



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L10-835-XXX-DIM-UNV-RM-WH-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.14

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 1-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L10-835-xxx-DIM-UNV-RM-WH-xx

[LUMINAIRE] 8" DIA. SURFACE CYLINDER

[LAMP] One white LED

[_SEARCH_SOURCE TYPE] LED

[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Healthcare, Office, Downlight

[_SEARCH_MOUNTING] Surface

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	883
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	8.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.58
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.56
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.48 ft (Diameter)
Luminous Width (90-270)	0.48 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	3174	3174	3174
55	2134	2134	2134
65	1588	1588	1588
75	1097	1097	1097
85	916	916	916

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CANDELA TABULATION

	<u>0</u>
0.0	2137.138
0.5	2136.147
1.0	2133.174
1.5	2128.218
2.0	2121.281
2.5	2112.858
3.0	2102.452
3.5	2090.560
4.0	2077.676
4.5	2062.811
5.0	2046.955
5.5	2029.612
6.0	2010.287
6.5	1988.980
7.0	1966.186
7.5	1941.411
8.0	1914.653
8.5	1885.914
9.0	1855.192
9.5	1821.993
10.0	1787.307
10.5	1750.144
11.0	1710.503
11.5	1668.880
12.0	1625.275
12.5	1578.697
13.0	1531.128
13.5	1481.081
14.0	1429.548
14.5	1377.024
15.0	1322.518
15.5	1268.012
16.0	1212.515
16.5	1157.017
17.0	1102.511
17.5	1050.483
18.0	996.968
18.5	943.948
19.0	891.919
19.5	842.368
20.0	795.295
20.5	749.708
21.0	705.112
21.5	662.498
22.0	621.370
22.5	582.721
23.0	546.053
23.5	511.367
24.0	478.762
24.5	448.189
25.0	419.400
25.5	392.395
26.0	367.173
26.5	343.488

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CANDELA TABULATION - (Cont.)

27.0	321.438
27.5	300.825
28.0	281.500
28.5	263.562
29.0	246.715
29.5	230.958
30.0	216.142
30.5	202.317
31.0	189.384
31.5	177.244
32.0	165.897
32.5	155.244
33.0	145.234
33.5	135.869
34.0	127.049
34.5	118.873
35.0	111.242
35.5	104.107
36.0	97.467
36.5	91.323
37.0	85.624
37.5	80.372
38.0	75.516
38.5	71.056
39.0	66.943
39.5	63.178
40.0	59.759
40.5	56.637
41.0	53.763
41.5	51.137
42.0	48.709
42.5	46.479
43.0	44.398
43.5	42.515
44.0	40.731
44.5	39.145
45.0	37.609
45.5	36.222
46.0	34.884
46.5	33.645
47.0	32.506
47.5	31.465
48.0	30.474
48.5	29.532
49.0	28.641
49.5	27.749
50.0	26.956
50.5	26.213
51.0	25.469
51.5	24.776
52.0	24.131
52.5	23.438
53.0	22.843
53.5	22.248
54.0	21.654
54.5	21.059

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CANDELA TABULATION - (Cont.)

55.0	20.514
55.5	19.969
56.0	19.474
56.5	18.929
57.0	18.433
57.5	17.937
58.0	17.442
58.5	16.946
59.0	16.501
59.5	16.005
60.0	15.559
60.5	15.113
61.0	14.667
61.5	14.221
62.0	13.775
62.5	13.329
63.0	12.933
63.5	12.487
64.0	12.090
64.5	11.645
65.0	11.248
65.5	10.852
66.0	10.455
66.5	10.059
67.0	9.662
67.5	9.316
68.0	8.919
68.5	8.572
69.0	8.225
69.5	7.829
70.0	7.532
70.5	7.185
71.0	6.888
71.5	6.541
72.0	6.243
72.5	5.946
73.0	5.698
73.5	5.451
74.0	5.203
74.5	4.955
75.0	4.757
75.5	4.509
76.0	4.311
76.5	4.162
77.0	3.964
77.5	3.766
78.0	3.617
78.5	3.419
79.0	3.270
79.5	3.122
80.0	2.924
80.5	2.775
81.0	2.577
81.5	2.428
82.0	2.279
82.5	2.131

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CANDELA TABULATION - (Cont.)

83.0	1.982
83.5	1.784
84.0	1.635
84.5	1.487
85.0	1.338
85.5	1.189
86.0	1.090
86.5	0.941
87.0	0.793
87.5	0.644
88.0	0.496
88.5	0.396
89.0	0.347
89.5	0.248
90.0	0.198
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
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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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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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	543.31	N.A.	61.50
0-30	742.86	N.A.	84.10
0-40	816.30	N.A.	92.40
0-60	865.05	N.A.	98.00
0-80	881.44	N.A.	99.80
0-90	882.97	N.A.	100.00
10-90	695.69	N.A.	78.80
20-40	273.00	N.A.	30.90
20-50	303.22	N.A.	34.30
40-70	59.95	N.A.	6.80
60-80	16.39	N.A.	1.90
70-80	5.18	N.A.	0.60
80-90	1.53	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	882.97	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	187.28
10-20	356.03
20-30	199.55
30-40	73.45
40-50	30.22
50-60	18.52
60-70	11.21
70-80	5.18
80-90	1.53
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	112	109	107	105	105	104	102	102	100	99	98	97	96	94
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89
3	104	99	94	91	103	97	93	90	95	91	89	92	90	87	90	88	86	84
4	100	94	89	85	98	92	88	84	90	86	83	88	85	83	87	84	82	80
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76
6	92	85	80	76	91	84	79	76	83	78	75	81	77	75	80	77	74	73
7	89	81	76	72	88	80	75	72	79	75	72	78	74	71	77	73	71	70
8	86	77	72	69	85	77	72	69	76	72	68	75	71	68	74	71	68	67
9	83	74	69	66	82	74	69	66	73	69	66	72	68	65	71	68	65	64
10	80	71	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

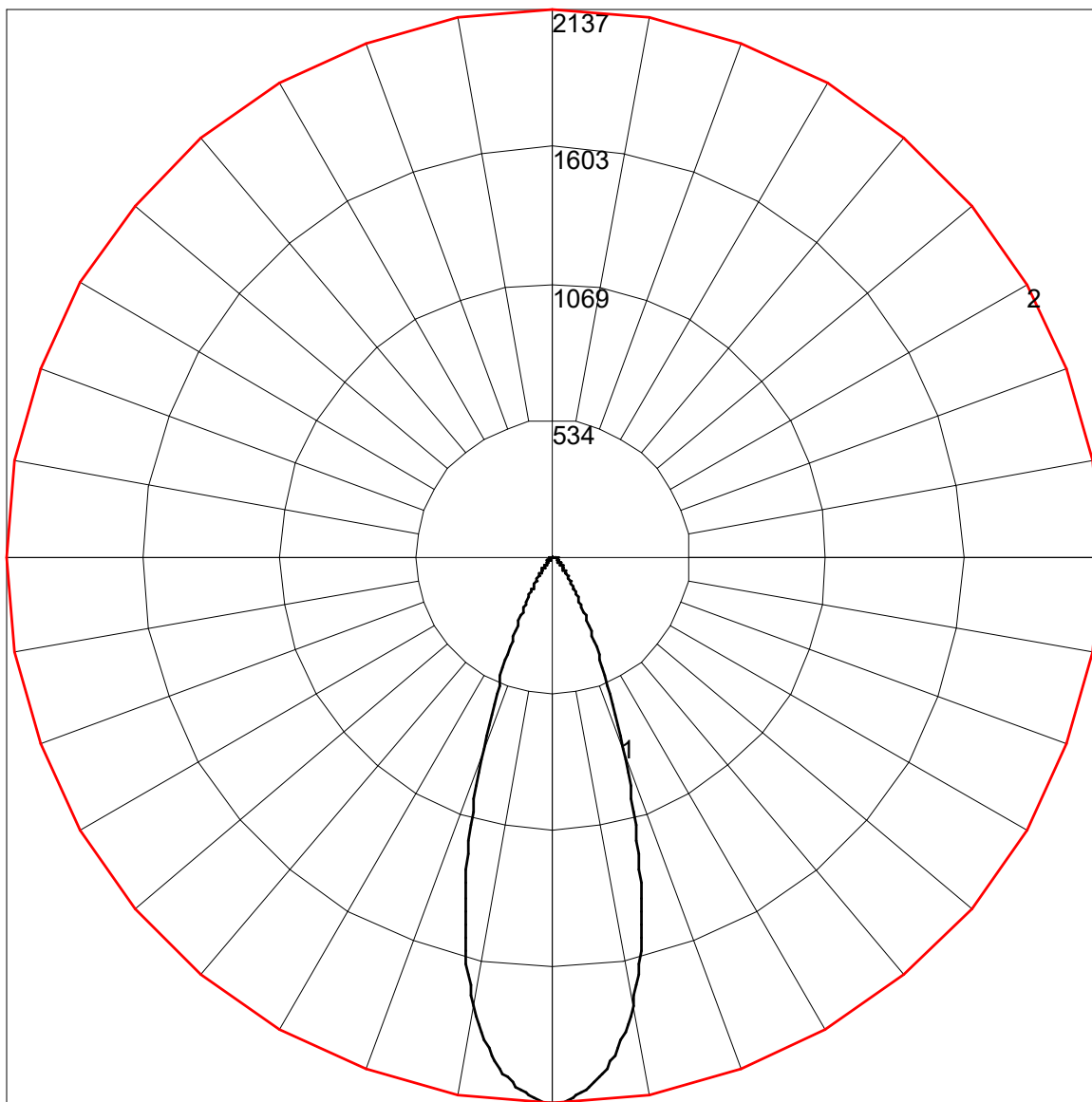
X=2H	Y=2H	7.2	8.2	7.6	8.5	8.8	7.2	8.2	7.6	8.5	8.8
	3H	8.3	9.2	8.7	9.5	9.9	8.3	9.2	8.7	9.5	9.9
	4H	8.6	9.4	9.0	9.8	10.2	8.6	9.4	9.0	9.8	10.2
	6H	8.8	9.6	9.3	10.0	10.4	8.8	9.6	9.3	10.0	10.4
	8H	8.9	9.6	9.4	10.0	10.4	8.9	9.6	9.4	10.0	10.4
	12H	9.0	9.6	9.4	10.0	10.4	9.0	9.6	9.4	10.0	10.4

UGR Viewed Endwise

4H	2H	7.5	8.3	7.9	8.7	9.1	7.5	8.3	7.9	8.7	9.1
	3H	8.8	9.4	9.2	9.9	10.3	8.8	9.4	9.2	9.9	10.3
	4H	9.2	9.8	9.6	10.2	10.6	9.2	9.8	9.6	10.2	10.6
	6H	9.5	10.0	10.0	10.5	11.0	9.5	10.0	10.0	10.5	11.0
	8H	9.6	10.1	10.1	10.6	11.0	9.6	10.1	10.1	10.6	11.0
	12H	9.7	10.1	10.2	10.6	11.1	9.7	10.1	10.2	10.6	11.1
8H	4H	9.3	9.7	9.8	10.2	10.7	9.3	9.7	9.8	10.2	10.7
	6H	9.7	10.1	10.2	10.6	11.1	9.7	10.1	10.2	10.6	11.1
	8H	9.9	10.2	10.5	10.8	11.3	9.9	10.2	10.5	10.8	11.3
	12H	10.1	10.3	10.6	10.8	11.4	10.1	10.3	10.6	10.8	11.4
12H	4H	9.3	9.7	9.8	10.1	10.6	9.3	9.7	9.8	10.1	10.6
	6H	9.7	10.1	10.3	10.5	11.1	9.7	10.1	10.3	10.5	11.1
	8H	10.0	10.2	10.5	10.7	11.3	10.0	10.2	10.5	10.7	11.3

Maximum UGR = 11.4

POLAR GRAPH



Maximum Candela = 2137.138 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.)