



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT1-14-P25-8TW-D-POE 4000K\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19432.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 26-JUN-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 22" LED ARRAYS 1x4' RECESSED LUMINAIRE

[MORE] WHITE REFLECTOR w/2 PIECE FROSTED ACRLIC LENS IN DOOR

[LUMCAT] AT1-14-P25-8TW-D-PoE 4000k

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2507
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	25.1
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	3102	3044	3003
55	2603	2596	2532
65	2294	2294	1840
75	1809	1510	1353
85	1438	888	634

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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>	1137.739	1137.739	1137.739	1137.739	1137.739
<b>5</b>	1146.682	1145.688	1145.688	1145.688	1144.694
<b>10</b>	1113.891	1111.904	1109.916	1107.929	1107.929
<b>15</b>	1070.170	1070.170	1064.208	1060.233	1060.233
<b>20</b>	1026.449	1023.468	1016.512	1008.563	1006.576
<b>25</b>	931.058	928.077	918.140	914.166	909.197
<b>30</b>	846.597	842.622	832.686	824.736	822.749
<b>35</b>	773.066	769.092	760.149	753.193	749.218
<b>40</b>	673.700	668.732	661.776	654.821	651.840
<b>45</b>	591.227	584.271	580.296	575.328	572.347
<b>50</b>	501.797	497.823	493.848	491.861	490.867
<b>55</b>	402.432	402.432	401.438	397.463	391.501
<b>60</b>	327.907	328.901	328.901	314.990	305.053
<b>65</b>	261.332	263.319	261.332	228.541	209.662
<b>70</b>	190.782	193.763	178.858	147.061	144.080
<b>75</b>	126.195	131.163	105.328	96.385	94.398
<b>80</b>	74.524	70.550	59.619	49.683	45.708
<b>85</b>	33.784	27.822	20.867	15.899	14.905
<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	408.54	N.A.	16.30
0-30	833.58	N.A.	33.20
0-40	1305.8	N.A.	52.10
0-60	2114.51	N.A.	84.30
0-80	2478.59	N.A.	98.90
0-90	2507.02	N.A.	100.00
10-90	2399.03	N.A.	95.70
20-40	897.25	N.A.	35.80
20-50	1344.6	N.A.	53.60
40-70	1053.24	N.A.	42.00
60-80	364.08	N.A.	14.50
70-80	119.56	N.A.	4.80
80-90	28.43	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	2507.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	108.00
10-20	300.55
20-30	425.04
30-40	472.22
40-50	447.35
50-60	361.37
60-70	244.53
70-80	119.56
80-90	28.43
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	186	186	186	186	182	182	182	182	174	174	174	166	166	166	159	159	159	156
1	172	165	159	153	167	161	156	151	155	150	146	149	145	142	143	140	137	134
2	157	145	136	127	153	143	134	126	137	130	123	132	126	120	127	122	118	114
3	144	129	117	108	141	127	116	107	122	113	105	118	110	103	114	107	101	98
4	133	115	103	93	129	113	101	92	110	99	91	106	97	90	103	95	88	85
5	123	104	91	81	120	102	90	80	99	88	80	96	86	79	93	85	78	75
6	114	94	81	71	111	93	80	71	90	79	70	87	77	70	85	76	69	66
7	106	86	73	64	103	85	72	63	82	71	63	80	70	63	78	69	62	59
8	99	79	66	57	97	78	66	57	76	65	57	74	64	56	72	63	56	53
9	93	73	60	52	91	72	60	52	70	59	52	68	58	51	67	58	51	48
10	87	67	55	47	85	66	55	47	65	54	47	63	54	47	62	53	47	44

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**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

X=2H	Y=2H	13.5	15.0	13.8	15.3	15.6	13.3	14.8	13.6	15.1	15.4
	3H	15.1	16.5	15.5	16.8	17.2	14.4	15.8	14.8	16.1	16.4
	4H	15.7	17.0	16.1	17.3	17.7	14.7	16.0	15.1	16.4	16.8
	6H	16.0	17.2	16.5	17.6	18.0	15.0	16.2	15.4	16.5	16.9
	8H	16.2	17.3	16.6	17.7	18.1	15.0	16.1	15.4	16.5	16.9
	12H	16.3	17.3	16.7	17.7	18.2	15.0	16.1	15.4	16.5	16.9

UGR Viewed Endwise

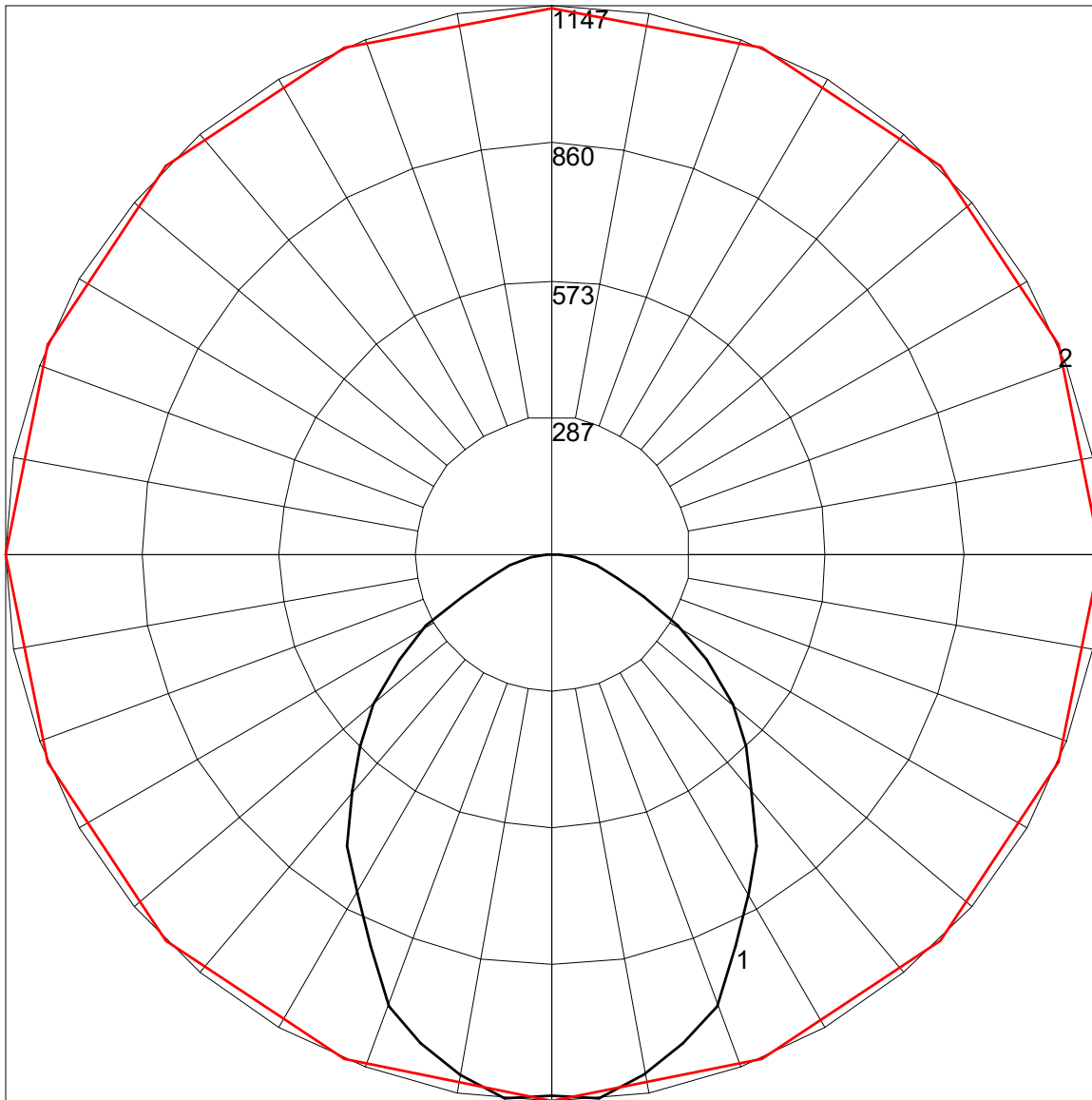
4H	2H	14.1	15.4	14.5	15.7	16.1	13.9	15.2	14.3	15.5	15.9
	3H	15.9	16.9	16.3	17.3	17.7	15.2	16.3	15.6	16.7	17.1
	4H	16.5	17.5	17.0	17.9	18.4	15.6	16.6	16.1	17.0	17.4
	6H	17.0	17.9	17.5	18.3	18.8	15.9	16.8	16.4	17.2	17.7
	8H	17.2	18.0	17.7	18.4	18.9	16.0	16.8	16.4	17.2	17.7
	12H	17.3	18.0	17.8	18.5	19.0	16.0	16.7	16.5	17.2	17.7

8H	4H	16.7	17.5	17.2	17.9	18.4	15.9	16.7	16.3	17.1	17.6
	6H	17.3	17.9	17.8	18.4	18.9	16.2	16.9	16.7	17.4	17.9
	8H	17.5	18.1	18.0	18.6	19.1	16.3	16.9	16.9	17.4	17.9
	12H	17.7	18.2	18.2	18.7	19.3	16.4	16.9	16.9	17.4	18.0

12H	4H	16.7	17.4	17.2	17.9	18.3	15.9	16.6	16.4	17.1	17.5
	6H	17.3	17.9	17.8	18.3	18.9	16.3	16.9	16.8	17.3	17.9
	8H	17.6	18.1	18.1	18.6	19.1	16.4	16.9	16.9	17.4	18.0

Maximum UGR = 19.3

POLAR GRAPH



Maximum Candela = 1146.682 Located At Horizontal Angle = 0, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)