



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AL4232UNIH.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [ISSUE DATE]03/27/08  
 [TEST]ITL60079  
 [TEST LAB]INDEPENDENT TESTING LABORATORIES, INC.  
 [MANUFACTURER]TECHNICAL CONSUMER PRODUCTS  
 [LUMINAIRE]AL4232UNIH  
 [LUMINAIRE]AISLE LIGHTER 4' 32W T8 2-LAMP HBF  
 [LAMP](2) 32-WATT T-8 LINEAR FLUORESCENTS  
 [BALLAST]TCP E32IS32120H  
 [MOUNTING]SUSPENDED  
 [OTHER]TOTAL INPUT WATTS = 74 AT 120.0 VOLTS  
 [OTHER]LUMEN TO CANDELA RATIO USED = 9.17

**CHARACTERISTICS**

Total Rated Lamp Lumens	5900 (2 lamps)
Total Luminaire Efficiency	90.9 %
Luminaire Efficacy Rating (LER)	72
Total Luminaire Watts	74
Ballast Factor	1.00
CIE Type	Direct
Spacing Criteria (0-180)	1.26
Spacing Criteria (90-270)	0.82
Spacing Criteria (Diagonal)	1.06
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.81 ft
Luminous Height	0.21 ft



**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6853	4357	5185
55	6305	4785	4225
65	5367	3522	2832
75	3897	1942	820
85	947	79	0

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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>	2398.35	2398.35	2398.35	2398.35	2398.35
<b>2.5</b>	2403.27	2407.37	2416.39	2413.93	2418.03
<b>5.0</b>	2394.26	2413.11	2422.12	2417.21	2413.93
<b>7.5</b>	2377.86	2405.73	2405.73	2363.93	2340.16
<b>10.0</b>	2359.83	2395.9	2347.53	2269.67	2235.24
<b>12.5</b>	2331.96	2373.76	2263.11	2145.9	2087.7
<b>15.0</b>	2299.17	2331.96	2157.37	1981.14	1915.57
<b>17.5</b>	2263.93	2276.22	2039.34	1852.45	1781.96
<b>20.0</b>	2220.49	2201.63	1895.9	1705.73	1622.13
<b>22.5</b>	2177.04	2125.4	1785.24	1560.65	1481.14
<b>25.0</b>	2127.86	2042.62	1655.73	1419.67	1354.91
<b>27.5</b>	2068.03	1943.44	1514.75	1313.11	1307.37
<b>30.0</b>	2009.83	1836.88	1392.62	1279.5	1296.72
<b>32.5</b>	1940.16	1714.75	1266.39	1267.21	1318.03
<b>35.0</b>	1866.39	1596.72	1185.24	1286.06	1350.82
<b>37.5</b>	1793.44	1488.52	1154.1	1310.65	1380.32
<b>40.0</b>	1713.93	1374.59	1131.96	1333.6	1404.91
<b>42.5</b>	1632.78	1252.46	1133.6	1352.46	1419.67
<b>45.0</b>	1542.62	1129.51	1139.34	1360.65	1399.18
<b>47.5</b>	1459.83	1019.67	1142.62	1334.42	1363.93
<b>50.0</b>	1364.75	908.19	1142.62	1291.8	1272.13
<b>52.5</b>	1277.05	825.41	1133.6	1198.36	1150.82
<b>55.0</b>	1176.23	777.87	1094.26	1072.13	1007.37
<b>57.5</b>	1073.77	736.88	1036.88	928.69	875.41
<b>60.0</b>	968.03	712.29	934.42	804.10	750.00
<b>62.5</b>	868.85	690.98	798.36	680.33	631.15
<b>65.0</b>	763.93	667.21	665.57	572.13	565.57
<b>67.5</b>	663.11	640.16	554.10	504.92	475.41
<b>70.0</b>	559.01	589.34	442.62	401.64	368.85
<b>72.5</b>	464.75	510.65	378.69	302.46	244.26
<b>75.0</b>	365.57	394.26	278.69	174.59	127.05
<b>77.5</b>	270.49	281.97	169.67	61.48	19.67
<b>80.0</b>	182.79	206.56	56.56	1.64	1.64
<b>82.5</b>	104.10	126.23	11.48	1.64	0.00
<b>85.0</b>	40.16	40.16	7.38	0.00	0.00
<b>87.5</b>	7.38	22.95	4.92	0.00	0.00
<b>90.0</b>	0.00	12.30	2.46	0.00	0.00
<b>92.5</b>	0.00	9.02	2.46	0.00	0.00
<b>95.0</b>	0.00	5.74	1.64	0.00	0.00
<b>97.5</b>	0.00	3.28	0.82	0.00	0.00
<b>100.0</b>	0.00	1.64	0.00	0.00	0.00
<b>102.5</b>	0.00	0.82	0.00	0.00	0.00
<b>105.0</b>	0.00	0.00	0.00	0.00	0.00
<b>107.5</b>	0.00	0.00	0.00	0.00	0.00
<b>110.0</b>	0.00	0.00	0.00	0.00	0.00
<b>112.5</b>	0.00	0.00	0.00	0.00	0.00
<b>115.0</b>	0.00	0.00	0.00	0.00	0.00
<b>117.5</b>	0.00	0.00	0.00	0.00	0.00
<b>120.0</b>	0.00	0.00	0.00	0.00	0.00
<b>122.5</b>	0.00	0.00	0.00	0.00	0.00
<b>125.0</b>	0.00	0.00	0.00	0.00	0.00
<b>127.5</b>	0.00	0.00	0.00	0.00	0.00
<b>130.0</b>	0.00	0.00	0.00	0.00	0.00
<b>132.5</b>	0.00	0.00	0.00	0.00	0.00

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	0.00	0.00	0.00	0.00	0.00
<b>137.5</b>	0.00	0.00	0.00	0.00	0.00
<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	1620.93	27.5	30.2
0-40	2516.84	42.7	46.9
0-60	4395.84	74.5	82
0-90	5359.9	90.8	100
90-120	2.24	0	0
90-130	2.24	0	0
90-150	2.24	0	0
90-180	2.24	0	0
0-180	5362.14	90.9	100

Total Luminaire Efficiency = 90.9%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	227.48
10-20	601.56
20-30	791.89
30-40	895.9
40-50	980.85
50-60	898.15
60-70	640.65
70-80	291.04
80-90	32.37
90-100	2.13
100-110	.11
110-120	0
120-130	0
130-140	0
140-150	0
150-160	0
160-170	0
170-180	0

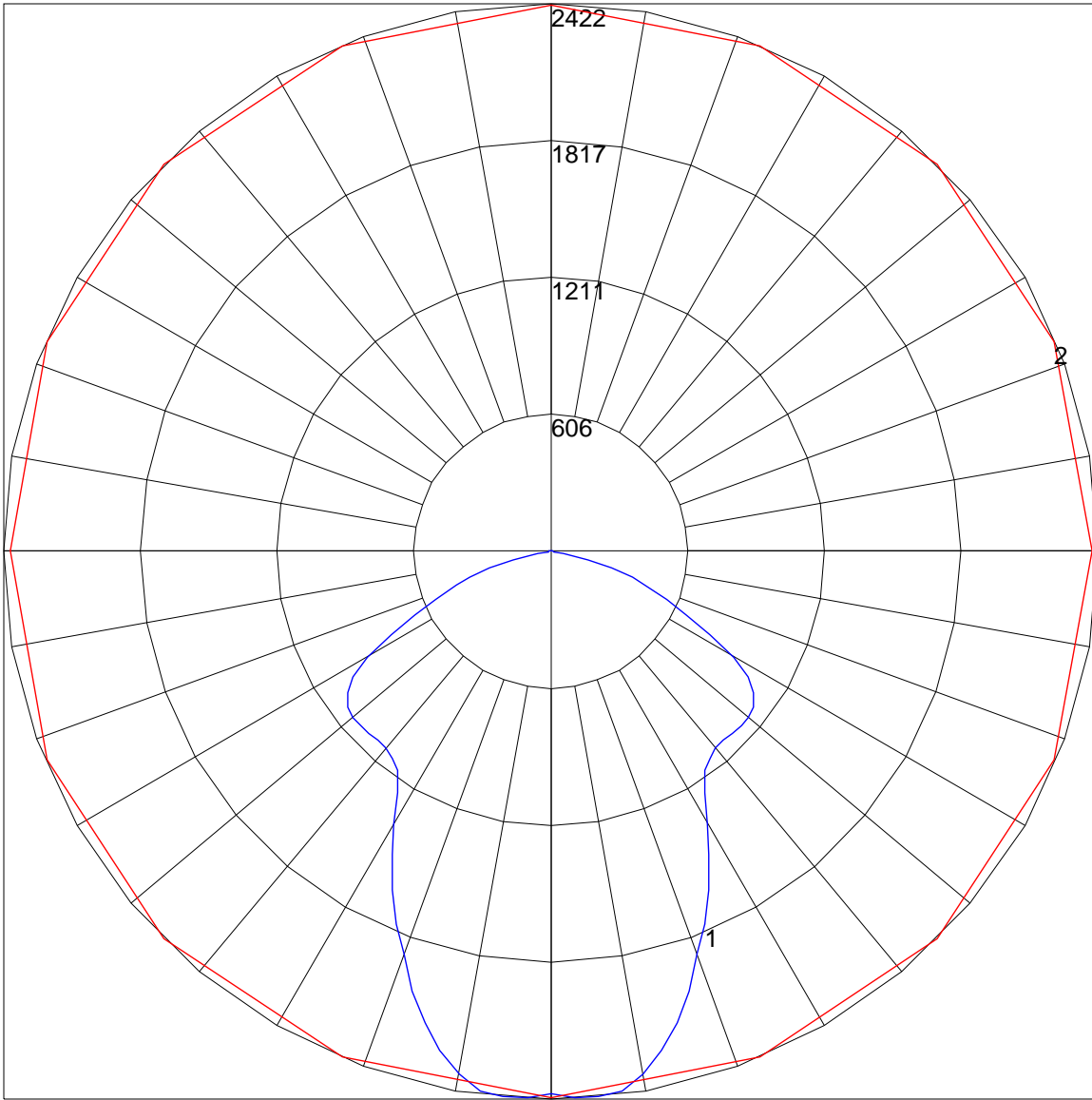
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	108	108	108	108	106	106	106	106	101	101	101	97	97	97	93	93	93	91
1	100	96	92	89	97	93	90	87	90	87	84	86	84	82	83	81	79	78
2	91	84	78	73	89	82	77	72	79	74	70	76	72	69	73	70	67	65
3	83	74	67	61	81	72	66	60	70	64	59	67	62	58	65	61	57	55
4	76	66	58	52	74	64	57	52	62	56	51	60	55	50	58	53	49	48
5	70	59	51	45	68	58	50	45	56	49	44	54	48	44	52	47	43	41
6	65	53	45	39	63	52	45	39	51	44	39	49	43	39	48	42	38	36
7	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	32
8	56	44	37	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29
9	53	41	33	28	51	40	33	28	39	33	28	38	32	28	37	32	28	26
10	49	38	30	26	48	37	30	26	36	30	26	35	30	25	35	29	25	24

POLAR GRAPH



Maximum Candela = 2422.12 Located At Horizontal Angle = 45, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)