



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: 18154

DATE: 03-01-2010

PREPARED FOR: MERCURY LIGHTING

CATALOG NUMBER: HB80-854-HO-T5-ELB-UNI-44

LUMINAIRE: FORMED WHITE ENAMEL STEEL HOUSING, FORMED SPECULAR
ALUMINUM REFLECTORS, NO ENCLOSURE.

LAMP: EIGHT 54 WATT HIGH OUTPUT T5 LINEAR FLUORESCENT LAMPS RATED
AT 4400 LUMENS EACH.

LAMP CATALOG NUMBER: PHILIPS F54T5/841/HO/ALTO

BALLAST: TWO ADVANCE "CENTIUM" ICN-4S54-90C-2LS-G

MOUNTING: PENDANT

ELECTRICAL VALUES: 120.0VAC, 3.526A, 421.5W

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	15961	15961	15961	15961	15961	15961	15961	15961	15961	15961	15961	15961	15961	15961	15961	15961	
5	15886	15761	15552	15389	15328	15389	15552	15761	15886	15761	15552	15389	15328	15389	15552	15761	1456.2
15	15272	14469	13033	12070	11793	12070	13033	14469	15272	14469	13033	12070	11793	12070	13033	14469	3731.5
25	14076	12105	10295	9127	8784	9127	10295	12105	14076	12105	10295	9127	8784	9127	10295	12105	4933.1
35	12333	9445	7477	6556	6264	6556	7477	9445	12333	9445	7477	6556	6264	6556	7477	9445	5130.6
45	10166	6902	5147	4573	4348	4573	5147	6902	10166	6902	5147	4573	4348	4573	5147	6902	4600.5
55	7650	4439	3267	3267	3183	3267	3267	4439	7650	4439	3267	3267	3183	3267	3267	4439	3629.8
65	4864	2407	2061	1772	1660	1772	2061	2407	4864	2407	2061	1772	1660	1772	2061	2407	2344.6
75	2126	1044	669	369	251	369	669	1044	2126	1044	669	369	251	369	669	1044	889.9
85	214	44	50	62	65	62	50	44	214	44	50	62	65	62	50	44	111.5
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	

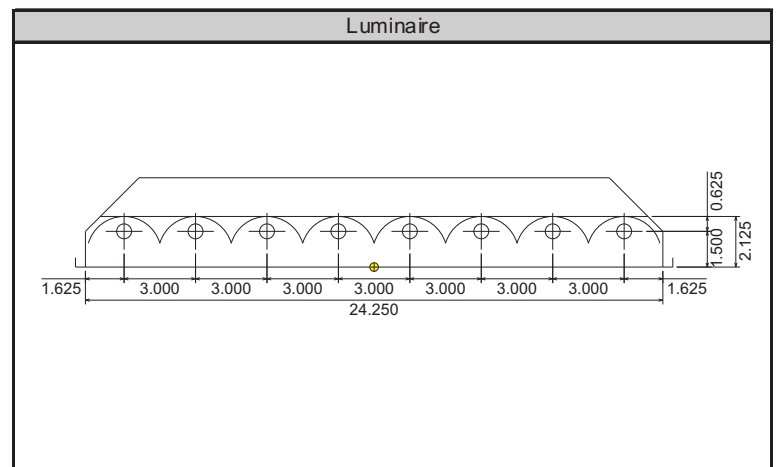
Zonal Lumen Summary

Zone	Lumens	% of Lamp	% of Luminaire
0-30	10120.9	28.8%	37.7%
0-40	15251.4	43.3%	56.8%
0-60	23481.7	66.7%	87.5%
0-90	26827.7	76.2%	100.0%
90-180	0.0	0.0%	0.0%
0-180	26827.7	76.2%	100.0%

Total luminaire efficiency: 76.2%

CIE Type: Direct

Spacing Criterion: 0 deg: 1.24 90 deg: 0.79
180 deg: 1.24 270 deg: 0.79



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

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	15961	15961	15961	15961	15961	15961	15961	15961	15961	15961	15961	15961	15961	15961	15961	15961
5	15886	15761	15552	15389	15328	15389	15552	15761	15886	15761	15552	15389	15328	15389	15552	15761
10	15659	15246	14560	13930	13673	13930	14560	15246	15659	15246	14560	13930	13673	13930	14560	15246
15	15272	14469	13033	12070	11793	12070	13033	14469	15272	14469	13033	12070	11793	12070	13033	14469
20	14747	13401	11479	10722	10427	10722	11479	13401	14747	13401	11479	10722	10427	10722	11479	13401
25	14076	12105	10295	9127	8784	9127	10295	12105	14076	12105	10295	9127	8784	9127	10295	12105
30	13271	10733	8829	7772	7474	7772	8829	10733	13271	10733	8829	7772	7474	7772	8829	10733
35	12333	9445	7477	6556	6264	6556	7477	9445	12333	9445	7477	6556	6264	6556	7477	9445
40	11290	8233	6280	5489	5309	5489	6280	8233	11290	8233	6280	5489	5309	5489	6280	8233
45	10166	6902	5147	4573	4348	4573	5147	6902	10166	6902	5147	4573	4348	4573	5147	6902
50	8949	5599	4218	3565	3521	3565	4218	5599	8949	5599	4218	3565	3521	3565	4218	5599
55	7650	4439	3267	3267	3183	3267	3267	4439	7650	4439	3267	3267	3183	3267	3267	4439
60	6283	3324	2603	2497	2397	2497	2603	3324	6283	3324	2603	2497	2397	2497	2603	3324
65	4864	2407	2061	1772	1660	1772	2061	2407	4864	2407	2061	1772	1660	1772	2061	2407
70	3444	1572	1346	1040	920	1040	1346	1572	3444	1572	1346	1040	920	1040	1346	1572
75	2126	1044	669	369	251	369	669	1044	2126	1044	669	369	251	369	669	1044
80	1008	439	112	62	62	62	112	439	1008	439	112	62	62	62	112	439
85	214	44	50	62	65	62	50	44	214	44	50	62	65	62	50	44
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	377.0		45-50	2186.5		90-95	0.0		135-140	0.0
5-10	1079.3		50-55	1954.6		95-100	0.0		140-145	0.0
10-15	1649.4		55-60	1675.2		100-105	0.0		145-150	0.0
15-20	2082.1		60-65	1358.3		105-110	0.0		150-155	0.0
20-25	2386.2		65-70	986.3		110-115	0.0		155-160	0.0
25-30	2547.0		70-75	612.8		115-120	0.0		160-165	0.0
30-35	2588.8		75-80	277.1		120-125	0.0		165-170	0.0
35-40	2541.8		80-85	88.9		125-130	0.0		170-175	0.0
40-45	2414.0		85-90	22.6		130-135	0.0		175-180	0.0



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

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	0.929	0.929	0.929	0.929	0.907	0.907	0.907	0.907	0.886	0.886	0.886	0.886
1	0.864	0.83	0.8	0.773	0.843	0.813	0.785	0.761	0.823	0.796	0.771	0.748
2	0.797	0.738	0.689	0.649	0.777	0.723	0.679	0.641	0.758	0.709	0.668	0.633
3	0.736	0.659	0.6	0.553	0.717	0.646	0.592	0.548	0.699	0.635	0.584	0.544
4	0.68	0.591	0.528	0.479	0.663	0.581	0.522	0.476	0.646	0.572	0.516	0.473
5	0.63	0.535	0.469	0.421	0.615	0.526	0.464	0.419	0.599	0.518	0.46	0.417
6	0.586	0.486	0.421	0.374	0.572	0.479	0.417	0.373	0.558	0.472	0.414	0.371
7	0.546	0.445	0.38	0.336	0.533	0.439	0.378	0.335	0.521	0.433	0.375	0.334
8	0.511	0.409	0.347	0.304	0.499	0.404	0.344	0.303	0.488	0.399	0.342	0.302
9	0.48	0.378	0.318	0.277	0.469	0.374	0.316	0.277	0.459	0.37	0.314	0.276
10	0.451	0.351	0.293	0.254	0.441	0.348	0.291	0.254	0.432	0.344	0.29	0.253

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	0.847	0.847	0.847	0.847	0.811	0.811	0.811	0.778	0.778	0.778	0.762
1	0.786	0.764	0.744	0.725	0.735	0.718	0.703	0.708	0.695	0.682	0.667
2	0.723	0.683	0.649	0.619	0.659	0.63	0.605	0.636	0.613	0.592	0.577
3	0.666	0.613	0.57	0.534	0.593	0.556	0.525	0.574	0.543	0.517	0.501
4	0.616	0.553	0.505	0.467	0.536	0.495	0.461	0.52	0.485	0.455	0.44
5	0.572	0.503	0.452	0.412	0.488	0.443	0.408	0.475	0.436	0.404	0.389
6	0.533	0.459	0.407	0.368	0.447	0.4	0.365	0.435	0.394	0.362	0.348
7	0.498	0.422	0.369	0.331	0.411	0.364	0.329	0.401	0.359	0.327	0.313
8	0.467	0.389	0.338	0.301	0.38	0.333	0.299	0.372	0.329	0.297	0.284
9	0.44	0.361	0.31	0.275	0.353	0.307	0.273	0.346	0.303	0.272	0.259
10	0.415	0.336	0.287	0.252	0.33	0.284	0.251	0.323	0.281	0.25	0.238

Average Luminance Table (cd/m²)

	0	45	90
0	21254	21254	21254
45	19144	9693	8188
55	17759	7585	7391
65	15327	6493	5232
75	10938	3441	1293
85	3273	766	986

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.

