



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-P8-835-POE-RW-OF-WH\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.12

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 6 OCT 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V4DR-P8-835-PoE-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, Classroom, Commercial, Corridor, Hotel, Industrial, Office, Downlight

[\_SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	806
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	70
Total Luminaire Watts	11.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.98
Spacing Criterion (90-270)	0.98
Spacing Criterion (Diagonal)	0.88
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.38 ft (Diameter)
Luminous Width (90-270)	0.38 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	18648	18648	18648
55	15058	15058	15058
65	9741	9741	9741
75	5432	5432	5432
85	2791	2791	2791

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : V4DR-P8-835-POE-RW-OF-WH\_.IES

CANDELA TABULATION

	<u>0</u>
0.0	647.602
0.5	647.602
1.0	646.993
1.5	645.775
2.0	644.556
2.5	643.338
3.0	641.510
3.5	639.682
4.0	637.855
4.5	635.418
5.0	633.590
5.5	631.153
6.0	628.716
6.5	626.280
7.0	623.843
7.5	621.406
8.0	618.969
8.5	615.923
9.0	613.486
9.5	611.049
10.0	608.734
10.5	606.236
11.0	603.677
11.5	601.180
12.0	598.804
12.5	596.428
13.0	594.052
13.5	591.615
14.0	589.178
14.5	586.741
15.0	584.243
15.5	581.685
16.0	579.004
16.5	576.323
17.0	573.582
17.5	570.658
18.0	567.551
18.5	564.200
19.0	560.971
19.5	557.499
20.0	553.721
20.5	549.396
21.0	544.400
21.5	538.978
22.0	532.764
22.5	525.880
23.0	518.082
23.5	509.309
24.0	499.683
24.5	488.778
25.0	476.594
25.5	463.130
26.0	448.570
26.5	433.095

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : V4DR-P8-835-POE-RW-OF-WH\_.IES**

**CANDELA TABULATION - (Cont.)**

<b>27.0</b>	416.829
<b>27.5</b>	400.319
<b>28.0</b>	383.017
<b>28.5</b>	365.898
<b>29.0</b>	348.840
<b>29.5</b>	331.782
<b>30.0</b>	315.028
<b>30.5</b>	298.579
<b>31.0</b>	283.044
<b>31.5</b>	267.996
<b>32.0</b>	253.802
<b>32.5</b>	240.582
<b>33.0</b>	228.336
<b>33.5</b>	217.309
<b>34.0</b>	207.379
<b>34.5</b>	198.728
<b>35.0</b>	191.113
<b>35.5</b>	184.655
<b>36.0</b>	178.989
<b>36.5</b>	174.237
<b>37.0</b>	170.034
<b>37.5</b>	166.439
<b>38.0</b>	163.149
<b>38.5</b>	160.225
<b>39.0</b>	157.606
<b>39.5</b>	155.230
<b>40.0</b>	153.097
<b>40.5</b>	151.087
<b>41.0</b>	149.137
<b>41.5</b>	147.371
<b>42.0</b>	145.604
<b>42.5</b>	143.959
<b>43.0</b>	142.314
<b>43.5</b>	140.608
<b>44.0</b>	138.902
<b>44.5</b>	137.197
<b>45.0</b>	135.430
<b>45.5</b>	133.602
<b>46.0</b>	131.714
<b>46.5</b>	129.764
<b>47.0</b>	127.754
<b>47.5</b>	125.682
<b>48.0</b>	123.611
<b>48.5</b>	121.418
<b>49.0</b>	119.164
<b>49.5</b>	116.788
<b>50.0</b>	114.412
<b>50.5</b>	111.975
<b>51.0</b>	109.416
<b>51.5</b>	106.918
<b>52.0</b>	104.360
<b>52.5</b>	101.801
<b>53.0</b>	99.364
<b>53.5</b>	96.683
<b>54.0</b>	94.003
<b>54.5</b>	91.322

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : V4DR-P8-835-POE-RW-OF-WH\_.IES**

