



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV_12W_2700K.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_2700K
[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	1106
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
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	21333	21333	21333
55	17807	17807	17807
65	13021	13021	13021
75	6204	6204	6204
85	3842	3842	3842

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CANDELA TABULATION

	<u>0</u>
0.0	484.167
0.5	484.264
1.0	484.167
1.5	484.216
2.0	483.972
2.5	483.826
3.0	483.534
3.5	483.096
4.0	482.609
4.5	482.074
5.0	481.344
5.5	480.565
6.0	479.689
6.5	478.910
7.0	478.131
7.5	477.401
8.0	476.670
8.5	475.989
9.0	475.161
9.5	474.431
10.0	473.506
10.5	472.533
11.0	471.413
11.5	470.147
12.0	468.882
12.5	467.421
13.0	465.961
13.5	464.452
14.0	462.991
14.5	461.336
15.0	459.827
15.5	458.026
16.0	456.420
16.5	454.570
17.0	452.915
17.5	451.065
18.0	449.215
18.5	447.219
19.0	445.321
19.5	443.228
20.0	441.134
20.5	439.041
21.0	436.802
21.5	434.563
22.0	432.080
22.5	429.597
23.0	426.871
23.5	424.048
24.0	421.176
24.5	418.401
25.0	415.480
25.5	412.754
26.0	410.028
26.5	407.351

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CANDELA TABULATION - (Cont.)

27.0	404.771
27.5	402.093
28.0	399.513
28.5	396.836
29.0	394.110
29.5	391.189
30.0	388.220
30.5	385.055
31.0	381.843
31.5	378.338
32.0	374.735
32.5	371.036
33.0	367.190
33.5	363.296
34.0	359.353
34.5	355.361
35.0	351.321
35.5	347.426
36.0	343.532
36.5	339.881
37.0	337.788
37.5	334.672
38.0	331.070
38.5	327.516
39.0	323.671
39.5	319.922
40.0	316.125
40.5	312.328
41.0	308.434
41.5	304.539
42.0	300.499
42.5	296.410
43.0	292.175
43.5	287.988
44.0	283.753
44.5	279.616
45.0	275.429
45.5	271.291
46.0	267.105
46.5	262.967
47.0	258.635
47.5	254.399
48.0	250.067
48.5	245.783
49.0	241.353
49.5	236.924
50.0	232.445
50.5	227.966
51.0	223.391
51.5	218.863
52.0	214.239
52.5	209.566
53.0	204.892
53.5	200.219
54.0	195.595
54.5	191.019

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CANDELA TABULATION - (Cont.)

55.0	186.491
55.5	182.013
56.0	177.534
56.5	173.105
57.0	168.772
57.5	164.342
58.0	159.961
58.5	155.580
59.0	151.247
59.5	146.818
60.0	142.436
60.5	138.055
61.0	133.723
61.5	129.342
62.0	125.009
62.5	120.725
63.0	116.490
63.5	112.352
64.0	108.312
64.5	104.418
65.0	100.475
65.5	96.580
66.0	92.637
66.5	88.646
67.0	84.605
67.5	80.516
68.0	76.378
68.5	72.240
69.0	68.103
69.5	64.014
70.0	60.022
70.5	56.128
71.0	52.428
71.5	48.923
72.0	45.559
72.5	42.395
73.0	39.411
73.5	36.612
74.0	34.017
74.5	31.593
75.0	29.320
75.5	27.192
76.0	25.206
76.5	23.366
77.0	21.653
77.5	20.075
78.0	18.605
78.5	17.257
79.0	16.025
79.5	14.920
80.0	13.947
80.5	13.066
81.0	12.292
81.5	11.576
82.0	10.807
82.5	9.989

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CANDELA TABULATION - (Cont.)

83.0	9.220
83.5	8.461
84.0	7.667
84.5	6.878
85.0	6.114
85.5	5.316
86.0	4.522
86.5	3.782
87.0	3.038
87.5	2.307
88.0	1.699
88.5	1.198
89.0	0.706
89.5	0.316
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
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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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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
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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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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	175.29	N.A.	15.80
0-30	366.87	N.A.	33.20
0-40	587.21	N.A.	53.10
0-60	966.30	N.A.	87.40
0-80	1099.24	N.A.	99.40
0-90	1106.09	N.A.	100.00
10-90	1060.41	N.A.	95.90
20-40	411.92	N.A.	37.20
20-50	624.10	N.A.	56.40
40-70	478.49	N.A.	43.30
60-80	132.94	N.A.	12.00
70-80	33.54	N.A.	3.00
80-90	6.85	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	1106.09	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	45.68
10-20	129.61
20-30	191.58
30-40	220.34
40-50	212.18
50-60	166.90
60-70	99.40
70-80	33.54
80-90	6.85
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

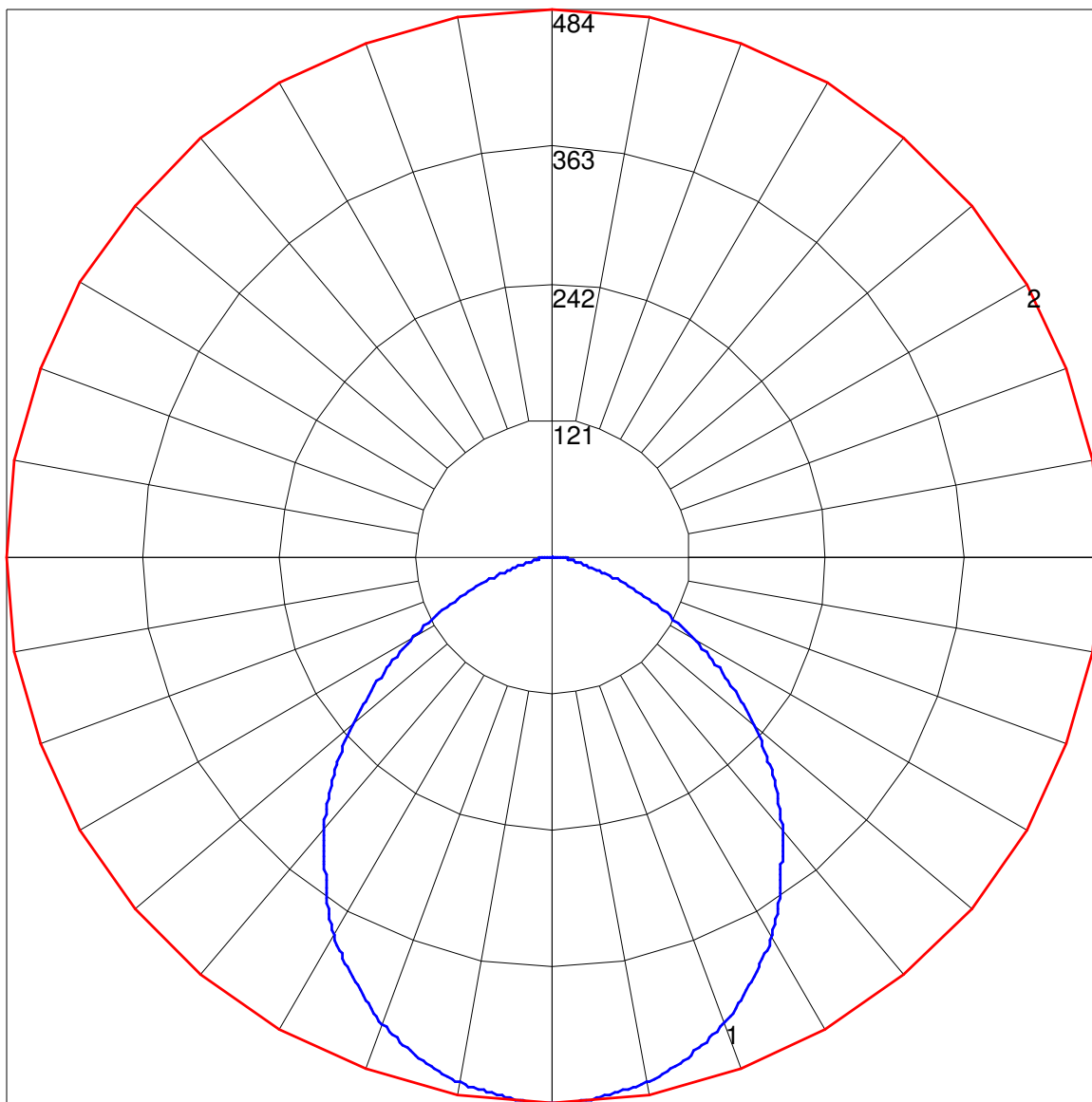
X=2H	Y=2H	20.9	22.4	21.3	22.8	23.1	20.9	22.4	21.3	22.8	23.1
	3H	21.9	23.3	22.3	23.6	24.0	21.9	23.3	22.3	23.6	24.0
	4H	22.1	23.3	22.5	23.7	24.1	22.1	23.3	22.5	23.7	24.1
	6H	22.1	23.3	22.5	23.7	24.1	22.1	23.3	22.5	23.7	24.1
	8H	22.1	23.2	22.6	23.6	24.0	22.1	23.2	22.6	23.6	24.0
	12H	22.1	23.2	22.6	23.6	24.0	22.1	23.2	22.6	23.6	24.0

UGR Viewed Endwise

4H	2H	21.3	22.6	21.7	22.9	23.3	21.3	22.6	21.7	22.9	23.3
	3H	22.4	23.5	22.8	23.9	24.3	22.4	23.5	22.8	23.9	24.3
	4H	22.6	23.6	23.1	24.0	24.4	22.6	23.6	23.1	24.0	24.4
	6H	22.7	23.6	23.2	24.0	24.5	22.7	23.6	23.2	24.0	24.5
	8H	22.7	23.5	23.2	24.0	24.4	22.7	23.5	23.2	24.0	24.4
	12H	22.8	23.4	23.2	23.9	24.4	22.8	23.4	23.2	23.9	24.4
8H	4H	22.7	23.4	23.1	23.9	24.3	22.7	23.4	23.1	23.9	24.3
	6H	22.8	23.4	23.3	23.9	24.4	22.8	23.4	23.3	23.9	24.4
	8H	22.9	23.4	23.4	23.9	24.4	22.9	23.4	23.4	23.9	24.4
	12H	22.9	23.4	23.4	23.9	24.4	22.9	23.4	23.4	23.9	24.4
12H	4H	22.6	23.3	23.1	23.8	24.3	22.6	23.3	23.1	23.8	24.3
	6H	22.8	23.4	23.3	23.8	24.4	22.8	23.4	23.3	23.8	24.4
	8H	22.9	23.4	23.4	23.8	24.4	22.9	23.4	23.4	23.8	24.4

Maximum UGR = 24.5

POLAR GRAPH



Maximum Candela = 484.264 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.)