



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV\_22W\_3000K.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] GEN FROM 14879730.01  
[TESTLAB] UL Verification Services Inc.  
[ISSUE DATE] 2023-07-21  
[TEST DATE] 7/10/2023  
[MANUFAC] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
[LUMCAT] 6RCD-LS-9CS-WH-DIM-UNV\_22W\_3000K  
[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	2085
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	21.5
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	40217	40217	40217
55	33570	33570	33570
65	24547	24547	24547
75	11696	11696	11696
85	7243	7243	7243

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CANDELA TABULATION

	<u>0</u>
0.0	912.738
0.5	912.922
1.0	912.738
1.5	912.830
2.0	912.371
2.5	912.096
3.0	911.545
3.5	910.719
4.0	909.802
4.5	908.792
5.0	907.416
5.5	905.947
6.0	904.295
6.5	902.827
7.0	901.359
7.5	899.982
8.0	898.606
8.5	897.321
9.0	895.761
9.5	894.384
10.0	892.641
10.5	890.805
11.0	888.695
11.5	886.309
12.0	883.923
12.5	881.169
13.0	878.416
13.5	875.572
14.0	872.818
14.5	869.698
15.0	866.853
15.5	863.458
16.0	860.430
16.5	856.942
17.0	853.822
17.5	850.335
18.0	846.848
18.5	843.085
19.0	839.506
19.5	835.560
20.0	831.614
20.5	827.668
21.0	823.447
21.5	819.225
22.0	814.545
22.5	809.865
23.0	804.726
23.5	799.403
24.0	793.989
24.5	788.758
25.0	783.252
25.5	778.112
26.0	772.973
26.5	767.926

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**CANDELA TABULATION - (Cont.)**

27.0	763.062
27.5	758.015
28.0	753.151
28.5	748.104
29.0	742.965
29.5	737.459
30.0	731.861
30.5	725.896
31.0	719.839
31.5	713.232
32.0	706.441
32.5	699.466
33.0	692.216
33.5	684.875
34.0	677.441
34.5	669.916
35.0	662.300
35.5	654.958
36.0	647.616
36.5	640.734
37.0	636.788
37.5	630.914
38.0	624.123
38.5	617.424
39.0	610.175
39.5	603.108
40.0	595.950
40.5	588.792
41.0	581.451
41.5	574.109
42.0	566.492
42.5	558.784
43.0	550.800
43.5	542.908
44.0	534.924
44.5	527.123
45.0	519.231
45.5	511.431
46.0	503.539
46.5	495.738
47.0	487.571
47.5	479.587
48.0	471.419
48.5	463.344
49.0	454.993
49.5	446.642
50.0	438.199
50.5	429.756
51.0	421.130
51.5	412.595
52.0	403.877
52.5	395.067
53.0	386.257
53.5	377.447
54.0	368.729
54.5	360.103

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CANDELA TABULATION - (Cont.)

55.0	351.568
55.5	343.126
56.0	334.683
56.5	326.332
57.0	318.164
57.5	309.813
58.0	301.554
58.5	293.295
59.0	285.127
59.5	276.776
60.0	268.517
60.5	260.258
61.0	252.090
61.5	243.831
62.0	235.664
62.5	227.588
63.0	219.604
63.5	211.804
64.0	204.187
64.5	196.845
65.0	189.412
65.5	182.070
66.0	174.637
66.5	167.112
67.0	159.495
67.5	151.787
68.0	143.986
68.5	136.186
69.0	128.385
69.5	120.677
70.0	113.152
70.5	105.810
71.0	98.836
71.5	92.228
72.0	85.887
72.5	79.922
73.0	74.296
73.5	69.020
74.0	64.128
74.5	59.558
75.0	55.273
75.5	51.262
76.0	47.518
76.5	44.049
77.0	40.819
77.5	37.846
78.0	35.074
78.5	32.532
79.0	30.210
79.5	28.127
80.0	26.292
80.5	24.631
81.0	23.172
81.5	21.823
82.0	20.373
82.5	18.831

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CANDELA TABULATION - (Cont.)

83.0	17.381
83.5	15.950
84.0	14.454
84.5	12.967
85.0	11.526
85.5	10.021
86.0	8.525
86.5	7.130
87.0	5.726
87.5	4.350
88.0	3.203
88.5	2.258
89.0	1.331
89.5	0.597
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
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123.0	0.000
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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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV\_22W\_3000K.IES****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
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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	330.45	N.A.	15.80
0-30	691.61	N.A.	33.20
0-40	1106.99	N.A.	53.10
0-60	1821.64	N.A.	87.40
0-80	2072.25	N.A.	99.40
0-90	2085.17	N.A.	100.00
10-90	1999.06	N.A.	95.90
20-40	776.54	N.A.	37.20
20-50	1176.54	N.A.	56.40
40-70	902.03	N.A.	43.30
60-80	250.62	N.A.	12.00
70-80	63.23	N.A.	3.00
80-90	12.91	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	2085.17	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	86.11
10-20	244.34
20-30	361.16
30-40	415.38
40-50	400.00
50-60	314.64
60-70	187.39
70-80	63.23
80-90	12.91
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	23.1	24.6	23.5	25.0	25.3	23.1	24.6	23.5	25.0	25.3
	3H	24.1	25.5	24.5	25.8	26.2	24.1	25.5	24.5	25.8	26.2
	4H	24.3	25.5	24.7	25.9	26.3	24.3	25.5	24.7	25.9	26.3
	6H	24.3	25.5	24.7	25.9	26.3	24.3	25.5	24.7	25.9	26.3
	8H	24.3	25.4	24.8	25.8	26.2	24.3	25.4	24.8	25.8	26.2
	12H	24.3	25.4	24.8	25.8	26.2	24.3	25.4	24.8	25.8	26.2

### UGR Viewed Endwise

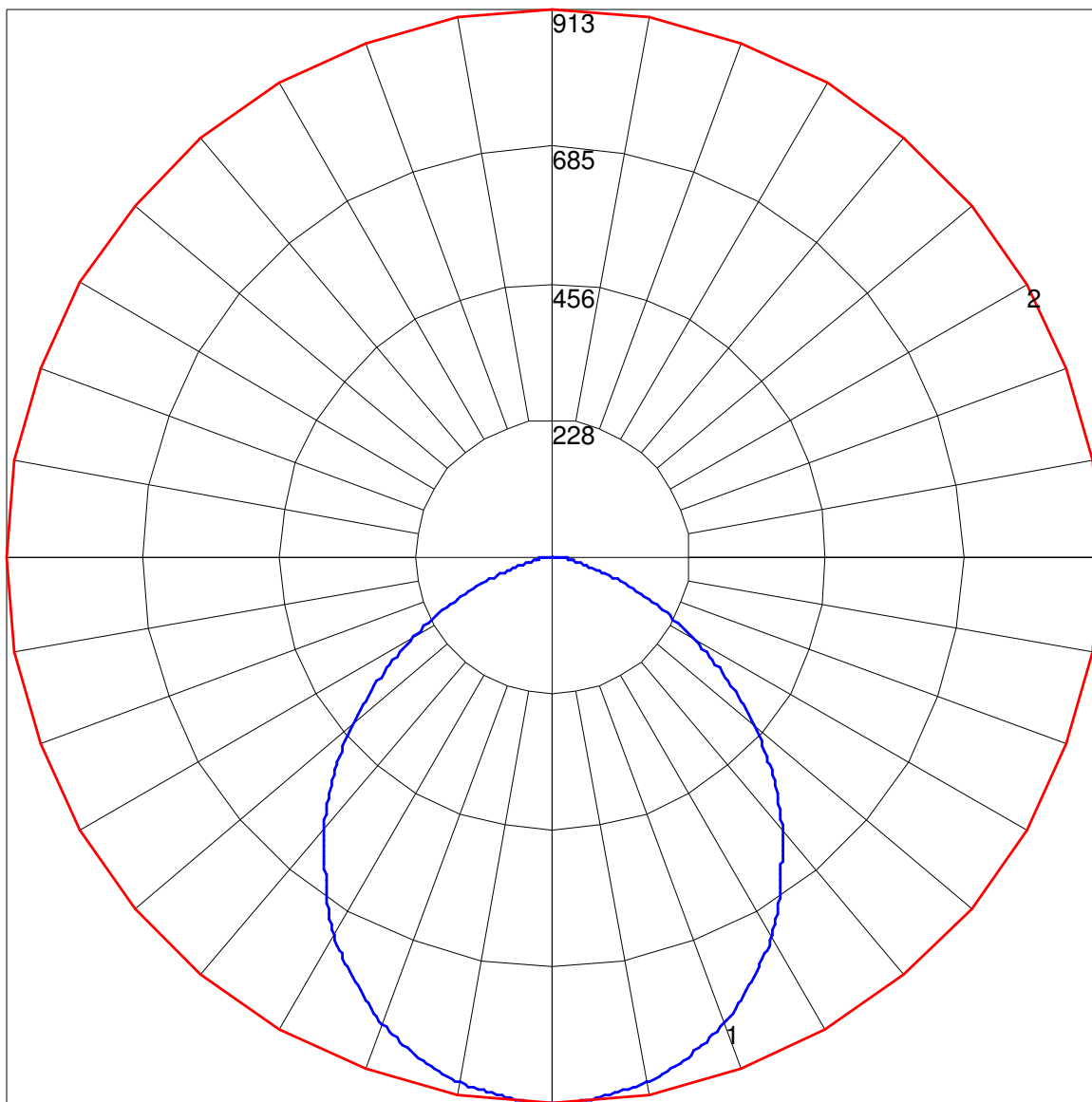
4H	2H	23.5	24.8	23.9	25.1	25.5	23.5	24.8	23.9	25.1	25.5
	3H	24.6	25.7	25.0	26.1	26.5	24.6	25.7	25.0	26.1	26.5
	4H	24.8	25.8	25.3	26.2	26.6	24.8	25.8	25.3	26.2	26.6
	6H	24.9	25.8	25.4	26.2	26.7	24.9	25.8	25.4	26.2	26.7
	8H	24.9	25.7	25.4	26.2	26.6	24.9	25.7	25.4	26.2	26.6
	12H	25.0	25.6	25.4	26.1	26.6	25.0	25.6	25.4	26.1	26.6

8H	4H	24.9	25.6	25.3	26.1	26.5	24.9	25.6	25.3	26.1	26.5
	6H	25.0	25.6	25.5	26.1	26.6	25.0	25.6	25.5	26.1	26.6
	8H	25.1	25.6	25.6	26.1	26.6	25.1	25.6	25.6	26.1	26.6
	12H	25.1	25.6	25.6	26.1	26.6	25.1	25.6	25.6	26.1	26.6

12H	4H	24.8	25.5	25.3	26.0	26.5	24.8	25.5	25.3	26.0	26.5
	6H	25.0	25.6	25.5	26.0	26.6	25.0	25.6	25.5	26.0	26.6
	8H	25.1	25.6	25.6	26.0	26.6	25.1	25.6	25.6	26.0	26.6

Maximum UGR = 26.7

POLAR GRAPH



Maximum Candela = 912.922 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.)