



## IES FLOOD REPORT

PHOTOMETRIC FILENAME : ZNF-70L-MF-40.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-40  
[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] 4000

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

### CHARACTERISTICS

NEMA Type	4 H x 4 V
Maximum Candela	169900
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	33026
Beam Efficiency	N.A.
Field Lumens	55509
Field Efficiency	N.A.
Spill Lumens	13605
Luminaire Lumens	69114
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	70	85	70
75	376	75	377
65	905	65	894
55	2090	55	2096
47.5	3296	47.5	3343
42.5	5031	42.5	5103
37.5	8415	37.5	8470
33	12849	33	12776
29	18767	29	18755
25.5	28364	25.5	28296
22.5	40247	22.5	40680
19.5	57139	19.5	57989
17	77451	17	78429
15	98177	15	98754
13	117761	13	118185
11	134561	11	134506
9	147755	9	147452
7	157630	7	157349
5	165588	5	165119
3	168958	3	168957
1	169853	1	169900
0	169888	0	169888
-1	169853	-1	169900
-3	168958	-3	168957
-5	165588	-5	165119
-7	157630	-7	157349
-9	147755	-9	147452
-11	134561	-11	134506
-13	117761	-13	118185
-15	98177	-15	98754
-17	77451	-17	78429
-19.5	57139	-19.5	57989
-22.5	40247	-22.5	40680
-25.5	28364	-25.5	28296
-29	18767	-29	18755
-33	12849	-33	12776
-37.5	8415	-37.5	8470
-42.5	5031	-42.5	5103
-47.5	3296	-47.5	3343
-55	2090	-55	2096
-65	905	-65	894
-75	376	-75	377
-85	70	-85	70
-90	0	-90	0

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**CANDELA TABULATION**

Maximum Candela = 169900

Beam Edge = 84950 Cd (50% of Max.)

