



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : DIG-S24-L50-835-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] 01-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-S24-L50-835-AD-DIM-UNV

[LAMPCAT] M700C835D72N2A

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5060
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	135
Total Luminaire Watts	37.4
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)	3.91 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	2295	2541	2694
55	1994	2334	2545
65	1797	2332	2791
75	1471	1998	1798
85	1232	1363	1494

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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>	1839.151	1839.151	1839.151	1839.151	1839.151
<b>5</b>	1817.368	1816.849	1816.849	1817.886	1817.886
<b>10</b>	1800.252	1801.289	1803.883	1808.551	1810.625
<b>15</b>	1729.196	1731.790	1741.644	1749.424	1752.017
<b>20</b>	1696.002	1697.558	1714.674	1729.196	1733.864
<b>25</b>	1525.365	1536.257	1560.115	1579.305	1588.122
<b>30</b>	1295.601	1388.959	1497.358	1463.645	1427.339
<b>35</b>	1297.675	1323.089	1368.731	1407.112	1420.597
<b>40</b>	1184.090	1215.728	1276.929	1323.089	1338.649
<b>45</b>	1105.254	1147.265	1223.508	1279.522	1297.157
<b>50</b>	940.322	984.408	1065.836	1121.851	1138.967
<b>55</b>	779.020	827.255	911.796	973.516	994.262
<b>60</b>	627.573	677.364	761.386	836.591	862.524
<b>65</b>	517.099	572.077	671.140	766.572	803.397
<b>70</b>	386.917	443.969	551.849	588.155	543.551
<b>75</b>	259.328	312.749	352.167	319.492	316.898
<b>80</b>	160.783	203.313	201.238	188.790	186.716
<b>85</b>	73.130	84.022	80.910	84.022	88.690
<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	668.35	N.A.	13.20
0-30	1389.42	N.A.	27.50
0-40	2240.04	N.A.	44.30
0-60	3964.59	N.A.	78.40
0-80	4962.66	N.A.	98.10
0-90	5059.76	N.A.	100.00
10-90	4886.47	N.A.	96.60
20-40	1571.69	N.A.	31.10
20-50	2489.13	N.A.	49.20
40-70	2369.12	N.A.	46.80
60-80	998.07	N.A.	19.70
70-80	353.50	N.A.	7.00
80-90	97.10	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	5059.76	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	173.29
10-20	495.06
20-30	721.07
30-40	850.63
40-50	917.43
50-60	807.12
60-70	644.57
70-80	353.50
80-90	97.10
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**

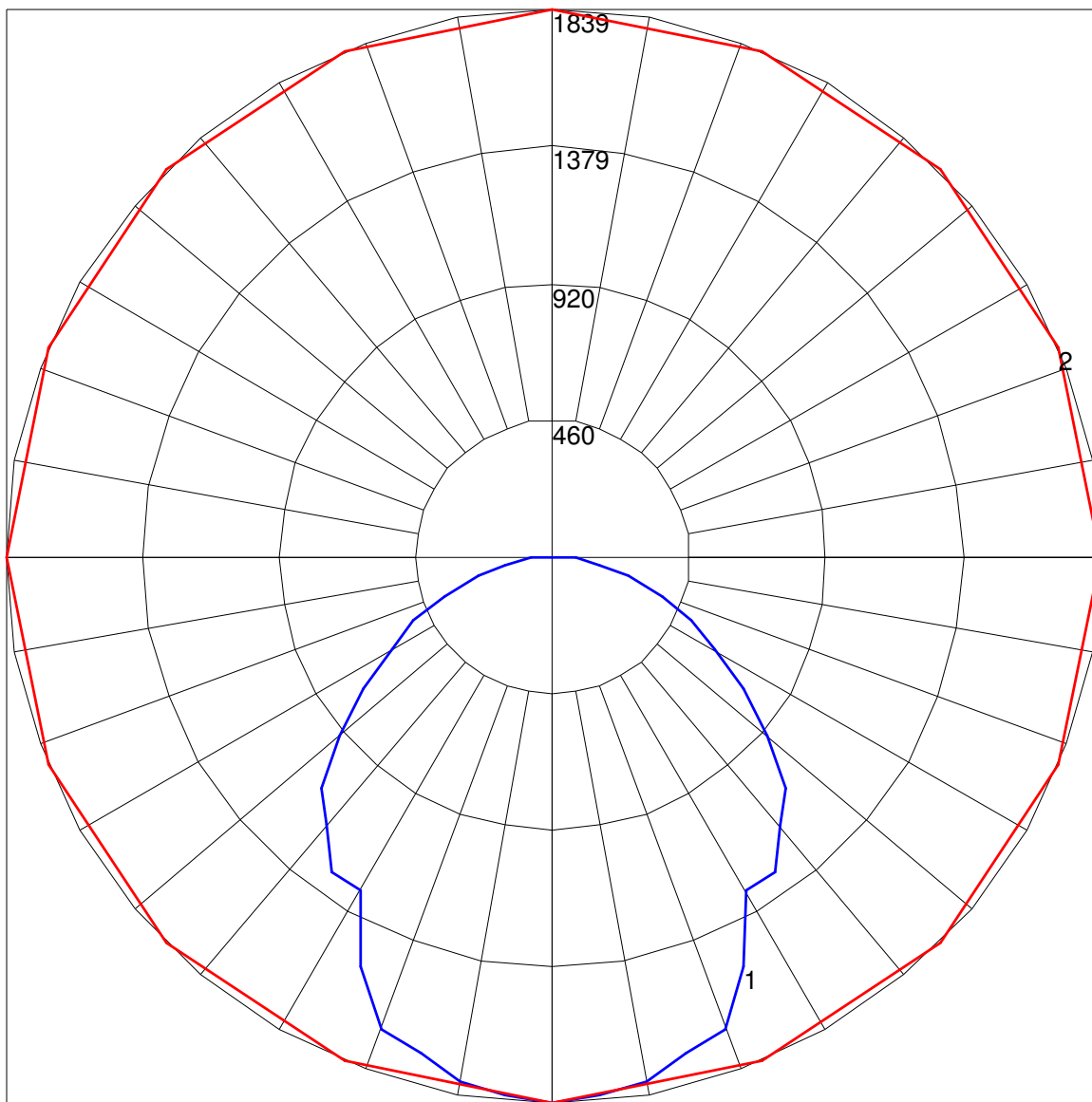
Reflectances

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	14.2	15.8	14.5	16.1	16.4	15.6	17.2	15.9	17.5	17.9
	3H	15.9	17.4	16.3	17.8	18.1	17.7	19.2	18.1	19.6	19.9
	4H	16.5	18.0	16.9	18.3	18.7	18.3	19.7	18.7	20.0	20.4
	6H	17.0	18.3	17.4	18.7	19.1	18.6	19.9	19.0	20.3	20.7
	8H	17.2	18.4	17.6	18.8	19.2	18.7	20.0	19.1	20.4	20.8
	12H	17.3	18.5	17.7	18.8	19.3	18.8	20.0	19.2	20.4	20.8
4H	2H	15.1	16.5	15.5	16.9	17.3	16.2	17.6	16.6	18.0	18.3
	3H	17.1	18.3	17.5	18.7	19.1	18.6	19.8	19.0	20.2	20.6
	4H	17.9	18.9	18.3	19.3	19.8	19.2	20.2	19.6	20.7	21.1
	6H	18.5	19.4	18.9	19.8	20.3	19.6	20.6	20.1	21.0	21.5
	8H	18.6	19.5	19.1	20.0	20.4	19.8	20.7	20.3	21.1	21.6
	12H	18.8	19.6	19.3	20.0	20.5	19.9	20.7	20.4	21.2	21.7
8H	4H	18.3	19.2	18.8	19.6	20.1	19.4	20.3	19.9	20.8	21.2
	6H	19.0	19.8	19.5	20.2	20.7	20.0	20.7	20.5	21.2	21.7
	8H	19.3	20.0	19.8	20.5	21.0	20.2	20.9	20.7	21.4	21.9
	12H	19.5	20.1	20.0	20.6	21.2	20.4	21.0	20.9	21.5	22.0
12H	4H	18.3	19.1	18.8	19.6	20.1	19.5	20.3	19.9	20.7	21.2
	6H	19.1	19.8	19.6	20.2	20.8	20.1	20.7	20.6	21.2	21.7
	8H	19.4	20.0	19.9	20.5	21.1	20.3	20.9	20.8	21.4	22.0

Maximum UGR = 22.0

POLAR GRAPH



Maximum Candela = 1839.151 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.)