

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity	367.1 cd per klm.
(Luminaire orientation as tested.)	-1.5 degrees vertical
	3.0 degrees horizontal

Beam Spread	At 10% of Imax	133.9V x 144.0H
	At 50% of Imax	93.7V x 106.3H
	At 90% of Imax	49.1V x 52.2H

Beam Flux	Total	857.8 lumens per klm.
	To 10% of Imax	830.8 lumens per klm.
	To 50% of Imax	648.7 lumens per klm.
	To 90% of Imax	215.5 lumens per klm.

Upward LOR	0.0 %
Downward LOR	85.8 %

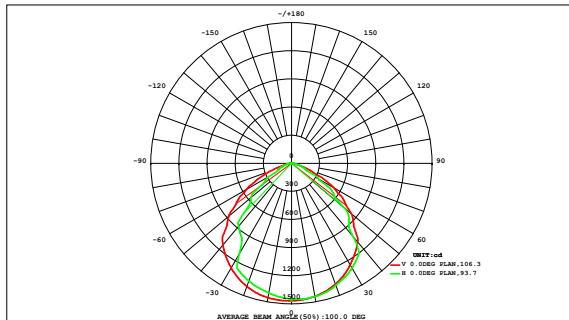
Luminaire Efficiency (Light Output Ratio)	85.8 %
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C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date: 11 July 2022

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
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: 98Helios50/WH_new_design	TYPE: 98Helios50/WH_new_design	WEIGHT: 1
SPEC.:	DIM.: 175x130	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle 102x50	Shielding Angle:



DATA OF LAMP		PHOTOMETRIC DATA	
MODE	98Helios50/WH_new_design	Imax(cd)	1468
NOMINAL POWER(W)	50	AVAILABILITY(%)	83.1
RATED VOLTAGE(V)	230	Avai. FLUX(lm)	3325
NOMINAL FLUX(lm)	4000	LOR(%)	85.8
LAMPS INSIDE	1	TOTAL FLUX(lm)	3431
TEST VOLTAGE(V)	230	θ @50% (H,V)	106,94DEG

VERTICAL (DEG)	AREA FLUX DIAGRAM																	UNIT:lm			Φ t	Φ a			
	0.00	0.01	0.03	0.07	0.12	0.20	0.27	0.33	0.36	0.37	0.34	0.29	0.20	0.11	0.05	0.03	0.01	0.00							
90	0.00	0.01	0.03	0.07	0.12	0.20	0.27	0.33	0.36	0.37	0.34	0.29	0.20	0.11	0.05	0.03	0.01	0.00	2.78	0.00					
80	0.00	0.03	0.18	0.48	0.87	1.32	1.74	2.05	2.22	2.21	2.02	1.70	1.30	0.80	0.36	0.12	0.04	0.00	17.5	0.00					
70	0.01	0.10	0.48	1.12	1.95	2.88	3.64	4.19	4.52	4.90	5.03	4.43	3.59	2.51	1.27	0.43	0.09	0.01	41.1	19.8					
60	0.01	0.20	0.85	1.87	3.66	5.81	7.78	10.4	12.0	12.7	12.5	11.0	8.96	5.96	3.08	0.99	0.20	0.01	97.9	92.3					
50	0.02	0.31	1.34	3.46	7.20	11.4	15.5	18.7	20.9	21.7	21.6	19.5	15.2	10.8	5.66	1.88	0.32	0.02	175	172					
40	0.02	0.43	2.03	5.91	11.1	17.6	22.7	26.8	28.8	30.3	29.9	25.7	21.1	14.8	8.25	2.90	0.48	0.03	249	247					
30	0.03	0.56	2.89	8.16	15.3	21.9	29.5	34.5	38.3	38.6	36.7	32.2	25.8	17.9	10.2	3.90	0.65	0.04	317	316					
-30	0.03	0.67	3.70	10.0	18.1	26.6	34.5	39.2	41.5	41.7	39.6	35.0	28.6	20.1	11.5	4.64	0.80	0.04	356	355					
	0.04	0.75	4.32	11.3	20.0	28.9	35.9	40.9	43.4	43.6	41.5	36.7	30.0	21.4	12.3	5.06	0.89	0.05	377	376					
	0.04	0.76	4.49	11.7	20.6	29.4	36.3	41.4	43.9	44.2	42.0	37.1	30.3	21.6	12.2	4.98	0.88	0.05	382	381					
	0.03	0.71	4.19	11.2	19.7	28.7	35.5	40.4	42.8	42.9	40.8	36.1	29.5	20.6	11.3	4.44	0.79	0.04	370	369					
	0.03	0.59	3.60	9.98	17.9	26.5	33.4	37.9	40.4	40.5	38.3	33.9	27.4	18.0	9.64	3.61	0.65	0.04	342	341					
	0.02	0.44	2.79	8.14	15.0	22.6	29.9	34.1	36.4	36.3	32.9	27.6	21.9	14.2	7.25	2.58	0.50	0.03	293	291					
	0.01	0.31	1.86	5.89	11.2	16.7	22.4	26.5	27.1	26.1	23.7	19.6	14.9	9.40	4.66	1.64	0.36	0.02	212	210					
	0.01	0.20	0.97	3.40	6.72	10.2	13.7	15.7	16.1	15.4	13.8	11.0	7.80	4.92	2.41	1.00	0.24	0.01	123	119					
	0.01	0.10	0.46	1.30	2.79	4.31	5.69	6.62	6.63	6.22	5.52	4.37	3.50	2.34	1.33	0.56	0.13	0.01	51.9	36.4					
	0.00	0.03	0.16	0.45	0.88	1.41	1.90	2.30	2.55	2.57	2.37	1.99	1.49	0.98	0.54	0.21	0.04	0.00	19.9	0.00					
-80	0.00	0.01	0.03	0.06	0.12	0.19	0.26	0.31	0.34	0.33	0.30	0.24	0.17	0.11	0.06	0.03	0.01	0.00	2.58	0.00					
-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)										20	30	40	50	60	70	80	90
Φ t	0.31	6.21	34.4	94.5	173	257	330	382	408	411	389	338	272	187	102	39.0	7.09	0.41	3431	---					
Φ a	0.00	0.75	28.1	88.3	167	250	323	375	401	403	382	331	265	181	96.3	33.3	1.45	0.00	---	3325					

one-half-peak spread: U:45.4,D:43.9 , L:53.8,R:50.7

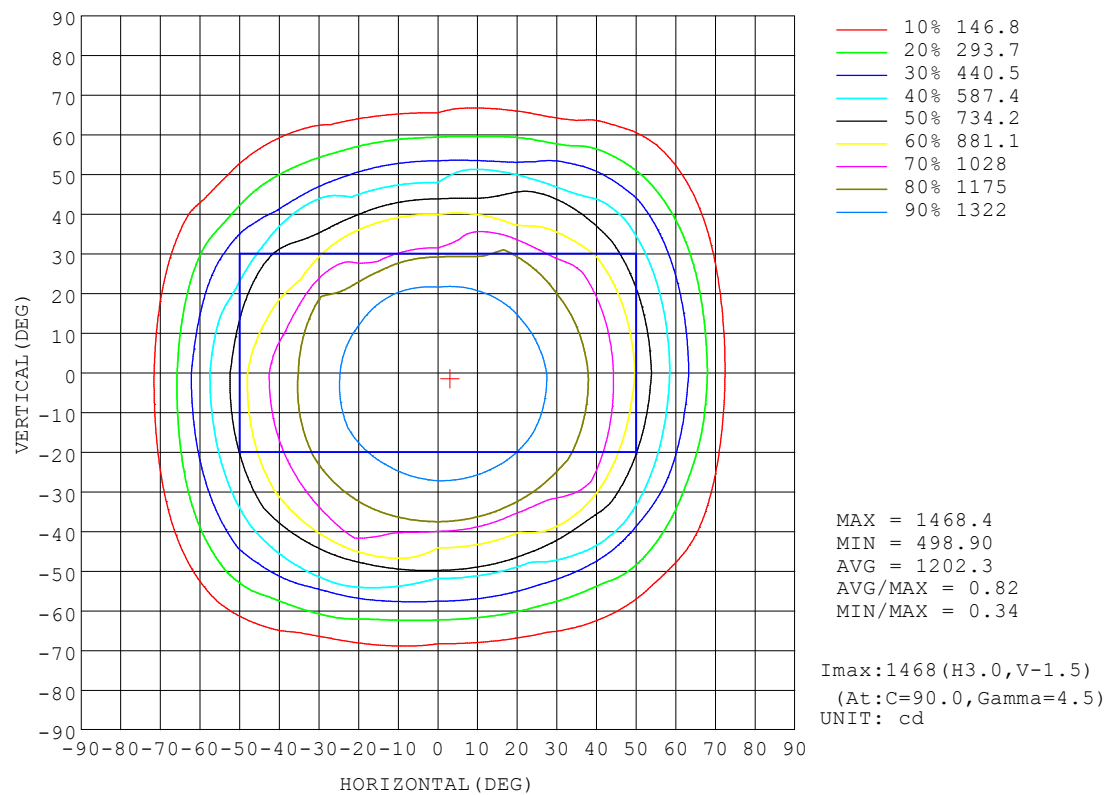
NEMA Beam Type: Type 7

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:11 July 2022

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: 98Helios50/WH_new_design	TYPE: 98Helios50/WH_new_design	WEIGHT: 1
SPEC.:	DIM.: 175x130	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle 102x50	Shielding Angle:

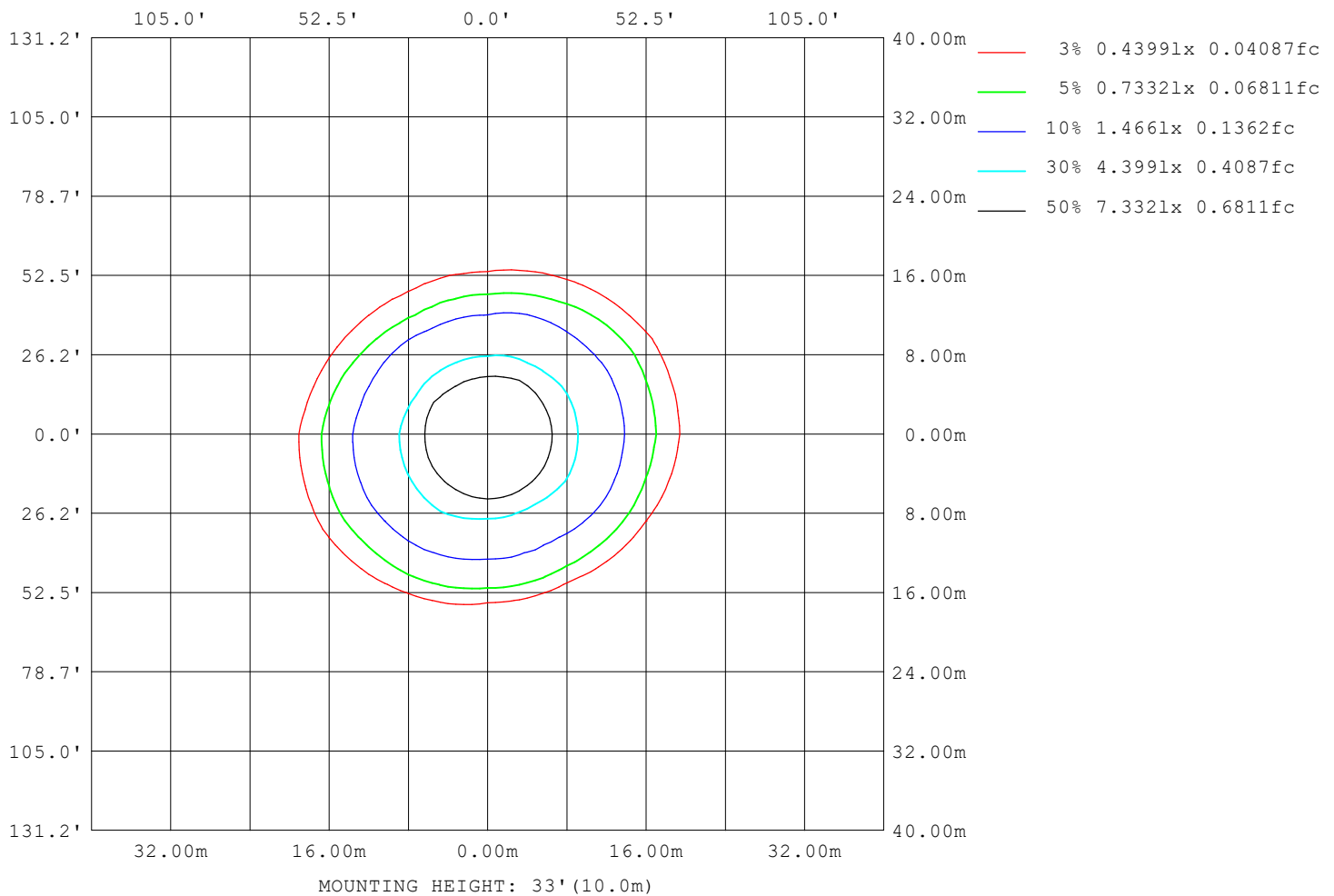


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 Remarks:

ISOLUX DIAGRAM

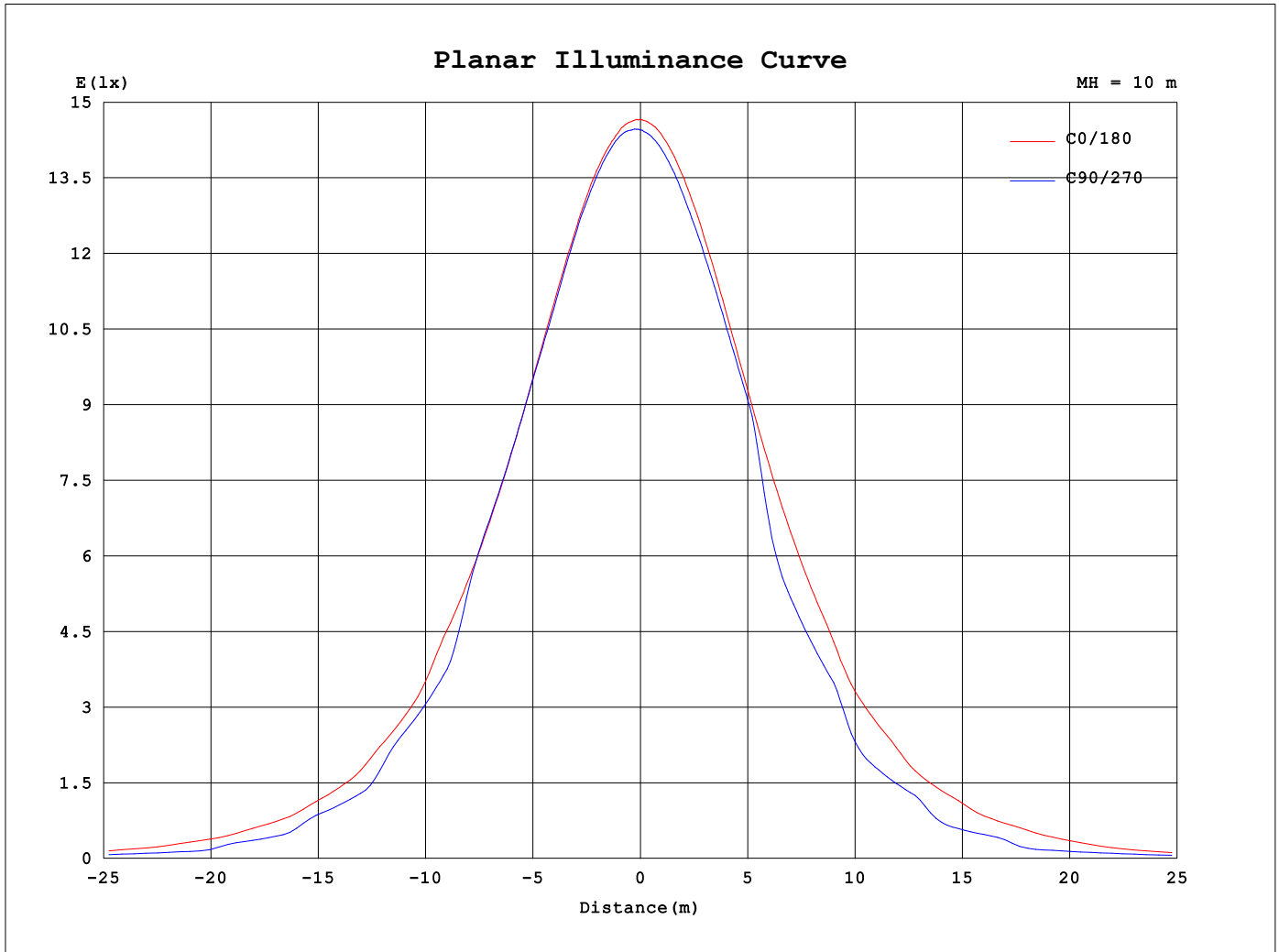
NAME: 98Helios50/WH_new_design	TYPE: 98Helios50/WH_new_design	WEIGHT: 1
SPEC.:	DIM.: 175x130	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle 102x50	Shielding Angle:



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Humidity: 65.0%
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Remarks:

Planar Illuminance Curve

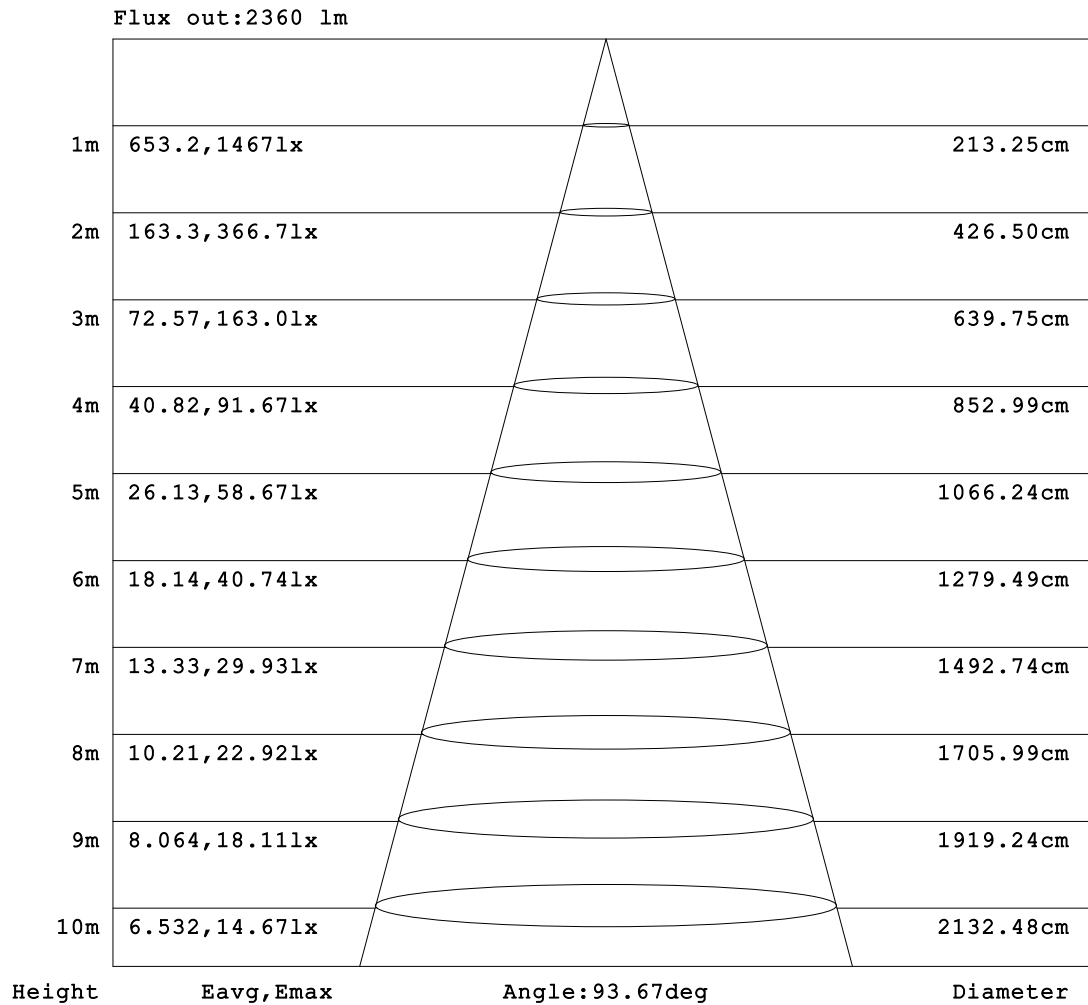


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
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 Test Date: 11 July 2022

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 Humidity: 65.0%
 Test Distance: 6.265m [K=1.0000]
 Remarks:

AAI Figure

NAME: 98Helios50/WH_new_design	TYPE: 98Helios50/WH_new_design	WEIGHT: 1
SPEC.:	DIM.: 175x130	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle 102x50	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: 30.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:11 July 2022

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
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: 98Helios50/WH_new_design	TYPE: 98Helios50/WH_new_design	WEIGHT: 1
SPEC.:	DIM.: 175x130	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle 102x50	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	1.22	1.25	1.27	1.29	1.32	1.34	1.36	1.32	1.28	1.23	1.19	1.15	1.10	1.07	1.03	1.00	0.96	0.93	0.89
-85	1.22	1.22	1.23	1.24	1.30	1.49	1.88	2.32	2.77	3.24	3.81	4.39	5.03	5.50	5.91	6.19	6.32	6.31	6.16
-80	1.22	1.20	1.26	1.84	3.03	4.85	7.45	10.2	13.5	17.2	21.2	25.2	29.1	31.8	34.1	36.1	37.7	38.7	39.0
-75	1.22	1.19	1.78	3.46	6.50	11.6	17.8	24.7	32.1	39.5	47.6	55.5	62.9	68.7	73.5	77.6	81.1	83.6	85.2
-70	1.22	1.22	2.65	5.85	12.8	22.1	32.2	42.8	54.4	69.9	83.8	95.3	103	109	116	122	126	129	130
-65	1.22	1.37	3.66	10.1	21.6	34.5	48.2	69.1	96.3	126	147	163	192	200	202	205	206	196	178
-60	1.22	1.65	4.95	15.7	31.6	47.7	75.4	117	170	216	247	269	327	349	358	358	353	345	332
-55	1.22	2.00	6.94	22.5	41.0	67.1	117	198	254	304	376	404	428	497	557	573	567	554	536
-50	1.22	2.29	9.80	29.5	50.6	96.6	178	262	340	418	474	550	627	653	664	675	700	722	722
-45	1.22	2.54	12.9	35.3	65.3	136	235	332	436	519	605	676	717	790	894	941	934	906	867
-40	1.22	2.80	16.2	41.4	83.4	175	279	410	527	611	704	772	898	1007	1062	1051	1040	1040	1027
-35	1.22	3.05	19.5	46.9	105	210	324	456	578	708	789	919	1010	1092	1141	1173	1201	1218	1227
-30	1.22	3.30	22.6	51.5	129	236	384	531	660	758	899	986	1102	1161	1204	1237	1263	1281	1290
