



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L30-830-XXX-DIM-UNV-RM-CS-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12316380.14
 [TESTLAB] UL Verification Services Inc.
 [ISSUE DATE] 27-JAN-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.64836
 [LUMCAT] 6CR-TL-L30-830-xxx-DIM-UNV-RM-CS-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	2580
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
Total Luminaire Watts	27.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.52
Spacing Criterion (90-270)	0.52
Spacing Criterion (Diagonal)	0.52
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	14798	14798	14798
55	10293	10293	10293
65	7349	7349	7349
75	4919	4919	4919
85	4013	4013	4013

CANDELA TABULATION

	<u>0</u>
0.0	7436.716
0.5	7430.969
1.0	7413.728
1.5	7386.429
2.0	7349.073
2.5	7301.660
3.0	7245.626
3.5	7179.535
4.0	7103.386
4.5	7021.490
5.0	6930.974
5.5	6830.400
6.0	6722.642
6.5	6607.701
7.0	6484.139
7.5	6351.956
8.0	6214.026
8.5	6067.476
9.0	5916.615
9.5	5760.007
10.0	5597.652
10.5	5430.987
11.0	5260.011
11.5	5086.162
12.0	4909.440
12.5	4734.154
13.0	4558.868
13.5	4382.145
14.0	4203.986
14.5	4025.827
15.0	3850.541
15.5	3676.692
16.0	3502.843
16.5	3333.304
17.0	3165.202
17.5	2999.974
18.0	2837.619
18.5	2679.574
19.0	2528.713
19.5	2380.726
20.0	2237.049
20.5	2100.556
21.0	1968.374
21.5	1841.938
22.0	1722.686
22.5	1609.181
23.0	1502.860
23.5	1401.137
24.0	1304.874
24.5	1214.213
25.0	1129.444
25.5	1050.565
26.0	977.003
26.5	908.038

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6CR-TL-L30-830-XXX-DIM-UNV-RM-CS-XX_.IES

CANDELA TABULATION - (Cont.)

27.0	843.958
27.5	784.620
28.0	729.448
28.5	678.011
29.0	630.885
29.5	586.920
30.0	546.260
30.5	508.904
31.0	474.421
31.5	442.525
32.0	413.071
32.5	386.060
33.0	361.060
33.5	337.784
34.0	316.520
34.5	296.693
35.0	278.446
35.5	261.636
36.0	245.975
36.5	231.607
37.0	218.245
37.5	206.176
38.0	194.970
38.5	184.912
39.0	175.573
39.5	167.096
40.0	159.481
40.5	152.298
41.0	145.832
41.5	139.798
42.0	134.194
42.5	129.022
43.0	124.137
43.5	119.539
44.0	115.229
44.5	111.206
45.0	107.470
45.5	104.022
46.0	100.718
46.5	97.557
47.0	94.539
47.5	91.810
48.0	89.223
48.5	86.637
49.0	84.195
49.5	81.896
50.0	79.741
50.5	77.586
51.0	75.574
51.5	73.419
52.0	71.551
52.5	69.540
53.0	67.815
53.5	65.948
54.0	64.080
54.5	62.356

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6CR-TL-L30-830-XXX-DIM-UNV-RM-CS-XX_.IES

CANDELA TABULATION - (Cont.)

55.0	60.632
55.5	58.908
56.0	57.327
56.5	55.747
57.0	54.166
57.5	52.586
58.0	51.005
58.5	49.569
59.0	48.132
59.5	46.695
60.0	45.258
60.5	43.821
61.0	42.385
61.5	41.092
62.0	39.655
62.5	38.362
63.0	36.925
63.5	35.632
64.0	34.339
64.5	33.046
65.0	31.896
65.5	30.603
66.0	29.454
66.5	28.161
67.0	27.011
67.5	25.862
68.0	24.712
68.5	23.707
69.0	22.557
69.5	21.552
70.0	20.546
70.5	19.684
71.0	18.822
71.5	17.960
72.0	17.098
72.5	16.379
73.0	15.661
73.5	14.942
74.0	14.368
74.5	13.649
75.0	13.075
75.5	12.500
76.0	11.925
76.5	11.494
77.0	10.919
77.5	10.345
78.0	9.914
78.5	9.339
79.0	8.908
79.5	8.477
80.0	7.902
80.5	7.471
81.0	7.040
81.5	6.609
82.0	6.034
82.5	5.603

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6CR-TL-L30-830-XXX-DIM-UNV-RM-CS-XX_.IES

CANDELA TABULATION - (Cont.)

83.0	5.172
83.5	4.741
84.0	4.310
84.5	3.879
85.0	3.592
85.5	3.161
86.0	2.730
86.5	2.299
87.0	2.011
87.5	1.724
88.0	1.437
88.5	1.149
89.0	1.006
89.5	0.718
90.0	0.575
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-L30-830-XXX-DIM-UNV-RM-CS-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
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117.5	0.000
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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

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
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145.0	0.000
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146.0	0.000
146.5	0.000
147.0	0.000
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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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6CR-TL-L30-830-XXX-DIM-UNV-RM-CS-XX_.IES

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	1664.09	N.A.	64.50
0-30	2204.13	N.A.	85.40
0-40	2389.44	N.A.	92.60
0-60	2529.53	N.A.	98.10
0-80	2575.52	N.A.	99.80
0-90	2579.6	N.A.	100.00
10-90	1960.93	N.A.	76.00
20-40	725.36	N.A.	28.10
20-50	810.80	N.A.	31.40
40-70	171.87	N.A.	6.70
60-80	45.99	N.A.	1.80
70-80	14.21	N.A.	0.60
80-90	4.08	N.A.	0.20
90-110	0.02	N.A.	0.00
90-120	0.02	N.A.	0.00
90-130	0.02	N.A.	0.00
90-150	0.02	N.A.	0.00
90-180	0.02	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2579.62	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	618.67
10-20	1045.41
20-30	540.05
30-40	185.31
40-50	85.44
50-60	54.64
60-70	31.78
70-80	14.21
80-90	4.08
90-100	0.02
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	109	107	112	109	107	106	105	104	102	102	100	99	98	97	96	95
2	109	105	101	98	107	103	100	97	100	98	95	97	95	93	95	93	91	90
3	105	99	95	92	103	98	94	91	95	92	89	93	90	88	91	89	87	85
4	101	94	89	86	99	93	89	85	91	87	84	89	86	83	87	85	82	81
5	97	90	85	81	95	89	84	81	87	83	80	86	82	79	84	81	79	77
6	93	86	81	77	92	85	80	77	84	79	76	82	79	76	81	78	75	74
7	90	82	77	74	89	81	77	73	80	76	73	79	75	73	78	75	72	71
8	87	79	74	70	86	78	74	70	77	73	70	76	72	70	75	72	69	68
9	84	76	71	68	83	75	71	67	74	70	67	74	70	67	73	69	67	66
10	81	73	68	65	80	73	68	65	72	68	65	71	67	65	71	67	64	63

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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	12.7	13.7	13.1	14.0	14.3	UGR Viewed Endwise	12.7	13.7	13.1	14.0	14.3
	3H	13.7	14.5	14.0	14.9	15.2		13.7	14.5	14.0	14.9	15.2
	4H	14.0	14.8	14.4	15.1	15.5		14.0	14.8	14.4	15.1	15.5
	6H	14.2	14.9	14.6	15.3	15.7		14.2	14.9	14.6	15.3	15.7
	8H	14.2	14.9	14.7	15.3	15.7		14.2	14.9	14.7	15.3	15.7
	12H	14.3	14.9	14.7	15.3	15.7		14.3	14.9	14.7	15.3	15.7

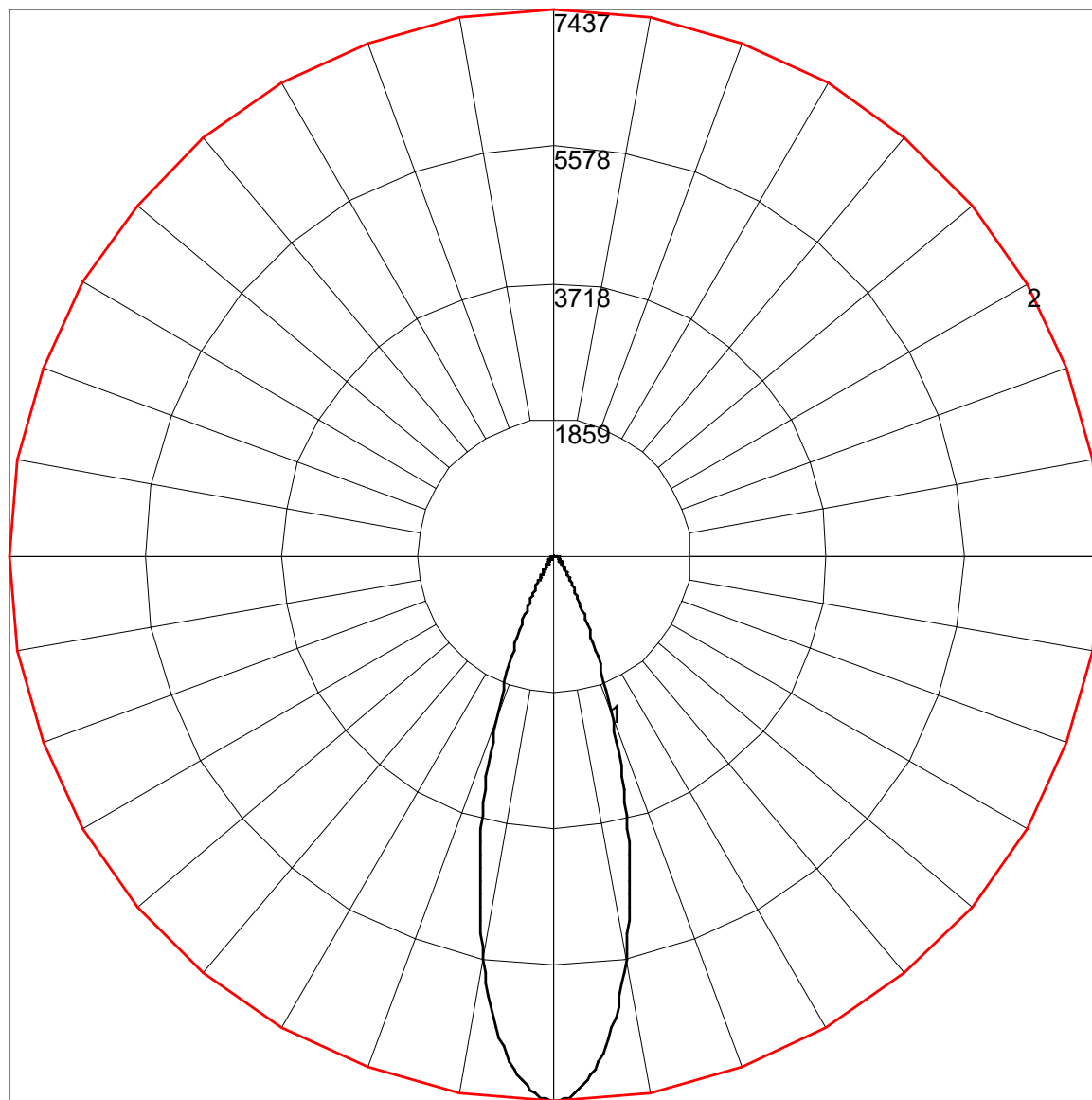
4H	2H	13.0	13.8	13.4	14.2	14.5	13.0	13.8	13.4	14.2	14.5
	3H	14.1	14.8	14.5	15.2	15.6	14.1	14.8	14.5	15.2	15.6
	4H	14.5	15.1	14.9	15.5	15.9	14.5	15.1	14.9	15.5	15.9
	6H	14.8	15.3	15.3	15.7	16.2	14.8	15.3	15.3	15.7	16.2
	8H	14.9	15.4	15.4	15.8	16.3	14.9	15.4	15.4	15.8	16.3
	12H	14.9	15.3	15.4	15.8	16.3	14.9	15.3	15.4	15.8	16.3

8H	4H	14.6	15.0	15.0	15.5	15.9	14.6	15.0	15.0	15.5	15.9
	6H	15.0	15.3	15.5	15.8	16.3	15.0	15.3	15.5	15.8	16.3
	8H	15.1	15.4	15.7	16.0	16.5	15.1	15.4	15.7	16.0	16.5
	12H	15.3	15.5	15.8	16.0	16.6	15.3	15.5	15.8	16.0	16.6

12H	4H	14.5	14.9	15.0	15.4	15.9	14.5	14.9	15.0	15.4	15.9
	6H	15.0	15.3	15.5	15.8	16.3	15.0	15.3	15.5	15.8	16.3
	8H	15.2	15.4	15.7	15.9	16.5	15.2	15.4	15.7	15.9	16.5

Maximum UGR = 16.6

POLAR GRAPH



Maximum Candela = 7436.716 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.)