

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : W6CR-XX-L70-840-RDB-XXX-DIM-UNV-S-XXX\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] W6CR\_Angela-S\_(V22)\_measured  
[TESTLAB] LEDIL Inc  
[TESTDATE] 21 Aug 2024  
[ISSUEDATE] 2025-07-15  
[MANUFAC] H.E. WILLIAMS, INC.  
[LUMCAT] W6CR-xx-L70-840-RDB-xxx-DIM-UNV-S-xxx  
[LUMINAIRE] 6 INCH ROUND WET LOCATION LED  
[MORE] CYLINDER WITH SPOT DISTRIBUTION  
[LAMPCAT] BL VERO 22 COB  
[LAMP] LED  
[OTHER] Absolute Photometry

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7012
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	63.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.34
Spacing Criterion (90-270)	0.34
Spacing Criterion (Diagonal)	0.32
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.15 m (Diameter)
Luminous Width (90-270)	0.15 m (Diameter)
Luminous Height	0.00 m

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7568	7779	7879
55	8589	8350	8183
65	6342	6232	6053
75	4484	4488	4405
85	1230	1259	1230

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	37900.10237900.10237900.10237900.10237900.10237900.102				
1	38479.58738498.27138423.35038388.38638323.974				
2	39800.07239846.89539601.55439466.09339215.708				
3	40982.48941067.00340652.60740389.88339936.127				
4	41051.38641177.87140649.49440328.19839678.649				
5	39377.43339499.88939009.31438676.29837962.448				
6	35950.12036086.90935737.49735479.46734802.121				
7	31320.24331426.39631281.22631149.68130607.337				
8	26145.95826271.94026278.23726358.78925937.043				
9	21195.81721325.52921493.25121690.71821420.438				
10	16929.63917063.81717315.73317577.70017418.977				
11	13443.73213583.49713870.79014141.25314050.145				
12	10734.66310870.62711125.42711385.83811308.240				
13	8692.888 8815.411 9039.347 9263.488 9179.593				
14	7158.495 7337.414 7488.605 7664.525 7550.702				
15	6069.797 6066.225 6276.193 6417.630 6390.314				
16	5104.539 5175.612 5313.179 5424.529 5361.538				
17	4445.280 4502.180 4615.590 4699.097 4644.761				
18	3949.943 3995.921 4083.961 4152.836 4111.415				
19	3586.723 3621.046 3689.555 3745.173 3710.850				
20	3317.474 3346.966 3397.523 3450.851 3408.353				
21	3141.440 3145.241 3194.859 3235.593 3186.776				
22	2994.920 3006.689 3024.640 3066.176 3035.173				
23	2892.775 2901.980 2913.474 2942.439 2911.345				
24	2810.734 2814.489 2821.450 2836.127 2810.208				
25	2741.332 2743.691 2742.317 2747.446 2716.420				
26	2675.205 2672.938 2658.215 2661.329 2624.396				
27	2600.056 2589.958 2566.466 2562.779 2527.151				
28	2504.689 2491.317 2452.895 2441.080 2413.741				
29	2380.792 2363.871 2313.199 2291.584 2268.961				
30	2219.160 2199.308 2142.683 2116.580 2088.370				
31	2015.969 1996.483 1941.644 1917.808 1883.714				
32	1781.776 1765.656 1719.014 1705.413 1674.891				
33	1519.831 1511.473 1482.119 1480.447 1464.305				
34	1249.070 1248.589 1241.010 1257.061 1252.917				
35	986.163 994.292 1006.450 1039.903 1043.338				
36	751.008 767.174 795.658 839.209 844.544				
37	555.534 568.082 602.863 651.062 661.549				
38	384.239 404.252 449.771 497.329 507.358				
39	278.385 293.681 326.057 368.211 380.141				
40	193.963 209.785 243.810 270.280 276.256				
41	149.153 160.029 180.431 205.549 206.442				
42	123.806 130.331 142.215 155.221 159.274				
43	109.426 113.136 119.707 127.446 128.500				
44	101.618 103.473 106.953 111.189 110.548				
45	97.153 98.344 99.855 102.191 101.137				
46	94.543 95.482 95.985 97.520 96.375				
47	92.986 93.764 93.673 94.863 93.764				
48	92.070 92.597 92.207 93.100 92.093				
49	91.475 91.818 91.223 91.841 90.834				
50	91.063 91.200 90.399 90.856 89.757				
51	90.811 90.834 89.757 90.009 88.819				
52	90.719 90.582 89.208 89.277 88.040				
53	90.696 90.353 88.750 88.658 87.330				

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**CANDELA TABULATION - (Cont.)**

54	90.559	90.009	88.200	87.880	86.483
55	89.437	88.841	86.941	86.483	85.201
56	87.330	86.712	84.720	84.125	83.163
57	84.399	83.987	81.812	81.217	80.369
58	81.034	80.690	78.469	77.805	77.324
59	76.981	76.752	74.531	73.935	73.569
60	72.424	72.264	70.226	69.676	69.310
61	67.639	67.433	65.669	65.189	64.639
62	62.693	62.441	61.021	60.609	59.808
63	57.839	57.449	56.419	56.053	55.068
64	53.122	52.687	52.000	51.656	50.534
65	48.657	48.290	47.810	47.512	46.436
66	44.444	44.215	43.894	43.665	42.612
67	40.711	40.551	40.368	40.139	39.269
68	37.414	37.277	37.208	36.979	36.224
69	34.392	34.369	34.300	34.163	33.476
70	31.667	31.736	31.713	31.598	30.980
71	29.263	29.309	29.309	29.240	28.690
72	27.065	27.110	27.087	27.042	26.492
73	24.981	25.027	25.004	24.958	24.500
74	22.989	23.035	23.012	23.012	22.600
75	21.066	21.088	21.088	21.111	20.699
76	19.142	19.211	19.211	19.234	18.867
77	17.265	17.310	17.356	17.379	17.104
78	15.341	15.341	15.433	15.479	15.318
79	13.326	13.326	13.487	13.555	13.395
80	11.174	11.197	11.334	11.494	11.357
81	8.632	8.815	8.838	9.022	8.884
82	4.946	5.152	5.335	5.381	5.381
83	2.336	2.381	2.587	2.725	2.816
84	2.129	2.129	2.152	2.152	2.084
85	1.946	1.969	1.992	1.992	1.946
86	1.763	1.763	1.763	1.763	1.740
87	1.488	1.511	1.511	1.488	1.465
88	1.168	1.168	1.191	1.168	1.145
89	0.779	0.756	0.779	0.779	0.756
90	0.389	0.435	0.458	0.504	0.458
91	0.389	0.389	0.412	0.412	0.389
92	0.412	0.389	0.412	0.412	0.389
93	0.412	0.389	0.412	0.412	0.412
94	0.435	0.412	0.435	0.435	0.412
95	0.435	0.435	0.435	0.435	0.435
96	0.435	0.435	0.435	0.435	0.435
97	0.458	0.458	0.435	0.458	0.435
98	0.458	0.481	0.458	0.458	0.458
99	0.458	0.481	0.481	0.481	0.458
100	0.504	0.481	0.481	0.504	0.458
101	0.000	0.000	0.000	0.000	0.000
102	0.000	0.000	0.000	0.000	0.000
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	0.000	0.000	0.000	0.000	0.000
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000

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CANDELA TABULATION - (Cont.)

110	0.000	0.000	0.000	0.000	0.000
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	0.000	0.000	0.000	0.000	0.000
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	0.000	0.000	0.000	0.000	0.000
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	0.000	0.000	0.000	0.000	0.000
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	0.000	0.000	0.000	0.000	0.000
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	0.000	0.000	0.000	0.000	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	0.000	0.000	0.000	0.000	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	0.000	0.000	0.000	0.000	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	0.000	0.000	0.000	0.000	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000

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CANDELA TABULATION - (Cont.)

166	0.000	0.000	0.000	0.000	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	0.000	0.000	0.000	0.000	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : W6CR-XX-L70-840-RDB-XXX-DIM-UNV-S-XXX\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	4861.28	N.A.	69.30
0-30	6117.84	N.A.	87.20
0-40	6771.02	N.A.	96.60
0-60	6937.73	N.A.	98.90
0-80	7008.48	N.A.	99.90
0-90	7011.94	N.A.	100.00
10-90	4101.54	N.A.	58.50
20-40	1909.74	N.A.	27.20
20-50	2000.6	N.A.	28.50
40-70	215.12	N.A.	3.10
60-80	70.75	N.A.	1.00
70-80	22.34	N.A.	0.30
80-90	3.46	N.A.	0.00
90-110	0.50	N.A.	0.00
90-120	0.50	N.A.	0.00
90-130	0.50	N.A.	0.00
90-150	0.50	N.A.	0.00
90-180	0.50	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	7012.45	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	2910.4
10-20	1950.88
20-30	1256.57
30-40	653.17
40-50	90.85
50-60	75.86
60-70	48.41
70-80	22.34
80-90	3.46
90-100	0.48
100-110	0.03
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	115	113	111	109	112	110	109	107	106	105	104	103	102	101	99	99	98	96
2	111	107	104	101	109	105	102	100	102	100	98	99	97	96	96	95	94	92
3	107	102	98	95	105	101	97	94	98	95	93	96	93	91	94	92	90	89
4	103	98	93	90	102	97	93	90	95	91	89	93	90	88	91	89	87	85
5	100	94	89	86	99	93	89	86	91	88	85	90	87	84	88	86	84	83
6	97	90	86	83	96	90	86	83	88	85	82	87	84	81	86	83	81	80
7	94	87	83	80	93	87	83	80	86	82	79	85	81	79	84	81	78	77
8	91	84	80	77	90	84	80	77	83	79	77	82	79	76	81	78	76	75
9	89	82	78	75	88	82	77	75	81	77	75	80	77	74	79	76	74	73
10	87	80	76	73	86	79	75	73	79	75	72	78	75	72	77	74	72	71

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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	10.4	11.4	10.8	11.7	12.0	10.2	11.1	10.5	11.4	11.7
	3H	11.3	12.1	11.7	12.5	12.8	11.1	11.9	11.5	12.2	12.6
	4H	11.6	12.4	12.0	12.7	13.1	11.4	12.2	11.8	12.5	12.9
	6H	11.8	12.5	12.2	12.9	13.3	11.6	12.3	12.0	12.7	13.1
	8H	11.8	12.4	12.2	12.8	13.2	11.6	12.2	12.0	12.6	13.0
	12H	11.7	12.3	12.2	12.7	13.2	11.5	12.2	12.0	12.5	13.0

### UGR Viewed Endwise

4H	2H	10.6	11.4	11.1	11.8	12.2	10.4	11.2	10.8	11.5	11.9
	3H	11.7	12.3	12.1	12.7	13.1	11.5	12.1	11.9	12.5	13.0
	4H	12.1	12.7	12.6	13.1	13.5	12.0	12.5	12.4	12.9	13.4
	6H	12.4	12.9	12.9	13.3	13.8	12.2	12.7	12.7	13.2	13.6
	8H	12.4	12.8	12.8	13.3	13.7	12.2	12.7	12.7	13.1	13.6
	12H	12.3	12.7	12.8	13.2	13.7	12.2	12.6	12.7	13.1	13.5

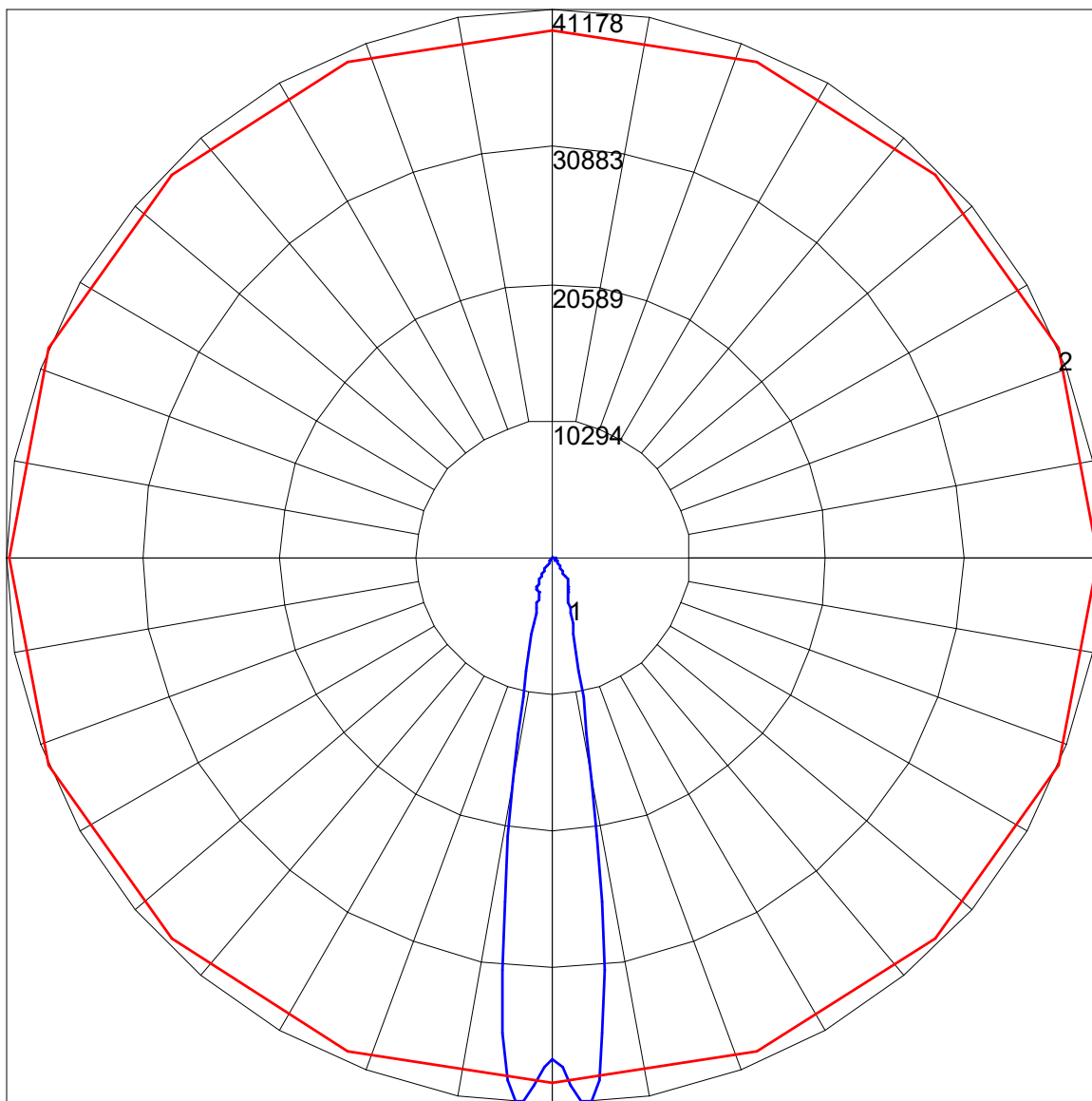
8H	4H	12.2	12.6	12.7	13.1	13.5	12.0	12.5	12.5	12.9	13.4
	6H	12.5	12.9	13.0	13.4	13.9	12.4	12.7	12.9	13.3	13.7
	8H	12.5	12.8	13.1	13.4	13.9	12.4	12.7	13.0	13.2	13.7
	12H	12.5	12.8	13.0	13.3	13.8	12.4	12.6	12.9	13.1	13.7

12H	4H	12.1	12.5	12.6	13.0	13.5	12.0	12.4	12.5	12.9	13.3
	6H	12.5	12.8	13.0	13.3	13.8	12.4	12.7	12.9	13.2	13.7
	8H	12.5	12.8	13.0	13.3	13.9	12.4	12.7	12.9	13.2	13.7

Maximum UGR = 13.9



POLAR GRAPH



Maximum Candela = 41177.871 Located At Horizontal Angle = 22.5, Vertical Angle = 4  
# 1 - Vertical Plane Through Horizontal Angles (22.5 - 202.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (4) (Through Max. Cd.)