



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV_10W_3500K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM 15248898.02
[TESTLAB] UL Verification Services Inc.
[ISSUE DATE] 2024-04-30
[TEST DATE] 4/15/2024
[MANUFACTURER] H.E. WILLIAMS, INC.
[MORE] CARTHAGE, MO. 64836
[LUMEN CATEGORY] 6FDR-LS-8CS-WH-DIM-UNV_10W_3500K
[LUMINAIRE] 6 INCH ROUND, RECESSED LED DOWNLIGHT
[MORE] W/WHITE PAINTED TRIM. WATTAGE & COLOR SELECTABLE
[LAMP] LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	875
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	96
Total Luminaire Watts	9.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.02
Spacing Criterion (90-270)	1.02
Spacing Criterion (Diagonal)	1.00
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.50 ft (Diameter)
Luminous Width (90-270)	0.50 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	10573	10573	10573
55	8320	8320	8320
65	6600	6600	6600
75	5273	5273	5273
85	4167	4167	4167

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CANDELA TABULATION

	<u>0</u>
0.0	621.670
0.5	621.670
1.0	621.670
1.5	621.152
2.0	620.633
2.5	620.115
3.0	619.597
3.5	618.561
4.0	617.525
4.5	616.489
5.0	615.453
5.5	614.417
6.0	612.863
6.5	611.308
7.0	609.236
7.5	607.682
8.0	605.610
8.5	604.056
9.0	601.983
9.5	600.429
10.0	598.357
10.5	596.285
11.0	593.694
11.5	591.622
12.0	589.032
12.5	586.442
13.0	583.333
13.5	580.743
14.0	577.635
14.5	574.526
15.0	571.418
15.5	567.792
16.0	564.683
16.5	561.057
17.0	557.430
17.5	553.286
18.0	549.660
18.5	545.515
19.0	540.853
19.5	536.708
20.0	532.046
20.5	527.901
21.0	523.239
21.5	518.058
22.0	513.240
22.5	507.956
23.0	502.205
23.5	495.989
24.0	489.254
24.5	481.846
25.0	473.868
25.5	465.268
26.0	456.305
26.5	447.136

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CANDELA TABULATION - (Cont.)

27.0	437.500
27.5	427.553
28.0	417.348
28.5	406.883
29.0	396.314
29.5	385.798
30.0	376.110
30.5	366.163
31.0	355.595
31.5	344.871
32.0	334.406
32.5	324.149
33.0	314.047
33.5	303.996
34.0	294.102
34.5	284.310
35.0	274.623
35.5	265.246
36.0	256.128
36.5	247.010
37.0	237.996
37.5	229.189
38.0	220.589
38.5	212.300
39.0	204.426
39.5	196.914
40.0	189.609
40.5	182.667
41.0	176.140
41.5	169.923
42.0	164.069
42.5	158.733
43.0	153.656
43.5	148.942
44.0	144.486
44.5	140.394
45.0	136.508
45.5	133.037
46.0	129.774
46.5	126.769
47.0	123.868
47.5	121.122
48.0	118.480
48.5	115.993
49.0	113.558
49.5	111.175
50.0	108.844
50.5	106.513
51.0	104.181
51.5	101.902
52.0	99.778
52.5	97.706
53.0	95.634
53.5	93.509
54.0	91.385
54.5	89.261

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CANDELA TABULATION - (Cont.)

55.0	87.137
55.5	85.117
56.0	83.097
56.5	81.076
57.0	79.056
57.5	77.087
58.0	75.118
58.5	73.202
59.0	71.388
59.5	69.575
60.0	67.710
60.5	65.897
61.0	64.136
61.5	62.374
62.0	60.665
62.5	59.007
63.0	57.297
63.5	55.691
64.0	54.033
64.5	52.479
65.0	50.925
65.5	49.423
66.0	47.920
66.5	46.418
67.0	44.967
67.5	43.517
68.0	42.118
68.5	40.771
69.0	39.424
69.5	38.129
70.0	36.782
70.5	35.539
71.0	34.295
71.5	33.052
72.0	31.861
72.5	30.669
73.0	29.478
73.5	28.286
74.0	27.146
74.5	26.007
75.0	24.919
75.5	23.831
76.0	22.743
76.5	21.707
77.0	20.671
77.5	19.686
78.0	18.702
78.5	17.718
79.0	16.733
79.5	15.801
80.0	14.868
80.5	13.988
81.0	13.055
81.5	12.174
82.0	11.345
82.5	10.517

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CANDELA TABULATION - (Cont.)

83.0	9.688
83.5	8.911
84.0	8.134
84.5	7.356
85.0	6.631
85.5	5.854
86.0	5.181
86.5	4.455
87.0	3.782
87.5	3.108
88.0	2.435
88.5	1.761
89.0	1.088
89.5	0.414
90.0	0.000
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 : 6FDR-LS-8CS-WH-DIM-UNV_10W_3500K_.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
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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
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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 : 6FDR-LS-8CS-WH-DIM-UNV_10W_3500K_.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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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	218.56	N.A.	25.00
0-30	432.15	N.A.	49.40
0-40	603.98	N.A.	69.00
0-60	790.37	N.A.	90.30
0-80	867.76	N.A.	99.10
0-90	875.23	N.A.	100.00
10-90	817.05	N.A.	93.40
20-40	385.42	N.A.	44.00
20-50	493.68	N.A.	56.40
40-70	237.17	N.A.	27.10
60-80	77.39	N.A.	8.80
70-80	26.60	N.A.	3.00
80-90	7.47	N.A.	0.90
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	875.23	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	58.18
10-20	160.38
20-30	213.59
30-40	171.83
40-50	108.26
50-60	78.13
60-70	50.78
70-80	26.60
80-90	7.47
90-100	0.00
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	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	62	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47
8	70	58	51	46	68	58	51	46	57	50	46	55	50	46	54	49	45	44
9	66	54	47	43	65	54	47	42	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37

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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	16.7	18.0	17.1	18.4	18.7	UGR Viewed Endwise	16.7	18.0	17.1	18.4	18.7
	3H	18.1	19.3	18.4	19.6	20.0		18.1	19.3	18.4	19.6	20.0
	4H	18.6	19.7	19.0	20.0	20.4		18.6	19.7	19.0	20.0	20.4
	6H	18.9	19.9	19.3	20.3	20.7		18.9	19.9	19.3	20.3	20.7
	8H	19.0	20.0	19.5	20.4	20.8		19.0	20.0	19.5	20.4	20.8
	12H	19.1	20.0	19.5	20.4	20.8		19.1	20.0	19.5	20.4	20.8

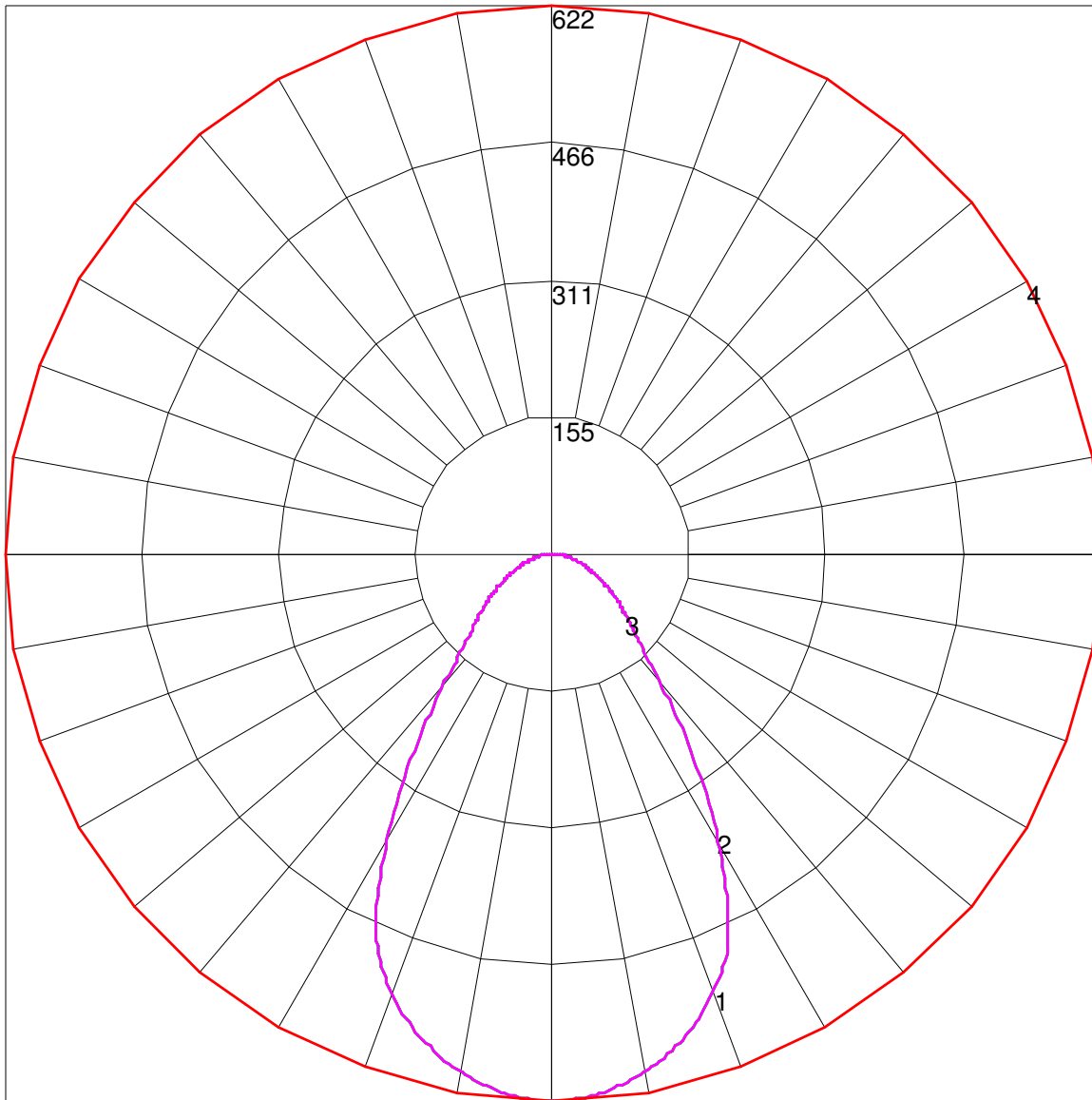
4H	2H	17.2	18.3	17.6	18.6	19.0	17.2	18.3	17.6	18.6	19.0
	3H	18.7	19.6	19.2	20.1	20.5	18.7	19.6	19.2	20.1	20.5
	4H	19.3	20.2	19.8	20.6	21.0	19.3	20.2	19.8	20.6	21.0
	6H	19.8	20.5	20.3	21.0	21.4	19.8	20.5	20.3	21.0	21.4
	8H	20.0	20.6	20.4	21.1	21.5	20.0	20.6	20.4	21.1	21.5
	12H	20.1	20.7	20.5	21.1	21.6	20.1	20.7	20.5	21.1	21.6

8H	4H	19.5	20.2	20.0	20.6	21.1	19.5	20.2	20.0	20.6	21.1
	6H	20.1	20.7	20.6	21.2	21.6	20.1	20.7	20.6	21.2	21.6
	8H	20.3	20.8	20.9	21.3	21.8	20.3	20.8	20.9	21.3	21.8
	12H	20.5	21.0	21.0	21.4	22.0	20.5	21.0	21.0	21.4	22.0

12H	4H	19.5	20.1	20.0	20.6	21.1	19.5	20.1	20.0	20.6	21.1
	6H	20.2	20.6	20.7	21.1	21.7	20.2	20.6	20.7	21.1	21.7
	8H	20.4	20.8	20.9	21.3	21.9	20.4	20.8	20.9	21.3	21.9

Maximum UGR = 22.0

POLAR GRAPH



Maximum Candela = 621.67 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Vertical Plane Through Horizontal Angles (5 - 185)
3 - Vertical Plane Through Horizontal Angles (10 - 190)
4 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)