



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : DIG-S24-L88-835-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

[ISSUEDATE] 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-S24-L98-835-AD-xxx-xxx

[LAMPCAT] M700C835D72N2A

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8857
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	134
Total Luminaire Watts	66.3
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	4017	4447	4715
55	3491	4086	4455
65	3145	4082	4886
75	2575	3497	3147
85	2157	2386	2615

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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>	3219.242	3219.242	3219.242	3219.242	3219.242
<b>5</b>	3181.112	3180.204	3180.204	3182.020	3182.020
<b>10</b>	3151.153	3152.969	3157.508	3165.678	3169.310
<b>15</b>	3026.777	3031.316	3048.566	3062.183	3066.723
<b>20</b>	2968.675	2971.398	3001.357	3026.777	3034.948
<b>25</b>	2669.991	2689.056	2730.818	2764.408	2779.842
<b>30</b>	2267.813	2431.227	2620.968	2561.957	2498.408
<b>35</b>	2271.445	2315.929	2395.820	2463.001	2486.605
<b>40</b>	2072.625	2128.004	2235.131	2315.929	2343.165
<b>45</b>	1934.632	2008.168	2141.622	2239.670	2270.537
<b>50</b>	1645.935	1723.102	1865.635	1963.683	1993.642
<b>55</b>	1363.593	1448.023	1596.003	1704.037	1740.351
<b>60</b>	1098.500	1185.654	1332.726	1464.365	1509.757
<b>65</b>	905.128	1001.360	1174.760	1341.805	1406.262
<b>70</b>	677.257	777.121	965.954	1029.504	951.428
<b>75</b>	453.926	547.435	616.431	559.237	554.697
<b>80</b>	281.434	355.878	352.246	330.458	326.827
<b>85</b>	128.007	147.072	141.625	147.072	155.243
<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	1169.87	N.A.	13.20
0-30	2432.03	N.A.	27.50
0-40	3920.96	N.A.	44.30
0-60	6939.6	N.A.	78.40
0-80	8686.62	N.A.	98.10
0-90	8856.58	N.A.	100.00
10-90	8553.26	N.A.	96.60
20-40	2751.09	N.A.	31.10
20-50	4356.95	N.A.	49.20
40-70	4146.9	N.A.	46.80
60-80	1747.02	N.A.	19.70
70-80	618.76	N.A.	7.00
80-90	169.96	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	8856.58	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	303.32
10-20	866.56
20-30	1262.16
30-40	1488.93
40-50	1605.87
50-60	1412.77
60-70	1128.26
70-80	618.76
80-90	169.96
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**

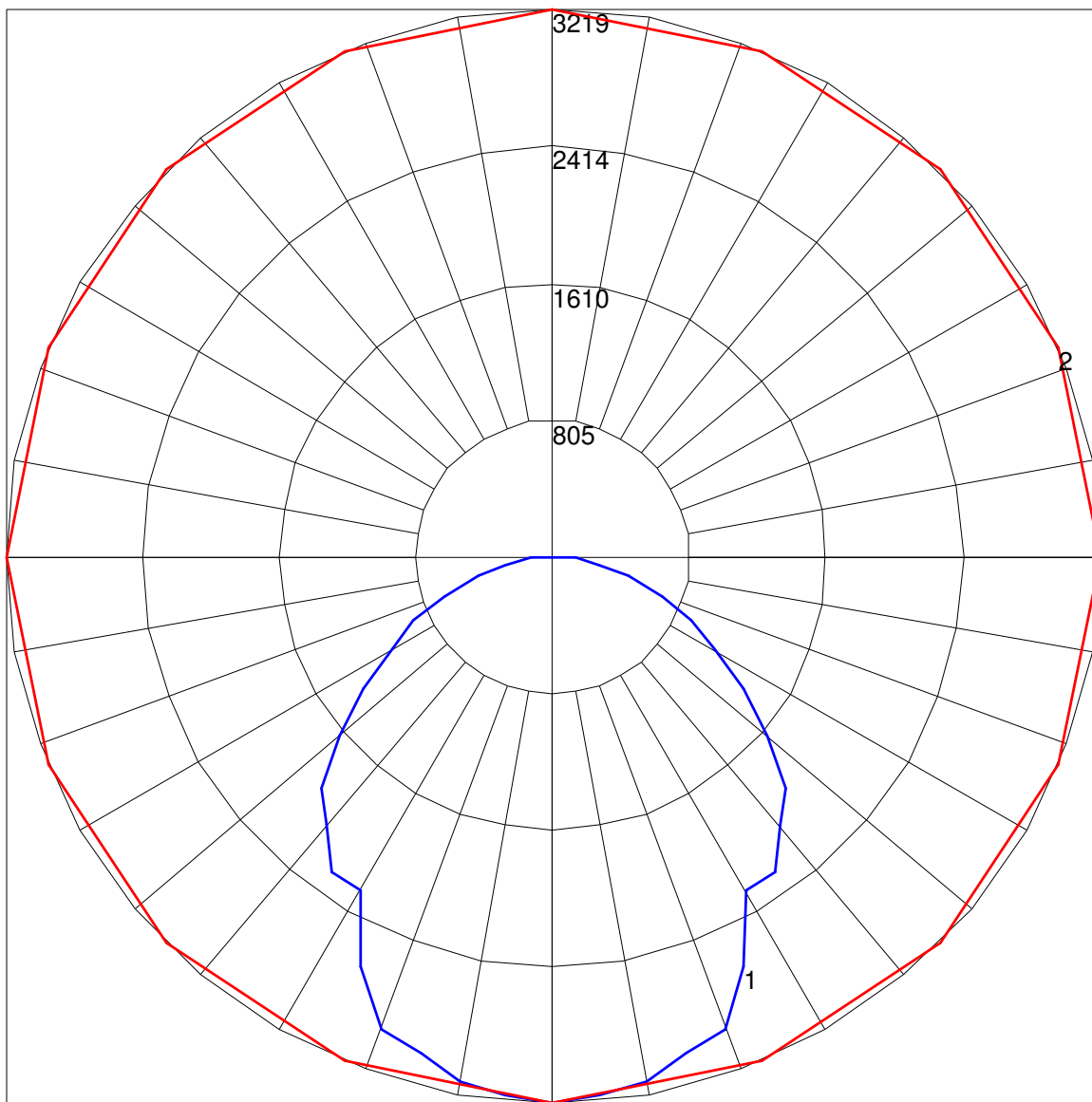
Reflectances

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	16.2	17.8	16.5	18.1	18.5	17.6	19.2	17.9	19.5	19.9
	3H	17.9	19.4	18.3	19.8	20.1	19.7	21.2	20.1	21.6	21.9
	4H	18.5	20.0	18.9	20.3	20.7	20.3	21.7	20.7	22.0	22.4
	6H	19.0	20.3	19.4	20.7	21.1	20.6	21.9	21.0	22.3	22.7
	8H	19.2	20.4	19.6	20.8	21.2	20.7	22.0	21.1	22.4	22.8
	12H	19.3	20.5	19.7	20.8	21.3	20.8	22.0	21.2	22.4	22.8
4H	2H	17.1	18.5	17.5	18.9	19.3	18.2	19.6	18.6	20.0	20.3
	3H	19.1	20.3	19.5	20.7	21.1	20.6	21.8	21.0	22.2	22.6
	4H	19.9	20.9	20.3	21.3	21.8	21.2	22.2	21.6	22.7	23.1
	6H	20.5	21.4	20.9	21.8	22.3	21.6	22.6	22.1	23.0	23.5
	8H	20.6	21.5	21.1	22.0	22.4	21.8	22.7	22.3	23.1	23.6
	12H	20.8	21.6	21.3	22.0	22.5	21.9	22.7	22.4	23.2	23.7
8H	4H	20.3	21.2	20.8	21.6	22.1	21.4	22.3	21.9	22.8	23.2
	6H	21.0	21.8	21.5	22.2	22.7	22.0	22.7	22.5	23.2	23.7
	8H	21.3	22.0	21.8	22.5	23.0	22.2	22.9	22.7	23.4	23.9
	12H	21.5	22.1	22.0	22.6	23.2	22.4	23.0	22.9	23.5	24.0
12H	4H	20.3	21.1	20.8	21.6	22.1	21.5	22.3	21.9	22.7	23.2
	6H	21.1	21.8	21.6	22.2	22.8	22.1	22.7	22.6	23.2	23.7
	8H	21.4	22.0	21.9	22.5	23.1	22.3	22.9	22.8	23.4	24.0

Maximum UGR = 24.0

POLAR GRAPH



Maximum Candela = 3219.242 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.)