



# 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: 10340

DATE: 09-22-2006

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CATALOG NUMBER: 0505P-01-C-4-OP/PB-W-120T5HO

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: WALL

LUMEN TO CANDELA RATIO USED = 9.18

TOTAL INPUT WATTS = 60.5 AT 120.0 VOLTS

THE 0 DEGREE PLANE IS PERPENDICULAR TO THE LAMPS.

### CANDELA DISTRIBUTION

### FLUX

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	
0	681	681	681	681	681	681	681	681	681	
5	773	761	743	706	669	632	610	589	590	64
15	887	870	818	730	629	519	490	526	536	187
25	954	908	819	717	562	434	526	585	595	306
35	897	860	785	662	474	414	465	369	334	362
45	721	713	654	544	367	356	250	222	252	347
55	409	430	443	381	231	198	173	287	331	277
65	261	217	162	79	37	39	107	160	196	133
75	43	23	13	11	8	7	12	25	32	26
85	3	2	2	2	1	2	2	2	2	3
90	0	0	0	0	0	0	0	0	0	
95	12	18	21	66	18	1	0	0	1	23
105	304	361	355	209	82	43	5	5	6	157
115	542	507	413	309	165	125	78	44	27	241
125	569	548	496	434	254	222	165	130	130	291
135	629	621	617	465	335	321	265	225	225	317
145	731	738	659	474	406	409	363	329	329	305
155	728	674	587	492	462	470	456	427	430	240
165	590	569	541	513	501	504	513	508	512	149
175	531	529	528	521	522	520	525	523	524	50
180	522	522	522	522	522	522	522	522	522	

### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	557	12.7	16.0
0- 40	919	20.9	26.4
0- 60	1543	35.1	44.4
0- 90	1705	38.7	49.0
90-120	421	9.6	12.1
90-130	712	16.2	20.5
90-150	1333	30.3	38.4
90-180	1772	40.3	51.0
0-180	3476	79.0	100.0

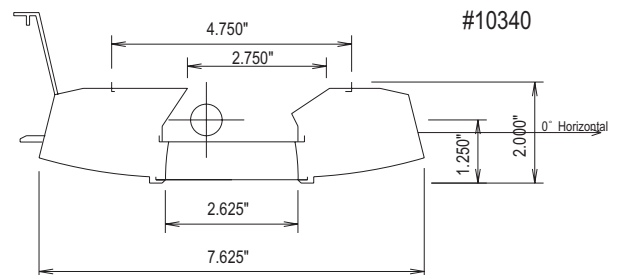
TOTAL LUMINAIRE EFFICIENCY: 79.0%

CIE TYPE: GENERAL DIFFUSE

PLANE: 0-DEG 90-DEG 180-DEG

SPACING CRITERIA: 1.8 1.1 1.1

SHIELDING ANGLES: 28 30



Approved By: MG

THIS REPORT BASED ON LM-41 AND OTHER PERTINENT IESNA PROCEDURES.



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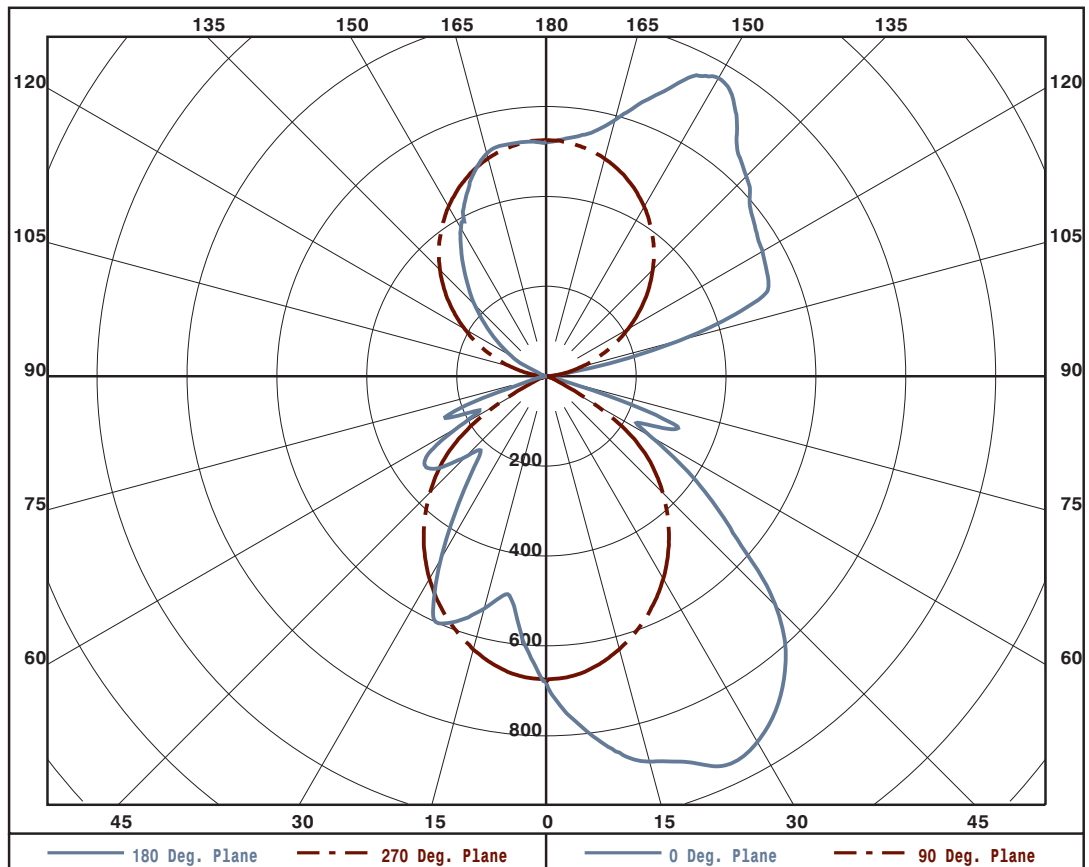
### ZONAL LUMEN SUMMARY

0- 5	16.
5- 10	48.
10- 15	78.
15- 20	109.
20- 25	140.
25- 30	166.
30- 35	180.
35- 40	182.
40- 45	177.
45- 50	170.
50- 55	153.
55- 60	124.
60- 65	78.
65- 70	55.
70- 75	21.
75- 80	5.
80- 85	2.
85- 90	1.
90- 95	1.
95-100	22.
100-105	62.
105-110	95.
110-115	112.
115-120	128.
120-125	141.
125-130	150.
130-135	157.
135-140	160.
140-145	158.
145-150	148.
150-155	130.
155-160	109.
160-165	86.
165-170	62.
170-175	38.
175-180	13.

PLANE: 0-DEG 90-DEG  
 LUMINOUS LENGTH: 2.625 43.875

### LUMINANCE IN CANDELA PER SQUARE METER

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
0	9164.	9164.	9164.
45	13722.	12446.	6984.
55	9596.	10394.	5420.
65	8311.	5158.	1178.
75	2236.	676.	416.
85	463.	309.	154.





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CANDELA DISTRIBUTION

Table with 10 columns representing candela values at different angles (0.0 to 180.0) and 20 rows representing distance values (0 to 180).



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	85	85	85	85	78	78	78	78	65	65	65	54	54	54	44	44	44	39
1	78	75	72	70	72	69	67	65	59	57	56	49	48	47	40	39	39	35
2	72	67	62	59	66	62	58	55	53	50	48	44	42	41	36	35	34	30
3	66	59	54	50	61	55	50	47	47	44	41	40	37	35	33	31	30	27
4	61	53	47	42	56	49	44	40	42	38	35	36	33	31	30	28	26	23
5	56	47	41	36	51	44	38	34	38	34	30	32	29	26	27	24	23	20
6	51	42	36	32	47	39	34	30	34	30	26	29	26	23	24	22	20	18
7	47	38	32	27	43	35	30	26	30	26	23	26	23	20	22	19	17	15
8	43	34	28	24	40	32	26	23	27	23	20	23	20	18	20	17	15	13
9	40	30	25	21	37	28	23	20	25	20	17	21	18	15	18	15	13	12
10	37	28	22	18	34	26	21	17	22	18	15	19	16	14	16	14	12	10

NOTE: THE ZONAL CAVITY CALCULATION TECHNIQUE IS ACCURATE WHEN LUMINAIRES WITH SYMMETRIC CANDELA DISTRIBUTIONS ARE EMPLOYED AND WHEN THE LUMINAIRES ARE LOCATED SYMMETRICALLY THROUGHOUT THE ROOM. THIS UNIT HAS SPECIAL CHARACTERISTICS AND THEREFORE THESE COEFFICIENTS SHOULD BE USED WITH CAUTION.

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.