



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L40-840-XXX-DIM-UNV-RW-WH-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12316380.12

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 27-JAN-2021

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.

[LUMCAT] 6CR-TL-L40-840-xxx-DIM-UNV-RW-WH-xx

[LUMINAIRE] 6" DIA. SURFACE CYLINDER

[LAMP] One white LED

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Corridor, Hotel, Industrial, Office, Downlight

[_SEARCH_MOUNTING] Surface

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2665
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	70
Total Luminaire Watts	38
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.98
Spacing Criterion (90-270)	0.98
Spacing Criterion (Diagonal)	0.88
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.38 ft (Diameter)
Luminous Width (90-270)	0.38 ft (Diameter)
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	61645	61645	61645
55	49776	49776	49776
65	32200	32200	32200
75	17955	17955	17955
85	9224	9224	9224

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6CR-TL-L40-840-XXX-DIM-UNV-RW-WH-XX_.IES

CANDELA TABULATION

	<u>0</u>
0.0	2140.768
0.5	2140.768
1.0	2138.754
1.5	2134.726
2.0	2130.699
2.5	2126.671
3.0	2120.629
3.5	2114.588
4.0	2108.546
4.5	2100.490
5.0	2094.449
5.5	2086.393
6.0	2078.337
6.5	2070.282
7.0	2062.226
7.5	2054.171
8.0	2046.115
8.5	2036.046
9.0	2027.990
9.5	2019.935
10.0	2012.282
10.5	2004.025
11.0	1995.566
11.5	1987.310
12.0	1979.455
12.5	1971.601
13.0	1963.747
13.5	1955.691
14.0	1947.636
14.5	1939.580
15.0	1931.323
15.5	1922.865
16.0	1914.004
16.5	1905.143
17.0	1896.080
17.5	1886.413
18.0	1876.143
18.5	1865.066
19.0	1854.393
19.5	1842.913
20.0	1830.427
20.5	1816.129
21.0	1799.615
21.5	1781.691
22.0	1761.149
22.5	1738.392
23.0	1712.615
23.5	1683.614
24.0	1651.795
24.5	1615.746
25.0	1575.468
25.5	1530.961
26.0	1482.829
26.5	1431.676

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6CR-TL-L40-840-XXX-DIM-UNV-RW-WH-XX_.IES

CANDELA TABULATION - (Cont.)

27.0	1377.906
27.5	1323.329
28.0	1266.134
28.5	1209.544
29.0	1153.155
29.5	1096.766
30.0	1041.384
30.5	987.009
31.0	935.655
31.5	885.911
32.0	838.988
32.5	795.286
33.0	754.807
33.5	718.356
34.0	685.529
34.5	656.932
35.0	631.758
35.5	610.411
36.0	591.682
36.5	575.973
37.0	562.078
37.5	550.196
38.0	539.321
38.5	529.654
39.0	520.994
39.5	513.140
40.0	506.091
40.5	499.445
41.0	493.001
41.5	487.161
42.0	481.320
42.5	475.883
43.0	470.445
43.5	464.806
44.0	459.168
44.5	453.529
45.0	447.688
45.5	441.647
46.0	435.404
46.5	428.959
47.0	422.313
47.5	415.466
48.0	408.619
48.5	401.369
49.0	393.917
49.5	386.063
50.0	378.209
50.5	370.154
51.0	361.695
51.5	353.438
52.0	344.980
52.5	336.522
53.0	328.466
53.5	319.605
54.0	310.744
54.5	301.883

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6CR-TL-L40-840-XXX-DIM-UNV-RW-WH-XX_.IES

CANDELA TABULATION - (Cont.)

55.0	293.223
55.5	284.362
56.0	275.702
56.5	267.244
57.0	258.785
57.5	250.327
58.0	242.070
58.5	234.014
59.0	225.959
59.5	218.105
60.0	210.250
60.5	202.598
61.0	195.146
61.5	187.695
62.0	180.646
62.5	173.396
63.0	166.549
63.5	159.500
64.0	152.854
64.5	146.209
65.0	139.764
65.5	133.320
66.0	127.077
66.5	121.035
67.0	115.195
67.5	109.354
68.0	103.715
68.5	98.077
69.0	92.639
69.5	87.403
70.0	82.570
70.5	77.938
71.0	73.708
71.5	69.681
72.0	65.854
72.5	62.229
73.0	58.806
73.5	55.785
74.0	52.764
74.5	50.146
75.0	47.729
75.5	45.514
76.0	43.097
76.5	40.882
77.0	38.667
77.5	36.451
78.0	34.438
78.5	32.222
79.0	30.208
79.5	28.195
80.0	26.181
80.5	24.167
81.0	22.354
81.5	20.542
82.0	18.528
82.5	16.917

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6CR-TL-L40-840-XXX-DIM-UNV-RW-WH-XX_.IES

CANDELA TABULATION - (Cont.)

83.0	15.104
83.5	13.292
84.0	11.681
84.5	9.868
85.0	8.257
85.5	6.847
86.0	5.438
86.5	4.431
87.0	3.424
87.5	2.618
88.0	1.813
88.5	1.208
89.0	0.604
89.5	0.201
90.0	0.000
90.5	0.000
91.0	0.000
91.5	0.000
92.0	0.000
92.5	0.000
93.0	0.000
93.5	0.000
94.0	0.000
94.5	0.000
95.0	0.000
95.5	0.000
96.0	0.000
96.5	0.000
97.0	0.000
97.5	0.000
98.0	0.000
98.5	0.000
99.0	0.000
99.5	0.000
100.0	0.000
100.5	0.000
101.0	0.000
101.5	0.000
102.0	0.000
102.5	0.000
103.0	0.000
103.5	0.000
104.0	0.000
104.5	0.000
105.0	0.000
105.5	0.000
106.0	0.000
106.5	0.000
107.0	0.000
107.5	0.000
108.0	0.000
108.5	0.000
109.0	0.000
109.5	0.000
110.0	0.000
110.5	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6CR-TL-L40-840-XXX-DIM-UNV-RW-WH-XX_.IES

CANDELA TABULATION - (Cont.)

111.0	0.000
111.5	0.000
112.0	0.000
112.5	0.000
113.0	0.000
113.5	0.000
114.0	0.000
114.5	0.000
115.0	0.000
115.5	0.000
116.0	0.000
116.5	0.000
117.0	0.000
117.5	0.000
118.0	0.000
118.5	0.000
119.0	0.000
119.5	0.000
120.0	0.000
120.5	0.000
121.0	0.000
121.5	0.000
122.0	0.000
122.5	0.000
123.0	0.000
123.5	0.000
124.0	0.000
124.5	0.000
125.0	0.000
125.5	0.000
126.0	0.000
126.5	0.000
127.0	0.000
127.5	0.000
128.0	0.000
128.5	0.000
129.0	0.000
129.5	0.000
130.0	0.000
130.5	0.000
131.0	0.000
131.5	0.000
132.0	0.000
132.5	0.000
133.0	0.000
133.5	0.000
134.0	0.000
134.5	0.000
135.0	0.000
135.5	0.000
136.0	0.000
136.5	0.000
137.0	0.000
137.5	0.000
138.0	0.000
138.5	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6CR-TL-L40-840-XXX-DIM-UNV-RW-WH-XX_.IES

CANDELA TABULATION - (Cont.)

139.0	0.000
139.5	0.000
140.0	0.000
140.5	0.000
141.0	0.000
141.5	0.000
142.0	0.000
142.5	0.000
143.0	0.000
143.5	0.000
144.0	0.000
144.5	0.000
145.0	0.000
145.5	0.000
146.0	0.000
146.5	0.000
147.0	0.000
147.5	0.000
148.0	0.000
148.5	0.000
149.0	0.000
149.5	0.000
150.0	0.000
150.5	0.000
151.0	0.000
151.5	0.000
152.0	0.000
152.5	0.000
153.0	0.000
153.5	0.000
154.0	0.000
154.5	0.000
155.0	0.000
155.5	0.000
156.0	0.000
156.5	0.000
157.0	0.000
157.5	0.000
158.0	0.000
158.5	0.000
159.0	0.000
159.5	0.000
160.0	0.000
160.5	0.000
161.0	0.000
161.5	0.000
162.0	0.000
162.5	0.000
163.0	0.000
163.5	0.000
164.0	0.000
164.5	0.000
165.0	0.000
165.5	0.000
166.0	0.000
166.5	0.000

CANDELA TABULATION - (Cont.)

167.0	0.000
167.5	0.000
168.0	0.000
168.5	0.000
169.0	0.000
169.5	0.000
170.0	0.000
170.5	0.000
171.0	0.000
171.5	0.000
172.0	0.000
172.5	0.000
173.0	0.000
173.5	0.000
174.0	0.000
174.5	0.000
175.0	0.000
175.5	0.000
176.0	0.000
176.5	0.000
177.0	0.000
177.5	0.000
178.0	0.000
178.5	0.000
179.0	0.000
179.5	0.000
180.0	0.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6CR-TL-L40-840-XXX-DIM-UNV-RW-WH-XX_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	740.99	N.A.	27.80
0-30	1433.92	N.A.	53.80
0-40	1856.18	N.A.	69.60
0-60	2461.57	N.A.	92.40
0-80	2654.19	N.A.	99.60
0-90	2665.08	N.A.	100.00
10-90	2467.91	N.A.	92.60
20-40	1115.18	N.A.	41.80
20-50	1458.74	N.A.	54.70
40-70	745.41	N.A.	28.00
60-80	192.62	N.A.	7.20
70-80	52.60	N.A.	2.00
80-90	10.89	N.A.	0.40
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2665.08	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	197.17
10-20	543.83
20-30	692.92
30-40	422.26
40-50	343.56
50-60	261.83
60-70	140.02
70-80	52.60
80-90	10.89
90-100	0.00
100-110	0.00
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

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L40-840-XXX-DIM-UNV-RW-WH-XX_.IES

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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72
4	91	82	75	70	89	80	74	69	78	73	68	76	71	67	74	70	67	65
5	85	75	68	63	84	74	67	62	72	66	62	70	65	61	69	64	61	59
6	80	69	62	57	79	69	62	57	67	61	56	65	60	56	64	59	55	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L40-840-XXX-DIM-UNV-RW-WH-XX_.IES

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	23.0	24.3	23.4	24.6	24.9	23.0	24.3	23.4	24.6	24.9
	3H	23.8	24.9	24.1	25.3	25.6	23.8	24.9	24.1	25.3	25.6
	4H	23.9	25.0	24.3	25.4	25.7	23.9	25.0	24.3	25.4	25.7
	6H	24.1	25.0	24.5	25.4	25.8	24.1	25.0	24.5	25.4	25.8
	8H	24.1	25.0	24.5	25.4	25.8	24.1	25.0	24.5	25.4	25.8
	12H	24.0	24.9	24.5	25.3	25.8	24.0	24.9	24.5	25.3	25.8

