



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV_14W_4000K_.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
[LUMCAT] 6FDR-LS-8CS-WH-DIM-UNV_14W_4000K
[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	1263
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	92
Total Luminaire Watts	13.7
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	15262	15262	15262
55	12010	12010	12010
65	9526	9526	9526
75	7611	7611	7611
85	6015	6015	6015

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CANDELA TABULATION

	<u>0</u>
0.0	897.336
0.5	897.336
1.0	897.336
1.5	896.588
2.0	895.840
2.5	895.092
3.0	894.345
3.5	892.849
4.0	891.353
4.5	889.858
5.0	888.362
5.5	886.867
6.0	884.623
6.5	882.380
7.0	879.389
7.5	877.146
8.0	874.155
8.5	871.911
9.0	868.920
9.5	866.677
10.0	863.686
10.5	860.694
11.0	856.956
11.5	853.964
12.0	850.226
12.5	846.487
13.0	842.000
13.5	838.261
14.0	833.774
14.5	829.288
15.0	824.801
15.5	819.567
16.0	815.080
16.5	809.845
17.0	804.611
17.5	798.629
18.0	793.394
18.5	787.412
19.0	780.682
19.5	774.700
20.0	767.970
20.5	761.988
21.0	755.258
21.5	747.780
22.0	740.825
22.5	733.198
23.0	724.898
23.5	715.924
24.0	706.203
24.5	695.510
25.0	683.994
25.5	671.581
26.0	658.644
26.5	645.409

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CANDELA TABULATION - (Cont.)

27.0	631.500
27.5	617.143
28.0	602.411
28.5	587.306
29.0	572.051
29.5	556.872
30.0	542.888
30.5	528.531
31.0	513.276
31.5	497.797
32.0	482.692
32.5	467.886
33.0	453.304
33.5	438.797
34.0	424.515
34.5	410.382
35.0	396.398
35.5	382.863
36.0	369.702
36.5	356.541
37.0	343.530
37.5	330.818
38.0	318.405
38.5	306.440
39.0	295.074
39.5	284.231
40.0	273.687
40.5	263.667
41.0	254.245
41.5	245.272
42.0	236.822
42.5	229.120
43.0	221.791
43.5	214.987
44.0	208.556
44.5	202.648
45.0	197.040
45.5	192.030
46.0	187.319
46.5	182.982
47.0	178.794
47.5	174.831
48.0	171.017
48.5	167.428
49.0	163.913
49.5	160.474
50.0	157.109
50.5	153.744
51.0	150.379
51.5	147.088
52.0	144.022
52.5	141.031
53.0	138.040
53.5	134.974
54.0	131.908
54.5	128.842

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55.0	125.777
55.5	122.860
56.0	119.944
56.5	117.028
57.0	114.111
57.5	111.270
58.0	108.428
58.5	105.661
59.0	103.044
59.5	100.427
60.0	97.735
60.5	95.118
61.0	92.575
61.5	90.033
62.0	87.565
62.5	85.172
63.0	82.704
63.5	80.386
64.0	77.993
64.5	75.750
65.0	73.507
65.5	71.338
66.0	69.170
66.5	67.001
67.0	64.907
67.5	62.813
68.0	60.794
68.5	58.850
69.0	56.906
69.5	55.037
70.0	53.092
70.5	51.298
71.0	49.503
71.5	47.708
72.0	45.988
72.5	44.269
73.0	42.549
73.5	40.829
74.0	39.184
74.5	37.539
75.0	35.968
75.5	34.398
76.0	32.828
76.5	31.332
77.0	29.836
77.5	28.416
78.0	26.995
78.5	25.574
79.0	24.153
79.5	22.807
80.0	21.461
80.5	20.190
81.0	18.844
81.5	17.573
82.0	16.376
82.5	15.180

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CANDELA TABULATION - (Cont.)

83.0	13.983
83.5	12.862
84.0	11.740
84.5	10.618
85.0	9.572
85.5	8.450
86.0	7.478
86.5	6.431
87.0	5.459
87.5	4.487
88.0	3.515
88.5	2.542
89.0	1.570
89.5	0.598
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

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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

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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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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	315.47	N.A.	25.00
0-30	623.78	N.A.	49.40
0-40	871.80	N.A.	69.00
0-60	1140.84	N.A.	90.30
0-80	1252.54	N.A.	99.10
0-90	1263.33	N.A.	100.00
10-90	1179.35	N.A.	93.40
20-40	556.33	N.A.	44.00
20-50	712.60	N.A.	56.40
40-70	342.34	N.A.	27.10
60-80	111.71	N.A.	8.80
70-80	38.40	N.A.	3.00
80-90	10.78	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	1263.33	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	83.98
10-20	231.49
20-30	308.30
30-40	248.03
40-50	156.27
50-60	112.77
60-70	73.30
70-80	38.40
80-90	10.78
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

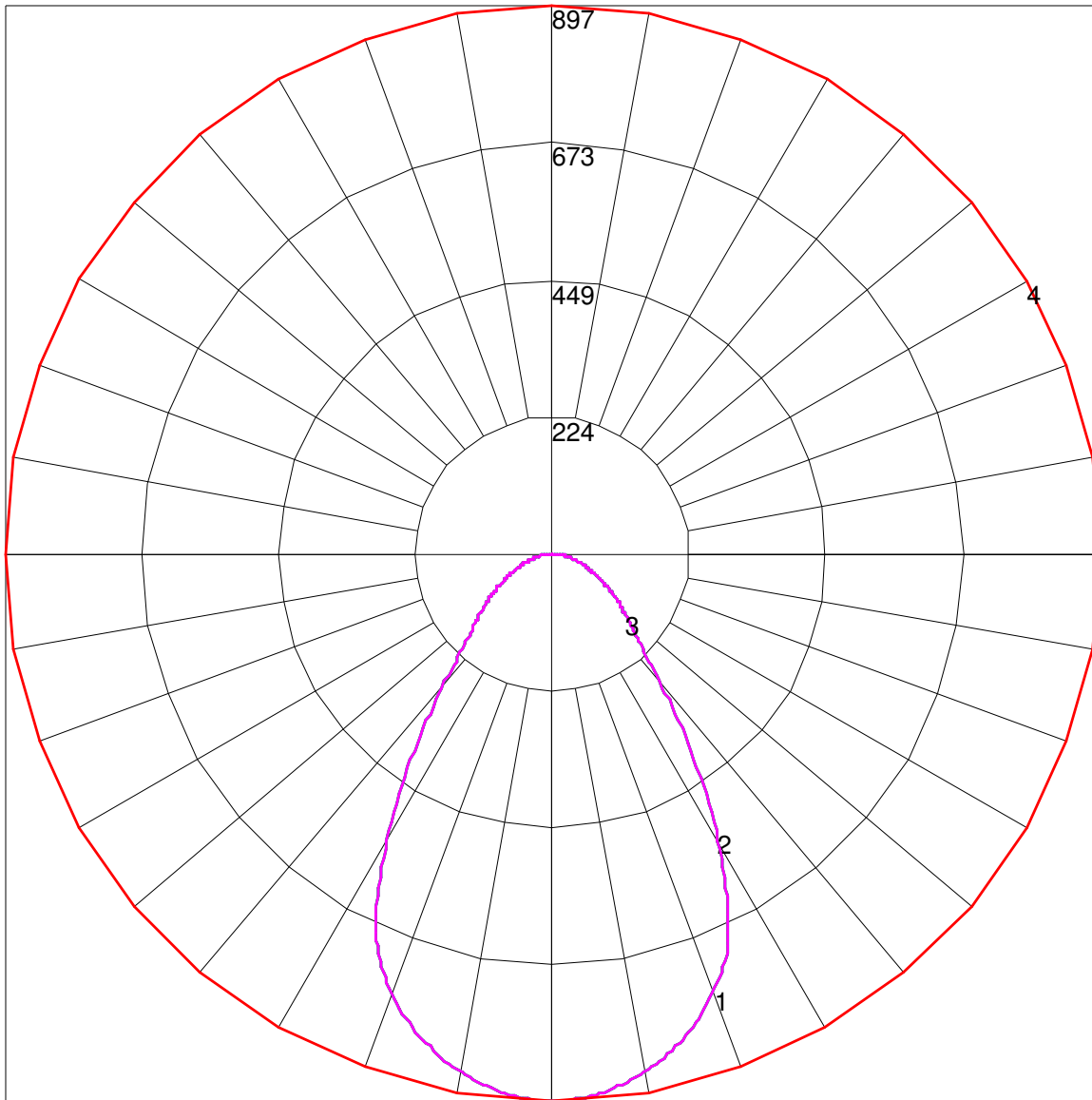
X=2H	Y=2H	17.9	19.2	18.3	19.6	19.9	17.9	19.2	18.3	19.6	19.9
	3H	19.3	20.5	19.7	20.8	21.2	19.3	20.5	19.7	20.8	21.2
	4H	19.8	20.9	20.2	21.2	21.6	19.8	20.9	20.2	21.2	21.6
	6H	20.1	21.1	20.5	21.5	21.9	20.1	21.1	20.5	21.5	21.9
	8H	20.2	21.2	20.7	21.6	22.0	20.2	21.2	20.7	21.6	22.0
	12H	20.3	21.2	20.7	21.6	22.0	20.3	21.2	20.7	21.6	22.0

UGR Viewed Endwise

4H	2H	18.4	19.5	18.8	19.8	20.2	18.4	19.5	18.8	19.8	20.2
	3H	19.9	20.9	20.4	21.3	21.7	19.9	20.9	20.4	21.3	21.7
	4H	20.5	21.4	21.0	21.8	22.2	20.5	21.4	21.0	21.8	22.2
	6H	21.0	21.7	21.5	22.2	22.6	21.0	21.7	21.5	22.2	22.6
	8H	21.2	21.8	21.6	22.3	22.7	21.2	21.8	21.6	22.3	22.7
	12H	21.3	21.9	21.8	22.3	22.8	21.3	21.9	21.8	22.3	22.8
8H	4H	20.7	21.4	21.2	21.8	22.3	20.7	21.4	21.2	21.8	22.3
	6H	21.3	21.9	21.8	22.4	22.8	21.3	21.9	21.8	22.4	22.8
	8H	21.5	22.0	22.1	22.5	23.0	21.5	22.0	22.1	22.5	23.0
	12H	21.7	22.2	22.2	22.7	23.2	21.7	22.2	22.2	22.7	23.2
12H	4H	20.7	21.3	21.2	21.8	22.3	20.7	21.3	21.2	21.8	22.3
	6H	21.4	21.9	21.9	22.3	22.9	21.4	21.9	21.9	22.3	22.9
	8H	21.6	22.1	22.1	22.5	23.1	21.6	22.1	22.1	22.5	23.1

Maximum UGR = 23.2

POLAR GRAPH



Maximum Candela = 897.336 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.)