



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L30-835-XXX-DIM-UNV-LM-WH-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12316380.09
 [TESTLAB] UL Verification Services Inc.
 [ISSUE DATE] 27-JAN-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 6CR-TL-L30-835-xxx-DIM-UNV-LM-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	2683
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	27.8
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	20359	20359	20359
55	15868	15868	15868
65	13262	13262	13262
75	10670	10670	10670
85	6375	6375	6375

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CANDELA TABULATION

	<u>0</u>
0.0	6942.301
0.5	6939.310
1.0	6928.841
1.5	6912.390
2.0	6891.453
2.5	6863.038
3.0	6830.136
3.5	6791.252
4.0	6746.385
4.5	6698.528
5.0	6644.689
5.5	6584.867
6.0	6519.063
6.5	6445.782
7.0	6366.518
7.5	6279.777
8.0	6185.557
8.5	6083.861
9.0	5976.182
9.5	5859.530
10.0	5733.904
10.5	5599.305
11.0	5458.725
11.5	5310.666
12.0	5153.634
12.5	4990.620
13.0	4820.129
13.5	4643.655
14.0	4459.703
14.5	4269.769
15.0	4078.340
15.5	3883.920
16.0	3689.500
16.5	3493.584
17.0	3299.163
17.5	3110.725
18.0	2923.783
18.5	2744.318
19.0	2572.330
19.5	2406.325
20.0	2249.294
20.5	2098.244
21.0	1957.663
21.5	1824.560
22.0	1698.935
22.5	1582.282
23.0	1472.211
23.5	1369.616
24.0	1274.350
24.5	1185.366
25.0	1102.812
25.5	1026.091
26.0	954.155
26.5	887.753

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CANDELA TABULATION - (Cont.)

27.0	825.838
27.5	769.157
28.0	716.364
28.5	667.609
29.0	622.893
29.5	581.167
30.0	542.433
30.5	506.689
31.0	473.638
31.5	443.278
32.0	415.162
32.5	389.289
33.0	365.510
33.5	343.526
34.0	323.486
34.5	304.941
35.0	288.191
35.5	272.637
36.0	258.429
36.5	245.418
37.0	233.454
37.5	222.536
38.0	212.666
38.5	203.543
39.0	195.168
39.5	187.541
40.0	180.512
40.5	173.931
41.0	167.800
41.5	162.266
42.0	157.032
42.5	152.097
43.0	147.610
43.5	143.273
44.0	139.235
44.5	135.496
45.0	131.757
45.5	128.317
46.0	125.177
46.5	122.036
47.0	119.045
47.5	116.353
48.0	113.512
48.5	110.969
49.0	108.427
49.5	105.884
50.0	103.641
50.5	101.398
51.0	99.304
51.5	97.061
52.0	94.967
52.5	93.023
53.0	90.929
53.5	88.985
54.0	87.040
54.5	85.096

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CANDELA TABULATION - (Cont.)

55.0	83.302
55.5	81.507
56.0	79.712
56.5	77.918
57.0	75.973
57.5	74.328
58.0	72.683
58.5	71.188
59.0	69.543
59.5	67.898
60.0	66.252
60.5	64.607
61.0	63.261
61.5	61.616
62.0	60.121
62.5	58.625
63.0	57.130
63.5	55.784
64.0	54.288
64.5	52.793
65.0	51.297
65.5	49.951
66.0	48.605
66.5	47.259
67.0	45.764
67.5	44.418
68.0	43.072
68.5	41.726
69.0	40.380
69.5	39.034
70.0	37.688
70.5	36.491
71.0	35.295
71.5	33.799
72.0	32.603
72.5	31.406
73.0	30.210
73.5	28.864
74.0	27.668
74.5	26.471
75.0	25.275
75.5	24.078
76.0	22.882
76.5	21.685
77.0	20.489
77.5	19.592
78.0	18.395
78.5	17.348
79.0	16.301
79.5	15.255
80.0	14.208
80.5	13.161
81.0	12.114
81.5	11.366
82.0	10.170
82.5	9.422

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CANDELA TABULATION - (Cont.)

83.0	8.375
83.5	7.627
84.0	6.730
84.5	5.833
85.0	5.085
85.5	4.188
86.0	3.589
86.5	2.842
87.0	2.393
87.5	1.944
88.0	1.496
88.5	1.196
89.0	0.897
89.5	0.598
90.0	0.449
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
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128.0	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
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147.5	0.000
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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

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1696.83	N.A.	63.20
0-30	2228.54	N.A.	83.10
0-40	2420.21	N.A.	90.20
0-60	2598.9	N.A.	96.90
0-80	2676.79	N.A.	99.80
0-90	2683.12	N.A.	100.00
10-90	2077.23	N.A.	77.40
20-40	723.39	N.A.	27.00
20-50	827.19	N.A.	30.80
40-70	229.69	N.A.	8.60
60-80	77.89	N.A.	2.90
70-80	26.88	N.A.	1.00
80-90	6.33	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	2683.13	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	605.89
10-20	1090.94
20-30	531.72
30-40	191.67
40-50	103.80
50-60	74.88
60-70	51.01
70-80	26.88
80-90	6.33
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

X=2H	Y=2H	15.3	16.4	15.7	16.7	17.0	15.3	16.4	15.7	16.7	17.0
	3H	16.8	17.7	17.2	18.0	18.4	16.8	17.7	17.2	18.0	18.4
	4H	17.3	18.1	17.7	18.5	18.9	17.3	18.1	17.7	18.5	18.9
	6H	17.6	18.4	18.0	18.8	19.2	17.6	18.4	18.0	18.8	19.2
	8H	17.7	18.4	18.1	18.8	19.2	17.7	18.4	18.1	18.8	19.2
	12H	17.7	18.4	18.2	18.8	19.2	17.7	18.4	18.2	18.8	19.2

UGR Viewed Endwise

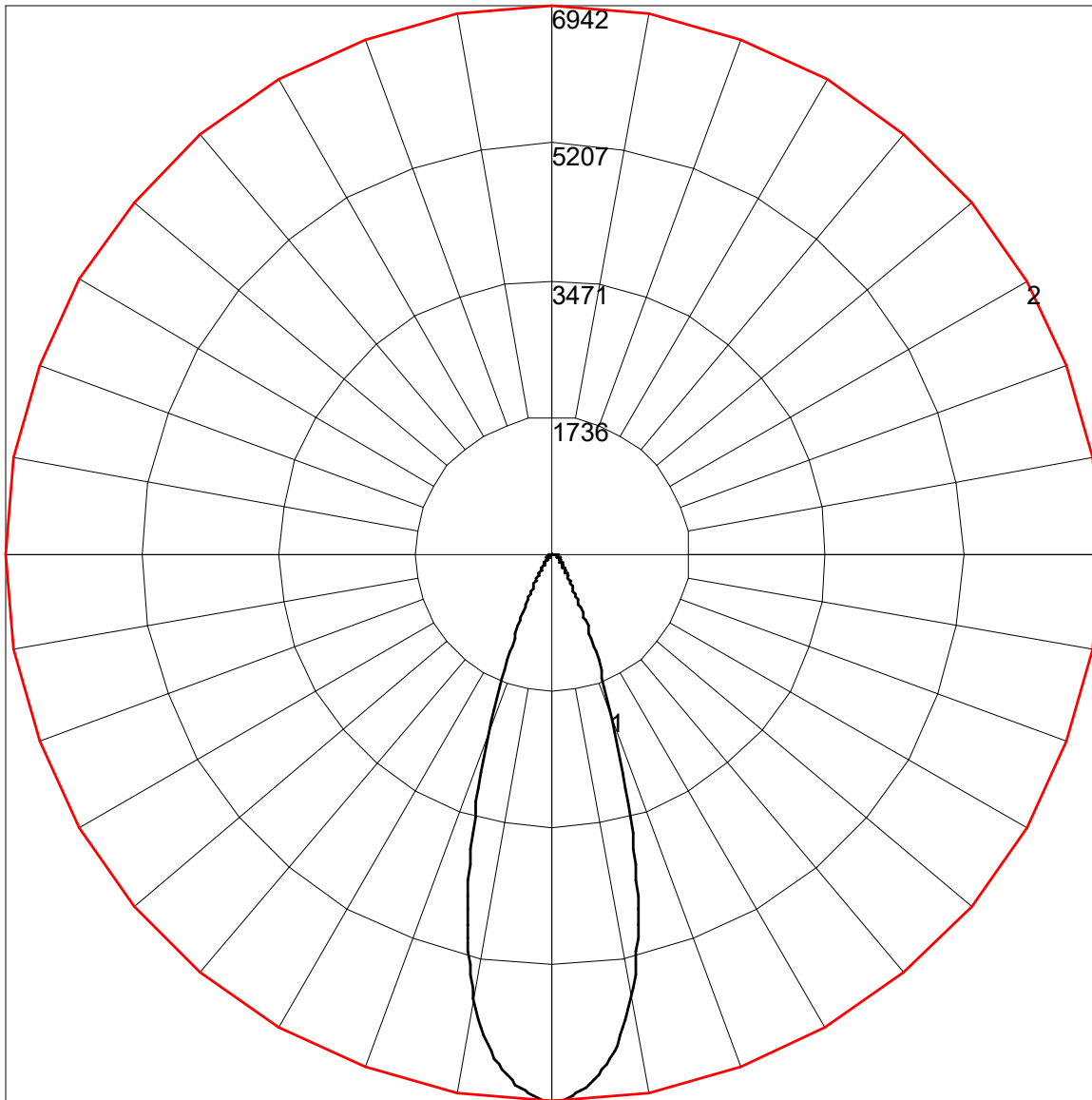
4H	2H	15.8	16.6	16.2	17.0	17.4	15.8	16.6	16.2	17.0	17.4
	3H	17.4	18.1	17.8	18.5	18.9	17.4	18.1	17.8	18.5	18.9
	4H	18.0	18.7	18.5	19.1	19.5	18.0	18.7	18.5	19.1	19.5
	6H	18.5	19.0	19.0	19.5	19.9	18.5	19.0	19.0	19.5	19.9
	8H	18.6	19.1	19.1	19.5	20.0	18.6	19.1	19.1	19.5	20.0
	12H	18.6	19.1	19.1	19.5	20.0	18.6	19.1	19.1	19.5	20.0

8H	4H	18.2	18.7	18.7	19.1	19.6	18.2	18.7	18.7	19.1	19.6
	6H	18.7	19.1	19.3	19.6	20.1	18.7	19.1	19.3	19.6	20.1
	8H	18.9	19.2	19.4	19.8	20.3	18.9	19.2	19.4	19.8	20.3
	12H	19.0	19.3	19.5	19.8	20.4	19.0	19.3	19.5	19.8	20.4

12H	4H	18.2	18.6	18.7	19.1	19.6	18.2	18.6	18.7	19.1	19.6
	6H	18.8	19.1	19.3	19.6	20.1	18.8	19.1	19.3	19.6	20.1
	8H	18.9	19.2	19.5	19.7	20.3	18.9	19.2	19.5	19.7	20.3

Maximum UGR = 20.4

POLAR GRAPH



Maximum Candela = 6942.301 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.)