



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV_12W_4000K.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_4000K
[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	1231
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
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	23744	23744	23744
55	19820	19820	19820
65	14493	14493	14493
75	6905	6905	6905
85	4276	4276	4276

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CANDELA TABULATION

	<u>0</u>
0.0	538.888
0.5	538.996
1.0	538.888
1.5	538.942
2.0	538.671
2.5	538.508
3.0	538.183
3.5	537.696
4.0	537.154
4.5	536.558
5.0	535.745
5.5	534.878
6.0	533.903
6.5	533.036
7.0	532.169
7.5	531.356
8.0	530.544
8.5	529.785
9.0	528.864
9.5	528.051
10.0	527.022
10.5	525.938
11.0	524.692
11.5	523.283
12.0	521.875
12.5	520.249
13.0	518.624
13.5	516.944
14.0	515.319
14.5	513.477
15.0	511.797
15.5	509.792
16.0	508.004
16.5	505.945
17.0	504.103
17.5	502.044
18.0	499.985
18.5	497.764
19.0	495.651
19.5	493.321
20.0	490.991
20.5	488.661
21.0	486.169
21.5	483.677
22.0	480.914
22.5	478.150
23.0	475.116
23.5	471.974
24.0	468.777
24.5	465.689
25.0	462.438
25.5	459.404
26.0	456.369
26.5	453.389

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CANDELA TABULATION - (Cont.)

27.0	450.518
27.5	447.538
28.0	444.666
28.5	441.686
29.0	438.652
29.5	435.401
30.0	432.096
30.5	428.574
31.0	424.998
31.5	421.097
32.0	417.088
32.5	412.970
33.0	408.690
33.5	404.355
34.0	399.967
34.5	395.524
35.0	391.027
35.5	386.692
36.0	382.358
36.5	378.294
37.0	375.964
37.5	372.497
38.0	368.487
38.5	364.532
39.0	360.252
39.5	356.080
40.0	351.854
40.5	347.627
41.0	343.293
41.5	338.958
42.0	334.461
42.5	329.910
43.0	325.196
43.5	320.537
44.0	315.823
44.5	311.218
45.0	306.558
45.5	301.953
46.0	297.293
46.5	292.688
47.0	287.865
47.5	283.152
48.0	278.330
48.5	273.562
49.0	268.631
49.5	263.701
50.0	258.716
50.5	253.731
51.0	248.638
51.5	243.599
52.0	238.452
52.5	233.251
53.0	228.049
53.5	222.848
54.0	217.701
54.5	212.608

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CANDELA TABULATION - (Cont.)

55.0	207.569
55.5	202.584
56.0	197.599
56.5	192.669
57.0	187.847
57.5	182.916
58.0	178.040
58.5	173.164
59.0	168.341
59.5	163.411
60.0	158.535
60.5	153.658
61.0	148.836
61.5	143.960
62.0	139.138
62.5	134.370
63.0	129.656
63.5	125.051
64.0	120.553
64.5	116.219
65.0	111.830
65.5	107.496
66.0	103.107
66.5	98.664
67.0	94.167
67.5	89.616
68.0	85.011
68.5	80.405
69.0	75.800
69.5	71.248
70.0	66.806
70.5	62.471
71.0	58.353
71.5	54.452
72.0	50.708
72.5	47.187
73.0	43.865
73.5	40.750
74.0	37.862
74.5	35.164
75.0	32.633
75.5	30.266
76.0	28.055
76.5	26.007
77.0	24.100
77.5	22.344
78.0	20.708
78.5	19.207
79.0	17.836
79.5	16.607
80.0	15.523
80.5	14.542
81.0	13.681
81.5	12.884
82.0	12.028
82.5	11.118

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CANDELA TABULATION - (Cont.)

83.0	10.262
83.5	9.417
84.0	8.534
84.5	7.656
85.0	6.805
85.5	5.917
86.0	5.033
86.5	4.210
87.0	3.381
87.5	2.568
88.0	1.891
88.5	1.333
89.0	0.786
89.5	0.352
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
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131.0	0.000
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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
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150.0	0.000
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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	195.10	N.A.	15.80
0-30	408.33	N.A.	33.20
0-40	653.58	N.A.	53.10
0-60	1075.51	N.A.	87.40
0-80	1223.47	N.A.	99.40
0-90	1231.1	N.A.	100.00
10-90	1180.26	N.A.	95.90
20-40	458.47	N.A.	37.20
20-50	694.64	N.A.	56.40
40-70	532.57	N.A.	43.30
60-80	147.97	N.A.	12.00
70-80	37.33	N.A.	3.00
80-90	7.62	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	1231.1	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	50.84
10-20	144.26
20-30	213.23
30-40	245.24
40-50	236.17
50-60	185.77
60-70	110.63
70-80	37.33
80-90	7.62
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

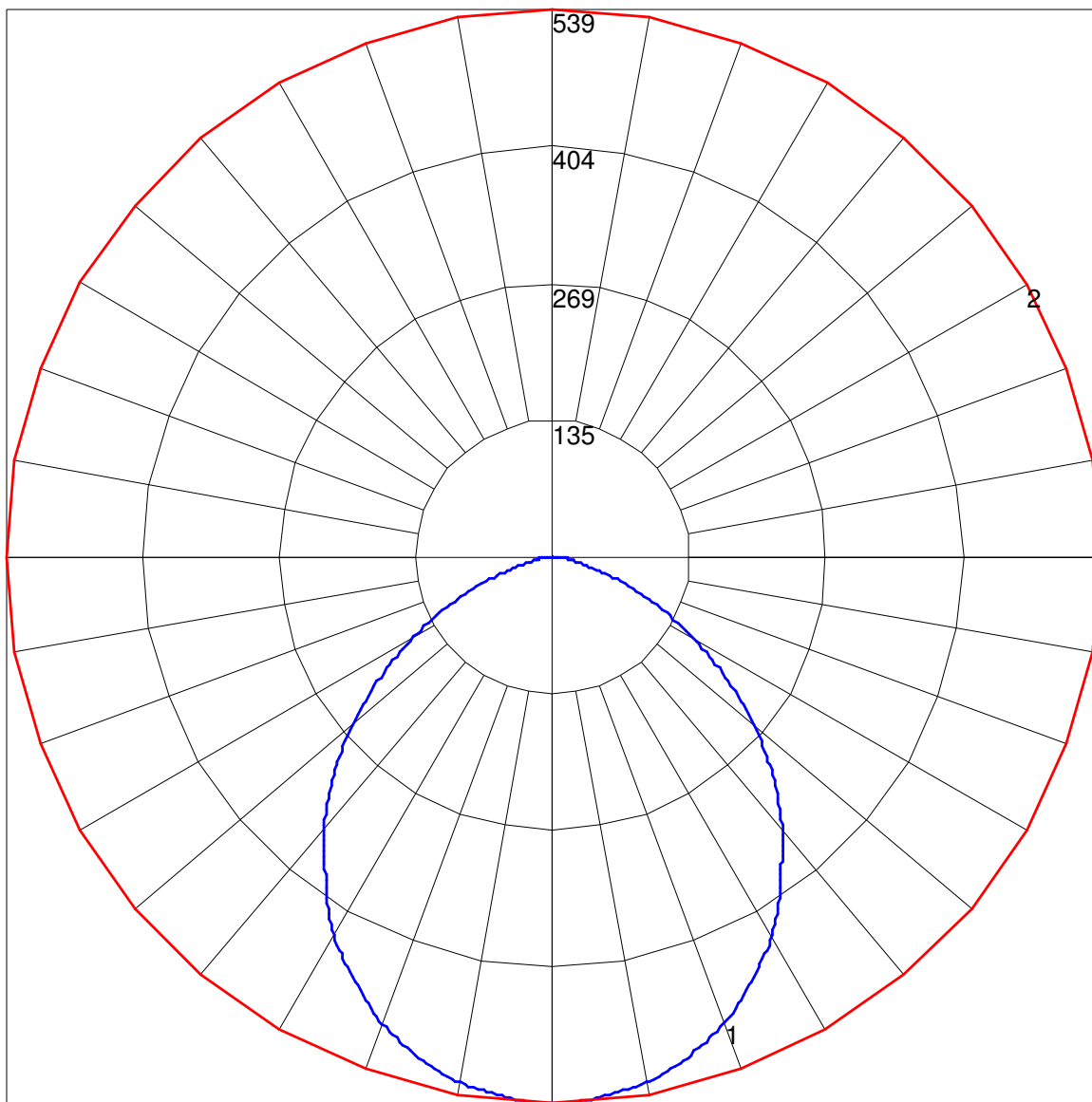
4H	2H	21.6	22.9	22.0	23.2	23.6	21.6	22.9	22.0	23.2	23.6
	3H	22.7	23.8	23.1	24.2	24.6	22.7	23.8	23.1	24.2	24.6
	4H	22.9	23.9	23.4	24.3	24.7	22.9	23.9	23.4	24.3	24.7
	6H	23.0	23.9	23.5	24.3	24.8	23.0	23.9	23.5	24.3	24.8
	8H	23.0	23.8	23.5	24.3	24.7	23.0	23.8	23.5	24.3	24.7
	12H	23.1	23.7	23.5	24.2	24.7	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 = 538.996 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.)