

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity	1846.3 cd per klm.
(Luminaire orientation as tested.)	-22.0 degrees vertical
	17.5 degrees horizontal

Beam Spread	At 10% of Imax	87.0V x 101.9H
	At 50% of Imax	43.0V x 40.0H
	At 90% of Imax	15.4V x 16.2H

Beam Flux	Total	1631.9 lumens per klm.
	To 10% of Imax	1482.1 lumens per klm.
	To 50% of Imax	897.0 lumens per klm.
	To 90% of Imax	133.0 lumens per klm.

Upward LOR	0.0 %
Downward LOR	163.2 %

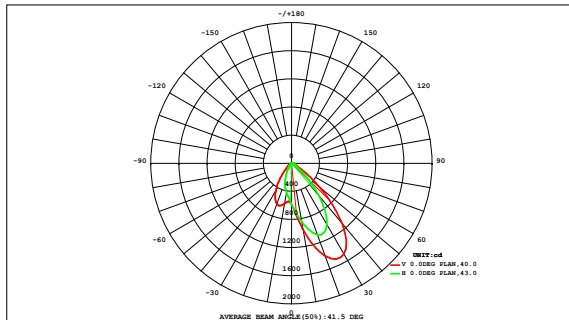
Luminaire Efficiency (Light Output Ratio)	163.2 %
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C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 11 November 2022

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: 93M20TL2030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F42 x 225	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cilinder	Shielding Angle:



DATA OF LAMP		PHOTOMETRIC DATA	
MODEL	93M20TL1630/BL	Imax (cd)	1772
NOMINAL POWER (W)	16	AVAILABILITY (%)	148.2
RATED VOLTAGE (V)	48	Avai. FLUX (lm)	1423
NOMINAL FLUX (lm)	960	LOR (%)	163.2
LAMPS INSIDE	1	TOTAL FLUX (lm)	1566
TEST VOLTAGE (V)	48	θ @50% (H,V)	40,43DEG

VERTICAL (DEG)	AREA FLUX DIAGRAM																UNIT:lm		Φ t	Φ a
	0.02	0.06	0.11	0.14	0.14	0.10	0.06	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00
90	0.02	0.09	0.17	0.25	0.30	0.30	0.26	0.17	0.08	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.66	0.00
80	0.02	0.11	0.24	0.40	0.54	0.61	0.58	0.47	0.32	0.16	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.51	0.00
70	0.03	0.13	0.33	0.65	1.03	1.29	1.27	1.01	0.70	0.41	0.13	0.02	0.01	0.01	0.01	0.01	0.00	0.00	7.05	0.00
60	0.03	0.16	0.46	1.11	2.34	3.66	3.72	2.63	1.52	0.84	0.26	0.13	0.13	0.11	0.08	0.04	0.01	0.00	17.2	3.24
50	0.03	0.18	0.62	2.04	5.90	10.8	12.3	8.79	4.19	1.87	0.77	0.43	0.38	0.29	0.18	0.09	0.03	0.00	48.9	38.5
40	0.03	0.21	0.80	3.53	11.6	22.2	26.6	21.2	10.6	3.78	1.55	0.95	0.78	0.54	0.32	0.15	0.04	0.00	105	95.3
30	0.03	0.22	0.94	4.93	16.7	31.8	38.7	32.8	18.0	6.62	3.00	2.43	1.76	1.00	0.49	0.21	0.06	0.01	160	148
20	0.03	0.23	0.99	5.32	18.2	34.6	42.2	36.5	21.9	11.8	10.4	8.75	5.10	2.01	0.75	0.28	0.08	0.01	199	192
10	0.03	0.22	0.91	4.53	15.3	29.4	35.9	30.8	22.7	23.8	28.0	23.6	12.6	4.12	1.09	0.34	0.09	0.01	233	229
0	0.03	0.20	0.74	3.02	9.67	18.2	22.1	20.1	23.8	37.2	45.3	38.3	20.7	6.50	1.40	0.39	0.10	0.01	248	243
-10	0.03	0.18	0.57	1.68	4.46	7.94	9.45	11.1	22.9	41.6	50.2	42.9	23.7	7.38	1.51	0.40	0.10	0.01	226	220
-20	0.03	0.15	0.42	0.92	1.82	2.84	3.61	6.15	16.8	33.1	41.4	35.3	19.2	6.06	1.35	0.38	0.10	0.01	170	156
-30	0.03	0.13	0.30	0.54	0.89	1.31	1.82	3.22	8.16	17.3	23.1	19.8	10.7	3.54	1.02	0.33	0.09	0.01	92.3	80.3
-40	0.02	0.10	0.21	0.33	0.47	0.70	1.02	1.59	2.92	5.45	7.63	6.90	4.04	1.75	0.71	0.27	0.08	0.01	34.2	17.6
-50	0.02	0.08	0.14	0.20	0.23	0.32	0.50	0.75	1.14	1.66	2.07	2.00	1.49	0.91	0.47	0.21	0.06	0.01	12.2	0.00
-60	0.02	0.05	0.08	0.09	0.08	0.06	0.14	0.31	0.52	0.71	0.83	0.84	0.71	0.51	0.31	0.15	0.04	0.00	5.46	0.00
-70	0.01	0.03	0.04	0.02	0.01	0.00	0.01	0.07	0.17	0.28	0.35	0.38	0.35	0.28	0.18	0.09	0.03	0.00	2.30	0.00
-80	0.01	0.03	0.04	0.02	0.01	0.00	0.01	0.07	0.17	0.28	0.35	0.38	0.35	0.28	0.18	0.09	0.03	0.00	2.30	0.00
-90	0.01	0.03	0.04	0.02	0.01	0.00	0.01	0.07	0.17	0.28	0.35	0.38	0.35	0.28	0.18	0.09	0.03	0.00	2.30	0.00
HORIZONTAL (DEG)																				
Φ t	0.48	2.52	8.07	29.7	89.8	166	200	178	156	187	215	183	102	35.0	9.88	3.36	0.92	0.08	1566	---
Φ a	0.00	0.00	0.00	17.7	80.4	156	189	166	145	174	205	174	92.5	23.1	0.00	0.00	0.00	0.00	---	1423

