



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: 16916 DATE: 11-07-2006
 PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING
 CATALOG NUMBER: 0505S-03-R-4-OP/PB-X-120T5HO-IR
 LUMINAIRE: EXTRUDED ALUMINUM HOUSING, FORMED SPECULAR ALUMINUM REFLECTORS, 29 CELL, 3/4" DEEP, FORMED SEMI-SPECULAR ALUMINUM LOUVER, 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
 AS TESTED ELECTRICAL VALUES: 120.0VAC, 1.2825A, 153.5W
 PRORATED ELECTRICAL VALUES: 120.0VAC, 0.4275A, 51.2W
 NOTE: THIS TEST WAS GENERATED USING MEASURED PHOTOMETRIC DATA FROM LTL TEST#10599 TO SHOW PHOTOMETRIC DATA FROM 0-90.

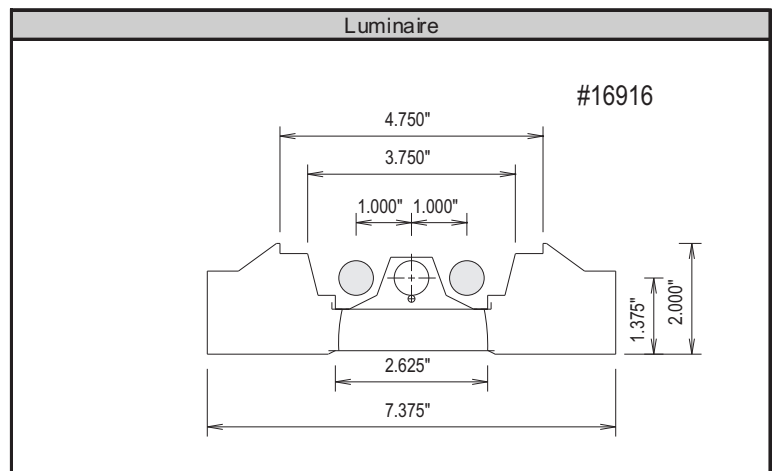
Candela Distribution

	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	751	751	751	751	751	751	751	751	751	751	751	751	751	751	751	751	
5	762	772	745	775	772	775	745	772	762	772	745	775	772	775	745	772	73.4
15	736	770	756	780	769	780	756	770	736	770	756	780	769	780	756	770	216.9
25	687	722	730	825	842	825	730	722	687	722	730	825	842	825	730	722	351.6
35	600	643	720	882	940	882	720	643	600	643	720	882	940	882	720	643	467.9
45	487	559	654	695	707	695	654	559	487	559	654	695	707	695	654	559	479.2
55	274	391	357	330	309	330	357	391	274	391	357	330	309	330	357	391	297.7
65	20	37	28	25	14	25	28	37	20	37	28	25	14	25	28	37	43.2
75	3	4	2	2	1	2	2	4	3	4	2	2	1	2	2	4	5.1
85	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0.6
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Zonal Lumen Summary

Zone	Lumens	% of Lamp	% of Luminaire
0-30	641.9	14.6%	33.2%
0-40	1109.8	25.2%	57.3%
0-60	1886.8	42.9%	97.5%
0-90	1935.7	44.0%	100.0%
90-180	0.0	0.0%	0.0%
0-180	1935.7	44.0%	100.0%

Total luminaire efficiency: 44.0%
 CIE Type: Direct
 Spacing Criterion: 0 deg: 1.27 90 deg: 1.70
 180 deg: 1.27 270 deg: 1.70



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	751	751	751	751	751	751	751	751	751	751	751	751	751	751	751	751
5	762	772	745	775	772	775	745	772	762	772	745	775	772	775	745	772
10	756	774	756	789	784	789	756	774	756	774	756	789	784	789	756	774
15	736	770	756	780	769	780	756	770	736	770	756	780	769	780	756	770
20	716	755	738	793	801	793	738	755	716	755	738	793	801	793	738	755
25	687	722	730	825	842	825	730	722	687	722	730	825	842	825	730	722
30	646	680	735	840	888	840	735	680	646	680	735	840	888	840	735	680
35	600	643	720	882	940	882	720	643	600	643	720	882	940	882	720	643
40	555	609	710	833	858	833	710	609	555	609	710	833	858	833	710	609
45	487	559	654	695	707	695	654	559	487	559	654	695	707	695	654	559
50	391	492	522	529	535	529	522	492	391	492	522	529	535	529	522	492
55	274	391	357	330	309	330	357	391	274	391	357	330	309	330	357	391
60	120	206	163	118	67	118	163	206	120	206	163	118	67	118	163	206
65	20	37	28	25	14	25	28	37	20	37	28	25	14	25	28	37
70	4	8	7	12	10	12	7	8	4	8	7	12	10	12	7	8
75	3	4	2	2	1	2	2	4	3	4	2	2	1	2	2	4
80	3	1	1	1	0	1	1	1	3	1	1	1	0	1	1	1
85	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Zonal Lumen Tabulation (5 degree zones)

Zone	Lumens	Zone	Lumens	Zone	Lumens	Zone	Lumens
0-5	18.1	45-50	229.6	90-95	0.0	135-140	0.0
5-10	55.2	50-55	185.3	95-100	0.0	140-145	0.0
10-15	91.4	55-60	112.5	100-105	0.0	145-150	0.0
15-20	125.5	60-65	35.8	105-110	0.0	150-155	0.0
20-25	159.9	65-70	7.4	110-115	0.0	155-160	0.0
25-30	191.7	70-75	3.9	115-120	0.0	160-165	0.0
30-35	222.2	75-80	1.2	120-125	0.0	165-170	0.0
35-40	245.7	80-85	0.3	125-130	0.0	170-175	0.0
40-45	249.7	85-90	0.3	130-135	0.0	175-180	0.0



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	0.537	0.537	0.537	0.537	0.524	0.524	0.524	0.524	0.512	0.512	0.512	0.512
1	0.503	0.485	0.469	0.455	0.491	0.475	0.461	0.448	0.479	0.465	0.452	0.441
2	0.466	0.435	0.409	0.387	0.455	0.426	0.402	0.382	0.444	0.418	0.397	0.378
3	0.431	0.389	0.357	0.332	0.421	0.382	0.353	0.329	0.411	0.376	0.348	0.326
4	0.398	0.349	0.314	0.287	0.389	0.344	0.31	0.285	0.379	0.338	0.307	0.283
5	0.368	0.314	0.278	0.251	0.359	0.31	0.275	0.249	0.351	0.305	0.272	0.248
6	0.341	0.284	0.247	0.22	0.333	0.28	0.245	0.22	0.325	0.276	0.243	0.219
7	0.317	0.258	0.221	0.196	0.309	0.255	0.219	0.195	0.302	0.251	0.218	0.194
8	0.294	0.236	0.199	0.175	0.288	0.233	0.198	0.174	0.281	0.23	0.197	0.174
9	0.275	0.216	0.181	0.157	0.268	0.213	0.179	0.157	0.262	0.211	0.178	0.156
10	0.257	0.199	0.165	0.142	0.251	0.196	0.164	0.142	0.246	0.194	0.163	0.141

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	0.489	0.489	0.489	0.489	0.468	0.468	0.468	0.449	0.449	0.449	0.44
1	0.458	0.447	0.437	0.427	0.43	0.422	0.414	0.415	0.408	0.402	0.394
2	0.425	0.403	0.385	0.369	0.39	0.375	0.361	0.377	0.365	0.354	0.345
3	0.392	0.363	0.34	0.321	0.352	0.332	0.315	0.341	0.324	0.31	0.302
4	0.362	0.328	0.301	0.28	0.318	0.295	0.276	0.309	0.289	0.273	0.264
5	0.335	0.296	0.267	0.245	0.288	0.263	0.243	0.28	0.258	0.241	0.232
6	0.311	0.269	0.239	0.217	0.262	0.235	0.215	0.255	0.232	0.213	0.205
7	0.289	0.245	0.215	0.193	0.239	0.212	0.192	0.233	0.209	0.19	0.182
8	0.269	0.224	0.194	0.173	0.219	0.192	0.172	0.214	0.189	0.171	0.163
9	0.252	0.206	0.176	0.156	0.201	0.174	0.155	0.197	0.172	0.154	0.147
10	0.236	0.19	0.161	0.141	0.186	0.159	0.14	0.182	0.158	0.14	0.132

Average Luminance Table (cd/m²)

	0	45	90
0	10101	10101	10101
45	9266	12451	13458
55	6425	8380	7241
65	646	900	461
75	151	113	75
85	0	0	0

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.

