

IES INDOOR REPORT

PHOTOMETRIC FILENAME : V2DR-L18-840-DIM-UNV-RW-OF-BL_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM 13257153.03
[TESTLAB] UL Verification Services Inc.
[ISSUEDATE] 2025-05-20
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] V2DR-L18-840-DIM-UNV-RW-OF-BL_
[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	1398
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	58
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	50115	50115	50115
55	39656	39656	39656
65	29643	29643	29643
75	15435	15435	15435
85	9354	9354	9354

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CANDELA TABULATION

	<u>0</u>
0.0	1665.827
0.5	1665.827
1.0	1664.968
1.5	1664.110
2.0	1664.110
2.5	1662.392
3.0	1659.816
3.5	1656.382
4.0	1652.947
4.5	1649.512
5.0	1644.360
5.5	1640.067
6.0	1634.915
6.5	1628.904
7.0	1622.893
7.5	1616.883
8.0	1610.872
8.5	1604.002
9.0	1596.274
9.5	1589.405
10.0	1581.677
10.5	1573.090
11.0	1563.645
11.5	1554.199
12.0	1543.895
12.5	1533.591
13.0	1522.428
13.5	1510.407
14.0	1497.527
14.5	1484.647
15.0	1470.049
15.5	1455.452
16.0	1439.137
16.5	1422.822
17.0	1405.649
17.5	1387.617
18.0	1368.726
18.5	1348.118
19.0	1326.651
19.5	1303.467
20.0	1279.424
20.5	1254.522
21.0	1227.903
21.5	1200.426
22.0	1170.372
22.5	1140.319
23.0	1108.548
23.5	1075.918
24.0	1041.571
24.5	1007.224
25.0	972.019
25.5	935.096
26.0	897.314
26.5	859.532

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CANDELA TABULATION - (Cont.)

27.0	822.008
27.5	784.313
28.0	746.273
28.5	708.406
29.0	669.680
29.5	630.696
30.0	592.056
30.5	554.016
31.0	516.492
31.5	480.256
32.0	445.394
32.5	412.421
33.0	381.852
33.5	353.516
34.0	327.155
34.5	303.026
35.0	281.130
35.5	261.037
36.0	242.833
36.5	226.518
37.0	212.007
37.5	199.041
38.0	187.277
38.5	176.801
39.0	167.613
39.5	159.542
40.0	152.329
40.5	146.060
41.0	140.479
41.5	135.499
42.0	131.034
42.5	127.084
43.0	123.477
43.5	120.300
44.0	117.295
44.5	114.547
45.0	111.971
45.5	109.481
46.0	107.162
46.5	104.844
47.0	102.697
47.5	100.551
48.0	98.404
48.5	96.343
49.0	94.282
49.5	92.222
50.0	90.247
50.5	88.358
51.0	86.383
51.5	84.493
52.0	82.690
52.5	80.801
53.0	78.998
53.5	77.195
54.0	75.392
54.5	73.588

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CANDELA TABULATION - (Cont.)

55.0	71.871
55.5	70.154
56.0	68.436
56.5	66.719
57.0	65.002
57.5	63.370
58.0	61.653
58.5	60.021
59.0	58.390
59.5	56.844
60.0	55.213
60.5	53.581
61.0	51.950
61.5	50.404
62.0	48.773
62.5	47.227
63.0	45.681
63.5	44.136
64.0	42.590
64.5	41.045
65.0	39.585
65.5	38.125
66.0	36.665
66.5	35.120
67.0	33.746
67.5	32.372
68.0	30.912
68.5	29.538
69.0	28.164
69.5	26.791
70.0	25.503
70.5	24.129
71.0	22.841
71.5	21.467
72.0	20.179
72.5	18.891
73.0	17.603
73.5	16.315
74.0	15.113
74.5	13.825
75.0	12.623
75.5	11.506
76.0	10.390
76.5	9.531
77.0	8.758
77.5	8.072
78.0	7.556
78.5	7.127
79.0	6.784
79.5	6.440
80.0	6.011
80.5	5.667
81.0	5.324
81.5	4.980
82.0	4.551
82.5	4.208

IES INDOOR REPORT**PHOTOMETRIC FILENAME : V2DR-L18-840-DIM-UNV-RW-OF-BL_.IES****CANDELA TABULATION - (Cont.)**

83.0	3.950
83.5	3.606
84.0	3.263
84.5	2.919
85.0	2.576
85.5	2.318
86.0	1.975
86.5	1.717
87.0	1.374
87.5	1.116
88.0	0.859
88.5	0.601
89.0	0.343
89.5	0.258
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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : V2DR-L18-840-DIM-UNV-RW-OF-BL_.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
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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PHOTOMETRIC FILENAME : V2DR-L18-840-DIM-UNV-RW-OF-BL_.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
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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Zone	Lumens	%Lamp	%Fixt
0-20	563.43	N.A.	40.30
0-30	997.43	N.A.	71.40
0-40	1188.38	N.A.	85.00
0-60	1341.02	N.A.	95.90
0-80	1394.82	N.A.	99.80
0-90	1397.79	N.A.	100.00
10-90	1242.84	N.A.	88.90
20-40	624.95	N.A.	44.70
20-50	713.17	N.A.	51.00
40-70	191.98	N.A.	13.70
60-80	53.80	N.A.	3.80
70-80	14.46	N.A.	1.00
80-90	2.97	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	1397.79	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	154.95
10-20	408.49
20-30	433.99
30-40	190.95
40-50	88.22
50-60	64.41
60-70	39.34
70-80	14.46
80-90	2.97
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	85	83	80	79
4	96	88	82	78	94	87	81	77	84	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	72	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

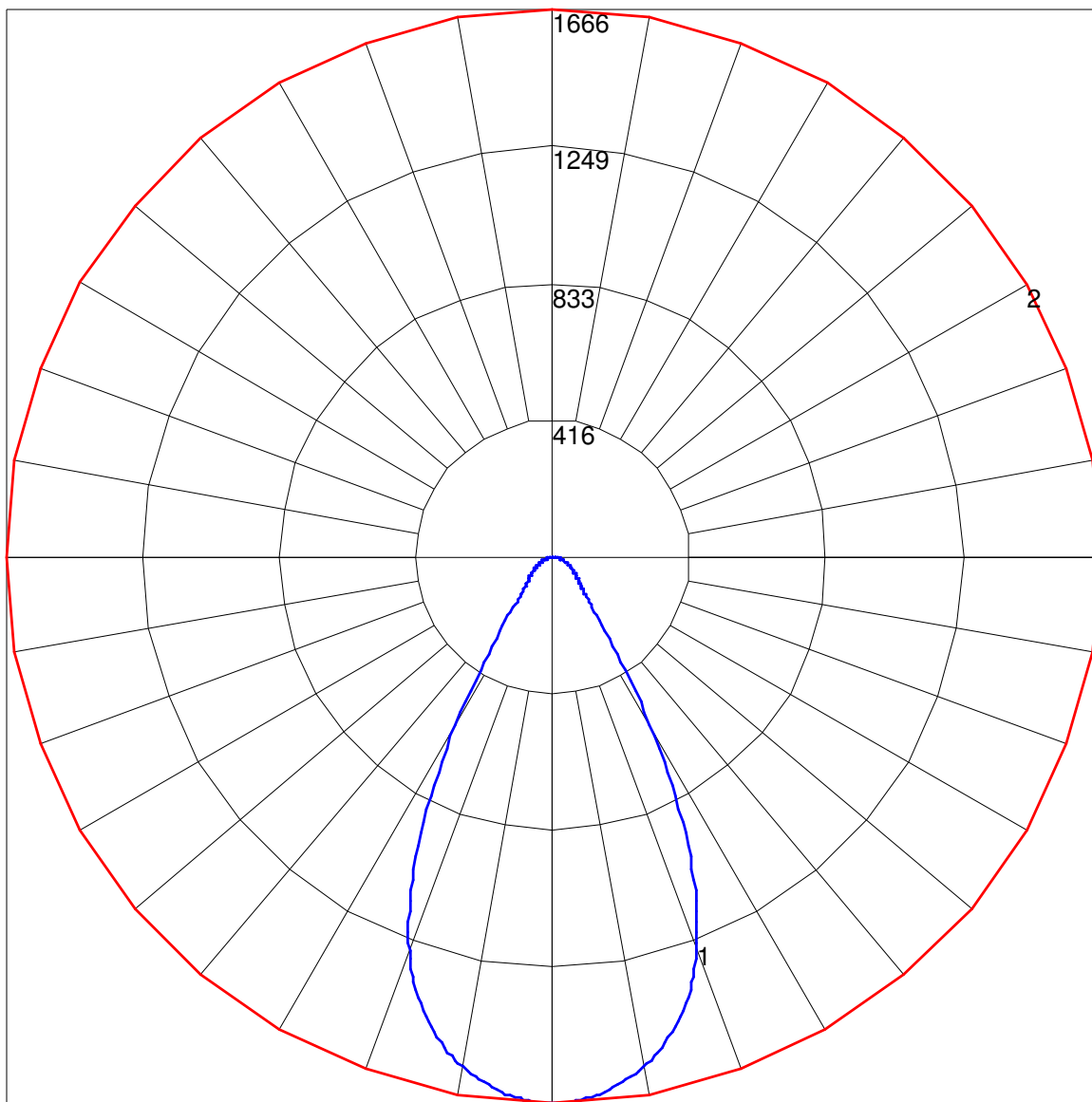
X=2H	Y=2H	20.1	21.2	20.5	21.5	21.8	20.1	21.2	20.5	21.5	21.8
	3H	21.1	22.1	21.5	22.4	22.8	21.1	22.1	21.5	22.4	22.8
	4H	21.3	22.2	21.7	22.6	23.0	21.3	22.2	21.7	22.6	23.0
	6H	21.3	22.2	21.8	22.6	22.9	21.3	22.2	21.8	22.6	22.9
	8H	21.3	22.1	21.8	22.5	22.9	21.3	22.1	21.8	22.5	22.9
	12H	21.3	22.1	21.8	22.5	22.9	21.3	22.1	21.8	22.5	22.9

UGR Viewed Endwise

4H	2H	20.4	21.3	20.8	21.7	22.1	20.4	21.3	20.8	21.7	22.1
	3H	21.6	22.3	22.0	22.8	23.2	21.6	22.3	22.0	22.8	23.2
	4H	21.8	22.5	22.3	22.9	23.4	21.8	22.5	22.3	22.9	23.4
	6H	21.9	22.5	22.4	22.9	23.4	21.9	22.5	22.4	22.9	23.4
	8H	21.9	22.4	22.4	22.9	23.4	21.9	22.4	22.4	22.9	23.4
	12H	21.9	22.4	22.4	22.9	23.3	21.9	22.4	22.4	22.9	23.3
8H	4H	21.8	22.4	22.3	22.8	23.3	21.8	22.4	22.3	22.8	23.3
	6H	22.0	22.4	22.5	22.9	23.4	22.0	22.4	22.5	22.9	23.4
	8H	22.0	22.4	22.5	22.9	23.4	22.0	22.4	22.5	22.9	23.4
	12H	22.0	22.3	22.5	22.8	23.4	22.0	22.3	22.5	22.8	23.4
12H	4H	21.8	22.2	22.3	22.7	23.2	21.8	22.2	22.3	22.7	23.2
	6H	21.9	22.3	22.5	22.8	23.3	21.9	22.3	22.5	22.8	23.3
	8H	22.0	22.3	22.5	22.8	23.4	22.0	22.3	22.5	22.8	23.4

Maximum UGR = 23.4

POLAR GRAPH



Maximum Candela = 1665.827 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.)