



IES INDOOR REPORT

PHOTOMETRIC FILENAME : DIG-S24-L50-835-AD-(L40)-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] 15-DEC-2020

[MANUFAC] WILLIAMS INDOOR

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

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

[MORE] CENTER REFL, FROST ACRYLIC LINEAR RIBBED DIFFUSER

[LUMCAT] DIG-S24-L50-835-AD-(L40)-DIM-UNV

[LAMPCAT] HLM 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4046
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
Total Luminaire Watts	31
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	1835	2032	2154
55	1595	1866	2035
65	1437	1865	2232
75	1176	1598	1438
85	985	1090	1195

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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	1470.594	1470.594	1470.594	1470.594	1470.594
5	1453.175	1452.761	1452.761	1453.590	1453.590
10	1439.490	1440.319	1442.393	1446.125	1447.784
15	1382.673	1384.747	1392.626	1398.847	1400.921
20	1356.131	1357.375	1371.061	1382.673	1386.406
25	1219.689	1228.398	1247.475	1262.819	1269.870
30	1035.968	1110.617	1197.294	1170.337	1141.307
35	1037.627	1057.948	1094.443	1125.133	1135.915
40	946.803	972.101	1021.038	1057.948	1070.390
45	883.766	917.358	978.322	1023.112	1037.212
50	751.886	787.137	852.248	897.037	910.723
55	622.908	661.477	729.076	778.428	795.016
60	501.810	541.623	608.807	668.942	689.678
65	413.475	457.435	536.646	612.955	642.400
70	309.380	354.999	441.261	470.291	434.625
75	207.359	250.076	281.594	255.467	253.393
80	128.563	162.570	160.911	150.958	149.299
85	58.475	67.184	64.696	67.184	70.917
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	534.41	N.A.	13.20
0-30	1110.98	N.A.	27.50
0-40	1791.15	N.A.	44.30
0-60	3170.1	N.A.	78.40
0-80	3968.17	N.A.	98.10
0-90	4045.8	N.A.	100.00
10-90	3907.24	N.A.	96.60
20-40	1256.73	N.A.	31.10
20-50	1990.32	N.A.	49.20
40-70	1894.36	N.A.	46.80
60-80	798.06	N.A.	19.70
70-80	282.66	N.A.	7.00
80-90	77.64	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	4045.8	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	138.56
10-20	395.85
20-30	576.57
30-40	680.16
40-50	733.58
50-60	645.37
60-70	515.40
70-80	282.66
80-90	77.64
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

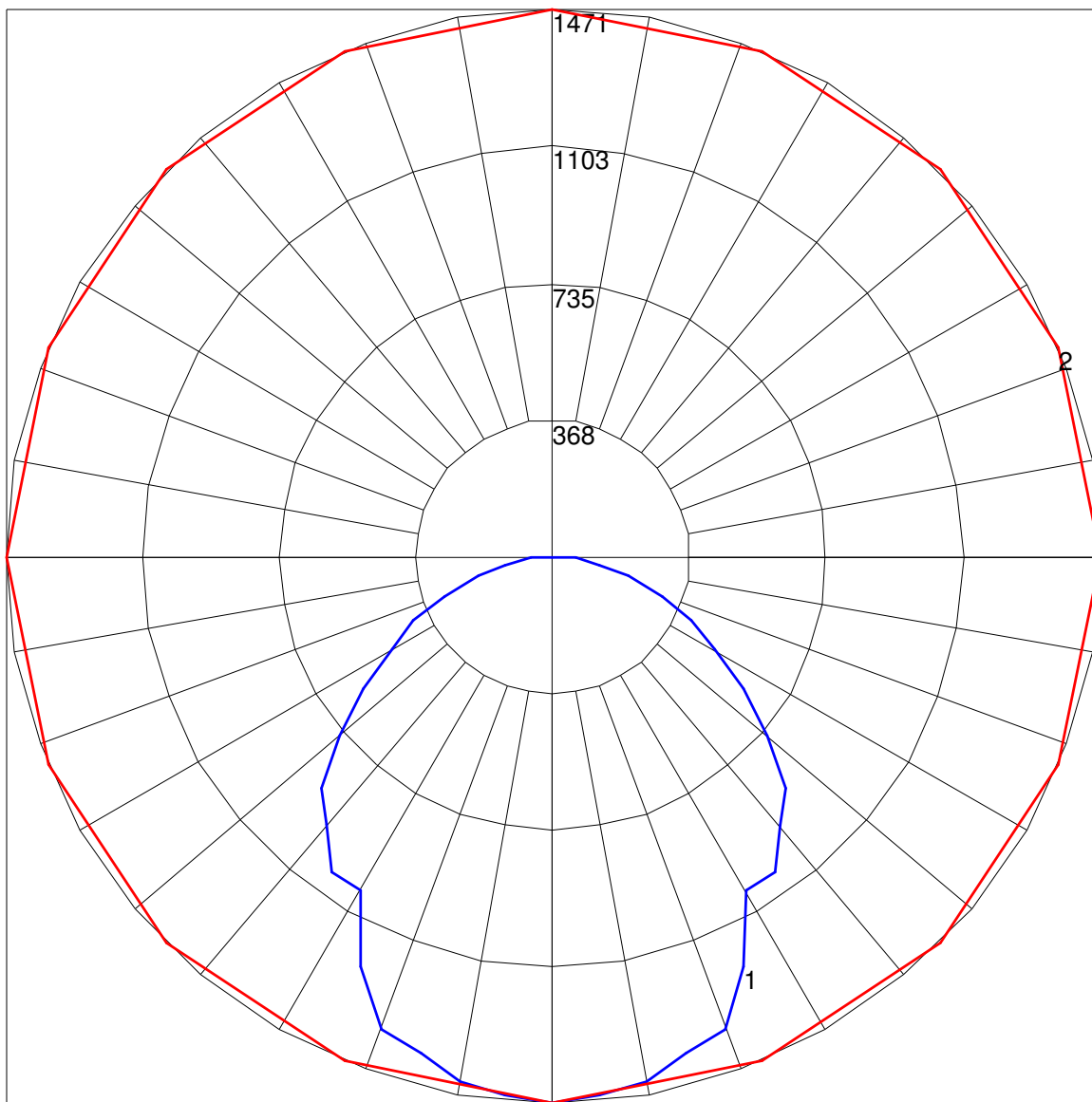
X=2H	Y=2H	13.5	15.1	13.8	15.4	15.8	14.9	16.5	15.2	16.8	17.2
	3H	15.2	16.7	15.6	17.1	17.4	17.0	18.5	17.4	18.9	19.2
	4H	15.8	17.3	16.2	17.6	18.0	17.6	19.0	18.0	19.3	19.7
	6H	16.3	17.6	16.7	18.0	18.4	17.9	19.2	18.3	19.6	20.0
	8H	16.5	17.7	16.9	18.1	18.5	18.0	19.3	18.4	19.7	20.1
	12H	16.6	17.8	17.0	18.1	18.6	18.1	19.3	18.5	19.7	20.1

UGR Viewed Endwise

4H	2H	14.4	15.8	14.8	16.2	16.6	15.5	16.9	15.9	17.3	17.6
	3H	16.4	17.6	16.8	18.0	18.4	17.9	19.1	18.3	19.5	19.9
	4H	17.2	18.2	17.6	18.6	19.1	18.5	19.5	18.9	20.0	20.4
	6H	17.8	18.7	18.2	19.1	19.6	18.9	19.9	19.4	20.3	20.8
	8H	17.9	18.8	18.4	19.3	19.7	19.1	20.0	19.6	20.4	20.9
	12H	18.1	18.9	18.6	19.3	19.8	19.2	20.0	19.7	20.5	21.0
8H	4H	17.6	18.5	18.1	18.9	19.4	18.7	19.6	19.2	20.1	20.5
	6H	18.3	19.1	18.8	19.5	20.0	19.3	20.0	19.8	20.5	21.0
	8H	18.6	19.3	19.1	19.8	20.3	19.5	20.2	20.0	20.7	21.2
	12H	18.8	19.4	19.3	19.9	20.5	19.7	20.3	20.2	20.8	21.3
12H	4H	17.6	18.4	18.1	18.9	19.4	18.8	19.6	19.2	20.0	20.5
	6H	18.4	19.1	18.9	19.5	20.1	19.4	20.0	19.9	20.5	21.0
	8H	18.7	19.3	19.2	19.8	20.4	19.6	20.2	20.1	20.7	21.3

Maximum UGR = 21.3

POLAR GRAPH



Maximum Candela = 1470.594 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.)