

IES INDOOR REPORT

PHOTOMETRIC FILENAME : V2DR-L18-850-DIM-UNV-RW-OF-CS_.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-CS_
[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	1751
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	73
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	62783	62783	62783
55	49681	49681	49681
65	37137	37137	37137
75	19336	19336	19336
85	11718	11718	11718

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CANDELA TABULATION

	<u>0</u>
0.0	2086.930
0.5	2086.930
1.0	2085.854
1.5	2084.778
2.0	2084.778
2.5	2082.627
3.0	2079.400
3.5	2075.097
4.0	2070.794
4.5	2066.491
5.0	2060.036
5.5	2054.658
6.0	2048.203
6.5	2040.673
7.0	2033.143
7.5	2025.613
8.0	2018.083
8.5	2009.477
9.0	1999.795
9.5	1991.189
10.0	1981.508
10.5	1970.750
11.0	1958.917
11.5	1947.084
12.0	1934.175
12.5	1921.266
13.0	1907.282
13.5	1892.221
14.0	1876.085
14.5	1859.949
15.0	1841.662
15.5	1823.374
16.0	1802.935
16.5	1782.496
17.0	1760.981
17.5	1738.391
18.0	1714.725
18.5	1688.907
19.0	1662.014
19.5	1632.969
20.0	1602.848
20.5	1571.652
21.0	1538.304
21.5	1503.880
22.0	1466.230
22.5	1428.579
23.0	1388.776
23.5	1347.898
24.0	1304.869
24.5	1261.840
25.0	1217.734
25.5	1171.478
26.0	1124.145
26.5	1076.813

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CANDELA TABULATION - (Cont.)

27.0	1029.803
27.5	982.578
28.0	934.923
28.5	887.483
29.0	838.967
29.5	790.129
30.0	741.721
30.5	694.066
31.0	647.056
31.5	601.660
32.0	557.985
32.5	516.676
33.0	478.380
33.5	442.881
34.0	409.856
34.5	379.628
35.0	352.196
35.5	327.024
36.0	304.218
36.5	283.779
37.0	265.599
37.5	249.356
38.0	234.618
38.5	221.494
39.0	209.984
39.5	199.872
40.0	190.836
40.5	182.983
41.0	175.991
41.5	169.751
42.0	164.157
42.5	159.209
43.0	154.691
43.5	150.711
44.0	146.946
44.5	143.503
45.0	140.276
45.5	137.156
46.0	134.252
46.5	131.347
47.0	128.658
47.5	125.969
48.0	123.279
48.5	120.698
49.0	118.116
49.5	115.534
50.0	113.060
50.5	110.693
51.0	108.219
51.5	105.853
52.0	103.593
52.5	101.227
53.0	98.968
53.5	96.709
54.0	94.450
54.5	92.191

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CANDELA TABULATION - (Cont.)

55.0	90.039
55.5	87.888
56.0	85.736
56.5	83.585
57.0	81.433
57.5	79.389
58.0	77.238
58.5	75.194
59.0	73.150
59.5	71.214
60.0	69.170
60.5	67.126
61.0	65.082
61.5	63.146
62.0	61.102
62.5	59.166
63.0	57.229
63.5	55.293
64.0	53.357
64.5	51.420
65.0	49.591
65.5	47.763
66.0	45.934
66.5	43.998
67.0	42.276
67.5	40.555
68.0	38.727
68.5	37.005
69.0	35.284
69.5	33.563
70.0	31.949
70.5	30.228
71.0	28.615
71.5	26.893
72.0	25.280
72.5	23.666
73.0	22.053
73.5	20.439
74.0	18.933
74.5	17.319
75.0	15.813
75.5	14.415
76.0	13.016
76.5	11.941
77.0	10.973
77.5	10.112
78.0	9.466
78.5	8.929
79.0	8.498
79.5	8.068
80.0	7.530
80.5	7.100
81.0	6.670
81.5	6.239
82.0	5.701
82.5	5.271

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CANDELA TABULATION - (Cont.)

83.0	4.948
83.5	4.518
84.0	4.088
84.5	3.658
85.0	3.227
85.5	2.904
86.0	2.474
86.5	2.151
87.0	1.721
87.5	1.398
88.0	1.076
88.5	0.753
89.0	0.430
89.5	0.323
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
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130.0	0.000
130.5	0.000
131.0	0.000
131.5	0.000
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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	705.86	N.A.	40.30
0-30	1249.56	N.A.	71.40
0-40	1488.79	N.A.	85.00
0-60	1680.01	N.A.	95.90
0-80	1747.41	N.A.	99.80
0-90	1751.13	N.A.	100.00
10-90	1557.01	N.A.	88.90
20-40	782.93	N.A.	44.70
20-50	893.45	N.A.	51.00
40-70	240.51	N.A.	13.70
60-80	67.40	N.A.	3.80
70-80	18.11	N.A.	1.00
80-90	3.72	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	1751.13	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	194.12
10-20	511.75
20-30	543.70
30-40	239.23
40-50	110.52
50-60	80.70
60-70	49.29
70-80	18.11
80-90	3.72
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	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

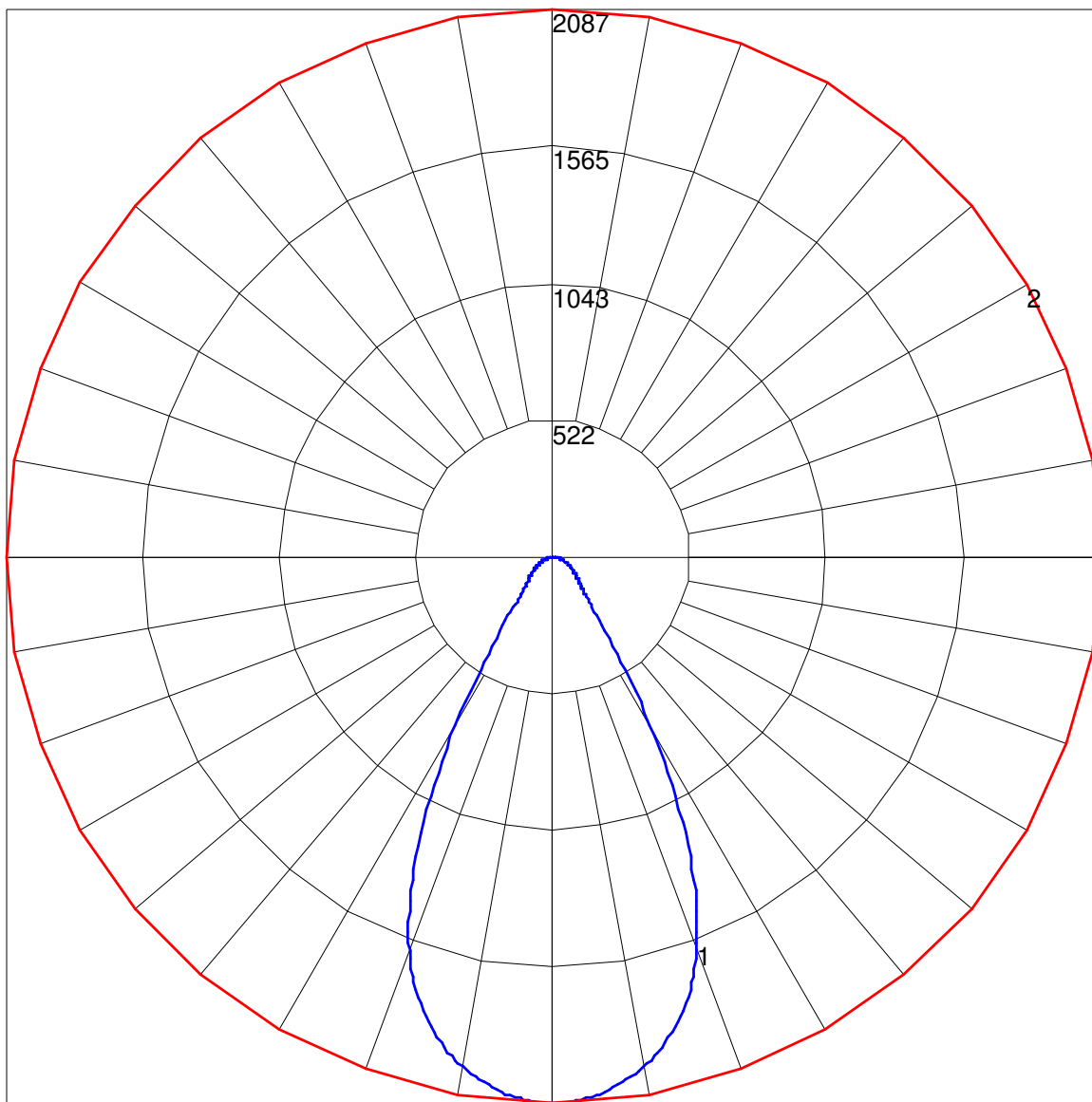
X=2H	Y=2H	20.9	22.0	21.3	22.3	22.6	20.9	22.0	21.3	22.3	22.6
	3H	21.9	22.9	22.3	23.2	23.6	21.9	22.9	22.3	23.2	23.6
	4H	22.1	23.0	22.5	23.4	23.8	22.1	23.0	22.5	23.4	23.8
	6H	22.1	23.0	22.6	23.4	23.7	22.1	23.0	22.6	23.4	23.7
	8H	22.1	22.9	22.6	23.3	23.7	22.1	22.9	22.6	23.3	23.7
	12H	22.1	22.9	22.6	23.3	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 = 2086.93 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.)