



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-24-L69-8TW-D-DALI-UNV 4000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19260.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 3-JAN-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4-56 LED 22" ARRAYS 2x4' RECESSED LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC CONCAVE LX4 LENS IN DOOR

[LUMCAT] AT3-24-L69-8TW-D-DALI-UNV 4000k

[_SEARCH_SOURCETYPE]LED

[_SEARCH_APPLICATION]INDOOR,COMMERCIAL,DIRECT,OFFICE,ARCHITECTURAL

[_SEARCH_MOUNTING]RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6683
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	68.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.76 ft
Luminous Width (90-270)	1.88 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3044	3403	3629
55	2594	3006	3198
65	2355	2877	3091
75	2003	2739	2739
85	1775	1265	1183

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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>
0	2662.684	2662.684	2662.684	2662.684	2662.684
5	2648.601	2649.540	2649.540	2650.479	2651.418
10	2595.084	2597.901	2604.473	2612.923	2618.557
15	2499.318	2505.890	2520.912	2543.446	2553.773
20	2355.668	2369.752	2405.429	2448.618	2466.457
25	2162.257	2180.096	2232.674	2290.885	2317.174
30	1958.519	2150.052	2030.813	2024.241	2171.646
35	1751.964	1783.886	1874.958	1964.152	1997.952
40	1553.858	1590.475	1699.386	1786.703	1814.869
45	1411.148	1456.214	1577.331	1657.136	1682.486
50	1187.692	1239.331	1351.998	1417.720	1434.620
55	975.504	1029.020	1130.420	1183.937	1202.715
60	793.360	848.754	935.132	983.954	999.915
65	652.527	713.554	797.115	843.121	856.265
70	493.855	558.638	634.688	671.304	677.877
75	339.877	404.660	464.749	470.383	464.749
80	219.700	285.422	279.788	194.350	176.511
85	101.400	116.422	72.294	68.539	67.600
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	962.35	N.A.	14.40
0-30	1994.07	N.A.	29.80
0-40	3169.31	N.A.	47.40
0-60	5352.89	N.A.	80.10
0-80	6570.94	N.A.	98.30
0-90	6682.61	N.A.	100.00
10-90	6431.09	N.A.	96.20
20-40	2206.97	N.A.	33.00
20-50	3392.51	N.A.	50.80
40-70	2947.06	N.A.	44.10
60-80	1218.05	N.A.	18.20
70-80	454.57	N.A.	6.80
80-90	111.66	N.A.	1.70
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	6682.61	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	251.51
10-20	710.83
20-30	1031.73
30-40	1175.24
40-50	1185.54
50-60	998.04
60-70	763.49
70-80	454.57
80-90	111.66
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	235	235	235	235	230	230	230	230	219	219	219	210	210	210	202	202	202	197
1	215	206	198	190	210	202	194	187	193	187	181	185	180	176	178	174	170	166
2	196	180	167	156	191	176	164	154	169	159	150	163	154	147	157	150	144	139
3	179	159	143	130	174	156	141	129	150	137	127	144	134	125	139	130	122	118
4	164	141	124	111	160	139	123	110	134	120	109	129	117	107	125	114	106	102
5	152	127	109	96	147	124	108	96	120	106	95	116	104	94	113	101	93	88
6	140	114	97	84	136	112	96	84	109	94	83	106	92	82	102	91	82	78
7	130	104	87	75	127	102	86	75	99	85	74	96	83	73	94	82	73	69
8	121	95	78	67	118	94	78	67	91	77	66	89	76	66	86	74	66	62
9	114	87	71	61	111	86	71	60	84	70	60	82	69	60	80	68	59	56
10	107	81	65	55	104	80	65	55	78	64	55	76	63	54	74	63	54	51

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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

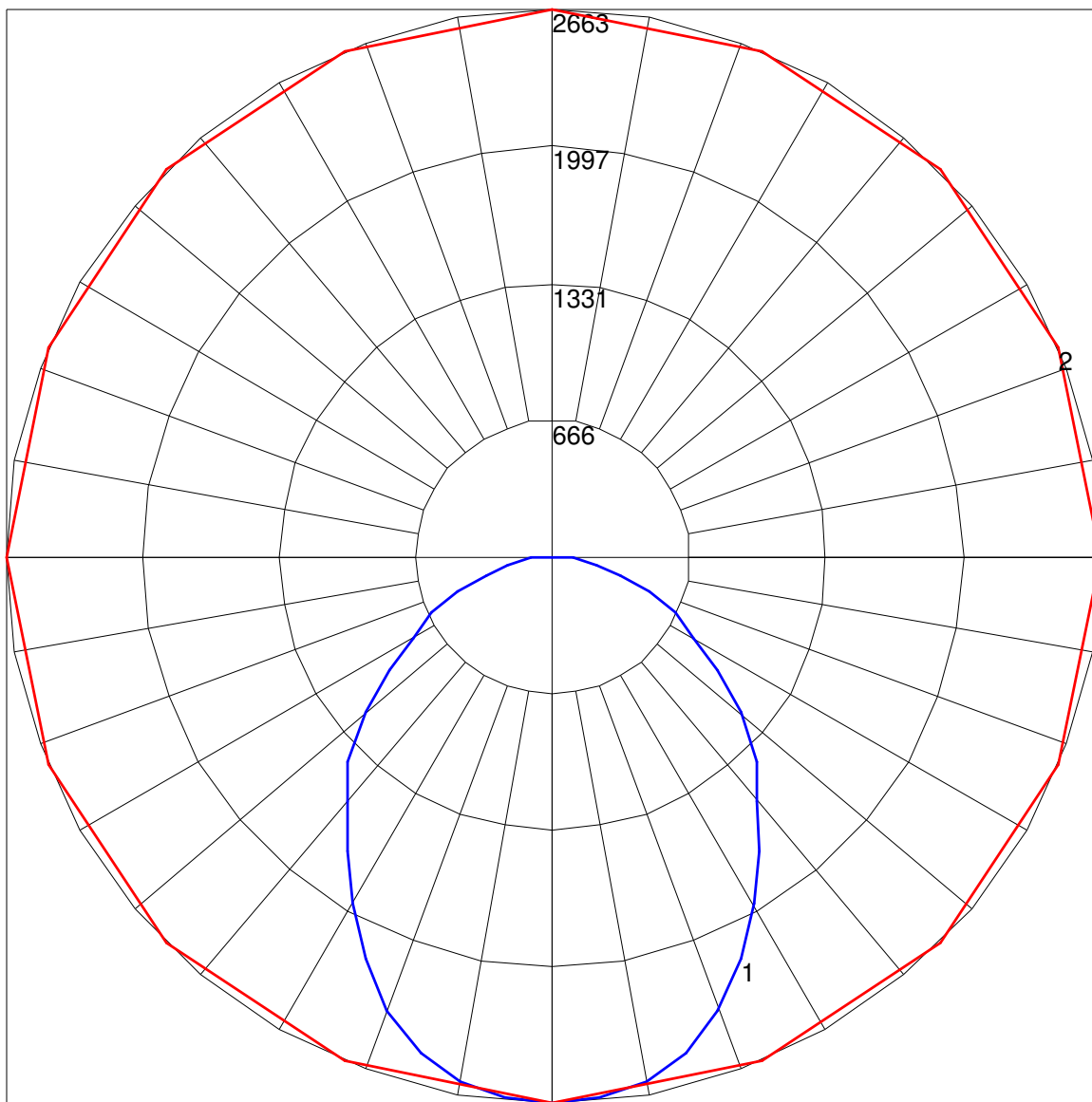
X=2H	Y=2H	12.6	14.2	13.0	14.5	14.8	13.7	15.3	14.0	15.6	15.9
	3H	14.4	15.8	14.7	16.1	16.5	15.7	17.2	16.1	17.5	17.8
	4H	15.0	16.4	15.4	16.7	17.1	16.4	17.8	16.8	18.2	18.5
	6H	15.5	16.8	15.9	17.2	17.6	16.8	18.0	17.2	18.4	18.8
	8H	15.7	16.9	16.2	17.3	17.7	16.8	18.0	17.2	18.4	18.8
	12H	15.9	17.0	16.3	17.4	17.8	16.9	18.0	17.3	18.4	18.8

UGR Viewed Endwise

4H	2H	13.4	14.8	13.8	15.2	15.5	14.3	15.6	14.7	16.0	16.4
	3H	15.5	16.6	15.9	17.0	17.4	16.5	17.7	17.0	18.1	18.5
	4H	16.3	17.3	16.7	17.7	18.1	17.4	18.5	17.9	18.9	19.3
	6H	16.9	17.9	17.4	18.3	18.7	17.8	18.7	18.3	19.2	19.6
	8H	17.2	18.0	17.6	18.5	18.9	17.9	18.8	18.4	19.2	19.7
	12H	17.3	18.1	17.8	18.6	19.1	18.0	18.7	18.4	19.2	19.7
8H	4H	16.7	17.6	17.2	18.0	18.5	17.7	18.6	18.2	19.0	19.5
	6H	17.6	18.3	18.1	18.8	19.3	18.2	18.9	18.7	19.4	19.9
	8H	17.9	18.5	18.4	19.1	19.5	18.3	19.0	18.8	19.5	20.0
	12H	18.2	18.7	18.7	19.2	19.8	18.4	19.0	18.9	19.5	20.0
12H	4H	16.8	17.5	17.2	18.0	18.5	17.7	18.5	18.2	19.0	19.5
	6H	17.7	18.3	18.2	18.8	19.3	18.3	18.9	18.8	19.4	19.9
	8H	18.0	18.6	18.5	19.1	19.7	18.4	19.0	19.0	19.5	20.1

Maximum UGR = 20.1

POLAR GRAPH



Maximum Candela = 2662.684 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.)