



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AW-4-L74-950-RA-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20990.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 2023-08-09

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 48 INCH LINEAR LED SURFACE LUMINAIRE

[MORE] WHITE REFLECTOR w/RADIAL RIBBED FROST ACRYLIC LENS

[MORE] 0-10V DIMMING DRIVER

[LUMCAT] AW-4-L74-950-RA-DIM-UNV

[LAMPCAT] 22 INCH HLM LED ARRAYS

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6592
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
Total Luminaire Watts	55.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.98 ft
Luminous Width (90-270)	0.38 ft
Luminous Height	0.15 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11534	10571	10848
55	9835	9161	9645
65	7912	7589	8351
75	6137	6434	7216
85	2879	5800	6718

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AW-4-L74-950-RA-DIM-UNV\_.IES**

**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0</b>	2128.762	2128.762	2128.762	2128.762	2128.762
<b>5</b>	2146.611	2118.465	2112.973	2112.973	2106.795
<b>10</b>	2107.482	2083.455	2084.828	2090.320	2083.455
<b>15</b>	2036.775	2018.240	2033.342	2049.818	2047.758
<b>20</b>	1945.473	1937.922	1962.635	1992.840	1994.213
<b>25</b>	1819.162	1827.399	1872.020	1911.836	1922.133
<b>30</b>	1685.985	1700.401	1764.244	1815.729	1835.637
<b>35</b>	1519.858	1553.495	1637.932	1705.207	1728.547
<b>40</b>	1361.282	1397.665	1499.264	1593.311	1615.278
<b>45</b>	1173.188	1226.046	1349.612	1451.210	1478.670
<b>50</b>	997.450	1062.665	1197.901	1309.796	1340.001
<b>55</b>	823.771	887.614	1042.757	1158.772	1194.468
<b>60</b>	659.017	731.097	890.360	997.450	1037.952
<b>65</b>	500.441	576.640	732.470	869.079	898.597
<b>70</b>	369.324	436.599	599.980	732.470	767.480
<b>75</b>	250.564	325.390	490.830	609.591	635.677
<b>80</b>	139.355	230.656	392.664	500.441	537.511
<b>85</b>	49.426	155.830	311.660	411.886	442.777
<b>90</b>	0.000	102.971	243.013	341.179	361.086
<b>95</b>	0.000	65.902	191.527	279.396	309.601
<b>100</b>	0.000	43.934	146.906	231.342	255.369
<b>105</b>	0.000	29.518	116.014	186.722	213.494
<b>110</b>	0.000	13.730	91.988	153.084	178.484
<b>115</b>	0.000	8.924	73.453	129.058	146.906
<b>120</b>	0.000	0.000	58.350	105.717	124.252
<b>125</b>	0.000	0.000	45.307	84.437	98.853
<b>130</b>	0.000	0.000	35.697	66.588	78.945
<b>135</b>	0.000	0.000	28.832	51.486	63.156
<b>140</b>	0.000	0.000	15.102	39.129	48.053
<b>145</b>	0.000	0.000	5.492	30.205	35.010
<b>150</b>	0.000	0.000	0.000	26.086	29.518
<b>155</b>	0.000	0.000	0.000	24.713	26.086
<b>160</b>	0.000	0.000	0.000	14.416	24.027
<b>165</b>	0.000	0.000	0.000	4.805	8.238
<b>170</b>	0.000	0.000	0.000	0.000	0.000
<b>175</b>	0.000	0.000	0.000	0.000	0.000
<b>180</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AW-4-L74-950-RA-DIM-UNV\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	775.70	N.A.	11.80
0-30	1637.53	N.A.	24.80
0-40	2658.16	N.A.	40.30
0-60	4610.06	N.A.	69.90
0-80	5823.52	N.A.	88.30
0-90	6135.74	N.A.	93.10
10-90	5934.5	N.A.	90.00
20-40	1882.46	N.A.	28.60
20-50	2916.79	N.A.	44.20
40-70	2667.66	N.A.	40.50
60-80	1213.45	N.A.	18.40
70-80	497.70	N.A.	7.60
80-90	312.22	N.A.	4.70
90-110	308.65	N.A.	4.70
90-120	379.78	N.A.	5.80
90-130	420.65	N.A.	6.40
90-150	451.21	N.A.	6.80
90-180	456.24	N.A.	6.90
110-180	147.59	N.A.	2.20
0-180	6591.98	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	201.24
10-20	574.46
20-30	861.83
30-40	1020.63
40-50	1034.32
50-60	917.58
60-70	715.75
70-80	497.70
80-90	312.22
90-100	191.08
100-110	117.58
110-120	71.13
120-130	40.87
130-140	21.62
140-150	8.95
150-160	4.17
160-170	0.86
170-180	0.00

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AW-4-L74-950-RA-DIM-UNV\_.IES**

**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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	93
1	106	101	96	92	102	98	93	90	92	89	85	87	84	82	82	80	78	75
2	96	87	80	74	93	85	78	73	80	75	70	76	71	67	72	68	65	62
3	88	77	68	61	84	74	67	60	70	64	58	67	61	57	63	59	55	52
4	80	68	59	52	77	66	58	51	63	55	50	59	53	48	57	51	47	45
5	74	61	51	45	71	59	51	44	56	49	43	53	47	42	51	45	41	39
6	68	55	46	39	66	53	45	39	51	43	38	48	42	37	46	40	36	34
7	63	49	41	34	61	48	40	34	46	39	33	44	38	33	42	36	32	30
8	59	45	37	31	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	28	53	41	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	24	22

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AW-4-L74-950-RA-DIM-UNV\_.IES**

**UGR TABLE - CORRECTED**

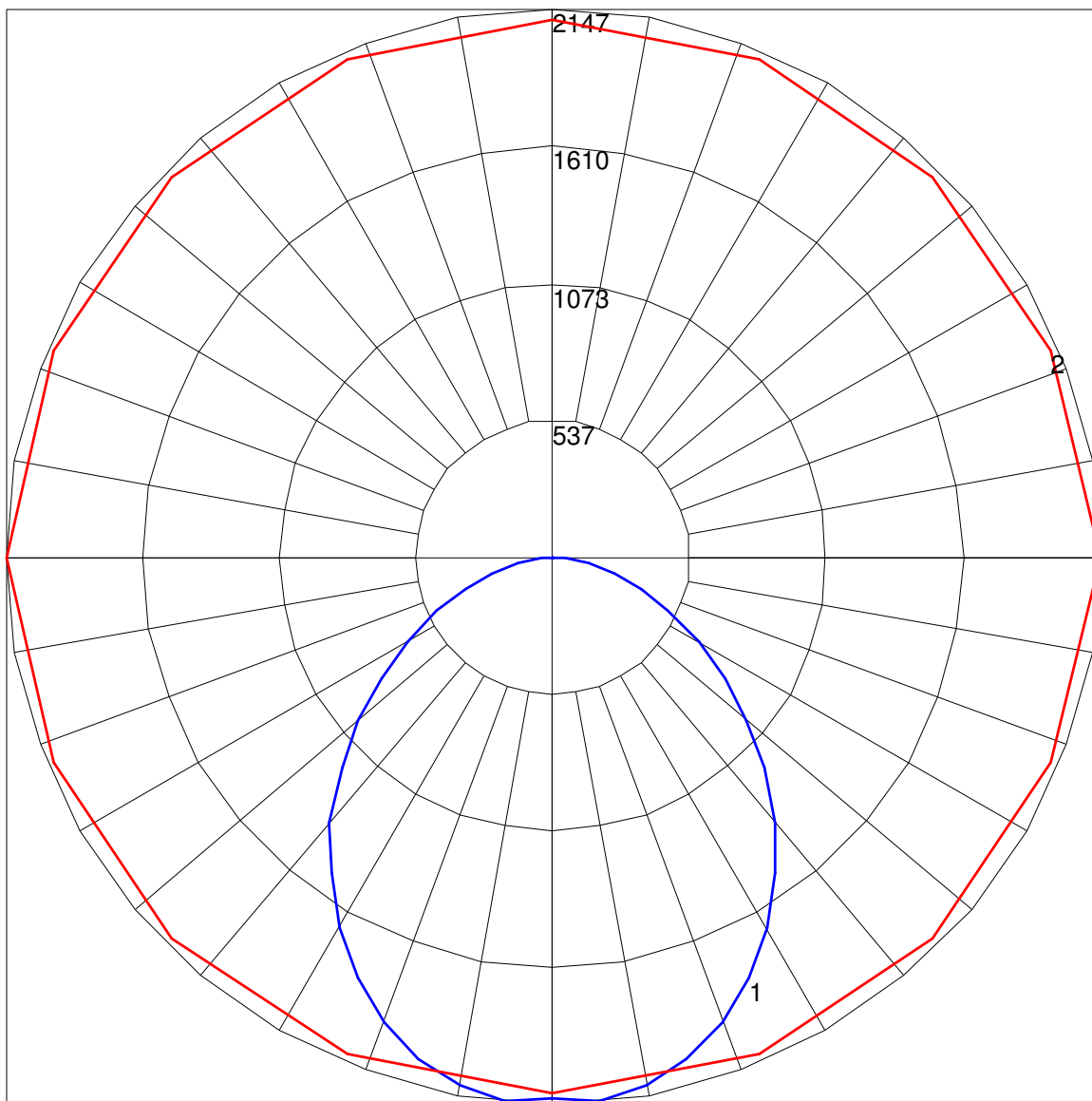
Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	17.5	19.0	17.9	19.4	19.9	20.5	22.0	21.0	22.4	22.9
	3H	18.7	20.0	19.2	20.5	21.0	22.7	24.1	23.2	24.6	25.1
	4H	19.1	20.4	19.6	20.8	21.4	23.8	25.1	24.3	25.6	26.1
	6H	19.3	20.5	19.8	21.0	21.5	24.9	26.1	25.4	26.6	27.1
	8H	19.3	20.5	19.9	21.0	21.6	25.5	26.6	26.0	27.1	27.7
	12H	19.3	20.4	19.9	21.0	21.6	26.1	27.2	26.6	27.7	28.3
4H	2H	18.4	19.7	18.9	20.2	20.7	20.8	22.1	21.3	22.6	23.1
	3H	19.9	21.0	20.4	21.5	22.1	23.3	24.4	23.8	24.9	25.5
	4H	20.4	21.4	20.9	21.9	22.5	24.5	25.5	25.0	26.1	26.7
	6H	20.7	21.6	21.2	22.1	22.8	25.8	26.7	26.4	27.3	27.9
	8H	20.8	21.6	21.3	22.2	22.8	26.5	27.3	27.0	27.9	28.5
	12H	20.8	21.6	21.4	22.2	22.8	27.2	28.0	27.8	28.6	29.2
8H	4H	21.1	21.9	21.7	22.5	23.1	24.7	25.5	25.2	26.1	26.7
	6H	21.6	22.3	22.2	22.9	23.6	26.1	26.8	26.7	27.4	28.1
	8H	21.8	22.4	22.4	23.0	23.7	26.9	27.6	27.5	28.2	28.8
	12H	21.9	22.5	22.5	23.1	23.8	27.9	28.4	28.5	29.0	29.7
12H	4H	21.3	22.1	21.9	22.7	23.3	24.7	25.4	25.3	26.0	26.7
	6H	21.9	22.6	22.6	23.2	23.8	26.2	26.8	26.8	27.4	28.1
	8H	22.2	22.8	22.8	23.4	24.1	27.0	27.6	27.6	28.2	28.9

Maximum UGR = 29.7

POLAR GRAPH



Maximum Candela = 2146.611 Located At Horizontal Angle = 0, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)