



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L38-835-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-L38-835-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	3537
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	72
Total Luminaire Watts	49.3
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	47761	47761	47761
55	39830	39830	39830
65	28100	28100	28100
75	17214	17214	17214
85	13576	13576	13576

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CANDELA TABULATION

	<u>0</u>
0.0	2616.646
0.5	2614.198
1.0	2611.750
1.5	2609.303
2.0	2604.407
2.5	2597.064
3.0	2589.721
3.5	2579.930
4.0	2570.139
4.5	2562.795
5.0	2553.004
5.5	2543.213
6.0	2533.422
6.5	2523.631
7.0	2513.840
7.5	2504.049
8.0	2491.811
8.5	2482.020
9.0	2472.229
9.5	2459.990
10.0	2450.199
10.5	2438.205
11.0	2426.456
11.5	2414.706
12.0	2402.957
12.5	2391.453
13.0	2379.704
13.5	2367.465
14.0	2355.471
14.5	2343.722
15.0	2332.707
15.5	2321.447
16.0	2310.432
16.5	2299.662
17.0	2289.626
17.5	2279.591
18.0	2269.800
18.5	2260.498
19.0	2251.197
19.5	2241.650
20.0	2231.859
20.5	2221.334
21.0	2209.340
21.5	2195.633
22.0	2180.212
22.5	2163.078
23.0	2144.475
23.5	2123.424
24.0	2100.415
24.5	2075.203
25.0	2047.299
25.5	2017.192
26.0	1983.657
26.5	1946.941

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CANDELA TABULATION - (Cont.)

27.0	1907.777
27.5	1865.186
28.0	1819.903
28.5	1770.703
29.0	1718.811
29.5	1662.513
30.0	1602.787
30.5	1539.635
31.0	1474.036
31.5	1406.967
32.0	1338.675
32.5	1270.872
33.0	1203.804
33.5	1138.939
34.0	1076.766
34.5	1018.264
35.0	964.903
35.5	915.948
36.0	872.868
36.5	834.683
37.0	801.149
37.5	772.510
38.0	747.298
38.5	725.024
39.0	705.687
39.5	688.552
40.0	672.887
40.5	658.690
41.0	645.472
41.5	633.478
42.0	622.463
42.5	611.938
43.0	601.902
43.5	592.356
44.0	583.299
44.5	574.732
45.0	565.920
45.5	557.598
46.0	549.031
46.5	540.708
47.0	532.141
47.5	523.574
48.0	514.762
48.5	505.950
49.0	497.628
49.5	489.061
50.0	480.004
50.5	470.703
51.0	461.156
51.5	451.610
52.0	442.064
52.5	432.273
53.0	422.727
53.5	413.425
54.0	403.145
54.5	392.864

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**CANDELA TABULATION - (Cont.)**

<b>55.0</b>	382.828
<b>55.5</b>	372.548
<b>56.0</b>	362.512
<b>56.5</b>	352.476
<b>57.0</b>	342.440
<b>57.5</b>	332.405
<b>58.0</b>	322.858
<b>58.5</b>	313.067
<b>59.0</b>	303.521
<b>59.5</b>	294.220
<b>60.0</b>	284.918
<b>60.5</b>	275.617
<b>61.0</b>	266.560
<b>61.5</b>	257.748
<b>62.0</b>	248.936
<b>62.5</b>	240.369
<b>63.0</b>	231.802
<b>63.5</b>	223.235
<b>64.0</b>	215.157
<b>64.5</b>	206.835
<b>65.0</b>	199.002
<b>65.5</b>	190.925
<b>66.0</b>	183.337
<b>66.5</b>	175.749
<b>67.0</b>	168.405
<b>67.5</b>	161.062
<b>68.0</b>	153.964
<b>68.5</b>	146.865
<b>69.0</b>	140.256
<b>69.5</b>	133.402
<b>70.0</b>	127.038
<b>70.5</b>	120.674
<b>71.0</b>	114.555
<b>71.5</b>	108.680
<b>72.0</b>	102.806
<b>72.5</b>	97.420
<b>73.0</b>	92.280
<b>73.5</b>	87.629
<b>74.0</b>	82.979
<b>74.5</b>	78.818
<b>75.0</b>	74.656
<b>75.5</b>	70.985
<b>76.0</b>	67.313
<b>76.5</b>	64.131
<b>77.0</b>	61.194
<b>77.5</b>	58.256
<b>78.0</b>	55.319
<b>78.5</b>	52.382
<b>79.0</b>	49.689
<b>79.5</b>	46.997
<b>80.0</b>	44.304
<b>80.5</b>	41.612
<b>81.0</b>	38.919
<b>81.5</b>	36.471
<b>82.0</b>	33.779
<b>82.5</b>	31.331

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CANDELA TABULATION - (Cont.)

83.0	28.883
83.5	26.680
84.0	24.233
84.5	22.030
85.0	19.827
85.5	17.624
86.0	15.421
86.5	13.218
87.0	11.260
87.5	9.057
88.0	7.343
88.5	5.875
89.0	4.651
89.5	3.427
90.0	2.448
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
117.0	0.000
117.5	0.000
118.0	0.000
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128.0	0.000
128.5	0.000
129.0	0.000
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130.0	0.000
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131.0	0.000
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132.0	0.000
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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

IES INDOOR REPORT  
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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
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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
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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	899.13	N.A.	25.40
0-30	1817.7	N.A.	51.40
0-40	2453.23	N.A.	69.40
0-60	3233.12	N.A.	91.40
0-80	3514.67	N.A.	99.40
0-90	3537.25	N.A.	100.00
10-90	3296.88	N.A.	93.20
20-40	1554.09	N.A.	43.90
20-50	1992.57	N.A.	56.30
40-70	978.61	N.A.	27.70
60-80	281.55	N.A.	8.00
70-80	82.84	N.A.	2.30
80-90	22.58	N.A.	0.60
90-110	0.07	N.A.	0.00
90-120	0.07	N.A.	0.00
90-130	0.07	N.A.	0.00
90-150	0.07	N.A.	0.00
90-180	0.07	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3537.32	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	240.37
10-20	658.76
20-30	918.57
30-40	635.53
40-50	438.48
50-60	341.42
60-70	198.71
70-80	82.84
80-90	22.58
90-100	0.07
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	22.3	23.6	22.6	23.9	24.2	22.3	23.6	22.6	23.9	24.2
	3H	23.2	24.4	23.6	24.7	25.1	23.2	24.4	23.6	24.7	25.1
	4H	23.5	24.6	23.9	24.9	25.3	23.5	24.6	23.9	24.9	25.3
	6H	23.6	24.7	24.1	25.0	25.4	23.6	24.7	24.1	25.0	25.4
	8H	23.7	24.7	24.1	25.1	25.5	23.7	24.7	24.1	25.1	25.5
	12H	23.7	24.6	24.2	25.0	25.5	23.7	24.6	24.2	25.0	25.5

UGR Viewed Endwise

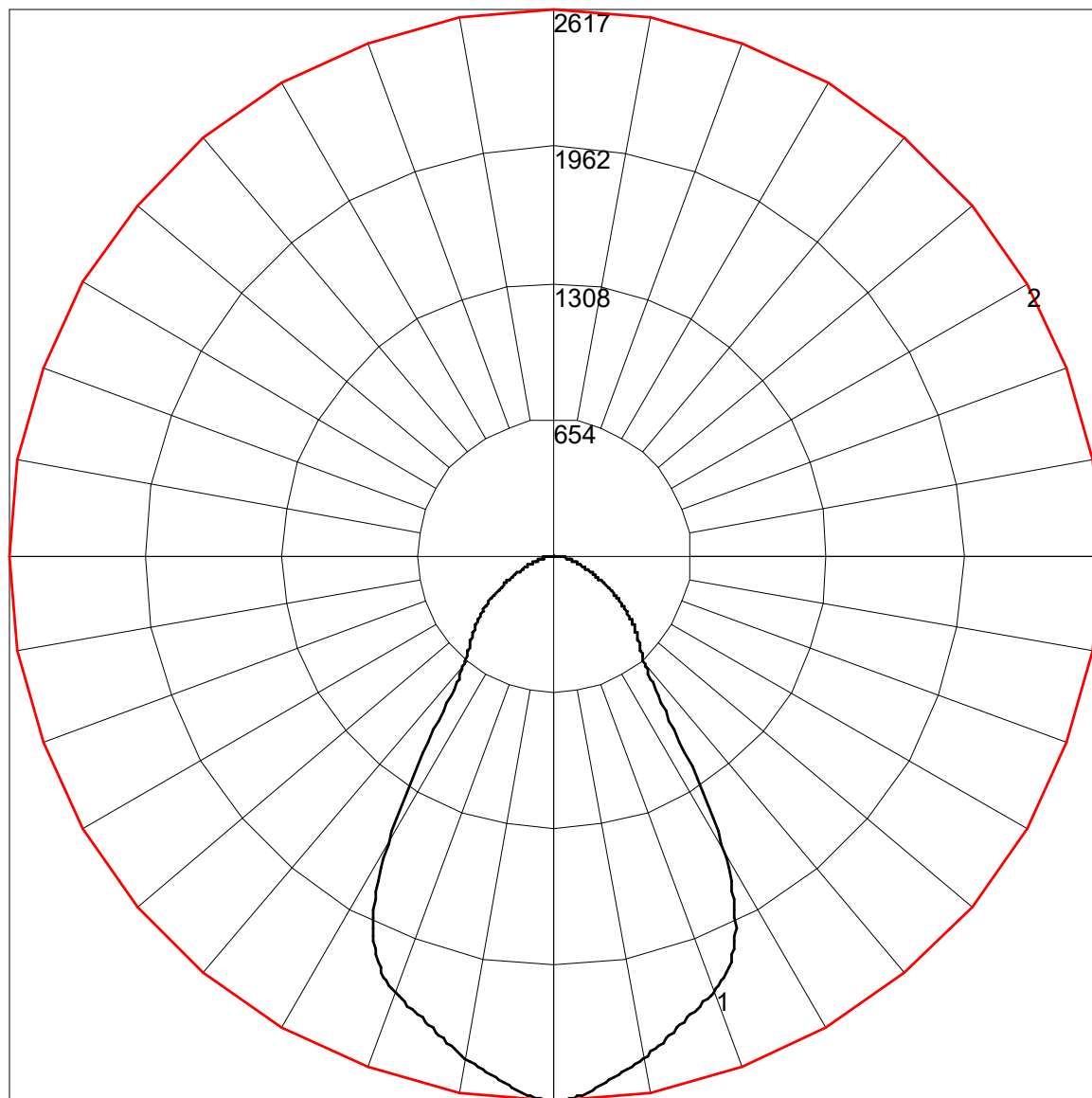
4H	2H	22.6	23.7	23.0	24.0	24.4	22.6	23.7	23.0	24.0	24.4
	3H	23.7	24.6	24.1	25.0	25.4	23.7	24.6	24.1	25.0	25.4
	4H	24.1	24.9	24.5	25.3	25.7	24.1	24.9	24.5	25.3	25.7
	6H	24.3	25.0	24.8	25.5	25.9	24.3	25.0	24.8	25.5	25.9
	8H	24.4	25.0	24.9	25.5	26.0	24.4	25.0	24.9	25.5	26.0
	12H	24.5	25.0	24.9	25.5	26.0	24.5	25.0	24.9	25.5	26.0

8H	4H	24.1	24.8	24.6	25.2	25.7	24.1	24.8	24.6	25.2	25.7
	6H	24.5	25.0	25.0	25.5	26.0	24.5	25.0	25.0	25.5	26.0
	8H	24.6	25.1	25.1	25.6	26.1	24.6	25.1	25.1	25.6	26.1
	12H	24.7	25.1	25.2	25.6	26.2	24.7	25.1	25.2	25.6	26.2

12H	4H	24.1	24.7	24.6	25.2	25.7	24.1	24.7	24.6	25.2	25.7
	6H	24.5	25.0	25.0	25.4	26.0	24.5	25.0	25.0	25.4	26.0
	8H	24.6	25.1	25.2	25.6	26.1	24.6	25.1	25.2	25.6	26.1

Maximum UGR = 26.2

POLAR GRAPH



Maximum Candela = 2616.646 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.)