



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV_12W_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_12W_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	1166
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
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	22491	22491	22491
55	18774	18774	18774
65	13727	13727	13727
75	6541	6541	6541
85	4051	4051	4051

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV_12W_3000K.IES

CANDELA TABULATION

	<u>0</u>
0.0	510.433
0.5	510.536
1.0	510.433
1.5	510.484
2.0	510.228
2.5	510.074
3.0	509.766
3.5	509.304
4.0	508.791
4.5	508.226
5.0	507.456
5.5	506.635
6.0	505.711
6.5	504.890
7.0	504.069
7.5	503.299
8.0	502.530
8.5	501.811
9.0	500.939
9.5	500.169
10.0	499.194
10.5	498.167
11.0	496.987
11.5	495.653
12.0	494.318
12.5	492.779
13.0	491.239
13.5	489.648
14.0	488.109
14.5	486.364
15.0	484.773
15.5	482.874
16.0	481.180
16.5	479.230
17.0	477.485
17.5	475.535
18.0	473.585
18.5	471.481
19.0	469.479
19.5	467.272
20.0	465.066
20.5	462.859
21.0	460.498
21.5	458.137
22.0	455.520
22.5	452.903
23.0	450.029
23.5	447.052
24.0	444.024
24.5	441.099
25.0	438.020
25.5	435.146
26.0	432.272
26.5	429.449

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV_12W_3000K.IES****CANDELA TABULATION - (Cont.)**

27.0	426.729
27.5	423.907
28.0	421.187
28.5	418.364
29.0	415.490
29.5	412.411
30.0	409.280
30.5	405.945
31.0	402.557
31.5	398.862
32.0	395.065
32.5	391.164
33.0	387.110
33.5	383.004
34.0	378.847
34.5	374.639
35.0	370.379
35.5	366.274
36.0	362.168
36.5	358.319
37.0	356.112
37.5	352.828
38.0	349.030
38.5	345.284
39.0	341.229
39.5	337.278
40.0	333.275
40.5	329.272
41.0	325.166
41.5	321.061
42.0	316.801
42.5	312.490
43.0	308.025
43.5	303.612
44.0	299.147
44.5	294.785
45.0	290.371
45.5	286.009
46.0	281.595
46.5	277.233
47.0	272.665
47.5	268.201
48.0	263.633
48.5	259.117
49.0	254.447
49.5	249.776
50.0	245.055
50.5	240.334
51.0	235.509
51.5	230.737
52.0	225.861
52.5	220.934
53.0	216.008
53.5	211.081
54.0	206.205
54.5	201.381

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV_12W_3000K.IES

CANDELA TABULATION - (Cont.)

55.0	196.609
55.5	191.887
56.0	187.166
56.5	182.495
57.0	177.928
57.5	173.258
58.0	168.639
58.5	164.020
59.0	159.453
59.5	154.782
60.0	150.164
60.5	145.545
61.0	140.977
61.5	136.358
62.0	131.791
62.5	127.275
63.0	122.810
63.5	118.448
64.0	114.188
64.5	110.082
65.0	105.925
65.5	101.820
66.0	97.663
66.5	93.454
67.0	89.195
67.5	84.884
68.0	80.522
68.5	76.160
69.0	71.797
69.5	67.486
70.0	63.278
70.5	59.172
71.0	55.272
71.5	51.577
72.0	48.031
72.5	44.695
73.0	41.549
73.5	38.598
74.0	35.863
74.5	33.307
75.0	30.910
75.5	28.668
76.0	26.574
76.5	24.634
77.0	22.827
77.5	21.165
78.0	19.615
78.5	18.193
79.0	16.895
79.5	15.730
80.0	14.703
80.5	13.774
81.0	12.958
81.5	12.204
82.0	11.393
82.5	10.531

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV_12W_3000K.IES

CANDELA TABULATION - (Cont.)

83.0	9.720
83.5	8.919
84.0	8.083
84.5	7.252
85.0	6.446
85.5	5.604
86.0	4.768
86.5	3.988
87.0	3.202
87.5	2.433
88.0	1.791
88.5	1.262
89.0	0.744
89.5	0.334
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 : 6RCD-LS-9CS-WH-DIM-UNV_12W_3000K.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 : 6RCD-LS-9CS-WH-DIM-UNV_12W_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
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 : 6RCD-LS-9CS-WH-DIM-UNV_12W_3000K.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 : 6RCD-LS-9CS-WH-DIM-UNV_12W_3000K.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	184.80	N.A.	15.80
0-30	386.77	N.A.	33.20
0-40	619.07	N.A.	53.10
0-60	1018.72	N.A.	87.40
0-80	1158.87	N.A.	99.40
0-90	1166.09	N.A.	100.00
10-90	1117.94	N.A.	95.90
20-40	434.26	N.A.	37.20
20-50	657.96	N.A.	56.40
40-70	504.45	N.A.	43.30
60-80	140.15	N.A.	12.00
70-80	35.36	N.A.	3.00
80-90	7.22	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	1166.09	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	48.16
10-20	136.65
20-30	201.97
30-40	232.29
40-50	223.70
50-60	175.96
60-70	104.79
70-80	35.36
80-90	7.22
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 : 6RCD-LS-9CS-WH-DIM-UNV_12W_3000K.IES

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

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV_12W_3000K.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	21.0	22.5	21.4	22.9	23.2	21.0	22.5	21.4	22.9	23.2
	3H	22.0	23.4	22.4	23.7	24.1	22.0	23.4	22.4	23.7	24.1
	4H	22.2	23.4	22.6	23.8	24.2	22.2	23.4	22.6	23.8	24.2
	6H	22.2	23.4	22.6	23.8	24.2	22.2	23.4	22.6	23.8	24.2
	8H	22.2	23.3	22.7	23.7	24.1	22.2	23.3	22.7	23.7	24.1
	12H	22.2	23.3	22.7	23.7	24.1	22.2	23.3	22.7	23.7	24.1

UGR Viewed Endwise

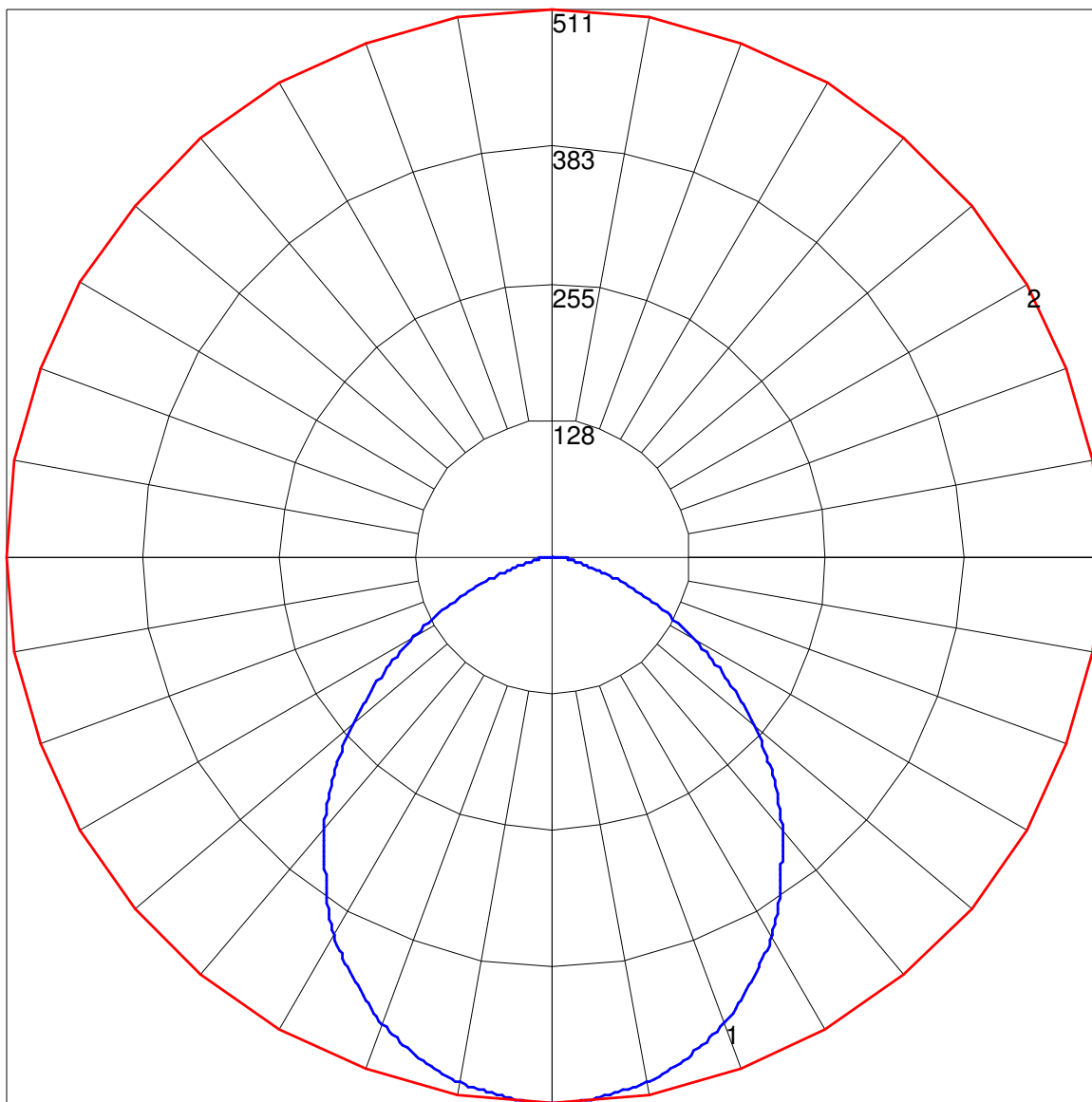
4H	2H	21.4	22.7	21.8	23.0	23.4	21.4	22.7	21.8	23.0	23.4
	3H	22.5	23.6	22.9	24.0	24.4	22.5	23.6	22.9	24.0	24.4
	4H	22.7	23.7	23.2	24.1	24.5	22.7	23.7	23.2	24.1	24.5
	6H	22.8	23.7	23.3	24.1	24.6	22.8	23.7	23.3	24.1	24.6
	8H	22.8	23.6	23.3	24.1	24.5	22.8	23.6	23.3	24.1	24.5
	12H	22.9	23.5	23.3	24.0	24.5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

8H	4H	22.8	23.5	23.2	24.0	24.4	22.8	23.5	23.2	24.0	24.4
	6H	22.9	23.5	23.4	24.0	24.5	22.9	23.5	23.4	24.0	24.5
	8H	23.0	23.5	23.5	24.0	24.5	23.0	23.5	23.5	24.0	24.5
	12H	23.0	23.5	23.5	24.0	24.5	23.0	23.5	23.5	24.0	24.5

12H	4H	22.7	23.4	23.2	23.9	24.4	22.7	23.4	23.2	23.9	24.4
	6H	22.9	23.5	23.4	23.9	24.5	22.9	23.5	23.4	23.9	24.5
	8H	23.0	23.5	23.5	23.9	24.5	23.0	23.5	23.5	23.9	24.5

Maximum UGR = 24.6

POLAR GRAPH



Maximum Candela = 510.536 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.)