



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-P28-835-XXX-POE-LM-WH-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from 12316380.09
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 28-JAN-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 6CR-TL-P28-835-xxx-POE-LM-WH-xx
 [LUMINAIRE] 6" DIA. SURFACE CYLINDER
 [LAMP] One white LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2491
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	0
Total Luminaire Watts	25946
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.54
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.35 ft (Diameter)
Luminous Width (90-270)	0.35 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	18902	18902	18902
55	14733	14733	14733
65	12313	12313	12313
75	9906	9906	9906
85	5918	5918	5918

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CANDELA TABULATION

	<u>0</u>
0.0	6445.496
0.5	6442.719
1.0	6432.999
1.5	6417.726
2.0	6398.286
2.5	6371.905
3.0	6341.357
3.5	6305.256
4.0	6263.600
4.5	6219.168
5.0	6169.181
5.5	6113.640
6.0	6052.546
6.5	5984.508
7.0	5910.917
7.5	5830.383
8.0	5742.906
8.5	5648.487
9.0	5548.514
9.5	5440.210
10.0	5323.574
10.5	5198.608
11.0	5068.087
11.5	4930.624
12.0	4784.830
12.5	4633.481
13.0	4475.190
13.5	4311.345
14.0	4140.558
14.5	3964.216
15.0	3786.486
15.5	3605.979
16.0	3425.471
16.5	3243.576
17.0	3063.069
17.5	2888.115
18.0	2714.551
18.5	2547.929
19.0	2388.249
19.5	2234.124
20.0	2088.330
20.5	1948.089
21.0	1817.569
21.5	1693.991
22.0	1577.355
22.5	1469.051
23.0	1366.856
23.5	1271.604
24.0	1183.155
24.5	1100.539
25.0	1023.892
25.5	952.662
26.0	885.874
26.5	824.224

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CANDELA TABULATION - (Cont.)

27.0	766.739
27.5	714.114
28.0	665.100
28.5	619.834
29.0	578.317
29.5	539.578
30.0	503.615
30.5	470.430
31.0	439.743
31.5	411.556
32.0	385.452
32.5	361.431
33.0	339.354
33.5	318.942
34.0	300.336
34.5	283.119
35.0	267.567
35.5	253.127
36.0	239.936
36.5	227.856
37.0	216.748
37.5	206.611
38.0	197.447
38.5	188.977
39.0	181.201
39.5	174.120
40.0	167.594
40.5	161.485
41.0	155.792
41.5	150.654
42.0	145.794
42.5	141.212
43.0	137.047
43.5	133.020
44.0	129.271
44.5	125.800
45.0	122.328
45.5	119.135
46.0	116.219
46.5	113.303
47.0	110.526
47.5	108.027
48.0	105.388
48.5	103.028
49.0	100.667
49.5	98.307
50.0	96.224
50.5	94.141
51.0	92.198
51.5	90.115
52.0	88.171
52.5	86.366
53.0	84.422
53.5	82.617
54.0	80.812
54.5	79.007

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CANDELA TABULATION - (Cont.)

55.0	77.340
55.5	75.674
56.0	74.008
56.5	72.342
57.0	70.537
57.5	69.009
58.0	67.482
58.5	66.093
59.0	64.566
59.5	63.039
60.0	61.511
60.5	59.984
61.0	58.734
61.5	57.207
62.0	55.818
62.5	54.430
63.0	53.041
63.5	51.792
64.0	50.403
64.5	49.015
65.0	47.626
65.5	46.376
66.0	45.127
66.5	43.877
67.0	42.489
67.5	41.239
68.0	39.989
68.5	38.740
69.0	37.490
69.5	36.240
70.0	34.991
70.5	33.880
71.0	32.769
71.5	31.380
72.0	30.270
72.5	29.159
73.0	28.048
73.5	26.798
74.0	25.688
74.5	24.577
75.0	23.466
75.5	22.355
76.0	21.244
76.5	20.133
77.0	19.023
77.5	18.190
78.0	17.079
78.5	16.107
79.0	15.135
79.5	14.163
80.0	13.191
80.5	12.219
81.0	11.247
81.5	10.553
82.0	9.442
82.5	8.748

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CANDELA TABULATION - (Cont.)

