

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4RCD-LS-9CS-WH-DIM-UNV-7W-5000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #15006535.02

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 16-NOV-2023

[TEST DATE] 10/18/2023

[MANUFAC] H E Williams Inc

[LUMCAT] 4RCD-LS-9CS-WH-DIM-UNV-7W-5000k

[LUMINAIRE] Round plastic housing with white trim and frosted lens

[LAMP] White LEDs

[BALLAST] LED Driver

[OTHER] 24.8 C, 120.036 V, 0.0936374 A, 11.1785 W, 0.994546 PF, 59.971

[MORE] 3 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	604
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	91
Total Luminaire Watts	6.65
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.24
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.33 ft (Diameter)
Luminous Width (90-270)	0.33 ft (Diameter)
Luminous Height	0.00 ft

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4RCD-LS-9CS-WH-DIM-UNV-7W-5000K_.IES****LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	25491	25491	25491
55	20294	20294	20294
65	14195	14195	14195
75	7590	7590	7590
85	5350	5350	5350

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CANDELA TABULATION

	<u>0</u>
0.0	285.893
0.5	285.893
1.0	285.782
1.5	285.617
2.0	285.451
2.5	285.286
3.0	285.010
3.5	284.735
4.0	284.349
4.5	283.963
5.0	283.522
5.5	283.081
6.0	282.585
6.5	282.034
7.0	281.482
7.5	280.931
8.0	280.325
8.5	279.773
9.0	279.222
9.5	278.671
10.0	278.064
10.5	277.403
11.0	276.686
11.5	275.914
12.0	275.087
12.5	274.261
13.0	273.379
13.5	272.441
14.0	271.449
14.5	270.402
15.0	269.299
15.5	268.197
16.0	267.039
16.5	265.826
17.0	264.503
17.5	263.125
18.0	261.691
18.5	260.148
19.0	258.604
19.5	257.006
20.0	255.352
20.5	253.753
21.0	252.209
21.5	250.721
22.0	249.233
22.5	247.799
23.0	246.366
23.5	244.933
24.0	243.444
24.5	241.956
25.0	240.412
25.5	238.758
26.0	237.049
26.5	235.175

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CANDELA TABULATION - (Cont.)

27.0	233.301
27.5	231.316
28.0	229.387
28.5	227.402
29.0	225.307
29.5	223.157
30.0	221.007
30.5	218.747
31.0	216.487
31.5	214.171
32.0	211.911
32.5	209.541
33.0	207.225
33.5	204.855
34.0	202.484
34.5	200.114
35.0	197.743
35.5	195.318
36.0	192.837
36.5	190.356
37.0	187.765
37.5	185.174
38.0	182.583
38.5	179.992
39.0	177.401
39.5	174.755
40.0	172.164
40.5	169.573
41.0	166.982
41.5	164.391
42.0	161.745
42.5	159.154
43.0	156.563
43.5	153.917
44.0	151.271
44.5	148.624
45.0	145.978
45.5	143.332
46.0	140.686
46.5	138.040
47.0	135.449
47.5	132.858
48.0	130.212
48.5	127.621
49.0	124.975
49.5	122.384
50.0	119.737
50.5	117.202
51.0	114.611
51.5	112.020
52.0	109.429
52.5	106.838
53.0	104.302
53.5	101.766
54.0	99.285
54.5	96.749

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CANDELA TABULATION - (Cont.)

55.0	94.268
55.5	91.733
56.0	89.307
56.5	86.936
57.0	84.511
57.5	82.140
58.0	79.770
58.5	77.399
59.0	75.029
59.5	72.714
60.0	70.398
60.5	68.138
61.0	65.878
61.5	63.617
62.0	61.357
62.5	59.207
63.0	57.002
63.5	54.885
64.0	52.741
64.5	50.657
65.0	48.584
65.5	46.566
66.0	44.576
66.5	42.625
67.0	40.717
67.5	38.865
68.0	37.046
68.5	35.254
69.0	33.485
69.5	31.737
70.0	30.017
70.5	28.319
71.0	26.698
71.5	25.144
72.0	23.655
72.5	22.200
73.0	20.800
73.5	19.449
74.0	18.198
74.5	17.012
75.0	15.910
75.5	14.901
76.0	13.975
76.5	13.131
77.0	12.382
77.5	11.720
78.0	11.114
78.5	10.551
79.0	10.000
79.5	9.438
80.0	8.876
80.5	8.313
81.0	7.768
81.5	7.233
82.0	6.709
82.5	6.191

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CANDELA TABULATION - (Cont.)

83.0	5.695
83.5	5.199
84.0	4.708
84.5	4.234
85.0	3.776
85.5	3.330
86.0	2.889
86.5	2.459
87.0	2.023
87.5	1.588
88.0	1.158
88.5	0.733
89.0	0.380
89.5	0.154
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	102.64	N.A.	17.00
0-30	213.00	N.A.	35.30
0-40	336.31	N.A.	55.70
0-60	533.16	N.A.	88.30
0-80	599.79	N.A.	99.30
0-90	604.09	N.A.	100.00
10-90	577.21	N.A.	95.60
20-40	233.68	N.A.	38.70
20-50	346.15	N.A.	57.30
40-70	245.37	N.A.	40.60
60-80	66.63	N.A.	11.00
70-80	18.11	N.A.	3.00
80-90	4.30	N.A.	0.70
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	604.09	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	26.88
10-20	75.75
20-30	110.37
30-40	123.31
40-50	112.47
50-60	84.38
60-70	48.52
70-80	18.11
80-90	4.30
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	132	132	132	132	129	129	129	129	124	124	124	118	118	118	114	114	114	111
1	123	118	114	111	120	116	112	109	111	108	106	107	105	102	103	101	99	97
2	113	105	99	93	110	103	97	92	99	94	90	96	92	88	93	89	86	84
3	104	94	86	80	102	92	85	79	89	83	77	86	81	76	83	79	75	73
4	96	84	76	69	94	83	75	68	80	73	67	78	72	67	75	70	66	63
5	89	76	67	60	87	75	66	60	73	65	59	70	64	59	69	63	58	56
6	83	69	60	53	81	68	59	53	66	58	53	64	57	52	63	57	52	50
7	77	63	54	48	75	62	54	47	61	53	47	59	52	47	58	51	47	44
8	72	58	49	43	70	57	49	43	56	48	43	54	47	42	53	47	42	40
9	67	53	45	39	66	53	44	39	51	44	39	50	43	38	49	43	38	36
10	63	49	41	36	62	49	41	35	48	40	35	47	40	35	46	40	35	33

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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

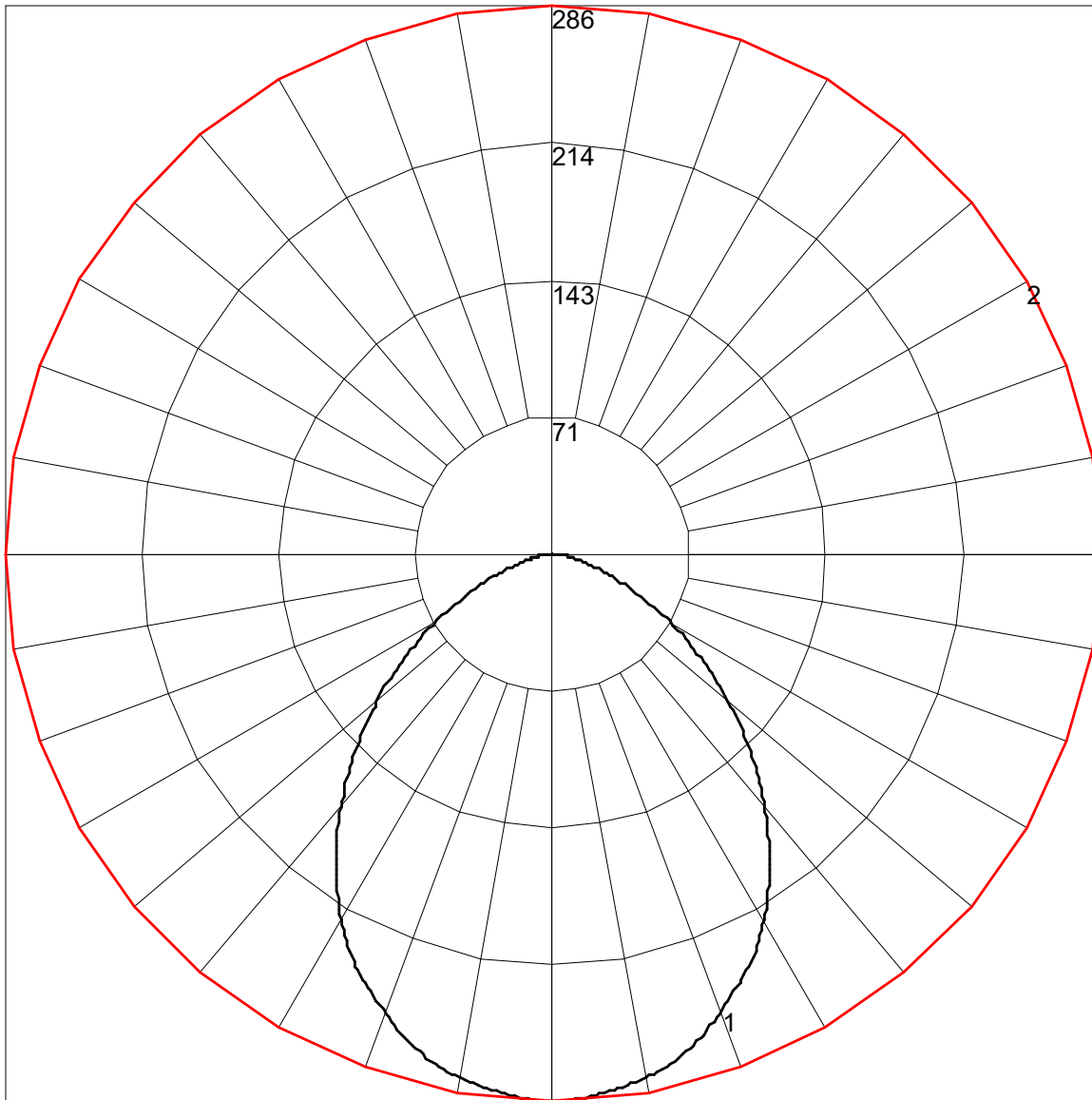
X=2H	Y=2H	21.0	22.5	21.4	22.9	23.2	21.0	22.5	21.4	22.9	23.2
	3H	22.0	23.3	22.4	23.7	24.0	22.0	23.3	22.4	23.7	24.0
	4H	22.2	23.4	22.6	23.8	24.2	22.2	23.4	22.6	23.8	24.2
	6H	22.3	23.4	22.7	23.8	24.2	22.3	23.4	22.7	23.8	24.2
	8H	22.3	23.4	22.8	23.8	24.2	22.3	23.4	22.8	23.8	24.2
	12H	22.3	23.4	22.8	23.8	24.2	22.3	23.4	22.8	23.8	24.2

UGR Viewed Endwise

4H	2H	21.4	22.7	21.8	23.0	23.4	21.4	22.7	21.8	23.0	23.4
	3H	22.5	23.5	22.9	23.9	24.3	22.5	23.5	22.9	23.9	24.3
	4H	22.8	23.7	23.2	24.1	24.5	22.8	23.7	23.2	24.1	24.5
	6H	22.9	23.7	23.4	24.2	24.6	22.9	23.7	23.4	24.2	24.6
	8H	23.0	23.7	23.4	24.2	24.6	23.0	23.7	23.4	24.2	24.6
	12H	23.0	23.7	23.5	24.2	24.6	23.0	23.7	23.5	24.2	24.6
8H	4H	22.8	23.6	23.3	24.0	24.5	22.8	23.6	23.3	24.0	24.5
	6H	23.0	23.7	23.5	24.1	24.6	23.0	23.7	23.5	24.1	24.6
	8H	23.1	23.7	23.6	24.2	24.7	23.1	23.7	23.6	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	22.8	23.5	23.3	23.9	24.4	22.8	23.5	23.3	23.9	24.4
	6H	23.0	23.6	23.6	24.1	24.6	23.0	23.6	23.6	24.1	24.6
	8H	23.1	23.6	23.7	24.1	24.7	23.1	23.6	23.7	24.1	24.7

Maximum UGR = 24.7

POLAR GRAPH



Maximum Candela = 285.893 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.)