Field Edge = 16990 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	5	13	22	31	41	47	52	56	60
<b>75.0</b>	0	13	52	104	163	207	236	264	288	310
<b>65.0</b>	0	22	105	219	342	432	496	568	636	687
<b>55.0</b>	0	32	165	346	551	753	908	1075	1240	1399
<b>47.5</b>	0	42	209	440	755	1072	1363	1699	1946	2253
<b>42.5</b>	0	47	240	505	903	1382	1736	2178	2638	2953
<b>37.5</b>	0	52	269	574	1071	1670	2175	2772	3243	3805
<b>33.0</b>	0	56	293	638	1248	1935	2638	3244	4014	5025
<b>29.0</b>	0	59	311	692	1392	2249	2952	3787	5007	6549
<b>25.5</b>	0	62	325	739	1513	2510	3237	4384	6082	8168
<b>22.5</b>	0	64	336	771	1611	2670	3495	4964	7135	9757
<b>19.5</b>	0	65	346	804	1713	2809	3797	5628	8237	11330
<b>17.0</b>	0	67	353	828	1797	2917	4025	6165	9201	12602
<b>15.0</b>	0	67	358	844	1857	3006	4245	6551	9910	13576
<b>13.0</b>	0	68	362	859	1912	3082	4454	7001	10533	14606
<b>11.0</b>	0	70	366	872	1960	3147	4631	7390	11122	15492
<b>9.0</b>	0	70	369	882	2002	3199	4780	7725	11659	16228
<b>7.0</b>	0	70	372	891	2037	3240	4898	8001	12111	17019 *
<b>5.0</b>	0	70	376	898	2061	3269	4985	8216	12457	17776 *
<b>3.0</b>	0	70	376	905	2086	3302	5065	8356	12694	18290 *
<b>1.0</b>	0	70	376	905	2089	3298	5042	8422	12826	18668 *
<b>0.0</b>	0	70	376	905	2090	3296	5031	8415	12849	18767 *
<b>-1.0</b>	0	70	376	905	2089	3298	5042	8422	12826	18668 *
<b>-3.0</b>	0	70	376	905	2086	3302	5065	8356	12694	18290 *
<b>-5.0</b>	0	70	376	898	2061	3269	4985	8216	12457	17776 *
<b>-7.0</b>	0	70	372	891	2037	3240	4898	8001	12111	17019 *
<b>-9.0</b>	0	70	369	882	2002	3199	4780	7725	11659	16228
<b>-11.0</b>	0	70	366	872	1960	3147	4631	7390	11122	15492
<b>-13.0</b>	0	68	362	859	1912	3082	4454	7001	10533	14606
<b>-15.0</b>	0	67	358	844	1857	3006	4245	6551	9910	13576
<b>-17.0</b>	0	67	353	828	1797	2917	4025	6165	9201	12602
<b>-19.5</b>	0	65	346	804	1713	2809	3797	5628	8237	11330
<b>-22.5</b>	0	64	336	771	1611	2670	3495	4964	7135	9757
<b>-25.5</b>	0	62	325	739	1513	2510	3237	4384	6082	8168
<b>-29.0</b>	0	59	311	692	1392	2249	2952	3787	5007	6549
<b>-33.0</b>	0	56	293	638	1248	1935	2638	3244	4014	5025
<b>-37.5</b>	0	52	269	574	1071	1670	2175	2772	3243	3805
<b>-42.5</b>	0	47	240	505	903	1382	1736	2178	2638	2953
<b>-47.5</b>	0	42	209	440	755	1072	1363	1699	1946	2253
<b>-55.0</b>	0	32	165	346	551	753	908	1075	1240	1399
<b>-65.0</b>	0	22	105	219	342	432	496	568	636	687
<b>-75.0</b>	0	13	52	104	163	207	236	264	288	310
<b>-85.0</b>	0	5	13	22	31	41	47	52	56	60
<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	63	65	67	68	69	70	72	73	73	73
75.0	328	340	349	355	359	362	366	369	371	375
65.0	731	762	798	824	843	859	871	882	890	896
55.0	1519	1608	1694	1771	1830	1884	1935	1980	2018	2049
47.5	2523	2694	2847	2954	3036	3108	3170	3230	3278	3314
42.5	3257	3525	3819	4034	4254	4469	4653	4810	4942	5045
37.5	4408	4995	5661	6193	6576	7022	7408	7732	8006	8218
33.0	6115	7167	8245	9214	9971	10630	11213	11720	12136	12444
29.0	8200	9712	11275	12602	13599	14671	15549	16264	17021 *	17776 *
25.5	10294	12227	14345	16103	18035 *	20067 *	21831 *	23716 *	25341 *	26661 *
22.5	12285	14740	17739 *	20969 *	24107 *	27390 *	30414 *	33545 *	35989 *	37855 *
19.5	14418	17822 *	22429 *	27664 *	32199 *	36906 *	41435 *	46253 *	49942 *	52699 *
17.0	16246	21072 *	27737 *	34461 *	40147 *	46591 *	52606 *	59985 *	66330 *	71263 *
15.0	18101 *	24114 *	32304 *	40277 *	47611 *	55297 *	64880 *	73479 *	82795 *	90450 *
13.0	19999 *	27278 *	37053 *	46831 *	55419 *	66537 *	78352 *	90543 *	100881 *	109085 *
11.0	21594 *	30160 *	41492 *	52774 *	64865 *	78240 *	93641 *	106861 *	118081 *	126012 *
9.0	23514 *	33265 *	46066 *	59810 *	73194 *	90436 *	106684 *	121829 *	132040 *	139990 *
7.0	25193 *	35783 *	49869 *	66041 *	82595 *	100873 *	117772 *	131784 *	143463 *	149964 *
5.0	26627 *	37825 *	52837 *	70922 *	90086 *	109186 *	126325 *	140237 *	149886 *	157720 *
3.0	27655 *	39260 *	55353 *	74765 *	95547 *	115400 *	132312 *	145416 *	155048 *	162203 *
1.0	28245 *	40156 *	56818 *	77085 *	98862 *	118128 *	134481 *	147468 *	157524 *	165792 *
0.0	28364 *	40247 *	57139 *	77451 *	98177 *	117761 *	134561 *	147755 *	157630 *	165588 *
-1.0	28245 *	40156 *	56818 *	77085 *	98862 *	118128 *	134481 *	147468 *	157524 *	165792 *
-3.0	27655 *	39260 *	55353 *	74765 *	95547 *	115400 *	132312 *	145416 *	155048 *	162203 *
-5.0	26627 *	37825 *	52837 *	70922 *	90086 *	109186 *	126325 *	140237 *	149886 *	157720 *
-7.0	25193 *	35783 *	49869 *	66041 *	82595 *	100873 *	117772 *	131784 *	143463 *	149964 *
-9.0	23514 *	33265 *	46066 *	59810 *	73194 *	90436 *	106684 *	121829 *	132040 *	139990 *
-11.0	21594 *	30160 *	41492 *	52774 *	64865 *	78240 *	93641 *	106861 *	118081 *	126012 *
-13.0	19999 *	27278 *	37053 *	46831 *	55419 *	66537 *	78352 *	90543 *	100881 *	109085 *
-15.0	18101 *	24114 *	32304 *	40277 *	47611 *	55297 *	64880 *	73479 *	82795 *	90450 *
-17.0	16246	21072 *	27737 *	34461 *	40147 *	46591 *	52606 *	59985 *	66330 *	71263 *
-19.5	14418	17822 *	22429 *	27664 *	32199 *	36906 *	41435 *	46253 *	49942 *	52699 *
-22.5	12285	14740	17739 *	20969 *	24107 *	27390 *	30414 *	33545 *	35989 *	37855 *
-25.5	10294	12227	14345	16103	18035 *	20067 *	21831 *	23716 *	25341 *	26661 *
-29.0	8200	9712	11275	12602	13599	14671	15549	16264	17021 *	17776 *
-33.0	6115	7167	8245	9214	9971	10630	11213	11720	12136	12444
-37.5	4408	4995	5661	6193	6576	7022	7408	7732	8006	8218
-42.5	3257	3525	3819	4034	4254	4469	4653	4810	4942	5045
-47.5	2523	2694	2847	2954	3036	3108	3170	3230	3278	3314
-55.0	1519	1608	1694	1771	1830	1884	1935	1980	2018	2049
-65.0	731	762	798	824	843	859	871	882	890	896
-75.0	328	340	349	355	359	362	366	369	371	375
-85.0	63	65	67	68	69	70	72	73	73	73
-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	72	71	70	71	72	73	73	73	72	70
75.0	376	377	377	377	376	375	371	369	366	362
65.0	900	896	894	896	900	896	890	882	871	859

