



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: 19143

DATE: 05-11-2010

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CATALOG NUMBER: DRSI02-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: TWO 54 WATT HIGH OUTPUT T5 LINEAR FLUORESCENT LAMPS RATED AT 4400 LUMENS EACH.

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

BALLAST: ONE UNIVERSAL LIGHTING TECHNOLOGIES B254PUNV-D

MOUNTING: PENDANT

ELECTRICAL VALUES: 120.0VAC, 0.9911A, 118.73W

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	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	
5	18	18	19	18	17	18	19	18	18	18	19	18	17	18	19	18	1.7
15	16	17	18	17	18	17	18	17	16	17	18	17	18	17	18	17	4.9
25	15	16	16	16	16	16	16	16	15	16	16	16	16	16	16	16	7.2
35	12	14	13	13	13	13	13	14	12	14	13	13	13	13	13	14	8.3
45	10	11	11	11	11	11	11	11	10	11	11	11	11	11	11	11	8.3
55	8	9	8	8	7	8	8	9	8	9	8	8	7	8	8	9	7.2
65	6	6	5	5	5	5	5	6	6	6	5	5	5	5	5	6	5.4
75	3	3	3	3	2	3	3	3	3	3	3	3	2	3	3	3	3.2
85	2	2	2	1	1	1	2	2	2	2	2	1	1	1	2	2	1.8
90	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
95	68	79	21	7	8	7	21	79	68	79	21	7	8	7	21	79	70.7
105	324	696	524	416	395	416	524	696	324	696	524	416	395	416	524	696	534.1
115	634	1095	1301	1250	1198	1250	1301	1095	634	1095	1301	1250	1198	1250	1301	1095	1117.5
125	921	1340	1691	1847	1901	1847	1691	1340	921	1340	1691	1847	1901	1847	1691	1340	1400.5
135	1177	1489	1849	2052	2153	2052	1849	1489	1177	1489	1849	2052	2153	2052	1849	1489	1362.2
145	1393	1585	1895	2077	2153	2077	1895	1585	1393	1585	1895	2077	2153	2077	1895	1585	1148.1
155	1554	1642	1860	1989	2052	1989	1860	1642	1554	1642	1860	1989	2052	1989	1860	1642	843.6
165	1671	1694	1771	1843	1885	1843	1771	1694	1671	1694	1771	1843	1885	1843	1771	1694	503.6
175	1727	1720	1735	1732	1743	1732	1735	1720	1727	1720	1735	1732	1743	1732	1735	1720	165.8
180	1727	1727	1727	1727	1727	1727	1727	1727	1727	1727	1727	1727	1727	1727	1727	1727	

Zonal Lumen Summary

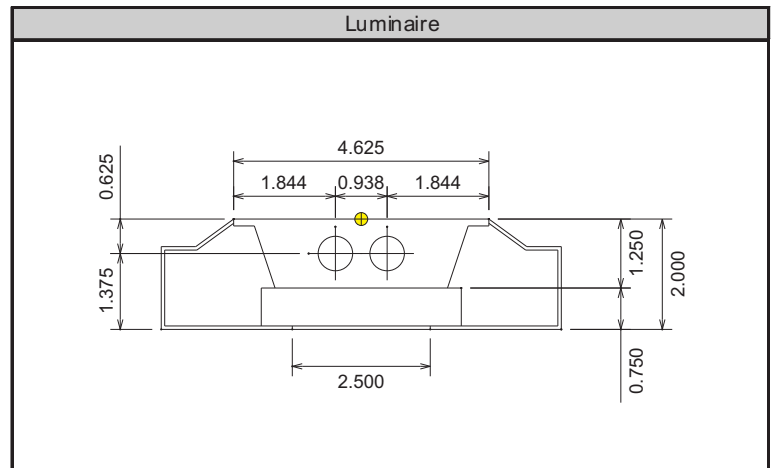
Zone	Lumens	% of Lamp	% of Luminaire
0-30	13.8	0.2%	0.2%
0-40	22.1	0.3%	0.3%
0-60	37.6	0.4%	0.5%
0-90	48.0	0.5%	0.7%
90-180	7145.9	81.2%	99.3%
0-180	7193.9	81.7%	100.0%

Total luminaire efficiency: 81.7%

CIE Type: Indirect

Spacing Criterion: 0 deg: 1.08 90 deg: 1.14
180 deg: 1.08 270 deg: 1.14

Total reflectance of paint: 91.1



Approved By: MG

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



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

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	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
5	18	18	19	18	17	18	19	18	18	18	19	18	17	18	19	18
10	17	18	18	18	18	18	18	18	17	18	18	18	18	18	18	18
15	16	17	18	17	18	17	18	17	16	17	18	17	18	17	18	17
20	16	16	17	17	17	17	17	16	16	16	17	17	17	17	17	16
25	15	16	16	16	16	16	16	16	15	16	16	16	16	16	16	16
30	13	15	15	15	14	15	15	15	13	15	15	15	14	15	15	15
35	12	14	13	13	13	13	13	14	12	14	13	13	13	13	13	14
40	11	12	12	12	12	12	12	12	11	12	12	12	12	12	12	12
45	10	11	11	11	11	11	11	11	10	11	11	11	11	11	11	11
50	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
55	8	9	8	8	7	8	8	9	8	9	8	8	7	8	8	9
60	7	7	7	7	6	7	7	7	7	7	7	7	6	7	7	7
65	6	6	5	5	5	5	5	6	6	6	5	5	5	5	5	6
70	5	4	4	4	3	4	4	4	5	4	4	4	3	4	4	4
75	3	3	3	3	2	3	3	3	3	3	3	3	2	3	3	3
80	2	2	2	2	1	2	2	2	2	2	2	2	1	2	2	2
85	2	2	2	1	1	1	2	2	2	2	2	1	1	1	2	2
90	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
95	68	79	21	7	8	7	21	79	68	79	21	7	8	7	21	79
100	183	341	221	166	148	166	221	341	183	341	221	166	148	166	221	341
105	324	696	524	416	395	416	524	696	324	696	524	416	395	416	524	696
110	472	933	947	803	744	803	947	933	472	933	947	803	744	803	947	933
115	634	1095	1301	1250	1198	1250	1301	1095	634	1095	1301	1250	1198	1250	1301	1095
120	785	1236	1532	1612	1620	1612	1532	1236	785	1236	1532	1612	1620	1612	1532	1236
125	921	1340	1691	1847	1901	1847	1691	1340	921	1340	1691	1847	1901	1847	1691	1340
130	1059	1428	1781	2005	2074	2005	1781	1428	1059	1428	1781	2005	2074	2005	1781	1428
135	1177	1489	1849	2052	2153	2052	1849	1489	1177	1489	1849	2052	2153	2052	1849	1489
140	1289	1546	1884	2074	2154	2074	1884	1546	1289	1546	1884	2074	2154	2074	1884	1546
145	1393	1585	1895	2077	2153	2077	1895	1585	1393	1585	1895	2077	2153	2077	1895	1585
150	1479	1617	1882	2042	2106	2042	1882	1617	1479	1617	1882	2042	2106	2042	1882	1617
155	1554	1642	1860	1989	2052	1989	1860	1642	1554	1642	1860	1989	2052	1989	1860	1642
160	1620	1669	1815	1931	1980	1931	1815	1669	1620	1669	1815	1931	1980	1931	1815	1669
165	1671	1694	1771	1843	1885	1843	1771	1694	1671	1694	1771	1843	1885	1843	1771	1694
170	1708	1716	1750	1776	1797	1776	1750	1716	1708	1716	1750	1776	1797	1776	1750	1716
175	1727	1720	1735	1732	1743	1732	1735	1720	1727	1720	1735	1732	1743	1732	1735	1720
180	1727	1727	1727	1727	1727	1727	1727	1727	1727	1727	1727	1727	1727	1727	1727	1727

Zonal Lumen Tabulation (5 degree zones)

Zone	Lumens	Zone	Lumens	Zone	Lumens	Zone	Lumens
0-5	0.4	45-50	4.0	90-95	6.8	135-140	661.7
5-10	1.3	50-55	3.8	95-100	63.9	140-145	607.7
10-15	2.1	55-60	3.4	100-105	190.7	145-150	540.4
15-20	2.8	60-65	3.0	105-110	343.4	150-155	462.7
20-25	3.4	65-70	2.5	110-115	497.9	155-160	380.8
25-30	3.8	70-75	1.9	115-120	619.6	160-165	294.9
30-35	4.1	75-80	1.3	120-125	689.6	165-170	208.7
35-40	4.2	80-85	0.9	125-130	710.8	170-175	124.4
40-45	4.3	85-90	0.8	130-135	700.5	175-180	41.4



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	0.898	0.898	0.898	0.898	0.78	0.78	0.78	0.78	0.667	0.667	0.667	0.667
1	0.818	0.778	0.742	0.709	0.709	0.676	0.647	0.621	0.605	0.579	0.556	0.535
2	0.746	0.677	0.622	0.575	0.645	0.59	0.544	0.505	0.55	0.506	0.469	0.437
3	0.68	0.593	0.528	0.476	0.587	0.517	0.463	0.419	0.5	0.444	0.4	0.364
4	0.62	0.522	0.452	0.398	0.536	0.456	0.397	0.352	0.456	0.391	0.343	0.306
5	0.567	0.462	0.389	0.337	0.49	0.403	0.343	0.298	0.417	0.347	0.297	0.259
6	0.52	0.411	0.339	0.288	0.449	0.359	0.298	0.255	0.382	0.309	0.259	0.222
7	0.478	0.367	0.297	0.248	0.413	0.321	0.262	0.22	0.352	0.277	0.227	0.192
8	0.441	0.33	0.262	0.216	0.381	0.289	0.231	0.191	0.325	0.249	0.201	0.167
9	0.408	0.299	0.233	0.189	0.353	0.261	0.205	0.168	0.301	0.226	0.178	0.146
10	0.379	0.271	0.208	0.166	0.328	0.237	0.183	0.147	0.28	0.205	0.159	0.129

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	0.457	0.457	0.457	0.457	0.265	0.265	0.265	0.088	0.088	0.088	0.005
1	0.413	0.398	0.384	0.371	0.231	0.224	0.218	0.077	0.075	0.074	0.005
2	0.374	0.348	0.326	0.306	0.202	0.191	0.181	0.068	0.065	0.062	0.004
3	0.34	0.306	0.279	0.256	0.178	0.164	0.152	0.06	0.056	0.052	0.003
4	0.309	0.27	0.24	0.216	0.158	0.142	0.129	0.053	0.048	0.044	0.003
5	0.282	0.24	0.208	0.184	0.14	0.123	0.11	0.047	0.042	0.038	0.002
6	0.259	0.214	0.182	0.158	0.125	0.108	0.095	0.042	0.037	0.033	0.002
7	0.239	0.192	0.16	0.137	0.113	0.095	0.082	0.038	0.033	0.028	0.002
8	0.221	0.173	0.142	0.119	0.102	0.084	0.072	0.034	0.029	0.025	0.002
9	0.205	0.157	0.126	0.104	0.092	0.075	0.063	0.031	0.026	0.022	0.001
10	0.19	0.143	0.113	0.092	0.084	0.067	0.055	0.029	0.023	0.019	0.001

Average Luminance Table (cd/m²)

	0	45	90
0	3094	3094	3094
45	2393	2533	2495
55	2227	2384	2102
65	2469	2107	1788
75	2086	1773	1460
85	3303	3200	1032

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.

LTL Test Number 19143 - Page 3

