

# Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity	393.2 cd per klm.
(Luminaire orientation as tested.)	0.0 degrees vertical
	2.0 degrees horizontal

Beam Spread	At 10% of Imax	154.5V x 154.5H
	At 50% of Imax	115.9V x 116.7H
	At 90% of Imax	54.3V x 54.4H

Beam Flux	Total	1137.8 lumens per klm.
	To 10% of Imax	1124.8 lumens per klm.
	To 50% of Imax	894.5 lumens per klm.
	To 90% of Imax	254.5 lumens per klm.

Upward LOR	0.0 %
Downward LOR	113.8 %

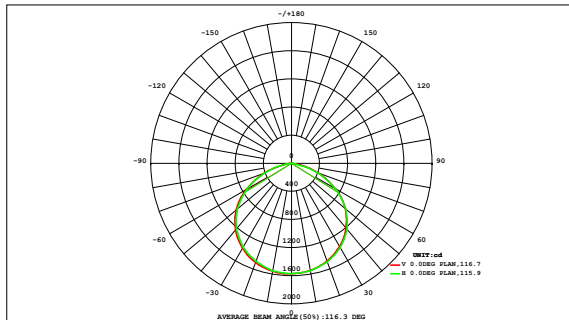
Luminaire Efficiency (Light Output Ratio)	114.1 %
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H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:04 July 2022

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: 98Helios50SEN	TYPE: 98Helios50SEN	WEIGHT: 0.611
SPEC.:	DIM.: 0.205 x 0.200 x 0.125	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangular	Shielding Angle:



DATA OF LAMP		PHOTOMETRIC DATA	
MODEL	98Helios50SEN	Imax (cd)	1573
NOMINAL POWER(W)	50	AVAILABILITY (%)	112.9
RATED VOLTAGE (V)	230	Avai. FLUX(lm)	4515
NOMINAL FLUX(lm)	4000	LOR(%)	114.1
LAMPS INSIDE	1	TOTAL FLUX(lm)	4562
TEST VOLTAGE (V)	230	θ @50% (H,V)	117,116DEG

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
90	0.01	0.04	0.32	1.13	2.40	3.84	5.16	6.16	6.70	6.70	6.15	5.13	3.80	2.32	1.08	0.27	0.04	0.01	51.3	35.1
80	0.01	0.16	1.29	3.74	6.91	10.3	13.5	15.9	17.2	17.2	16.0	13.6	10.4	6.96	3.75	1.20	0.14	0.01	138	135
70	0.01	0.45	2.75	6.63	11.4	16.5	21.0	24.4	26.2	26.3	24.6	21.3	16.8	11.6	6.74	2.77	0.41	0.01	220	218
60	0.01	0.84	4.22	9.34	15.7	22.1	27.5	31.6	33.8	33.9	31.9	28.0	22.6	16.1	9.55	4.32	0.81	0.01	292	291
50	0.03	1.28	5.44	11.7	19.0	26.2	32.3	36.9	39.3	39.5	37.2	32.9	26.8	19.6	12.0	5.56	1.26	0.02	347	346
40	0.04	1.63	6.35	13.4	21.4	29.1	35.7	40.7	43.3	43.5	41.1	36.4	29.8	22.0	13.8	6.53	1.65	0.03	386	386
30	0.05	1.89	6.99	14.6	23.0	31.1	38.0	43.2	45.9	46.1	43.6	38.7	31.8	23.7	15.0	7.20	1.91	0.04	413	412
20	0.06	2.00	7.32	15.1	23.7	32.1	39.2	44.4	47.2	47.4	44.9	39.9	32.9	24.5	15.7	7.58	2.05	0.05	426	426
10	0.06	2.01	7.32	15.2	23.8	32.1	39.2	44.5	47.2	47.5	45.0	40.0	32.9	24.5	15.7	7.56	2.04	0.05	427	426
0	0.05	1.87	7.00	14.6	23.0	31.1	38.1	43.3	46.1	46.2	43.8	38.9	32.0	23.8	15.1	7.25	1.92	0.04	414	414
-10	0.04	1.63	6.35	13.5	21.5	29.3	36.0	40.9	43.6	43.7	41.4	36.6	30.0	22.1	13.9	6.54	1.64	0.03	389	388
-20	0.02	1.25	5.42	11.7	19.1	26.3	32.5	37.1	39.6	39.8	37.6	33.1	27.0	19.7	12.1	5.59	1.27	0.02	349	348
-30	0.01	0.83	4.21	9.39	15.8	22.2	27.6	31.8	34.0	34.2	32.1	28.2	22.7	16.2	9.62	4.31	0.81	0.01	294	293
-40	0.00	0.41	2.74	6.60	11.5	16.6	21.2	24.6	26.4	26.5	24.8	21.5	17.0	11.8	6.74	2.81	0.40	0.00	222	220
-50	0.00	0.15	1.27	3.75	6.88	10.3	13.6	16.0	17.3	17.3	16.1	13.7	10.5	6.98	3.80	1.24	0.13	0.00	139	136
-60	0.00	0.02	0.24	1.13	2.54	4.00	5.47	6.59	7.20	7.24	6.65	5.55	4.07	2.55	1.14	0.21	0.02	0.00	54.6	41.0
-70	0.00	0.00	0.00	0.00	0.02	0.05	0.08	0.10	0.12	0.13	0.12	0.09	0.06	0.02	0.00	0.00	0.00	0.00	0.81	0.00
-80	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	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	0.00
	-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)	20	30	40	50	60	70	80	90			
Φ t	0.40	16.5	69.2	151	248	343	426	488	521	523	493	434	351	254	156	70.9	16.5	0.35	4562	---
Φ a	0.00	12.1	66.1	148	245	341	424	485	518	520	490	431	349	252	153	68.0	12.1	0.00	---	4515

one-half-peak spread: U:58.3,D:58.1 , L:60.2,R:57.0

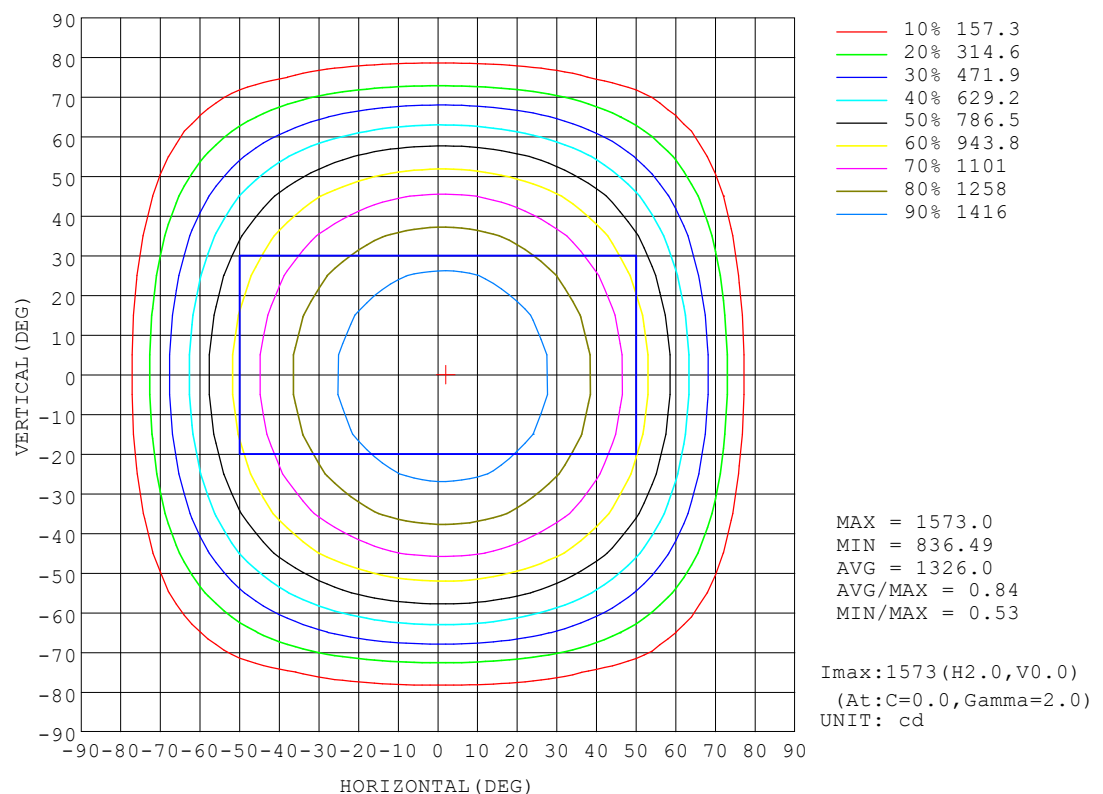
NEMA Beam Type: Type 7

H(β) Range:-90 - 90DEG  
H(β) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:04 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: 98Helios50SEN	TYPE: 98Helios50SEN	WEIGHT: 0.611
SPEC.:	DIM.: 0.205 x 0.200 x 0.125	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangular	Shielding Angle:

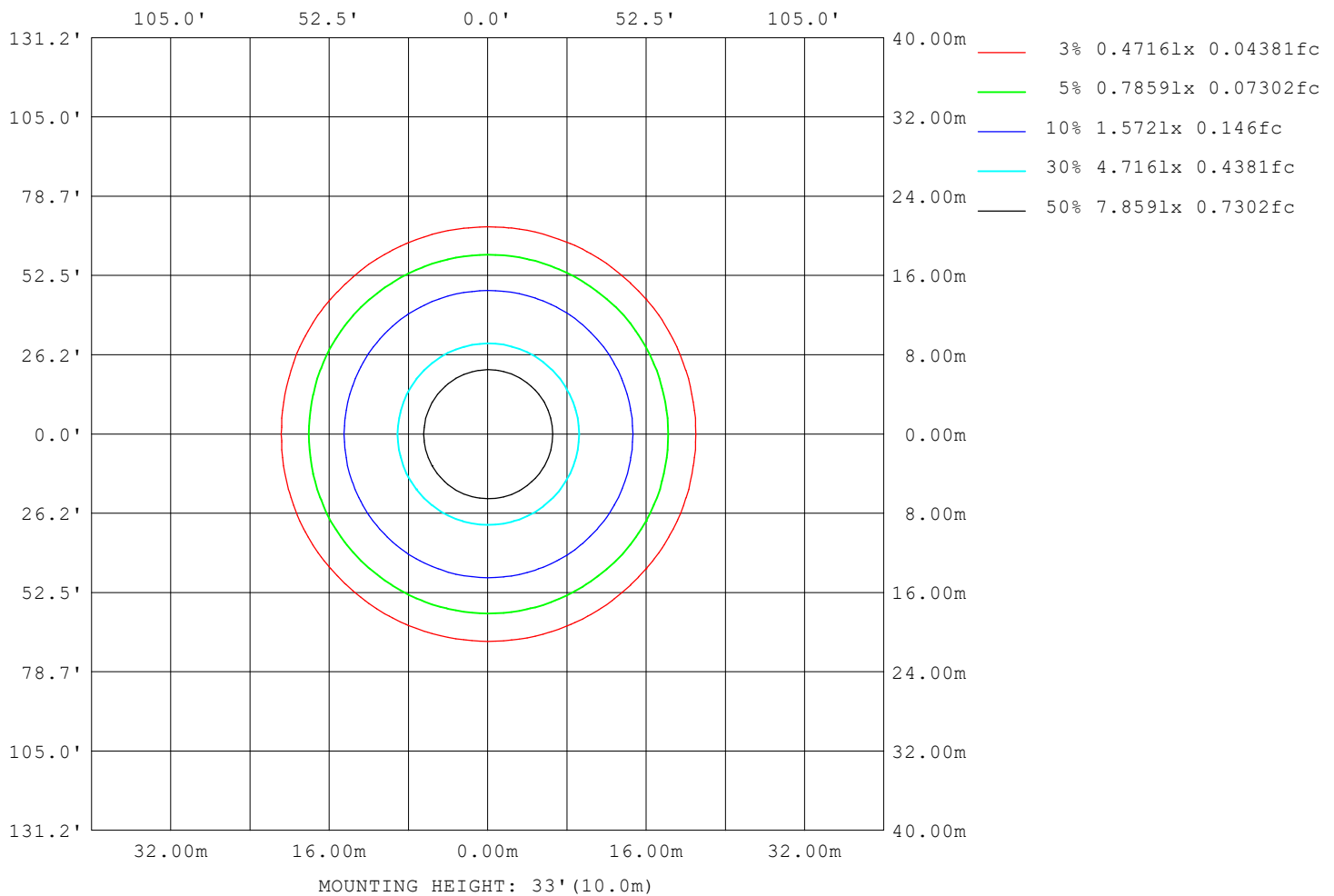


H( $\beta$ ) Range:-90 - 90DEG  
 H( $\beta$ ) Interval: 2.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:04 July 2022

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:

## ISOLUX DIAGRAM

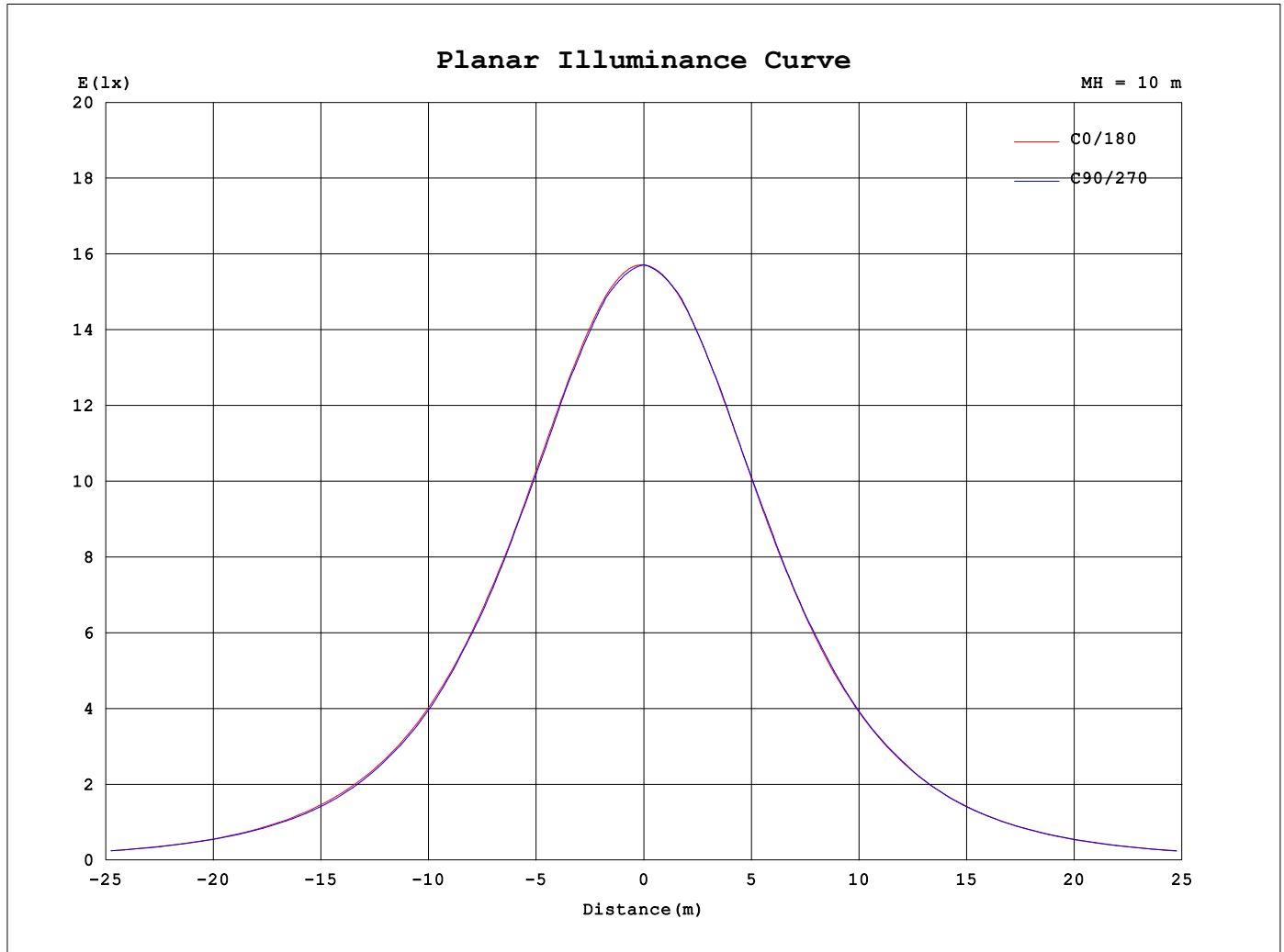
NAME: 98Helios50SEN	TYPE: 98Helios50SEN	WEIGHT: 0.611
SPEC.:	DIM.: 0.205 x 0.200 x 0.125	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: rectangular	Shielding Angle:



H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:04 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

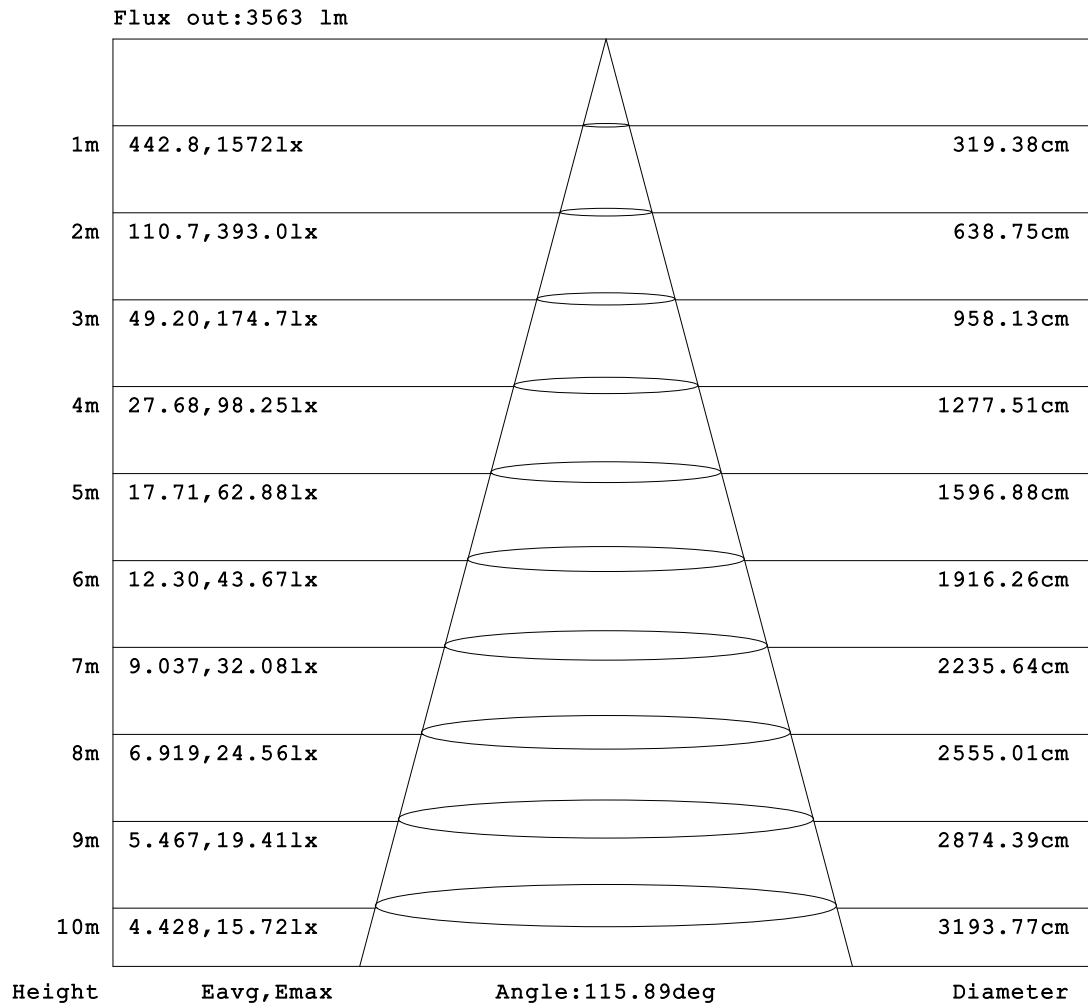


H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:04 July 2022

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: 98Helios50SEN	TYPE: 98Helios50SEN	WEIGHT: 0.611
SPEC.:	DIM.: 0.205 x 0.200 x 0.125	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( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 2.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:04 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: 98Helios50SEN	TYPE: 98Helios50SEN	WEIGHT: 0.611
SPEC.:	DIM.: 0.205 x 0.200 x 0.125	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	1.57	1.60	1.53	1.56	1.84	2.20	3.82	7.31	14.8	19.5	27.9	32.0	40.1	43.7	48.2	50.9	53.7	55.7	56.0
-75	1.61	1.63	1.71	2.13	10.7	20.9	43.1	61.1	96.7	114	140	156	180	193	209	219	228	232	234
-70	1.65	1.65	1.90	2.69	19.5	39.6	82.4	115	179	209	253	280	319	342	370	386	402	409	412
-65	1.70	1.69	2.46	12.3	47.1	83.2	154	198	268	309	368	404	454	483	517	536	557	565	571
-60	1.75	1.73	3.03	22.0	74.7	127	226	282	358	409	484	528	589	623	665	687	711	722	729
-55	1.81	1.80	7.51	36.7	112	187	294	358	453	514	599	649	716	753	799	824	851	862	870
-50	1.86	1.87	12.0	51.3	148	247	361	434	548	619	713	770	844	884	933	961	991	1003	1011
-45	1.92	1.94	19.5	71.4	198	298	424	508	632	707	808	868	945	986	1039	1069	1100	1112	1122
-40	1.97	2.02	27.0	91.5	248	348	486	581	717	796	903	966	1045	1089	1146	1176	1208	1221	1232
-35	2.03	2.07	35.2	111	283	386	536	638	779	861	971	1034	1117	1163	1222	1252	1285	1300	1310
-30	2.08	2.13	43.5	130	317	425	586	695	840	926	1039	1103	1189	1238	1297	1328	1363	1379	1388
-25	2.12	2.20	53.5	153	341	453	625	737	884	971	1087	1153	1239	1288	1349	1380	1415	1430	1441
-20	2.17	2.27	63.5	175	365	482	663	778	928	1017	1134	1203	1288	1338	1402	1433	1467	1481	1495
-15	2.21	2.32	67.0	183	381	501	684	801	953	1043	1160	1229	1317	1368	1430	1462	1498	1513	1524
-10	2.25	2.37	70.5	191	397	519	706	823	979	1068	1186	1255	1346	1397	1458	1491	1529	1544	1554
-5	2.28	2.49	73.1	198	402	525	715	833	988	1077	1196	1267	1356	1407	1469	1502	1538	1552	1563
0	2.31	2.61	75.8	204	407	531	723	843	997	1086	1206	1278	1367	1417	1479	1512	1547	1561	1572
5	2.34	2.62	72.9	198	402	525	714	833	987	1076	1195	1266	1355	1405	1467	1500	1536	1550	1562
10	2.37	2.62	70.0	192	398	519	706	824	977	1066	1183	1254	1344	1393	1456	1489	1525	1539	1551
15	2.40	2.58	66.6	184	382	501	683	800	951	1039	1156	1225	1314	1364	1425	1458	1493	1508	1518
20	2.42	2.54	63.3	176	367	483	661	776	925	1013	1128	1196	1284	1334	1394	1426	1462	1476	1485
25	2.45	2.49	54.4	154	343	454	623	735	881	967	1081	1147	1232	1281	1341	1372	1407	1421	1431
30	2.47	2.45	45.6	132	319	425	586	694	836	921	1033	1098	1181	1228	1288	1319	1352	1366	1377
35	2.49	2.45	38.1	115	286	387	536	638	776	857	966	1029	1109	1154	1213	1242	1274	1288	1299
40	2.51	2.44	30.6	97.4	253	350	487	582	715	793	899	961	1037	1080	1138	1166	1196	1211	1221
45	2.52	2.41	22.2	77.1	205	300	425	509	632	706	806	865	939	980	1033	1062	1091	1104	1114
50	2.53	2.38	13.8	56.8	157	250	364	436	549	619	713	770	841	880	929	958	986	998	1006
55	2.53	2.38	9.23	40.1	118	190	297	360	455	515	599	649	715	751	796	821	847	858	866
60	2.53	2.38	4.67	23.5	79.3	130	230	284	361	410	485	529	590	622	662	684	709	719	725
65	2.52	2.40	3.72	13.7	51.3	87.6	161	205	272	312	369	405	455	483	516	534	555	563	569
70	2.52	2.41	2.76	3.89	23.2	45.0	92.0	126	183	214	254	281	320	343	370	385	401	408	413
75	2.51	2.42	2.59	3.20	13.1	24.2	50.1	69.8	103	122	148	166	190	203	220	229	239	243	245
80	2.50	2.44	2.42	2.52	2.86	3.35	8.23	14.0	22.3	29.7	41.6	51.6	60.1	64.1	69.8	72.8	76.1	77.5	78.2
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:04 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: 98Helios50SEN	TYPE: 98Helios50SEN	WEIGHT: 0.611
SPEC.:	DIM.: 0.205 x 0.200 x 0.125	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	56.9	55.0	54.3	50.4	47.6	42.4	38.3	27.2	19.7	12.4	7.84	3.43	2.36	1.84	1.69	1.67	1.74	1.46	
-75	235	230	224	213	202	184	168	141	123	97.4	76.6	43.7	26.7	9.13	3.02	1.78	1.71	1.47	
-70	413	405	394	375	356	325	298	256	227	182	145	84.1	51.1	16.4	4.34	1.88	1.68	1.48	
-65	570	560	548	524	502	462	429	374	335	273	228	157	109	43.3	18.6	2.32	1.74	1.49	
-60	727	716	703	673	647	599	561	493	443	364	311	230	168	70.2	32.8	2.76	1.81	1.51	
-55	869	858	843	810	782	730	687	613	556	463	398	300	232	116	54.1	6.85	1.94	1.54	
-50	1010	999	983	947	917	861	814	733	669	562	484	370	296	163	75.4	10.9	2.06	1.57	
-45	1120	1108	1091	1055	1023	964	916	831	764	650	565	434	350	208	104	17.6	2.25	1.60	
-40	1230	1217	1199	1163	1129	1068	1017	929	859	738	645	499	404	254	133	24.2	2.45	1.64	
-35	1308	1296	1278	1239	1205	1142	1091	1000	928	804	709	553	448	292	168	32.0	2.82	1.68	
-30	1386	1374	1357	1316	1280	1216	1165	1070	997	870	773	607	493	330	203	39.8	3.19	1.71	
-25	1439	1426	1409	1369	1332	1266	1214	1118	1043	914	815	645	525	353	224	52.7	4.21	1.75	
-20	1492	1478	1460	1422	1385	1316	1263	1166	1089	958	858	682	558	375	244	65.6	5.23	1.79	
-15	1523	1509	1492	1451	1416	1347	1293	1195	1119	987	885	709	581	393	262	66.8	6.34	1.83	
-10	1553	1541	1523	1481	1446	1379	1323	1224	1148	1016	912	735	603	412	280	68.1	7.45	1.86	
-5	1563	1550	1532	1491	1455	1386	1330	1232	1155	1022	918	740	607	414	282	69.3	7.80	1.89	
0	1572	1560	1541	1501	1464	1394	1337	1240	1162	1028	924	746	611	417	284	70.5	8.14	1.91	
5	1562	1548	1529	1490	1454	1383	1327	1230	1154	1021	917	740	607	414	281	69.3	7.65	1.95	
10	1551	1537	1518	1480	1443	1373	1317	1221	1146	1014	911	734	602	411	279	68.1	7.16	1.99	
15	1518	1505	1485	1446	1410	1342	1287	1190	1115	984	882	707	579	393	262	66.4	6.31	2.03	
20	1484	1472	1453	1412	1377	1310	1256	1158	1084	954	853	679	556	376	244	64.7	5.46	2.07	
25	1430	1417	1398	1359	1324	1257	1205	1111	1037	909	811	642	524	351	224	52.9	4.57	2.11	
30	1377	1362	1343	1306	1272	1205	1154	1063	990	864	769	605	491	327	205	41.0	3.67	2.14	
35	1298	1284	1266	1229	1195	1131	1081	992	922	799	705	551	447	291	168	32.8	3.27	2.18	
40	1219	1205	1188	1153	1119	1058	1009	922	853	733	642	497	403	254	132	24.6	2.87	2.22	
45	1112	1100	1083	1048	1016	958	911	827	761	647	563	434	349	208	105	17.8	2.70	2.25	
50	1005	995	978	944	914	858	813	732	669	562	485	372	296	163	78.8	11.0	2.53	2.28	
55	865	854	838	806	780	728	685	612	556	463	399	304	235	117	56.3	7.21	2.44	2.30	
60	724	713	699	669	645	598	557	492	443	364	314	235	173	71.9	33.8	3.41	2.34	2.33	
65	567	558	546	521	500	460	426	373	335	274	231	161	113	45.2	19.9	2.95	2.30	2.35	
70	410	402	393	372	354	322	295	254	227	185	149	86.8	53.0	18.5	5.97	2.50	2.26	2.37	
75	244	239	233	220	209	190	174	146	128	102	80.5	46.3	28.1	10.6	4.20	2.40	2.30	2.39	
80	77.4	75.5	73.1	68.0	64.2	57.2	53.0	37.8	29.8	18.6	12.4	5.82	3.29	2.62	2.42	2.30	2.34	2.40	
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( $\beta$ ) Range:-90 - 90DEG

H( $\beta$ ) Interval: 2.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:

Test Date:04 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: