



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L21-9DW-DIM-UNV-LW-OF-WH_3000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.07

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 16 SEP 2021

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.

[LUMCAT] V6DR-L21-9DW-DIM-UNV-LW-OF-WH 3000k

[LUMINAIRE] Black formed aluminum housing, white reflector, clear glas

[MORE] s patterned lens enclosure

[LAMP] One white LED

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Healthcare, Office, Downlight

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1952
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	52
Total Luminaire Watts	37.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	0.98
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.46 ft (Diameter)
Luminous Width (90-270)	0.46 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	32456	32456	32456
55	27021	27021	27021
65	20528	20528	20528
75	14887	14887	14887
85	9701	9701	9701

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CANDELA TABULATION

	<u>0</u>
0.0	1241.943
0.5	1241.693
1.0	1240.692
1.5	1239.192
2.0	1237.317
2.5	1234.816
3.0	1232.315
3.5	1229.440
4.0	1226.814
4.5	1224.188
5.0	1222.313
5.5	1220.562
6.0	1218.937
6.5	1217.312
7.0	1215.561
7.5	1213.936
8.0	1212.310
8.5	1210.810
9.0	1209.309
9.5	1208.059
10.0	1206.809
10.5	1205.809
11.0	1204.933
11.5	1204.433
12.0	1203.558
12.5	1202.683
13.0	1201.432
13.5	1199.807
14.0	1197.807
14.5	1195.556
15.0	1193.180
15.5	1190.180
16.0	1186.929
16.5	1183.678
17.0	1180.427
17.5	1177.051
18.0	1173.425
18.5	1169.299
19.0	1164.673
19.5	1159.547
20.0	1153.670
20.5	1147.294
21.0	1139.417
21.5	1130.039
22.0	1119.411
22.5	1107.408
23.0	1094.280
23.5	1080.026
24.0	1064.272
24.5	1047.268
25.0	1028.888
25.5	1009.758
26.0	989.378
26.5	968.123

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CANDELA TABULATION - (Cont.)

27.0	945.492
27.5	922.236
28.0	897.730
28.5	871.848
29.0	844.966
29.5	816.709
30.0	787.702
30.5	757.819
31.0	727.936
31.5	697.804
32.0	668.546
32.5	640.539
33.0	613.657
33.5	588.526
34.0	565.395
34.5	544.389
35.0	525.635
35.5	508.380
36.0	493.251
36.5	479.373
37.0	466.995
37.5	455.867
38.0	445.739
38.5	436.487
39.0	427.734
39.5	419.857
40.0	412.230
40.5	405.104
41.0	398.477
41.5	391.975
42.0	385.724
42.5	379.972
43.0	374.096
43.5	368.344
44.0	362.718
44.5	357.216
45.0	351.590
45.5	346.214
46.0	340.712
46.5	335.211
47.0	329.584
47.5	324.083
48.0	318.456
48.5	312.830
49.0	307.204
49.5	301.327
50.0	295.701
50.5	289.949
51.0	284.198
51.5	278.321
52.0	272.445
52.5	266.568
53.0	260.692
53.5	254.815
54.0	249.189
54.5	243.437

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CANDELA TABULATION - (Cont.)

55.0	237.436
55.5	231.559
56.0	225.683
56.5	220.181
57.0	214.680
57.5	208.928
58.0	203.177
58.5	197.551
59.0	192.049
59.5	186.548
60.0	181.296
60.5	176.045
61.0	170.919
61.5	165.792
62.0	160.916
62.5	156.040
63.0	151.289
63.5	146.537
64.0	141.911
64.5	137.410
65.0	132.909
65.5	128.533
66.0	124.169
66.5	119.881
67.0	115.642
67.5	111.491
68.0	107.415
68.5	103.326
69.0	99.363
69.5	95.437
70.0	91.623
70.5	87.935
71.0	84.322
71.5	80.821
72.0	77.445
72.5	74.169
73.0	70.981
73.5	67.855
74.0	64.854
74.5	61.916
75.0	59.028
75.5	56.239
76.0	53.501
76.5	50.813
77.0	48.200
77.5	45.637
78.0	43.149
78.5	40.710
79.0	38.322
79.5	36.022
80.0	33.734
80.5	31.521
81.0	29.333
81.5	27.157
82.0	25.031
82.5	22.918

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CANDELA TABULATION - (Cont.)

83.0	20.855
83.5	18.830
84.0	16.829
84.5	14.866
85.0	12.953
85.5	11.103
86.0	9.315
86.5	7.589
87.0	5.914
87.5	4.514
88.0	3.451
88.5	2.526
89.0	1.750
89.5	1.100
90.0	0.700
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
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134.0	0.000
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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	452.40	N.A.	23.20
0-30	914.48	N.A.	46.80
0-40	1257.12	N.A.	64.40
0-60	1740.92	N.A.	89.20
0-80	1936.89	N.A.	99.20
0-90	1952.37	N.A.	100.00
10-90	1836.15	N.A.	94.00
20-40	804.72	N.A.	41.20
20-50	1076.23	N.A.	55.10
40-70	616.28	N.A.	31.60
60-80	195.96	N.A.	10.00
70-80	63.48	N.A.	3.30
80-90	15.49	N.A.	0.80
90-110	0.02	N.A.	0.00
90-120	0.02	N.A.	0.00
90-130	0.02	N.A.	0.00
90-150	0.02	N.A.	0.00
90-180	0.02	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1952.39	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	116.22
10-20	336.18
20-30	462.08
30-40	342.64
40-50	271.51
50-60	212.29
60-70	132.48
70-80	63.48
80-90	15.49
90-100	0.02
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	195	195	195	195	190	190	190	190	182	182	182	174	174	174	167	167	167	164
1	182	175	170	165	178	172	167	162	165	161	157	159	155	152	153	150	148	145
2	169	158	149	141	165	155	146	139	149	142	136	144	138	133	139	134	130	127
3	157	142	131	122	153	140	130	121	135	126	119	131	124	117	127	121	115	112
4	146	129	117	108	142	127	116	107	123	114	106	120	111	104	116	109	103	100
5	136	118	105	96	133	116	105	96	113	103	95	110	101	94	107	99	93	90
6	127	108	96	87	124	107	95	86	104	94	86	102	92	85	99	91	84	81
7	119	100	87	79	117	99	87	79	96	86	78	94	85	78	92	84	77	74
8	112	93	80	72	110	92	80	72	90	79	71	88	78	71	86	77	71	68
9	106	86	74	66	104	85	74	66	84	73	66	82	72	66	80	72	65	63
10	100	81	69	61	98	80	69	61	78	68	61	77	67	61	75	67	61	58

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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	19.6	21.0	20.0	21.3	21.6	19.6	21.0	20.0	21.3	21.6
	3H	20.8	22.1	21.2	22.4	22.7	20.8	22.1	21.2	22.4	22.7
	4H	21.2	22.4	21.6	22.7	23.1	21.2	22.4	21.6	22.7	23.1
	6H	21.5	22.5	21.9	22.9	23.3	21.5	22.5	21.9	22.9	23.3
	8H	21.6	22.6	22.0	23.0	23.4	21.6	22.6	22.0	23.0	23.4
	12H	21.6	22.6	22.0	22.9	23.4	21.6	22.6	22.0	22.9	23.4

UGR Viewed Endwise

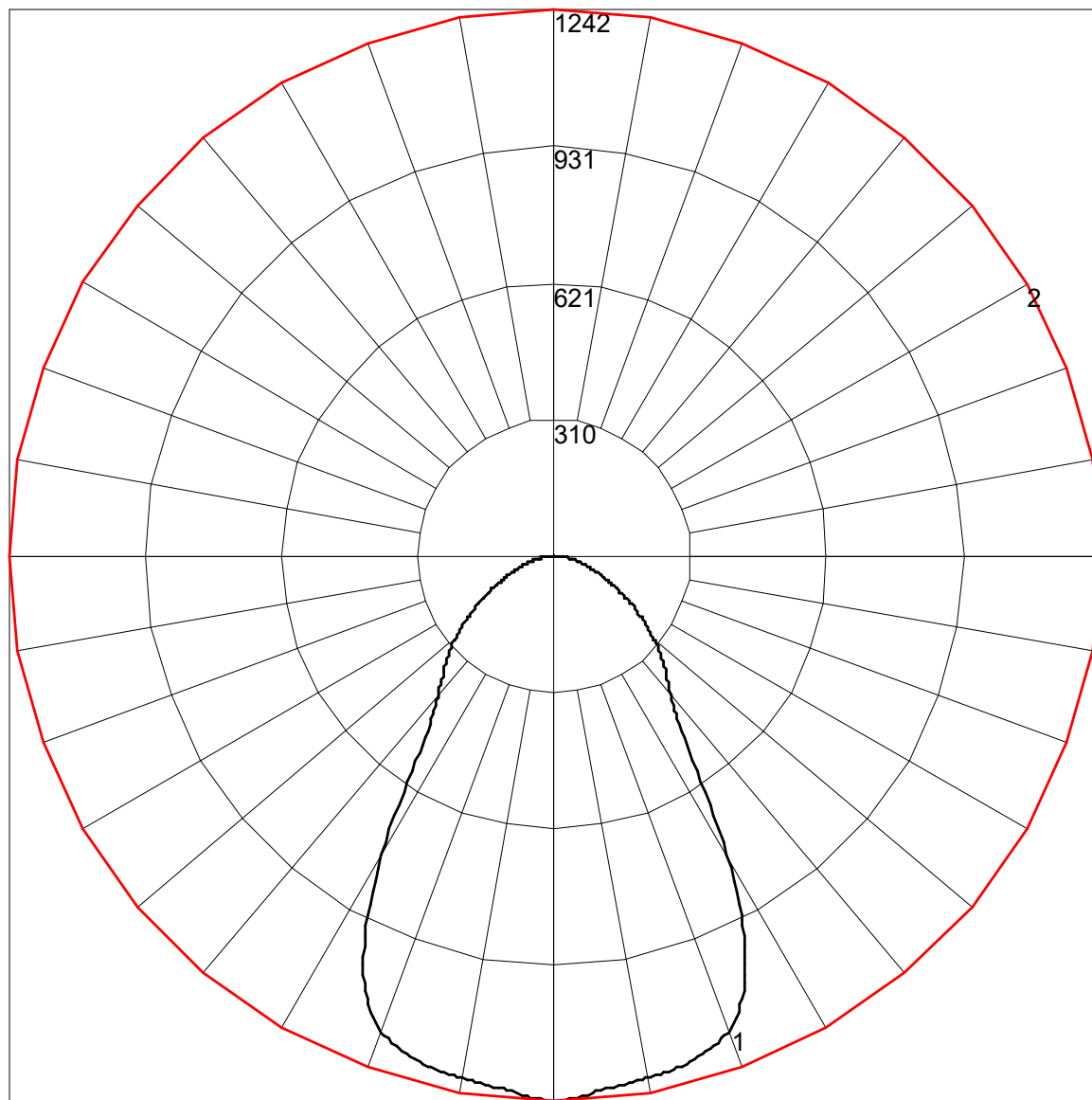
4H	2H	20.0	21.2	20.4	21.5	21.9	20.0	21.2	20.4	21.5	21.9
	3H	21.4	22.4	21.8	22.8	23.2	21.4	22.4	21.8	22.8	23.2
	4H	21.9	22.8	22.4	23.2	23.6	21.9	22.8	22.4	23.2	23.6
	6H	22.3	23.0	22.8	23.5	23.9	22.3	23.0	22.8	23.5	23.9
	8H	22.4	23.1	22.8	23.5	24.0	22.4	23.1	22.8	23.5	24.0
	12H	22.5	23.1	22.9	23.6	24.0	22.5	23.1	22.9	23.6	24.0

8H	4H	22.1	22.8	22.5	23.2	23.7	22.1	22.8	22.5	23.2	23.7
	6H	22.5	23.1	23.0	23.6	24.1	22.5	23.1	23.0	23.6	24.1
	8H	22.7	23.2	23.2	23.7	24.2	22.7	23.2	23.2	23.7	24.2
	12H	22.8	23.3	23.3	23.8	24.3	22.8	23.3	23.3	23.8	24.3

12H	4H	22.1	22.7	22.6	23.2	23.6	22.1	22.7	22.6	23.2	23.6
	6H	22.6	23.1	23.1	23.5	24.1	22.6	23.1	23.1	23.5	24.1
	8H	22.8	23.2	23.3	23.7	24.3	22.8	23.2	23.3	23.7	24.3

Maximum UGR = 24.3

POLAR GRAPH



Maximum Candela = 1241.943 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)