

# Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity	1056.4 cd per klm.
(Luminaire orientation as tested.)	0.0 degrees vertical
	2.5 degrees horizontal

Beam Spread	At 10% of Imax	69.8V x 91.6H
	At 50% of Imax	51.4V x 63.9H
	At 90% of Imax	15.9V x 27.2H

Beam Flux	Total	868.6 lumens per klm.
	To 10% of Imax	826.3 lumens per klm.
	To 50% of Imax	560.0 lumens per klm.
	To 90% of Imax	102.6 lumens per klm.

Upward LOR	0.0 %
Downward LOR	86.9 %

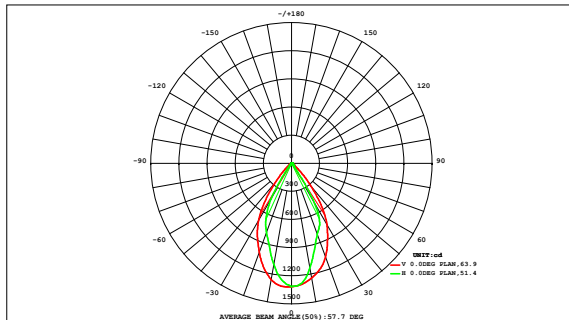
Luminaire Efficiency (Light Output Ratio)	86.8 %
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C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 26 August 2022

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: 93ZF1D1230/BL	TYPE: 93ZF1D1230/BL	WEIGHT: 1
SPEC.:	DIM.: 140 x 36 x 68	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: 4 square	Shielding Angle:



DATA OF LAMP		PHOTOMETRIC DATA	
MODEL	93ZF1D1230/BL	Imax (cd)	1321
NOMINAL POWER (W)	12	AVAILABILITY (%)	82.4
RATED VOLTAGE (V)	230	Avai. FLUX (lm)	1030
NOMINAL FLUX (lm)	1250	LOR (%)	86.8
LAMPS INSIDE	1	TOTAL FLUX (lm)	1085
TEST VOLTAGE (V)	230	θ @50% (H,V)	64,51DEG

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	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	0.03	0.00
80	0.00	0.00	0.00	0.00	0.01	0.02	0.04	0.05	0.06	0.06	0.05	0.04	0.02	0.01	0.00	0.00	0.00	0.00	0.38	0.00
70	0.00	0.00	0.00	0.02	0.05	0.09	0.14	0.17	0.18	0.18	0.17	0.14	0.09	0.04	0.01	0.00	0.00	0.00	1.27	0.00
60	0.00	0.00	0.01	0.05	0.15	0.32	0.48	0.59	0.65	0.65	0.58	0.46	0.29	0.14	0.05	0.01	0.00	0.00	4.43	0.00
50	0.00	0.00	0.02	0.14	0.61	1.94	3.47	4.73	5.42	5.49	4.63	3.28	1.70	0.52	0.14	0.02	0.00	0.00	32.1	21.5
40	0.00	0.00	0.04	0.29	1.76	6.40	12.0	16.5	18.8	19.1	16.2	11.3	5.62	1.48	0.29	0.05	0.00	0.00	110	106
30	0.00	0.00	0.06	0.44	2.99	10.4	18.6	24.7	27.6	27.9	24.1	17.4	9.22	2.48	0.43	0.06	0.00	0.00	166	163
20	0.00	0.00	0.07	0.54	3.81	13.3	23.9	32.2	36.6	36.9	31.5	22.4	11.8	3.14	0.51	0.08	0.00	0.00	217	214
10	0.00	0.00	0.07	0.54	3.90	13.5	24.2	32.8	37.4	37.8	32.2	22.8	12.1	3.21	0.52	0.08	0.00	0.00	221	218
0	0.00	0.00	0.07	0.45	3.12	10.9	19.3	25.5	28.5	28.6	24.9	18.1	9.64	2.55	0.43	0.07	0.00	0.00	172	169
-10	0.00	0.00	0.05	0.30	1.90	7.01	13.0	18.0	20.4	20.6	17.5	12.1	5.99	1.49	0.28	0.05	0.00	0.00	119	115
-20	0.00	0.00	0.03	0.15	0.66	2.24	3.96	5.23	5.85	5.65	4.83	3.36	1.62	0.50	0.14	0.03	0.00	0.00	34.3	23.3
-30	0.00	0.00	0.01	0.06	0.17	0.36	0.56	0.70	0.76	0.74	0.66	0.51	0.31	0.15	0.06	0.01	0.00	0.00	5.05	0.00
-40	0.00	0.00	0.00	0.02	0.06	0.11	0.17	0.21	0.22	0.22	0.21	0.16	0.10	0.05	0.02	0.00	0.00	0.00	1.57	0.00
-50	0.00	0.00	0.00	0.00	0.02	0.03	0.05	0.07	0.08	0.08	0.07	0.05	0.03	0.01	0.00	0.00	0.00	0.00	0.51	0.00
-60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	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	0.01	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
	-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)	20	30	40	50	60	70	80	90			
Φ t	0.00	0.02	0.45	3.02	19.2	66.6	120	161	183	184	158	112	58.6	15.8	2.90	0.45	0.02	0.00	1085	---
Φ a	0.00	0.00	0.00	0.00	11.6	62.8	116	157	178	180	154	108	54.5	7.40	0.00	0.00	0.00	0.00	---	1030

one-half-peak spread: U:26.9,D:24.9 , L:35.4,R:28.9

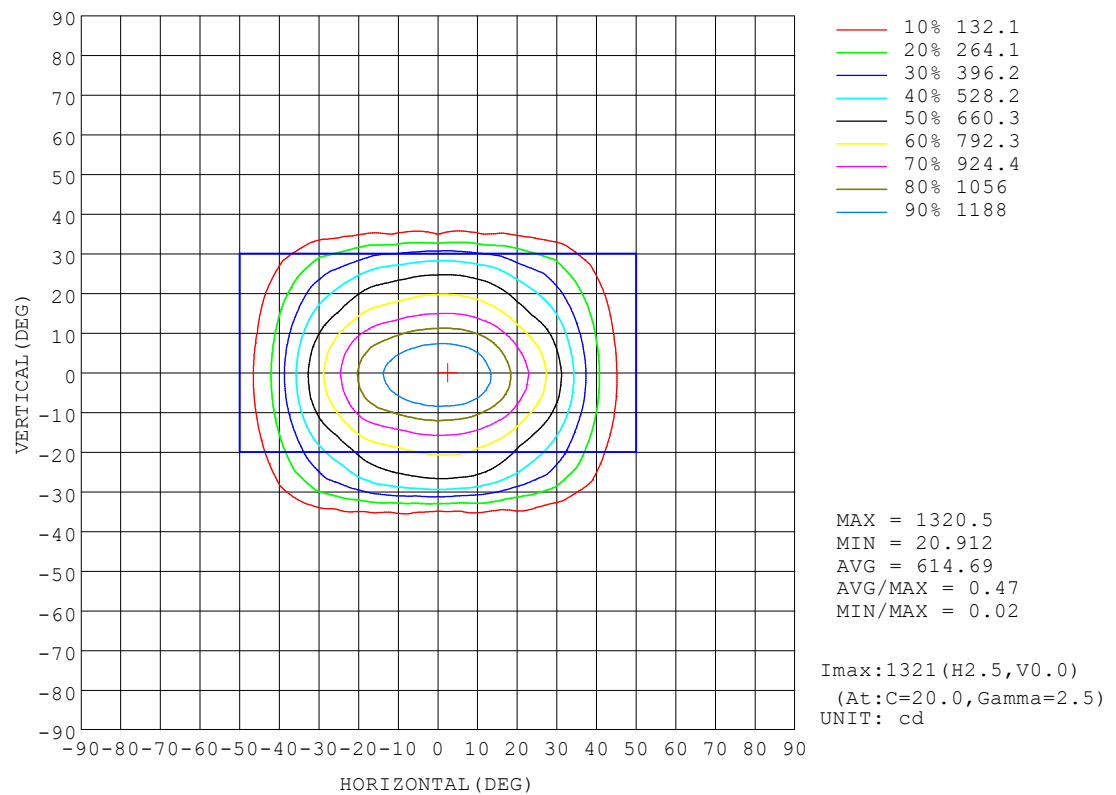
NEMA Beam Type: Type 5 x 4 (H x V)

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:26 August 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: 93ZFLD1230/BL	TYPE: 93ZFLD1230/BL	WEIGHT: 1
SPEC.:	DIM.: 140 x 36 x 68	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: 4 square	Shielding Angle:

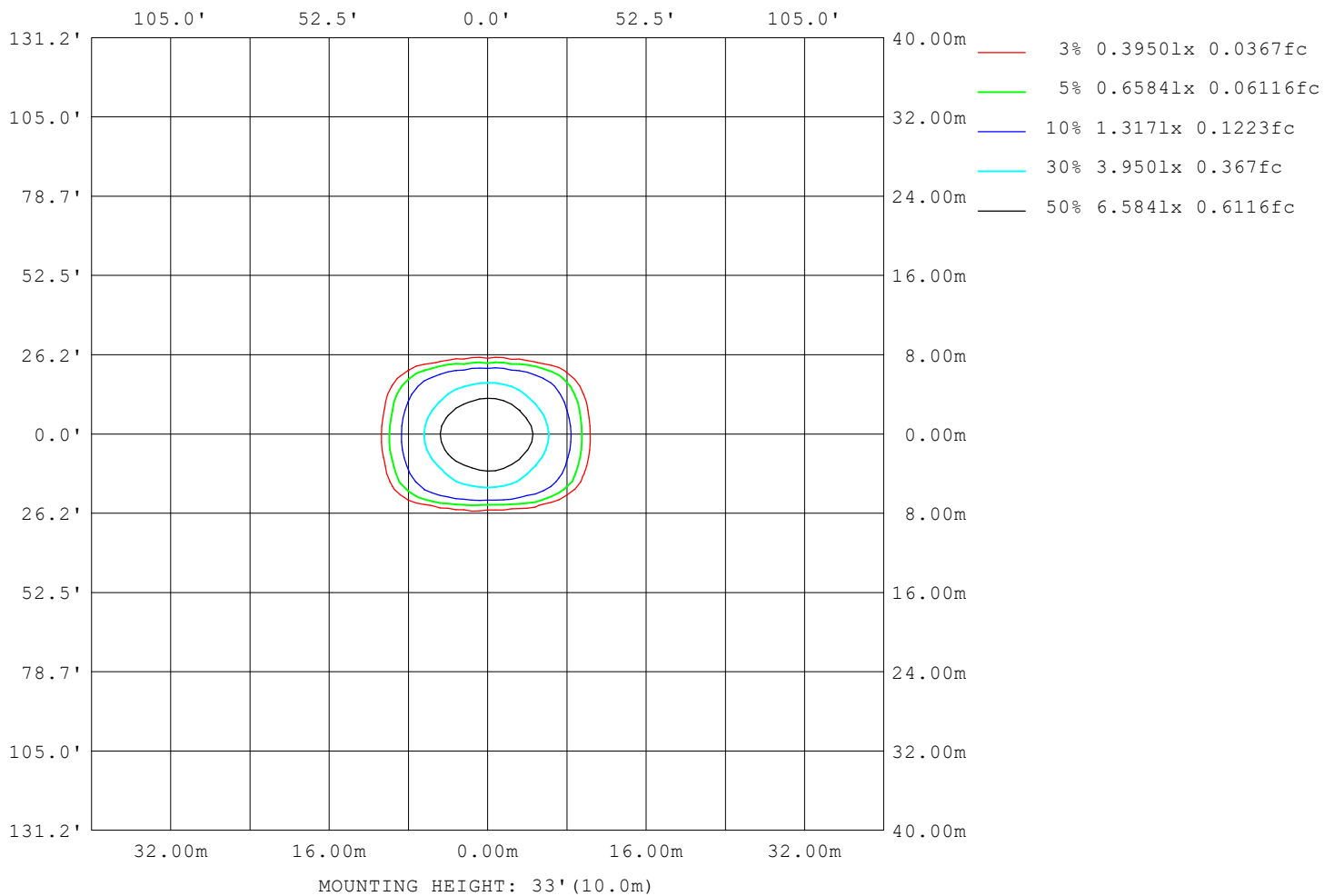


C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:26 August 2022

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**

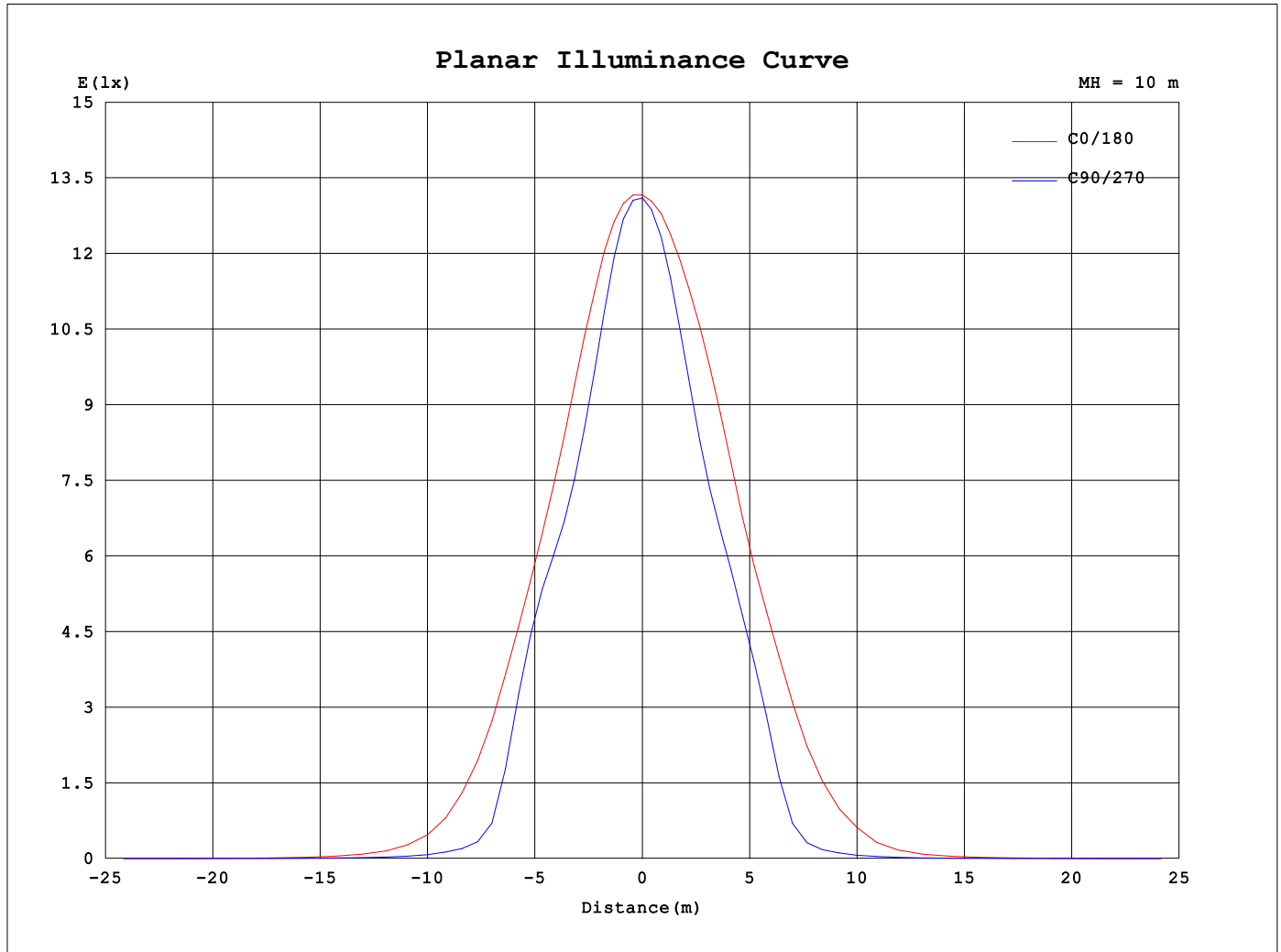
NAME: 93ZFLD1230/BL	TYPE: 93ZFLD1230/BL	WEIGHT: 1
SPEC.:	DIM.: 140 x 36 x 68	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: 4 square	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 26 August 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

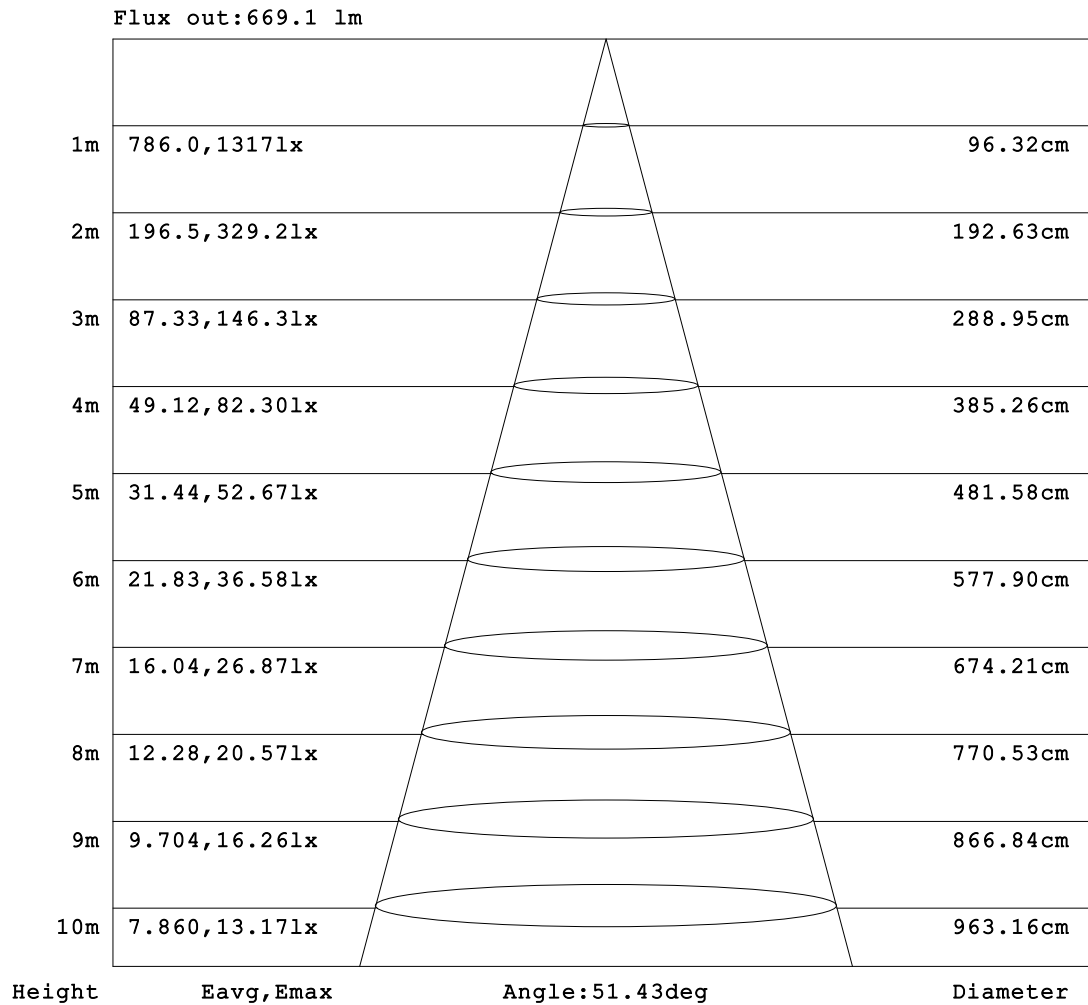


C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 26 August 2022

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: 93ZFLD1230/BL	TYPE: 93ZFLD1230/BL	WEIGHT: 1
SPEC.:	DIM.: 140 x 36 x 68	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: 4 square	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: 26 August 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: 93ZFLD1230/BL	TYPE: 93ZFLD1230/BL	WEIGHT: 1
SPEC.:	DIM.: 140 x 36 x 68	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: 4 square	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	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
-85	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.01	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.01
-80	0.04	0.04	0.03	0.03	0.04	0.03	0.02	0.03	0.04	0.03	0.02	0.03	0.04	0.03	0.01	0.02	0.03	0.02	0.01
-75	0.04	0.04	0.03	0.03	0.05	0.04	0.03	0.05	0.07	0.06	0.05	0.06	0.08	0.07	0.05	0.06	0.07	0.06	0.04
-70	0.04	0.04	0.03	0.04	0.05	0.06	0.05	0.07	0.11	0.21	0.29	0.42	0.54	0.67	0.82	0.94	1.03	1.06	1.04
-65	0.04	0.04	0.03	0.04	0.06	0.08	0.08	0.17	0.40	0.66	0.96	1.25	1.58	1.88	2.19	2.40	2.53	2.57	2.54
-60	0.04	0.04	0.03	0.04	0.08	0.10	0.17	0.52	0.99	1.42	1.91	2.45	2.98	3.46	3.89	4.16	4.25	4.28	4.24
-55	0.04	0.04	0.03	0.05	0.09	0.15	0.52	1.16	1.87	2.53	3.36	4.24	5.10	5.92	6.47	6.86	6.95	6.96	6.88
-50	0.04	0.04	0.04	0.06	0.10	0.33	1.14	2.13	3.16	4.28	5.53	7.20	8.81	10.2	11.2	11.8	12.1	12.2	12.1
-45	0.04	0.04	0.04	0.07	0.13	0.68	2.01	3.50	5.12	7.18	9.39	13.0	15.6	18.6	20.5	21.7	22.8	23.0	22.8
-40	0.04	0.04	0.04	0.07	0.19	1.30	3.11	5.44	8.41	13.2	20.3	28.2	37.8	40.7	41.3	44.4	45.9	45.2	44.9
-35	0.04	0.04	0.04	0.08	0.42	1.96	4.44	8.13	14.0	26.5	49.1	85.3	106	119	133	141	151	136	128
-30	0.04	0.04	0.04	0.08	0.63	2.71	5.86	11.5	22.7	48.4	109	174	263	318	375	433	460	477	497
-25	0.04	0.04	0.05	0.09	0.93	3.38	7.36	15.4	33.7	81.2	169	283	396	480	566	632	668	696	716
