

## IES INDOOR REPORT

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

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] W6CR\_Angela-M\_(V22)\_measured  
[TESTLAB] LEDIL Inc  
[TESTDATE] 21 Aug 2024  
[ISSUE DATE] 2025-07-15  
[MANUFAC] H.E. WILLIAMS, INC.  
[LUMCAT] W6CR-xx-L70-840-RDB-xxx-DIM-UNV-N-xxx  
[LUMINAIRE] 6 INCH ROUND WET LOCATION LED  
[MORE] CYLINDER WITH NARROW DIST.  
[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	6257
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	63.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.44
Spacing Criterion (90-270)	0.46
Spacing Criterion (Diagonal)	0.52
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	24373	24372	23873
55	14572	14330	13910
65	8639	8506	8283
75	5694	5631	5539
85	1396	1396	1382

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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	15498.045	15498.045	15498.045	15498.045	15498.045
1	15428.554	15434.406	15444.993	15458.268	15460.863
2	15232.421	15253.937	15297.609	15345.674	15359.951
3	14912.879	14956.368	15051.156	15154.755	15184.333
4	14476.281	14545.067	14701.559	14852.336	14897.009
5	13929.025	14018.144	14221.814	14412.892	14463.076
6	13282.065	13385.299	13611.648	13830.413	13882.554
7	12556.982	12663.496	12900.613	13115.622	13171.635
8	11763.137	11870.721	12096.135	12309.778	12353.609
9	10939.397	11044.613	11252.813	11452.498	11498.651
10	10127.928	10218.640	10412.314	10590.915	10640.916
11	9333.126	9407.399	9582.971	9742.698	9788.167
12	8575.279	8639.215	8796.482	8940.040	8973.261
13	7880.503	7931.711	8068.371	8199.407	8218.624
14	7236.137	7288.893	7403.399	7526.648	7524.075
15	6668.366	6701.496	6810.901	6901.203	6906.987
16	6131.699	6167.651	6274.552	6356.361	6374.554
17	5671.262	5707.055	5793.418	5858.993	5878.461
18	5275.443	5304.497	5381.889	5433.552	5454.978
19	4932.677	4959.659	5025.257	5067.311	5087.963
20	4642.758	4666.552	4718.830	4759.677	4765.188
21	4393.049	4411.424	4452.955	4491.935	4491.275
22	4179.953	4190.700	4222.919	4258.074	4266.112
23	3998.051	3999.963	4026.831	4050.511	4063.945
24	3830.379	3829.286	3852.215	3865.762	3882.315
25	3680.171	3676.665	3689.142	3695.905	3706.606
26	3535.838	3528.552	3530.419	3533.470	3536.384
27	3390.161	3375.862	3368.303	3364.933	3367.119
28	3229.593	3211.674	3190.704	3192.298	3190.271
29	3042.978	3027.153	2991.793	2979.406	2980.431
30	2844.955	2815.241	2772.344	2747.389	2756.292
31	2599.208	2572.317	2530.582	2506.537	2497.885
32	2324.908	2303.232	2266.027	2247.721	2238.477
33	2028.546	2013.381	1991.159	1983.895	1983.121
34	1725.990	1718.931	1715.334	1725.603	1736.964
35	1434.272	1436.071	1448.206	1477.214	1496.409
36	1171.380	1177.163	1205.852	1243.330	1263.139
37	941.047	952.910	988.726	1031.372	1045.580
38	753.931	779.182	805.822	847.444	855.276
39	625.786	643.159	666.224	699.831	701.220
40	514.377	527.037	556.158	580.180	589.993
41	446.252	454.995	471.070	485.483	489.855
42	399.234	403.719	412.850	420.227	421.957
43	363.987	366.196	370.294	372.890	371.592
44	336.368	336.892	338.599	337.347	336.072
45	312.870	313.257	312.848	310.480	306.449
46	292.082	291.695	290.101	286.777	283.794
47	272.478	272.000	269.723	266.353	263.507
48	254.149	253.625	251.143	247.591	244.882
49	236.799	236.184	233.725	230.218	227.577
50	220.246	219.563	217.263	213.825	211.388
51	204.785	204.034	201.780	198.592	196.247
52	190.099	189.416	187.208	184.293	181.993
53	176.483	175.800	173.797	171.042	168.787

