3.10	2.55	2.10	1.67	1.22	0.76	0.38	0.14	0.02	
-30	5.86	5.48	4.97	4.45	3.96	3.45	3.03	2.68	2.39	2.08	1.77	1.47	1.15	0.81	0.51	0.21	0.11	0.02	
-20	2.20	2.17	2.12	2.06	1.97	1.84	1.73	1.55	1.38	1.21	1.02	0.81	0.62	0.44	0.23	0.15	0.08	0.02	
-10	0.75	0.76	0.75	0.75	0.70	0.67	0.63	0.55	0.46	0.40	0.32	0.24	0.18	0.16	0.12	0.09	0.05	0.02	
0	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
10	0.75	0.76	0.75	0.75	0.70	0.67	0.63	0.55	0.46	0.40	0.32	0.24	0.18	0.16	0.12	0.09	0.05	0.02	
20	2.20	2.17	2.12	2.06	1.97	1.84	1.73	1.55	1.38	1.21	1.02	0.81	0.62	0.44	0.23	0.15	0.08	0.02	
30	5.86	5.48	4.97	4.45	3.96	3.45	3.03	2.68	2.39	2.08	1.77	1.47	1.15	0.81	0.51	0.21	0.11	0.02	
40	13.6	13.0	12.0	10.7	9.15	7.54	6.06	4.84	3.86	3.10	2.55	2.10	1.67	1.22	0.76	0.38	0.14	0.02	
50	101	83.6	57.3	27.9	16.2	13.6	11.4	9.00	6.81	4.99	3.68	2.79	2.15	1.59	1.03	0.53	0.16	0.02	
60	312	295	261	208	140	67.8	25.1	13.6	10.7	7.77	5.38	3.72	2.67	1.91	1.25	0.64	0.18	0.02	
70	485	430	375	331	282	203	105	34.9	13.7	10.7	7.47	4.80	3.15	2.15	1.40	0.74	0.19	0.02	
80	1260	906	590	422	341	286	185	75.1	16.4	12.7	9.21	5.69	3.52	2.31	1.50	0.79	0.20	0.02	
90	2196	1439	836	494	364	306	214	96.0	17.9	13.7	10.2	6.25	3.73	2.37	1.53	0.81	0.20	0.02	
100	1494	1021	642	427	343	288	189	81.7	17.5	13.7	10.1	6.25	3.70	2.33	1.50	0.79	0.20	0.02	
110	547	456	383	333	286	211	117	42.7	15.5	12.5	9.01	5.63	3.41	2.19	1.39	0.74	0.19	0.02	
120	317	302	274	227	159	88.3	32.0	16.2	13.2	10.2	6.99	4.47	2.89	1.92	1.23	0.65	0.17	0.02	
130	133	113	83.5	50.1	24.6	15.6	13.7	11.9	9.48	6.89	4.74	3.18	2.21	1.55	1.01	0.52	0.16	0.02	
140	13.3	13.1	12.7	12.0	11.1	9.80	8.33	6.70	5.21	3.88	2.84	2.16	1.63	1.17	0.75	0.37	0.13	0.02	
150	5.85	5.78	5.50	5.11	4.59	4.03	3.47	2.97	2.51	2.09	1.71	1.38	1.07	0.77	0.49	0.19	0.11	0.02	
160	0.00	0.00	0.00	0.41	1.73	1.63	1.50	1.38	1.23	1.06	0.89	0.73	0.56	0.39	0.20	0.13	0.08	0.02	
170	0.00	0.00	0.00	0.00	0.00	0.49	0.45	0.42	0.37	0.32	0.26	0.18	0.12	0.11	0.10	0.08	0.05	0.02	
180	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	

C Range: 0 - 180DEG

C Interval: 5.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:24 January 2023

γ Range: 0 - 150DEG

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: