



IES INDOOR REPORT

PHOTOMETRIC FILENAME : DIG-S22-L32-830-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-L32-830-AD-DIM-UNV

[LAMPCAT] M700C835D72N2A

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3239
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	126
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	2919	3231	3426
55	2536	2968	3237
65	2285	2965	3550
75	1871	2541	2286
85	1567	1734	1900

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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	1177.272	1177.272	1177.272	1177.272	1177.272
5	1163.328	1162.996	1162.996	1163.660	1163.660
10	1152.372	1153.036	1154.696	1157.684	1159.012
15	1106.888	1108.548	1114.856	1119.836	1121.496
20	1085.640	1086.636	1097.592	1106.888	1109.876
25	976.412	983.384	998.656	1010.940	1016.584
30	829.336	889.096	958.484	936.904	913.664
35	830.664	846.932	876.148	900.716	909.348
40	757.956	778.208	817.384	846.932	856.892
45	707.492	734.384	783.188	819.044	830.332
50	601.916	630.136	682.260	718.116	729.072
55	498.664	529.540	583.656	623.164	636.444
60	401.720	433.592	487.376	535.516	552.116
65	331.004	366.196	429.608	490.696	514.268
70	247.672	284.192	353.248	376.488	347.936
75	166.000	200.196	225.428	204.512	202.852
80	102.920	130.144	128.816	120.848	119.520
85	46.812	53.784	51.792	53.784	56.772
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	427.82	N.A.	13.20
0-30	889.39	N.A.	27.50
0-40	1433.89	N.A.	44.30
0-60	2537.8	N.A.	78.40
0-80	3176.68	N.A.	98.10
0-90	3238.84	N.A.	100.00
10-90	3127.91	N.A.	96.60
20-40	1006.07	N.A.	31.10
20-50	1593.33	N.A.	49.20
40-70	1516.51	N.A.	46.80
60-80	638.88	N.A.	19.70
70-80	226.28	N.A.	7.00
80-90	62.15	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	3238.84	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	110.92
10-20	316.90
20-30	461.57
30-40	544.50
40-50	587.26
50-60	516.65
60-70	412.60
70-80	226.28
80-90	62.15
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

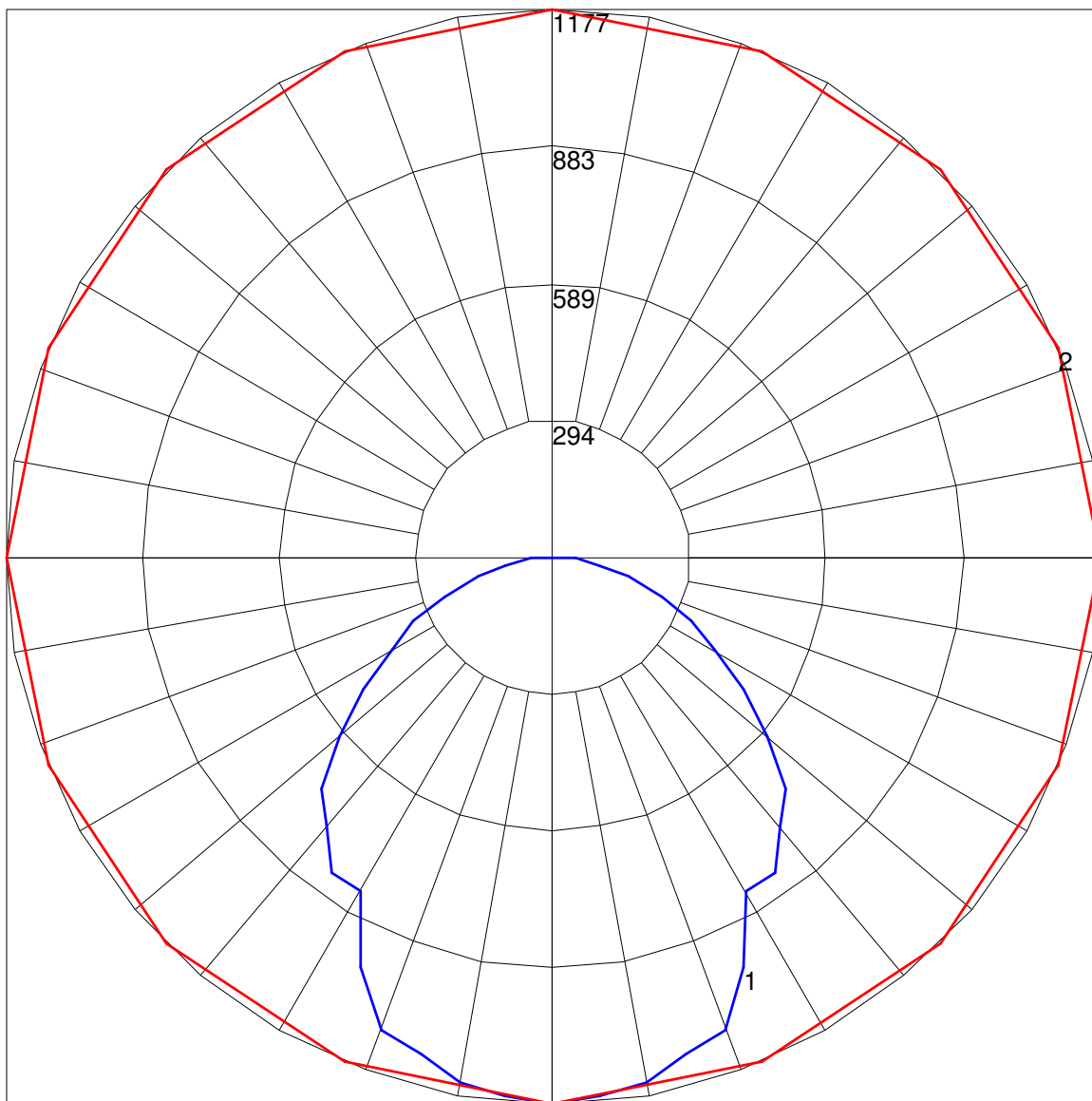
Reflectances

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	15.1	16.7	15.4	17.0	17.3	16.5	18.1	16.8	18.4	18.7
	3H	16.8	18.3	17.2	18.6	19.0	18.6	20.1	19.0	20.4	20.8
	4H	17.4	18.8	17.8	19.2	19.6	19.1	20.5	19.5	20.9	21.3
	6H	17.9	19.2	18.3	19.6	20.0	19.5	20.8	19.9	21.2	21.5
	8H	18.0	19.3	18.5	19.7	20.1	19.6	20.8	20.0	21.2	21.6
	12H	18.2	19.3	18.6	19.7	20.2	19.7	20.9	20.1	21.3	21.7
4H	2H	16.0	17.4	16.4	17.8	18.2	17.1	18.5	17.5	18.8	19.2
	3H	18.0	19.2	18.4	19.6	20.0	19.5	20.6	19.9	21.0	21.4
	4H	18.7	19.8	19.2	20.2	20.7	20.1	21.1	20.5	21.5	22.0
	6H	19.3	20.3	19.8	20.7	21.2	20.5	21.5	21.0	21.9	22.4
	8H	19.5	20.4	20.0	20.8	21.3	20.7	21.6	21.1	22.0	22.5
	12H	19.7	20.5	20.1	20.9	21.4	20.8	21.6	21.3	22.1	22.5
8H	4H	19.2	20.1	19.6	20.5	21.0	20.3	21.2	20.8	21.6	22.1
	6H	19.9	20.6	20.4	21.1	21.6	20.9	21.6	21.4	22.1	22.6
	8H	20.2	20.9	20.7	21.4	21.8	21.1	21.8	21.6	22.3	22.8
	12H	20.4	21.0	20.9	21.5	22.0	21.3	21.9	21.8	22.4	22.9
12H	4H	19.2	20.0	19.7	20.5	21.0	20.4	21.1	20.8	21.6	22.1
	6H	20.0	20.7	20.5	21.1	21.7	20.9	21.6	21.5	22.1	22.6
	8H	20.3	20.9	20.8	21.4	22.0	21.2	21.8	21.7	22.3	22.8

Maximum UGR = 22.9

POLAR GRAPH



Maximum Candela = 1177.272 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.)