83.0	7.776
83.5	7.081
84.0	6.248
84.5	5.415
85.0	4.721
85.5	3.888
86.0	3.332
86.5	2.638
87.0	2.222
87.5	1.805
88.0	1.389
88.5	1.111
89.0	0.833
89.5	0.555
90.0	0.417
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

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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
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128.5	0.000
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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

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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

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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

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1575.4	N.A.	63.20
0-30	2069.06	N.A.	83.10
0-40	2247.02	N.A.	90.20
0-60	2412.91	N.A.	96.90
0-80	2485.23	N.A.	99.80
0-90	2491.11	N.A.	100.00
10-90	1928.58	N.A.	77.40
20-40	671.62	N.A.	27.00
20-50	768.00	N.A.	30.80
40-70	213.26	N.A.	8.60
60-80	72.32	N.A.	2.90
70-80	24.96	N.A.	1.00
80-90	5.87	N.A.	0.20
90-110	0.01	N.A.	0.00
90-120	0.01	N.A.	0.00
90-130	0.01	N.A.	0.00
90-150	0.01	N.A.	0.00
90-180	0.01	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2491.12	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	562.53
10-20	1012.87
20-30	493.66
30-40	177.96
40-50	96.37
50-60	69.52
60-70	47.36
70-80	24.96
80-90	5.87
90-100	0.01
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	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	109	104	101	97	107	103	99	96	99	97	94	96	94	92	94	92	90	89
3	104	98	94	90	102	97	93	89	94	91	88	92	89	87	90	87	85	84
4	100	93	88	84	98	92	87	84	90	86	83	88	85	82	86	83	81	80
5	96	88	83	80	94	88	83	79	86	82	79	84	81	78	83	80	77	76
6	92	84	79	75	91	84	79	75	82	78	75	81	77	74	80	76	74	72
7	89	81	76	72	88	80	75	72	79	74	71	78	74	71	77	73	71	69
8	86	77	72	69	84	77	72	69	76	71	68	75	71	68	74	70	68	67
9	83	74	69	66	82	74	69	66	73	69	66	72	68	65	71	68	65	64
10	80	72	67	63	79	71	66	63	70	66	63	70	66	63	69	65	63	62

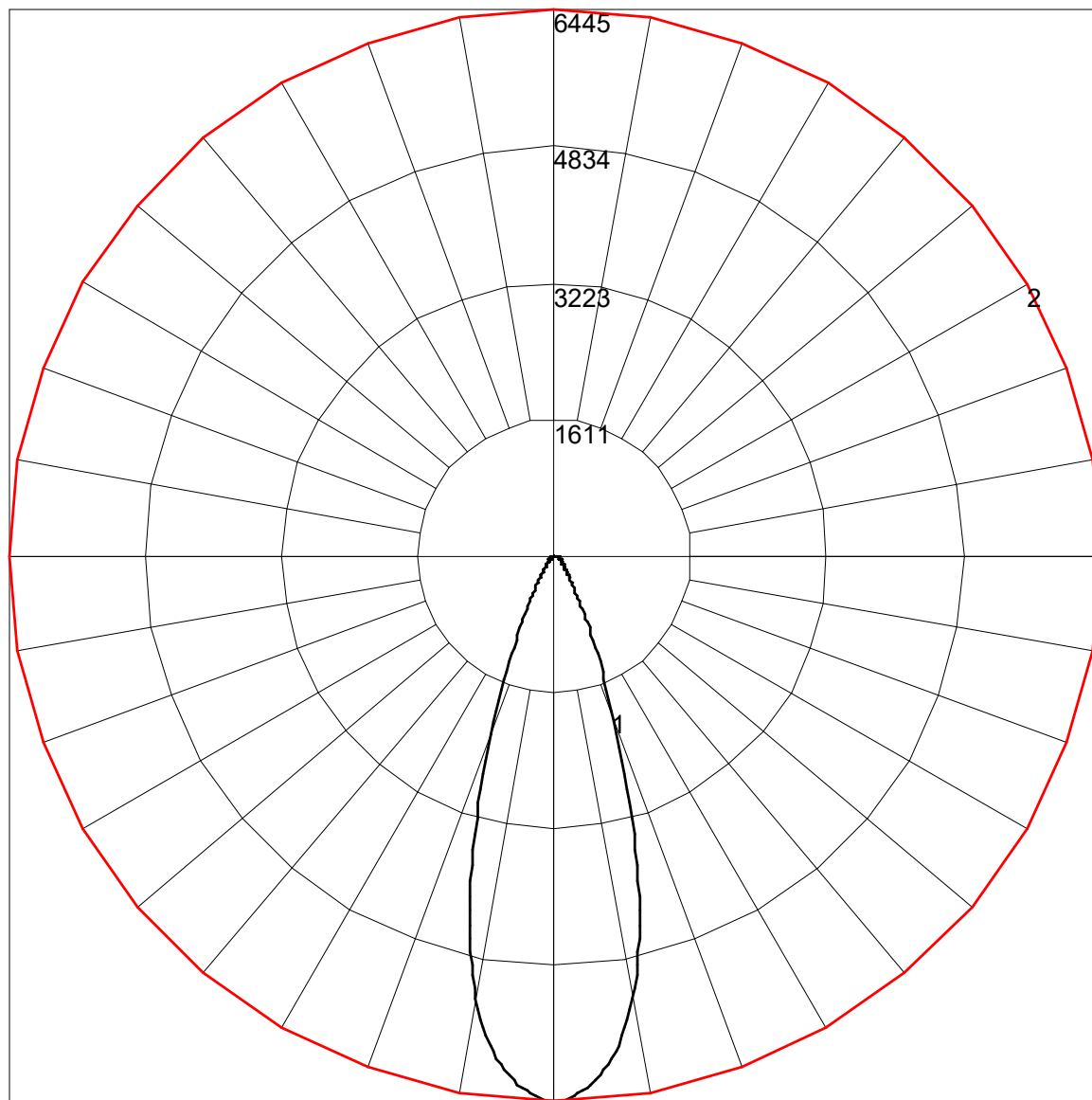
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UGR TABLE - CORRECTED

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	15.0	16.1	15.4	16.4	16.7	15.0	16.1	15.4	16.4	16.7
	3H	16.5	17.4	16.9	17.7	18.1	16.5	17.4	16.9	17.7	18.1
	4H	17.0	17.8	17.4	18.2	18.6	17.0	17.8	17.4	18.2	18.6
	6H	17.3	18.1	17.7	18.5	18.9	17.3	18.1	17.7	18.5	18.9
	8H	17.4	18.1	17.8	18.5	18.9	17.4	18.1	17.8	18.5	18.9
	12H	17.4	18.1	17.9	18.5	18.9	17.4	18.1	17.9	18.5	18.9
4H	2H	15.5	16.3	15.9	16.7	17.1	15.5	16.3	15.9	16.7	17.1
	3H	17.1	17.8	17.5	18.2	18.6	17.1	17.8	17.5	18.2	18.6
	4H	17.7	18.4	18.2	18.8	19.2	17.7	18.4	18.2	18.8	19.2
	6H	18.2	18.7	18.7	19.2	19.6	18.2	18.7	18.7	19.2	19.6
	8H	18.3	18.8	18.8	19.2	19.7	18.3	18.8	18.8	19.2	19.7
	12H	18.3	18.8	18.8	19.2	19.7	18.3	18.8	18.8	19.2	19.7
8H	4H	17.9	18.4	18.4	18.8	19.3	17.9	18.4	18.4	18.8	19.3
	6H	18.4	18.8	19.0	19.3	19.8	18.4	18.8	19.0	19.3	19.8
	8H	18.6	18.9	19.1	19.5	20.0	18.6	18.9	19.1	19.5	20.0
	12H	18.7	19.0	19.2	19.5	20.1	18.7	19.0	19.2	19.5	20.1
12H	4H	17.9	18.3	18.4	18.8	19.3	17.9	18.3	18.4	18.8	19.3
	6H	18.5	18.8	19.0	19.3	19.8	18.5	18.8	19.0	19.3	19.8
	8H	18.6	18.9	19.2	19.4	20.0	18.6	18.9	19.2	19.4	20.0

Maximum UGR = 20.1

POLAR GRAPH



Maximum Candela = 6445.496 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.)