



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.10

[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-LN-OF-WH 3000k

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

[MORE] tic 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	2117
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)	0.44
Spacing Criterion (90-270)	0.44
Spacing Criterion (Diagonal)	0.44
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	7965	7965	7965
55	5829	5829	5829
65	4740	4740	4740
75	3870	3870	3870
85	2505	2505	2505

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CANDELA TABULATION

	<u>0</u>
0.0	7921.737
0.5	7914.815
1.0	7891.743
1.5	7851.367
2.0	7795.995
2.5	7725.626
3.0	7641.413
3.5	7542.204
4.0	7429.152
4.5	7304.563
5.0	7169.593
5.5	7021.933
6.0	6862.736
6.5	6693.158
7.0	6513.197
7.5	6324.008
8.0	6124.436
8.5	5919.096
9.0	5709.142
9.5	5492.266
10.0	5273.083
10.5	5050.439
11.0	4824.334
11.5	4597.076
12.0	4369.818
12.5	4144.867
13.0	3922.223
13.5	3703.040
14.0	3488.471
14.5	3279.671
15.0	3078.945
15.5	2886.295
16.0	2702.873
16.5	2528.680
17.0	2362.563
17.5	2204.520
18.0	2055.706
18.5	1917.275
19.0	1786.919
19.5	1665.791
20.0	1550.432
20.5	1440.840
21.0	1339.324
21.5	1244.729
22.0	1154.749
22.5	1071.344
23.0	993.130
23.5	920.684
24.0	852.853
24.5	789.982
25.0	731.841
25.5	677.968
26.0	628.132
26.5	582.219

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

27.0	540.113
27.5	501.352
28.0	465.822
28.5	433.406
29.0	403.528
29.5	376.072
30.0	350.924
30.5	327.967
31.0	306.856
31.5	287.591
32.0	269.826
32.5	253.560
33.0	238.563
33.5	224.836
34.0	212.146
34.5	200.610
35.0	189.882
35.5	180.076
36.0	171.078
36.5	162.657
37.0	155.043
37.5	148.006
38.0	141.546
38.5	135.432
39.0	129.895
39.5	124.704
40.0	119.974
40.5	115.475
41.0	111.437
41.5	107.515
42.0	103.939
42.5	100.593
43.0	97.363
43.5	94.364
44.0	91.480
44.5	88.827
45.0	86.289
45.5	83.866
46.0	81.559
46.5	79.252
47.0	77.176
47.5	75.099
48.0	73.023
48.5	71.061
49.0	69.216
49.5	67.485
50.0	65.755
50.5	64.025
51.0	62.409
51.5	60.910
52.0	59.410
52.5	57.910
53.0	56.411
53.5	55.142
54.0	53.758
54.5	52.489

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

55.0	51.220
55.5	49.951
56.0	48.682
56.5	47.528
57.0	46.375
57.5	45.336
58.0	44.183
58.5	43.144
59.0	42.106
59.5	40.953
60.0	40.030
60.5	38.992
61.0	37.953
61.5	37.030
62.0	36.108
62.5	35.185
63.0	34.262
63.5	33.339
64.0	32.416
64.5	31.493
65.0	30.686
65.5	29.763
66.0	28.955
66.5	28.032
67.0	27.225
67.5	26.417
68.0	25.610
68.5	24.802
69.0	23.995
69.5	23.187
70.0	22.380
70.5	21.688
71.0	20.880
71.5	20.188
72.0	19.496
72.5	18.688
73.0	17.996
73.5	17.304
74.0	16.612
74.5	15.920
75.0	15.343
75.5	14.651
76.0	13.958
76.5	13.266
77.0	12.690
77.5	11.997
78.0	11.421
78.5	10.844
79.0	10.152
79.5	9.575
80.0	8.998
80.5	8.421
81.0	7.844
81.5	7.268
82.0	6.691
82.5	6.114

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83.0	5.537
83.5	4.960
84.0	4.499
84.5	3.922
85.0	3.345
85.5	2.884
86.0	2.423
86.5	1.961
87.0	1.615
87.5	1.269
88.0	0.923
88.5	0.692
89.0	0.577
89.5	0.346
90.0	0.231
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
129.5	0.000
130.0	0.000
130.5	0.000
131.0	0.000
131.5	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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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	1471.01	N.A.	69.50
0-30	1826.74	N.A.	86.30
0-40	1952.5	N.A.	92.20
0-60	2066.55	N.A.	97.60
0-80	2113.3	N.A.	99.80
0-90	2117.43	N.A.	100.00
10-90	1494.78	N.A.	70.60
20-40	481.49	N.A.	22.70
20-50	549.35	N.A.	25.90
40-70	144.54	N.A.	6.80
60-80	46.74	N.A.	2.20
70-80	16.26	N.A.	0.80
80-90	4.13	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	2117.43	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	622.65
10-20	848.37
20-30	355.72
30-40	125.77
40-50	67.86
50-60	46.19
60-70	30.49
70-80	16.26
80-90	4.13
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	187	183	179	176	183	180	176	173	173	170	168	167	165	163	161	160	158	156
2	180	173	167	162	176	170	165	160	165	160	157	160	157	154	155	153	150	148
3	173	164	157	151	170	161	155	150	157	152	148	153	149	145	150	146	143	141
4	166	156	148	143	163	154	147	142	151	145	140	148	143	139	145	141	137	135
5	160	149	141	135	158	148	140	135	145	138	134	142	137	133	140	135	131	129
6	155	143	135	129	152	142	134	129	139	133	128	137	132	127	135	130	126	124
7	149	137	129	124	148	136	129	124	134	128	123	133	127	122	131	126	122	120
8	145	132	125	119	143	131	124	119	130	123	118	128	122	118	127	122	118	116
9	140	128	120	115	139	127	120	115	126	119	114	124	118	114	123	118	114	112
10	136	124	116	111	135	123	116	111	122	115	111	121	115	110	120	114	110	109

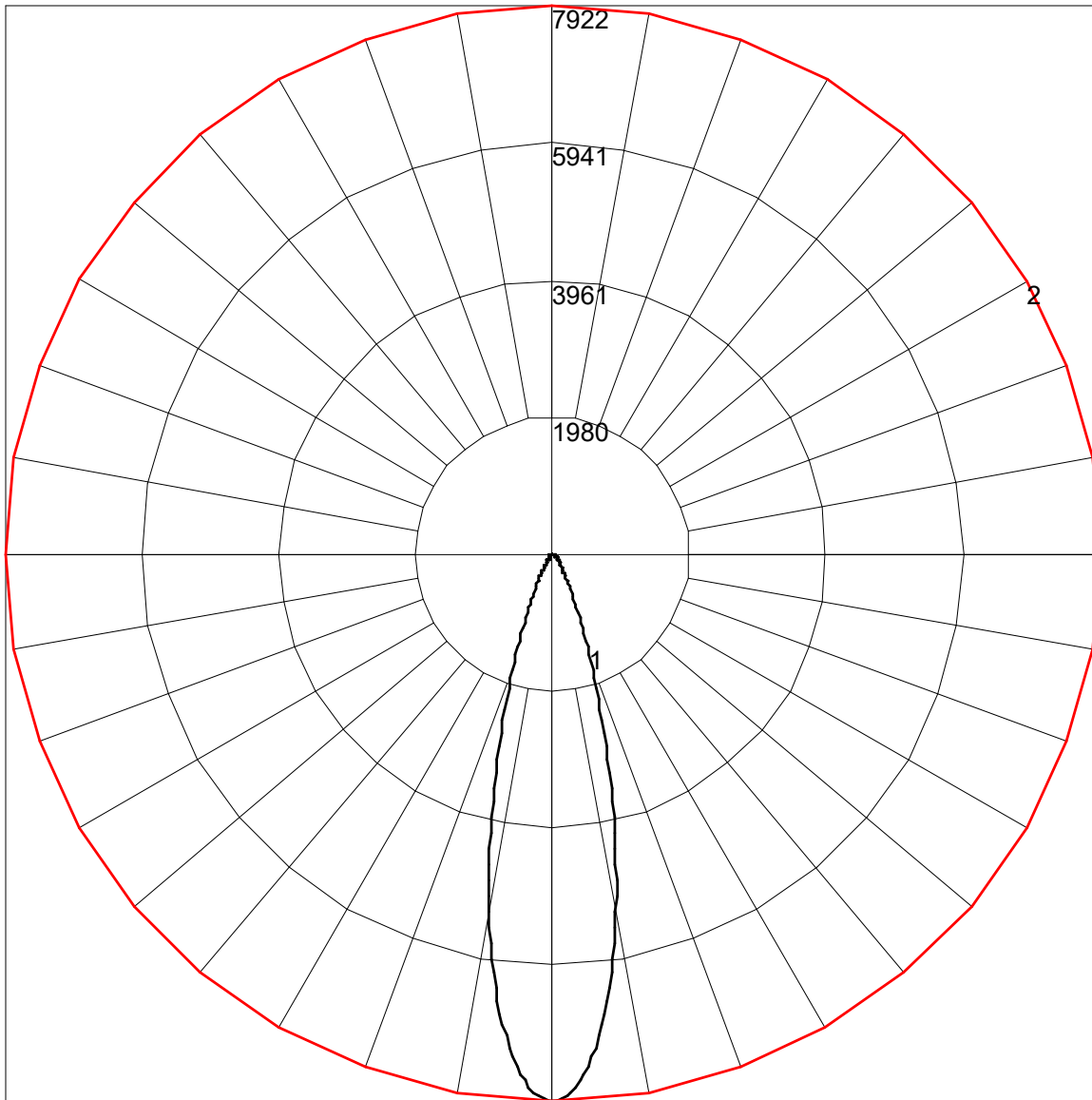
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UGR TABLE - CORRECTED

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					UGR Viewed Endwise				
X=2H	Y=2H	9.3	10.3	9.6	10.6	10.9	9.3	10.3	9.6	10.6	10.9
	3H	10.7	11.5	11.1	11.9	12.2	10.7	11.5	11.1	11.9	12.2
	4H	11.2	12.0	11.6	12.3	12.7	11.2	12.0	11.6	12.3	12.7
	6H	11.5	12.2	11.9	12.6	13.0	11.5	12.2	11.9	12.6	13.0
	8H	11.6	12.3	12.0	12.7	13.1	11.6	12.3	12.0	12.7	13.1
	12H	11.6	12.3	12.1	12.7	13.1	11.6	12.3	12.1	12.7	13.1
4H	2H	9.7	10.5	10.1	10.8	11.2	9.7	10.5	10.1	10.8	11.2
	3H	11.3	11.9	11.7	12.3	12.7	11.3	11.9	11.7	12.3	12.7
	4H	11.9	12.5	12.3	12.9	13.3	11.9	12.5	12.3	12.9	13.3
	6H	12.3	12.8	12.8	13.3	13.8	12.3	12.8	12.8	13.3	13.8
	8H	12.5	12.9	12.9	13.4	13.9	12.5	12.9	12.9	13.4	13.9
	12H	12.5	12.9	13.0	13.4	13.9	12.5	12.9	13.0	13.4	13.9
8H	4H	12.1	12.5	12.5	13.0	13.4	12.1	12.5	12.5	13.0	13.4
	6H	12.6	13.0	13.1	13.5	14.0	12.6	13.0	13.1	13.5	14.0
	8H	12.8	13.1	13.4	13.7	14.2	12.8	13.1	13.4	13.7	14.2
	12H	12.9	13.2	13.5	13.7	14.3	12.9	13.2	13.5	13.7	14.3
12H	4H	12.0	12.4	12.5	12.9	13.4	12.0	12.4	12.5	12.9	13.4
	6H	12.6	13.0	13.2	13.4	14.0	12.6	13.0	13.2	13.4	14.0
	8H	12.9	13.2	13.4	13.7	14.2	12.9	13.2	13.4	13.7	14.2

Maximum UGR = 14.3

POLAR GRAPH



Maximum Candela = 7921.737 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.)