

IES INDOOR REPORT

PHOTOMETRIC FILENAME : V2DR-L18-850-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-L18-850-DIM-UNV-LW-OF_

[LUMINAIRE] Aluminum housing, optics, and trim enclosure

[LAMP] One white LED

[OTHER] This test was performed using the calibrated photodetector met

[MORE] hod 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	1841
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	77
Total Luminaire Watts	23.9
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	75940	75940	75940
55	66324	66324	66324
65	56658	56658	56658
75	45710	45710	45710
85	25604	25604	25604

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CANDELA TABULATION

	<u>0</u>
0.0	2172.387
0.5	2171.267
1.0	2171.267
1.5	2170.148
2.0	2169.029
2.5	2165.671
3.0	2162.314
3.5	2158.956
4.0	2154.479
4.5	2148.883
5.0	2143.287
5.5	2137.691
6.0	2132.095
6.5	2125.380
7.0	2118.665
7.5	2111.949
8.0	2104.115
8.5	2096.280
9.0	2087.327
9.5	2078.373
10.0	2068.300
10.5	2057.108
11.0	2045.916
11.5	2033.605
12.0	2021.293
12.5	2006.744
13.0	1992.194
13.5	1976.525
14.0	1959.737
14.5	1941.829
15.0	1922.803
15.5	1901.538
16.0	1880.273
16.5	1856.769
17.0	1831.028
17.5	1805.286
18.0	1776.186
18.5	1745.968
19.0	1712.391
19.5	1676.577
20.0	1639.643
20.5	1599.351
21.0	1557.940
21.5	1513.172
22.0	1466.165
22.5	1418.039
23.0	1367.675
23.5	1316.191
24.0	1263.588
24.5	1209.866
25.0	1155.025
25.5	1100.743
26.0	1045.790
26.5	991.396

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CANDELA TABULATION - (Cont.)

27.0	937.786
27.5	885.295
28.0	833.923
28.5	783.783
29.0	735.209
29.5	687.866
30.0	643.434
30.5	601.463
31.0	561.843
31.5	524.909
32.0	490.326
32.5	458.205
33.0	428.769
33.5	401.796
34.0	377.286
34.5	354.901
35.0	334.532
35.5	316.065
36.0	299.389
36.5	284.503
37.0	271.073
37.5	259.097
38.0	248.353
38.5	238.616
39.0	229.886
39.5	222.051
40.0	214.888
40.5	208.509
41.0	202.689
41.5	197.317
42.0	192.392
42.5	187.803
43.0	183.662
43.5	179.857
44.0	176.276
44.5	172.918
45.0	169.672
45.5	166.650
46.0	163.740
46.5	160.942
47.0	158.256
47.5	155.570
48.0	152.996
48.5	150.422
49.0	147.848
49.5	145.385
50.0	143.035
50.5	140.685
51.0	138.222
51.5	135.984
52.0	133.634
52.5	131.395
53.0	129.157
53.5	126.918
54.0	124.680
54.5	122.442

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PHOTOMETRIC FILENAME : V2DR-L18-850-DIM-UNV-LW-OF_.IES

CANDELA TABULATION - (Cont.)

55.0	120.203
55.5	117.965
56.0	115.838
56.5	113.488
57.0	111.361
57.5	109.123
58.0	106.885
58.5	104.646
59.0	102.408
59.5	100.169
60.0	97.931
60.5	95.692
61.0	93.454
61.5	91.104
62.0	88.977
62.5	86.739
63.0	84.388
63.5	82.150
64.0	79.912
64.5	77.785
65.0	75.659
65.5	73.532
66.0	71.406
66.5	69.391
67.0	67.265
67.5	65.362
68.0	63.347
68.5	61.445
69.0	59.542
69.5	57.527
70.0	55.625
70.5	53.722
71.0	51.931
71.5	50.029
72.0	48.126
72.5	46.335
73.0	44.433
73.5	42.642
74.0	40.963
74.5	39.172
75.0	37.382
75.5	35.703
76.0	34.024
76.5	32.345
77.0	30.778
77.5	29.099
78.0	27.533
78.5	25.966
79.0	24.399
79.5	22.832
80.0	21.377
80.5	19.810
81.0	18.355
81.5	16.900
82.0	15.445
82.5	13.990

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PHOTOMETRIC FILENAME : V2DR-L18-850-DIM-UNV-LW-OF_.IES

CANDELA TABULATION - (Cont.)

83.0	12.647
83.5	11.192
84.0	9.849
84.5	8.394
85.0	7.051
85.5	5.596
86.0	4.141
86.5	3.134
87.0	2.238
87.5	1.343
88.0	0.895
88.5	0.672
89.0	0.448
89.5	0.336
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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PHOTOMETRIC FILENAME : V2DR-L18-850-DIM-UNV-LW-OF_.IES

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
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121.0	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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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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PHOTOMETRIC FILENAME : V2DR-L18-850-DIM-UNV-LW-OF_.IES

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
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151.0	0.000
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153.0	0.000
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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	734.44	N.A.	39.90
0-30	1252.1	N.A.	68.00
0-40	1477.01	N.A.	80.20
0-60	1717.41	N.A.	93.30
0-80	1832.48	N.A.	99.50
0-90	1841.34	N.A.	100.00
10-90	1639.08	N.A.	89.00
20-40	742.57	N.A.	40.30
20-50	875.47	N.A.	47.50
40-70	315.63	N.A.	17.10
60-80	115.07	N.A.	6.20
70-80	39.84	N.A.	2.20
80-90	8.87	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	1841.34	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	202.26
10-20	532.18
20-30	517.66
30-40	224.91
40-50	132.90
50-60	107.51
60-70	75.23
70-80	39.84
80-90	8.87
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	22.8	23.9	23.1	24.3	24.6	22.8	23.9	23.1	24.3	24.6
	3H	24.3	25.3	24.7	25.6	26.0	24.3	25.3	24.7	25.6	26.0
	4H	24.8	25.8	25.2	26.1	26.5	24.8	25.8	25.2	26.1	26.5
	6H	25.1	26.0	25.5	26.4	26.8	25.1	26.0	25.5	26.4	26.8
	8H	25.2	26.1	25.6	26.5	26.9	25.2	26.1	25.6	26.5	26.9
	12H	25.2	26.1	25.7	26.4	26.9	25.2	26.1	25.7	26.4	26.9

UGR Viewed Endwise

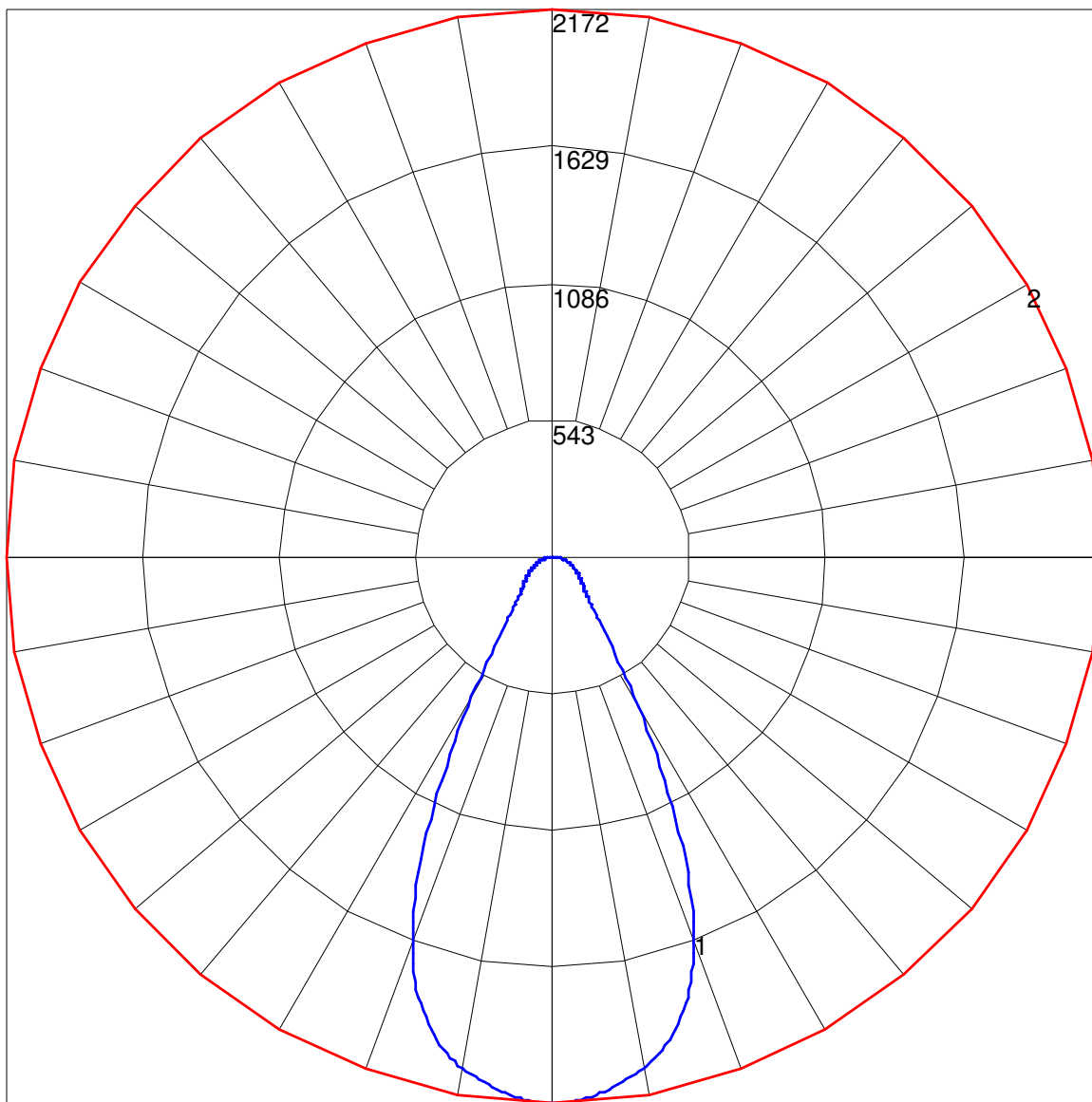
4H	2H	23.3	24.2	23.7	24.6	25.0	23.3	24.2	23.7	24.6	25.0
	3H	24.9	25.7	25.3	26.1	26.6	24.9	25.7	25.3	26.1	26.6
	4H	25.6	26.3	26.0	26.7	27.2	25.6	26.3	26.0	26.7	27.2
	6H	26.0	26.6	26.5	27.1	27.6	26.0	26.6	26.5	27.1	27.6
	8H	26.1	26.7	26.6	27.2	27.6	26.1	26.7	26.6	27.2	27.6
	12H	26.2	26.7	26.7	27.2	27.7	26.2	26.7	26.7	27.2	27.7

8H	4H	25.8	26.3	26.2	26.8	27.3	25.8	26.3	26.2	26.8	27.3
	6H	26.3	26.8	26.8	27.3	27.8	26.3	26.8	26.8	27.3	27.8
	8H	26.5	26.9	27.0	27.4	27.9	26.5	26.9	27.0	27.4	27.9
	12H	26.6	27.0	27.1	27.5	28.0	26.6	27.0	27.1	27.5	28.0

12H	4H	25.7	26.3	26.2	26.7	27.2	25.7	26.3	26.2	26.7	27.2
	6H	26.3	26.8	26.9	27.2	27.8	26.3	26.8	26.9	27.2	27.8
	8H	26.6	26.9	27.1	27.4	28.0	26.6	26.9	27.1	27.4	28.0

Maximum UGR = 28.0

POLAR GRAPH



Maximum Candela = 2172.387 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.)