



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-22-L35-8TW-D-DALI-UNV 4000K\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN from BALLABS TEST NO. 19255.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 3-JAN-2020  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 2-56 LED 22" ARRAYS 2x2' RECESSED LUMINAIRE  
 [MORE] WHITE REFLECTOR w/FROSTED ACRYLIC CONCAVE LX4 LENS IN  
 [MORE] DOOR  
 [LUMCAT] AT3-22-L35-8TW-D-DALI-UNV 4000k  
 [ \_SEARCH\_SOURCETYPE] LED  
 [ \_SEARCH\_APPLICATION] Indoor, Architectural, Commercial, Office, Direct  
 [ \_SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3288
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	87
Total Luminaire Watts	37.99
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.76 ft
Luminous Width (90-270)	1.76 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3377	3757	4089
55	2945	3471	3774
65	2475	3136	3520
75	2010	2939	3112
85	1348	1155	834

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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>	1280.725	1280.725	1280.725	1280.725	1280.725
<b>5</b>	1280.725	1275.892	1274.281	1274.281	1272.670
<b>10</b>	1248.506	1248.506	1248.506	1254.950	1256.561
<b>15</b>	1201.787	1206.620	1213.064	1227.563	1232.396
<b>20</b>	1140.570	1150.236	1166.346	1188.900	1198.565
<b>25</b>	1058.411	1076.131	1111.573	1142.181	1156.680
<b>30</b>	968.196	992.361	1039.079	1084.186	1095.463
<b>35</b>	876.370	903.757	950.475	1016.525	1021.358
<b>40</b>	781.323	800.655	857.039	923.089	929.533
<b>45</b>	687.886	695.941	765.213	811.931	832.874
<b>50</b>	589.617	596.061	671.777	703.996	732.994
<b>55</b>	486.514	504.235	573.507	600.894	623.447
<b>60</b>	391.467	418.854	476.849	504.235	520.345
<b>65</b>	301.252	341.527	381.801	410.799	428.519
<b>70</b>	219.093	264.200	296.419	322.195	333.472
<b>75</b>	149.821	188.484	219.093	228.758	231.980
<b>80</b>	88.604	114.379	130.489	93.437	85.382
<b>85</b>	33.830	37.052	28.998	24.165	20.943
<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	463.83	N.A.	14.10
0-30	974.37	N.A.	29.60
0-40	1570.32	N.A.	47.80
0-60	2656.92	N.A.	80.80
0-80	3242.66	N.A.	98.60
0-90	3287.59	N.A.	100.00
10-90	3166.65	N.A.	96.30
20-40	1106.49	N.A.	33.70
20-50	1692.22	N.A.	51.50
40-70	1458.75	N.A.	44.40
60-80	585.74	N.A.	17.80
70-80	213.58	N.A.	6.50
80-90	44.93	N.A.	1.40
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	3287.59	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	120.93
10-20	342.90
20-30	510.54
30-40	595.95
40-50	585.73
50-60	500.87
60-70	372.16
70-80	213.58
80-90	44.93
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	206	206	206	206	202	202	202	202	193	193	193	184	184	184	177	177	177	173
1	189	181	174	168	185	177	171	165	170	165	160	163	159	155	157	154	150	147
2	173	159	147	137	168	155	145	136	149	140	133	144	136	130	138	132	127	123
3	158	140	126	115	153	137	124	114	132	121	112	127	118	110	123	115	108	104
4	145	124	109	98	141	122	108	97	118	106	96	114	103	95	110	101	93	90
5	133	111	96	85	130	109	95	84	106	93	83	102	91	82	99	89	82	78
6	123	100	85	74	120	99	84	74	96	83	73	93	81	73	90	80	72	68
7	114	91	76	66	111	90	76	66	87	74	65	85	73	65	82	72	64	61
8	107	83	69	59	104	82	68	59	80	67	58	78	66	58	76	65	58	54
9	100	77	63	53	97	76	62	53	74	61	53	72	61	52	70	60	52	49
10	94	71	57	48	91	70	57	48	68	56	48	67	56	48	65	55	48	45

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**UGR TABLE - CORRECTED**

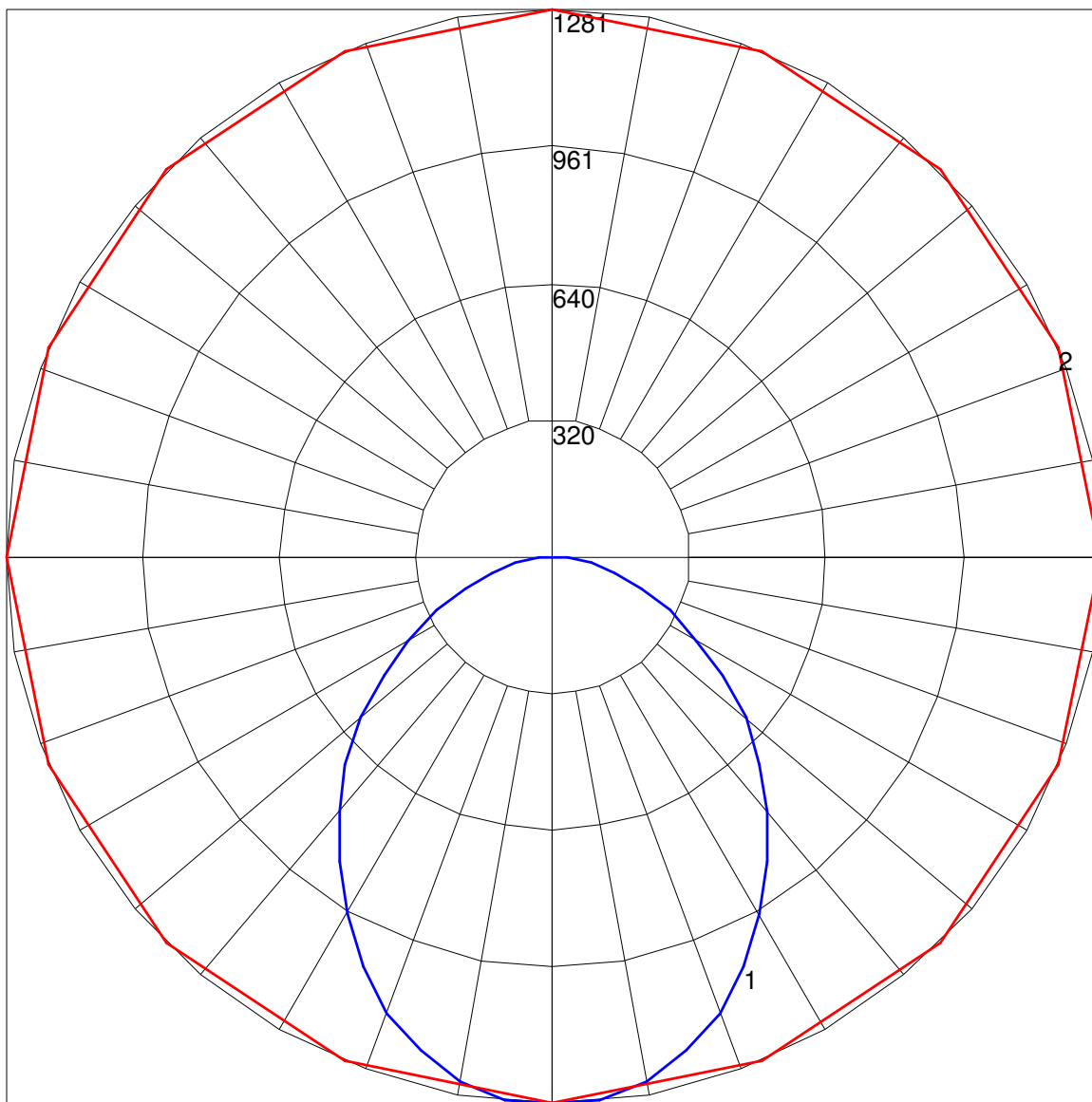
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	13.4	15.0	13.8	15.4	15.7	14.8	16.4	15.2	16.7	17.0
	3H	15.0	16.5	15.4	16.8	17.2	16.7	18.1	17.1	18.5	18.8
	4H	15.6	17.0	16.0	17.3	17.7	17.4	18.8	17.8	19.1	19.5
	6H	16.0	17.3	16.5	17.7	18.1	17.7	19.0	18.1	19.3	19.7
	8H	16.2	17.4	16.6	17.8	18.1	17.8	19.0	18.2	19.4	19.8
	12H	16.2	17.4	16.7	17.8	18.2	17.8	18.9	18.2	19.3	19.7
4H	2H	14.3	15.6	14.7	16.0	16.4	15.3	16.7	15.7	17.0	17.4
	3H	16.2	17.3	16.6	17.7	18.1	17.5	18.6	17.9	19.0	19.4
	4H	16.9	17.9	17.3	18.3	18.7	18.3	19.3	18.7	19.8	20.2
	6H	17.4	18.3	17.9	18.7	19.2	18.7	19.6	19.2	20.1	20.5
	8H	17.6	18.4	18.0	18.8	19.3	18.8	19.6	19.2	20.1	20.5
	12H	17.7	18.4	18.1	18.9	19.3	18.8	19.5	19.3	20.0	20.5
8H	4H	17.3	18.2	17.8	18.6	19.1	18.6	19.4	19.1	19.9	20.3
	6H	18.0	18.7	18.5	19.2	19.7	19.1	19.8	19.6	20.3	20.7
	8H	18.2	18.9	18.7	19.4	19.8	19.2	19.8	19.7	20.3	20.8
	12H	18.4	18.9	18.9	19.4	20.0	19.2	19.8	19.7	20.2	20.8
12H	4H	17.4	18.1	17.8	18.6	19.1	18.6	19.4	19.1	19.8	20.3
	6H	18.1	18.7	18.6	19.2	19.7	19.1	19.7	19.6	20.2	20.7
	8H	18.3	18.9	18.8	19.4	19.9	19.2	19.8	19.7	20.3	20.8

Maximum UGR = 20.8

POLAR GRAPH



Maximum Candela = 1280.725 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)