



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L8-835-DIM-UNV-LN-OF-WH\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from 12326812.10

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 9 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V6DR-L8-835-DIM-UNV-LN-OF-WH

[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	909
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
Total Luminaire Watts	9.8
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	3419	3419	3419
55	2502	2502	2502
65	2034	2034	2034
75	1661	1661	1661
85	1075	1075	1075

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CANDELA TABULATION

	<u>0</u>
0.0	3399.838
0.5	3396.867
1.0	3386.965
1.5	3369.637
2.0	3345.872
2.5	3315.671
3.0	3279.529
3.5	3236.951
4.0	3188.431
4.5	3134.961
5.0	3077.034
5.5	3013.661
6.0	2945.338
6.5	2872.559
7.0	2795.323
7.5	2714.127
8.0	2628.475
8.5	2540.348
9.0	2450.240
9.5	2357.162
10.0	2263.093
10.5	2167.539
11.0	2070.500
11.5	1972.966
12.0	1875.431
12.5	1778.887
13.0	1683.333
13.5	1589.265
14.0	1497.176
14.5	1407.564
15.0	1321.417
15.5	1238.735
16.0	1160.015
16.5	1085.255
17.0	1013.961
17.5	946.132
18.0	882.265
18.5	822.853
19.0	766.907
19.5	714.922
20.0	665.412
20.5	618.377
21.0	574.809
21.5	534.211
22.0	495.593
22.5	459.798
23.0	426.230
23.5	395.138
24.0	366.026
24.5	339.043
25.0	314.090
25.5	290.969
26.0	269.581
26.5	249.876

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**CANDELA TABULATION - (Cont.)**

<b>27.0</b>	231.805
<b>27.5</b>	215.170
<b>28.0</b>	199.921
<b>28.5</b>	186.008
<b>29.0</b>	173.185
<b>29.5</b>	161.402
<b>30.0</b>	150.609
<b>30.5</b>	140.756
<b>31.0</b>	131.696
<b>31.5</b>	123.428
<b>32.0</b>	115.803
<b>32.5</b>	108.823
<b>33.0</b>	102.386
<b>33.5</b>	96.495
<b>34.0</b>	91.049
<b>34.5</b>	86.098
<b>35.0</b>	81.493
<b>35.5</b>	77.285
<b>36.0</b>	73.423
<b>36.5</b>	69.809
<b>37.0</b>	66.541
<b>37.5</b>	63.521
<b>38.0</b>	60.749
<b>38.5</b>	58.125
<b>39.0</b>	55.748
<b>39.5</b>	53.520
<b>40.0</b>	51.490
<b>40.5</b>	49.559
<b>41.0</b>	47.826
<b>41.5</b>	46.143
<b>42.0</b>	44.608
<b>42.5</b>	43.173
<b>43.0</b>	41.786
<b>43.5</b>	40.499
<b>44.0</b>	39.261
<b>44.5</b>	38.123
<b>45.0</b>	37.033
<b>45.5</b>	35.994
<b>46.0</b>	35.003
<b>46.5</b>	34.013
<b>47.0</b>	33.122
<b>47.5</b>	32.231
<b>48.0</b>	31.340
<b>48.5</b>	30.498
<b>49.0</b>	29.706
<b>49.5</b>	28.963
<b>50.0</b>	28.221
<b>50.5</b>	27.478
<b>51.0</b>	26.785
<b>51.5</b>	26.141
<b>52.0</b>	25.498
<b>52.5</b>	24.854
<b>53.0</b>	24.210
<b>53.5</b>	23.666
<b>54.0</b>	23.072
<b>54.5</b>	22.527

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**CANDELA TABULATION - (Cont.)**

<b>55.0</b>	21.982
<b>55.5</b>	21.438
<b>56.0</b>	20.893
<b>56.5</b>	20.398
<b>57.0</b>	19.903
<b>57.5</b>	19.457
<b>58.0</b>	18.962
<b>58.5</b>	18.517
<b>59.0</b>	18.071
<b>59.5</b>	17.576
<b>60.0</b>	17.180
<b>60.5</b>	16.734
<b>61.0</b>	16.289
<b>61.5</b>	15.893
<b>62.0</b>	15.497
<b>62.5</b>	15.100
<b>63.0</b>	14.704
<b>63.5</b>	14.308
<b>64.0</b>	13.912
<b>64.5</b>	13.516
<b>65.0</b>	13.170
<b>65.5</b>	12.774
<b>66.0</b>	12.427
<b>66.5</b>	12.031
<b>67.0</b>	11.684
<b>67.5</b>	11.338
<b>68.0</b>	10.991
<b>68.5</b>	10.645
<b>69.0</b>	10.298
<b>69.5</b>	9.951
<b>70.0</b>	9.605
<b>70.5</b>	9.308
<b>71.0</b>	8.961
<b>71.5</b>	8.664
<b>72.0</b>	8.367
<b>72.5</b>	8.021
<b>73.0</b>	7.724
<b>73.5</b>	7.426
<b>74.0</b>	7.129
<b>74.5</b>	6.832
<b>75.0</b>	6.585
<b>75.5</b>	6.288
<b>76.0</b>	5.991
<b>76.5</b>	5.694
<b>77.0</b>	5.446
<b>77.5</b>	5.149
<b>78.0</b>	4.901
<b>78.5</b>	4.654
<b>79.0</b>	4.357
<b>79.5</b>	4.109
<b>80.0</b>	3.862
<b>80.5</b>	3.614
<b>81.0</b>	3.367
<b>81.5</b>	3.119
<b>82.0</b>	2.872
<b>82.5</b>	2.624

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CANDELA TABULATION - (Cont.)

83.0	2.376
83.5	2.129
84.0	1.931
84.5	1.683
85.0	1.436
85.5	1.238
86.0	1.040
86.5	0.842
87.0	0.693
87.5	0.545
88.0	0.396
88.5	0.297
89.0	0.248
89.5	0.149
90.0	0.099
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
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123.0	0.000
123.5	0.000
124.0	0.000
124.5	0.000
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125.5	0.000
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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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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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152.0	0.000
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153.0	0.000
153.5	0.000
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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	631.33	N.A.	69.50
0-30	784.00	N.A.	86.30
0-40	837.97	N.A.	92.20
0-60	886.92	N.A.	97.60
0-80	906.98	N.A.	99.80
0-90	908.75	N.A.	100.00
10-90	641.53	N.A.	70.60
20-40	206.64	N.A.	22.70
20-50	235.77	N.A.	25.90
40-70	62.03	N.A.	6.80
60-80	20.06	N.A.	2.20
70-80	6.98	N.A.	0.80
80-90	1.77	N.A.	0.20
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	908.76	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	267.23
10-20	364.10
20-30	152.67
30-40	53.98
40-50	29.13
50-60	19.82
60-70	13.08
70-80	6.98
80-90	1.77
90-100	0.00
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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	98	98	97	95
2	110	105	102	99	107	104	101	98	101	98	96	98	96	94	95	93	92	90
3	105	100	96	92	103	99	95	92	96	93	90	94	91	89	92	89	87	86
4	101	95	91	87	100	94	90	87	92	88	86	90	87	85	88	86	84	82
5	98	91	86	83	96	90	86	82	88	85	82	87	84	81	85	83	80	79
6	94	87	82	79	93	86	82	79	85	81	78	84	80	78	83	80	77	76
7	91	84	79	76	90	83	79	75	82	78	75	81	77	75	80	77	74	73
8	88	81	76	73	87	80	76	73	79	75	72	78	75	72	77	74	72	71
9	86	78	73	70	85	78	73	70	77	73	70	76	72	70	75	72	69	68
10	83	75	71	68	82	75	71	68	74	70	68	74	70	67	73	70	67	66

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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	8.1	9.1	8.4	9.4	9.7	8.1	9.1	8.4	9.4	9.7
	3H	9.5	10.3	9.9	10.7	11.0	9.5	10.3	9.9	10.7	11.0
	4H	10.0	10.8	10.4	11.1	11.5	10.0	10.8	10.4	11.1	11.5
	6H	10.3	11.0	10.7	11.4	11.8	10.3	11.0	10.7	11.4	11.8
	8H	10.4	11.1	10.8	11.5	11.9	10.4	11.1	10.8	11.5	11.9
	12H	10.4	11.1	10.9	11.5	11.9	10.4	11.1	10.9	11.5	11.9

UGR Viewed Endwise

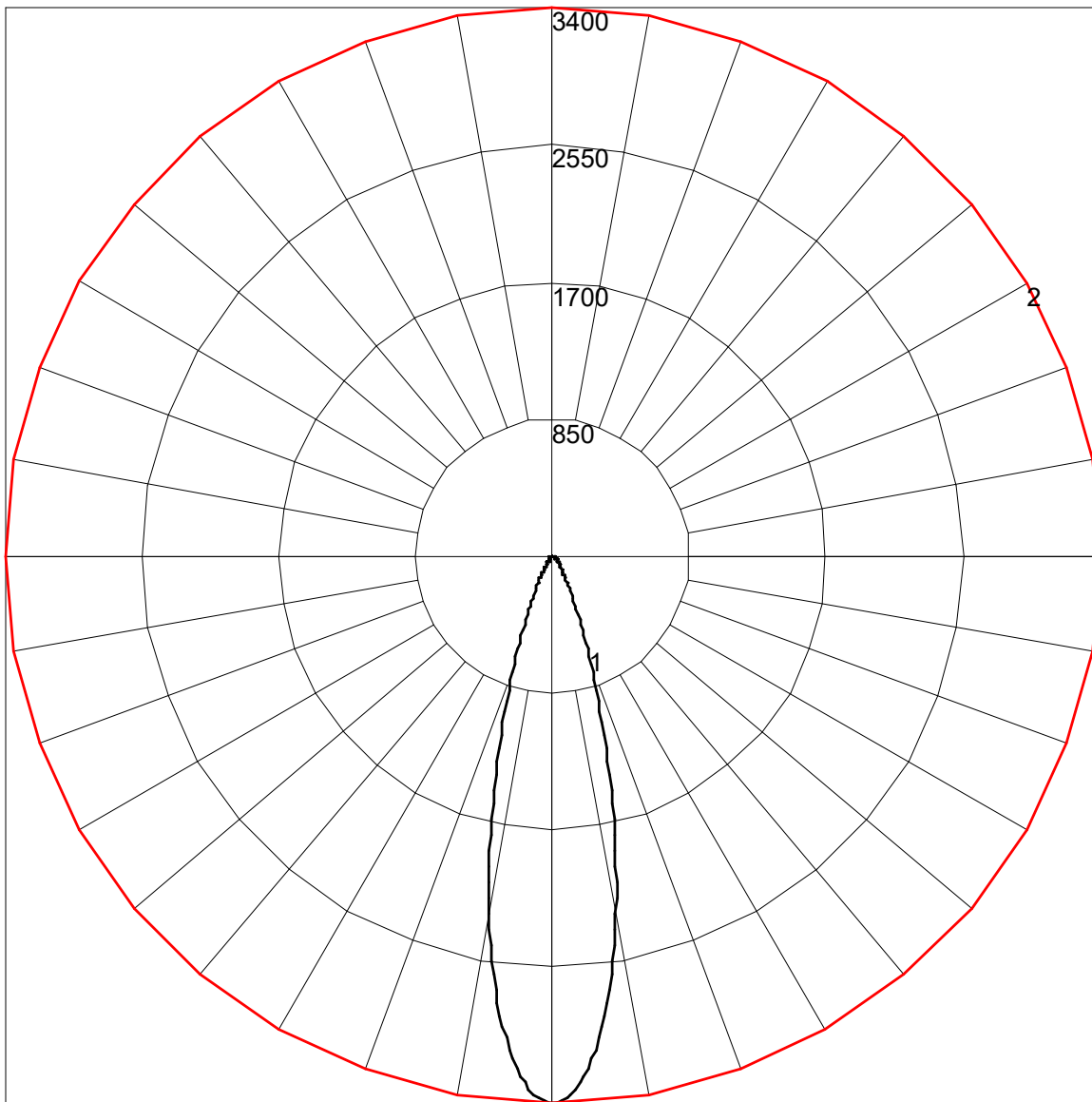
4H	2H	8.5	9.3	8.9	9.6	10.0	8.5	9.3	8.9	9.6	10.0
	3H	10.1	10.7	10.5	11.1	11.5	10.1	10.7	10.5	11.1	11.5
	4H	10.7	11.3	11.1	11.7	12.1	10.7	11.3	11.1	11.7	12.1
	6H	11.1	11.6	11.6	12.1	12.6	11.1	11.6	11.6	12.1	12.6
	8H	11.3	11.7	11.8	12.2	12.7	11.3	11.7	11.8	12.2	12.7
	12H	11.3	11.7	11.8	12.2	12.7	11.3	11.7	11.8	12.2	12.7

8H	4H	10.9	11.3	11.3	11.8	12.2	10.9	11.3	11.3	11.8	12.2
	6H	11.4	11.8	11.9	12.3	12.8	11.4	11.8	11.9	12.3	12.8
	8H	11.6	11.9	12.2	12.5	13.0	11.6	11.9	12.2	12.5	13.0
	12H	11.7	12.0	12.3	12.5	13.1	11.7	12.0	12.3	12.5	13.1

12H	4H	10.8	11.2	11.3	11.7	12.2	10.8	11.2	11.3	11.7	12.2
	6H	11.4	11.8	12.0	12.2	12.8	11.4	11.8	12.0	12.2	12.8
	8H	11.7	12.0	12.2	12.5	13.0	11.7	12.0	12.2	12.5	13.0

Maximum UGR = 13.1

POLAR GRAPH



Maximum Candela = 3399.838 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.)