



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-L27-835-DIM-UNV-LM-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from 12316380.09

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 10 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V4DR-L2730-835-DIM-UNV-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	3577
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	81
Total Luminaire Watts	44.2
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	27143	27143	27143
55	21156	21156	21156
65	17681	17681	17681
75	14225	14225	14225
85	8498	8498	8498

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CANDELA TABULATION

	<u>0</u>
0.0	9255.535
0.5	9251.547
1.0	9237.590
1.5	9215.658
2.0	9187.744
2.5	9149.860
3.0	9105.995
3.5	9054.155
4.0	8994.339
4.5	8930.535
5.0	8858.755
5.5	8779.001
6.0	8691.271
6.5	8593.571
7.0	8487.896
7.5	8372.252
8.0	8246.638
8.5	8111.055
9.0	7967.497
9.5	7811.975
10.0	7644.490
10.5	7465.042
11.0	7277.618
11.5	7080.225
12.0	6870.869
12.5	6653.537
13.0	6426.237
13.5	6190.960
14.0	5945.714
14.5	5692.493
15.0	5437.278
15.5	5178.075
16.0	4918.872
16.5	4657.676
17.0	4398.473
17.5	4147.245
18.0	3898.012
18.5	3658.748
19.0	3429.453
19.5	3208.134
20.0	2998.777
20.5	2797.397
21.0	2609.973
21.5	2432.519
22.0	2265.034
22.5	2109.512
23.0	1962.764
23.5	1825.984
24.0	1698.975
24.5	1580.340
25.0	1470.278
25.5	1367.993
26.0	1272.088
26.5	1183.560

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CANDELA TABULATION - (Cont.)

27.0	1101.014
27.5	1025.446
28.0	955.063
28.5	890.063
29.0	830.446
29.5	774.817
30.0	723.176
30.5	675.522
31.0	631.458
31.5	590.982
32.0	553.498
32.5	519.004
33.0	487.301
33.5	457.991
34.0	431.274
34.5	406.550
35.0	384.218
35.5	363.482
36.0	344.540
36.5	327.194
37.0	311.243
37.5	296.688
38.0	283.528
38.5	271.365
39.0	260.200
39.5	250.031
40.0	240.660
40.5	231.887
41.0	223.712
41.5	216.335
42.0	209.356
42.5	202.776
43.0	196.795
43.5	191.013
44.0	185.629
44.5	180.644
45.0	175.660
45.5	171.074
46.0	166.887
46.5	162.700
47.0	158.712
47.5	155.123
48.0	151.335
48.5	147.945
49.0	144.555
49.5	141.166
50.0	138.175
50.5	135.184
51.0	132.393
51.5	129.402
52.0	126.611
52.5	124.019
53.0	121.227
53.5	118.635
54.0	116.043
54.5	113.451

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CANDELA TABULATION - (Cont.)

55.0	111.058
55.5	108.666
56.0	106.273
56.5	103.881
57.0	101.288
57.5	99.095
58.0	96.902
58.5	94.908
59.0	92.715
59.5	90.522
60.0	88.328
60.5	86.135
61.0	84.341
61.5	82.147
62.0	80.153
62.5	78.160
63.0	76.166
63.5	74.371
64.0	72.377
64.5	70.384
65.0	68.390
65.5	66.595
66.0	64.801
66.5	63.006
67.0	61.012
67.5	59.218
68.0	57.423
68.5	55.629
69.0	53.834
69.5	52.040
70.0	50.245
70.5	48.650
71.0	47.055
71.5	45.061
72.0	43.466
72.5	41.871
73.0	40.276
73.5	38.482
74.0	36.887
74.5	35.291
75.0	33.696
75.5	32.101
76.0	30.506
76.5	28.911
77.0	27.316
77.5	26.120
78.0	24.525
78.5	23.129
79.0	21.733
79.5	20.337
80.0	18.942
80.5	17.546
81.0	16.150
81.5	15.153
82.0	13.558
82.5	12.561

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CANDELA TABULATION - (Cont.)

