



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L40-835-XXX-DIM-UNV-OM-CS-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.22

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 25-JAN-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 6CR-TL-L40-835-xxx-DIM-UNV-OM-CS-xx

[LUMINAIRE] 6" DIA ROUND 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	3865
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	37.6223
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.74
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	9474	9474	9474
55	2767	2767	2767
65	991	991	991
75	451	451	451
85	335	335	335

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CANDELA TABULATION

	<u>0</u>
0.0	8106.0
0.5	8120.0
1.0	8126.0
1.5	8122.0
2.0	8108.0
2.5	8088.0
3.0	8045.0
3.5	7995.0
4.0	7925.0
4.5	7833.0
5.0	7716.0
5.5	7574.0
6.0	7429.0
6.5	7258.0
7.0	7077.0
7.5	6886.0
8.0	6689.0
8.5	6492.0
9.0	6296.0
9.5	6103.0
10.0	5917.0
10.5	5741.0
11.0	5573.0
11.5	5417.0
12.0	5274.0
12.5	5139.0
13.0	5016.0
13.5	4903.0
14.0	4800.0
14.5	4702.0
15.0	4611.0
15.5	4525.0
16.0	4448.0
16.5	4380.0
17.0	4317.0
17.5	4258.0
18.0	4202.0
18.5	4146.0
19.0	4094.0
19.5	4044.0
20.0	3998.0
20.5	3953.0
21.0	3907.0
21.5	3860.0
22.0	3808.0
22.5	3752.0
23.0	3691.0
23.5	3625.0
24.0	3552.0
24.5	3470.0
25.0	3380.0
25.5	3280.0
26.0	3168.0
26.5	3042.0

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CANDELA TABULATION - (Cont.)

27.0	2904.0
27.5	2754.0
28.0	2594.0
28.5	2422.0
29.0	2236.0
29.5	2044.0
30.0	1847.0
30.5	1649.0
31.0	1454.0
31.5	1267.0
32.0	1087.0
32.5	921.1
33.0	769.6
33.5	631.7
34.0	513.8
34.5	414.9
35.0	335.6
35.5	274.5
36.0	228.1
36.5	194.4
37.0	172.5
37.5	158.6
38.0	148.7
38.5	139.9
39.0	132.0
39.5	124.8
40.0	118.0
40.5	111.7
41.0	105.8
41.5	100.2
42.0	95.1
42.5	90.1
43.0	85.4
43.5	80.9
44.0	76.6
44.5	72.6
45.0	68.8
45.5	65.1
46.0	61.5
46.5	57.9
47.0	54.4
47.5	50.9
48.0	47.5
48.5	44.4
49.0	41.4
49.5	38.4
50.0	35.5
50.5	32.6
51.0	30.2
51.5	27.9
52.0	25.8
52.5	23.9
53.0	22.1
53.5	20.5
54.0	18.9
54.5	17.6

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CANDELA TABULATION - (Cont.)

55.0	16.3
55.5	15.1
56.0	14.2
56.5	13.1
57.0	12.2
57.5	11.4
58.0	10.7
58.5	10.0
59.0	9.3
59.5	8.8
60.0	8.2
60.5	7.7
61.0	7.2
61.5	6.7
62.0	6.4
62.5	5.9
63.0	5.6
63.5	5.2
64.0	4.9
64.5	4.6
65.0	4.3
65.5	4.1
66.0	3.8
66.5	3.7
67.0	3.4
67.5	3.2
68.0	3.0
68.5	2.8
69.0	2.6
69.5	2.5
70.0	2.4
70.5	2.2
71.0	2.0
71.5	2.0
72.0	1.8
72.5	1.7
73.0	1.5
73.5	1.4
74.0	1.3
74.5	1.3
75.0	1.2
75.5	1.1
76.0	1.1
76.5	1.0
77.0	0.9
77.5	0.9
78.0	0.8
78.5	0.7
79.0	0.7
79.5	0.7
80.0	0.6
80.5	0.5
81.0	0.6
81.5	0.5
82.0	0.5
82.5	0.5

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CANDELA TABULATION - (Cont.)

83.0	0.4
83.5	0.4
84.0	0.3
84.5	0.3
85.0	0.3
85.5	0.3
86.0	0.3
86.5	0.2
87.0	0.2
87.5	0.2
88.0	0.2
88.5	0.2
89.0	0.2
89.5	0.2
90.0	0.1
90.5	0.0
91.0	0.0
91.5	0.0
92.0	0.0
92.5	0.0
93.0	0.0
93.5	0.0
94.0	0.0
94.5	0.0
95.0	0.0
95.5	0.0
96.0	0.0
96.5	0.0
97.0	0.0
97.5	0.0
98.0	0.0
98.5	0.0
99.0	0.0
99.5	0.0
100.0	0.0
100.5	0.0
101.0	0.0
101.5	0.0
102.0	0.0
102.5	0.0
103.0	0.0
103.5	0.0
104.0	0.0
104.5	0.0
105.0	0.0
105.5	0.0
106.0	0.0
106.5	0.0
107.0	0.0
107.5	0.0
108.0	0.0
108.5	0.0
109.0	0.0
109.5	0.0
110.0	0.0
110.5	0.0

CANDELA TABULATION - (Cont.)

111.0	0.0
111.5	0.0
112.0	0.0
112.5	0.0
113.0	0.0
113.5	0.0
114.0	0.0
114.5	0.0
115.0	0.0
115.5	0.0
116.0	0.0
116.5	0.0
117.0	0.0
117.5	0.0
118.0	0.0
118.5	0.0
119.0	0.0
119.5	0.0
120.0	0.0
120.5	0.0
121.0	0.0
121.5	0.0
122.0	0.0
122.5	0.0
123.0	0.0
123.5	0.0
124.0	0.0
124.5	0.0
125.0	0.0
125.5	0.0
126.0	0.0
126.5	0.0
127.0	0.0
127.5	0.0
128.0	0.0
128.5	0.0
129.0	0.0
129.5	0.0
130.0	0.0
130.5	0.0
131.0	0.0
131.5	0.0
132.0	0.0
132.5	0.0
133.0	0.0
133.5	0.0
134.0	0.0
134.5	0.0
135.0	0.0
135.5	0.0
136.0	0.0
136.5	0.0
137.0	0.0
137.5	0.0
138.0	0.0
138.5	0.0

CANDELA TABULATION - (Cont.)

139.0	0.0
139.5	0.0
140.0	0.0
140.5	0.0
141.0	0.0
141.5	0.0
142.0	0.0
142.5	0.0
143.0	0.0
143.5	0.0
144.0	0.0
144.5	0.0
145.0	0.0
145.5	0.0
146.0	0.0
146.5	0.0
147.0	0.0
147.5	0.0
148.0	0.0
148.5	0.0
149.0	0.0
149.5	0.0
150.0	0.0
150.5	0.0
151.0	0.0
151.5	0.0
152.0	0.0
152.5	0.0
153.0	0.0
153.5	0.0
154.0	0.0
154.5	0.0
155.0	0.0
155.5	0.0
156.0	0.0
156.5	0.0
157.0	0.0
157.5	0.0
158.0	0.0
158.5	0.0
159.0	0.0
159.5	0.0
160.0	0.0
160.5	0.0
161.0	0.0
161.5	0.0
162.0	0.0
162.5	0.0
163.0	0.0
163.5	0.0
164.0	0.0
164.5	0.0
165.0	0.0
165.5	0.0
166.0	0.0
166.5	0.0

CANDELA TABULATION - (Cont.)

167.0	0.0
167.5	0.0
168.0	0.0
168.5	0.0
169.0	0.0
169.5	0.0
170.0	0.0
170.5	0.0
171.0	0.0
171.5	0.0
172.0	0.0
172.5	0.0
173.0	0.0
173.5	0.0
174.0	0.0
174.5	0.0
175.0	0.0
175.5	0.0
176.0	0.0
176.5	0.0
177.0	0.0
177.5	0.0
178.0	0.0
178.5	0.0
179.0	0.0
179.5	0.0
180.0	0.0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1986.00	N.A.	51.40
0-30	3445.79	N.A.	89.10
0-40	3788.75	N.A.	98.00
0-60	3859.06	N.A.	99.80
0-80	3864.99	N.A.	100.00
0-90	3865.35	N.A.	100.00
10-90	3191.11	N.A.	82.60
20-40	1802.75	N.A.	46.60
20-50	1857.04	N.A.	48.00
40-70	74.88	N.A.	1.90
60-80	5.93	N.A.	0.20
70-80	1.36	N.A.	0.00
80-90	0.36	N.A.	0.00
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	3865.36	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	674.24
10-20	1311.76
20-30	1459.79
30-40	342.96
40-50	54.29
50-60	16.02
60-70	4.57
70-80	1.36
80-90	0.36
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

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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	112	110	108	112	110	108	106	106	104	103	102	101	100	98	98	97	95
2	109	105	102	99	107	103	100	98	100	98	95	97	95	93	95	93	91	90
3	105	99	95	91	103	98	94	91	95	92	89	93	90	88	91	89	87	85
4	101	94	89	86	99	93	88	85	91	87	84	89	86	83	87	84	82	81
5	96	89	84	80	95	88	84	80	87	82	79	85	81	79	83	80	78	77
6	92	85	80	76	91	84	79	76	83	78	75	81	77	75	80	77	74	73
7	89	81	75	72	87	80	75	72	79	74	71	78	74	71	77	73	71	69
8	85	77	72	68	84	76	71	68	75	71	68	74	70	67	73	70	67	66
9	82	73	68	65	81	73	68	65	72	68	65	71	67	64	71	67	64	63
10	79	70	65	62	78	70	65	62	69	65	62	68	64	61	68	64	61	60

