



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L30-927-XXX-DIM-UNV-LM-CS-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-L30-927-xxx-DIM-UNV-LM-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	2039
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	73
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	15472	15472	15472
55	12059	12059	12059
65	10079	10079	10079
75	8109	8109	8109
85	4844	4844	4844

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6CR-TL-L30-927-XXX-DIM-UNV-LM-CS-XX_.IES

CANDELA TABULATION

	<u>0</u>
0.0	5275.940
0.5	5273.666
1.0	5265.710
1.5	5253.208
2.0	5237.296
2.5	5215.702
3.0	5190.697
3.5	5161.146
4.0	5127.049
4.5	5090.679
5.0	5049.763
5.5	5004.300
6.0	4954.291
6.5	4898.600
7.0	4838.362
7.5	4772.441
8.0	4700.837
8.5	4623.551
9.0	4541.718
9.5	4453.066
10.0	4357.594
10.5	4255.303
11.0	4148.466
11.5	4035.946
12.0	3916.607
12.5	3792.721
13.0	3663.152
13.5	3529.038
14.0	3389.240
14.5	3244.896
15.0	3099.416
15.5	2951.662
16.0	2803.908
16.5	2655.018
17.0	2507.265
17.5	2364.057
18.0	2221.987
18.5	2085.599
19.0	1954.894
19.5	1828.735
20.0	1709.395
20.5	1594.602
21.0	1487.765
21.5	1386.611
22.0	1291.139
22.5	1202.487
23.0	1118.836
23.5	1040.867
24.0	968.468
24.5	900.842
25.0	838.104
25.5	779.798
26.0	725.129
26.5	674.666

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6CR-TL-L30-927-XXX-DIM-UNV-LM-CS-XX_.IES

CANDELA TABULATION - (Cont.)

27.0	627.612
27.5	584.536
28.0	544.415
28.5	507.363
29.0	473.380
29.5	441.670
30.0	412.233
30.5	385.069
31.0	359.950
31.5	336.878
32.0	315.511
32.5	295.848
33.0	277.777
33.5	261.069
34.0	245.839
34.5	231.746
35.0	219.016
35.5	207.196
36.0	196.399
36.5	186.510
37.0	177.418
37.5	169.121
38.0	161.620
38.5	154.687
39.0	148.322
39.5	142.525
40.0	137.184
40.5	132.183
41.0	127.523
41.5	123.317
42.0	119.339
42.5	115.589
43.0	112.179
43.5	108.883
44.0	105.814
44.5	102.973
45.0	100.131
45.5	97.517
46.0	95.131
46.5	92.744
47.0	90.471
47.5	88.425
48.0	86.265
48.5	84.333
49.0	82.401
49.5	80.469
50.0	78.764
50.5	77.059
51.0	75.468
51.5	73.763
52.0	72.172
52.5	70.694
53.0	69.103
53.5	67.626
54.0	66.148
54.5	64.671

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6CR-TL-L30-927-XXX-DIM-UNV-LM-CS-XX_.IES

CANDELA TABULATION - (Cont.)

55.0	63.307
55.5	61.943
56.0	60.579
56.5	59.215
57.0	57.738
57.5	56.487
58.0	55.237
58.5	54.101
59.0	52.850
59.5	51.600
60.0	50.350
60.5	49.100
61.0	48.077
61.5	46.827
62.0	45.690
62.5	44.553
63.0	43.417
63.5	42.394
64.0	41.257
64.5	40.121
65.0	38.984
65.5	37.961
66.0	36.938
66.5	35.915
67.0	34.779
67.5	33.756
68.0	32.733
68.5	31.710
69.0	30.687
69.5	29.664
70.0	28.641
70.5	27.732
71.0	26.823
71.5	25.686
72.0	24.777
72.5	23.868
73.0	22.959
73.5	21.936
74.0	21.026
74.5	20.117
75.0	19.208
75.5	18.299
76.0	17.389
76.5	16.480
77.0	15.571
77.5	14.889
78.0	13.980
78.5	13.184
79.0	12.389
79.5	11.593
80.0	10.797
80.5	10.002
81.0	9.206
81.5	8.638
82.0	7.729
82.5	7.160

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6CR-TL-L30-927-XXX-DIM-UNV-LM-CS-XX_.IES

CANDELA TABULATION - (Cont.)

83.0	6.365
83.5	5.796
84.0	5.115
84.5	4.433
85.0	3.864
85.5	3.182
86.0	2.728
86.5	2.159
87.0	1.819
87.5	1.478
88.0	1.137
88.5	0.909
89.0	0.682
89.5	0.455
90.0	0.341
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-L30-927-XXX-DIM-UNV-LM-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
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-L30-927-XXX-DIM-UNV-LM-CS-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-L30-927-XXX-DIM-UNV-LM-CS-XX_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1289.54	N.A.	63.20
0-30	1693.62	N.A.	83.10
0-40	1839.29	N.A.	90.20
0-60	1975.08	N.A.	96.90
0-80	2034.28	N.A.	99.80
0-90	2039.09	N.A.	100.00
10-90	1578.63	N.A.	77.40
20-40	549.75	N.A.	27.00
20-50	628.64	N.A.	30.80
40-70	174.56	N.A.	8.60
60-80	59.20	N.A.	2.90
70-80	20.43	N.A.	1.00
80-90	4.81	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	2039.1	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	460.46
10-20	829.08
20-30	404.09
30-40	145.67
40-50	78.89
50-60	56.91
60-70	38.77
70-80	20.43
80-90	4.81
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

IES INDOOR REPORT
 PHOTOMETRIC FILENAME : 6CR-TL-L30-927-XXX-DIM-UNV-LM-CS-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	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

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L30-927-XXX-DIM-UNV-LM-CS-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

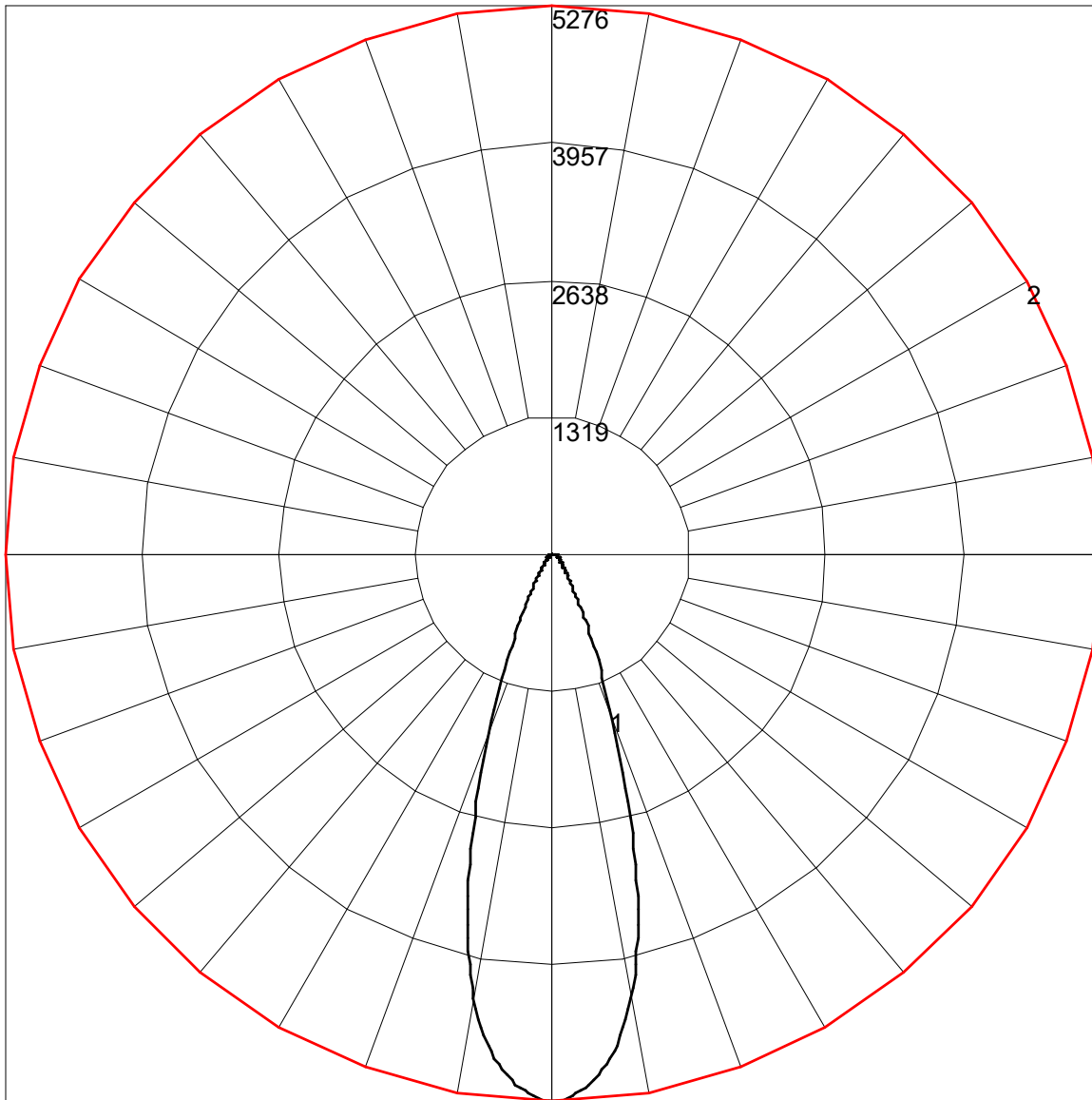
X=2H	Y=2H	14.3	15.4	14.7	15.7	16.0	14.3	15.4	14.7	15.7	16.0
	3H	15.8	16.7	16.2	17.0	17.4	15.8	16.7	16.2	17.0	17.4
	4H	16.3	17.1	16.7	17.5	17.9	16.3	17.1	16.7	17.5	17.9
	6H	16.6	17.4	17.0	17.8	18.2	16.6	17.4	17.0	17.8	18.2
	8H	16.7	17.4	17.1	17.8	18.2	16.7	17.4	17.1	17.8	18.2
	12H	16.7	17.4	17.2	17.8	18.2	16.7	17.4	17.2	17.8	18.2

UGR Viewed Endwise

4H	2H	14.8	15.6	15.2	16.0	16.4	14.8	15.6	15.2	16.0	16.4
	3H	16.4	17.1	16.8	17.5	17.9	16.4	17.1	16.8	17.5	17.9
	4H	17.0	17.7	17.5	18.1	18.5	17.0	17.7	17.5	18.1	18.5
	6H	17.5	18.0	18.0	18.5	18.9	17.5	18.0	18.0	18.5	18.9
	8H	17.6	18.1	18.1	18.5	19.0	17.6	18.1	18.1	18.5	19.0
	12H	17.6	18.1	18.1	18.5	19.0	17.6	18.1	18.1	18.5	19.0
8H	4H	17.2	17.7	17.7	18.1	18.6	17.2	17.7	17.7	18.1	18.6
	6H	17.7	18.1	18.3	18.6	19.1	17.7	18.1	18.3	18.6	19.1
	8H	17.9	18.3	18.4	18.8	19.3	17.9	18.3	18.4	18.8	19.3
	12H	18.0	18.3	18.5	18.8	19.4	18.0	18.3	18.5	18.8	19.4
12H	4H	17.2	17.6	17.7	18.1	18.6	17.2	17.6	17.7	18.1	18.6
	6H	17.8	18.1	18.3	18.6	19.1	17.8	18.1	18.3	18.6	19.1
	8H	17.9	18.3	18.5	18.7	19.3	17.9	18.3	18.5	18.7	19.3

Maximum UGR = 19.4

POLAR GRAPH



Maximum Candela = 5275.94 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.)