



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12326812.09

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 9 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V6DR-L31-835-DIM-UNV-LM-OF-WH

[LUMINAIRE] Black formed aluminum housing, white reflector, frosted pl

[MORE] astic 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	3721
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	91
Total Luminaire Watts	41
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.60
Spacing Criterion (90-270)	0.60
Spacing Criterion (Diagonal)	0.56
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	16619	16619	16619
55	12168	12168	12168
65	9915	9915	9915
75	8069	8069	8069
85	5308	5308	5308

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V6DR-L31-835-DIM-UNV-LM-OF-WH_.IES

CANDELA TABULATION

	<u>0</u>
0.0	8784.628
0.5	8780.578
1.0	8768.428
1.5	8750.203
2.0	8725.902
2.5	8691.476
3.0	8653.001
3.5	8608.450
4.0	8555.799
4.5	8501.123
5.0	8440.371
5.5	8371.520
6.0	8296.593
6.5	8213.567
7.0	8124.465
7.5	8027.263
8.0	7919.936
8.5	7804.508
9.0	7683.006
9.5	7553.403
10.0	7413.675
10.5	7265.847
11.0	7107.894
11.5	6937.791
12.0	6761.612
12.5	6575.308
13.0	6380.905
13.5	6176.375
14.0	5965.771
14.5	5747.067
15.0	5524.312
15.5	5297.508
16.0	5070.703
16.5	4841.873
17.0	4619.119
17.5	4396.364
18.0	4171.585
18.5	3950.855
19.0	3732.151
19.5	3521.546
20.0	3317.017
20.5	3120.588
21.0	2936.310
21.5	2760.131
22.0	2583.952
22.5	2417.899
23.0	2259.946
23.5	2110.093
24.0	1970.567
24.5	1838.535
25.0	1715.210
25.5	1598.972
26.0	1491.240
26.5	1390.393

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V6DR-L31-835-DIM-UNV-LM-OF-WH_.IES

CANDELA TABULATION - (Cont.)

27.0	1296.634
27.5	1209.760
28.0	1128.758
28.5	1053.831
29.0	984.372
29.5	919.571
30.0	859.630
30.5	803.739
31.0	751.898
31.5	703.702
32.0	658.746
32.5	617.030
33.0	578.149
33.5	541.901
34.0	508.488
34.5	477.505
35.0	448.547
35.5	422.019
36.0	397.313
36.5	374.835
37.0	353.977
37.5	334.942
38.0	317.729
38.5	301.731
39.0	287.151
39.5	273.786
40.0	261.635
40.5	250.295
41.0	239.967
41.5	230.450
42.0	221.539
42.5	213.439
43.0	205.744
43.5	198.657
44.0	192.176
44.5	185.899
45.0	180.026
45.5	174.559
46.0	169.496
46.5	164.636
47.0	159.978
47.5	155.523
48.0	151.473
48.5	147.423
49.0	143.575
49.5	139.930
50.0	136.488
50.5	133.045
51.0	129.805
51.5	126.565
52.0	123.528
52.5	120.692
53.0	117.655
53.5	114.820
54.0	112.187
54.5	109.555

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V6DR-L31-835-DIM-UNV-LM-OF-WH_.IES

CANDELA TABULATION - (Cont.)

55.0	106.922
55.5	104.290
56.0	101.860
56.5	99.430
57.0	96.999
57.5	94.569
58.0	92.342
58.5	90.114
59.0	87.887
59.5	85.862
60.0	83.837
60.5	81.609
61.0	79.584
61.5	77.559
62.0	75.534
62.5	73.711
63.0	71.686
63.5	69.864
64.0	68.041
64.5	66.219
65.0	64.194
65.5	62.371
66.0	60.549
66.5	58.929
67.0	57.106
67.5	55.284
68.0	53.664
68.5	52.044
69.0	50.221
69.5	48.601
70.0	46.981
70.5	45.361
71.0	43.943
71.5	42.323
72.0	40.703
72.5	39.286
73.0	37.666
73.5	36.248
74.0	34.831
74.5	33.413
75.0	31.996
75.5	30.578
76.0	29.161
76.5	27.743
77.0	26.326
77.5	25.111
78.0	23.693
78.5	22.478
79.0	21.263
79.5	19.845
80.0	18.630
80.5	17.415
81.0	16.200
81.5	14.985
82.0	13.770
82.5	12.555

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V6DR-L31-835-DIM-UNV-LM-OF-WH_.IES

CANDELA TABULATION - (Cont.)

