

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : DIG-AR24-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] 03-6-2026

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836

[LUMINAIRE] 2x4' RECESSED LED TROFFER

[MORE] WITH FROST ACRYLIC DIFFUSER

[LUMCAT] DIG-AR24-L50-840-AD-(L40)-DIM-UNV

[LAMPCAT] HLM 80 CRI, 4000K CCT

[\_SEARCH\_SOURCE TYPE] LED

[\_SEARCH\_APPLICATION] Indoor, Architectural, Classroom, Commercial, Educational, Office, Direct, Indirect

[\_SEARCH\_MOUNTING] Ceiling, Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4237
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
Total Luminaire Watts	32.4
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	1922	2127	2256
55	1670	1955	2131
65	1504	1953	2337
75	1232	1673	1505
85	1032	1141	1251

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : DIG-AR24-L50-840-AD-(L40)-DIM-UNV\_.IES****CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0</b>	1540.016	1540.016	1540.016	1540.016	1540.016
<b>5</b>	1521.776	1521.342	1521.342	1522.210	1522.210
<b>10</b>	1507.444	1508.313	1510.484	1514.393	1516.130
<b>15</b>	1447.945	1450.117	1458.369	1464.883	1467.055
<b>20</b>	1420.150	1421.453	1435.785	1447.945	1451.854
<b>25</b>	1277.267	1286.387	1306.365	1322.434	1329.817
<b>30</b>	1084.873	1163.047	1253.815	1225.586	1195.185
<b>35</b>	1086.611	1107.891	1146.109	1178.247	1189.539
<b>40</b>	991.500	1017.992	1069.239	1107.891	1120.920
<b>45</b>	925.486	960.664	1024.506	1071.410	1086.176
<b>50</b>	787.380	824.295	892.480	939.384	953.716
<b>55</b>	652.314	692.703	763.494	815.175	832.547
<b>60</b>	525.499	567.192	637.548	700.521	722.236
<b>65</b>	432.994	479.029	561.980	641.891	672.726
<b>70</b>	323.985	371.758	462.092	492.493	455.143
<b>75</b>	217.148	261.881	294.888	267.527	265.355
<b>80</b>	134.632	170.244	168.507	158.084	156.347
<b>85</b>	61.236	70.356	67.750	70.356	74.265
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	559.64	N.A.	13.20
0-30	1163.43	N.A.	27.50
0-40	1875.7	N.A.	44.30
0-60	3319.76	N.A.	78.40
0-80	4155.49	N.A.	98.10
0-90	4236.8	N.A.	100.00
10-90	4091.7	N.A.	96.60
20-40	1316.06	N.A.	31.10
20-50	2084.27	N.A.	49.20
40-70	1983.79	N.A.	46.80
60-80	835.74	N.A.	19.70
70-80	296.00	N.A.	7.00
80-90	81.30	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	4236.8	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	145.10
10-20	414.54
20-30	603.79
30-40	712.27
40-50	768.21
50-60	675.84
60-70	539.74
70-80	296.00
80-90	81.30
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

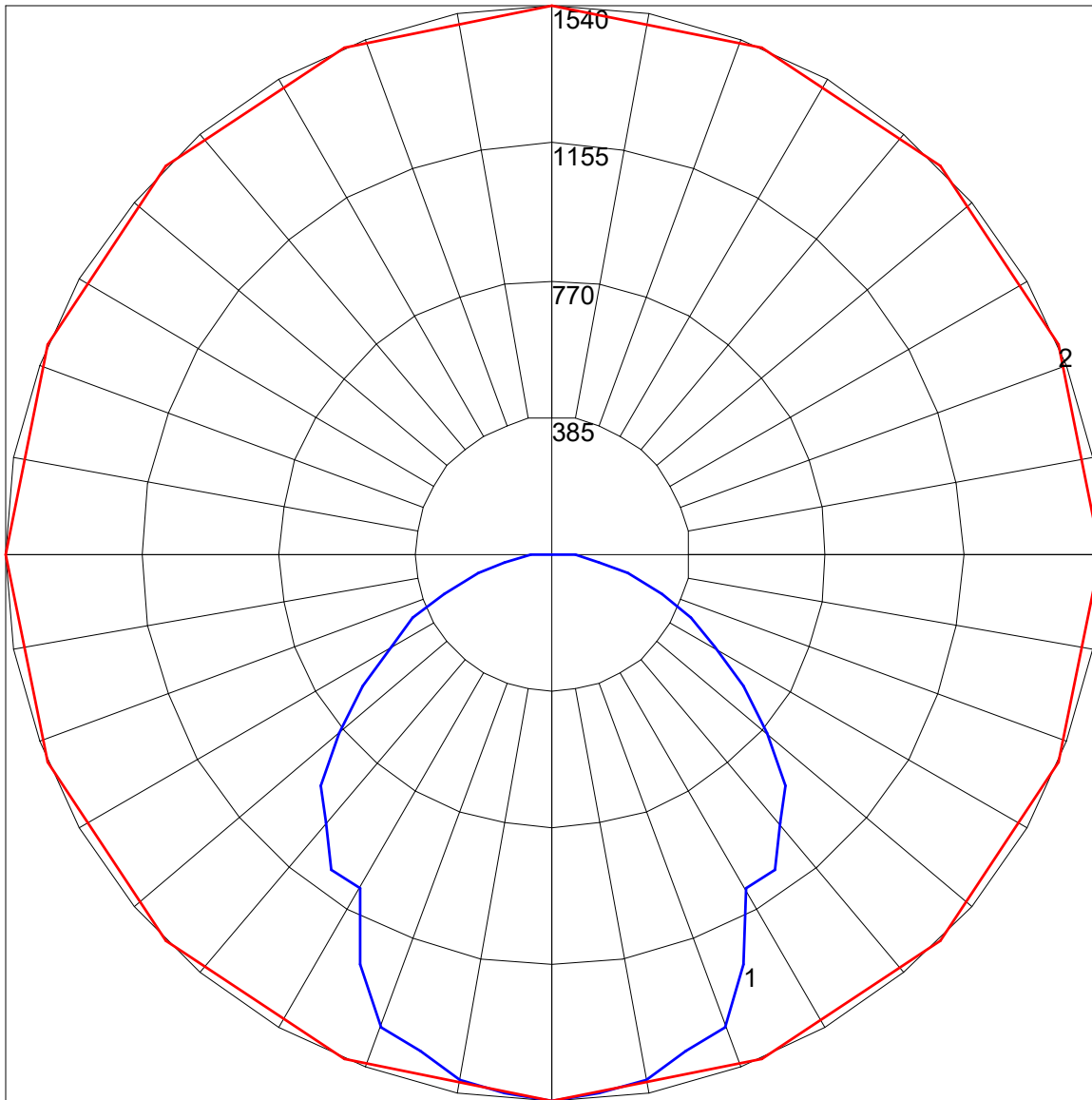
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**UGR TABLE - CORRECTED**

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	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
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 = 1540.016 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.)