



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-P32-835-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-P32-835-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	3107
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	67
Total Luminaire Watts	46.6
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	71863	71863	71863
55	58026	58026	58026
65	37537	37537	37537
75	20932	20932	20932
85	10754	10754	10754

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CANDELA TABULATION

	<u>0</u>
0.0	2495.600
0.5	2495.600
1.0	2493.252
1.5	2488.557
2.0	2483.861
2.5	2479.166
3.0	2472.123
3.5	2465.080
4.0	2458.037
4.5	2448.646
5.0	2441.603
5.5	2432.212
6.0	2422.821
6.5	2413.431
7.0	2404.040
7.5	2394.649
8.0	2385.258
8.5	2373.520
9.0	2364.129
9.5	2354.738
10.0	2345.817
10.5	2336.191
11.0	2326.331
11.5	2316.706
12.0	2307.550
12.5	2298.394
13.0	2289.238
13.5	2279.847
14.0	2270.456
14.5	2261.065
15.0	2251.440
15.5	2241.579
16.0	2231.249
16.5	2220.920
17.0	2210.355
17.5	2199.086
18.0	2187.113
18.5	2174.200
19.0	2161.758
19.5	2148.376
20.0	2133.820
20.5	2117.151
21.0	2097.900
21.5	2077.006
22.0	2053.059
22.5	2026.530
23.0	1996.480
23.5	1962.673
24.0	1925.580
24.5	1883.556
25.0	1836.602
25.5	1784.718
26.0	1728.608
26.5	1668.976

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CANDELA TABULATION - (Cont.)

27.0	1606.293
27.5	1542.670
28.0	1475.996
28.5	1410.026
29.0	1344.290
29.5	1278.555
30.0	1213.993
30.5	1150.605
31.0	1090.739
31.5	1032.751
32.0	978.050
32.5	927.105
33.0	879.916
33.5	837.423
34.0	799.155
34.5	765.818
35.0	736.472
35.5	711.586
36.0	689.753
36.5	671.441
37.0	655.242
37.5	641.390
38.0	628.713
38.5	617.444
39.0	607.349
39.5	598.193
40.0	589.976
40.5	582.228
41.0	574.716
41.5	567.907
42.0	561.099
42.5	554.760
43.0	548.422
43.5	541.848
44.0	535.274
44.5	528.701
45.0	521.893
45.5	514.850
46.0	507.572
46.5	500.059
47.0	492.312
47.5	484.330
48.0	476.347
48.5	467.896
49.0	459.209
49.5	450.053
50.0	440.897
50.5	431.506
51.0	421.646
51.5	412.020
52.0	402.160
52.5	392.300
53.0	382.909
53.5	372.579
54.0	362.249
54.5	351.919

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CANDELA TABULATION - (Cont.)

55.0	341.824
55.5	331.495
56.0	321.399
56.5	311.539
57.0	301.679
57.5	291.819
58.0	282.193
58.5	272.802
59.0	263.411
59.5	254.255
60.0	245.099
60.5	236.178
61.0	227.492
61.5	218.805
62.0	210.588
62.5	202.137
63.0	194.154
63.5	185.937
64.0	178.190
64.5	170.443
65.0	162.930
65.5	155.417
66.0	148.140
66.5	141.096
67.0	134.288
67.5	127.480
68.0	120.906
68.5	114.333
69.0	107.994
69.5	101.890
70.0	96.255
70.5	90.856
71.0	85.926
71.5	81.230
72.0	76.770
72.5	72.544
73.0	68.553
73.5	65.031
74.0	61.510
74.5	58.458
75.0	55.640
75.5	53.058
76.0	50.241
76.5	47.658
77.0	45.076
77.5	42.493
78.0	40.146
78.5	37.563
79.0	35.215
79.5	32.868
80.0	30.520
80.5	28.172
81.0	26.059
81.5	23.946
82.0	21.599
82.5	19.721

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CANDELA TABULATION - (Cont.)

