

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity	2978.8 cd per klm.
(Luminaire orientation as tested.)	-180.0 degrees vertical
	-90.0 degrees horizontal

Beam Spread	At 10% of Imax	308.9V x 33.5H
	At 50% of Imax	304.6V x 11.8H
	At 90% of Imax	151.4V x 3.9H

Beam Flux	Total	1121.1 lumens per klm.
	To 10% of Imax	664.3 lumens per klm.
	To 50% of Imax	0.0 lumens per klm.
	To 90% of Imax	0.0 lumens per klm.

Upward LOR	56.8 %
Downward LOR	55.3 %

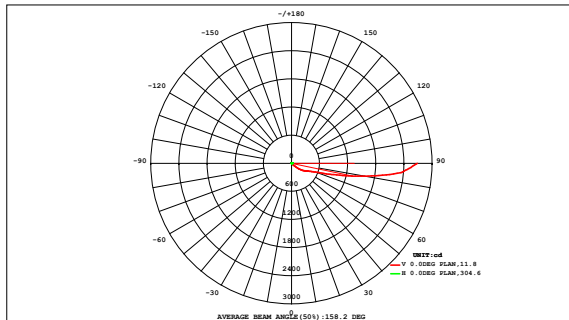
Luminaire Efficiency (Light Output Ratio)	112.2 %
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C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 24 January 2023

γ Range: 0 - 150DEG
γ Interval: 5.0DEG
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)	2681
NOMINAL POWER (W)	10	AVAILABILITY (%)	88.2
RATED VOLTAGE (V)	230	Avai. FLUX (lm)	793.7
NOMINAL FLUX (lm)	900	LOR (%)	112.2
LAMPS INSIDE	1	TOTAL FLUX (lm)	1010
TEST VOLTAGE (V)	230	θ @50% (H,V)	12,305DEG

VERTICAL (DEG)	AREA FLUX DIAGRAM																UNIT:lm		Φ t	Φ a
	5.66	11.2	8.83	4.83	3.62	1.50	0.13	0.09	0.03	0.00	0.01	0.01	0.03	0.05	0.07	0.06	0.04	0.02	36.2	28.7
90	5.54	10.8	8.51	4.82	3.61	1.60	0.14	0.09	0.03	0.00	0.01	0.01	0.03	0.05	0.07	0.06	0.04	0.02	35.4	27.8
80	5.47	10.1	7.74	4.81	3.46	1.61	0.18	0.08	0.03	0.00	0.01	0.01	0.03	0.05	0.07	0.06	0.04	0.02	33.8	26.2
70	5.41	9.15	6.84	4.49	2.89	1.26	0.20	0.07	0.02	0.00	0.01	0.01	0.03	0.05	0.06	0.06	0.04	0.02	30.6	23.4
60	5.34	8.34	5.90	3.85	1.93	0.59	0.14	0.05	0.02	0.00	0.01	0.01	0.03	0.05	0.06	0.06	0.04	0.02	26.4	20.6
50	5.27	7.69	5.21	3.34	1.10	0.30	0.14	0.05	0.01	0.00	0.00	0.01	0.02	0.04	0.06	0.06	0.04	0.02	23.4	18.4
40	5.25	7.29	4.83	3.19	1.02	0.29	0.14	0.05	0.01	0.00	0.00	0.01	0.02	0.04	0.06	0.06	0.04	0.02	22.3	17.4
30	5.28	7.14	4.78	3.32	0.96	0.26	0.12	0.04	0.01	0.00	0.00	0.01	0.02	0.04	0.06	0.06	0.05	0.02	22.2	17.5
20	5.37	7.26	5.02	3.71	0.93	0.25	0.11	0.04	0.01	0.00	0.00	0.01	0.02	0.04	0.06	0.07	0.05	0.02	23.0	18.7
10	5.37	7.25	4.99	3.68	0.92	0.24	0.10	0.04	0.01	0.00	0.00	0.01	0.02	0.04	0.06	0.07	0.05	0.02	22.9	18.6
0	5.28	7.11	4.70	3.21	0.93	0.23	0.10	0.04	0.01	0.00	0.00	0.01	0.02	0.04	0.06	0.06	0.05	0.02	21.9	17.2
-10	5.24	7.24	4.68	2.97	0.94	0.24	0.11	0.05	0.01	0.00	0.00	0.01	0.02	0.04	0.06	0.06	0.05	0.02	21.8	16.8
-20	5.27	7.63	5.02	2.99	0.80	0.25	0.12	0.05	0.02	0.00	0.00	0.01	0.03	0.05	0.06	0.06	0.04	0.02	22.4	17.8
-30	5.33	8.27	5.68	3.40	1.48	0.40	0.12	0.05	0.02	0.00	0.01	0.01	0.03	0.05	0.07	0.06	0.04	0.02	25.1	19.7
-40	5.40	9.08	6.61	4.03	2.45	1.01	0.16	0.05	0.02	0.00	0.01	0.01	0.04	0.06	0.07	0.06	0.04	0.02	29.1	22.4
-50	5.45	10.00	7.52	4.41	3.10	1.41	0.15	0.06	0.02	0.00	0.01	0.01	0.04	0.06	0.07	0.06	0.04	0.02	32.4	24.6
-60	5.53	10.7	8.26	4.49	3.35	1.47	0.13	0.08	0.03	0.00	0.01	0.01	0.03	0.06	0.07	0.07	0.04	0.02	34.3	26.4
-70	5.64	11.1	8.55	4.47	3.36	1.40	0.14	0.09	0.03	0.00	0.01	0.02	0.03	0.06	0.07	0.06	0.04	0.02	35.1	27.2
-80	5.64	11.1	8.55	4.47	3.36	1.40	0.14	0.09	0.03	0.00	0.01	0.02	0.03	0.06	0.07	0.06	0.04	0.02	35.1	27.2
-90	5.64	11.1	8.55	4.47	3.36	1.40	0.14	0.09	0.03	0.00	0.01	0.02	0.03	0.06	0.07	0.06	0.04	0.02	35.1	27.2
HORIZONTAL (DEG)																				
Φ t	97.1	157	114	70.0	36.8	14.3	2.44	1.06	0.34	0.04	0.11	0.22	0.51	0.89	1.16	1.12	0.80	0.29	498	---
Φ a	97.1	157	113	21.7	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	---	389

