



IES INDOOR REPORT

PHOTOMETRIC FILENAME : DIG-S24-L98-840-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-S24-L98-840-AD-DIM-UNV

[LAMPCAT] M700C835D72N2A

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	10164
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	136
Total Luminaire Watts	74.8
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)	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	4610	5103	5411
55	4006	4689	5113
65	3609	4684	5607
75	2955	4013	3611
85	2475	2738	3001

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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	3694.294	3694.294	3694.294	3694.294	3694.294
5	3650.537	3649.496	3649.496	3651.579	3651.579
10	3616.157	3618.241	3623.450	3632.827	3636.994
15	3473.428	3478.637	3498.432	3514.059	3519.268
20	3406.752	3409.877	3444.257	3473.428	3482.804
25	3063.993	3085.871	3133.795	3172.342	3190.053
30	2602.466	2789.994	3007.734	2940.016	2867.089
35	2606.634	2657.683	2749.363	2826.458	2853.545
40	2378.475	2442.026	2564.961	2657.683	2688.938
45	2220.119	2304.506	2457.653	2570.170	2605.592
50	1888.820	1977.374	2140.940	2253.457	2287.837
55	1564.814	1661.703	1831.520	1955.496	1997.169
60	1260.602	1360.617	1529.392	1680.456	1732.547
65	1038.695	1149.128	1348.115	1539.810	1613.779
70	777.198	891.798	1108.497	1181.424	1091.827
75	520.910	628.217	707.396	641.761	636.552
80	322.964	408.393	404.226	379.222	375.055
85	146.897	168.775	162.524	168.775	178.151
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1342.51	N.A.	13.20
0-30	2790.92	N.A.	27.50
0-40	4499.56	N.A.	44.30
0-60	7963.65	N.A.	78.40
0-80	9968.47	N.A.	98.10
0-90	10163.51	N.A.	100.00
10-90	9815.43	N.A.	96.60
20-40	3157.06	N.A.	31.10
20-50	4999.89	N.A.	49.20
40-70	4758.84	N.A.	46.80
60-80	2004.82	N.A.	19.70
70-80	710.07	N.A.	7.00
80-90	195.04	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	10163.51	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	348.08
10-20	994.43
20-30	1448.41
30-40	1708.65
40-50	1842.84
50-60	1621.25
60-70	1294.75
70-80	710.07
80-90	195.04
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

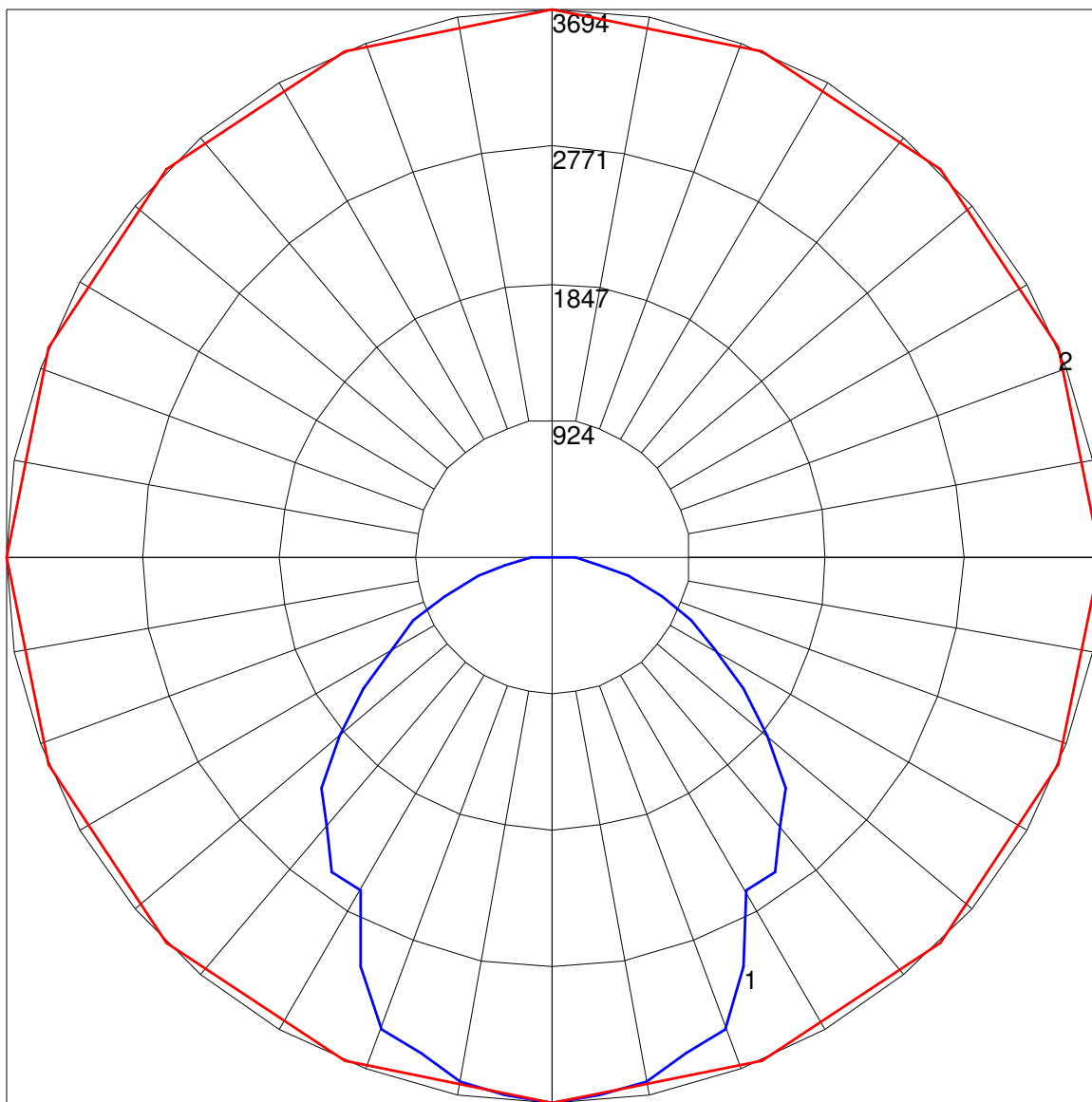
Reflectances

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	16.7	18.3	17.0	18.6	18.9	18.1	19.7	18.4	20.0	20.4
	3H	18.4	19.9	18.8	20.3	20.6	20.2	21.7	20.6	22.1	22.4
	4H	19.0	20.5	19.4	20.8	21.2	20.8	22.2	21.2	22.5	22.9
	6H	19.5	20.8	19.9	21.2	21.6	21.1	22.4	21.5	22.8	23.2
	8H	19.7	20.9	20.1	21.3	21.7	21.2	22.5	21.6	22.9	23.3
	12H	19.8	21.0	20.2	21.3	21.8	21.3	22.5	21.7	22.9	23.3
4H	2H	17.6	19.0	18.0	19.4	19.8	18.7	20.1	19.1	20.5	20.8
	3H	19.6	20.8	20.0	21.2	21.6	21.1	22.3	21.5	22.7	23.1
	4H	20.4	21.4	20.8	21.8	22.3	21.7	22.7	22.1	23.2	23.6
	6H	21.0	21.9	21.4	22.3	22.8	22.1	23.1	22.6	23.5	24.0
	8H	21.1	22.0	21.6	22.5	22.9	22.3	23.2	22.8	23.6	24.1
	12H	21.3	22.1	21.8	22.5	23.0	22.4	23.2	22.9	23.7	24.2
8H	4H	20.8	21.7	21.3	22.1	22.6	21.9	22.8	22.4	23.3	23.7
	6H	21.5	22.3	22.0	22.7	23.2	22.5	23.2	23.0	23.7	24.2
	8H	21.8	22.5	22.3	23.0	23.5	22.7	23.4	23.2	23.9	24.4
	12H	22.0	22.6	22.5	23.1	23.7	22.9	23.5	23.4	24.0	24.5
12H	4H	20.8	21.6	21.3	22.1	22.6	22.0	22.8	22.4	23.2	23.7
	6H	21.6	22.3	22.1	22.7	23.3	22.6	23.2	23.1	23.7	24.2
	8H	21.9	22.5	22.4	23.0	23.6	22.8	23.4	23.3	23.9	24.5

Maximum UGR = 24.5

POLAR GRAPH



Maximum Candela = 3694.294 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.)