one-half-peak spread: U:19.0,D:24.4 , L:18.4,R:21.9

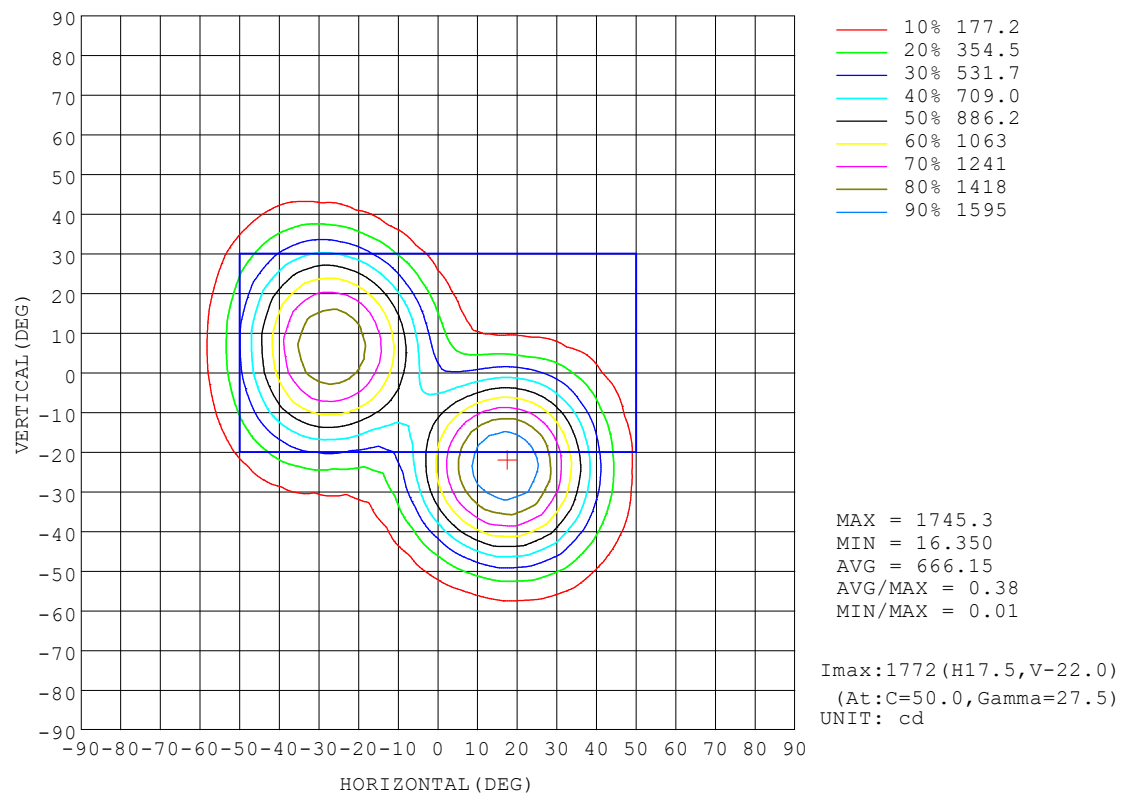
NEMA Beam Type: Type 6 x 5 (H x V)

