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: 13038 DATE: 04-11-2008

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CATALOG NUMBER: MLS-I1/D1-4-X-OP/PBW-X-120-T5HO

LUMINAIRE: EXTRUDED ALUMINUM HOUSING, FORMED SPECULAR ALUMINUM UPPER REFLECTOR, FORMED WHITE ENAMEL ALUMINUM LOWER REFLECTOR, 30 CELL, 3/4" DEEP, FORMED WHITE ENAMEL ALUMINUM LOWER BAFFLE, OPEN TOP.

LAMPS: TWO 54 WATT HIGH OUTPUT T5 LINEAR FLUORESCENT LAMPS RATED AT 4400 LUMENS EACH.

LAMP CATALOG NUMBER: PHILIPS F54T5/850/HO/ALTO

BALLASTS: TWO UNIVERSAL LIGHTING TECHNOLOGIES B254PUNV-D

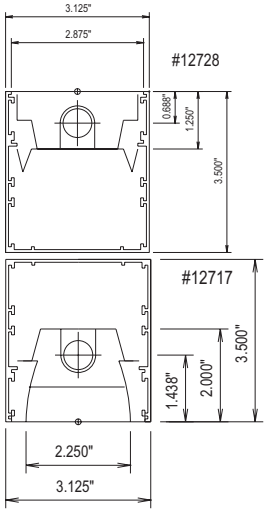
MOUNTING: PENDANT

NOTE: THIS TEST WAS CALCULATED USING MEASURED DATA FROM LTL TEST NUMBERS 12728 AND 12717.

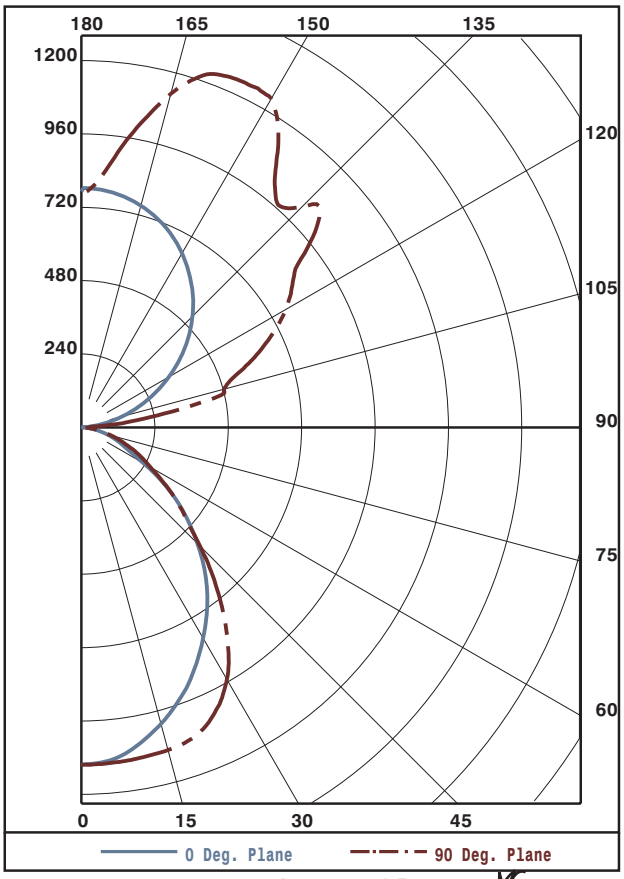
LUMEN TO CANDELA RATIO USED = 9.18

TOTAL INPUT WATTS =113.9 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	1100	1100	1100	1100	1100	
5	1089	1090	1101	1098	1099	104
15	1000	1011	1047	1077	1089	295
25	870	892	953	1003	1027	437
35	715	746	797	813	827	488
45	534	571	573	544	545	430
55	340	362	338	332	343	308
65	162	165	183	192	202	182
75	85	85	89	96	100	97
85	20	20	22	23	25	25
90	0	0	0	0	0	
95	32	126	120	107	102	118
105	149	303	398	460	494	394
115	281	481	595	659	678	552
125	412	728	808	841	849	673
135	531	872	934	939	1024	684
145	632	921	1121	1146	1115	634
155	712	890	1135	1217	1239	486
165	767	831	985	1086	1122	274
175	796	783	806	824	830	79
180	782	782	782	782	782	



ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT
0- 30	836	9.5	13.4
0- 40	1324	15.0	21.2
0- 60	2061	23.4	32.9
0- 90	2364	26.9	37.8
90-120	1065	12.1	17.0
90-130	1738	19.8	27.8
90-150	3056	34.7	48.8
90-180	3895	44.3	62.2
0-180	6259	71.1	100.0

TOTAL LUMINAIRE EFFICIENCY: 71.1%

CIE TYPE: SEMI-INDIRECT

PLANE:	0-DEG	90-DEG
SHIELDING ANGLES:	29	41

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	74	74	74	74	67	67	67	67	54	54	54	43	43	43	32	32	32	27
1	68	65	63	60	62	59	57	55	48	47	46	38	37	37	29	28	28	24
2	62	58	54	50	57	53	49	46	43	41	39	34	33	31	26	25	24	21
3	57	51	46	43	52	47	43	39	38	36	33	31	29	27	24	22	21	18
4	53	46	40	36	48	42	37	34	34	31	29	28	25	24	21	20	19	16
5	48	41	35	31	44	37	32	29	31	27	25	25	22	21	19	18	16	14
6	45	36	31	27	40	33	29	25	28	24	22	23	20	18	18	16	15	12
7	41	33	27	24	37	30	25	22	25	22	19	20	18	16	16	14	13	11
8	38	30	24	21	34	27	23	19	23	19	17	18	16	14	15	13	11	10
9	35	27	22	18	32	25	20	17	21	17	15	17	14	12	13	11	10	8
10	33	24	19	16	30	22	18	15	19	15	13	15	13	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	16885.	16885.	16885.
45	11592.	12439.	11831.
55	9099.	9046.	9179.
65	5884.	6647.	7337.
75	5041.	5278.	5931.
85	3522.	3875.	4403.

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CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	1100	1100	1100	1100	1100
5	1089	1090	1101	1098	1099
10	1053	1059	1081	1090	1094
15	1000	1011	1047	1077	1089
20	939	956	1005	1052	1073
25	870	892	953	1003	1027
30	794	821	885	924	949
35	715	746	797	813	827
40	628	663	693	680	688
45	534	571	573	544	545
50	438	470	451	419	432
55	340	362	338	332	343
60	237	253	252	253	260
65	162	165	183	192	202
70	122	122	129	141	147
75	85	85	89	96	100
80	51	51	53	57	59
85	20	20	22	23	25
90	0	0	0	0	0
95	32	126	120	107	102
100	87	211	317	341	332
105	149	303	398	460	494
110	214	418	504	557	574
115	281	481	595	659	678
120	348	605	724	747	773
125	412	728	808	841	849
130	472	811	805	986	996
135	531	872	934	939	1024
140	585	912	1063	996	984
145	632	921	1121	1146	1115
150	675	911	1145	1214	1231
155	712	890	1135	1217	1239
160	743	863	1073	1190	1221
165	767	831	985	1086	1122
170	786	801	890	954	975
175	796	783	806	824	830
180	782	782	782	782	782

ZONAL LUMEN SUMMARY

0- 5	26.
5- 10	78.
10- 15	126.
15- 20	169.
20- 25	205.
25- 30	231.
30- 35	245.
35- 40	243.
40- 45	228.
45- 50	201.
50- 55	171.
55- 60	137.
60- 65	103.
65- 70	78.
70- 75	58.
75- 80	39.
80- 85	20.
85- 90	5.
90- 95	18.
95-100	101.
100-105	176.
105-110	218.
110-115	259.
115-120	293.
120-125	329.
125-130	345.
130-135	349.
135-140	335.
140-145	327.
145-150	307.
150-155	267.
155-160	219.
160-165	164.
165-170	109.
170-175	60.
175-180	19.

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.