83.0	11.543
83.5	10.328
84.0	9.315
84.5	8.100
85.0	7.088
85.5	6.075
86.0	5.063
86.5	4.253
87.0	3.443
87.5	2.835
88.0	2.228
88.5	1.823
89.0	1.418
89.5	1.013
90.0	0.608
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-LM-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-LM-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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V6DR-L31-835-DIM-UNV-LM-OF-WH_.IES

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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V6DR-L31-835-DIM-UNV-LM-OF-WH_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2259.28	N.A.	60.70
0-30	3077.52	N.A.	82.70
0-40	3375.06	N.A.	90.70
0-60	3614.24	N.A.	97.10
0-80	3712.12	N.A.	99.80
0-90	3720.77	N.A.	100.00
10-90	2947.18	N.A.	79.20
20-40	1115.78	N.A.	30.00
20-50	1258.62	N.A.	33.80
40-70	303.07	N.A.	8.10
60-80	97.87	N.A.	2.60
70-80	33.99	N.A.	0.90
80-90	8.65	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	3720.79	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	773.59
10-20	1485.69
20-30	818.24
30-40	297.54
40-50	142.84
50-60	96.34
60-70	63.89
70-80	33.99
80-90	8.65
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V6DR-L31-835-DIM-UNV-LM-OF-WH_.IES

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	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	109	104	100	97	107	102	99	96	99	96	94	96	94	92	94	92	90	89
3	104	98	94	90	102	97	93	89	94	91	88	92	89	86	90	87	85	84
4	100	93	88	84	98	92	87	83	90	86	83	88	84	82	86	83	81	79
5	96	88	83	79	94	87	82	79	85	81	78	84	80	77	82	79	77	75
6	92	84	79	75	90	83	78	75	82	77	74	80	76	74	79	76	73	72
7	88	80	75	71	87	79	74	71	78	74	71	77	73	70	76	73	70	69
8	85	77	71	68	84	76	71	68	75	71	67	74	70	67	73	70	67	66
9	82	73	68	65	81	73	68	65	72	68	65	71	67	64	71	67	64	63
10	79	71	66	62	78	70	65	62	69	65	62	69	65	62	68	64	62	61

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V6DR-L31-835-DIM-UNV-LM-OF-WH_.IES

