



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL#12326812.15

[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-RN-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	2064
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	55
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)	0.46
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	6758	6758	6758
55	4420	4420	4420
65	3008	3008	3008
75	1943	1943	1943
85	1560	1560	1560

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CANDELA TABULATION

	<u>0</u>
0.0	7664.822
0.5	7657.988
1.0	7636.345
1.5	7598.756
2.0	7546.359
2.5	7478.014
3.0	7396.001
3.5	7301.458
4.0	7195.524
4.5	7077.061
5.0	6948.345
5.5	6807.100
6.0	6654.465
6.5	6492.716
7.0	6321.855
7.5	6141.882
8.0	5953.935
8.5	5759.153
9.0	5556.398
9.5	5349.087
10.0	5136.080
10.5	4921.934
11.0	4705.511
11.5	4487.948
12.0	4271.524
12.5	4055.100
13.0	3843.232
13.5	3631.365
14.0	3426.332
14.5	3226.994
15.0	3032.212
15.5	2846.543
16.0	2669.987
16.5	2502.543
17.0	2340.795
17.5	2187.020
18.0	2041.219
18.5	1905.669
19.0	1776.954
19.5	1660.768
20.0	1546.861
20.5	1439.788
21.0	1340.689
21.5	1248.424
22.0	1160.715
22.5	1078.247
23.0	1001.701
23.5	930.509
24.0	864.101
24.5	802.249
25.0	744.726
25.5	691.417
26.0	642.209
26.5	596.533

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CANDELA TABULATION - (Cont.)

27.0	554.387
27.5	515.658
28.0	480.005
28.5	447.200
29.0	417.015
29.5	389.335
30.0	363.706
30.5	340.241
31.0	318.713
31.5	298.779
32.0	280.440
32.5	263.468
33.0	247.862
33.5	233.396
34.0	220.069
34.5	207.653
35.0	196.148
35.5	185.555
36.0	175.759
36.5	166.532
37.0	158.103
37.5	150.130
38.0	142.840
38.5	136.119
39.0	129.854
39.5	123.931
40.0	118.578
40.5	113.452
41.0	108.781
41.5	104.339
42.0	100.238
42.5	96.366
43.0	92.721
43.5	89.303
44.0	86.000
44.5	82.925
45.0	80.077
45.5	77.343
46.0	74.723
46.5	72.217
47.0	69.825
47.5	67.433
48.0	65.269
48.5	63.105
49.0	61.168
49.5	59.232
50.0	57.409
50.5	55.587
51.0	53.878
51.5	52.283
52.0	50.689
52.5	49.208
53.0	47.727
53.5	46.360
54.0	44.993
54.5	43.740

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CANDELA TABULATION - (Cont.)

55.0	42.487
55.5	41.234
56.0	40.095
56.5	38.956
57.0	37.703
57.5	36.564
58.0	35.539
58.5	34.400
59.0	33.375
59.5	32.236
60.0	31.211
60.5	30.072
61.0	29.046
61.5	28.021
62.0	26.996
62.5	26.085
63.0	25.060
63.5	24.148
64.0	23.123
64.5	22.212
65.0	21.301
65.5	20.389
66.0	19.592
66.5	18.795
67.0	17.997
67.5	17.200
68.0	16.403
68.5	15.719
69.0	15.036
69.5	14.352
70.0	13.669
70.5	13.099
71.0	12.416
71.5	11.846
72.0	11.277
72.5	10.707
73.0	10.252
73.5	9.796
74.0	9.340
74.5	8.885
75.0	8.429
75.5	7.974
76.0	7.632
76.5	7.290
77.0	6.948
77.5	6.607
78.0	6.265
78.5	6.037
79.0	5.695
79.5	5.354
80.0	5.126
80.5	4.784
81.0	4.442
81.5	4.215
82.0	3.873
82.5	3.645

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CANDELA TABULATION - (Cont.)

83.0	3.417
83.5	3.075
84.0	2.848
84.5	2.506
85.0	2.278
85.5	2.050
86.0	1.823
86.5	1.595
87.0	1.367
87.5	1.139
88.0	0.911
88.5	0.683
89.0	0.570
89.5	0.456
90.0	0.342
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
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128.5	0.000
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129.5	0.000
130.0	0.000
130.5	0.000
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131.5	0.000
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133.0	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
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152.0	0.000
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153.0	0.000
153.5	0.000
154.0	0.000
154.5	0.000
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156.5	0.000
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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

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	1439.2	N.A.	69.70
0-30	1799.81	N.A.	87.20
0-40	1929.18	N.A.	93.50
0-60	2030.91	N.A.	98.40
0-80	2061.56	N.A.	99.90
0-90	2064.2	N.A.	100.00
10-90	1459.81	N.A.	70.70
20-40	489.98	N.A.	23.70
20-50	553.30	N.A.	26.80
40-70	123.15	N.A.	6.00
60-80	30.66	N.A.	1.50
70-80	9.23	N.A.	0.40
80-90	2.63	N.A.	0.10
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	2064.2	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	604.39
10-20	834.82
20-30	360.60
30-40	129.37
40-50	63.32
50-60	38.40
60-70	21.42
70-80	9.23
80-90	2.63
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	180	177	183	180	177	174	173	171	169	167	165	164	162	160	159	156
2	180	173	168	163	177	171	166	161	165	161	158	161	157	154	156	154	151	149
3	173	164	158	152	170	162	156	151	158	153	149	154	150	146	151	147	144	142
4	167	157	149	144	164	155	148	143	152	146	141	149	144	140	146	142	138	136
5	161	150	142	136	158	148	141	136	146	139	135	143	138	134	141	136	132	130
6	155	144	136	130	153	143	135	130	140	134	129	138	133	128	136	131	127	125
7	150	138	130	125	148	137	130	125	135	129	124	134	128	123	132	127	123	121
8	145	133	125	120	144	132	125	120	131	124	119	129	123	119	128	122	119	117
9	141	129	121	116	139	128	121	116	126	120	115	125	119	115	124	119	115	113
10	137	124	117	112	135	124	117	112	123	116	112	121	115	111	120	115	111	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

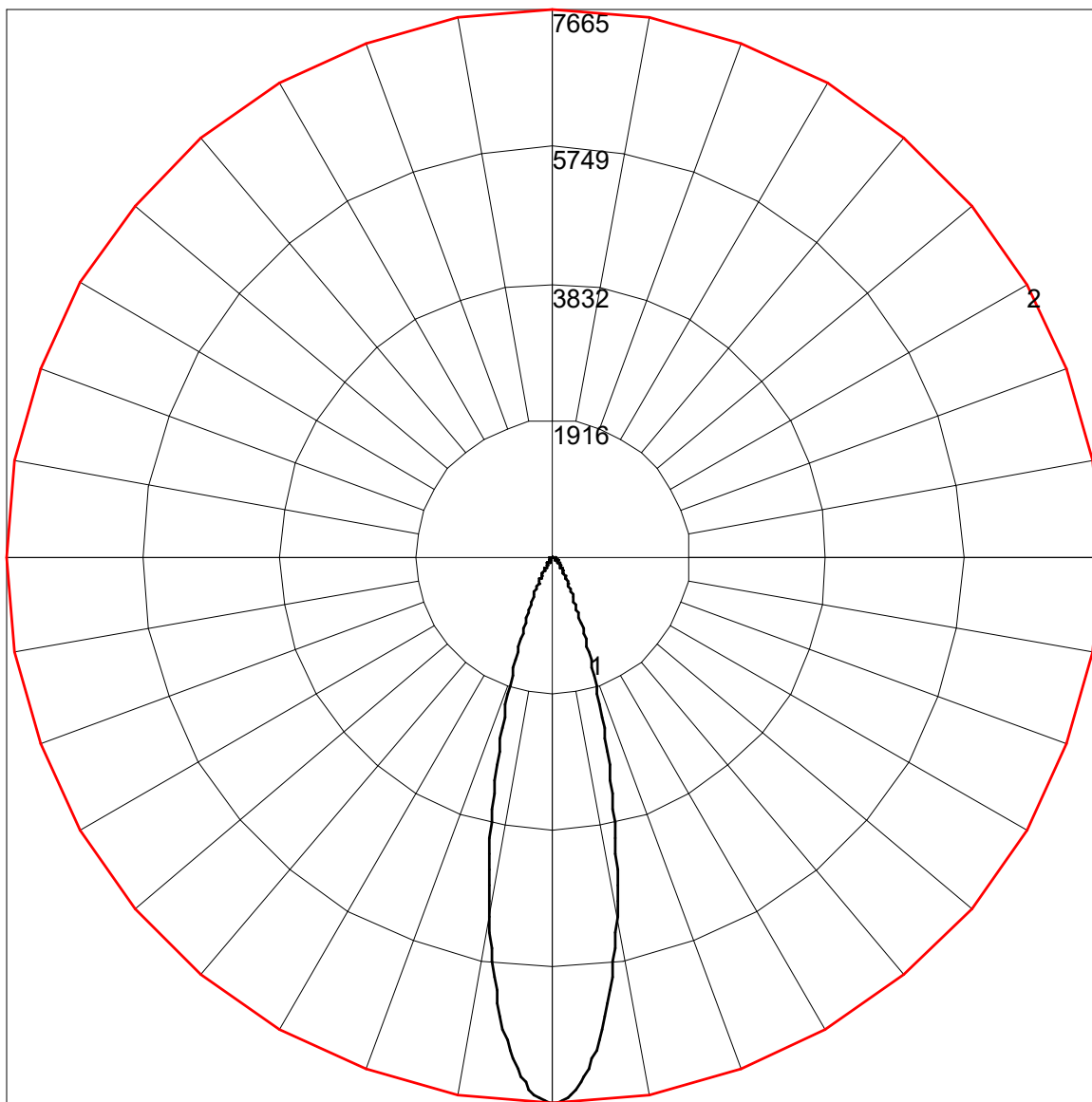
X=2H	Y=2H	7.6	8.5	7.9	8.8	9.2	7.6	8.5	7.9	8.8	9.2
	3H	8.4	9.3	8.8	9.6	10.0	8.4	9.3	8.8	9.6	10.0
	4H	8.7	9.5	9.1	9.8	10.2	8.7	9.5	9.1	9.8	10.2
	6H	8.8	9.6	9.3	9.9	10.3	8.8	9.6	9.3	9.9	10.3
	8H	8.9	9.6	9.3	10.0	10.4	8.9	9.6	9.3	10.0	10.4
	12H	8.9	9.5	9.3	9.9	10.4	8.9	9.5	9.3	9.9	10.4

UGR Viewed Endwise

4H	2H	7.8	8.6	8.2	8.9	9.3	7.8	8.6	8.2	8.9	9.3
	3H	8.8	9.5	9.2	9.9	10.3	8.8	9.5	9.2	9.9	10.3
	4H	9.2	9.7	9.6	10.1	10.6	9.2	9.7	9.6	10.1	10.6
	6H	9.4	9.9	9.9	10.3	10.8	9.4	9.9	9.9	10.3	10.8
	8H	9.5	9.9	10.0	10.4	10.9	9.5	9.9	10.0	10.4	10.9
	12H	9.5	9.9	10.0	10.4	10.9	9.5	9.9	10.0	10.4	10.9
8H	4H	9.2	9.6	9.7	10.1	10.6	9.2	9.6	9.7	10.1	10.6
	6H	9.5	9.9	10.1	10.4	10.9	9.5	9.9	10.1	10.4	10.9
	8H	9.7	10.0	10.2	10.5	11.0	9.7	10.0	10.2	10.5	11.0
	12H	9.8	10.1	10.3	10.6	11.1	9.8	10.1	10.3	10.6	11.1
12H	4H	9.2	9.5	9.6	10.0	10.5	9.2	9.5	9.6	10.0	10.5
	6H	9.5	9.9	10.1	10.3	10.9	9.5	9.9	10.1	10.3	10.9
	8H	9.7	10.0	10.2	10.5	11.1	9.7	10.0	10.2	10.5	11.1

Maximum UGR = 11.1

POLAR GRAPH



Maximum Candela = 7664.822 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.)