**CANDELA TABULATION - (Cont.)**

<b>55.0</b>	88.703
<b>55.5</b>	86.022
<b>56.0</b>	83.402
<b>56.5</b>	80.844
<b>57.0</b>	78.285
<b>57.5</b>	75.726
<b>58.0</b>	73.228
<b>58.5</b>	70.792
<b>59.0</b>	68.355
<b>59.5</b>	65.979
<b>60.0</b>	63.603
<b>60.5</b>	61.288
<b>61.0</b>	59.034
<b>61.5</b>	56.779
<b>62.0</b>	54.647
<b>62.5</b>	52.454
<b>63.0</b>	50.383
<b>63.5</b>	48.250
<b>64.0</b>	46.240
<b>64.5</b>	44.229
<b>65.0</b>	42.280
<b>65.5</b>	40.330
<b>66.0</b>	38.442
<b>66.5</b>	36.614
<b>67.0</b>	34.847
<b>67.5</b>	33.081
<b>68.0</b>	31.375
<b>68.5</b>	29.669
<b>69.0</b>	28.024
<b>69.5</b>	26.440
<b>70.0</b>	24.978
<b>70.5</b>	23.577
<b>71.0</b>	22.298
<b>71.5</b>	21.079
<b>72.0</b>	19.922
<b>72.5</b>	18.825
<b>73.0</b>	17.789
<b>73.5</b>	16.875
<b>74.0</b>	15.962
<b>74.5</b>	15.170
<b>75.0</b>	14.439
<b>75.5</b>	13.768
<b>76.0</b>	13.037
<b>76.5</b>	12.367
<b>77.0</b>	11.697
<b>77.5</b>	11.027
<b>78.0</b>	10.418
<b>78.5</b>	9.748
<b>79.0</b>	9.138
<b>79.5</b>	8.529
<b>80.0</b>	7.920
<b>80.5</b>	7.311
<b>81.0</b>	6.762
<b>81.5</b>	6.214
<b>82.0</b>	5.605
<b>82.5</b>	5.117

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : V4DR-P8-835-POE-RW-OF-WH\_.IES

CANDELA TABULATION - (Cont.)

83.0	4.569
83.5	4.021
84.0	3.533
84.5	2.985
85.0	2.498
85.5	2.071
86.0	1.645
86.5	1.340
87.0	1.036
87.5	0.792
88.0	0.548
88.5	0.366
89.0	0.183
89.5	0.061
90.0	0.000
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  
PHOTOMETRIC FILENAME : V4DR-P8-835-POE-RW-OF-WH\_.IES

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

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : V4DR-P8-835-POE-RW-OF-WH\_.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

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : V4DR-P8-835-POE-RW-OF-WH\_.IES**

**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



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : V4DR-P8-835-POE-RW-OF-WH\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	224.16	N.A.	27.80
0-30	433.77	N.A.	53.80
0-40	561.51	N.A.	69.60
0-60	744.65	N.A.	92.40
0-80	802.92	N.A.	99.60
0-90	806.21	N.A.	100.00
10-90	746.57	N.A.	92.60
20-40	337.35	N.A.	41.80
20-50	441.28	N.A.	54.70
40-70	225.49	N.A.	28.00
60-80	58.27	N.A.	7.20
70-80	15.91	N.A.	2.00
80-90	3.29	N.A.	0.40
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	806.21	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	59.65
10-20	164.51
20-30	209.62
30-40	127.74
40-50	103.93
50-60	79.21
60-70	42.36
70-80	15.91
80-90	3.29
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

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : V4DR-P8-835-POE-RW-OF-WH\_.IES**

**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	84	84	84	84	82	82	82	82	79	79	79	75	75	75	72	72	72	71
1	79	77	74	72	77	75	73	71	72	70	69	69	68	67	67	66	65	64
2	74	69	66	63	72	68	65	62	66	63	61	64	61	59	62	60	58	57
3	69	63	59	55	67	62	58	55	60	57	54	58	55	53	57	54	52	51
4	64	58	53	49	63	57	52	49	55	51	48	54	50	48	52	49	47	46
5	60	53	48	44	59	52	48	44	51	47	44	50	46	43	49	45	43	42
6	57	49	44	40	56	48	44	40	47	43	40	46	42	39	45	42	39	38
7	53	46	40	37	52	45	40	37	44	40	37	43	39	36	42	39	36	35
8	50	42	37	34	49	42	37	34	41	37	34	40	36	34	40	36	33	32
9	48	40	35	31	47	39	35	31	39	34	31	38	34	31	37	34	31	30
10	45	37	32	29	44	37	32	29	36	32	29	36	32	29	35	32	29	28

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : V4DR-P8-835-POE-RW-OF-WH\_IES**

**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	20.1	21.4	20.4	21.7	22.0	20.1	21.4	20.4	21.7	22.0
	3H	20.8	22.0	21.2	22.3	22.7	20.8	22.0	21.2	22.3	22.7
	4H	21.0	22.1	21.4	22.4	22.8	21.0	22.1	21.4	22.4	22.8
	6H	21.1	22.1	21.5	22.5	22.9	21.1	22.1	21.5	22.5	22.9
	8H	21.1	22.1	21.5	22.4	22.9	21.1	22.1	21.5	22.4	22.9
	12H	21.1	22.0	21.5	22.4	22.8	21.1	22.0	21.5	22.4	22.8

UGR Viewed Endwise

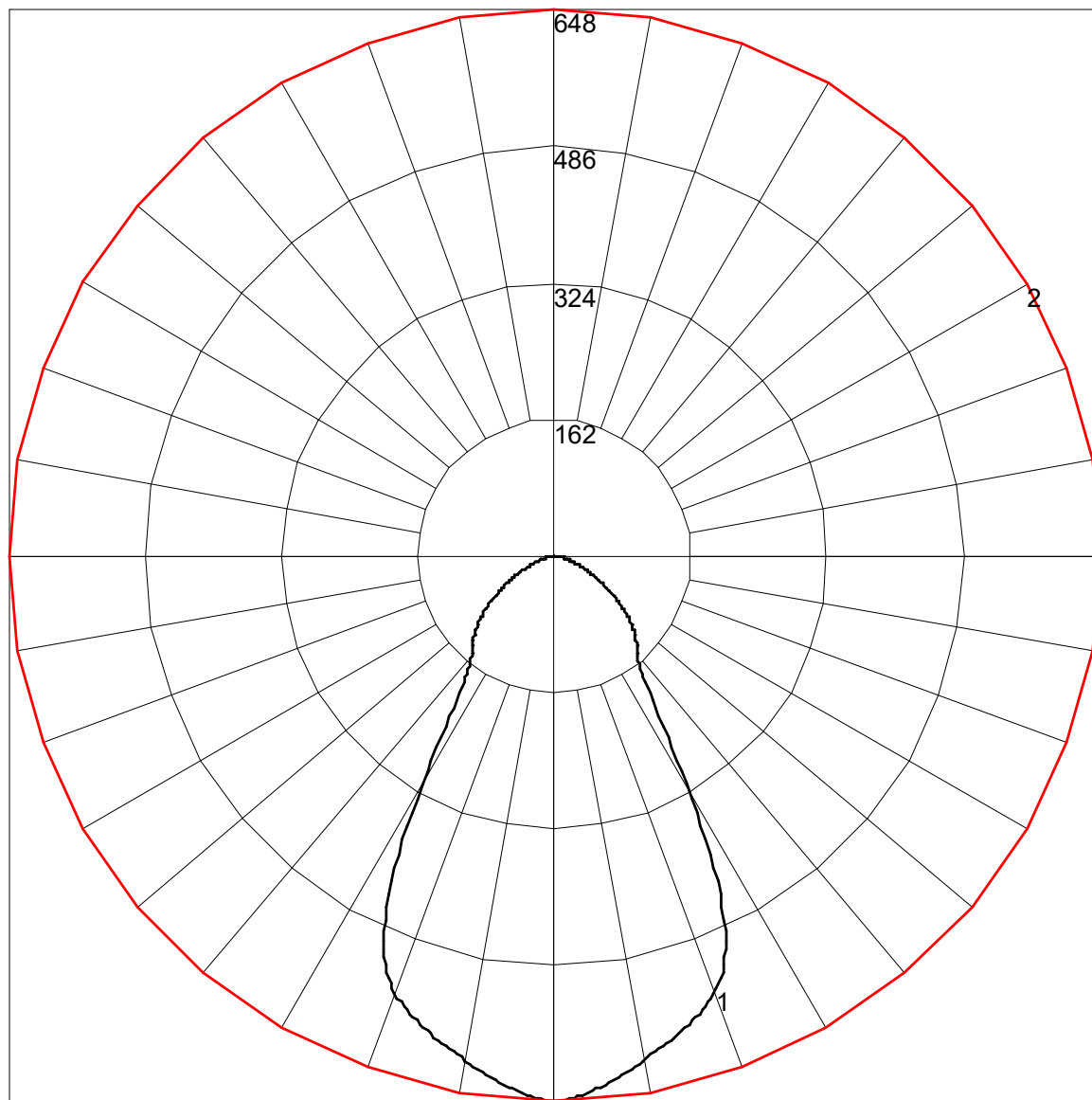
4H	2H	20.3	21.4	20.7	21.8	22.2	20.3	21.4	20.7	21.8	22.2
	3H	21.2	22.1	21.6	22.5	22.9	21.2	22.1	21.6	22.5	22.9
	4H	21.4	22.3	21.9	22.7	23.1	21.4	22.3	21.9	22.7	23.1
	6H	21.6	22.3	22.1	22.8	23.2	21.6	22.3	22.1	22.8	23.2
	8H	21.7	22.3	22.1	22.8	23.2	21.7	22.3	22.1	22.8	23.2
	12H	21.7	22.2	22.2	22.7	23.2	21.7	22.2	22.2	22.7	23.2

8H	4H	21.5	22.1	22.0	22.6	23.1	21.5	22.1	22.0	22.6	23.1
	6H	21.7	22.3	22.2	22.8	23.2	21.7	22.3	22.2	22.8	23.2
	8H	21.8	22.3	22.3	22.8	23.3	21.8	22.3	22.3	22.8	23.3
	12H	21.8	22.2	22.3	22.7	23.3	21.8	22.2	22.3	22.7	23.3

12H	4H	21.5	22.0	22.0	22.5	23.0	21.5	22.0	22.0	22.5	23.0
	6H	21.7	22.2	22.2	22.7	23.2	21.7	22.2	22.2	22.7	23.2
	8H	21.8	22.2	22.3	22.7	23.3	21.8	22.2	22.3	22.7	23.3

Maximum UGR = 23.3

POLAR GRAPH



Maximum Candela = 647.602 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.)