



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L23-835-DIM-UNV-RW-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from 12326812.12

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 9 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V6DR-L23-835-DIM-UNV-RW-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	2160
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	73
Total Luminaire Watts	29.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.04
Spacing Criterion (90-270)	1.04
Spacing Criterion (Diagonal)	0.94
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.48 ft (Diameter)
Luminous Width (90-270)	0.48 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	29167	29167	29167
55	24324	24324	24324
65	17161	17161	17161
75	10512	10512	10512
85	8290	8290	8290

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CANDELA TABULATION

	<u>0</u>
0.0	1597.951
0.5	1596.456
1.0	1594.961
1.5	1593.466
2.0	1590.477
2.5	1585.992
3.0	1581.508
3.5	1575.529
4.0	1569.549
4.5	1565.065
5.0	1559.086
5.5	1553.107
6.0	1547.127
6.5	1541.148
7.0	1535.169
7.5	1529.190
8.0	1521.716
8.5	1515.736
9.0	1509.757
9.5	1502.283
10.0	1496.304
10.5	1488.979
11.0	1481.804
11.5	1474.629
12.0	1467.454
12.5	1460.428
13.0	1453.253
13.5	1445.779
14.0	1438.455
14.5	1431.280
15.0	1424.553
15.5	1417.677
16.0	1410.950
16.5	1404.373
17.0	1398.244
17.5	1392.116
18.0	1386.136
18.5	1380.456
19.0	1374.776
19.5	1368.946
20.0	1362.967
20.5	1356.539
21.0	1349.215
21.5	1340.844
22.0	1331.426
22.5	1320.963
23.0	1309.602
23.5	1296.747
24.0	1282.696
24.5	1267.299
25.0	1250.258
25.5	1231.872
26.0	1211.393
26.5	1188.971

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CANDELA TABULATION - (Cont.)

27.0	1165.054
27.5	1139.044
28.0	1111.391
28.5	1081.345
29.0	1049.655
29.5	1015.274
30.0	978.801
30.5	940.235
31.0	900.174
31.5	859.216
32.0	817.511
32.5	776.105
33.0	735.147
33.5	695.535
34.0	657.566
34.5	621.841
35.0	589.254
35.5	559.358
36.0	533.049
36.5	509.730
37.0	489.251
37.5	471.762
38.0	456.365
38.5	442.762
39.0	430.953
39.5	420.490
40.0	410.923
40.5	402.253
41.0	394.181
41.5	386.857
42.0	380.130
42.5	373.702
43.0	367.574
43.5	361.744
44.0	356.213
44.5	350.981
45.0	345.600
45.5	340.517
46.0	335.286
46.5	330.203
47.0	324.971
47.5	319.740
48.0	314.358
48.5	308.977
49.0	303.895
49.5	298.663
50.0	293.132
50.5	287.452
51.0	281.622
51.5	275.792
52.0	269.963
52.5	263.983
53.0	258.154
53.5	252.473
54.0	246.195
54.5	239.917

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CANDELA TABULATION - (Cont.)

55.0	233.788
55.5	227.510
56.0	221.381
56.5	215.253
57.0	209.124
57.5	202.995
58.0	197.165
58.5	191.186
59.0	185.356
59.5	179.676
60.0	173.996
60.5	168.315
61.0	162.785
61.5	157.403
62.0	152.022
62.5	146.790
63.0	141.558
63.5	136.327
64.0	131.394
64.5	126.311
65.0	121.528
65.5	116.595
66.0	111.961
66.5	107.327
67.0	102.843
67.5	98.358
68.0	94.023
68.5	89.689
69.0	85.653
69.5	81.467
70.0	77.581
70.5	73.694
71.0	69.957
71.5	66.370
72.0	62.782
72.5	59.493
73.0	56.354
73.5	53.514
74.0	50.674
74.5	48.133
75.0	45.592
75.5	43.349
76.0	41.107
76.5	39.164
77.0	37.370
77.5	35.576
78.0	33.783
78.5	31.989
79.0	30.345
79.5	28.700
80.0	27.056
80.5	25.412
81.0	23.767
81.5	22.273
82.0	20.628
82.5	19.134

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CANDELA TABULATION - (Cont.)

