

# Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity	5843.2 cd per klm.
(Luminaire orientation as tested.)	1.5 degrees vertical
	-2.0 degrees horizontal

Beam Spread	At 10% of Imax	41.9V x 41.8H
	At 50% of Imax	24.0V x 24.2H
	At 90% of Imax	10.1V x 10.4H

Beam Flux	Total	1283.2 lumens per klm.
	To 10% of Imax	980.8 lumens per klm.
	To 50% of Imax	609.3 lumens per klm.
	To 90% of Imax	131.7 lumens per klm.

Upward LOR	0.0 %
Downward LOR	128.3 %

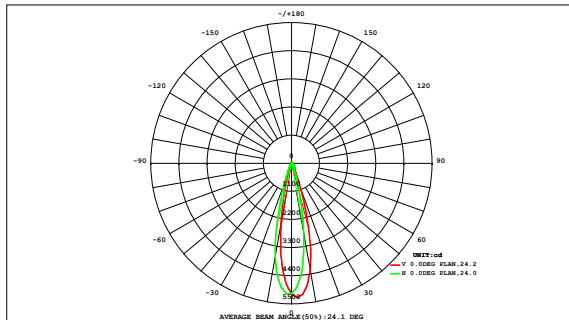
Luminaire Efficiency (Light Output Ratio)	127.8 %
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C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 11 November 2022

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: 93M21PLB1030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:



DATA OF LAMP		PHOTOMETRIC DATA	
MODEL	93M21PLB1030/BL	Imax (cd)	5259
NOMINAL POWER (W)	12	AVAILABILITY (%)	98.3
RATED VOLTAGE (V)	48	Avai. FLUX (lm)	884.5
NOMINAL FLUX (lm)	900	LOR (%)	127.8
LAMPS INSIDE	1	TOTAL FLUX (lm)	1150
TEST VOLTAGE (V)	48	θ @50% (H,V)	24,24DEG

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	0.01	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	0.01	0.00
70	0.00	0.00	0.00	0.00	0.01	0.05	0.11	0.15	0.18	0.17	0.13	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.88	0.00
60	0.00	0.00	0.00	0.03	0.14	0.31	0.52	0.70	0.79	0.77	0.63	0.42	0.22	0.07	0.00	0.00	0.00	0.00	4.59	0.00
50	0.00	0.00	0.01	0.12	0.38	0.77	1.20	1.55	1.75	1.72	1.47	1.05	0.60	0.25	0.05	0.00	0.00	0.00	10.9	0.00
40	0.00	0.00	0.04	0.25	0.70	1.31	2.07	2.94	3.58	3.44	2.69	1.84	1.08	0.50	0.14	0.01	0.00	0.00	20.6	0.00
30	0.00	0.00	0.07	0.38	1.00	1.93	3.72	7.26	11.1	9.75	5.66	2.95	1.57	0.75	0.24	0.02	0.00	0.00	46.4	5.16
20	0.00	0.00	0.10	0.49	1.24	2.70	7.31	27.7	60.9	46.1	14.3	4.67	2.01	0.94	0.32	0.04	0.00	0.00	169	139
10	0.00	0.00	0.12	0.55	1.38	3.35	12.1	68.4	138	111	30.1	6.25	2.31	1.04	0.36	0.05	0.00	0.00	375	350
0	0.00	0.00	0.12	0.55	1.38	3.33	11.2	59.0	123	96.9	26.2	6.08	2.30	1.04	0.36	0.05	0.00	0.00	331	306
-10	0.00	0.00	0.10	0.48	1.23	2.65	6.55	19.7	39.6	30.6	11.3	4.30	1.94	0.92	0.31	0.04	0.00	0.00	120	84.7
-20	0.00	0.00	0.07	0.36	0.98	1.92	3.52	6.06	8.12	7.28	4.70	2.64	1.49	0.72	0.23	0.02	0.00	0.00	38.1	0.00
-30	0.00	0.00	0.03	0.23	0.66	1.29	2.03	2.72	3.13	2.95	2.34	1.65	1.00	0.47	0.13	0.01	0.00	0.00	18.6	0.00
-40	0.00	0.00	0.01	0.10	0.34	0.72	1.13	1.45	1.59	1.53	1.30	0.95	0.56	0.24	0.05	0.00	0.00	0.00	9.97	0.00
-50	0.00	0.00	0.00	0.02	0.11	0.28	0.46	0.63	0.72	0.70	0.58	0.40	0.21	0.06	0.00	0.00	0.00	0.00	4.19	0.00
-60	0.00	0.00	0.00	0.00	0.01	0.03	0.08	0.14	0.17	0.16	0.12	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.79	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	0.01	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	0.01	0.00
-90 -80 -70 -60 -50 -40 -30 -20 HORIZONTAL (DEG) 20 30 40 50 60 70 80 90																				
Φ t	0.00	0.01	0.66	3.58	9.55	20.6	52.1	198	393	313	101	33.3	15.3	7.00	2.20	0.24	0.00	0.00	1150	---
Φ a	0.00	0.00	0.00	0.00	0.00	0.00	10.0	167	364	283	60.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	---	885

one-half-peak spread: U:10.7,D:13.4 , L:12.4,R:11.9

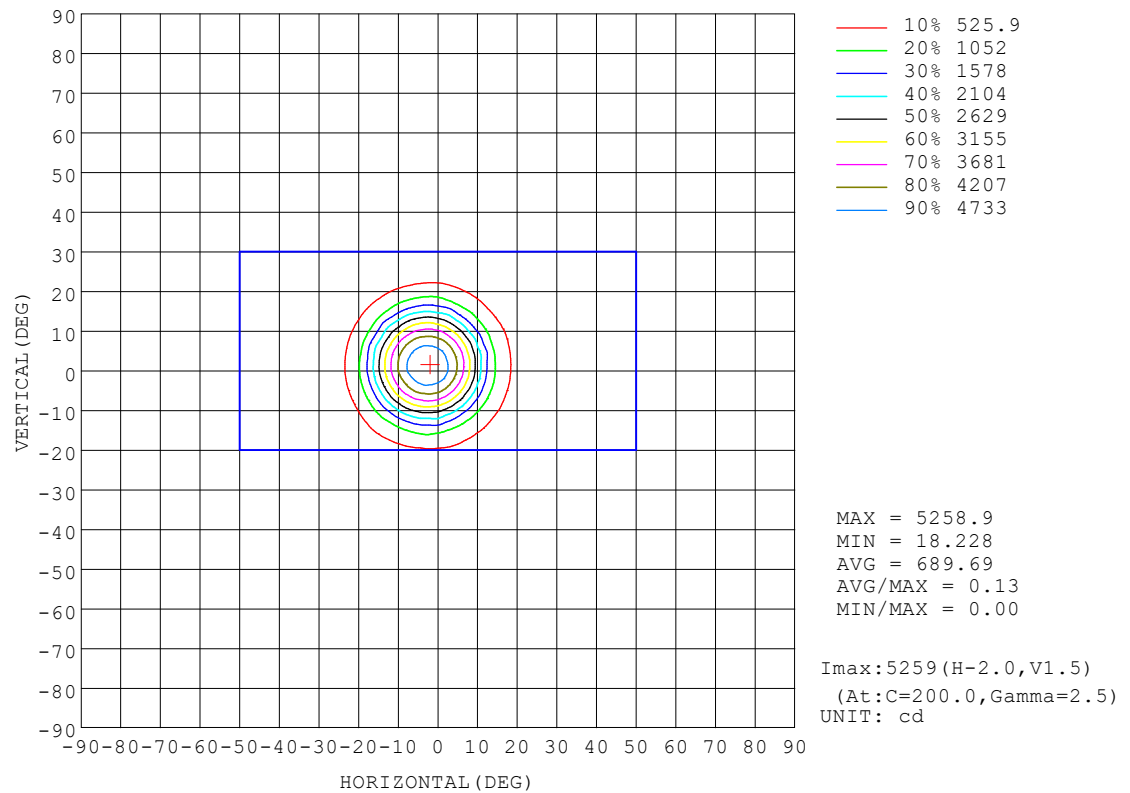
NEMA Beam Type: Type 3

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:11 November 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: 93M21PLB1030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:

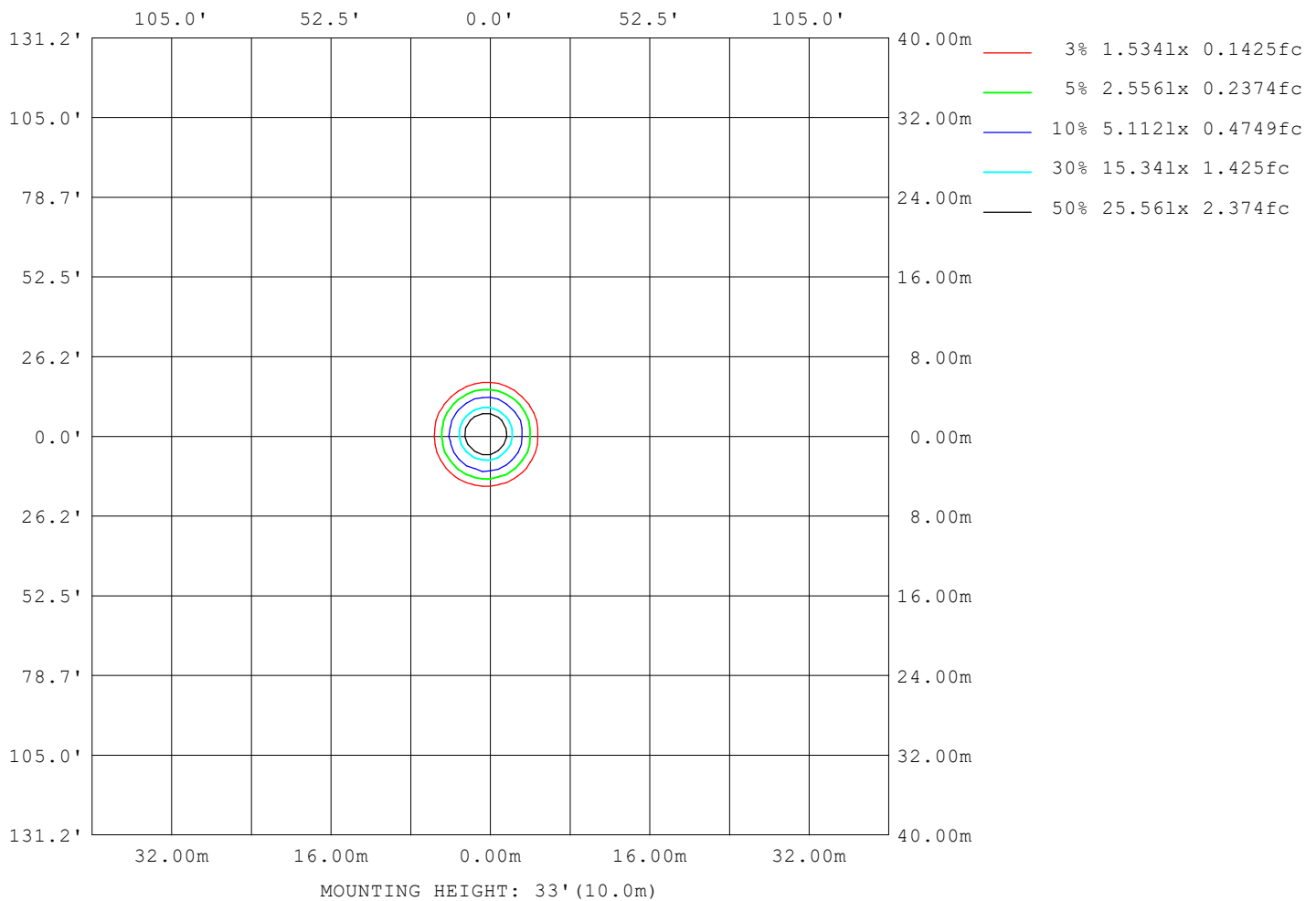


C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:11 November 2022

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

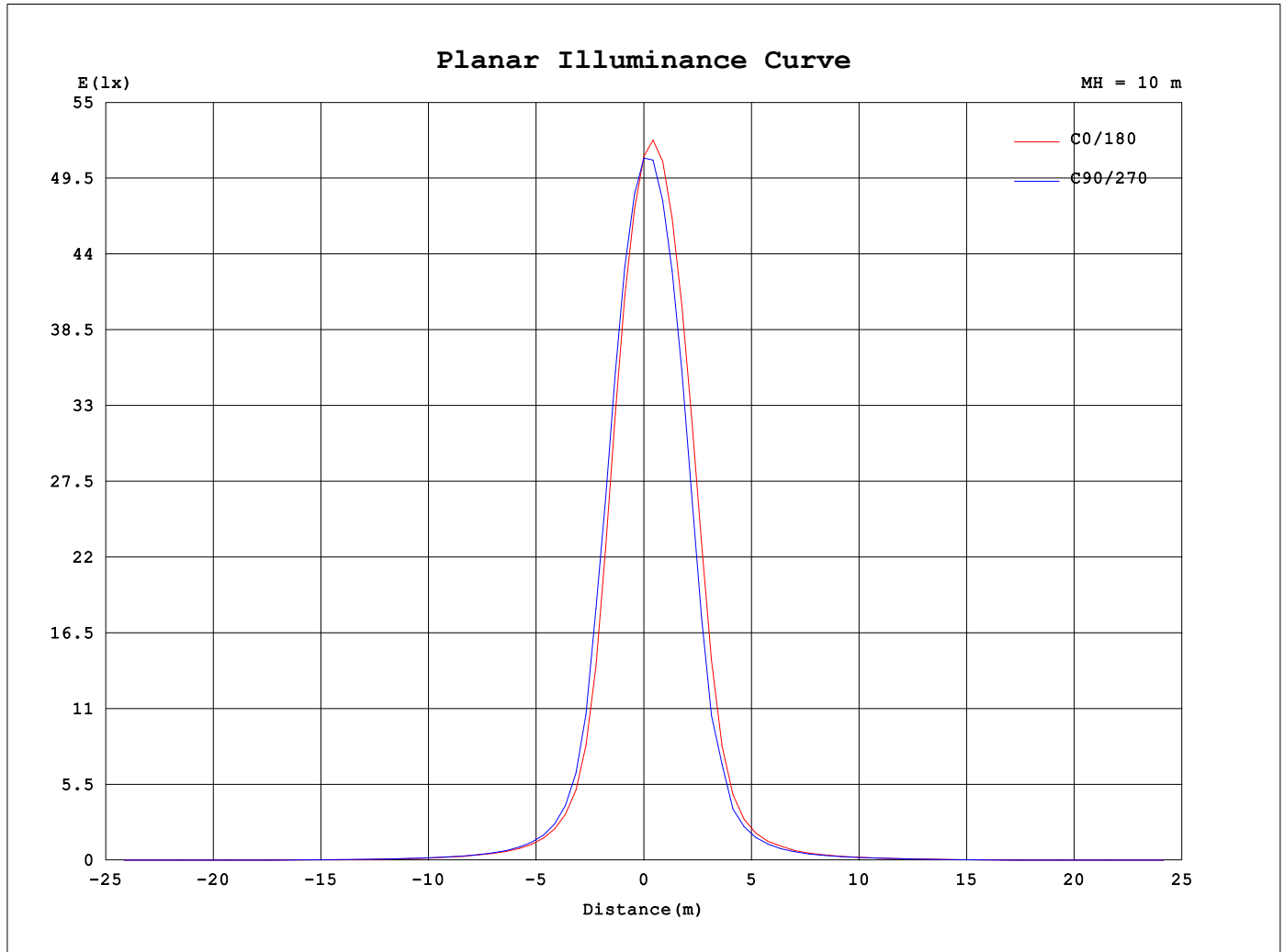
NAME: 93M21PLB1030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 11 November 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

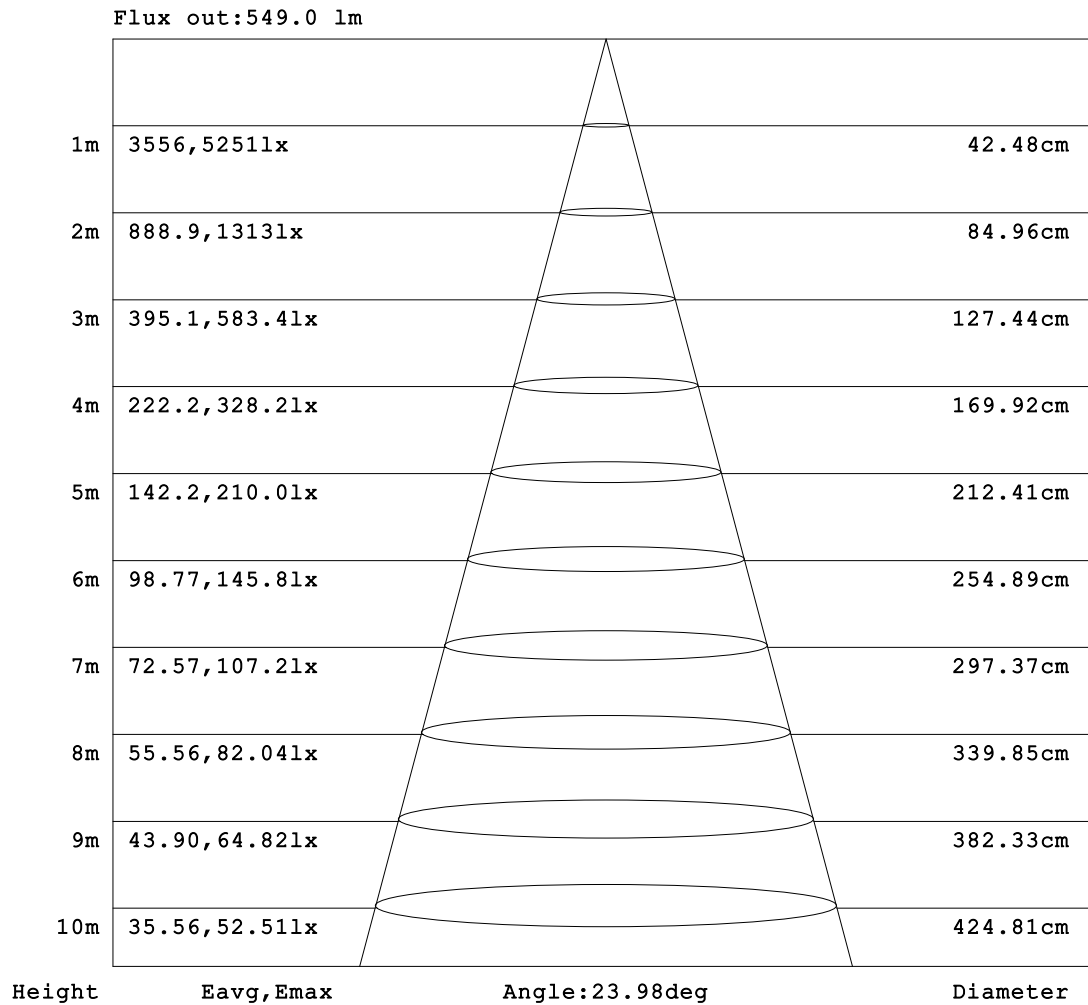


C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 11 November 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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: 93M21PLB1030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	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: 11 November 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: 93M21PLB1030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	Shielding Angle:

Table--1

UNIT: cd

H (DEG) V (DEG)	-90	-85	-80	-75	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
-90	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	0.02
-85	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	0.02
-80	0.02	0.03	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	0.03	0.02	0.02
-75	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.03	0.03	0.02
-70	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.03	0.04	0.07	0.08	0.08	0.07	0.05	0.03
-65	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.04	0.25	0.57	1.56	2.40	3.46	4.20	4.66	4.98	5.07
-60	0.02	0.03	0.02	0.02	0.02	0.03	0.03	0.02	0.36	1.22	2.89	4.97	6.80	8.49	10.0	11.3	12.1	12.7	12.9
-55	0.02	0.03	0.02	0.02	0.03	0.04	0.04	0.62	2.40	5.04	7.93	10.8	13.3	16.1	18.5	21.1	22.8	23.8	23.9
-50	0.02	0.03	0.02	0.02	0.03	0.05	0.56	2.66	6.08	9.72	13.5	18.2	23.4	27.8	31.4	34.3	36.0	36.7	36.6
-45	0.02	0.03	0.02	0.02	0.03	0.05	1.88	5.72	10.2	14.8	21.5	28.8	34.8	40.3	45.3	49.0	51.3	52.2	52.0
-40	0.02	0.03	0.02	0.02	0.03	0.73	3.92	9.03	14.4	22.4	31.2	39.4	47.9	56.0	62.5	67.0	70.1	71.2	70.5
-35	0.02	0.03	0.02	0.02	0.03	1.62	6.48	12.3	20.3	30.7	40.7	51.3	62.7	72.9	81.6	89.8	97.5	99.4	98.7
-30	0.02	0.03	0.02	0.02	0.03	3.07	8.88	15.4	26.6	38.0	50.3	63.6	78.5	93.6	112	129	148	149	148
-25	0.02	0.03	0.02	0.02	0.36	4.38	11.1	19.8	32.2	44.7	59.3	75.9	95.9	123	160	197	231	249	246
-20	0.02	0.03	0.02	0.02	0.78	5.81	13.1	23.9	36.9	51.0	67.6	88.8	120	167	233	320	416	488	480
-15	0.02	0.03	0.02	0.02	1.13	6.95	14.7	27.4	40.8	56.3	75.1	102	148	225	352	619	918	1217	1178
-10	0.02	0.03	0.02	0.02	1.40	7.82	15.9	29.7	43.8	60.4	81.9	116	178	295	546	1168	2094	2757	2755
-5	0.02	0.03	0.02	0.02	1.58	8.38	16.7	31.2	45.6	62.9	86.0	126	201	363	818	2001	3464	4325	4357
0	0.02	0.03	0.02	0.02	1.67	8.63	17.0	31.8	46.3	63.8	87.4	130	212	400	999	2563	4221	5133	5112
5	0.02	0.03	0.02	0.03	1.62	8.48	16.8	31.4	45.7	62.9	87.3	127	205	386	938	2414	3966	4841	4845
10	0.02	0.03	0.02	0.03	1.47	8.02	16.2	30.1	44.1	60.5	83.0	118	188	326	666	1626	2915	3735	3725
15	0.02	0.03	0.02	0.03	1.22	7.25	15.1	27.9	41.5	56.8	75.4	104	156	246	424	832	1481	2009	1961
20	0.02	0.03	0.02	0.03	0.86	6.17	13.7	24.9	37.9	51.9	68.1	89.7	122	180	267	404	595	759	840
25	0.02	0.03	0.03	0.03	0.41	4.80	11.9	21.1	33.6	45.7	59.8	75.5	97.0	129	173	232	290	331	327
30	0.02	0.03	0.03	0.03	0.05	3.51	9.80	16.8	28.3	39.1	51.0	63.5	77.6	95.6	118	144	167	181	181
35	0.02	0.03	0.03	0.02	0.04	2.04	7.46	13.6	22.1	32.3	41.9	52.4	62.7	73.6	85.3	96.6	108	114	113
40	0.02	0.03	0.03	0.02	0.03	0.98	4.82	10.3	15.9	24.5	33.2	41.3	49.7	57.7	64.9	70.5	75.7	78.4	78.5
45	0.02	0.03	0.03	0.02	0.03	0.03	2.54	6.77	11.5	16.3	24.0	31.2	37.3	43.4	48.5	52.1	55.3	57.1	57.2
50	0.02	0.03	0.03	0.02	0.02	0.03	0.84	3.45	7.20	11.1	15.0	20.3	25.8	30.8	34.5	37.3	39.5	40.5	40.5
55	0.02	0.03	0.03	0.02	0.02	0.02	0.03	1.03	3.24	6.16	9.15	12.0	14.7	18.1	20.7	23.4	25.4	26.3	26.2
60	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.04	0.69	2.02	3.76	5.95	7.99	9.68	11.0	12.1	12.9	13.2	13.1
65	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.65	1.29	2.35	3.16	4.14	4.90	5.41	5.56	5.42
70	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.19	0.31	0.35	0.34	0.26	0.15
75	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.03	0.03	0.02	0.03	0.03
80	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02
85	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.03	0.03	0.03	0.02
