



# 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

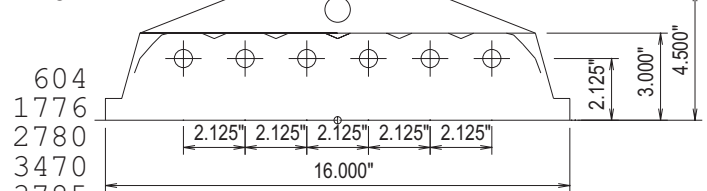
LTL NUMBER: 12528 DATE: 01-17-2008  
 PREPARED FOR: RENOVA LIGHTING SYSTEMS, INC.  
 CATALOG NUMBER: ECS-ECO4-WN-654-UNV-32H-00W  
 LUMINAIRE: FORMED STEEL HOUSING, FORMED WHITE ENAMEL ALUMINUM REFLECTOR, NO ENCLOSURE.  
 LAMPS: SIX 54 WATT HIGH OUTPUT T5 LINEAR FLUORESCENT LAMPS RATED AT 4400 LUMENS EACH.  
 LAMP CATALOG NUMBER: PHILIPS F54T5/841/HO/ALTO  
 BALLASTS: THREE SYLVANIA QTP2X54T5HO/UNV PSN HT  
 MOUNTING: PENDANT

LUMEN TO CANDELA RATIO USED = 9.18  
 TOTAL INPUT WATTS = 312.1 AT 120.0 VOLTS  
 THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS.

### CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	6325	6325	6325	6325	6325
5	6286	6307	6338	6347	6353
15	6080	6160	6302	6390	6426
25	5677	5857	6094	6190	6217
35	5082	5382	5603	5725	5784
45	4318	4696	4935	5175	5252
55	3401	3793	4170	4284	4311
65	2349	2759	3058	3375	3404
75	1219	1535	1874	1983	1928
85	190	355	233	202	201
90	0	0	0	0	0

### FLUX



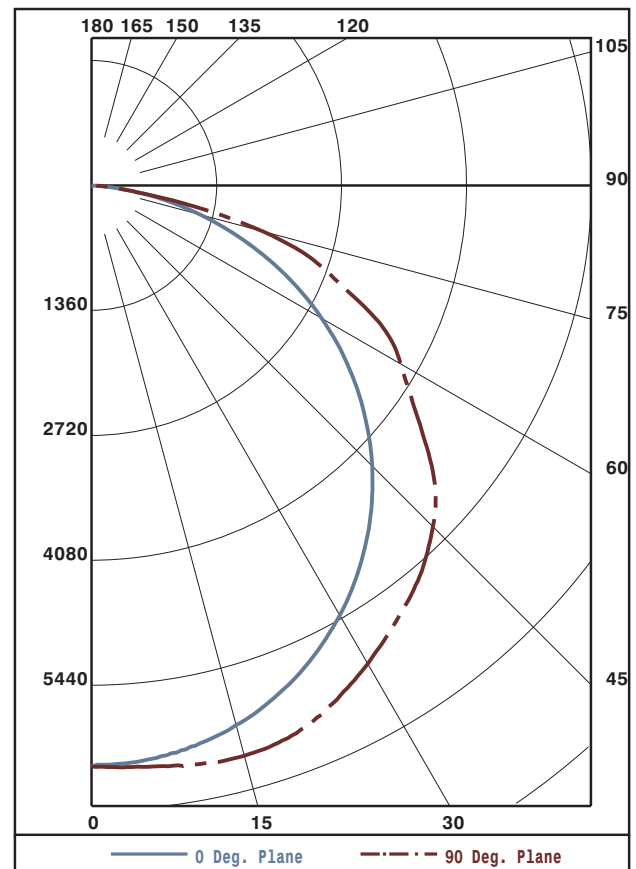
### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	5160	19.5	24.4
0- 40	8630	32.7	40.8
0- 60	16019	60.7	75.7
0- 90	21151	80.1	100.0
90-180	0	0.0	0.0
0-180	21151	80.1	100.0

TOTAL LUMINAIRE EFFICIENCY: 80.1%  
 CIE TYPE: DIRECT  
 PLANE: 0-DEG 90-DEG  
 SPACING CRITERIA: 1.3 1.4  
 LUMINOUS LENGTH: 46.750 16.000

### LUMINANCE IN CANDELA PER SQUARE METER

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
0	13106.	13106.	13106.
45	12653.	14461.	15390.
55	12286.	15064.	15573.
65	11517.	14993.	16689.
75	9759.	15003.	15435.
85	4517.	5539.	4779.



Approved By: MG



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD
EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

Table with columns RC, RW, and rows for cavity heights 0-10 and room widths 70, 50, 30, 10. Values represent utilization coefficients.

CANDELA DISTRIBUTION

Table showing candela values for various beam angles from 0.0 to 90 degrees.

ZONAL LUMEN SUMMARY

Table showing zonal lumen values for various beam angles from 0-5 to 85-90 degrees.

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.