

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4RCD-LS-9CS-WH-DIM-UNV-7W-2700K_.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-2700k

[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	543
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	82
Total Luminaire Watts	6.63
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-2700K_.IES

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	22912	22912	22912
55	18240	18240	18240
65	12759	12759	12759
75	6822	6822	6822
85	4808	4808	4808

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4RCD-LS-9CS-WH-DIM-UNV-7W-2700K_.IES

CANDELA TABULATION

	<u>0</u>
0.0	256.966
0.5	256.966
1.0	256.867
1.5	256.719
2.0	256.570
2.5	256.421
3.0	256.173
3.5	255.926
4.0	255.579
4.5	255.232
5.0	254.836
5.5	254.439
6.0	253.993
6.5	253.498
7.0	253.002
7.5	252.507
8.0	251.962
8.5	251.466
9.0	250.971
9.5	250.475
10.0	249.930
10.5	249.336
11.0	248.691
11.5	247.998
12.0	247.254
12.5	246.511
13.0	245.718
13.5	244.876
14.0	243.984
14.5	243.043
15.0	242.052
15.5	241.061
16.0	240.020
16.5	238.930
17.0	237.741
17.5	236.502
18.0	235.214
18.5	233.826
19.0	232.439
19.5	231.002
20.0	229.516
20.5	228.079
21.0	226.691
21.5	225.353
22.0	224.016
22.5	222.727
23.0	221.439
23.5	220.151
24.0	218.813
24.5	217.475
25.0	216.088
25.5	214.601
26.0	213.065
26.5	211.380

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4RCD-LS-9CS-WH-DIM-UNV-7W-2700K_.IES

CANDELA TABULATION - (Cont.)

27.0	209.696
27.5	207.912
28.0	206.178
28.5	204.394
29.0	202.511
29.5	200.578
30.0	198.646
30.5	196.614
31.0	194.583
31.5	192.502
32.0	190.470
32.5	188.340
33.0	186.258
33.5	184.128
34.0	181.997
34.5	179.866
35.0	177.736
35.5	175.556
36.0	173.326
36.5	171.096
37.0	168.767
37.5	166.438
38.0	164.110
38.5	161.781
39.0	159.452
39.5	157.073
40.0	154.745
40.5	152.416
41.0	150.087
41.5	147.758
42.0	145.380
42.5	143.051
43.0	140.722
43.5	138.344
44.0	135.965
44.5	133.587
45.0	131.208
45.5	128.830
46.0	126.452
46.5	124.073
47.0	121.744
47.5	119.415
48.0	117.037
48.5	114.708
49.0	112.330
49.5	110.001
50.0	107.623
50.5	105.343
51.0	103.014
51.5	100.686
52.0	98.357
52.5	96.028
53.0	93.749
53.5	91.469
54.0	89.240
54.5	86.960

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4RCD-LS-9CS-WH-DIM-UNV-7W-2700K_.IES

CANDELA TABULATION - (Cont.)

55.0	84.730
55.5	82.451
56.0	80.271
56.5	78.140
57.0	75.960
57.5	73.829
58.0	71.699
58.5	69.568
59.0	67.438
59.5	65.356
60.0	63.275
60.5	61.244
61.0	59.212
61.5	57.181
62.0	55.149
62.5	53.217
63.0	51.235
63.5	49.332
64.0	47.404
64.5	45.531
65.0	43.668
65.5	41.855
66.0	40.066
66.5	38.312
67.0	36.598
67.5	34.933
68.0	33.298
68.5	31.687
69.0	30.097
69.5	28.526
70.0	26.980
70.5	25.454
71.0	23.997
71.5	22.600
72.0	21.262
72.5	19.954
73.0	18.695
73.5	17.481
74.0	16.356
74.5	15.291
75.0	14.300
75.5	13.393
76.0	12.561
76.5	11.803
77.0	11.129
77.5	10.534
78.0	9.989
78.5	9.484
79.0	8.988
79.5	8.483
80.0	7.978
80.5	7.472
81.0	6.982
81.5	6.501
82.0	6.030
82.5	5.564

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4RCD-LS-9CS-WH-DIM-UNV-7W-2700K_.IES

CANDELA TABULATION - (Cont.)

83.0	5.119
83.5	4.673
84.0	4.232
84.5	3.805
85.0	3.394
85.5	2.993
86.0	2.596
86.5	2.210
87.0	1.818
87.5	1.427
88.0	1.041
88.5	0.659
89.0	0.342
89.5	0.139
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
PHOTOMETRIC FILENAME : 4RCD-LS-9CS-WH-DIM-UNV-7W-2700K_.IES

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
PHOTOMETRIC FILENAME : 4RCD-LS-9CS-WH-DIM-UNV-7W-2700K_.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
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4RCD-LS-9CS-WH-DIM-UNV-7W-2700K_.IES

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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4RCD-LS-9CS-WH-DIM-UNV-7W-2700K_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	92.25	N.A.	17.00
0-30	191.45	N.A.	35.30
0-40	302.29	N.A.	55.70
0-60	479.22	N.A.	88.30
0-80	539.11	N.A.	99.30
0-90	542.97	N.A.	100.00
10-90	518.81	N.A.	95.60
20-40	210.04	N.A.	38.70
20-50	311.12	N.A.	57.30
40-70	220.54	N.A.	40.60
60-80	59.89	N.A.	11.00
70-80	16.28	N.A.	3.00
80-90	3.86	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	542.97	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	24.16
10-20	68.09
20-30	99.20
30-40	110.83
40-50	101.09
50-60	75.84
60-70	43.61
70-80	16.28
80-90	3.86
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4RCD-LS-9CS-WH-DIM-UNV-7W-2700K_.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	59	59	59	59	58	58	58	58	55	55	55	53	53	53	51	51	51	50
1	55	53	51	49	53	52	50	49	50	48	47	48	47	46	46	45	44	43
2	50	47	44	41	49	46	43	41	44	42	40	43	41	39	41	40	38	37
3	46	42	38	35	45	41	38	35	40	37	34	38	36	34	37	35	33	32
4	43	38	34	31	42	37	33	30	36	33	30	35	32	30	34	31	29	28
5	40	34	30	27	39	33	30	27	32	29	26	31	28	26	31	28	26	25
6	37	31	27	24	36	30	26	24	29	26	23	29	26	23	28	25	23	22
7	34	28	24	21	33	28	24	21	27	24	21	26	23	21	26	23	21	20
8	32	26	22	19	31	25	22	19	25	21	19	24	21	19	24	21	19	18
9	30	24	20	17	29	23	20	17	23	20	17	22	19	17	22	19	17	16
10	28	22	18	16	28	22	18	16	21	18	16	21	18	16	20	18	16	15

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4RCD-LS-9CS-WH-DIM-UNV-7W-2700K_.IES

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

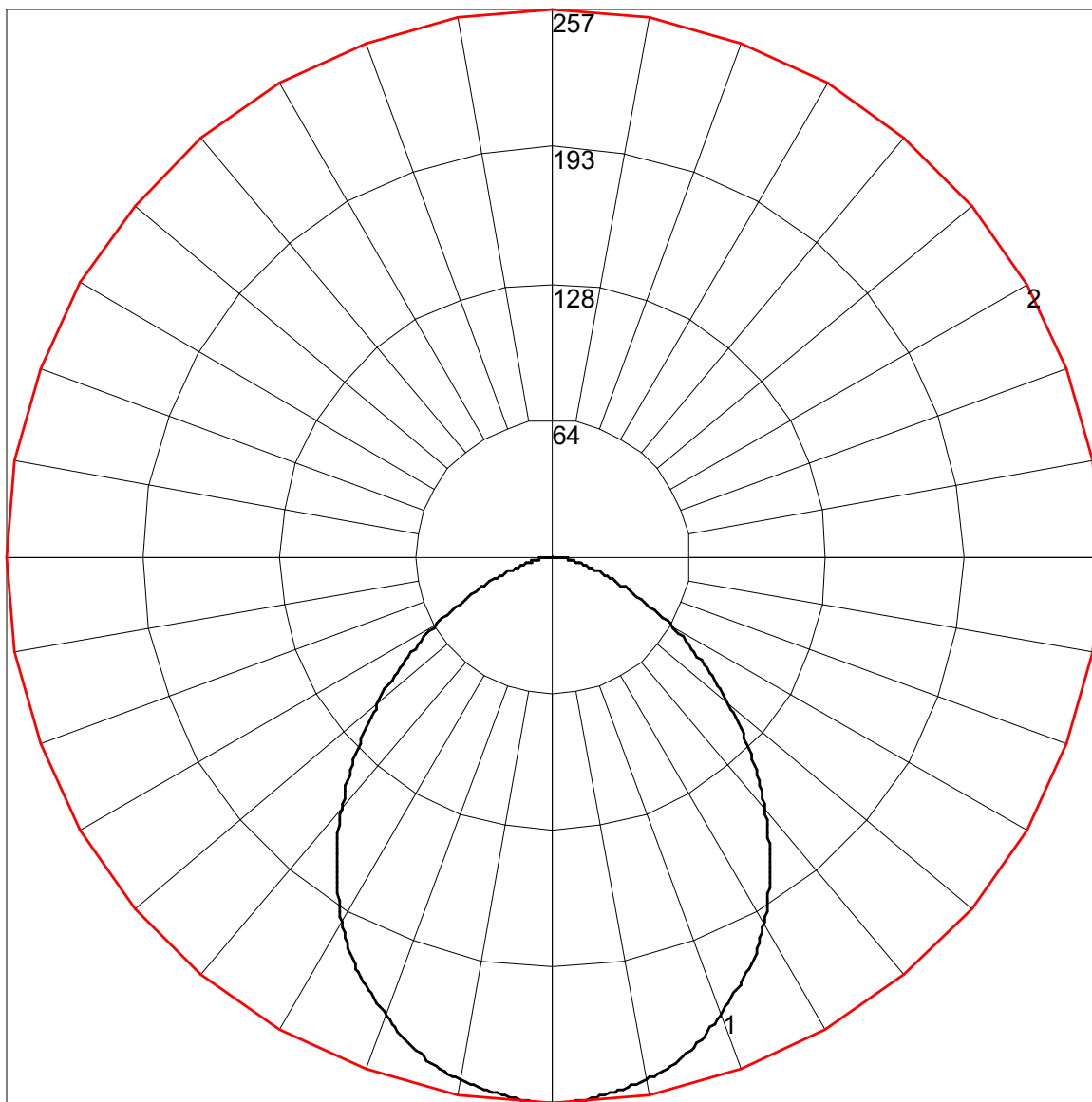
X=2H	Y=2H	23.1	24.5	23.4	24.9	25.2	23.1	24.5	23.4	24.9	25.2
	3H	24.0	25.3	24.4	25.7	26.0	24.0	25.3	24.4	25.7	26.0
	4H	24.2	25.4	24.6	25.8	26.2	24.2	25.4	24.6	25.8	26.2
	6H	24.3	25.5	24.7	25.8	26.2	24.3	25.5	24.7	25.8	26.2
	8H	24.3	25.4	24.8	25.8	26.2	24.3	25.4	24.8	25.8	26.2
	12H	24.3	25.4	24.8	25.8	26.2	24.3	25.4	24.8	25.8	26.2

UGR Viewed Endwise

4H	2H	23.4	24.7	23.8	25.0	25.4	23.4	24.7	23.8	25.0	25.4
	3H	24.5	25.5	24.9	25.9	26.3	24.5	25.5	24.9	25.9	26.3
	4H	24.8	25.7	25.2	26.1	26.5	24.8	25.7	25.2	26.1	26.5
	6H	24.9	25.7	25.4	26.2	26.6	24.9	25.7	25.4	26.2	26.6
	8H	25.0	25.7	25.4	26.2	26.6	25.0	25.7	25.4	26.2	26.6
	12H	25.0	25.7	25.5	26.2	26.6	25.0	25.7	25.5	26.2	26.6
8H	4H	24.8	25.6	25.3	26.0	26.5	24.8	25.6	25.3	26.0	26.5
	6H	25.0	25.7	25.5	26.2	26.6	25.0	25.7	25.5	26.2	26.6
	8H	25.1	25.7	25.6	26.2	26.7	25.1	25.7	25.6	26.2	26.7
	12H	25.2	25.7	25.7	26.2	26.8	25.2	25.7	25.7	26.2	26.8
12H	4H	24.8	25.5	25.3	25.9	26.4	24.8	25.5	25.3	25.9	26.4
	6H	25.0	25.6	25.6	26.1	26.6	25.0	25.6	25.6	26.1	26.6
	8H	25.2	25.6	25.7	26.1	26.7	25.2	25.6	25.7	26.1	26.7

Maximum UGR = 26.8

POLAR GRAPH



Maximum Candela = 256.966 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.)