90	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.02	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:11 November 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: 93M21PLB1030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F100	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: sphere	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	0.02	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	
-85	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	
-80	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	
-75	0.02	0.03	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	
-70	0.04	0.05	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
-65	4.81	4.32	3.62	2.66	1.43	0.78	0.15	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
-60	12.5	11.7	10.6	9.12	7.21	5.13	3.10	1.10	0.30	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
-55	23.1	21.5	19.3	16.4	13.9	11.3	8.48	5.38	2.50	0.54	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	
-50	35.5	33.7	31.1	27.6	23.5	18.9	14.3	10.4	6.52	2.87	0.47	0.03	0.03	0.02	0.02	0.02	0.02	0.02	
-45	50.3	47.6	43.9	39.4	34.1	28.4	22.4	15.9	10.9	6.31	2.19	0.20	0.03	0.02	0.02	0.02	0.02	0.02	
-40	68.0	64.4	59.3	53.3	46.4	38.7	30.6	23.2	15.5	9.83	4.73	0.59	0.03	0.02	0.02	0.02	0.02	0.02	
-35	94.0	87.4	77.6	68.5	59.9	50.1	39.8	30.4	21.6	13.3	7.38	2.28	0.09	0.02	0.02	0.02	0.02	0.02	
-30	140	125	106	89.2	73.9	61.7	49.9	38.1	27.4	17.5	9.86	4.01	0.33	0.02	0.02	0.02	0.02	0.02	
-25	225	192	154	121	92.8	73.5	59.6	45.7	32.9	21.7	12.3	5.74	0.55	0.02	0.02	0.02	0.02	0.02	
-20	414	315	231	164	118	87.9	68.0	52.4	38.0	25.7	14.5	7.24	1.44	0.03	0.02	0.02	0.02	0.02	
-15	910	567	356	224	152	103	75.9	58.1	42.2	29.0	16.9	8.47	2.14	0.03	0.02	0.02	0.02	0.02	
-10	2032	1111	542	299	180	119	83.7	62.5	45.5	31.3	18.7	9.35	2.64	0.03	0.03	0.02	0.02	0.02	
-5	3400	1902	787	371	208	130	89.1	65.3	47.5	32.8	19.8	9.88	2.94	0.04	0.03	0.02	0.02	0.02	
0	4143	2379	926	401	216	134	91.2	66.2	48.2	33.2	20.1	10.1	3.03	0.04	0.03	0.02	0.02	0.02	
5	3920	2264	904	393	211	132	89.4	65.3	47.5	32.9	19.8	9.93	2.96	0.04	0.03	0.02	0.02	0.02	
10	2848	1545	712	329	192	124	85.4	62.8	45.6	31.6	18.8	9.44	2.67	0.04	0.03	0.02	0.02	0.02	
15	1439	794	437	254	162	110	78.5	59.0	42.8	29.6	17.1	8.57	2.18	0.04	0.03	0.02	0.02	0.02	
20	596	413	276	188	131	93.3	71.0	53.7	39.1	26.7	14.8	7.36	1.48	0.04	0.03	0.02	0.02	0.02	
25	295	238	187	137	103	79.8	62.5	47.3	34.4	22.8	12.7	5.90	0.58	0.03	0.03	0.02	0.02	0.02	
30	171	150	125	101	83.4	67.5	53.0	40.2	29.1	18.2	10.3	4.19	0.36	0.03	0.03	0.02	0.02	0.02	
35	110	100	88.5	77.9	66.4	54.5	43.1	32.7	22.6	13.8	7.72	2.44	0.09	0.03	0.02	0.02	0.02	0.02	
40	77.1	73.2	67.4	60.2	51.4	42.0	33.3	24.8	16.1	10.2	4.94	0.69	0.03	0.03	0.02	0.02	0.02	0.02	
45	56.2	53.7	49.8	44.4	37.5	30.9	23.9	16.5	11.3	6.48	2.29	0.21	0.02	0.03	0.03	0.02	0.02	0.02	
50	39.7	37.8	34.6	30.4	25.6	20.0	14.8	10.9	6.78	2.96	0.48	0.03	0.02	0.03	0.03	0.02	0.02	0.02	
55	25.4	23.5	20.6	17.2	14.6	11.8	8.70	5.57	2.62	0.56	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	
60	12.8	12.1	10.9	9.36	7.52	5.36	3.19	1.13	0.30	0.03	0.03	0.02	0.03	0.03	0.03	0.02	0.02	0.02	
65	5.15	4.63	3.80	2.77	1.58	0.84	0.16	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.02	
70	0.09	0.04	0.04	0.04	0.03	0.02	0.03	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.02	
75	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.03	0.02	0.03	0.02	
80	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.02	
85	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.02	0.03	0.04	0.03	0.02	0.03	0.04	0.03	0.03	0.03	0.02	
90	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	0.02	

C Range: 0 - 360DEG

C Interval: 10.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:11 November 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: