



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: 18368
PREPARED FOR: LUMETTA, INC.
CATALOG NUMBER: FP518

DATE: 06-22-2010

LUMINAIRE: FORMED ALUMINUM AND STEEL HOUSING, FORMED SPECULAR
HAMMERTONE REFLECTOR, WHITE PLASTIC SIDE DIFFUSER WITH
TRANSLUCENT WHITE PLASTIC TOP AND BOTTOM LENSES.

LAMP: ONE VBU 32 WATT TRIPLE TUBE COMPACT FLUORESCENT LAMP RATED AT
2400 LUMENS.

LAMP CATALOG NUMBER: SYLVANIA CF32DT/E/IN/835

BALLAST: ONE POWER SELECT INC PS30U62H

MOUNTING: PENDANT

ELECTRICAL VALUES: 120.0VAC, 0.2775A, 33.07W

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	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	
5	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	16.0
15	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	48.1
25	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169	78.1
35	163	163	163	163	163	163	163	163	163	163	163	163	163	163	163	163	102.4
45	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	117.9
55	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	122.6
65	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	116.4
75	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	101.3
85	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	82.4
90	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	
95	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	79.9
105	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	101.4
115	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	124.6
125	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	136.6
135	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	135.1
145	189	189	189	189	189	189	189	189	189	189	189	189	189	189	189	189	118.2
155	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188	87.0
165	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	51.0
175	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	18.1
180	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	

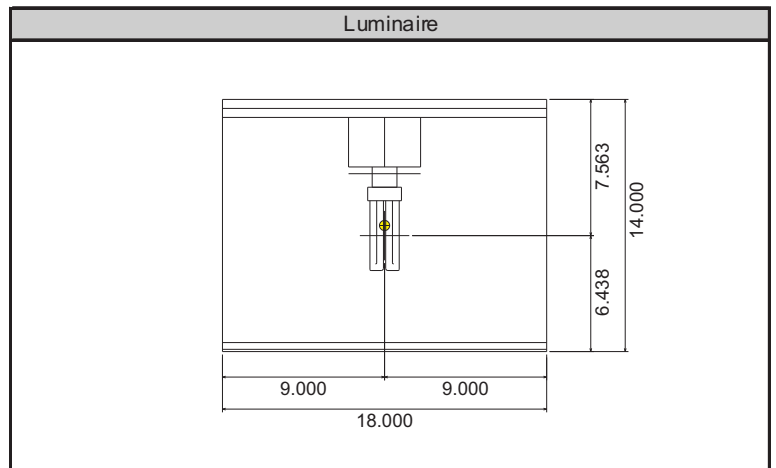
Zonal Lumen Summary

Zone	Lumens	% of Lamp	% of Luminaire
0-30	142.2	5.9%	8.7%
0-40	244.6	10.2%	14.9%
0-60	485.2	20.2%	29.6%
0-90	785.2	32.7%	48.0%
90-180	851.9	35.5%	52.0%
0-180	1637.2	68.2%	100.0%

Total luminaire efficiency: 68.2%

CIE Type: Direct/Indirect

Spacing Criterion: 1.50



Approved By: _____

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	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
5	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
10	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169
15	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
20	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
25	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169
30	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
35	163	163	163	163	163	163	163	163	163	163	163	163	163	163	163	163
40	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
45	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153
50	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
55	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137
60	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
65	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117
70	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107
75	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96
80	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
85	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
90	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
95	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
100	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
105	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96
110	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
115	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
120	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140
125	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153
130	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
135	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
140	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184
145	189	189	189	189	189	189	189	189	189	189	189	189	189	189	189	189
150	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190
155	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188
160	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184
165	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177
170	183	183	183	183	183	183	183	183	183	183	183	183	183	183	183	183
175	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
180	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200

Zonal Lumen Tabulation (5 degree zones)

Zone	Lumens	Zone	Lumens	Zone	Lumens	Zone	Lumens
0-5	4.0	45-50	60.2	90-95	38.3	135-140	66.4
5-10	12.0	50-55	61.4	95-100	41.6	140-145	62.3
10-15	20.1	55-60	61.2	100-105	47.4	145-150	55.9
15-20	28.0	60-65	59.6	105-110	54.0	150-155	47.8
20-25	35.6	65-70	56.8	110-115	60.0	155-160	39.1
25-30	42.5	70-75	52.9	115-120	64.6	160-165	29.9
30-35	48.7	75-80	48.3	120-125	67.6	165-170	21.2
35-40	53.8	80-85	43.4	125-130	69.0	170-175	13.4
40-45	57.7	85-90	39.0	130-135	68.6	175-180	4.7



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	0.789	0.789	0.789	0.789	0.728	0.728	0.728	0.728	0.669	0.669	0.669	0.669
1	0.706	0.664	0.626	0.593	0.648	0.611	0.578	0.549	0.592	0.561	0.532	0.507
2	0.637	0.569	0.514	0.468	0.583	0.524	0.476	0.435	0.532	0.481	0.438	0.402
3	0.577	0.494	0.431	0.381	0.528	0.455	0.399	0.354	0.48	0.418	0.368	0.328
4	0.526	0.433	0.366	0.316	0.48	0.399	0.34	0.294	0.437	0.366	0.314	0.273
5	0.48	0.383	0.315	0.266	0.439	0.353	0.293	0.249	0.399	0.324	0.271	0.231
6	0.441	0.341	0.275	0.228	0.403	0.315	0.255	0.213	0.367	0.289	0.236	0.198
7	0.406	0.306	0.242	0.197	0.371	0.282	0.225	0.184	0.338	0.26	0.208	0.172
8	0.376	0.276	0.214	0.172	0.344	0.255	0.2	0.161	0.314	0.235	0.185	0.15
9	0.349	0.25	0.191	0.152	0.319	0.232	0.179	0.142	0.292	0.214	0.166	0.133
10	0.325	0.228	0.172	0.135	0.298	0.212	0.161	0.127	0.272	0.196	0.15	0.118

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	0.561	0.561	0.561	0.561	0.461	0.461	0.461	0.37	0.37	0.37	0.327
1	0.49	0.467	0.446	0.426	0.381	0.365	0.351	0.301	0.29	0.28	0.242
2	0.437	0.4	0.367	0.34	0.325	0.301	0.28	0.255	0.238	0.223	0.189
3	0.394	0.347	0.309	0.278	0.281	0.253	0.229	0.221	0.2	0.182	0.153
4	0.357	0.305	0.264	0.232	0.247	0.217	0.192	0.194	0.171	0.152	0.126
5	0.327	0.27	0.228	0.196	0.22	0.188	0.163	0.173	0.149	0.13	0.106
6	0.3	0.242	0.2	0.169	0.197	0.165	0.14	0.155	0.131	0.112	0.091
7	0.278	0.218	0.177	0.147	0.178	0.146	0.122	0.141	0.116	0.098	0.079
8	0.258	0.198	0.157	0.129	0.162	0.131	0.107	0.129	0.105	0.086	0.07
9	0.24	0.18	0.141	0.114	0.148	0.118	0.095	0.118	0.095	0.077	0.062
10	0.225	0.165	0.128	0.102	0.137	0.107	0.085	0.109	0.086	0.069	0.055

Average Luminance Table (cd/m²)

	0	45	90
0	1011	1011	1011
45	661	661	661
55	602	602	602
65	542	542	542
75	480	480	480
85	425	425	425

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.