one-half-peak spread: U:2.5,D:2.2 , L:11.8,R:11.9

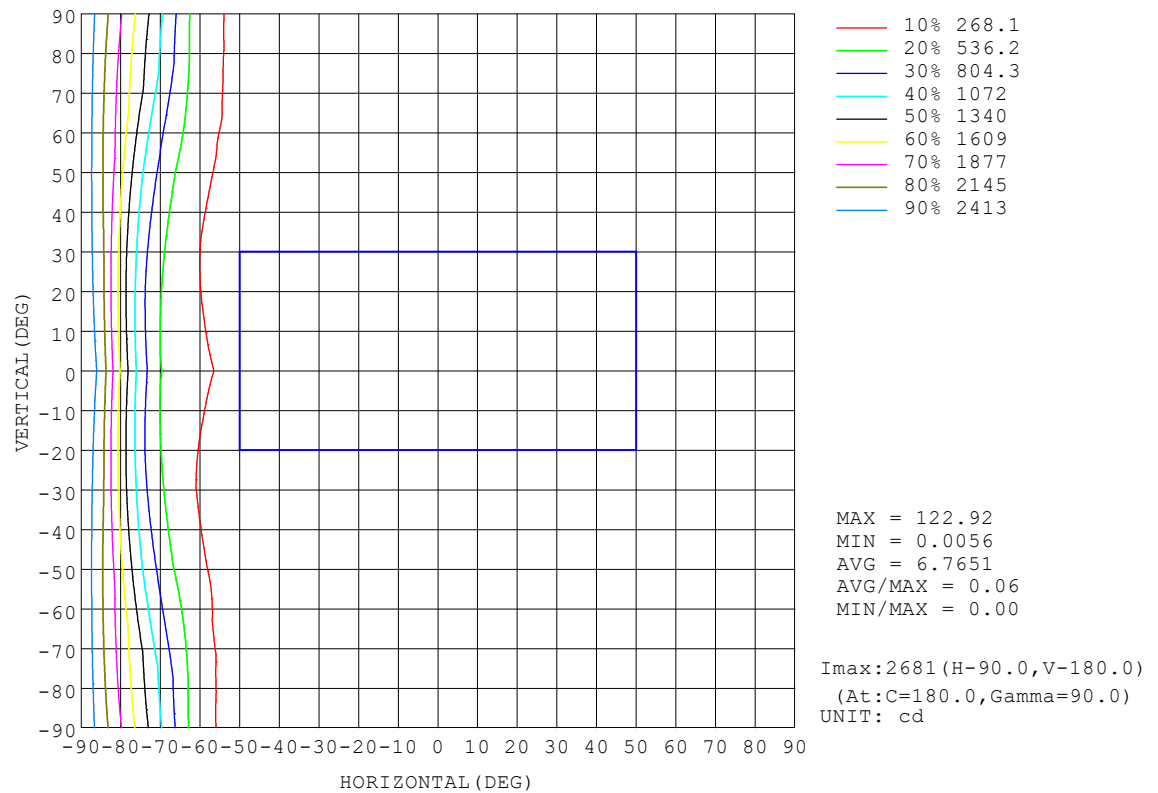
NEMA Beam Type: Type 3 x 7 (H x V)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:24 January 2023

