



IES INDOOR REPORT

PHOTOMETRIC FILENAME : DIG-S24-L50-840-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

[ISSUE DATE] 06-07-2021

[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-L50-840-AD-(L40)-DIM-UNV

[LAMPCAT] HLM 80 CRI 4000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4166
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	134
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	1890	2092	2218
55	1642	1922	2096
65	1479	1920	2298
75	1211	1645	1480
85	1014	1122	1230

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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	1514.210	1514.210	1514.210	1514.210	1514.210
5	1496.276	1495.849	1495.849	1496.703	1496.703
10	1482.184	1483.038	1485.173	1489.016	1490.724
15	1423.682	1425.817	1433.931	1440.336	1442.471
20	1396.353	1397.634	1411.726	1423.682	1427.526
25	1255.864	1264.831	1284.474	1300.274	1307.533
30	1066.694	1143.558	1232.805	1205.048	1175.157
35	1068.402	1089.326	1126.904	1158.503	1169.606
40	974.885	1000.933	1051.322	1089.326	1102.137
45	909.978	944.567	1007.339	1053.457	1067.975
50	774.186	810.483	877.525	923.643	937.734
55	641.383	681.096	750.700	801.515	818.596
60	516.693	557.687	626.864	688.782	710.133
65	425.738	471.002	552.563	631.135	661.453
70	318.556	365.529	454.349	484.240	447.516
75	213.510	257.493	289.946	263.044	260.909
80	132.376	167.392	165.683	155.435	153.727
85	60.210	69.177	66.615	69.177	73.020
90	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	550.26	N.A.	13.20
0-30	1143.94	N.A.	27.50
0-40	1844.27	N.A.	44.30
0-60	3264.13	N.A.	78.40
0-80	4085.86	N.A.	98.10
0-90	4165.8	N.A.	100.00
10-90	4023.13	N.A.	96.60
20-40	1294.01	N.A.	31.10
20-50	2049.35	N.A.	49.20
40-70	1950.54	N.A.	46.80
60-80	821.73	N.A.	19.70
70-80	291.04	N.A.	7.00
80-90	79.94	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	4165.8	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	142.67
10-20	407.60
20-30	593.67
30-40	700.34
40-50	755.34
50-60	664.51
60-70	530.69
70-80	291.04
80-90	79.94
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

X=2H	Y=2H	13.6	15.2	13.9	15.5	15.9	15.0	16.6	15.3	16.9	17.3
	3H	15.3	16.8	15.7	17.2	17.5	17.1	18.6	17.5	19.0	19.3
	4H	15.9	17.4	16.3	17.7	18.1	17.7	19.1	18.1	19.4	19.8
	6H	16.4	17.7	16.8	18.1	18.5	18.0	19.3	18.4	19.7	20.1
	8H	16.6	17.8	17.0	18.2	18.6	18.1	19.4	18.5	19.8	20.2
	12H	16.7	17.9	17.1	18.2	18.7	18.2	19.4	18.6	19.8	20.2

