



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV_14W_3000K_.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
[MANUFACT] H.E. WILLIAMS, INC.
[MORE] CARTHAGE, MO. 64836
[LUMCAT] 6FDR-LS-8CS-WH-DIM-UNV_14W_3000K
[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	1233
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	88
Total Luminaire Watts	14
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	14899	14899	14899
55	11725	11725	11725
65	9300	9300	9300
75	7430	7430	7430
85	5872	5872	5872

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CANDELA TABULATION

	<u>0</u>
0.0	876.021
0.5	876.021
1.0	876.021
1.5	875.291
2.0	874.561
2.5	873.831
3.0	873.101
3.5	871.641
4.0	870.181
4.5	868.721
5.0	867.261
5.5	865.801
6.0	863.611
6.5	861.421
7.0	858.501
7.5	856.311
8.0	853.391
8.5	851.201
9.0	848.281
9.5	846.091
10.0	843.171
10.5	840.250
11.0	836.600
11.5	833.680
12.0	830.030
12.5	826.380
13.0	822.000
13.5	818.350
14.0	813.970
14.5	809.590
15.0	805.210
15.5	800.099
16.0	795.719
16.5	790.609
17.0	785.499
17.5	779.659
18.0	774.549
18.5	768.709
19.0	762.139
19.5	756.298
20.0	749.728
20.5	743.888
21.0	737.318
21.5	730.018
22.0	723.229
22.5	715.782
23.0	707.679
23.5	698.919
24.0	689.429
24.5	678.990
25.0	667.747
25.5	655.629
26.0	643.000
26.5	630.078

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CANDELA TABULATION - (Cont.)

27.0	616.500
27.5	602.484
28.0	588.102
28.5	573.356
29.0	558.464
29.5	543.644
30.0	529.993
30.5	515.977
31.0	501.084
31.5	485.973
32.0	471.226
32.5	456.772
33.0	442.537
33.5	428.374
34.0	414.431
34.5	400.634
35.0	386.982
35.5	373.769
36.0	360.921
36.5	348.072
37.0	335.370
37.5	322.960
38.0	310.842
38.5	299.161
39.0	288.065
39.5	277.480
40.0	267.187
40.5	257.404
41.0	248.206
41.5	239.446
42.0	231.197
42.5	223.677
43.0	216.523
43.5	209.880
44.0	203.602
44.5	197.835
45.0	192.360
45.5	187.469
46.0	182.869
46.5	178.635
47.0	174.547
47.5	170.678
48.0	166.955
48.5	163.451
49.0	160.020
49.5	156.662
50.0	153.377
50.5	150.092
51.0	146.807
51.5	143.594
52.0	140.601
52.5	137.681
53.0	134.761
53.5	131.768
54.0	128.775
54.5	125.782

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CANDELA TABULATION - (Cont.)

55.0	122.789
55.5	119.942
56.0	117.095
56.5	114.248
57.0	111.401
57.5	108.627
58.0	105.853
58.5	103.152
59.0	100.596
59.5	98.041
60.0	95.413
60.5	92.858
61.0	90.376
61.5	87.894
62.0	85.485
62.5	83.149
63.0	80.740
63.5	78.477
64.0	76.141
64.5	73.951
65.0	71.761
65.5	69.644
66.0	67.527
66.5	65.410
67.0	63.366
67.5	61.321
68.0	59.350
68.5	57.452
69.0	55.554
69.5	53.729
70.0	51.831
70.5	50.079
71.0	48.327
71.5	46.575
72.0	44.896
72.5	43.217
73.0	41.538
73.5	39.859
74.0	38.253
74.5	36.647
75.0	35.114
75.5	33.581
76.0	32.048
76.5	30.588
77.0	29.128
77.5	27.741
78.0	26.354
78.5	24.967
79.0	23.580
79.5	22.266
80.0	20.952
80.5	19.710
81.0	18.396
81.5	17.155
82.0	15.987
82.5	14.819

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83.0	13.651
83.5	12.556
84.0	11.461
84.5	10.366
85.0	9.344
85.5	8.249
86.0	7.300
86.5	6.278
87.0	5.329
87.5	4.380
88.0	3.431
88.5	2.482
89.0	1.533
89.5	0.584
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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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
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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
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152.0	0.000
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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	307.98	N.A.	25.00
0-30	608.96	N.A.	49.40
0-40	851.09	N.A.	69.00
0-60	1113.74	N.A.	90.30
0-80	1222.79	N.A.	99.10
0-90	1233.32	N.A.	100.00
10-90	1151.33	N.A.	93.40
20-40	543.11	N.A.	44.00
20-50	695.67	N.A.	56.40
40-70	334.21	N.A.	27.10
60-80	109.05	N.A.	8.80
70-80	37.49	N.A.	3.00
80-90	10.53	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	1233.32	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	81.98
10-20	226.00
20-30	300.98
30-40	242.14
40-50	152.56
50-60	110.09
60-70	71.56
70-80	37.49
80-90	10.53
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	17.8	19.1	18.2	19.5	19.8	UGR Viewed Endwise	17.8	19.1	18.2	19.5	19.8
	3H	19.2	20.4	19.6	20.7	21.1		19.2	20.4	19.6	20.7	21.1
	4H	19.7	20.8	20.1	21.1	21.5		19.7	20.8	20.1	21.1	21.5
	6H	20.0	21.0	20.4	21.4	21.8		20.0	21.0	20.4	21.4	21.8
	8H	20.1	21.1	20.6	21.5	21.9		20.1	21.1	20.6	21.5	21.9
	12H	20.2	21.1	20.6	21.5	21.9		20.2	21.1	20.6	21.5	21.9

