



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6FDR-LS-8CS-CS-DIM-UNV_14W_4000K_.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_4000K

[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	1523
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
Total Luminaire Watts	13.7
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	17310	17310	17310
55	2433	2433	2433
65	269	269	269
75	110	110	110
85	47	47	47

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CANDELA TABULATION

	<u>0</u>
0.0	1259.290
0.5	1259.290
1.0	1260.031
1.5	1260.771
2.0	1261.512
2.5	1262.253
3.0	1262.994
3.5	1263.734
4.0	1265.216
4.5	1265.957
5.0	1267.438
5.5	1268.179
6.0	1269.661
6.5	1271.142
7.0	1272.624
7.5	1274.105
8.0	1274.846
8.5	1276.327
9.0	1277.068
9.5	1277.068
10.0	1276.327
10.5	1275.587
11.0	1274.105
11.5	1272.624
12.0	1269.661
12.5	1266.698
13.0	1263.734
13.5	1260.031
14.0	1255.586
14.5	1251.142
15.0	1245.956
15.5	1240.771
16.0	1234.845
16.5	1228.178
17.0	1220.770
17.5	1213.363
18.0	1205.955
18.5	1197.066
19.0	1188.177
19.5	1178.547
20.0	1168.177
20.5	1157.806
21.0	1146.695
21.5	1135.583
22.0	1123.731
22.5	1111.138
23.0	1097.064
23.5	1083.730
24.0	1068.174
24.5	1051.877
25.0	1034.840
25.5	1017.062
26.0	999.284
26.5	980.024

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CANDELA TABULATION - (Cont.)

27.0	960.023
27.5	939.282
28.0	917.800
28.5	896.318
29.0	874.095
29.5	851.132
30.0	828.168
30.5	804.464
31.0	780.760
31.5	757.055
32.0	732.981
32.5	709.128
33.0	685.276
33.5	661.424
34.0	638.016
34.5	614.830
35.0	592.014
35.5	572.014
36.0	553.051
36.5	530.902
37.0	508.679
37.5	486.901
38.0	465.715
38.5	444.974
39.0	424.529
39.5	404.528
40.0	384.898
40.5	366.009
41.0	347.860
41.5	330.008
42.0	312.748
42.5	296.229
43.0	280.229
43.5	264.969
44.0	250.451
44.5	236.672
45.0	223.487
45.5	210.746
46.0	198.597
46.5	186.968
47.0	175.782
47.5	164.893
48.0	154.300
48.5	143.855
49.0	133.633
49.5	123.633
50.0	113.781
50.5	103.928
51.0	94.150
51.5	84.076
52.0	74.298
52.5	64.742
53.0	55.261
53.5	46.594
54.0	38.594
54.5	31.556

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CANDELA TABULATION - (Cont.)

55.0	25.482
55.5	20.519
56.0	16.519
56.5	13.482
57.0	11.111
57.5	9.259
58.0	7.926
58.5	6.815
59.0	6.000
59.5	5.333
60.0	4.741
60.5	4.296
61.0	3.852
61.5	3.556
62.0	3.259
62.5	2.963
63.0	2.741
63.5	2.593
64.0	2.370
64.5	2.222
65.0	2.074
65.5	1.926
66.0	1.778
66.5	1.704
67.0	1.556
67.5	1.482
68.0	1.333
68.5	1.259
69.0	1.185
69.5	1.111
70.0	1.037
70.5	0.963
71.0	0.889
71.5	0.815
72.0	0.741
72.5	0.741
73.0	0.667
73.5	0.593
74.0	0.593
74.5	0.519
75.0	0.519
75.5	0.444
76.0	0.444
76.5	0.370
77.0	0.370
77.5	0.296
78.0	0.296
78.5	0.296
79.0	0.222
79.5	0.222
80.0	0.222
80.5	0.222
81.0	0.148
81.5	0.148
82.0	0.148
82.5	0.148

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CANDELA TABULATION - (Cont.)

83.0	0.148
83.5	0.148
84.0	0.074
84.5	0.074
85.0	0.074
85.5	0.074
86.0	0.074
86.5	0.074
87.0	0.074
87.5	0.074
88.0	0.074
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

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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
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
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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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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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Zone	Lumens	%Lamp	%Fixt
0-20	470.72	N.A.	30.90
0-30	938.94	N.A.	61.70
0-40	1309.25	N.A.	86.00
0-60	1520.06	N.A.	99.80
0-80	1522.89	N.A.	100.00
0-90	1522.99	N.A.	100.00
10-90	1401.63	N.A.	92.00
20-40	838.53	N.A.	55.10
20-50	1015.6	N.A.	66.70
40-70	213.08	N.A.	14.00
60-80	2.83	N.A.	0.20
70-80	0.56	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	1522.99	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	121.36
10-20	349.36
20-30	468.22
30-40	370.31
40-50	177.07
50-60	33.75
60-70	2.27
70-80	0.56
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

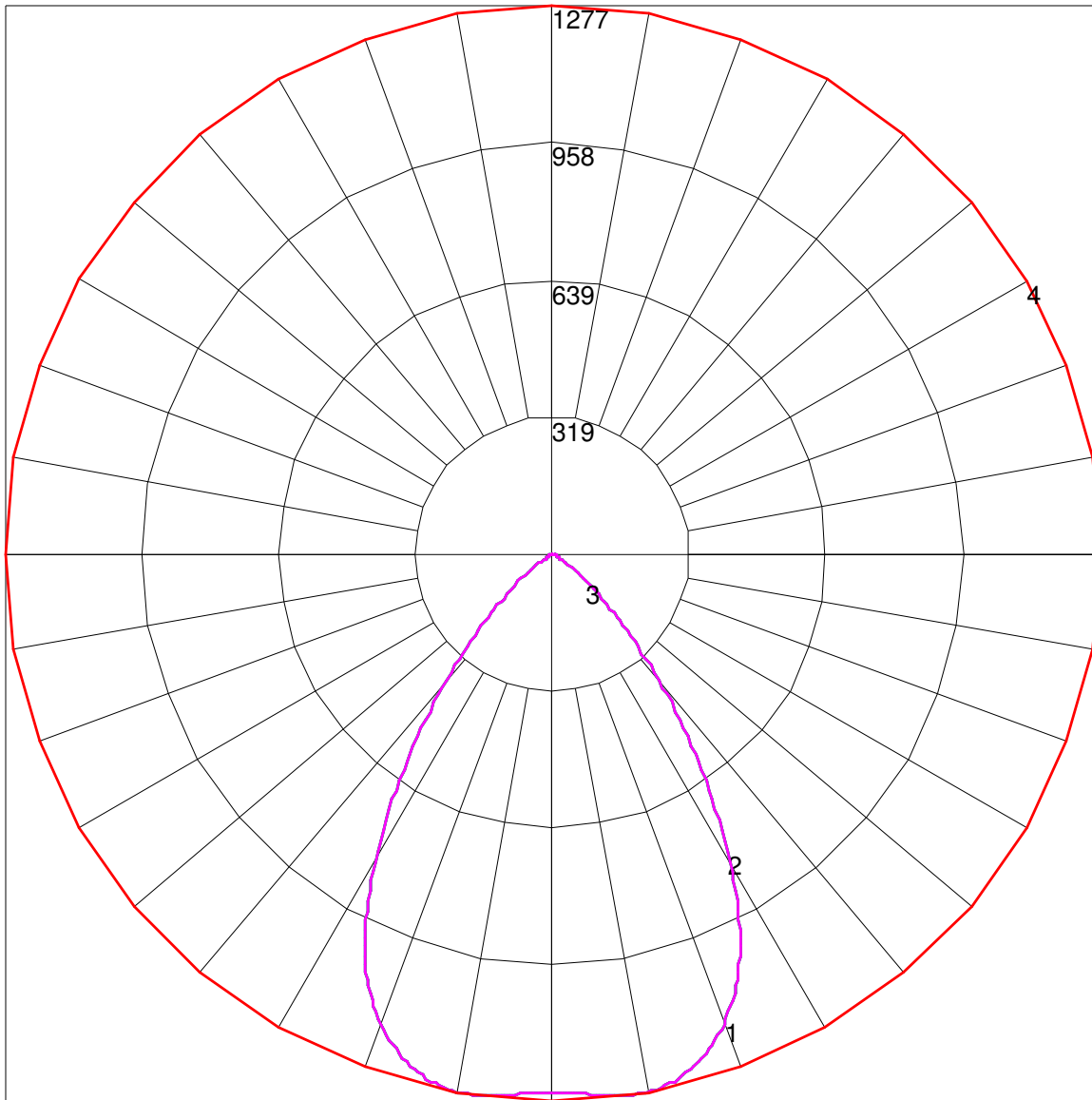
Reflectances

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	1.5	1.5	1.5	1.5	1.7	1.5	1.5	1.5	1.5	1.7
	3H	1.5	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.5	1.6
	4H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	6H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	8H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	12H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
4H	2H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	3H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	4H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	6H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	8H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	12H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
8H	4H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	6H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	8H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	12H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
12H	4H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	6H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	8H	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Maximum UGR = 1.7

POLAR GRAPH



Maximum Candela = 1277.068 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.)