

IES INDOOR REPORT

PHOTOMETRIC FILENAME : W6CR-XX-L60-940-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-L60-940-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	5986
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
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	6461	6640	6726
55	7332	7128	6985
65	5414	5319	5167
75	3827	3831	3761
85	1050	1074	1050

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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	32352.42432352.42432352.42432352.42432352.424				
1	32847.08632863.03532799.08032769.23532714.251				
2	33974.28334014.25233804.82333689.19133475.456				
3	34983.62235055.76534702.02734477.75934090.423				
4	35042.43535150.40534699.37034425.10433870.634				
5	33613.50933718.04033299.27433015.00332405.644				
6	30687.87330804.63930506.37330286.11229707.914				
7	26735.70126826.31526702.39526590.10426127.147				
8	22318.80922426.35022431.72522500.48622140.474				
9	18093.25118203.97618347.14818515.71018284.993				
10	14451.54014566.07814781.12015004.74114869.251				
11	11475.88811595.19511840.43412071.30811993.536				
12	9163.362 9279.424 9496.928 9719.221 9652.981				
13	7420.455 7525.044 7716.200 7907.533 7835.918				
14	6110.661 6263.390 6392.450 6542.620 6445.458				
15	5181.322 5178.273 5357.507 5478.241 5454.923				
16	4357.355 4418.025 4535.455 4630.506 4576.736				
17	3794.596 3843.167 3939.977 4011.260 3964.878				
18	3371.765 3411.013 3486.166 3544.959 3509.601				
19	3061.712 3091.011 3149.491 3196.968 3167.669				
20	2831.874 2857.049 2900.206 2945.728 2909.451				
21	2681.607 2684.852 2727.207 2761.979 2720.308				
22	2556.534 2566.581 2581.905 2617.361 2590.896				
23	2469.341 2477.199 2487.011 2511.736 2485.193				
24	2399.309 2402.515 2408.456 2420.985 2398.860				
25	2340.066 2342.079 2340.907 2345.285 2318.800				
26	2283.618 2281.683 2269.116 2271.774 2240.247				
27	2219.469 2210.850 2190.796 2187.649 2157.236				
28	2138.062 2126.647 2093.849 2083.764 2060.426				
29	2032.300 2017.856 1974.601 1956.150 1936.839				
30	1894.327 1877.381 1829.045 1806.763 1782.682				
31	1720.879 1704.246 1657.434 1637.087 1607.983				
32	1520.966 1507.206 1467.391 1455.781 1429.727				
33	1297.363 1290.229 1265.172 1263.745 1249.965				
34	1066.236 1065.825 1059.356 1073.057 1069.519				
35	841.812 848.751 859.130 887.686 890.618				
36	641.078 654.878 679.192 716.368 720.922				
37	474.217 484.928 514.618 555.762 564.714				
38	327.996 345.079 383.936 424.532 433.093				
39	237.636 250.693 278.330 314.314 324.497				
40	165.571 179.077 208.122 230.717 235.819				
41	127.320 136.605 154.020 175.461 176.224				
42	105.683 111.254 121.398 132.500 135.960				
43	93.409 96.575 102.185 108.791 109.690				
44	86.744 88.327 91.298 94.914 94.366				
45	82.932 83.949 85.239 87.232 86.333				
46	80.704 81.505 81.935 83.245 82.268				
47	79.375 80.040 79.961 80.978 80.040				
48	78.593 79.043 78.710 79.473 78.613				
49	78.085 78.378 77.870 78.398 77.538				
50	77.733 77.850 77.166 77.557 76.619				
51	77.518 77.538 76.619 76.834 75.818				
52	77.440 77.323 76.150 76.209 75.153				
53	77.420 77.127 75.759 75.681 74.547				

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CANDELA TABULATION - (Cont.)

54	77.303	76.834	75.290	75.016	73.824
55	76.345	75.837	74.215	73.824	72.729
56	74.547	74.019	72.319	71.811	70.990
57	72.045	71.694	69.837	69.328	68.605
58	69.172	68.879	66.983	66.416	66.006
59	65.713	65.517	63.621	63.113	62.800
60	61.823	61.686	59.947	59.477	59.165
61	57.738	57.562	56.057	55.647	55.177
62	53.516	53.301	52.089	51.737	51.053
63	49.372	49.040	48.161	47.848	47.007
64	45.346	44.975	44.388	44.095	43.137
65	41.535	41.222	40.811	40.557	39.639
66	37.938	37.743	37.469	37.274	36.374
67	34.752	34.615	34.459	34.264	33.521
68	31.938	31.820	31.762	31.566	30.921
69	29.358	29.338	29.279	29.162	28.576
70	27.032	27.090	27.071	26.973	26.445
71	24.979	25.018	25.018	24.960	24.491
72	23.103	23.142	23.123	23.083	22.614
73	21.324	21.363	21.344	21.305	20.914
74	19.624	19.663	19.643	19.643	19.292
75	17.982	18.002	18.002	18.021	17.669
76	16.340	16.399	16.399	16.418	16.106
77	14.737	14.777	14.816	14.835	14.601
78	13.096	13.096	13.174	13.213	13.076
79	11.376	11.376	11.512	11.571	11.434
80	9.538	9.558	9.675	9.812	9.695
81	7.369	7.525	7.545	7.701	7.584
82	4.222	4.398	4.554	4.593	4.593
83	1.994	2.033	2.209	2.326	2.404
84	1.818	1.818	1.837	1.837	1.779
85	1.661	1.681	1.700	1.700	1.661
86	1.505	1.505	1.505	1.505	1.485
87	1.270	1.290	1.290	1.270	1.251
88	0.997	0.997	1.016	0.997	0.977
89	0.665	0.645	0.665	0.665	0.645
90	0.332	0.371	0.391	0.430	0.391
91	0.332	0.332	0.352	0.352	0.332
92	0.352	0.332	0.352	0.352	0.332
93	0.352	0.332	0.352	0.352	0.352
94	0.371	0.352	0.371	0.371	0.352
95	0.371	0.371	0.371	0.371	0.371
96	0.371	0.371	0.371	0.371	0.371
97	0.391	0.391	0.371	0.391	0.371
98	0.391	0.410	0.391	0.391	0.391
99	0.391	0.410	0.410	0.410	0.391
100	0.430	0.410	0.410	0.430	0.391
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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Zone	Lumens	%Lamp	%Fixt
0-20	4149.7	N.A.	69.30
0-30	5222.33	N.A.	87.20
0-40	5779.9	N.A.	96.60
0-60	5922.21	N.A.	98.90
0-80	5982.6	N.A.	99.90
0-90	5985.56	N.A.	100.00
10-90	3501.17	N.A.	58.50
20-40	1630.2	N.A.	27.20
20-50	1707.76	N.A.	28.50
40-70	183.63	N.A.	3.10
60-80	60.39	N.A.	1.00
70-80	19.07	N.A.	0.30
80-90	2.96	N.A.	0.00
90-110	0.43	N.A.	0.00
90-120	0.43	N.A.	0.00
90-130	0.43	N.A.	0.00
90-150	0.43	N.A.	0.00
90-180	0.43	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	5985.99	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	2484.39
10-20	1665.31
20-30	1072.64
30-40	557.56
40-50	77.56
50-60	64.76
60-70	41.32
70-80	19.07
80-90	2.96
90-100	0.41
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	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	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

X=2H	Y=2H	9.9	10.9	10.3	11.2	11.5	UGR Viewed Endwise			
	3H	10.8	11.6	11.2	12.0	12.3	9.7	10.6	10.0	10.9
	4H	11.1	11.9	11.5	12.2	12.6	10.6	11.4	11.0	11.7
	6H	11.3	12.0	11.7	12.4	12.8	10.9	11.7	11.3	12.0
	8H	11.3	11.9	11.7	12.3	12.7	11.1	11.8	11.5	12.2
	12H	11.2	11.8	11.7	12.2	12.7	11.1	11.7	11.5	12.1

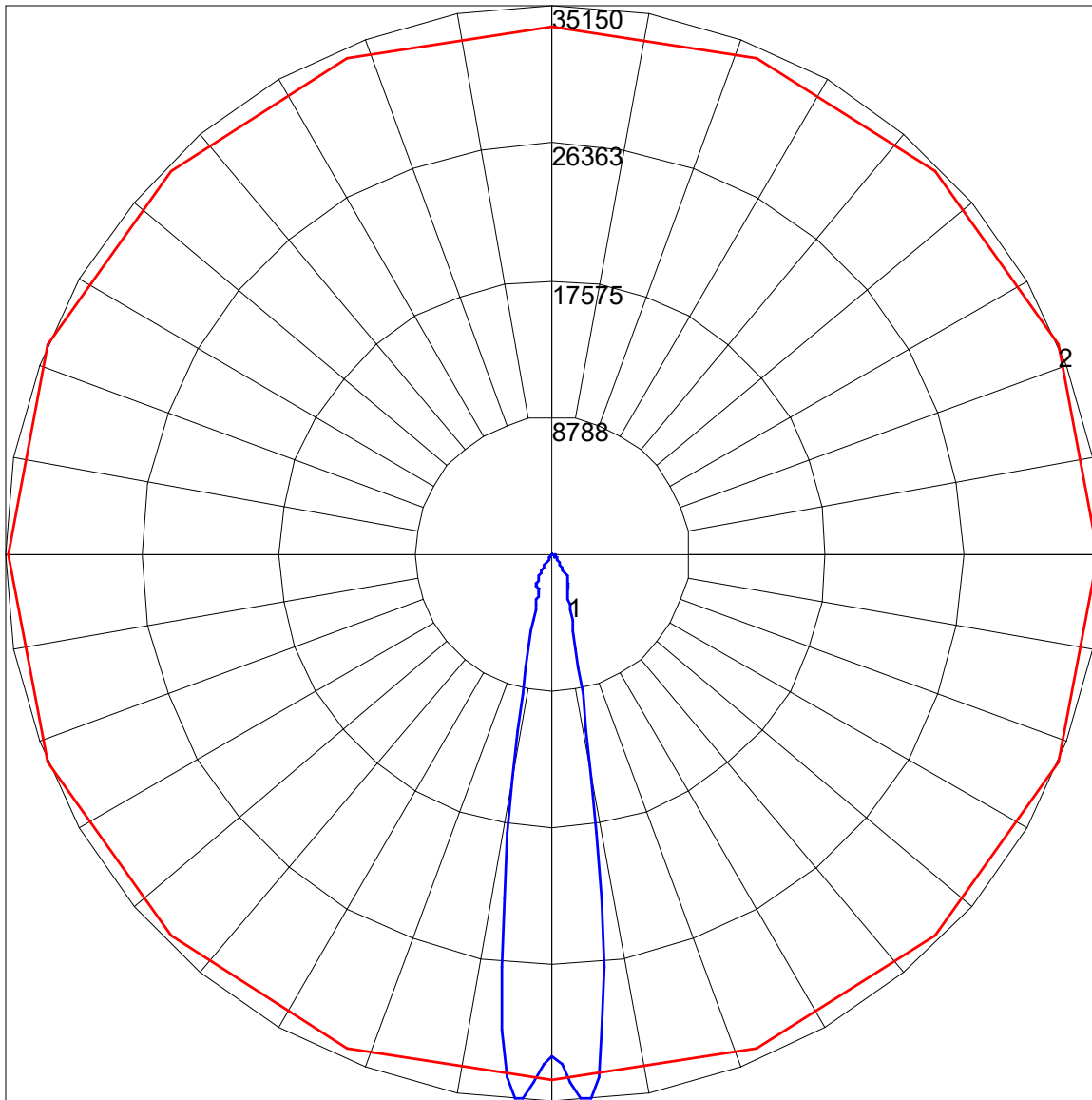
4H	2H	10.1	10.9	10.6	11.3	11.7	9.9	10.7	10.3	11.0	11.4
	3H	11.2	11.8	11.6	12.2	12.6	11.0	11.6	11.4	12.0	12.5
	4H	11.6	12.2	12.1	12.6	13.0	11.5	12.0	11.9	12.4	12.9
	6H	11.9	12.4	12.4	12.8	13.3	11.7	12.2	12.2	12.7	13.1
	8H	11.9	12.3	12.3	12.8	13.2	11.7	12.2	12.2	12.6	13.1
	12H	11.8	12.2	12.3	12.7	13.2	11.7	12.1	12.2	12.6	13.0

8H	4H	11.7	12.1	12.2	12.6	13.0	11.5	12.0	12.0	12.4	12.9
	6H	12.0	12.4	12.5	12.9	13.4	11.9	12.2	12.4	12.8	13.2
	8H	12.0	12.3	12.6	12.9	13.4	11.9	12.2	12.5	12.7	13.2
	12H	12.0	12.3	12.5	12.8	13.3	11.9	12.1	12.4	12.6	13.2

12H	4H	11.6	12.0	12.1	12.5	13.0	11.5	11.9	12.0	12.4	12.8
	6H	12.0	12.3	12.5	12.8	13.3	11.9	12.2	12.4	12.7	13.2
	8H	12.0	12.3	12.5	12.8	13.4	11.9	12.2	12.4	12.7	13.2

Maximum UGR = 13.4

POLAR GRAPH



Maximum Candela = 35150.405 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.)