

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6RCD-LS-9CS-SS-DIM-UNV-22W-5000K\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #15006535.01

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 17 NOV, 2023

[TEST DATE] 10/18/2023

[MANUFAC] H E Williams Inc

[LUMCAT] 6RCD-LS-9CS-SS-DIM-UNV-22W-5000k

[LUMINAIRE] Round housing with semi-specular reflector and frosted lens

[LAMP] White LEDs

[BALLAST] LED Driver

[OTHER] 24.7 C, 119.991 V, 0.1494 A, 17.765 W, 0.99098 PF, 59.971 Hz

[OTHER] This test was performed using the calibrated photodetector met

[MORE] hod of absolute photometry.

[OTHER] The reported results were measured in a facility that meets th

[MORE] e requirements of ANSI/IES LM-75-19. The device under test emits no de

[MORE] tectable uplight as defined by ANSI/IES LM-75-19.

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1985
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	105
Total Luminaire Watts	18.95
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.94
Spacing Criterion (90-270)	0.94
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

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**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	31639	31639	31639
55	14812	14812	14812
65	1942	1942	1942
75	391	391	391
85	322	322	322

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CANDELA TABULATION

	<u>0</u>
0.0	1618.959
0.5	1618.959
1.0	1617.933
1.5	1616.906
2.0	1613.826
2.5	1611.773
3.0	1609.720
3.5	1605.613
4.0	1602.534
4.5	1597.401
5.0	1593.294
5.5	1588.161
6.0	1582.001
6.5	1575.842
7.0	1569.682
7.5	1562.496
8.0	1555.310
8.5	1548.123
9.0	1540.937
9.5	1532.724
10.0	1524.511
10.5	1515.272
11.0	1506.033
11.5	1496.793
12.0	1486.527
12.5	1475.234
13.0	1464.968
13.5	1453.676
14.0	1441.356
14.5	1429.037
15.0	1415.691
15.5	1402.345
16.0	1388.999
16.5	1374.627
17.0	1360.254
17.5	1344.855
18.0	1329.456
18.5	1313.030
19.0	1296.605
19.5	1281.206
20.0	1263.753
20.5	1246.301
21.0	1229.875
21.5	1213.450
22.0	1197.024
22.5	1179.571
23.0	1163.146
23.5	1147.747
24.0	1131.321
24.5	1113.869
25.0	1096.416
25.5	1078.964
26.0	1061.512
26.5	1044.059

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**CANDELA TABULATION - (Cont.)**

<b>27.0</b>	1026.196
<b>27.5</b>	1008.025
<b>28.0</b>	989.855
<b>28.5</b>	971.581
<b>29.0</b>	953.410
<b>29.5</b>	935.547
<b>30.0</b>	917.684
<b>30.5</b>	899.513
<b>31.0</b>	881.239
<b>31.5</b>	863.171
<b>32.0</b>	844.590
<b>32.5</b>	826.624
<b>33.0</b>	808.761
<b>33.5</b>	791.001
<b>34.0</b>	772.316
<b>34.5</b>	754.454
<b>35.0</b>	736.385
<b>35.5</b>	718.522
<b>36.0</b>	700.454
<b>36.5</b>	682.694
<b>37.0</b>	664.831
<b>37.5</b>	647.173
<b>38.0</b>	629.618
<b>38.5</b>	613.295
<b>39.0</b>	597.485
<b>39.5</b>	580.957
<b>40.0</b>	564.326
<b>40.5</b>	547.695
<b>41.0</b>	531.269
<b>41.5</b>	515.151
<b>42.0</b>	499.239
<b>42.5</b>	483.840
<b>43.0</b>	468.543
<b>43.5</b>	453.144
<b>44.0</b>	438.053
<b>44.5</b>	423.167
<b>45.0</b>	408.487
<b>45.5</b>	394.012
<b>46.0</b>	379.845
<b>46.5</b>	365.985
<b>47.0</b>	352.126
<b>47.5</b>	338.370
<b>48.0</b>	325.024
<b>48.5</b>	311.575
<b>49.0</b>	298.332
<b>49.5</b>	285.397
<b>50.0</b>	272.667
<b>50.5</b>	260.142
<b>51.0</b>	247.720
<b>51.5</b>	235.401
<b>52.0</b>	223.287
<b>52.5</b>	211.378
<b>53.0</b>	199.778
<b>53.5</b>	188.382
<b>54.0</b>	177.192
<b>54.5</b>	166.002

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CANDELA TABULATION - (Cont.)

55.0	155.120
55.5	144.649
56.0	134.383
56.5	124.425
57.0	114.672
57.5	105.227
58.0	96.090
58.5	87.467
59.0	79.151
59.5	71.349
60.0	63.958
60.5	56.977
61.0	50.509
61.5	44.555
62.0	39.011
62.5	33.981
63.0	29.361
63.5	25.152
64.0	21.353
64.5	17.966
65.0	14.988
65.5	12.422
66.0	10.163
66.5	8.213
67.0	6.673
67.5	5.133
68.0	3.901
68.5	3.182
69.0	3.080
69.5	2.977
70.0	2.874
70.5	2.669
71.0	2.567
71.5	2.464
72.0	2.361
72.5	2.361
73.0	2.259
73.5	2.156
74.0	2.053
74.5	1.951
75.0	1.848
75.5	1.745
76.0	1.745
76.5	1.643
77.0	1.540
77.5	1.437
78.0	1.437
78.5	1.335
79.0	1.232
79.5	1.232
80.0	1.129
80.5	1.027
81.0	1.027
81.5	0.924
82.0	0.821
82.5	0.821

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CANDELA TABULATION - (Cont.)

83.0	0.719
83.5	0.719
84.0	0.616
84.5	0.616
85.0	0.513
85.5	0.411
86.0	0.411
86.5	0.308
87.0	0.308
87.5	0.205
88.0	0.205
88.5	0.103
89.0	0.103
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  
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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

IES INDOOR REPORT  
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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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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	545.09	N.A.	27.50
0-30	1046.46	N.A.	52.70
0-40	1505.25	N.A.	75.80
0-60	1962.13	N.A.	98.80
0-80	1984.73	N.A.	100.00
0-90	1985.3	N.A.	100.00
10-90	1835.46	N.A.	92.50
20-40	960.16	N.A.	48.40
20-50	1275.87	N.A.	64.30
40-70	477.48	N.A.	24.10
60-80	22.60	N.A.	1.10
70-80	2.01	N.A.	0.10
80-90	0.57	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	1985.3	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	149.84
10-20	395.25
20-30	501.37
30-40	458.79
40-50	315.71
50-60	141.18
60-70	20.59
70-80	2.01
80-90	0.57
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	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	94	92
2	106	100	96	92	104	99	94	91	95	92	89	92	89	87	89	87	85	83
3	99	92	86	82	97	90	85	81	88	83	80	85	81	78	83	80	77	75
4	93	84	78	73	91	83	77	73	81	76	72	79	74	71	77	73	70	68
5	87	78	71	66	86	77	70	66	75	69	65	73	68	64	71	67	64	62
6	82	72	65	60	81	71	64	60	69	64	59	68	63	59	67	62	58	57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52
8	73	62	55	50	71	61	55	50	60	54	50	59	54	50	58	53	50	48
9	69	58	51	47	68	57	51	46	56	50	46	55	50	46	54	49	46	44
10	65	54	48	43	64	54	47	43	53	47	43	52	47	43	51	46	43	41

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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	16.0	17.2	16.4	17.5	17.8	UGR Viewed Endwise	16.0	17.2	16.4	17.5	17.8
	3H	15.9	16.9	16.2	17.2	17.6		15.9	16.9	16.2	17.2	17.6
	4H	15.8	16.8	16.2	17.1	17.5		15.8	16.8	16.2	17.1	17.5
	6H	15.7	16.6	16.1	17.0	17.4		15.7	16.6	16.1	17.0	17.4
	8H	15.7	16.5	16.1	16.9	17.3		15.7	16.5	16.1	16.9	17.3
	12H	15.6	16.4	16.0	16.8	17.2		15.6	16.4	16.0	16.8	17.2

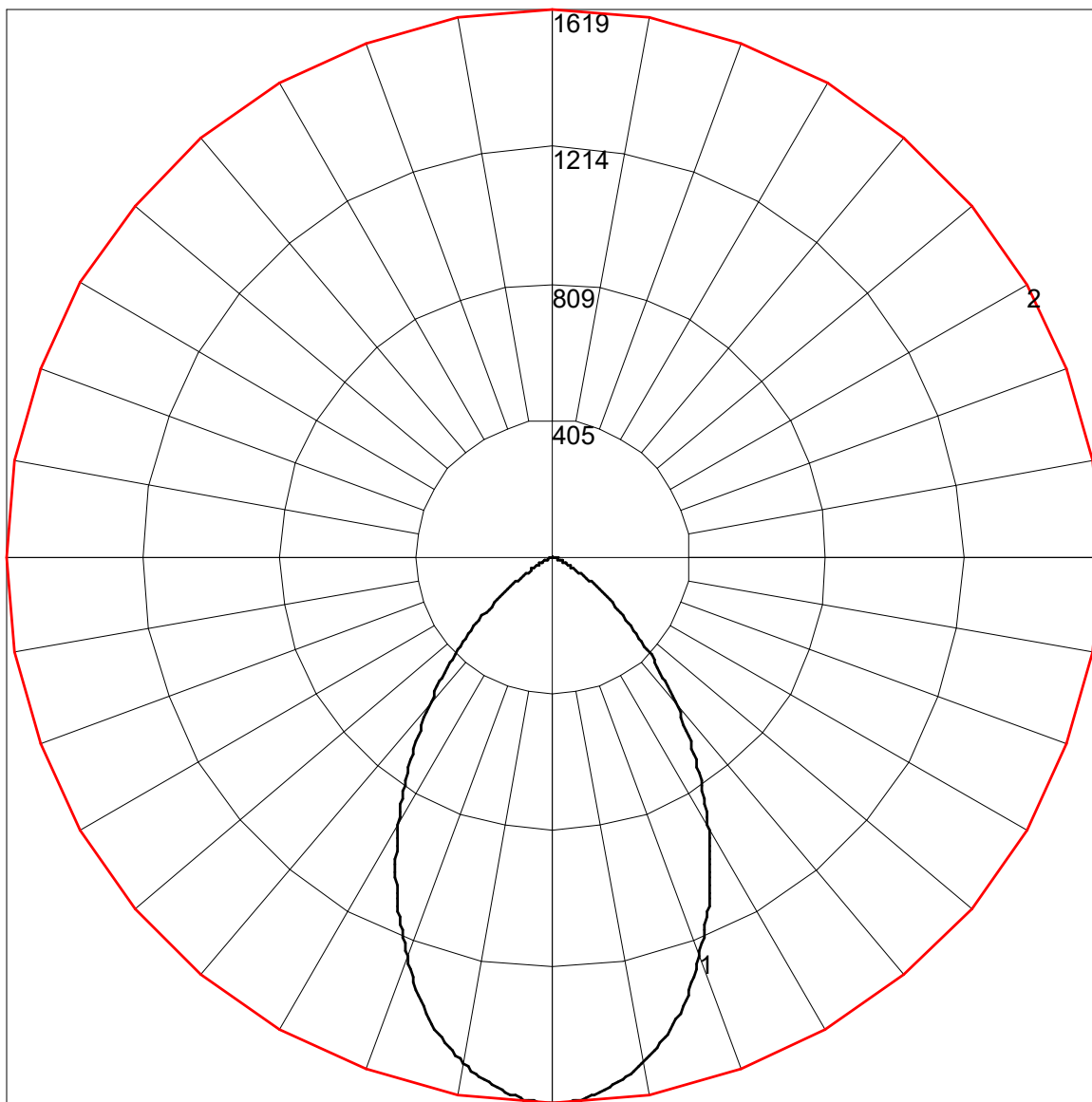
4H	2H	15.8	16.8	16.2	17.1	17.5	15.8	16.8	16.2	17.1	17.5
	3H	15.7	16.4	16.1	16.9	17.3	15.7	16.4	16.1	16.9	17.3
	4H	15.6	16.3	16.0	16.7	17.1	15.6	16.3	16.0	16.7	17.1
	6H	15.5	16.1	16.0	16.5	17.0	15.5	16.1	16.0	16.5	17.0
	8H	15.4	16.0	15.9	16.4	16.9	15.4	16.0	15.9	16.4	16.9
	12H	15.4	15.8	15.8	16.3	16.8	15.4	15.8	15.8	16.3	16.8

8H	4H	15.4	16.0	15.9	16.4	16.9	15.4	16.0	15.9	16.4	16.9
	6H	15.3	15.8	15.8	16.3	16.7	15.3	15.8	15.8	16.3	16.7
	8H	15.2	15.6	15.8	16.2	16.7	15.2	15.6	15.8	16.2	16.7
	12H	15.2	15.5	15.7	16.0	16.6	15.2	15.5	15.7	16.0	16.6

12H	4H	15.4	15.8	15.8	16.3	16.8	15.4	15.8	15.8	16.3	16.8
	6H	15.2	15.6	15.8	16.1	16.7	15.2	15.6	15.8	16.1	16.7
	8H	15.2	15.5	15.7	16.0	16.6	15.2	15.5	15.7	16.0	16.6

Maximum UGR = 17.8

POLAR GRAPH



Maximum Candela = 1618.959 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)