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: 93M20TL2030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F42 x 225	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cilinder	Shielding Angle:

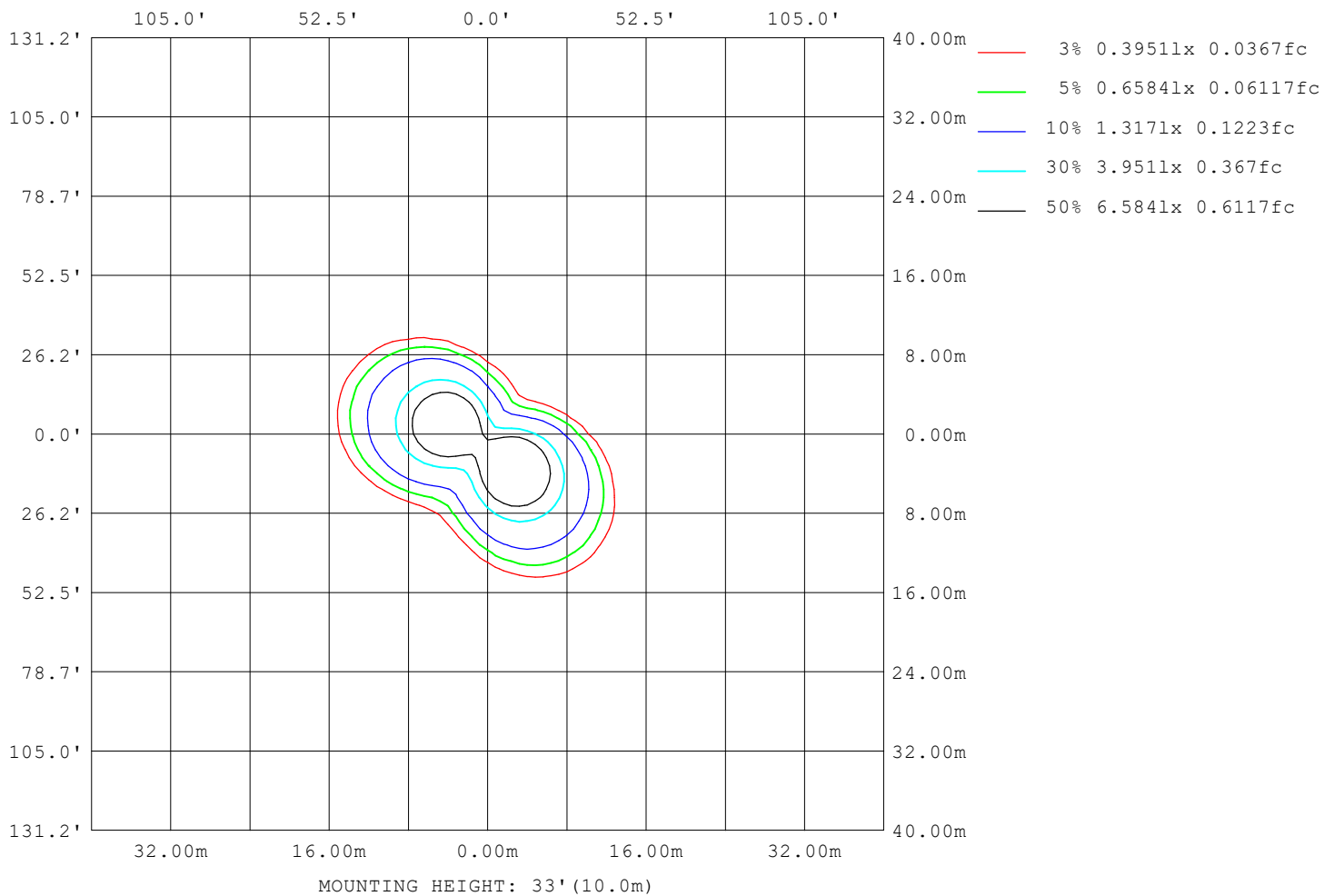


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Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
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Remarks:

ISOLUX DIAGRAM

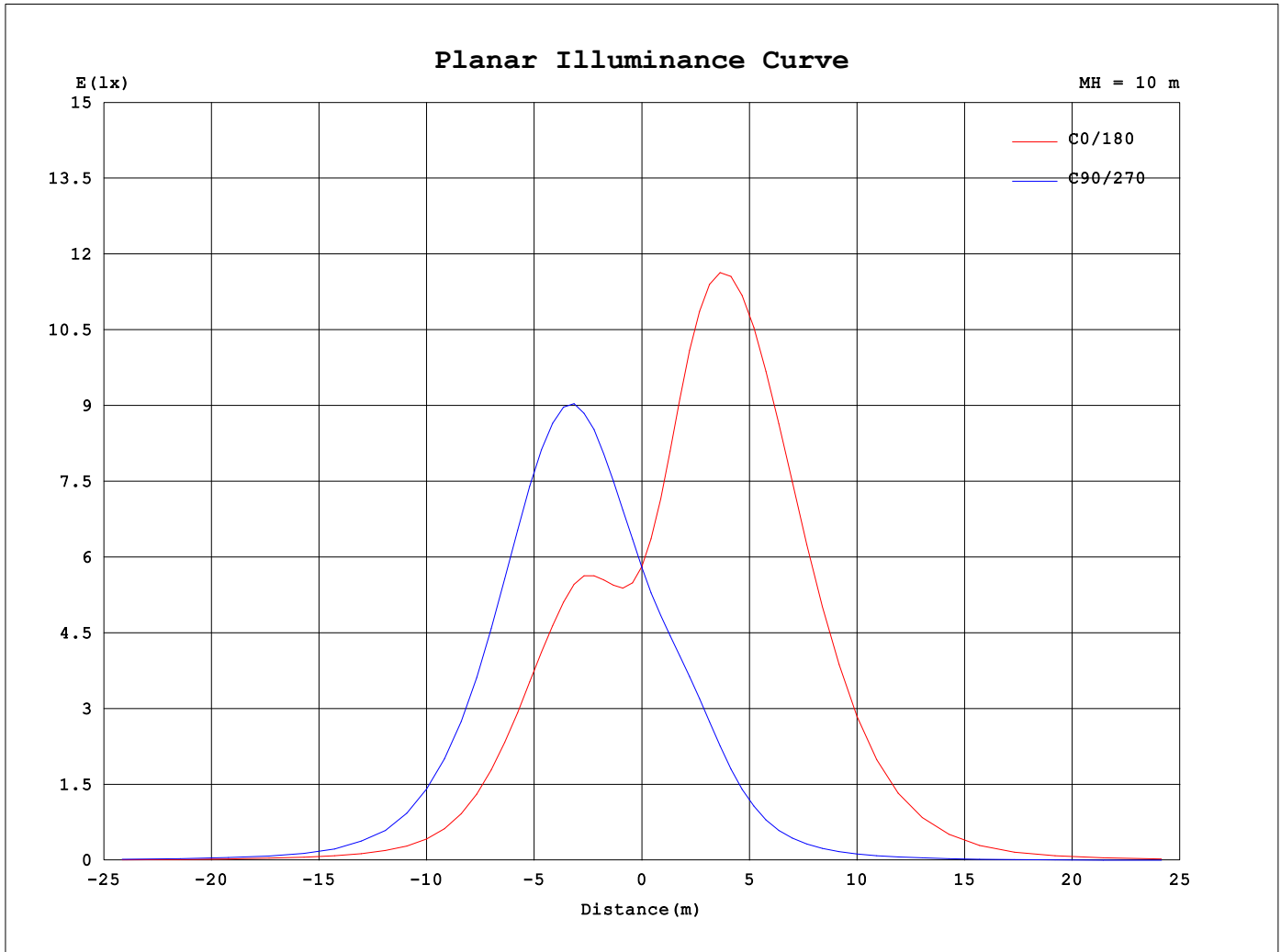
NAME: 93M20TL2030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F42 x 225	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cilinder	Shielding Angle:



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

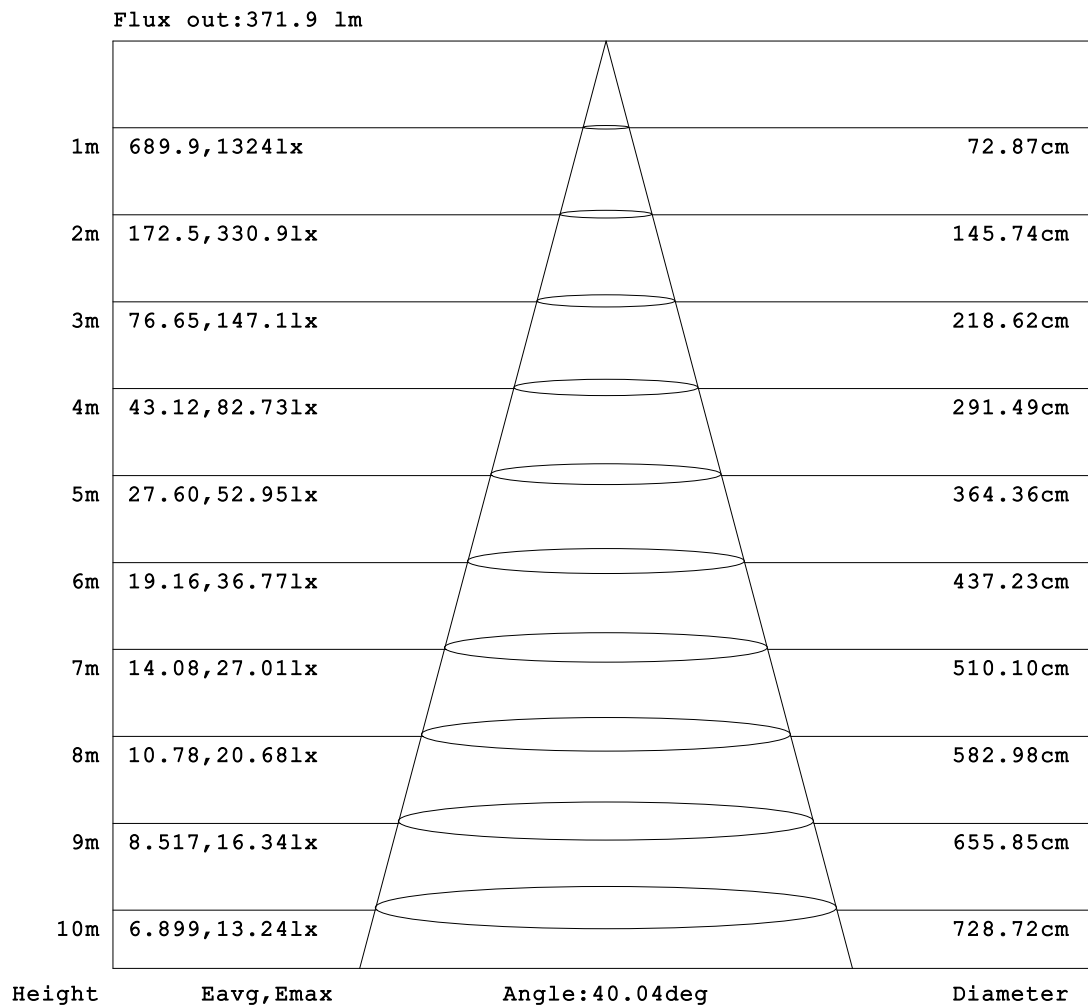


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 11 November 2022

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: 93M20TL2030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F42 x 225	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cilinder	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: 93M20TL2030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F42 x 225	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cilinder	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	5.82	5.13	4.44	3.34	2.24	1.28	0.32	0.21	0.09	0.07	0.06	0.06	0.06	0.06	0.07	0.14	0.21	1.25	2.29
-85	5.82	5.55	5.24	4.49	3.71	2.75	1.66	1.10	0.34	0.23	0.07	0.08	0.08	0.19	0.32	1.80	3.37	5.32	7.26
-80	5.82	5.97	6.05	5.67	5.24	4.54	3.75	2.86	1.80	1.20	0.31	0.29	0.24	1.58	3.28	5.69	8.09	10.6	13.0
-75	5.82	6.39	6.86	6.95	6.83	6.54	6.02	5.32	4.42	3.45	2.31	2.15	2.33	4.76	7.47	10.5	13.7	16.9	20.1
-70	5.82	6.80	7.75	8.24	8.61	8.70	8.52	8.11	7.39	6.58	5.73	6.40	7.85	10.3	12.8	16.4	20.1	24.5	28.9
-65	5.82	7.21	8.62	9.67	10.5	11.0	11.3	11.2	10.8	10.4	10.9	12.5	15.0	17.8	20.9	24.8	28.9	36.1	43.9
-60	5.82	7.61	9.48	11.1	12.4	13.6	14.3	14.7	14.7	14.8	16.9	19.7	22.9	26.4	30.7	36.6	44.6	55.8	67.5
-55	5.82	8.04	10.4	12.6	14.5	16.3	17.7	18.7	19.6	20.8	24.2	27.6	31.7	35.9	42.9	52.6	66.5	89.5	117
-50	5.82	8.44	11.3	14.1	16.7	19.3	21.7	23.8	26.1	29.2	33.6	37.7	42.4	47.5	57.9	72.7	101	153	222
-45	5.82	8.83	12.1	15.6	19.0	22.5	26.8	30.8	34.6	40.7	45.8	51.9	56.5	64.5	78.0	100	157	257	399
-40	5.82	9.20	12.9	17.1	21.3	26.9	33.1	39.6	46.8	56.2	65.3	72.9	78.3	87.8	101	143	239	396	612
-35	5.82	9.53	13.7	18.5	24.2	31.6	40.5	50.6	66.7	79.2	99.1	106	117	121	140	197	327	543	834
-30	5.82	9.84	14.5	19.8	27.1	37.0	49.4	65.2	94.0	126	155	184	189	199	208	259	409	668	1006
-25	5.82	10.1	15.1	21.2	30.1	42.2	60.1	91.6	133	200	266	311	338	333	317	354	494	749	1092
-20	5.82	10.4	15.7	22.4	33.0	48.2	73.2	122	202	307	418	504	541	544	511	492	573	777	1081
-15	5.82	10.6	16.2	23.5	35.6	53.7	88.3	161	285	443	605	736	811	806	749	673	667	763	982
-10	5.82	10.8	16.7	24.5	37.8	58.8	103	202	369	586	810	986	1084	1091	1007	875	764	749	842
-5	5.82	10.9	17.0	25.3	39.5	63.2	117	240	441	705	981	1201	1326	1338	1238	1063	866	731	701
0	5.82	11.0	17.3	25.9	40.8	66.6	129	272	501	806	1117	1362	1490	1502	1403	1206	956	724	582
5	5.82	11.0	17.3	26.1	41.2	67.8	133	283	523	840	1165	1416	1553	1571	1466	1271	1000	715	490
10	5.82	11.0	17.3	26.0	41.1	67.6	133	282	525	845	1157	1396	1528	1550	1446	1249	971	674	424
15	5.82	10.9	17.1	25.7	40.4	65.8	127	267	486	770	1068	1313	1423	1439	1337	1140	876	592	356
20	5.82	10.8	16.8	25.1	39.1	62.4	113	225	418	674	925	1124	1244	1240	1145	960	720	475	273
25	5.82	10.7	16.5	24.2	37.2	56.5	96.5	187	345	533	735	906	988	987	892	728	530	339	189
30	5.82	10.5	16.0	23.1	34.8	51.3	81.6	145	254	391	542	655	720	700	622	492	341	210	123
35	5.82	10.3	15.5	21.8	31.9	45.4	68.1	109	174	267	360	433	463	441	380	294	201	125	80.2
40	5.82	10.0	14.8	20.7	28.7	40.3	55.9	81.3	118	166	223	256	264	250	200	154	109	73.9	52.8
45	5.82	9.74	14.2	19.3	25.8	35.1	46.3	60.5	84.2	101	124	143	136	127	107	81.0	63.8	47.4	35.3
50	5.82	9.42	13.4	17.8	22.8	30.2	38.1	46.9	56.7	67.7	74.5	78.6	76.9	69.9	61.2	49.5	41.3	32.6	24.5
55	5.82	9.06	12.7	16.4	20.5	25.5	31.1	37.1	42.3	46.9	49.9	49.8	48.5	44.2	39.5	33.5	27.7	22.5	17.8
60	5.82	8.68	11.8	14.9	18.2	21.5	25.0	28.9	31.9	34.3	35.0	34.7	32.9	30.1	26.5	22.7	19.2	15.8	12.4
65	5.82	8.32	11.0	13.5	16.1	18.4	20.5	22.5	24.0	24.7	24.9	24.0	22.8	20.6	18.3	15.8	13.1	10.5	7.64
70	5.82	7.93	10.1	12.1	14.0	15.6	16.9	17.9	18.6	18.6	18.2	17.3	16.0	14.4	12.4	10.3	8.08	5.90	3.61
75	5.82	7.53	9.25	10.7	12.1	13.0	13.7	14.1	14.2	13.8	13.1	12.1	10.8	9.24	7.45	5.69	3.81	2.21	0.51
80	5.82	7.12	8.42	9.29	10.2	10.6	10.9	10.7	10.5	9.75	8.84	7.70	6.42	4.96	3.36	2.07	0.63	0.38	0.14
85	5.82	6.70	7.57	8.00	8.42	8.35	8.24	7.76	7.21	6.26	5.25	4.03	2.75	1.70	0.54	0.38	0.23	0.19	0.16
90	5.82	6.26	6.71	6.71	6.72	6.32	5.91	5.10	4.30	3.20	2.10	1.31	0.51	0.43	0.35	0.33	0.30	0.27	0.23

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: 93M20TL2030/BL	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F42 x 225	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: cilinder	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	3.73	5.18	6.28	7.38	8.03	8.68	8.78	8.89	8.47	8.06	7.13	6.21	4.88	3.54	2.19	0.83	0.61	0.38	
-85	8.93	10.6	11.8	13.1	13.6	14.1	13.9	13.6	12.7	11.7	10.3	8.84	6.97	5.13	3.19	1.38	0.74	0.38	
-80	15.2	17.2	18.7	20.0	20.3	20.5	19.9	19.1	17.5	15.9	13.7	11.6	9.14	6.73	4.16	1.91	0.87	0.38	
-75	22.8	25.3	27.5	29.0	29.4	29.0	27.4	25.8	23.1	20.5	17.5	14.5	11.4	8.32	5.30	2.42	0.99	0.38	
-70	34.1	38.6	42.1	44.3	44.3	42.9	39.9	35.8	30.8	25.9	21.6	17.6	13.7	9.93	6.36	3.10	1.10	0.38	
-65	52.3	59.9	66.7	69.7	68.0	64.4	57.4	49.7	41.4	33.4	26.4	20.8	16.0	11.5	7.41	3.71	1.19	0.38	
-60	86.3	104	121	126	121	107	89.7	69.8	55.4	42.9	32.6	24.3	18.3	13.0	8.35	4.22	1.26	0.38	
-55	166	211	249	254	243	196	154	109	79.0	54.2	39.7	28.3	20.5	14.5	9.28	4.73	1.40	0.38	
-50	328	417	481	482	446	364	265	170	106	69.6	47.2	32.6	22.7	15.8	10.1	5.16	1.51	0.38	
-45	568	709	801	798	716	590	417	266	149	86.1	55.1	36.7	24.6	17.0	10.8	5.50	1.59	0.38	
-40	853	1036	1142	1146	1029	839	595	376	213	108	63.2	40.5	26.7	17.9	11.3	5.77	1.64	0.38	
-35	1118	1328	1437	1435	1319	1066	771	480	263	136	70.0	43.6	28.2	18.7	11.7	5.99	1.65	0.38	
-30	1318	1543	1649	1637	1500	1244	893	562	306	149	74.2	45.9	29.2	19.1	12.0	6.13	1.63	0.38	
-25	1404	1632	1746	1744	1595	1314	959	600	324	152	78.8	46.9	29.2	19.4	12.1	6.17	1.58	0.38	
-20	1381	1616	1730	1714	1564	1296	934	582	317	154	77.5	46.3	29.2	19.3	12.0	6.12	1.50	0.38	
-15	1251	1470	1579	1567	1427	1158	828	522	287	140	71.8	44.5	28.7	18.8	11.8	5.98	1.39	0.38	
-10	1029	1207	1309	1300	1174	948	677	424	228	119	66.6	41.9	27.3	18.1	11.3	5.76	1.27	0.38	
-5	771	883	965	958	862	695	501	320	181	98.7	58.7	38.0	25.3	17.2	10.8	5.46	1.12	0.38	