γ Range: 0 - 150DEG
γ Interval: 5.0DEG
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:

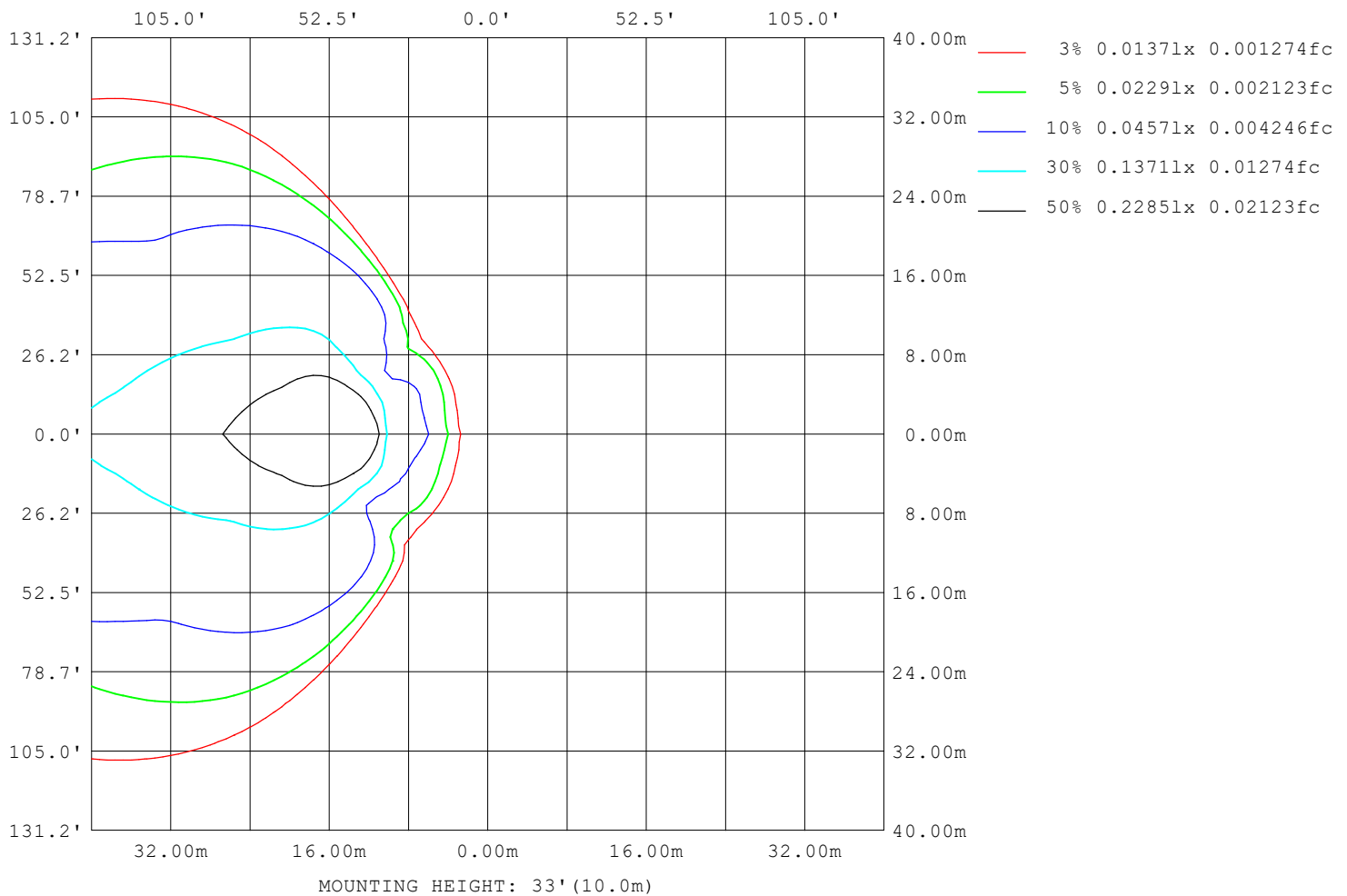


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ISOLUX DIAGRAM

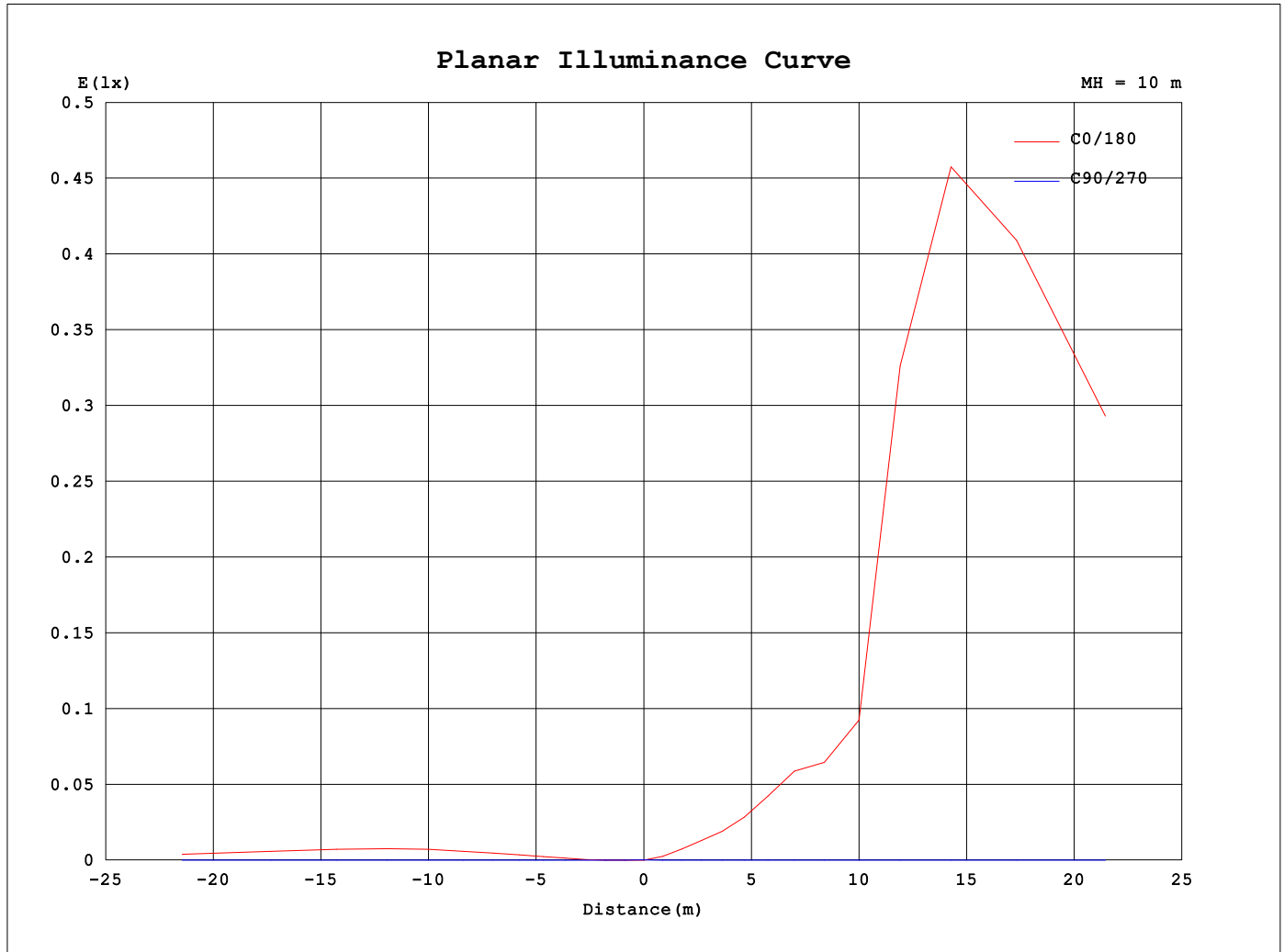
NAME: 96GRF328WW/1BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F 160 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Circle	Shielding Angle:



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γ Interval: 5.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity: 65.0%
Test Distance: 6.340m [K=1.0000]
Remarks:

Planar Illuminance Curve

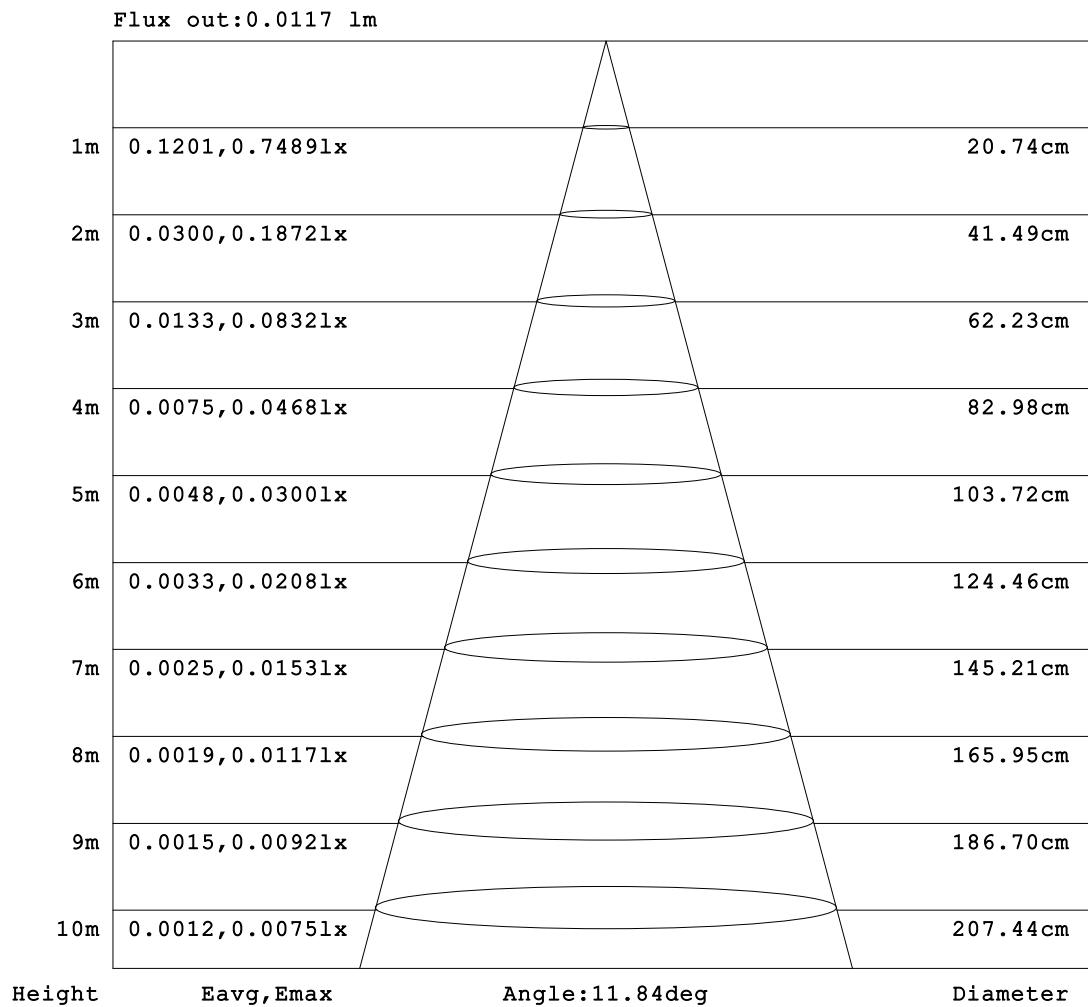


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 24 January 2023

γ Range: 0 - 150DEG
 γ Interval: 5.0DEG
 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 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 24 January 2023

γ Range: 0 - 150DEG
γ Interval: 5.0DEG
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)	-90	-85	-80	-75	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
V(DEC)	-180	-170	-160	-150	-140	-130	-120	-110	-100	-90	-80	-70	-60	-50	-40	-30	-20	-10	0
2681	2427	1717	1020	578	390	321	254	129	24.4	12.6	8.84	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2681	2369	1654	982	559	367	283	209	111	32.7	12.9	8.27	5.09	1.45	0.00	0.00	0.00	0.00	0.00	0.00
2681	2320	1630	995	579	366	261	183	105	43.7	14.2	9.20	5.99	3.54	1.43	0.00	0.00	0.00	0.00	0.00
2681	2281	1638	1043	622	380	254	174	96.4	38.9	13.4	10.2	6.96	4.35	2.41	1.24	0.79	0.39	0.02	0.02
2681	2253	1673	1115	676	424	279	185	108	49.3	19.2	11.3	7.03	4.39	2.12	1.52	0.98	0.49	0.02	0.02
2681	2235	1733	1203	787	493	319	213	146	96.5	57.4	29.9	12.4	4.33	2.68	1.94	1.26	0.63	0.02	0.02
2681	2230	1813	1305	895	580	357	233	180	132	88.7	52.3	22.1	4.41	3.43	2.52	1.66	0.83	0.02	0.02
2681	2236	1817	1421	998	647	366	253	200	151	104	59.7	18.0	5.11	4.05	3.02	2.01	1.01	0.02	0.02
2681	2255	1842	1444	1060	689	331	257	207	157	108	58.7	10.1	5.40	4.32	3.25	2.17	1.10	0.02	0.02
2681	2286	1890	1495	1099	704	308	258	208	157	107	56.6	6.25	5.21	4.18	3.14	2.10	1.06	0.02	0.02
2681	2242	1823	1422	1041	677	331	258	208	158	108	58.4	9.25	4.66	3.71	2.78	1.86	0.94	0.02	0.02
2681	2211	1777	1376	960	623	361	255	203	154	106	60.0	17.1	4.01	3.17	2.36	1.56	0.79	0.02	0.02
2681	2193	1753	1242	839	552	352	239	183	133	87.7	50.7	20.6	3.44	2.70	1.99	1.32	0.66	0.02	0.02
2681	2187	1658	1121	736	471	313	212	144	92.2	52.6	26.4	10.5	3.69	2.40	1.77	1.17	0.59	0.02	0.02
2681	2194	1584	1032	632	407	274	181	101	43.1	15.5	10.2	6.78	4.33	2.26	1.67	1.10	0.56	0.02	0.02
2681	2213	1534	964	584	367	252	171	89.8	35.3	12.9	9.79	6.66	4.31	2.62	1.57	1.01	0.50	0.02	0.02
2681	2244	1512	918	546	358	261	178	98.6	42.1	14.2	8.90	5.74	3.75	2.41	1.49	0.87	0.42	0.02	0.02
2681	2287	1524	904	529	363	286	201	106	32.8	13.7	9.09	5.81	3.56	2.27	1.47	0.79	0.30	0.02	0.02
2681	2341	1577	936	548	388	327	243	123	26.2	14.4	10.7	6.51	3.81	2.31	1.46	0.78	0.27	0.01	0.01
2681	2288	1526	906	533	368	291	205	107	33.5	14.7	9.92	6.31	3.77	2.30	1.41	0.75	0.28	0.02	0.02
2681	2245	1515	922	553	367	271	188	104	43.3	16.1	11.1	7.34	4.44	2.59	1.45	0.79	0.38	0.02	0.02
2681	2215	1538	970	594	380	268	188	105	43.1	14.8	11.8	8.27	5.20	2.83	1.42	0.91	0.45	0.02	0.02
2681	2196	1589	1040	645	423	294	205	126	62.4	26.6	13.4	7.71	4.88	2.29	1.65	1.07	0.53	0.02	0.02
2681	2190	1664	1129	749	489	335	239	171	114	68.4	36.3	15.5	4.92	2.81	2.04	1.33	0.67	0.02	0.02
2681	2196	1760	1252	851	570	376	265	206	151	102	60.3	25.1	4.25	3.33	2.46	1.63	0.82	0.02	0.02
2681	2215	1785	1387	975	640	380	275	221	169	117	66.8	19.3	4.74	3.77	2.82	1.88	0.95	0.02	0.02
2681	2246	1831	1435	1057	698	356	279	224	170	116	62.6	9.85	4.96	3.98	2.99	2.00	1.01	0.02	0.02
2681	2290	1899	1508	1117	726	334	280	225	170	115	60.5	5.76	4.80	3.85	2.89	1.93	0.98	0.02	0.02
2681	2259	1851	1457	1077	711	356	278	223	169	115	61.9	9.18	4.37	3.49	2.61	1.74	0.88	0.02	0.02
2681	2240	1826	1433	1013	665	386	274	220	168	117	66.3	18.4	3.78	2.98	2.22	1.47	0.74	0.02	0.02
2681	2233	1821	1315	908	599	386	267	210	154	102	59.1	23.6	3.14	2.45	1.80	1.18	0.60	0.02	0.02
2681	2239	1739	1212	801	516	349	244	169	110	63.0	31.3	11.8	3.41	2.01	1.47	0.97	0.49	0.02	0.02
2681	2255	1678	1123	691	445	300	202	118	51.7	17.4	9.61	5.75	3.55	1.72	1.25	0.81	0.41	0.02	0.02
2681	2283	1641	1050	634	394	266	180	96.7	36.8	11.1	8.25	5.56	3.50	2.00	1.07	0.69	0.34	0.02	0.02
2681	2322	1632	1000	588	375	266	184	104	42.2	12.6	7.61	4.86	3.04	1.27	0.00	0.00	0.00	0.00	0.00
2681	2370	1655	985	564	371	285	209	110	31.9	12.2	7.68	4.76	1.35	0.00	0.00	0.00	0.00	0.00	0.00
2681	2427	1717	1020	578	390	321	254	129	24.4	12.6	8.84	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG

C Interval: 30.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:24 January 2023

γ Range: 0 - 150DEG

γ Interval: 5.0DEG

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 (DEG) V (DEG)	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	0.49	0.65	0.88	1.28	1.78	2.24	2.67	3.17	3.81	4.54	5.24	5.83	6.23	
-170	0.00	0.00	0.00	0.00	0.15	0.48	0.65	0.90	1.28	1.75	2.23	2.70	3.22	3.84	4.54	5.21	5.80	6.23	
-160	0.00	0.00	0.00	0.16	0.37	0.55	0.75	1.03	1.42	1.87	2.35	2.84	3.36	3.96	4.59	5.22	5.79	6.23	
-150	0.05	0.08	0.13	0.24	0.40	0.61	0.89	1.28	1.70	2.15	2.61	3.09	3.59	4.13	4.70	5.26	5.79	6.23	
-140	0.07	0.12	0.18	0.25	0.45	0.71	1.04	1.48	2.05	2.62	3.03	3.45	3.89	4.36	4.83	5.32	5.80	6.23	
-130	0.09	0.16	0.23	0.31	0.45	0.80	1.22	1.72	2.31	2.98	3.54	3.86	4.22	4.58	4.99	5.41	5.82	6.23	
-120	0.11	0.19	0.28	0.37	0.47	0.82	1.34	1.90	2.52	3.18	3.88	4.26	4.51	4.82	5.14	5.51	5.85	6.23	
-110	0.12	0.22	0.32	0.42	0.52	0.78	1.38	2.01	2.65	3.31	4.00	4.55	4.76	5.01	5.30	5.58	5.89	6.23	
-100	0.13	0.24	0.35	0.45	0.56	0.71	1.37	2.03	2.71	3.39	4.07	4.73	4.94	5.16	5.40	5.66	5.93	6.23	
-90	0.13	0.24	0.35	0.45	0.56	0.67	1.36	2.05	2.74	3.43	4.13	4.82	5.05	5.29	5.52	5.76	5.99	6.23	
-80	0.13	0.23	0.33	0.44	0.54	0.69	1.38	2.08	2.77	3.47	4.17	4.84	5.09	5.33	5.56	5.79	6.01	6.23	
-70	0.12	0.21	0.31	0.41	0.51	0.78	1.43	2.10	2.78	3.48	4.18	4.78	5.07	5.34	5.62	5.83	6.03	6.23	
-60	0.10	0.18	0.27	0.36	0.45	0.86	1.45	2.08	2.75	3.45	4.17	4.66	5.01	5.35	5.63	5.89	6.06	6.23	
-50	0.09	0.15	0.22	0.30	0.45	0.88	1.38	1.97	2.63	3.36	4.02	4.51	4.96	5.33	5.67	5.92	6.10	6.23	
-40	0.06	0.11	0.17	0.23	0.47	0.80	1.22	1.76	2.42	3.13	3.79	4.38	4.90	5.35	5.70	5.96	6.14	6.23	
-30	0.04	0.07	0.11	0.24	0.43	0.69	1.04	1.54	2.15	2.86	3.61	4.30	4.88	5.37	5.75	6.02	6.19	6.23	
-20	0.02	0.03	0.10	0.23	0.39	0.62	0.91	1.35	1.96	2.71	3.52	4.29	4.93	5.44	5.83	6.09	6.23	6.23	
-10	0.01	0.04	0.10	0.20	0.34	0.54	0.83	1.26	1.90	2.71	3.59	4.41	5.07	5.57	5.94	6.18	6.28	6.23	
0	0.01	0.01	0.06	0.17	0.33	0.54	0.85	1.33	2.03	2.92	3.85	4.67	5.30	5.76	6.08	6.27	6.32	6.23	
10	0.03	0.03	0.08	0.17	0.31	0.50	0.78	1.21	1.83	2.63	3.51	4.33	5.00	5.52	5.91	6.15	6.27	6.23	
20	0.04	0.06	0.11	0.21	0.35	0.54	0.81	1.22	1.80	2.54	3.34	4.12	4.79	5.34	5.76	6.05	6.21	6.23	
30	0.05	0.08	0.12	0.23	0.39	0.61	0.89	1.30	1.87	2.57	3.32	4.04	4.68	5.22	5.65	5.96	6.16	6.23	
40	0.07	0.11	0.17	0.23	0.43	0.70	1.04	1.49	2.05	2.71	3.40	4.06	4.65	5.17	5.57	5.88	6.10	6.23	
50	0.08	0.15	0.21	0.29	0.42	0.77	1.19	1.69	2.27	2.92	3.58	4.16	4.68	5.13	5.52	5.82	6.06	6.23	
60	0.09	0.17	0.25	0.33	0.42	0.77	1.28	1.84	2.44	3.08	3.76	4.30	4.72	5.13	5.47	5.79	6.02	6.23	
70	0.11	0.19	0.28	0.37	0.46	0.70	1.29	1.91	2.53	3.17	3.83	4.42	4.77	5.11	5.45	5.72	5.98	6.23	
80	0.11	0.21	0.30	0.40	0.49	0.63	1.26	1.90	2.55	3.20	3.86	4.49	4.80	5.10	5.40	5.68	5.96	6.23	
90	0.11	0.21	0.30	0.39	0.49	0.58	1.24	1.89	2.55	3.21	3.86	4.52	4.80	5.09	5.37	5.66	5.94	6.23	
100	0.11	0.20	0.29	0.38	0.48	0.61	1.25	1.89	2.53	3.19	3.85	4.48	4.73	4.99	5.27	5.57	5.89	6.23	
110	0.10	0.19	0.27	0.36	0.45	0.68	1.26	1.87	2.49	3.12	3.78	4.33	4.57	4.85	5.18	5.49	5.84	6.23	
120	0.09	0.17	0.24	0.32	0.40	0.75	1.25	1.79	2.38	3.01	3.68	4.06	4.35	4.68	5.03	5.44	5.81	6.23	
130	0.08	0.14	0.20	0.27	0.40	0.75	1.17	1.65	2.21	2.85	3.39	3.72	4.08	4.47	4.90	5.34	5.78	6.23	
140	0.06	0.10	0.15	0.21	0.42	0.69	1.03	1.47	2.01	2.54	2.94	3.35	3.78	4.26	4.76	5.27	5.77	6.23	
150	0.04	0.07	0.10	0.22	0.40	0.63	0.91	1.31	1.70	2.13	2.57	3.02	3.52	4.06	4.64	5.22	5.77	6.23	
160	0.00	0.00	0.00	0.15	0.38	0.59	0.79	1.07	1.43	1.87	2.33	2.80	3.32	3.91	4.56	5.19	5.78	6.23	
170	0.00	0.00	0.00	0.00	0.15	0.48	0.67	0.92	1.29	1.76	2.23	2.68	3.20	3.82	4.52	5.20	5.80	6.23	
180	0.00	0.00	0.00	0.00	0.00	0.49	0.65	0.88	1.28	1.78	2.24	2.67	3.17	3.81	4.54	5.24	5.83	6.23	

C Range: 0 - 360DEG

C Interval: 30.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:24 January 2023

γ Range: 0 - 150DEG

γ Interval: 5.0DEG

Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456

Humidity:65.0%

Test Distance:6.340m [K=1.0000]

Remarks: