



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : ATS1-14-L20-830-P-XXX-XXX.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] GEN from BALLABS TEST NO. 19432.0  
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
[ISSUE DATE] 18-JUL-2016  
[MANUFAC] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
[LUMINAIRE] 2-32 LED 22"ARRAYS 1x4' SURFACE LUMINAIRE  
[MORE] WHITE REFLECTOR w PERF DIFFUSER IN DOOR  
[MORE] EVERLINE #D10CC55UNVTZ-C @ 77 SETPOINT WIRED IN SERIES  
[LUMCAT] ATS1-14-L20-830-P-xxx-xxx  
[LAMPCAT] M10CC830D32N2S

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1724
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	20
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.10
Spacing Criterion (Diagonal)	1.22
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.76 ft
Luminous Width (90-270)	0.77 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2133	2093	2065
55	1790	1785	1741
65	1577	1577	1266
75	1244	1038	930
85	989	611	436

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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</b>	782.394	782.394	782.394	782.394	782.394
<b>5</b>	788.544	787.860	787.860	787.860	787.177
<b>10</b>	765.994	764.628	763.261	761.895	761.895
<b>15</b>	735.929	735.929	731.829	729.095	729.095
<b>20</b>	705.863	703.813	699.030	693.563	692.197
<b>25</b>	640.265	638.215	631.382	628.648	625.232
<b>30</b>	582.183	579.450	572.617	567.150	565.784
<b>35</b>	531.618	528.885	522.735	517.952	515.218
<b>40</b>	463.287	459.870	455.087	450.304	448.254
<b>45</b>	406.572	401.788	399.055	395.639	393.589
<b>50</b>	345.073	342.340	339.607	338.240	337.557
<b>55</b>	276.742	276.742	276.059	273.325	269.226
<b>60</b>	225.493	226.177	226.177	216.610	209.777
<b>65</b>	179.711	181.078	179.711	157.162	144.179
<b>70</b>	131.196	133.246	122.996	101.130	99.080
<b>75</b>	86.781	90.197	72.431	66.281	64.915
<b>80</b>	51.249	48.515	40.999	34.166	31.432
<b>85</b>	23.233	19.133	14.350	10.933	10.250
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	280.95	N.A.	16.30
0-30	573.23	N.A.	33.20
0-40	897.96	N.A.	52.10
0-60	1454.1	N.A.	84.30
0-80	1704.46	N.A.	98.90
0-90	1724.02	N.A.	100.00
10-90	1649.75	N.A.	95.70
20-40	617.02	N.A.	35.80
20-50	924.65	N.A.	53.60
40-70	724.29	N.A.	42.00
60-80	250.37	N.A.	14.50
70-80	82.22	N.A.	4.80
80-90	19.55	N.A.	1.10
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1724.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	74.27
10-20	206.68
20-30	292.29
30-40	324.73
40-50	307.63
50-60	248.50
60-70	168.15
70-80	82.22
80-90	19.55
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

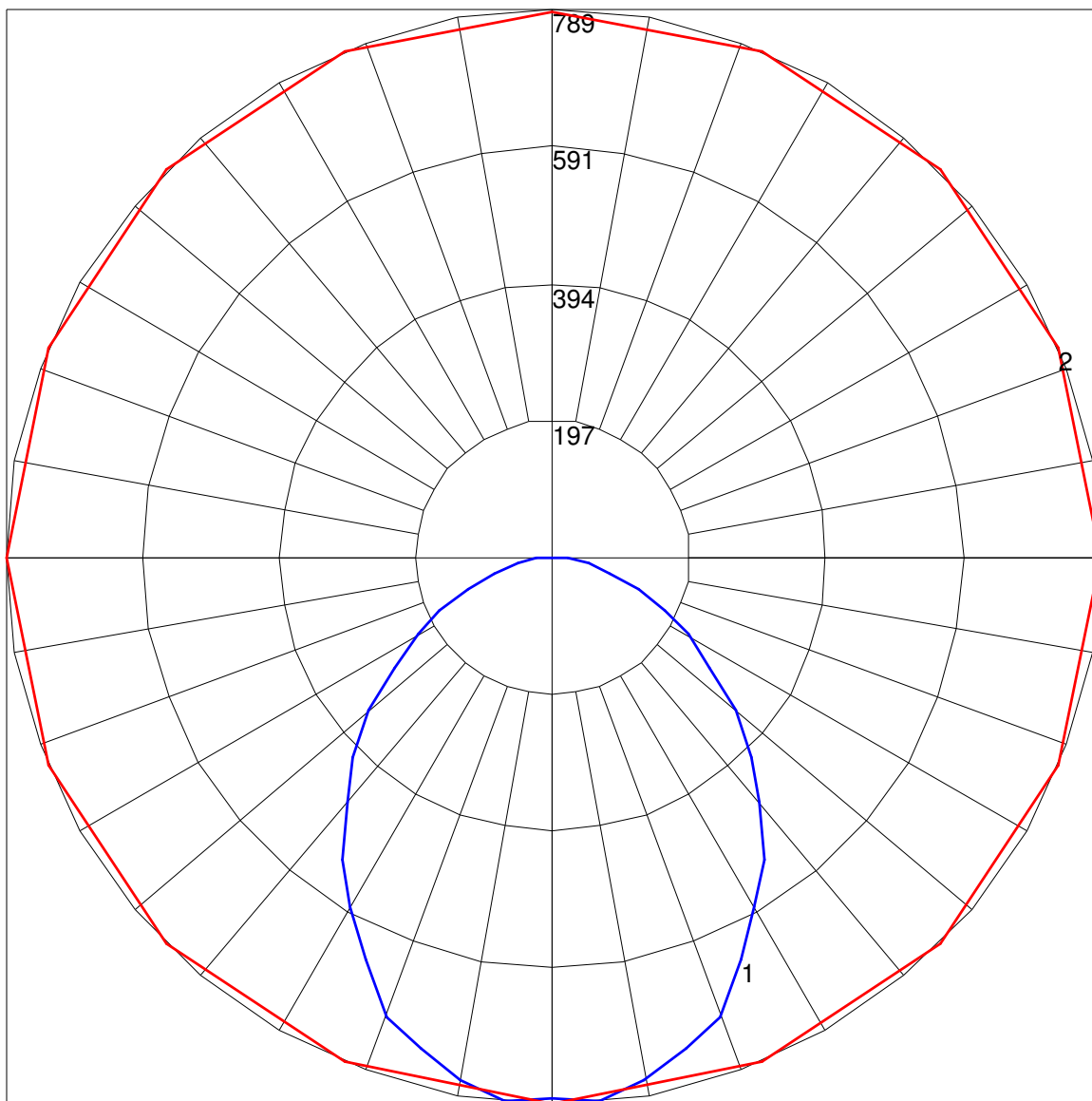
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	81	81	81	81	79	79	79	79	76	76	76	73	73	73	70	70	70	68
1	75	72	69	67	73	71	68	66	68	66	64	65	63	62	63	61	60	59
2	69	64	59	56	67	62	58	55	60	57	54	58	55	53	56	53	51	50
3	63	56	51	47	62	55	51	47	53	49	46	52	48	45	50	47	44	43
4	58	50	45	41	57	50	44	40	48	43	40	46	42	39	45	42	39	37
5	54	45	40	35	52	45	39	35	43	38	35	42	38	34	41	37	34	33
6	50	41	35	31	49	41	35	31	39	34	31	38	34	31	37	33	30	29
7	46	38	32	28	45	37	32	28	36	31	28	35	31	27	34	30	27	26
8	43	34	29	25	42	34	29	25	33	28	25	32	28	25	31	28	25	23
9	41	32	26	23	40	31	26	23	31	26	23	30	26	22	29	25	22	21
10	38	29	24	21	37	29	24	21	28	24	21	28	24	21	27	23	20	19

POLAR GRAPH



Maximum Candela = 788.544 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.)