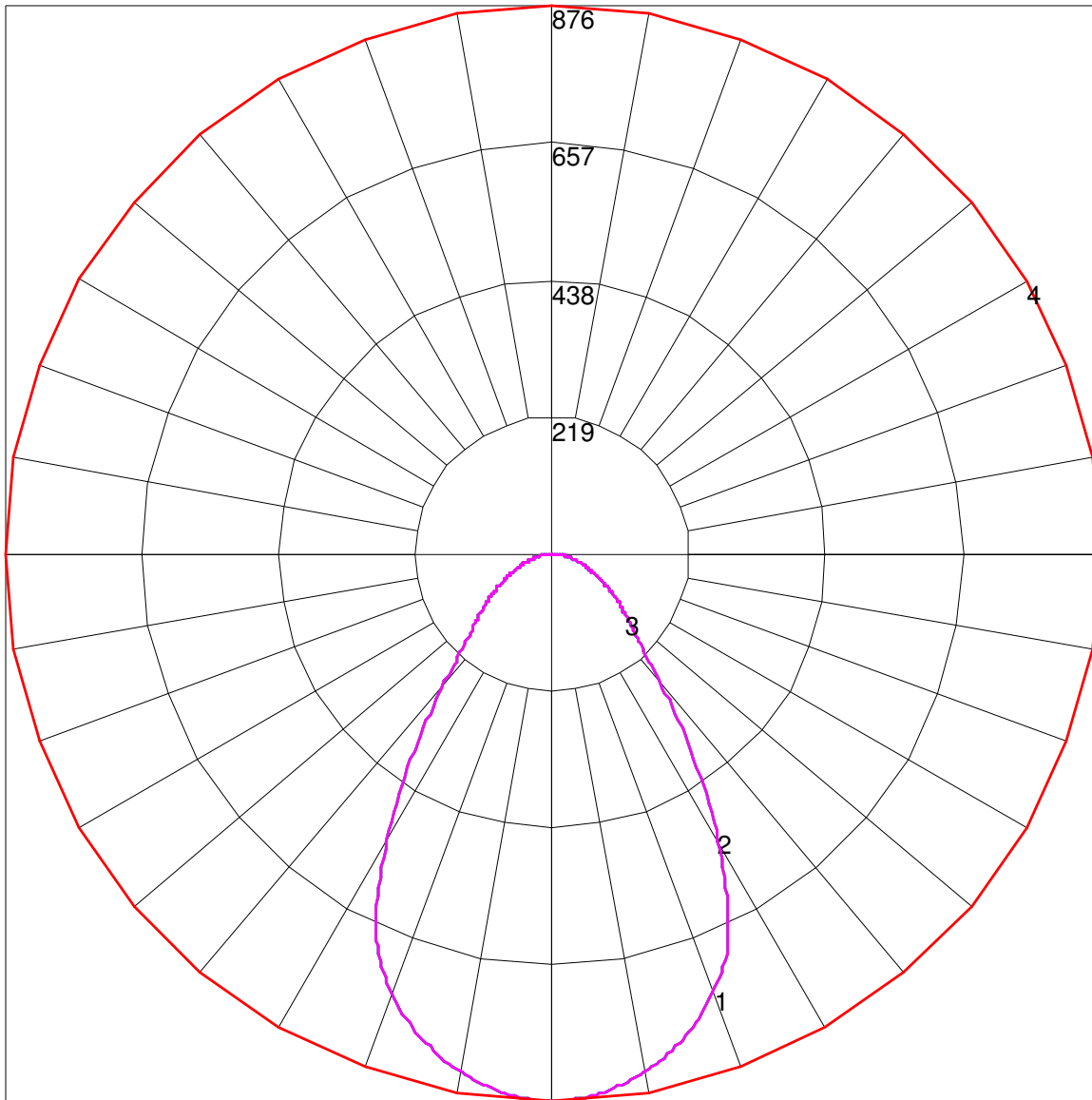
4H	2H	18.3	19.4	18.7	19.7	20.1	18.3	19.4	18.7	19.7	20.1
	3H	19.8	20.8	20.3	21.2	21.6	19.8	20.8	20.3	21.2	21.6
	4H	20.4	21.3	20.9	21.7	22.1	20.4	21.3	20.9	21.7	22.1
	6H	20.9	21.6	21.4	22.1	22.5	20.9	21.6	21.4	22.1	22.5
	8H	21.1	21.7	21.5	22.2	22.6	21.1	21.7	21.5	22.2	22.6
	12H	21.2	21.8	21.7	22.2	22.7	21.2	21.8	21.7	22.2	22.7

8H	4H	20.6	21.3	21.1	21.7	22.2	20.6	21.3	21.1	21.7	22.2
	6H	21.2	21.8	21.7	22.3	22.7	21.2	21.8	21.7	22.3	22.7
	8H	21.4	21.9	22.0	22.4	22.9	21.4	21.9	22.0	22.4	22.9
	12H	21.6	22.1	22.1	22.6	23.1	21.6	22.1	22.1	22.6	23.1

12H	4H	20.6	21.2	21.1	21.7	22.2	20.6	21.2	21.1	21.7	22.2
	6H	21.3	21.7	21.8	22.2	22.8	21.3	21.7	21.8	22.2	22.8
	8H	21.5	22.0	22.0	22.4	23.0	21.5	22.0	22.0	22.4	23.0

Maximum UGR = 23.1

POLAR GRAPH



Maximum Candela = 876.021 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.)