



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-L7-835-DIM-UNV-RM-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN From UL #12316380.14

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 15 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V4DR-L7-835-DIM-UNV-RM-OF-WH

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

[MORE] tic optic, clear glass 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	895
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	84
Total Luminaire Watts	10.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.52
Spacing Criterion (90-270)	0.52
Spacing Criterion (Diagonal)	0.52
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	5136	5136	5136
55	3572	3572	3572
65	2550	2550	2550
75	1707	1707	1707
85	1393	1393	1393

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CANDELA TABULATION

	<u>0</u>
0.0	2580.791
0.5	2578.796
1.0	2572.813
1.5	2563.340
2.0	2550.376
2.5	2533.922
3.0	2514.476
3.5	2491.540
4.0	2465.114
4.5	2436.693
5.0	2405.281
5.5	2370.379
6.0	2332.983
6.5	2293.094
7.0	2250.214
7.5	2204.342
8.0	2156.476
8.5	2105.618
9.0	2053.264
9.5	1998.916
10.0	1942.574
10.5	1884.735
11.0	1825.401
11.5	1765.069
12.0	1703.741
12.5	1642.911
13.0	1582.081
13.5	1520.752
14.0	1458.925
14.5	1397.097
15.0	1336.267
15.5	1275.936
16.0	1215.604
16.5	1156.769
17.0	1098.432
17.5	1041.092
18.0	984.749
18.5	929.902
19.0	877.549
19.5	826.192
20.0	776.331
20.5	728.964
21.0	683.092
21.5	639.214
22.0	597.830
22.5	558.440
23.0	521.543
23.5	486.242
24.0	452.835
24.5	421.373
25.0	391.955
25.5	364.582
26.0	339.053
26.5	315.120

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CANDELA TABULATION - (Cont.)

27.0	292.882
27.5	272.289
28.0	253.143
28.5	235.293
29.0	218.938
29.5	203.681
30.0	189.570
30.5	176.607
31.0	164.640
31.5	153.571
32.0	143.350
32.5	133.976
33.0	125.300
33.5	117.223
34.0	109.843
34.5	102.962
35.0	96.630
35.5	90.796
36.0	85.362
36.5	80.375
37.0	75.738
37.5	71.550
38.0	67.661
38.5	64.171
39.0	60.930
39.5	57.988
40.0	55.345
40.5	52.852
41.0	50.609
41.5	48.514
42.0	46.570
42.5	44.775
43.0	43.080
43.5	41.484
44.0	39.988
44.5	38.592
45.0	37.296
45.5	36.099
46.0	34.952
46.5	33.855
47.0	32.808
47.5	31.861
48.0	30.964
48.5	30.066
49.0	29.218
49.5	28.421
50.0	27.673
50.5	26.925
51.0	26.227
51.5	25.479
52.0	24.831
52.5	24.133
53.0	23.534
53.5	22.886
54.0	22.238
54.5	21.640

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CANDELA TABULATION - (Cont.)

55.0	21.041
55.5	20.443
56.0	19.894
56.5	19.346
57.0	18.797
57.5	18.249
58.0	17.701
58.5	17.202
59.0	16.703
59.5	16.205
60.0	15.706
60.5	15.208
61.0	14.709
61.5	14.260
62.0	13.762
62.5	13.313
63.0	12.814
63.5	12.365
64.0	11.917
64.5	11.468
65.0	11.069
65.5	10.620
66.0	10.221
66.5	9.773
67.0	9.374
67.5	8.975
68.0	8.576
68.5	8.227
69.0	7.828
69.5	7.479
70.0	7.130
70.5	6.831
71.0	6.532
71.5	6.233
72.0	5.933
72.5	5.684
73.0	5.435
73.5	5.186
74.0	4.986
74.5	4.737
75.0	4.537
75.5	4.338
76.0	4.138
76.5	3.989
77.0	3.789
77.5	3.590
78.0	3.440
78.5	3.241
79.0	3.091
79.5	2.942
80.0	2.742
80.5	2.593
81.0	2.443
81.5	2.294
82.0	2.094
82.5	1.945

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CANDELA TABULATION - (Cont.)

83.0	1.795
83.5	1.645
84.0	1.496
84.5	1.346
85.0	1.247
85.5	1.097
86.0	0.947
86.5	0.798
87.0	0.698
87.5	0.598
88.0	0.499
88.5	0.399
89.0	0.349
89.5	0.249
90.0	0.199
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
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123.5	0.000
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125.0	0.000
125.5	0.000
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126.5	0.000
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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
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146.5	0.000
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150.0	0.000
150.5	0.000
151.0	0.000
151.5	0.000
152.0	0.000
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153.0	0.000
153.5	0.000
154.0	0.000
154.5	0.000
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155.5	0.000
156.0	0.000
156.5	0.000
157.0	0.000
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158.0	0.000
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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	577.49	N.A.	64.50
0-30	764.91	N.A.	85.40
0-40	829.22	N.A.	92.60
0-60	877.83	N.A.	98.10
0-80	893.79	N.A.	99.80
0-90	895.21	N.A.	100.00
10-90	680.51	N.A.	76.00
20-40	251.72	N.A.	28.10
20-50	281.38	N.A.	31.40
40-70	59.64	N.A.	6.70
60-80	15.96	N.A.	1.80
70-80	4.93	N.A.	0.60
80-90	1.41	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	895.21	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	214.70
10-20	362.79
20-30	187.42
30-40	64.31
40-50	29.65
50-60	18.96
60-70	11.03
70-80	4.93
80-90	1.41
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 RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	59	59	59	59	58	58	58	58	55	55	55	53	53	53	51	51	51	50
1	57	56	55	54	56	55	54	53	53	52	51	51	50	50	49	49	48	47
2	55	52	51	49	53	52	50	49	50	49	48	48	47	47	47	46	46	45
3	52	50	47	46	51	49	47	45	48	46	45	46	45	44	45	44	43	43
4	50	47	45	43	49	46	44	43	45	44	42	44	43	42	44	42	41	40
5	48	45	42	40	48	44	42	40	43	41	40	43	41	40	42	40	39	39
6	46	43	40	38	46	42	40	38	42	40	38	41	39	38	40	39	38	37
7	45	41	38	37	44	41	38	37	40	38	36	39	38	36	39	37	36	35
8	43	39	37	35	43	39	37	35	39	36	35	38	36	35	38	36	35	34
9	42	38	35	34	41	38	35	34	37	35	34	37	35	33	36	35	33	33
10	40	36	34	32	40	36	34	32	36	34	32	35	34	32	35	33	32	32

