



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L33-8TW-DIM-UNV-RW-OF-WH\_4000K.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.12

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 21 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V6DR-L33-8TW-DIM-UNV-RW-OF-WH 4000k

[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	3202
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	71
Total Luminaire Watts	44.9
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	43237	43237	43237
55	36058	36058	36058
65	25439	25439	25439
75	15583	15583	15583
85	12290	12290	12290

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CANDELA TABULATION

	<u>0</u>
0.0	2368.815
0.5	2366.599
1.0	2364.384
1.5	2362.168
2.0	2357.736
2.5	2351.088
3.0	2344.440
3.5	2335.577
4.0	2326.713
4.5	2320.065
5.0	2311.202
5.5	2302.338
6.0	2293.474
6.5	2284.611
7.0	2275.747
7.5	2266.883
8.0	2255.804
8.5	2246.940
9.0	2238.076
9.5	2226.997
10.0	2218.133
10.5	2207.275
11.0	2196.639
11.5	2186.002
12.0	2175.366
12.5	2164.951
13.0	2154.315
13.5	2143.235
14.0	2132.377
14.5	2121.741
15.0	2111.769
15.5	2101.576
16.0	2091.604
16.5	2081.854
17.0	2072.769
17.5	2063.684
18.0	2054.820
18.5	2046.399
19.0	2037.979
19.5	2029.337
20.0	2020.473
20.5	2010.945
21.0	2000.087
21.5	1987.678
22.0	1973.717
22.5	1958.206
23.0	1941.365
23.5	1922.308
24.0	1901.478
24.5	1878.655
25.0	1853.393
25.5	1826.137
26.0	1795.779
26.5	1762.540

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CANDELA TABULATION - (Cont.)

27.0	1727.086
27.5	1688.529
28.0	1647.534
28.5	1602.994
29.0	1556.017
29.5	1505.051
30.0	1450.983
30.5	1393.812
31.0	1334.425
31.5	1273.709
32.0	1211.885
32.5	1150.504
33.0	1089.788
33.5	1031.066
34.0	974.782
34.5	921.822
35.0	873.515
35.5	829.196
36.0	790.196
36.5	755.628
37.0	725.270
37.5	699.343
38.0	676.519
38.5	656.355
39.0	638.849
39.5	623.337
40.0	609.156
40.5	596.303
41.0	584.337
41.5	573.479
42.0	563.508
42.5	553.979
43.0	544.894
43.5	536.252
44.0	528.053
44.5	520.297
45.0	512.320
45.5	504.786
46.0	497.030
46.5	489.496
47.0	481.740
47.5	473.985
48.0	466.007
48.5	458.030
49.0	450.496
49.5	442.740
50.0	434.541
50.5	426.121
51.0	417.479
51.5	408.837
52.0	400.195
52.5	391.331
53.0	382.689
53.5	374.268
54.0	364.962
54.5	355.655

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CANDELA TABULATION - (Cont.)

55.0	346.569
55.5	337.263
56.0	328.177
56.5	319.092
57.0	310.007
57.5	300.922
58.0	292.279
58.5	283.416
59.0	274.774
59.5	266.353
60.0	257.933
60.5	249.512
61.0	241.313
61.5	233.336
62.0	225.359
62.5	217.603
63.0	209.847
63.5	202.092
64.0	194.779
64.5	187.245
65.0	180.154
65.5	172.842
66.0	165.972
66.5	159.103
67.0	152.455
67.5	145.807
68.0	139.381
68.5	132.955
69.0	126.972
69.5	120.767
70.0	115.006
70.5	109.245
71.0	103.705
71.5	98.387
72.0	93.069
72.5	88.194
73.0	83.540
73.5	79.330
74.0	75.120
74.5	71.353
75.0	67.585
75.5	64.262
76.0	60.938
76.5	58.057
77.0	55.398
77.5	52.739
78.0	50.080
78.5	47.421
79.0	44.983
79.5	42.546
80.0	40.108
80.5	37.671
81.0	35.233
81.5	33.017
82.0	30.580
82.5	28.364

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CANDELA TABULATION - (Cont.)

