

IES INDOOR REPORT

PHOTOMETRIC FILENAME : V2DR-L5-840-DIM-UNV-LW-OF_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM 13257153.01
[TESTLAB] UL Verification Services Inc.
[ISSUEDATE] 2025-05-20
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] V2DR-L5-840-DIM-UNV-LW-OF_
[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, Vandal-Resistant
[SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	510
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	76
Total Luminaire Watts	6.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.86
Spacing Criterion (90-270)	0.86
Spacing Criterion (Diagonal)	0.78
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	21038	21038	21038
55	18374	18374	18374
65	15696	15696	15696
75	12663	12663	12663
85	7092	7092	7092

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CANDELA TABULATION

	<u>0</u>
0.0	601.828
0.5	601.518
1.0	601.518
1.5	601.208
2.0	600.898
2.5	599.968
3.0	599.037
3.5	598.107
4.0	596.867
4.5	595.317
5.0	593.766
5.5	592.216
6.0	590.666
6.5	588.805
7.0	586.945
7.5	585.085
8.0	582.914
8.5	580.744
9.0	578.263
9.5	575.783
10.0	572.992
10.5	569.892
11.0	566.791
11.5	563.380
12.0	559.970
12.5	555.939
13.0	551.908
13.5	547.567
14.0	542.916
14.5	537.955
15.0	532.684
15.5	526.793
16.0	520.902
16.5	514.391
17.0	507.259
17.5	500.128
18.0	492.066
18.5	483.695
19.0	474.393
19.5	464.471
20.0	454.239
20.5	443.077
21.0	431.605
21.5	419.202
22.0	406.180
22.5	392.847
23.0	378.894
23.5	364.631
24.0	350.059
24.5	335.176
25.0	319.983
25.5	304.945
26.0	289.721
26.5	274.652

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CANDELA TABULATION - (Cont.)

27.0	259.800
27.5	245.258
28.0	231.026
28.5	217.136
29.0	203.679
29.5	190.563
30.0	178.254
30.5	166.627
31.0	155.651
31.5	145.419
32.0	135.838
32.5	126.939
33.0	118.784
33.5	111.312
34.0	104.521
34.5	98.320
35.0	92.677
35.5	87.561
36.0	82.941
36.5	78.817
37.0	75.097
37.5	71.779
38.0	68.802
38.5	66.105
39.0	63.686
39.5	61.516
40.0	59.532
40.5	57.764
41.0	56.152
41.5	54.664
42.0	53.299
42.5	52.028
43.0	50.881
43.5	49.827
44.0	48.835
44.5	47.904
45.0	47.005
45.5	46.168
46.0	45.362
46.5	44.587
47.0	43.843
47.5	43.098
48.0	42.385
48.5	41.672
49.0	40.959
49.5	40.277
50.0	39.626
50.5	38.975
51.0	38.293
51.5	37.672
52.0	37.021
52.5	36.401
53.0	35.781
53.5	35.161
54.0	34.541
54.5	33.921

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CANDELA TABULATION - (Cont.)

55.0	33.301
55.5	32.680
56.0	32.091
56.5	31.440
57.0	30.851
57.5	30.231
58.0	29.611
58.5	28.991
59.0	28.371
59.5	27.750
60.0	27.130
60.5	26.510
61.0	25.890
61.5	25.239
62.0	24.650
62.5	24.030
63.0	23.379
63.5	22.758
64.0	22.138
64.5	21.549
65.0	20.960
65.5	20.371
66.0	19.782
66.5	19.224
67.0	18.635
67.5	18.108
68.0	17.549
68.5	17.022
69.0	16.495
69.5	15.937
70.0	15.410
70.5	14.883
71.0	14.387
71.5	13.860
72.0	13.333
72.5	12.837
73.0	12.309
73.5	11.813
74.0	11.348
74.5	10.852
75.0	10.356
75.5	9.891
76.0	9.426
76.5	8.961
77.0	8.527
77.5	8.062
78.0	7.627
78.5	7.193
79.0	6.759
79.5	6.325
80.0	5.922
80.5	5.488
81.0	5.085
81.5	4.682
82.0	4.279
82.5	3.876

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CANDELA TABULATION - (Cont.)

83.0	3.504
83.5	3.101
84.0	2.729
84.5	2.325
85.0	1.953
85.5	1.550
86.0	1.147
86.5	0.868
87.0	0.620
87.5	0.372
88.0	0.248
88.5	0.186
89.0	0.124
89.5	0.093
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
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125.5	0.000
126.0	0.000
126.5	0.000
127.0	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
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154.5	0.000
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156.5	0.000
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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	203.46	N.A.	39.90
0-30	346.88	N.A.	68.00
0-40	409.18	N.A.	80.20
0-60	475.78	N.A.	93.30
0-80	507.66	N.A.	99.50
0-90	510.12	N.A.	100.00
10-90	454.08	N.A.	89.00
20-40	205.72	N.A.	40.30
20-50	242.54	N.A.	47.50
40-70	87.44	N.A.	17.10
60-80	31.88	N.A.	6.20
70-80	11.04	N.A.	2.20
80-90	2.46	N.A.	0.50
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	510.12	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	56.03
10-20	147.43
20-30	143.41
30-40	62.31
40-50	36.82
50-60	29.78
60-70	20.84
70-80	11.04
80-90	2.46
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	112	109	106	104	110	107	104	102	103	101	99	99	98	96	96	94	93	91
2	106	100	96	92	104	99	94	91	95	92	89	92	89	87	89	87	85	83
3	100	93	87	83	98	91	86	82	89	84	81	86	82	79	84	81	78	76
4	94	86	80	75	93	85	79	75	83	78	74	81	76	73	79	75	72	70
5	89	80	74	69	88	79	73	69	77	72	68	76	71	68	74	70	67	65
6	85	75	69	64	83	74	68	64	73	67	63	71	67	63	70	66	63	61
7	81	71	64	60	79	70	64	60	69	63	59	67	63	59	66	62	59	57
8	77	67	60	56	75	66	60	56	65	59	56	64	59	55	63	58	55	54
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51
10	70	60	54	50	69	59	54	50	58	53	49	58	53	49	57	52	49	48

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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	18.4	19.6	18.7	19.9	20.2	18.4	19.6	18.7	19.9	20.2
	3H	19.9	20.9	20.3	21.2	21.6	19.9	20.9	20.3	21.2	21.6
	4H	20.4	21.4	20.8	21.7	22.1	20.4	21.4	20.8	21.7	22.1
	6H	20.7	21.6	21.1	22.0	22.4	20.7	21.6	21.1	22.0	22.4
	8H	20.8	21.7	21.2	22.1	22.5	20.8	21.7	21.2	22.1	22.5
	12H	20.9	21.7	21.3	22.0	22.5	20.9	21.7	21.3	22.0	22.5

UGR Viewed Endwise

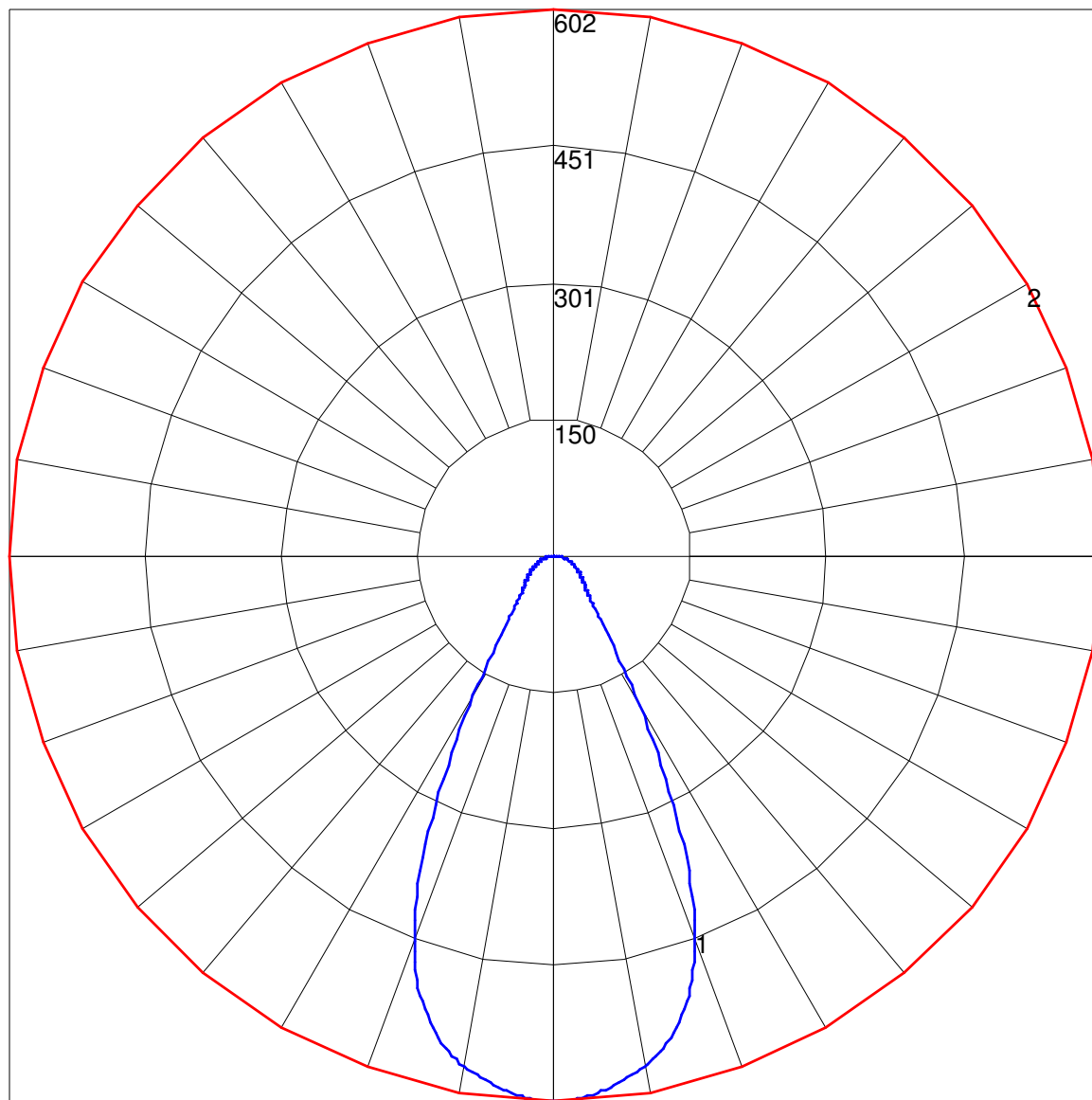
4H	2H	18.9	19.8	19.3	20.2	20.6	18.9	19.8	19.3	20.2	20.6
	3H	20.5	21.3	21.0	21.7	22.2	20.5	21.3	21.0	21.7	22.2
	4H	21.2	21.9	21.6	22.3	22.8	21.2	21.9	21.6	22.3	22.8
	6H	21.6	22.2	22.1	22.7	23.2	21.6	22.2	22.1	22.7	23.2
	8H	21.7	22.3	22.2	22.8	23.2	21.7	22.3	22.2	22.8	23.2
	12H	21.8	22.3	22.3	22.8	23.3	21.8	22.3	22.3	22.8	23.3

8H	4H	21.4	21.9	21.8	22.4	22.9	21.4	21.9	21.8	22.4	22.9
	6H	21.9	22.4	22.4	22.9	23.4	21.9	22.4	22.4	22.9	23.4
	8H	22.1	22.5	22.6	23.0	23.5	22.1	22.5	22.6	23.0	23.5
	12H	22.2	22.6	22.7	23.1	23.6	22.2	22.6	22.7	23.1	23.6

12H	4H	21.4	21.9	21.8	22.3	22.8	21.4	21.9	21.8	22.3	22.8
	6H	21.9	22.4	22.5	22.8	23.4	21.9	22.4	22.5	22.8	23.4
	8H	22.2	22.5	22.7	23.0	23.6	22.2	22.5	22.7	23.0	23.6

Maximum UGR = 23.6

POLAR GRAPH



Maximum Candela = 601.828 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.)