-25	1.22	3.51	25.4	58.8	146	264	424	564	706	841	944	1074	1158	1213	1257	1291	1320	1336	1342
-20	1.22	3.72	27.8	64.8	161	289	452	597	737	891	990	1129	1201	1257	1303	1341	1367	1381	1385
-15	1.22	3.86	29.5	71.2	172	302	488	645	768	916	1053	1156	1228	1291	1340	1378	1403	1418	1423
-10	1.22	3.94	30.7	74.4	179	314	516	671	804	932	1090	1173	1246	1310	1364	1403	1426	1441	1443
-5	1.22	3.97	31.3	76.0	183	325	525	679	827	939	1098	1181	1254	1319	1373	1413	1438	1454	1452
0	1.22	3.94	31.5	76.2	184	327	526	680	832	939	1097	1178	1251	1317	1372	1412	1439	1459	1466
5	1.22	3.99	31.4	75.3	177	313	508	652	809	913	1055	1171	1244	1307	1357	1394	1420	1436	1430
10	1.22	3.97	30.8	73.3	167	292	483	619	771	880	1001	1143	1226	1286	1333	1367	1394	1406	1405
15	1.22	3.90	29.7	70.0	155	270	437	575	713	842	929	1072	1200	1257	1303	1338	1364	1374	1372
20	1.22	3.76	28.1	63.8	141	243	381	521	637	799	861	952	1151	1181	1259	1300	1324	1335	1335
25	1.22	3.56	25.7	58.8	126	204	336	475	557	745	806	852	986	1083	1098	1202	1276	1287	1289
30	1.22	3.34	23.0	52.0	112	173	289	422	499	615	749	784	869	951	984	975	1033	1095	1118
35	1.22	3.08	20.0	47.4	92.5	152	238	317	440	478	661	711	740	854	895	915	930	939	941
40	1.22	2.81	16.7	42.1	76.2	126	169	261	364	427	468	626	653	656	726	843	870	878	879
45	1.22	2.53	13.5	36.2	62.9	104	137	210	242	353	401	422	550	582	587	603	624	647	655
50	1.22	2.26	10.4	30.4	51.7	80.9	111	126	201	224	292	362	367	383	488	544	555	561	562
55	1.22	1.96	7.43	23.5	42.2	63.5	86.5	104	121	182	197	205	247	316	329	339	345	352	354
60	1.22	1.60	5.24	16.9	32.8	49.2	67.4	82.2	101	115	132	164	165	164	170	179	203	232	243
65	1.22	1.32	3.77	11.1	23.1	36.2	50.0	63.9	76.7	90.4	104	114	122	131	139	145	149	150	151
70	1.22	1.18	2.60	6.37	14.3	24.1	34.2	44.3	54.5	64.5	74.0	83.1	92.0	99.1	104	108	110	111	112
75	1.22	1.15	1.67	3.51	7.22	13.4	20.3	26.7	33.1	39.6	46.0	52.1	57.7	62.4	66.2	69.2	71.4	72.7	73.0
80	1.22	1.16	1.17	1.67	2.93	5.15	8.44	11.8	15.1	18.6	22.1	25.4	28.4	30.8	32.9	34.5	35.7	36.4	36.6
85	1.22	1.17	1.14	1.11	1.13	1.25	1.54	2.04	2.64	3.32	4.11	4.88	5.63	6.36	7.03	7.56	7.95	8.19	8.28
90	1.22	1.20	1.17	1.15	1.12	1.10	1.08	1.05	1.02	0.99	0.97	0.94	0.91	0.91	0.91	0.91	0.91	0.91	0.91

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LUMINOUS DISTRIBUTION INTENSITY DATA

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SPEC.:	DIM.: 175x130	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangle 102x50	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	0.89	0.89	0.89	0.89	0.89	0.89	0.93	0.96	1.00	1.03	1.07	1.10	1.14	1.19	1.23	1.27	1.31	1.35	
-85	6.09	5.88	5.54	5.05	4.44	3.80	3.36	2.93	2.46	2.11	1.71	1.31	1.24	1.21	1.21	1.25	1.30	1.35	
-80	38.7	37.7	36.0	33.8	30.9	27.7	24.8	21.6	18.3	14.8	11.4	8.19	5.33	3.24	1.87	1.33	1.29	1.35	
-75	84.6	82.9	80.0	76.0	71.1	65.5	59.2	52.2	44.9	37.2	29.9	22.6	14.7	8.67	4.50	2.02	1.30	1.35	
-70	130	128	126	122	116	108	97.8	86.4	75.3	64.0	51.9	39.8	27.9	17.0	8.68	3.57	1.39	1.35	
-65	177	175	172	166	157	149	135	122	108	91.0	75.6	59.2	42.0	27.1	14.3	5.71	1.63	1.35	
-60	331	326	318	304	228	201	193	180	151	120	99.5	79.7	57.5	37.6	20.8	8.32	2.04	1.35	
-55	534	527	512	451	356	345	329	267	211	186	124	104	74.9	48.6	27.7	11.3	2.67	1.35	
-50	704	656	597	569	552	541	445	376	328	242	198	133	96.5	60.3	34.5	14.6	3.34	1.35	
-45	864	854	836	806	709	629	601	550	410	356	244	183	121	73.9	41.0	18.0	4.05	1.35	
-40	1006	954	913	887	887	841	706	646	582	419	356	242	152	91.2	47.8	21.3	4.80	1.35	
-35	1224	1211	1167	1052	978	970	900	747	661	546	407	285	191	109	54.0	24.4	5.52	1.35	
-30	1287	1276	1256	1224	1157	1057	1030	894	746	637	466	367	233	128	61.2	27.3	6.23	1.35	
-25	1340	1329	1308	1277	1236	1173	1108	1023	813	687	540	405	275	149	68.4	29.8	6.85	1.35	
-20	1382	1368	1352	1321	1278	1227	1157	1071	906	740	615	447	300	172	74.7	31.8	7.42	1.35	
-15	1421	1410	1390	1360	1313	1256	1188	1106	966	793	658	489	326	189	83.3	33.3	7.86	1.35	
-10	1445	1439	1422	1386	1335	1275	1208	1127	989	834	681	516	359	207	87.1	34.3	8.18	1.35	
-5	1462	1455	1433	1397	1348	1287	1218	1138	999	860	699	538	384	224	89.5	34.8	8.38	1.35	
0	1466	1454	1433	1396	1349	1288	1219	1140	997	875	709	553	398	233	90.5	34.9	8.44	1.35	
5	1443	1436	1415	1381	1334	1273	1206	1127	982	867	702	548	390	228	89.4	34.4	8.33	1.35	
10	1412	1407	1388	1355	1307	1249	1183	1106	953	847	689	537	371	214	86.9	33.5	8.09	1.35	
15	1377	1370	1352	1319	1270	1215	1152	1076	923	805	669	519	344	198	82.6	32.2	7.74	1.35	
20	1337	1328	1309	1275	1230	1174	1111	1012	888	747	627	479	320	183	73.2	30.3	7.28	1.35	
25	1288	1278	1257	1225	1181	1107	1056	927	847	705	572	436	296	160	65.9	27.9	6.72	1.35	
30	1140	1154	1184	1164	1069	1004	938	871	761	663	533	401	249	136	57.7	25.1	6.11	1.35	
35	1003	1046	1033	958	921	891	849	793	690	579	471	332	222	115	50.2	22.0	5.44	1.35	
40	886	878	851	825	822	804	764	655	605	521	406	280	178	92.2	43.5	18.7	4.75	1.35	
45	684	705	726	743	741	676	588	560	505	424	310	220	137	69.3	36.4	15.3	4.03	1.35	
50	597	624	631	578	508	501	487	459	383	317	233	169	103	53.4	29.4	12.3	3.37	1.35	
55	376	392	406	414	415	405	351	322	273	214	173	122	68.4	41.3	22.3	9.69	2.72	1.35	
60	262	268	273	260	242	249	239	205	175	152	119	75.0	48.1	29.9	15.6	7.38	2.12	1.35	
65	163	171	177	178	151	129	135	130	116	94.5	66.2	47.4	32.1	19.2	10.4	5.37	1.68	1.35	
70	111	109	106	102	95.9	90.9	87.4	78.4	65.3	52.1	39.6	27.4	17.6	10.6	6.99	3.58	1.42	1.35	
75	72.3	70.7	68.3	65.4	61.7	57.1	51.1	43.9	36.2	27.6	18.6	11.0	7.84	6.35	4.27	2.18	1.32	1.35	
80	36.3	35.6	34.4	32.7	30.6	28.1	23.7	18.9	14.0	9.74	6.84	4.97	4.39	3.25	2.11	1.40	1.31	1.35	
85	8.42	8.42	8.25	7.92	7.44	6.86	5.64	4.59	3.65	2.90	2.29	1.83	1.54	1.34	1.26	1.28	1.31	1.35	
90	0.94	0.97	1.00	1.03	1.05	1.08	1.10	1.12	1.13	1.15	1.17	1.18	1.21	1.24	1.27	1.29	1.32	1.35	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:11 July 2022

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks: