



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6FDR-LS-8CS-CS-DIM-UNV_14W_3000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 15248898.01

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 2024-04-30

[TESTDATE] 4/15/2024

[MANUFAC] H.E. WILLIAMS, INC.

[MORE] CARTHAGE, MO. 64836

[LUMCAT] 6FDR-LS-8CS-CS-DIM-UNV_14W_3000K

[LUMINAIRE] 6 INCH ROUND, RECESSED LED DOWNLIGHT

[MORE] W/SEMI-SPECULAR TRIM. WATTAGE & COLOR SELECTABLE

[LAMP] LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1487
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	14
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	1.02
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	16901	16901	16901
55	2376	2376	2376
65	262	262	262
75	107	107	107
85	45	45	45

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CANDELA TABULATION

	<u>0</u>
0.0	1229.523
0.5	1229.523
1.0	1230.247
1.5	1230.970
2.0	1231.693
2.5	1232.416
3.0	1233.140
3.5	1233.863
4.0	1235.309
4.5	1236.033
5.0	1237.479
5.5	1238.202
6.0	1239.649
6.5	1241.095
7.0	1242.542
7.5	1243.988
8.0	1244.712
8.5	1246.158
9.0	1246.881
9.5	1246.881
10.0	1246.158
10.5	1245.435
11.0	1243.988
11.5	1242.542
12.0	1239.649
12.5	1236.756
13.0	1233.863
13.5	1230.247
14.0	1225.907
14.5	1221.568
15.0	1216.505
15.5	1211.442
16.0	1205.656
16.5	1199.147
17.0	1191.914
17.5	1184.682
18.0	1177.449
18.5	1168.770
19.0	1160.091
19.5	1150.689
20.0	1140.564
20.5	1130.438
21.0	1119.589
21.5	1108.741
22.0	1097.169
22.5	1084.874
23.0	1071.132
23.5	1058.113
24.0	1042.925
24.5	1027.014
25.0	1010.379
25.5	993.021
26.0	975.663
26.5	956.858

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CANDELA TABULATION - (Cont.)

27.0	937.331
27.5	917.080
28.0	896.106
28.5	875.131
29.0	853.434
29.5	831.013
30.0	808.592
30.5	785.448
31.0	762.304
31.5	739.160
32.0	715.655
32.5	692.366
33.0	669.078
33.5	645.789
34.0	622.934
34.5	600.297
35.0	578.021
35.5	558.493
36.0	539.978
36.5	518.353
37.0	496.655
37.5	475.392
38.0	454.707
38.5	434.456
39.0	414.494
39.5	394.966
40.0	375.800
40.5	357.357
41.0	339.638
41.5	322.207
42.0	305.356
42.5	289.227
43.0	273.605
43.5	258.706
44.0	244.530
44.5	231.078
45.0	218.204
45.5	205.764
46.0	193.903
46.5	182.548
47.0	171.627
47.5	160.995
48.0	150.653
48.5	140.455
49.0	130.474
49.5	120.710
50.0	111.091
50.5	101.472
51.0	91.925
51.5	82.089
52.0	72.542
52.5	63.212
53.0	53.954
53.5	45.492
54.0	37.681
54.5	30.810

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CANDELA TABULATION - (Cont.)

55.0	24.880
55.5	20.034
56.0	16.128
56.5	13.163
57.0	10.849
57.5	9.041
58.0	7.739
58.5	6.654
59.0	5.858
59.5	5.207
60.0	4.629
60.5	4.195
61.0	3.761
61.5	3.472
62.0	3.182
62.5	2.893
63.0	2.676
63.5	2.531
64.0	2.314
64.5	2.170
65.0	2.025
65.5	1.880
66.0	1.736
66.5	1.663
67.0	1.519
67.5	1.446
68.0	1.302
68.5	1.230
69.0	1.157
69.5	1.085
70.0	1.013
70.5	0.940
71.0	0.868
71.5	0.796
72.0	0.723
72.5	0.723
73.0	0.651
73.5	0.579
74.0	0.579
74.5	0.506
75.0	0.506
75.5	0.434
76.0	0.434
76.5	0.362
77.0	0.362
77.5	0.289
78.0	0.289
78.5	0.289
79.0	0.217
79.5	0.217
80.0	0.217
80.5	0.217
81.0	0.145
81.5	0.145
82.0	0.145
82.5	0.145

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CANDELA TABULATION - (Cont.)

83.0	0.145
83.5	0.145
84.0	0.072
84.5	0.072
85.0	0.072
85.5	0.072
86.0	0.072
86.5	0.072
87.0	0.072
87.5	0.072
88.0	0.072
88.5	0.000
89.0	0.000
89.5	0.000
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-CS-DIM-UNV_14W_3000K_.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
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132.5	0.000
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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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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	459.59	N.A.	30.90
0-30	916.74	N.A.	61.70
0-40	1278.3	N.A.	86.00
0-60	1484.13	N.A.	99.80
0-80	1486.89	N.A.	100.00
0-90	1486.99	N.A.	100.00
10-90	1368.5	N.A.	92.00
20-40	818.71	N.A.	55.10
20-50	991.59	N.A.	66.70
40-70	208.04	N.A.	14.00
60-80	2.76	N.A.	0.20
70-80	0.55	N.A.	0.00
80-90	0.10	N.A.	0.00
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	1486.99	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	118.49
10-20	341.10
20-30	457.15
30-40	361.56
40-50	172.88
50-60	32.95
60-70	2.21
70-80	0.55
80-90	0.10
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	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	85	83	80	78
4	95	87	81	77	94	86	81	76	84	79	75	82	78	75	80	77	74	72
5	90	81	75	70	88	80	74	70	78	73	69	77	72	69	75	71	68	66
6	85	75	69	64	84	75	69	64	73	68	64	72	67	63	70	66	63	61
7	80	70	64	59	79	70	64	59	68	63	59	67	62	59	66	62	58	57
8	76	66	59	55	75	65	59	55	64	59	55	63	58	54	62	57	54	53
9	72	62	55	51	71	61	55	51	60	55	51	59	54	51	58	54	50	49
10	68	58	52	48	67	57	52	48	57	51	47	56	51	47	55	50	47	46

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UGR TABLE - CORRECTED

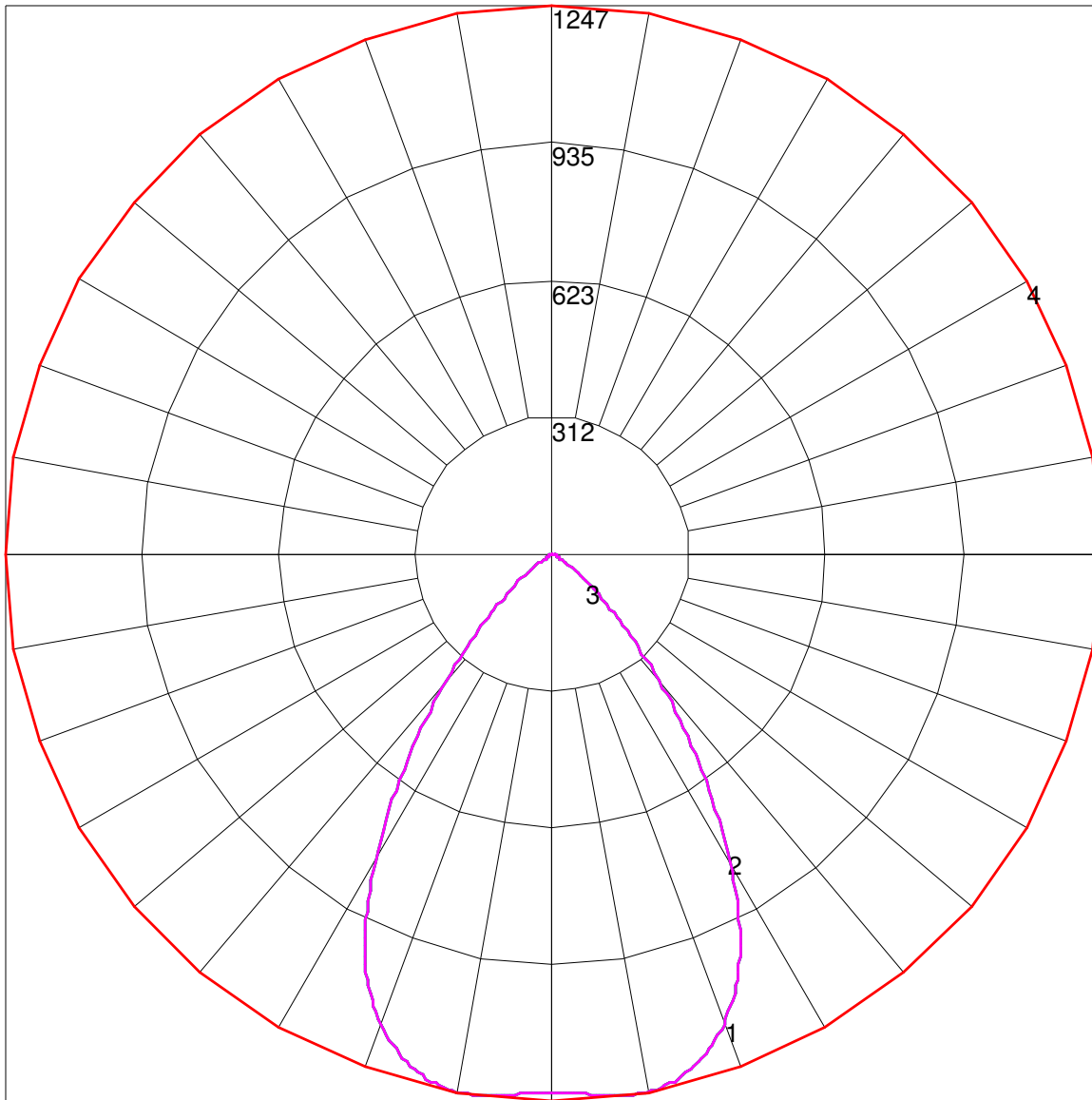
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	1.4	1.4	1.4	1.4	1.6	1.4	1.4	1.4	1.4	1.6
	3H	1.4	1.4	1.4	1.4	1.5	1.4	1.4	1.4	1.4	1.5
	4H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	6H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	8H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	12H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
4H	2H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	3H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	4H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	6H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	8H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	12H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
8H	4H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	6H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	8H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	12H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
12H	4H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	6H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	8H	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4

Maximum UGR = 1.6

POLAR GRAPH



Maximum Candela = 1246.881 Located At Horizontal Angle = 0, Vertical Angle = 9
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 (9) (Through Max. Cd.)