UGR Viewed Endwise

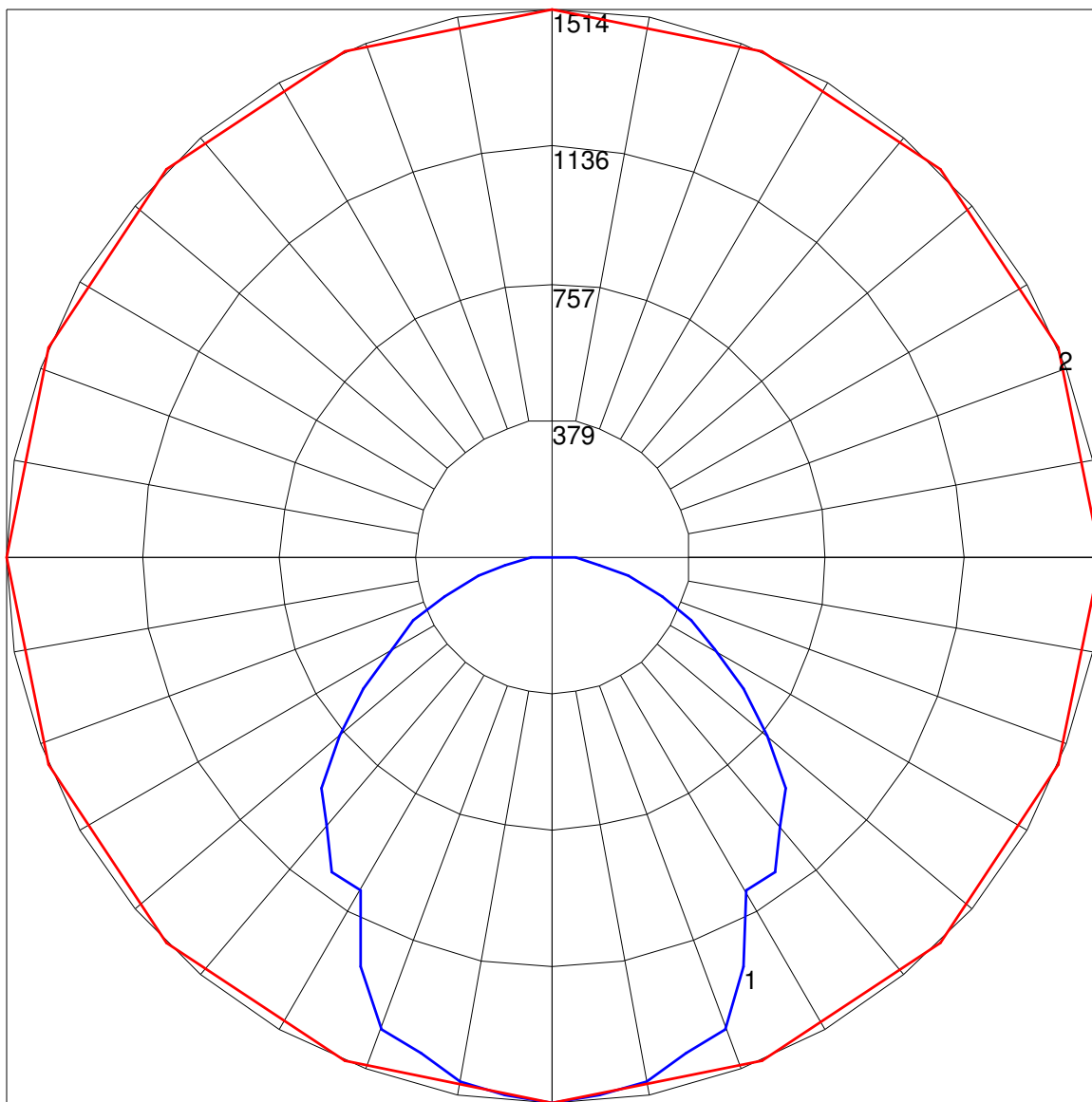
4H	2H	14.5	15.9	14.9	16.3	16.7	15.6	17.0	16.0	17.4	17.7
	3H	16.5	17.7	16.9	18.1	18.5	18.0	19.2	18.4	19.6	20.0
	4H	17.3	18.3	17.7	18.7	19.2	18.6	19.6	19.0	20.1	20.5
	6H	17.9	18.8	18.3	19.2	19.7	19.0	20.0	19.5	20.4	20.9
	8H	18.0	18.9	18.5	19.4	19.8	19.2	20.1	19.7	20.5	21.0
	12H	18.2	19.0	18.7	19.4	19.9	19.3	20.1	19.8	20.6	21.1

8H	4H	17.7	18.6	18.2	19.0	19.5	18.8	19.7	19.3	20.2	20.6
	6H	18.4	19.2	18.9	19.6	20.1	19.4	20.1	19.9	20.6	21.1
	8H	18.7	19.4	19.2	19.9	20.4	19.6	20.3	20.1	20.8	21.3
	12H	18.9	19.5	19.4	20.0	20.6	19.8	20.4	20.3	20.9	21.4

12H	4H	17.7	18.5	18.2	19.0	19.5	18.9	19.7	19.3	20.1	20.6
	6H	18.5	19.2	19.0	19.6	20.2	19.5	20.1	20.0	20.6	21.1
	8H	18.8	19.4	19.3	19.9	20.5	19.7	20.3	20.2	20.8	21.4

Maximum UGR = 21.4

POLAR GRAPH



Maximum Candela = 1514.21 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.)