



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-P20-835-POE-LW-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.07

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 11 OCT 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V6DR-P20-835-PoE-LW-OF-WH

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

[MORE] s patterned lens enclosure

[LAMP] One white LED

[SEARCH_SOURCETYPE] LED

[SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Healthcare, Office, Downlight

[SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1985
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	23.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	0.98
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.46 ft (Diameter)
Luminous Width (90-270)	0.46 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	33004	33004	33004
55	27477	27477	27477
65	20875	20875	20875
75	15138	15138	15138
85	9865	9865	9865

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CANDELA TABULATION

	<u>0</u>
0.0	1262.928
0.5	1262.674
1.0	1261.657
1.5	1260.131
2.0	1258.224
2.5	1255.681
3.0	1253.138
3.5	1250.214
4.0	1247.544
4.5	1244.874
5.0	1242.967
5.5	1241.187
6.0	1239.534
6.5	1237.881
7.0	1236.101
7.5	1234.448
8.0	1232.795
8.5	1231.269
9.0	1229.743
9.5	1228.472
10.0	1227.201
10.5	1226.183
11.0	1225.293
11.5	1224.785
12.0	1223.895
12.5	1223.005
13.0	1221.733
13.5	1220.080
14.0	1218.046
14.5	1215.758
15.0	1213.342
15.5	1210.290
16.0	1206.985
16.5	1203.679
17.0	1200.373
17.5	1196.940
18.0	1193.253
18.5	1189.057
19.0	1184.353
19.5	1179.140
20.0	1173.164
20.5	1166.680
21.0	1158.670
21.5	1149.134
22.0	1138.326
22.5	1126.121
23.0	1112.770
23.5	1098.276
24.0	1082.256
24.5	1064.964
25.0	1046.274
25.5	1026.821
26.0	1006.096
26.5	984.481

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CANDELA TABULATION - (Cont.)

27.0	961.468
27.5	937.819
28.0	912.899
28.5	886.580
29.0	859.244
29.5	830.509
30.0	801.012
30.5	770.624
31.0	740.236
31.5	709.595
32.0	679.843
32.5	651.362
33.0	624.026
33.5	598.470
34.0	574.948
34.5	553.588
35.0	534.516
35.5	516.970
36.0	501.586
36.5	487.473
37.0	474.885
37.5	463.570
38.0	453.271
38.5	443.862
39.0	434.962
39.5	426.952
40.0	419.196
40.5	411.949
41.0	405.210
41.5	398.599
42.0	392.241
42.5	386.393
43.0	380.417
43.5	374.568
44.0	368.847
44.5	363.252
45.0	357.531
45.5	352.064
46.0	346.469
46.5	340.875
47.0	335.153
47.5	329.559
48.0	323.838
48.5	318.116
49.0	312.395
49.5	306.419
50.0	300.697
50.5	294.849
51.0	289.000
51.5	283.024
52.0	277.048
52.5	271.072
53.0	265.097
53.5	259.121
54.0	253.399
54.5	247.551

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CANDELA TABULATION - (Cont.)

55.0	241.448
55.5	235.472
56.0	229.496
56.5	223.902
57.0	218.307
57.5	212.459
58.0	206.610
58.5	200.889
59.0	195.294
59.5	189.700
60.0	184.360
60.5	179.020
61.0	173.807
61.5	168.594
62.0	163.635
62.5	158.677
63.0	153.845
63.5	149.014
64.0	144.309
64.5	139.732
65.0	135.155
65.5	130.705
66.0	126.267
66.5	121.906
67.0	117.596
67.5	113.375
68.0	109.230
68.5	105.072
69.0	101.042
69.5	97.050
70.0	93.172
70.5	89.421
71.0	85.746
71.5	82.186
72.0	78.753
72.5	75.422
73.0	72.180
73.5	69.001
74.0	65.950
74.5	62.962
75.0	60.025
75.5	57.190
76.0	54.405
76.5	51.672
77.0	49.014
77.5	46.408
78.0	43.878
78.5	41.398
79.0	38.970
79.5	36.630
80.0	34.304
80.5	32.053
81.0	29.828
81.5	27.616
82.0	25.454
82.5	23.306

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CANDELA TABULATION - (Cont.)

83.0	21.208
83.5	19.148
84.0	17.114
84.5	15.118
85.0	13.172
85.5	11.290
86.0	9.472
86.5	7.718
87.0	6.014
87.5	4.590
88.0	3.509
88.5	2.568
89.0	1.780
89.5	1.119
90.0	0.712
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
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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
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145.0	0.000
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147.0	0.000
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152.0	0.000
152.5	0.000
153.0	0.000
153.5	0.000
154.0	0.000
154.5	0.000
155.0	0.000
155.5	0.000
156.0	0.000
156.5	0.000
157.0	0.000
157.5	0.000
158.0	0.000
158.5	0.000
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	460.04	N.A.	23.20
0-30	929.94	N.A.	46.80
0-40	1278.36	N.A.	64.40
0-60	1770.34	N.A.	89.20
0-80	1969.61	N.A.	99.20
0-90	1985.36	N.A.	100.00
10-90	1867.18	N.A.	94.00
20-40	818.32	N.A.	41.20
20-50	1094.42	N.A.	55.10
40-70	626.70	N.A.	31.60
60-80	199.27	N.A.	10.00
70-80	64.55	N.A.	3.30
80-90	15.75	N.A.	0.80
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	1985.38	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	118.18
10-20	341.86
20-30	469.89
30-40	348.43
40-50	276.10
50-60	215.88
60-70	134.72
70-80	64.55
80-90	15.75
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	239	239	239	239	234	234	234	234	223	223	223	214	214	214	205	205	205	201
1	223	215	208	202	218	211	205	199	202	197	193	195	191	187	188	184	181	177
2	207	193	182	173	202	190	180	171	183	174	167	177	169	163	171	165	160	156
3	192	175	161	150	188	172	159	149	166	155	146	161	152	144	156	148	142	138
4	179	159	144	132	175	156	142	132	151	139	130	147	137	128	143	134	127	123
5	167	145	129	118	163	143	128	117	139	126	116	135	124	115	131	122	114	110
6	156	133	117	106	152	131	117	106	128	115	105	125	113	104	122	111	103	100
7	146	123	107	97	143	121	107	96	118	105	96	116	104	95	113	103	95	91
8	137	114	99	88	135	112	98	88	110	97	88	108	96	87	105	95	87	83
9	130	106	91	81	127	105	91	81	103	90	81	101	89	80	99	88	80	77
10	122	99	85	75	120	98	84	75	96	83	75	94	83	75	93	82	74	71

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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	19.0	20.4	19.4	20.7	21.0	19.0	20.4	19.4	20.7	21.0
	3H	20.2	21.5	20.6	21.8	22.1	20.2	21.5	20.6	21.8	22.1
	4H	20.6	21.8	21.0	22.1	22.5	20.6	21.8	21.0	22.1	22.5
	6H	20.9	21.9	21.3	22.3	22.7	20.9	21.9	21.3	22.3	22.7
	8H	21.0	22.0	21.4	22.4	22.8	21.0	22.0	21.4	22.4	22.8
	12H	21.0	22.0	21.4	22.3	22.8	21.0	22.0	21.4	22.3	22.8

UGR Viewed Endwise

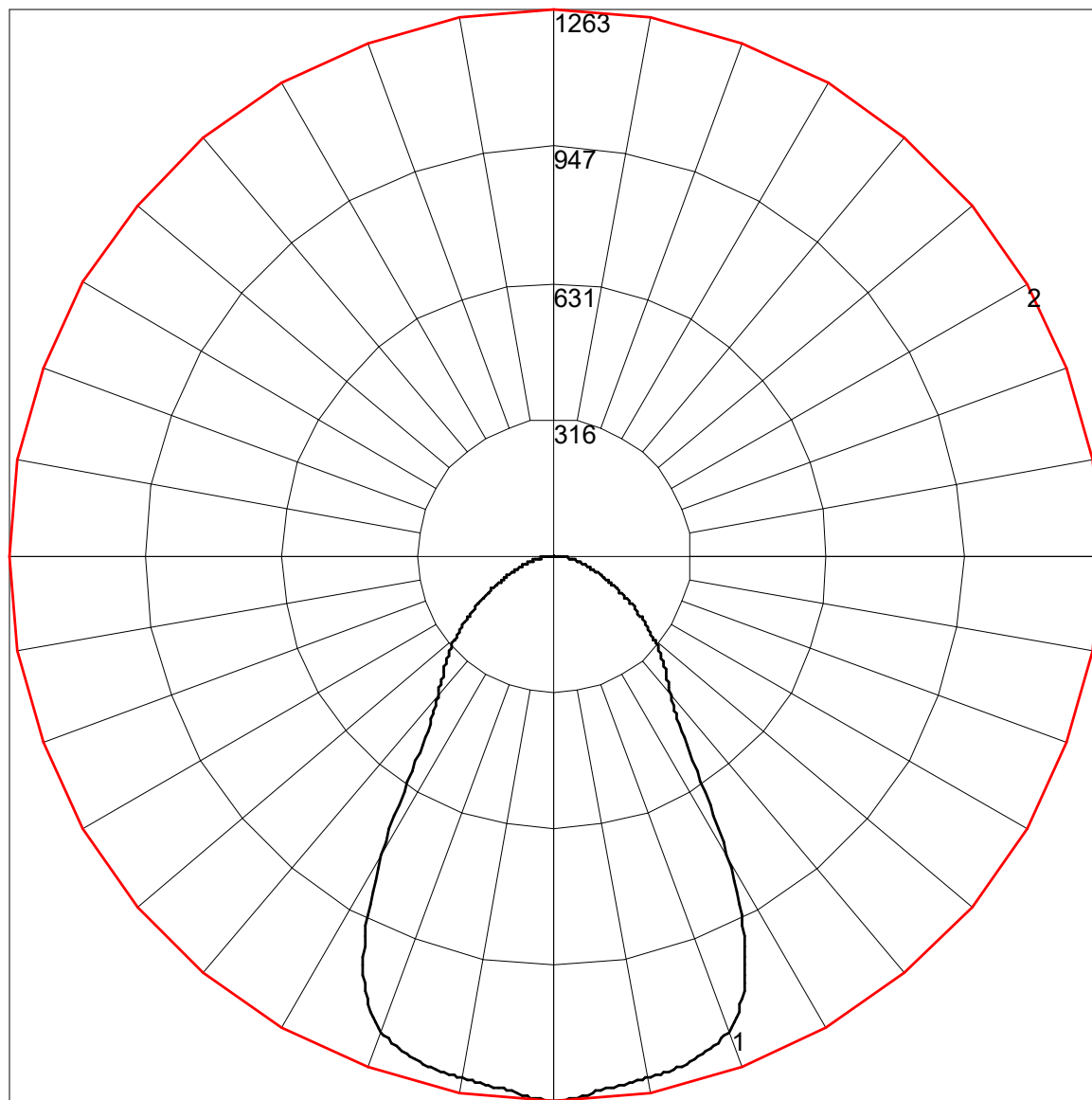
4H	2H	19.4	20.6	19.8	20.9	21.3	19.4	20.6	19.8	20.9	21.3
	3H	20.8	21.8	21.2	22.2	22.6	20.8	21.8	21.2	22.2	22.6
	4H	21.3	22.2	21.8	22.6	23.0	21.3	22.2	21.8	22.6	23.0
	6H	21.7	22.4	22.2	22.9	23.3	21.7	22.4	22.2	22.9	23.3
	8H	21.8	22.5	22.2	22.9	23.4	21.8	22.5	22.2	22.9	23.4
	12H	21.9	22.5	22.3	23.0	23.4	21.9	22.5	22.3	23.0	23.4

8H	4H	21.5	22.2	21.9	22.6	23.1	21.5	22.2	21.9	22.6	23.1
	6H	21.9	22.5	22.4	23.0	23.5	21.9	22.5	22.4	23.0	23.5
	8H	22.1	22.6	22.6	23.1	23.6	22.1	22.6	22.6	23.1	23.6
	12H	22.2	22.7	22.7	23.2	23.7	22.2	22.7	22.7	23.2	23.7

12H	4H	21.5	22.1	22.0	22.6	23.0	21.5	22.1	22.0	22.6	23.0
	6H	22.0	22.5	22.5	22.9	23.5	22.0	22.5	22.5	22.9	23.5
	8H	22.2	22.6	22.7	23.1	23.7	22.2	22.6	22.7	23.1	23.7

Maximum UGR = 23.7

POLAR GRAPH



Maximum Candela = 1262.928 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.)