



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.15

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 15 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V4DR-L27-835-DIM-UNV-RN-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	3527
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	80
Total Luminaire Watts	44.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.44
Spacing Criterion (90-270)	0.44
Spacing Criterion (Diagonal)	0.46
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	17653	17653	17653
55	11744	11744	11744
65	8085	8085	8085
75	5250	5250	5250
85	4232	4232	4232

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CANDELA TABULATION

	<u>0</u>
0.0	13228.744
0.5	13212.794
1.0	13170.924
1.5	13097.154
2.0	12997.465
2.5	12871.857
3.0	12722.323
3.5	12550.858
4.0	12357.461
4.5	12144.126
5.0	11912.848
5.5	11663.625
6.0	11396.458
6.5	11109.354
7.0	10806.299
7.5	10491.281
8.0	10164.301
8.5	9823.364
9.0	9476.446
9.5	9119.559
10.0	8760.678
10.5	8395.816
11.0	8028.960
11.5	7662.104
12.0	7297.242
12.5	6938.362
13.0	6581.475
13.5	6232.563
14.0	5889.632
14.5	5556.671
15.0	5235.672
15.5	4926.635
16.0	4625.574
16.5	4340.464
17.0	4067.315
17.5	3806.130
18.0	3558.901
18.5	3323.635
19.0	3102.325
19.5	2894.972
20.0	2699.581
20.5	2514.159
21.0	2340.700
21.5	2181.198
22.0	2027.676
22.5	1883.725
23.0	1746.553
23.5	1619.549
24.0	1501.119
24.5	1390.264
25.0	1286.787
25.5	1190.687
26.0	1102.163
26.5	1020.218

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CANDELA TABULATION - (Cont.)

27.0	944.654
27.5	875.071
28.0	811.071
28.5	752.852
29.0	699.219
29.5	649.973
30.0	604.714
30.5	562.845
31.0	524.763
31.5	489.673
32.0	457.174
32.5	427.267
33.0	399.953
33.5	374.831
34.0	351.504
34.5	330.170
35.0	310.831
35.5	292.887
36.0	276.538
36.5	261.584
37.0	247.827
37.5	235.266
38.0	223.702
38.5	213.135
39.0	203.565
39.5	194.593
40.0	186.219
40.5	178.443
41.0	171.266
41.5	164.487
42.0	158.306
42.5	152.524
43.0	146.942
43.5	141.758
44.0	136.973
44.5	132.387
45.0	128.200
45.5	124.013
46.0	120.225
46.5	116.437
47.0	112.848
47.5	109.259
48.0	105.870
48.5	102.680
49.0	99.490
49.5	96.499
50.0	93.508
50.5	90.717
51.0	87.926
51.5	85.334
52.0	82.742
52.5	80.349
53.0	77.957
53.5	75.564
54.0	73.371
54.5	71.377

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CANDELA TABULATION - (Cont.)

55.0	69.184
55.5	67.190
56.0	65.197
56.5	63.203
57.0	61.408
57.5	59.614
58.0	57.620
58.5	55.826
59.0	54.231
59.5	52.436
60.0	50.642
60.5	49.047
61.0	47.452
61.5	45.857
62.0	44.262
62.5	42.667
63.0	41.072
63.5	39.477
64.0	38.081
64.5	36.686
65.0	35.091
65.5	33.695
66.0	32.299
66.5	30.904
67.0	29.707
67.5	28.312
68.0	27.115
68.5	25.720
69.0	24.524
69.5	23.327
70.0	22.131
70.5	21.134
71.0	20.137
71.5	19.140
72.0	18.343
72.5	17.346
73.0	16.548
73.5	15.950
74.0	15.153
74.5	14.555
75.0	13.956
75.5	13.358
76.0	12.760
76.5	12.162
77.0	11.564
77.5	10.966
78.0	10.567
78.5	9.969
79.0	9.371
79.5	8.972
80.0	8.374
80.5	7.776
81.0	7.377
81.5	6.779
82.0	6.380
82.5	5.981

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CANDELA TABULATION - (Cont.)

