



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-LW-CSU-LW-WHD-WM\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] made from 13537338.07

[TESTLAB]

[ISSUEDATE] 02/09/2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 6CRDI-TL-L20-835U-L20-835D-xxx-DIM1-UNV-LW-CSU-LW-WHD-WM

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

[MORE] wide distrib white painted flush prismatic lens trim down

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

[BALLAST] (2) Osram Optotronic OTi25W/120-277/2A0 DIM-1 Drivers

[\_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	2716
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	69
Total Luminaire Watts	39.5871
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)	0.52 ft (Diameter)
Luminous Width (90-270)	0.52 ft (Diameter)
Luminous Height	1.92 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3029	3029	3029
55	1840	1840	1840
65	937	937	937
75	388	388	388
85	72	72	72

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-LW-CSU-LW-WHD-WM\_.IES

## CANDELA TABULATION

	<u>0</u>
0.0	949.500
0.5	949.200
1.0	948.600
1.5	947.800
2.0	947.000
2.5	946.100
3.0	944.900
3.5	944.200
4.0	943.700
4.5	943.400
5.0	943.000
5.5	942.600
6.0	942.300
6.5	941.900
7.0	941.600
7.5	941.400
8.0	941.300
8.5	941.000
9.0	940.700
9.5	940.100
10.0	939.700
10.5	939.000
11.0	938.300
11.5	937.400
12.0	936.400
12.5	935.200
13.0	933.800
13.5	932.200
14.0	930.200
14.5	927.800
15.0	924.900
15.5	921.400
16.0	917.500
16.5	912.900
17.0	907.900
17.5	902.300
18.0	895.700
18.5	888.900
19.0	881.500
19.5	873.200
20.0	864.100
20.5	854.200
21.0	843.500
21.5	832.000
22.0	819.300
22.5	805.800
23.0	791.300
23.5	775.700
24.0	758.900
24.5	741.000
25.0	721.600
25.5	701.300
26.0	679.600
26.5	656.600

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-LW-CSU-LW-WHD-WM\_.IES****CANDELA TABULATION - (Cont.)**

27.0	632.800
27.5	608.000
28.0	582.800
28.5	557.500
29.0	532.700
29.5	508.400
30.0	485.000
30.5	463.000
31.0	442.400
31.5	423.600
32.0	406.500
32.5	391.100
33.0	377.400
33.5	365.200
34.0	354.300
34.5	344.700
35.0	336.000
35.5	328.100
36.0	321.100
36.5	314.500
37.0	308.500
37.5	302.900
38.0	297.700
38.5	292.700
39.0	288.100
39.5	283.600
40.0	279.400
40.5	275.200
41.0	271.200
41.5	267.300
42.0	263.600
42.5	259.900
43.0	256.200
43.5	252.500
44.0	248.800
44.5	245.100
45.0	241.400
45.5	237.700
46.0	234.000
46.5	230.300
47.0	226.400
47.5	222.500
48.0	218.600
48.5	214.600
49.0	210.500
49.5	206.400
50.0	202.400
50.5	198.300
51.0	194.200
51.5	190.100
52.0	186.100
52.5	182.100
53.0	178.000
53.5	173.800
54.0	169.500
54.5	165.200

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-LW-CSU-LW-WHD-WM\_.IES****CANDELA TABULATION - (Cont.)**

55.0	160.900
55.5	156.600
56.0	152.400
56.5	148.300
57.0	144.200
57.5	140.100
58.0	136.100
58.5	132.200
59.0	128.300
59.5	124.500
60.0	120.800
60.5	117.100
61.0	113.500
61.5	110.000
62.0	106.500
62.5	103.000
63.0	99.660
63.5	96.340
64.0	93.080
64.5	89.870
65.0	86.730
65.5	83.670
66.0	80.650
66.5	77.710
67.0	74.840
67.5	72.020
68.0	69.290
68.5	66.620
69.0	63.950
69.5	61.370
70.0	58.860
70.5	56.390
71.0	53.980
71.5	51.630
72.0	49.360
72.5	47.120
73.0	44.940
73.5	42.820
74.0	40.740
74.5	38.730
75.0	36.770
75.5	34.870
76.0	33.010
76.5	31.200
77.0	29.470
77.5	27.750
78.0	26.090
78.5	24.480
79.0	22.900
79.5	21.380
80.0	19.890
80.5	18.440
81.0	17.010
81.5	15.620
82.0	14.260
82.5	12.940

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-LW-CSU-LW-WHD-WM\_.IES****CANDELA TABULATION - (Cont.)**

83.0	11.630
83.5	10.360
84.0	9.120
84.5	7.910
85.0	6.750
85.5	5.630
86.0	4.560
86.5	3.550
87.0	2.660
87.5	1.920
88.0	1.340
88.5	0.850
89.0	0.530
89.5	0.360
90.0	3.490
90.5	3.340
91.0	3.474
91.5	3.774
92.0	4.142
92.5	4.609
93.0	5.177
93.5	5.845
94.0	6.613
94.5	7.448
95.0	8.383
95.5	9.452
96.0	10.621
96.5	11.857
97.0	13.226
97.5	14.663
98.0	16.099
98.5	17.535
99.0	19.038
99.5	20.508
100.0	22.011
100.5	23.514
101.0	25.050
101.5	26.586
102.0	28.156
102.5	29.726
103.0	31.363
103.5	33.066
104.0	34.803
104.5	36.573
105.0	38.343
105.5	40.180
106.0	42.051
106.5	43.988
107.0	45.958
107.5	47.996
108.0	50.067
108.5	52.204
109.0	54.375
109.5	56.613
110.0	58.884
110.5	61.222

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-LW-CSU-LW-WHD-WM\_.IES****CANDELA TABULATION - (Cont.)**

111.0	63.627
111.5	66.099
112.0	68.637
112.5	71.175
113.0	73.814
113.5	76.486
114.0	79.225
114.5	82.030
115.0	84.836
115.5	87.708
116.0	90.681
116.5	93.720
117.0	96.827
117.5	99.966
118.0	103.239
118.5	106.579
119.0	109.953
119.5	113.426
120.0	116.967
120.5	120.574
121.0	124.281
121.5	128.056
122.0	131.830
122.5	135.771
123.0	139.779
123.5	143.854
124.0	147.995
124.5	152.170
125.0	156.512
125.5	160.888
126.0	165.397
126.5	169.906
127.0	174.482
127.5	179.057
128.0	183.667
128.5	188.309
129.0	192.918
129.5	197.461
130.0	201.936
130.5	206.479
131.0	210.954
131.5	215.463
132.0	220.006
132.5	224.548
133.0	229.024
133.5	233.566
134.0	238.075
134.5	242.551
135.0	247.026
135.5	251.535
136.0	256.111
136.5	260.787
137.0	265.563
137.5	270.340
138.0	275.216
138.5	280.193

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-LW-CSU-LW-WHD-WM\_.IES****CANDELA TABULATION - (Cont.)**

139.0	285.269
139.5	290.446
140.0	295.891
140.5	301.635
141.0	307.614
141.5	313.927
142.0	320.540
142.5	327.420
143.0	334.668
143.5	342.350
144.0	350.700
144.5	359.384
145.0	368.736
145.5	378.756
146.0	389.444
146.5	400.800
147.0	412.824
147.5	425.516
148.0	438.876
148.5	452.904
149.0	467.600
149.5	482.964
150.0	498.662
150.5	514.360
151.0	530.726
151.5	548.094
152.0	565.462
152.5	583.164
153.0	601.200
153.5	619.570
154.0	637.606
154.5	656.310
155.0	675.348
155.5	693.718
156.0	712.088
156.5	729.790
157.0	747.492
157.5	764.860
158.0	781.894
158.5	797.926
159.0	813.624
159.5	828.320
160.0	842.348
160.5	855.374
161.0	867.398
161.5	878.754
162.0	889.442
162.5	899.128
163.0	908.146
163.5	916.496
164.0	923.844
164.5	930.524
165.0	936.536
165.5	941.546
166.0	946.556
166.5	950.898

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-LW-CSU-LW-WHD-WM\_.IES****CANDELA TABULATION - (Cont.)**

167.0	954.906
167.5	957.912
168.0	960.918
168.5	963.256
169.0	965.594
169.5	967.932
170.0	969.602
170.5	971.272
171.0	972.608
171.5	973.944
172.0	975.280
172.5	975.948
173.0	976.950
173.5	977.618
174.0	977.952
174.5	978.286
175.0	978.620
175.5	978.620
176.0	978.620
176.5	978.286
177.0	977.952
177.5	977.952
178.0	977.952
178.5	977.618
179.0	977.284
179.5	977.284
180.0	976.950



**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-LW-CSU-LW-WHD-WM\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	348.77	N.A.	12.80
0-30	668.98	N.A.	24.60
0-40	887.10	N.A.	32.70
0-60	1216.81	N.A.	44.80
0-80	1343.2	N.A.	49.50
0-90	1351.74	N.A.	49.80
10-90	1261.8	N.A.	46.50
20-40	538.33	N.A.	19.80
20-50	724.24	N.A.	26.70
40-70	416.43	N.A.	15.30
60-80	126.39	N.A.	4.70
70-80	39.67	N.A.	1.50
80-90	8.54	N.A.	0.30
90-110	51.97	N.A.	1.90
90-120	136.80	N.A.	5.00
90-130	277.43	N.A.	10.20
90-150	703.43	N.A.	25.90
90-180	1363.89	N.A.	50.20
110-180	1311.92	N.A.	48.30
0-180	2715.63	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	89.94
10-20	258.83
20-30	320.21
30-40	218.12
40-50	185.91
50-60	143.80
60-70	86.72
70-80	39.67
80-90	8.54
90-100	10.80
100-110	41.16
110-120	84.84
120-130	140.62
130-140	190.71
140-150	235.29
150-160	306.68
160-170	260.63
170-180	93.14

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-LW-CSU-LW-WHD-WM\_.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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	99	95	92	88	91	88	85	82	75	73	71	62	61	60	51	50	49	44
2	91	84	79	74	84	78	74	70	67	63	60	56	54	52	47	45	44	39
3	84	75	69	63	77	70	64	60	60	56	52	51	48	45	42	40	39	35
4	77	68	60	55	72	63	57	52	54	50	46	46	43	40	39	37	35	31
5	72	61	54	48	66	57	51	46	50	45	41	42	39	36	36	33	31	28
6	67	56	48	43	62	52	45	41	45	40	36	39	35	32	33	30	28	25
7	62	51	43	38	57	48	41	36	42	37	33	36	32	29	31	28	26	23
8	58	47	39	34	54	44	37	33	38	33	30	33	30	27	29	26	24	21
9	54	43	36	31	50	40	34	30	36	31	27	31	27	25	27	24	22	20
10	51	40	33	28	47	37	31	27	33	28	25	29	25	23	25	22	20	18

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-LW-CSU-LW-WHD-WM\_.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	7.5	8.3	8.5	9.3	10.6	7.5	8.3	8.5	9.3	10.6
	3H	8.3	9.0	9.3	10.0	11.3	8.3	9.0	9.3	10.0	11.3
	4H	8.4	9.1	9.4	10.1	11.4	8.4	9.1	9.4	10.1	11.4
	6H	8.5	9.1	9.5	10.1	11.4	8.5	9.1	9.5	10.1	11.4
	8H	8.5	9.0	9.5	10.0	11.4	8.5	9.0	9.5	10.0	11.4
	12H	8.4	9.0	9.4	10.0	11.3	8.4	9.0	9.4	10.0	11.3

### UGR Viewed Endwise

4H	2H	7.7	8.4	8.7	9.3	10.6	7.7	8.4	8.7	9.3	10.6
	3H	8.5	9.1	9.6	10.1	11.4	8.5	9.1	9.6	10.1	11.4
	4H	8.8	9.3	9.8	10.3	11.6	8.8	9.3	9.8	10.3	11.6
	6H	8.8	9.3	9.9	10.3	11.7	8.8	9.3	9.9	10.3	11.7
	8H	8.8	9.2	9.9	10.3	11.6	8.8	9.2	9.9	10.3	11.6
	12H	8.8	9.2	9.8	10.2	11.6	8.8	9.2	9.8	10.2	11.6

8H	4H	8.7	9.1	9.8	10.2	11.5	8.7	9.1	9.8	10.2	11.5
	6H	8.9	9.2	9.9	10.3	11.6	8.9	9.2	9.9	10.3	11.6
	8H	8.9	9.2	9.9	10.2	11.6	8.9	9.2	9.9	10.2	11.6
	12H	8.8	9.1	9.9	10.1	11.6	8.8	9.1	9.9	10.1	11.6

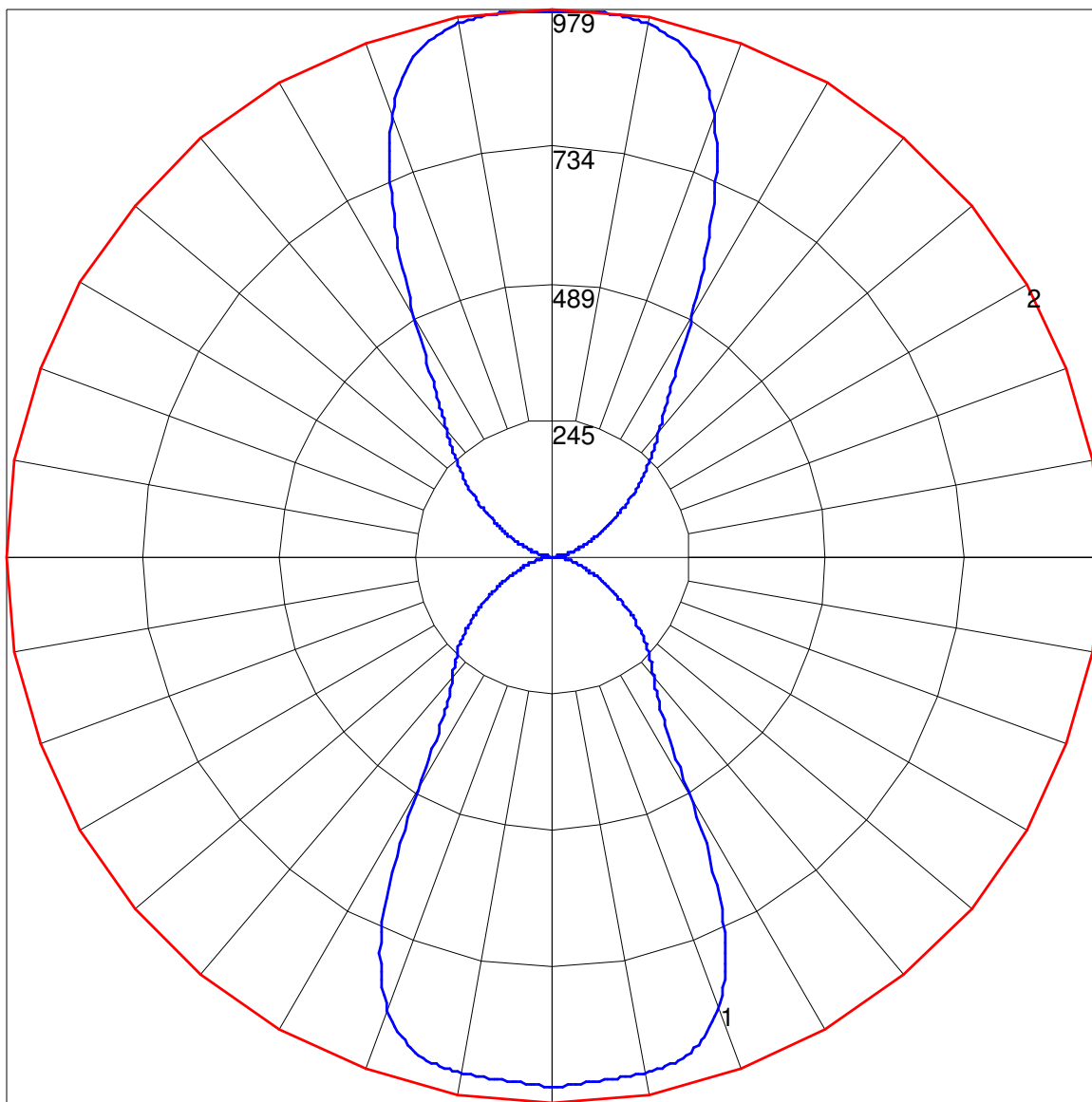
12H	4H	8.7	9.0	9.7	10.1	11.4	8.7	9.0	9.7	10.1	11.4
	6H	8.8	9.1	9.9	10.2	11.5	8.8	9.1	9.9	10.2	11.5
	8H	8.8	9.1	9.9	10.1	11.5	8.8	9.1	9.9	10.1	11.5

Maximum UGR = 11.7

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-LW-CSU-LW-WHD-WM\_.IES

## POLAR GRAPH



Maximum Candela = 978.62 Located At Horizontal Angle = 0, Vertical Angle = 175

# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

# 2 - Horizontal Cone Through Vertical Angle (175) (Through Max. Cd.)