

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity	430.1 cd per klm.
(Luminaire orientation as tested.)	13.0 degrees vertical
	-7.5 degrees horizontal

Beam Spread	At 10% of Imax	117.6V x 122.3H
	At 50% of Imax	73.5V x 94.0H
	At 90% of Imax	42.3V x 57.6H

Beam Flux	Total	790.9 lumens per klm.
	To 10% of Imax	750.5 lumens per klm.
	To 50% of Imax	575.7 lumens per klm.
	To 90% of Imax	240.3 lumens per klm.

Upward LOR	0.0 %
Downward LOR	79.1 %

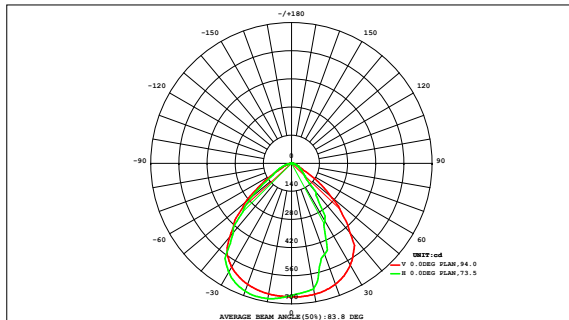
Luminaire Efficiency (Light Output Ratio)	79.1 %
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C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 01 July 2022

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: 98Helios20	TYPE: 98Helios20	WEIGHT: 0.2
SPEC.:	DIM.: 0.338 x 0.230 x 0.145	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangular	Shielding Angle:



DATA OF LAMP		PHOTOMETRIC DATA	
MODEL	98Helios20	Imax (cd)	688.1
NOMINAL POWER (W)	20	AVAILABILITY (%)	75.1
RATED VOLTAGE (V)	230	Avai. FLUX (lm)	1202
NOMINAL FLUX (lm)	1600	LOR (%)	79.1
LAMPS INSIDE	1	TOTAL FLUX (lm)	1265
TEST VOLTAGE (V)	230	θ @50% (H,V)	94,74DEG

VERTICAL (DEG)	AREA FLUX DIAGRAM																UNIT:lm		Φ t	Φ a
	0.00	0.00	0.00	0.01	0.01	0.02	0.03	0.04	0.05	0.05	0.04	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.35	0.00
90	0.00	0.00	0.02	0.08	0.20	0.37	0.54	0.69	0.79	0.81	0.74	0.61	0.44	0.28	0.14	0.05	0.01	0.00	5.80	0.00
80	0.00	0.01	0.09	0.28	0.63	1.10	1.59	1.96	2.17	2.20	2.07	1.75	1.27	0.78	0.39	0.15	0.03	0.00	16.5	6.68
70	0.00	0.03	0.18	0.55	1.29	2.43	3.54	4.36	4.80	4.84	4.61	4.01	2.82	1.56	0.70	0.27	0.06	0.00	36.0	32.5
60	0.00	0.05	0.29	0.91	2.74	5.77	8.62	10.2	10.9	11.0	10.4	9.10	6.47	3.34	1.18	0.39	0.09	0.01	81.4	79.3
50	0.00	0.08	0.39	1.51	5.04	9.93	13.8	15.9	16.8	16.8	16.0	14.1	10.6	5.77	1.85	0.52	0.12	0.01	129	127
40	0.00	0.09	0.48	2.22	6.88	12.6	16.7	19.0	19.9	19.8	18.8	16.8	13.0	7.52	2.72	0.62	0.14	0.01	157	156
30	0.00	0.11	0.55	2.72	7.78	13.6	17.6	19.9	20.7	20.6	19.7	17.6	14.0	8.37	3.28	0.70	0.16	0.01	167	166
20	0.00	0.11	0.57	2.94	7.94	13.6	17.4	19.6	20.5	20.3	19.4	17.4	14.0	8.52	3.46	0.74	0.16	0.01	167	165
10	0.00	0.11	0.55	2.78	7.61	13.0	16.6	18.7	19.5	19.6	18.8	16.8	13.5	8.25	3.29	0.72	0.16	0.01	160	159
0	0.00	0.10	0.49	2.26	6.30	10.7	13.9	15.7	16.5	16.6	15.9	14.2	11.2	6.97	2.75	0.63	0.15	0.01	135	133
-10	0.00	0.09	0.40	1.49	4.34	7.70	10.1	11.5	12.2	12.3	11.7	10.4	8.18	4.91	1.91	0.52	0.13	0.01	98.0	96.3
-20	0.00	0.07	0.31	0.93	2.44	4.46	6.11	7.07	7.62	7.69	7.28	6.46	4.91	2.92	1.19	0.41	0.10	0.01	60.0	57.8
-30	0.00	0.04	0.21	0.56	1.17	1.91	2.51	2.96	3.23	3.29	3.18	2.81	2.21	1.43	0.71	0.29	0.08	0.01	26.6	21.9
-40	0.00	0.03	0.13	0.34	0.66	1.03	1.37	1.63	1.78	1.80	1.71	1.49	1.17	0.79	0.44	0.19	0.05	0.00	14.6	1.47
-50	0.00	0.01	0.06	0.17	0.33	0.53	0.73	0.88	0.98	1.00	0.94	0.81	0.63	0.43	0.24	0.10	0.03	0.00	7.87	0.00
-60	0.00	0.00	0.02	0.05	0.11	0.18	0.26	0.32	0.37	0.38	0.35	0.30	0.23	0.15	0.09	0.04	0.01	0.00	2.85	0.00
-70	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.22	0.00
-80	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.22	0.00
-90	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.22	0.00
HORIZONTAL (DEG)																				
Φ t	0.04	0.94	4.75	19.8	55.5	99.0	131	150	159	159	152	135	105	62.0	24.4	6.37	1.50	0.10	1265	---
Φ a	0.00	0.00	0.00	15.2	51.7	94.8	127	146	154	155	147	131	101	58.3	20.2	0.76	0.00	0.00	---	1202

one-half-peak spread: U:28.9,D:30.5 , L:44.2,R:50.2

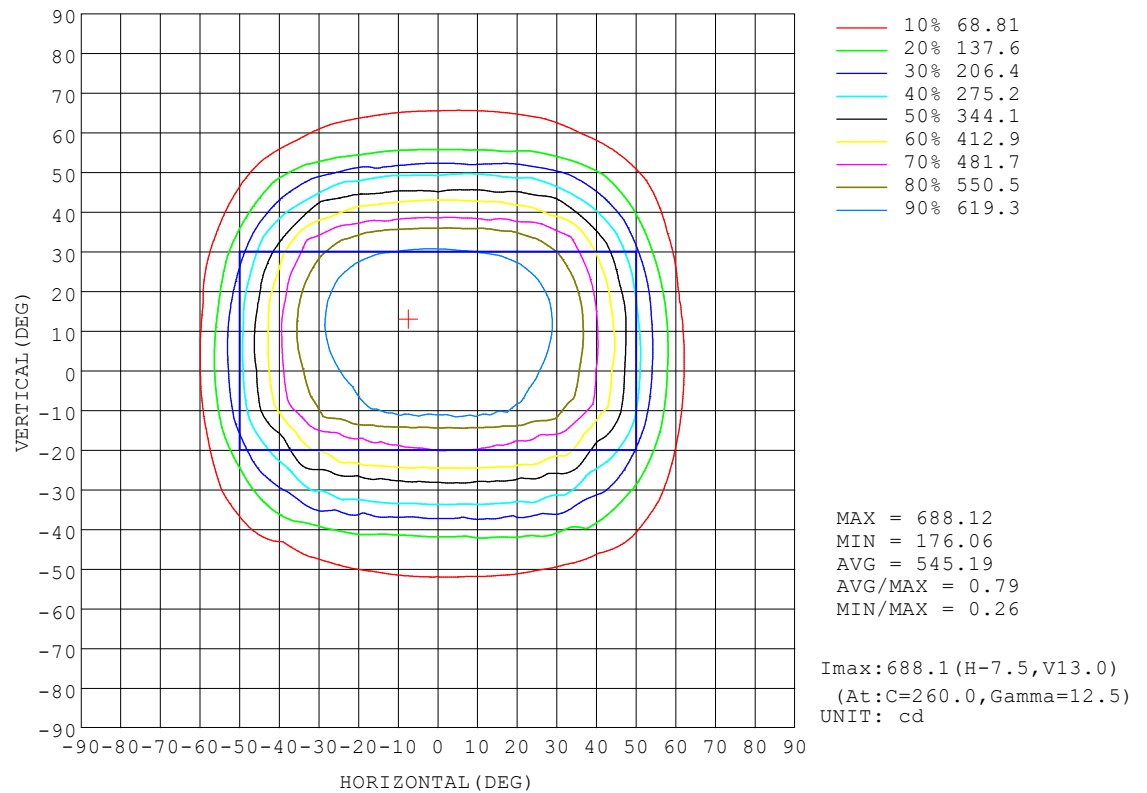
NEMA Beam Type: Type 6

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:01 July 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: 98Helios20	TYPE: 98Helios20	WEIGHT: 0.2
SPEC.:	DIM.: 0.338 x 0.230 x 0.145	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangular	Shielding Angle:

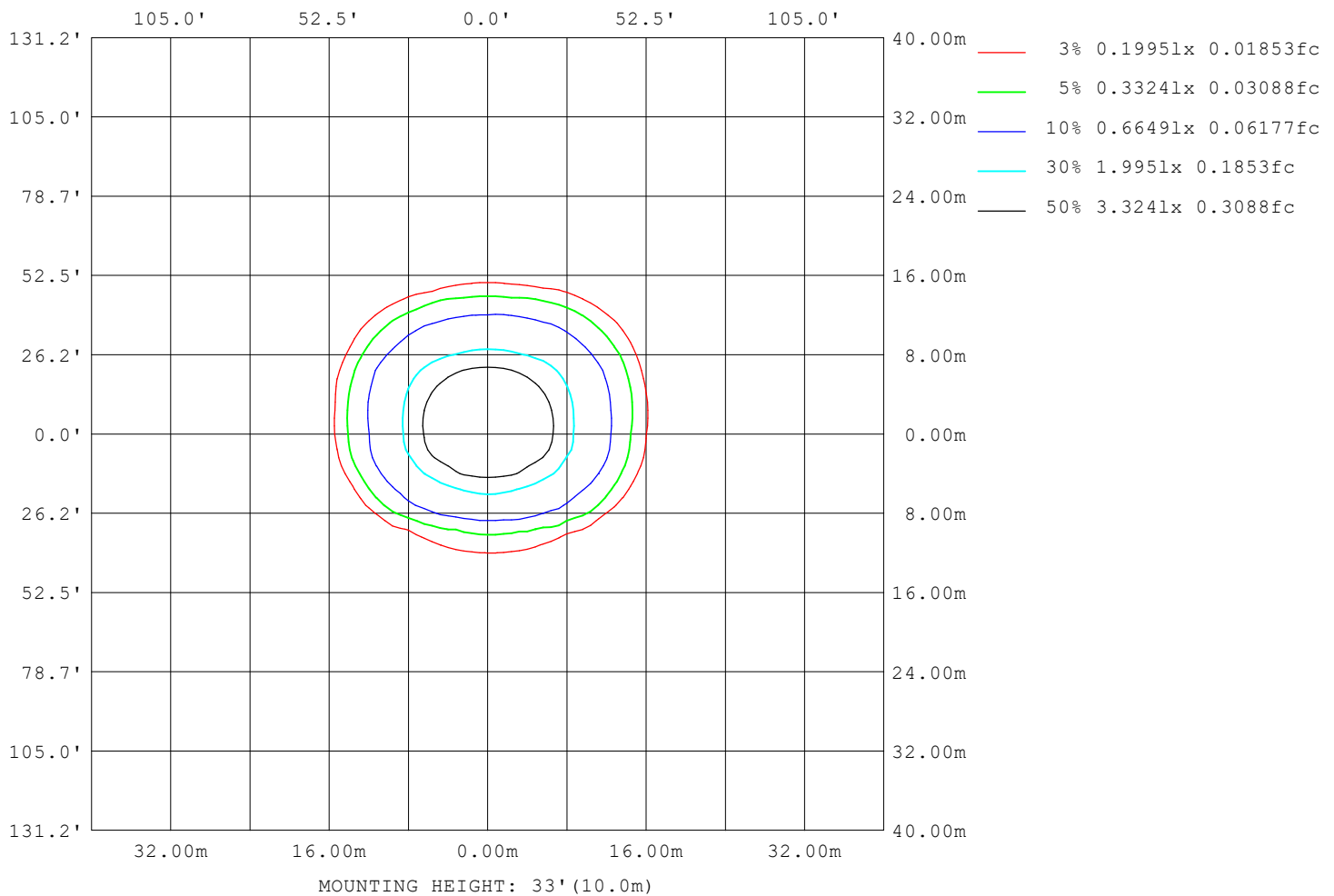


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ISOLUX DIAGRAM

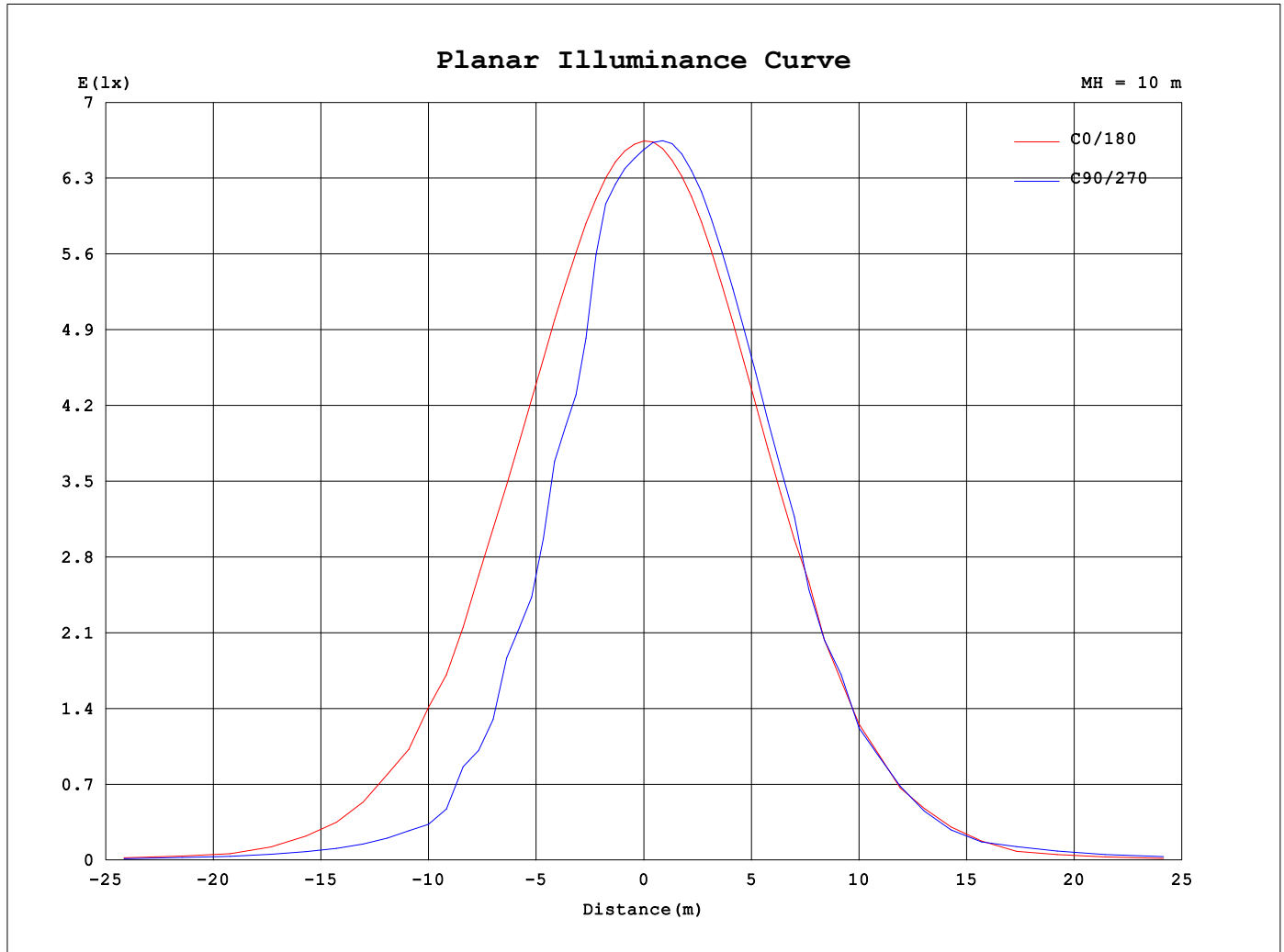
NAME: 98Helios20	TYPE: 98Helios20	WEIGHT: 0.2
SPEC.:	DIM.: 0.338 x 0.230 x 0.145	SERIAL No.: 0
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Remarks:

Planar Illuminance Curve

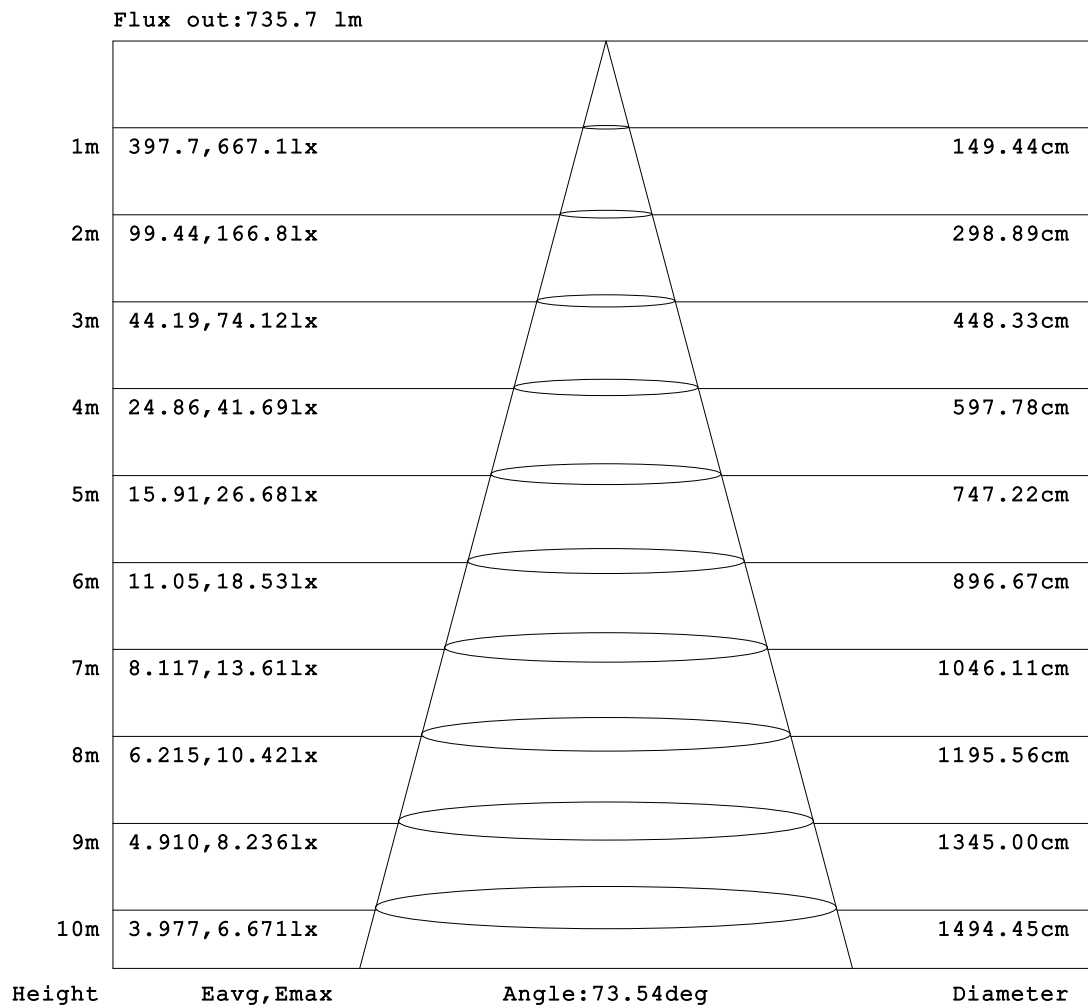


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 γ Interval: 2.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.456
 Humidity: 65.0%
 Test Distance: 6.265m [K=1.0000]
 Remarks:

AAI Figure

NAME: 98Helios20	TYPE: 98Helios20	WEIGHT: 0.2
SPEC.:	DIM.: 0.338 x 0.230 x 0.145	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangular	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 July 2022

γ Range: 0 - 90DEG
γ Interval: 2.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
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LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 98Helios20	TYPE: 98Helios20	WEIGHT: 0.2
SPEC.:	DIM.: 0.338 x 0.230 x 0.145	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangular	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	0.26	0.30	0.33	0.34	0.35	0.36	0.36	0.36	0.36	0.36	0.35	0.34	0.33	0.32	0.31	0.30	0.29	0.29	0.29
-85	0.26	0.29	0.31	0.31	0.31	0.31	0.30	0.31	0.31	0.30	0.28	0.27	0.25	0.24	0.23	0.22	0.22	0.22	0.21
-80	0.26	0.28	0.29	0.29	0.36	0.40	0.42	0.72	0.98	1.21	1.49	1.94	2.30	2.66	2.96	3.18	3.32	3.53	3.66
-75	0.26	0.27	0.28	0.40	0.52	1.09	1.65	2.65	3.73	4.82	6.00	7.10	8.15	9.20	10.2	10.9	11.5	12.0	12.3
-70	0.26	0.25	0.35	0.53	1.33	2.46	3.95	5.79	7.57	9.56	11.5	13.5	15.2	16.9	18.5	19.7	20.6	21.3	21.8
-65	0.26	0.24	0.42	1.13	2.47	4.43	6.93	9.57	12.3	15.2	18.3	21.1	23.7	26.1	28.2	29.9	31.1	32.0	32.6
-60	0.26	0.23	0.49	1.72	3.91	6.98	10.3	14.0	18.0	22.1	26.2	30.2	33.6	36.7	39.4	41.5	43.0	44.2	44.8
-55	0.26	0.27	0.86	2.74	5.88	9.75	14.2	19.1	24.5	30.1	35.7	40.7	45.2	48.9	52.2	54.8	56.6	57.9	58.7
-50	0.26	0.30	1.21	3.74	7.88	12.7	18.5	24.9	32.0	39.5	47.3	53.9	60.5	64.9	69.3	72.4	74.9	76.2	77.1
-45	0.26	0.33	1.54	4.94	10.0	15.9	23.1	31.5	40.9	52.7	60.5	73.1	76.8	85.0	86.6	91.5	92.9	93.0	94.2
-40	0.26	0.35	1.91	6.24	12.1	19.4	27.9	39.2	55.0	76.5	95.5	119	127	145	160	161	170	186	192
-35	0.26	0.37	2.43	7.43	14.4	22.8	33.5	49.9	77.0	110	149	168	212	215	226	234	240	237	237
-30	0.26	0.39	2.90	8.61	16.4	26.4	39.5	65.5	101	156	200	246	278	299	309	319	326	328	332
-25	0.26	0.41	3.30	9.71	18.4	29.5	45.9	80.3	133	208	249	316	343	369	378	389	396	399	399
-20	0.26	0.43	3.64	10.6	20.2	32.8	52.1	99.0	176	247	305	384	415	444	457	470	476	479	483
-15	0.26	0.44	3.91	11.4	21.7	35.5	57.2	124	212	294	355	430	483	496	520	529	533	536	535
-10	0.26	0.44	4.11	12.0	22.9	37.7	61.6	144	235	339	419	493	549	585	605	618	627	629	635
-5	0.26	0.45	4.24	12.4	23.7	39.2	65.0	157	247	351	446	528	571	602	623	636	643	645	646
0	0.26	0.45	4.29	12.6	24.1	40.1	67.2	164	252	356	453	539	585	618	640	654	662	665	665
5	0.26	0.45	4.29	12.6	24.3	40.7	68.1	166	259	367	466	552	599	632	655	669	676	678	673
10	0.26	0.44	4.20	12.5	24.1	40.5	67.5	161	260	368	470	557	606	642	664	677	684	686	683
15	0.26	0.43	4.04	12.1	23.5	39.5	65.6	149	257	359	458	553	605	641	665	678	685	686	685
20	0.26	0.42	3.80	11.5	22.4	37.7	63.3	135	240	342	447	541	594	631	656	670	677	677	677
25	0.26	0.41	3.48	10.6	20.9	35.1	58.6	119	213	322	418	519	571	611	635	650	656	659	659
30	0.26	0.39	3.07	9.56	19.0	32.4	52.4	99.5	182	288	380	472	536	572	598	614	620	625	625
35	0.26	0.36	2.59	8.35	17.1	29.0	45.9	77.3	143	237	314	409	466	514	538	556	564	574	577
40	0.26	0.34	2.04	7.09	14.8	25.4	39.3	61.2	108	168	252	310	378	408	430	444	450	452	453
45	0.26	0.31	1.64	5.69	12.5	21.4	33.3	49.5	73.8	127	171	235	269	311	332	335	351	351	346
50	0.26	0.27	1.28	4.36	10.1	17.6	27.2	39.3	56.1	82.0	123	149	184	210	233	237	255	261	258
55	0.26	0.23	0.89	3.22	7.63	13.7	21.2	30.5	42.3	57.2	73.6	89.2	109	119	124	140	149	150	149
60	0.26	0.19	0.48	2.00	5.13	9.90	15.6	22.6	31.3	41.2	51.9	62.7	72.9	82.2	88.2	93.2	97.2	99.6	100
65	0.26	0.20	0.39	1.31	3.25	6.34	10.5	15.6	21.6	28.3	35.9	43.4	50.8	57.0	62.0	66.1	69.2	70.9	71.5
70	0.26	0.21	0.29	0.57	1.71	3.51	6.05	9.53	13.4	17.8	22.4	27.4	32.0	36.1	39.6	42.5	44.8	46.1	46.8
75	0.26	0.22	0.20	0.36	0.61	1.49	2.47	4.43	6.74	9.02	11.6	14.3	17.0	19.4	21.5	23.4	25.0	25.9	26.3
80	0.26	0.23	0.20	0.19	0.31	0.42	0.51	1.10	1.77	2.32	2.98	3.92	4.78	5.52	6.13	6.83	7.42	7.71	7.82
85	0.26	0.24	0.22	0.20	0.19	0.17	0.16	0.20	0.23	0.22	0.19	0.18	0.15	0.14	0.13	0.13	0.12	0.13	0.13
90	0.26	0.24	0.23	0.22	0.22	0.20	0.19	0.18	0.17	0.16	0.15	0.15	0.14	0.14	0.14	0.13	0.13	0.13	0.13

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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: 98Helios20	TYPE: 98Helios20	WEIGHT: 0.2
SPEC.:	DIM.: 0.338 x 0.230 x 0.145	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangular	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	0.29	0.29	0.29	0.29	0.30	0.31	0.32	0.33	0.33	0.33	0.33	0.32	0.31	0.30	0.30	0.29	0.27	0.26	
-85	0.22	0.22	0.22	0.22	0.23	0.24	0.27	0.29	0.36	0.38	0.37	0.28	0.32	0.35	0.37	0.36	0.31	0.26	
-80	3.65	3.56	3.54	3.42	3.24	2.96	2.74	2.40	2.17	1.91	1.57	1.12	1.05	0.83	0.47	0.42	0.35	0.26	
-75	12.3	12.1	11.8	11.3	10.6	9.69	8.86	7.97	6.92	5.86	4.79	3.62	2.67	1.72	1.14	0.53	0.39	0.26	
-70	21.9	21.7	21.3	20.6	19.4	18.0	16.6	14.8	12.8	10.9	8.96	7.02	5.04	3.32	1.83	0.98	0.43	0.26	
-65	32.7	32.4	31.9	30.8	29.2	27.3	25.0	22.4	19.5	16.5	13.6	10.7	7.89	5.25	3.04	1.42	0.47	0.26	
-60	44.9	44.6	43.8	42.5	40.5	38.0	34.9	31.2	27.3	23.1	18.9	14.9	11.0	7.46	4.22	1.85	0.51	0.26	
-55	58.9	58.4	57.6	55.9	53.4	50.4	46.4	41.8	36.2	30.6	24.9	19.6	14.5	9.97	5.83	2.60	0.71	0.26	
-50	77.3	76.9	75.7	73.9	70.3	66.8	62.0	54.7	47.1	39.3	31.8	24.7	18.2	12.5	7.41	3.32	0.91	0.26	
-45	94.0	95.8	95.6	92.8	93.7	83.9	84.8	74.4	66.6	49.4	39.6	30.2	22.1	15.2	9.07	4.00	1.10	0.26	
-40	187	178	180	172	162	154	133	115	92.8	72.5	50.1	36.1	26.3	17.8	10.7	4.69	1.26	0.26	
-35	240	245	242	236	229	225	187	171	129	96.4	65.3	43.1	30.4	20.6	12.3	5.53	1.42	0.26	
-30	331	329	324	316	310	290	266	219	185	128	80.8	51.1	34.8	23.1	13.8	6.29	1.56	0.26	
-25	402	400	396	387	382	359	337	272	232	167	105	58.0	38.8	25.6	15.2	6.94	1.68	0.26	
-20	482	480	475	464	454	430	403	327	280	202	130	66.8	43.2	27.8	16.4	7.50	1.78	0.26	
-15	539	537	534	527	506	497	449	380	325	242	154	79.6	46.8	29.6	17.3	7.95	1.86	0.26	
-10	633	631	623	610	595	563	513	445	376	276	170	89.7	49.6	31.0	18.1	8.29	1.92	0.26	
-5	650	647	640	628	611	586	549	474	393	293	180	96.4	51.7	32.1	18.6	8.51	1.96	0.26	
0	663	660	653	641	622	597	558	479	400	299	186	99.5	52.8	32.6	18.9	8.61	1.97	0.26	
5	672	670	663	651	632	606	567	489	405	304	191	102	53.5	32.9	18.9	8.61	1.96	0.26	
10	680	677	670	659	640	611	570	489	399	298	190	99.4	53.1	32.7	18.7	8.48	1.94	0.26	
15	682	679	671	659	640	610	569	482	389	284	184	91.9	51.7	31.9	18.3	8.23	1.88	0.26	
20	673	670	664	650	630	601	555	467	375	269	171	79.0	49.2	30.6	17.5	7.85	1.81	0.26	
25	655	652	644	632	611	580	532	442	347	253	150	69.6	45.7	28.8	16.5	7.34	1.72	0.26	
30	622	618	612	599	578	550	491	408	314	219	123	64.9	42.5	26.6	15.2	6.71	1.60	0.26	
35	575	566	560	547	530	487	445	347	271	177	94.0	58.1	38.3	24.3	13.7	5.96	1.46	0.26	
40	452	453	448	437	426	396	342	279	211	133	77.9	50.6	34.0	21.5	12.2	5.09	1.31	0.26	
45	356	359	345	348	326	304	255	209	151	97.6	64.3	43.1	29.3	18.8	10.5	4.36	1.13	0.26	
50	267	263	252	250	233	211	182	142	102	72.8	49.7	35.7	24.7	15.7	8.72	3.65	0.94	0.26	
55	151	151	148	144	140	119	106	88.1	69.4	51.7	39.2	28.7	20.0	12.8	6.95	2.87	0.74	0.26	
60	100	99.1	96.2	92.9	87.6	80.8	70.2	60.0	49.4	39.3	29.9	22.0	15.4	9.86	5.07	2.04	0.52	0.26	
65	72.1	71.7	70.0	67.2	63.1	57.6	50.6	43.2	35.3	28.3	21.7	16.0	11.2	7.01	3.68	1.57	0.48	0.26	
70	47.2	46.9	45.7	43.8	41.0	37.4	33.0	28.2	23.3	18.7	14.4	10.6	7.25	4.46	2.22	1.08	0.43	0.26	
75	26.4	25.9	24.9	23.3	21.6	19.5	17.1	14.8	12.4	10.2	7.86	5.59	3.85	2.29	1.36	0.57	0.38	0.26	
80	7.90	7.79	7.40	6.85	6.44	5.84	5.18	4.38	4.02	3.52	2.62	1.73	1.46	1.07	0.53	0.42	0.33	0.26	
85	0.14	0.15	0.16	0.18	0.20	0.21	0.26	0.30	0.41	0.43	0.36	0.21	0.30	0.36	0.34	0.31	0.28	0.26	
90	0.13	0.13	0.13	0.13	0.13	0.13	0.14	0.15	0.15	0.16	0.16	0.17	0.18	0.19	0.20	0.20	0.23	0.26	

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