



# 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: 10343

DATE: 10-02-2006

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CATALOG NUMBER: 0505P-02-C-4-OP/PBW-W-120T5HO

LUMINAIRE: EXTRUDED ALUMINUM HOUSING, FORMED SPECULAR ALUMINUM REFLECTORS, 29 CELL, 3/4" DEEP, FORMED WHITE ENAMEL ALUMINUM LOUVER, OPEN TOP.

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

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 = 117.3 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	1377	1377	1377	1377	1377	1377	1377	1377	1377	
5	1478	1459	1436	1392	1363	1327	1318	1302	1303	131
15	1629	1589	1500	1352	1247	1182	1204	1271	1298	382
25	1596	1538	1412	1257	1080	1027	1190	1341	1398	593
35	1222	1218	1218	1079	883	905	1081	1128	1162	679
45	857	860	854	828	667	743	798	828	855	620
55	600	594	522	538	432	492	505	507	483	462
65	367	316	285	235	224	228	253	286	333	274
75	150	135	126	122	118	114	113	119	120	132
85	33	27	28	28	28	24	21	19	12	29
90	5	4	3	2	1	1	1	0	0	
95	38	41	48	94	58	5	0	0	0	42
105	345	404	459	454	260	240	7	3	3	274
115	850	898	858	776	487	462	442	385	311	592
125	1181	1177	1157	961	690	669	671	647	658	771
135	1429	1440	1356	1057	867	858	857	852	869	814
145	1585	1548	1386	1111	1016	1014	1021	1012	1024	737
155	1506	1444	1314	1171	1133	1141	1149	1141	1155	567
165	1331	1301	1265	1224	1213	1221	1228	1221	1226	353
175	1264	1264	1265	1254	1259	1253	1262	1260	1259	120
180	1258	1258	1258	1258	1258	1258	1258	1258	1258	

### ZONAL LUMEN SUMMARY

ZONE	LUMENS	% LAMP	% FIXT
0- 30	1106	12.6	14.6
0- 40	1785	20.3	23.6
0- 60	2868	32.6	37.9
0- 90	3303	37.5	43.6
90-120	908	10.3	12.0
90-130	1679	19.1	22.2
90-150	3231	36.7	42.7
90-180	4270	48.5	56.4
0-180	7574	86.1	100.0

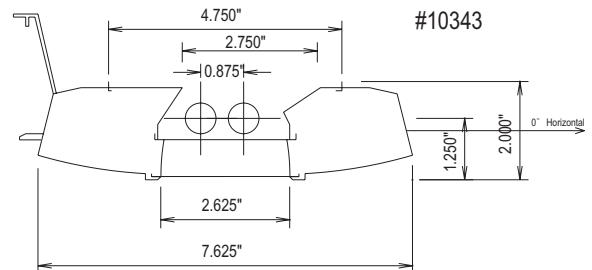
TOTAL LUMINAIRE EFFICIENCY: 86.1%

CIE TYPE: GENERAL DIFFUSE

PLANE: 0-DEG 90-DEG 180-DEG

SPACING CRITERIA: 1.4 1.1 1.3

SHIELDING ANGLES: 28 30



Approved By: MG

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



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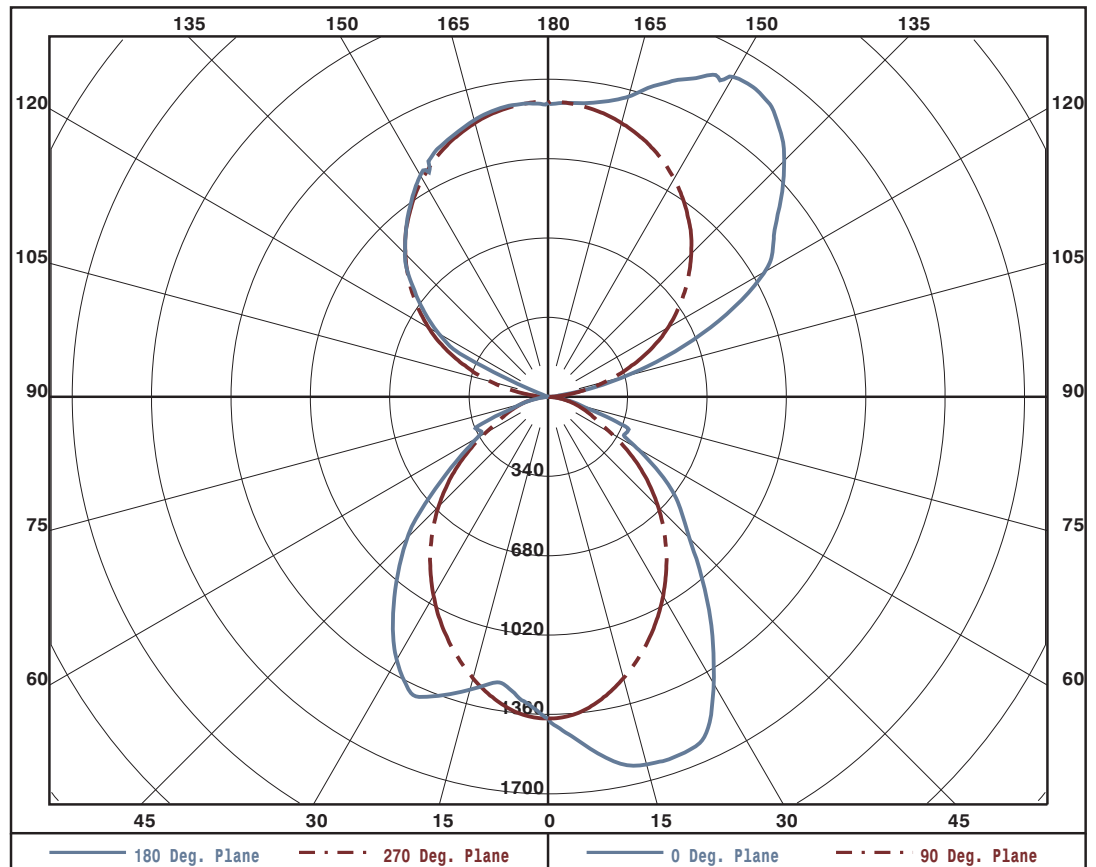
### ZONAL LUMEN SUMMARY

0- 5	33.
5- 10	98.
10- 15	161.
15- 20	221.
20- 25	276.
25- 30	318.
30- 35	339.
35- 40	340.
40- 45	324.
45- 50	296.
50- 55	256.
55- 60	206.
60- 65	152.
65- 70	122.
70- 75	81.
75- 80	51.
80- 85	25.
85- 90	4.
90- 95	5.
95-100	37.
100-105	102.
105-110	172.
110-115	256.
115-120	335.
120-125	374.
125-130	397.
130-135	409.
135-140	405.
140-145	385.
145-150	352.
150-155	309.
155-160	259.
160-165	204.
165-170	148.
170-175	90.
175-180	30.

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	18531.	18531.	18531.
45	16310.	16253.	12694.
55	14077.	12247.	10136.
65	11686.	9075.	7133.
75	7799.	6551.	6135.
85	5095.	4323.	4323.





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CANDELA DISTRIBUTION

Table with 10 columns representing beam diameters (0.0 to 180.0) and 18 rows representing distances (0 to 180). Values represent candela measurements at various angles.



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	
0	91	91	91	91	83	83	83	83	69	69	69	55	55	55	43	43	43	38
1	84	80	77	74	76	74	71	69	61	59	58	50	49	47	39	39	38	33
2	77	71	66	62	70	65	61	57	54	51	49	45	43	41	35	34	33	29
3	70	63	57	52	64	58	53	49	49	45	42	40	37	35	32	30	29	25
4	65	56	50	45	59	52	46	42	44	39	36	36	33	31	29	27	25	22
5	59	50	43	38	54	46	40	36	39	35	31	32	29	27	26	24	22	19
6	55	45	38	33	50	41	35	31	35	31	27	29	26	23	24	21	19	17
7	50	40	34	29	46	37	31	27	32	27	24	26	23	20	21	19	17	15
8	46	36	30	25	43	34	28	24	29	24	21	24	20	18	19	17	15	13
9	43	33	26	22	39	30	25	21	26	21	18	21	18	16	17	15	13	11
10	40	30	24	20	37	28	22	18	23	19	16	20	16	14	16	13	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.