



**IES INDOOR REPORT  
PHOTOMETRIC FILENAME : WL4WA332UNIH.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [ISSUE]02/14/07  
 [TEST]ITL58343  
 [TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
 [MANUFAC]TECHNICAL CONSUMER PRODUCTS  
 [LUMCAT]WL4WA332UNIH  
 [LUMINAIRE]WET LOCATION WHITE REFL. 4' 32w T8 3-LAMP HBF  
 [LAMP](3) 32-WATT T-8 LINEAR FLUORESCENTS  
 [BALLAST]GE GE-432-MAX-H/ULTRA  
 [\_MOUNTING]SURFACE  
 [\_PAINTREFL]81.4 %  
 [OTHER]THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS.  
 [OTHER]TOTAL INPUT WATTS= 109 AT 120.0 VOLTS  
 [OTHER]LUMEN TO CANDELA RATIO USED= 9.17

**CHARACTERISTICS**

Total Rated Lamp Lumens	8850 (3 lamps)
Total Luminaire Efficiency	57.9 %
Luminaire Efficacy Rating (LER)	47
Total Luminaire Watts	109
Ballast Factor	1.00
CIE Type	Direct
Spacing Criteria (0-180)	1.26
Spacing Criteria (90-270)	1.40
Spacing Criteria (Diagonal)	1.46
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	6475	6322	6399
55	5957	5869	6033
65	4955	5231	5807
75	3272	4882	5355
85	1221	3612	4415

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**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0.0</b>	1481.53	1481.53	1481.53	1481.53	1481.53
<b>2.5</b>	1487.61	1479.79	1470.22	1459.79	1458.92
<b>5.0</b>	1482.4	1467.61	1465.88	1466.75	1474.57
<b>7.5</b>	1473.7	1459.79	1478.05	1473.7	1467.61
<b>10.0</b>	1461.53	1450.23	1469.35	1465.88	1472.83
<b>12.5</b>	1445.88	1445.01	1457.18	1468.48	1473.7
<b>15.0</b>	1427.62	1439.79	1451.96	1458.92	1462.4
<b>17.5</b>	1405.88	1419.8	1441.53	1451.1	1460.66
<b>20.0</b>	1382.41	1389.37	1419.8	1445.01	1451.1
<b>22.5</b>	1351.98	1367.63	1404.15	1430.23	1445.01
<b>25.0</b>	1322.42	1343.28	1387.63	1419.8	1438.05
<b>27.5</b>	1286.77	1314.59	1362.41	1412.84	1425.01
<b>30.0</b>	1252.86	1285.9	1339.81	1390.23	1395.45
<b>32.5</b>	1210.26	1246.78	1314.59	1356.33	1365.89
<b>35.0</b>	1165.92	1207.65	1292.86	1323.29	1336.33
<b>37.5</b>	1122.45	1172.01	1251.99	1290.25	1297.2
<b>40.0</b>	1071.15	1131.14	1207.65	1246.78	1267.64
<b>42.5</b>	1023.33	1086.8	1164.18	1217.22	1234.6
<b>45.0</b>	967.69	1036.37	1118.1	1177.22	1183.31
<b>47.5</b>	915.52	988.55	1065.93	1127.66	1156.36
<b>50.0</b>	856.40	943.34	1021.59	1092.89	1104.19
<b>52.5</b>	796.41	892.91	972.90	1039.85	1042.46
<b>55.0</b>	733.81	831.18	909.43	971.16	991.16
<b>57.5</b>	667.73	769.45	865.09	920.74	936.39
<b>60.0</b>	597.31	701.64	792.06	860.75	880.74
<b>62.5</b>	531.23	636.43	729.46	811.19	848.57
<b>65.0</b>	461.67	574.70	671.21	778.15	805.10
<b>67.5</b>	394.73	508.62	617.30	728.59	761.63
<b>70.0</b>	326.04	443.41	578.18	683.38	715.55
<b>72.5</b>	259.09	373.86	526.01	632.08	652.08
<b>75.0</b>	197.36	317.35	477.32	563.40	582.52
<b>77.5</b>	141.72	267.79	410.38	498.19	516.45
<b>80.0</b>	94.77	221.71	346.04	434.72	452.98
<b>82.5</b>	57.38	172.15	286.92	372.12	392.12
<b>85.0</b>	31.30	124.33	232.14	315.61	333.86
<b>87.5</b>	13.04	86.07	181.71	259.96	279.96
<b>90.0</b>	4.35	57.38	146.07	220.84	239.10
<b>92.5</b>	7.82	35.65	113.03	178.24	199.10
<b>95.0</b>	12.17	25.21	79.99	139.98	161.72
<b>97.5</b>	11.30	16.52	56.51	104.33	127.81
<b>100.0</b>	8.69	10.43	41.73	75.64	91.29
<b>102.5</b>	5.22	6.09	33.04	53.91	66.95
<b>105.0</b>	2.61	2.61	24.34	42.60	49.56
<b>107.5</b>	0.87	0.87	19.13	35.65	39.99
<b>110.0</b>	0.00	0.00	15.65	28.69	33.91
<b>112.5</b>	0.00	0.00	13.04	23.47	26.95
<b>115.0</b>	0.00	0.00	9.56	20.00	23.47
<b>117.5</b>	0.00	0.00	6.96	15.65	19.13
<b>120.0</b>	0.00	0.00	4.35	12.17	14.78
<b>122.5</b>	0.00	0.00	2.61	8.69	12.17
<b>125.0</b>	0.00	0.00	0.87	6.09	8.69
<b>127.5</b>	0.00	0.00	0.00	4.35	6.96
<b>130.0</b>	0.00	0.00	0.00	2.61	4.35
<b>132.5</b>	0.00	0.00	0.00	0.87	3.48

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	0.00	0.00	0.00	0.87	2.61
<b>137.5</b>	0.00	0.00	0.00	0.87	0.87
<b>140.0</b>	0.00	0.00	0.00	0.00	0.00
<b>142.5</b>	0.00	0.00	0.00	0.00	0.00
<b>145.0</b>	0.00	0.00	0.00	0.00	0.00
<b>147.5</b>	0.00	0.00	0.00	0.00	0.00
<b>150.0</b>	0.00	0.00	0.00	0.00	0.00
<b>152.5</b>	0.00	0.00	0.00	0.00	0.00
<b>155.0</b>	0.00	0.00	0.00	0.00	0.00
<b>157.5</b>	0.00	0.00	0.00	0.00	0.00
<b>160.0</b>	0.00	0.00	0.00	0.00	0.00
<b>162.5</b>	0.00	0.00	0.00	0.00	0.00
<b>165.0</b>	0.00	0.00	0.00	0.00	0.00
<b>167.5</b>	0.00	0.00	0.00	0.00	0.00
<b>170.0</b>	0.00	0.00	0.00	0.00	0.00
<b>172.5</b>	0.00	0.00	0.00	0.00	0.00
<b>175.0</b>	0.00	0.00	0.00	0.00	0.00
<b>177.5</b>	0.00	0.00	0.00	0.00	0.00
<b>180.0</b>	0.00	0.00	0.00	0.00	0.00

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-30	1187.19	13.4	23.2
0-40	1980.58	22.4	38.6
0-60	3632.53	41	70.9
0-90	4989.35	56.4	97.4
90-120	131.89	1.5	2.6
90-130	134.79	1.5	2.6
90-150	135.21	1.5	2.6
90-180	135.21	1.5	2.6
0-180	5124.56	57.9	100

Total Luminaire Efficiency = 57.9%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	140.23
10-20	409.21
20-30	637.74
30-40	793.39
40-50	850.87
50-60	801.08
60-70	657.28
70-80	461.39
80-90	238.15
90-100	93.63
100-110	27.9
110-120	10.36
120-130	2.89
130-140	.42
140-150	0
150-160	0
160-170	0
170-180	0

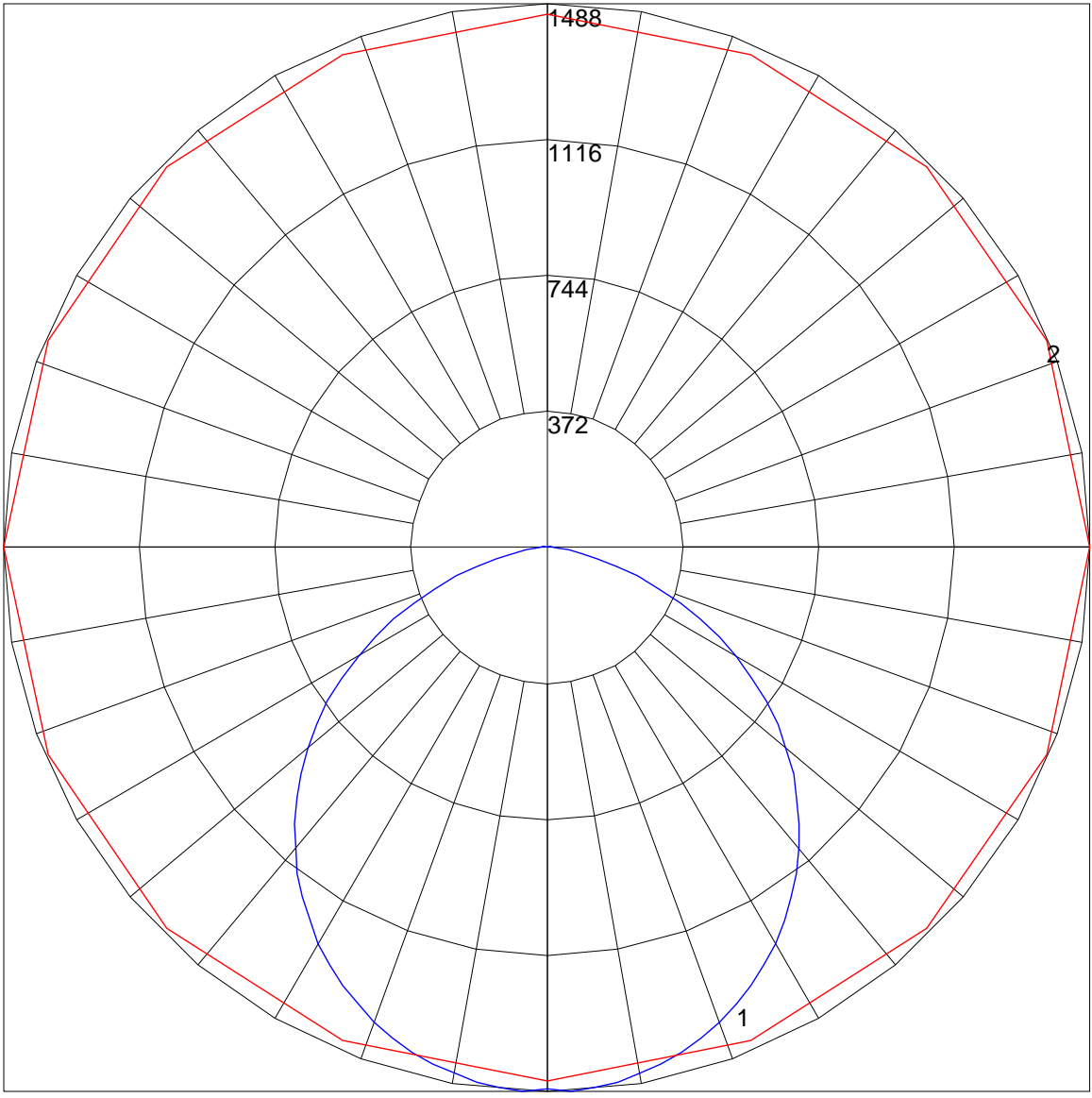
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	69	69	69	69	67	67	67	67	63	63	63	60	60	60	58	58	58	56	0
1	62	59	56	53	60	57	54	52	54	52	50	52	50	48	49	48	47	45	0
2	56	50	46	42	54	49	45	42	47	43	41	45	42	39	43	40	38	37	0
3	51	44	39	35	49	43	38	34	41	37	34	39	36	33	37	34	32	31	0
4	46	39	33	29	45	38	33	29	36	32	28	35	31	28	33	30	27	26	0
5	42	34	29	25	41	34	29	25	32	28	24	31	27	24	30	26	23	22	0
6	39	31	25	22	38	30	25	21	29	24	21	28	24	21	27	23	20	19	0
7	36	28	23	19	35	27	22	19	26	22	19	25	21	18	24	21	18	17	0
8	34	25	20	17	32	25	20	17	24	20	17	23	19	16	22	19	16	15	0
9	31	23	18	15	30	23	18	15	22	18	15	21	17	15	21	17	14	13	0
10	29	21	17	14	28	21	17	14	20	16	13	20	16	13	19	16	13	12	0

POLAR GRAPH



Maximum Candela = 1487.61 Located At Horizontal Angle = 0, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)