



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-LW-CSU-LN-WHD-WM_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] made from 13537338.07 and 12316380.10

[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-LN-WHD-WM

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

[MORE] narrow 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	3197
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	81
Total Luminaire Watts	39.5854
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	978	978	978
55	542	542	542
65	312	312	312
75	152	152	152
85	29	29	29

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CANDELA TABULATION

	<u>0</u>
0.0	6885.000
0.5	6877.000
1.0	6854.000
1.5	6818.000
2.0	6767.000
2.5	6704.000
3.0	6628.000
3.5	6540.000
4.0	6440.000
4.5	6330.000
5.0	6211.000
5.5	6082.000
6.0	5944.000
6.5	5795.000
7.0	5638.000
7.5	5474.000
8.0	5300.000
8.5	5121.000
9.0	4936.000
9.5	4747.000
10.0	4555.000
10.5	4360.000
11.0	4161.000
11.5	3962.000
12.0	3765.000
12.5	3569.000
13.0	3376.000
13.5	3186.000
14.0	3001.000
14.5	2822.000
15.0	2650.000
15.5	2484.000
16.0	2325.000
16.5	2173.000
17.0	2030.000
17.5	1893.000
18.0	1764.000
18.5	1643.000
19.0	1530.000
19.5	1425.000
20.0	1326.000
20.5	1232.000
21.0	1144.000
21.5	1064.000
22.0	986.900
22.5	915.200
23.0	848.200
23.5	786.200
24.0	728.500
24.5	674.500
25.0	624.800
25.5	579.000
26.0	536.500
26.5	497.500

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27.0	461.500
27.5	428.500
28.0	398.300
28.5	370.600
29.0	345.200
29.5	321.800
30.0	300.500
30.5	280.900
31.0	262.900
31.5	246.500
32.0	231.600
32.5	217.700
33.0	205.000
33.5	193.300
34.0	182.700
34.5	172.900
35.0	164.000
35.5	155.900
36.0	148.300
36.5	141.400
37.0	135.100
37.5	129.200
38.0	123.900
38.5	119.000
39.0	114.400
39.5	110.100
40.0	106.100
40.5	102.400
41.0	99.000
41.5	95.800
42.0	92.800
42.5	90.000
43.0	87.300
43.5	84.800
44.0	82.400
44.5	80.100
45.0	77.900
45.5	75.900
46.0	73.900
46.5	72.000
47.0	70.200
47.5	68.400
48.0	66.700
48.5	65.000
49.0	63.400
49.5	61.800
50.0	60.300
50.5	58.900
51.0	57.400
51.5	56.100
52.0	54.700
52.5	53.400
53.0	52.200
53.5	50.900
54.0	49.700
54.5	48.600

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55.0	47.400
55.5	46.300
56.0	45.200
56.5	44.100
57.0	43.100
57.5	42.100
58.0	41.100
58.5	40.100
59.0	39.200
59.5	38.300
60.0	37.400
60.5	36.500
61.0	35.600
61.5	34.700
62.0	33.800
62.5	33.000
63.0	32.100
63.5	31.300
64.0	30.500
64.5	29.700
65.0	28.900
65.5	28.100
66.0	27.300
66.5	26.500
67.0	25.800
67.5	25.000
68.0	24.300
68.5	23.500
69.0	22.800
69.5	22.000
70.0	21.300
70.5	20.600
71.0	19.900
71.5	19.200
72.0	18.500
72.5	17.800
73.0	17.100
73.5	16.400
74.0	15.700
74.5	15.100
75.0	14.400
75.5	13.700
76.0	13.100
76.5	12.400
77.0	11.800
77.5	11.100
78.0	10.500
78.5	9.900
79.0	9.300
79.5	8.700
80.0	8.100
80.5	7.500
81.0	6.900
81.5	6.400
82.0	5.800
82.5	5.300

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83.0	4.700
83.5	4.200
84.0	3.700
84.5	3.200
85.0	2.700
85.5	2.300
86.0	2.000
86.5	1.600
87.0	1.300
87.5	1.100
88.0	0.800
88.5	0.600
89.0	0.400
89.5	0.300
90.0	3.440
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

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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

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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

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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

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Zone	Lumens	%Lamp	%Fixt
0-20	1268.9	N.A.	39.70
0-30	1572.87	N.A.	49.20
0-40	1681.58	N.A.	52.60
0-60	1785.52	N.A.	55.80
0-80	1829.51	N.A.	57.20
0-90	1833.13	N.A.	57.30
10-90	1293.99	N.A.	40.50
20-40	412.68	N.A.	12.90
20-50	473.87	N.A.	14.80
40-70	132.65	N.A.	4.10
60-80	44.00	N.A.	1.40
70-80	15.28	N.A.	0.50
80-90	3.62	N.A.	0.10
90-110	51.96	N.A.	1.60
90-120	136.80	N.A.	4.30
90-130	277.43	N.A.	8.70
90-150	703.43	N.A.	22.00
90-180	1363.89	N.A.	42.70
110-180	1311.92	N.A.	41.00
0-180	3197.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	539.14
10-20	729.76
20-30	303.97
30-40	108.71
40-50	61.18
50-60	42.75
60-70	28.72
70-80	15.28
80-90	3.62
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

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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	109	109	109	109	101	101	101	101	87	87	87	75	75	75	63	63	63	57
1	102	99	96	94	96	93	91	88	81	80	78	70	69	68	60	60	59	54
2	96	91	87	83	90	86	82	79	76	73	71	66	65	63	58	57	56	52
3	91	84	79	75	85	80	75	71	71	68	65	63	61	59	55	54	53	49
4	86	78	72	68	81	74	69	65	67	63	60	60	57	55	53	51	50	47
5	82	73	67	63	77	70	64	61	63	59	56	57	54	52	51	49	48	45
6	77	69	63	58	73	66	60	57	60	56	53	54	51	49	49	47	46	43
7	74	65	59	55	70	62	57	53	57	53	50	52	49	47	48	45	44	42
8	70	61	56	52	67	59	54	50	54	50	48	50	47	45	46	44	42	40
9	67	58	53	49	64	56	51	48	52	48	45	48	45	43	45	42	41	39
10	65	56	50	46	62	54	49	45	50	46	43	46	43	41	43	41	39	38

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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	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	3H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	4H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	6H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	8H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	12H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1

UGR Viewed Endwise

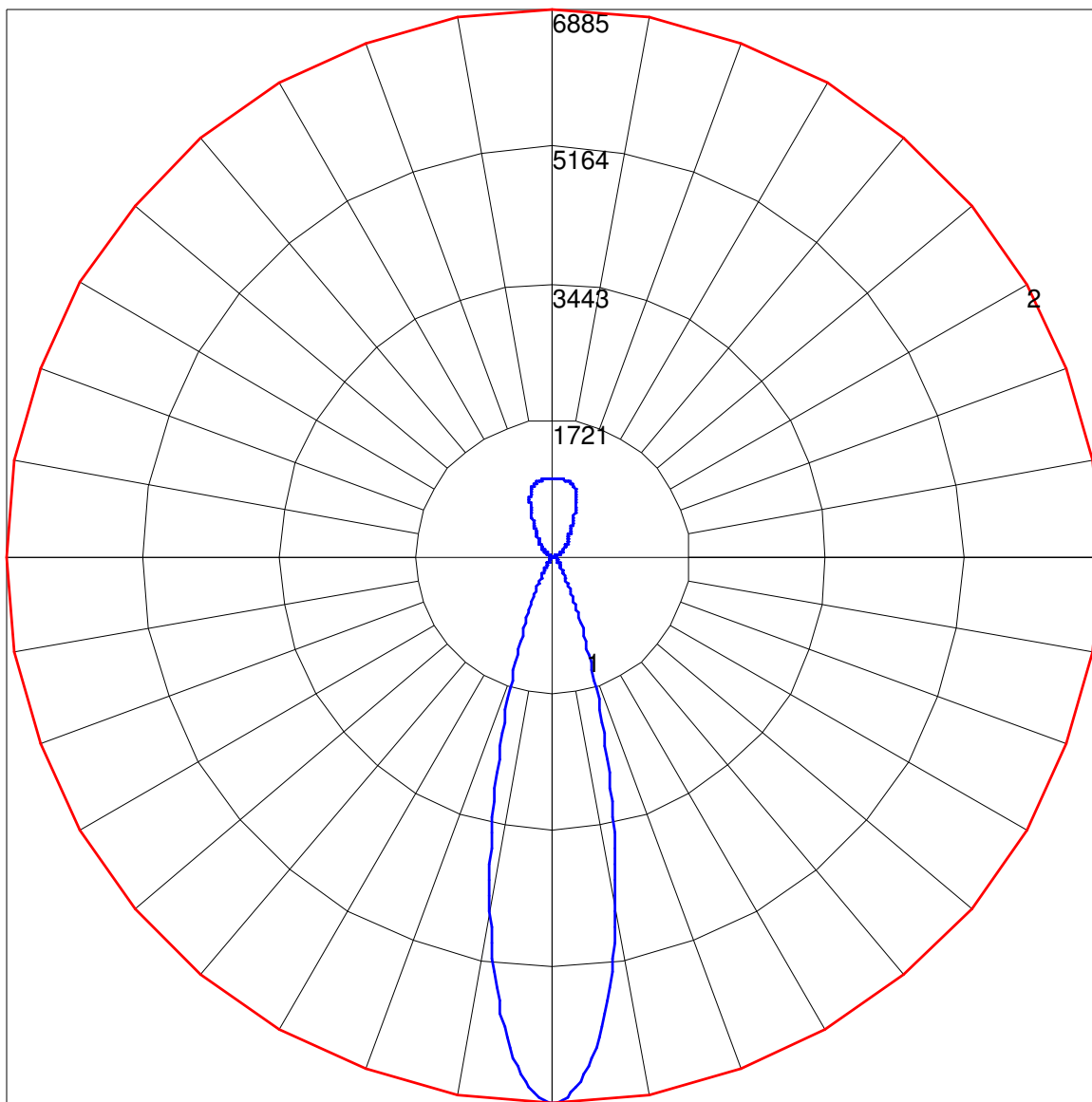
4H	2H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	3H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	4H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	6H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	8H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	12H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
8H	4H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	6H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	8H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	12H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
12H	4H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	6H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	8H	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1

Maximum UGR = 4.1

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POLAR GRAPH



Maximum Candela = 6885 Located At Horizontal Angle = 0, Vertical Angle = 0

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

2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)