

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : V2DR-L18-940-DIM-UNV-RW-OF-CS\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] GEN FROM 13257153.03  
[TESTLAB] UL Verification Services Inc.  
[ISSUE DATE] 2025-05-20  
[MANUFAC] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
[LUMCAT] V2DR-L18-940-DIM-UNV-RW-OF-CS\_  
[LUMINAIRE] Aluminum housing, optics, and trim enclosure  
[LAMP] One white LED  
[OTHER] This test was performed using the calibrated photodetector method of absolute photometry.  
[SEARCH\_SOURCETYPE] LED  
[SEARCH\_APPLICATION] Indoor, Downlight  
[SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1442
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	60
Total Luminaire Watts	23.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.88
Spacing Criterion (90-270)	0.88
Spacing Criterion (Diagonal)	0.80
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.21 ft (Diameter)
Luminous Width (90-270)	0.21 ft (Diameter)
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	51704	51704	51704
55	40913	40913	40913
65	30583	30583	30583
75	15924	15924	15924
85	9652	9652	9652

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CANDELA TABULATION

	<u>0</u>
0.0	1718.647
0.5	1718.647
1.0	1717.761
1.5	1716.876
2.0	1716.876
2.5	1715.104
3.0	1712.446
3.5	1708.902
4.0	1705.359
4.5	1701.815
5.0	1696.500
5.5	1692.070
6.0	1686.755
6.5	1680.554
7.0	1674.352
7.5	1668.151
8.0	1661.950
8.5	1654.862
9.0	1646.889
9.5	1639.802
10.0	1631.829
10.5	1622.970
11.0	1613.225
11.5	1603.480
12.0	1592.849
12.5	1582.219
13.0	1570.702
13.5	1558.299
14.0	1545.011
14.5	1531.722
15.0	1516.662
15.5	1501.602
16.0	1484.770
16.5	1467.937
17.0	1450.219
17.5	1431.615
18.0	1412.126
18.5	1390.864
19.0	1368.717
19.5	1344.797
20.0	1319.992
20.5	1294.301
21.0	1266.838
21.5	1238.489
22.0	1207.483
22.5	1176.476
23.0	1143.698
23.5	1110.034
24.0	1074.598
24.5	1039.161
25.0	1002.840
25.5	964.746
26.0	925.766
26.5	886.787

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**CANDELA TABULATION - (Cont.)**

27.0	848.073
27.5	809.182
28.0	769.936
28.5	730.868
29.0	690.914
29.5	650.694
30.0	610.829
30.5	571.583
31.0	532.869
31.5	495.484
32.0	459.517
32.5	425.498
33.0	393.960
33.5	364.725
34.0	337.528
34.5	312.634
35.0	290.044
35.5	269.314
36.0	250.533
36.5	233.701
37.0	218.729
37.5	205.352
38.0	193.215
38.5	182.407
39.0	172.928
39.5	164.600
40.0	157.159
40.5	150.692
41.0	144.933
41.5	139.795
42.0	135.188
42.5	131.113
43.0	127.393
43.5	124.115
44.0	121.014
44.5	118.179
45.0	115.521
45.5	112.952
46.0	110.560
46.5	108.168
47.0	105.954
47.5	103.739
48.0	101.524
48.5	99.398
49.0	97.272
49.5	95.146
50.0	93.108
50.5	91.159
51.0	89.122
51.5	87.173
52.0	85.312
52.5	83.363
53.0	81.503
53.5	79.642
54.0	77.782
54.5	75.922

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**CANDELA TABULATION - (Cont.)**

55.0	74.150
55.5	72.378
56.0	70.606
56.5	68.834
57.0	67.063
57.5	65.379
58.0	63.608
58.5	61.924
59.0	60.241
59.5	58.647
60.0	56.963
60.5	55.280
61.0	53.597
61.5	52.002
62.0	50.319
62.5	48.725
63.0	47.130
63.5	45.535
64.0	43.941
64.5	42.346
65.0	40.840
65.5	39.334
66.0	37.828
66.5	36.233
67.0	34.816
67.5	33.398
68.0	31.892
68.5	30.475
69.0	29.058
69.5	27.640
70.0	26.311
70.5	24.894
71.0	23.565
71.5	22.148
72.0	20.819
72.5	19.490
73.0	18.161
73.5	16.832
74.0	15.592
74.5	14.263
75.0	13.023
75.5	11.871
76.0	10.719
76.5	9.833
77.0	9.036
77.5	8.327
78.0	7.796
78.5	7.353
79.0	6.999
79.5	6.644
80.0	6.201
80.5	5.847
81.0	5.493
81.5	5.138
82.0	4.695
82.5	4.341

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CANDELA TABULATION - (Cont.)

83.0	4.075
83.5	3.721
84.0	3.366
84.5	3.012
85.0	2.658
85.5	2.392
86.0	2.038
86.5	1.772
87.0	1.417
87.5	1.152
88.0	0.886
88.5	0.620
89.0	0.354
89.5	0.266
90.0	0.000
90.5	0.000
91.0	0.000
91.5	0.000
92.0	0.000
92.5	0.000
93.0	0.000
93.5	0.000
94.0	0.000
94.5	0.000
95.0	0.000
95.5	0.000
96.0	0.000
96.5	0.000
97.0	0.000
97.5	0.000
98.0	0.000
98.5	0.000
99.0	0.000
99.5	0.000
100.0	0.000
100.5	0.000
101.0	0.000
101.5	0.000
102.0	0.000
102.5	0.000
103.0	0.000
103.5	0.000
104.0	0.000
104.5	0.000
105.0	0.000
105.5	0.000
106.0	0.000
106.5	0.000
107.0	0.000
107.5	0.000
108.0	0.000
108.5	0.000
109.0	0.000
109.5	0.000
110.0	0.000
110.5	0.000

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CANDELA TABULATION - (Cont.)

111.0	0.000
111.5	0.000
112.0	0.000
112.5	0.000
113.0	0.000
113.5	0.000
114.0	0.000
114.5	0.000
115.0	0.000
115.5	0.000
116.0	0.000
116.5	0.000
117.0	0.000
117.5	0.000
118.0	0.000
118.5	0.000
119.0	0.000
119.5	0.000
120.0	0.000
120.5	0.000
121.0	0.000
121.5	0.000
122.0	0.000
122.5	0.000
123.0	0.000
123.5	0.000
124.0	0.000
124.5	0.000
125.0	0.000
125.5	0.000
126.0	0.000
126.5	0.000
127.0	0.000
127.5	0.000
128.0	0.000
128.5	0.000
129.0	0.000
129.5	0.000
130.0	0.000
130.5	0.000
131.0	0.000
131.5	0.000
132.0	0.000
132.5	0.000
133.0	0.000
133.5	0.000
134.0	0.000
134.5	0.000
135.0	0.000
135.5	0.000
136.0	0.000
136.5	0.000
137.0	0.000
137.5	0.000
138.0	0.000
138.5	0.000

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CANDELA TABULATION - (Cont.)

139.0	0.000
139.5	0.000
140.0	0.000
140.5	0.000
141.0	0.000
141.5	0.000
142.0	0.000
142.5	0.000
143.0	0.000
143.5	0.000
144.0	0.000
144.5	0.000
145.0	0.000
145.5	0.000
146.0	0.000
146.5	0.000
147.0	0.000
147.5	0.000
148.0	0.000
148.5	0.000
149.0	0.000
149.5	0.000
150.0	0.000
150.5	0.000
151.0	0.000
151.5	0.000
152.0	0.000
152.5	0.000
153.0	0.000
153.5	0.000
154.0	0.000
154.5	0.000
155.0	0.000
155.5	0.000
156.0	0.000
156.5	0.000
157.0	0.000
157.5	0.000
158.0	0.000
158.5	0.000
159.0	0.000
159.5	0.000
160.0	0.000
160.5	0.000
161.0	0.000
161.5	0.000
162.0	0.000
162.5	0.000
163.0	0.000
163.5	0.000
164.0	0.000
164.5	0.000
165.0	0.000
165.5	0.000
166.0	0.000
166.5	0.000

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**CANDELA TABULATION - (Cont.)**

167.0	0.000
167.5	0.000
168.0	0.000
168.5	0.000
169.0	0.000
169.5	0.000
170.0	0.000
170.5	0.000
171.0	0.000
171.5	0.000
172.0	0.000
172.5	0.000
173.0	0.000
173.5	0.000
174.0	0.000
174.5	0.000
175.0	0.000
175.5	0.000
176.0	0.000
176.5	0.000
177.0	0.000
177.5	0.000
178.0	0.000
178.5	0.000
179.0	0.000
179.5	0.000
180.0	0.000



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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	581.30	N.A.	40.30
0-30	1029.05	N.A.	71.40
0-40	1226.06	N.A.	85.00
0-60	1383.54	N.A.	95.90
0-80	1439.04	N.A.	99.80
0-90	1442.11	N.A.	100.00
10-90	1282.25	N.A.	88.90
20-40	644.76	N.A.	44.70
20-50	735.78	N.A.	51.00
40-70	198.07	N.A.	13.70
60-80	55.51	N.A.	3.80
70-80	14.91	N.A.	1.00
80-90	3.06	N.A.	0.20
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	1442.11	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	159.86
10-20	421.44
20-30	447.75
30-40	197.01
40-50	91.02
50-60	66.46
60-70	40.59
70-80	14.91
80-90	3.06
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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92
2	107	102	97	94	105	100	96	93	97	93	91	94	91	89	91	89	87	85
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	86	83	80	79
4	96	88	82	78	94	87	81	77	85	80	76	82	78	75	81	77	74	73
5	91	82	76	72	89	81	75	71	79	74	71	78	73	70	76	72	69	68
6	86	77	71	66	85	76	70	66	75	70	66	73	69	65	72	68	65	63
7	82	73	66	62	81	72	66	62	71	65	61	69	65	61	68	64	61	59
8	78	68	62	58	77	68	62	58	67	61	58	66	61	57	65	60	57	56
9	75	65	59	55	73	64	58	55	63	58	54	62	58	54	61	57	54	53
10	71	61	55	52	70	61	55	51	60	55	51	59	55	51	59	54	51	50

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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

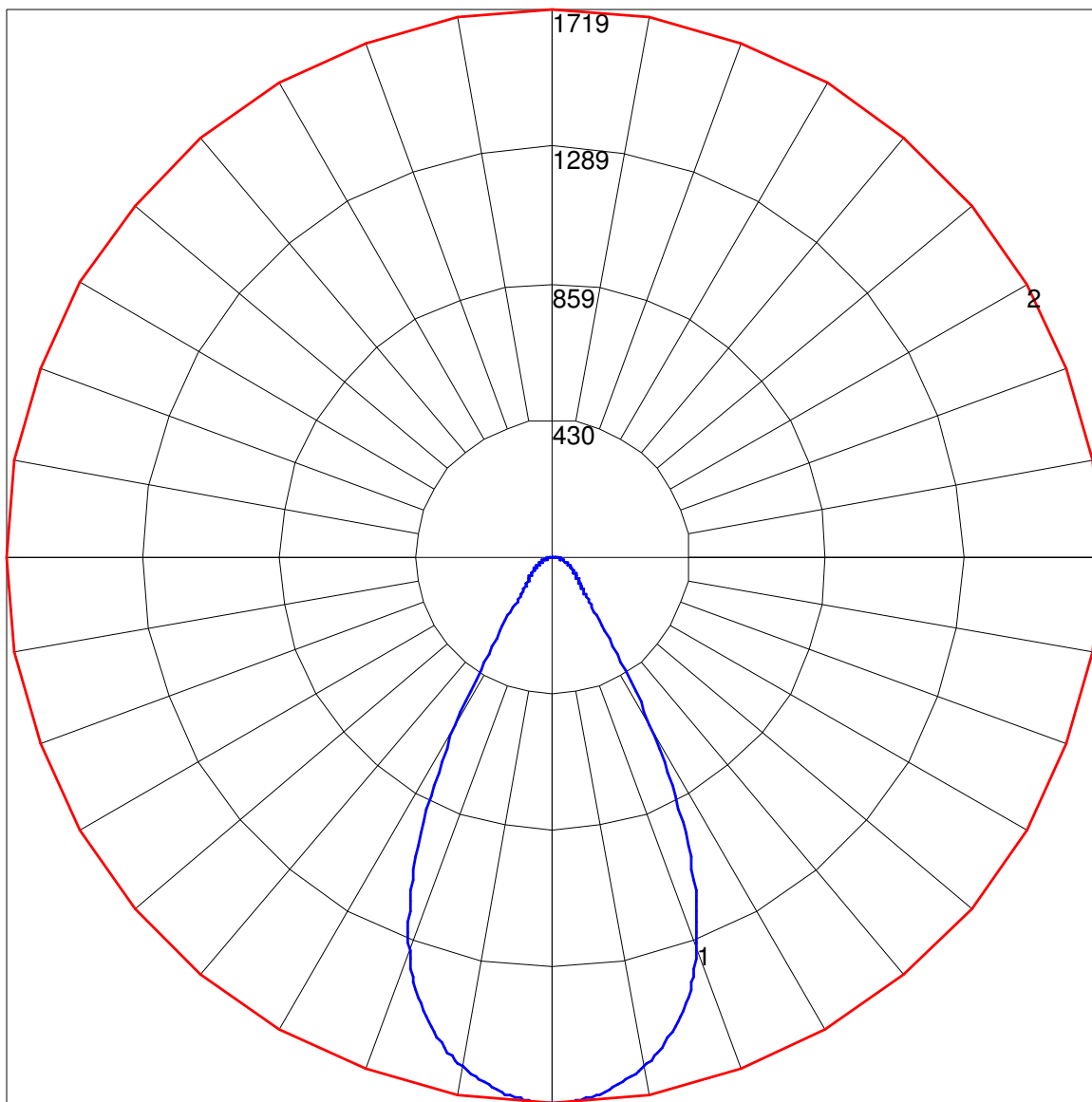
X=2H	Y=2H	20.2	21.3	20.6	21.6	21.9	20.2	21.3	20.6	21.6	21.9
	3H	21.2	22.2	21.6	22.5	22.9	21.2	22.2	21.6	22.5	22.9
	4H	21.4	22.3	21.8	22.7	23.1	21.4	22.3	21.8	22.7	23.1
	6H	21.4	22.3	21.9	22.7	23.1	21.4	22.3	21.9	22.7	23.1
	8H	21.4	22.2	21.9	22.6	23.0	21.4	22.2	21.9	22.6	23.0
	12H	21.4	22.2	21.9	22.6	23.0	21.4	22.2	21.9	22.6	23.0

### UGR Viewed Endwise

4H	2H	20.5	21.4	20.9	21.8	22.2	20.5	21.4	20.9	21.8	22.2
	3H	21.7	22.4	22.1	22.9	23.3	21.7	22.4	22.1	22.9	23.3
	4H	21.9	22.6	22.4	23.0	23.5	21.9	22.6	22.4	23.0	23.5
	6H	22.0	22.6	22.5	23.0	23.5	22.0	22.6	22.5	23.0	23.5
	8H	22.0	22.5	22.5	23.0	23.5	22.0	22.5	22.5	23.0	23.5
	12H	22.0	22.5	22.5	23.0	23.4	22.0	22.5	22.5	23.0	23.4
8H	4H	21.9	22.5	22.4	22.9	23.4	21.9	22.5	22.4	22.9	23.4
	6H	22.1	22.5	22.6	23.0	23.5	22.1	22.5	22.6	23.0	23.5
	8H	22.1	22.5	22.6	23.0	23.5	22.1	22.5	22.6	23.0	23.5
	12H	22.1	22.4	22.6	22.9	23.5	22.1	22.4	22.6	22.9	23.5
12H	4H	21.9	22.4	22.4	22.8	23.3	21.9	22.4	22.4	22.8	23.3
	6H	22.0	22.4	22.6	22.9	23.4	22.0	22.4	22.6	22.9	23.4
	8H	22.1	22.4	22.6	22.9	23.5	22.1	22.4	22.6	22.9	23.5

Maximum UGR = 23.5

POLAR GRAPH



Maximum Candela = 1718.647 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.)