



**IES INDOOR REPORT
PHOTOMETRIC FILENAME : WL4WA354UNIV.IES**

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [ISSUE DATE]02/13/07
 [TEST]ITL58344
 [TEST LAB]INDEPENDENT TESTING LABORATORIES, INC.
 [MANUFACTURER]TECHNICAL CONSUMER PRODUCTS
 [LUMINAIRE CATEGORY]WL4WA354UNIV
 [LUMINAIRE]WET LOCATION WHITE REFL. 4' 54w T5HO 3-LAMP
 [LAMP] (3) 54-WATT T-5HO LINEAR FLUORESCENTS
 [BALLAST]UNIVERSAL B454PUNV-E
 [MOUNTING]SURFACE
 [PAINT REFLECTANCE]81.7 %
 [OTHER]THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS.
 [OTHER]TOTAL INPUT WATTS= 182 AT 120.0 VOLTS
 [OTHER]LUMEN TO CANDELA RATIO USED= 9.17

CHARACTERISTICS

Total Rated Lamp Lumens	13350 (3 lamps)
Total Luminaire Efficiency	56.1 %
Luminaire Efficacy Rating (LER)	41
Total Luminaire Watts	182
Ballast Factor	1.00
CIE Type	Direct
Spacing Criteria (0-180)	1.26
Spacing Criteria (90-270)	1.42
Spacing Criteria (Diagonal)	1.50
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.55 ft
Luminous Height	0.16 ft



LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8920	8957	9437
55	8215	8725	9329
65	6897	8192	9629
75	4588	7692	8541
85	1770	5692	7132

**IES INDOOR REPORT
PHOTOMETRIC FILENAME : WL4WA354UNIV.IES**

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	2039.88	2039.88	2039.88	2039.88	2039.88
2.5	2047.89	2047.00	2032.76	2016.74	2014.07
5.0	2039.88	2032.76	2026.53	2035.43	2041.66
7.5	2028.31	2018.52	2045.22	2049.67	2049.67
10.0	2011.4	2008.73	2042.55	2038.99	2043.44
12.5	1991.82	2003.39	2027.42	2046.11	2053.23
15.0	1964.23	1990.93	2016.74	2022.08	2022.97
17.5	1934.86	1969.57	2004.28	2014.07	2054.12
20.0	1901.93	1939.31	1964.23	2038.99	2024.75
22.5	1864.55	1902.82	1949.99	1993.6	2024.75
25.0	1820.94	1866.33	1953.55	1988.26	1991.82
27.5	1771.99	1830.73	1903.71	1949.99	1965.12
30.0	1723.04	1784.45	1871.67	1917.06	1925.07
32.5	1668.75	1726.6	1829.84	1869.00	1906.38
35.0	1608.23	1666.97	1780.00	1856.54	1885.91
37.5	1543.26	1622.47	1724.82	1823.61	1852.09
40.0	1477.4	1577.08	1663.41	1783.56	1810.26
42.5	1407.98	1513.00	1634.04	1738.17	1798.69
45.0	1333.22	1437.35	1584.2	1714.14	1745.29
47.5	1258.46	1368.82	1527.24	1659.85	1705.24
50.0	1181.92	1295.84	1470.28	1610.01	1649.17
52.5	1098.26	1212.18	1422.22	1552.16	1590.43
55.0	1011.93	1123.18	1351.91	1480.07	1532.58
57.5	917.59	1051.98	1277.15	1424.89	1475.62
60.0	829.48	980.78	1197.05	1364.37	1438.24
62.5	730.69	901.57	1118.73	1322.54	1378.61
65.0	642.58	824.14	1051.09	1258.46	1335.00
67.5	546.46	744.04	998.58	1202.39	1256.68
70.0	453.01	648.81	929.16	1121.4	1145.43
72.5	356.00	562.48	858.85	1010.15	1044.86
75.0	276.79	491.28	752.05	906.02	929.16
77.5	196.69	420.08	645.25	796.55	831.26
80.0	132.61	342.65	548.24	701.32	736.92
82.5	80.99	266.11	461.91	602.53	631.01
85.0	45.39	190.46	365.79	504.63	539.34
87.5	18.69	129.94	299.04	433.43	465.47
90.0	8.01	89.00	242.08	367.57	400.50
92.5	12.46	58.74	177.11	286.58	330.19
95.0	21.36	43.61	129.05	217.16	255.43
97.5	22.25	32.04	94.34	156.64	187.79
100.0	19.58	23.14	72.09	119.26	138.84
102.5	16.02	16.91	60.52	90.78	104.13
105.0	11.57	11.57	48.95	74.76	83.66
107.5	8.90	8.01	38.27	64.08	72.09
110.0	4.45	3.56	31.15	52.51	61.41
112.5	3.56	1.78	24.92	41.83	48.95
115.0	2.67	0.89	19.58	34.71	40.94
117.5	0.89	0.00	14.24	27.59	33.82
120.0	0.00	0.00	9.79	21.36	27.59
122.5	0.00	0.00	4.45	16.02	22.25
125.0	0.00	0.00	1.78	12.46	16.91
127.5	0.00	0.00	0.00	8.90	12.46
130.0	0.00	0.00	0.00	5.34	9.79
132.5	0.00	0.00	0.00	3.56	7.12

IES INDOOR REPORT
PHOTOMETRIC FILENAME : WL4WA354UNIV.IES

CANDELA TABULATION - (Cont.)

135.0	0.00	0.00	0.00	1.78	4.45
137.5	0.00	0.00	0.00	0.89	1.78
140.0	0.00	0.00	0.00	0.00	0.89
142.5	0.00	0.00	0.00	0.00	0.00
145.0	0.00	0.00	0.00	0.00	0.00
147.5	0.00	0.00	0.00	0.00	0.00
150.0	0.00	0.00	0.00	0.00	0.00
152.5	0.00	0.00	0.00	0.00	0.00
155.0	0.00	0.00	0.00	0.00	0.00
157.5	0.00	0.00	0.00	0.00	0.00
160.0	0.00	0.00	0.00	0.00	0.00
162.5	0.00	0.00	0.00	0.00	0.00
165.0	0.00	0.00	0.00	0.00	0.00
167.5	0.00	0.00	0.00	0.00	0.00
170.0	0.00	0.00	0.00	0.00	0.00
172.5	0.00	0.00	0.00	0.00	0.00
175.0	0.00	0.00	0.00	0.00	0.00
177.5	0.00	0.00	0.00	0.00	0.00
180.0	0.00	0.00	0.00	0.00	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : WL4WA354UNIV.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1649.15	12.4	22
0-40	2752.78	20.6	36.8
0-60	5133.9	38.5	68.5
0-90	7262.38	54.4	97
90-120	221.35	1.7	3
90-130	226.86	1.7	3
90-150	227.78	1.7	3
90-180	227.78	1.7	3
0-180	7490.16	56.1	100

Total Luminaire Efficiency = 56.1%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	194.2
10-20	568.21
20-30	886.74
30-40	1103.63
40-50	1209.23
50-60	1171.89
60-70	1018.97
70-80	727.39
80-90	382.12
90-100	150.78
100-110	51
110-120	19.57
120-130	5.51
130-140	.91
140-150	.01
150-160	0
160-170	0
170-180	0

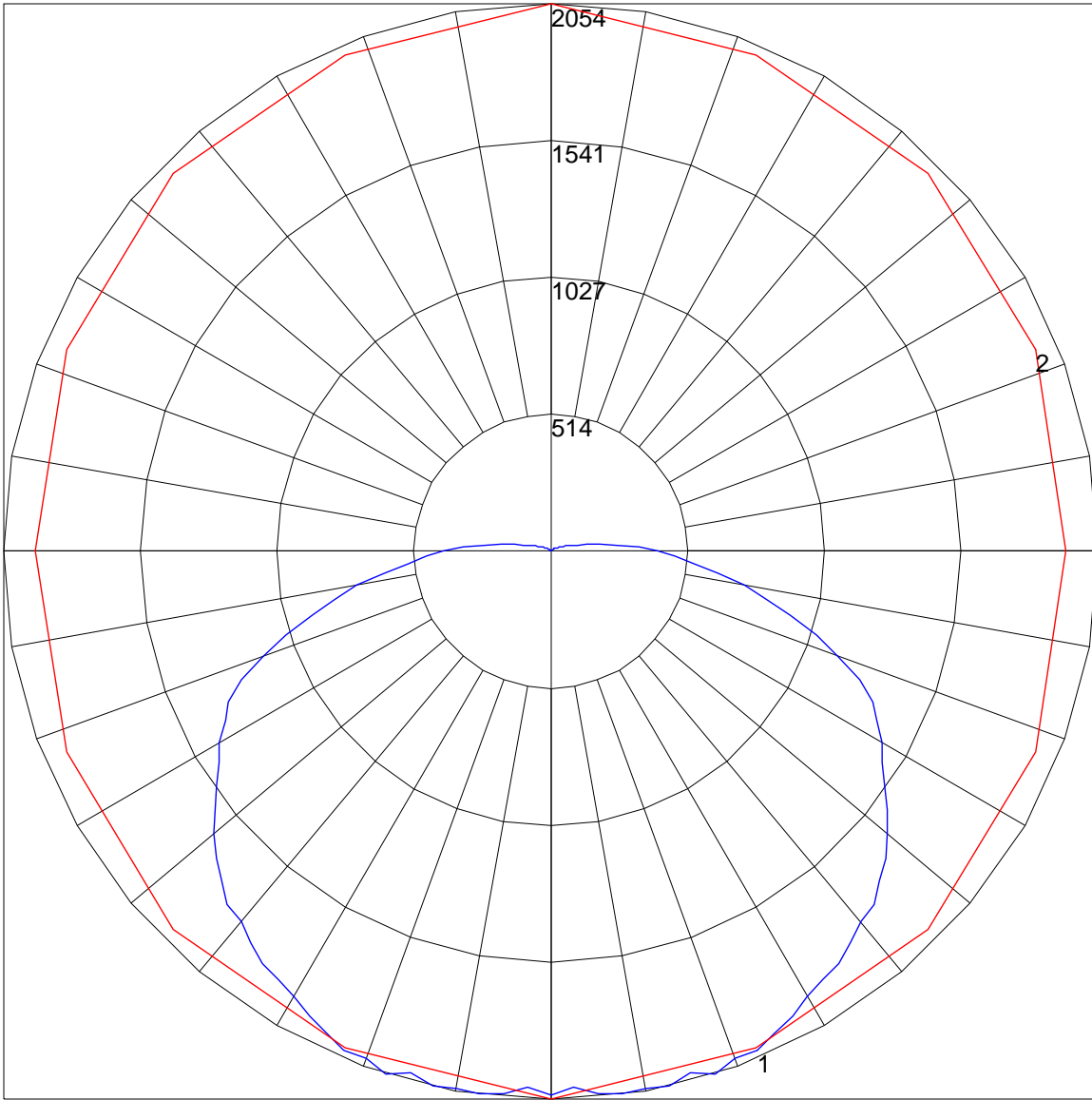
IES INDOOR REPORT
PHOTOMETRIC FILENAME : WL4WA354UNIV.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	66	66	66	66	65	65	65	65	61	61	61	58	58	58	56	56	56	54
1	59	56	53	51	58	55	52	50	52	50	48	50	48	46	47	46	45	43
2	54	48	44	40	52	47	43	40	45	41	39	43	40	37	41	38	36	35
3	48	42	37	33	47	41	36	33	39	35	32	37	34	31	35	33	30	29
4	44	37	32	28	43	36	31	27	34	30	27	33	29	26	31	28	26	24
5	40	33	27	23	39	32	27	23	31	26	23	29	25	22	28	25	22	21
6	37	29	24	20	36	29	24	20	28	23	20	26	22	19	25	22	19	18
7	34	27	21	18	33	26	21	18	25	21	17	24	20	17	23	20	17	16
8	32	24	19	16	31	24	19	16	23	18	15	22	18	15	21	18	15	14
9	30	22	17	14	29	22	17	14	21	17	14	20	16	14	19	16	13	12
10	28	20	16	13	27	20	16	13	19	15	12	19	15	12	18	15	12	11

POLAR GRAPH



Maximum Candela = 2054.12 Located At Horizontal Angle = 90, Vertical Angle = 17.5
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (17.5) (Through Max. Cd.)