



## IES FLOOD REPORT

PHOTOMETRIC FILENAME : ZNF-70L-WF-50.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] LED-13764  
[TESTLAB] LSI INDUSTRIES, INC.  
[ISSUE DATE] 12/22/22  
[TEST DATE] 11/23/22  
[MANUFACT] LSI INDUSTRIES, INC.  
[LUMCAT] ZNF-70L-WF-50  
[TEST PROCEDURE] IESNA LM-79-19  
[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.  
[FACTORED] SCALED FROM ORIGINAL TEST DATA  
[SEARCH\_SOURCETYPE] LED  
[SEARCH\_APPLICATION] Outdoor  
[SEARCH\_COLORTEMP] 5000

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

### CHARACTERISTICS

NEMA Type	6 H x 6 V
Maximum Candela	75151
Maximum Candela Angle	0H -1V
Horizontal Beam Angle (50%)	44.7
Vertical Beam Angle (50%)	45.1
Horizontal Field Angle (10%)	107.3
Vertical Field Angle (10%)	107.5
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	26696
Beam Efficiency	N.A.
Field Lumens	63218
Field Efficiency	N.A.
Spill Lumens	6459
Luminaire Lumens	69677
Total Efficiency	N.A.
Total Luminaire Watts	463
Ballast Factor	1.00

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**AXIAL CANDELA**

DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	109	85	107
75	710	75	723
65	2003	65	2030
55	6648	55	6701
47.5	11440	47.5	11507
42.5	14970	42.5	15023
37.5	18322	37.5	18299
33	21812	33	21848
29	25673	29	25761
25.5	30570	25.5	31074
22.5	37192	22.5	37659
19.5	45586	19.5	45684
17	52210	17	52281
15	57140	15	57227
13	61470	13	61636
11	65353	11	65490
9	68813	9	68781
7	71730	7	71500
5	73829	5	73643
3	74880	3	74877
1	75133	1	75151
0	75127	0	75127
-1	75133	-1	75151
-3	74880	-3	74877
-5	73829	-5	73643
-7	71730	-7	71500
-9	68813	-9	68781
-11	65353	-11	65490
-13	61470	-13	61636
-15	57140	-15	57227
-17	52210	-17	52281
-19.5	45586	-19.5	45684
-22.5	37192	-22.5	37659
-25.5	30570	-25.5	31074
-29	25673	-29	25761
-33	21812	-33	21848
-37.5	18322	-37.5	18299
-42.5	14970	-42.5	15023
-47.5	11440	-47.5	11507
-55	6648	-55	6701
-65	2003	-65	2030
-75	710	-75	723
-85	109	-85	107
-90	0	-90	0

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**CANDELA TABULATION**

Maximum Candela = 75151

Beam Edge = 37575.5 Cd (50% of Max.)

Field Edge = 7515.1 Cd (10% of Max.)