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

55.0	2082	2091	2096	2091	2082	2049	2018	1980	1935	1884
47.5	3351	3346	3343	3346	3351	3314	3278	3230	3170	3108
42.5	5147	5118	5103	5118	5147	5045	4942	4810	4653	4469
37.5	8364	8460	8470	8460	8364	8218	8006	7732	7408	7022
33.0	12638	12756	12776	12756	12638	12444	12136	11720	11213	10630
29.0	18287 *	18650 *	18755 *	18650 *	18287 *	17776 *	17021 *	16264	15549	14671
25.5	27549 *	28124 *	28296 *	28124 *	27549 *	26661 *	25341 *	23716 *	21831 *	20067 *
22.5	39116 *	40237 *	40680 *	40237 *	39116 *	37855 *	35989 *	33545 *	30414 *	27390 *
19.5	55539 *	57398 *	57989 *	57398 *	55539 *	52699 *	49942 *	46253 *	41435 *	36906 *
17.0	75385 *	77837 *	78429 *	77837 *	75385 *	71263 *	66330 *	59985 *	52606 *	46591 *
15.0	95667 *	98380 *	98754 *	98380 *	95667 *	90450 *	82795 *	73479 *	64880 *	55297 *
13.0	115013 *	117805 *	118185 *	117805 *	115013 *	109085 *	100881 *	90543 *	78352 *	66537 *
11.0	131591 *	134489 *	134506 *	134489 *	131591 *	126012 *	118081 *	106861 *	93641 *	78240 *
9.0	144968 *	147565 *	147452 *	147565 *	144968 *	139990 *	132040 *	121829 *	106684 *	90436 *
7.0	154999 *	157420 *	157349 *	157420 *	154999 *	149964 *	143463 *	131784 *	117772 *	100873 *
5.0	162274 *	165397 *	165119 *	165397 *	162274 *	157720 *	149886 *	140237 *	126325 *	109186 *
3.0	166965 *	168519 *	168957 *	168519 *	166965 *	162203 *	155048 *	145416 *	132312 *	115400 *
1.0	168709 *	169872 *	169900 *	169872 *	168709 *	165792 *	157524 *	147468 *	134481 *	118128 *
0.0	168958 *	169853 *	169888 *	169853 *	168958 *	165588 *	157630 *	147755 *	134561 *	117761 *
-1.0	168709 *	169872 *	169900 *	169872 *	168709 *	165792 *	157524 *	147468 *	134481 *	118128 *
-3.0	166965 *	168519 *	168957 *	168519 *	166965 *	162203 *	155048 *	145416 *	132312 *	115400 *
-5.0	162274 *	165397 *	165119 *	165397 *	162274 *	157720 *	149886 *	140237 *	126325 *	109186 *
-7.0	154999 *	157420 *	157349 *	157420 *	154999 *	149964 *	143463 *	131784 *	117772 *	100873 *
-9.0	144968 *	147565 *	147452 *	147565 *	144968 *	139990 *	132040 *	121829 *	106684 *	90436 *
-11.0	131591 *	134489 *	134506 *	134489 *	131591 *	126012 *	118081 *	106861 *	93641 *	78240 *
-13.0	115013 *	117805 *	118185 *	117805 *	115013 *	109085 *	100881 *	90543 *	78352 *	66537 *
-15.0	95667 *	98380 *	98754 *	98380 *	95667 *	90450 *	82795 *	73479 *	64880 *	55297 *
-17.0	75385 *	77837 *	78429 *	77837 *	75385 *	71263 *	66330 *	59985 *	52606 *	46591 *
-19.5	55539 *	57398 *	57989 *	57398 *	55539 *	52699 *	49942 *	46253 *	41435 *	36906 *
-22.5	39116 *	40237 *	40680 *	40237 *	39116 *	37855 *	35989 *	33545 *	30414 *	27390 *
-25.5	27549 *	28124 *	28296 *	28124 *	27549 *	26661 *	25341 *	23716 *	21831 *	20067 *
-29.0	18287 *	18650 *	18755 *	18650 *	18287 *	17776 *	17021 *	16264	15549	14671
-33.0	12638	12756	12776	12756	12638	12444	12136	11720	11213	10630
-37.5	8364	8460	8470	8460	8364	8218	8006	7732	7408	7022
-42.5	5147	5118	5103	5118	5147	5045	4942	4810	4653	4469
-47.5	3351	3346	3343	3346	3351	3314	3278	3230	3170	3108
-55.0	2082	2091	2096	2091	2082	2049	2018	1980	1935	1884
-65.0	900	896	894	896	900	896	890	882	871	859
-75.0	376	377	377	377	376	375	371	369	366	362
-85.0	72	71	70	71	72	73	73	73	72	70
-90.0	0	0	0	0	0	0	0	0	0	0

**Vert. Horizontal 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	69	68	67	65	63	60	56	52	47	41
75.0	359	355	349	340	328	310	288	264	236	207
65.0	843	824	798	762	731	687	636	568	496	432
55.0	1830	1771	1694	1608	1519	1399	1240	1075	908	753
47.5	3036	2954	2847	2694	2523	2253	1946	1699	1363	1072
42.5	4254	4034	3819	3525	3257	2953	2638	2178	1736	1382
37.5	6576	6193	5661	4995	4408	3805	3243	2772	2175	1670
33.0	9971	9214	8245	7167	6115	5025	4014	3244	2638	1935
29.0	13599	12602	11275	9712	8200	6549	5007	3787	2952	2249
25.5	18035 *	16103	14345	12227	10294	8168	6082	4384	3237	2510

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : ZNF-70L-MF-40.IES**

**CANDELA TABULATION - (Cont.)**

22.5	24107 *	20969 *	17739 *	14740	12285	9757	7135	4964	3495	2670
19.5	32199 *	27664 *	22429 *	17822 *	14418	11330	8237	5628	3797	2809
17.0	40147 *	34461 *	27737 *	21072 *	16246	12602	9201	6165	4025	2917
15.0	47611 *	40277 *	32304 *	24114 *	18101 *	13576	9910	6551	4245	3006
13.0	55419 *	46831 *	37053 *	27278 *	19999 *	14606	10533	7001	4454	3082
11.0	64865 *	52774 *	41492 *	30160 *	21594 *	15492	11122	7390	4631	3147
9.0	73194 *	59810 *	46066 *	33265 *	23514 *	16228	11659	7725	4780	3199
7.0	82595 *	66041 *	49869 *	35783 *	25193 *	17019 *	12111	8001	4898	3240
5.0	90086 *	70922 *	52837 *	37825 *	26627 *	17776 *	12457	8216	4985	3269
3.0	95547 *	74765 *	55353 *	39260 *	27655 *	18290 *	12694	8356	5065	3302
1.0	98862 *	77085 *	56818 *	40156 *	28245 *	18668 *	12826	8422	5042	3298
0.0	98177 *	77451 *	57139 *	40247 *	28364 *	18767 *	12849	8415	5031	3296
-1.0	98862 *	77085 *	56818 *	40156 *	28245 *	18668 *	12826	8422	5042	3298
-3.0	95547 *	74765 *	55353 *	39260 *	27655 *	18290 *	12694	8356	5065	3302
-5.0	90086 *	70922 *	52837 *	37825 *	26627 *	17776 *	12457	8216	4985	3269
-7.0	82595 *	66041 *	49869 *	35783 *	25193 *	17019 *	12111	8001	4898	3240
-9.0	73194 *	59810 *	46066 *	33265 *	23514 *	16228	11659	7725	4780	3199
-11.0	64865 *	52774 *	41492 *	30160 *	21594 *	15492	11122	7390	4631	3147
-13.0	55419 *	46831 *	37053 *	27278 *	19999 *	14606	10533	7001	4454	3082
-15.0	47611 *	40277 *	32304 *	24114 *	18101 *	13576	9910	6551	4245	3006
-17.0	40147 *	34461 *	27737 *	21072 *	16246	12602	9201	6165	4025	2917
-19.5	32199 *	27664 *	22429 *	17822 *	14418	11330	8237	5628	3797	2809
-22.5	24107 *	20969 *	17739 *	14740	12285	9757	7135	4964	3495	2670
-25.5	18035 *	16103	14345	12227	10294	8168	6082	4384	3237	2510
-29.0	13599	12602	11275	9712	8200	6549	5007	3787	2952	2249
-33.0	9971	9214	8245	7167	6115	5025	4014	3244	2638	1935
-37.5	6576	6193	5661	4995	4408	3805	3243	2772	2175	1670
-42.5	4254	4034	3819	3525	3257	2953	2638	2178	1736	1382
-47.5	3036	2954	2847	2694	2523	2253	1946	1699	1363	1072
-55.0	1830	1771	1694	1608	1519	1399	1240	1075	908	753
-65.0	843	824	798	762	731	687	636	568	496	432
-75.0	359	355	349	340	328	310	288	264	236	207
-85.0	69	68	67	65	63	60	56	52	47	41
-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	31	22	13	5	0
75.0	163	104	52	13	0
65.0	342	219	105	22	0
55.0	551	346	165	32	0
47.5	755	440	209	42	0
42.5	903	505	240	47	0
37.5	1071	574	269	52	0
33.0	1248	638	293	56	0
29.0	1392	692	311	59	0
25.5	1513	739	325	62	0
22.5	1611	771	336	64	0
19.5	1713	804	346	65	0
17.0	1797	828	353	67	0
15.0	1857	844	358	67	0
13.0	1912	859	362	68	0
11.0	1960	872	366	70	0
9.0	2002	882	369	70	0

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : ZNF-70L-MF-40.IES**

**CANDELA TABULATION - (Cont.)**

<b>7.0</b>	2037	891	372	70	0
<b>5.0</b>	2061	898	376	70	0
<b>3.0</b>	2086	905	376	70	0
<b>1.0</b>	2089	905	376	70	0
<b>0.0</b>	2090	905	376	70	0
<b>-1.0</b>	2089	905	376	70	0
<b>-3.0</b>	2086	905	376	70	0
<b>-5.0</b>	2061	898	376	70	0
<b>-7.0</b>	2037	891	372	70	0
<b>-9.0</b>	2002	882	369	70	0
<b>-11.0</b>	1960	872	366	70	0
<b>-13.0</b>	1912	859	362	68	0
<b>-15.0</b>	1857	844	358	67	0
<b>-17.0</b>	1797	828	353	67	0
<b>-19.5</b>	1713	804	346	65	0
<b>-22.5</b>	1611	771	336	64	0
<b>-25.5</b>	1513	739	325	62	0
<b>-29.0</b>	1392	692	311	59	0
<b>-33.0</b>	1248	638	293	56	0
<b>-37.5</b>	1071	574	269	52	0
<b>-42.5</b>	903	505	240	47	0
<b>-47.5</b>	755	440	209	42	0
<b>-55.0</b>	551	346	165	32	0
<b>-65.0</b>	342	219	105	22	0
<b>-75.0</b>	163	104	52	13	0
<b>-85.0</b>	31	22	13	5	0
<b>-90.0</b>	0	0	0	0	0

