LTL LUMINAIRE TESTING LABORATORY, INC.

SUSTAINING MEMBER of the IESNA

905 Harrison Street · Allentown, PA 18103 · 610-770-1044 · Fax 610-770-8912 · www.LuminaireTesting.com

LTL NUMBER: 17095 DATE: 11-06-2009

PREPARED FOR: GUTH LIGHTING

CATALOG NUMBER: TB-LED-FLAT LENS COMPLETE 32 LED COBRAHEAD

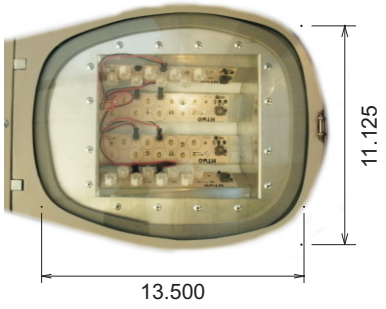
LUMINAIRE: CAST ALUMINUM HOUSING, EXTRUDED ALUMINUM HEATSINK, CLEAR ENCLOSURE.

LAMP: 32 WHITE LEDS-(16) WITH CLEAR PLASTIC OPTICS AND (16) WITHOUT OPTICS

LED POWER SUPPLY: ONE ADVANCE LED-INTA-0024V-28-F-O

ELECTRICAL VALUES: 120.0VAC, 0.5478A, 65.36W, PF=0.994

NOTE: THIS TEST WAS PERFORMED USING THE CALIBRATED PHOTODETECTOR METHOD OF ABSOLUTE PHOTOMETRY.*



IES CLASSIFICATION: **TYPE I**

LONGITUDINAL CLASSIFICATION: **SHORT**

CUTOFF CLASSIFICATION: **CUTOFF****

**CUTOFF DESIGNATION IS NOT DEFINED FOR ABSOLUTE PHOTOMETRIC TESTS. THIS CUTOFF RATING IS BASED ON THE MAXIMUM CANDELA READING PER LUMINAIRE RATED AT 1000 LUMENS.

FLUX DISTRIBUTION

LUMENS	DOWNWARD	UPWARD	TOTALS
HOUSE SIDE	640.22	0.00	640.22
STREET SIDE	1081.92	0.00	1081.92
TOTALS	1722.14	0.00	1722.14

Approved By: MG

*DATA WAS ACQUIRED USING THE CALIBRATED PHOTODETECTOR METHOD OF ABSOLUTE PHOTOMETRY. A UDT MODEL #211 PHOTODETECTOR AND UDT MODEL #S370 OPTOMETER COMBINATION WERE USED AS A STANDARD. A SPECTRAL MISMATCH CORRECTION FACTOR WAS EMPLOYED BASED ON THE SPECTRAL RESPONSIVITY OF THE PHOTODETECTOR AND THE SPECTRAL POWER DISTRIBUTION OF THE TEST SUBJECT.

TESTING WAS PERFORMED IN ACCORDANCE WITH IES LM-79-08.

TEST ANGULAR INCREMENTS AND REPORT FORMATTING WAS BASED ON IES LM-31-95.

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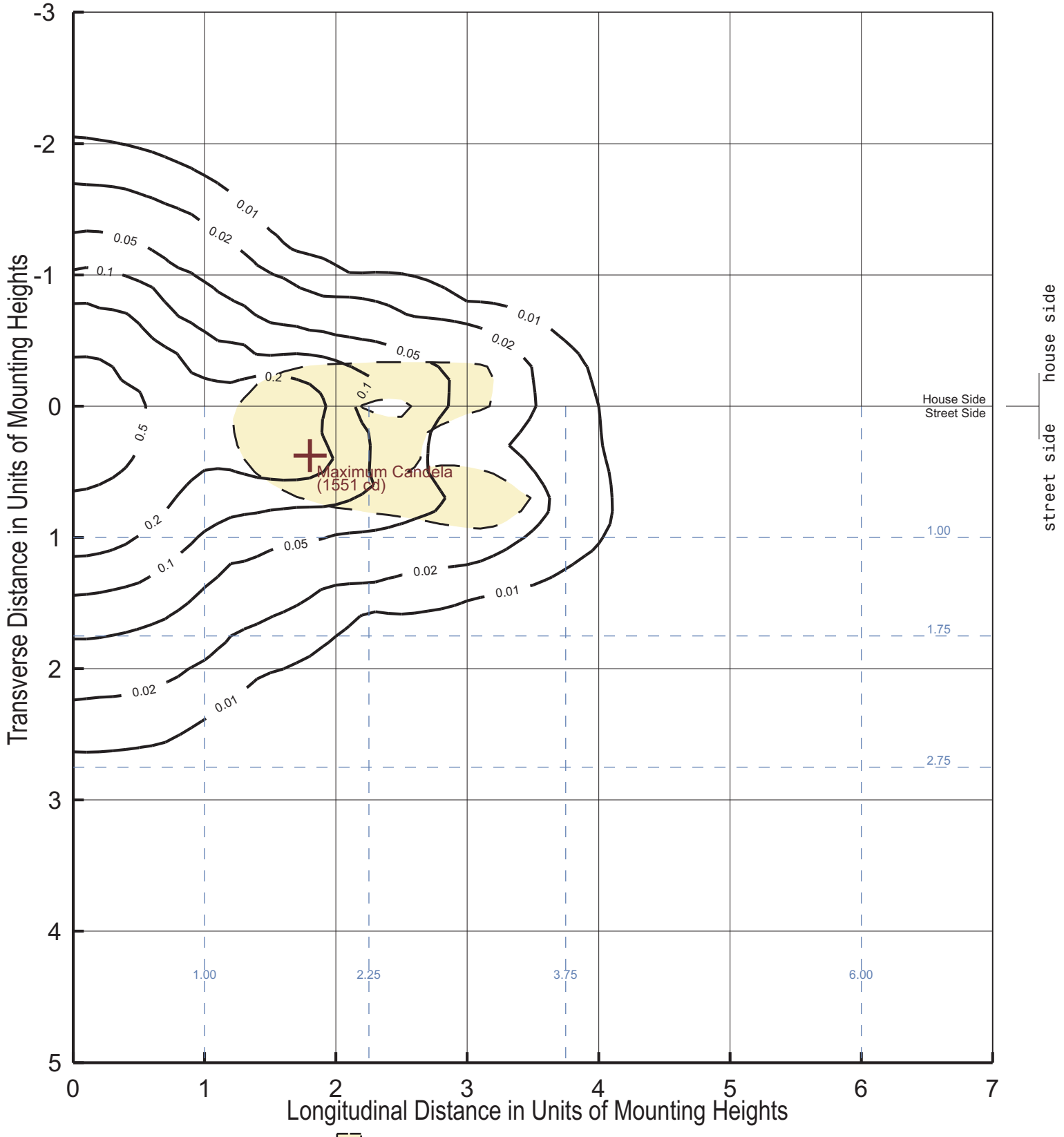
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION
VALUES BASED ON 25.00 FOOT MOUNTING HEIGHT



PROJECTION OF HALF-MAX CANDELA CONTOUR

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CANDELA DISTRIBUTION

	0	5	15	25	35	45	55	65	75	78.2	85
180	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0	0
87.5	0	0	0	0	0	0	0	0	0	0	0
85	2	2	2	2	1	1	1	1	1	1	1
82.5	11	11	10	10	7	8	11	16	21	20	12
80	26	25	22	21	19	20	29	51	125	145	109
77.5	40	40	35	35	33	38	56	134	335	368	327
75	66	55	60	57	55	53	84	216	634	710	487
72.5	97	95	90	81	82	78	107	321	894	946	547
70	128	130	131	112	97	117	144	397	958	791	737
67.5	160	160	162	139	126	163	210	459	1060	835	890
65	200	199	200	185	158	185	254	490	1230	1308	971
62.5	234	235	235	245	173	209	286	508	1357	1514	1154
61.5	248	252	256	252	186	217	309	538	1366	**1551**	1301
60	269	269	264	267	238	236	320	536	1303	1473	1456
57.5	307	305	293	303	271	268	335	530	1169	1338	1427
55	340	336	333	325	306	295	346	501	973	1137	1266
52.5	365	365	377	381	323	326	339	473	753	877	990
50	431	431	422	404	341	350	332	450	591	640	710
47.5	445	444	440	426	380	370	375	419	525	549	568
45	461	460	458	443	437	386	381	399	506	494	501
40	492	493	489	479	474	468	441	405	434	446	458
35	526	525	515	500	496	493	466	418	406	404	404
30	524	522	524	517	517	511	484	489	429	418	417
25	521	516	515	518	530	530	503	498	497	496	490
20	549	547	541	512	515	511	493	485	496	498	491
15	548	547	549	543	544	531	500	481	482	487	492
10	546	544	548	543	547	549	532	517	514	520	532
5	536	538	542	538	541	543	532	525	518	517	518
0	501	501	501	501	501	501	501	501	501	501	501

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CANDELA DISTRIBUTION

	90	95	105	115	125	135	145	155	165	175	180
180	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0	0
87.5	0	0	0	0	0	0	0	0	0	0	0
85	1	1	0	0	0	0	0	0	0	0	0
82.5	10	7	4	2	1	0	0	0	0	1	1
80	95	77	25	12	7	5	3	2	2	3	3
77.5	298	245	67	31	19	14	11	9	8	6	6
75	527	480	119	48	30	23	20	19	17	15	14
72.5	779	807	203	79	46	34	31	29	26	25	25
70	874	901	265	92	55	44	40	39	40	39	40
67.5	702	969	322	103	65	52	49	53	54	54	55
65	810	1025	350	113	72	60	61	66	66	67	68
62.5	1285	1110	368	154	80	78	80	76	77	78	80
61.5	1391	1136	370	159	103	91	85	86	80	83	86
60	1458	1121	376	165	108	100	93	91	93	91	92
57.5	1347	1035	354	202	141	117	120	107	113	112	108
55	1141	885	365	224	166	141	128	132	138	133	123
52.5	902	672	374	231	178	164	144	149	155	152	143
50	645	541	350	234	184	169	169	168	171	166	177
47.5	538	481	337	257	204	174	202	184	193	193	188
45	477	434	327	289	210	211	226	224	204	205	187
40	395	351	304	311	266	244	261	250	233	253	241
35	447	457	347	322	304	267	297	296	282	290	290
30	463	464	376	374	359	336	316	313	299	325	322
25	482	478	460	396	372	377	387	376	351	335	343
20	482	474	455	419	409	417	414	398	393	383	369
15	491	494	492	489	445	414	413	412	411	409	421
10	532	533	525	498	484	492	485	477	447	440	444
5	512	509	497	491	488	495	499	499	490	478	476
0	501	501	501	501	501	501	501	501	501	501	501

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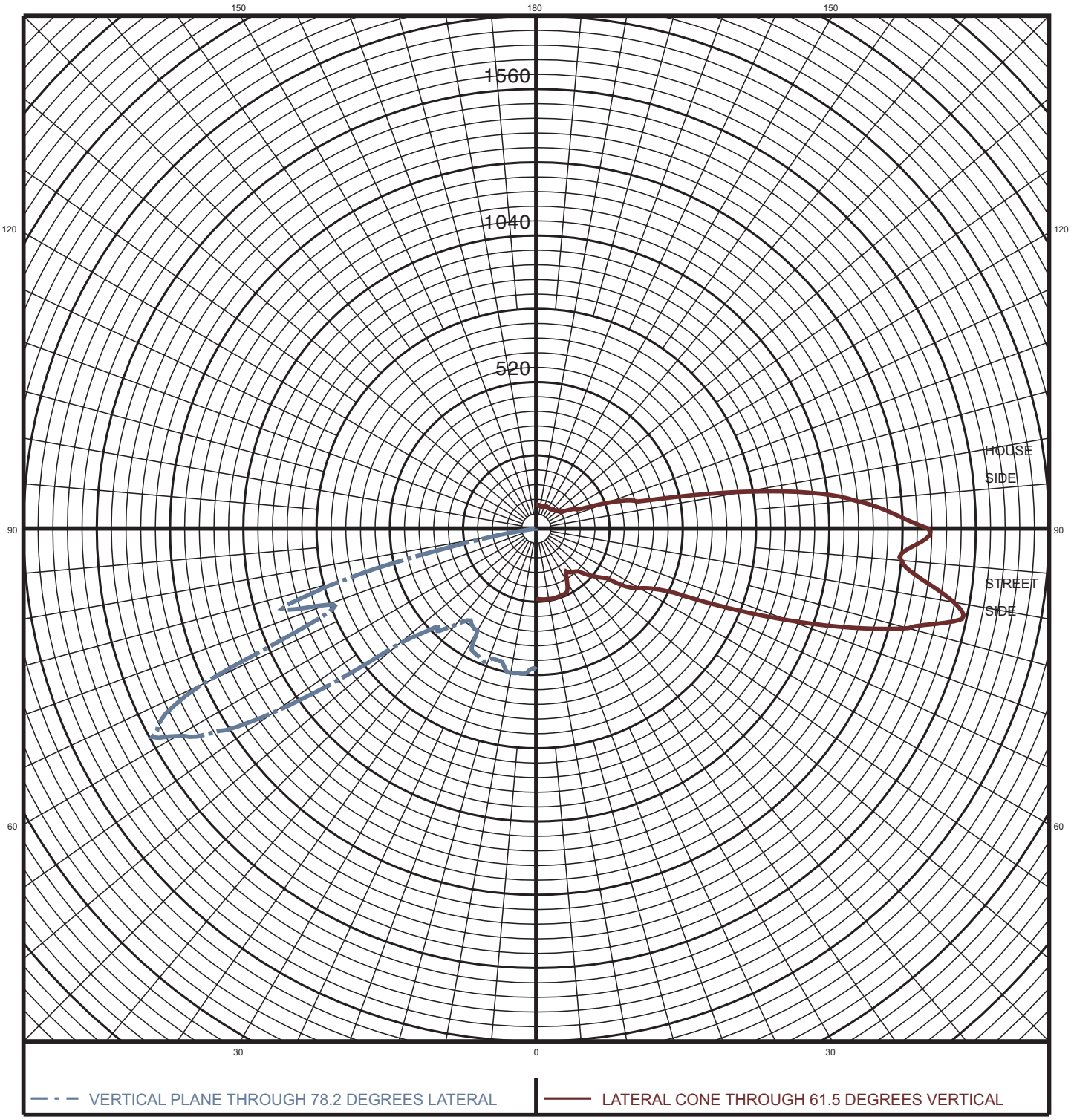
MAXIMUM PLANE AND CONE PLOTS OF CANDELA



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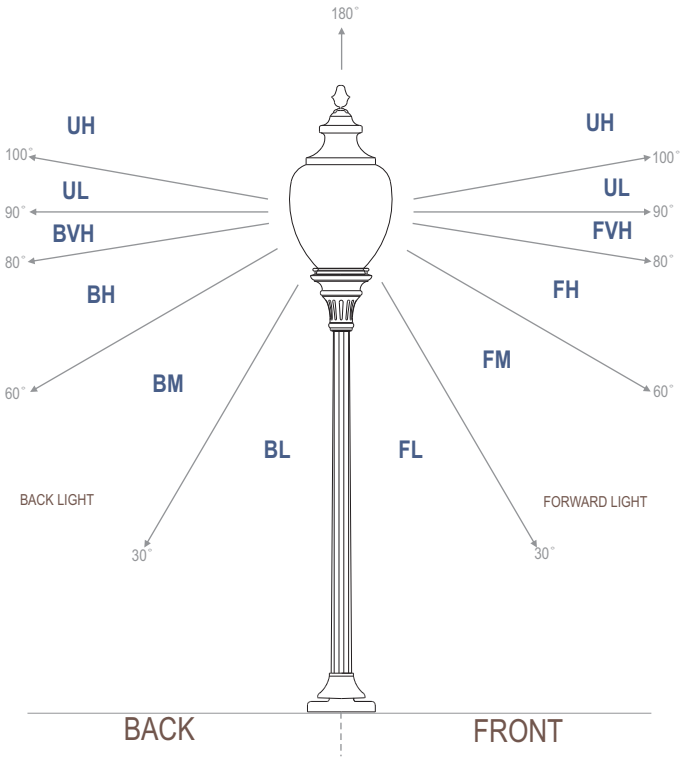
FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM



ZONE	FLUX LUMINAIRE LUMENS	% OF LUMINAIRE LUMENS
FORWARD LIGHT	1082	62.8
FL (0°-30°)	217	12.6
FM (30°-60°)	550	32.0
FH (60°-80°)	311	18.0
FVH (80°-90°)	4	0.3
BACK LIGHT	640	37.2
BL (0°-30°)	176	10.2
BM (30°-60°)	311	18.0
BH (60°-80°)	153	8.9
BVH (80°-90°)	1	0.1
UPLIGHT	0	0.0
UL (90°-100°)	0	0.0
UH (100°-180°)	0	0.0
TRAPPED LIGHT	NA	NA

BUG (**B**acklight, **U**plight, **G**lare) Rating	
Asymmetrical Luminaire Types (Type I, II, III, IV)	B1 U0 G1
Quadrilateral Symmetrical Luminaire Types (Type V, Area Light)	B1 U0 G0