-20	0.04	0.04	0.05	0.08	1.22	4.09	8.90	18.8	43.2	108	221	362	497	585	680	741	765	794	805
-15	0.04	0.04	0.05	0.08	1.45	4.57	10.2	22.6	53.7	132	269	433	591	693	808	870	903	937	949
-10	0.04	0.04	0.04	0.07	1.59	4.89	11.0	25.0	60.2	157	309	502	678	805	941	1023	1072	1115	1135
-5	0.04	0.04	0.04	0.06	1.66	5.05	11.4	26.2	64.3	173	335	549	738	882	1034	1135	1203	1257	1283
0	0.04	0.04	0.04	0.05	1.65	5.05	11.5	26.2	64.6	176	342	563	759	911	1065	1171	1242	1295	1317
5	0.04	0.04	0.04	0.06	1.61	4.98	11.4	26.0	63.7	165	330	538	725	874	1015	1113	1178	1227	1248
10	0.04	0.04	0.04	0.06	1.49	4.74	10.9	24.6	59.2	146	300	486	656	786	906	987	1039	1081	1096
15	0.04	0.04	0.04	0.06	1.29	4.36	9.96	22.1	51.9	127	258	416	567	670	775	840	876	906	919
20	0.04	0.04	0.04	0.06	1.02	3.81	8.55	18.2	42.1	103	212	341	473	564	655	715	744	773	785
25	0.04	0.04	0.04	0.05	0.68	3.06	6.90	14.7	32.6	72.1	154	255	361	438	514	576	606	637	649
30	0.04	0.04	0.04	0.05	0.38	2.35	5.31	10.7	21.5	44.9	96.8	154	233	275	329	381	399	425	441
35	0.04	0.04	0.04	0.05	0.25	1.61	3.84	7.32	12.9	24.4	44.7	66.6	94.1	104	121	140	141	161	127
40	0.04	0.04	0.04	0.05	0.09	0.99	2.52	4.68	7.36	12.0	18.6	25.8	31.9	35.9	36.6	39.1	40.8	40.6	40.0
45	0.04	0.04	0.04	0.05	0.05	0.43	1.57	2.84	4.24	6.25	8.47	11.5	13.5	15.9	17.5	18.2	19.3	19.5	19.3
50	0.04	0.04	0.04	0.04	0.04	0.18	0.82	1.61	2.52	3.57	4.75	6.11	7.37	8.47	9.18	9.53	9.86	9.92	9.79
55	0.04	0.04	0.04	0.04	0.04	0.05	0.32	0.81	1.40	2.01	2.73	3.42	4.14	4.77	5.17	5.45	5.55	5.56	5.49
60	0.04	0.04	0.04	0.04	0.04	0.04	0.08	0.33	0.68	1.05	1.44	1.89	2.32	2.70	3.02	3.23	3.33	3.35	3.31
65	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.09	0.23	0.42	0.66	0.89	1.15	1.38	1.62	1.78	1.89	1.93	1.91
70	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.10	0.15	0.24	0.31	0.40	0.51	0.60	0.66	0.68	0.65
75	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.03	0.04	0.05	0.04	0.03	0.04	0.05
