



# 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: 18371 DATE: 07-26-2010  
 PREPARED FOR: LUMETTA, INC.  
 CATALOG NUMBER: FP548  
 LUMINAIRE: FORMED ALUMINUM AND STEEL HOUSING/REFLECTOR, WHITE PLASTIC SIDE DIFFUSER WITH TRANSLUCENT WHITE PLASTIC TOP AND BOTTOM ENCLOSURES.  
 LAMP: THREE HORIZONTAL 32 WATT TRIPLE TUBE COMPACT FLUORESCENT LAMPS RATED AT 2400 LUMENS EACH.  
 LAMP CATALOG NUMBER: SYLVANIA CF32DT/E/IN/835  
 BALLAST: ONE SAGE LIGHTING LTD NAV342RS-ROHS  
 MOUNTING: PENDANT  
 ELECTRICAL VALUES: 120.0VAC. 0.7827A, 93.87W, PF=0.999

**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	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193	
5	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	112.9
15	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	324.1
25	1068	1068	1068	1068	1068	1068	1068	1068	1068	1068	1068	1068	1068	1068	1068	1068	492.3
35	951	951	951	951	951	951	951	951	951	951	951	951	951	951	951	951	595.3
45	804	804	804	804	804	804	804	804	804	804	804	804	804	804	804	804	620.4
55	635	635	635	635	635	635	635	635	635	635	635	635	635	635	635	635	568.0
65	456	456	456	456	456	456	456	456	456	456	456	456	456	456	456	456	452.0
75	279	279	279	279	279	279	279	279	279	279	279	279	279	279	279	279	295.3
85	119	119	119	119	119	119	119	119	119	119	119	119	119	119	119	119	134.6
90	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	
95	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	112.2
105	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	240.7
115	386	386	386	386	386	386	386	386	386	386	386	386	386	386	386	386	381.0
125	525	525	525	525	525	525	525	525	525	525	525	525	525	525	525	525	468.1
135	624	624	624	624	624	624	624	624	624	624	624	624	624	624	624	624	482.6
145	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	445.9
155	778	778	778	778	778	778	778	778	778	778	778	778	778	778	778	778	359.3
165	838	838	838	838	838	838	838	838	838	838	838	838	838	838	838	838	236.8
175	906	906	906	906	906	906	906	906	906	906	906	906	906	906	906	906	85.5
180	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917	

**Zonal Lumen Summary**

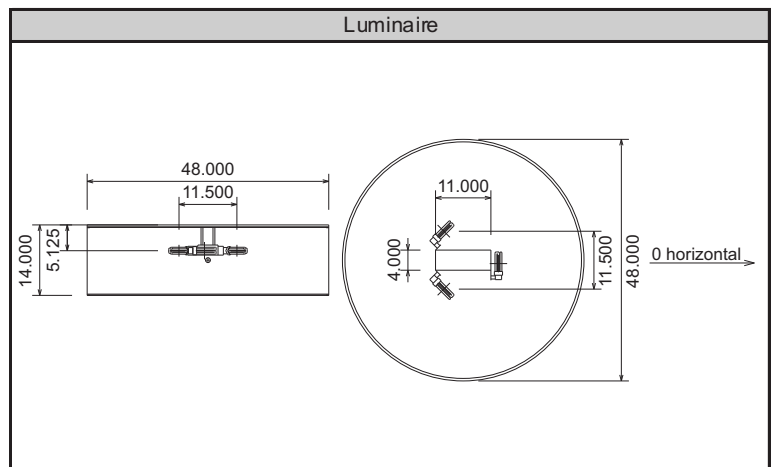
Zone	Lumens	% of Lamp	% of Luminaire
0-30	929.3	12.9%	14.5%
0-40	1524.6	21.2%	23.8%
0-60	2712.9	37.7%	42.3%
0-90	3594.8	49.9%	56.1%
90-180	2812.1	39.1%	43.9%
0-180	6406.9	89.0%	100.0%

Total luminaire efficiency: 89.0%

CIE Type: Direct/Indirect

Spacing Criterion: 1.26

Total reflectance of paint: 89.1



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](http://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	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193
5	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187
10	1173	1173	1173	1173	1173	1173	1173	1173	1173	1173	1173	1173	1173	1173	1173	1173
15	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148
20	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113
25	1068	1068	1068	1068	1068	1068	1068	1068	1068	1068	1068	1068	1068	1068	1068	1068
30	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014
35	951	951	951	951	951	951	951	951	951	951	951	951	951	951	951	951
40	881	881	881	881	881	881	881	881	881	881	881	881	881	881	881	881
45	804	804	804	804	804	804	804	804	804	804	804	804	804	804	804	804
50	722	722	722	722	722	722	722	722	722	722	722	722	722	722	722	722
55	635	635	635	635	635	635	635	635	635	635	635	635	635	635	635	635
60	546	546	546	546	546	546	546	546	546	546	546	546	546	546	546	546
65	456	456	456	456	456	456	456	456	456	456	456	456	456	456	456	456
70	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367
75	279	279	279	279	279	279	279	279	279	279	279	279	279	279	279	279
80	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196
85	119	119	119	119	119	119	119	119	119	119	119	119	119	119	119	119
90	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74
95	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
100	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153
105	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227
110	306	306	306	306	306	306	306	306	306	306	306	306	306	306	306	306
115	386	386	386	386	386	386	386	386	386	386	386	386	386	386	386	386
120	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460
125	525	525	525	525	525	525	525	525	525	525	525	525	525	525	525	525
130	578	578	578	578	578	578	578	578	578	578	578	578	578	578	578	578
135	624	624	624	624	624	624	624	624	624	624	624	624	624	624	624	624
140	671	671	671	671	671	671	671	671	671	671	671	671	671	671	671	671
145	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712
150	749	749	749	749	749	749	749	749	749	749	749	749	749	749	749	749
155	778	778	778	778	778	778	778	778	778	778	778	778	778	778	778	778
160	807	807	807	807	807	807	807	807	807	807	807	807	807	807	807	807
165	838	838	838	838	838	838	838	838	838	838	838	838	838	838	838	838
170	874	874	874	874	874	874	874	874	874	874	874	874	874	874	874	874
175	906	906	906	906	906	906	906	906	906	906	906	906	906	906	906	906
180	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917

Zonal Lumen Tabulation (5 degree zones)

Zone	Lumens	Zone	Lumens	Zone	Lumens	Zone	Lumens
0-5	28.5	45-50	308.2	90-95	45.2	135-140	239.8
5-10	84.5	50-55	295.1	95-100	67.0	140-145	230.7
10-15	137.7	55-60	272.9	100-105	101.3	145-150	215.2
15-20	186.4	60-65	243.7	105-110	139.4	150-155	193.2
20-25	228.8	65-70	208.3	110-115	175.2	155-160	166.1
25-30	263.5	70-75	168.6	115-120	205.8	160-165	135.4
30-35	289.5	75-80	126.7	120-125	227.9	165-170	101.4
35-40	305.8	80-85	85.3	125-130	240.1	170-175	63.7
40-45	312.2	85-90	49.3	130-135	242.8	175-180	21.8



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	1.038	1.038	1.038	1.038	0.966	0.966	0.966	0.966	0.898	0.898	0.898	0.898
1	0.943	0.895	0.852	0.814	0.876	0.834	0.797	0.763	0.812	0.776	0.744	0.715
2	0.857	0.777	0.711	0.656	0.795	0.725	0.667	0.618	0.736	0.675	0.624	0.581
3	0.781	0.68	0.602	0.541	0.723	0.635	0.566	0.511	0.669	0.591	0.531	0.482
4	0.714	0.599	0.517	0.455	0.661	0.56	0.487	0.43	0.61	0.523	0.457	0.406
5	0.654	0.532	0.448	0.387	0.606	0.498	0.423	0.367	0.56	0.465	0.398	0.348
6	0.602	0.476	0.393	0.335	0.557	0.446	0.371	0.318	0.516	0.417	0.35	0.301
7	0.556	0.429	0.348	0.292	0.515	0.402	0.329	0.278	0.477	0.377	0.311	0.264
8	0.515	0.388	0.31	0.258	0.478	0.365	0.294	0.245	0.443	0.342	0.278	0.233
9	0.479	0.354	0.279	0.229	0.445	0.333	0.265	0.218	0.413	0.313	0.25	0.208
10	0.447	0.324	0.252	0.205	0.416	0.305	0.239	0.196	0.386	0.287	0.227	0.186

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	0.772	0.772	0.772	0.772	0.656	0.656	0.656	0.549	0.549	0.549	0.499
1	0.694	0.668	0.643	0.621	0.568	0.55	0.534	0.476	0.463	0.452	0.408
2	0.626	0.581	0.542	0.509	0.494	0.466	0.44	0.414	0.393	0.375	0.336
3	0.568	0.51	0.463	0.424	0.435	0.399	0.369	0.365	0.338	0.316	0.281
4	0.518	0.452	0.4	0.36	0.386	0.346	0.314	0.324	0.294	0.27	0.239
5	0.476	0.403	0.35	0.309	0.345	0.303	0.271	0.291	0.259	0.234	0.206
6	0.439	0.363	0.309	0.268	0.311	0.269	0.236	0.263	0.23	0.205	0.179
7	0.406	0.328	0.275	0.236	0.283	0.24	0.208	0.24	0.207	0.181	0.158
8	0.378	0.299	0.246	0.209	0.258	0.216	0.185	0.22	0.187	0.162	0.141
9	0.353	0.274	0.223	0.187	0.237	0.196	0.166	0.203	0.17	0.146	0.126
10	0.331	0.252	0.202	0.168	0.219	0.179	0.15	0.188	0.155	0.132	0.114

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

	0	45	90
0	1022	1022	1022
45	710	710	710
55	620	620	620
65	515	515	515
75	387	387	387
85	224	224	224

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.

