



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-P17-835-POE-LM-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.09

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 6 OCT 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V4DR-P17-835-PoE-LM-OF-WH

[LUMINAIRE] Black formed aluminum housing, white reflector, clear plas

[MORE] tic optic, clear glass patterned 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	2195
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	95
Total Luminaire Watts	23.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.54
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.35 ft (Diameter)
Luminous Width (90-270)	0.35 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	16656	16656	16656
55	12982	12982	12982
65	10850	10850	10850
75	8729	8729	8729
85	5215	5215	5215

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V4DR-P17-835-POE-LM-OF-WH_.IES

CANDELA TABULATION

	<u>0</u>
0.0	5679.594
0.5	5677.147
1.0	5668.582
1.5	5655.123
2.0	5637.994
2.5	5614.747
3.0	5587.830
3.5	5556.018
4.0	5519.312
4.5	5480.160
5.0	5436.113
5.5	5387.172
6.0	5333.337
6.5	5273.384
7.0	5208.537
7.5	5137.573
8.0	5060.491
8.5	4977.292
9.0	4889.198
9.5	4793.763
10.0	4690.987
10.5	4580.870
11.0	4465.859
11.5	4344.730
12.0	4216.260
12.5	4082.896
13.0	3943.415
13.5	3799.039
14.0	3648.546
14.5	3493.158
15.0	3336.547
15.5	3177.489
16.0	3018.431
16.5	2858.150
17.0	2699.092
17.5	2544.928
18.0	2391.988
18.5	2245.165
19.0	2104.460
19.5	1968.649
20.0	1840.179
20.5	1716.603
21.0	1601.592
21.5	1492.698
22.0	1389.922
22.5	1294.487
23.0	1204.436
23.5	1120.502
24.0	1042.564
24.5	969.764
25.0	902.226
25.5	839.459
26.0	780.608
26.5	726.283

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V4DR-P17-835-POE-LM-OF-WH_.IES

CANDELA TABULATION - (Cont.)

27.0	675.629
27.5	629.258
28.0	586.068
28.5	546.181
29.0	509.597
29.5	475.461
30.0	443.772
30.5	414.530
31.0	387.490
31.5	362.652
32.0	339.650
32.5	318.483
33.0	299.029
33.5	281.043
34.0	264.648
34.5	249.476
35.0	235.773
35.5	223.048
36.0	211.425
36.5	200.780
37.0	190.992
37.5	182.060
38.0	173.985
38.5	166.521
39.0	159.670
39.5	153.430
40.0	147.679
40.5	142.296
41.0	137.279
41.5	132.752
42.0	128.470
42.5	124.432
43.0	120.762
43.5	117.214
44.0	113.910
44.5	110.851
45.0	107.792
45.5	104.978
46.0	102.409
46.5	99.839
47.0	97.392
47.5	95.190
48.0	92.865
48.5	90.785
49.0	88.705
49.5	86.625
50.0	84.790
50.5	82.955
51.0	81.242
51.5	79.407
52.0	77.694
52.5	76.103
53.0	74.390
53.5	72.800
54.0	71.209
54.5	69.618

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V4DR-P17-835-POE-LM-OF-WH_.IES

CANDELA TABULATION - (Cont.)

55.0	68.150
55.5	66.682
56.0	65.214
56.5	63.746
57.0	62.155
57.5	60.809
58.0	59.463
58.5	58.240
59.0	56.894
59.5	55.548
60.0	54.202
60.5	52.856
61.0	51.755
61.5	50.409
62.0	49.186
62.5	47.962
63.0	46.739
63.5	45.637
64.0	44.414
64.5	43.190
65.0	41.967
65.5	40.866
66.0	39.764
66.5	38.663
67.0	37.440
67.5	36.339
68.0	35.237
68.5	34.136
69.0	33.035
69.5	31.934
70.0	30.833
70.5	29.854
71.0	28.875
71.5	27.652
72.0	26.673
72.5	25.694
73.0	24.715
73.5	23.614
74.0	22.635
74.5	21.656
75.0	20.678
75.5	19.699
76.0	18.720
76.5	17.741
77.0	16.762
77.5	16.028
78.0	15.049
78.5	14.193
79.0	13.336
79.5	12.480
80.0	11.623
80.5	10.767
81.0	9.911
81.5	9.299
82.0	8.320
82.5	7.708

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V4DR-P17-835-POE-LM-OF-WH_.IES

CANDELA TABULATION - (Cont.)

83.0	6.852
83.5	6.240
84.0	5.506
84.5	4.772
85.0	4.160
85.5	3.426
86.0	2.936
86.5	2.325
87.0	1.958
87.5	1.591
88.0	1.224
88.5	0.979
89.0	0.734
89.5	0.489
90.0	0.367
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-P17-835-POE-LM-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-P17-835-POE-LM-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-P17-835-POE-LM-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-P17-835-POE-LM-OF-WH_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1388.2	N.A.	63.20
0-30	1823.2	N.A.	83.10
0-40	1980.01	N.A.	90.20
0-60	2126.19	N.A.	96.90
0-80	2189.92	N.A.	99.80
0-90	2195.1	N.A.	100.00
10-90	1699.41	N.A.	77.40
20-40	591.81	N.A.	27.00
20-50	676.74	N.A.	30.80
40-70	187.92	N.A.	8.60
60-80	63.73	N.A.	2.90
70-80	21.99	N.A.	1.00
80-90	5.18	N.A.	0.20
90-110	0.01	N.A.	0.00
90-120	0.01	N.A.	0.00
90-130	0.01	N.A.	0.00
90-150	0.01	N.A.	0.00
90-180	0.01	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2195.11	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	495.69
10-20	892.51
20-30	435.00
30-40	156.81
40-50	84.92
50-60	61.26
60-70	41.73
70-80	21.99
80-90	5.18
90-100	0.01
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-P17-835-POE-LM-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	169	169	169	169	165	165	165	165	158	158	158	151	151	151	145	145	145	142
1	162	158	155	152	158	155	152	149	149	147	145	144	142	140	139	138	136	134
2	155	148	143	139	152	146	141	137	141	137	134	137	134	131	133	131	128	126
3	148	140	133	128	145	138	132	127	134	129	125	131	127	123	128	124	121	119
4	142	132	125	120	140	131	124	119	128	122	118	125	120	117	123	119	115	113
5	136	126	118	113	134	125	118	113	122	116	112	120	115	111	118	113	110	108
6	131	120	113	107	129	119	112	107	117	111	106	115	110	105	113	108	105	103
7	126	115	107	102	124	114	107	102	112	106	101	111	105	101	109	104	100	99
8	122	110	103	98	120	109	102	97	108	102	97	106	101	97	105	100	96	95
9	117	106	98	94	116	105	98	94	104	98	93	103	97	93	102	96	93	91
10	113	102	95	90	112	101	94	90	100	94	90	99	93	89	98	93	89	88

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V4DR-P17-835-POE-LM-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	13.4	14.5	13.8	14.8	15.1	13.4	14.5	13.8	14.8	15.1
	3H	14.9	15.8	15.3	16.1	16.5	14.9	15.8	15.3	16.1	16.5
	4H	15.4	16.2	15.8	16.6	17.0	15.4	16.2	15.8	16.6	17.0
	6H	15.7	16.5	16.1	16.9	17.3	15.7	16.5	16.1	16.9	17.3
	8H	15.8	16.5	16.2	16.9	17.3	15.8	16.5	16.2	16.9	17.3
	12H	15.8	16.5	16.3	16.9	17.3	15.8	16.5	16.3	16.9	17.3

UGR Viewed Endwise

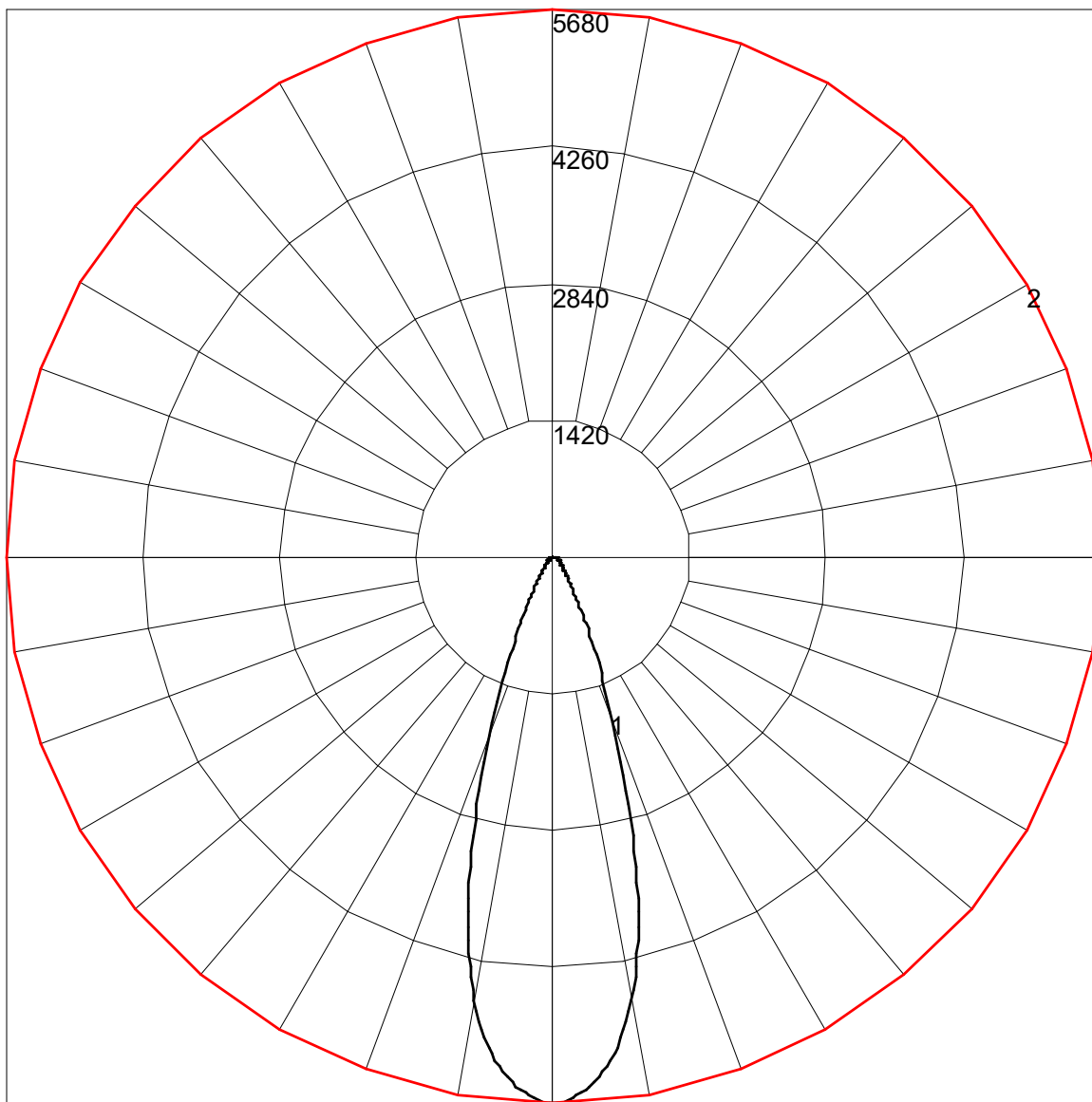
4H	2H	13.9	14.7	14.3	15.1	15.5	13.9	14.7	14.3	15.1	15.5
	3H	15.5	16.2	15.9	16.6	17.0	15.5	16.2	15.9	16.6	17.0
	4H	16.1	16.8	16.6	17.2	17.6	16.1	16.8	16.6	17.2	17.6
	6H	16.6	17.1	17.1	17.6	18.0	16.6	17.1	17.1	17.6	18.0
	8H	16.7	17.2	17.2	17.6	18.1	16.7	17.2	17.2	17.6	18.1
	12H	16.7	17.2	17.2	17.6	18.1	16.7	17.2	17.2	17.6	18.1

8H	4H	16.3	16.8	16.8	17.2	17.7	16.3	16.8	16.8	17.2	17.7
	6H	16.8	17.2	17.4	17.7	18.2	16.8	17.2	17.4	17.7	18.2
	8H	17.0	17.3	17.5	17.9	18.4	17.0	17.3	17.5	17.9	18.4
	12H	17.1	17.4	17.6	17.9	18.5	17.1	17.4	17.6	17.9	18.5

12H	4H	16.3	16.7	16.8	17.2	17.7	16.3	16.7	16.8	17.2	17.7
	6H	16.9	17.2	17.4	17.7	18.2	16.9	17.2	17.4	17.7	18.2
	8H	17.0	17.3	17.6	17.8	18.4	17.0	17.3	17.6	17.8	18.4

Maximum UGR = 18.5

POLAR GRAPH



Maximum Candela = 5679.594 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.)