UGR Viewed Endwise

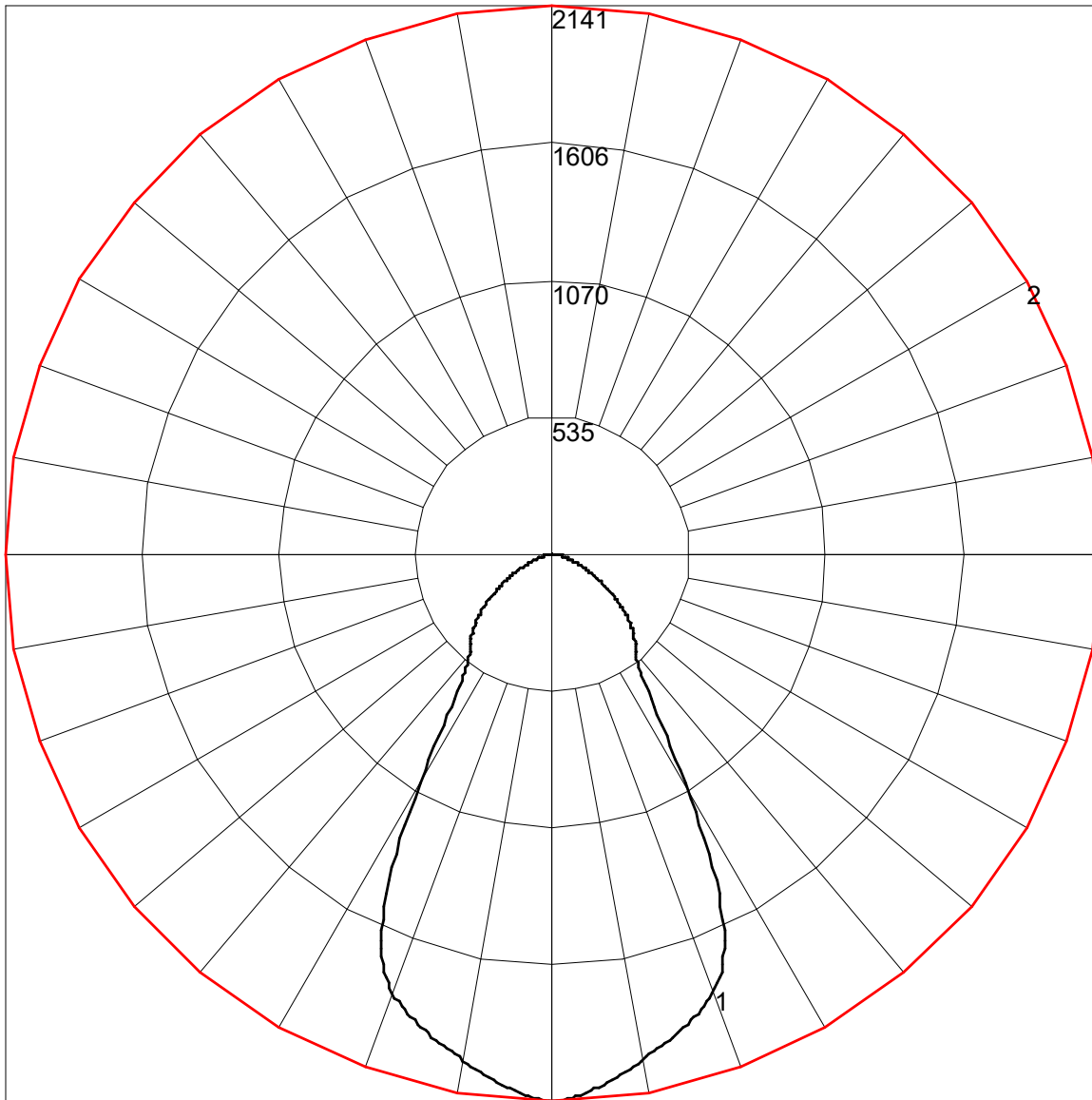
4H	2H	23.3	24.4	23.7	24.7	25.1	23.3	24.4	23.7	24.7	25.1
	3H	24.2	25.1	24.6	25.5	25.9	24.2	25.1	24.6	25.5	25.9
	4H	24.4	25.2	24.8	25.6	26.1	24.4	25.2	24.8	25.6	26.1
	6H	24.6	25.3	25.1	25.7	26.2	24.6	25.3	25.1	25.7	26.2
	8H	24.6	25.2	25.1	25.7	26.2	24.6	25.2	25.1	25.7	26.2
	12H	24.6	25.2	25.1	25.7	26.1	24.6	25.2	25.1	25.7	26.1

8H	4H	24.5	25.1	24.9	25.5	26.0	24.5	25.1	24.9	25.5	26.0
	6H	24.7	25.2	25.2	25.7	26.2	24.7	25.2	25.2	25.7	26.2
	8H	24.7	25.2	25.3	25.7	26.2	24.7	25.2	25.3	25.7	26.2
	12H	24.8	25.2	25.3	25.7	26.2	24.8	25.2	25.3	25.7	26.2

12H	4H	24.4	25.0	24.9	25.5	25.9	24.4	25.0	24.9	25.5	25.9
	6H	24.7	25.1	25.2	25.6	26.1	24.7	25.1	25.2	25.6	26.1
	8H	24.7	25.2	25.3	25.6	26.2	24.7	25.2	25.3	25.6	26.2

Maximum UGR = 26.2

POLAR GRAPH



Maximum Candela = 2140.768 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)