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UGR TABLE - CORRECTED

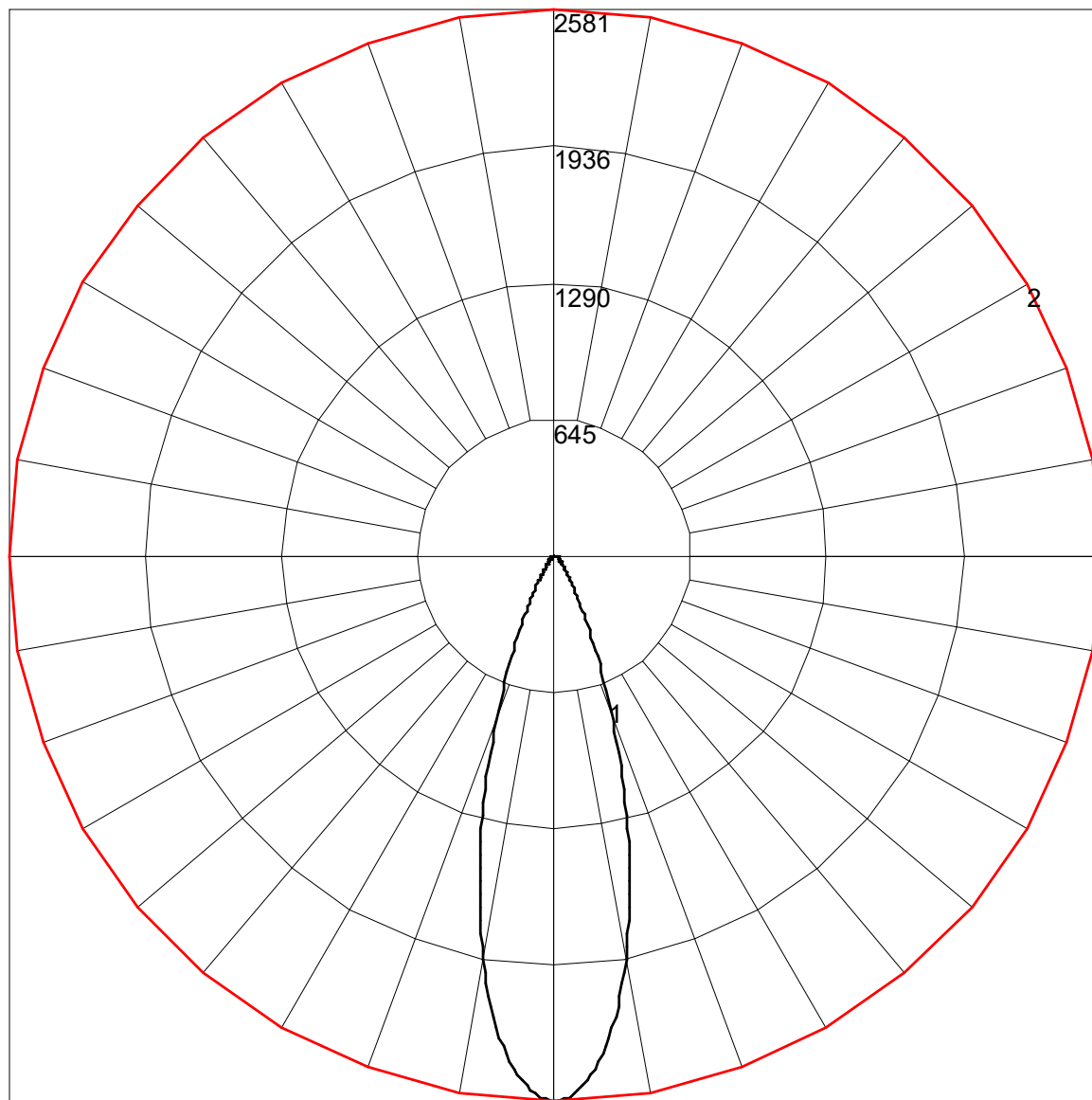
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	11.4	12.4	11.8	12.7	13.0	11.4	12.4	11.8	12.7	13.0
	3H	12.4	13.2	12.7	13.6	13.9	12.4	13.2	12.7	13.6	13.9
	4H	12.7	13.5	13.1	13.8	14.2	12.7	13.5	13.1	13.8	14.2
	6H	12.9	13.6	13.3	14.0	14.4	12.9	13.6	13.3	14.0	14.4
	8H	12.9	13.6	13.4	14.0	14.4	12.9	13.6	13.4	14.0	14.4
	12H	13.0	13.6	13.4	14.0	14.4	13.0	13.6	13.4	14.0	14.4
4H	2H	11.7	12.5	12.1	12.9	13.2	11.7	12.5	12.1	12.9	13.2
	3H	12.8	13.5	13.2	13.9	14.3	12.8	13.5	13.2	13.9	14.3
	4H	13.2	13.8	13.6	14.2	14.6	13.2	13.8	13.6	14.2	14.6
	6H	13.5	14.0	14.0	14.4	14.9	13.5	14.0	14.0	14.4	14.9
	8H	13.6	14.1	14.1	14.5	15.0	13.6	14.1	14.1	14.5	15.0
	12H	13.6	14.0	14.1	14.5	15.0	13.6	14.0	14.1	14.5	15.0
8H	4H	13.3	13.7	13.7	14.2	14.6	13.3	13.7	13.7	14.2	14.6
	6H	13.7	14.0	14.2	14.5	15.0	13.7	14.0	14.2	14.5	15.0
	8H	13.8	14.1	14.4	14.7	15.2	13.8	14.1	14.4	14.7	15.2
	12H	14.0	14.2	14.5	14.7	15.3	14.0	14.2	14.5	14.7	15.3
12H	4H	13.2	13.6	13.7	14.1	14.6	13.2	13.6	13.7	14.1	14.6
	6H	13.7	14.0	14.2	14.5	15.0	13.7	14.0	14.2	14.5	15.0
	8H	13.9	14.1	14.4	14.6	15.2	13.9	14.1	14.4	14.6	15.2

Maximum UGR = 15.3

POLAR GRAPH



Maximum Candela = 2580.791 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.)