83.0	17.608
83.5	15.495
84.0	13.617
84.5	11.504
85.0	9.626
85.5	7.982
86.0	6.339
86.5	5.165
87.0	3.991
87.5	3.052
88.0	2.113
88.5	1.409
89.0	0.704
89.5	0.235
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

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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
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
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130.0	0.000
130.5	0.000
131.0	0.000
131.5	0.000
132.0	0.000
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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	863.81	N.A.	27.80
0-30	1671.59	N.A.	53.80
0-40	2163.84	N.A.	69.60
0-60	2869.57	N.A.	92.40
0-80	3094.12	N.A.	99.60
0-90	3106.82	N.A.	100.00
10-90	2876.97	N.A.	92.60
20-40	1300.02	N.A.	41.80
20-50	1700.53	N.A.	54.70
40-70	868.96	N.A.	28.00
60-80	224.55	N.A.	7.20
70-80	61.32	N.A.	2.00
80-90	12.70	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	3106.82	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	229.85
10-20	633.97
20-30	807.77
30-40	492.25
40-50	400.51
50-60	305.23
60-70	163.23
70-80	61.32
80-90	12.70
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	228	228	228	228	223	223	223	223	213	213	213	204	204	204	196	196	196	192
1	214	208	201	196	209	203	198	193	195	191	187	188	185	181	181	179	176	172
2	200	188	178	170	196	185	176	168	178	171	164	172	166	161	167	162	157	154
3	187	171	159	150	183	168	157	148	163	154	146	158	150	144	154	147	141	138
4	175	157	143	133	171	154	142	132	150	139	131	146	137	129	142	134	128	124
5	164	144	130	120	160	142	129	120	138	127	118	135	125	117	132	123	116	113
6	154	133	119	109	151	131	118	109	128	117	108	125	115	107	123	113	106	103
7	145	123	110	100	142	122	109	100	119	108	99	117	106	98	114	105	98	95
8	137	115	101	92	134	114	101	92	111	100	91	109	99	91	107	98	91	87
9	129	108	94	85	127	106	94	85	104	93	85	103	92	84	101	91	84	81
10	122	101	88	79	120	100	88	79	98	87	79	97	86	79	95	85	79	76

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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

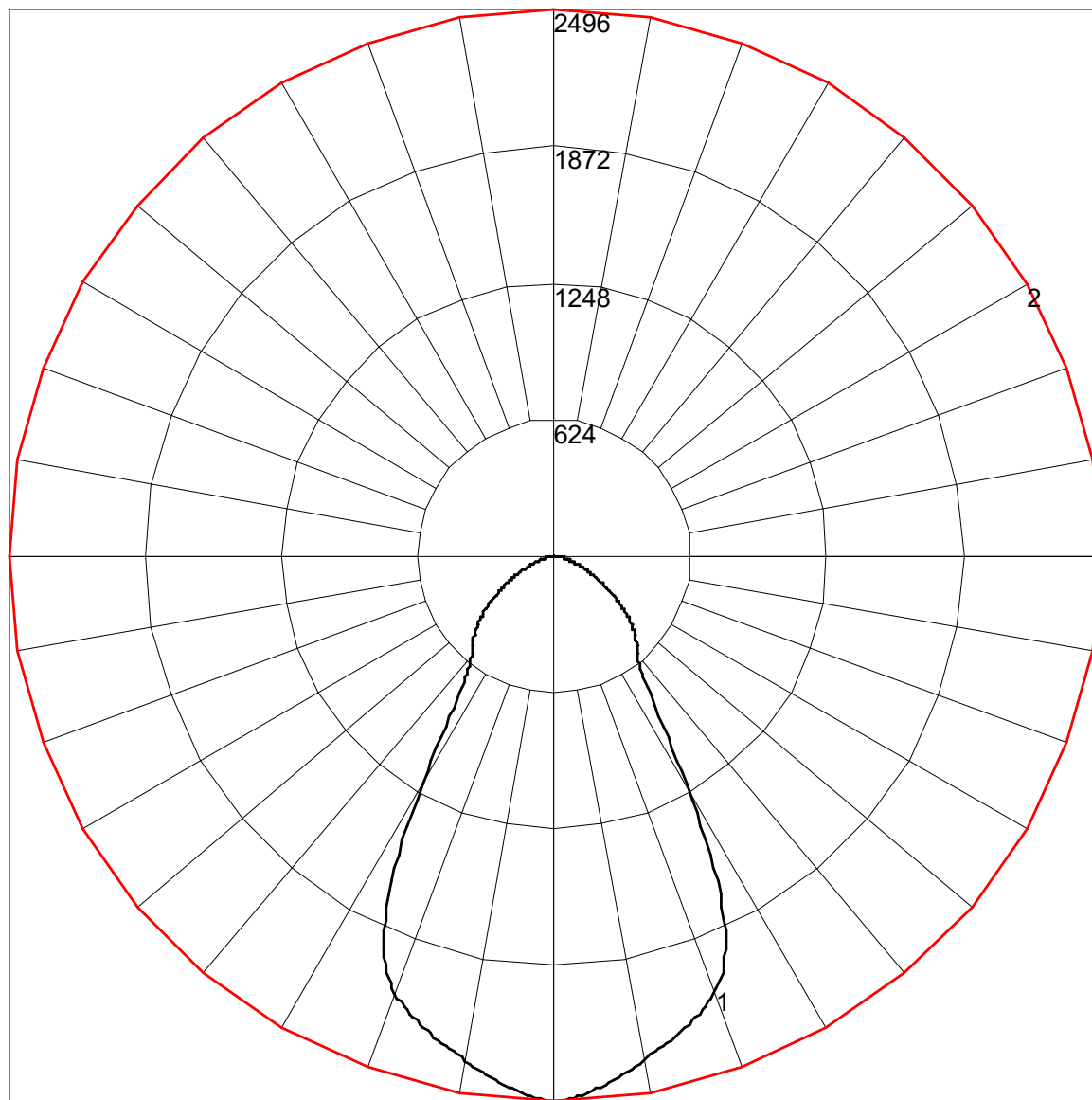
X=2H	Y=2H	21.3	22.6	21.7	22.9	23.2	21.3	22.6	21.7	22.9	23.2
	3H	22.1	23.2	22.4	23.6	23.9	22.1	23.2	22.4	23.6	23.9
	4H	22.2	23.3	22.6	23.7	24.0	22.2	23.3	22.6	23.7	24.0
	6H	22.3	23.3	22.8	23.7	24.1	22.3	23.3	22.8	23.7	24.1
	8H	22.4	23.3	22.8	23.7	24.1	22.4	23.3	22.8	23.7	24.1
	12H	22.3	23.2	22.8	23.6	24.1	22.3	23.2	22.8	23.6	24.1

UGR Viewed Endwise

4H	2H	21.6	22.7	22.0	23.0	23.4	21.6	22.7	22.0	23.0	23.4
	3H	22.5	23.4	22.9	23.8	24.2	22.5	23.4	22.9	23.8	24.2
	4H	22.7	23.5	23.1	23.9	24.4	22.7	23.5	23.1	23.9	24.4
	6H	22.9	23.6	23.3	24.0	24.5	22.9	23.6	23.3	24.0	24.5
	8H	22.9	23.5	23.4	24.0	24.5	22.9	23.5	23.4	24.0	24.5
	12H	22.9	23.5	23.4	24.0	24.4	22.9	23.5	23.4	24.0	24.4
8H	4H	22.8	23.4	23.2	23.8	24.3	22.8	23.4	23.2	23.8	24.3
	6H	23.0	23.5	23.5	24.0	24.5	23.0	23.5	23.5	24.0	24.5
	8H	23.0	23.5	23.6	24.0	24.5	23.0	23.5	23.6	24.0	24.5
	12H	23.1	23.5	23.6	24.0	24.5	23.1	23.5	23.6	24.0	24.5
12H	4H	22.7	23.3	23.2	23.8	24.2	22.7	23.3	23.2	23.8	24.2
	6H	23.0	23.4	23.5	23.9	24.4	23.0	23.4	23.5	23.9	24.4
	8H	23.0	23.5	23.6	23.9	24.5	23.0	23.5	23.6	23.9	24.5

Maximum UGR = 24.5

POLAR GRAPH



Maximum Candela = 2495.6 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.)