

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : W6CR-XX-L60-840-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  
[ISSUE DATE] 2025-07-15  
[MANUFAC] H.E. WILLIAMS, INC.  
[LUMCAT] W6CR-xx-L60-840-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	6233
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	53.6
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	6727	6914	7003
55	7635	7421	7273
65	5637	5539	5380
75	3985	3989	3916
85	1093	1119	1093

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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	33686.54933686	54933686.54933686	54933686.54933686	54933686.54933686	54933686.54933686
1	34201.60934218	21734151.62434120	54834063.297		
2	35375.28935416	90735198.84235078	44134855.892		
3	36426.25136501	36936133.04335899	52835496.219		
4	36487.48836599	91236130.27735844	70135267.365		
5	34999.63835108	47934672.44534376	45133741.963		
6	31953.35732074	93831764.37231535	02830932.986		
7	27838.20827932	55927803.52827686	60727204.559		
8	23239.17523351	15123356.74823428	34423053.486		
9	18839.36718954	65819103.73419279	24719039.016		
10	15047.48215166	74315390.65215623	49515482.418		
11	11949.12212073	34912328.70212569	09612488.116		
12	9541.234	9662.082	9888.555	10120.01510051	044
13	7726.454	7835.356	8034.395	8233.618	8159.049
14	6362.647	6521.675	6656.057	6812.420	6711.251
15	5394.986	5391.811	5578.436	5704.148	5679.869
16	4537.041	4600.212	4722.485	4821.455	4765.468
17	3951.075	4001.649	4102.451	4176.673	4128.379
18	3510.807	3551.673	3629.925	3691.143	3654.327
19	3187.968	3218.476	3279.368	3328.802	3298.295
20	2948.653	2974.866	3019.803	3067.202	3029.429
21	2792.189	2795.568	2839.670	2875.875	2832.486
22	2661.959	2672.420	2688.375	2725.293	2697.737
23	2571.170	2579.352	2589.568	2615.313	2587.675
24	2498.250	2501.588	2507.775	2520.820	2497.782
25	2436.564	2438.660	2437.439	2441.998	2414.421
26	2377.788	2375.774	2362.688	2365.455	2332.628
27	2310.994	2302.019	2281.138	2277.862	2246.194
28	2226.230	2214.344	2180.194	2169.692	2145.393
29	2116.107	2101.067	2056.028	2036.816	2016.709
30	1972.444	1954.799	1904.470	1881.269	1856.195
31	1791.843	1774.524	1725.782	1704.596	1674.292
32	1583.686	1569.359	1527.902	1515.813	1488.685
33	1350.863	1343.435	1317.344	1315.858	1301.510
34	1110.204	1109.777	1103.041	1117.307	1113.624
35	876.526	883.751	894.558	924.292	927.345
36	667.515	681.883	707.200	745.909	750.651
37	493.772	504.925	535.839	578.680	588.001
38	341.522	359.309	399.768	442.038	450.953
39	247.436	261.031	289.808	327.275	337.879
40	172.399	186.462	216.705	240.231	245.543
41	132.571	142.238	160.371	182.697	183.491
42	110.042	115.842	126.404	137.964	141.566
43	97.261	100.558	106.399	113.277	114.214
44	90.321	91.969	95.063	98.828	98.258
45	86.352	87.410	88.754	90.830	89.893
46	84.032	84.867	85.314	86.678	85.660
47	82.648	83.340	83.259	84.317	83.340
48	81.834	82.302	81.956	82.750	81.854
49	81.305	81.610	81.081	81.631	80.735
50	80.939	81.061	80.348	80.755	79.779
51	80.715	80.735	79.779	80.002	78.944
52	80.633	80.511	79.290	79.351	78.252
53	80.613	80.308	78.883	78.802	77.621

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**CANDELA TABULATION - (Cont.)**

54	80.491	80.002	78.395	78.110	76.868
55	79.494	78.965	77.275	76.868	75.729
56	77.621	77.072	75.301	74.772	73.917
57	75.016	74.650	72.717	72.187	71.434
58	72.025	71.719	69.745	69.155	68.728
59	68.422	68.219	66.245	65.716	65.390
60	64.372	64.230	62.419	61.930	61.605
61	60.119	59.936	58.369	57.941	57.453
62	55.723	55.499	54.237	53.871	53.159
63	51.408	51.062	50.147	49.821	48.946
64	47.216	46.829	46.219	45.913	44.916
65	43.247	42.922	42.494	42.230	41.273
66	39.503	39.299	39.014	38.811	37.874
67	36.185	36.043	35.880	35.676	34.903
68	33.255	33.133	33.071	32.868	32.196
69	30.568	30.548	30.487	30.365	29.754
70	28.146	28.207	28.187	28.085	27.536
71	26.009	26.050	26.050	25.989	25.501
72	24.056	24.096	24.076	24.035	23.547
73	22.204	22.244	22.224	22.183	21.776
74	20.433	20.474	20.453	20.453	20.087
75	18.724	18.744	18.744	18.764	18.398
76	17.014	17.075	17.075	17.095	16.770
77	15.345	15.386	15.427	15.447	15.203
78	13.636	13.636	13.717	13.758	13.615
79	11.845	11.845	11.987	12.048	11.906
80	9.932	9.952	10.074	10.217	10.094
81	7.673	7.835	7.856	8.019	7.896
82	4.396	4.579	4.742	4.783	4.783
83	2.076	2.117	2.300	2.422	2.503
84	1.893	1.893	1.913	1.913	1.852
85	1.730	1.750	1.771	1.771	1.730
86	1.567	1.567	1.567	1.567	1.547
87	1.323	1.343	1.343	1.323	1.303
88	1.038	1.038	1.058	1.038	1.018
89	0.692	0.672	0.692	0.692	0.672
90	0.346	0.387	0.407	0.448	0.407
91	0.346	0.346	0.366	0.366	0.346
92	0.366	0.346	0.366	0.366	0.346
93	0.366	0.346	0.366	0.366	0.366
94	0.387	0.366	0.387	0.387	0.366
95	0.387	0.387	0.387	0.387	0.387
96	0.387	0.387	0.387	0.387	0.387
97	0.407	0.407	0.387	0.407	0.387
98	0.407	0.427	0.407	0.407	0.407
99	0.407	0.427	0.427	0.427	0.407
100	0.448	0.427	0.427	0.448	0.407
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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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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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

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	4320.82	N.A.	69.30
0-30	5437.69	N.A.	87.20
0-40	6018.25	N.A.	96.60
0-60	6166.43	N.A.	98.90
0-80	6229.31	N.A.	99.90
0-90	6232.39	N.A.	100.00
10-90	3645.55	N.A.	58.50
20-40	1697.43	N.A.	27.20
20-50	1778.18	N.A.	28.50
40-70	191.21	N.A.	3.10
60-80	62.88	N.A.	1.00
70-80	19.85	N.A.	0.30
80-90	3.08	N.A.	0.00
90-110	0.45	N.A.	0.00
90-120	0.45	N.A.	0.00
90-130	0.45	N.A.	0.00
90-150	0.45	N.A.	0.00
90-180	0.45	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	6232.83	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	2586.84
10-20	1733.99
20-30	1116.87
30-40	580.56
40-50	80.75
50-60	67.43
60-70	43.03
70-80	19.85
80-90	3.08
90-100	0.42
100-110	0.02
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	96	93	90	94	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	85	82	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	75	73	86	79	75	73	79	75	72	78	75	72	77	74	72	71

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**UGR TABLE - CORRECTED**

Reflectances

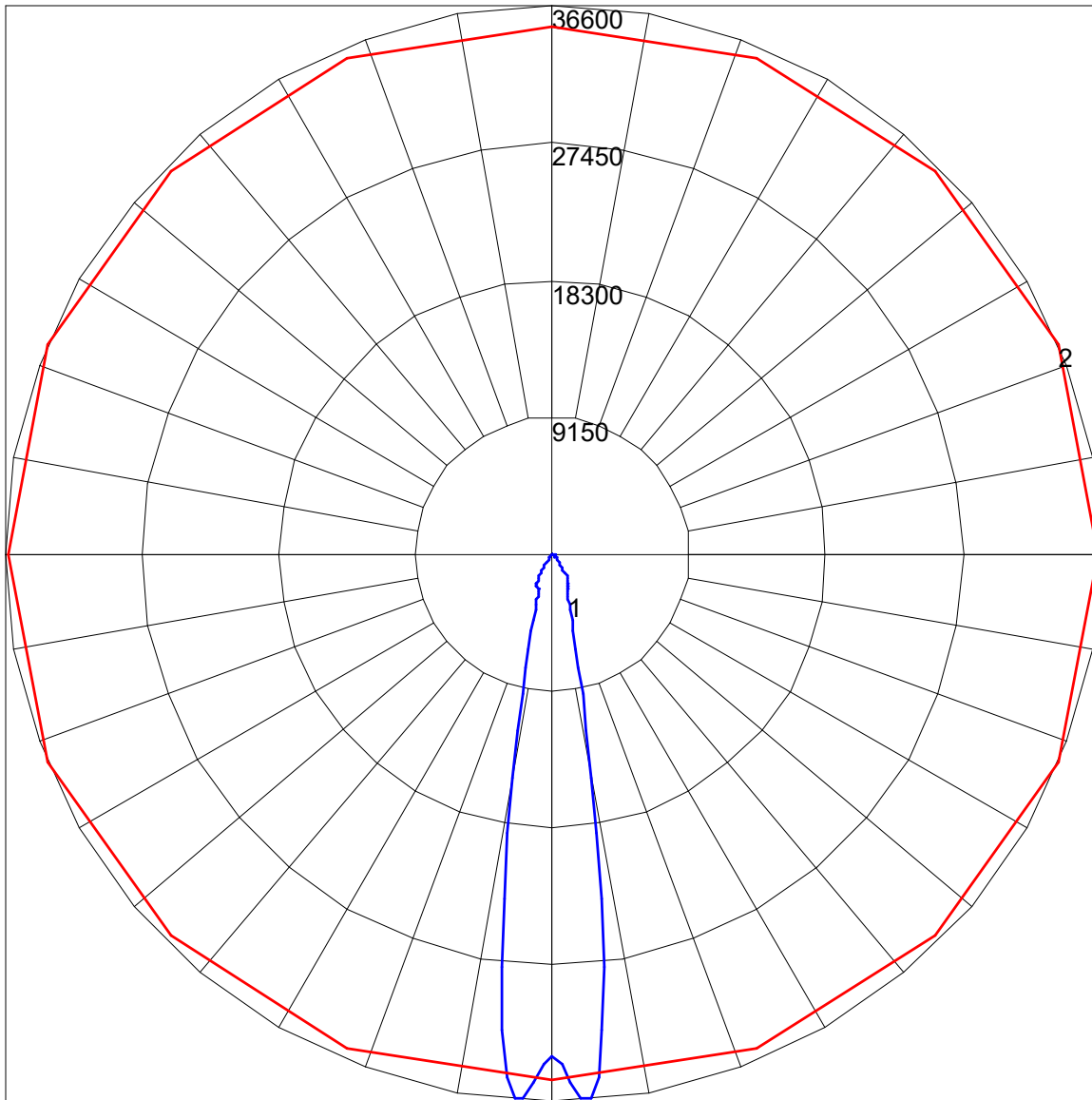
Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	10.0	11.0	10.4	11.3	11.6	9.8	10.7	10.1	11.0	11.3
	3H	10.9	11.7	11.3	12.1	12.4	10.7	11.5	11.1	11.8	12.2
	4H	11.2	12.0	11.6	12.3	12.7	11.0	11.8	11.4	12.1	12.5
	6H	11.4	12.1	11.8	12.5	12.9	11.2	11.9	11.6	12.3	12.7
	8H	11.4	12.0	11.8	12.4	12.8	11.2	11.8	11.6	12.2	12.6
	12H	11.3	11.9	11.8	12.3	12.8	11.1	11.8	11.6	12.1	12.6
4H	2H	10.2	11.0	10.7	11.4	11.8	10.0	10.8	10.4	11.1	11.5
	3H	11.3	11.9	11.7	12.3	12.7	11.1	11.7	11.5	12.1	12.6
	4H	11.7	12.3	12.2	12.7	13.1	11.6	12.1	12.0	12.5	13.0
	6H	12.0	12.5	12.5	12.9	13.4	11.8	12.3	12.3	12.8	13.2
	8H	12.0	12.4	12.4	12.9	13.3	11.8	12.3	12.3	12.7	13.2
	12H	11.9	12.3	12.4	12.8	13.3	11.8	12.2	12.3	12.7	13.1
8H	4H	11.8	12.2	12.3	12.7	13.1	11.6	12.1	12.1	12.5	13.0
	6H	12.1	12.5	12.6	13.0	13.5	12.0	12.3	12.5	12.9	13.3
	8H	12.1	12.4	12.7	13.0	13.5	12.0	12.3	12.6	12.8	13.3
	12H	12.1	12.4	12.6	12.9	13.4	12.0	12.2	12.5	12.7	13.3
12H	4H	11.7	12.1	12.2	12.6	13.1	11.6	12.0	12.1	12.5	12.9
	6H	12.1	12.4	12.6	12.9	13.4	12.0	12.3	12.5	12.8	13.3
	8H	12.1	12.4	12.6	12.9	13.5	12.0	12.3	12.5	12.8	13.3

Maximum UGR = 13.5



POLAR GRAPH



Maximum Candela = 36599.912 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.)