



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : DIG-S22-L32-840-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-L32-840-AD-DIM-UNV

[LAMPCAT] M700C835D72N2A

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3384
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
Total Luminaire Watts	25.8
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	3049	3376	3579
55	2650	3101	3382
65	2387	3098	3709
75	1955	2655	2389
85	1637	1811	1985

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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>	1229.978	1229.978	1229.978	1229.978	1229.978
<b>5</b>	1215.410	1215.063	1215.063	1215.757	1215.757
<b>10</b>	1203.963	1204.657	1206.391	1209.513	1210.901
<b>15</b>	1156.443	1158.177	1164.768	1169.971	1171.705
<b>20</b>	1134.244	1135.284	1146.731	1156.443	1159.565
<b>25</b>	1020.126	1027.410	1043.365	1056.199	1062.096
<b>30</b>	866.465	928.900	1001.395	978.849	954.568
<b>35</b>	867.852	884.849	915.373	941.041	950.059
<b>40</b>	791.889	813.048	853.978	884.849	895.255
<b>45</b>	739.166	767.262	818.251	855.712	867.506
<b>50</b>	628.864	658.347	712.805	750.266	761.712
<b>55</b>	520.989	553.247	609.786	651.063	664.937
<b>60</b>	419.705	453.004	509.196	559.491	576.834
<b>65</b>	345.823	382.590	448.841	512.664	537.292
<b>70</b>	258.760	296.915	369.063	393.343	363.513
<b>75</b>	173.432	209.159	235.520	213.668	211.934
<b>80</b>	107.528	135.970	134.583	126.258	124.871
<b>85</b>	48.908	56.192	54.111	56.192	59.314
<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	446.97	N.A.	13.20
0-30	929.21	N.A.	27.50
0-40	1498.08	N.A.	44.30
0-60	2651.42	N.A.	78.40
0-80	3318.9	N.A.	98.10
0-90	3383.84	N.A.	100.00
10-90	3267.95	N.A.	96.60
20-40	1051.11	N.A.	31.10
20-50	1664.66	N.A.	49.20
40-70	1584.41	N.A.	46.80
60-80	667.48	N.A.	19.70
70-80	236.41	N.A.	7.00
80-90	64.94	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	3383.84	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	115.89
10-20	331.09
20-30	482.23
30-40	568.88
40-50	613.55
50-60	539.78
60-70	431.07
70-80	236.41
80-90	64.94
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**

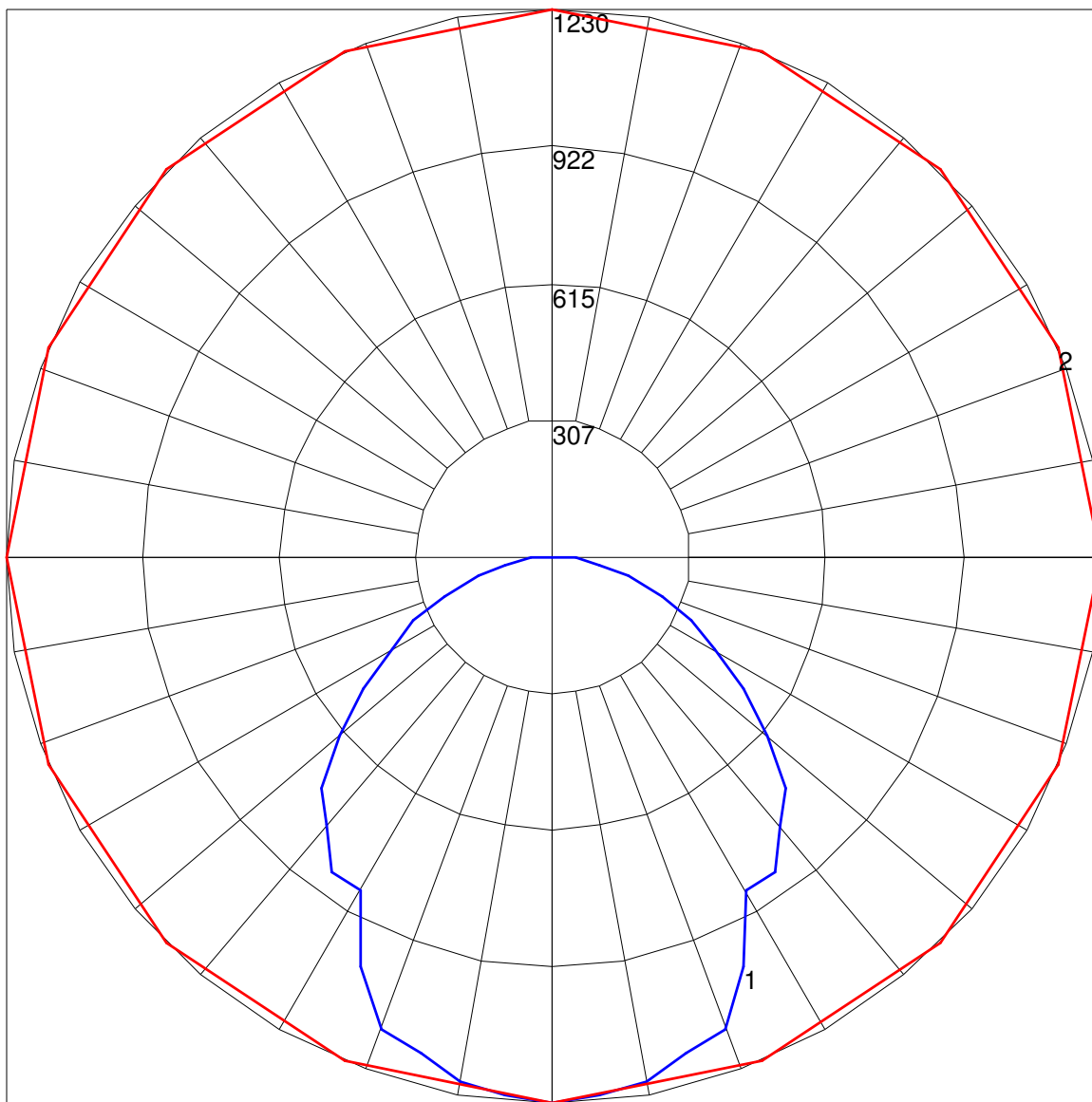
Reflectances

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	15.2	16.8	15.5	17.1	17.4	16.6	18.2	16.9	18.5	18.8
	3H	16.9	18.4	17.3	18.7	19.1	18.7	20.2	19.1	20.5	20.9
	4H	17.5	18.9	17.9	19.3	19.7	19.2	20.6	19.6	21.0	21.4
	6H	18.0	19.3	18.4	19.7	20.1	19.6	20.9	20.0	21.3	21.6
	8H	18.1	19.4	18.6	19.8	20.2	19.7	20.9	20.1	21.3	21.7
	12H	18.3	19.4	18.7	19.8	20.3	19.8	21.0	20.2	21.4	21.8
4H	2H	16.1	17.5	16.5	17.9	18.3	17.2	18.6	17.6	18.9	19.3
	3H	18.1	19.3	18.5	19.7	20.1	19.6	20.7	20.0	21.1	21.5
	4H	18.8	19.9	19.3	20.3	20.8	20.2	21.2	20.6	21.6	22.1
	6H	19.4	20.4	19.9	20.8	21.3	20.6	21.6	21.1	22.0	22.5
	8H	19.6	20.5	20.1	20.9	21.4	20.8	21.7	21.2	22.1	22.6
	12H	19.8	20.6	20.2	21.0	21.5	20.9	21.7	21.4	22.2	22.6
8H	4H	19.3	20.2	19.7	20.6	21.1	20.4	21.3	20.9	21.7	22.2
	6H	20.0	20.7	20.5	21.2	21.7	21.0	21.7	21.5	22.2	22.7
	8H	20.3	21.0	20.8	21.5	21.9	21.2	21.9	21.7	22.4	22.9
	12H	20.5	21.1	21.0	21.6	22.1	21.4	22.0	21.9	22.5	23.0
12H	4H	19.3	20.1	19.8	20.6	21.1	20.5	21.2	20.9	21.7	22.2
	6H	20.1	20.8	20.6	21.2	21.8	21.0	21.7	21.6	22.2	22.7
	8H	20.4	21.0	20.9	21.5	22.1	21.3	21.9	21.8	22.4	22.9

Maximum UGR = 23.0

POLAR GRAPH



Maximum Candela = 1229.978 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.)