



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L31-835-DIM-UNV-RW-OF-WH\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from 12326812.12

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 9 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V6DR-L31-835-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	2889
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	70
Total Luminaire Watts	41
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	39011	39011	39011
55	32533	32533	32533
65	22952	22952	22952
75	14060	14060	14060
85	11088	11088	11088

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CANDELA TABULATION

	<u>0</u>
0.0	2137.260
0.5	2135.261
1.0	2133.262
1.5	2131.262
2.0	2127.264
2.5	2121.266
3.0	2115.268
3.5	2107.271
4.0	2099.273
4.5	2093.275
5.0	2085.278
5.5	2077.281
6.0	2069.284
6.5	2061.287
7.0	2053.289
7.5	2045.292
8.0	2035.296
8.5	2027.298
9.0	2019.301
9.5	2009.305
10.0	2001.307
10.5	1991.511
11.0	1981.914
11.5	1972.317
12.0	1962.721
12.5	1953.324
13.0	1943.727
13.5	1933.731
14.0	1923.934
14.5	1914.337
15.0	1905.341
15.5	1896.144
16.0	1887.147
16.5	1878.350
17.0	1870.153
17.5	1861.956
18.0	1853.958
18.5	1846.361
19.0	1838.764
19.5	1830.966
20.0	1822.969
20.5	1814.372
21.0	1804.575
21.5	1793.379
22.0	1780.784
22.5	1766.788
23.0	1751.594
23.5	1734.400
24.0	1715.606
24.5	1695.013
25.0	1672.221
25.5	1647.630
26.0	1620.239
26.5	1590.250

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**CANDELA TABULATION - (Cont.)**

<b>27.0</b>	1558.261
<b>27.5</b>	1523.473
<b>28.0</b>	1486.485
<b>28.5</b>	1446.299
<b>29.0</b>	1403.914
<b>29.5</b>	1357.930
<b>30.0</b>	1309.147
<b>30.5</b>	1257.565
<b>31.0</b>	1203.983
<b>31.5</b>	1149.202
<b>32.0</b>	1093.422
<b>32.5</b>	1038.041
<b>33.0</b>	983.260
<b>33.5</b>	930.278
<b>34.0</b>	879.496
<b>34.5</b>	831.712
<b>35.0</b>	788.127
<b>35.5</b>	748.141
<b>36.0</b>	712.953
<b>36.5</b>	681.764
<b>37.0</b>	654.374
<b>37.5</b>	630.982
<b>38.0</b>	610.389
<b>38.5</b>	592.195
<b>39.0</b>	576.400
<b>39.5</b>	562.405
<b>40.0</b>	549.610
<b>40.5</b>	538.014
<b>41.0</b>	527.218
<b>41.5</b>	517.421
<b>42.0</b>	508.424
<b>42.5</b>	499.827
<b>43.0</b>	491.630
<b>43.5</b>	483.833
<b>44.0</b>	476.435
<b>44.5</b>	469.438
<b>45.0</b>	462.240
<b>45.5</b>	455.442
<b>46.0</b>	448.445
<b>46.5</b>	441.647
<b>47.0</b>	434.650
<b>47.5</b>	427.652
<b>48.0</b>	420.454
<b>48.5</b>	413.257
<b>49.0</b>	406.459
<b>49.5</b>	399.462
<b>50.0</b>	392.064
<b>50.5</b>	384.467
<b>51.0</b>	376.670
<b>51.5</b>	368.872
<b>52.0</b>	361.075
<b>52.5</b>	353.078
<b>53.0</b>	345.280
<b>53.5</b>	337.683
<b>54.0</b>	329.286
<b>54.5</b>	320.889

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**CANDELA TABULATION - (Cont.)**

55.0	312.692
55.5	304.295
56.0	296.098
56.5	287.900
57.0	279.703
57.5	271.506
58.0	263.709
58.5	255.711
59.0	247.914
59.5	240.317
60.0	232.719
60.5	225.122
61.0	217.725
61.5	210.527
62.0	203.330
62.5	196.332
63.0	189.334
63.5	182.337
64.0	175.739
64.5	168.942
65.0	162.544
65.5	155.946
66.0	149.748
66.5	143.550
67.0	137.552
67.5	131.554
68.0	125.756
68.5	119.958
69.0	114.560
69.5	108.962
70.0	103.764
70.5	98.566
71.0	93.568
71.5	88.769
72.0	83.971
72.5	79.572
73.0	75.374
73.5	71.575
74.0	67.777
74.5	64.378
75.0	60.979
75.5	57.980
76.0	54.981
76.5	52.382
77.0	49.983
77.5	47.584
78.0	45.184
78.5	42.785
79.0	40.586
79.5	38.387
80.0	36.187
80.5	33.988
81.0	31.789
81.5	29.790
82.0	27.590
82.5	25.591

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CANDELA TABULATION - (Cont.)

83.0	23.592
83.5	21.792
84.0	19.793
84.5	17.994
85.0	16.194
85.5	14.395
86.0	12.596
86.5	10.796
87.0	9.197
87.5	7.397
88.0	5.998
88.5	4.798
89.0	3.799
89.5	2.799
90.0	1.999
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

IES INDOOR REPORT  
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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
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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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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
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146.0	0.000
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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	734.41	N.A.	25.40
0-30	1484.69	N.A.	51.40
0-40	2003.78	N.A.	69.40
0-60	2640.8	N.A.	91.40
0-80	2870.76	N.A.	99.40
0-90	2889.21	N.A.	100.00
10-90	2692.87	N.A.	93.20
20-40	1269.38	N.A.	43.90
20-50	1627.52	N.A.	56.30
40-70	799.32	N.A.	27.70
60-80	229.97	N.A.	8.00
70-80	67.66	N.A.	2.30
80-90	18.44	N.A.	0.60
90-110	0.05	N.A.	0.00
90-120	0.05	N.A.	0.00
90-130	0.05	N.A.	0.00
90-150	0.05	N.A.	0.00
90-180	0.05	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2889.26	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	196.33
10-20	538.07
20-30	750.28
30-40	519.09
40-50	358.14
50-60	278.87
60-70	162.30
70-80	67.66
80-90	18.44
90-100	0.05
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	62	83	73	66	61	71	65	61	69	64	60	68	63	59	58
6	79	68	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38

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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	21.6	22.9	21.9	23.2	23.5	21.6	22.9	21.9	23.2	23.5
	3H	22.5	23.7	22.9	24.0	24.4	22.5	23.7	22.9	24.0	24.4
	4H	22.8	23.9	23.2	24.2	24.6	22.8	23.9	23.2	24.2	24.6
	6H	22.9	24.0	23.4	24.3	24.7	22.9	24.0	23.4	24.3	24.7
	8H	23.0	24.0	23.4	24.4	24.8	23.0	24.0	23.4	24.4	24.8
	12H	23.0	23.9	23.5	24.3	24.8	23.0	23.9	23.5	24.3	24.8

UGR Viewed Endwise

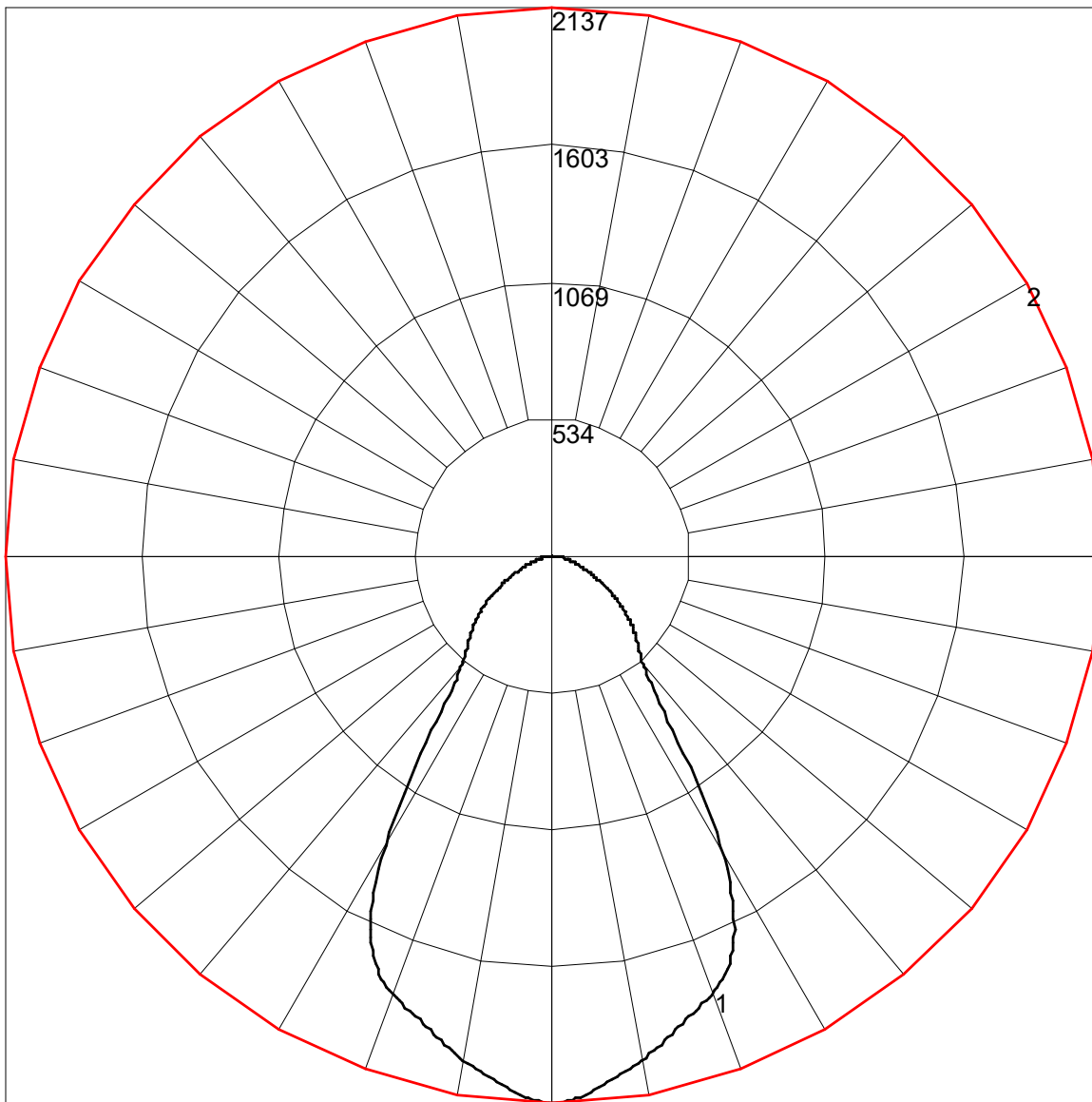
4H	2H	21.9	23.0	22.3	23.3	23.7	21.9	23.0	22.3	23.3	23.7
	3H	23.0	23.9	23.4	24.3	24.7	23.0	23.9	23.4	24.3	24.7
	4H	23.4	24.2	23.8	24.6	25.0	23.4	24.2	23.8	24.6	25.0
	6H	23.6	24.3	24.1	24.8	25.2	23.6	24.3	24.1	24.8	25.2
	8H	23.7	24.3	24.2	24.8	25.3	23.7	24.3	24.2	24.8	25.3
	12H	23.8	24.3	24.2	24.8	25.3	23.8	24.3	24.2	24.8	25.3

8H	4H	23.4	24.1	23.9	24.5	25.0	23.4	24.1	23.9	24.5	25.0
	6H	23.8	24.3	24.3	24.8	25.3	23.8	24.3	24.3	24.8	25.3
	8H	23.9	24.4	24.4	24.9	25.4	23.9	24.4	24.4	24.9	25.4
	12H	24.0	24.4	24.5	24.9	25.5	24.0	24.4	24.5	24.9	25.5

12H	4H	23.4	24.0	23.9	24.5	25.0	23.4	24.0	23.9	24.5	25.0
	6H	23.8	24.3	24.3	24.7	25.3	23.8	24.3	24.3	24.7	25.3
	8H	23.9	24.4	24.5	24.9	25.4	23.9	24.4	24.5	24.9	25.4

Maximum UGR = 25.5

POLAR GRAPH



Maximum Candela = 2137.26 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.)