0	545	581	625	616	554	450	325	206	119	72.5	48.5	33.3	22.9	15.9	10.1	5.08	0.96	0.38	
5	365	335	343	331	296	252	197	137	88.8	59.3	41.5	29.5	20.8	14.6	9.26	4.66	0.92	0.38	
10	265	185	165	163	150	137	112	82.1	58.9	45.6	33.9	25.3	18.6	13.2	8.37	4.19	0.88	0.38	
15	203	122	91.2	84.9	82.2	77.0	64.4	57.7	45.1	35.3	26.6	21.2	16.1	11.6	7.37	3.68	0.83	0.38	
20	159	98.5	66.1	53.0	51.1	47.7	45.4	40.2	32.9	27.6	22.0	17.6	13.6	9.90	6.30	3.16	0.77	0.38	
25	115	77.8	49.9	33.9	33.4	32.6	30.2	28.3	24.4	21.0	17.9	14.6	11.3	8.16	5.16	2.64	0.71	0.38	
30	82.4	59.9	35.7	23.9	22.4	22.1	21.5	20.1	18.5	16.4	14.0	11.6	9.09	6.44	3.98	2.13	0.65	0.38	
35	59.8	41.4	24.4	15.4	15.1	15.3	15.0	14.5	13.3	12.1	10.5	8.76	6.91	4.91	2.81	1.64	0.59	0.38	
40	41.9	28.1	15.4	9.05	9.29	9.59	9.73	9.53	8.97	8.21	7.29	6.03	4.76	3.42	1.75	1.19	0.53	0.38	
45	26.8	16.4	5.95	4.42	4.29	4.73	5.09	5.15	5.06	4.73	4.26	3.72	2.66	2.19	0.99	0.86	0.47	0.38	
50	18.2	10.9	3.31	1.63	0.70	1.21	1.47	1.81	1.83	2.03	1.69	1.86	1.03	1.19	0.54	0.62	0.42	0.38	
55	13.5	8.86	4.27	1.88	0.17	0.07	0.12	0.26	0.22	0.50	0.20	0.69	0.30	0.61	0.35	0.43	0.36	0.38	
60	9.35	6.24	3.32	1.21	0.23	0.04	0.04	0.04	0.05	0.08	0.08	0.18	0.11	0.26	0.19	0.30	0.31	0.38	
65	5.19	2.77	1.09	0.12	0.05	0.04	0.04	0.04	0.05	0.06	0.07	0.09	0.11	0.18	0.19	0.27	0.32	0.38	
70	1.87	0.34	0.16	0.05	0.05	0.04	0.04	0.04	0.05	0.07	0.08	0.08	0.12	0.16	0.19	0.25	0.32	0.38	
75	0.31	0.14	0.10	0.06	0.06	0.06	0.05	0.04	0.06	0.08	0.09	0.10	0.14	0.18	0.21	0.25	0.33	0.38	
80	0.17	0.19	0.14	0.10	0.08	0.07	0.06	0.06	0.08	0.10	0.11	0.12	0.16	0.20	0.23	0.27	0.33	0.38	
85	0.19	0.23	0.17	0.12	0.11	0.10	0.09	0.08	0.11	0.13	0.14	0.14	0.18	0.22	0.25	0.29	0.34	0.38	
90	0.24	0.25	0.20	0.15	0.14	0.13	0.12	0.11	0.13	0.14	0.16	0.18	0.22	0.25	0.28	0.31	0.35	0.38	

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: