



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.09

[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-LM-OF-WH 3000k

[LUMINAIRE] Black formed aluminum housing, white reflector, frosted pl

[MORE] astic optic, clear glass 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	2101
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	56
Total Luminaire Watts	37.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.60
Spacing Criterion (90-270)	0.60
Spacing Criterion (Diagonal)	0.56
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	9386	9386	9386
55	6872	6872	6872
65	5600	5600	5600
75	4558	4558	4558
85	2998	2998	2998

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CANDELA TABULATION

	<u>0</u>
0.0	4961.427
0.5	4959.140
1.0	4952.277
1.5	4941.984
2.0	4928.259
2.5	4908.816
3.0	4887.086
3.5	4861.924
4.0	4832.187
4.5	4801.307
5.0	4766.996
5.5	4728.110
6.0	4685.792
6.5	4638.900
7.0	4588.577
7.5	4533.678
8.0	4473.062
8.5	4407.870
9.0	4339.247
9.5	4266.049
10.0	4187.133
10.5	4103.642
11.0	4014.433
11.5	3918.361
12.0	3818.858
12.5	3713.636
13.0	3603.840
13.5	3488.325
14.0	3369.378
14.5	3245.857
15.0	3120.049
15.5	2991.953
16.0	2863.857
16.5	2734.618
17.0	2608.809
17.5	2483.001
18.0	2356.049
18.5	2231.384
19.0	2107.863
19.5	1988.917
20.0	1873.402
20.5	1762.462
21.0	1658.384
21.5	1558.881
22.0	1459.378
22.5	1365.593
23.0	1276.384
23.5	1191.749
24.0	1112.947
24.5	1038.377
25.0	968.725
25.5	903.076
26.0	842.230
26.5	785.273

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CANDELA TABULATION - (Cont.)

27.0	732.319
27.5	683.254
28.0	637.506
28.5	595.188
29.0	555.959
29.5	519.360
30.0	485.506
30.5	453.940
31.0	424.661
31.5	397.440
32.0	372.050
32.5	348.489
33.0	326.530
33.5	306.058
34.0	287.186
34.5	269.688
35.0	253.332
35.5	238.350
36.0	224.396
36.5	211.701
37.0	199.921
37.5	189.170
38.0	179.449
38.5	170.413
39.0	162.179
39.5	154.630
40.0	147.768
40.5	141.363
41.0	135.530
41.5	130.155
42.0	125.122
42.5	120.547
43.0	116.201
43.5	112.198
44.0	108.538
44.5	104.993
45.0	101.676
45.5	98.588
46.0	95.729
46.5	92.984
47.0	90.353
47.5	87.837
48.0	85.550
48.5	83.262
49.0	81.089
49.5	79.031
50.0	77.086
50.5	75.142
51.0	73.312
51.5	71.482
52.0	69.766
52.5	68.165
53.0	66.450
53.5	64.849
54.0	63.362
54.5	61.875

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CANDELA TABULATION - (Cont.)

55.0	60.388
55.5	58.901
56.0	57.529
56.5	56.156
57.0	54.784
57.5	53.411
58.0	52.153
58.5	50.895
59.0	49.637
59.5	48.493
60.0	47.350
60.5	46.092
61.0	44.948
61.5	43.804
62.0	42.660
62.5	41.631
63.0	40.487
63.5	39.458
64.0	38.429
64.5	37.399
65.0	36.256
65.5	35.226
66.0	34.197
66.5	33.282
67.0	32.253
67.5	31.223
68.0	30.308
68.5	29.393
69.0	28.364
69.5	27.449
70.0	26.534
70.5	25.619
71.0	24.819
71.5	23.904
72.0	22.989
72.5	22.188
73.0	21.273
73.5	20.472
74.0	19.672
74.5	18.871
75.0	18.071
75.5	17.270
76.0	16.469
76.5	15.669
77.0	14.868
77.5	14.182
78.0	13.381
78.5	12.695
79.0	12.009
79.5	11.208
80.0	10.522
80.5	9.836
81.0	9.150
81.5	8.463
82.0	7.777
82.5	7.091

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CANDELA TABULATION - (Cont.)

83.0	6.519
83.5	5.833
84.0	5.261
84.5	4.575
85.0	4.003
85.5	3.431
86.0	2.859
86.5	2.402
87.0	1.944
87.5	1.601
88.0	1.258
88.5	1.029
89.0	0.801
89.5	0.572
90.0	0.343
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
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124.0	0.000
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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
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131.0	0.000
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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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Zone	Lumens	%Lamp	%Fixt
0-20	1276.01	N.A.	60.70
0-30	1738.14	N.A.	82.70
0-40	1906.19	N.A.	90.70
0-60	2041.27	N.A.	97.10
0-80	2096.55	N.A.	99.80
0-90	2101.43	N.A.	100.00
10-90	1664.52	N.A.	79.20
20-40	630.18	N.A.	30.00
20-50	710.85	N.A.	33.80
40-70	171.17	N.A.	8.10
60-80	55.28	N.A.	2.60
70-80	19.20	N.A.	0.90
80-90	4.89	N.A.	0.20
90-110	0.01	N.A.	0.00
90-120	0.01	N.A.	0.00
90-130	0.01	N.A.	0.00
90-150	0.01	N.A.	0.00
90-180	0.01	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2101.44	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	436.91
10-20	839.10
20-30	462.13
30-40	168.05
40-50	80.67
50-60	54.41
60-70	36.08
70-80	19.20
80-90	4.89
90-100	0.01
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	186	182	178	174	182	178	175	172	172	169	166	166	163	161	160	158	157	154
2	178	170	164	159	174	168	162	157	162	158	154	158	154	151	153	150	147	145
3	170	160	153	147	167	158	151	146	154	148	144	150	145	141	147	143	139	137
4	163	152	144	137	160	150	142	137	147	140	135	143	138	133	140	136	132	130
5	156	144	136	129	154	143	135	129	140	133	128	137	131	126	135	130	125	123
6	150	137	129	122	148	136	128	122	134	126	121	131	125	120	129	124	120	117
7	144	131	122	116	142	130	122	116	128	121	115	126	120	115	124	119	114	112
8	139	125	117	111	137	124	116	111	123	115	110	121	115	110	120	114	109	107
9	134	120	112	106	132	119	111	106	118	111	106	117	110	105	115	109	105	103
10	129	115	107	102	128	115	107	102	114	106	101	112	106	101	111	105	101	99

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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	10.4	11.4	10.7	11.7	12.0
	3H	11.8	12.7	12.2	13.0	13.4
	4H	12.3	13.1	12.7	13.5	13.9
	6H	12.6	13.4	13.1	13.8	14.2
	8H	12.7	13.4	13.2	13.8	14.2
	12H	12.8	13.4	13.2	13.8	14.3

UGR Viewed Endwise

10.4	11.4	10.7	11.7	12.0
11.8	12.7	12.2	13.0	13.4
12.3	13.1	12.7	13.5	13.9
12.6	13.4	13.1	13.8	14.2
12.7	13.4	13.2	13.8	14.2
12.8	13.4	13.2	13.8	14.3

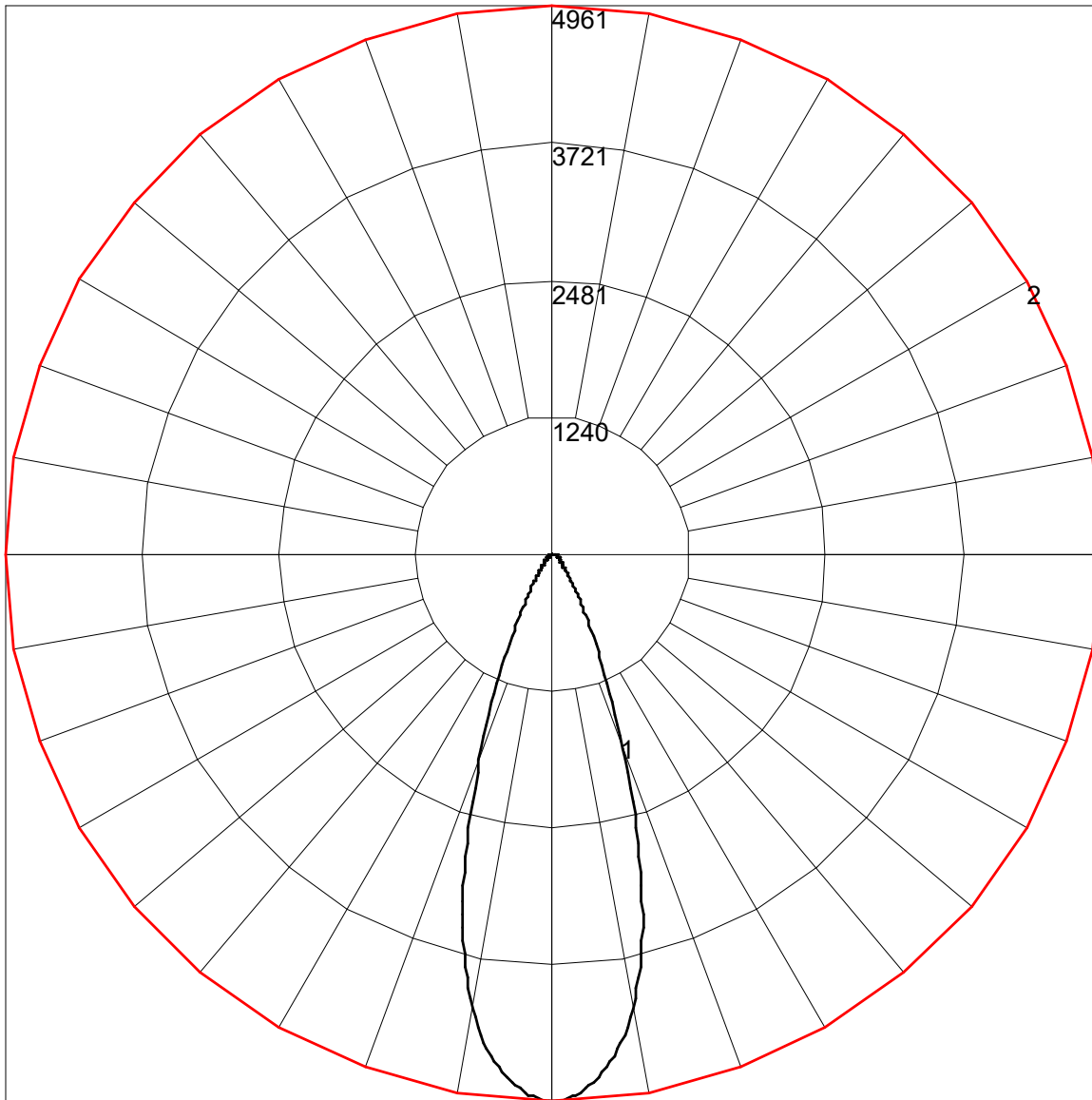
4H	2H	10.8	11.6	11.2	12.0	12.4	10.8	11.6	11.2	12.0	12.4
	3H	12.4	13.1	12.8	13.5	13.9	12.4	13.1	12.8	13.5	13.9
	4H	13.0	13.6	13.4	14.0	14.5	13.0	13.6	13.4	14.0	14.5
	6H	13.5	14.0	13.9	14.4	14.9	13.5	14.0	13.9	14.4	14.9
	8H	13.6	14.1	14.1	14.5	15.0	13.6	14.1	14.1	14.5	15.0
	12H	13.7	14.1	14.2	14.6	15.0	13.7	14.1	14.2	14.6	15.0

8H	4H	13.2	13.7	13.7	14.1	14.6	13.2	13.7	13.7	14.1	14.6
	6H	13.7	14.1	14.3	14.6	15.1	13.7	14.1	14.3	14.6	15.1
	8H	13.9	14.3	14.5	14.8	15.3	13.9	14.3	14.5	14.8	15.3
	12H	14.1	14.4	14.6	14.9	15.4	14.1	14.4	14.6	14.9	15.4

12H	4H	13.2	13.6	13.7	14.1	14.6	13.2	13.6	13.7	14.1	14.6
	6H	13.8	14.1	14.3	14.6	15.1	13.8	14.1	14.3	14.6	15.1
	8H	14.0	14.3	14.5	14.8	15.4	14.0	14.3	14.5	14.8	15.4

Maximum UGR = 15.4

POLAR GRAPH



Maximum Candela = 4961.427 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.)