



IES INDOOR REPORT

PHOTOMETRIC FILENAME : DIG-S24-L64-930-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] 18-APR-2023

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 2x4' RECESSED LED LUMINAIRE w/A-SHAPED

[MORE] CENTER REFL, FROST ACRYLIC LINEAR RIBBED DIFFUSER

[LUMCAT] DIG-S24-L64-930-AD-DIM-UNV

[LAMPCAT] HLM 90 CRI 3000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5052
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	47.4
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	2292	2537	2689
55	1991	2330	2541
65	1794	2328	2787
75	1469	1995	1795
85	1230	1361	1492

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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	1836.244	1836.244	1836.244	1836.244	1836.244
5	1814.495	1813.977	1813.977	1815.012	1815.012
10	1797.406	1798.442	1801.031	1805.691	1807.763
15	1726.463	1729.052	1738.891	1746.658	1749.247
20	1693.321	1694.875	1711.963	1726.463	1731.123
25	1522.953	1533.828	1557.648	1576.808	1585.611
30	1293.552	1386.763	1494.990	1461.331	1425.082
35	1295.624	1320.998	1366.567	1404.887	1418.351
40	1182.218	1213.806	1274.910	1320.998	1336.533
45	1103.507	1145.451	1221.573	1277.499	1295.106
50	938.835	982.851	1064.151	1120.078	1137.166
55	777.788	825.947	910.354	971.977	992.690
60	626.581	676.293	760.182	835.268	861.160
65	516.282	571.172	670.079	765.360	802.127
70	386.305	443.267	550.977	587.225	542.691
75	258.918	312.255	351.610	318.986	316.397
80	160.529	202.991	200.920	188.492	186.421
85	73.015	83.889	80.782	83.889	88.550
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	667.29	N.A.	13.20
0-30	1387.22	N.A.	27.50
0-40	2236.5	N.A.	44.30
0-60	3958.32	N.A.	78.40
0-80	4954.81	N.A.	98.10
0-90	5051.76	N.A.	100.00
10-90	4878.75	N.A.	96.60
20-40	1569.21	N.A.	31.10
20-50	2485.19	N.A.	49.20
40-70	2365.37	N.A.	46.80
60-80	996.49	N.A.	19.70
70-80	352.94	N.A.	7.00
80-90	96.94	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	5051.76	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	173.01
10-20	494.28
20-30	719.93
30-40	849.28
40-50	915.98
50-60	805.84
60-70	643.56
70-80	352.94
80-90	96.94
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

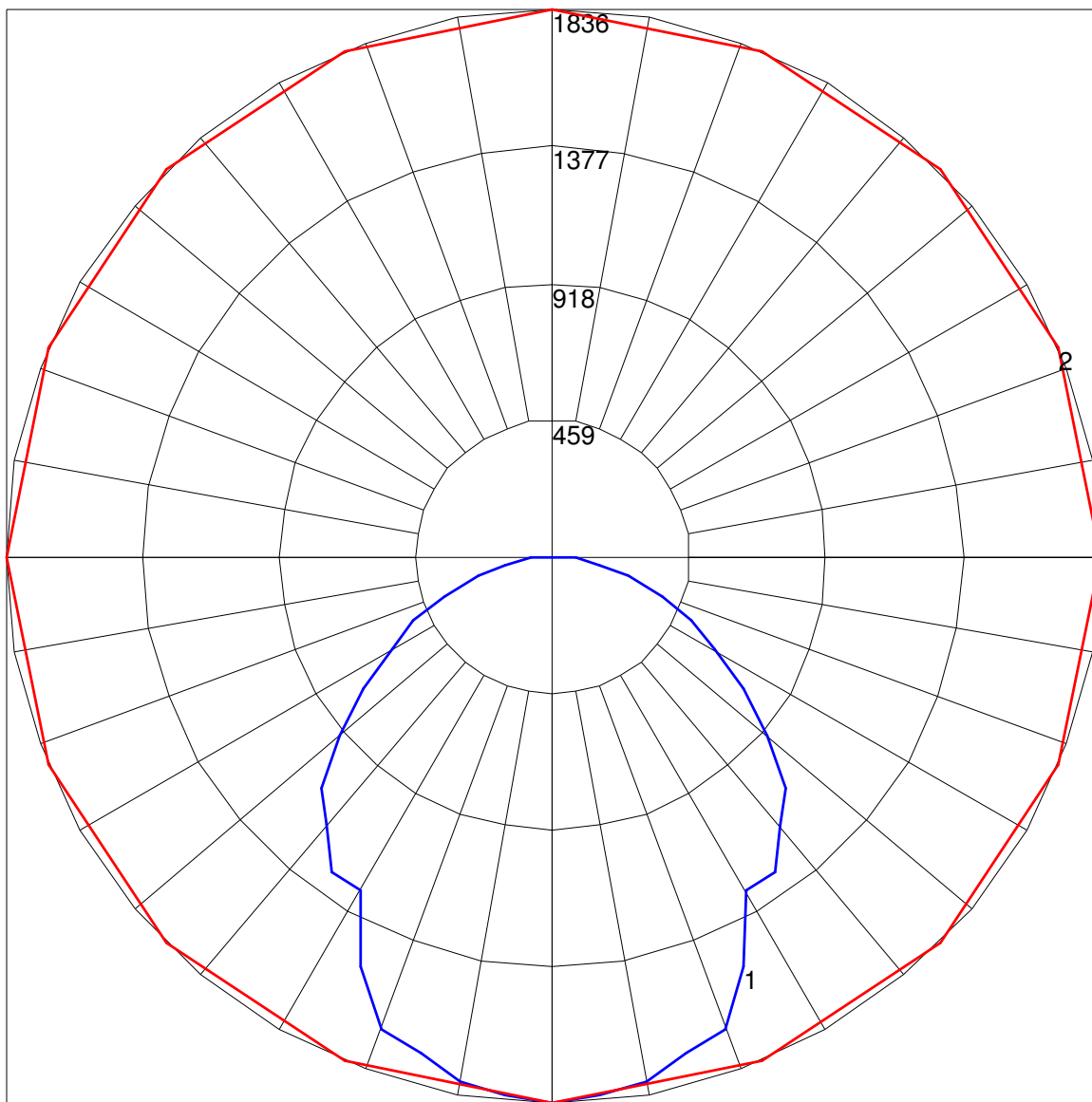
Reflectances

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	14.2	15.8	14.5	16.1	16.4	15.6	17.2	15.9	17.5	17.9
	3H	15.9	17.4	16.3	17.8	18.1	17.7	19.2	18.1	19.6	19.9
	4H	16.5	18.0	16.9	18.3	18.7	18.3	19.7	18.7	20.0	20.4
	6H	17.0	18.3	17.4	18.7	19.1	18.6	19.9	19.0	20.3	20.7
	8H	17.2	18.4	17.6	18.8	19.2	18.7	20.0	19.1	20.4	20.8
	12H	17.3	18.5	17.7	18.8	19.3	18.8	20.0	19.2	20.4	20.8
4H	2H	15.1	16.5	15.5	16.9	17.3	16.2	17.6	16.6	18.0	18.3
	3H	17.1	18.3	17.5	18.7	19.1	18.6	19.8	19.0	20.2	20.6
	4H	17.9	18.9	18.3	19.3	19.8	19.2	20.2	19.6	20.7	21.1
	6H	18.5	19.4	18.9	19.8	20.3	19.6	20.6	20.1	21.0	21.5
	8H	18.6	19.5	19.1	20.0	20.4	19.8	20.7	20.3	21.1	21.6
	12H	18.8	19.6	19.3	20.0	20.5	19.9	20.7	20.4	21.2	21.7
8H	4H	18.3	19.2	18.8	19.6	20.1	19.4	20.3	19.9	20.8	21.2
	6H	19.0	19.8	19.5	20.2	20.7	20.0	20.7	20.5	21.2	21.7
	8H	19.3	20.0	19.8	20.5	21.0	20.2	20.9	20.7	21.4	21.9
	12H	19.5	20.1	20.0	20.6	21.2	20.4	21.0	20.9	21.5	22.0
12H	4H	18.3	19.1	18.8	19.6	20.1	19.5	20.3	19.9	20.7	21.2
	6H	19.1	19.8	19.6	20.2	20.8	20.1	20.7	20.6	21.2	21.7
	8H	19.4	20.0	19.9	20.5	21.1	20.3	20.9	20.8	21.4	22.0

Maximum UGR = 22.0

POLAR GRAPH



Maximum Candela = 1836.244 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.)