



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-L27-835-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-L27-835-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	3580
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)	0.52
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	20536	20536	20536
55	14283	14283	14283
65	10198	10198	10198
75	6826	6826	6826
85	5569	5569	5569

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CANDELA TABULATION

	<u>0</u>
0.0	10320.282
0.5	10312.306
1.0	10288.380
1.5	10250.496
2.0	10198.656
2.5	10132.858
3.0	10055.097
3.5	9963.379
4.0	9857.703
4.5	9744.053
5.0	9618.439
5.5	9478.868
6.0	9329.327
6.5	9169.818
7.0	8998.345
7.5	8814.908
8.0	8623.497
8.5	8420.122
9.0	8210.765
9.5	7993.433
10.0	7768.125
10.5	7536.836
11.0	7299.566
11.5	7058.307
12.0	6813.061
12.5	6569.808
13.0	6326.556
13.5	6081.310
14.0	5834.070
14.5	5586.829
15.0	5343.577
15.5	5102.319
16.0	4861.060
16.5	4625.783
17.0	4392.500
17.5	4163.205
18.0	3937.897
18.5	3718.571
19.0	3509.215
19.5	3303.846
20.0	3104.459
20.5	2915.041
21.0	2731.605
21.5	2556.144
22.0	2390.653
22.5	2233.137
23.0	2085.590
23.5	1944.424
24.0	1810.835
24.5	1685.021
25.0	1567.383
25.5	1457.919
26.0	1355.833
26.5	1260.127

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CANDELA TABULATION - (Cont.)

27.0	1171.200
27.5	1088.854
28.0	1012.289
28.5	940.908
29.0	875.509
29.5	814.497
30.0	758.070
30.5	706.229
31.0	658.377
31.5	614.113
32.0	573.238
32.5	535.753
33.0	501.060
33.5	468.759
34.0	439.250
34.5	411.735
35.0	386.412
35.5	363.084
36.0	341.351
36.5	321.412
37.0	302.869
37.5	286.121
38.0	270.568
38.5	256.611
39.0	243.651
39.5	231.887
40.0	221.320
40.5	211.350
41.0	202.378
41.5	194.004
42.0	186.228
42.5	179.050
43.0	172.271
43.5	165.890
44.0	159.909
44.5	154.326
45.0	149.142
45.5	144.356
46.0	139.770
46.5	135.384
47.0	131.197
47.5	127.408
48.0	123.819
48.5	120.230
49.0	116.841
49.5	113.651
50.0	110.660
50.5	107.669
51.0	104.878
51.5	101.887
52.0	99.295
52.5	96.503
53.0	94.111
53.5	91.519
54.0	88.927
54.5	86.534

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CANDELA TABULATION - (Cont.)

55.0	84.141
55.5	81.749
56.0	79.555
56.5	77.362
57.0	75.169
57.5	72.976
58.0	70.782
58.5	68.789
59.0	66.795
59.5	64.801
60.0	62.807
60.5	60.813
61.0	58.819
61.5	57.025
62.0	55.031
62.5	53.236
63.0	51.243
63.5	49.448
64.0	47.654
64.5	45.859
65.0	44.264
65.5	42.469
66.0	40.874
66.5	39.080
67.0	37.485
67.5	35.890
68.0	34.295
68.5	32.899
69.0	31.304
69.5	29.908
70.0	28.512
70.5	27.316
71.0	26.120
71.5	24.923
72.0	23.727
72.5	22.730
73.0	21.733
73.5	20.736
74.0	19.939
74.5	18.942
75.0	18.144
75.5	17.347
76.0	16.549
76.5	15.951
77.0	15.153
77.5	14.356
78.0	13.758
78.5	12.960
79.0	12.362
79.5	11.764
80.0	10.966
80.5	10.368
81.0	9.770
81.5	9.172
82.0	8.374
82.5	7.776

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CANDELA TABULATION - (Cont.)

83.0	7.178
83.5	6.580
84.0	5.982
84.5	5.383
85.0	4.985
85.5	4.387
86.0	3.788
86.5	3.190
87.0	2.791
87.5	2.393
88.0	1.994
88.5	1.595
89.0	1.396
89.5	0.997
90.0	0.798
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
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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
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146.5	0.000
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151.0	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	2309.33	N.A.	64.50
0-30	3058.78	N.A.	85.40
0-40	3315.94	N.A.	92.60
0-60	3510.35	N.A.	98.10
0-80	3574.17	N.A.	99.80
0-90	3579.83	N.A.	100.00
10-90	2721.27	N.A.	76.00
20-40	1006.61	N.A.	28.10
20-50	1125.19	N.A.	31.40
40-70	238.51	N.A.	6.70
60-80	63.83	N.A.	1.80
70-80	19.73	N.A.	0.60
80-90	5.66	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	3579.85	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	858.56
10-20	1450.77
20-30	749.45
30-40	257.16
40-50	118.57
50-60	75.83
60-70	44.10
70-80	19.73
80-90	5.66
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	237	237	237	237	232	232	232	232	222	222	222	212	212	212	204	204	204	199
1	228	223	218	214	223	218	214	211	210	207	204	203	200	198	196	194	192	189
2	218	209	202	196	214	206	200	194	200	195	190	194	190	186	189	185	182	179
3	209	198	189	183	205	195	187	181	190	184	178	186	180	175	181	177	173	170
4	201	188	179	171	198	186	177	170	182	174	168	178	172	166	174	169	165	162
5	193	179	169	162	190	177	168	161	174	166	160	171	164	158	168	162	157	154
6	186	171	161	154	183	170	160	153	167	158	152	164	157	151	162	155	150	148
7	179	164	154	147	177	163	153	146	160	152	146	158	150	145	156	149	144	142
8	173	157	147	140	171	156	147	140	154	146	140	152	145	139	150	144	139	136
9	167	151	141	135	165	150	141	135	149	140	134	147	139	134	145	138	133	131
10	162	146	136	130	160	145	136	130	143	135	129	142	134	129	141	134	129	126

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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	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

UGR Viewed Endwise

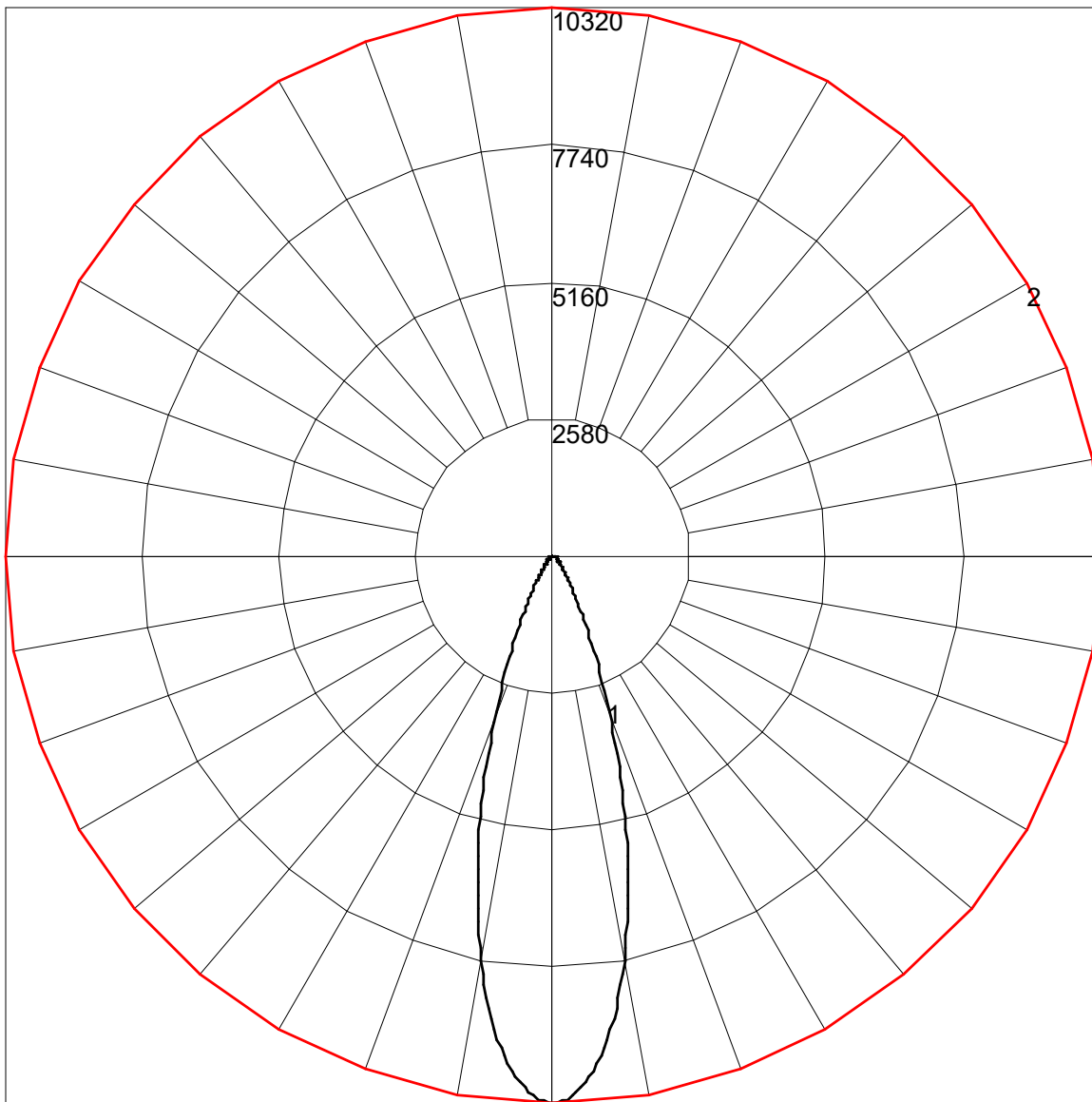
4H	2H	11.7	12.5	12.1	12.9	13.2	11.7	12.5	12.1	12.9	13.2
	3H	12.8	13.5	13.2	13.9	14.3	12.8	13.5	13.2	13.9	14.3
	4H	13.2	13.8	13.6	14.2	14.6	13.2	13.8	13.6	14.2	14.6
	6H	13.5	14.0	14.0	14.4	14.9	13.5	14.0	14.0	14.4	14.9
	8H	13.6	14.1	14.1	14.5	15.0	13.6	14.1	14.1	14.5	15.0
	12H	13.6	14.0	14.1	14.5	15.0	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 = 10320.282 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.)