80	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.04
85	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
90	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	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: 10.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:26 August 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: 93ZFLD1230/BL	TYPE: 93ZFLD1230/BL	WEIGHT: 1
SPEC.:	DIM.: 140 x 36 x 68	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: 4 square	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	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	
-85	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	
-80	0.02	0.03	0.02	0.01	0.03	0.03	0.02	0.02	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	
-75	0.06	0.07	0.06	0.05	0.06	0.07	0.05	0.04	0.05	0.05	0.04	0.03	0.04	0.04	0.03	0.03	0.03	0.03	
-70	1.04	0.98	0.89	0.74	0.60	0.49	0.38	0.25	0.18	0.10	0.06	0.04	0.05	0.05	0.04	0.03	0.03	0.03	
-65	2.56	2.50	2.36	2.14	1.82	1.52	1.20	0.92	0.63	0.36	0.14	0.07	0.07	0.06	0.04	0.03	0.03	0.03	
-60	4.26	4.20	4.10	3.81	3.35	2.87	2.36	1.84	1.37	0.93	0.47	0.14	0.09	0.07	0.04	0.03	0.03	0.03	
-55	6.91	6.84	6.70	6.27	5.69	4.87	4.02	3.18	2.39	1.76	1.07	0.44	0.12	0.08	0.04	0.04	0.03	0.03	
-50	12.0	11.8	11.4	10.7	9.63	8.23	6.65	5.09	3.93	2.93	1.97	1.01	0.26	0.09	0.05	0.04	0.04	0.03	
-45	22.6	22.0	20.6	19.1	17.0	14.2	11.4	8.30	6.34	4.57	3.23	1.83	0.54	0.11	0.05	0.04	0.04	0.03	
-40	44.4	43.7	41.5	37.1	34.5	29.3	22.3	16.1	10.9	7.36	5.00	2.87	1.15	0.15	0.06	0.04	0.04	0.03	
-35	129	148	119	129	95.9	79.5	52.2	35.0	19.8	12.2	7.46	4.18	1.82	0.33	0.08	0.05	0.04	0.03	
-30	476	447	400	334	280	218	136	77.4	36.7	20.0	10.6	5.61	2.60	0.48	0.09	0.05	0.04	0.03	
-25	706	677	618	536	452	354	243	134	60.9	30.3	14.4	7.14	3.32	0.80	0.10	0.06	0.04	0.03	
-20	804	773	725	644	557	457	318	182	87.0	39.2	17.9	8.76	4.07	1.13	0.11	0.06	0.04	0.03	