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : ZNF-70L-MF-40.IES**

**LUMEN TABULATION**

Average Of Right And Left Sides

Total Luminaire Lumens (one side of beam only) = 34557.15

Total Field Lumens (one side of beam only) = 27754.69

\* 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	0.05	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10
75	0.68	1.36	1.36	1.35	1.34	1.32	1.30	1.27	1.25	1.52
65	1.94	3.88	3.87	3.84	3.79	3.73	3.66	3.58	3.49	4.21
55	4.55	9.09	9.00	8.87	8.70	8.50	8.27	8.00	7.71	9.20
47.5	6.21	12.41	12.30	12.11	11.88	11.60	11.28	10.93	10.53	12.56
42.5	6.44	12.91	12.81	12.56	12.26	11.90	11.47	10.99	10.45	12.34
37.5	10.34	20.62	20.34	19.85	19.22	18.45	17.54	16.49	15.41	17.81
33	14.55	28.92	28.49	27.81	26.87	25.70	24.32	22.74	21.05	23.85
29	19.17	37.95	37.16	35.97	34.47	32.84	31.02	28.89	26.58	29.89
25.5	25.01 *	49.34 *	48.00 *	46.02 *	43.47 *	40.61 *	37.60 *	34.33	30.92	34.38
22.5	31.37 *	61.66 *	59.79 *	57.18 *	53.66 *	49.27 *	44.56 *	39.72 *	34.79 *	37.51 *
19.5	44.85 *	87.80 *	84.42 *	80.19 *	74.99 *	68.24 *	60.85 *	53.47 *	46.09 *	48.16 *
17	51.72 *	101.28 *	96.81 *	90.97 *	83.90 *	75.10 *	66.12 *	57.58 *	49.22 *	50.75 *
15	53.82 *	105.71 *	101.11 *	94.16 *	85.24 *	75.28 *	65.36 *	56.05 *	47.58 *	48.73 *
13	65.97 *	129.94 *	124.65 *	116.09 *	104.88 *	92.17 *	78.98 *	66.46 *	55.67 *	56.58 *
11	76.91 *	151.87 *	146.37 *	137.55 *	125.59 *	110.81 *	94.38 *	78.34 *	64.38 *	64.42 *
9	85.90 *	170.05 *	164.86 *	156.35 *	144.43 *	128.69 *	109.94 *	90.66 *	73.39 *	72.37 *
7	92.87 *	184.16 *	179.25 *	171.30 *	159.60 *	143.41 *	123.88 *	102.59 *	82.46 *	80.20 *
5	98.28 *	194.85 *	189.90 *	182.07 *	170.54 *	154.82 *	135.31 *	113.12 *	90.66 *	86.66 *
3	101.74 *	201.88 *	197.25 *	189.29 *	178.14 *	163.27 *	143.97 *	121.24 *	97.01 *	91.80 *
1	103.15 *	205.20 *	201.66 *	194.05 *	182.63 *	167.89 *	149.07 *	126.48 *	101.39 *	95.47 *
0	51.75 *	103.10 *	101.65 *	97.93 *	92.06 *	84.63 *	75.22 *	63.98 *	51.47 *	48.54 *
-1	51.75 *	103.10 *	101.65 *	97.93 *	92.06 *	84.63 *	75.22 *	63.98 *	51.47 *	48.54 *
	103.15 *	205.20 *	201.66 *	194.05 *	182.63 *	167.89 *	149.07 *	126.48 *	101.39 *	95.47 *

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : ZNF-70L-MF-40.IES**

**LUMENS TABULATION - (Cont.)**

<b>-3</b>	101.74 *	201.88 *	197.25 *	189.29 *	178.14 *	163.27 *	143.97 *	121.24 *	97.01 *	91.80 *
<b>-5</b>	98.28 *	194.85 *	189.90 *	182.07 *	170.54 *	154.82 *	135.31 *	113.12 *	90.66 *	86.66 *
<b>-7</b>	92.87 *	184.16 *	179.25 *	171.30 *	159.60 *	143.41 *	123.88 *	102.59 *	82.46 *	80.20 *
<b>-9</b>	85.90 *	170.05 *	164.86 *	156.35 *	144.43 *	128.69 *	109.94 *	90.66 *	73.39 *	72.37 *
<b>-11</b>	76.91 *	151.87 *	146.37 *	137.55 *	125.59 *	110.81 *	94.38 *	78.34 *	64.38 *	64.42 *
<b>-13</b>	65.97 *	129.94 *	124.65 *	116.09 *	104.88 *	92.17 *	78.98 *	66.46 *	55.67 *	56.58 *
<b>-15</b>	53.82 *	105.71 *	101.11 *	94.16 *	85.24 *	75.28 *	65.36 *	56.05 *	47.58 *	48.73 *
<b>-17</b>	51.72 *	101.28 *	96.81 *	90.97 *	83.90 *	75.10 *	66.12 *	57.58 *	49.22 *	50.75 *
<b>-19.5</b>	44.85 *	87.80 *	84.42 *	80.19 *	74.99 *	68.24 *	60.85 *	53.47 *	46.09 *	48.16 *
<b>-22.5</b>	31.37 *	61.66 *	59.79 *	57.18 *	53.66 *	49.27 *	44.56 *	39.72 *	34.79 *	37.51 *
<b>-25.5</b>	25.01 *	49.34 *	48.00 *	46.02 *	43.47 *	40.61 *	37.60 *	34.33	30.92	34.38
<b>-29</b>	19.17	37.95	37.16	35.97	34.47	32.84	31.02	28.89	26.58	29.89
<b>-33</b>	14.55	28.92	28.49	27.81	26.87	25.70	24.32	22.74	21.05	23.85
<b>-37.5</b>	10.34	20.62	20.34	19.85	19.22	18.45	17.54	16.49	15.41	17.81
<b>-42.5</b>	6.44	12.91	12.81	12.56	12.26	11.90	11.47	10.99	10.45	12.34
<b>-47.5</b>	6.21	12.41	12.30	12.11	11.88	11.60	11.28	10.93	10.53	12.56
<b>-55</b>	4.55	9.09	9.00	8.87	8.70	8.50	8.27	8.00	7.71	9.20
<b>-65</b>	1.94	3.88	3.87	3.84	3.79	3.73	3.66	3.58	3.49	4.21
<b>-75</b>	0.68	1.36	1.36	1.35	1.34	1.32	1.30	1.27	1.25	1.52
<b>-85</b>	0.05	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.12
<b>-90</b>										
<b>Total</b>	1894.5	3748.17	3642.34	3471.23	3235.51	2936.69	2588.41	2213.99	1843.21	1854.14

**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	0.13	0.15	0.15	0.15	0.14	0.12	0.13	0.10	0.05
<b>85</b>	1.75	1.66	1.80	1.86	1.85	1.75	1.43	1.58	1.22	0.50
<b>75</b>	4.80	4.51	4.87	5.01	4.91	4.56	3.69	4.09	3.15	1.25
<b>65</b>	10.37	9.64	10.27	10.34	9.85	8.88	6.97	7.42	5.54	2.17
<b>55</b>	14.14	13.06	13.67	13.39	12.51	11.03	8.27	8.39	5.97	2.26

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : ZNF-70L-MF-40.IES**

**LUMENS TABULATION - (Cont.)**

<b>47.5</b>										
	13.74	12.52	13.01	12.78	11.84	10.17	7.47	7.34	4.95	1.81
<b>42.5</b>	19.19	16.89	17.09	16.50	15.15	12.92	9.37	8.98	5.81	2.07
<b>37.5</b>	25.02	21.30	20.63	18.90	16.71	14.21	10.20	9.52	6.04	2.08
<b>33</b>	31.05	26.04	24.53	21.51	17.96	14.72	10.52	9.75	6.04	2.01
<b>29</b>	35.50	29.53	27.54	23.58	18.86	14.66	10.31	9.58	5.77	1.88
<b>25.5</b>	37.78	31.02	28.79	24.39	18.94	14.07	9.62	8.90	5.29	1.69
<b>22.5</b>	46.53 *	37.10	33.97	28.55	21.79	15.64	10.31	9.43	5.59	1.76
<b>19.5</b>	47.48 *	36.29 *	32.34	27.00	20.45	14.30	9.12	8.25	4.89	1.52
<b>17</b>	44.88 *	33.20 *	28.68	23.65	17.81	12.24	7.64	6.84	4.05	1.24
<b>15</b>	51.50 *	37.35 *	31.41	25.39	19.02	12.98	7.96	7.04	4.16	1.26
<b>13</b>	58.00 *	41.33 *	33.97 *	27.02	20.17	13.69	8.24	7.22	4.26	1.28
<b>11</b>	64.40 *	45.30 *	36.40 *	28.46	21.21	14.30	8.48	7.36	4.35	1.29
<b>9</b>	70.37 *	49.15 *	38.83 *	29.77	22.10	14.82	8.68	7.49	4.42	1.31
<b>7</b>	75.20 *	52.35 *	41.04 *	30.99	22.82	15.22	8.82	7.58	4.48	1.32
<b>5</b>	79.03 *	54.83 *	42.81 *	31.96	23.35	15.53	8.95	7.66	4.53	1.33
<b>3</b>	81.72 *	56.48 *	44.00 *	32.62	23.67	15.68	8.99	7.70	4.55	1.33
<b>1</b>	41.45 *	28.59 *	22.28 *	16.48	11.89	7.85	4.49	3.85	2.28	0.67
<b>0</b>	41.45 *	28.59 *	22.28 *	16.48	11.89	7.85	4.49	3.85	2.28	0.67
<b>-1</b>	81.72 *	56.48 *	44.00 *	32.62	23.67	15.68	8.99	7.70	4.55	1.33
<b>-3</b>	79.03 *	54.83 *	42.81 *	31.96	23.35	15.53	8.95	7.66	4.53	1.33
<b>-5</b>	75.20 *	52.35 *	41.04 *	30.99	22.82	15.22	8.82	7.58	4.48	1.32
<b>-7</b>	70.37 *	49.15 *	38.83 *	29.77	22.10	14.82	8.68	7.49	4.42	1.31
<b>-9</b>	64.40 *	45.30 *	36.40 *	28.46	21.21	14.30	8.48	7.36	4.35	1.29
<b>-11</b>	58.00 *	41.33 *	33.97 *	27.02	20.17	13.69	8.24	7.22	4.26	1.28
<b>-13</b>	51.50 *	37.35 *	31.41	25.39	19.02	12.98	7.96	7.04	4.16	1.26
<b>-15</b>	44.88 *	33.20 *	28.68	23.65	17.81	12.24	7.64	6.84	4.05	1.24
<b>-17</b>	47.48 *	36.29 *	32.34	27.00	20.45	14.30	9.12	8.25	4.89	1.52
<b>-19.5</b>	46.53 *	37.10	33.97	28.55	21.79	15.64	10.31	9.43	5.59	1.76

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : ZNF-70L-MF-40.IES**

**LUMENS TABULATION - (Cont.)**

<b>-22.5</b>	37.78	31.02	28.79	24.39	18.94	14.07	9.62	8.90	5.29	1.69
<b>-25.5</b>	35.50	29.53	27.54	23.58	18.86	14.66	10.31	9.58	5.77	1.88
<b>-29</b>	31.05	26.04	24.53	21.51	17.96	14.72	10.52	9.75	6.04	2.01
<b>-33</b>	25.02	21.30	20.63	18.90	16.71	14.21	10.20	9.52	6.04	2.08
<b>-37.5</b>	19.19	16.89	17.09	16.50	15.15	12.92	9.37	8.98	5.81	2.07
<b>-42.5</b>	13.74	12.52	13.01	12.78	11.84	10.17	7.47	7.34	4.95	1.81
<b>-47.5</b>	14.14	13.06	13.67	13.39	12.51	11.03	8.27	8.39	5.97	2.26
<b>-55</b>	10.37	9.64	10.27	10.34	9.85	8.88	6.97	7.42	5.54	2.17
<b>-65</b>	4.80	4.51	4.87	5.01	4.91	4.56	3.69	4.09	3.15	1.25
<b>-75</b>	1.75	1.66	1.80	1.86	1.85	1.75	1.43	1.58	1.22	0.50
<b>-85</b>	0.14	0.13	0.15	0.15	0.15	0.14	0.12	0.13	0.10	0.05
<b>-90</b>										
<b>Total</b>	1708.09	1276.56	1096.19	900.59	706.02	518.71	339.31	312.22	194.85	64.16

Vert. Angles	Horizontal Angles		
	<u>75</u>	<u>85</u>	<u>90</u>
<b>90</b>			
	0.01	0.00	2.31
<b>85</b>			
	0.11	0.00	28.25
<b>75</b>			
	0.25	0.01	77.08
<b>65</b>			
	0.43	0.01	163.79
<b>55</b>			
	0.44	0.01	214.96
<b>47.5</b>			
	0.36	0.01	210.12
<b>42.5</b>			
	0.40	0.01	300.44
<b>37.5</b>			
	0.40	0.01	389.31
<b>33</b>			
	0.38	0.01	478.48
<b>29</b>			
	0.35	0.01	567.24
<b>25.5</b>			
	0.31	0.01	650.32
<b>22.5</b>			
	0.32	0.01	860.07
<b>19.5</b>			
	0.27	0.01	925.34
<b>17</b>			
	0.22	0.00	913.51

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : ZNF-70L-MF-40.IES**

**LUMENS TABULATION - (Cont.)**

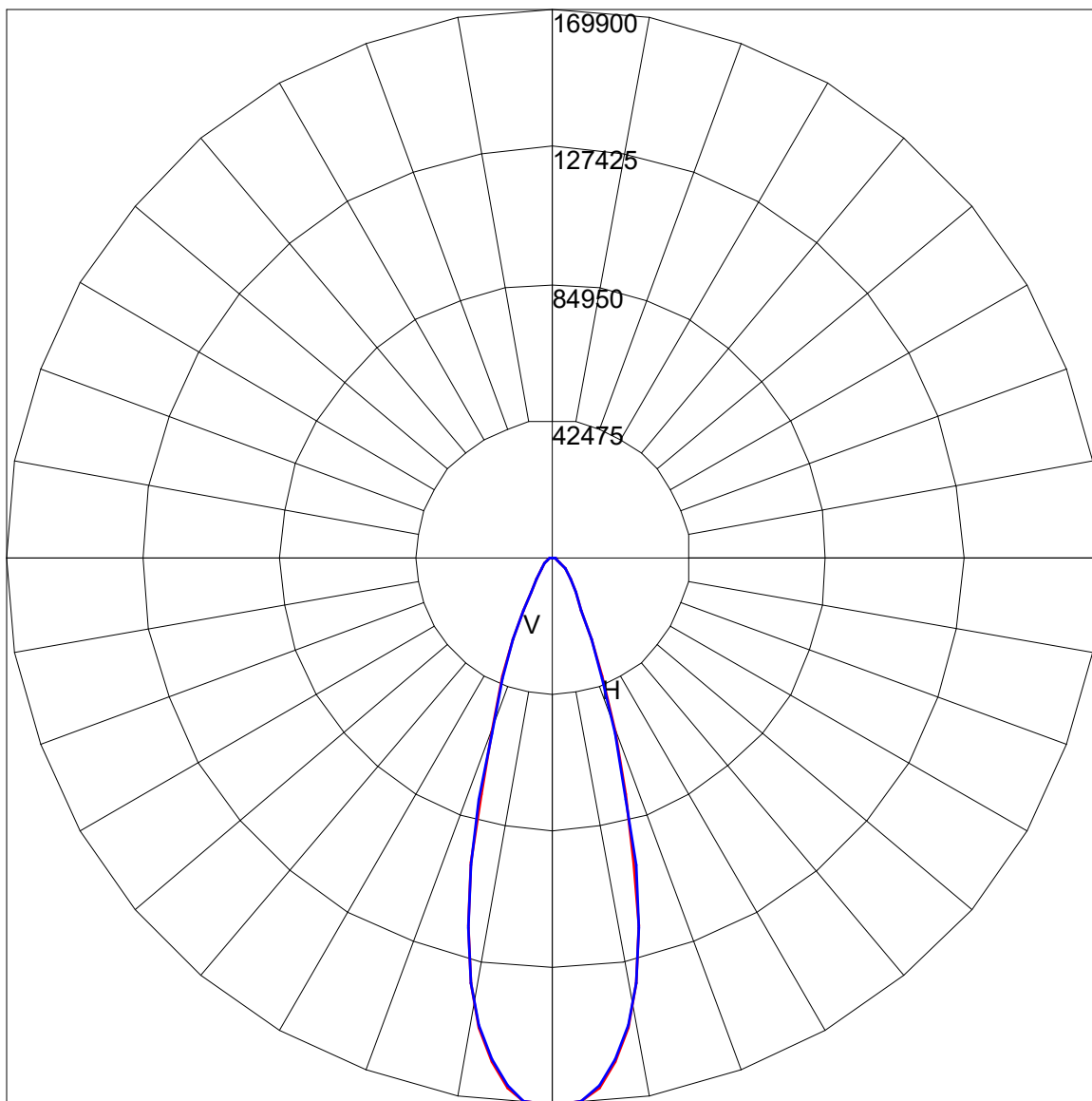
<b>15</b>			
	0.23	0.00	1089.68
<b>13</b>			
	0.23	0.00	1266.05
<b>11</b>			
	0.23	0.00	1428.43
<b>9</b>			
	0.23	0.00	1566.87
<b>7</b>			
	0.23	0.00	1676.3
<b>5</b>			
	0.24	0.00	1755.8
<b>3</b>			
	0.24	0.00	1803.95
<b>1</b>			
	0.12	0.00	910.27
<b>0</b>			
	0.12	0.00	910.27
<b>-1</b>			
	0.24	0.00	1803.95
<b>-3</b>			
	0.24	0.00	1755.8
<b>-5</b>			
	0.23	0.00	1676.3
<b>-7</b>			
	0.23	0.00	1566.87
<b>-9</b>			
	0.23	0.00	1428.43
<b>-11</b>			
	0.23	0.00	1266.05
<b>-13</b>			
	0.23	0.00	1089.68
<b>-15</b>			
	0.22	0.00	913.51
<b>-17</b>			
	0.27	0.01	925.34
<b>-19.5</b>			
	0.32	0.01	860.07
<b>-22.5</b>			
	0.31	0.01	650.32
<b>-25.5</b>			
	0.35	0.01	567.24
<b>-29</b>			
	0.38	0.01	478.48
<b>-33</b>			
	0.40	0.01	389.31
<b>-37.5</b>			
	0.40	0.01	300.44
<b>-42.5</b>			
	0.36	0.01	210.12
<b>-47.5</b>			
	0.44	0.01	214.96
<b>-55</b>			
	0.43	0.01	163.79
<b>-65</b>			
	0.25	0.01	77.08

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : ZNF-70L-MF-40.IES**

**LUMENS TABULATION - (Cont.)**

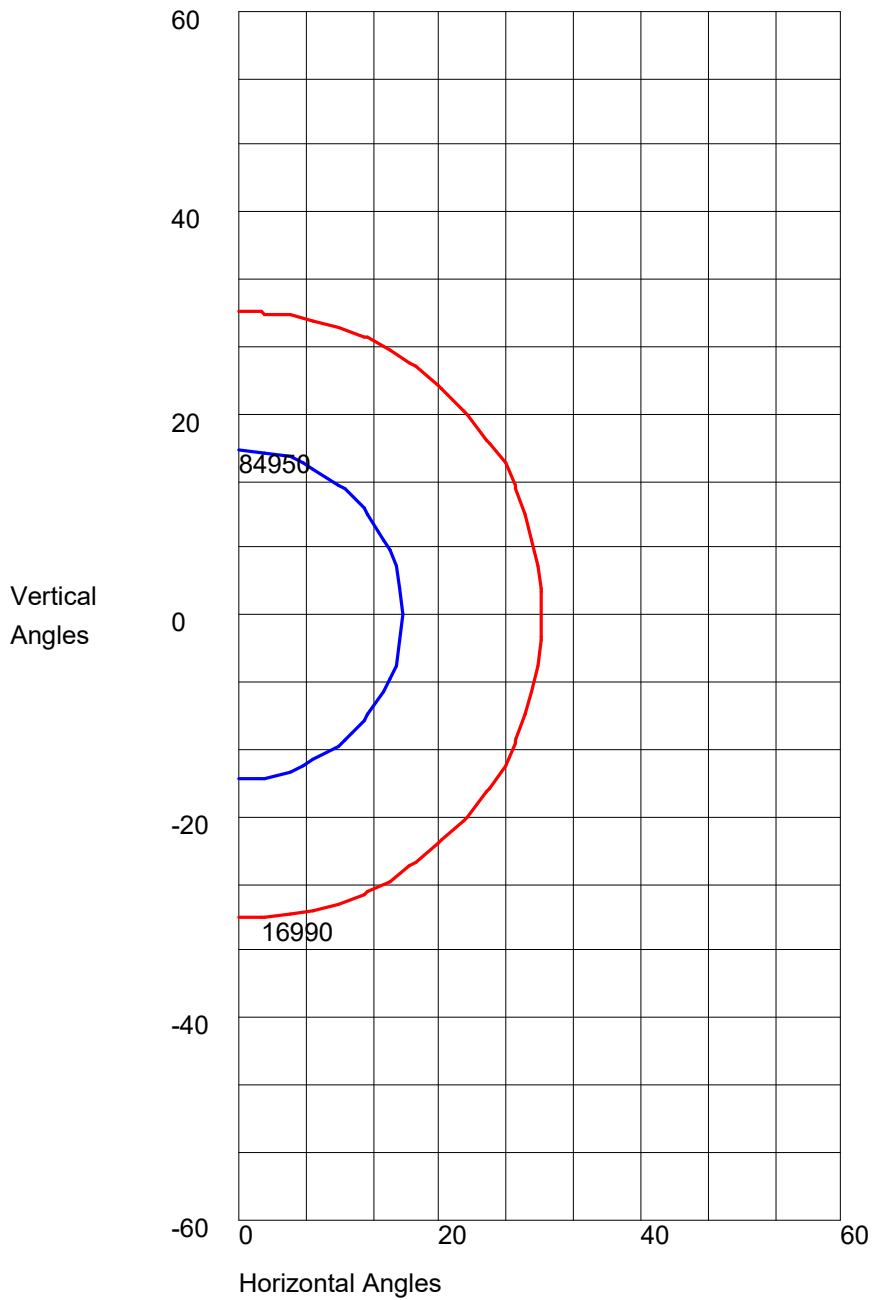
<b>-75</b>	0.11	0.00	28.25
<b>-85</b>	0.01	0.00	2.31
<b>-90</b>			
<b>Total</b>	12.01	0.25	34557.13

AXIAL CANDELA DISPLAY



Maximum Candela = 169900 Located At Horizontal Angle = 0, Vertical Angle = -1  
H - Horizontal Axial Candela  
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 169900 Located At Horizontal Angle = 0, Vertical Angle = -1  
50% Maximum Candela = 84950  
10% Maximum Candela = 16990