



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-22-L20-8TW-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-L20-8TW-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	1896
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	90
Total Luminaire Watts	21.05
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	1947	2166	2358
55	1698	2002	2176
65	1427	1809	2030
75	1159	1695	1794
85	777	666	481

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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	738.520	738.520	738.520	738.520	738.520
5	738.520	735.733	734.804	734.804	733.875
10	719.941	719.941	719.941	723.657	724.586
15	693.001	695.788	699.504	707.865	710.652
20	657.701	663.275	672.564	685.570	691.143
25	610.324	620.543	640.980	658.630	666.991
30	558.303	572.237	599.177	625.188	631.690
35	505.352	521.144	548.084	586.171	588.958
40	450.544	461.691	494.205	532.292	536.008
45	396.664	401.309	441.254	468.194	480.270
50	339.998	343.714	387.375	405.954	422.675
55	280.545	290.763	330.708	346.501	359.506
60	225.736	241.529	274.971	290.763	300.053
65	173.715	196.939	220.163	236.884	247.102
70	126.338	152.349	170.928	185.791	192.294
75	86.393	108.688	126.338	131.912	133.770
80	51.093	65.956	75.245	53.879	49.235
85	19.508	21.366	16.721	13.934	12.076
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	267.47	N.A.	14.10
0-30	561.86	N.A.	29.60
0-40	905.51	N.A.	47.80
0-60	1532.09	N.A.	80.80
0-80	1869.85	N.A.	98.60
0-90	1895.76	N.A.	100.00
10-90	1826.03	N.A.	96.30
20-40	638.05	N.A.	33.70
20-50	975.81	N.A.	51.50
40-70	841.18	N.A.	44.40
60-80	337.76	N.A.	17.80
70-80	123.16	N.A.	6.50
80-90	25.91	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	1895.76	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	69.74
10-20	197.73
20-30	294.40
30-40	343.65
40-50	337.76
50-60	288.82
60-70	214.60
70-80	123.16
80-90	25.91
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	80	80	80	80	78	78	78	78	75	75	75	72	72	72	69	69	69	67
1	73	70	68	65	72	69	66	64	66	64	62	63	62	60	61	60	58	57
2	67	62	57	53	65	60	56	53	58	54	52	56	53	50	54	51	49	48
3	61	54	49	45	60	53	48	44	51	47	43	49	46	43	48	45	42	41
4	56	48	42	38	55	47	42	38	46	41	37	44	40	37	43	39	36	35
5	52	43	37	33	50	42	37	33	41	36	32	40	35	32	38	35	32	30
6	48	39	33	29	47	38	33	29	37	32	28	36	32	28	35	31	28	27
7	44	35	30	26	43	35	29	25	34	29	25	33	28	25	32	28	25	24
8	41	32	27	23	40	32	27	23	31	26	23	30	26	23	29	25	22	21
9	39	30	24	21	38	29	24	21	29	24	20	28	24	20	27	23	20	19
10	36	28	22	19	35	27	22	19	27	22	19	26	22	19	25	21	18	17

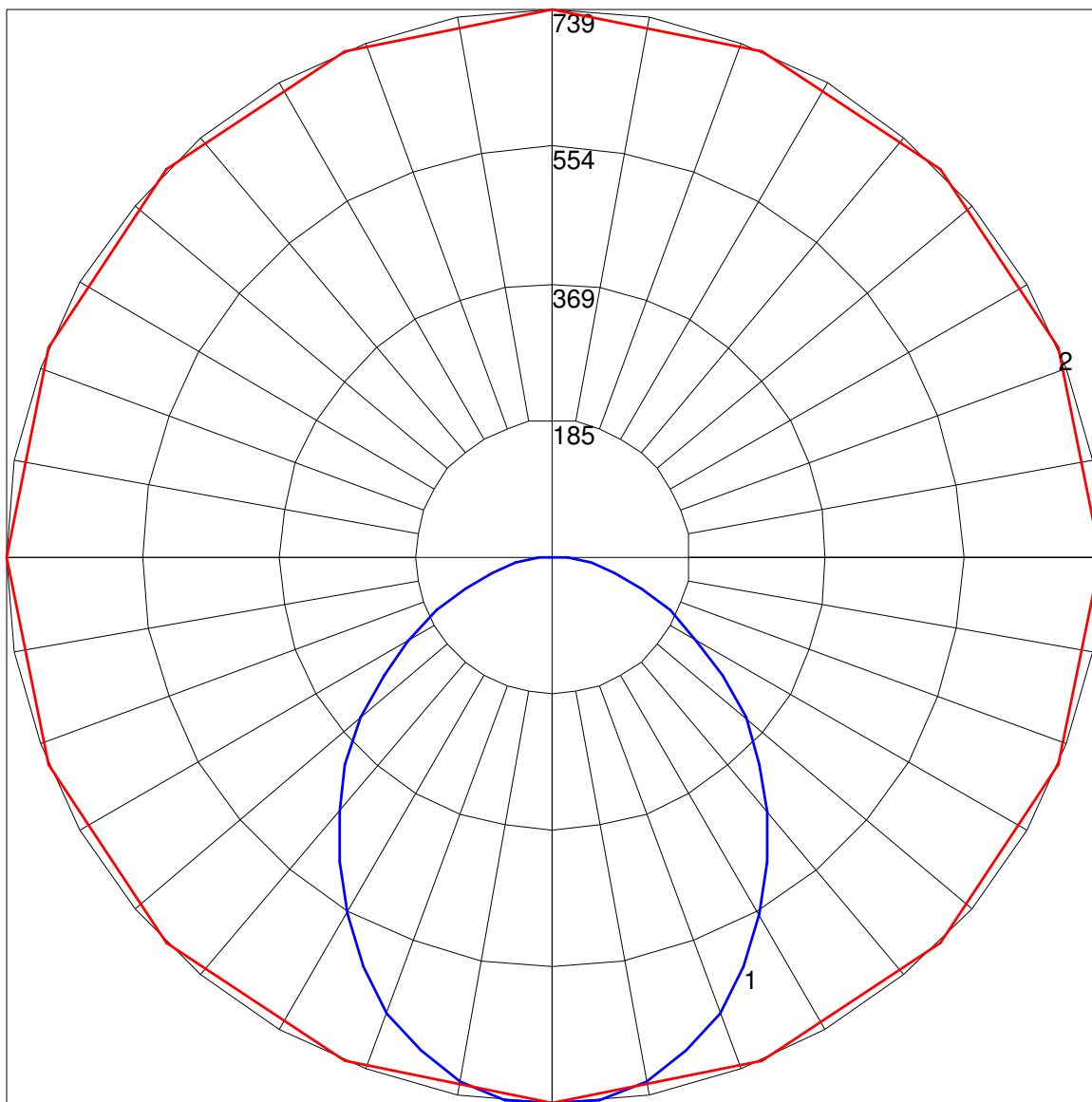
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UGR TABLE - CORRECTED

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	14.8	16.4	15.2	16.8	17.1	16.2	17.8	16.6	18.1	18.4
	3H	16.4	17.9	16.8	18.2	18.6	18.1	19.5	18.5	19.9	20.2
	4H	17.0	18.4	17.4	18.7	19.1	18.8	20.2	19.2	20.5	20.9
	6H	17.4	18.7	17.9	19.1	19.5	19.1	20.4	19.5	20.7	21.1
	8H	17.6	18.8	18.0	19.2	19.5	19.2	20.4	19.6	20.8	21.2
	12H	17.6	18.8	18.1	19.2	19.6	19.2	20.3	19.6	20.7	21.1
4H	2H	15.7	17.0	16.1	17.4	17.8	16.7	18.1	17.1	18.4	18.8
	3H	17.6	18.7	18.0	19.1	19.5	18.9	20.0	19.3	20.4	20.8
	4H	18.3	19.3	18.7	19.7	20.1	19.7	20.7	20.1	21.2	21.6
	6H	18.8	19.7	19.3	20.1	20.6	20.1	21.0	20.6	21.5	21.9
	8H	19.0	19.8	19.4	20.2	20.7	20.2	21.0	20.6	21.5	21.9
	12H	19.1	19.8	19.5	20.3	20.7	20.2	20.9	20.7	21.4	21.9
8H	4H	18.7	19.6	19.2	20.0	20.5	20.0	20.8	20.5	21.3	21.7
	6H	19.4	20.1	19.9	20.6	21.1	20.5	21.2	21.0	21.7	22.1
	8H	19.6	20.3	20.1	20.8	21.2	20.6	21.2	21.1	21.7	22.2
	12H	19.8	20.3	20.3	20.8	21.4	20.6	21.2	21.1	21.6	22.2
12H	4H	18.8	19.5	19.2	20.0	20.5	20.0	20.8	20.5	21.2	21.7
	6H	19.5	20.1	20.0	20.6	21.1	20.5	21.1	21.0	21.6	22.1
	8H	19.7	20.3	20.2	20.8	21.3	20.6	21.2	21.1	21.7	22.2

Maximum UGR = 22.2

POLAR GRAPH



Maximum Candela = 738.52 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.)