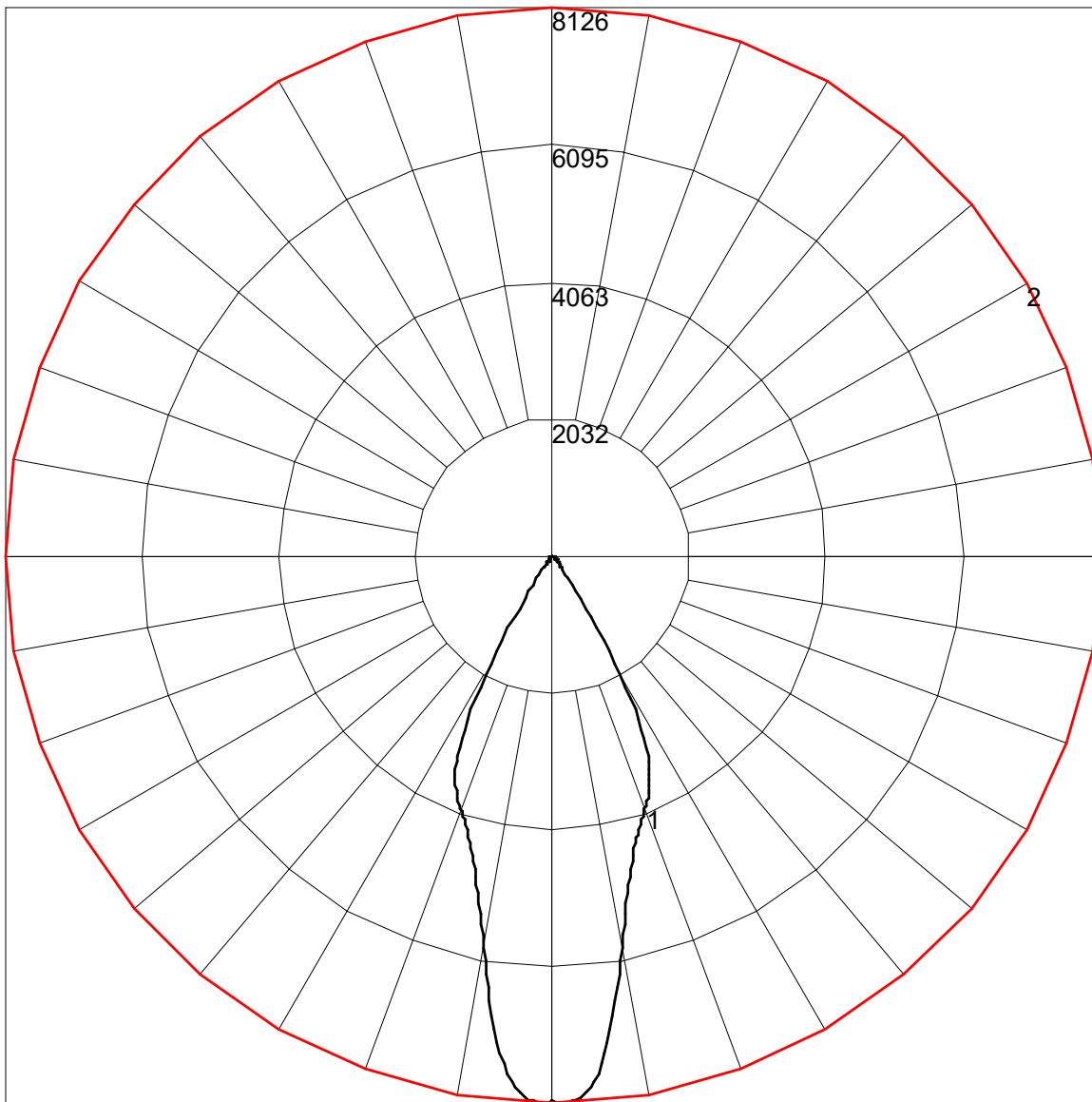
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UGR TABLE - CORRECTED

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	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	3H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	4H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	6H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	8H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	12H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
4H	2H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	3H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	4H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	6H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	8H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	12H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
8H	4H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	6H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	8H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	12H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
12H	4H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	6H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	8H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7

Maximum UGR = 4.7

POLAR GRAPH



Maximum Candela = 8126 Located At Horizontal Angle = 0, Vertical Angle = 1
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (1) (Through Max. Cd.)