

IES INDOOR REPORT

PHOTOMETRIC FILENAME : V2DR-L18-840-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.
[ISSUE DATE] 2025-05-20
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] V2DR-L18-840-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 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	1769
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	74
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	63437	63437	63437
55	50198	50198	50198
65	37523	37523	37523
75	19538	19538	19538
85	11841	11841	11841

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CANDELA TABULATION

	<u>0</u>
0.0	2108.642
0.5	2108.642
1.0	2107.555
1.5	2106.468
2.0	2106.468
2.5	2104.294
3.0	2101.034
3.5	2096.686
4.0	2092.338
4.5	2087.991
5.0	2081.469
5.5	2076.034
6.0	2069.513
6.5	2061.904
7.0	2054.296
7.5	2046.687
8.0	2039.079
8.5	2030.383
9.0	2020.601
9.5	2011.906
10.0	2002.123
10.5	1991.254
11.0	1979.298
11.5	1967.341
12.0	1954.298
12.5	1941.255
13.0	1927.125
13.5	1911.908
14.0	1895.604
14.5	1879.300
15.0	1860.822
15.5	1842.345
16.0	1821.693
16.5	1801.041
17.0	1779.303
17.5	1756.477
18.0	1732.565
18.5	1706.478
19.0	1679.305
19.5	1649.958
20.0	1619.524
20.5	1588.003
21.0	1554.308
21.5	1519.527
22.0	1481.484
22.5	1443.442
23.0	1403.225
23.5	1361.922
24.0	1318.445
24.5	1274.968
25.0	1230.404
25.5	1183.666
26.0	1135.841
26.5	1088.016

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CANDELA TABULATION - (Cont.)

27.0	1040.517
27.5	992.801
28.0	944.650
28.5	896.716
29.0	847.696
29.5	798.349
30.0	749.438
30.5	701.287
31.0	653.788
31.5	607.919
32.0	563.790
32.5	522.052
33.0	483.357
33.5	447.489
34.0	414.120
34.5	383.577
35.0	355.861
35.5	330.426
36.0	307.384
36.5	286.732
37.0	268.363
37.5	251.950
38.0	237.059
38.5	223.799
39.0	212.169
39.5	201.951
40.0	192.821
40.5	184.887
41.0	177.822
41.5	171.517
42.0	165.865
42.5	160.865
43.0	156.300
43.5	152.279
44.0	148.474
44.5	144.996
45.0	141.736
45.5	138.583
46.0	135.649
46.5	132.714
47.0	129.997
47.5	127.279
48.0	124.562
48.5	121.953
49.0	119.345
49.5	116.736
50.0	114.236
50.5	111.845
51.0	109.345
51.5	106.954
52.0	104.671
52.5	102.280
53.0	99.997
53.5	97.715
54.0	95.432
54.5	93.150

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CANDELA TABULATION - (Cont.)

55.0	90.976
55.5	88.802
56.0	86.628
56.5	84.454
57.0	82.281
57.5	80.215
58.0	78.041
58.5	75.976
59.0	73.911
59.5	71.955
60.0	69.890
60.5	67.824
61.0	65.759
61.5	63.803
62.0	61.738
62.5	59.781
63.0	57.825
63.5	55.868
64.0	53.912
64.5	51.955
65.0	50.107
65.5	48.260
66.0	46.412
66.5	44.455
67.0	42.716
67.5	40.977
68.0	39.129
68.5	37.390
69.0	35.651
69.5	33.912
70.0	32.282
70.5	30.543
71.0	28.912
71.5	27.173
72.0	25.543
72.5	23.912
73.0	22.282
73.5	20.652
74.0	19.130
74.5	17.500
75.0	15.978
75.5	14.565
76.0	13.152
76.5	12.065
77.0	11.087
77.5	10.217
78.0	9.565
78.5	9.022
79.0	8.587
79.5	8.152
80.0	7.609
80.5	7.174
81.0	6.739
81.5	6.304
82.0	5.761
82.5	5.326

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CANDELA TABULATION - (Cont.)

83.0	5.000
83.5	4.565
84.0	4.130
84.5	3.696
85.0	3.261
85.5	2.935
86.0	2.500
86.5	2.174
87.0	1.739
87.5	1.413
88.0	1.087
88.5	0.761
89.0	0.435
89.5	0.326
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
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120.5	0.000
121.0	0.000
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122.0	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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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	713.21	N.A.	40.30
0-30	1262.57	N.A.	71.40
0-40	1504.28	N.A.	85.00
0-60	1697.49	N.A.	95.90
0-80	1765.59	N.A.	99.80
0-90	1769.35	N.A.	100.00
10-90	1573.21	N.A.	88.90
20-40	791.07	N.A.	44.70
20-50	902.74	N.A.	51.00
40-70	243.01	N.A.	13.70
60-80	68.10	N.A.	3.80
70-80	18.30	N.A.	1.00
80-90	3.76	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	1769.35	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	196.14
10-20	517.07
20-30	549.36
30-40	241.71
40-50	111.67
50-60	81.54
60-70	49.80
70-80	18.30
80-90	3.76
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

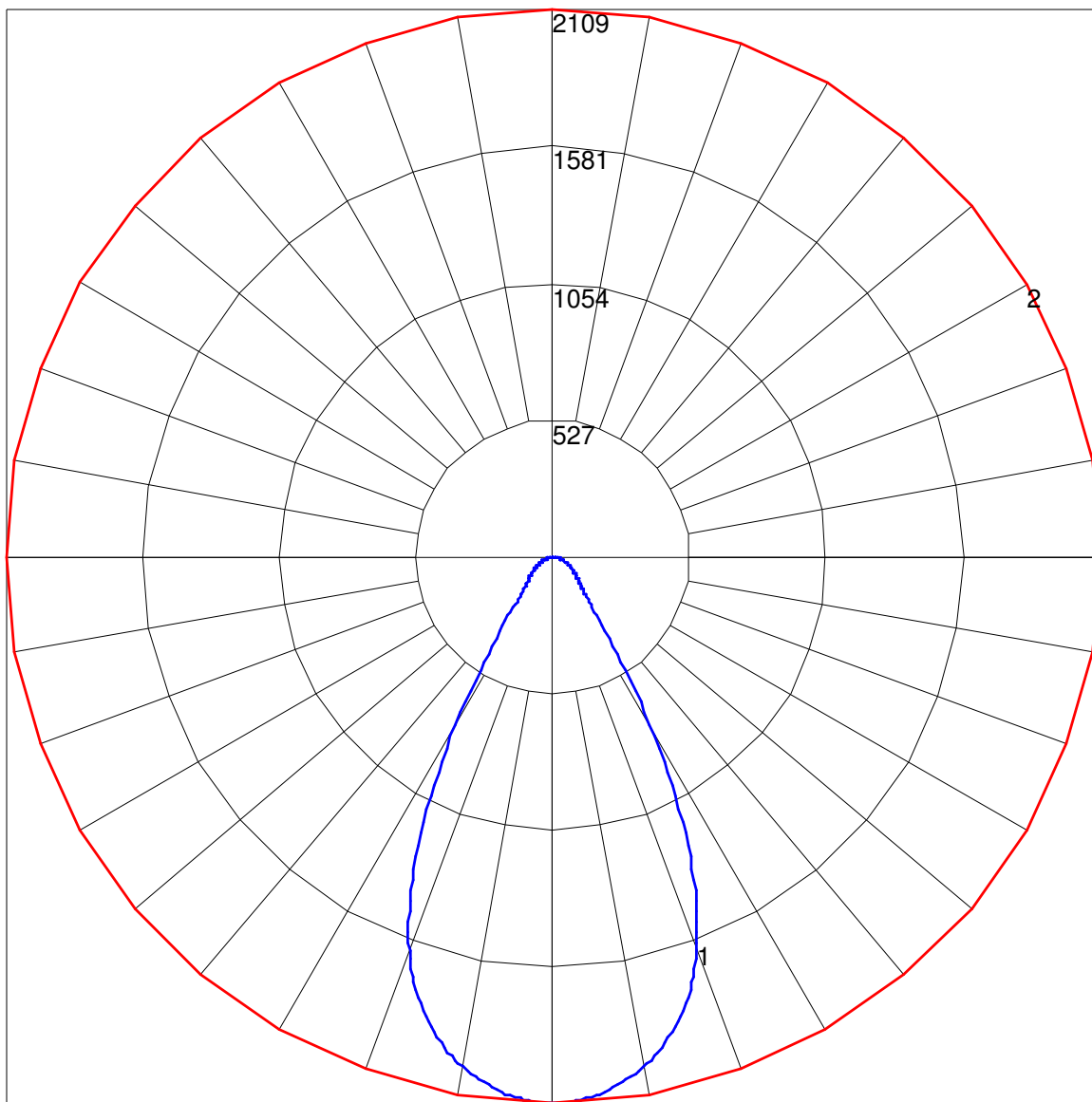
X=2H	Y=2H	20.9	22.0	21.3	22.3	22.6	20.9	22.0	21.3	22.3	22.6
	3H	21.9	22.9	22.3	23.2	23.6	21.9	22.9	22.3	23.2	23.6
	4H	22.1	23.0	22.5	23.4	23.8	22.1	23.0	22.5	23.4	23.8
	6H	22.1	23.0	22.6	23.4	23.8	22.1	23.0	22.6	23.4	23.8
	8H	22.1	22.9	22.6	23.3	23.7	22.1	22.9	22.6	23.3	23.7
	12H	22.1	22.9	22.6	23.3	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	23.1	23.1	23.5	24.0	22.6	23.1	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 = 2108.642 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.)