



IES INDOOR REPORT

PHOTOMETRIC FILENAME : DIG-S22-L48-835-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] 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-L48-835-AD-DIM-UNV

[LAMPCAT] M700C835D72N2A

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4862
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	128
Total Luminaire Watts	38.1
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	4381	4850	5142
55	3807	4456	4859
65	3430	4451	5329
75	2809	3814	3432
85	2352	2602	2852

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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	1767.185	1767.185	1767.185	1767.185	1767.185
5	1746.253	1745.755	1745.755	1746.752	1746.752
10	1729.808	1730.804	1733.296	1737.781	1739.775
15	1661.532	1664.024	1673.493	1680.968	1683.460
20	1629.637	1631.132	1647.578	1661.532	1666.018
25	1465.677	1476.142	1499.067	1517.506	1525.978
30	1244.903	1334.608	1438.765	1406.372	1371.487
35	1246.897	1271.316	1315.172	1352.051	1365.008
40	1137.756	1168.156	1226.962	1271.316	1286.267
45	1062.005	1102.372	1175.631	1229.454	1246.398
50	903.527	945.887	1024.130	1077.953	1094.399
55	748.537	794.884	876.117	935.422	955.356
60	603.016	650.858	731.592	803.855	828.773
65	496.865	549.691	644.878	736.576	771.960
70	371.777	426.596	530.255	565.140	522.281
75	249.180	300.511	338.386	306.990	304.498
80	154.492	195.357	193.364	181.403	179.410
85	70.269	80.734	77.744	80.734	85.220
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	642.20	N.A.	13.20
0-30	1335.05	N.A.	27.50
0-40	2152.39	N.A.	44.30
0-60	3809.45	N.A.	78.40
0-80	4768.47	N.A.	98.10
0-90	4861.77	N.A.	100.00
10-90	4695.26	N.A.	96.60
20-40	1510.19	N.A.	31.10
20-50	2391.73	N.A.	49.20
40-70	2276.42	N.A.	46.80
60-80	959.02	N.A.	19.70
70-80	339.66	N.A.	7.00
80-90	93.30	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	4861.77	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	166.50
10-20	475.69
20-30	692.85
30-40	817.34
40-50	881.53
50-60	775.53
60-70	619.35
70-80	339.66
80-90	93.30
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

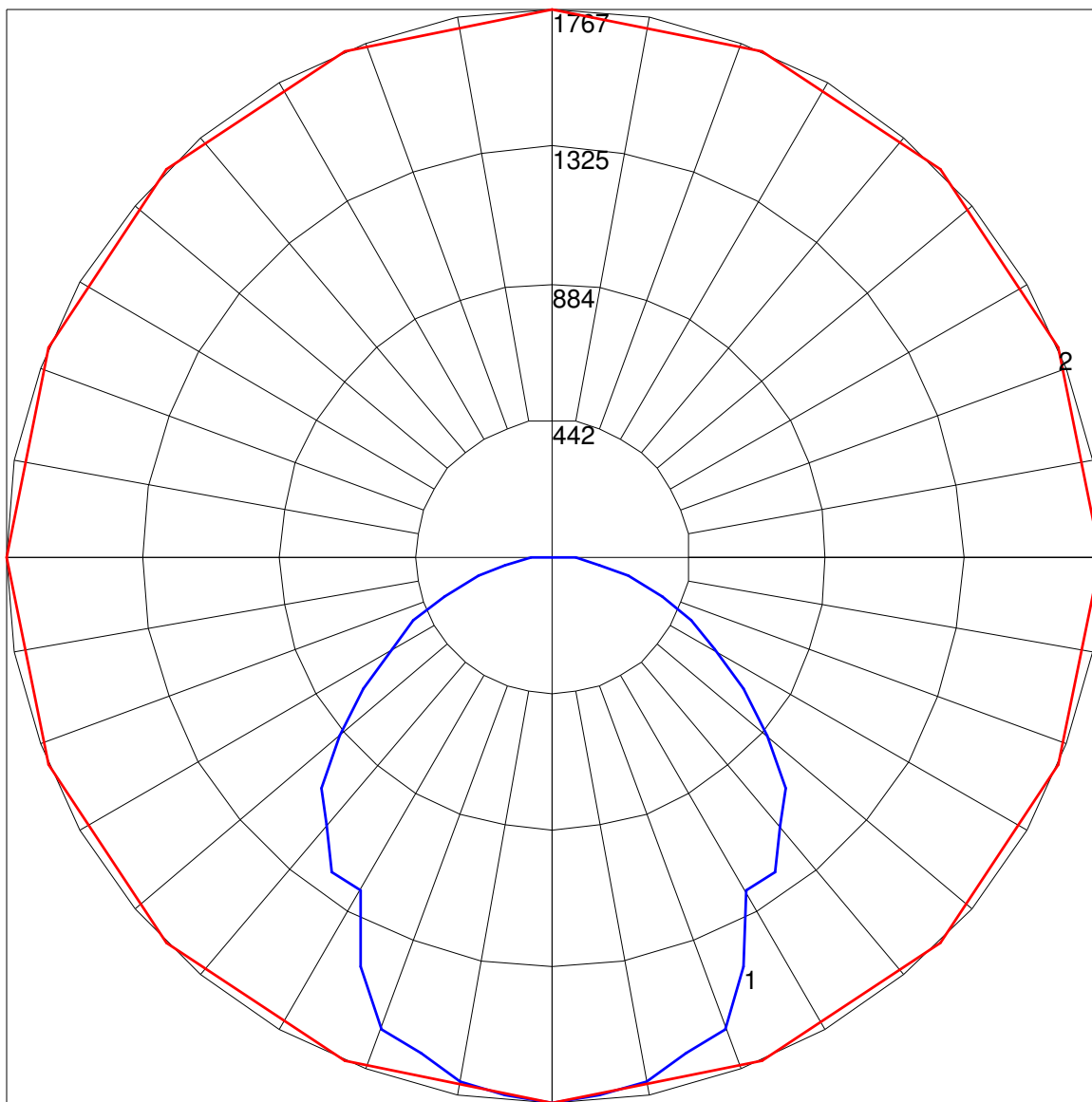
Reflectances

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	16.5	18.1	16.8	18.4	18.7	17.9	19.5	18.2	19.8	20.1
	3H	18.2	19.7	18.6	20.0	20.4	20.0	21.5	20.4	21.8	22.2
	4H	18.8	20.2	19.2	20.6	21.0	20.5	21.9	20.9	22.3	22.7
	6H	19.3	20.6	19.7	21.0	21.4	20.9	22.2	21.3	22.6	22.9
	8H	19.4	20.7	19.9	21.1	21.5	21.0	22.2	21.4	22.6	23.0
	12H	19.6	20.7	20.0	21.1	21.6	21.1	22.3	21.5	22.7	23.1
4H	2H	17.4	18.8	17.8	19.2	19.6	18.5	19.9	18.9	20.2	20.6
	3H	19.4	20.6	19.8	21.0	21.4	20.9	22.0	21.3	22.4	22.8
	4H	20.1	21.2	20.6	21.6	22.1	21.5	22.5	21.9	22.9	23.4
	6H	20.7	21.7	21.2	22.1	22.6	21.9	22.9	22.4	23.3	23.7
	8H	20.9	21.8	21.4	22.2	22.7	22.1	23.0	22.5	23.4	23.9
	12H	21.1	21.9	21.5	22.3	22.8	22.2	23.0	22.7	23.5	23.9
8H	4H	20.6	21.5	21.0	21.9	22.4	21.7	22.6	22.2	23.0	23.5
	6H	21.3	22.0	21.8	22.5	23.0	22.3	23.0	22.8	23.5	24.0
	8H	21.6	22.3	22.1	22.8	23.2	22.5	23.2	23.0	23.7	24.2
	12H	21.8	22.4	22.3	22.9	23.4	22.7	23.3	23.2	23.8	24.3
12H	4H	20.6	21.4	21.1	21.9	22.4	21.8	22.5	22.2	23.0	23.5
	6H	21.4	22.1	21.9	22.5	23.1	22.3	23.0	22.9	23.5	24.0
	8H	21.7	22.3	22.2	22.8	23.4	22.6	23.2	23.1	23.7	24.2

Maximum UGR = 24.3

POLAR GRAPH



Maximum Candela = 1767.185 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.)