

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity	299.8 cd per klm.
(Luminaire orientation as tested.)	0.0 degrees vertical
	-4.0 degrees horizontal

Beam Spread	At 10% of Imax	146.7V x 149.7H
	At 50% of Imax	109.5V x 111.7H
	At 90% of Imax	56.4V x 56.4H

Beam Flux	Total	819.7 lumens per klm.
	To 10% of Imax	806.6 lumens per klm.
	To 50% of Imax	649.9 lumens per klm.
	To 90% of Imax	209.0 lumens per klm.

Upward LOR	0.0 %
Downward LOR	82.0 %

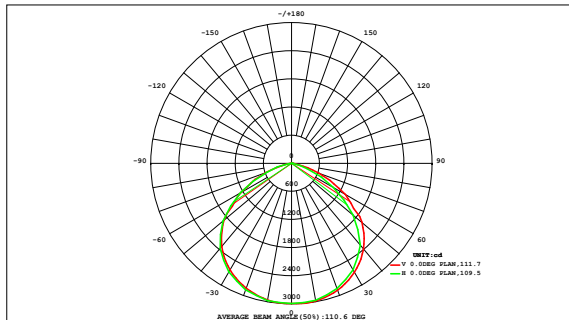
Luminaire Efficiency (Light Output Ratio)	82.1 %
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H(β) Range:-90 - 90DEG
H(β) Interval: 2.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:01 July 2022

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
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: 98Helios150	TYPE: 98Helios150	WEIGHT: 1.050
SPEC.:	DIM.: 0.290 x 0.210 x 0.137	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangular	Shielding Angle:



DATA OF LAMP		PHOTOMETRIC DATA	
MODEL	98Helios150	Imax (cd)	2998
NOMINAL POWER(W)	150	AVAILABILITY (%)	81.0
RATED VOLTAGE (V)	230	Avai. FLUX(lm)	8101
NOMINAL FLUX(lm)	10000	LOR(%)	82.1
LAMPS INSIDE	1	TOTAL FLUX(lm)	8209
TEST VOLTAGE (V)	230	θ @50% (H,V)	112,109DEG

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	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.05	0.00	
90	0.02	0.10	0.49	1.41	2.82	4.60	6.37	7.60	8.15	8.08	7.41	6.07	4.33	2.61	1.25	0.42	0.09	0.01	61.8	37.8	
80	0.02	0.24	1.61	4.85	9.77	15.7	21.3	25.0	26.7	26.6	24.5	20.5	14.9	9.18	4.42	1.41	0.21	0.02	207	196	
70	0.02	0.60	3.90	10.6	20.1	30.6	39.3	45.0	47.9	47.7	44.4	38.4	29.5	19.1	9.88	3.52	0.53	0.02	391	387	
60	0.03	1.17	6.65	16.7	30.1	44.0	54.5	61.8	65.5	65.2	61.0	53.3	42.7	28.7	15.8	6.06	1.02	0.03	554	552	
50	0.05	1.75	8.90	21.5	37.6	52.5	64.4	72.8	76.9	76.6	71.9	63.1	50.9	35.9	20.5	8.20	1.51	0.04	665	663	
40	0.06	2.21	10.6	24.9	42.8	58.3	71.0	79.9	84.3	84.0	79.0	69.6	56.7	41.2	23.6	10.1	2.02	0.05	740	739	
30	0.06	2.64	11.9	27.3	45.7	61.9	75.1	84.3	88.8	88.5	83.3	73.6	60.3	44.3	25.9	11.1	2.38	0.06	787	785	
-30	0.07	2.74	12.4	28.4	47.0	63.4	76.9	86.2	90.6	90.4	85.2	75.4	61.8	45.5	27.2	11.7	2.51	0.06	807	806	
	0.07	2.74	12.4	28.3	46.8	63.3	76.6	86.0	90.4	90.2	85.0	75.2	61.7	45.3	27.0	11.6	2.48	0.06	805	804	
	0.06	2.51	11.5	26.8	45.1	61.2	74.4	83.6	88.2	87.8	82.6	73.0	59.7	43.7	25.5	10.9	2.33	0.06	779	778	
	0.05	2.11	10.1	24.1	41.6	57.1	69.8	78.7	83.1	82.7	77.8	68.5	55.7	40.2	22.8	9.52	1.96	0.05	726	724	
	0.04	1.53	8.21	20.2	35.9	50.6	62.4	70.6	74.7	74.4	69.8	61.2	49.2	34.5	19.4	7.73	1.40	0.04	642	640	
-40	0.02	0.97	5.80	15.1	27.4	40.6	50.7	57.8	61.3	61.1	57.1	49.6	39.3	26.2	14.4	5.28	0.88	0.03	513	510	
-50	0.02	0.49	3.12	8.61	16.8	26.3	34.0	39.1	41.8	41.6	38.7	33.3	25.5	16.1	8.29	2.82	0.40	0.02	337	332	
-60	0.01	0.15	1.11	3.52	7.33	11.8	16.5	19.5	20.9	20.8	19.1	16.1	11.4	6.83	3.25	0.97	0.14	0.01	159	145	
-70	0.01	0.05	0.20	0.60	1.31	2.23	3.31	4.23	4.58	4.55	4.13	3.21	2.08	1.24	0.52	0.16	0.05	0.01	32.5	3.22	
-80	0.00	0.01	0.01	0.02	0.03	0.04	0.05	0.05	0.06	0.05	0.05	0.04	0.03	0.02	0.02	0.01	0.01	0.00	0.50	0.00	
-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)						20	30	40	50	60	70	80	90
Φ t	0.61	22.0	109	263	458	644	797	902	954	950	891	780	626	441	250	101	19.9	0.56	8209	---	
Φ a	0.00	12.1	101	256	451	638	792	897	949	945	886	775	620	433	243	93.8	9.56	0.00	---	8101	

one-half-peak spread: U:53.4,D:56.5 , L:52.9,R:53.4

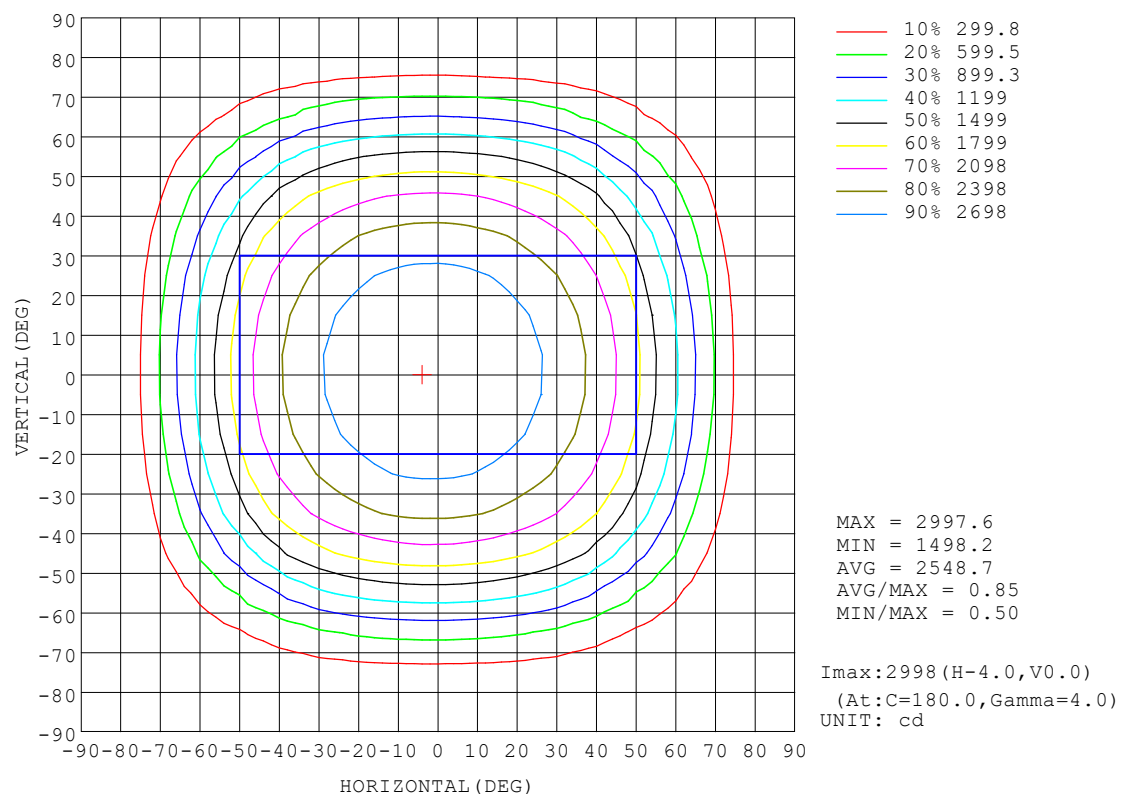
NEMA Beam Type: Type 7

H(β) Range:-90 - 90DEG
H(β) Interval: 2.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:01 July 2022

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: 98Helios150	TYPE: 98Helios150	WEIGHT: 1.050
SPEC.:	DIM.: 0.290 x 0.210 x 0.137	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangular	Shielding Angle:

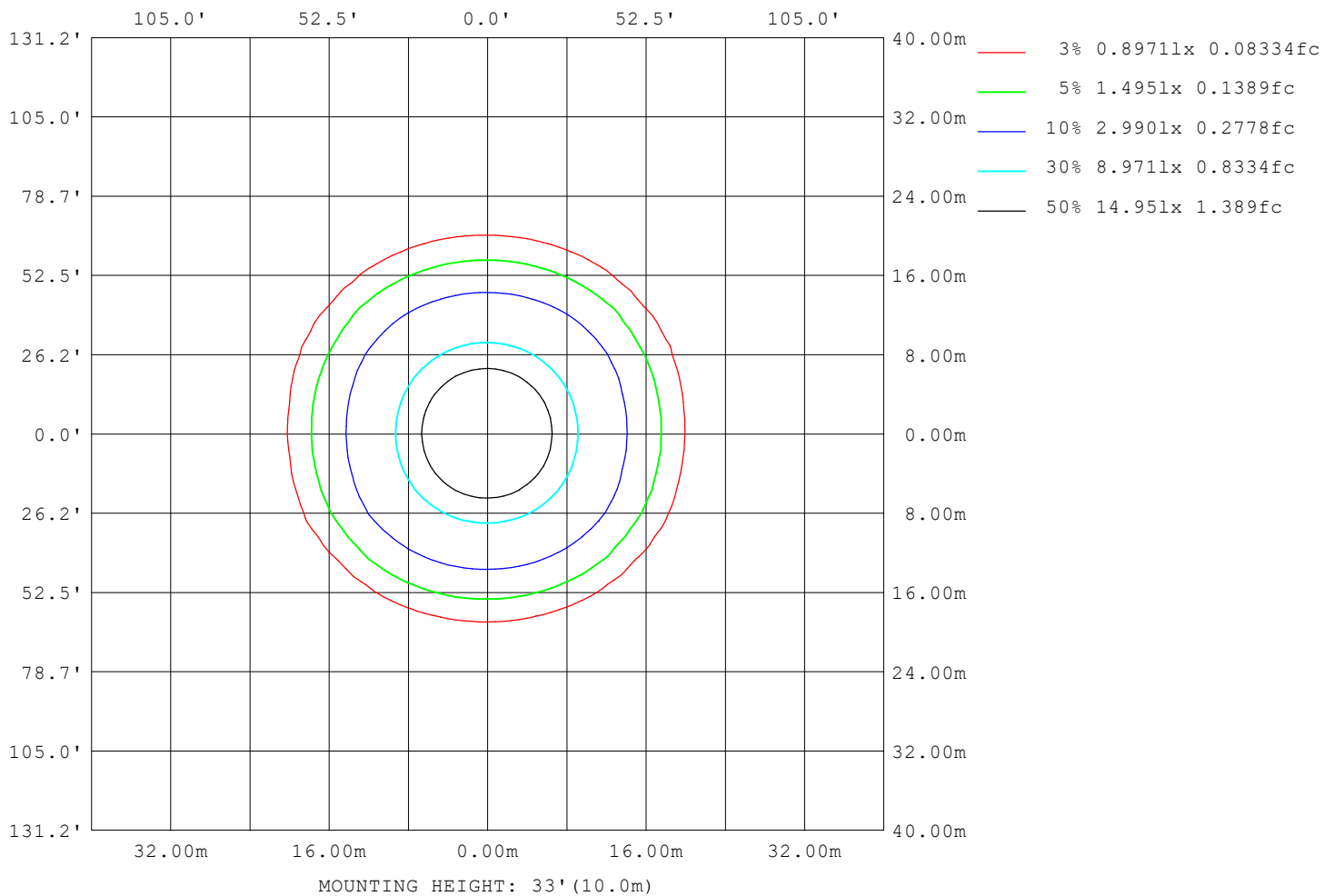


H(β) Range:-90 - 90DEG
H(β) Interval: 2.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:01 July 2022

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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:

ISOLUX DIAGRAM

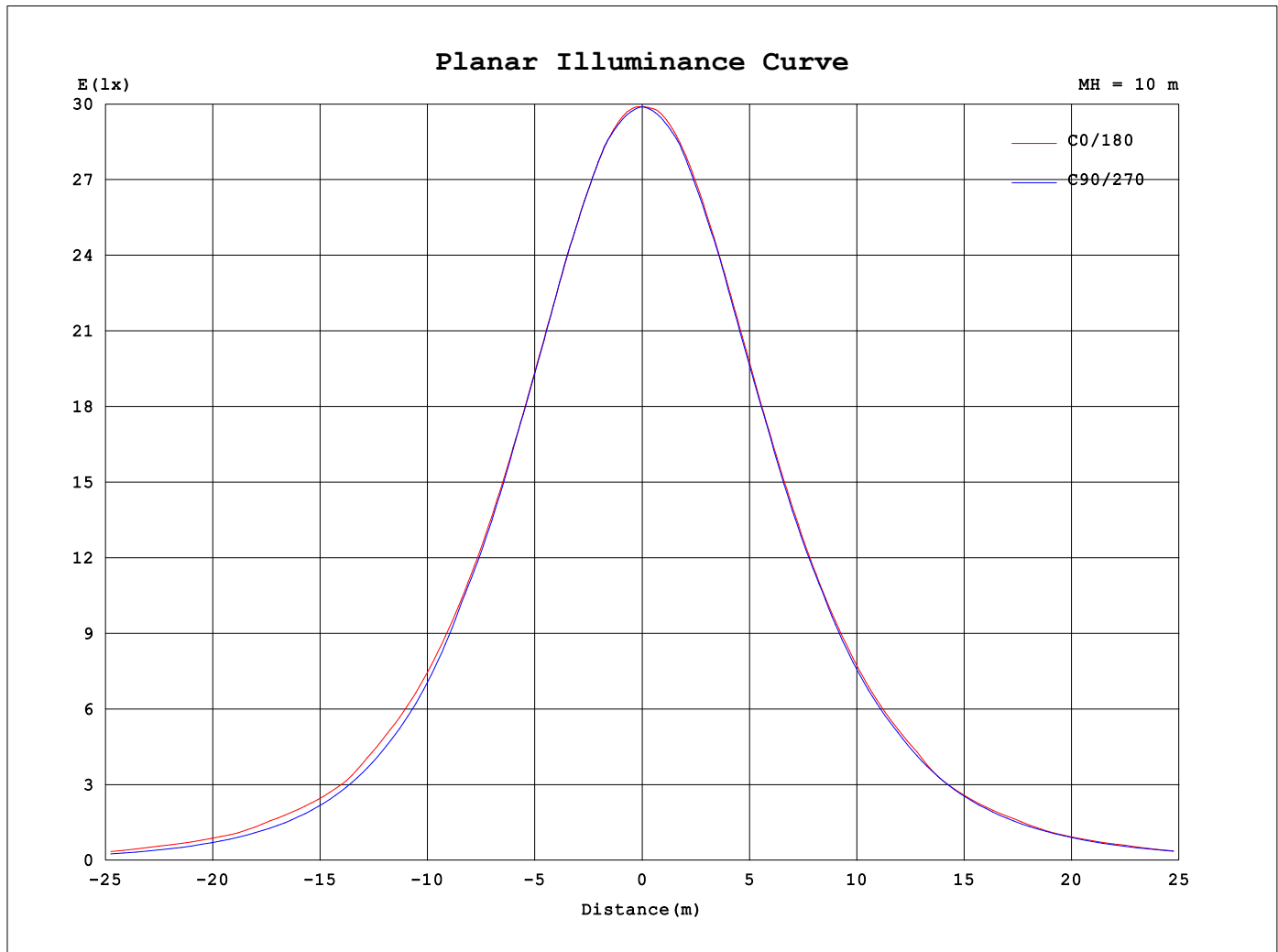
NAME: 98Helios150	TYPE: 98Helios150	WEIGHT: 1.050
SPEC.:	DIM.: 0.290 x 0.210 x 0.137	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangular	Shielding Angle:



H(β) Range:-90 - 90DEG
H(β) Interval: 2.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:01 July 2022

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

Planar Illuminance Curve

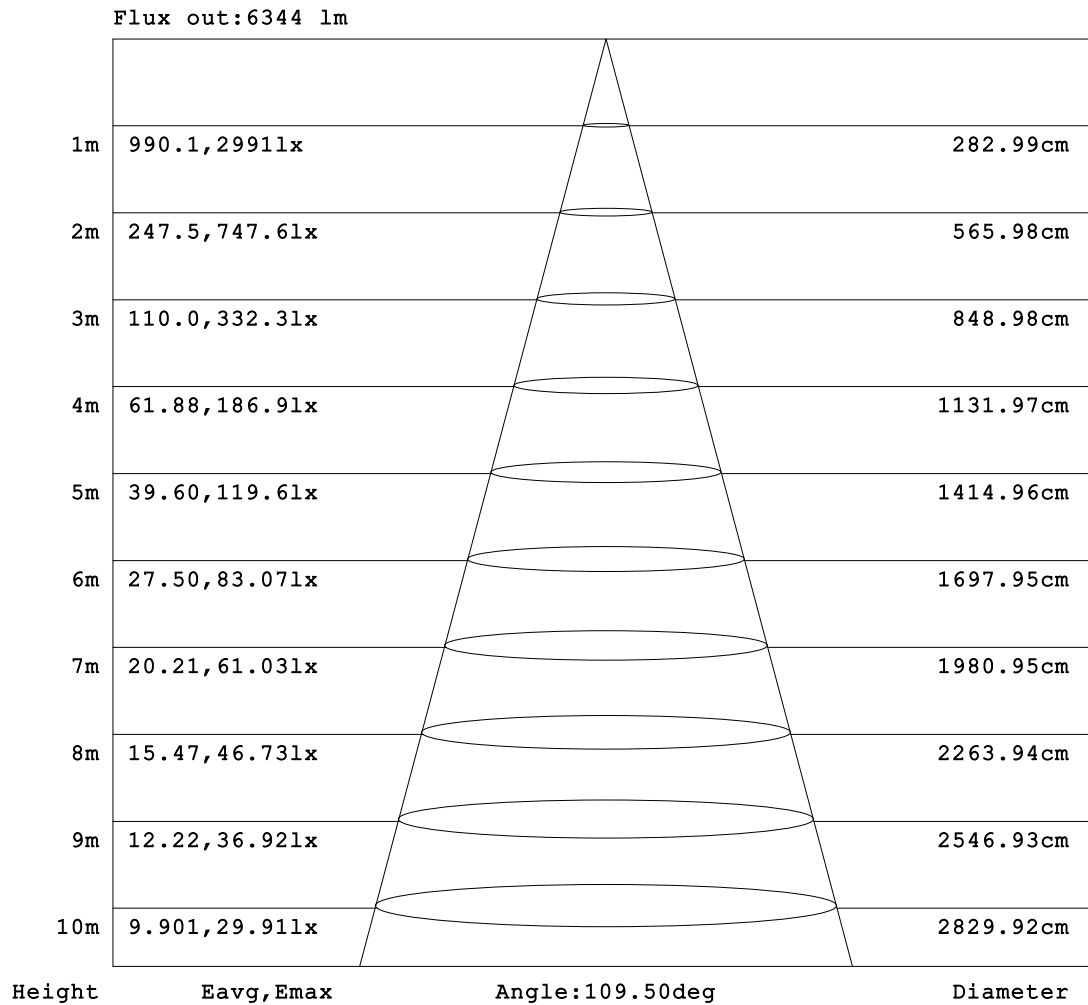


H(β) Range:-90 - 90DEG
H(β) Interval: 2.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:01 July 2022

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

AAI Figure

NAME: 98Helios150	TYPE: 98Helios150	WEIGHT: 1.050
SPEC.:	DIM.: 0.290 x 0.210 x 0.137	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.

H(β) Range:-90 - 90DEG
H(β) Interval: 2.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:01 July 2022

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
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: 98Helios150	TYPE: 98Helios150	WEIGHT: 1.050
SPEC.:	DIM.: 0.290 x 0.210 x 0.137	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangular	Shielding Angle:

Table--1

UNIT: cd

H(°) \ V(°)	-90	-86	-80	-76	-70	-66	-60	-56	-50	-46	-40	-36	-30	-26	-20	-16	-10	-6	0
-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
-85	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
-80	2.41	2.45	2.58	3.28	5.12	6.87	10.1	12.6	16.6	19.1	22.6	24.8	27.9	29.7	32.0	33.1	34.0	34.4	34.4
-75	2.48	2.51	4.10	6.69	12.6	20.8	36.9	47.7	70.9	86.1	108	126	148	158	179	186	192	195	195
-70	2.54	2.57	5.62	10.1	20.1	34.8	63.6	82.9	125	153	193	226	268	286	326	338	350	355	356
-65	2.63	2.82	8.70	16.6	46.2	80.9	146	194	273	336	424	469	558	591	640	661	682	690	692
-60	2.72	3.06	11.8	23.0	72.3	127	229	304	421	520	655	712	848	895	954	985	1014	1024	1029
-55	2.82	3.41	15.7	40.4	133	209	365	469	620	757	910	1018	1150	1208	1279	1315	1351	1365	1369
-50	2.92	3.75	19.7	57.8	194	291	502	633	819	995	1165	1324	1452	1521	1605	1644	1687	1706	1710
-45	3.01	4.17	25.1	84.0	253	381	648	790	1038	1198	1436	1579	1718	1795	1884	1928	1975	1994	1998
-40	3.11	4.59	30.5	110	312	470	795	946	1257	1402	1707	1833	1984	2069	2163	2212	2263	2283	2286
-35	3.21	4.94	47.8	136	373	555	883	1095	1379	1594	1860	1989	2147	2233	2331	2380	2432	2450	2454
-30	3.31	5.29	65.1	162	435	641	970	1245	1502	1785	2014	2145	2309	2397	2498	2547	2600	2618	2623
-25	3.38	5.68	71.3	191	476	701	1061	1322	1648	1883	2119	2250	2415	2502	2606	2655	2710	2728	2732
-20	3.45	6.07	77.5	220	517	760	1152	1400	1793	1981	2224	2355	2521	2608	2713	2763	2819	2838	2842
-15	3.52	6.25	80.8	230	559	816	1219	1447	1853	2038	2284	2416	2582	2669	2774	2825	2879	2898	2903
-10	3.58	6.43	84.0	239	601	871	1286	1493	1913	2096	2344	2477	2642	2730	2836	2888	2939	2957	2965
-5	3.63	7.01	86.7	249	613	886	1305	1513	1936	2119	2366	2499	2664	2752	2857	2908	2960	2977	2978
0	3.68	7.58	89.3	259	625	902	1324	1532	1959	2142	2387	2522	2686	2773	2877	2928	2981	2996	2990
5	3.73	7.61	86.6	251	618	893	1312	1519	1944	2127	2372	2506	2671	2759	2862	2912	2966	2982	2981
10	3.77	7.65	83.9	243	611	883	1299	1505	1929	2112	2357	2491	2657	2745	2847	2897	2952	2968	2971
15	3.81	7.33	83.0	236	589	850	1257	1468	1885	2065	2308	2440	2606	2693	2795	2845	2900	2917	2921
20	3.85	7.01	82.1	229	567	817	1215	1432	1841	2017	2259	2390	2554	2641	2744	2794	2848	2866	2872
25	3.89	6.32	75.8	202	512	744	1114	1363	1707	1929	2166	2296	2458	2544	2647	2697	2749	2768	2774
30	3.93	5.62	69.4	176	458	671	1013	1294	1572	1842	2074	2202	2362	2447	2551	2599	2649	2670	2676
35	3.95	5.43	55.7	153	401	616	933	1161	1450	1689	1933	2061	2217	2300	2401	2449	2498	2518	2525
40	3.97	5.23	42.0	129	344	561	852	1027	1329	1536	1792	1920	2072	2154	2251	2299	2346	2366	2373
45	3.98	4.98	32.8	104	284	470	718	896	1175	1339	1597	1714	1859	1936	2027	2073	2117	2137	2143
50	4.00	4.73	23.5	79.8	223	379	584	764	1022	1142	1402	1507	1646	1719	1803	1848	1888	1907	1912
55	4.00	4.53	19.5	55.0	161	279	449	591	797	895	1109	1196	1345	1410	1486	1524	1561	1577	1582
60	4.00	4.33	15.5	30.2	99.1	179	314	417	571	647	815	885	1045	1102	1168	1201	1233	1246	1252
65	3.99	4.14	12.1	22.5	64.3	118	207	280	389	451	571	622	738	790	846	870	895	905	909
70	3.99	3.95	8.68	14.9	29.5	57.7	101	142	207	256	327	360	430	478	523	539	558	563	566
75	4.02	3.93	6.79	10.7	19.8	35.6	60.0	83.2	119	146	185	203	241	267	292	301	311	315	316
80	4.05	3.91	4.90	6.49	10.2	13.5	19.4	24.1	31.0	35.7	42.4	46.7	52.7	56.2	60.6	62.7	64.9	65.7	66.0
85	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

H(β) Range:-90 - 90DEG

H(β) Interval: 2.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:01 July 2022

V(B) Range:-80 - 80DEG

V(B) Interval: 5.0DEG

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: 98Helios150	TYPE: 98Helios150	WEIGHT: 1.050
SPEC.:	DIM.: 0.290 x 0.210 x 0.137	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangular	Shielding Angle:

Table--2

UNIT: cd

H (DEG) V (DEG)	4	10	14	20	24	30	34	40	44	50	54	60	64	70	74	80	84	90	
-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	
-85	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	
-80	34.1	33.2	32.3	30.4	28.8	26.0	24.0	20.7	18.4	14.8	12.2	8.83	6.89	4.57	3.54	2.81	2.89	2.44	
-75	194	190	185	174	158	143	125	102	88.6	64.9	51.5	31.2	21.4	11.6	7.71	3.95	2.98	2.45	
-70	355	346	337	318	287	260	226	184	159	115	90.8	53.5	35.8	18.6	11.9	5.09	3.07	2.47	
-65	690	675	659	627	592	542	471	407	342	257	208	132	92.5	42.8	20.5	7.77	3.67	2.50	
-60	1025	1004	981	936	897	823	716	631	526	399	325	211	149	67.0	29.1	10.5	4.27	2.53	
-55	1365	1340	1314	1258	1210	1120	1023	876	766	592	501	343	246	114	53.9	14.3	5.36	2.58	
-50	1705	1676	1647	1580	1523	1417	1331	1122	1007	785	678	474	342	161	78.8	18.2	6.44	2.63	
-45	1992	1958	1927	1853	1791	1675	1581	1384	1244	993	842	610	437	225	115	23.2	7.76	2.70	
-40	2278	2240	2206	2125	2060	1933	1832	1645	1481	1201	1005	745	531	289	152	28.2	9.08	2.77	
-35	2447	2410	2373	2292	2224	2096	1991	1799	1641	1339	1143	837	614	350	187	36.7	10.6	2.83	
-30	2616	2579	2541	2458	2389	2258	2150	1953	1801	1477	1280	929	697	410	221	45.2	12.1	2.90	
-25	2725	2687	2649	2565	2494	2362	2253	2054	1898	1590	1354	998	778	443	255	58.6	13.2	2.96	
-20	2834	2796	2757	2672	2599	2467	2356	2155	1995	1704	1428	1068	860	475	289	72.0	14.3	3.03	
-15	2894	2856	2816	2733	2659	2525	2415	2216	2055	1773	1477	1149	897	525	304	76.9	15.3	3.08	
-10	2955	2916	2876	2794	2719	2584	2475	2276	2115	1842	1527	1230	934	574	319	81.7	16.2	3.13	
-5	2973	2938	2897	2814	2740	2606	2495	2297	2136	1861	1544	1245	946	581	324	82.7	16.5	3.18	
0	2992	2960	2918	2834	2762	2627	2515	2318	2156	1881	1562	1259	957	588	329	83.6	16.8	3.24	
5	2978	2944	2904	2819	2746	2613	2502	2304	2143	1869	1551	1250	951	585	327	83.1	16.7	3.29	
10	2964	2928	2890	2804	2731	2599	2488	2290	2129	1858	1541	1241	944	581	325	82.7	16.7	3.35	
15	2913	2876	2837	2752	2680	2547	2437	2239	2078	1807	1499	1179	913	550	311	73.5	16.0	3.41	
20	2862	2824	2785	2699	2628	2496	2387	2187	2026	1756	1458	1118	882	518	298	64.4	15.3	3.48	
25	2764	2725	2687	2604	2533	2401	2293	2096	1938	1627	1389	1041	824	475	266	58.2	14.3	3.54	
30	2667	2626	2589	2509	2438	2307	2200	2005	1850	1498	1321	965	765	432	233	52.0	13.3	3.60	
35	2515	2476	2440	2360	2292	2162	2058	1867	1720	1382	1219	884	678	372	200	41.6	12.0	3.66	
40	2363	2326	2291	2212	2146	2017	1917	1729	1591	1266	1116	803	592	313	166	31.1	10.6	3.72	
45	2134	2098	2065	1992	1929	1809	1712	1535	1370	1113	951	678	497	259	136	26.0	9.29	3.77	
50	1904	1871	1839	1772	1712	1600	1508	1341	1148	960	785	553	401	206	105	20.9	7.97	3.82	
55	1574	1546	1518	1458	1406	1305	1216	1060	907	751	606	422	294	149	74.2	17.0	6.76	3.87	
60	1244	1221	1196	1144	1099	1010	924	778	666	542	427	292	187	93.1	43.0	13.1	5.54	3.91	
65	903	884	865	825	789	710	644	543	460	367	288	192	124	59.9	29.8	10.2	4.91	3.97	
70	561	548	533	505	479	409	364	308	255	191	149	92.3	60.1	26.7	16.7	7.30	4.28	4.04	
75	313	306	298	282	267	229	205	173	145	110	86.2	54.7	36.6	17.6	11.4	5.75	4.08	4.07	
80	65.5	63.8	62.1	58.4	55.3	49.8	45.8	39.2	34.7	27.9	23.5	17.0	13.1	8.46	6.19	4.20	3.88	4.11	
85	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	

H(β) Range:-90 - 90DEG
H(β) Interval: 2.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:01 July 2022

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks: