

IES INDOOR REPORT

PHOTOMETRIC FILENAME : V2DR-L18-830-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.
[ISSUE DATE] 2025-05-20
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] V2DR-L18-830-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	1356
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	57
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	48626	48626	48626
55	38478	38478	38478
65	28763	28763	28763
75	14977	14977	14977
85	9078	9078	9078

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CANDELA TABULATION

	<u>0</u>
0.0	1616.347
0.5	1616.347
1.0	1615.514
1.5	1614.681
2.0	1614.681
2.5	1613.014
3.0	1610.515
3.5	1607.182
4.0	1603.850
4.5	1600.517
5.0	1595.518
5.5	1591.352
6.0	1586.353
6.5	1580.521
7.0	1574.689
7.5	1568.857
8.0	1563.024
8.5	1556.359
9.0	1548.860
9.5	1542.195
10.0	1534.697
10.5	1526.365
11.0	1517.200
11.5	1508.035
12.0	1498.037
12.5	1488.039
13.0	1477.208
13.5	1465.544
14.0	1453.046
14.5	1440.549
15.0	1426.385
15.5	1412.221
16.0	1396.391
16.5	1380.560
17.0	1363.897
17.5	1346.400
18.0	1328.071
18.5	1308.075
19.0	1287.246
19.5	1264.750
20.0	1241.421
20.5	1217.259
21.0	1191.431
21.5	1164.770
22.0	1135.609
22.5	1106.448
23.0	1075.621
23.5	1043.960
24.0	1010.634
24.5	977.307
25.0	943.147
25.5	907.321
26.0	870.661
26.5	834.002

IES INDOOR REPORT**PHOTOMETRIC FILENAME : V2DR-L18-830-DIM-UNV-RW-OF-BL_.IES****CANDELA TABULATION - (Cont.)**

27.0	797.592
27.5	761.016
28.0	724.107
28.5	687.364
29.0	649.788
29.5	611.962
30.0	574.470
30.5	537.560
31.0	501.151
31.5	465.991
32.0	432.165
32.5	400.171
33.0	370.510
33.5	343.016
34.0	317.437
34.5	294.025
35.0	272.779
35.5	253.283
36.0	235.620
36.5	219.790
37.0	205.709
37.5	193.128
38.0	181.714
38.5	171.549
39.0	162.635
39.5	154.803
40.0	147.804
40.5	141.722
41.0	136.306
41.5	131.474
42.0	127.142
42.5	123.309
43.0	119.810
43.5	116.727
44.0	113.811
44.5	111.145
45.0	108.645
45.5	106.229
46.0	103.979
46.5	101.730
47.0	99.647
47.5	97.564
48.0	95.481
48.5	93.482
49.0	91.482
49.5	89.482
50.0	87.566
50.5	85.733
51.0	83.817
51.5	81.984
52.0	80.234
52.5	78.401
53.0	76.652
53.5	74.902
54.0	73.152
54.5	71.403

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55.0	69.736
55.5	68.070
56.0	66.404
56.5	64.737
57.0	63.071
57.5	61.488
58.0	59.822
58.5	58.238
59.0	56.655
59.5	55.156
60.0	53.573
60.5	51.990
61.0	50.407
61.5	48.907
62.0	47.324
62.5	45.824
63.0	44.325
63.5	42.825
64.0	41.325
64.5	39.825
65.0	38.409
65.5	36.993
66.0	35.576
66.5	34.077
67.0	32.744
67.5	31.410
68.0	29.994
68.5	28.661
69.0	27.328
69.5	25.995
70.0	24.745
70.5	23.412
71.0	22.162
71.5	20.829
72.0	19.579
72.5	18.330
73.0	17.080
73.5	15.830
74.0	14.664
74.5	13.414
75.0	12.248
75.5	11.164
76.0	10.081
76.5	9.248
77.0	8.498
77.5	7.832
78.0	7.332
78.5	6.915
79.0	6.582
79.5	6.249
80.0	5.832
80.5	5.499
81.0	5.166
81.5	4.832
82.0	4.416
82.5	4.083

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CANDELA TABULATION - (Cont.)

83.0	3.833
83.5	3.499
84.0	3.166
84.5	2.833
85.0	2.500
85.5	2.250
86.0	1.916
86.5	1.666
87.0	1.333
87.5	1.083
88.0	0.833
88.5	0.583
89.0	0.333
89.5	0.250
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-L18-830-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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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	546.70	N.A.	40.30
0-30	967.80	N.A.	71.40
0-40	1153.08	N.A.	85.00
0-60	1301.18	N.A.	95.90
0-80	1353.39	N.A.	99.80
0-90	1356.27	N.A.	100.00
10-90	1205.92	N.A.	88.90
20-40	606.38	N.A.	44.70
20-50	691.98	N.A.	51.00
40-70	186.28	N.A.	13.70
60-80	52.20	N.A.	3.80
70-80	14.03	N.A.	1.00
80-90	2.88	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	1356.27	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	150.35
10-20	396.35
20-30	421.10
30-40	185.28
40-50	85.60
50-60	62.50
60-70	38.18
70-80	14.03
80-90	2.88
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	62	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	20.0	21.1	20.4	21.4	21.7	20.0	21.1	20.4	21.4	21.7
	3H	21.0	22.0	21.4	22.3	22.7	21.0	22.0	21.4	22.3	22.7
	4H	21.2	22.1	21.6	22.5	22.9	21.2	22.1	21.6	22.5	22.9
	6H	21.2	22.1	21.7	22.5	22.8	21.2	22.1	21.7	22.5	22.8
	8H	21.2	22.0	21.7	22.4	22.8	21.2	22.0	21.7	22.4	22.8
	12H	21.2	22.0	21.7	22.4	22.8	21.2	22.0	21.7	22.4	22.8

UGR Viewed Endwise

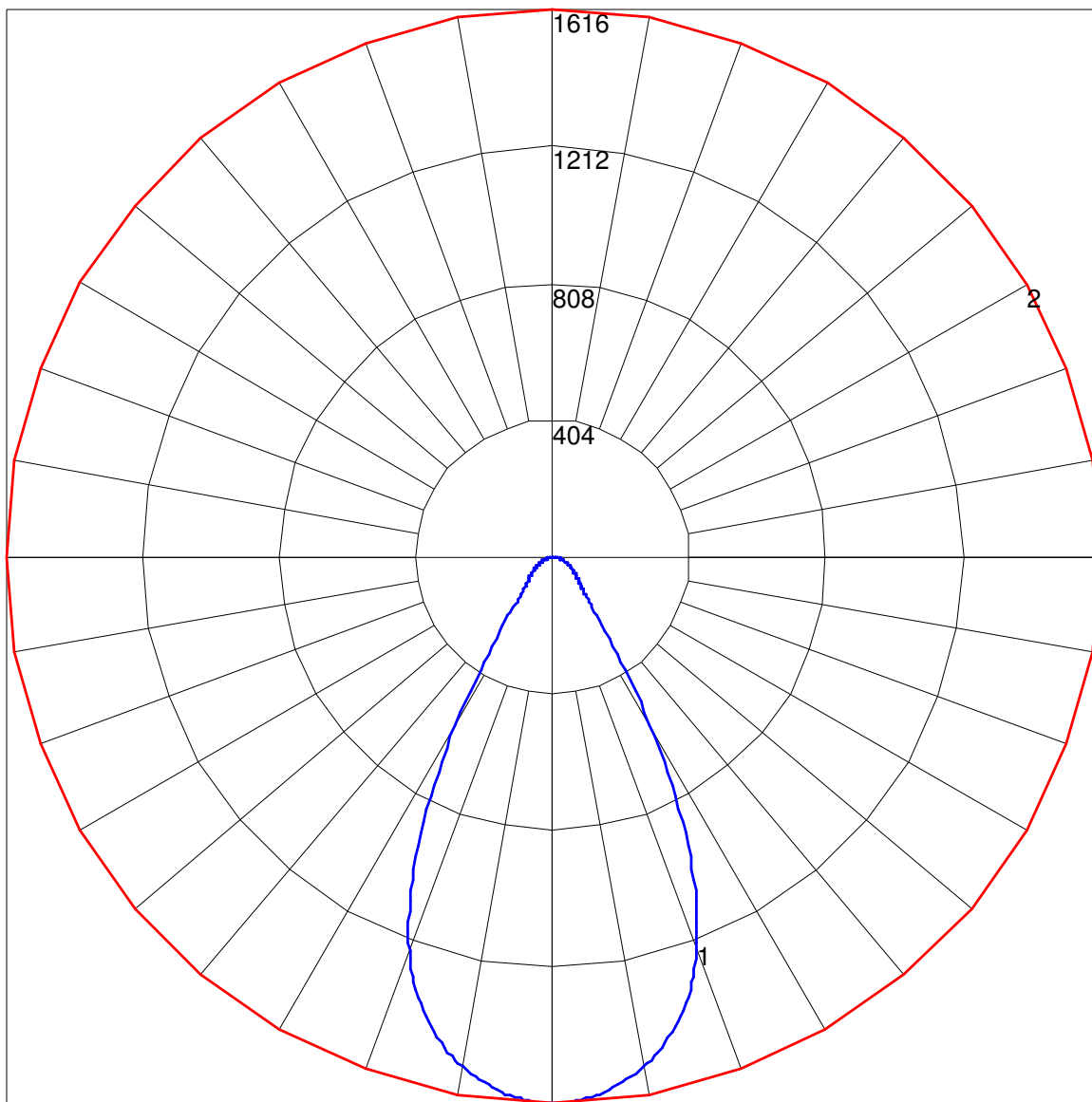
4H	2H	20.3	21.2	20.7	21.6	22.0	20.3	21.2	20.7	21.6	22.0
	3H	21.5	22.2	21.9	22.7	23.1	21.5	22.2	21.9	22.7	23.1
	4H	21.7	22.4	22.2	22.8	23.3	21.7	22.4	22.2	22.8	23.3
	6H	21.8	22.4	22.3	22.8	23.3	21.8	22.4	22.3	22.8	23.3
	8H	21.8	22.3	22.3	22.8	23.3	21.8	22.3	22.3	22.8	23.3
	12H	21.8	22.3	22.3	22.8	23.2	21.8	22.3	22.3	22.8	23.2

8H	4H	21.7	22.3	22.2	22.7	23.2	21.7	22.3	22.2	22.7	23.2
	6H	21.9	22.3	22.4	22.8	23.3	21.9	22.3	22.4	22.8	23.3
	8H	21.9	22.3	22.4	22.8	23.3	21.9	22.3	22.4	22.8	23.3
	12H	21.9	22.2	22.4	22.7	23.3	21.9	22.2	22.4	22.7	23.3

12H	4H	21.7	22.1	22.2	22.6	23.1	21.7	22.1	22.2	22.6	23.1
	6H	21.8	22.2	22.4	22.7	23.2	21.8	22.2	22.4	22.7	23.2
	8H	21.9	22.2	22.4	22.7	23.3	21.9	22.2	22.4	22.7	23.3

Maximum UGR = 23.3

POLAR GRAPH



Maximum Candela = 1616.347 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.)