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : W6CR-XX-L70-840-RDB-XXX-DIM-UNV-N-XXX\_.IES****CANDELA TABULATION - (Cont.)**

54	163.824	163.118	161.183	158.564	156.401
55	151.733	151.028	149.206	146.679	144.834
56	139.871	139.210	137.525	135.271	133.564
57	128.645	128.076	126.460	124.433	122.930
58	118.399	117.853	116.441	114.506	113.254
59	108.836	108.313	107.106	105.330	104.191
60	100.093	99.638	98.476	96.974	95.903
61	92.101	91.646	90.621	89.209	88.162
62	84.815	84.314	83.403	82.219	81.195
63	78.053	77.688	76.823	75.798	74.819
64	71.859	71.495	70.766	69.810	68.968
65	66.281	65.848	65.256	64.368	63.549
66	60.953	60.611	60.042	59.291	58.539
67	56.080	55.762	55.283	54.623	53.963
68	51.663	51.322	50.912	50.297	49.705
69	47.383	47.178	46.745	46.244	45.652
70	43.489	43.239	42.897	42.442	41.918
71	39.800	39.550	39.277	38.867	38.411
72	36.362	36.089	35.861	35.474	35.110
73	33.015	32.788	32.583	32.264	31.945
74	29.828	29.645	29.440	29.190	28.894
75	26.754	26.617	26.458	26.276	26.025
76	23.748	23.657	23.543	23.384	23.202
77	20.834	20.788	20.720	20.652	20.492
78	17.965	17.919	17.942	17.897	17.828
79	15.119	15.119	15.187	15.255	15.164
80	12.295	12.318	12.386	12.569	12.477
81	9.290	9.381	9.426	9.586	9.495
82	5.374	5.510	5.692	5.715	5.783
83	2.641	2.664	2.892	3.028	3.256
84	2.414	2.391	2.391	2.414	2.391
85	2.209	2.231	2.209	2.209	2.186
86	1.981	1.981	1.981	1.981	1.958
87	1.685	1.685	1.685	1.685	1.662
88	1.321	1.321	1.298	1.298	1.298
89	0.865	0.865	0.865	0.865	0.865
90	0.455	0.501	0.524	0.546	0.569
91	0.455	0.455	0.455	0.455	0.433
92	0.455	0.478	0.478	0.455	0.455
93	0.478	0.478	0.478	0.478	0.455
94	0.478	0.478	0.478	0.478	0.478
95	0.501	0.501	0.501	0.478	0.478
96	0.524	0.524	0.524	0.501	0.501
97	0.524	0.546	0.546	0.524	0.524
98	0.569	0.569	0.569	0.546	0.546
99	0.615	0.592	0.592	0.592	0.592
100	0.615	0.592	0.592	0.592	0.615
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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<b>166</b>	0.000	0.000	0.000	0.000	0.000
<b>167</b>	0.000	0.000	0.000	0.000	0.000
<b>168</b>	0.000	0.000	0.000	0.000	0.000
<b>169</b>	0.000	0.000	0.000	0.000	0.000
<b>170</b>	0.000	0.000	0.000	0.000	0.000
<b>171</b>	0.000	0.000	0.000	0.000	0.000
<b>172</b>	0.000	0.000	0.000	0.000	0.000
<b>173</b>	0.000	0.000	0.000	0.000	0.000
<b>174</b>	0.000	0.000	0.000	0.000	0.000
<b>175</b>	0.000	0.000	0.000	0.000	0.000
<b>176</b>	0.000	0.000	0.000	0.000	0.000
<b>177</b>	0.000	0.000	0.000	0.000	0.000
<b>178</b>	0.000	0.000	0.000	0.000	0.000
<b>179</b>	0.000	0.000	0.000	0.000	0.000
<b>180</b>	0.000	0.000	0.000	0.000	0.000

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

Zone	Lumens	%Lamp	%Fixt
0-20	3144.48	N.A.	50.30
0-30	4835.82	N.A.	77.30
0-40	5769.06	N.A.	92.20
0-60	6158.21	N.A.	98.40
0-80	6252.52	N.A.	99.90
0-90	6256.31	N.A.	100.00
10-90	5026.64	N.A.	80.30
20-40	2624.58	N.A.	41.90
20-50	2878.91	N.A.	46.00
40-70	455.20	N.A.	7.30
60-80	94.32	N.A.	1.50
70-80	28.26	N.A.	0.50
80-90	3.79	N.A.	0.10
90-110	0.59	N.A.	0.00
90-120	0.59	N.A.	0.00
90-130	0.59	N.A.	0.00
90-150	0.59	N.A.	0.00
90-180	0.59	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	6256.9	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	1229.67
10-20	1914.81
20-30	1691.33
30-40	933.25
40-50	254.33
50-60	134.82
60-70	66.06
70-80	28.26
80-90	3.79
90-100	0.56
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	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	109	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90	88
3	104	98	93	89	102	96	92	88	94	90	87	91	88	86	89	87	84	83
4	99	92	87	83	97	91	86	82	89	85	81	87	83	80	85	82	79	78
5	95	87	81	77	93	86	81	77	84	80	76	83	79	76	81	78	75	74
6	90	82	77	73	89	81	76	73	80	75	72	79	75	72	77	74	71	70
7	87	78	73	69	85	77	72	69	76	72	68	75	71	68	74	70	67	66
8	83	74	69	65	82	74	69	65	73	68	65	72	68	64	71	67	64	63
9	80	71	66	62	79	70	65	62	70	65	62	69	64	61	68	64	61	60
10	77	68	63	59	76	67	62	59	67	62	59	66	62	59	65	61	58	57

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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	13.5	14.5	13.8	14.8	15.1	13.3	14.2	13.6	14.6	14.9
	3H	14.2	15.1	14.6	15.4	15.8	14.0	14.9	14.4	15.2	15.6
	4H	14.5	15.3	14.9	15.6	16.0	14.2	15.0	14.6	15.4	15.8
	6H	14.6	15.3	15.0	15.7	16.0	14.4	15.1	14.8	15.5	15.8
	8H	14.5	15.2	14.9	15.6	16.0	14.3	15.0	14.7	15.4	15.8
	12H	14.5	15.1	14.9	15.5	15.9	14.3	14.9	14.7	15.3	15.7

### UGR Viewed Endwise

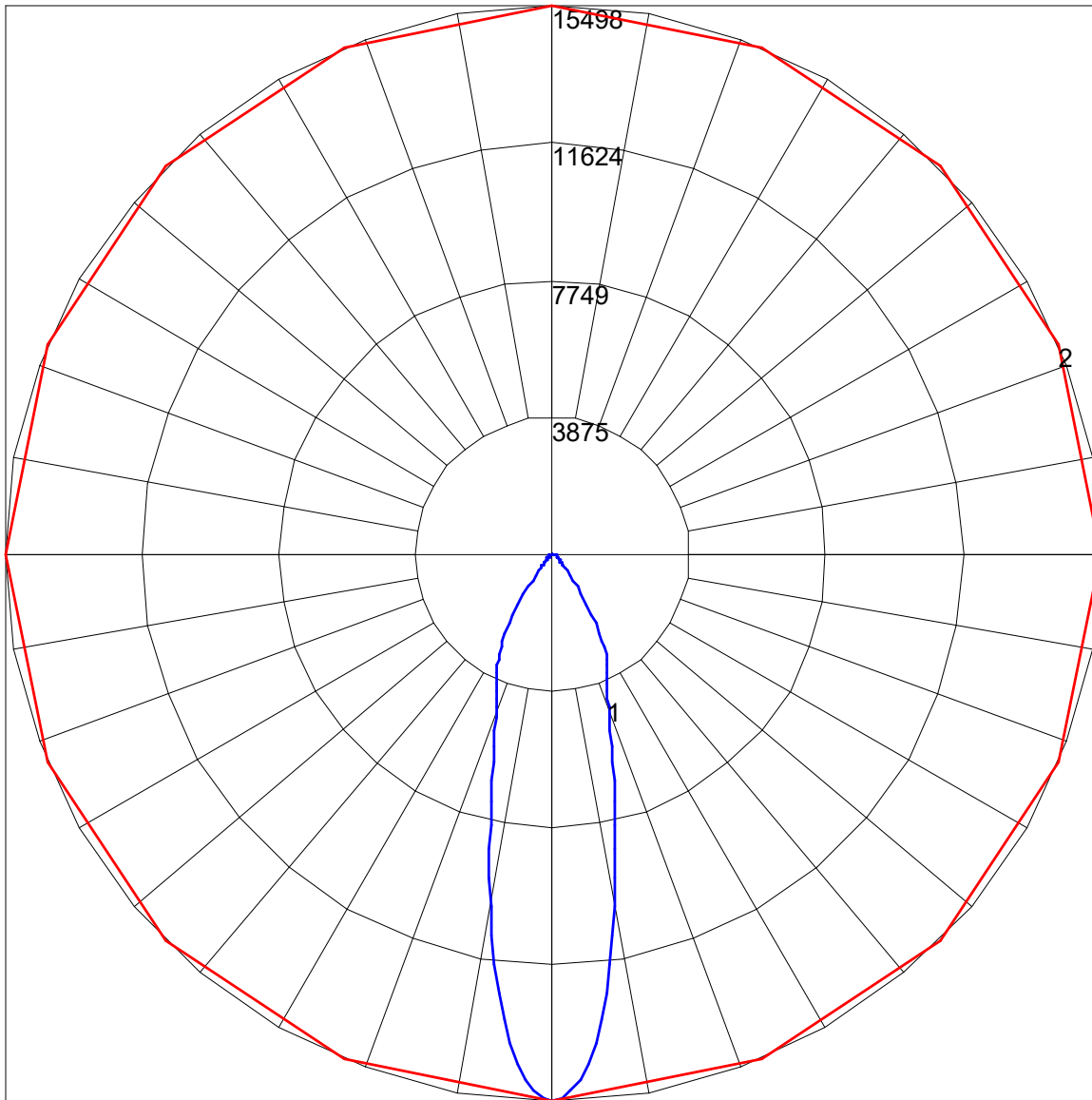
4H	2H	13.6	14.4	14.0	14.8	15.2	13.4	14.2	13.8	14.6	15.0
	3H	14.6	15.2	15.0	15.6	16.0	14.4	15.0	14.8	15.4	15.8
	4H	14.9	15.4	15.3	15.9	16.3	14.7	15.3	15.1	15.7	16.1
	6H	15.0	15.5	15.5	16.0	16.4	14.9	15.3	15.3	15.8	16.3
	8H	15.0	15.4	15.5	15.9	16.4	14.8	15.3	15.3	15.7	16.2
	12H	14.9	15.3	15.4	15.8	16.3	14.8	15.2	15.3	15.7	16.1

8H	4H	14.9	15.3	15.4	15.8	16.3	14.7	15.2	15.2	15.6	16.1
	6H	15.1	15.4	15.6	16.0	16.4	14.9	15.3	15.4	15.8	16.3
	8H	15.1	15.4	15.6	15.9	16.4	14.9	15.2	15.4	15.8	16.3
	12H	15.0	15.3	15.5	15.8	16.4	14.9	15.1	15.4	15.6	16.2

12H	4H	14.8	15.2	15.3	15.7	16.2	14.7	15.1	15.2	15.6	16.0
	6H	15.0	15.4	15.6	15.8	16.4	14.9	15.2	15.4	15.7	16.2
	8H	15.0	15.3	15.6	15.8	16.4	14.9	15.2	15.4	15.7	16.2

Maximum UGR = 16.4

POLAR GRAPH



Maximum Candela = 15498.045 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)