



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L20-835-EM10W-REMOTE-XXX-DIM-UNV-OM-CS-XX_EM MODE ONLY.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12316380.04

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 26-JAN-2021

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.64836

[LUMCAT] 6CR-TL-L20-835-EM10W REMOTE-xxx-DIM-UNV-OM-CS-xx(EM MODE)

[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	1010
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.76
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	2508	2508	2508
55	728	728	728
65	256	256	256
75	114	114	114
85	56	56	56

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CANDELA TABULATION

	<u>0</u>
0.0	2043.711
0.5	2045.225
1.0	2051.279
1.5	2056.828
2.0	2069.441
2.5	2077.512
3.0	2079.026
3.5	2079.530
4.0	2067.927
4.5	2052.288
5.0	2022.522
5.5	1984.685
6.0	1942.308
6.5	1894.885
7.0	1843.427
7.5	1789.950
8.0	1734.960
8.5	1680.475
9.0	1626.998
9.5	1575.035
10.0	1525.594
10.5	1479.181
11.0	1435.794
11.5	1394.930
12.0	1356.084
12.5	1319.760
13.0	1285.455
13.5	1252.662
14.0	1221.384
14.5	1192.627
15.0	1166.394
15.5	1143.187
16.0	1124.016
16.5	1106.863
17.0	1090.719
17.5	1076.593
18.0	1063.981
18.5	1053.387
19.0	1045.819
19.5	1039.261
20.0	1033.711
20.5	1027.153
21.0	1020.594
21.5	1013.531
22.0	1005.964
22.5	996.379
23.0	984.775
23.5	970.649
24.0	952.992
24.5	929.785
25.0	903.047
25.5	874.795
26.0	847.048
26.5	816.274

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6CR-TL-L20-835-EM10W-REMOTE-XXX-DIM-UNV-OM-CS-XX_EM MODE ONLY.IES****CANDELA TABULATION - (Cont.)**

27.0	783.986
27.5	747.158
28.0	705.285
28.5	659.376
29.0	611.449
29.5	562.512
30.0	510.549
30.5	456.720
31.0	400.368
31.5	344.217
32.0	290.236
32.5	239.736
33.0	195.795
33.5	158.311
34.0	126.729
34.5	100.496
35.0	79.206
35.5	63.163
36.0	52.871
36.5	47.473
37.0	44.244
37.5	41.419
38.0	38.947
38.5	36.677
39.0	34.608
39.5	32.742
40.0	30.976
40.5	29.311
41.0	27.747
41.5	26.335
42.0	24.973
42.5	23.711
43.0	22.450
43.5	21.340
44.0	20.230
44.5	19.171
45.0	18.212
45.5	17.254
46.0	16.295
46.5	15.387
47.0	14.429
47.5	13.520
48.0	12.663
48.5	11.856
49.0	11.048
49.5	10.241
50.0	9.434
50.5	8.677
51.0	8.021
51.5	7.416
52.0	6.811
52.5	6.306
53.0	5.802
53.5	5.398
54.0	4.995
54.5	4.591

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55.0	4.288
55.5	3.986
56.0	3.683
56.5	3.431
57.0	3.178
57.5	2.977
58.0	2.775
58.5	2.573
59.0	2.422
59.5	2.270
60.0	2.119
60.5	1.968
61.0	1.867
61.5	1.715
62.0	1.614
62.5	1.513
63.0	1.413
63.5	1.362
64.0	1.261
64.5	1.160
65.0	1.110
65.5	1.059
66.0	0.959
66.5	0.908
67.0	0.858
67.5	0.807
68.0	0.757
68.5	0.706
69.0	0.656
69.5	0.605
70.0	0.555
70.5	0.555
71.0	0.504
71.5	0.454
72.0	0.404
72.5	0.404
73.0	0.353
73.5	0.353
74.0	0.303
74.5	0.303
75.0	0.303
75.5	0.252
76.0	0.252
76.5	0.202
77.0	0.202
77.5	0.202
78.0	0.151
78.5	0.151
79.0	0.151
79.5	0.151
80.0	0.101
80.5	0.101
81.0	0.101
81.5	0.101
82.0	0.101
82.5	0.101

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83.0	0.101
83.5	0.050
84.0	0.050
84.5	0.050
85.0	0.050
85.5	0.050
86.0	0.050
86.5	0.050
87.0	0.050
87.5	0.050
88.0	0.000
88.5	0.000
89.0	0.000
89.5	0.000
90.0	0.000
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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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

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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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Zone	Lumens	%Lamp	%Fixt
0-20	509.46	N.A.	50.40
0-30	899.83	N.A.	89.10
0-40	989.94	N.A.	98.00
0-60	1008.49	N.A.	99.80
0-80	1009.97	N.A.	100.00
0-90	1010.03	N.A.	100.00
10-90	835.03	N.A.	82.70
20-40	480.48	N.A.	47.60
20-50	494.82	N.A.	49.00
40-70	19.72	N.A.	2.00
60-80	1.48	N.A.	0.10
70-80	0.31	N.A.	0.00
80-90	0.06	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	1010.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	175.00
10-20	334.46
20-30	390.37
30-40	90.11
40-50	14.34
50-60	4.21
60-70	1.16
70-80	0.31
80-90	0.06
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	97	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	88	87	85
4	100	94	89	85	99	93	88	85	91	87	84	89	86	83	87	84	82	81
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76
6	92	85	79	76	91	84	79	75	82	78	75	81	77	74	80	77	74	73
7	89	80	75	72	87	80	75	71	79	74	71	78	74	71	76	73	70	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	67	64	71	67	64	70	67	64	63
10	79	70	65	62	78	70	65	62	69	64	61	68	64	61	67	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

X=2H	Y=2H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	3H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	4H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	6H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	8H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	12H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

UGR Viewed Endwise

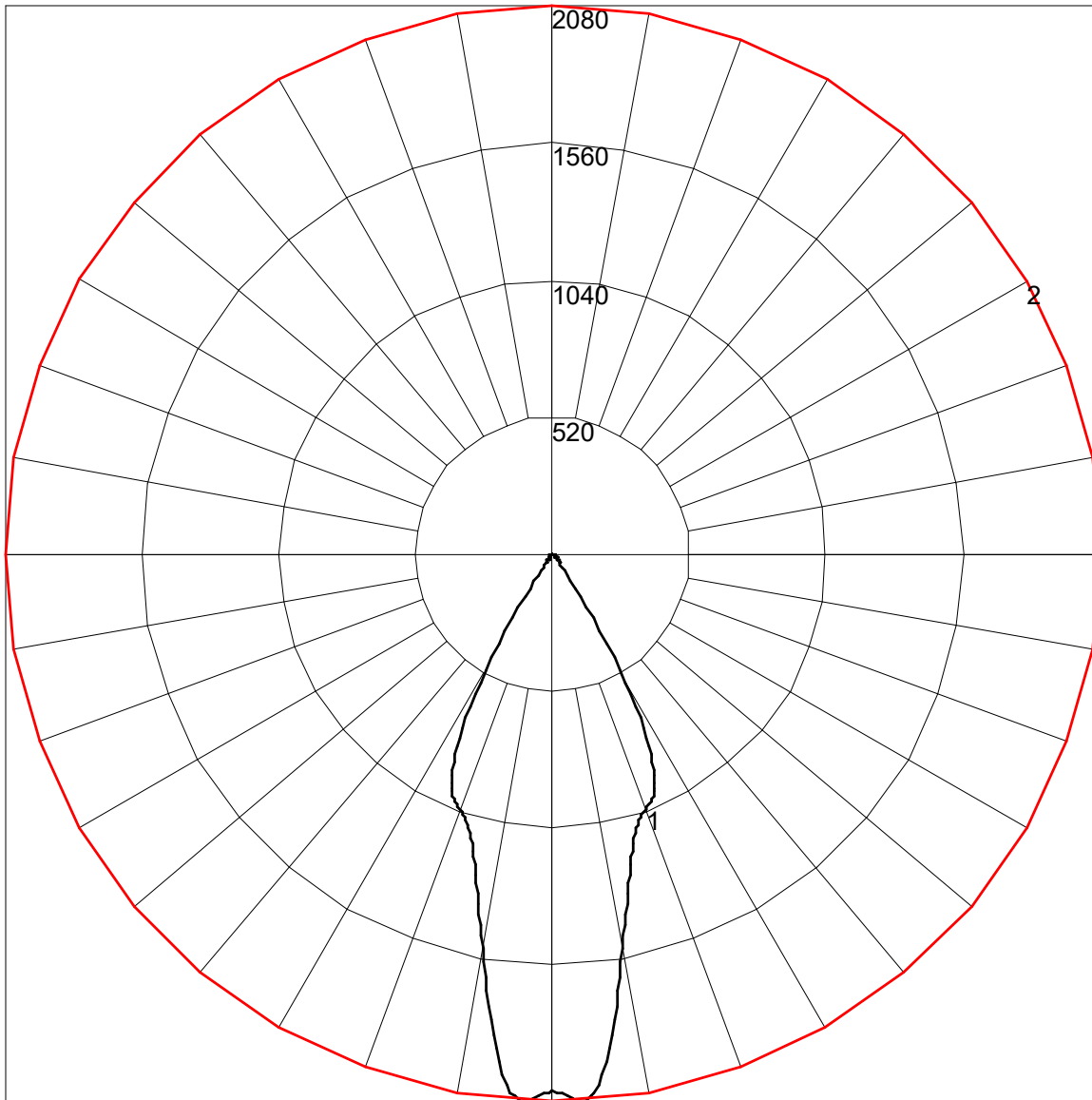
4H	2H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	3H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	4H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	6H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	8H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	12H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8H	4H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	6H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	8H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	12H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
12H	4H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	6H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	8H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Maximum UGR = 0.1

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POLAR GRAPH



Maximum Candela = 2079.53 Located At Horizontal Angle = 0, Vertical Angle = 3.5

1 - Vertical Plane Through Horizontal Angles (90 - 270)

2 - Horizontal Cone Through Vertical Angle (3.5) (Through Max. Cd.)