



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L31-835-DIM-UNV-LN-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12326812.10

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 9 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V6DR-L31-835-DIM-UNV-LN-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, Architectural, Classroom, Commercial, Healthcare, Office, Downlight

[SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3634
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	89
Total Luminaire Watts	41
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.44
Spacing Criterion (90-270)	0.44
Spacing Criterion (Diagonal)	0.44
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	13671	13671	13671
55	10004	10004	10004
65	8134	8134	8134
75	6641	6641	6641
85	4300	4300	4300

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CANDELA TABULATION

	<u>0</u>
0.0	13595.609
0.5	13583.730
1.0	13544.133
1.5	13474.838
2.0	13379.806
2.5	13259.035
3.0	13114.506
3.5	12944.239
4.0	12750.214
4.5	12536.391
5.0	12304.749
5.5	12051.328
6.0	11778.110
6.5	11487.072
7.0	11178.216
7.5	10853.521
8.0	10511.007
8.5	10158.595
9.0	9798.263
9.5	9426.051
10.0	9049.880
10.5	8667.770
11.0	8279.720
11.5	7889.690
12.0	7499.660
12.5	7113.590
13.0	6731.480
13.5	6355.309
14.0	5987.057
14.5	5628.705
15.0	5284.212
15.5	4953.577
16.0	4638.781
16.5	4339.825
17.0	4054.727
17.5	3783.488
18.0	3528.087
18.5	3290.506
19.0	3066.783
19.5	2858.899
20.0	2660.914
20.5	2472.829
21.0	2298.602
21.5	2136.255
22.0	1981.827
22.5	1838.684
23.0	1704.450
23.5	1580.116
24.0	1463.701
24.5	1355.799
25.0	1256.015
25.5	1163.556
26.0	1078.027
26.5	999.229

IES INDOOR REPORT**PHOTOMETRIC FILENAME : V6DR-L31-835-DIM-UNV-LN-OF-WH_.IES****CANDELA TABULATION - (Cont.)**

27.0	926.964
27.5	860.441
28.0	799.462
28.5	743.829
29.0	692.550
29.5	645.430
30.0	602.269
30.5	562.870
31.0	526.639
31.5	493.576
32.0	463.086
32.5	435.170
33.0	409.432
33.5	385.872
34.0	364.094
34.5	344.295
35.0	325.883
35.5	309.054
36.0	293.611
36.5	279.158
37.0	266.091
37.5	254.014
38.0	242.927
38.5	232.434
39.0	222.931
39.5	214.021
40.0	205.904
40.5	198.183
41.0	191.253
41.5	184.522
42.0	178.384
42.5	172.643
43.0	167.099
43.5	161.951
44.0	157.002
44.5	152.448
45.0	148.093
45.5	143.935
46.0	139.975
46.5	136.015
47.0	132.452
47.5	128.888
48.0	125.324
48.5	121.959
49.0	118.791
49.5	115.821
50.0	112.851
50.5	109.882
51.0	107.110
51.5	104.536
52.0	101.962
52.5	99.388
53.0	96.815
53.5	94.637
54.0	92.261
54.5	90.083

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55.0	87.905
55.5	85.727
56.0	83.550
56.5	81.570
57.0	79.590
57.5	77.808
58.0	75.828
58.5	74.046
59.0	72.264
59.5	70.285
60.0	68.701
60.5	66.919
61.0	65.137
61.5	63.553
62.0	61.969
62.5	60.385
63.0	58.801
63.5	57.218
64.0	55.634
64.5	54.050
65.0	52.664
65.5	51.080
66.0	49.694
66.5	48.110
67.0	46.724
67.5	45.338
68.0	43.953
68.5	42.567
69.0	41.181
69.5	39.795
70.0	38.409
70.5	37.221
71.0	35.835
71.5	34.647
72.0	33.459
72.5	32.074
73.0	30.886
73.5	29.698
74.0	28.510
74.5	27.322
75.0	26.332
75.5	25.144
76.0	23.956
76.5	22.768
77.0	21.778
77.5	20.590
78.0	19.600
78.5	18.611
79.0	17.423
79.5	16.433
80.0	15.443
80.5	14.453
81.0	13.463
81.5	12.473
82.0	11.483
82.5	10.493

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CANDELA TABULATION - (Cont.)

83.0	9.503
83.5	8.513
84.0	7.721
84.5	6.731
85.0	5.742
85.5	4.950
86.0	4.158
86.5	3.366
87.0	2.772
87.5	2.178
88.0	1.584
88.5	1.188
89.0	0.990
89.5	0.594
90.0	0.396
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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : V6DR-L31-835-DIM-UNV-LN-OF-WH_.IES****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
123.0	0.000
123.5	0.000
124.0	0.000
124.5	0.000
125.0	0.000
125.5	0.000
126.0	0.000
126.5	0.000
127.0	0.000
127.5	0.000
128.0	0.000
128.5	0.000
129.0	0.000
129.5	0.000
130.0	0.000
130.5	0.000
131.0	0.000
131.5	0.000
132.0	0.000
132.5	0.000
133.0	0.000
133.5	0.000
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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : V6DR-L31-835-DIM-UNV-LN-OF-WH_.IES****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
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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Zone	Lumens	%Lamp	%Fixt
0-20	2524.61	N.A.	69.50
0-30	3135.12	N.A.	86.30
0-40	3350.96	N.A.	92.20
0-60	3546.71	N.A.	97.60
0-80	3626.93	N.A.	99.80
0-90	3634.01	N.A.	100.00
10-90	2565.4	N.A.	70.60
20-40	826.35	N.A.	22.70
20-50	942.82	N.A.	25.90
40-70	248.06	N.A.	6.80
60-80	80.22	N.A.	2.20
70-80	27.90	N.A.	0.80
80-90	7.08	N.A.	0.20
90-110	0.01	N.A.	0.00
90-120	0.01	N.A.	0.00
90-130	0.01	N.A.	0.00
90-150	0.01	N.A.	0.00
90-180	0.01	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3634.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1068.61
10-20	1456.00
20-30	610.51
30-40	215.85
40-50	116.47
50-60	79.27
60-70	52.32
70-80	27.90
80-90	7.08
90-100	0.01
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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95
2	110	105	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90
3	105	100	96	92	104	99	95	92	96	93	90	94	91	89	92	89	88	86
4	101	95	91	87	100	94	90	87	92	88	86	90	87	85	88	86	84	82
5	98	91	86	83	96	90	86	82	88	85	82	87	84	81	85	83	80	79
6	94	87	82	79	93	86	82	79	85	81	78	84	80	78	83	80	77	76
7	91	84	79	76	90	83	79	75	82	78	75	81	77	75	80	77	74	73
8	88	81	76	73	87	80	76	73	79	75	72	78	75	72	78	74	72	71
9	86	78	73	70	85	78	73	70	77	73	70	76	72	70	75	72	69	68
10	83	75	71	68	82	75	71	68	74	70	68	74	70	67	73	70	67	66

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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

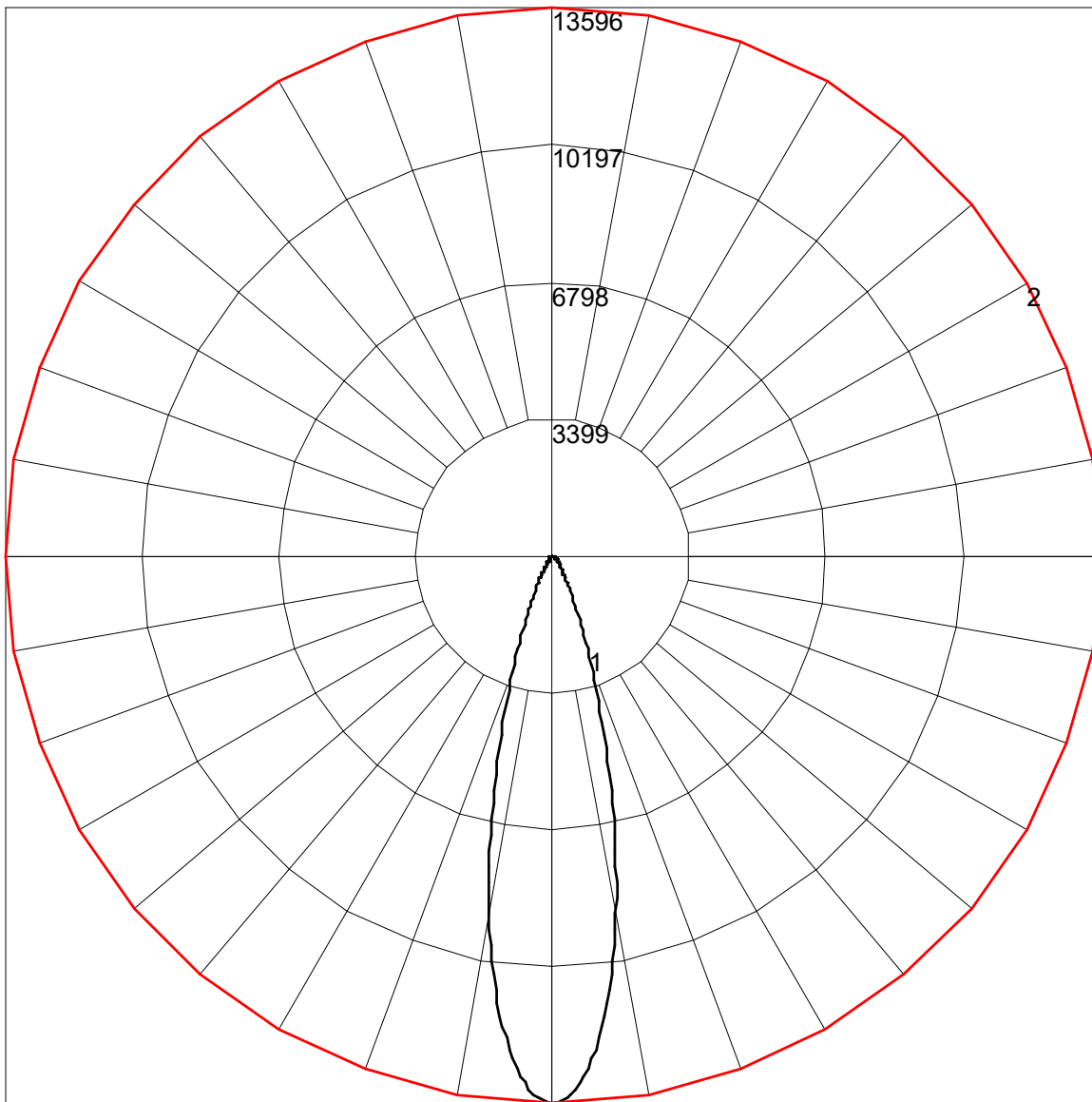
X=2H	Y=2H	12.9	13.9	13.2	14.2	14.5	12.9	13.9	13.2	14.2	14.5
	3H	14.3	15.1	14.7	15.5	15.8	14.3	15.1	14.7	15.5	15.8
	4H	14.8	15.6	15.2	15.9	16.3	14.8	15.6	15.2	15.9	16.3
	6H	15.1	15.8	15.5	16.2	16.6	15.1	15.8	15.5	16.2	16.6
	8H	15.2	15.9	15.6	16.3	16.7	15.2	15.9	15.6	16.3	16.7
	12H	15.2	15.9	15.7	16.3	16.7	15.2	15.9	15.7	16.3	16.7

UGR Viewed Endwise

4H	2H	13.3	14.1	13.7	14.4	14.8	13.3	14.1	13.7	14.4	14.8
	3H	14.9	15.5	15.3	15.9	16.3	14.9	15.5	15.3	15.9	16.3
	4H	15.5	16.1	15.9	16.5	16.9	15.5	16.1	15.9	16.5	16.9
	6H	15.9	16.4	16.4	16.9	17.4	15.9	16.4	16.4	16.9	17.4
	8H	16.1	16.5	16.6	17.0	17.5	16.1	16.5	16.6	17.0	17.5
	12H	16.1	16.5	16.6	17.0	17.5	16.1	16.5	16.6	17.0	17.5
8H	4H	15.7	16.1	16.1	16.6	17.0	15.7	16.1	16.1	16.6	17.0
	6H	16.2	16.6	16.7	17.1	17.6	16.2	16.6	16.7	17.1	17.6
	8H	16.4	16.7	17.0	17.3	17.8	16.4	16.7	17.0	17.3	17.8
	12H	16.5	16.8	17.1	17.3	17.9	16.5	16.8	17.1	17.3	17.9
12H	4H	15.6	16.0	16.1	16.5	17.0	15.6	16.0	16.1	16.5	17.0
	6H	16.2	16.6	16.8	17.0	17.6	16.2	16.6	16.8	17.0	17.6
	8H	16.5	16.8	17.0	17.3	17.8	16.5	16.8	17.0	17.3	17.8

Maximum UGR = 17.9

POLAR GRAPH



Maximum Candela = 13595.609 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.)