

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV_22W_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_22W_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	2187
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	21.5
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	42184	42184	42184
55	35212	35212	35212
65	25747	25747	25747
75	12269	12269	12269
85	7597	7597	7597

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CANDELA TABULATION

	<u>0</u>
0.0	957.390
0.5	957.583
1.0	957.390
1.5	957.486
2.0	957.005
2.5	956.716
3.0	956.139
3.5	955.272
4.0	954.310
4.5	953.251
5.0	951.807
5.5	950.267
6.0	948.534
6.5	946.994
7.0	945.454
7.5	944.010
8.0	942.566
8.5	941.219
9.0	939.582
9.5	938.138
10.0	936.309
10.5	934.384
11.0	932.170
11.5	929.668
12.0	927.165
12.5	924.277
13.0	921.389
13.5	918.405
14.0	915.517
14.5	912.245
15.0	909.261
15.5	905.699
16.0	902.523
16.5	898.865
17.0	895.592
17.5	891.934
18.0	888.276
18.5	884.330
19.0	880.576
19.5	876.436
20.0	872.297
20.5	868.158
21.0	863.730
21.5	859.302
22.0	854.393
22.5	849.484
23.0	844.093
23.5	838.510
24.0	832.831
24.5	827.344
25.0	821.569
25.5	816.178
26.0	810.788
26.5	805.494

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV_22W_5000K.IES****CANDELA TABULATION - (Cont.)**

27.0	800.392
27.5	795.098
28.0	789.996
28.5	784.702
29.0	779.311
29.5	773.536
30.0	767.664
30.5	761.407
31.0	755.054
31.5	748.123
32.0	741.000
32.5	733.685
33.0	726.080
33.5	718.379
34.0	710.582
34.5	702.689
35.0	694.700
35.5	686.999
36.0	679.298
36.5	672.079
37.0	667.940
37.5	661.779
38.0	654.656
38.5	647.629
39.0	640.025
39.5	632.613
40.0	625.105
40.5	617.596
41.0	609.896
41.5	602.195
42.0	594.206
42.5	586.120
43.0	577.745
43.5	569.467
44.0	561.093
44.5	552.911
45.0	544.632
45.5	536.450
46.0	528.172
46.5	519.990
47.0	511.423
47.5	503.048
48.0	494.481
48.5	486.011
49.0	477.251
49.5	468.492
50.0	459.636
50.5	450.780
51.0	441.732
51.5	432.780
52.0	423.635
52.5	414.394
53.0	405.153
53.5	395.912
54.0	386.768
54.5	377.720

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55.0	368.767
55.5	359.912
56.0	351.056
56.5	342.296
57.0	333.729
57.5	324.970
58.0	316.306
58.5	307.643
59.0	299.076
59.5	290.317
60.0	281.653
60.5	272.990
61.0	264.423
61.5	255.760
62.0	247.193
62.5	238.722
63.0	230.347
63.5	222.165
64.0	214.176
64.5	206.475
65.0	198.678
65.5	190.977
66.0	183.180
66.5	175.287
67.0	167.298
67.5	159.212
68.0	151.030
68.5	142.848
69.0	134.666
69.5	126.580
70.0	118.687
70.5	110.986
71.0	103.671
71.5	96.740
72.0	90.089
72.5	83.832
73.0	77.931
73.5	72.396
74.0	67.266
74.5	62.472
75.0	57.977
75.5	53.770
76.0	49.843
76.5	46.204
77.0	42.816
77.5	39.697
78.0	36.790
78.5	34.124
79.0	31.688
79.5	29.503
80.0	27.578
80.5	25.836
81.0	24.305
81.5	22.890
82.0	21.369
82.5	19.752

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CANDELA TABULATION - (Cont.)

83.0	18.231
83.5	16.730
84.0	15.161
84.5	13.601
85.0	12.090
85.5	10.511
86.0	8.942
86.5	7.479
87.0	6.007
87.5	4.563
88.0	3.359
88.5	2.368
89.0	1.396
89.5	0.626
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_22W_5000K.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
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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_22W_5000K.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
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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
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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	346.62	N.A.	15.80
0-30	725.45	N.A.	33.20
0-40	1161.15	N.A.	53.10
0-60	1910.75	N.A.	87.40
0-80	2173.63	N.A.	99.40
0-90	2187.17	N.A.	100.00
10-90	2096.85	N.A.	95.90
20-40	814.53	N.A.	37.20
20-50	1234.1	N.A.	56.40
40-70	946.16	N.A.	43.30
60-80	262.88	N.A.	12.00
70-80	66.32	N.A.	3.00
80-90	13.54	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	2187.17	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	90.32
10-20	256.30
20-30	378.83
30-40	435.70
40-50	419.57
50-60	330.03
60-70	196.55
70-80	66.32
80-90	13.54
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	23.2	24.7	23.6	25.1	25.4	23.2	24.7	23.6	25.1	25.4
	3H	24.2	25.6	24.6	25.9	26.3	24.2	25.6	24.6	25.9	26.3
	4H	24.4	25.6	24.8	26.0	26.4	24.4	25.6	24.8	26.0	26.4
	6H	24.4	25.6	24.8	26.0	26.4	24.4	25.6	24.8	26.0	26.4
	8H	24.4	25.5	24.9	25.9	26.3	24.4	25.5	24.9	25.9	26.3
	12H	24.4	25.5	24.9	25.9	26.3	24.4	25.5	24.9	25.9	26.3

UGR Viewed Endwise

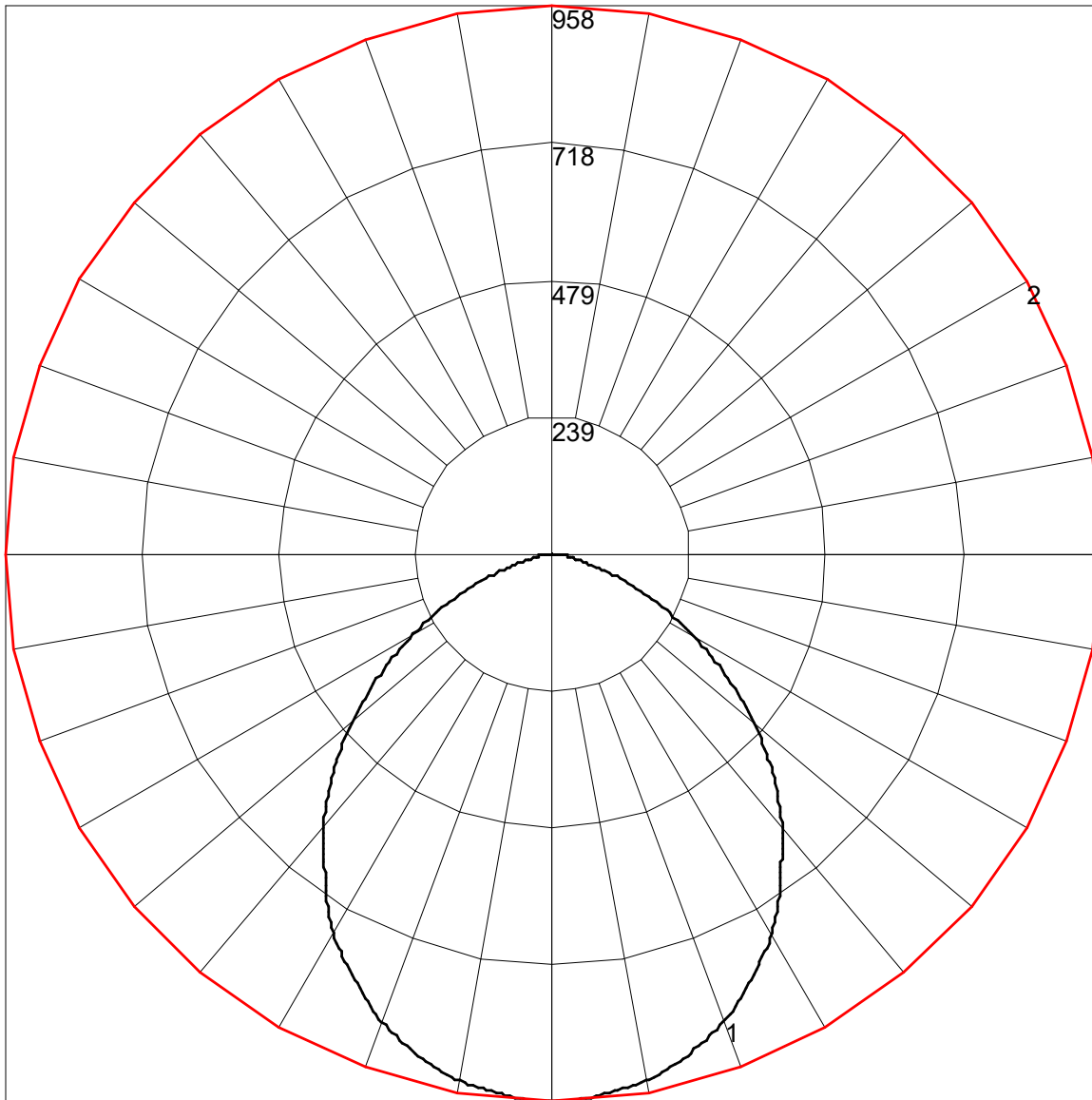
4H	2H	23.6	24.9	24.0	25.2	25.6	23.6	24.9	24.0	25.2	25.6
	3H	24.7	25.8	25.1	26.2	26.6	24.7	25.8	25.1	26.2	26.6
	4H	24.9	25.9	25.4	26.3	26.7	24.9	25.9	25.4	26.3	26.7
	6H	25.0	25.9	25.5	26.3	26.8	25.0	25.9	25.5	26.3	26.8
	8H	25.0	25.8	25.5	26.3	26.7	25.0	25.8	25.5	26.3	26.7
	12H	25.1	25.7	25.5	26.2	26.7	25.1	25.7	25.5	26.2	26.7

8H	4H	25.0	25.7	25.4	26.2	26.6	25.0	25.7	25.4	26.2	26.6
	6H	25.1	25.7	25.6	26.2	26.7	25.1	25.7	25.6	26.2	26.7
	8H	25.2	25.7	25.7	26.2	26.7	25.2	25.7	25.7	26.2	26.7
	12H	25.2	25.7	25.7	26.2	26.7	25.2	25.7	25.7	26.2	26.7

12H	4H	24.9	25.6	25.4	26.1	26.6	24.9	25.6	25.4	26.1	26.6
	6H	25.1	25.7	25.6	26.1	26.7	25.1	25.7	25.6	26.1	26.7
	8H	25.2	25.7	25.7	26.1	26.7	25.2	25.7	25.7	26.1	26.7

Maximum UGR = 26.8

POLAR GRAPH



Maximum Candela = 957.583 Located At Horizontal Angle = 0, Vertical Angle = .5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)