83.0	5.383
83.5	4.984
84.0	4.586
84.5	4.187
85.0	3.788
85.5	3.389
86.0	2.791
86.5	2.592
87.0	2.193
87.5	1.794
88.0	1.396
88.5	0.997
89.0	0.798
89.5	0.598
90.0	0.399
90.5	0.399
91.0	0.199
91.5	0.000
92.0	0.199
92.5	0.199
93.0	0.199
93.5	0.199
94.0	0.000
94.5	0.199
95.0	0.199
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	0.199
103.0	0.000
103.5	0.199
104.0	0.199
104.5	0.199
105.0	0.199
105.5	0.199
106.0	0.199
106.5	0.199
107.0	0.199
107.5	0.000
108.0	0.199
108.5	0.199
109.0	0.199
109.5	0.199
110.0	0.199
110.5	0.199

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CANDELA TABULATION - (Cont.)

111.0	0.199
111.5	0.199
112.0	0.199
112.5	0.199
113.0	0.199
113.5	0.199
114.0	0.199
114.5	0.199
115.0	0.199
115.5	0.199
116.0	0.199
116.5	0.199
117.0	0.199
117.5	0.199
118.0	0.199
118.5	0.199
119.0	0.199
119.5	0.199
120.0	0.199
120.5	0.199
121.0	0.199
121.5	0.199
122.0	0.199
122.5	0.199
123.0	0.199
123.5	0.199
124.0	0.199
124.5	0.199
125.0	0.199
125.5	0.199
126.0	0.199
126.5	0.199
127.0	0.199
127.5	0.199
128.0	0.199
128.5	0.199
129.0	0.199
129.5	0.199
130.0	0.199
130.5	0.199
131.0	0.399
131.5	0.399
132.0	0.399
132.5	0.399
133.0	0.399
133.5	0.399
134.0	0.399
134.5	0.399
135.0	0.598
135.5	0.598
136.0	0.598
136.5	0.598
137.0	0.598
137.5	0.798
138.0	0.798
138.5	0.798

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CANDELA TABULATION - (Cont.)

139.0	0.798
139.5	0.997
140.0	0.997
140.5	0.997
141.0	1.196
141.5	1.196
142.0	1.196
142.5	1.396
143.0	1.396
143.5	1.396
144.0	1.595
144.5	1.595
145.0	1.794
145.5	1.794
146.0	1.994
146.5	1.994
147.0	2.193
147.5	2.193
148.0	2.393
148.5	2.393
149.0	2.592
149.5	2.592
150.0	2.791
150.5	2.791
151.0	2.991
151.5	2.991
152.0	3.190
152.5	3.190
153.0	3.389
153.5	3.389
154.0	3.589
154.5	3.589
155.0	3.788
155.5	3.788
156.0	3.988
156.5	3.988
157.0	3.988
157.5	4.187
158.0	4.187
158.5	4.386
159.0	4.386
159.5	4.386
160.0	4.586
160.5	4.586
161.0	4.586
161.5	4.586
162.0	4.785
162.5	4.785
163.0	4.785
163.5	4.785
164.0	4.785
164.5	4.785
165.0	4.785
165.5	4.785
166.0	4.984
166.5	4.785

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CANDELA TABULATION - (Cont.)

167.0	4.984
167.5	4.984
168.0	4.984
168.5	4.785
169.0	4.785
169.5	4.785
170.0	4.785
170.5	4.785
171.0	4.785
171.5	4.785
172.0	4.785
172.5	4.785
173.0	4.785
173.5	4.785
174.0	4.785
174.5	4.785
175.0	4.785
175.5	4.785
176.0	4.785
176.5	4.785
177.0	4.785
177.5	4.586
178.0	4.586
178.5	4.586
179.0	4.586
179.5	4.586
180.0	4.586

