

IES INDOOR REPORT

PHOTOMETRIC FILENAME : V2DR-L18-850-DIM-UNV-RW-OF-WH_.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-L18-850-DIM-UNV-RW-OF-WH_
[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
[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1787
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	75
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	64065	64065	64065
55	50695	50695	50695
65	37895	37895	37895
75	19731	19731	19731
85	11958	11958	11958

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CANDELA TABULATION

	<u>0</u>
0.0	2129.519
0.5	2129.519
1.0	2128.421
1.5	2127.323
2.0	2127.323
2.5	2125.128
3.0	2121.835
3.5	2117.444
4.0	2113.053
4.5	2108.662
5.0	2102.076
5.5	2096.588
6.0	2090.002
6.5	2082.318
7.0	2074.634
7.5	2066.950
8.0	2059.266
8.5	2050.485
9.0	2040.606
9.5	2031.824
10.0	2021.945
10.5	2010.968
11.0	1998.893
11.5	1986.819
12.0	1973.647
12.5	1960.474
13.0	1946.204
13.5	1930.837
14.0	1914.371
14.5	1897.906
15.0	1879.245
15.5	1860.585
16.0	1839.728
16.5	1818.872
17.0	1796.919
17.5	1773.867
18.0	1749.718
18.5	1723.373
19.0	1695.931
19.5	1666.293
20.0	1635.558
20.5	1603.725
21.0	1569.697
21.5	1534.571
22.0	1496.151
22.5	1457.732
23.0	1417.118
23.5	1375.406
24.0	1331.498
24.5	1287.590
25.0	1242.585
25.5	1195.384
26.0	1147.086
26.5	1098.788

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CANDELA TABULATION - (Cont.)

27.0	1050.819
27.5	1002.630
28.0	954.002
28.5	905.594
29.0	856.088
29.5	806.253
30.0	756.857
30.5	708.230
31.0	660.261
31.5	613.938
32.0	569.372
32.5	527.221
33.0	488.143
33.5	451.919
34.0	418.220
34.5	387.375
35.0	359.384
35.5	333.698
36.0	310.427
36.5	289.571
37.0	271.020
37.5	254.445
38.0	239.406
38.5	226.014
39.0	214.269
39.5	203.951
40.0	194.730
40.5	186.717
41.0	179.582
41.5	173.215
42.0	167.507
42.5	162.458
43.0	157.848
43.5	153.786
44.0	149.944
44.5	146.432
45.0	143.139
45.5	139.955
46.0	136.992
46.5	134.028
47.0	131.284
47.5	128.539
48.0	125.795
48.5	123.161
49.0	120.526
49.5	117.892
50.0	115.367
50.5	112.952
51.0	110.428
51.5	108.013
52.0	105.708
52.5	103.293
53.0	100.987
53.5	98.682
54.0	96.377
54.5	94.072

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CANDELA TABULATION - (Cont.)

55.0	91.877
55.5	89.681
56.0	87.486
56.5	85.291
57.0	83.095
57.5	81.010
58.0	78.814
58.5	76.729
59.0	74.643
59.5	72.667
60.0	70.581
60.5	68.496
61.0	66.410
61.5	64.434
62.0	62.349
62.5	60.373
63.0	58.397
63.5	56.421
64.0	54.445
64.5	52.470
65.0	50.604
65.5	48.737
66.0	46.871
66.5	44.896
67.0	43.139
67.5	41.383
68.0	39.517
68.5	37.761
69.0	36.004
69.5	34.248
70.0	32.601
70.5	30.845
71.0	29.199
71.5	27.442
72.0	25.796
72.5	24.149
73.0	22.503
73.5	20.856
74.0	19.319
74.5	17.673
75.0	16.136
75.5	14.709
76.0	13.282
76.5	12.184
77.0	11.196
77.5	10.318
78.0	9.660
78.5	9.111
79.0	8.672
79.5	8.233
80.0	7.684
80.5	7.245
81.0	6.806
81.5	6.367
82.0	5.818
82.5	5.379

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CANDELA TABULATION - (Cont.)

83.0	5.049
83.5	4.610
84.0	4.171
84.5	3.732
85.0	3.293
85.5	2.964
86.0	2.525
86.5	2.195
87.0	1.756
87.5	1.427
88.0	1.098
88.5	0.768
89.0	0.439
89.5	0.329
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
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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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	720.27	N.A.	40.30
0-30	1275.06	N.A.	71.40
0-40	1519.17	N.A.	85.00
0-60	1714.3	N.A.	95.90
0-80	1783.07	N.A.	99.80
0-90	1786.87	N.A.	100.00
10-90	1588.79	N.A.	88.90
20-40	798.90	N.A.	44.70
20-50	911.68	N.A.	51.00
40-70	245.42	N.A.	13.70
60-80	68.78	N.A.	3.80
70-80	18.48	N.A.	1.00
80-90	3.80	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	1786.87	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	198.08
10-20	522.19
20-30	554.80
30-40	244.11
40-50	112.78
50-60	82.34
60-70	50.30
70-80	18.48
80-90	3.80
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

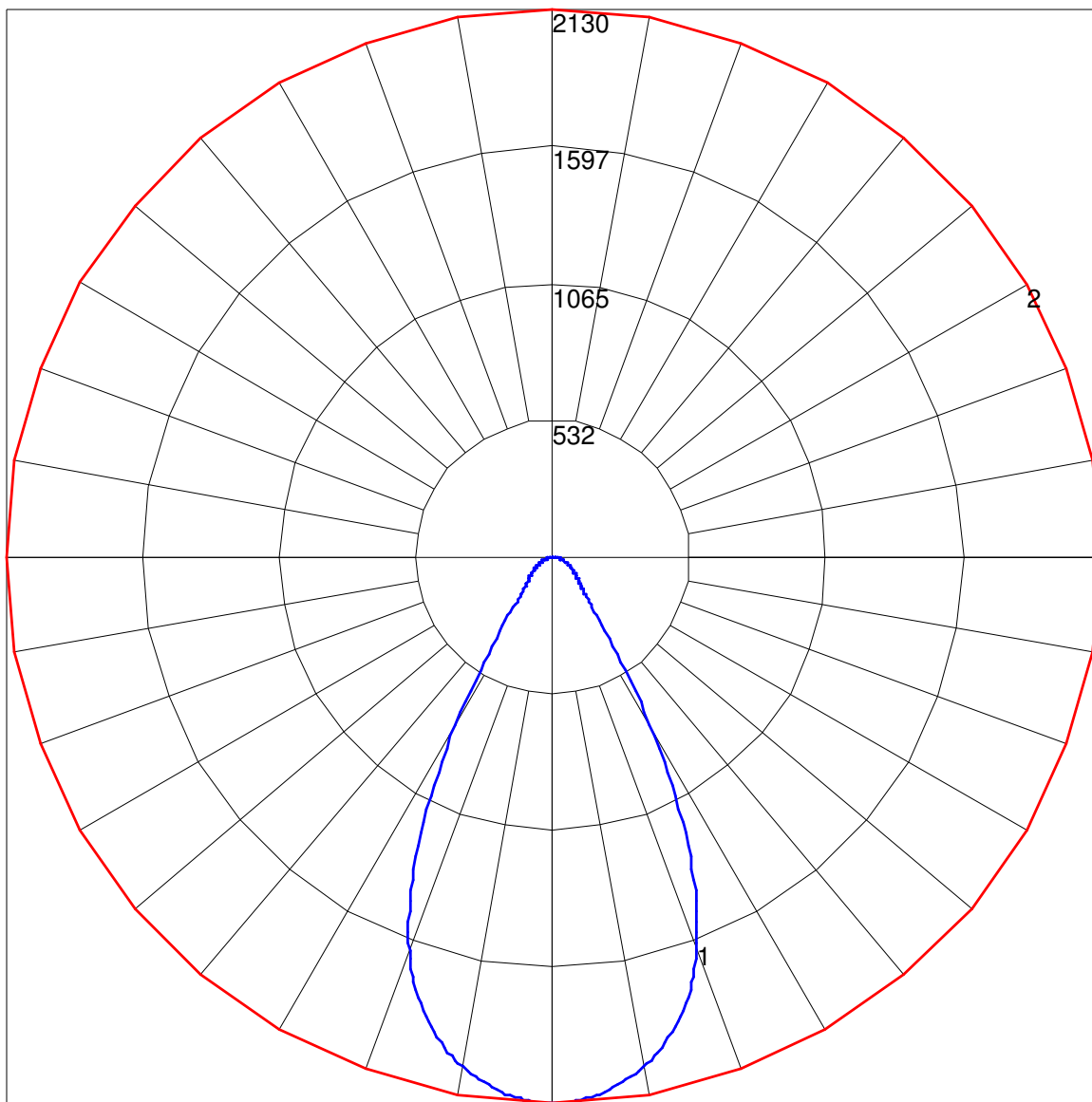
X=2H	Y=2H	20.9	22.0	21.3	22.3	22.6	20.9	22.0	21.3	22.3	22.6
	3H	21.9	22.9	22.3	23.2	23.6	21.9	22.9	22.3	23.2	23.6
	4H	22.1	23.0	22.5	23.4	23.8	22.1	23.0	22.5	23.4	23.8
	6H	22.1	23.0	22.6	23.4	23.7	22.1	23.0	22.6	23.4	23.7
	8H	22.1	22.9	22.6	23.3	23.7	22.1	22.9	22.6	23.3	23.7
	12H	22.1	22.9	22.6	23.3	23.7	22.1	22.9	22.6	23.3	23.7

UGR Viewed Endwise

4H	2H	21.2	22.1	21.6	22.5	22.9	21.2	22.1	21.6	22.5	22.9
	3H	22.4	23.1	22.8	23.6	24.0	22.4	23.1	22.8	23.6	24.0
	4H	22.6	23.3	23.1	23.7	24.2	22.6	23.3	23.1	23.7	24.2
	6H	22.7	23.3	23.2	23.7	24.2	22.7	23.3	23.2	23.7	24.2
	8H	22.7	23.2	23.2	23.7	24.2	22.7	23.2	23.2	23.7	24.2
	12H	22.7	23.2	23.2	23.7	24.1	22.7	23.2	23.2	23.7	24.1
8H	4H	22.6	23.2	23.1	23.6	24.1	22.6	23.2	23.1	23.6	24.1
	6H	22.8	23.2	23.3	23.7	24.2	22.8	23.2	23.3	23.7	24.2
	8H	22.8	23.2	23.3	23.7	24.2	22.8	23.2	23.3	23.7	24.2
	12H	22.8	23.1	23.3	23.6	24.2	22.8	23.1	23.3	23.6	24.2
12H	4H	22.6	23.0	23.1	23.5	24.0	22.6	23.0	23.1	23.5	24.0
	6H	22.7	23.1	23.3	23.6	24.1	22.7	23.1	23.3	23.6	24.1
	8H	22.8	23.1	23.3	23.6	24.2	22.8	23.1	23.3	23.6	24.2

Maximum UGR = 24.2

POLAR GRAPH



Maximum Candela = 2129.519 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.)