



IES INDOOR REPORT

PHOTOMETRIC FILENAME : DIG-S22-L48-840-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

[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-S22-L48-840-AD-DIM-UNV

[LAMPCAT] M700C835D72N2A

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5008
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
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	4513	4996	5296
55	3921	4590	5005
65	3533	4585	5489
75	2893	3929	3535
85	2423	2680	2938

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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	1820.251	1820.251	1820.251	1820.251	1820.251
5	1798.692	1798.178	1798.178	1799.205	1799.205
10	1781.752	1782.778	1785.345	1789.965	1792.018
15	1711.426	1713.993	1723.746	1731.446	1734.013
20	1678.573	1680.113	1697.053	1711.426	1716.046
25	1509.689	1520.469	1544.082	1563.075	1571.802
30	1282.286	1374.685	1481.970	1448.604	1412.671
35	1284.340	1309.493	1354.665	1392.651	1405.998
40	1171.921	1203.234	1263.807	1309.493	1324.892
45	1093.896	1135.475	1210.934	1266.373	1283.826
50	930.659	974.291	1054.883	1110.322	1127.262
55	771.014	818.754	902.426	963.511	984.044
60	621.124	670.403	753.561	827.994	853.660
65	511.785	566.198	664.243	758.695	795.141
70	382.941	439.406	546.178	582.111	537.965
75	256.663	309.535	348.548	316.208	313.642
80	159.131	201.223	199.170	186.850	184.797
85	72.379	83.159	80.079	83.159	87.779
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	661.48	N.A.	13.20
0-30	1375.14	N.A.	27.50
0-40	2217.02	N.A.	44.30
0-60	3923.85	N.A.	78.40
0-80	4911.66	N.A.	98.10
0-90	5007.76	N.A.	100.00
10-90	4836.26	N.A.	96.60
20-40	1555.54	N.A.	31.10
20-50	2463.55	N.A.	49.20
40-70	2344.77	N.A.	46.80
60-80	987.81	N.A.	19.70
70-80	349.86	N.A.	7.00
80-90	96.10	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	5007.76	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	171.50
10-20	489.98
20-30	713.66
30-40	841.88
40-50	908.00
50-60	798.82
60-70	637.95
70-80	349.86
80-90	96.10
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

X=2H	Y=2H	16.6	18.2	16.9	18.5	18.8	18.0	19.6	18.3	19.9	20.2
	3H	18.3	19.8	18.7	20.1	20.5	20.1	21.6	20.5	21.9	22.3
	4H	18.9	20.3	19.3	20.7	21.1	20.6	22.0	21.0	22.4	22.8
	6H	19.4	20.7	19.8	21.1	21.5	21.0	22.3	21.4	22.7	23.0
	8H	19.5	20.8	20.0	21.2	21.6	21.1	22.3	21.5	22.7	23.1
	12H	19.7	20.8	20.1	21.2	21.7	21.2	22.4	21.6	22.8	23.2

UGR Viewed Endwise

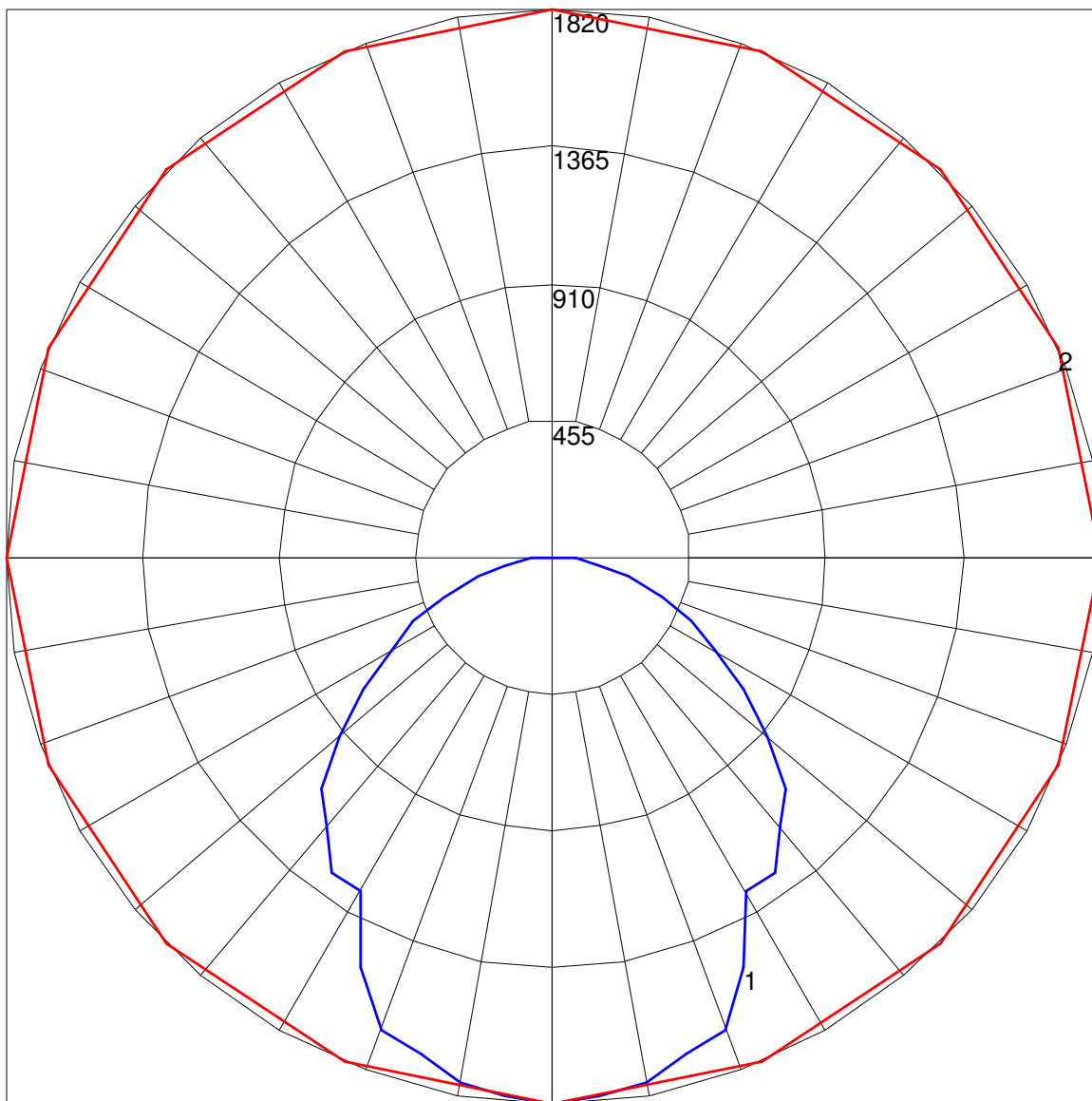
4H	2H	17.5	18.9	17.9	19.3	19.7	18.6	20.0	19.0	20.3	20.7
	3H	19.5	20.7	19.9	21.1	21.5	21.0	22.1	21.4	22.5	22.9
	4H	20.2	21.3	20.7	21.7	22.2	21.6	22.6	22.0	23.0	23.5
	6H	20.8	21.8	21.3	22.2	22.7	22.0	23.0	22.5	23.4	23.8
	8H	21.0	21.9	21.5	22.3	22.8	22.2	23.1	22.6	23.5	24.0
	12H	21.2	22.0	21.6	22.4	22.9	22.3	23.1	22.8	23.6	24.0

8H	4H	20.7	21.6	21.1	22.0	22.5	21.8	22.7	22.3	23.1	23.6
	6H	21.4	22.1	21.9	22.6	23.1	22.4	23.1	22.9	23.6	24.1
	8H	21.7	22.4	22.2	22.9	23.3	22.6	23.3	23.1	23.8	24.3
	12H	21.9	22.5	22.4	23.0	23.5	22.8	23.4	23.3	23.9	24.4

12H	4H	20.7	21.5	21.2	22.0	22.5	21.9	22.6	22.3	23.1	23.6
	6H	21.5	22.2	22.0	22.6	23.2	22.4	23.1	23.0	23.6	24.1
	8H	21.8	22.4	22.3	22.9	23.5	22.7	23.3	23.2	23.8	24.3

Maximum UGR = 24.4

POLAR GRAPH



Maximum Candela = 1820.251 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.)