



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : DIG-S22-L48-830-AD-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN FROM BALLABS TEST NO. 19231.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 04-NOV-2019

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4-72LED 22"ARRAYS 2x4'RECESSED WHITE LUMINAIRE w/A-SHAPED

[MORE] CENTER REFL, FROST ACRYLIC LINEAR RIBBED DIFFUSER

[LUMCAT] DIG-S22-L48-830-AD-DIM-UNV

[LAMPCAT] M700C835D72N2A

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4792
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	126
Total Luminaire Watts	38.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.10
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4318	4780	5068
55	3752	4392	4789
65	3380	4387	5252
75	2768	3759	3383
85	2318	2565	2811

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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>	1741.742	1741.742	1741.742	1741.742	1741.742
<b>5</b>	1721.112	1720.621	1720.621	1721.603	1721.603
<b>10</b>	1704.903	1705.885	1708.341	1712.762	1714.726
<b>15</b>	1637.610	1640.066	1649.399	1656.767	1659.223
<b>20</b>	1606.175	1607.648	1623.857	1637.610	1642.031
<b>25</b>	1444.575	1454.890	1477.484	1495.658	1504.008
<b>30</b>	1226.980	1315.393	1418.051	1386.124	1351.741
<b>35</b>	1228.945	1253.013	1296.237	1332.585	1345.355
<b>40</b>	1121.375	1151.337	1209.297	1253.013	1267.748
<b>45</b>	1046.715	1086.501	1158.705	1211.753	1228.453
<b>50</b>	890.518	932.269	1009.385	1062.433	1078.642
<b>55</b>	737.760	783.440	863.503	921.954	941.601
<b>60</b>	594.334	641.487	721.059	792.281	816.840
<b>65</b>	489.711	541.777	635.593	725.971	760.845
<b>70</b>	366.424	420.454	522.621	557.004	514.762
<b>75</b>	245.592	296.184	333.515	302.570	300.114
<b>80</b>	152.267	192.544	190.580	178.791	176.827
<b>85</b>	69.257	79.572	76.625	79.572	83.993
<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	632.95	N.A.	13.20
0-30	1315.83	N.A.	27.50
0-40	2121.4	N.A.	44.30
0-60	3754.61	N.A.	78.40
0-80	4699.82	N.A.	98.10
0-90	4791.77	N.A.	100.00
10-90	4627.66	N.A.	96.60
20-40	1488.45	N.A.	31.10
20-50	2357.29	N.A.	49.20
40-70	2243.64	N.A.	46.80
60-80	945.21	N.A.	19.70
70-80	334.77	N.A.	7.00
80-90	91.95	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	4791.77	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	164.11
10-20	468.84
20-30	682.88
30-40	805.57
40-50	868.84
50-60	764.37
60-70	610.43
70-80	334.77
80-90	91.95
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	80	75	82	77	73	79	75	72	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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**UGR TABLE - CORRECTED**

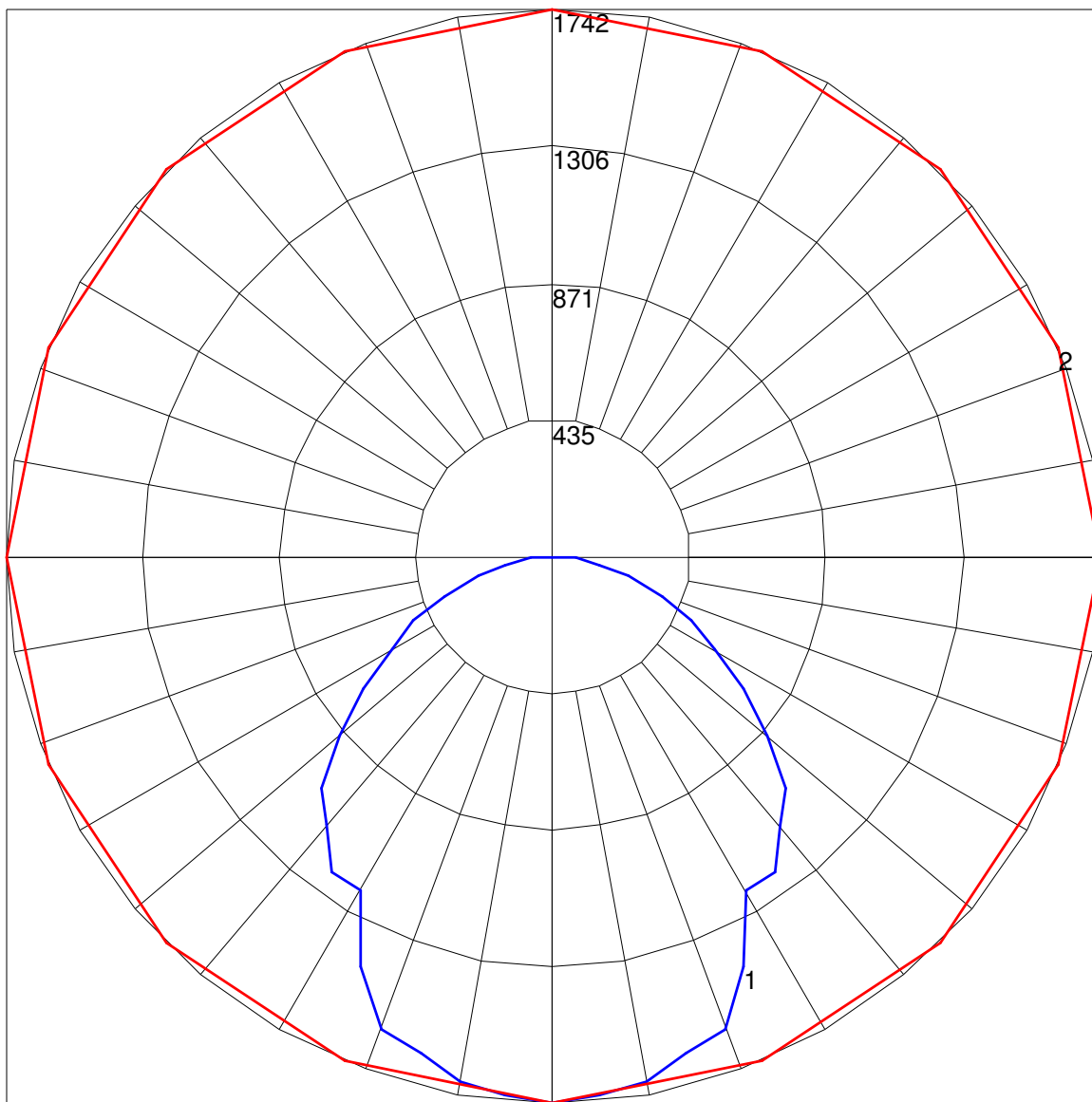
Reflectances

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	16.4	18.0	16.7	18.3	18.6	17.8	19.4	18.1	19.7	20.0
	3H	18.1	19.6	18.5	19.9	20.3	19.9	21.4	20.3	21.7	22.1
	4H	18.7	20.1	19.1	20.5	20.9	20.4	21.8	20.8	22.2	22.6
	6H	19.2	20.5	19.6	20.9	21.3	20.8	22.1	21.2	22.5	22.8
	8H	19.3	20.6	19.8	21.0	21.4	20.9	22.1	21.3	22.5	22.9
	12H	19.5	20.6	19.9	21.0	21.5	21.0	22.2	21.4	22.6	23.0
4H	2H	17.3	18.7	17.7	19.1	19.5	18.4	19.8	18.8	20.1	20.5
	3H	19.3	20.5	19.7	20.9	21.3	20.8	21.9	21.2	22.3	22.7
	4H	20.0	21.1	20.5	21.5	22.0	21.4	22.4	21.8	22.8	23.3
	6H	20.6	21.6	21.1	22.0	22.5	21.8	22.8	22.3	23.2	23.6
	8H	20.8	21.7	21.3	22.1	22.6	22.0	22.9	22.4	23.3	23.8
	12H	21.0	21.8	21.4	22.2	22.7	22.1	22.9	22.6	23.4	23.8
8H	4H	20.5	21.4	20.9	21.8	22.3	21.6	22.5	22.1	22.9	23.4
	6H	21.2	21.9	21.7	22.4	22.9	22.2	22.9	22.7	23.4	23.9
	8H	21.5	22.2	22.0	22.7	23.1	22.4	23.1	22.9	23.6	24.1
	12H	21.7	22.3	22.2	22.8	23.3	22.6	23.2	23.1	23.7	24.2
12H	4H	20.5	21.3	21.0	21.8	22.3	21.7	22.4	22.1	22.9	23.4
	6H	21.3	22.0	21.8	22.4	23.0	22.2	22.9	22.8	23.4	23.9
	8H	21.6	22.2	22.1	22.7	23.3	22.5	23.1	23.0	23.6	24.1

Maximum UGR = 24.2

POLAR GRAPH



Maximum Candela = 1741.742 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.)