



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-P32-835-POE-LW-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.07

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 6 OCT 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V4DR-P32-835-PoE-LW-OF-WH

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

[MORE] erved glass 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	3170
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	68
Total Luminaire Watts	46.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.00
Spacing Criterion (90-270)	1.00
Spacing Criterion (Diagonal)	0.90
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	87486	87486	87486
55	71887	71887	71887
65	52591	52591	52591
75	36407	36407	36407
85	19848	19848	19848

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CANDELA TABULATION

	<u>0</u>
0.0	2226.971
0.5	2226.267
1.0	2224.860
1.5	2222.983
2.0	2221.107
2.5	2218.996
3.0	2216.182
3.5	2214.540
4.0	2213.367
4.5	2212.663
5.0	2211.725
5.5	2210.787
6.0	2210.084
6.5	2209.145
7.0	2208.442
7.5	2207.973
8.0	2207.738
8.5	2207.035
9.0	2206.331
9.5	2204.924
10.0	2203.985
10.5	2202.344
11.0	2200.702
11.5	2198.591
12.0	2196.246
12.5	2193.431
13.0	2190.148
13.5	2186.395
14.0	2181.704
14.5	2176.075
15.0	2169.273
15.5	2161.064
16.0	2151.917
16.5	2141.128
17.0	2129.401
17.5	2116.267
18.0	2100.787
18.5	2084.838
19.0	2067.482
19.5	2048.015
20.0	2026.672
20.5	2003.453
21.0	1978.357
21.5	1951.384
22.0	1921.598
22.5	1889.935
23.0	1855.926
23.5	1819.338
24.0	1779.935
24.5	1737.952
25.0	1692.451
25.5	1644.839
26.0	1593.943
26.5	1539.999

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CANDELA TABULATION - (Cont.)

27.0	1484.178
27.5	1426.012
28.0	1366.907
28.5	1307.568
29.0	1249.402
29.5	1192.408
30.0	1137.526
30.5	1085.927
31.0	1037.611
31.5	993.517
32.0	953.411
32.5	917.291
33.0	885.159
33.5	856.545
34.0	830.980
34.5	808.464
35.0	788.059
35.5	769.530
36.0	753.112
36.5	737.633
37.0	723.560
37.5	710.426
38.0	698.230
38.5	686.503
39.0	675.714
39.5	665.159
40.0	655.309
40.5	645.458
41.0	636.076
41.5	626.929
42.0	618.251
42.5	609.573
43.0	600.895
43.5	592.217
44.0	583.539
44.5	574.861
45.0	566.183
45.5	557.505
46.0	548.827
46.5	540.149
47.0	531.002
47.5	521.855
48.0	512.707
48.5	503.326
49.0	493.710
49.5	484.093
50.0	474.712
50.5	465.096
51.0	455.479
51.5	445.863
52.0	436.482
52.5	427.100
53.0	417.484
53.5	407.633
54.0	397.548
54.5	387.462

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CANDELA TABULATION - (Cont.)

55.0	377.377
55.5	367.292
56.0	357.441
56.5	347.825
57.0	338.209
57.5	328.592
58.0	319.211
58.5	310.064
59.0	300.917
59.5	292.004
60.0	283.326
60.5	274.648
61.0	266.204
61.5	257.996
62.0	249.787
62.5	241.578
63.0	233.744
63.5	225.957
64.0	218.311
64.5	210.782
65.0	203.418
65.5	196.241
66.0	189.158
66.5	182.262
67.0	175.531
67.5	168.917
68.0	162.514
68.5	156.251
69.0	149.989
69.5	143.938
70.0	138.051
70.5	132.258
71.0	126.605
71.5	121.094
72.0	115.770
72.5	110.516
73.0	105.403
73.5	100.431
74.0	95.552
74.5	90.838
75.0	86.241
75.5	81.785
76.0	77.422
76.5	73.177
77.0	69.119
77.5	65.085
78.0	61.192
78.5	57.416
79.0	53.710
79.5	50.145
80.0	46.650
80.5	43.249
81.0	39.895
81.5	36.635
82.0	33.446
82.5	30.350

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CANDELA TABULATION - (Cont.)

83.0	27.277
83.5	24.298
84.0	21.390
84.5	18.552
85.0	15.832
85.5	13.205
86.0	10.695
86.5	8.326
87.0	6.239
87.5	4.503
88.0	3.143
88.5	1.994
89.0	1.243
89.5	0.844
90.0	0.586
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
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121.0	0.000
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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

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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
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

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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	818.01	N.A.	25.80
0-30	1569.03	N.A.	49.50
0-40	2080.61	N.A.	65.60
0-60	2853.91	N.A.	90.00
0-80	3150.35	N.A.	99.40
0-90	3170.18	N.A.	100.00
10-90	2959.24	N.A.	93.30
20-40	1262.6	N.A.	39.80
20-50	1698.63	N.A.	53.60
40-70	976.71	N.A.	30.80
60-80	296.44	N.A.	9.40
70-80	93.04	N.A.	2.90
80-90	19.83	N.A.	0.60
90-110	0.02	N.A.	0.00
90-120	0.02	N.A.	0.00
90-130	0.02	N.A.	0.00
90-150	0.02	N.A.	0.00
90-180	0.02	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3170.2	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	210.94
10-20	607.07
20-30	751.02
30-40	511.57
40-50	436.04
50-60	337.27
60-70	203.40
70-80	93.04
80-90	19.83
90-100	0.02
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	228	228	228	228	223	223	223	223	213	213	213	204	204	204	196	196	196	192
1	213	206	200	194	208	202	196	191	194	189	185	187	183	179	180	177	174	170
2	198	186	175	167	194	182	173	165	176	168	161	170	163	157	164	159	154	150
3	184	168	155	145	180	165	154	144	160	150	142	155	146	139	150	143	137	133
4	172	153	139	129	168	151	138	128	146	135	126	142	132	125	138	130	123	120
5	161	140	126	115	157	138	125	115	134	123	114	131	121	112	128	119	111	108
6	151	129	115	104	147	127	114	104	124	112	103	121	110	102	118	109	101	98
7	141	119	105	95	138	118	104	95	115	103	94	113	102	94	110	100	93	90
8	133	111	97	87	130	110	96	87	107	95	87	105	94	86	103	93	86	83
9	126	103	90	81	123	102	89	80	100	88	80	98	88	80	97	87	79	76
10	119	97	84	75	117	96	83	75	94	83	74	93	82	74	91	81	74	71

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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

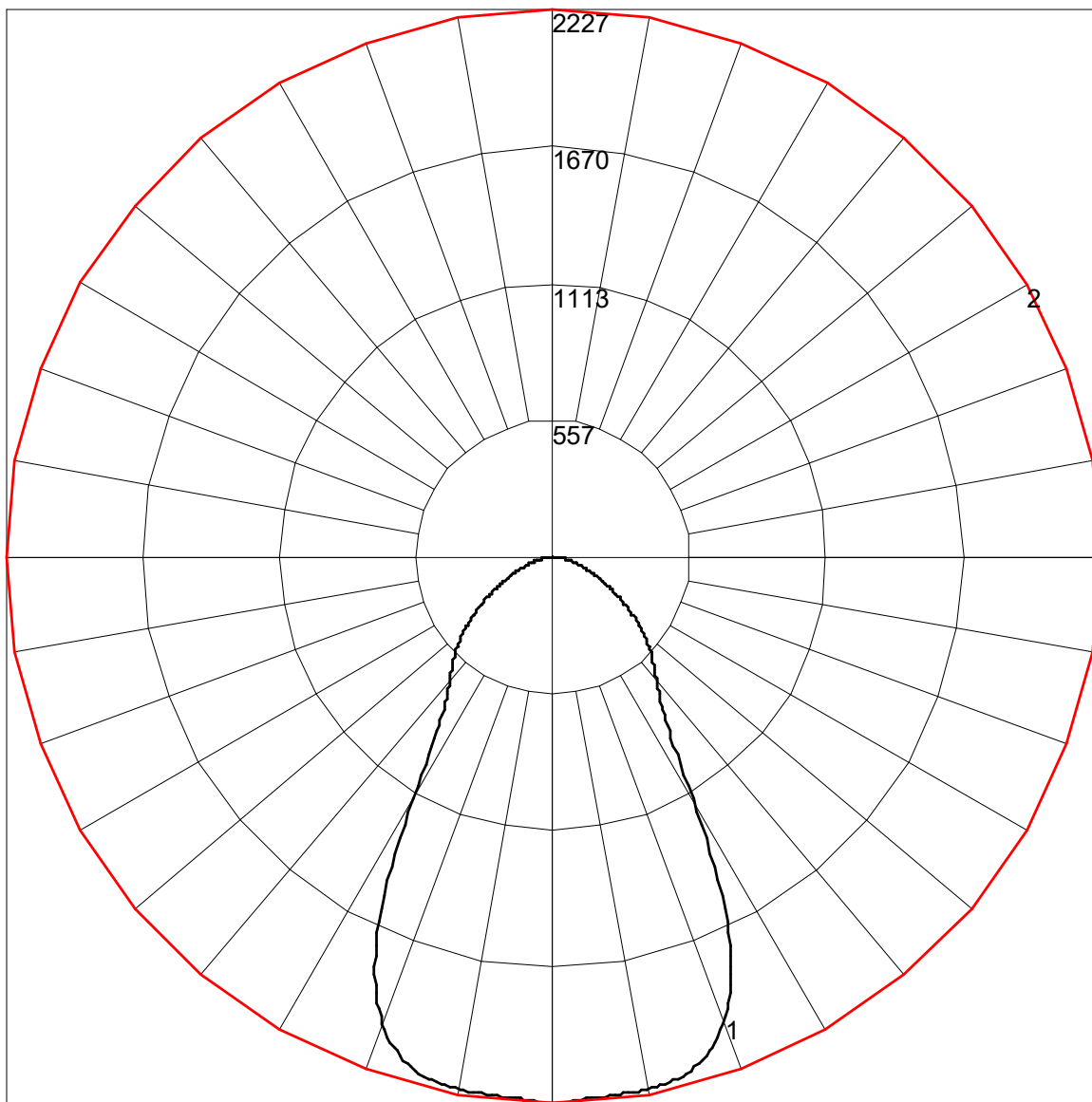
X=2H	Y=2H	22.4	23.8	22.8	24.1	24.4	22.4	23.8	22.8	24.1	24.4
	3H	23.5	24.7	23.9	25.1	25.4	23.5	24.7	23.9	25.1	25.4
	4H	23.9	25.0	24.3	25.3	25.7	23.9	25.0	24.3	25.3	25.7
	6H	24.1	25.1	24.5	25.5	25.9	24.1	25.1	24.5	25.5	25.9
	8H	24.1	25.1	24.6	25.5	25.9	24.1	25.1	24.6	25.5	25.9
	12H	24.1	25.1	24.6	25.5	25.9	24.1	25.1	24.6	25.5	25.9

UGR Viewed Endwise

4H	2H	22.8	23.9	23.2	24.3	24.6	22.8	23.9	23.2	24.3	24.6
	3H	24.1	25.0	24.5	25.4	25.8	24.1	25.0	24.5	25.4	25.8
	4H	24.5	25.4	24.9	25.8	26.2	24.5	25.4	24.9	25.8	26.2
	6H	24.8	25.6	25.3	26.0	26.5	24.8	25.6	25.3	26.0	26.5
	8H	24.9	25.6	25.4	26.0	26.5	24.9	25.6	25.4	26.0	26.5
	12H	24.9	25.5	25.4	26.0	26.5	24.9	25.5	25.4	26.0	26.5
8H	4H	24.6	25.3	25.1	25.8	26.2	24.6	25.3	25.1	25.8	26.2
	6H	25.0	25.6	25.5	26.1	26.6	25.0	25.6	25.5	26.1	26.6
	8H	25.1	25.6	25.7	26.2	26.6	25.1	25.6	25.7	26.2	26.6
	12H	25.2	25.6	25.7	26.1	26.7	25.2	25.6	25.7	26.1	26.7
12H	4H	24.6	25.2	25.1	25.7	26.2	24.6	25.2	25.1	25.7	26.2
	6H	25.0	25.5	25.6	26.0	26.5	25.0	25.5	25.6	26.0	26.5
	8H	25.2	25.6	25.7	26.1	26.7	25.2	25.6	25.7	26.1	26.7

Maximum UGR = 26.7

POLAR GRAPH



Maximum Candela = 2226.971 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.)