83.0	17.639
83.5	16.293
84.0	14.799
84.5	13.453
85.0	12.108
85.5	10.763
86.0	9.417
86.5	8.072
87.0	6.876
87.5	5.531
88.0	4.484
88.5	3.588
89.0	2.840
89.5	2.093
90.0	1.495
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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131.5	0.000
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133.0	0.000
133.5	0.000
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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
146.0	0.000
146.5	0.000
147.0	0.000
147.5	0.000
148.0	0.000
148.5	0.000
149.0	0.000
149.5	0.000
150.0	0.000
150.5	0.000
151.0	0.000
151.5	0.000
152.0	0.000
152.5	0.000
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153.5	0.000
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154.5	0.000
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158.0	0.000
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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	549.09	N.A.	25.40
0-30	1110.04	N.A.	51.40
0-40	1498.15	N.A.	69.40
0-60	1974.43	N.A.	91.40
0-80	2146.36	N.A.	99.40
0-90	2160.15	N.A.	100.00
10-90	2013.36	N.A.	93.20
20-40	949.06	N.A.	43.90
20-50	1216.84	N.A.	56.30
40-70	597.62	N.A.	27.70
60-80	171.94	N.A.	8.00
70-80	50.59	N.A.	2.30
80-90	13.79	N.A.	0.60
90-110	0.04	N.A.	0.00
90-120	0.04	N.A.	0.00
90-130	0.04	N.A.	0.00
90-150	0.04	N.A.	0.00
90-180	0.04	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2160.19	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	146.79
10-20	402.30
20-30	560.96
30-40	388.11
40-50	267.77
50-60	208.50
60-70	121.35
70-80	50.59
80-90	13.79
90-100	0.04
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	62	83	73	66	61	71	65	61	69	64	60	68	63	59	58
6	79	68	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38

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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

