



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV_12W_5000K.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_5000K
[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	1233
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
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	23783	23783	23783
55	19852	19852	19852
65	14516	14516	14516
75	6917	6917	6917
85	4283	4283	4283

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CANDELA TABULATION

	<u>0</u>
0.0	539.763
0.5	539.872
1.0	539.763
1.5	539.817
2.0	539.546
2.5	539.383
3.0	539.058
3.5	538.569
4.0	538.027
4.5	537.430
5.0	536.616
5.5	535.747
6.0	534.770
6.5	533.902
7.0	533.034
7.5	532.220
8.0	531.406
8.5	530.646
9.0	529.723
9.5	528.909
10.0	527.878
10.5	526.793
11.0	525.545
11.5	524.134
12.0	522.723
12.5	521.094
13.0	519.466
13.5	517.784
14.0	516.156
14.5	514.311
15.0	512.628
15.5	510.620
16.0	508.830
16.5	506.767
17.0	504.922
17.5	502.860
18.0	500.798
18.5	498.573
19.0	496.456
19.5	494.123
20.0	491.789
20.5	489.455
21.0	486.959
21.5	484.463
22.0	481.695
22.5	478.927
23.0	475.888
23.5	472.740
24.0	469.539
24.5	466.445
25.0	463.189
25.5	460.150
26.0	457.111
26.5	454.126

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CANDELA TABULATION - (Cont.)

27.0	451.250
27.5	448.265
28.0	445.389
28.5	442.404
29.0	439.365
29.5	436.109
30.0	432.798
30.5	429.271
31.0	425.689
31.5	421.782
32.0	417.766
32.5	413.641
33.0	409.354
33.5	405.012
34.0	400.616
34.5	396.166
35.0	391.662
35.5	387.320
36.0	382.979
36.5	378.909
37.0	376.575
37.5	373.102
38.0	369.086
38.5	365.124
39.0	360.837
39.5	356.658
40.0	352.425
40.5	348.192
41.0	343.851
41.5	339.509
42.0	335.005
42.5	330.446
43.0	325.725
43.5	321.058
44.0	316.336
44.5	311.723
45.0	307.056
45.5	302.443
46.0	297.776
46.5	293.163
47.0	288.333
47.5	283.612
48.0	278.782
48.5	274.006
49.0	269.068
49.5	264.129
50.0	259.136
50.5	254.143
51.0	249.042
51.5	243.995
52.0	238.839
52.5	233.630
53.0	228.420
53.5	223.210
54.0	218.054
54.5	212.953

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV_12W_5000K.IES****CANDELA TABULATION - (Cont.)**

55.0	207.906
55.5	202.913
56.0	197.920
56.5	192.982
57.0	188.152
57.5	183.213
58.0	178.329
58.5	173.445
59.0	168.615
59.5	163.676
60.0	158.792
60.5	153.908
61.0	149.078
61.5	144.194
62.0	139.364
62.5	134.588
63.0	129.867
63.5	125.254
64.0	120.749
64.5	116.408
65.0	112.012
65.5	107.670
66.0	103.275
66.5	98.825
67.0	94.320
67.5	89.762
68.0	85.149
68.5	80.536
69.0	75.923
69.5	71.364
70.0	66.914
70.5	62.573
71.0	58.448
71.5	54.541
72.0	50.791
72.5	47.263
73.0	43.936
73.5	40.816
74.0	37.923
74.5	35.221
75.0	32.686
75.5	30.315
76.0	28.101
76.5	26.049
77.0	24.139
77.5	22.381
78.0	20.742
78.5	19.238
79.0	17.865
79.5	16.634
80.0	15.548
80.5	14.566
81.0	13.703
81.5	12.905
82.0	12.048
82.5	11.136

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CANDELA TABULATION - (Cont.)

83.0	10.279
83.5	9.432
84.0	8.547
84.5	7.668
85.0	6.816
85.5	5.926
86.0	5.042
86.5	4.217
87.0	3.386
87.5	2.572
88.0	1.894
88.5	1.335
89.0	0.787
89.5	0.353
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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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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Zone	Lumens	%Lamp	%Fixt
0-20	195.42	N.A.	15.80
0-30	409.00	N.A.	33.20
0-40	654.64	N.A.	53.10
0-60	1077.26	N.A.	87.40
0-80	1225.46	N.A.	99.40
0-90	1233.1	N.A.	100.00
10-90	1182.18	N.A.	95.90
20-40	459.22	N.A.	37.20
20-50	695.77	N.A.	56.40
40-70	533.43	N.A.	43.30
60-80	148.21	N.A.	12.00
70-80	37.39	N.A.	3.00
80-90	7.64	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	1233.1	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	50.92
10-20	144.50
20-30	213.58
30-40	245.64
40-50	236.55
50-60	186.07
60-70	110.81
70-80	37.39
80-90	7.64
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

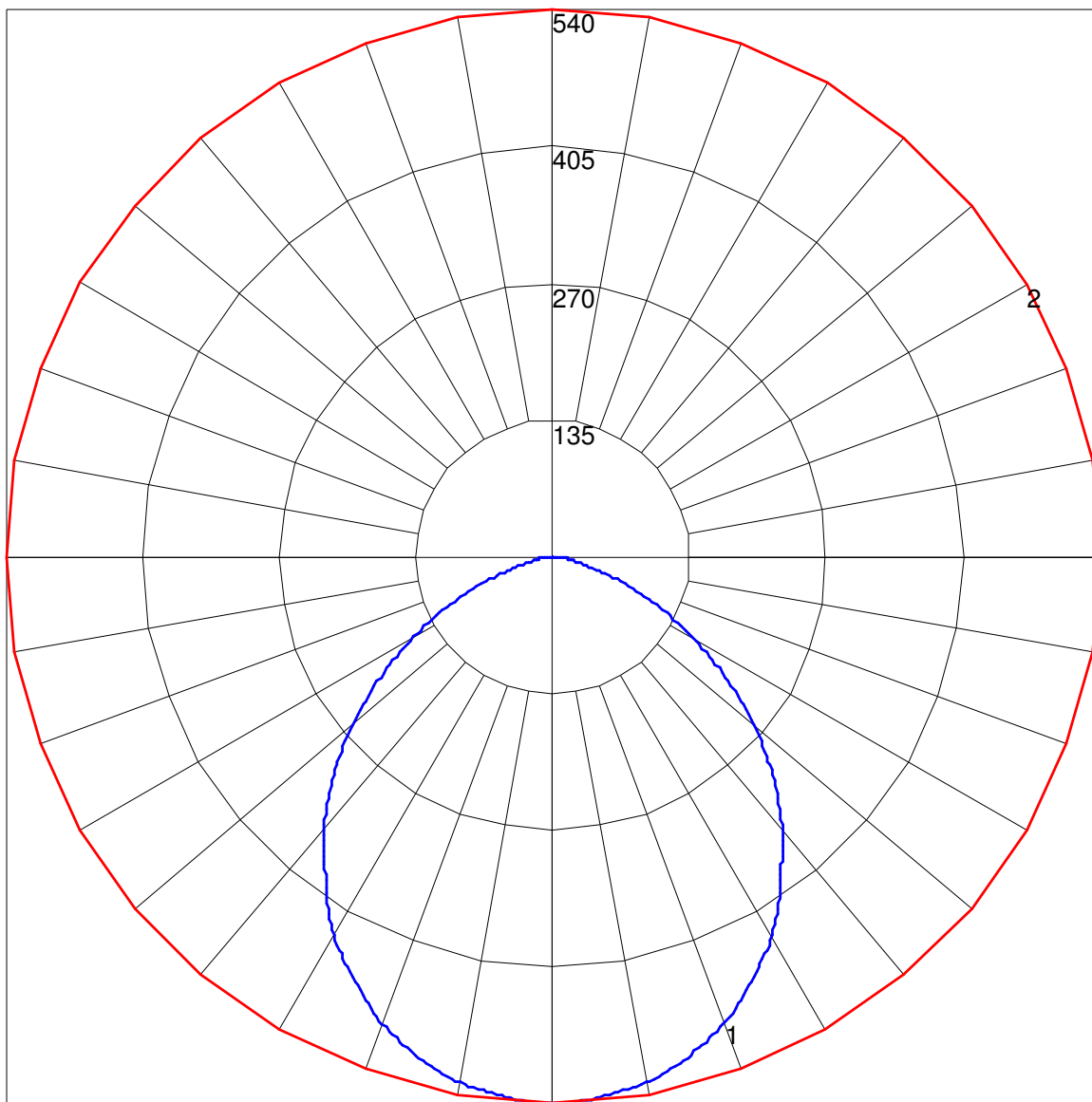
X=2H	Y=2H	21.2	22.7	21.6	23.1	23.4	21.2	22.7	21.6	23.1	23.4
	3H	22.2	23.6	22.6	23.9	24.3	22.2	23.6	22.6	23.9	24.3
	4H	22.4	23.6	22.8	24.0	24.4	22.4	23.6	22.8	24.0	24.4
	6H	22.4	23.6	22.8	24.0	24.4	22.4	23.6	22.8	24.0	24.4
	8H	22.4	23.6	22.9	23.9	24.3	22.4	23.6	22.9	23.9	24.3
	12H	22.4	23.5	22.9	23.9	24.3	22.4	23.5	22.9	23.9	24.3

UGR Viewed Endwise

4H	2H	21.6	22.9	22.0	23.2	23.6	21.6	22.9	22.0	23.2	23.6
	3H	22.7	23.8	23.1	24.2	24.6	22.7	23.8	23.1	24.2	24.6
	4H	22.9	23.9	23.4	24.3	24.7	22.9	23.9	23.4	24.3	24.7
	6H	23.0	23.9	23.5	24.3	24.8	23.0	23.9	23.5	24.3	24.8
	8H	23.0	23.8	23.5	24.3	24.7	23.0	23.8	23.5	24.3	24.7
	12H	23.1	23.7	23.5	24.2	24.7	23.1	23.7	23.5	24.2	24.7
8H	4H	23.0	23.7	23.4	24.2	24.6	23.0	23.7	23.4	24.2	24.6
	6H	23.1	23.7	23.6	24.2	24.7	23.1	23.7	23.6	24.2	24.7
	8H	23.2	23.7	23.7	24.2	24.7	23.2	23.7	23.7	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	22.9	23.6	23.4	24.1	24.6	22.9	23.6	23.4	24.1	24.6
	6H	23.1	23.7	23.6	24.1	24.7	23.1	23.7	23.6	24.1	24.7
	8H	23.2	23.7	23.7	24.1	24.7	23.2	23.7	23.7	24.1	24.7

Maximum UGR = 24.8

POLAR GRAPH



Maximum Candela = 539.872 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.)