



# 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: 18377

DATE: 07-07-2010

PREPARED FOR: LUMETTA, INC.

CATALOG NUMBER: FP1266

LUMINAIRE: FORMED ALUMINUM AND STEEL HOUSING/REFLECTOR, WHITE PLASTIC SIDE DIFFUSER WITH TRANSLUCENT WHITE PLASTIC TOP AND BOTTOM ENCLOSURES.

LAMP: TWO HORIZONTAL 39 WATT HIGH OUTPUT T5 LINEAR FLUORESCENT LAMPS RATED AT 3080 LUMENS EACH.

LAMP CATALOG NUMBER: SYLVANIA FP39/835/HO

BALLAST: ONE FULHAM WORKHORSE "5" WH5-120-L

MOUNTING: PENDANT

ELECTRICAL VALUES: 120.0VAC, 0.6868A, 77.48W

### 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	728	728	728	728	728	728	728	728	728	728	728	728	728	728	728	728	
5	723	725	728	731	730	731	728	725	723	725	728	731	730	731	728	725	69.4
15	697	706	716	724	725	724	716	706	697	706	716	724	725	724	716	706	201.8
25	645	661	681	695	698	695	681	661	645	661	681	695	698	695	681	661	312.3
35	570	594	623	644	650	644	623	594	570	594	623	644	650	644	623	594	386.7
45	477	509	547	574	582	574	547	509	477	509	547	574	582	574	547	509	416.7
55	372	411	456	489	499	489	456	411	372	411	456	489	499	489	456	411	400.8
65	261	305	357	394	407	394	357	305	261	305	357	394	407	394	357	305	344.3
75	150	199	254	295	310	295	254	199	150	199	254	295	310	295	254	199	258.7
85	48	99	157	201	216	201	157	99	48	99	157	201	216	201	157	99	162.8
90	16	68	126	170	186	170	126	68	16	68	126	170	186	170	126	68	
95	26	76	132	175	191	175	132	76	26	76	132	175	191	175	132	76	137.4
105	85	135	188	227	241	227	188	135	85	135	188	227	241	227	188	135	188.4
115	157	203	253	289	303	289	253	203	157	203	253	289	303	289	253	203	241.1
125	224	264	310	343	354	343	310	264	224	264	310	343	354	343	310	264	269.6
135	283	315	354	382	392	382	354	315	283	315	354	382	392	382	354	315	268.0
145	330	355	384	407	415	407	384	355	330	355	384	407	415	407	384	355	237.9
155	367	384	403	418	424	418	403	384	367	384	403	418	424	418	403	384	184.7
165	392	401	411	419	423	419	411	401	392	401	411	419	423	419	411	401	115.9
175	404	406	408	410	411	410	408	406	404	406	408	410	411	410	408	406	39.0
180	406	406	406	406	406	406	406	406	406	406	406	406	406	406	406	406	

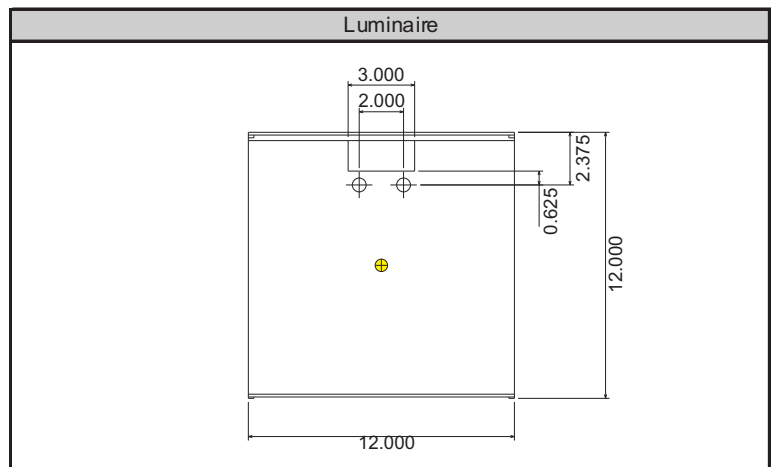
### Zonal Lumen Summary

Zone	Lumens	% of Lamp	% of Luminaire
0-30	583.5	9.5%	13.8%
0-40	970.3	15.8%	22.9%
0-60	1787.7	29.0%	42.2%
0-90	2553.7	41.5%	60.3%
90-180	1681.9	27.3%	39.7%
0-180	4235.6	68.8%	100.0%

Total luminaire efficiency: 68.8%

CIE Type: Semi-Direct

Spacing Criterion: 0 deg: 1.25    90 deg: 1.38  
180 deg: 1.25    270 deg: 1.38



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	728	728	728	728	728	728	728	728	728	728	728	728	728	728	728	728
5	723	725	728	731	730	731	728	725	723	725	728	731	730	731	728	725
10	713	719	725	730	731	730	725	719	713	719	725	730	731	730	725	719
15	697	706	716	724	725	724	716	706	697	706	716	724	725	724	716	706
20	674	686	701	712	715	712	701	686	674	686	701	712	715	712	701	686
25	645	661	681	695	698	695	681	661	645	661	681	695	698	695	681	661
30	610	631	654	671	677	671	654	631	610	631	654	671	677	671	654	631
35	570	594	623	644	650	644	623	594	570	594	623	644	650	644	623	594
40	525	553	587	610	618	610	587	553	525	553	587	610	618	610	587	553
45	477	509	547	574	582	574	547	509	477	509	547	574	582	574	547	509
50	426	461	503	533	543	533	503	461	426	461	503	533	543	533	503	461
55	372	411	456	489	499	489	456	411	372	411	456	489	499	489	456	411
60	316	359	407	443	454	443	407	359	316	359	407	443	454	443	407	359
65	261	305	357	394	407	394	357	305	261	305	357	394	407	394	357	305
70	205	252	306	345	359	345	306	252	205	252	306	345	359	345	306	252
75	150	199	254	295	310	295	254	199	150	199	254	295	310	295	254	199
80	97	148	205	247	262	247	205	148	97	148	205	247	262	247	205	148
85	48	99	157	201	216	201	157	99	48	99	157	201	216	201	157	99
90	16	68	126	170	186	170	126	68	16	68	126	170	186	170	126	68
95	26	76	132	175	191	175	132	76	26	76	132	175	191	175	132	76
100	52	102	157	197	212	197	157	102	52	102	157	197	212	197	157	102
105	85	135	188	227	241	227	188	135	85	135	188	227	241	227	188	135
110	122	169	220	258	272	258	220	169	122	169	220	258	272	258	220	169
115	157	203	253	289	303	289	253	203	157	203	253	289	303	289	253	203
120	192	235	283	317	330	317	283	235	192	235	283	317	330	317	283	235
125	224	264	310	343	354	343	310	264	224	264	310	343	354	343	310	264
130	255	291	333	364	376	364	333	291	255	291	333	364	376	364	333	291
135	283	315	354	382	392	382	354	315	283	315	354	382	392	382	354	315
140	308	337	371	396	406	396	371	337	308	337	371	396	406	396	371	337
145	330	355	384	407	415	407	384	355	330	355	384	407	415	407	384	355
150	350	371	395	414	421	414	395	371	350	371	395	414	421	414	395	371
155	367	384	403	418	424	418	403	384	367	384	403	418	424	418	403	384
160	382	394	408	420	425	420	408	394	382	394	408	420	425	420	408	394
165	392	401	411	419	423	419	411	401	392	401	411	419	423	419	411	401
170	400	405	411	416	417	416	411	405	400	405	411	416	417	416	411	405
175	404	406	408	410	411	410	408	406	404	406	408	410	411	410	408	406
180	406	406	406	406	406	406	406	406	406	406	406	406	406	406	406	406

Zonal Lumen Tabulation (5 degree zones)

Zone	Lumens	Zone	Lumens	Zone	Lumens	Zone	Lumens
0-5	17.4	45-50	209.2	90-95	64.7	135-140	131.9
5-10	51.9	50-55	205.2	95-100	72.7	140-145	124.3
10-15	85.3	55-60	195.6	100-105	86.7	145-150	113.6
15-20	116.5	60-65	181.3	105-110	101.7	150-155	100.2
20-25	144.3	65-70	163.0	110-115	115.1	155-160	84.6
25-30	168.0	70-75	141.3	115-120	125.9	160-165	67.2
30-35	186.7	75-80	117.4	120-125	133.1	165-170	48.6
35-40	200.0	80-85	92.9	125-130	136.5	170-175	29.3
40-45	207.5	85-90	69.9	130-135	136.1	175-180	9.7



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	0.805	0.805	0.805	0.805	0.754	0.754	0.754	0.754	0.704	0.704	0.704	0.704
1	0.726	0.686	0.65	0.618	0.677	0.642	0.61	0.582	0.63	0.6	0.572	0.547
2	0.658	0.592	0.538	0.493	0.612	0.554	0.506	0.466	0.568	0.517	0.475	0.439
3	0.598	0.516	0.453	0.404	0.555	0.483	0.427	0.382	0.515	0.451	0.402	0.362
4	0.545	0.453	0.387	0.337	0.506	0.425	0.366	0.32	0.469	0.398	0.344	0.303
5	0.499	0.402	0.335	0.286	0.463	0.377	0.317	0.272	0.43	0.353	0.299	0.258
6	0.459	0.359	0.293	0.247	0.426	0.337	0.278	0.235	0.396	0.317	0.262	0.223
7	0.424	0.323	0.259	0.215	0.394	0.304	0.246	0.205	0.366	0.286	0.233	0.195
8	0.393	0.293	0.231	0.189	0.365	0.276	0.219	0.18	0.339	0.259	0.208	0.172
9	0.365	0.266	0.207	0.168	0.34	0.251	0.197	0.16	0.316	0.237	0.187	0.153
10	0.341	0.244	0.187	0.15	0.318	0.23	0.178	0.144	0.296	0.217	0.169	0.137

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	0.612	0.612	0.612	0.612	0.528	0.528	0.528	0.451	0.451	0.451	0.415
1	0.544	0.52	0.499	0.48	0.448	0.432	0.417	0.381	0.369	0.358	0.326
2	0.488	0.449	0.416	0.388	0.386	0.361	0.339	0.328	0.309	0.293	0.263
3	0.441	0.392	0.353	0.321	0.338	0.307	0.282	0.287	0.264	0.244	0.217
4	0.401	0.346	0.304	0.27	0.298	0.265	0.238	0.254	0.228	0.207	0.183
5	0.368	0.308	0.265	0.231	0.266	0.231	0.204	0.227	0.2	0.178	0.157
6	0.339	0.277	0.233	0.2	0.24	0.204	0.177	0.205	0.177	0.155	0.136
7	0.314	0.25	0.207	0.175	0.218	0.182	0.156	0.187	0.158	0.137	0.119
8	0.292	0.228	0.185	0.155	0.199	0.164	0.138	0.171	0.143	0.122	0.106
9	0.273	0.209	0.167	0.138	0.182	0.148	0.124	0.158	0.13	0.109	0.094
10	0.256	0.192	0.152	0.124	0.168	0.135	0.111	0.146	0.119	0.099	0.085

Average Luminance Table (cd/m<sup>2</sup>)

	0	45	90
0	1561	1561	1561
45	1219	901	883
55	1090	773	767
65	930	642	655
75	712	505	542
85	360	361	427

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.