\* Indicates Values Inside Field Edge

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<b>-90.0</b>	<b>-85.0</b>	<b>-75.0</b>	<b>-65.0</b>	<b>-55.0</b>	<b>-47.5</b>	<b>-42.5</b>	<b>-37.5</b>	<b>-33.0</b>	<b>-29.0</b>
<b>90.0</b>	0	0	0	0	0	0	0	0	0	0
<b>85.0</b>	0	6	19	29	45	61	71	79	86	91
<b>75.0</b>	0	18	75	164	275	360	421	478	525	569
<b>65.0</b>	0	29	163	374	643	867	1028	1188	1331	1450
<b>55.0</b>	0	45	271	640	1135	1608	1996	2627	3358	4025
<b>47.5</b>	0	60	357	865	1607	2680	3875	5240	6367	7406
<b>42.5</b>	0	69	419	1023	2005	3894	5492	7133	8645 *	9947 *
<b>37.5</b>	0	78	475	1181	2655	5276	7157	9178 *	11009 *	12538 *
<b>33.0</b>	0	85	521	1329	3368	6407	8641 *	10965 *	13026 *	14877 *
<b>29.0</b>	0	90	564	1454	3998	7412	9921 *	12472 *	14845 *	16715 *
<b>25.5</b>	0	94	598	1562	4560	8231 *	10961 *	13743 *	16171 *	18113 *
<b>22.5</b>	0	97	623	1647	4990	8921 *	11785 *	14794 *	17203 *	19421 *
<b>19.5</b>	0	100	646	1735	5382	9545 *	12550 *	15643 *	18158 *	20679 *
<b>17.0</b>	0	102	662	1799	5677	10008 *	13126 *	16245 *	18958 *	21655 *
<b>15.0</b>	0	104	674	1845	5885	10325 *	13551 *	16678 *	19541 *	22380 *
<b>13.0</b>	0	105	683	1885	6069	10604 *	13915 *	17080 *	20047 *	23084 *
<b>11.0</b>	0	109	691	1920	6227	10845 *	14223 *	17429 *	20500 *	23695 *
<b>9.0</b>	0	109	698	1948	6360	11046 *	14482 *	17722 *	20900 *	24208 *
<b>7.0</b>	0	109	703	1970	6467	11206 *	14691 *	17957 *	21231 *	24692 *
<b>5.0</b>	0	109	712	1987	6552	11325 *	14848 *	18133 *	21481 *	25115 *
<b>3.0</b>	0	109	711	2004	6641	11451 *	15003 *	18252 *	21653 *	25408 *
<b>1.0</b>	0	109	710	2003	6646	11444 *	14981 *	18321 *	21780 *	25619 *
<b>0.0</b>	0	109	710	2003	6648	11440 *	14970 *	18322 *	21812 *	25673 *
<b>-1.0</b>	0	109	710	2003	6646	11444 *	14981 *	18321 *	21780 *	25619 *
<b>-3.0</b>	0	109	711	2004	6641	11451 *	15003 *	18252 *	21653 *	25408 *
<b>-5.0</b>	0	109	712	1987	6552	11325 *	14848 *	18133 *	21481 *	25115 *
<b>-7.0</b>	0	109	703	1970	6467	11206 *	14691 *	17957 *	21231 *	24692 *
<b>-9.0</b>	0	109	698	1948	6360	11046 *	14482 *	17722 *	20900 *	24208 *
<b>-11.0</b>	0	109	691	1920	6227	10845 *	14223 *	17429 *	20500 *	23695 *
<b>-13.0</b>	0	105	683	1885	6069	10604 *	13915 *	17080 *	20047 *	23084 *
<b>-15.0</b>	0	104	674	1845	5885	10325 *	13551 *	16678 *	19541 *	22380 *
<b>-17.0</b>	0	102	662	1799	5677	10008 *	13126 *	16245 *	18958 *	21655 *
<b>-19.5</b>	0	100	646	1735	5382	9545 *	12550 *	15643 *	18158 *	20679 *
<b>-22.5</b>	0	97	623	1647	4990	8921 *	11785 *	14794 *	17203 *	19421 *
<b>-25.5</b>	0	94	598	1562	4560	8231 *	10961 *	13743 *	16171 *	18113 *
<b>-29.0</b>	0	90	564	1454	3998	7412	9921 *	12472 *	14845 *	16715 *
<b>-33.0</b>	0	85	521	1329	3368	6407	8641 *	10965 *	13026 *	14877 *
<b>-37.5</b>	0	78	475	1181	2655	5276	7157	9178 *	11009 *	12538 *
<b>-42.5</b>	0	69	419	1023	2005	3894	5492	7133	8645 *	9947 *
<b>-47.5</b>	0	60	357	865	1607	2680	3875	5240	6367	7406
<b>-55.0</b>	0	45	271	640	1135	1608	1996	2627	3358	4025
<b>-65.0</b>	0	29	163	374	643	867	1028	1188	1331	1450
<b>-75.0</b>	0	18	75	164	275	360	421	478	525	569
<b>-85.0</b>	0	6	19	29	45	61	71	79	86	91
<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	94	98	101	104	106	107	111	111	111	111
75.0	604	629	651	668	679	689	697	704	709	717
65.0	1553	1641	1736	1805	1854	1897	1934	1965	1991	2010
55.0	4599	5042	5433	5724	5931	6115	6274	6406	6512	6590
47.5	8253 *	8935 *	9544 *	9997 *	10329 *	10625 *	10885 *	11105 *	11284 *	11420 *
42.5	10981 *	11809 *	12557 *	13098 *	13531 *	13924 *	14267 *	14546 *	14767 *	14936 *
37.5	13813 *	14820 *	15668 *	16291 *	16741 *	17137 *	17482 *	17774 *	18019 *	18204 *
33.0	16210 *	17263 *	18230 *	19007 *	19579 *	20090 *	20566 *	20980 *	21321 *	21586 *
29.0	18142 *	19424 *	20665 *	21653 *	22397 *	23179 *	23836 *	24368 *	24853 *	25304 *
25.5	19895 *	21406 *	22965 *	24286 *	25408 *	26495 *	27455 *	28511 *	29422 *	30124 *
22.5	21435 *	23215 *	25150 *	26943 *	28616 *	30332 *	31940 *	33723 *	35134 *	36201 *
19.5	22985 *	25163 *	27657 *	30353 *	32841 *	35521 *	38012 *	40454 *	42348 *	43784 *
17.0	24237 *	26916 *	30386 *	34019 *	37226 *	40682 *	43828 *	46465 *	48679 *	50508 *
15.0	25299 *	28512 *	32856 *	37256 *	41174 *	44933 *	48252 *	51129 *	53391 *	55284 *
13.0	26320 *	30143 *	35462 *	40708 *	44949 *	48912 *	52414 *	55407 *	57825 *	59626 *
11.0	27188 *	31623 *	37866 *	43837 *	48274 *	52407 *	56084 *	59179 *	61681 *	63507 *
9.0	28168 *	33303 *	40287 *	46487 *	51166 *	55347 *	59107 *	62493 *	64918 *	66845 *
7.0	28997 *	34681 *	42298 *	48687 *	53433 *	57807 *	61583 *	64827 *	67669 *	69464 *
5.0	29714 *	35813 *	43868 *	50388 *	55260 *	59656 *	63520 *	66814 *	69462 *	71623 *
3.0	30222 *	36604 *	44880 *	51575 *	56550 *	60988 *	64925 *	68237 *	71026 *	72907 *
1.0	30511 *	37122 *	45447 *	52162 *	57246 *	61514 *	65473 *	68900 *	71708 *	73883 *
0.0	30570 *	37192 *	45586 *	52210 *	57140 *	61470 *	65353 *	68813 *	71730 *	73829 *
-1.0	30511 *	37122 *	45447 *	52162 *	57246 *	61514 *	65473 *	68900 *	71708 *	73883 *
-3.0	30222 *	36604 *	44880 *	51575 *	56550 *	60988 *	64925 *	68237 *	71026 *	72907 *
-5.0	29714 *	35813 *	43868 *	50388 *	55260 *	59656 *	63520 *	66814 *	69462 *	71623 *
-7.0	28997 *	34681 *	42298 *	48687 *	53433 *	57807 *	61583 *	64827 *	67669 *	69464 *
-9.0	28168 *	33303 *	40287 *	46487 *	51166 *	55347 *	59107 *	62493 *	64918 *	66845 *
-11.0	27188 *	31623 *	37866 *	43837 *	48274 *	52407 *	56084 *	59179 *	61681 *	63507 *
-13.0	26320 *	30143 *	35462 *	40708 *	44949 *	48912 *	52414 *	55407 *	57825 *	59626 *
-15.0	25299 *	28512 *	32856 *	37256 *	41174 *	44933 *	48252 *	51129 *	53391 *	55284 *
-17.0	24237 *	26916 *	30386 *	34019 *	37226 *	40682 *	43828 *	46465 *	48679 *	50508 *
-19.5	22985 *	25163 *	27657 *	30353 *	32841 *	35521 *	38012 *	40454 *	42348 *	43784 *
-22.5	21435 *	23215 *	25150 *	26943 *	28616 *	30332 *	31940 *	33723 *	35134 *	36201 *
-25.5	19895 *	21406 *	22965 *	24286 *	25408 *	26495 *	27455 *	28511 *	29422 *	30124 *
-29.0	18142 *	19424 *	20665 *	21653 *	22397 *	23179 *	23836 *	24368 *	24853 *	25304 *
-33.0	16210 *	17263 *	18230 *	19007 *	19579 *	20090 *	20566 *	20980 *	21321 *	21586 *
-37.5	13813 *	14820 *	15668 *	16291 *	16741 *	17137 *	17482 *	17774 *	18019 *	18204 *
-42.5	10981 *	11809 *	12557 *	13098 *	13531 *	13924 *	14267 *	14546 *	14767 *	14936 *
-47.5	8253 *	8935 *	9544 *	9997 *	10329 *	10625 *	10885 *	11105 *	11284 *	11420 *
-55.0	4599	5042	5433	5724	5931	6115	6274	6406	6512	6590
-65.0	1553	1641	1736	1805	1854	1897	1934	1965	1991	2010
-75.0	604	629	651	668	679	689	697	704	709	717
-85.0	94	98	101	104	106	107	111	111	111	111
-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	109	108	107	108	109	111	111	111	111	107
75.0	719	722	723	722	719	717	709	704	697	689
65.0	2029	2030	2030	2030	2029	2010	1991	1965	1934	1897

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

55.0	6681	6694	6701	6694	6681	6590	6512	6406	6274	6115
47.5	11550 *	11521 *	11507 *	11521 *	11550 *	11420 *	11284 *	11105 *	10885 *	10625 *
42.5	15105 *	15050 *	15023 *	15050 *	15105 *	14936 *	14767 *	14546 *	14267 *	13924 *
37.5	18328 *	18331 *	18299 *	18331 *	18328 *	18204 *	18019 *	17774 *	17482 *	17137 *
33.0	21768 *	21844 *	21848 *	21844 *	21768 *	21586 *	21321 *	20980 *	20566 *	20090 *
29.0	25607 *	25748 *	25761 *	25748 *	25607 *	25304 *	24853 *	24368 *	23836 *	23179 *
25.5	30595 *	30945 *	31074 *	30945 *	30595 *	30124 *	29422 *	28511 *	27455 *	26495 *
22.5	36908 *	37475 *	37659 *	37475 *	36908 *	36201 *	35134 *	33723 *	31940 *	30332 *
19.5	44958 *	45580 *	45684 *	45580 *	44958 *	43784 *	42348 *	40454 *	38012 *	35521 *
17.0	51653 *	52189 *	52281 *	52189 *	51653 *	50508 *	48679 *	46465 *	43828 *	40682 *
15.0	56588 *	57310 *	57227 *	57310 *	56588 *	55284 *	53391 *	51129 *	48252 *	44933 *
13.0	60990 *	61721 *	61636 *	61721 *	60990 *	59626 *	57825 *	55407 *	52414 *	48912 *
11.0	64875 *	65598 *	65490 *	65598 *	64875 *	63507 *	61681 *	59179 *	56084 *	52407 *
9.0	68189 *	68859 *	68781 *	68859 *	68189 *	66845 *	64918 *	62493 *	59107 *	55347 *
7.0	70830 *	71543 *	71500 *	71543 *	70830 *	69464 *	67669 *	64827 *	61583 *	57807 *
5.0	72834 *	73715 *	73643 *	73715 *	72834 *	71623 *	69462 *	66814 *	63520 *	59656 *
3.0	74202 *	74765 *	74877 *	74765 *	74202 *	72907 *	71026 *	68237 *	64925 *	60988 *
1.0	74827 *	75141 *	75151 *	75141 *	74827 *	73883 *	71708 *	68900 *	65473 *	61514 *
0.0	74880 *	75133 *	75127 *	75133 *	74880 *	73829 *	71730 *	68813 *	65353 *	61470 *
-1.0	74827 *	75141 *	75151 *	75141 *	74827 *	73883 *	71708 *	68900 *	65473 *	61514 *
-3.0	74202 *	74765 *	74877 *	74765 *	74202 *	72907 *	71026 *	68237 *	64925 *	60988 *
-5.0	72834 *	73715 *	73643 *	73715 *	72834 *	71623 *	69462 *	66814 *	63520 *	59656 *
-7.0	70830 *	71543 *	71500 *	71543 *	70830 *	69464 *	67669 *	64827 *	61583 *	57807 *
-9.0	68189 *	68859 *	68781 *	68859 *	68189 *	66845 *	64918 *	62493 *	59107 *	55347 *
-11.0	64875 *	65598 *	65490 *	65598 *	64875 *	63507 *	61681 *	59179 *	56084 *	52407 *
-13.0	60990 *	61721 *	61636 *	61721 *	60990 *	59626 *	57825 *	55407 *	52414 *	48912 *
-15.0	56588 *	57310 *	57227 *	57310 *	56588 *	55284 *	53391 *	51129 *	48252 *	44933 *
-17.0	51653 *	52189 *	52281 *	52189 *	51653 *	50508 *	48679 *	46465 *	43828 *	40682 *
-19.5	44958 *	45580 *	45684 *	45580 *	44958 *	43784 *	42348 *	40454 *	38012 *	35521 *
-22.5	36908 *	37475 *	37659 *	37475 *	36908 *	36201 *	35134 *	33723 *	31940 *	30332 *
-25.5	30595 *	30945 *	31074 *	30945 *	30595 *	30124 *	29422 *	28511 *	27455 *	26495 *
-29.0	25607 *	25748 *	25761 *	25748 *	25607 *	25304 *	24853 *	24368 *	23836 *	23179 *
-33.0	21768 *	21844 *	21848 *	21844 *	21768 *	21586 *	21321 *	20980 *	20566 *	20090 *
-37.5	18328 *	18331 *	18299 *	18331 *	18328 *	18204 *	18019 *	17774 *	17482 *	17137 *
-42.5	15105 *	15050 *	15023 *	15050 *	15105 *	14936 *	14767 *	14546 *	14267 *	13924 *
-47.5	11550 *	11521 *	11507 *	11521 *	11550 *	11420 *	11284 *	11105 *	10885 *	10625 *
-55.0	6681	6694	6701	6694	6681	6590	6512	6406	6274	6115
-65.0	2029	2030	2030	2030	2029	2010	1991	1965	1934	1897
-75.0	719	722	723	722	719	717	709	704	697	689
-85.0	109	108	107	108	109	111	111	111	111	107
-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	106	104	101	98	94	91	86	79	71	61
75.0	679	668	651	629	604	569	525	478	421	360
65.0	1854	1805	1736	1641	1553	1450	1331	1188	1028	867
55.0	5931	5724	5433	5042	4599	4025	3358	2627	1996	1608
47.5	10329 *	9997 *	9544 *	8935 *	8253 *	7406	6367	5240	3875	2680
42.5	13531 *	13098 *	12557 *	11809 *	10981 *	9947 *	8645 *	7133	5492	3894
37.5	16741 *	16291 *	15668 *	14820 *	13813 *	12538 *	11009 *	9178 *	7157	5276
33.0	19579 *	19007 *	18230 *	17263 *	16210 *	14877 *	13026 *	10965 *	8641 *	6407
29.0	22397 *	21653 *	20665 *	19424 *	18142 *	16715 *	14845 *	12472 *	9921 *	7412
25.5	25408 *	24286 *	22965 *	21406 *	19895 *	18113 *	16171 *	13743 *	10961 *	8231 *

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**CANDELA TABULATION - (Cont.)**

22.5	28616 *	26943 *	25150 *	23215 *	21435 *	19421 *	17203 *	14794 *	11785 *	8921 *
19.5	32841 *	30353 *	27657 *	25163 *	22985 *	20679 *	18158 *	15643 *	12550 *	9545 *
17.0	37226 *	34019 *	30386 *	26916 *	24237 *	21655 *	18958 *	16245 *	13126 *	10008 *
15.0	41174 *	37256 *	32856 *	28512 *	25299 *	22380 *	19541 *	16678 *	13551 *	10325 *
13.0	44949 *	40708 *	35462 *	30143 *	26320 *	23084 *	20047 *	17080 *	13915 *	10604 *
11.0	48274 *	43837 *	37866 *	31623 *	27188 *	23695 *	20500 *	17429 *	14223 *	10845 *
9.0	51166 *	46487 *	40287 *	33303 *	28168 *	24208 *	20900 *	17722 *	14482 *	11046 *
7.0	53433 *	48687 *	42298 *	34681 *	28997 *	24692 *	21231 *	17957 *	14691 *	11206 *
5.0	55260 *	50388 *	43868 *	35813 *	29714 *	25115 *	21481 *	18133 *	14848 *	11325 *
3.0	56550 *	51575 *	44880 *	36604 *	30222 *	25408 *	21653 *	18252 *	15003 *	11451 *
1.0	57246 *	52162 *	45447 *	37122 *	30511 *	25619 *	21780 *	18321 *	14981 *	11444 *
0.0	57140 *	52210 *	45586 *	37192 *	30570 *	25673 *	21812 *	18322 *	14970 *	11440 *
-1.0	57246 *	52162 *	45447 *	37122 *	30511 *	25619 *	21780 *	18321 *	14981 *	11444 *
-3.0	56550 *	51575 *	44880 *	36604 *	30222 *	25408 *	21653 *	18252 *	15003 *	11451 *
-5.0	55260 *	50388 *	43868 *	35813 *	29714 *	25115 *	21481 *	18133 *	14848 *	11325 *
-7.0	53433 *	48687 *	42298 *	34681 *	28997 *	24692 *	21231 *	17957 *	14691 *	11206 *
-9.0	51166 *	46487 *	40287 *	33303 *	28168 *	24208 *	20900 *	17722 *	14482 *	11046 *
-11.0	48274 *	43837 *	37866 *	31623 *	27188 *	23695 *	20500 *	17429 *	14223 *	10845 *
-13.0	44949 *	40708 *	35462 *	30143 *	26320 *	23084 *	20047 *	17080 *	13915 *	10604 *
-15.0	41174 *	37256 *	32856 *	28512 *	25299 *	22380 *	19541 *	16678 *	13551 *	10325 *
-17.0	37226 *	34019 *	30386 *	26916 *	24237 *	21655 *	18958 *	16245 *	13126 *	10008 *
-19.5	32841 *	30353 *	27657 *	25163 *	22985 *	20679 *	18158 *	15643 *	12550 *	9545 *
-22.5	28616 *	26943 *	25150 *	23215 *	21435 *	19421 *	17203 *	14794 *	11785 *	8921 *
-25.5	25408 *	24286 *	22965 *	21406 *	19895 *	18113 *	16171 *	13743 *	10961 *	8231 *
-29.0	22397 *	21653 *	20665 *	19424 *	18142 *	16715 *	14845 *	12472 *	9921 *	7412
-33.0	19579 *	19007 *	18230 *	17263 *	16210 *	14877 *	13026 *	10965 *	8641 *	6407
-37.5	16741 *	16291 *	15668 *	14820 *	13813 *	12538 *	11009 *	9178 *	7157	5276
-42.5	13531 *	13098 *	12557 *	11809 *	10981 *	9947 *	8645 *	7133	5492	3894
-47.5	10329 *	9997 *	9544 *	8935 *	8253 *	7406	6367	5240	3875	2680
-55.0	5931	5724	5433	5042	4599	4025	3358	2627	1996	1608
-65.0	1854	1805	1736	1641	1553	1450	1331	1188	1028	867
-75.0	679	668	651	629	604	569	525	478	421	360
-85.0	106	104	101	98	94	91	86	79	71	61
-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	45	29	19	6	0
75.0	275	164	75	18	0
65.0	643	374	163	29	0
55.0	1135	640	271	45	0
47.5	1607	865	357	60	0
42.5	2005	1023	419	69	0
37.5	2655	1181	475	78	0
33.0	3368	1329	521	85	0
29.0	3998	1454	564	90	0
25.5	4560	1562	598	94	0
22.5	4990	1647	623	97	0
19.5	5382	1735	646	100	0
17.0	5677	1799	662	102	0
15.0	5885	1845	674	104	0
13.0	6069	1885	683	105	0
11.0	6227	1920	691	109	0
9.0	6360	1948	698	109	0

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

**CANDELA TABULATION - (Cont.)**

<b>7.0</b>	6467	1970	703	109	0
<b>5.0</b>	6552	1987	712	109	0
<b>3.0</b>	6641	2004	711	109	0
<b>1.0</b>	6646	2003	710	109	0
<b>0.0</b>	6648	2003	710	109	0
<b>-1.0</b>	6646	2003	710	109	0
<b>-3.0</b>	6641	2004	711	109	0
<b>-5.0</b>	6552	1987	712	109	0
<b>-7.0</b>	6467	1970	703	109	0
<b>-9.0</b>	6360	1948	698	109	0
<b>-11.0</b>	6227	1920	691	109	0
<b>-13.0</b>	6069	1885	683	105	0
<b>-15.0</b>	5885	1845	674	104	0
<b>-17.0</b>	5677	1799	662	102	0
<b>-19.5</b>	5382	1735	646	100	0
<b>-22.5</b>	4990	1647	623	97	0
<b>-25.5</b>	4560	1562	598	94	0
<b>-29.0</b>	3998	1454	564	90	0
<b>-33.0</b>	3368	1329	521	85	0
<b>-37.5</b>	2655	1181	475	78	0
<b>-42.5</b>	2005	1023	419	69	0
<b>-47.5</b>	1607	865	357	60	0
<b>-55.0</b>	1135	640	271	45	0
<b>-65.0</b>	643	374	163	29	0
<b>-75.0</b>	275	164	75	18	0
<b>-85.0</b>	45	29	19	6	0
<b>-90.0</b>	0	0	0	0	0

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

**LUMEN TABULATION**

Average Of Right And Left Sides

Total Luminaire Lumens (one side of beam only) = 34838.3

Total Field Lumens (one side of beam only) = 31608.76

\* 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	0.08	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.15
75	1.26	2.52	2.52	2.50	2.47	2.43	2.39	2.34	2.28	2.76
65	4.19	8.37	8.32	8.22	8.10	7.95	7.77	7.56	7.33	8.79
55	13.29	26.54	26.30	25.91	25.45	24.87	24.16	23.34	22.42	26.57
47.5	20.80 *	41.61 *	41.30 *	40.68 *	39.94 *	39.00 *	37.88 *	36.57 *	35.12 *	41.63 *
42.5	20.22 *	40.51 *	40.27 *	39.69 *	38.99 *	38.10 *	37.02 *	35.77 *	34.37 *	40.86 *
37.5	25.40 *	50.85 *	50.57 *	49.93 *	49.10 *	48.05 *	46.78 *	45.32 *	43.67 *	52.08 *
33	27.52 *	54.98 *	54.62 *	53.94 *	53.00 *	51.84 *	50.46 *	48.91 *	47.18 *	56.30 *
29	29.00 *	57.82 *	57.29 *	56.38 *	55.21 *	53.85 *	52.24 *	50.39 *	48.39 *	57.53 *
25.5	30.26 *	60.14 *	59.36 *	58.16 *	56.56 *	54.68 *	52.64 *	50.42 *	48.03 *	56.68 *
22.5	31.33 *	62.07 *	61.00 *	59.47 *	57.37 *	54.73 *	51.94 *	49.14 *	46.23 *	53.88 *
19.5	38.01 *	75.31 *	73.77 *	71.55 *	68.62 *	64.85 *	60.69 *	56.44 *	52.16 *	59.72 *
17	37.26 *	73.97 *	72.51 *	70.17 *	67.09 *	63.28 *	58.86 *	54.04 *	49.21 *	55.33 *
15	33.35 *	66.28 *	65.04 *	62.97 *	60.23 *	56.90 *	52.94 *	48.48 *	43.83 *	48.64 *
13	36.23 *	72.03 *	70.64 *	68.50 *	65.68 *	62.16 *	57.95 *	53.19 *	48.05 *	52.89 *
11	38.75 *	77.07 *	75.66 *	73.50 *	70.61 *	66.92 *	62.51 *	57.50 *	52.05 *	57.09 *
9	40.93 *	81.44 *	80.04 *	77.84 *	74.89 *	71.05 *	66.43 *	61.24 *	55.56 *	60.92 *
7	42.75 *	85.06 *	83.66 *	81.46 *	78.40 *	74.40 *	69.67 *	64.36 *	58.49 *	64.28 *
5	44.23 *	87.95 *	86.52 *	84.28 *	81.07 *	77.02 *	72.27 *	66.84 *	60.83 *	66.98 *
3	45.23 *	89.96 *	88.60 *	86.34 *	83.11 *	79.04 *	74.21 *	68.70 *	62.59 *	68.96 *
1	45.68 *	91.00 *	89.89 *	87.71 *	84.42 *	80.25 *	75.35 *	69.84 *	63.69 *	70.17 *
0	22.89 *	45.66 *	45.19 *	44.10 *	42.40 *	40.28 *	37.81 *	35.08 *	32.03 *	35.33 *
-1	22.89 *	45.66 *	45.19 *	44.10 *	42.40 *	40.28 *	37.81 *	35.08 *	32.03 *	35.33 *
	45.68 *	91.00 *	89.89 *	87.71 *	84.42 *	80.25 *	75.35 *	69.84 *	63.69 *	70.17 *

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

**LUMENS TABULATION - (Cont.)**

<b>-3</b>	45.23 *	89.96 *	88.60 *	86.34 *	83.11 *	79.04 *	74.21 *	68.70 *	62.59 *	68.96 *
<b>-5</b>	44.23 *	87.95 *	86.52 *	84.28 *	81.07 *	77.02 *	72.27 *	66.84 *	60.83 *	66.98 *
<b>-7</b>	42.75 *	85.06 *	83.66 *	81.46 *	78.40 *	74.40 *	69.67 *	64.36 *	58.49 *	64.28 *
<b>-9</b>	40.93 *	81.44 *	80.04 *	77.84 *	74.89 *	71.05 *	66.43 *	61.24 *	55.56 *	60.92 *
<b>-11</b>	38.75 *	77.07 *	75.66 *	73.50 *	70.61 *	66.92 *	62.51 *	57.50 *	52.05 *	57.09 *
<b>-13</b>	36.23 *	72.03 *	70.64 *	68.50 *	65.68 *	62.16 *	57.95 *	53.19 *	48.05 *	52.89 *
<b>-15</b>	33.35 *	66.28 *	65.04 *	62.97 *	60.23 *	56.90 *	52.94 *	48.48 *	43.83 *	48.64 *
<b>-17</b>	37.26 *	73.97 *	72.51 *	70.17 *	67.09 *	63.28 *	58.86 *	54.04 *	49.21 *	55.33 *
<b>-19.5</b>	38.01 *	75.31 *	73.77 *	71.55 *	68.62 *	64.85 *	60.69 *	56.44 *	52.16 *	59.72 *
<b>-22.5</b>	31.33 *	62.07 *	61.00 *	59.47 *	57.37 *	54.73 *	51.94 *	49.14 *	46.23 *	53.88 *
<b>-25.5</b>	30.26 *	60.14 *	59.36 *	58.16 *	56.56 *	54.68 *	52.64 *	50.42 *	48.03 *	56.68 *
<b>-29</b>	29.00 *	57.82 *	57.29 *	56.38 *	55.21 *	53.85 *	52.24 *	50.39 *	48.39 *	57.53 *
<b>-33</b>	27.52 *	54.98 *	54.62 *	53.94 *	53.00 *	51.84 *	50.46 *	48.91 *	47.18 *	56.30 *
<b>-37.5</b>	25.40 *	50.85 *	50.57 *	49.93 *	49.10 *	48.05 *	46.78 *	45.32 *	43.67 *	52.08 *
<b>-42.5</b>	20.22 *	40.51 *	40.27 *	39.69 *	38.99 *	38.10 *	37.02 *	35.77 *	34.37 *	40.86 *
<b>-47.5</b>	20.80 *	41.61 *	41.30 *	40.68 *	39.94 *	39.00 *	37.88 *	36.57 *	35.12 *	41.63 *
<b>-55</b>	13.29	26.54	26.30	25.91	25.45	24.87	24.16	23.34	22.42	26.57
<b>-65</b>	4.19	8.37	8.32	8.22	8.10	7.95	7.77	7.56	7.33	8.79
<b>-75</b>	1.26	2.52	2.52	2.50	2.47	2.43	2.39	2.34	2.28	2.76
<b>-85</b>	0.08	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.15	0.19
<b>-90</b>										
<b>Total</b>	1257.37	2502.59	2466.43	2406.91	2325.74	2223.6	2104.34	1971.24	1827.33	2075.11

**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>	0.21	0.20	0.22	0.23	0.23	0.22	0.18	0.19	0.14	0.06
<b>85</b>	3.15	2.97	3.22	3.32	3.27	3.06	2.46	2.65	1.95	0.75
<b>75</b>	9.93	9.24	9.89	10.12	9.85	9.08	7.20	7.66	5.54	2.02
<b>65</b>	29.54	26.79	27.55	26.53	23.79	19.94	14.80	15.19	10.62	3.77
<b>55</b>	46.31	41.99	43.15	41.42	36.92	30.04	20.51	18.84	12.11	4.16

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

<b>47.5</b>											
	45.69 *	41.71 *	43.34 *	42.25 *	38.31	31.70	21.45	18.19	10.46	3.46	
<b>42.5</b>	58.49 *	53.66 *	56.01 *	55.00 *	50.31 *	42.22	29.36	24.70	13.05	4.03	
<b>37.5</b>	63.32 *	58.32 *	61.24 *	60.44 *	55.62 *	47.16 *	33.29	28.46	14.60	4.10	
<b>33</b>	64.48 *	59.30 *	62.49 *	62.09 *	57.42 *	48.99 *	34.86 *	30.27	15.44	4.02	
<b>29</b>	63.04 *	57.60 *	60.42 *	60.16 *	56.04 *	48.07 *	34.41 *	30.26	15.41	3.80	
<b>25.5</b>	59.33 *	53.81 *	56.05 *	55.53 *	51.97 *	44.86 *	32.22 *	28.62	14.56	3.46	
<b>22.5</b>	64.74 *	58.10 *	60.07 *	59.10 *	55.23 *	47.91 *	34.56 *	30.91	15.69	3.63	
<b>19.5</b>	58.71 *	51.81 *	53.04 *	51.85 *	48.27 *	41.96 *	30.43 *	27.34 *	13.87	3.15	
<b>17</b>	50.62 *	43.81 *	44.34 *	43.09 *	39.97 *	34.76 *	25.31 *	22.79 *	11.57	2.59	
<b>15</b>	54.16 *	46.03 *	46.00 *	44.41 *	41.04 *	35.71 *	26.05 *	23.49 *	11.93	2.65	
<b>13</b>	57.62 *	48.11 *	47.52 *	45.59 *	42.00 *	36.54 *	26.69 *	24.11 *	12.25	2.69	
<b>11</b>	61.03 *	50.20 *	48.93 *	46.63 *	42.84 *	37.24 *	27.24 *	24.63 *	12.52	2.74	
<b>9</b>	64.22 *	52.23 *	50.26 *	47.53 *	43.54 *	37.82 *	27.68 *	25.06 *	12.74	2.77	
<b>7</b>	66.82 *	53.93 *	51.42 *	48.31 *	44.10 *	38.27 *	28.03 *	25.40 *	12.91	2.79	
<b>5</b>	68.74 *	55.24 *	52.34 *	48.90 *	44.50 *	38.63 *	28.33 *	25.70 *	13.07	2.82	
<b>3</b>	69.97 *	56.12 *	52.96 *	49.32 *	44.77 *	38.82 *	28.47 *	25.85 *	13.15	2.82	
<b>1</b>	35.26 *	28.26 *	26.62 *	24.77 *	22.45 *	19.42 *	14.22 *	12.92 *	6.58	1.41	
<b>0</b>	35.26 *	28.26 *	26.62 *	24.77 *	22.45 *	19.42 *	14.22 *	12.92 *	6.58	1.41	
<b>-1</b>	69.97 *	56.12 *	52.96 *	49.32 *	44.77 *	38.82 *	28.47 *	25.85 *	13.15	2.82	
<b>-3</b>	68.74 *	55.24 *	52.34 *	48.90 *	44.50 *	38.63 *	28.33 *	25.70 *	13.07	2.82	
<b>-5</b>	66.82 *	53.93 *	51.42 *	48.31 *	44.10 *	38.27 *	28.03 *	25.40 *	12.91	2.79	
<b>-7</b>	64.22 *	52.23 *	50.26 *	47.53 *	43.54 *	37.82 *	27.68 *	25.06 *	12.74	2.77	
<b>-9</b>	61.03 *	50.20 *	48.93 *	46.63 *	42.84 *	37.24 *	27.24 *	24.63 *	12.52	2.74	
<b>-11</b>	57.62 *	48.11 *	47.52 *	45.59 *	42.00 *	36.54 *	26.69 *	24.11 *	12.25	2.69	
<b>-13</b>	54.16 *	46.03 *	46.00 *	44.41 *	41.04 *	35.71 *	26.05 *	23.49 *	11.93	2.65	
<b>-15</b>	50.62 *	43.81 *	44.34 *	43.09 *	39.97 *	34.76 *	25.31 *	22.79 *	11.57	2.59	
<b>-17</b>	58.71 *	51.81 *	53.04 *	51.85 *	48.27 *	41.96 *	30.43 *	27.34 *	13.87	3.15	
<b>-19.5</b>	64.74 *	58.10 *	60.07 *	59.10 *	55.23 *	47.91 *	34.56 *	30.91	15.69	3.63	

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

<b>-22.5</b>	59.33 *	53.81 *	56.05 *	55.53 *	51.97 *	44.86 *	32.22 *	28.62	14.56	3.46
<b>-25.5</b>	63.04 *	57.60 *	60.42 *	60.16 *	56.04 *	48.07 *	34.41 *	30.26	15.41	3.80
<b>-29</b>	64.48 *	59.30 *	62.49 *	62.09 *	57.42 *	48.99 *	34.86 *	30.27	15.44	4.02
<b>-33</b>	63.32 *	58.32 *	61.24 *	60.44 *	55.62 *	47.16 *	33.29	28.46	14.60	4.10
<b>-37.5</b>	58.49 *	53.66 *	56.01 *	55.00 *	50.31 *	42.22	29.36	24.70	13.05	4.03
<b>-42.5</b>	45.69 *	41.71 *	43.34 *	42.25 *	38.31	31.70	21.45	18.19	10.46	3.46
<b>-47.5</b>	46.31	41.99	43.15	41.42	36.92	30.04	20.51	18.84	12.11	4.16
<b>-55</b>	29.54	26.79	27.55	26.53	23.79	19.94	14.80	15.19	10.62	3.77
<b>-65</b>	9.93	9.24	9.89	10.12	9.85	9.08	7.20	7.66	5.54	2.02
<b>-75</b>	3.15	2.97	3.22	3.32	3.27	3.06	2.46	2.65	1.95	0.75
<b>-85</b>	0.21	0.20	0.22	0.23	0.23	0.22	0.18	0.19	0.14	0.06
<b>-90</b>										
<b>Total</b>	2190.79	1898.86	1914.18	1853.17	1704.85	1464.83	1055.51	946.51	500.28	127.40

Vert. Angles	Horizontal Angles			
	<u>75</u>	<u>85</u>	<u>90</u>	<u>Total</u>
<b>90</b>				
	0.02	0.00		3.47
<b>85</b>				
	0.16	0.00		50.41
<b>75</b>				
	0.38	0.01		157.52
<b>65</b>				
	0.67	0.01		438.05
<b>55</b>				
	0.73	0.01		670.70
<b>47.5</b>				
	0.60	0.01		662.96
<b>42.5</b>				
	0.69	0.01		849.29
<b>37.5</b>				
	0.69	0.01		926.01
<b>33</b>				
	0.67	0.01		958.15
<b>29</b>				
	0.62	0.01		956.79
<b>25.5</b>				
	0.56	0.01		928.13
<b>22.5</b>				
	0.58	0.01		1051.65
<b>19.5</b>				
	0.50	0.01		982.67
<b>17</b>				
	0.41	0.01		857.90

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

**LUMENS TABULATION - (Cont.)**

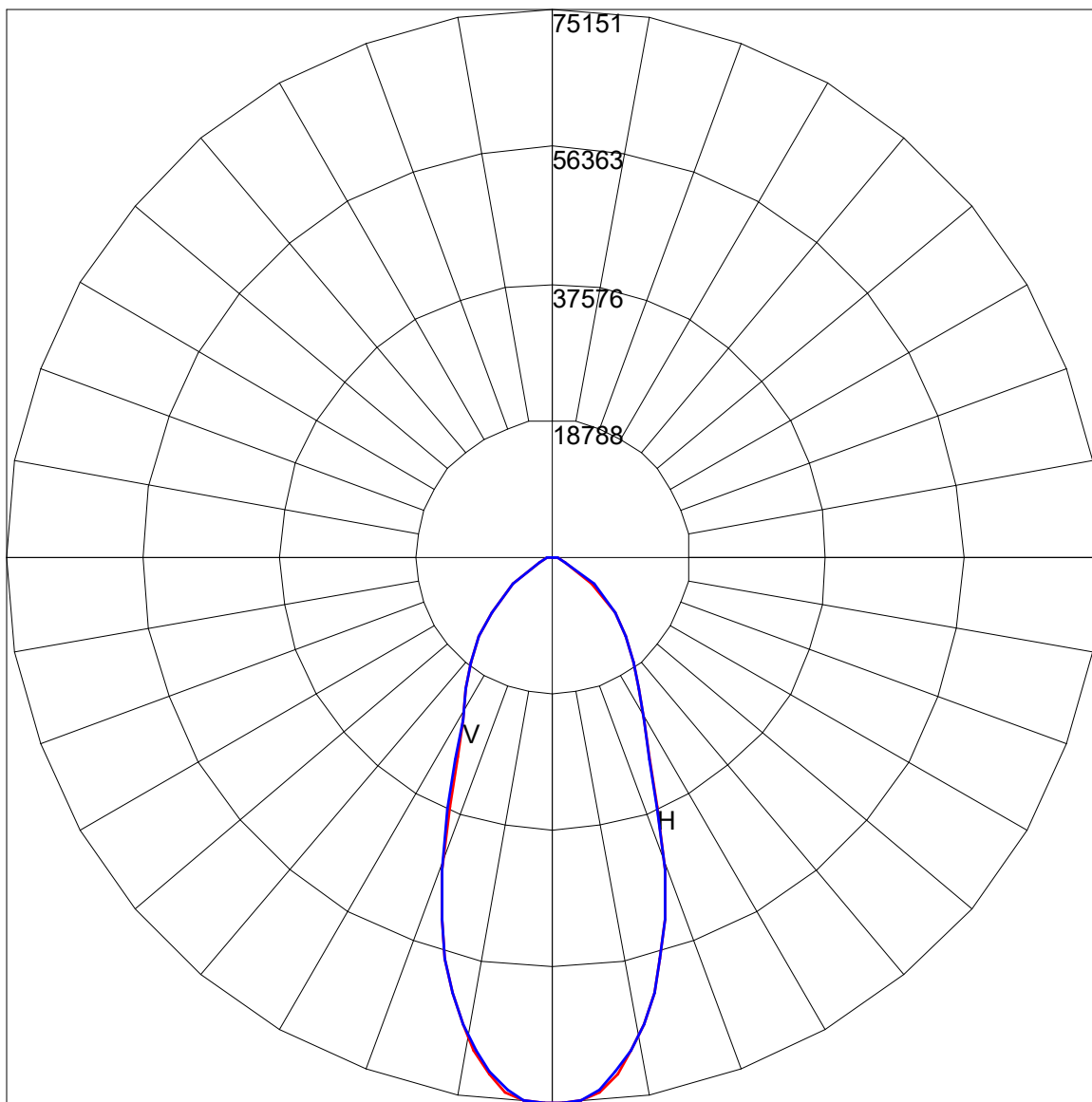
<b>15</b>	0.41	0.01	919.21
<b>13</b>	0.42	0.01	975.22
<b>11</b>	0.42	0.01	1024.75
<b>9</b>	0.43	0.01	1066.81
<b>7</b>	0.43	0.01	1100.42
<b>5</b>	0.43	0.01	1125.46
<b>3</b>	0.43	0.01	1140.69
<b>1</b>	0.22	0.00	572.89
<b>0</b>	0.22	0.00	572.89
<b>-1</b>	0.43	0.01	1140.69
<b>-3</b>	0.43	0.01	1125.46
<b>-5</b>	0.43	0.01	1100.42
<b>-7</b>	0.43	0.01	1066.81
<b>-9</b>	0.42	0.01	1024.75
<b>-11</b>	0.42	0.01	975.22
<b>-13</b>	0.41	0.01	919.21
<b>-15</b>	0.41	0.01	857.90
<b>-17</b>	0.50	0.01	982.67
<b>-19.5</b>	0.58	0.01	1051.65
<b>-22.5</b>	0.56	0.01	928.13
<b>-25.5</b>	0.62	0.01	956.79
<b>-29</b>	0.67	0.01	958.15
<b>-33</b>	0.69	0.01	926.01
<b>-37.5</b>	0.69	0.01	849.29
<b>-42.5</b>	0.60	0.01	662.96
<b>-47.5</b>	0.73	0.01	670.70
<b>-55</b>	0.67	0.01	438.05
<b>-65</b>	0.38	0.01	157.52

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

**LUMENS TABULATION - (Cont.)**

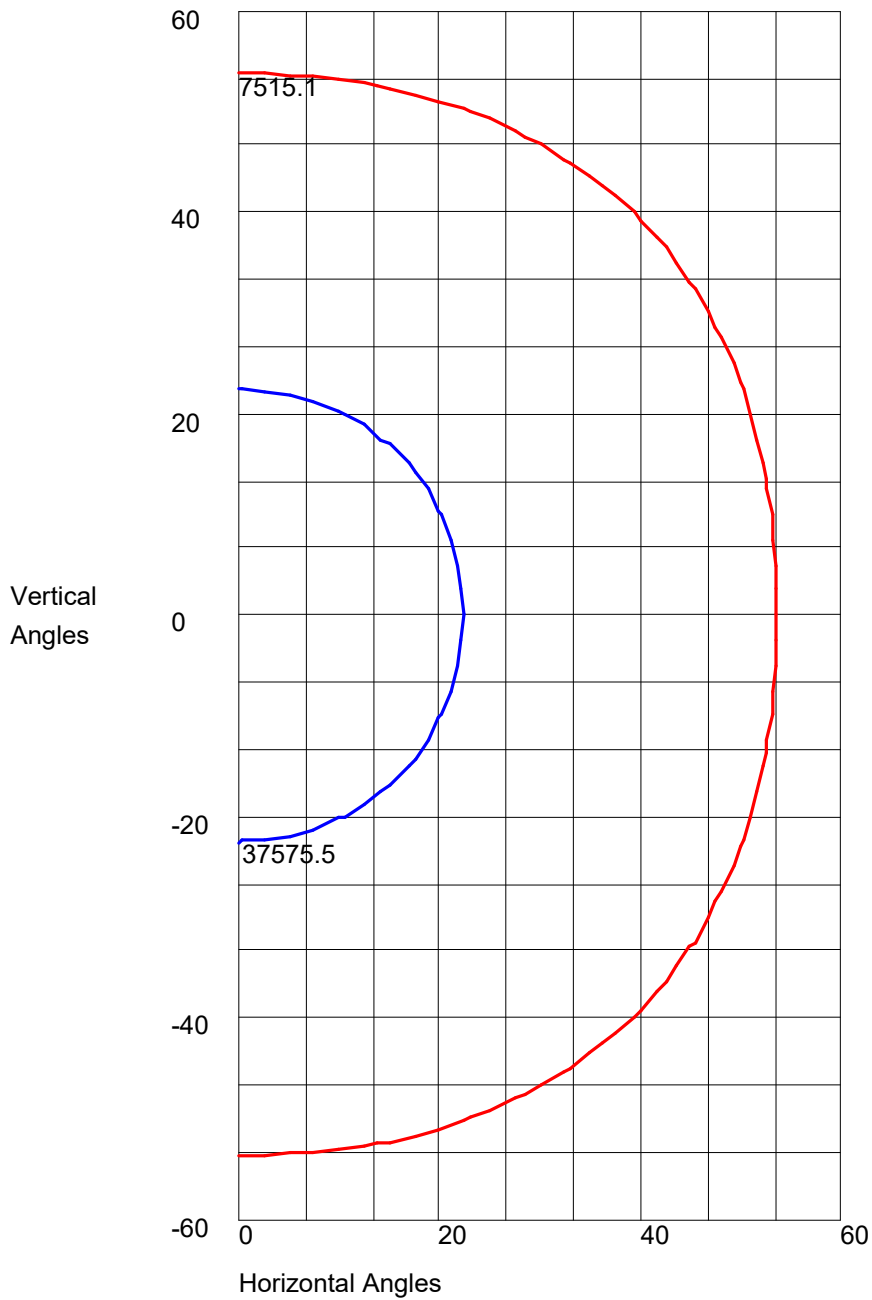
<b>-75</b>	0.16	0.00	50.41
<b>-85</b>	0.02	0.00	3.47
<b>-90</b>			
<b>Total</b>	20.91	0.37	34838.33

AXIAL CANDELA DISPLAY



Maximum Candela = 75151 Located At Horizontal Angle = 0, Vertical Angle = -1  
H - Horizontal Axial Candela  
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 75151 Located At Horizontal Angle = 0, Vertical Angle = -1  
50% Maximum Candela = 37575.5  
10% Maximum Candela = 7515.1