



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT1-24-L69-8TW-D-DALI-UNV 4000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 18876.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 2-JAN-2020

[MANUFAC] WILLIAMS LINEAR

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

[LUMINAIRE] 4-32 LED 22" ARRAYS-SERIES 2x4 'RECESSED LUMINAIRE w/WHITE

[MORE] REFL, FROST CONCAVE ACRYLIC LENS w/SHALLOW ACRYLIC CENTER

[MORE] DIFFUSER

[LUMCAT] AT1-24-L69-8TW-D-DALI-UNV 4000k

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Educational, Office, Direct

[_SEARCH_MOUNTING] Ceiling, Recessed

[_SEARCH_CERTIFICATION] DLC

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6961
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	68.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.76 ft
Luminous Width (90-270)	1.77 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3178	3717	4032
55	2757	3376	3637
65	2451	3213	3473
75	2093	3111	3196
85	1764	1890	1932

IES INDOOR REPORT
 PHOTOMETRIC FILENAME : AT1-24-L69-8TW-D-DALI-UNV 4000K_.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	2678.177	2678.177	2678.177	2678.177	2678.177
5	2680.437	2678.177	2684.957	2684.957	2687.217
10	2608.115	2610.375	2626.196	2639.756	2646.536
15	2517.712	2531.273	2560.654	2592.295	2610.375
20	2359.508	2393.409	2443.130	2504.152	2531.273
25	2171.923	2203.563	2284.926	2373.068	2411.489
30	1986.597	2029.538	2142.542	2255.545	2298.486
35	1823.873	1875.854	2011.458	2135.761	2180.963
40	1584.306	1645.327	1796.752	1918.795	1952.696
45	1387.680	1453.222	1622.727	1726.690	1760.591
50	1175.234	1249.816	1403.500	1493.903	1518.764
55	976.348	1053.190	1195.574	1267.897	1288.237
60	802.323	879.165	1007.989	1069.011	1087.091
65	639.598	723.221	838.484	890.466	906.286
70	483.654	571.796	671.239	709.660	716.441
75	334.490	424.892	497.214	515.295	510.775
80	210.186	291.548	318.669	244.087	221.486
85	94.923	133.344	101.703	101.703	103.963
90	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : AT1-24-L69-8TW-D-DALI-UNV 4000K_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	974.53	N.A.	14.00
0-30	2031.86	N.A.	29.20
0-40	3274.93	N.A.	47.00
0-60	5545.24	N.A.	79.70
0-80	6828.43	N.A.	98.10
0-90	6960.62	N.A.	100.00
10-90	6706.61	N.A.	96.40
20-40	2300.4	N.A.	33.00
20-50	3525.27	N.A.	50.60
40-70	3069.14	N.A.	44.10
60-80	1283.2	N.A.	18.40
70-80	484.37	N.A.	7.00
80-90	132.18	N.A.	1.90
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	6960.62	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	254.01
10-20	720.53
20-30	1057.33
30-40	1243.08
40-50	1224.87
50-60	1045.43
60-70	798.83
70-80	484.37
80-90	132.18
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : AT1-24-L69-8TW-D-DALI-UNV 4000K_.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	235	235	235	235	230	230	230	230	219	219	219	210	210	210	201	201	201	197
1	215	206	197	190	210	201	193	187	193	186	181	185	180	175	178	174	170	166
2	196	180	166	155	191	176	164	153	169	159	150	162	154	146	156	149	143	139
3	179	158	142	130	174	155	140	128	149	136	126	144	133	124	139	130	122	117
4	164	141	123	110	159	138	122	109	133	119	108	128	116	106	124	114	105	101
5	151	126	108	95	147	124	107	95	119	105	94	116	103	93	112	101	92	88
6	140	114	96	84	136	112	95	83	108	93	82	105	92	82	102	90	81	77
7	130	103	86	74	126	102	85	74	99	84	73	96	83	73	93	81	72	68
8	121	94	78	66	118	93	77	66	90	76	66	88	75	65	86	74	65	61
9	113	87	71	60	110	86	70	60	83	69	59	81	68	59	79	67	59	55
10	106	80	65	54	104	79	64	54	77	63	54	75	63	54	74	62	54	50

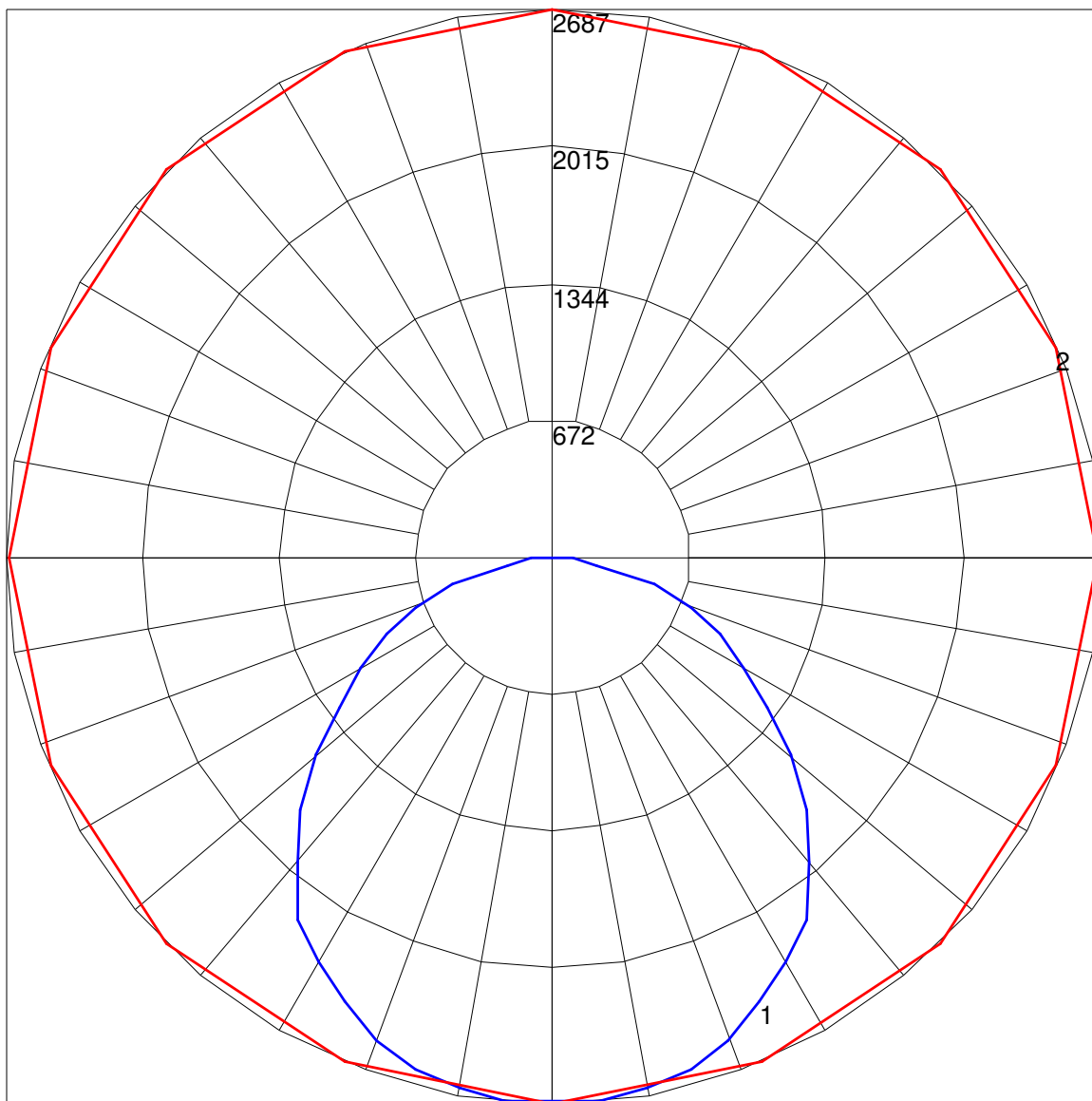
IES INDOOR REPORT
PHOTOMETRIC FILENAME : AT1-24-L69-8TW-D-DALI-UNV 4000K_.IES

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	12.9	14.5	13.2	14.8	15.1	14.3	15.9	14.7	16.2	16.6
	3H	14.6	16.0	15.0	16.4	16.7	16.3	17.7	16.7	18.1	18.4
	4H	15.2	16.6	15.6	16.9	17.3	17.0	18.4	17.4	18.8	19.1
	6H	15.7	17.0	16.1	17.4	17.8	17.4	18.7	17.9	19.1	19.5
	8H	15.9	17.1	16.3	17.5	17.9	17.5	18.7	18.0	19.1	19.5
	12H	16.0	17.2	16.4	17.6	18.0	17.6	18.8	18.0	19.1	19.6
4H	2H	13.8	15.2	14.2	15.5	15.9	14.9	16.3	15.3	16.6	17.0
	3H	15.8	16.9	16.2	17.3	17.7	17.1	18.3	17.5	18.7	19.1
	4H	16.6	17.6	17.0	18.0	18.4	18.0	19.1	18.5	19.5	19.9
	6H	17.2	18.1	17.7	18.6	19.0	18.5	19.4	19.0	19.9	20.3
	8H	17.4	18.3	17.9	18.7	19.2	18.7	19.5	19.1	19.9	20.4
	12H	17.6	18.4	18.1	18.8	19.3	18.7	19.5	19.2	20.0	20.5
8H	4H	17.1	17.9	17.5	18.4	18.8	18.3	19.2	18.8	19.6	20.1
	6H	17.9	18.6	18.4	19.1	19.6	19.0	19.7	19.4	20.1	20.6
	8H	18.2	18.9	18.7	19.4	19.9	19.1	19.8	19.6	20.3	20.8
	12H	18.5	19.1	19.0	19.5	20.1	19.3	19.9	19.8	20.3	20.9
12H	4H	17.1	17.9	17.6	18.4	18.8	18.4	19.1	18.8	19.6	20.1
	6H	18.0	18.7	18.5	19.1	19.7	19.0	19.7	19.5	20.1	20.7
	8H	18.4	19.0	18.9	19.5	20.0	19.3	19.8	19.8	20.3	20.9

Maximum UGR = 20.9

POLAR GRAPH



Maximum Candela = 2687.217 Located At Horizontal Angle = 90, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)