

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : V2DR-L5-940-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-L5-940-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	403
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	60
Total Luminaire Watts	6.7
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	14461	14461	14461
55	11443	11443	11443
65	8553	8553	8553
75	4453	4453	4453
85	2698	2698	2698

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CANDELA TABULATION

	<u>0</u>
0.0	480.672
0.5	480.672
1.0	480.424
1.5	480.176
2.0	480.176
2.5	479.681
3.0	478.937
3.5	477.946
4.0	476.955
4.5	475.964
5.0	474.478
5.5	473.239
6.0	471.752
6.5	470.018
7.0	468.283
7.5	466.549
8.0	464.815
8.5	462.832
9.0	460.603
9.5	458.620
10.0	456.390
10.5	453.913
11.0	451.187
11.5	448.462
12.0	445.489
12.5	442.515
13.0	439.294
13.5	435.826
14.0	432.109
14.5	428.393
15.0	424.181
15.5	419.968
16.0	415.261
16.5	410.553
17.0	405.598
17.5	400.395
18.0	394.944
18.5	388.997
19.0	382.803
19.5	376.113
20.0	369.176
20.5	361.991
21.0	354.310
21.5	346.381
22.0	337.709
22.5	329.037
23.0	319.870
23.5	310.455
24.0	300.544
24.5	290.633
25.0	280.475
25.5	269.820
26.0	258.919
26.5	248.017

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**CANDELA TABULATION - (Cont.)**

27.0	237.189
27.5	226.312
28.0	215.336
28.5	204.409
29.0	193.235
29.5	181.986
30.0	170.837
30.5	159.861
31.0	149.033
31.5	138.577
32.0	128.518
32.5	119.003
33.0	110.183
33.5	102.006
34.0	94.400
34.5	87.438
35.0	81.120
35.5	75.322
36.0	70.069
36.5	65.361
37.0	61.174
37.5	57.433
38.0	54.038
38.5	51.016
39.0	48.365
39.5	46.035
40.0	43.954
40.5	42.146
41.0	40.535
41.5	39.098
42.0	37.810
42.5	36.670
43.0	35.629
43.5	34.712
44.0	33.845
44.5	33.052
45.0	32.309
45.5	31.591
46.0	30.922
46.5	30.253
47.0	29.633
47.5	29.014
48.0	28.394
48.5	27.800
49.0	27.205
49.5	26.610
50.0	26.041
50.5	25.495
51.0	24.926
51.5	24.380
52.0	23.860
52.5	23.315
53.0	22.795
53.5	22.274
54.0	21.754
54.5	21.234

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**CANDELA TABULATION - (Cont.)**

55.0	20.738
55.5	20.243
56.0	19.747
56.5	19.252
57.0	18.756
57.5	18.285
58.0	17.790
58.5	17.319
59.0	16.848
59.5	16.402
60.0	15.932
60.5	15.461
61.0	14.990
61.5	14.544
62.0	14.073
62.5	13.627
63.0	13.181
63.5	12.735
64.0	12.289
64.5	11.843
65.0	11.422
65.5	11.001
66.0	10.580
66.5	10.134
67.0	9.737
67.5	9.341
68.0	8.920
68.5	8.523
69.0	8.127
69.5	7.730
70.0	7.359
70.5	6.962
71.0	6.591
71.5	6.194
72.0	5.823
72.5	5.451
73.0	5.079
73.5	4.708
74.0	4.361
74.5	3.989
75.0	3.642
75.5	3.320
76.0	2.998
76.5	2.750
77.0	2.527
77.5	2.329
78.0	2.180
78.5	2.056
79.0	1.957
79.5	1.858
80.0	1.734
80.5	1.635
81.0	1.536
81.5	1.437
82.0	1.313
82.5	1.214

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CANDELA TABULATION - (Cont.)

83.0	1.140
83.5	1.041
84.0	0.942
84.5	0.842
85.0	0.743
85.5	0.669
86.0	0.570
86.5	0.496
87.0	0.396
87.5	0.322
88.0	0.248
88.5	0.173
89.0	0.099
89.5	0.074
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
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123.5	0.000
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124.5	0.000
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125.5	0.000
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126.5	0.000
127.0	0.000
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128.0	0.000
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129.0	0.000
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130.0	0.000
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131.0	0.000
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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	162.58	N.A.	40.30
0-30	287.81	N.A.	71.40
0-40	342.91	N.A.	85.00
0-60	386.95	N.A.	95.90
0-80	402.47	N.A.	99.80
0-90	403.33	N.A.	100.00
10-90	358.62	N.A.	88.90
20-40	180.33	N.A.	44.70
20-50	205.78	N.A.	51.00
40-70	55.40	N.A.	13.70
60-80	15.52	N.A.	3.80
70-80	4.17	N.A.	1.00
80-90	0.86	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	403.33	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	44.71
10-20	117.87
20-30	125.23
30-40	55.10
40-50	25.46
50-60	18.59
60-70	11.35
70-80	4.17
80-90	0.86
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	111	108	105	103	104	102	100	100	99	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	83	79	75	81	77	74	73
5	91	82	76	72	89	81	76	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	62	57	54	53
10	71	61	56	52	70	61	55	52	60	55	51	59	55	51	59	54	51	50

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**UGR TABLE - CORRECTED**

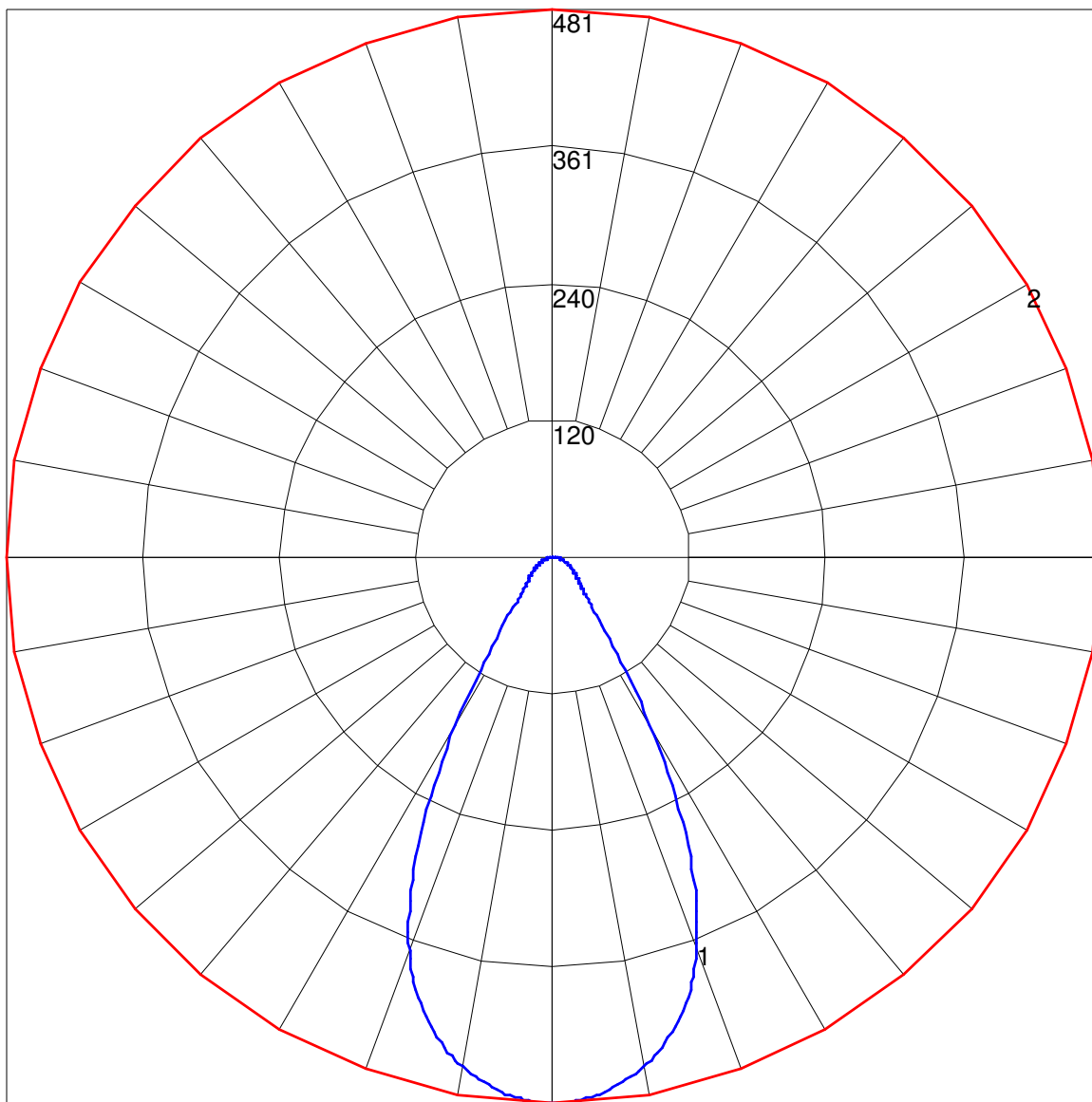
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	15.8	16.9	16.2	17.2	17.5	15.8	16.9	16.2	17.2	17.5
	3H	16.8	17.8	17.2	18.1	18.5	16.8	17.8	17.2	18.1	18.5
	4H	17.0	17.9	17.4	18.3	18.7	17.0	17.9	17.4	18.3	18.7
	6H	17.0	17.9	17.5	18.2	18.6	17.0	17.9	17.5	18.2	18.6
	8H	17.0	17.8	17.5	18.2	18.6	17.0	17.8	17.5	18.2	18.6
	12H	17.0	17.8	17.5	18.2	18.6	17.0	17.8	17.5	18.2	18.6
4H	2H	16.1	17.0	16.5	17.4	17.8	16.1	17.0	16.5	17.4	17.8
	3H	17.3	18.0	17.7	18.4	18.9	17.3	18.0	17.7	18.4	18.9
	4H	17.5	18.2	18.0	18.6	19.1	17.5	18.2	18.0	18.6	19.1
	6H	17.6	18.2	18.1	18.6	19.1	17.6	18.2	18.1	18.6	19.1
	8H	17.6	18.1	18.1	18.6	19.1	17.6	18.1	18.1	18.6	19.1
	12H	17.6	18.1	18.1	18.6	19.0	17.6	18.1	18.1	18.6	19.0
8H	4H	17.5	18.1	18.0	18.5	19.0	17.5	18.1	18.0	18.5	19.0
	6H	17.7	18.1	18.2	18.6	19.1	17.7	18.1	18.2	18.6	19.1
	8H	17.7	18.1	18.2	18.6	19.1	17.7	18.1	18.2	18.6	19.1
	12H	17.7	18.0	18.2	18.5	19.1	17.7	18.0	18.2	18.5	19.1
12H	4H	17.5	17.9	18.0	18.4	18.9	17.5	17.9	18.0	18.4	18.9
	6H	17.6	18.0	18.2	18.5	19.0	17.6	18.0	18.2	18.5	19.0
	8H	17.7	18.0	18.2	18.5	19.1	17.7	18.0	18.2	18.5	19.1

Maximum UGR = 19.1

POLAR GRAPH



Maximum Candela = 480.672 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.)