



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.12

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 16 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V6DR-L21-9DW-DIM-UNV-RW-OF-WH

[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	1890
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	50
Total Luminaire Watts	37.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.04
Spacing Criterion (90-270)	1.04
Spacing Criterion (Diagonal)	0.94
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.48 ft (Diameter)
Luminous Width (90-270)	0.48 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	25521	25521	25521
55	21283	21283	21283
65	15015	15015	15015
75	9198	9198	9198
85	7254	7254	7254

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CANDELA TABULATION

	<u>0</u>
0.0	1398.207
0.5	1396.899
1.0	1395.591
1.5	1394.283
2.0	1391.667
2.5	1387.743
3.0	1383.820
3.5	1378.588
4.0	1373.356
4.5	1369.432
5.0	1364.200
5.5	1358.968
6.0	1353.737
6.5	1348.505
7.0	1343.273
7.5	1338.041
8.0	1331.501
8.5	1326.269
9.0	1321.038
9.5	1314.498
10.0	1309.266
10.5	1302.857
11.0	1296.579
11.5	1290.301
12.0	1284.022
12.5	1277.875
13.0	1271.597
13.5	1265.057
14.0	1258.648
14.5	1252.370
15.0	1246.484
15.5	1240.467
16.0	1234.582
16.5	1228.827
17.0	1223.464
17.5	1218.101
18.0	1212.869
18.5	1207.899
19.0	1202.929
19.5	1197.828
20.0	1192.596
20.5	1186.972
21.0	1180.563
21.5	1173.238
22.0	1164.998
22.5	1155.842
23.0	1145.902
23.5	1134.654
24.0	1122.359
24.5	1108.887
25.0	1093.976
25.5	1077.888
26.0	1059.969
26.5	1040.350

IES INDOOR REPORT**PHOTOMETRIC FILENAME : V6DR-L21-9DW-DIM-UNV-RW-OF-WH_3000K.IES****CANDELA TABULATION - (Cont.)**

27.0	1019.422
27.5	996.664
28.0	972.467
28.5	946.177
29.0	918.448
29.5	888.365
30.0	856.451
30.5	822.706
31.0	787.652
31.5	751.814
32.0	715.322
32.5	679.092
33.0	643.254
33.5	608.593
34.0	575.371
34.5	544.111
35.0	515.597
35.5	489.438
36.0	466.418
36.5	446.014
37.0	428.095
37.5	412.792
38.0	399.320
38.5	387.417
39.0	377.084
39.5	367.929
40.0	359.558
40.5	351.971
41.0	344.909
41.5	338.500
42.0	332.614
42.5	326.990
43.0	321.627
43.5	316.526
44.0	311.686
44.5	307.109
45.0	302.400
45.5	297.953
46.0	293.375
46.5	288.928
47.0	284.350
47.5	279.772
48.0	275.064
48.5	270.355
49.0	265.908
49.5	261.330
50.0	256.491
50.5	251.520
51.0	246.419
51.5	241.318
52.0	236.217
52.5	230.985
53.0	225.884
53.5	220.914
54.0	215.421
54.5	209.927

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CANDELA TABULATION - (Cont.)

55.0	204.565
55.5	199.071
56.0	193.709
56.5	188.346
57.0	182.983
57.5	177.621
58.0	172.520
58.5	167.288
59.0	162.187
59.5	157.217
60.0	152.246
60.5	147.276
61.0	142.437
61.5	137.728
62.0	133.019
62.5	128.441
63.0	123.864
63.5	119.286
64.0	114.970
64.5	110.522
65.0	106.337
65.5	102.021
66.0	97.966
66.5	93.911
67.0	89.988
67.5	86.064
68.0	82.271
68.5	78.477
69.0	74.946
69.5	71.284
70.0	67.883
70.5	64.482
71.0	61.212
71.5	58.073
72.0	54.934
72.5	52.057
73.0	49.310
73.5	46.825
74.0	44.340
74.5	42.116
75.0	39.893
75.5	37.931
76.0	35.969
76.5	34.268
77.0	32.699
77.5	31.129
78.0	29.560
78.5	27.990
79.0	26.552
79.5	25.113
80.0	23.674
80.5	22.235
81.0	20.797
81.5	19.489
82.0	18.050
82.5	16.742

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CANDELA TABULATION - (Cont.)

83.0	15.434
83.5	14.257
84.0	12.949
84.5	11.772
85.0	10.594
85.5	9.417
86.0	8.240
86.5	7.063
87.0	6.017
87.5	4.839
88.0	3.924
88.5	3.139
89.0	2.485
89.5	1.831
90.0	1.308
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
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127.0	0.000
127.5	0.000
128.0	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
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154.5	0.000
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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	480.45	N.A.	25.40
0-30	971.29	N.A.	51.40
0-40	1310.88	N.A.	69.40
0-60	1727.62	N.A.	91.40
0-80	1878.07	N.A.	99.40
0-90	1890.13	N.A.	100.00
10-90	1761.69	N.A.	93.20
20-40	830.43	N.A.	43.90
20-50	1064.73	N.A.	56.30
40-70	522.92	N.A.	27.70
60-80	150.45	N.A.	8.00
70-80	44.26	N.A.	2.30
80-90	12.07	N.A.	0.60
90-110	0.04	N.A.	0.00
90-120	0.04	N.A.	0.00
90-130	0.04	N.A.	0.00
90-150	0.04	N.A.	0.00
90-180	0.04	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1890.17	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	128.44
10-20	352.01
20-30	490.84
30-40	339.59
40-50	234.30
50-60	182.44
60-70	106.18
70-80	44.26
80-90	12.07
90-100	0.04
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	183	177	171	167	178	173	168	164	166	162	159	160	157	154	154	152	149	146
2	170	160	151	144	166	157	149	142	151	145	139	146	141	136	141	137	133	130
3	159	145	135	126	155	143	133	125	138	130	123	134	127	121	130	124	119	116
4	148	132	121	112	145	130	120	111	127	117	110	123	115	109	120	113	107	104
5	139	122	110	101	136	120	109	100	117	107	99	114	105	98	111	103	97	94
6	130	112	100	91	127	111	99	91	108	98	90	105	96	90	103	95	89	86
7	122	104	92	83	120	103	91	83	100	90	83	98	89	82	96	88	82	79
8	115	96	85	77	113	95	84	76	93	83	76	92	82	76	90	82	75	73
9	109	90	79	71	107	89	78	71	87	77	70	86	77	70	84	76	70	67
10	103	84	73	66	101	84	73	66	82	72	65	81	72	65	79	71	65	62

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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	18.4	19.7	18.8	20.0	20.3	18.4	19.7	18.8	20.0	20.3
	3H	19.4	20.5	19.8	20.9	21.2	19.4	20.5	19.8	20.9	21.2
	4H	19.6	20.7	20.0	21.1	21.4	19.6	20.7	20.0	21.1	21.4
	6H	19.8	20.8	20.2	21.2	21.6	19.8	20.8	20.2	21.2	21.6
	8H	19.8	20.8	20.3	21.2	21.6	19.8	20.8	20.3	21.2	21.6
	12H	19.9	20.8	20.3	21.2	21.6	19.9	20.8	20.3	21.2	21.6

UGR Viewed Endwise

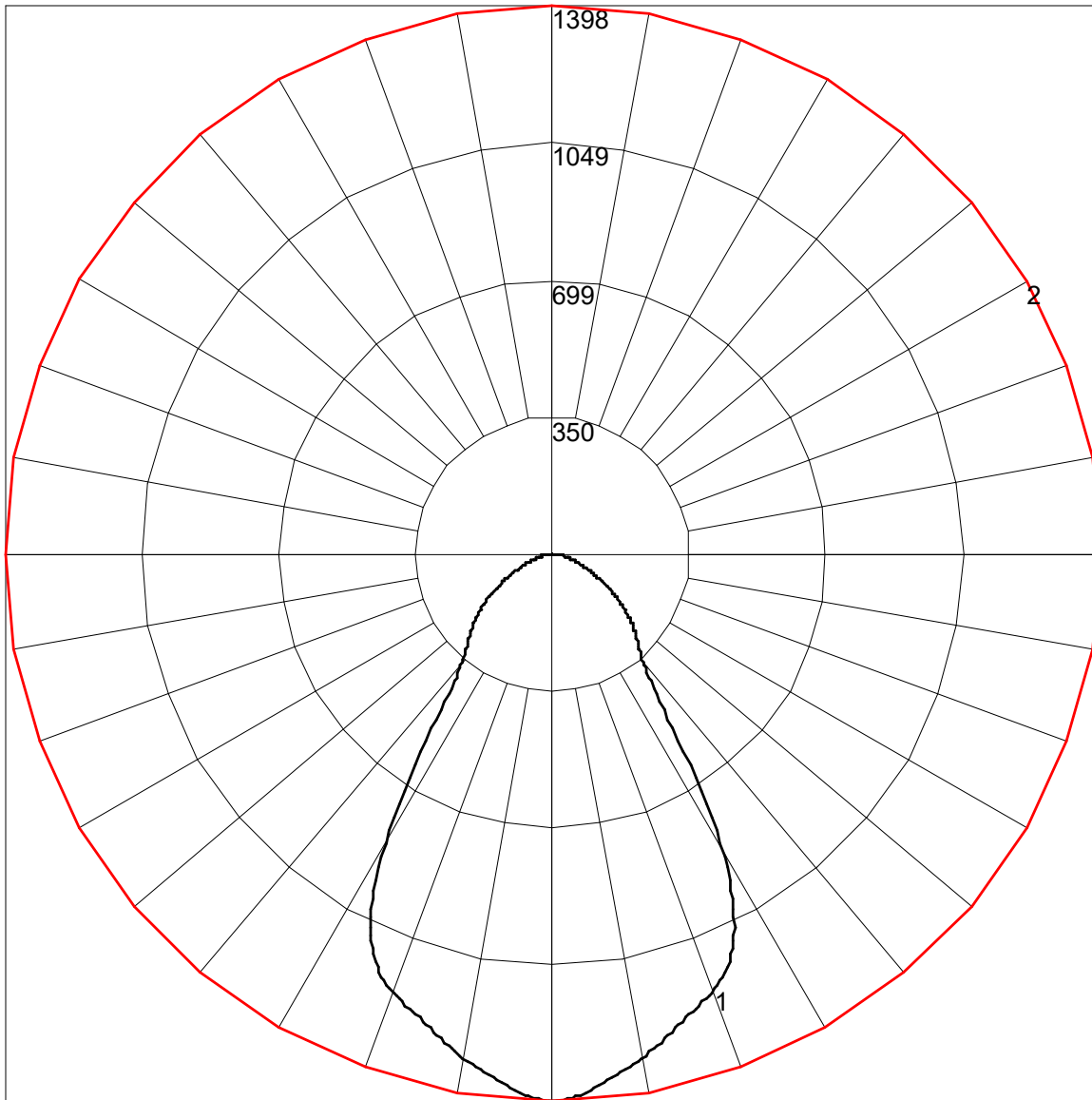
4H	2H	18.7	19.8	19.1	20.2	20.6	18.7	19.8	19.1	20.2	20.6
	3H	19.9	20.8	20.3	21.2	21.6	19.9	20.8	20.3	21.2	21.6
	4H	20.2	21.0	20.6	21.4	21.9	20.2	21.0	20.6	21.4	21.9
	6H	20.5	21.2	20.9	21.6	22.1	20.5	21.2	20.9	21.6	22.1
	8H	20.5	21.2	21.0	21.6	22.1	20.5	21.2	21.0	21.6	22.1
	12H	20.6	21.2	21.1	21.7	22.1	20.6	21.2	21.1	21.7	22.1

8H	4H	20.3	20.9	20.7	21.4	21.8	20.3	20.9	20.7	21.4	21.8
	6H	20.6	21.1	21.1	21.6	22.1	20.6	21.1	21.1	21.6	22.1
	8H	20.8	21.2	21.3	21.7	22.2	20.8	21.2	21.3	21.7	22.2
	12H	20.9	21.3	21.4	21.8	22.3	20.9	21.3	21.4	21.8	22.3

12H	4H	20.3	20.8	20.8	21.3	21.8	20.3	20.8	20.8	21.3	21.8
	6H	20.6	21.1	21.2	21.6	22.1	20.6	21.1	21.2	21.6	22.1
	8H	20.8	21.2	21.3	21.7	22.3	20.8	21.2	21.3	21.7	22.3

Maximum UGR = 22.3

POLAR GRAPH



Maximum Candela = 1398.207 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.)