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

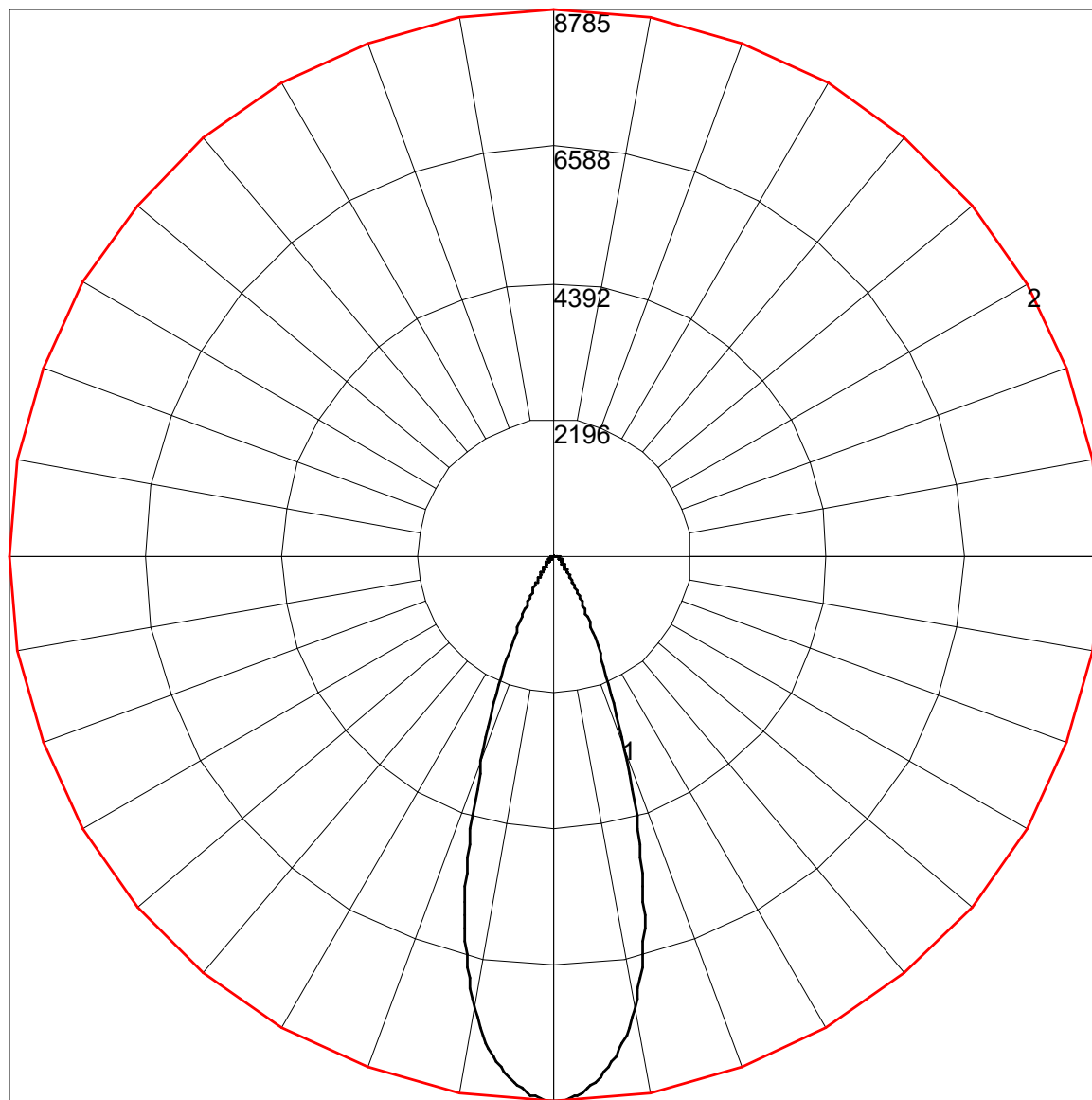
X=2H	Y=2H	14.1	15.1	14.4	15.4	15.7	14.1	15.1	14.4	15.4	15.7
	3H	15.5	16.4	15.9	16.7	17.1	15.5	16.4	15.9	16.7	17.1
	4H	16.0	16.8	16.4	17.2	17.6	16.0	16.8	16.4	17.2	17.6
	6H	16.3	17.1	16.8	17.5	17.9	16.3	17.1	16.8	17.5	17.9
	8H	16.4	17.1	16.9	17.5	17.9	16.4	17.1	16.9	17.5	17.9
	12H	16.5	17.1	16.9	17.5	18.0	16.5	17.1	16.9	17.5	18.0

UGR Viewed Endwise

4H	2H	14.5	15.3	14.9	15.7	16.1	14.5	15.3	14.9	15.7	16.1
	3H	16.1	16.8	16.5	17.2	17.6	16.1	16.8	16.5	17.2	17.6
	4H	16.7	17.3	17.1	17.7	18.2	16.7	17.3	17.1	17.7	18.2
	6H	17.2	17.7	17.6	18.1	18.6	17.2	17.7	17.6	18.1	18.6
	8H	17.3	17.8	17.8	18.2	18.7	17.3	17.8	17.8	18.2	18.7
	12H	17.4	17.8	17.8	18.3	18.7	17.4	17.8	17.8	18.3	18.7
8H	4H	16.9	17.4	17.4	17.8	18.3	16.9	17.4	17.4	17.8	18.3
	6H	17.4	17.8	18.0	18.3	18.8	17.4	17.8	18.0	18.3	18.8
	8H	17.6	18.0	18.2	18.5	19.0	17.6	18.0	18.2	18.5	19.0
	12H	17.8	18.1	18.3	18.6	19.1	17.8	18.1	18.3	18.6	19.1
12H	4H	16.9	17.3	17.4	17.8	18.2	16.9	17.3	17.4	17.8	18.2
	6H	17.5	17.8	18.0	18.3	18.8	17.5	17.8	18.0	18.3	18.8
	8H	17.7	18.0	18.2	18.5	19.1	17.7	18.0	18.2	18.5	19.1

Maximum UGR = 19.1

POLAR GRAPH



Maximum Candela = 8784.628 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.)