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2473.17	N.A.	70.10
0-30	3095.96	N.A.	87.80
0-40	3303.49	N.A.	93.70
0-60	3467.21	N.A.	98.30
0-80	3517.48	N.A.	99.70
0-90	3521.73	N.A.	99.80
10-90	2487.29	N.A.	70.50
20-40	830.32	N.A.	23.50
20-50	931.48	N.A.	26.40
40-70	198.85	N.A.	5.60
60-80	50.27	N.A.	1.40
70-80	15.14	N.A.	0.40
80-90	4.25	N.A.	0.10
90-110	0.25	N.A.	0.00
90-120	0.45	N.A.	0.00
90-130	0.63	N.A.	0.00
90-150	2.15	N.A.	0.10
90-180	5.64	N.A.	0.20
110-180	5.39	N.A.	0.20
0-180	3527.38	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1034.44
10-20	1438.72
20-30	622.79
30-40	207.53
40-50	101.16
50-60	62.56
60-70	35.13
70-80	15.14
80-90	4.25
90-100	0.11
100-110	0.14
110-120	0.20
120-130	0.18
130-140	0.42
140-150	1.10
150-160	1.68
160-170	1.35
170-180	0.46

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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	237	237	237	237	232	232	232	232	221	221	221	212	212	212	203	203	203	199
1	228	223	219	215	223	219	215	212	211	208	205	204	201	199	197	195	193	190
2	219	211	204	199	215	208	202	196	201	196	192	195	191	188	190	187	184	181
3	211	200	192	186	207	198	190	184	193	186	181	188	183	178	184	179	176	173
4	203	191	182	175	200	189	181	174	185	178	172	181	175	170	177	172	168	166
5	196	183	173	167	193	181	172	166	178	170	164	174	168	163	172	166	162	159
6	189	175	166	159	187	174	165	159	171	163	157	168	162	156	166	160	155	153
7	183	169	159	153	181	167	158	152	165	157	151	163	156	151	161	155	150	148
8	177	162	153	147	175	161	153	146	159	151	146	158	150	145	156	149	145	143
9	172	157	148	142	170	156	147	141	154	146	141	153	146	140	151	145	140	138
10	167	152	143	137	165	151	142	137	150	142	136	148	141	136	147	140	136	134

