

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity	635.9 cd per klm.
(Luminaire orientation as tested.)	0.0 degrees vertical
	0.0 degrees horizontal

Beam Spread	At 10% of Imax	138.9V x 137.4H
	At 50% of Imax	64.4V x 64.1H
	At 90% of Imax	12.1V x 12.6H

Beam Flux	Total	975.7 lumens per klm.
	To 10% of Imax	956.8 lumens per klm.
	To 50% of Imax	387.3 lumens per klm.
	To 90% of Imax	22.3 lumens per klm.

Upward LOR	0.0 %
Downward LOR	97.6 %

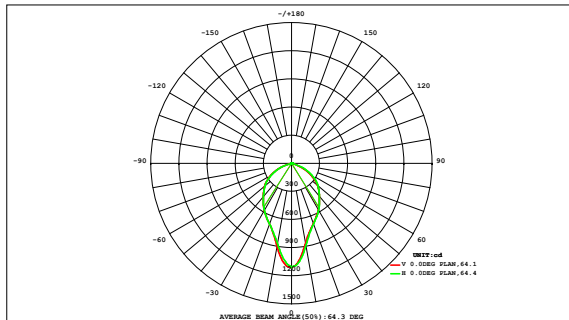
Luminaire Efficiency (Light Output Ratio)	97.5 %
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C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 01 September 2022

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: 96RAY20/W	TYPE: 96RAY20/W	WEIGHT: 1
SPEC.:	DIM.: F 200 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Circle	Shielding Angle:



DATA OF LAMP		PHOTOMETRIC DATA	
MODEL	96RAY20/W	Imax (cd)	1113
NOMINAL POWER (W)	20	AVAILABILITY (%)	95.6
RATED VOLTAGE (V)	230	Avai. FLUX (lm)	1673
NOMINAL FLUX (lm)	1750	LOR (%)	97.5
LAMPS INSIDE	1	TOTAL FLUX (lm)	1707
TEST VOLTAGE (V)	230	θ @50% (H,V)	64, 64DEG

VERTICAL (DEG)	AREA FLUX DIAGRAM																UNIT: lm		Φ t	Φ a
	0.00	0.01	0.01	0.02	0.03	0.04	0.05	0.05	0.06	0.06	0.06	0.05	0.04	0.03	0.02	0.01	0.01	0.00	0.55	0.00
90	0.00	0.01	0.03	0.05	0.09	0.15	0.24	0.42	0.57	0.61	0.47	0.27	0.17	0.11	0.07	0.03	0.01	0.00	3.32	0.00
80	0.00	0.02	0.05	0.12	0.68	1.83	3.29	4.42	5.12	5.39	4.95	3.92	2.46	1.02	0.19	0.06	0.02	0.00	33.6	27.4
70	0.00	0.02	0.09	0.94	2.97	5.03	7.02	8.40	9.24	9.43	8.78	7.42	5.56	3.55	1.41	0.14	0.03	0.00	70.0	67.8
60	0.00	0.03	0.42	2.35	4.87	7.53	9.78	11.6	12.6	12.6	11.8	10.2	7.94	5.43	2.90	0.66	0.04	0.00	101	99.2
50	0.00	0.04	0.96	3.40	6.50	9.43	12.0	14.3	15.8	15.8	14.5	12.3	9.66	6.86	3.97	1.35	0.06	0.01	127	126
40	0.00	0.06	1.43	4.25	7.67	10.9	14.2	17.2	19.0	19.0	17.2	14.4	11.0	7.82	4.73	1.87	0.10	0.01	151	150
30	0.01	0.10	1.76	4.83	8.42	12.1	16.1	19.7	22.6	22.5	19.5	16.1	12.1	8.48	5.23	2.21	0.17	0.01	172	171
20	0.01	0.13	1.94	5.15	8.83	12.8	17.2	21.8	28.4	28.7	21.8	17.2	12.9	8.95	5.53	2.37	0.23	0.01	194	193
10	0.01	0.13	1.95	5.15	8.82	12.8	17.0	21.7	28.6	29.4	22.2	17.3	13.1	9.08	5.56	2.37	0.23	0.01	195	195
0	0.01	0.10	1.79	4.86	8.41	12.2	16.1	19.7	22.7	22.8	19.7	16.2	12.4	8.75	5.31	2.21	0.18	0.01	173	173
-10	0.00	0.05	1.46	4.31	7.68	11.0	14.4	17.3	19.0	18.9	17.2	14.4	11.2	8.03	4.75	1.87	0.10	0.01	152	151
-20	0.00	0.04	0.95	3.49	6.57	9.53	12.2	14.4	15.7	15.6	14.3	12.2	9.73	6.93	3.92	1.33	0.06	0.01	127	126
-30	0.00	0.03	0.37	2.42	4.98	7.63	9.93	11.6	12.5	12.5	11.6	10.0	7.92	5.41	2.88	0.64	0.03	0.00	100	99.2
-40	0.00	0.02	0.08	0.99	3.01	5.14	7.10	8.57	9.33	9.35	8.56	7.19	5.51	3.53	1.41	0.13	0.03	0.00	69.9	67.8
-50	0.00	0.02	0.04	0.11	0.63	1.94	3.45	4.65	5.26	5.26	4.69	3.67	2.36	0.96	0.17	0.05	0.02	0.00	33.3	27.0
-60	0.00	0.01	0.03	0.05	0.08	0.12	0.19	0.38	0.55	0.57	0.44	0.26	0.15	0.09	0.06	0.03	0.01	0.00	3.01	0.00
-70	0.00	0.01	0.01	0.02	0.03	0.04	0.04	0.05	0.06	0.06	0.06	0.05	0.04	0.03	0.02	0.01	0.01	0.00	0.53	0.00
-80	0.00	0.01	0.01	0.02	0.03	0.04	0.04	0.05	0.06	0.06	0.06	0.05	0.04	0.03	0.02	0.01	0.01	0.00	0.53	0.00
-90	0.00	0.01	0.01	0.02	0.03	0.04	0.04	0.05	0.06	0.06	0.06	0.05	0.04	0.03	0.02	0.01	0.01	0.00	0.53	0.00
HORIZONTAL (DEG)																				
Φ t	0.07	0.80	13.4	42.5	80.3	120	160	196	227	229	198	163	124	85.1	48.1	17.4	1.32	0.08	1707	---
Φ a	0.00	0.00	8.98	39.8	77.8	118	158	194	225	227	196	161	122	83.3	46.2	14.8	0.00	0.00	---	1673

one-half-peak spread: U:32.5,D:32.9 , L:32.2,R:33.0

NEMA Beam Type: Type 7

C Range: 0 - 360DEG

C Interval: 10.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:01 September 2022

γ Range: 0 - 90DEG

γ Interval: 2.5DEG

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

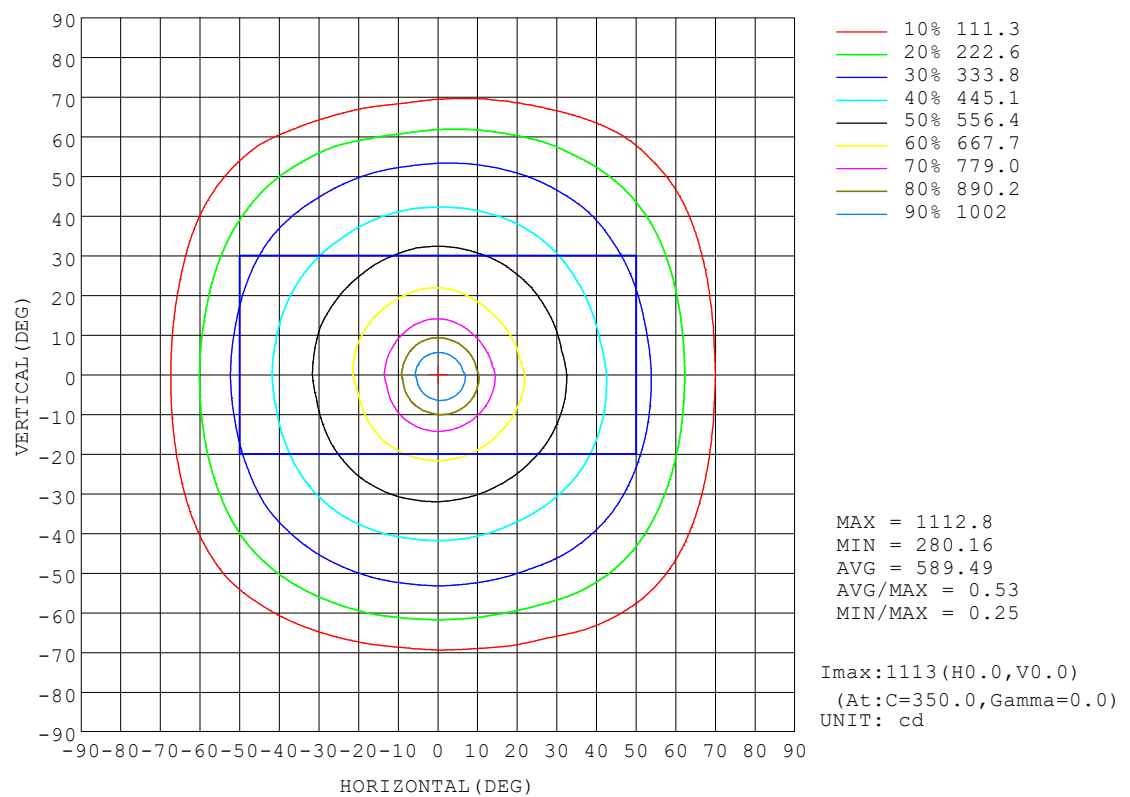
Humidity:65.0%

Test Distance:6.265m [K=1.0000]

Remarks:

ISOCANDELA DIAGRAM

NAME: 96RAY20/W	TYPE: 96RAY20/W	WEIGHT: 1
SPEC.:	DIM.: F 200 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Circle	Shielding Angle:

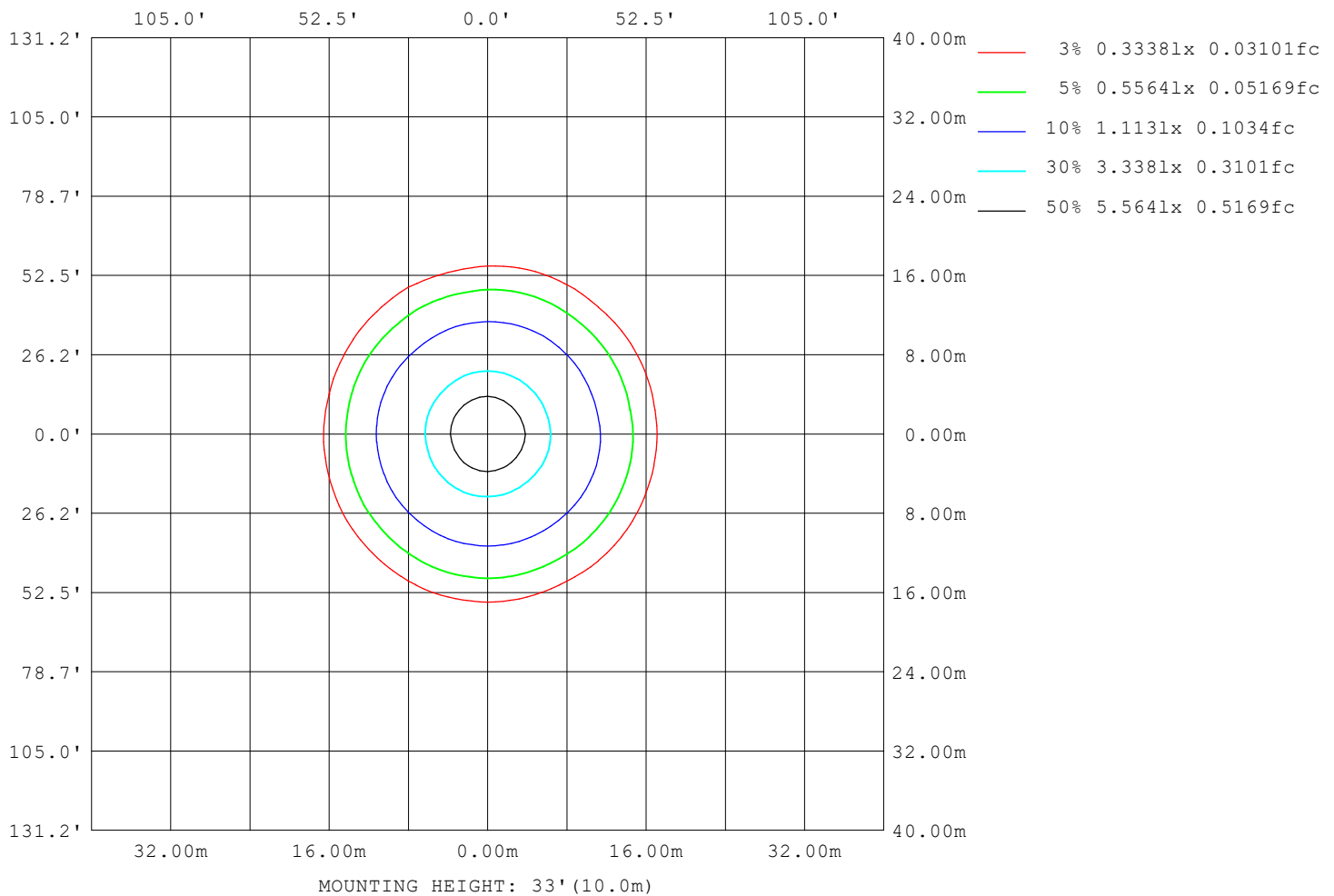


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ISOLUX DIAGRAM

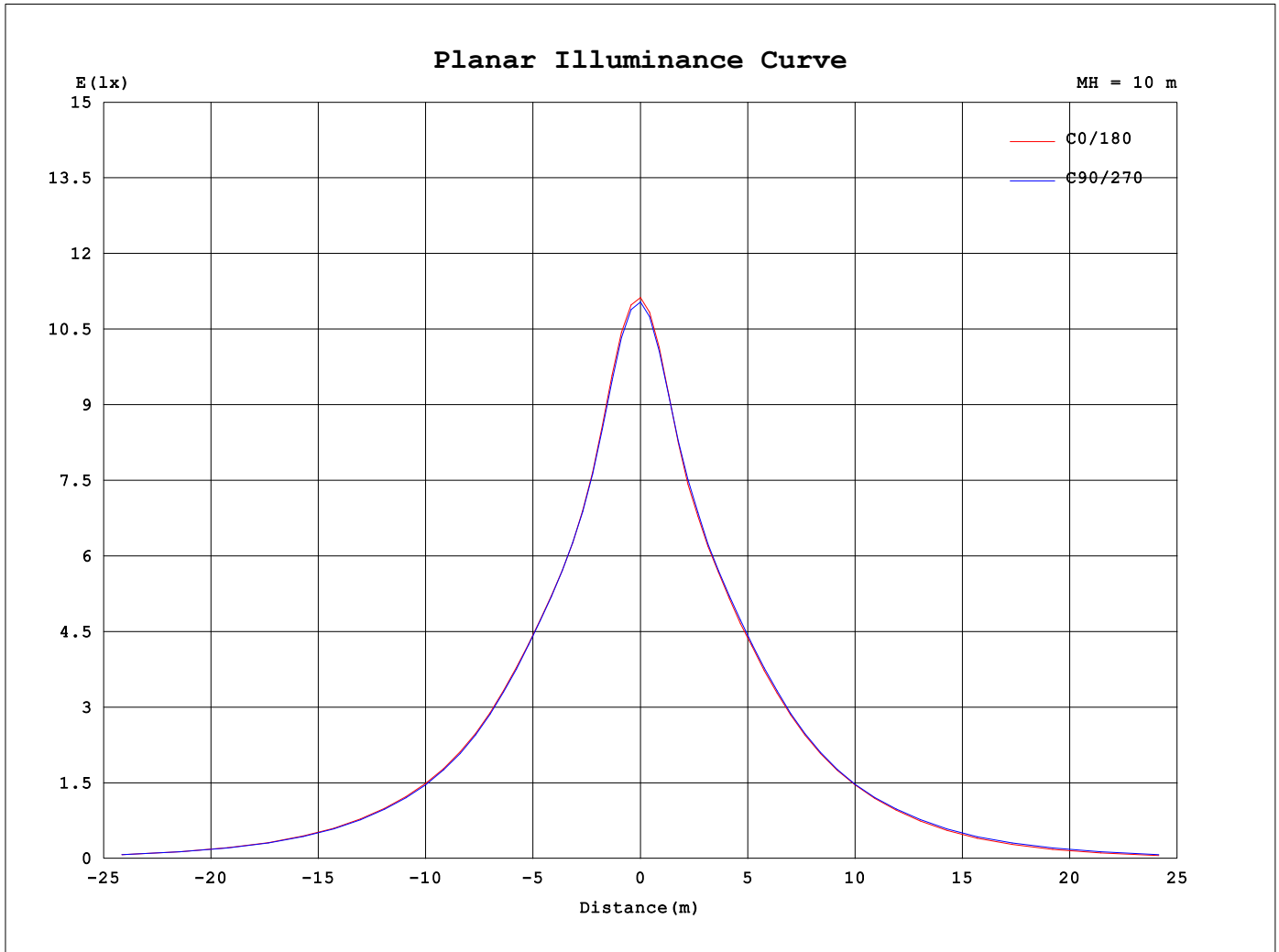
NAME: 96RAY20/W	TYPE: 96RAY20/W	WEIGHT: 1
SPEC.:	DIM.: F 200 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Circle	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 01 September 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

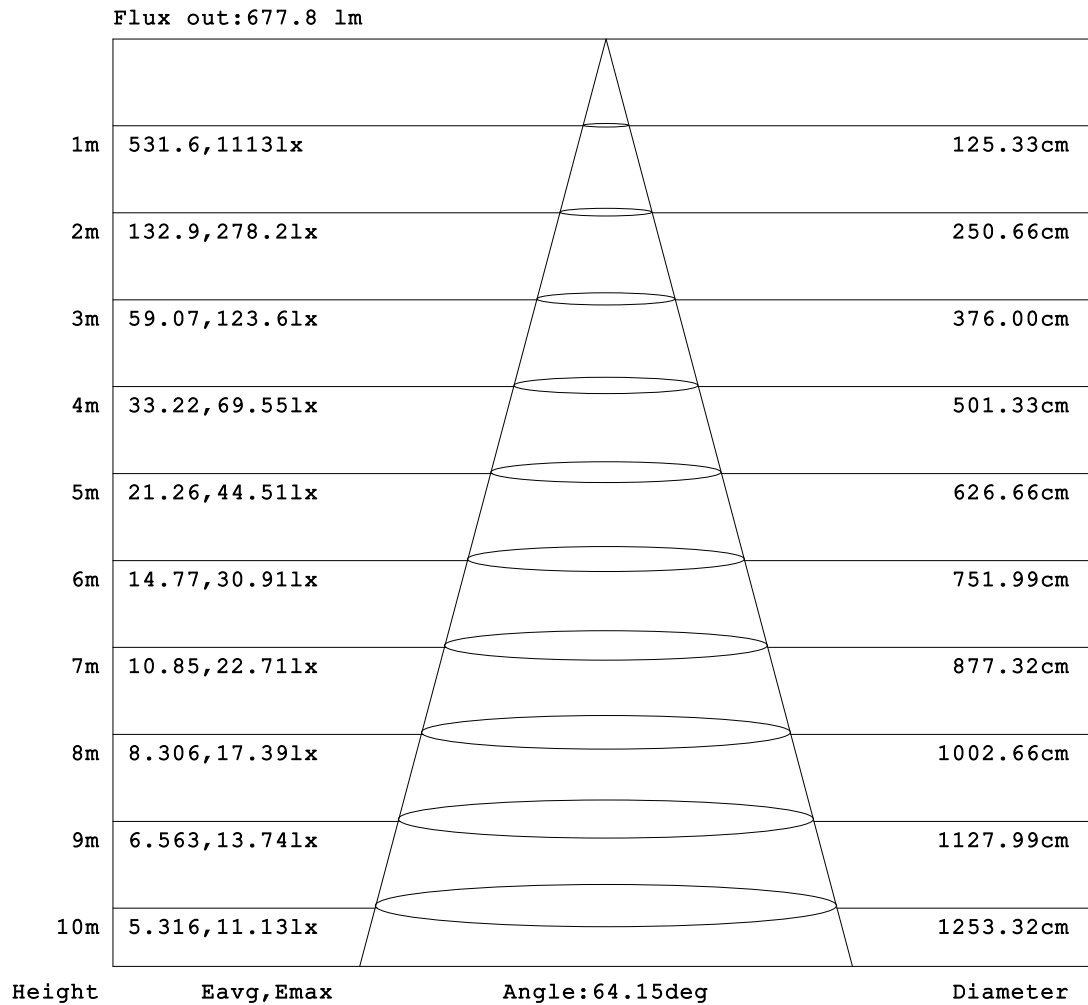


C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 01 September 2022

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: 96RAY20/W	TYPE: 96RAY20/W	WEIGHT: 1
SPEC.:	DIM.: F 200 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: 10.0DEG

Test Speed: HIGH

Temperature: 25.3°C

Operators:

Test Date: 01 September 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: 96RAY20/W	TYPE: 96RAY20/W	WEIGHT: 1
SPEC.:	DIM.: F 200 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Circle	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	0.57	0.62	0.68	0.68	0.68	0.68	0.69	0.69	0.69	0.69	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
-85	0.57	0.65	0.74	0.77	0.81	0.85	0.88	0.99	1.11	1.19	1.27	1.33	1.37	1.17	0.93	1.24	1.57	1.66	1.74
-80	0.57	0.68	0.80	0.88	1.10	1.31	1.52	1.79	2.04	2.30	2.55	2.74	2.88	2.95	3.06	3.34	3.53	3.68	3.80
-75	0.57	0.71	0.87	1.19	1.51	1.91	2.32	2.77	3.21	3.70	4.20	4.53	4.82	5.16	5.45	5.79	6.10	6.37	6.58
-70	0.57	0.74	1.07	1.51	2.02	2.59	3.22	3.90	4.60	5.43	6.58	9.29	11.8	29.2	52.2	70.7	84.3	95.7	103
-65	0.57	0.77	1.27	1.89	2.56	3.32	4.20	5.21	7.68	11.7	46.9	83.8	109	132	148	161	170	176	178
-60	0.57	0.80	1.46	2.26	3.12	4.10	5.32	9.70	40.9	81.4	121	149	174	197	216	230	239	245	247
-55	0.57	0.89	1.70	2.67	3.72	4.98	9.52	56.2	103	141	176	207	235	259	279	294	303	310	314
-50	0.57	0.97	1.92	3.05	4.33	7.24	40.0	103	148	188	226	260	290	314	334	350	360	366	369
-45	0.57	1.05	2.13	3.44	5.00	11.0	80.4	139	187	232	272	308	337	362	381	396	406	412	414
-40	0.57	1.13	2.33	3.83	5.96	41.5	116	170	223	272	313	348	378	403	425	442	454	461	464
-35	0.57	1.19	2.53	4.17	8.46	71.6	140	198	255	307	348	383	415	445	469	491	507	517	521
-30	0.57	1.25	2.70	4.51	10.7	94.3	162	224	283	336	377	414	451	485	516	543	565	576	579
-25	0.57	1.30	2.85	4.83	24.5	112	181	245	306	358	400	443	484	524	561	591	616	629	634
-20	0.57	1.34	2.98	5.10	40.9	125	197	263	326	376	421	467	514	558	596	632	660	679	688
-15	0.57	1.37	3.08	5.31	53.9	136	209	277	340	390	438	487	538	584	626	670	711	749	764
-10	0.57	1.39	3.15	5.47	63.4	144	218	288	351	401	450	502	554	603	652	706	773	848	892
-5	0.57	1.40	3.19	5.56	69.2	148	223	295	359	410	459	513	565	614	669	735	833	966	1045
0	0.57	1.40	3.21	5.60	71.2	149	225	297	362	414	464	519	574	626	685	753	864	1026	1113
5	0.57	1.40	3.20	5.59	69.3	147	222	294	359	410	460	515	571	624	679	740	829	956	1018
10	0.57	1.38	3.16	5.52	63.5	142	215	287	351	403	451	504	559	613	659	707	768	839	868
15	0.57	1.36	3.09	5.38	54.1	133	205	275	340	392	438	487	538	587	631	672	709	746	762
20	0.57	1.33	3.00	5.19	41.2	122	192	260	325	377	421	464	510	554	598	631	660	682	689
25	0.57	1.29	2.87	4.93	24.9	108	176	242	306	358	400	438	478	517	554	589	613	629	635
30	0.57	1.24	2.72	4.61	11.1	94.0	158	219	280	334	375	410	444	477	509	539	562	577	582
35	0.57	1.18	2.54	4.26	8.86	77.6	136	193	250	304	346	379	408	436	464	488	508	522	525
40	0.57	1.11	2.34	3.91	6.29	47.1	112	165	216	267	311	344	370	396	421	440	456	466	469
45	0.57	1.03	2.13	3.53	5.29	12.0	85.0	134	180	226	270	304	332	356	377	395	408	415	418
50	0.57	0.95	1.91	3.13	4.58	7.91	42.2	97.3	143	183	222	256	285	311	330	347	359	366	370
55	0.57	0.86	1.68	2.73	3.95	5.42	10.4	47.6	101	139	171	203	233	258	274	287	298	307	312
60	0.57	0.77	1.42	2.30	3.30	4.42	5.78	10.6	43.5	90.4	117	143	170	194	210	222	231	240	247
65	0.57	0.74	1.22	1.90	2.69	3.55	4.48	5.68	8.58	13.4	45.0	73.6	101	121	139	152	161	171	178
70	0.57	0.70	1.02	1.48	2.09	2.73	3.41	4.20	5.08	6.24	7.89	11.4	14.5	30.7	51.1	67.7	80.2	93.4	103
75	0.57	0.67	0.80	1.14	1.51	1.96	2.41	2.96	3.53	4.19	4.92	5.64	6.43	7.01	7.46	7.79	8.02	7.80	7.44
80	0.57	0.64	0.71	0.80	1.03	1.28	1.52	1.84	2.17	2.53	2.90	3.31	3.70	3.94	4.15	4.25	4.29	4.19	4.03
85	0.57	0.60	0.64	0.67	0.71	0.76	0.81	0.93	1.04	1.18	1.32	1.44	1.56	1.30	0.98	1.34	1.72	1.75	1.75
90	0.57	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.56

C Range: 0 - 360DEG

C Interval: 10.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:01 September 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: 96RAY20/W	TYPE: 96RAY20/W	WEIGHT: 1
SPEC.:	DIM.: F 200 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	
-90	0.68	0.68	0.67	0.65	0.65	0.65	0.64	0.62	0.62	0.63	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	
-85	1.78	1.81	1.82	1.81	1.78	1.73	1.62	1.50	1.38	1.25	1.12	0.98	0.94	0.88	0.82	0.75	0.69	0.62	
-80	3.80	3.77	3.80	3.78	3.68	3.54	3.25	2.94	2.62	2.31	2.03	1.74	1.51	1.27	1.03	0.89	0.76	0.62	
-75	6.60	6.56	6.56	6.47	6.28	5.92	5.27	4.71	4.13	3.58	3.12	2.64	2.21	1.78	1.42	1.03	0.83	0.62	
-70	99.6	91.4	79.4	61.7	38.1	19.4	15.2	8.57	6.38	5.15	4.35	3.63	2.99	2.38	1.80	1.30	0.90	0.62	
-65	175	168	160	150	137	123	109	70.8	23.0	12.6	6.38	4.73	3.81	3.00	2.25	1.55	0.97	0.62	
-60	245	239	229	216	201	185	166	141	118	67.5	20.5	6.85	4.71	3.64	2.69	1.79	1.04	0.62	
-55	311	304	293	279	261	244	222	195	163	131	84.3	21.0	6.42	4.34	3.16	2.07	1.15	0.62	
-50	367	360	350	335	317	298	273	244	210	170	131	69.1	13.8	5.14	3.61	2.34	1.26	0.62	
-45	412	405	396	381	365	345	319	288	252	210	163	119	27.8	6.54	4.07	2.59	1.36	0.62	
-40	461	452	438	420	402	383	358	327	290	245	195	141	74.4	9.40	4.52	2.83	1.46	0.62	
-35	516	504	486	464	440	416	392	361	323	277	224	166	114	19.7	4.93	3.06	1.54	0.62	
-30	573	559	536	510	481	450	420	390	351	304	249	189	130	29.3	5.58	3.27	1.62	0.62	
-25	627	610	586	556	521	484	448	413	374	327	271	209	144	49.5	6.27	3.45	1.68	0.62	
-20	679	658	630	596	558	518	473	433	393	346	290	225	158	71.1	6.85	3.60	1.74	0.62	
-15	748	710	670	631	590	545	496	449	407	360	304	238	168	88.3	7.31	3.72	1.78	0.62	
-10	865	785	712	660	613	566	513	462	417	370	313	247	175	101	7.66	3.81	1.81	0.62	
-5	998	870	751	681	631	580	524	470	421	375	319	253	180	108	7.88	3.87	1.83	0.62	
0	1056	900	766	688	636	584	526	471	422	376	320	255	182	111	7.97	3.90	1.84	0.62	
5	967	844	738	672	623	573	517	463	415	370	316	252	180	108	7.93	3.89	1.83	0.62	
10	839	765	698	653	610	559	504	451	404	361	309	247	175	101	7.77	3.84	1.81	0.62	
15	742	699	662	630	587	539	487	437	393	351	299	238	167	88.1	7.47	3.77	1.78	0.62	
20	678	654	628	597	557	511	464	419	380	339	287	226	157	70.4	7.05	3.66	1.74	0.62	
25	629	611	589	558	521	481	439	400	364	322	271	210	144	48.0	6.51	3.51	1.68	0.62	
30	577	563	543	514	483	449	414	380	344	302	252	192	130	27.5	5.85	3.33	1.62	0.62	
35	520	509	492	471	445	417	388	356	320	278	227	169	114	19.3	5.23	3.12	1.54	0.62	
40	467	458	445	429	408	385	358	327	290	247	197	144	75.4	9.95	4.79	2.89	1.46	0.62	
45	417	411	401	388	371	347	320	289	254	211	164	120	30.0	7.21	4.31	2.64	1.36	0.62	
50	370	365	356	342	324	300	274	245	210	171	131	70.0	15.4	5.78	3.83	2.38	1.26	0.62	
55	313	310	300	288	271	248	223	196	164	131	83.1	22.8	7.49	4.90	3.36	2.10	1.14	0.62	
60	248	246	237	226	212	193	171	145	122	70.0	22.0	8.33	5.60	4.10	2.85	1.80	1.02	0.62	
65	179	177	170	160	148	132	114	72.7	26.3	15.1	8.04	5.89	4.50	3.36	2.38	1.55	0.95	0.62	
70	105	99.4	84.8	64.8	40.4	20.3	15.5	9.85	7.96	6.59	5.48	4.43	3.48	2.64	1.88	1.28	0.88	0.62	
75	7.43	7.32	7.28	7.12	6.92	6.54	5.95	5.45	4.96	4.42	3.79	3.13	2.52	1.93	1.45	1.01	0.80	0.62	
80	4.04	4.01	3.97	3.90	3.84	3.73	3.48	3.20	2.98	2.72	2.35	1.98	1.65	1.32	1.02	0.84	0.73	0.62	
85	1.77	1.77	1.76	1.73	1.71	1.68	1.60	1.51	1.42	1.32	1.18	1.04	0.94	0.85	0.76	0.68	0.65	0.62	
90	0.56	0.56	0.55	0.55	0.55	0.55	0.54	0.54	0.53	0.51	0.52	0.53	0.52	0.52	0.52	0.52	0.57	0.62	

C Range: 0 - 360DEG

C Interval: 10.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:01 September 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: