



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-LW-CSU-RN-WHD-WM_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #13537338.04 and #12326812.15

[TESTLAB]

[ISSUE DATE] 16-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CRDI-TL-L20-835U-L20-835D-xxx-DIM1-UNV-LW-CSU-RN-WHD-WM

[LUMINAIRE] White formed aluminum housing, wide distrib white patined flush prismatic lens trim up,

[MORE] narrow distrib white painted regressed prismatic lens trim down

[LAMP] Two white LEDs (one up/one down)

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] INDOOR, DIRECT, INDIRECT

[_SEARCH_MOUNTING] WALL

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3371
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	89
Total Luminaire Watts	37.987
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Circular w/ Sides
Luminous Length (0-180)	0.65 ft (Diameter)
Luminous Width (90-270)	0.65 ft (Diameter)
Luminous Height	2.17 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	619	619	619
55	301	301	301
65	143	143	143
75	55	55	55
85	15	15	15

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	<u>0</u>
0.0	6729.000
0.5	6723.000
1.0	6704.000
1.5	6671.000
2.0	6625.000
2.5	6565.000
3.0	6493.000
3.5	6410.000
4.0	6317.000
4.5	6213.000
5.0	6100.000
5.5	5976.000
6.0	5842.000
6.5	5700.000
7.0	5550.000
7.5	5392.000
8.0	5227.000
8.5	5056.000
9.0	4878.000
9.5	4696.000
10.0	4509.000
10.5	4321.000
11.0	4131.000
11.5	3940.000
12.0	3750.000
12.5	3560.000
13.0	3374.000
13.5	3188.000
14.0	3008.000
14.5	2833.000
15.0	2662.000
15.5	2499.000
16.0	2344.000
16.5	2197.000
17.0	2055.000
17.5	1920.000
18.0	1792.000
18.5	1673.000
19.0	1560.000
19.5	1458.000
20.0	1358.000
20.5	1264.000
21.0	1177.000
21.5	1096.000
22.0	1019.000
22.5	946.600
23.0	879.400
23.5	816.900
24.0	758.600
24.5	704.300
25.0	653.800
25.5	607.000
26.0	563.800
26.5	523.700

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27.0	486.700
27.5	452.700
28.0	421.400
28.5	392.600
29.0	366.100
29.5	341.800
30.0	319.300
30.5	298.700
31.0	279.800
31.5	262.300
32.0	246.200
32.5	231.300
33.0	217.600
33.5	204.900
34.0	193.200
34.5	182.300
35.0	172.200
35.5	162.900
36.0	154.300
36.5	146.200
37.0	138.800
37.5	131.800
38.0	125.400
38.5	119.500
39.0	114.000
39.5	108.800
40.0	104.100
40.5	99.600
41.0	95.500
41.5	91.600
42.0	88.000
42.5	84.600
43.0	81.400
43.5	78.400
44.0	75.500
44.5	72.800
45.0	70.300
45.5	67.900
46.0	65.600
46.5	63.400
47.0	61.300
47.5	59.200
48.0	57.300
48.5	55.400
49.0	53.700
49.5	52.000
50.0	50.400
50.5	48.800
51.0	47.300
51.5	45.900
52.0	44.500
52.5	43.200
53.0	41.900
53.5	40.700
54.0	39.500
54.5	38.400

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55.0	37.300
55.5	36.200
56.0	35.200
56.5	34.200
57.0	33.100
57.5	32.100
58.0	31.200
58.5	30.200
59.0	29.300
59.5	28.300
60.0	27.400
60.5	26.400
61.0	25.500
61.5	24.600
62.0	23.700
62.5	22.900
63.0	22.000
63.5	21.200
64.0	20.300
64.5	19.500
65.0	18.700
65.5	17.900
66.0	17.200
66.5	16.500
67.0	15.800
67.5	15.100
68.0	14.400
68.5	13.800
69.0	13.200
69.5	12.600
70.0	12.000
70.5	11.500
71.0	10.900
71.5	10.400
72.0	9.900
72.5	9.400
73.0	9.000
73.5	8.600
74.0	8.200
74.5	7.800
75.0	7.400
75.5	7.000
76.0	6.700
76.5	6.400
77.0	6.100
77.5	5.800
78.0	5.500
78.5	5.300
79.0	5.000
79.5	4.700
80.0	4.500
80.5	4.200
81.0	3.900
81.5	3.700
82.0	3.400
82.5	3.200

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83.0	3.000
83.5	2.700
84.0	2.500
84.5	2.200
85.0	2.000
85.5	1.800
86.0	1.600
86.5	1.400
87.0	1.200
87.5	1.000
88.0	0.800
88.5	0.600
89.0	0.500
89.5	0.400
90.0	4.004
90.5	3.793
91.0	4.028
91.5	4.469
92.0	5.027
92.5	5.704
93.0	6.439
93.5	7.262
94.0	8.114
94.5	8.967
95.0	9.967
95.5	11.084
96.0	12.289
96.5	13.671
97.0	15.259
97.5	16.905
98.0	18.522
98.5	20.139
99.0	21.785
99.5	23.461
100.0	25.166
100.5	26.872
101.0	28.577
101.5	30.311
102.0	32.075
102.5	33.839
103.0	35.603
103.5	37.456
104.0	39.308
104.5	41.219
105.0	43.189
105.5	45.188
106.0	47.246
106.5	49.363
107.0	51.509
107.5	53.743
108.0	56.066
108.5	58.418
109.0	60.887
109.5	63.416
110.0	66.032
110.5	68.678

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111.0	71.354
111.5	74.147
112.0	76.969
112.5	79.850
113.0	82.849
113.5	85.936
114.0	89.053
114.5	92.228
115.0	95.491
115.5	98.843
116.0	102.253
116.5	105.752
117.0	109.368
117.5	113.014
118.0	116.747
118.5	120.569
119.0	124.509
119.5	128.537
120.0	132.623
120.5	136.769
121.0	141.061
121.5	145.412
122.0	149.911
122.5	154.438
123.0	159.083
123.5	163.846
124.0	168.668
124.5	173.578
125.0	178.546
125.5	183.603
126.0	188.719
126.5	193.864
127.0	199.038
127.5	204.271
128.0	209.563
128.5	214.885
129.0	220.265
129.5	225.645
130.0	231.025
130.5	236.405
131.0	241.815
131.5	247.166
132.0	252.546
132.5	257.926
133.0	263.277
133.5	268.657
134.0	274.067
134.5	279.418
135.0	284.798
135.5	290.207
136.0	295.764
136.5	301.350
137.0	306.936
137.5	312.816
138.0	318.990
138.5	325.164

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139.0	331.632
139.5	338.394
140.0	345.156
140.5	352.506
141.0	360.444
141.5	368.382
142.0	377.202
142.5	386.610
143.0	396.606
143.5	407.190
144.0	418.068
144.5	429.828
145.0	442.470
145.5	455.406
146.0	468.636
146.5	483.042
147.0	498.624
147.5	514.794
148.0	531.552
148.5	549.486
149.0	567.714
149.5	585.942
150.0	604.464
150.5	622.692
151.0	641.802
151.5	660.618
152.0	679.434
152.5	697.956
153.0	717.360
153.5	736.764
154.0	755.580
154.5	774.690
155.0	792.918
155.5	810.852
156.0	828.198
156.5	845.250
157.0	862.008
157.5	877.590
158.0	892.878
158.5	906.990
159.0	919.926
159.5	932.274
160.0	943.740
160.5	954.324
161.0	964.026
161.5	972.552
162.0	980.784
162.5	988.134
163.0	994.308
163.5	1000.188
164.0	1005.186
164.5	1009.302
165.0	1013.418
165.5	1016.652
166.0	1019.592
166.5	1022.238

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CANDELA TABULATION - (Cont.)

167.0	1024.590
167.5	1026.942
168.0	1028.706
168.5	1030.470
169.0	1032.234
169.5	1033.410
170.0	1034.586
170.5	1036.056
171.0	1036.938
171.5	1038.114
172.0	1038.996
172.5	1040.172
173.0	1041.348
173.5	1042.524
174.0	1043.406
174.5	1044.288
175.0	1045.170
175.5	1046.052
176.0	1046.640
176.5	1046.934
177.0	1047.522
177.5	1047.522
178.0	1047.816
178.5	1048.110
179.0	1047.816
179.5	1047.816
180.0	1047.816

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Zone	Lumens	%Lamp	%Fixt
0-20	1263.49	N.A.	37.50
0-30	1580.06	N.A.	46.90
0-40	1693.64	N.A.	50.20
0-60	1782.95	N.A.	52.90
0-80	1809.86	N.A.	53.70
0-90	1812.27	N.A.	53.80
10-90	1281.68	N.A.	38.00
20-40	430.15	N.A.	12.80
20-50	485.74	N.A.	14.40
40-70	108.11	N.A.	3.20
60-80	26.91	N.A.	0.80
70-80	8.11	N.A.	0.20
80-90	2.41	N.A.	0.10
90-110	58.97	N.A.	1.70
90-120	154.58	N.A.	4.60
90-130	314.85	N.A.	9.30
90-150	816.40	N.A.	24.20
90-180	1558.51	N.A.	46.20
110-180	1499.53	N.A.	44.50
0-180	3370.78	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	530.60
10-20	732.89
20-30	316.58
30-40	113.58
40-50	55.59
50-60	33.72
60-70	18.81
70-80	8.11
80-90	2.41
90-100	12.60
100-110	46.38
110-120	95.61
120-130	160.27
130-140	220.05
140-150	281.50
150-160	359.01
160-170	283.68
170-180	99.41

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	108	108	108	108	100	100	100	100	85	85	85	72	72	72	60	60	60	54
1	102	98	96	93	94	92	89	87	79	78	76	68	67	66	57	57	56	51
2	96	90	86	82	89	84	81	78	74	71	69	64	62	61	55	54	53	49
3	90	83	78	74	84	78	74	70	69	66	63	61	58	57	53	51	50	47
4	85	77	71	67	80	73	68	64	65	61	58	58	55	53	51	49	48	45
5	80	72	66	62	76	68	63	59	61	57	55	55	52	50	49	47	46	43
6	76	67	61	57	72	64	59	55	58	54	51	52	49	47	47	45	44	41
7	73	63	58	53	68	61	55	52	55	51	48	50	47	45	45	43	42	40
8	69	60	54	50	65	57	52	49	53	49	46	48	45	43	44	42	40	38
9	66	57	51	47	63	55	50	46	50	46	44	46	43	41	42	40	39	37
10	63	54	49	45	60	52	47	44	48	44	42	45	42	40	41	39	37	36

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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

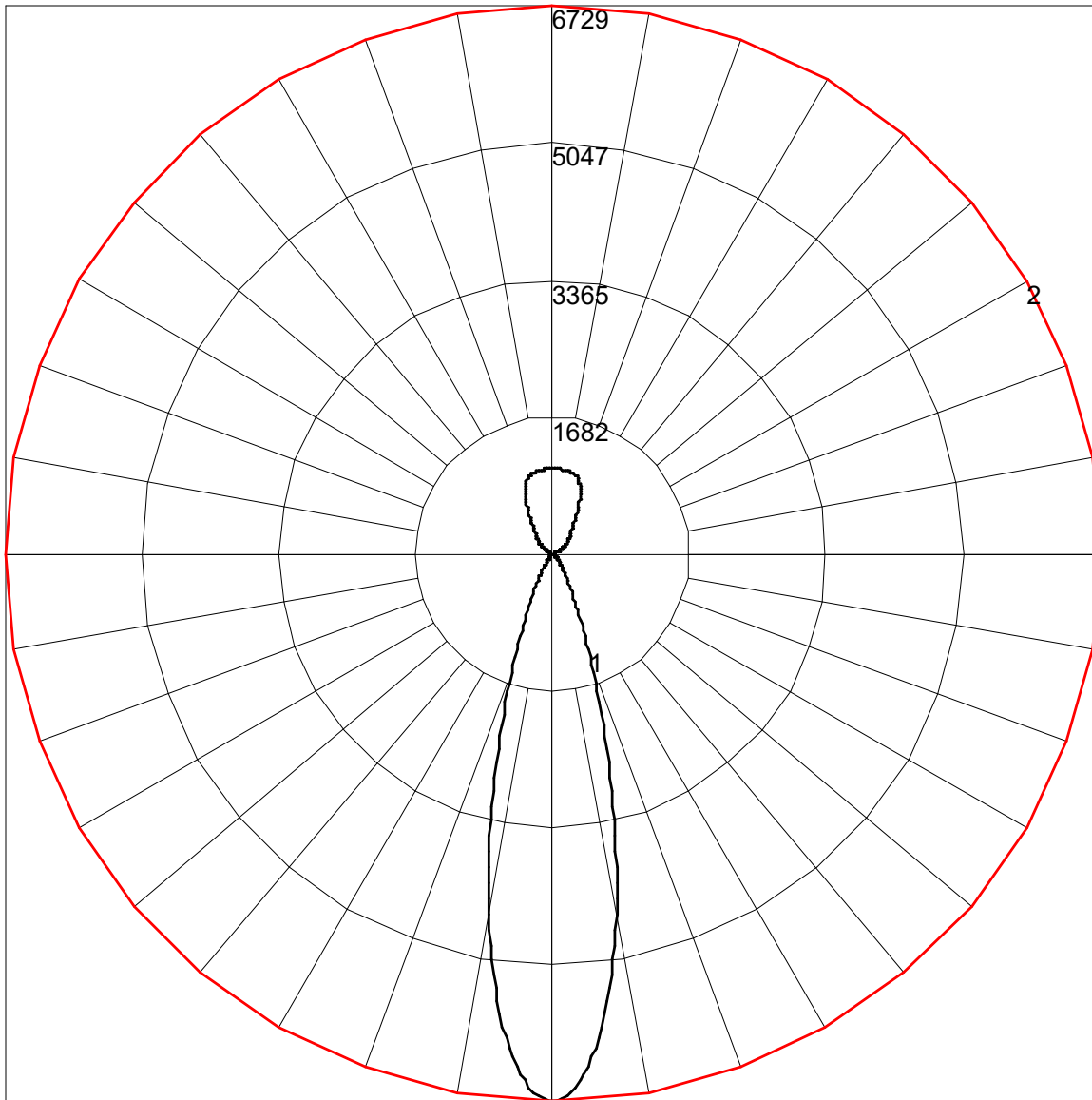
X=2H	Y=2H	4.3	4.3	4.3	4.3	4.3	UGR Viewed Endwise	4.3	4.3	4.3	4.3	4.3
	3H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	4H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	6H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	8H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	12H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
4H	2H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	3H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	4H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	6H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	8H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	12H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
8H	4H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	6H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	8H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	12H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
12H	4H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	6H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	8H	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

Maximum UGR = 4.3

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POLAR GRAPH



Maximum Candela = 6729 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.)