-15	942	907	846	756	655	545	379	225	107	48.6	21.9	10.1	4.60	1.39	0.12	0.07	0.04	0.03	
-10	1123	1076	994	880	758	626	443	263	124	55.4	24.4	11.0	4.96	1.56	0.13	0.07	0.04	0.03	
-5	1275	1217	1114	977	837	687	485	286	133	58.7	25.6	11.5	5.17	1.66	0.14	0.08	0.04	0.03	
0	1315	1262	1151	1008	865	706	497	291	134	58.9	25.8	11.6	5.21	1.67	0.14	0.08	0.04	0.03	
5	1238	1188	1089	953	821	669	472	280	130	58.0	25.6	11.5	5.11	1.61	0.13	0.08	0.04	0.03	
10	1092	1049	965	847	735	605	426	253	119	54.1	24.3	11.0	4.85	1.48	0.12	0.07	0.04	0.03	
15	918	886	823	727	629	522	364	217	104	47.8	21.9	10.1	4.42	1.27	0.11	0.07	0.04	0.03	
20	781	754	702	616	530	432	298	174	85.8	39.6	18.3	8.69	3.84	0.98	0.09	0.07	0.04	0.03	
25	645	616	567	484	417	330	225	127	61.6	31.4	14.9	7.04	3.06	0.63	0.08	0.06	0.04	0.03	
30	436	405	373	314	262	212	134	78.2	38.7	20.9	11.1	5.45	2.34	0.32	0.07	0.06	0.04	0.03	
35	163	141	136	117	99.7	84.9	58.8	37.2	21.2	12.6	7.51	3.95	1.58	0.21	0.06	0.05	0.04	0.03	
40	40.4	40.2	38.1	35.3	34.0	29.4	23.2	16.5	10.9	7.13	4.74	2.57	0.94	0.08	0.05	0.05	0.04	0.03	
45	19.4	19.0	17.8	17.0	15.2	12.7	10.6	7.74	5.86	4.06	2.83	1.55	0.37	0.05	0.05	0.05	0.04	0.03	
50	9.90	9.81	9.46	9.02	8.24	7.07	5.77	4.43	3.37	2.42	1.57	0.77	0.15	0.05	0.05	0.05	0.04	0.03	
55	5.57	5.55	5.44	5.13	4.68	4.01	3.26	2.58	1.90	1.34	0.76	0.28	0.04	0.04	0.04	0.04	0.04	0.03	
60	3.36	3.34	3.22	2.99	2.65	2.25	1.81	1.37	0.99	0.63	0.29	0.07	0.04	0.04	0.04	0.04	0.04	0.03	
65	1.93	1.89	1.76	1.58	1.33	1.09	0.84	0.62	0.39	0.20	0.08	0.05	0.04	0.04	0.04	0.04	0.04	0.03	
70	0.67	0.65	0.58	0.48	0.37	0.28	0.22	0.13	0.09	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	
75	0.04	0.03	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	
80	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	
85	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	
90	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:26 August 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: