



**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : ZNF-70L-MF-50.IES**

**DESCRIPTIVE INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] LED-13022  
[TESTLAB] LSI INDUSTRIES, INC.  
[ISSUE DATE] 06/30/22  
[TEST DATE] 10/20/21  
[MANUFACT] LSI INDUSTRIES, INC.  
[LUMCAT] ZNF-70L-MF-50  
[OTHER] TEST PROCEDURE: IESNA LM-79-08  
[OTHER] SCALED FROM ORIGINAL TEST DATA  
[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED  
[SEARCH\_SOURCETYPE] LED  
[SEARCH\_APPLICATION] Outdoor  
[SEARCH\_COLORTEMP] 5000

Note: Candela values converted from Type-C to Type-B

**CHARACTERISTICS**

NEMA Type	4 H x 4 V
Maximum Candela	174962
Maximum Candela Angle	0H -1V
Horizontal Beam Angle (50%)	32.6
Vertical Beam Angle (50%)	32.7
Horizontal Field Angle (10%)	60.3
Vertical Field Angle (10%)	60.4
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	34010
Beam Efficiency	N.A.
Field Lumens	57163
Field Efficiency	N.A.
Spill Lumens	14010
Luminaire Lumens	71174
Total Efficiency	N.A.
Total Luminaire Watts	462.8
Ballast Factor	1.00

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**AXIAL CANDELA**

DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	72	85	72
75	387	75	388
65	932	65	921
55	2152	55	2158
47.5	3394	47.5	3443
42.5	5181	42.5	5255
37.5	8666	37.5	8722
33	13232	33	13157
29	19326	29	19314
25.5	29209	25.5	29139
22.5	41446	22.5	41892
19.5	58841	19.5	59716
17	79759	17	80766
15	101102	15	101696
13	121270	13	121706
11	138571	11	138513
9	152157	9	151845
7	162327	7	162037
5	170522	5	170039
3	173992	3	173992
1	174914	1	174962
0	174950	0	174950
-1	174914	-1	174962
-3	173992	-3	173992
-5	170522	-5	170039
-7	162327	-7	162037
-9	152157	-9	151845
-11	138571	-11	138513
-13	121270	-13	121706
-15	101102	-15	101696
-17	79759	-17	80766
-19.5	58841	-19.5	59716
-22.5	41446	-22.5	41892
-25.5	29209	-25.5	29139
-29	19326	-29	19314
-33	13232	-33	13157
-37.5	8666	-37.5	8722
-42.5	5181	-42.5	5255
-47.5	3394	-47.5	3443
-55	2152	-55	2158
-65	932	-65	921
-75	387	-75	388
-85	72	-85	72
-90	0	-90	0

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**CANDELA TABULATION**

Maximum Candela = 174962

Beam Edge = 87481 Cd (50% of Max.)

Field Edge = 17496.2 Cd (10% of Max.)

\* Indicates Values Inside Field Edge

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<b><u>-90.0</u></b>	<b><u>-85.0</u></b>	<b><u>-75.0</u></b>	<b><u>-65.0</u></b>	<b><u>-55.0</u></b>	<b><u>-47.5</u></b>	<b><u>-42.5</u></b>	<b><u>-37.5</u></b>	<b><u>-33.0</u></b>	<b><u>-29.0</u></b>
<b>90.0</b>	0	0	0	0	0	0	0	0	0	0
<b>85.0</b>	0	5	14	23	32	43	49	54	58	61
<b>75.0</b>	0	14	53	107	168	213	243	272	297	319
<b>65.0</b>	0	23	108	225	353	445	511	585	655	708
<b>55.0</b>	0	34	170	357	567	776	935	1107	1277	1440
<b>47.5</b>	0	43	215	453	777	1104	1404	1750	2004	2320
<b>42.5</b>	0	49	247	520	930	1423	1788	2243	2717	3040
<b>37.5</b>	0	54	277	592	1103	1720	2240	2854	3339	3919
<b>33.0</b>	0	58	302	658	1285	1993	2717	3340	4133	5175
<b>29.0</b>	0	61	321	713	1433	2316	3040	3900	5156	6744
<b>25.5</b>	0	64	335	761	1558	2585	3333	4514	6263	8412
<b>22.5</b>	0	66	346	794	1660	2749	3599	5111	7347	10048
<b>19.5</b>	0	67	356	828	1764	2893	3910	5796	8483	11667
<b>17.0</b>	0	68	363	852	1850	3005	4145	6349	9475	12977
<b>15.0</b>	0	69	368	870	1912	3096	4371	6747	10205	13980
<b>13.0</b>	0	70	373	885	1968	3174	4587	7209	10847	15041
<b>11.0</b>	0	72	377	898	2018	3241	4769	7611	11453	15954
<b>9.0</b>	0	72	380	909	2062	3295	4922	7955	12006	16712
<b>7.0</b>	0	72	383	918	2098	3337	5043	8239	12472	17526 *
<b>5.0</b>	0	72	387	924	2123	3366	5133	8460	12828	18305 *
<b>3.0</b>	0	72	387	932	2148	3401	5216	8604	13072	18834 *
<b>1.0</b>	0	72	387	932	2151	3396	5193	8673	13208	19224 *
<b>0.0</b>	0	72	387	932	2152	3394	5181	8666	13232	19326 *
<b>-1.0</b>	0	72	387	932	2151	3396	5193	8673	13208	19224 *
<b>-3.0</b>	0	72	387	932	2148	3401	5216	8604	13072	18834 *
<b>-5.0</b>	0	72	387	924	2123	3366	5133	8460	12828	18305 *
<b>-7.0</b>	0	72	383	918	2098	3337	5043	8239	12472	17526 *
<b>-9.0</b>	0	72	380	909	2062	3295	4922	7955	12006	16712
<b>-11.0</b>	0	72	377	898	2018	3241	4769	7611	11453	15954
<b>-13.0</b>	0	70	373	885	1968	3174	4587	7209	10847	15041
<b>-15.0</b>	0	69	368	870	1912	3096	4371	6747	10205	13980
<b>-17.0</b>	0	68	363	852	1850	3005	4145	6349	9475	12977
<b>-19.5</b>	0	67	356	828	1764	2893	3910	5796	8483	11667
<b>-22.5</b>	0	66	346	794	1660	2749	3599	5111	7347	10048
<b>-25.5</b>	0	64	335	761	1558	2585	3333	4514	6263	8412
<b>-29.0</b>	0	61	321	713	1433	2316	3040	3900	5156	6744
<b>-33.0</b>	0	58	302	658	1285	1993	2717	3340	4133	5175
<b>-37.5</b>	0	54	277	592	1103	1720	2240	2854	3339	3919
<b>-42.5</b>	0	49	247	520	930	1423	1788	2243	2717	3040
<b>-47.5</b>	0	43	215	453	777	1104	1404	1750	2004	2320
<b>-55.0</b>	0	34	170	357	567	776	935	1107	1277	1440
<b>-65.0</b>	0	23	108	225	353	445	511	585	655	708
<b>-75.0</b>	0	14	53	107	168	213	243	272	297	319
<b>-85.0</b>	0	5	14	23	32	43	49	54	58	61
<b>-90.0</b>	0	0	0	0	0	0	0	0	0	0