83.0	26.148
83.5	24.153
84.0	21.938
84.5	19.943
85.0	17.949
85.5	15.955
86.0	13.960
86.5	11.966
87.0	10.193
87.5	8.199
88.0	6.648
88.5	5.318
89.0	4.210
89.5	3.102
90.0	2.216
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
132.0	0.000
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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PHOTOMETRIC FILENAME : V6DR-L33-8TW-DIM-UNV-RW-OF-WH\_4000K.IES

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	813.97	N.A.	25.40
0-30	1645.54	N.A.	51.40
0-40	2220.87	N.A.	69.40
0-60	2926.9	N.A.	91.40
0-80	3181.79	N.A.	99.40
0-90	3202.23	N.A.	100.00
10-90	2984.63	N.A.	93.20
20-40	1406.9	N.A.	43.90
20-50	1803.85	N.A.	56.30
40-70	885.92	N.A.	27.70
60-80	254.88	N.A.	8.00
70-80	74.99	N.A.	2.30
80-90	20.44	N.A.	0.60
90-110	0.06	N.A.	0.00
90-120	0.06	N.A.	0.00
90-130	0.06	N.A.	0.00
90-150	0.06	N.A.	0.00
90-180	0.06	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3202.29	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	217.60
10-20	596.37
20-30	831.57
30-40	575.33
40-50	396.95
50-60	309.08
60-70	179.89
70-80	74.99
80-90	20.44
90-100	0.06
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	218	218	218	218	213	213	213	213	204	204	204	195	195	195	187	187	187	183
1	204	198	192	186	200	194	188	183	186	182	178	179	175	172	173	170	167	164
2	190	179	169	161	186	175	167	159	169	162	156	164	157	152	158	153	149	145
3	178	162	151	141	173	160	149	140	154	145	138	150	142	135	145	139	133	130
4	166	148	135	125	162	146	134	125	142	131	123	138	129	122	134	126	120	117
5	155	136	123	113	152	134	121	112	130	119	111	127	118	110	124	116	109	106
6	145	125	112	102	142	124	111	102	121	109	101	118	108	100	115	106	99	96
7	137	116	103	93	134	115	102	93	112	101	92	110	99	92	107	98	91	88
8	129	108	95	86	126	107	94	85	105	93	85	102	92	85	100	91	84	81
9	122	101	88	79	119	100	87	79	98	87	79	96	86	78	94	85	78	75
10	115	94	82	73	113	93	81	73	92	81	73	90	80	73	89	79	73	70

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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

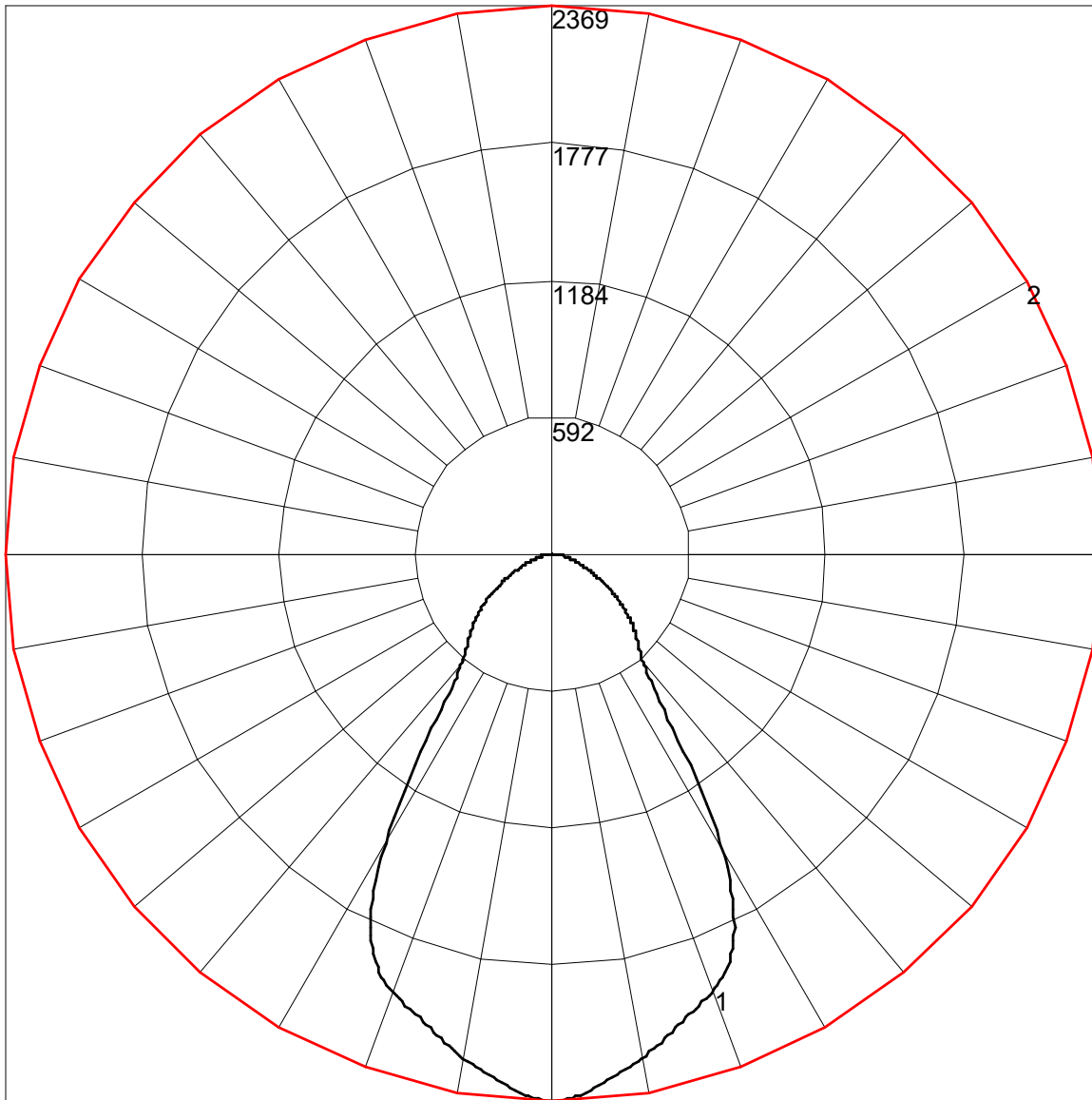
X=2H	Y=2H	19.9	21.2	20.3	21.5	21.8	19.9	21.2	20.3	21.5	21.8
	3H	20.9	22.0	21.3	22.4	22.7	20.9	22.0	21.3	22.4	22.7
	4H	21.1	22.2	21.5	22.6	23.0	21.1	22.2	21.5	22.6	23.0
	6H	21.3	22.3	21.7	22.7	23.1	21.3	22.3	21.7	22.7	23.1
	8H	21.3	22.3	21.8	22.7	23.1	21.3	22.3	21.8	22.7	23.1
	12H	21.4	22.3	21.8	22.7	23.1	21.4	22.3	21.8	22.7	23.1

### UGR Viewed Endwise

4H	2H	20.2	21.3	20.6	21.7	22.1	20.2	21.3	20.6	21.7	22.1
	3H	21.4	22.3	21.8	22.7	23.1	21.4	22.3	21.8	22.7	23.1
	4H	21.7	22.5	22.1	22.9	23.4	21.7	22.5	22.1	22.9	23.4
	6H	22.0	22.7	22.4	23.1	23.6	22.0	22.7	22.4	23.1	23.6
	8H	22.0	22.7	22.5	23.1	23.6	22.0	22.7	22.5	23.1	23.6
	12H	22.1	22.7	22.6	23.2	23.6	22.1	22.7	22.6	23.2	23.6
8H	4H	21.8	22.4	22.2	22.9	23.3	21.8	22.4	22.2	22.9	23.3
	6H	22.1	22.6	22.6	23.1	23.6	22.1	22.6	22.6	23.1	23.6
	8H	22.3	22.7	22.8	23.2	23.7	22.3	22.7	22.8	23.2	23.7
	12H	22.4	22.8	22.9	23.3	23.8	22.4	22.8	22.9	23.3	23.8
12H	4H	21.8	22.3	22.3	22.8	23.3	21.8	22.3	22.3	22.8	23.3
	6H	22.1	22.6	22.7	23.1	23.6	22.1	22.6	22.7	23.1	23.6
	8H	22.3	22.7	22.8	23.2	23.8	22.3	22.7	22.8	23.2	23.8

Maximum UGR = 23.8

POLAR GRAPH



Maximum Candela = 2368.815 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.)