83.0	11.166
83.5	10.169
84.0	8.972
84.5	7.776
85.0	6.779
85.5	5.583
86.0	4.785
86.5	3.788
87.0	3.190
87.5	2.592
88.0	1.994
88.5	1.595
89.0	1.196
89.5	0.798
90.0	0.598
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
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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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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	2262.22	N.A.	63.20
0-30	2971.11	N.A.	83.10
0-40	3226.65	N.A.	90.20
0-60	3464.87	N.A.	96.90
0-80	3568.72	N.A.	99.80
0-90	3577.15	N.A.	100.00
10-90	2769.38	N.A.	77.40
20-40	964.43	N.A.	27.00
20-50	1102.82	N.A.	30.80
40-70	306.23	N.A.	8.60
60-80	103.85	N.A.	2.90
70-80	35.84	N.A.	1.00
80-90	8.43	N.A.	0.20
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	3577.17	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	807.77
10-20	1454.45
20-30	708.89
30-40	255.54
40-50	138.39
50-60	99.83
60-70	68.01
70-80	35.84
80-90	8.43
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	165	165	165	165	162	162	162	162	154	154	154	148	148	148	142	142	142	139
1	158	154	151	148	155	152	149	146	146	144	141	141	139	137	136	135	133	131
2	151	145	140	135	148	143	138	134	138	134	131	134	131	128	130	128	125	123
3	145	137	130	125	142	135	129	124	131	126	122	128	124	120	125	121	119	117
4	139	129	122	117	136	128	121	117	125	119	115	122	118	114	120	116	113	111
5	133	123	116	111	131	122	115	110	119	114	109	117	112	108	115	111	107	105
6	128	117	110	105	126	116	109	104	114	108	104	112	107	103	111	106	102	101
7	123	112	105	100	122	111	104	100	110	103	99	108	103	99	107	102	98	96
8	119	107	100	95	117	107	100	95	105	99	95	104	98	94	103	98	94	92
9	115	103	96	92	113	103	96	91	101	95	91	100	95	91	99	94	91	89
10	111	99	93	88	110	99	92	88	98	92	88	97	91	87	96	91	87	86

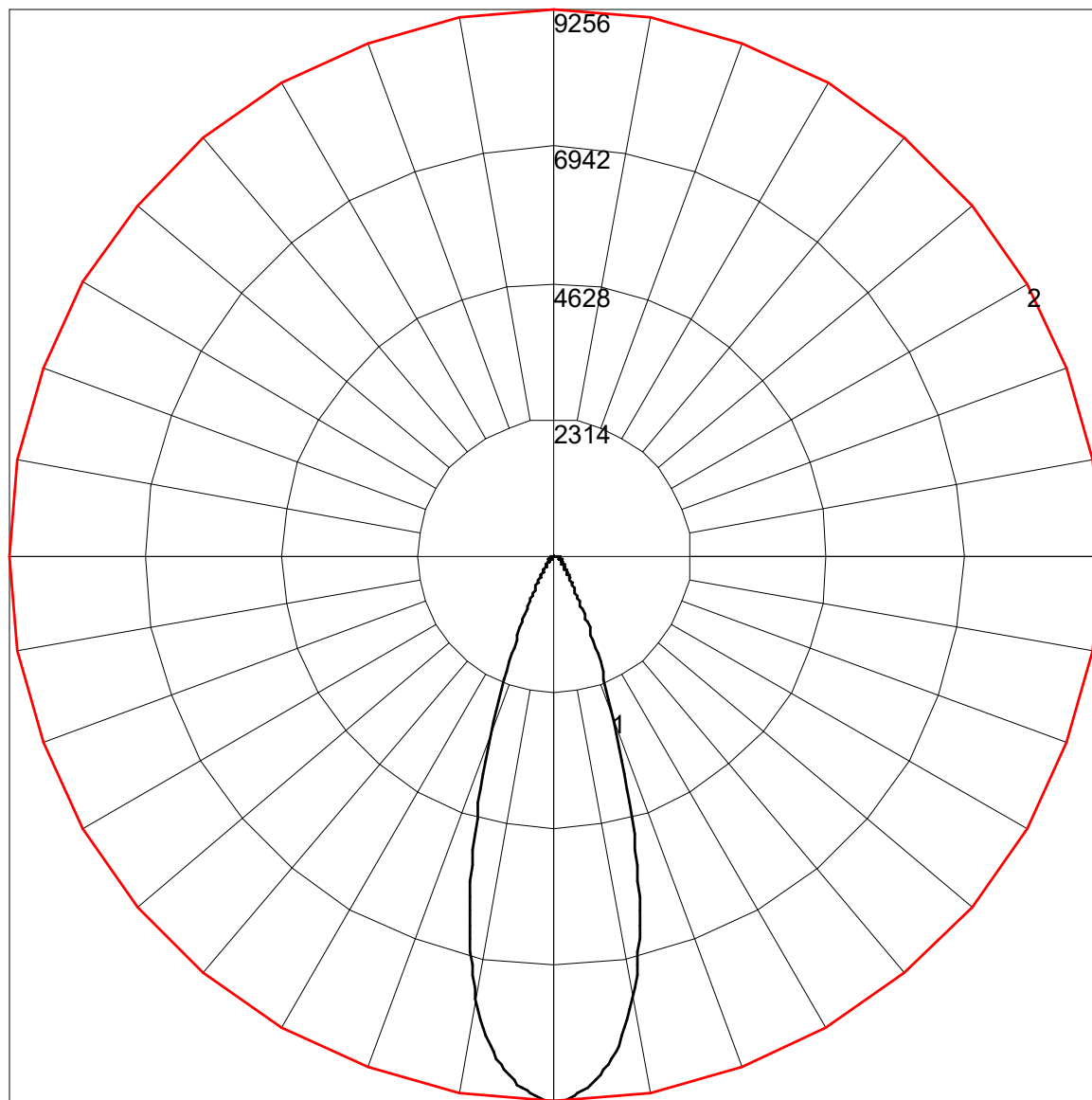
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UGR TABLE - CORRECTED

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	15.2	16.3	15.6	16.6	16.9	15.2	16.3	15.6	16.6	16.9
	3H	16.7	17.6	17.1	17.9	18.3	16.7	17.6	17.1	17.9	18.3
	4H	17.2	18.0	17.6	18.4	18.8	17.2	18.0	17.6	18.4	18.8
	6H	17.5	18.3	17.9	18.7	19.1	17.5	18.3	17.9	18.7	19.1
	8H	17.6	18.3	18.0	18.7	19.1	17.6	18.3	18.0	18.7	19.1
	12H	17.6	18.3	18.1	18.7	19.1	17.6	18.3	18.1	18.7	19.1
4H	2H	15.7	16.5	16.1	16.9	17.3	15.7	16.5	16.1	16.9	17.3
	3H	17.3	18.0	17.7	18.4	18.8	17.3	18.0	17.7	18.4	18.8
	4H	17.9	18.6	18.4	19.0	19.4	17.9	18.6	18.4	19.0	19.4
	6H	18.4	18.9	18.9	19.4	19.8	18.4	18.9	18.9	19.4	19.8
	8H	18.5	19.0	19.0	19.4	19.9	18.5	19.0	19.0	19.4	19.9
	12H	18.5	19.0	19.0	19.4	19.9	18.5	19.0	19.0	19.4	19.9
8H	4H	18.1	18.6	18.6	19.0	19.5	18.1	18.6	18.6	19.0	19.5
	6H	18.6	19.0	19.2	19.5	20.0	18.6	19.0	19.2	19.5	20.0
	8H	18.8	19.1	19.3	19.7	20.2	18.8	19.1	19.3	19.7	20.2
	12H	18.9	19.2	19.4	19.7	20.3	18.9	19.2	19.4	19.7	20.3
12H	4H	18.1	18.5	18.6	19.0	19.5	18.1	18.5	18.6	19.0	19.5
	6H	18.7	19.0	19.2	19.5	20.0	18.7	19.0	19.2	19.5	20.0
	8H	18.8	19.1	19.4	19.6	20.2	18.8	19.1	19.4	19.6	20.2

Maximum UGR = 20.3

POLAR GRAPH



Maximum Candela = 9255.535 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.)