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**CANDELA TABULATION - (Cont.)**

Vert. Angles	Horizontal Angles									
	<u>-25.5</u>	<u>-22.5</u>	<u>-19.5</u>	<u>-17.0</u>	<u>-15.0</u>	<u>-13.0</u>	<u>-11.0</u>	<u>-9.0</u>	<u>-7.0</u>	<u>-5.0</u>
90.0	0	0	0	0	0	0	0	0	0	0
85.0	64	67	68	70	71	72	74	75	75	75
75.0	338	350	359	365	369	373	377	380	382	386
65.0	753	785	822	849	868	884	897	908	917	923
55.0	1564	1657	1745	1824	1885	1941	1993	2039	2079	2111
47.5	2598	2774	2932	3042	3126	3200	3264	3326	3376	3413
42.5	3355	3630	3933	4155	4382	4603	4792	4954	5090	5196
37.5	4539	5143	5829	6377	6771	7231	7629	7962	8245	8462
33.0	6297	7380	8490	9489	10268	10946	11547	12070	12498	12815
29.0	8444	10001	11612	12977	14004	15108	16013	16749	17529 *	18306 *
25.5	10600	12591	14773	16583	18572 *	20665 *	22481 *	24423 *	26096 *	27456 *
22.5	12651	15179	18267 *	21594 *	24825 *	28207 *	31320 *	34545 *	37062 *	38983 *
19.5	14848	18353 *	23097 *	28489 *	33158 *	38006 *	42670 *	47631 *	51430 *	54270 *
17.0	16730	21699 *	28563 *	35488 *	41343 *	47979 *	54174 *	61772 *	68306 *	73386 *
15.0	18641 *	24833 *	33266 *	41477 *	49030 *	56944 *	66813 *	75668 *	85261 *	93145 *
13.0	20595 *	28091 *	38156 *	48226 *	57070 *	68519 *	80686 *	93240 *	103886 *	112335 *
11.0	22238 *	31058 *	42729 *	54347 *	66798 *	80571 *	96431 *	110045 *	121600 *	129767 *
9.0	24214 *	34256 *	47439 *	61592 *	75375 *	93131 *	109862 *	125459 *	135974 *	144161 *
7.0	25944 *	36849 *	51355 *	68009 *	85056 *	103879 *	121281 *	135710 *	147737 *	154432 *
5.0	27421 *	38952 *	54411 *	73035 *	92771 *	112440 *	130089 *	144415 *	154352 *	162419 *
3.0	28478 *	40430 *	57002 *	76993 *	98394 *	118838 *	136254 *	149749 *	159667 *	167036 *
1.0	29086 *	41353 *	58511 *	79382 *	101808 *	121648 *	138488 *	151862 *	162217 *	170732 *
0.0	29209 *	41446 *	58841 *	79759 *	101102 *	121270 *	138571 *	152157 *	162327 *	170522 *
-1.0	29086 *	41353 *	58511 *	79382 *	101808 *	121648 *	138488 *	151862 *	162217 *	170732 *
-3.0	28478 *	40430 *	57002 *	76993 *	98394 *	118838 *	136254 *	149749 *	159667 *	167036 *
-5.0	27421 *	38952 *	54411 *	73035 *	92771 *	112440 *	130089 *	144415 *	154352 *	162419 *
-7.0	25944 *	36849 *	51355 *	68009 *	85056 *	103879 *	121281 *	135710 *	147737 *	154432 *
-9.0	24214 *	34256 *	47439 *	61592 *	75375 *	93131 *	109862 *	125459 *	135974 *	144161 *
-11.0	22238 *	31058 *	42729 *	54347 *	66798 *	80571 *	96431 *	110045 *	121600 *	129767 *
-13.0	20595 *	28091 *	38156 *	48226 *	57070 *	68519 *	80686 *	93240 *	103886 *	112335 *
-15.0	18641 *	24833 *	33266 *	41477 *	49030 *	56944 *	66813 *	75668 *	85261 *	93145 *
-17.0	16730	21699 *	28563 *	35488 *	41343 *	47979 *	54174 *	61772 *	68306 *	73386 *
-19.5	14848	18353 *	23097 *	28489 *	33158 *	38006 *	42670 *	47631 *	51430 *	54270 *
-22.5	12651	15179	18267 *	21594 *	24825 *	28207 *	31320 *	34545 *	37062 *	38983 *
-25.5	10600	12591	14773	16583	18572 *	20665 *	22481 *	24423 *	26096 *	27456 *
-29.0	8444	10001	11612	12977	14004	15108	16013	16749	17529 *	18306 *
-33.0	6297	7380	8490	9489	10268	10946	11547	12070	12498	12815
-37.5	4539	5143	5829	6377	6771	7231	7629	7962	8245	8462
-42.5	3355	3630	3933	4155	4382	4603	4792	4954	5090	5196
-47.5	2598	2774	2932	3042	3126	3200	3264	3326	3376	3413
-55.0	1564	1657	1745	1824	1885	1941	1993	2039	2079	2111
-65.0	753	785	822	849	868	884	897	908	917	923
-75.0	338	350	359	365	369	373	377	380	382	386
-85.0	64	67	68	70	71	72	74	75	75	75
-90.0	0	0	0	0	0	0	0	0	0	0

Vert. Angles	Horizontal Angles									
	<u>-3.0</u>	<u>-1.0</u>	<u>0.0</u>	<u>1.0</u>	<u>3.0</u>	<u>5.0</u>	<u>7.0</u>	<u>9.0</u>	<u>11.0</u>	<u>13.0</u>
90.0	0	0	0	0	0	0	0	0	0	0
85.0	74	73	72	73	74	75	75	75	74	72
75.0	387	388	388	388	387	386	382	380	377	373
65.0	927	923	921	923	927	923	917	908	897	884

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**CANDELA TABULATION - (Cont.)**

55.0	2144	2153	2158	2153	2144	2111	2079	2039	1993	1941
47.5	3451	3446	3443	3446	3451	3413	3376	3326	3264	3200
42.5	5301	5270	5255	5270	5301	5196	5090	4954	4792	4603
37.5	8613	8712	8722	8712	8613	8462	8245	7962	7629	7231
33.0	13015	13136	13157	13136	13015	12815	12498	12070	11547	10946
29.0	18832 *	19206 *	19314 *	19206 *	18832 *	18306 *	17529 *	16749	16013	15108
25.5	28370 *	28962 *	29139 *	28962 *	28370 *	27456 *	26096 *	24423 *	22481 *	20665 *
22.5	40282 *	41436 *	41892 *	41436 *	40282 *	38983 *	37062 *	34545 *	31320 *	28207 *
19.5	57194 *	59108 *	59716 *	59108 *	57194 *	54270 *	51430 *	47631 *	42670 *	38006 *
17.0	77631 *	80157 *	80766 *	80157 *	77631 *	73386 *	68306 *	61772 *	54174 *	47979 *
15.0	98517 *	101311 *	101696 *	101311 *	98517 *	93145 *	85261 *	75668 *	66813 *	56944 *
13.0	118440 *	121314 *	121706 *	121314 *	118440 *	112335 *	103886 *	93240 *	80686 *	68519 *
11.0	135512 *	138496 *	138513 *	138496 *	135512 *	129767 *	121600 *	110045 *	96431 *	80571 *
9.0	149287 *	151962 *	151845 *	151962 *	149287 *	144161 *	135974 *	125459 *	109862 *	93131 *
7.0	159618 *	162110 *	162037 *	162110 *	159618 *	154432 *	147737 *	135710 *	121281 *	103879 *
5.0	167109 *	170325 *	170039 *	170325 *	167109 *	162419 *	154352 *	144415 *	130089 *	112440 *
3.0	171940 *	173540 *	173992 *	173540 *	171940 *	167036 *	159667 *	149749 *	136254 *	118838 *
1.0	173736 *	174933 *	174962 *	174933 *	173736 *	170732 *	162217 *	151862 *	138488 *	121648 *
0.0	173992 *	174914 *	174950 *	174914 *	173992 *	170522 *	162327 *	152157 *	138571 *	121270 *
-1.0	173736 *	174933 *	174962 *	174933 *	173736 *	170732 *	162217 *	151862 *	138488 *	121648 *
-3.0	171940 *	173540 *	173992 *	173540 *	171940 *	167036 *	159667 *	149749 *	136254 *	118838 *
-5.0	167109 *	170325 *	170039 *	170325 *	167109 *	162419 *	154352 *	144415 *	130089 *	112440 *
-7.0	159618 *	162110 *	162037 *	162110 *	159618 *	154432 *	147737 *	135710 *	121281 *	103879 *
-9.0	149287 *	151962 *	151845 *	151962 *	149287 *	144161 *	135974 *	125459 *	109862 *	93131 *
-11.0	135512 *	138496 *	138513 *	138496 *	135512 *	129767 *	121600 *	110045 *	96431 *	80571 *
-13.0	118440 *	121314 *	121706 *	121314 *	118440 *	112335 *	103886 *	93240 *	80686 *	68519 *
-15.0	98517 *	101311 *	101696 *	101311 *	98517 *	93145 *	85261 *	75668 *	66813 *	56944 *
-17.0	77631 *	80157 *	80766 *	80157 *	77631 *	73386 *	68306 *	61772 *	54174 *	47979 *
-19.5	57194 *	59108 *	59716 *	59108 *	57194 *	54270 *	51430 *	47631 *	42670 *	38006 *
-22.5	40282 *	41436 *	41892 *	41436 *	40282 *	38983 *	37062 *	34545 *	31320 *	28207 *
-25.5	28370 *	28962 *	29139 *	28962 *	28370 *	27456 *	26096 *	24423 *	22481 *	20665 *
-29.0	18832 *	19206 *	19314 *	19206 *	18832 *	18306 *	17529 *	16749	16013	15108
-33.0	13015	13136	13157	13136	13015	12815	12498	12070	11547	10946
-37.5	8613	8712	8722	8712	8613	8462	8245	7962	7629	7231
-42.5	5301	5270	5255	5270	5301	5196	5090	4954	4792	4603
-47.5	3451	3446	3443	3446	3451	3413	3376	3326	3264	3200
-55.0	2144	2153	2158	2153	2144	2111	2079	2039	1993	1941
-65.0	927	923	921	923	927	923	917	908	897	884
-75.0	387	388	388	388	387	386	382	380	377	373
-85.0	74	73	72	73	74	75	75	75	74	72
-90.0	0	0	0	0	0	0	0	0	0	0

**Vert. Horizontal Angles**  
**Angles**

	<u>15.0</u>	<u>17.0</u>	<u>19.5</u>	<u>22.5</u>	<u>25.5</u>	<u>29.0</u>	<u>33.0</u>	<u>37.5</u>	<u>42.5</u>	<u>47.5</u>
90.0	0	0	0	0	0	0	0	0	0	0
85.0	71	70	68	67	64	61	58	54	49	43
75.0	369	365	359	350	338	319	297	272	243	213
65.0	868	849	822	785	753	708	655	585	511	445
55.0	1885	1824	1745	1657	1564	1440	1277	1107	935	776
47.5	3126	3042	2932	2774	2598	2320	2004	1750	1404	1104
42.5	4382	4155	3933	3630	3355	3040	2717	2243	1788	1423
37.5	6771	6377	5829	5143	4539	3919	3339	2854	2240	1720
33.0	10268	9489	8490	7380	6297	5175	4133	3340	2717	1993
29.0	14004	12977	11612	10001	8444	6744	5156	3900	3040	2316
25.5	18572 *	16583	14773	12591	10600	8412	6263	4514	3333	2585

**IES FLOOD REPORT**  
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**CANDELA TABULATION - (Cont.)**

22.5	24825 *	21594 *	18267 *	15179	12651	10048	7347	5111	3599	2749
19.5	33158 *	28489 *	23097 *	18353 *	14848	11667	8483	5796	3910	2893
17.0	41343 *	35488 *	28563 *	21699 *	16730	12977	9475	6349	4145	3005
15.0	49030 *	41477 *	33266 *	24833 *	18641 *	13980	10205	6747	4371	3096
13.0	57070 *	48226 *	38156 *	28091 *	20595 *	15041	10847	7209	4587	3174
11.0	66798 *	54347 *	42729 *	31058 *	22238 *	15954	11453	7611	4769	3241
9.0	75375 *	61592 *	47439 *	34256 *	24214 *	16712	12006	7955	4922	3295
7.0	85056 *	68009 *	51355 *	36849 *	25944 *	17526 *	12472	8239	5043	3337
5.0	92771 *	73035 *	54411 *	38952 *	27421 *	18305 *	12828	8460	5133	3366
3.0	98394 *	76993 *	57002 *	40430 *	28478 *	18834 *	13072	8604	5216	3401
1.0	101808 *	79382 *	58511 *	41353 *	29086 *	19224 *	13208	8673	5193	3396
0.0	101102 *	79759 *	58841 *	41446 *	29209 *	19326 *	13232	8666	5181	3394
-1.0	101808 *	79382 *	58511 *	41353 *	29086 *	19224 *	13208	8673	5193	3396
-3.0	98394 *	76993 *	57002 *	40430 *	28478 *	18834 *	13072	8604	5216	3401
-5.0	92771 *	73035 *	54411 *	38952 *	27421 *	18305 *	12828	8460	5133	3366
-7.0	85056 *	68009 *	51355 *	36849 *	25944 *	17526 *	12472	8239	5043	3337
-9.0	75375 *	61592 *	47439 *	34256 *	24214 *	16712	12006	7955	4922	3295
-11.0	66798 *	54347 *	42729 *	31058 *	22238 *	15954	11453	7611	4769	3241
-13.0	57070 *	48226 *	38156 *	28091 *	20595 *	15041	10847	7209	4587	3174
-15.0	49030 *	41477 *	33266 *	24833 *	18641 *	13980	10205	6747	4371	3096
-17.0	41343 *	35488 *	28563 *	21699 *	16730	12977	9475	6349	4145	3005
-19.5	33158 *	28489 *	23097 *	18353 *	14848	11667	8483	5796	3910	2893
-22.5	24825 *	21594 *	18267 *	15179	12651	10048	7347	5111	3599	2749
-25.5	18572 *	16583	14773	12591	10600	8412	6263	4514	3333	2585
-29.0	14004	12977	11612	10001	8444	6744	5156	3900	3040	2316
-33.0	10268	9489	8490	7380	6297	5175	4133	3340	2717	1993
-37.5	6771	6377	5829	5143	4539	3919	3339	2854	2240	1720
-42.5	4382	4155	3933	3630	3355	3040	2717	2243	1788	1423
-47.5	3126	3042	2932	2774	2598	2320	2004	1750	1404	1104
-55.0	1885	1824	1745	1657	1564	1440	1277	1107	935	776
-65.0	868	849	822	785	753	708	655	585	511	445
-75.0	369	365	359	350	338	319	297	272	243	213
-85.0	71	70	68	67	64	61	58	54	49	43
-90.0	0	0	0	0	0	0	0	0	0	0

Vert. Angles	Horizontal Angles				
	<u>55.0</u>	<u>65.0</u>	<u>75.0</u>	<u>85.0</u>	<u>90.0</u>
90.0	0	0	0	0	0
85.0	32	23	14	5	0
75.0	168	107	53	14	0
65.0	353	225	108	23	0
55.0	567	357	170	34	0
47.5	777	453	215	43	0
42.5	930	520	247	49	0
37.5	1103	592	277	54	0
33.0	1285	658	302	58	0
29.0	1433	713	321	61	0
25.5	1558	761	335	64	0
22.5	1660	794	346	66	0
19.5	1764	828	356	67	0
17.0	1850	852	363	68	0
15.0	1912	870	368	69	0
13.0	1968	885	373	70	0
11.0	2018	898	377	72	0
9.0	2062	909	380	72	0

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : ZNF-70L-MF-50.IES**

**CANDELA TABULATION - (Cont.)**

7.0	2098	918	383	72	0
5.0	2123	924	387	72	0
3.0	2148	932	387	72	0
1.0	2151	932	387	72	0
0.0	2152	932	387	72	0
-1.0	2151	932	387	72	0
-3.0	2148	932	387	72	0
-5.0	2123	924	387	72	0
-7.0	2098	918	383	72	0
-9.0	2062	909	380	72	0
-11.0	2018	898	377	72	0
-13.0	1968	885	373	70	0
-15.0	1912	870	368	69	0
-17.0	1850	852	363	68	0
-19.5	1764	828	356	67	0
-22.5	1660	794	346	66	0
-25.5	1558	761	335	64	0
-29.0	1433	713	321	61	0
-33.0	1285	658	302	58	0
-37.5	1103	592	277	54	0
-42.5	930	520	247	49	0
-47.5	777	453	215	43	0
-55.0	567	357	170	34	0
-65.0	353	225	108	23	0
-75.0	168	107	53	14	0
-85.0	32	23	14	5	0
-90.0	0	0	0	0	0

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : ZNF-70L-MF-50.IES**

**LUMEN TABULATION**

Average Of Right And Left Sides

Total Luminaire Lumens (one side of beam only) = 35586.85

Total Field Lumens (one side of beam only) = 28581.67

\* Indicates Values Inside Field Edge

Vert. Angles	Horizontal Angles									
	<u>0</u>	<u>1</u>	<u>3</u>	<u>5</u>	<u>7</u>	<u>9</u>	<u>11</u>	<u>13</u>	<u>15</u>	<u>17</u>
90										
85	0.06	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.12
75	0.70	1.40	1.40	1.39	1.38	1.36	1.33	1.31	1.28	1.56
65	2.00	4.00	3.99	3.95	3.90	3.84	3.77	3.69	3.59	4.33
55	4.69	9.36	9.28	9.13	8.96	8.75	8.51	8.24	7.94	9.47
47.5	6.40	12.78	12.67	12.47	12.24	11.95	11.62	11.25	10.85	12.94
42.5	6.63	13.29	13.19	12.93	12.63	12.25	11.81	11.31	10.76	12.71
37.5	10.65	21.23	20.95	20.44	19.80	19.00	18.07	16.98	15.87	18.35
33	14.98	29.78	29.33	28.64	27.67	26.46	25.04	23.42	21.68	24.56
29	19.74	39.08	38.27	37.05	35.50	33.82	31.95	29.75	27.37	30.78
25.5	25.75 *	50.81 *	49.43 *	47.39 *	44.76 *	41.82 *	38.72 *	35.35	31.84	35.40
22.5	32.31 *	63.49 *	61.57 *	58.89 *	55.26 *	50.74 *	45.89 *	40.91 *	35.83 *	38.63 *
19.5	46.18 *	90.42 *	86.93 *	82.58 *	77.22 *	70.27 *	62.66 *	55.06 *	47.46 *	49.60 *
17	53.26 *	104.30 *	99.70 *	93.68 *	86.40 *	77.34 *	68.09 *	59.29 *	50.68 *	52.27 *
15	55.43 *	108.86 *	104.13 *	96.97 *	87.78 *	77.52 *	67.31 *	57.72 *	49.00 *	50.19 *
13	67.93 *	133.82 *	128.36 *	119.55 *	108.00 *	94.91 *	81.33 *	68.44 *	57.33 *	58.26 *
11	79.20 *	156.40 *	150.73 *	141.65 *	129.33 *	114.11 *	97.19 *	80.67 *	66.30 *	66.34 *
9	88.46 *	175.12 *	169.77 *	161.01 *	148.73 *	132.53 *	113.22 *	93.36 *	75.58 *	74.53 *
7	95.64 *	189.64 *	184.59 *	176.40 *	164.36 *	147.68 *	127.57 *	105.64 *	84.92 *	82.59 *
5	101.21 *	200.66 *	195.56 *	187.50 *	175.62 *	159.43 *	139.35 *	116.49 *	93.37 *	89.24 *
3	104.77 *	207.89 *	203.13 *	194.93 *	183.45 *	168.14 *	148.26 *	124.85 *	99.90 *	94.53 *
1	106.22 *	211.31 *	207.67 *	199.83 *	188.07 *	172.89 *	153.51 *	130.25 *	104.41 *	98.31 *
0	53.29 *	106.18 *	104.68 *	100.85 *	94.80 *	87.15 *	77.46 *	65.88 *	53.00 *	49.99 *
-1	53.29 *	106.18 *	104.68 *	100.85 *	94.80 *	87.15 *	77.46 *	65.88 *	53.00 *	49.99 *
	106.22 *	211.31 *	207.67 *	199.83 *	188.07 *	172.89 *	153.51 *	130.25 *	104.41 *	98.31 *

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : ZNF-70L-MF-50.IES**

**LUMENS TABULATION - (Cont.)**

<b>-3</b>	104.77 *	207.89 *	203.13 *	194.93 *	183.45 *	168.14 *	148.26 *	124.85 *	99.90 *	94.53 *
<b>-5</b>	101.21 *	200.66 *	195.56 *	187.50 *	175.62 *	159.43 *	139.35 *	116.49 *	93.37 *	89.24 *
<b>-7</b>	95.64 *	189.64 *	184.59 *	176.40 *	164.36 *	147.68 *	127.57 *	105.64 *	84.92 *	82.59 *
<b>-9</b>	88.46 *	175.12 *	169.77 *	161.01 *	148.73 *	132.53 *	113.22 *	93.36 *	75.58 *	74.53 *
<b>-11</b>	79.20 *	156.40 *	150.73 *	141.65 *	129.33 *	114.11 *	97.19 *	80.67 *	66.30 *	66.34 *
<b>-13</b>	67.93 *	133.82 *	128.36 *	119.55 *	108.00 *	94.91 *	81.33 *	68.44 *	57.33 *	58.26 *
<b>-15</b>	55.43 *	108.86 *	104.13 *	96.97 *	87.78 *	77.52 *	67.31 *	57.72 *	49.00 *	50.19 *
<b>-17</b>	53.26 *	104.30 *	99.70 *	93.68 *	86.40 *	77.34 *	68.09 *	59.29 *	50.68 *	52.27 *
<b>-19.5</b>	46.18 *	90.42 *	86.93 *	82.58 *	77.22 *	70.27 *	62.66 *	55.06 *	47.46 *	49.60 *
<b>-22.5</b>	32.31 *	63.49 *	61.57 *	58.89 *	55.26 *	50.74 *	45.89 *	40.91 *	35.83 *	38.63 *
<b>-25.5</b>	25.75 *	50.81 *	49.43 *	47.39 *	44.76 *	41.82 *	38.72 *	35.35	31.84	35.40
<b>-29</b>	19.74	39.08	38.27	37.05	35.50	33.82	31.95	29.75	27.37	30.78
<b>-33</b>	14.98	29.78	29.33	28.64	27.67	26.46	25.04	23.42	21.68	24.56
<b>-37.5</b>	10.65	21.23	20.95	20.44	19.80	19.00	18.07	16.98	15.87	18.35
<b>-42.5</b>	6.63	13.29	13.19	12.93	12.63	12.25	11.81	11.31	10.76	12.71
<b>-47.5</b>	6.40	12.78	12.67	12.47	12.24	11.95	11.62	11.25	10.85	12.94
<b>-55</b>	4.69	9.36	9.28	9.13	8.96	8.75	8.51	8.24	7.94	9.47
<b>-65</b>	2.00	4.00	3.99	3.95	3.90	3.84	3.77	3.69	3.59	4.33
<b>-75</b>	0.70	1.40	1.40	1.39	1.38	1.36	1.33	1.31	1.28	1.56
<b>-85</b>	0.06	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.12
<b>-90</b>										
<b>Total</b>	1950.94	3859.85	3750.88	3574.67	3331.93	3024.19	2665.54	2279.95	1898.14	1909.39

**Vert. Horizontal Angles**

<b>Angles</b>	<b>19.5</b>	<b>22.5</b>	<b>25.5</b>	<b>29</b>	<b>33</b>	<b>37.5</b>	<b>42.5</b>	<b>47.5</b>	<b>55</b>	<b>65</b>
<b>90</b>	0.14	0.14	0.15	0.16	0.16	0.15	0.12	0.13	0.10	0.05
<b>85</b>	1.80	1.71	1.85	1.92	1.91	1.80	1.48	1.63	1.25	0.51
<b>75</b>	4.94	4.65	5.02	5.17	5.06	4.70	3.80	4.21	3.24	1.28
<b>65</b>	10.68	9.93	10.58	10.65	10.14	9.15	7.18	7.65	5.71	2.24
<b>55</b>	14.57	13.45	14.08	13.79	12.88	11.36	8.52	8.64	6.14	2.33

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : ZNF-70L-MF-50.IES**

**LUMENS TABULATION - (Cont.)**

<b>47.5</b>										
	14.15	12.89	13.40	13.16	12.19	10.48	7.70	7.56	5.10	1.87
<b>42.5</b>										
	19.76	17.39	17.60	16.99	15.60	13.30	9.65	9.25	5.98	2.13
<b>37.5</b>										
	25.76	21.94	21.25	19.46	17.21	14.63	10.50	9.81	6.23	2.14
<b>33</b>										
	31.98	26.81	25.27	22.15	18.50	15.16	10.84	10.04	6.22	2.07
<b>29</b>										
	36.56	30.41	28.36	24.28	19.42	15.09	10.62	9.87	5.94	1.94
<b>25.5</b>										
	38.91	31.94	29.65	25.12	19.50	14.48	9.90	9.17	5.45	1.74
<b>22.5</b>										
	47.92 *	38.21	34.98	29.40	22.44	16.11	10.62	9.72	5.76	1.81
<b>19.5</b>										
	48.90 *	37.37 *	33.30	27.80	21.06	14.73	9.39	8.50	5.03	1.56
<b>17</b>										
	46.22 *	34.18 *	29.53	24.35	18.34	12.60	7.87	7.05	4.17	1.28
<b>15</b>										
	53.04 *	38.47 *	32.34	26.14	19.59	13.36	8.20	7.25	4.29	1.30
<b>13</b>										
	59.73 *	42.56 *	34.98 *	27.83	20.77	14.10	8.49	7.43	4.39	1.32
<b>11</b>										
	66.32 *	46.65 *	37.49 *	29.30	21.84	14.73	8.74	7.59	4.48	1.33
<b>9</b>										
	72.47 *	50.61 *	39.99 *	30.66	22.76	15.26	8.93	7.71	4.55	1.35
<b>7</b>										
	77.44 *	53.91 *	42.26 *	31.92	23.50	15.67	9.09	7.81	4.61	1.36
<b>5</b>										
	81.38 *	56.46 *	44.09 *	32.91	24.04	15.99	9.21	7.89	4.66	1.37
<b>3</b>										
	84.15 *	58.16 *	45.31 *	33.59	24.37	16.15	9.26	7.93	4.69	1.37
<b>1</b>										
	42.69 *	29.44 *	22.94 *	16.97	12.25	8.08	4.62	3.96	2.35	0.69
<b>0</b>										
	42.69 *	29.44 *	22.94 *	16.97	12.25	8.08	4.62	3.96	2.35	0.69
<b>-1</b>										
	84.15 *	58.16 *	45.31 *	33.59	24.37	16.15	9.26	7.93	4.69	1.37
<b>-3</b>										
	81.38 *	56.46 *	44.09 *	32.91	24.04	15.99	9.21	7.89	4.66	1.37
<b>-5</b>										
	77.44 *	53.91 *	42.26 *	31.92	23.50	15.67	9.09	7.81	4.61	1.36
<b>-7</b>										
	72.47 *	50.61 *	39.99 *	30.66	22.76	15.26	8.93	7.71	4.55	1.35
<b>-9</b>										
	66.32 *	46.65 *	37.49 *	29.30	21.84	14.73	8.74	7.59	4.48	1.33
<b>-11</b>										
	59.73 *	42.56 *	34.98 *	27.83	20.77	14.10	8.49	7.43	4.39	1.32
<b>-13</b>										
	53.04 *	38.47 *	32.34	26.14	19.59	13.36	8.20	7.25	4.29	1.30
<b>-15</b>										
	46.22 *	34.18 *	29.53	24.35	18.34	12.60	7.87	7.05	4.17	1.28
<b>-17</b>										
	48.90 *	37.37 *	33.30	27.80	21.06	14.73	9.39	8.50	5.03	1.56
<b>-19.5</b>										
	47.92 *	38.21	34.98	29.40	22.44	16.11	10.62	9.72	5.76	1.81

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : ZNF-70L-MF-50.IES**

**LUMENS TABULATION - (Cont.)**

<b>-22.5</b>	38.91	31.94	29.65	25.12	19.50	14.48	9.90	9.17	5.45	1.74
<b>-25.5</b>	36.56	30.41	28.36	24.28	19.42	15.09	10.62	9.87	5.94	1.94
<b>-29</b>	31.98	26.81	25.27	22.15	18.50	15.16	10.84	10.04	6.22	2.07
<b>-33</b>	25.76	21.94	21.25	19.46	17.21	14.63	10.50	9.81	6.23	2.14
<b>-37.5</b>	19.76	17.39	17.60	16.99	15.60	13.30	9.65	9.25	5.98	2.13
<b>-42.5</b>	14.15	12.89	13.40	13.16	12.19	10.48	7.70	7.56	5.10	1.87
<b>-47.5</b>	14.57	13.45	14.08	13.79	12.88	11.36	8.52	8.64	6.14	2.33
<b>-55</b>	10.68	9.93	10.58	10.65	10.14	9.15	7.18	7.65	5.71	2.24
<b>-65</b>	4.94	4.65	5.02	5.17	5.06	4.70	3.80	4.21	3.24	1.28
<b>-75</b>	1.80	1.71	1.85	1.92	1.91	1.80	1.48	1.63	1.25	0.51
<b>-85</b>	0.14	0.14	0.15	0.16	0.16	0.15	0.12	0.13	0.10	0.05
<b>-90</b>										
<b>Total</b>	1758.98	1314.59	1128.83	927.40	727.05	534.17	349.45	321.55	200.68	66.08

Vert. Angles	Horizontal Angles			
	<u>75</u>	<u>85</u>	<u>90</u>	<u>Total</u>
<b>90</b>				
	0.01	0.00		2.38
<b>85</b>				
	0.11	0.00		29.09
<b>75</b>				
	0.26	0.01		79.38
<b>65</b>				
	0.44	0.01		168.71
<b>55</b>				
	0.46	0.01		221.38
<b>47.5</b>				
	0.37	0.01		216.39
<b>42.5</b>				
	0.41	0.01		309.40
<b>37.5</b>				
	0.41	0.01		400.91
<b>33</b>				
	0.39	0.01		492.74
<b>29</b>				
	0.36	0.01		584.14
<b>25.5</b>				
	0.32	0.01		669.70
<b>22.5</b>				
	0.33	0.01		885.70
<b>19.5</b>				
	0.28	0.01		952.91
<b>17</b>				
	0.23	0.00		940.73

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : ZNF-70L-MF-50.IES**

**LUMENS TABULATION - (Cont.)**

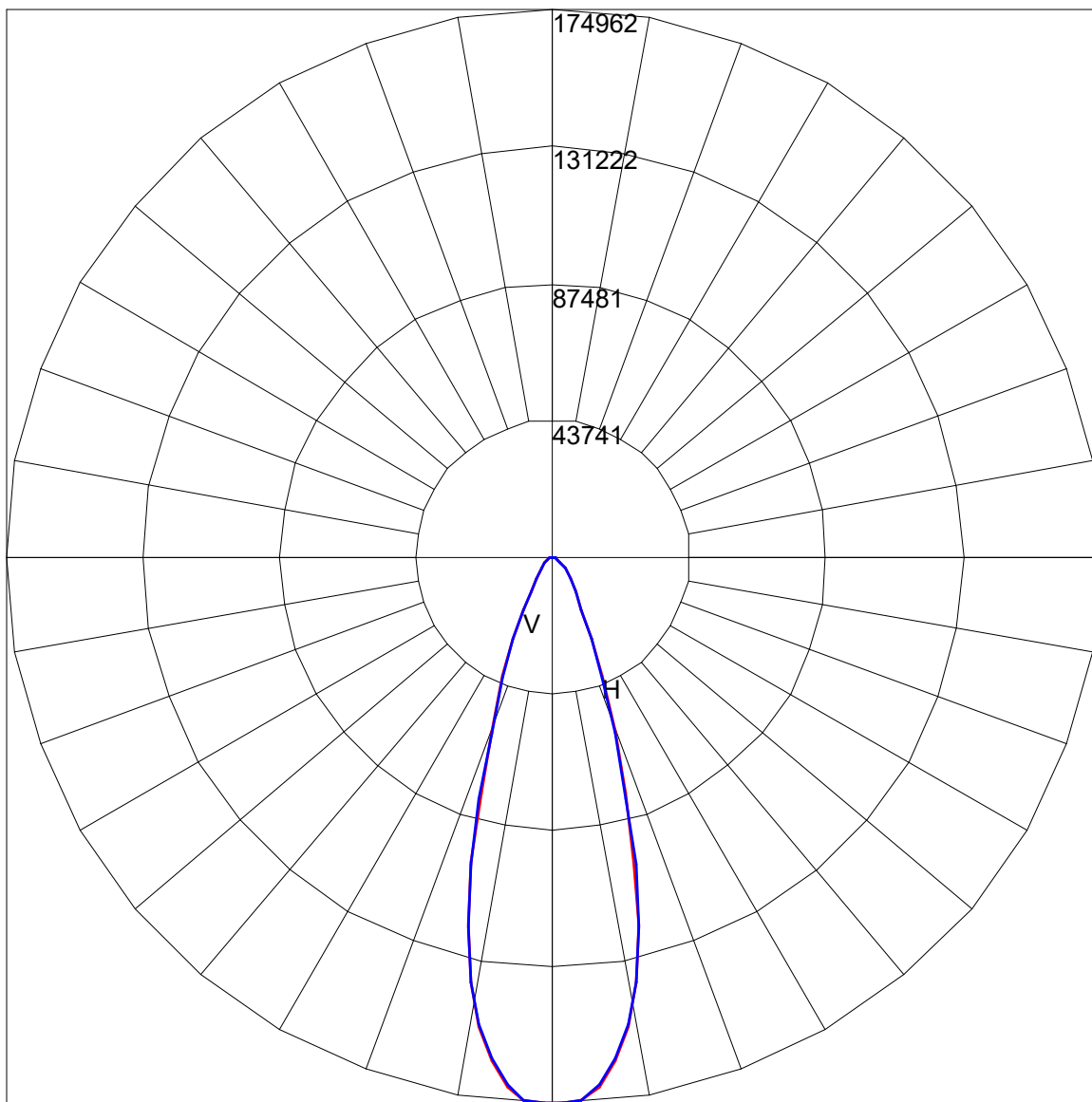
<b>15</b>			
	0.23	0.00	1122.14
<b>13</b>			
	0.24	0.00	1303.77
<b>11</b>			
	0.24	0.00	1471.00
<b>9</b>			
	0.24	0.00	1613.56
<b>7</b>			
	0.24	0.00	1726.24
<b>5</b>			
	0.24	0.00	1808.11
<b>3</b>			
	0.24	0.00	1857.7
<b>1</b>			
	0.12	0.00	937.39
<b>0</b>			
	0.12	0.00	937.39
<b>-1</b>			
	0.24	0.00	1857.7
<b>-3</b>			
	0.24	0.00	1808.11
<b>-5</b>			
	0.24	0.00	1726.24
<b>-7</b>			
	0.24	0.00	1613.56
<b>-9</b>			
	0.24	0.00	1471.00
<b>-11</b>			
	0.24	0.00	1303.77
<b>-13</b>			
	0.23	0.00	1122.14
<b>-15</b>			
	0.23	0.00	940.73
<b>-17</b>			
	0.28	0.01	952.91
<b>-19.5</b>			
	0.33	0.01	885.70
<b>-22.5</b>			
	0.32	0.01	669.70
<b>-25.5</b>			
	0.36	0.01	584.14
<b>-29</b>			
	0.39	0.01	492.74
<b>-33</b>			
	0.41	0.01	400.91
<b>-37.5</b>			
	0.41	0.01	309.40
<b>-42.5</b>			
	0.37	0.01	216.39
<b>-47.5</b>			
	0.46	0.01	221.38
<b>-55</b>			
	0.44	0.01	168.71
<b>-65</b>			
	0.26	0.01	79.38

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : ZNF-70L-MF-50.IES**

**LUMENS TABULATION - (Cont.)**

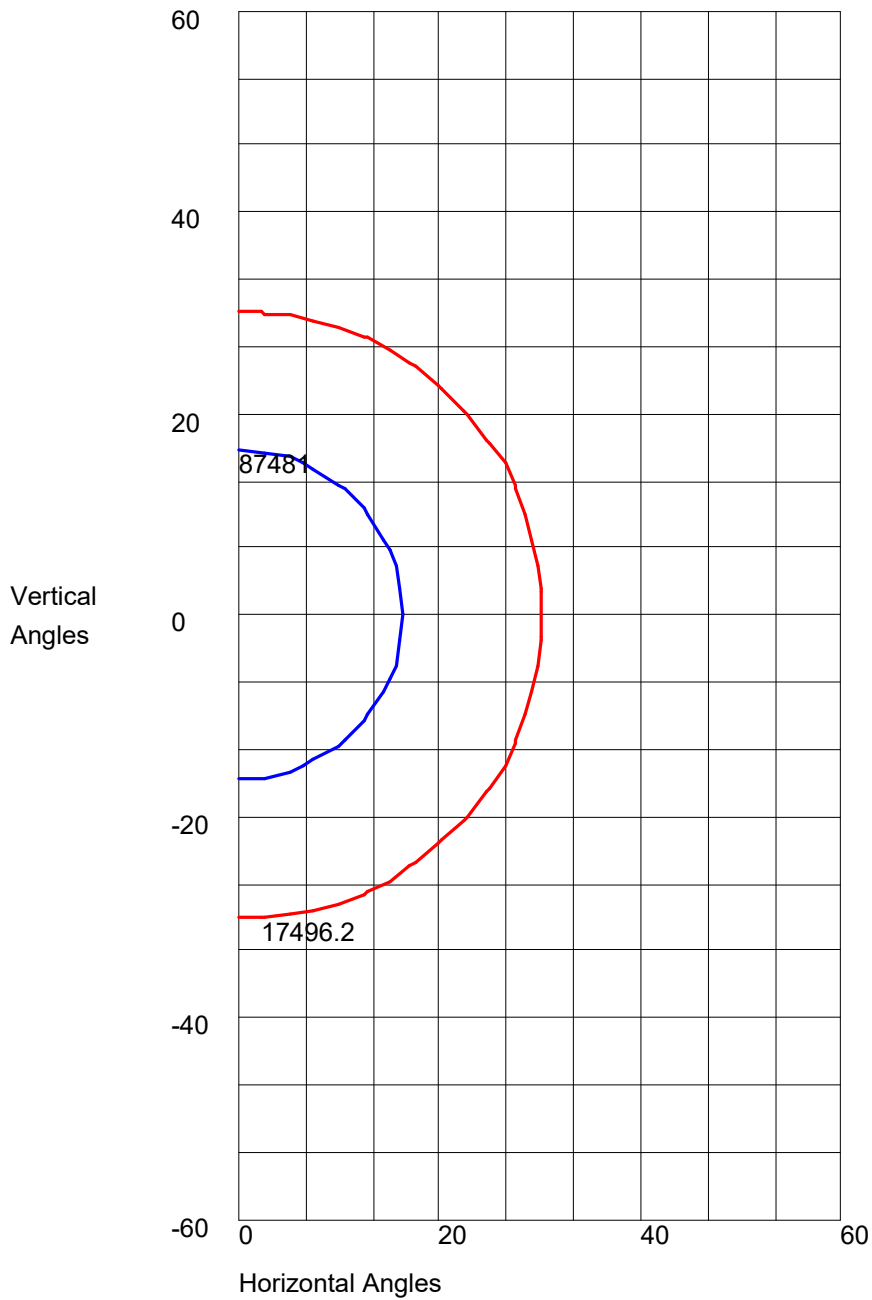
<b>-75</b>	0.11	0.00	29.09
<b>-85</b>	0.01	0.00	2.38
<b>-90</b>			
<b>Total</b>	12.38	0.25	35586.89

AXIAL CANDELA DISPLAY



Maximum Candela = 174962 Located At Horizontal Angle = 0, Vertical Angle = -1  
H - Horizontal Axial Candela  
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 174962 Located At Horizontal Angle = 0, Vertical Angle = -1  
50% Maximum Candela = 87481  
10% Maximum Candela = 17496.2