



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV\_12W\_3500K.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM 14879730.01  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUEDATE] 2023-07-21  
 [TESTDATE] 7/10/2023  
 [MANUFAC] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] 6RCD-LS-9CS-WH-DIM-UNV\_12W\_3500K  
 [LUMINAIRE] 6 INCH DIAMETER LED DOWNLIGHT  
 [MORE] WHITE TRIM WITH FLAT DIFFUSED LENS  
 [LAMP] White LEDs  
 [BALLAST] 0-10V DIMMING DRIVER

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1211
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	11.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.30
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	23359	23359	23359
55	19498	19498	19498
65	14257	14257	14257
75	6793	6793	6793
85	4207	4207	4207

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CANDELA TABULATION

	<u>0</u>
0.0	530.132
0.5	530.239
1.0	530.132
1.5	530.186
2.0	529.919
2.5	529.759
3.0	529.439
3.5	528.960
4.0	528.427
4.5	527.840
5.0	527.041
5.5	526.188
6.0	525.229
6.5	524.376
7.0	523.523
7.5	522.723
8.0	521.924
8.5	521.178
9.0	520.272
9.5	519.472
10.0	518.459
10.5	517.393
11.0	516.167
11.5	514.782
12.0	513.396
12.5	511.797
13.0	510.198
13.5	508.545
14.0	506.946
14.5	505.134
15.0	503.482
15.5	501.510
16.0	499.751
16.5	497.725
17.0	495.913
17.5	493.888
18.0	491.862
18.5	489.677
19.0	487.598
19.5	485.306
20.0	483.014
20.5	480.722
21.0	478.270
21.5	475.818
22.0	473.100
22.5	470.382
23.0	467.397
23.5	464.305
24.0	461.161
24.5	458.123
25.0	454.924
25.5	451.940
26.0	448.955
26.5	446.023

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CANDELA TABULATION - (Cont.)

27.0	443.198
27.5	440.267
28.0	437.442
28.5	434.510
29.0	431.525
29.5	428.327
30.0	425.076
30.5	421.611
31.0	418.093
31.5	414.256
32.0	410.311
32.5	406.261
33.0	402.050
33.5	397.786
34.0	393.468
34.5	389.098
35.0	384.674
35.5	380.410
36.0	376.145
36.5	372.148
37.0	369.856
37.5	366.445
38.0	362.500
38.5	358.609
39.0	354.399
39.5	350.294
40.0	346.137
40.5	341.980
41.0	337.715
41.5	333.451
42.0	329.027
42.5	324.550
43.0	319.913
43.5	315.329
44.0	310.692
44.5	306.161
45.0	301.577
45.5	297.047
46.0	292.463
46.5	287.932
47.0	283.188
47.5	278.551
48.0	273.807
48.5	269.117
49.0	264.267
49.5	259.416
50.0	254.513
50.5	249.609
51.0	244.599
51.5	239.642
52.0	234.578
52.5	229.461
53.0	224.344
53.5	219.227
54.0	214.164
54.5	209.153

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CANDELA TABULATION - (Cont.)

55.0	204.196
55.5	199.293
56.0	194.389
56.5	189.539
57.0	184.795
57.5	179.944
58.0	175.147
58.5	170.350
59.0	165.606
59.5	160.756
60.0	155.959
60.5	151.162
61.0	146.418
61.5	141.621
62.0	136.877
62.5	132.187
63.0	127.549
63.5	123.019
64.0	118.595
64.5	114.331
65.0	110.013
65.5	105.749
66.0	101.432
66.5	97.061
67.0	92.637
67.5	88.160
68.0	83.629
68.5	79.099
69.0	74.568
69.5	70.091
70.0	65.720
70.5	61.456
71.0	57.405
71.5	53.568
72.0	49.884
72.5	46.420
73.0	43.153
73.5	40.088
74.0	37.247
74.5	34.592
75.0	32.103
75.5	29.774
76.0	27.599
76.5	25.585
77.0	23.708
77.5	21.981
78.0	20.372
78.5	18.895
79.0	17.547
79.5	16.337
80.0	15.271
80.5	14.306
81.0	13.459
81.5	12.675
82.0	11.833
82.5	10.937

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CANDELA TABULATION - (Cont.)

83.0	10.095
83.5	9.264
84.0	8.395
84.5	7.531
85.0	6.695
85.5	5.820
86.0	4.952
86.5	4.141
87.0	3.326
87.5	2.526
88.0	1.860
88.5	1.311
89.0	0.773
89.5	0.346
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
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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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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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	191.93	N.A.	15.80
0-30	401.70	N.A.	33.20
0-40	642.96	N.A.	53.10
0-60	1058.03	N.A.	87.40
0-80	1203.6	N.A.	99.40
0-90	1211.1	N.A.	100.00
10-90	1161.08	N.A.	95.90
20-40	451.02	N.A.	37.20
20-50	683.35	N.A.	56.40
40-70	523.91	N.A.	43.30
60-80	145.56	N.A.	12.00
70-80	36.72	N.A.	3.00
80-90	7.50	N.A.	0.60
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	1211.1	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	50.01
10-20	141.92
20-30	209.77
30-40	241.26
40-50	232.33
50-60	182.75
60-70	108.84
70-80	36.72
80-90	7.50
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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	64
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	56
5	79	67	59	53	77	66	58	53	64	57	52	62	56	51	60	55	51	49
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	41	67	55	47	41	53	46	41	52	45	41	51	45	40	39
8	64	51	43	37	62	50	42	37	49	42	37	48	41	37	47	41	36	35
9	60	47	39	34	58	46	39	34	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	31	42	35	30	41	35	30	40	34	30	29

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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

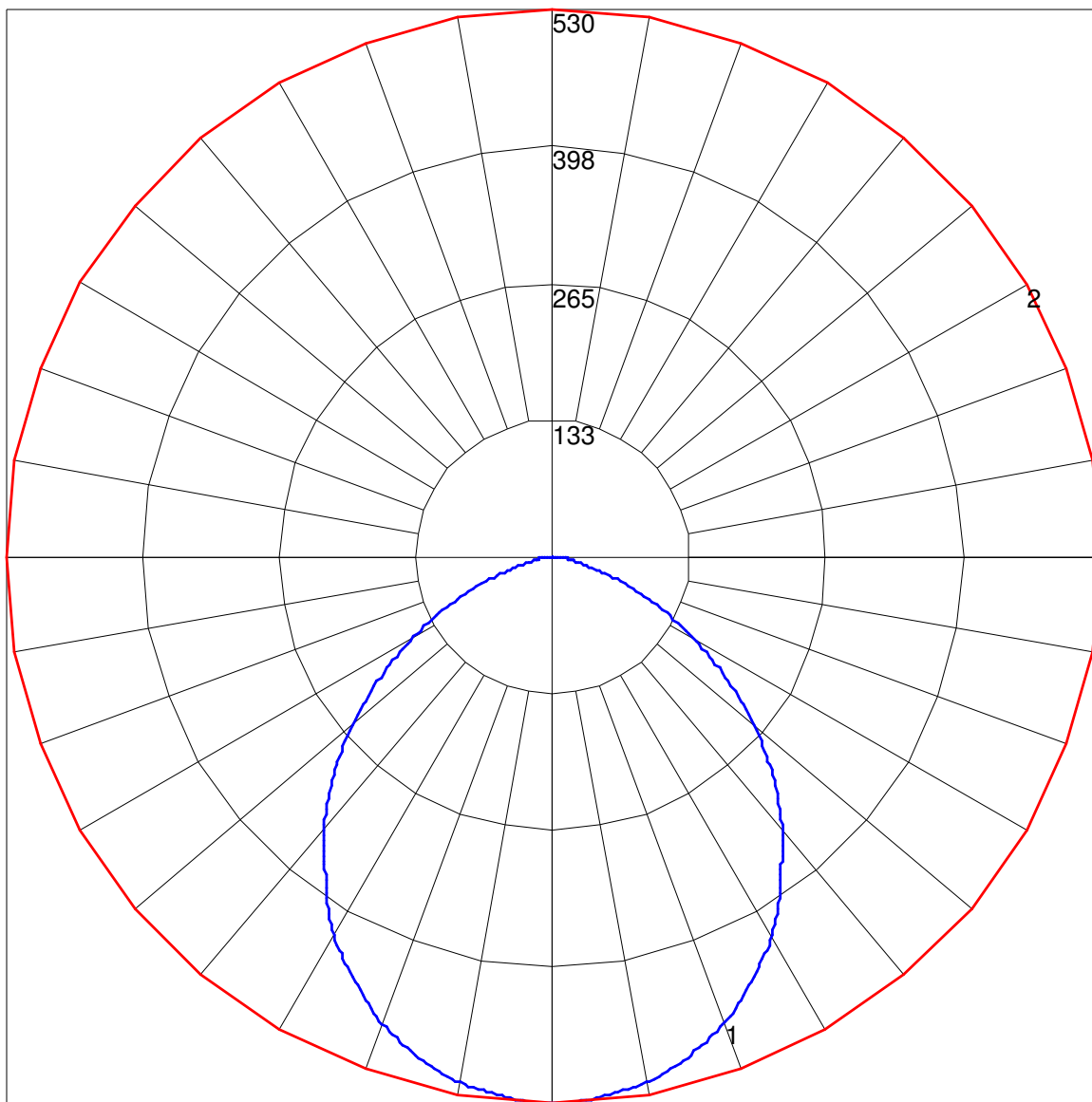
X=2H	Y=2H	21.2	22.7	21.6	23.1	23.4	21.2	22.7	21.6	23.1	23.4
	3H	22.2	23.6	22.6	23.9	24.3	22.2	23.6	22.6	23.9	24.3
	4H	22.4	23.6	22.8	24.0	24.4	22.4	23.6	22.8	24.0	24.4
	6H	22.4	23.6	22.8	24.0	24.4	22.4	23.6	22.8	24.0	24.4
	8H	22.4	23.5	22.9	23.9	24.3	22.4	23.5	22.9	23.9	24.3
	12H	22.4	23.5	22.9	23.9	24.3	22.4	23.5	22.9	23.9	24.3

### UGR Viewed Endwise

4H	2H	21.6	22.9	22.0	23.2	23.6	21.6	22.9	22.0	23.2	23.6
	3H	22.7	23.8	23.1	24.2	24.6	22.7	23.8	23.1	24.2	24.6
	4H	22.9	23.9	23.4	24.3	24.7	22.9	23.9	23.4	24.3	24.7
	6H	23.0	23.9	23.5	24.3	24.8	23.0	23.9	23.5	24.3	24.8
	8H	23.0	23.8	23.5	24.3	24.7	23.0	23.8	23.5	24.3	24.7
	12H	23.1	23.7	23.5	24.2	24.7	23.1	23.7	23.5	24.2	24.7
8H	4H	23.0	23.7	23.4	24.2	24.6	23.0	23.7	23.4	24.2	24.6
	6H	23.1	23.7	23.6	24.2	24.7	23.1	23.7	23.6	24.2	24.7
	8H	23.2	23.7	23.7	24.2	24.7	23.2	23.7	23.7	24.2	24.7
	12H	23.2	23.7	23.7	24.2	24.7	23.2	23.7	23.7	24.2	24.7
12H	4H	22.9	23.6	23.4	24.1	24.6	22.9	23.6	23.4	24.1	24.6
	6H	23.1	23.7	23.6	24.1	24.7	23.1	23.7	23.6	24.1	24.7
	8H	23.2	23.7	23.7	24.1	24.7	23.2	23.7	23.7	24.1	24.7

Maximum UGR = 24.8

POLAR GRAPH



Maximum Candela = 530.239 Located At Horizontal Angle = 0, Vertical Angle = .5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)