

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : W6CR-XX-L60-850-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-L60-850-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	5481
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	53.6
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	21349	21348	20911
55	12764	12552	12184
65	7567	7450	7255
75	4988	4932	4852
85	1223	1223	1210

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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	13575.178	13575.178	13575.178	13575.178	13575.178
1	13514.308	13519.434	13528.708	13540.336	13542.609
2	13342.510	13361.357	13399.610	13441.712	13454.217
3	13062.614	13100.707	13183.734	13274.480	13300.388
4	12680.186	12740.437	12877.513	13009.583	13048.713
5	12200.829	12278.890	12457.291	12624.662	12668.618
6	11634.137	11724.564	11922.828	12114.452	12160.123
7	10999.017	11092.316	11300.013	11488.346	11537.409
8	10303.666	10397.902	10595.348	10782.484	10820.876
9	9582.128	9674.290	9856.659	10031.568	10071.995
10	8871.340	8950.797	9120.441	9276.883	9320.680
11	8175.150	8240.208	8393.997	8533.905	8573.733
12	7511.331	7567.334	7705.088	7830.835	7859.934
13	6902.756	6947.611	7067.315	7182.094	7198.926
14	6338.338	6384.548	6484.847	6592.805	6590.551
15	5841.011	5870.030	5965.862	6044.960	6050.026
16	5370.929	5402.421	5496.058	5567.717	5583.653
17	4967.619	4998.971	5074.619	5132.058	5149.111
18	4620.911	4646.359	4714.149	4759.403	4778.170
19	4320.672	4344.306	4401.765	4438.602	4456.691
20	4066.724	4087.565	4133.357	4169.137	4173.963
21	3847.997	3864.091	3900.469	3934.614	3934.036
22	3661.340	3670.753	3698.974	3729.768	3736.808
23	3502.006	3503.682	3527.216	3547.957	3559.724
24	3355.138	3354.181	3374.264	3386.131	3400.630
25	3223.567	3220.495	3231.424	3237.348	3246.722
26	3097.141	3090.759	3092.394	3095.067	3097.619
27	2969.538	2957.014	2950.392	2947.440	2949.355
28	2828.893	2813.197	2794.828	2796.224	2794.449
29	2665.430	2651.569	2620.596	2609.747	2610.644
30	2491.977	2465.950	2428.375	2406.516	2414.314
31	2276.720	2253.166	2216.608	2195.547	2187.969
32	2036.453	2017.466	1984.878	1968.843	1960.745
33	1776.861	1763.578	1744.112	1737.750	1737.072
34	1511.843	1505.661	1502.509	1511.504	1521.456
35	1256.319	1257.895	1268.525	1293.934	1310.747
36	1026.045	1031.110	1056.240	1089.068	1106.419
37	824.290	834.681	866.053	903.408	915.853
38	660.389	682.507	705.842	742.300	749.161
39	548.144	563.361	583.565	613.002	614.219
40	450.557	461.646	487.155	508.196	516.792
41	390.885	398.543	412.624	425.248	429.078
42	349.700	353.629	361.627	368.088	369.604
43	318.827	320.761	324.351	326.625	325.488
44	294.634	295.093	296.589	295.492	294.375
45	274.052	274.391	274.032	271.958	268.428
46	255.843	255.504	254.108	251.196	248.583
47	238.671	238.252	236.258	233.306	230.813
48	222.616	222.157	219.984	216.872	214.499
49	207.419	206.880	204.726	201.655	199.341
50	192.919	192.321	190.307	187.295	185.161
51	179.377	178.719	176.745	173.953	171.898
52	166.513	165.915	163.980	161.428	159.413
53	154.587	153.988	152.233	149.820	147.846

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**CANDELA TABULATION - (Cont.)**

54	143.498	142.880	141.184	138.891	136.996
55	132.908	132.289	130.694	128.480	126.864
56	122.517	121.938	120.462	118.488	116.992
57	112.684	112.186	110.770	108.995	107.678
58	103.709	103.231	101.994	100.299	99.202
59	95.333	94.874	93.817	92.261	91.264
60	87.674	87.275	86.258	84.942	84.005
61	80.674	80.275	79.378	78.141	77.224
62	74.292	73.853	73.055	72.018	71.121
63	68.368	68.049	67.291	66.394	65.536
64	62.944	62.625	61.986	61.149	60.411
65	58.057	57.678	57.160	56.382	55.664
66	53.390	53.091	52.593	51.934	51.276
67	49.122	48.843	48.424	47.846	47.268
68	45.253	44.954	44.595	44.057	43.538
69	41.504	41.324	40.945	40.506	39.988
70	38.093	37.874	37.575	37.176	36.717
71	34.862	34.643	34.404	34.045	33.646
72	31.851	31.611	31.412	31.073	30.754
73	28.919	28.720	28.540	28.261	27.982
74	26.127	25.967	25.788	25.568	25.309
75	23.434	23.315	23.175	23.016	22.796
76	20.802	20.722	20.622	20.483	20.323
77	18.249	18.209	18.149	18.089	17.950
78	15.736	15.696	15.716	15.676	15.616
79	13.243	13.243	13.303	13.363	13.283
80	10.770	10.790	10.850	11.009	10.929
81	8.137	8.217	8.257	8.396	8.317
82	4.707	4.826	4.986	5.006	5.066
83	2.314	2.333	2.533	2.653	2.852
84	2.114	2.094	2.094	2.114	2.094
85	1.935	1.955	1.935	1.935	1.915
86	1.735	1.735	1.735	1.735	1.715
87	1.476	1.476	1.476	1.476	1.456
88	1.157	1.157	1.137	1.137	1.137
89	0.758	0.758	0.758	0.758	0.758
90	0.399	0.439	0.459	0.479	0.499
91	0.399	0.399	0.399	0.399	0.379
92	0.399	0.419	0.419	0.399	0.399
93	0.419	0.419	0.419	0.419	0.399
94	0.419	0.419	0.419	0.419	0.419
95	0.439	0.439	0.439	0.419	0.419
96	0.459	0.459	0.459	0.439	0.439
97	0.459	0.479	0.479	0.459	0.459
98	0.499	0.499	0.499	0.479	0.479
99	0.538	0.519	0.519	0.519	0.519
100	0.538	0.519	0.519	0.519	0.538
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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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	2754.34	N.A.	50.30
0-30	4235.83	N.A.	77.30
0-40	5053.29	N.A.	92.20
0-60	5394.15	N.A.	98.40
0-80	5476.76	N.A.	99.90
0-90	5480.08	N.A.	100.00
10-90	4402.98	N.A.	80.30
20-40	2298.95	N.A.	41.90
20-50	2521.72	N.A.	46.00
40-70	398.72	N.A.	7.30
60-80	82.61	N.A.	1.50
70-80	24.75	N.A.	0.50
80-90	3.32	N.A.	0.10
90-110	0.52	N.A.	0.00
90-120	0.52	N.A.	0.00
90-130	0.52	N.A.	0.00
90-150	0.52	N.A.	0.00
90-180	0.52	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	5480.6	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	1077.1
10-20	1677.24
20-30	1481.49
30-40	817.46
40-50	222.77
50-60	118.09
60-70	57.86
70-80	24.75
80-90	3.32
90-100	0.49
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

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

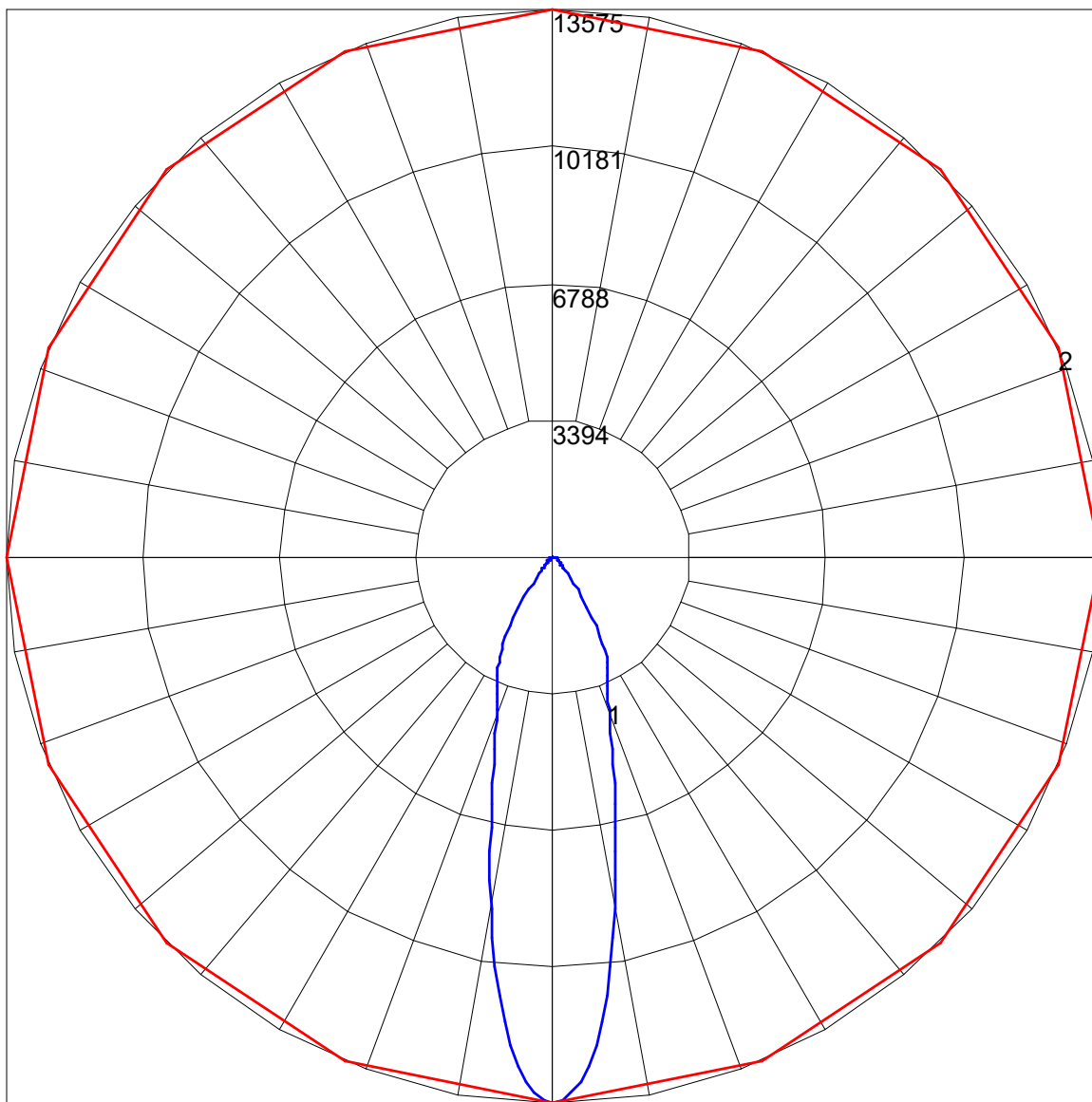
Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	13.1	14.1	13.4	14.4	14.7	12.9	13.8	13.2	14.2	14.5
	3H	13.8	14.7	14.2	15.0	15.4	13.6	14.5	14.0	14.8	15.2
	4H	14.1	14.9	14.5	15.2	15.6	13.8	14.6	14.2	15.0	15.4
	6H	14.2	14.9	14.6	15.3	15.7	14.0	14.7	14.4	15.1	15.4
	8H	14.1	14.8	14.5	15.2	15.6	13.9	14.6	14.3	15.0	15.4
	12H	14.1	14.7	14.5	15.1	15.5	13.9	14.5	14.3	14.9	15.3
4H	2H	13.2	14.0	13.6	14.4	14.8	13.0	13.8	13.4	14.2	14.6
	3H	14.2	14.8	14.6	15.2	15.6	14.0	14.6	14.4	15.0	15.4
	4H	14.5	15.0	14.9	15.5	15.9	14.3	14.9	14.7	15.3	15.7
	6H	14.6	15.1	15.1	15.6	16.0	14.5	15.0	14.9	15.4	15.9
	8H	14.6	15.0	15.1	15.5	16.0	14.4	14.9	14.9	15.3	15.8
	12H	14.5	14.9	15.0	15.4	15.9	14.4	14.8	14.9	15.3	15.7
8H	4H	14.5	14.9	15.0	15.4	15.9	14.3	14.8	14.8	15.2	15.7
	6H	14.7	15.0	15.2	15.6	16.0	14.5	14.9	15.0	15.4	15.9
	8H	14.7	15.0	15.2	15.5	16.0	14.5	14.8	15.1	15.4	15.9
	12H	14.6	14.9	15.1	15.4	16.0	14.5	14.7	15.0	15.2	15.8
12H	4H	14.4	14.8	14.9	15.3	15.8	14.3	14.7	14.8	15.2	15.6
	6H	14.6	15.0	15.2	15.4	16.0	14.5	14.8	15.0	15.3	15.8
	8H	14.6	14.9	15.2	15.4	16.0	14.5	14.8	15.0	15.3	15.8

Maximum UGR = 16.0



POLAR GRAPH



Maximum Candela = 13575.178 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.)