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UGR TABLE - CORRECTED

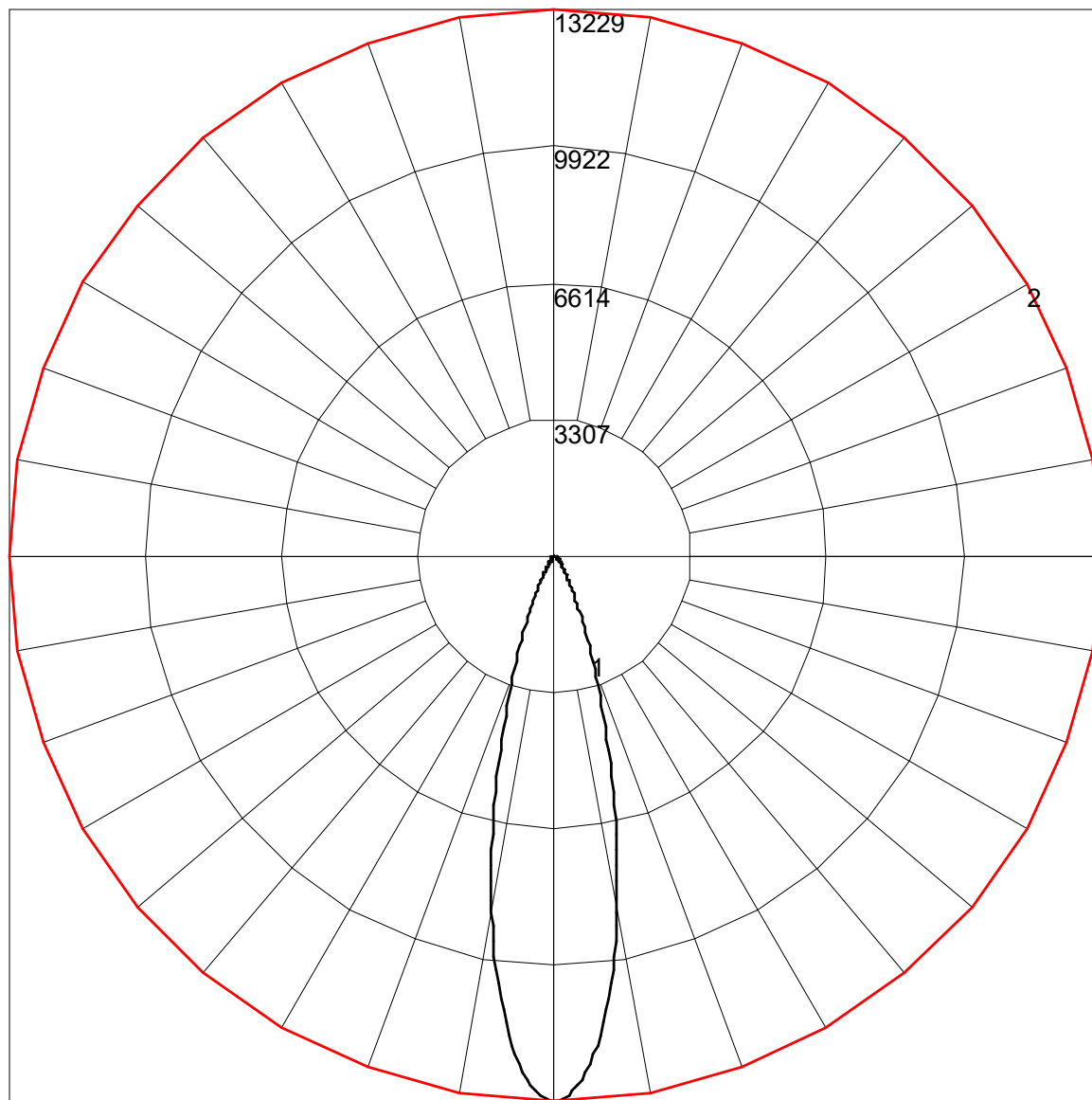
Reflectances

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	10.1	11.1	10.5	11.4	11.7	10.1	11.1	10.5	11.4	11.7
	3H	11.0	11.9	11.4	12.2	12.6	11.0	11.9	11.4	12.2	12.6
	4H	11.2	12.0	11.7	12.4	12.8	11.2	12.0	11.7	12.4	12.8
	6H	11.4	12.1	11.8	12.5	12.9	11.4	12.1	11.8	12.5	12.9
	8H	11.5	12.1	11.9	12.5	12.9	11.5	12.1	11.9	12.5	12.9
	12H	11.5	12.1	11.9	12.5	12.9	11.5	12.1	11.9	12.5	12.9
4H	2H	10.4	11.2	10.8	11.5	11.9	10.4	11.2	10.8	11.5	11.9
	3H	11.4	12.0	11.8	12.4	12.8	11.4	12.0	11.8	12.4	12.8
	4H	11.7	12.3	12.2	12.7	13.2	11.7	12.3	12.2	12.7	13.2
	6H	12.0	12.5	12.5	12.9	13.4	12.0	12.5	12.5	12.9	13.4
	8H	12.1	12.5	12.5	13.0	13.5	12.1	12.5	12.5	13.0	13.5
	12H	12.1	12.5	12.6	13.0	13.5	12.1	12.5	12.6	13.0	13.5
8H	4H	11.8	12.2	12.2	12.7	13.1	11.8	12.2	12.2	12.7	13.1
	6H	12.1	12.5	12.6	13.0	13.5	12.1	12.5	12.6	13.0	13.5
	8H	12.3	12.6	12.8	13.1	13.6	12.3	12.6	12.8	13.1	13.6
	12H	12.4	12.7	12.9	13.2	13.7	12.4	12.7	12.9	13.2	13.7
12H	4H	11.7	12.1	12.2	12.6	13.1	11.7	12.1	12.2	12.6	13.1
	6H	12.1	12.4	12.7	12.9	13.5	12.1	12.4	12.7	12.9	13.5
	8H	12.3	12.6	12.8	13.1	13.7	12.3	12.6	12.8	13.1	13.7

Maximum UGR = 13.7

POLAR GRAPH



Maximum Candela = 13228.744 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.)