



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: 19146

DATE: 05-11-2010

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CATALOG NUMBER: DRPI02-SL-X-4-W-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, 0.9805A, 117.22W

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	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	
5	27	28	28	28	28	28	29	28	27	28	29	28	28	28	28	28	2.7
15	27	27	28	26	26	26	26	27	27	27	26	26	26	26	28	27	7.5
25	23	24	24	24	23	23	24	24	24	24	24	23	23	24	24	24	11.0
35	20	20	20	21	19	20	20	20	21	20	20	20	19	21	20	20	12.6
45	16	16	16	17	16	16	16	16	17	16	16	16	16	17	16	16	12.7
55	11	12	13	13	13	13	13	13	13	13	13	13	13	13	13	12	11.4
65	8	8	9	10	10	9	9	9	9	9	9	9	10	10	9	8	8.9
75	4	5	5	6	6	5	5	5	5	5	5	5	6	6	5	5	5.5
85	1	2	2	3	3	3	3	2	2	2	3	3	3	3	2	2	3.0
90	0	0	1	1	2	4	4	3	4	3	4	4	2	1	1	0	
95	13	40	85	124	69	45	19	19	22	19	19	45	69	124	85	40	78.8
105	508	546	601	607	341	291	233	214	220	214	233	291	341	607	601	546	424.3
115	1148	1161	1135	970	666	590	540	489	483	489	540	590	666	970	1135	1161	786.9
125	1643	1630	1549	1193	975	893	858	826	813	826	858	893	975	1193	1549	1630	1017.4
135	1976	1910	1664	1399	1240	1170	1120	1101	1101	1101	1120	1170	1240	1399	1664	1910	1071.2
145	1973	1891	1740	1587	1464	1402	1364	1326	1326	1326	1364	1402	1464	1587	1740	1891	970.5
155	1920	1876	1817	1722	1640	1585	1565	1534	1530	1534	1565	1585	1640	1722	1817	1876	775.0
165	1920	1888	1866	1796	1754	1732	1728	1686	1684	1686	1728	1732	1754	1796	1866	1888	502.8
175	1868	1847	1850	1828	1821	1802	1804	1790	1792	1790	1804	1802	1821	1828	1850	1847	173.2
180	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	

Zonal Lumen Summary

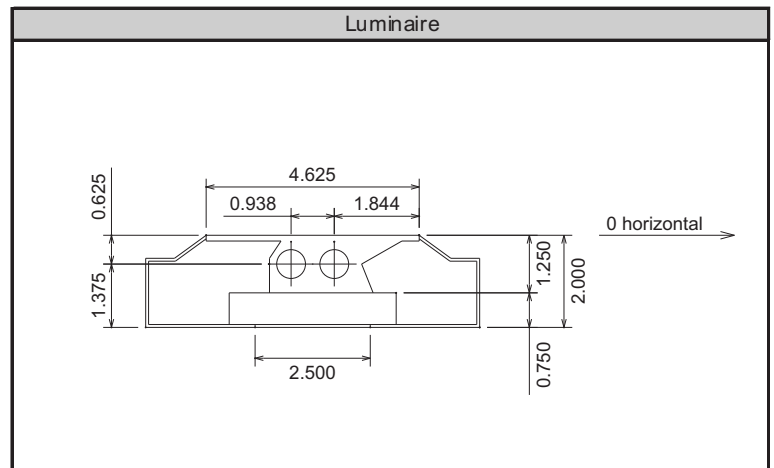
Zone	Lumens	% of Lamp	% of Luminaire
0-30	21.2	0.2%	0.4%
0-40	33.8	0.4%	0.6%
0-60	57.8	0.7%	1.0%
0-90	75.3	0.9%	1.3%
90-180	5800.1	65.9%	98.7%
0-180	5875.5	66.8%	100.0%

Total luminaire efficiency: 66.8%

CIE Type: Indirect

Spacing Criterion: 0 deg: 1.13 90 deg: 1.10
180 deg: 1.18 270 deg: 1.10

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	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
5	27	28	28	28	28	28	29	28	27	28	29	28	28	28	28	28
10	28	28	28	28	27	27	28	28	28	28	28	27	27	28	28	28
15	27	27	28	26	26	26	26	27	27	27	26	26	26	26	28	27
20	26	26	26	26	24	25	26	26	26	26	26	25	24	26	26	26
25	23	24	24	24	23	23	24	24	24	24	24	23	23	24	24	24
30	22	22	22	23	21	22	22	22	23	22	22	22	21	23	22	22
35	20	20	20	21	19	20	20	20	21	20	20	20	19	21	20	20
40	18	18	18	19	18	18	18	18	19	18	18	18	18	19	18	18
45	16	16	16	17	16	16	16	16	17	16	16	16	16	17	16	16
50	14	14	15	15	15	15	15	15	15	15	15	15	15	15	15	14
55	11	12	13	13	13	13	13	13	13	13	13	13	13	13	13	12
60	10	10	11	11	11	11	11	10	11	10	11	11	11	11	11	10
65	8	8	9	10	10	9	9	9	9	9	9	9	10	10	9	8
70	6	7	7	8	7	7	7	7	7	7	7	7	7	8	7	7
75	4	5	5	6	6	5	5	5	5	5	5	5	6	6	5	5
80	2	3	3	4	4	4	3	3	3	3	3	4	4	4	3	3
85	1	2	2	3	3	3	3	2	2	2	3	3	3	3	2	2
90	0	0	1	1	2	4	4	3	4	3	4	4	2	1	1	0
95	13	40	85	124	69	45	19	19	22	19	19	45	69	124	85	40
100	257	280	312	364	193	146	120	94	93	94	120	146	193	364	312	280
105	508	546	601	607	341	291	233	214	220	214	233	291	341	607	601	546
110	828	864	899	833	498	445	380	333	341	333	380	445	498	833	899	864
115	1148	1161	1135	970	666	590	540	489	483	489	540	590	666	970	1135	1161
120	1410	1401	1375	1082	828	749	712	663	653	663	712	749	828	1082	1375	1401
125	1643	1630	1549	1193	975	893	858	826	813	826	858	893	975	1193	1549	1630
130	1844	1802	1636	1291	1112	1036	992	977	964	977	992	1036	1112	1291	1636	1802
135	1976	1910	1664	1399	1240	1170	1120	1101	1101	1101	1120	1170	1240	1399	1664	1910
140	2005	1888	1703	1502	1356	1294	1247	1211	1206	1211	1247	1294	1356	1502	1703	1888
145	1973	1891	1740	1587	1464	1402	1364	1326	1326	1326	1364	1402	1464	1587	1740	1891
150	1935	1875	1774	1659	1555	1493	1469	1428	1428	1428	1469	1493	1555	1659	1774	1875
155	1920	1876	1817	1722	1640	1585	1565	1534	1530	1534	1565	1585	1640	1722	1817	1876
160	1914	1884	1846	1763	1705	1659	1645	1620	1623	1620	1645	1659	1705	1763	1846	1884
165	1920	1888	1866	1796	1754	1732	1728	1686	1684	1686	1728	1732	1754	1796	1866	1888
170	1900	1879	1862	1820	1796	1769	1760	1741	1739	1741	1760	1769	1796	1820	1862	1879
175	1868	1847	1850	1828	1821	1802	1804	1790	1792	1790	1804	1802	1821	1828	1850	1847
180	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823

Zonal Lumen Tabulation (5 degree zones)

Zone	Lumens	Zone	Lumens	Zone	Lumens	Zone	Lumens
0-5	0.7	45-50	6.2	90-95	9.6	135-140	531.2
5-10	2.0	50-55	6.0	95-100	69.2	140-145	504.3
10-15	3.2	55-60	5.4	100-105	161.8	145-150	466.2
15-20	4.3	60-65	4.8	105-110	262.5	150-155	416.9
20-25	5.2	65-70	4.1	110-115	355.3	155-160	358.2
25-30	5.8	70-75	3.2	115-120	431.6	160-165	289.9
30-35	6.2	75-80	2.3	120-125	490.0	165-170	212.9
35-40	6.4	80-85	1.7	125-130	527.4	170-175	129.6
40-45	6.4	85-90	1.4	130-135	540.0	175-180	43.5



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	0.734	0.734	0.734	0.734	0.638	0.638	0.638	0.638	0.546	0.546	0.546	0.546
1	0.669	0.636	0.606	0.58	0.58	0.553	0.529	0.508	0.496	0.474	0.455	0.438
2	0.609	0.554	0.508	0.47	0.527	0.482	0.445	0.413	0.45	0.414	0.384	0.358
3	0.556	0.485	0.431	0.389	0.48	0.423	0.378	0.343	0.41	0.363	0.327	0.298
4	0.507	0.427	0.369	0.326	0.438	0.373	0.324	0.288	0.373	0.32	0.281	0.251
5	0.463	0.377	0.318	0.275	0.401	0.33	0.28	0.244	0.341	0.284	0.243	0.212
6	0.425	0.336	0.277	0.235	0.367	0.294	0.244	0.209	0.313	0.253	0.212	0.182
7	0.391	0.3	0.243	0.203	0.338	0.263	0.214	0.18	0.288	0.227	0.186	0.157
8	0.361	0.27	0.214	0.176	0.312	0.237	0.189	0.157	0.266	0.204	0.164	0.137
9	0.334	0.244	0.19	0.154	0.289	0.214	0.168	0.137	0.246	0.185	0.146	0.12
10	0.31	0.221	0.17	0.136	0.268	0.194	0.15	0.121	0.229	0.168	0.131	0.106

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	0.376	0.376	0.376	0.376	0.219	0.219	0.219	0.076	0.076	0.076	0.009
1	0.339	0.327	0.315	0.305	0.191	0.186	0.18	0.066	0.065	0.063	0.007
2	0.307	0.286	0.267	0.252	0.168	0.158	0.15	0.058	0.055	0.053	0.006
3	0.279	0.251	0.229	0.211	0.148	0.136	0.126	0.051	0.048	0.045	0.005
4	0.254	0.222	0.197	0.178	0.131	0.118	0.107	0.046	0.041	0.038	0.004
5	0.232	0.197	0.171	0.151	0.116	0.102	0.091	0.041	0.036	0.033	0.004
6	0.213	0.176	0.149	0.13	0.104	0.089	0.079	0.036	0.032	0.028	0.003
7	0.196	0.158	0.132	0.112	0.093	0.079	0.068	0.033	0.028	0.025	0.003
8	0.181	0.142	0.116	0.098	0.084	0.07	0.059	0.03	0.025	0.021	0.003
9	0.168	0.129	0.104	0.086	0.077	0.062	0.052	0.027	0.022	0.019	0.002
10	0.156	0.117	0.093	0.076	0.07	0.056	0.046	0.025	0.02	0.017	0.002

Average Luminance Table (cd/m²)

	0	45	90
0	4734	4734	4734
45	3633	3774	3680
55	3255	3807	3691
65	2998	3511	3826
75	2834	3350	3607
85	1530	4399	5930

Note: The zonal cavity calculation technique is accurate when luminaires with symmetric candela distributions are employed and when the luminaires are located symmetrically throughout the room. This unit has special characteristics and therefore these values should be used with caution.

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.

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