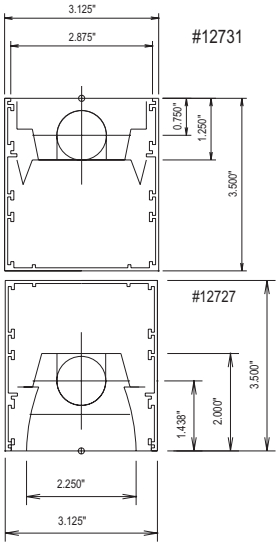
LTL LUMINAIRE TESTING LABORATORY, INC.

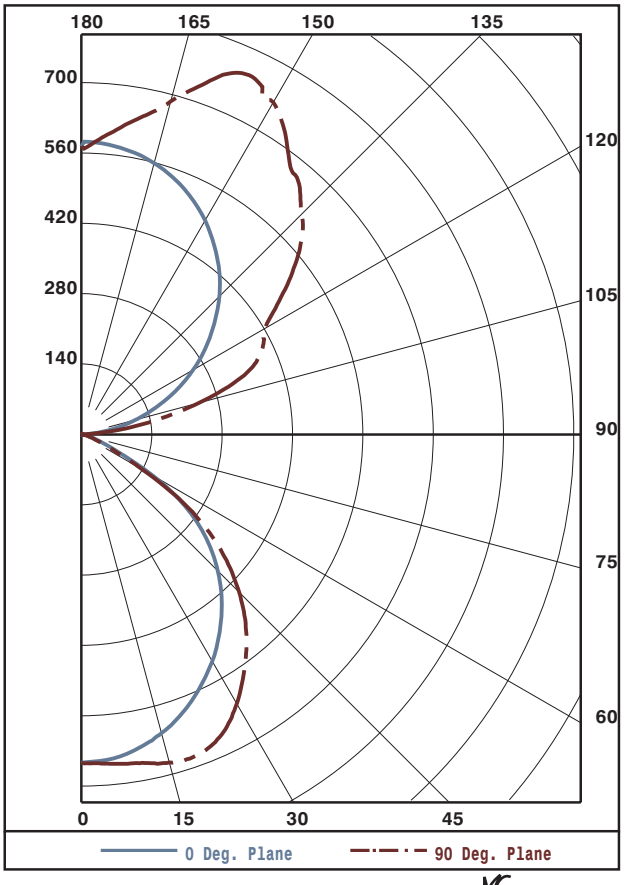
SUSTAINING MEMBER of the IESNA

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

LTL NUMBER: 13051 DATE: 04-21-2008
PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING
CATALOG NUMBER: MLS-I1/D1-4-X-OP/PB-X-120-T8
LUMINAIRE: EXTRUDED ALUMINUM HOUSING, FORMED SPECULAR ALUMINUM UPPER REFLECTOR, FORMED WHITE ENAMEL ALUMINUM UPPER REFLECTOR, 30 CELL, 3/4" DEEP, FORMED SEMI-SPECULAR ALUMINUM BAFFLE.
LAMPS: TWO 32 WATT T8 LINEAR FLUORESCENT LAMPS RATED AT 2850 LUMENS EACH.
LAMP CATALOG NUMBER: PHILIPS F32T8/TL835/ALTO
BALLASTS: TWO UNIVERSAL LIGHTING TECHNOLOGIES B232IUNV-C
MOUNTING: PENDANT
NOTE: THIS TEST WAS CALCULATED USING MEASURED DATA FROM LTL TEST NUMBERS 12731 AND 12727.
LUMEN TO CANDELA RATIO USED = 9.18
TOTAL INPUT WATTS = 69.4 AT 120.0 VOLTS
THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS.



CANDELA DISTRIBUTION					FLUX
	0.0	22.5	45.0	67.5	90.0	
0	653	653	653	653	653	
5	648	648	655	654	657	62
15	613	622	646	666	675	182
25	556	576	620	648	660	282
35	480	513	544	552	568	333
45	384	415	417	425	443	322
55	256	266	259	260	270	232
65	74	74	78	68	56	77
75	18	15	13	13	13	16
85	2	1	1	1	2	2
90	0	0	0	0	0	
95	24	55	51	42	38	52
105	112	184	243	245	242	223
115	209	327	341	378	397	334
125	303	471	489	493	490	413
135	388	555	602	615	620	440
145	460	571	711	717	712	404
155	518	583	691	772	788	311
165	558	588	635	670	685	179
175	579	577	591	597	598	57
180	572	572	572	572	572	



ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT
0- 30	527	9.2	13.4
0- 40	860	15.1	21.9
0- 60	1414	24.8	36.0
0- 90	1508	26.5	38.5
90-120	610	10.7	15.5
90-130	1023	17.9	26.1
90-150	1867	32.8	47.6
90-180	2414	42.3	61.5
0-180	3922	68.8	100.0

TOTAL LUMINAIRE EFFICIENCY: 68.8%

CIE TYPE:	SEMI-INDIRECT	
PLANE:	0-DEG	90-DEG
SPACING CRITERIA:	1.2	1.4
SHIELDING ANGLES:	29	34

Approved By: MG

THIS REPORT BASED ON LM-41 AND OTHER PERTINENT IESNA PROCEDURES.

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD
EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	72	72	72	72	65	65	65	65	53	53	53	42	42	42	31	31	31	26
1	66	64	61	59	60	58	56	54	47	46	45	38	37	36	29	28	28	24
2	61	56	53	50	55	52	48	46	42	40	38	34	33	31	26	25	25	21
3	56	50	46	42	51	46	42	39	38	35	33	31	29	27	24	23	22	19
4	51	45	40	36	47	41	37	33	34	31	29	28	25	24	22	20	19	16
5	47	40	35	31	43	37	32	29	30	27	25	25	22	21	20	18	17	14
6	43	36	30	27	40	33	28	25	27	24	22	22	20	18	18	16	15	13
7	40	32	27	23	36	30	25	22	25	21	19	20	18	16	16	14	13	11
8	37	29	24	20	34	27	22	19	22	19	16	18	16	14	14	13	11	10
9	34	26	21	18	31	24	20	17	20	17	14	16	14	12	13	11	10	8
10	32	24	19	16	29	22	17	15	18	15	13	15	12	11	12	10	9	7

PLANE:	0-DEG	90-DEG
LUMINOUS LENGTH:	44.875	2.250

LUMINANCE IN CANDELA PER SQUARE METER

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
0	10024.	10024.	10024.
45	8336.	9052.	9617.
55	6851.	6931.	7226.
65	2688.	2833.	2034.
75	1068.	771.	771.
85	352.	176.	352.

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CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	653	653	653	653	653
5	648	648	655	654	657
10	635	639	652	658	663
15	613	622	646	666	675
20	588	601	638	666	679
25	556	576	620	648	660
30	520	548	591	606	618
35	480	513	544	552	568
40	435	469	483	492	510
45	384	415	417	425	443
50	326	348	344	349	365
55	256	266	259	260	270
60	162	168	164	157	143
65	74	74	78	68	56
70	36	33	29	31	27
75	18	15	13	13	13
80	7	6	6	6	7
85	2	1	1	1	2
90	0	0	0	0	0
95	24	55	51	42	38
100	67	132	144	137	135
105	112	184	243	245	242
110	160	261	290	338	345
115	209	327	341	378	397
120	257	399	420	416	421
125	303	471	489	493	490
130	346	526	547	565	566
135	388	555	602	615	620
140	426	566	667	655	667
145	460	571	711	717	712
150	491	576	723	760	762
155	518	583	691	772	788
160	540	588	660	724	748
165	558	588	635	670	685
170	570	584	614	631	636
175	579	577	591	597	598
180	572	572	572	572	572

ZONAL LUMEN SUMMARY

0- 5	16.
5- 10	47.
10- 15	77.
15- 20	106.
20- 25	131.
25- 30	151.
30- 35	164.
35- 40	169.
40- 45	167.
45- 50	155.
50- 55	133.
55- 60	98.
60- 65	54.
65- 70	23.
70- 75	11.
75- 80	5.
80- 85	2.
85- 90	0.
90- 95	5.
95-100	48.
100-105	91.
105-110	132.
110-115	158.
115-120	177.
120-125	198.
125-130	215.
130-135	221.
135-140	219.
140-145	209.
145-150	195.
150-155	171.
155-160	140.
160-165	106.
165-170	73.
170-175	43.
175-180	14.

THIS TEST WAS CONDUCTED USING RELATIVE PHOTOMETRY TECHNIQUES ACCORDING TO STANDARD IESNA PROCEDURES. THE USER MUST THEREFORE USE CAUTION IN THE FOLLOWING SITUATIONS: 1) THIS TEST WAS PERFORMED USING A SPECIFIC BALLAST/LAMP COMBINATION. EXTRAPOLATION OF THESE DATA FOR OTHER BALLAST/LAMP COMBINATIONS MAY PRODUCE ERRONEOUS RESULTS. 2) ACCORDING TO IESNA PROCEDURES, THE BALLAST(S) AND LAMP(S) ARE PRESUMED TO PRODUCE 100% OF RATED OUTPUT. AN APPROPRIATE BALLAST FACTOR MUST BE APPLIED TO THE LUMEN OUTPUT RATINGS AND LUMINOUS INTENSITY VALUES GIVEN. 3) THIS TEST WAS CONDUCTED IN A CONTROLLED LABORATORY ENVIRONMENT WHERE THE AMBIENT TEMPERATURE WAS HELD AT 25°C ±1°C. FIELD PERFORMANCE MAY DIFFER PARTICULARLY IN REGARDS TO CHANGE IN LUMINOUS OUTPUT AS A RESULT OF DIFFERENCE IN AMBIENT TEMPERATURE AND METHOD OF MOUNTING THE LUMINAIRE.