



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-P12-835-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] 21 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V4DR-P12-835-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	1164
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	66
Total Luminaire Watts	17.5
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	32114	32114	32114
55	26388	26388	26388
65	19305	19305	19305
75	13364	13364	13364
85	7285	7285	7285

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CANDELA TABULATION

	<u>0</u>
0.0	817.469
0.5	817.211
1.0	816.694
1.5	816.005
2.0	815.317
2.5	814.542
3.0	813.509
3.5	812.906
4.0	812.475
4.5	812.217
5.0	811.873
5.5	811.528
6.0	811.270
6.5	810.926
7.0	810.667
7.5	810.495
8.0	810.409
8.5	810.151
9.0	809.893
9.5	809.376
10.0	809.032
10.5	808.429
11.0	807.826
11.5	807.051
12.0	806.191
12.5	805.157
13.0	803.952
13.5	802.575
14.0	800.853
14.5	798.786
15.0	796.290
15.5	793.276
16.0	789.919
16.5	785.958
17.0	781.654
17.5	776.832
18.0	771.150
18.5	765.296
19.0	758.925
19.5	751.779
20.0	743.944
20.5	735.421
21.0	726.209
21.5	716.308
22.0	705.374
22.5	693.751
23.0	681.267
23.5	667.836
24.0	653.372
24.5	637.962
25.0	621.259
25.5	603.782
26.0	585.099
26.5	565.298

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CANDELA TABULATION - (Cont.)

27.0	544.807
27.5	523.456
28.0	501.760
28.5	479.978
29.0	458.626
29.5	437.705
30.0	417.559
30.5	398.618
31.0	380.883
31.5	364.697
32.0	349.975
32.5	336.716
33.0	324.921
33.5	314.418
34.0	305.033
34.5	296.768
35.0	289.278
35.5	282.477
36.0	276.450
36.5	270.768
37.0	265.602
37.5	260.781
38.0	256.304
38.5	251.999
39.0	248.039
39.5	244.164
40.0	240.549
40.5	236.933
41.0	233.489
41.5	230.131
42.0	226.946
42.5	223.760
43.0	220.575
43.5	217.389
44.0	214.204
44.5	211.018
45.0	207.833
45.5	204.647
46.0	201.462
46.5	198.276
47.0	194.918
47.5	191.561
48.0	188.203
48.5	184.759
49.0	181.229
49.5	177.699
50.0	174.256
50.5	170.726
51.0	167.196
51.5	163.666
52.0	160.222
52.5	156.778
53.0	153.249
53.5	149.633
54.0	145.930
54.5	142.228

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CANDELA TABULATION - (Cont.)

55.0	138.526
55.5	134.824
56.0	131.208
56.5	127.678
57.0	124.149
57.5	120.619
58.0	117.175
58.5	113.817
59.0	110.459
59.5	107.188
60.0	104.002
60.5	100.817
61.0	97.717
61.5	94.704
62.0	91.691
62.5	88.678
63.0	85.802
63.5	82.944
64.0	80.137
64.5	77.373
65.0	74.670
65.5	72.035
66.0	69.435
66.5	66.904
67.0	64.433
67.5	62.005
68.0	59.655
68.5	57.356
69.0	55.058
69.5	52.836
70.0	50.675
70.5	48.549
71.0	46.474
71.5	44.451
72.0	42.496
72.5	40.568
73.0	38.691
73.5	36.866
74.0	35.075
74.5	33.344
75.0	31.657
75.5	30.021
76.0	28.420
76.5	26.862
77.0	25.372
77.5	23.891
78.0	22.462
78.5	21.076
79.0	19.716
79.5	18.407
80.0	17.124
80.5	15.876
81.0	14.645
81.5	13.448
82.0	12.277
82.5	11.141

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CANDELA TABULATION - (Cont.)

83.0	10.013
83.5	8.919
84.0	7.852
84.5	6.810
85.0	5.811
85.5	4.847
86.0	3.926
86.5	3.056
87.0	2.290
87.5	1.653
88.0	1.154
88.5	0.732
89.0	0.456
89.5	0.310
90.0	0.215
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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122.0	0.000
122.5	0.000
123.0	0.000
123.5	0.000
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124.5	0.000
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125.5	0.000
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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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148.5	0.000
149.0	0.000
149.5	0.000
150.0	0.000
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151.0	0.000
151.5	0.000
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152.5	0.000
153.0	0.000
153.5	0.000
154.0	0.000
154.5	0.000
155.0	0.000
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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	300.27	N.A.	25.80
0-30	575.96	N.A.	49.50
0-40	763.74	N.A.	65.60
0-60	1047.61	N.A.	90.00
0-80	1156.42	N.A.	99.40
0-90	1163.7	N.A.	100.00
10-90	1086.27	N.A.	93.30
20-40	463.47	N.A.	39.80
20-50	623.53	N.A.	53.60
40-70	358.53	N.A.	30.80
60-80	108.82	N.A.	9.40
70-80	34.15	N.A.	2.90
80-90	7.28	N.A.	0.60
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	1163.71	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	77.43
10-20	222.84
20-30	275.68
30-40	187.79
40-50	160.06
50-60	123.81
60-70	74.66
70-80	34.15
80-90	7.28
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

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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	116	116	116	116	113	113	113	113	108	108	108	104	104	104	99	99	99	97
1	108	105	101	98	106	102	100	97	98	96	94	95	93	91	91	90	88	86
2	101	94	89	85	98	92	88	84	89	85	82	86	83	80	83	81	78	76
3	94	85	79	74	91	84	78	73	81	76	72	79	74	71	76	73	70	68
4	87	78	71	65	85	76	70	65	74	69	64	72	67	63	70	66	62	61
5	82	71	64	59	80	70	63	58	68	62	58	66	61	57	65	60	57	55
6	76	65	58	53	75	65	58	53	63	57	52	62	56	52	60	55	51	50
7	72	61	53	48	70	60	53	48	58	52	48	57	52	47	56	51	47	46
8	68	56	49	44	66	56	49	44	54	48	44	53	48	44	52	47	44	42
9	64	53	46	41	63	52	45	41	51	45	41	50	44	40	49	44	40	39
10	60	49	42	38	59	49	42	38	48	42	38	47	42	38	46	41	38	36

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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	21.2	22.6	21.6	22.9	23.2	21.2	22.6	21.6	22.9	23.2
	3H	22.3	23.5	22.7	23.9	24.2	22.3	23.5	22.7	23.9	24.2
	4H	22.7	23.8	23.1	24.1	24.5	22.7	23.8	23.1	24.1	24.5
	6H	22.9	23.9	23.3	24.3	24.7	22.9	23.9	23.3	24.3	24.7
	8H	22.9	23.9	23.4	24.3	24.7	22.9	23.9	23.4	24.3	24.7
	12H	22.9	23.9	23.4	24.3	24.7	22.9	23.9	23.4	24.3	24.7

UGR Viewed Endwise

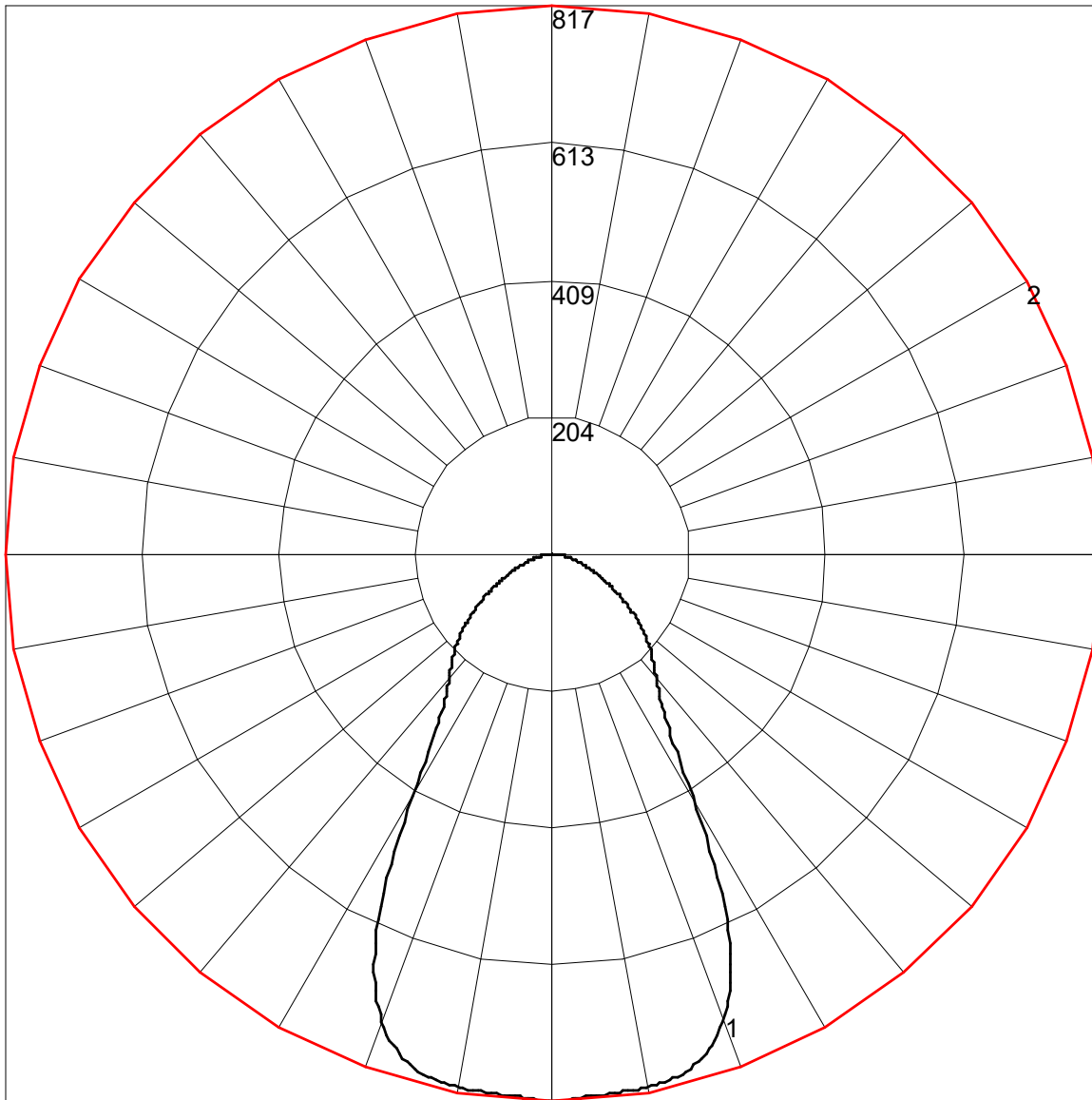
4H	2H	21.6	22.7	22.0	23.1	23.4	21.6	22.7	22.0	23.1	23.4
	3H	22.9	23.8	23.3	24.2	24.6	22.9	23.8	23.3	24.2	24.6
	4H	23.3	24.2	23.7	24.6	25.0	23.3	24.2	23.7	24.6	25.0
	6H	23.6	24.4	24.1	24.8	25.3	23.6	24.4	24.1	24.8	25.3
	8H	23.7	24.4	24.2	24.8	25.3	23.7	24.4	24.2	24.8	25.3
	12H	23.7	24.3	24.2	24.8	25.3	23.7	24.3	24.2	24.8	25.3

8H	4H	23.4	24.1	23.9	24.6	25.0	23.4	24.1	23.9	24.6	25.0
	6H	23.8	24.4	24.3	24.9	25.4	23.8	24.4	24.3	24.9	25.4
	8H	23.9	24.4	24.5	25.0	25.4	23.9	24.4	24.5	25.0	25.4
	12H	24.0	24.4	24.5	24.9	25.5	24.0	24.4	24.5	24.9	25.5

12H	4H	23.4	24.0	23.9	24.5	25.0	23.4	24.0	23.9	24.5	25.0
	6H	23.8	24.3	24.4	24.8	25.3	23.8	24.3	24.4	24.8	25.3
	8H	24.0	24.4	24.5	24.9	25.5	24.0	24.4	24.5	24.9	25.5

Maximum UGR = 25.5

POLAR GRAPH



Maximum Candela = 817.469 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.)