



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: 19142

DATE: 05-13-2010

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CATALOG NUMBER: DRSI01-SL-X-4-X-X-120-T5HO

LUMINAIRE: EXTRUDED ALUMINUM HOUSING WITH 15, 1/4" X 2-1/2" SLOTS IN BOTTOM, FORMED SPECULAR ALUMINUM UPPER SIDE REFLECTORS, FORMED WHITE ENAMEL ALUMINUM LOWER REFLECTOR WITH 15, 1/4" X 2-1/2" SLOTS ABOVE FROSTED LOWER LENS, OPEN TOP.

LAMP: ONE 54 WATT HIGH OUTPUT T5 LINEAR FLUORESCENT LAMP RATED AT 4400 LUMENS.

LAMP CATALOG NUMBER: PHILIPS F54T5/841/HO/ALTO

BALLAST: ONE UNIVERSAL LIGHTING TECHNOLOGIES B254PUNV-D

MOUNTING: PENDANT

ELECTRICAL VALUES: 120.0VAC, 0.5032A, 60.19W

Candela Distribution

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Flux
0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
5	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	0.7
15	6	7	7	7	7	7	7	7	6	7	7	7	7	7	7	7	1.9
25	6	6	7	6	6	6	7	6	6	6	7	6	6	6	7	6	2.7
35	5	6	5	5	5	5	5	6	5	6	5	5	5	5	5	6	3.1
45	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.1
55	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2.8
65	2	2	2	2	1	2	2	2	2	2	2	2	1	2	2	2	2.1
75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1
85	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	0.7
90	0	1	1	1	0	1	1	1	0	1	1	1	0	1	1	1	
95	26	53	5	6	6	6	5	53	26	53	5	6	6	6	5	53	42.7
105	141	399	406	308	281	308	406	399	141	399	406	308	281	308	406	399	354.5
115	279	535	776	877	883	877	776	535	279	535	776	877	883	877	776	535	675.7
125	412	612	872	1044	1103	1044	872	612	412	612	872	1044	1103	1044	872	612	732.1
135	529	647	861	1024	1097	1024	861	647	529	647	861	1024	1097	1024	861	647	647.4
145	627	689	857	956	994	956	857	689	627	689	857	956	994	956	857	689	519.0
155	703	730	799	867	909	867	799	730	703	730	799	867	909	867	799	730	371.5
165	755	763	789	806	819	806	789	763	755	763	789	806	819	806	789	763	223.0
175	781	780	784	781	785	781	784	780	781	780	784	781	785	781	784	780	74.7
180	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	

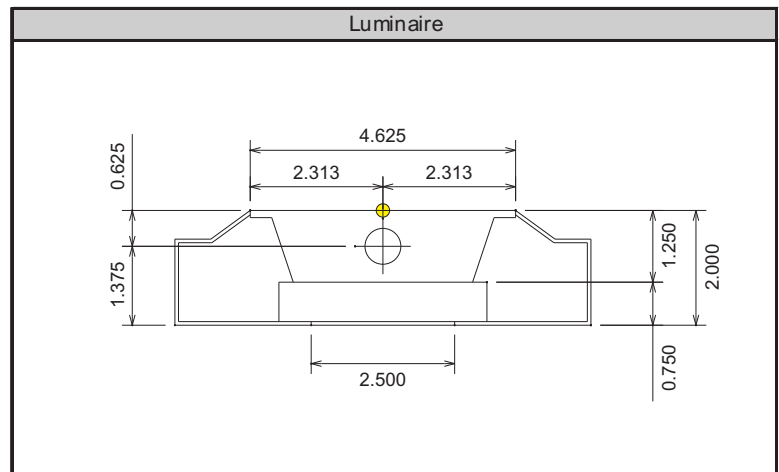
Zonal Lumen Summary

Zone	Lumens	% of Lamp	% of Luminaire
0-30	5.3	0.1%	0.1%
0-40	8.4	0.2%	0.2%
0-60	14.3	0.3%	0.4%
0-90	18.2	0.4%	0.5%
90-180	3640.6	82.7%	99.5%
0-180	3658.8	83.2%	100.0%

Total luminaire efficiency: 83.2%

CIE Type: Indirect
Spacing Criterion: 0 deg: 1.02 90 deg: 1.01
180 deg: 1.02 270 deg: 1.01

Total reflectance of paint: 91.1



Approved By: MG

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



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Candela Tabulation (5 degree Vertical Increments)

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
5	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
10	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
15	6	7	7	7	7	7	7	7	6	7	7	7	7	7	7	7
20	6	7	7	7	7	7	7	7	6	7	7	7	7	7	7	7
25	6	6	7	6	6	6	7	6	6	6	7	6	6	6	7	6
30	5	6	5	5	5	5	5	6	5	6	5	5	5	5	5	6
35	5	6	5	5	5	5	5	6	5	6	5	5	5	5	5	6
40	4	5	4	4	4	4	4	5	4	5	4	4	4	4	4	5
45	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
50	4	4	4	4	3	4	4	4	4	4	4	4	3	4	4	4
55	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
60	3	2	3	2	2	2	3	2	3	2	3	2	2	2	3	2
65	2	2	2	2	1	2	2	2	2	2	2	2	1	2	2	2
70	2	2	2	1	1	1	2	2	2	2	2	1	1	1	2	2
75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
80	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1
85	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1
90	0	1	1	1	0	1	1	1	0	1	1	1	0	1	1	1
95	26	53	5	6	6	6	5	53	26	53	5	6	6	6	5	53
100	76	252	153	103	87	103	153	252	76	252	153	103	87	103	153	252
105	141	399	406	308	281	308	406	399	141	399	406	308	281	308	406	399
110	209	489	655	623	577	623	655	489	209	489	655	623	577	623	655	489
115	279	535	776	877	883	877	776	535	279	535	776	877	883	877	776	535
120	347	571	840	998	1048	998	840	571	347	571	840	998	1048	998	840	571
125	412	612	872	1044	1103	1044	872	612	412	612	872	1044	1103	1044	872	612
130	473	640	866	1057	1118	1057	866	640	473	640	866	1057	1118	1057	866	640
135	529	647	861	1024	1097	1024	861	647	529	647	861	1024	1097	1024	861	647
140	581	666	864	979	1036	979	864	666	581	666	864	979	1036	979	864	666
145	627	689	857	956	994	956	857	689	627	689	857	956	994	956	857	689
150	667	711	815	931	962	931	815	711	667	711	815	931	962	931	815	711
155	703	730	799	867	909	867	799	730	703	730	799	867	909	867	799	730
160	732	749	792	827	846	827	792	749	732	749	792	827	846	827	792	749
165	755	763	789	806	819	806	789	763	755	763	789	806	819	806	789	763
170	772	775	786	791	798	791	786	775	772	775	786	791	798	791	786	775
175	781	780	784	781	785	781	784	780	781	780	784	781	785	781	784	780
180	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781	781

Zonal Lumen Tabulation (5 degree zones)

Zone	Lumens	Zone	Lumens	Zone	Lumens	Zone	Lumens
0-5	0.2	45-50	1.6	90-95	3.8	135-140	308.4
5-10	0.5	50-55	1.4	95-100	38.9	140-145	276.6
10-15	0.8	55-60	1.4	100-105	126.6	145-150	242.4
15-20	1.1	60-65	1.2	105-110	227.8	150-155	205.0
20-25	1.3	65-70	0.9	110-115	316.2	155-160	166.4
25-30	1.4	70-75	0.7	115-120	359.5	160-165	129.8
30-35	1.5	75-80	0.4	120-125	370.2	165-170	93.2
35-40	1.6	80-85	0.4	125-130	361.9	170-175	56.1
40-45	1.5	85-90	0.4	130-135	339.0	175-180	18.7



Coefficients of Utilization - Zonal Cavity Method												
Effective Floor Cavity Reflectance 20%												
Ceiling Cavity Reflectance	90				80				70			
Wall Reflectance	70	50	30	10	70	50	30	10	70	50	30	10
Room Cavity Ratio (RCR)												
0	0.913	0.913	0.913	0.913	0.793	0.793	0.793	0.793	0.678	0.678	0.678	0.678
1	0.832	0.791	0.754	0.721	0.721	0.688	0.658	0.631	0.615	0.589	0.565	0.544
2	0.758	0.689	0.632	0.585	0.656	0.6	0.553	0.514	0.559	0.514	0.476	0.445
3	0.691	0.604	0.537	0.484	0.597	0.526	0.47	0.426	0.508	0.451	0.406	0.37
4	0.631	0.531	0.459	0.405	0.545	0.463	0.403	0.358	0.463	0.398	0.349	0.311
5	0.577	0.47	0.396	0.342	0.498	0.41	0.348	0.303	0.423	0.352	0.302	0.264
6	0.529	0.418	0.344	0.293	0.456	0.365	0.303	0.259	0.388	0.314	0.263	0.226
7	0.486	0.374	0.302	0.253	0.42	0.327	0.266	0.224	0.357	0.281	0.231	0.195
8	0.448	0.336	0.266	0.219	0.388	0.294	0.235	0.195	0.33	0.253	0.204	0.17
9	0.415	0.304	0.237	0.192	0.359	0.266	0.209	0.17	0.306	0.229	0.181	0.149
10	0.385	0.275	0.211	0.169	0.333	0.241	0.186	0.15	0.284	0.208	0.162	0.131

Ceiling Cavity Reflectance	50				30			10			0
Wall Reflectance	70	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)											
0	0.464	0.464	0.464	0.464	0.268	0.268	0.268	0.089	0.089	0.089	0.004
1	0.419	0.404	0.39	0.377	0.234	0.227	0.221	0.077	0.076	0.074	0.003
2	0.38	0.353	0.331	0.311	0.205	0.194	0.184	0.068	0.065	0.062	0.003
3	0.345	0.311	0.283	0.26	0.181	0.166	0.154	0.06	0.056	0.052	0.002
4	0.314	0.274	0.244	0.22	0.16	0.144	0.131	0.053	0.048	0.044	0.002
5	0.287	0.243	0.211	0.187	0.142	0.125	0.112	0.047	0.042	0.038	0.002
6	0.263	0.217	0.185	0.16	0.127	0.109	0.096	0.042	0.037	0.033	0.002
7	0.242	0.195	0.162	0.139	0.114	0.096	0.083	0.038	0.033	0.029	0.001
8	0.224	0.176	0.144	0.121	0.103	0.085	0.073	0.035	0.029	0.025	0.001
9	0.208	0.159	0.128	0.106	0.093	0.076	0.064	0.031	0.026	0.022	0.001
10	0.193	0.145	0.114	0.093	0.085	0.068	0.056	0.029	0.023	0.019	0.001

Average Luminance Table (cd/m²)

	0	45	90
0	1233	1233	1233
45	906	956	973
55	951	972	827
65	898	729	561
75	825	596	458
85	1360	1769	544

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.