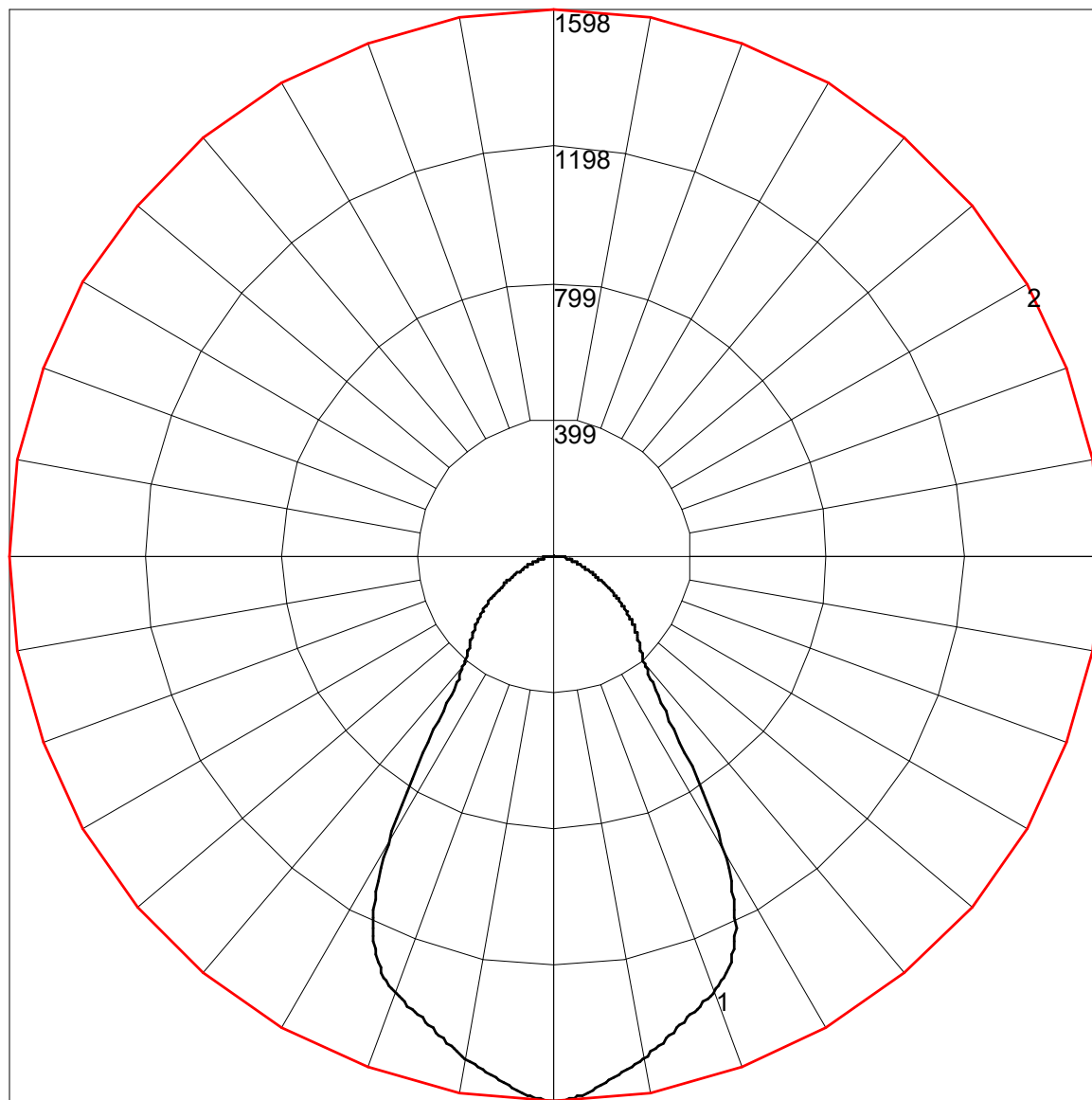
X=2H	Y=2H	20.5	21.9	20.9	22.2	22.5	20.5	21.9	20.9	22.2	22.5
	3H	21.5	22.7	21.9	23.0	23.4	21.5	22.7	21.9	23.0	23.4
	4H	21.8	22.9	22.2	23.2	23.6	21.8	22.9	22.2	23.2	23.6
	6H	21.9	23.0	22.4	23.3	23.7	21.9	23.0	22.4	23.3	23.7
	8H	22.0	23.0	22.4	23.3	23.8	22.0	23.0	22.4	23.3	23.8
	12H	22.0	22.9	22.5	23.3	23.8	22.0	22.9	22.5	23.3	23.8

UGR Viewed Endwise

4H	2H	20.9	22.0	21.3	22.3	22.7	20.9	22.0	21.3	22.3	22.7
	3H	22.0	22.9	22.4	23.3	23.7	22.0	22.9	22.4	23.3	23.7
	4H	22.3	23.2	22.8	23.6	24.0	22.3	23.2	22.8	23.6	24.0
	6H	22.6	23.3	23.1	23.8	24.2	22.6	23.3	23.1	23.8	24.2
	8H	22.7	23.3	23.2	23.8	24.3	22.7	23.3	23.2	23.8	24.3
	12H	22.8	23.3	23.2	23.8	24.3	22.8	23.3	23.2	23.8	24.3
8H	4H	22.4	23.1	22.9	23.5	24.0	22.4	23.1	22.9	23.5	24.0
	6H	22.8	23.3	23.3	23.8	24.3	22.8	23.3	23.3	23.8	24.3
	8H	22.9	23.4	23.4	23.9	24.4	22.9	23.4	23.4	23.9	24.4
	12H	23.0	23.4	23.5	23.9	24.5	23.0	23.4	23.5	23.9	24.5
12H	4H	22.4	23.0	22.9	23.5	23.9	22.4	23.0	22.9	23.5	23.9
	6H	22.8	23.3	23.3	23.7	24.3	22.8	23.3	23.3	23.7	24.3
	8H	22.9	23.4	23.5	23.9	24.4	22.9	23.4	23.5	23.9	24.4

Maximum UGR = 24.5

POLAR GRAPH



Maximum Candela = 1597.951 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.)