



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV_22W_3500K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM 14879730.01
[TESTLAB] UL Verification Services Inc.
[ISSUEDATE] 2023-07-21
[TESTDATE] 7/10/2023
[MANUFAC] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] 6RCD-LS-9CS-WH-DIM-UNV_22W_3500K
[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	2193
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	42300	42300	42300
55	35309	35309	35309
65	25818	25818	25818
75	12302	12302	12302
85	7618	7618	7618

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CANDELA TABULATION

	<u>0</u>
0.0	960.017
0.5	960.210
1.0	960.017
1.5	960.113
2.0	959.631
2.5	959.341
3.0	958.762
3.5	957.893
4.0	956.928
4.5	955.866
5.0	954.418
5.5	952.874
6.0	951.137
6.5	949.592
7.0	948.048
7.5	946.600
8.0	945.152
8.5	943.801
9.0	942.160
9.5	940.712
10.0	938.878
10.5	936.948
11.0	934.728
11.5	932.218
12.0	929.708
12.5	926.813
13.0	923.917
13.5	920.925
14.0	918.029
14.5	914.747
15.0	911.755
15.5	908.184
16.0	904.999
16.5	901.331
17.0	898.049
17.5	894.381
18.0	890.713
18.5	886.756
19.0	882.991
19.5	878.841
20.0	874.690
20.5	870.540
21.0	866.100
21.5	861.660
22.0	856.737
22.5	851.815
23.0	846.409
23.5	840.811
24.0	835.116
24.5	829.614
25.0	823.823
25.5	818.418
26.0	813.012
26.5	807.704

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CANDELA TABULATION - (Cont.)

27.0	802.588
27.5	797.279
28.0	792.163
28.5	786.855
29.0	781.449
29.5	775.658
30.0	769.770
30.5	763.496
31.0	757.126
31.5	750.176
32.0	743.033
32.5	735.697
33.0	728.072
33.5	720.350
34.0	712.532
34.5	704.617
35.0	696.606
35.5	688.884
36.0	681.162
36.5	673.923
37.0	669.772
37.5	663.595
38.0	656.452
38.5	649.406
39.0	641.781
39.5	634.348
40.0	626.820
40.5	619.291
41.0	611.569
41.5	603.847
42.0	595.836
42.5	587.728
43.0	579.330
43.5	571.029
44.0	562.632
44.5	554.427
45.0	546.127
45.5	537.922
46.0	529.621
46.5	521.417
47.0	512.826
47.5	504.429
48.0	495.838
48.5	487.344
49.0	478.560
49.5	469.777
50.0	460.897
50.5	452.017
51.0	442.944
51.5	433.967
52.0	424.797
52.5	415.531
53.0	406.265
53.5	396.999
54.0	387.829
54.5	378.756

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CANDELA TABULATION - (Cont.)

55.0	369.779
55.5	360.899
56.0	352.019
56.5	343.235
57.0	334.645
57.5	325.861
58.0	317.174
58.5	308.487
59.0	299.897
59.5	291.113
60.0	282.426
60.5	273.739
61.0	265.148
61.5	256.461
62.0	247.871
62.5	239.377
63.0	230.979
63.5	222.775
64.0	214.763
64.5	207.042
65.0	199.223
65.5	191.501
66.0	183.683
66.5	175.768
67.0	167.757
67.5	159.649
68.0	151.444
68.5	143.240
69.0	135.036
69.5	126.928
70.0	119.013
70.5	111.291
71.0	103.955
71.5	97.006
72.0	90.336
72.5	84.062
73.0	78.145
73.5	72.595
74.0	67.450
74.5	62.643
75.0	58.136
75.5	53.918
76.0	49.980
76.5	46.331
77.0	42.933
77.5	39.806
78.0	36.891
78.5	34.217
79.0	31.775
79.5	29.584
80.0	27.654
80.5	25.907
81.0	24.372
81.5	22.953
82.0	21.428
82.5	19.806

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CANDELA TABULATION - (Cont.)

83.0	18.281
83.5	16.776
84.0	15.202
84.5	13.639
85.0	12.123
85.5	10.540
86.0	8.967
86.5	7.500
87.0	6.023
87.5	4.575
88.0	3.369
88.5	2.374
89.0	1.400
89.5	0.627
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
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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_22W_3500K.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
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145.5	0.000
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152.0	0.000
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153.0	0.000
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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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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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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	347.57	N.A.	15.80
0-30	727.44	N.A.	33.20
0-40	1164.33	N.A.	53.10
0-60	1915.99	N.A.	87.40
0-80	2179.59	N.A.	99.40
0-90	2193.17	N.A.	100.00
10-90	2102.6	N.A.	95.90
20-40	816.76	N.A.	37.20
20-50	1237.48	N.A.	56.40
40-70	948.76	N.A.	43.30
60-80	263.60	N.A.	12.00
70-80	66.50	N.A.	3.00
80-90	13.58	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	2193.17	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	90.57
10-20	257.00
20-30	379.86
30-40	436.90
40-50	420.72
50-60	330.94
60-70	197.09
70-80	66.50
80-90	13.58
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

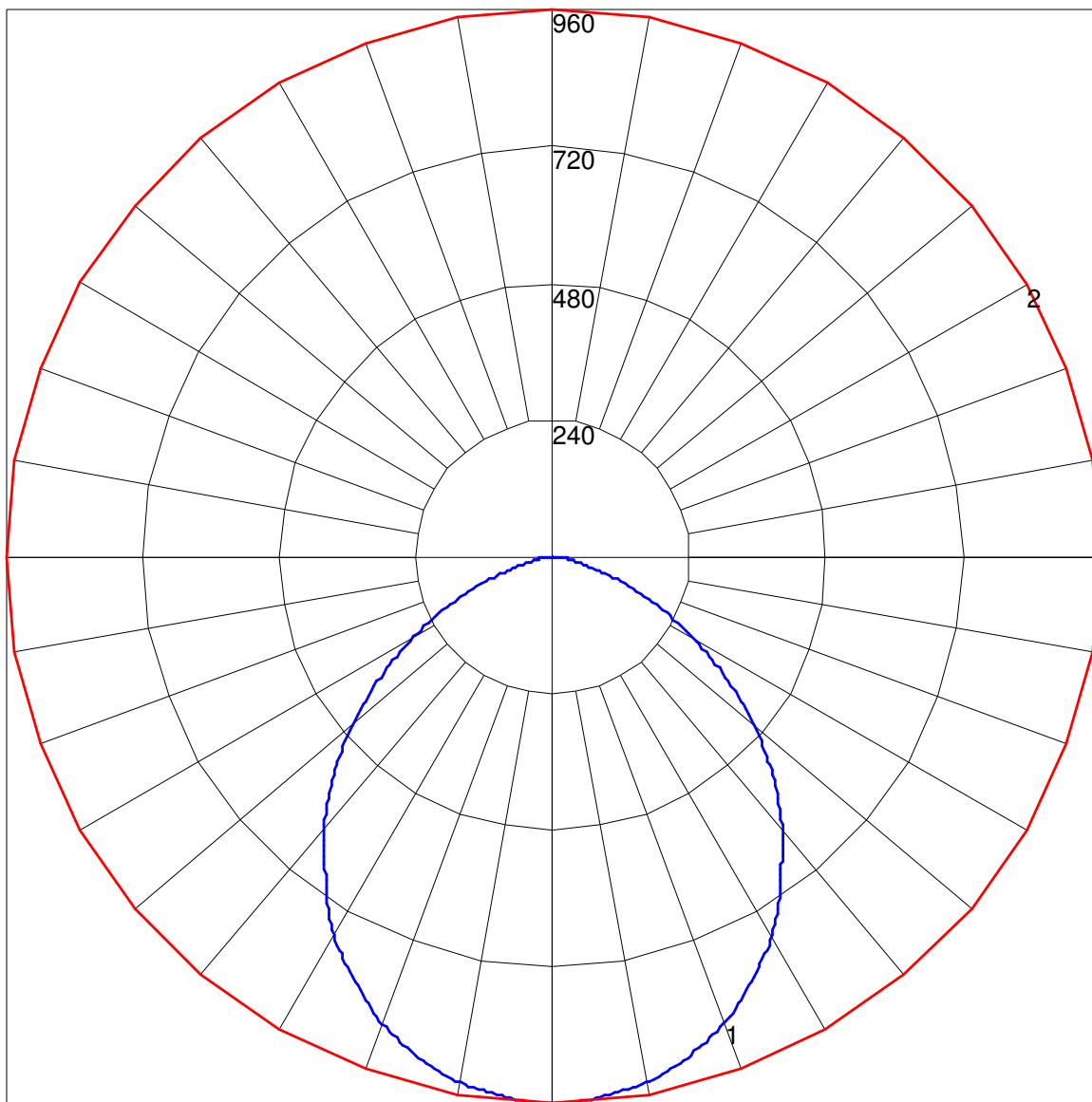
4H	2H	23.6	24.9	24.0	25.2	25.6	23.6	24.9	24.0	25.2	25.6
	3H	24.7	25.8	25.1	26.2	26.6	24.7	25.8	25.1	26.2	26.6
	4H	24.9	25.9	25.4	26.3	26.7	24.9	25.9	25.4	26.3	26.7
	6H	25.0	25.9	25.5	26.3	26.8	25.0	25.9	25.5	26.3	26.8
	8H	25.0	25.8	25.5	26.3	26.7	25.0	25.8	25.5	26.3	26.7
	12H	25.1	25.7	25.5	26.2	26.7	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 = 960.21 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.)