



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] made from 13537338.06 and 12316380.12

[TESTLAB]

[ISSUEDATE] 02/10/2021

[MANUFAC] WILLIAMS INDOOR

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

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

[LUMINAIRE] White formed aluminum housing, wide distrib anodized aluminum reflector trim w/clear cover glass up,

[MORE] wide distrib white painted regressed 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	3025
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	76
Total Luminaire Watts	39.572
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	2790	2790	2790
55	1665	1665	1665
65	750	750	750
75	250	250	250
85	44	44	44

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CANDELA TABULATION

	<u>0</u>
0.0	1063.000
0.5	1063.000
1.0	1062.000
1.5	1060.000
2.0	1058.000
2.5	1056.000
3.0	1053.000
3.5	1050.000
4.0	1047.000
4.5	1043.000
5.0	1040.000
5.5	1036.000
6.0	1032.000
6.5	1028.000
7.0	1024.000
7.5	1020.000
8.0	1016.000
8.5	1011.000
9.0	1007.000
9.5	1003.000
10.0	999.200
10.5	995.100
11.0	990.900
11.5	986.800
12.0	982.900
12.5	979.000
13.0	975.100
13.5	971.100
14.0	967.100
14.5	963.100
15.0	959.000
15.5	954.800
16.0	950.400
16.5	946.000
17.0	941.500
17.5	936.700
18.0	931.600
18.5	926.100
19.0	920.800
19.5	915.100
20.0	908.900
20.5	901.800
21.0	893.600
21.5	884.700
22.0	874.500
22.5	863.200
23.0	850.400
23.5	836.000
24.0	820.200
24.5	802.300
25.0	782.300
25.5	760.200
26.0	736.300
26.5	710.900

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27.0	684.200
27.5	657.100
28.0	628.700
28.5	600.600
29.0	572.600
29.5	544.600
30.0	517.100
30.5	490.100
31.0	464.600
31.5	439.900
32.0	416.600
32.5	394.900
33.0	374.800
33.5	356.700
34.0	340.400
34.5	326.200
35.0	313.700
35.5	303.100
36.0	293.800
36.5	286.000
37.0	279.100
37.5	273.200
38.0	267.800
38.5	263.000
39.0	258.700
39.5	254.800
40.0	251.300
40.5	248.000
41.0	244.800
41.5	241.900
42.0	239.000
42.5	236.300
43.0	233.600
43.5	230.800
44.0	228.000
44.5	225.200
45.0	222.300
45.5	219.300
46.0	216.200
46.5	213.000
47.0	209.700
47.5	206.300
48.0	202.900
48.5	199.300
49.0	195.600
49.5	191.700
50.0	187.800
50.5	183.800
51.0	179.600
51.5	175.500
52.0	171.300
52.5	167.100
53.0	163.100
53.5	158.700
54.0	154.300
54.5	149.900

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55.0	145.600
55.5	141.200
56.0	136.900
56.5	132.700
57.0	128.500
57.5	124.300
58.0	120.200
58.5	116.200
59.0	112.200
59.5	108.300
60.0	104.400
60.5	100.600
61.0	96.900
61.5	93.200
62.0	89.700
62.5	86.100
63.0	82.700
63.5	79.200
64.0	75.900
64.5	72.600
65.0	69.400
65.5	66.200
66.0	63.100
66.5	60.100
67.0	57.200
67.5	54.300
68.0	51.500
68.5	48.700
69.0	46.000
69.5	43.400
70.0	41.000
70.5	38.700
71.0	36.600
71.5	34.600
72.0	32.700
72.5	30.900
73.0	29.200
73.5	27.700
74.0	26.200
74.5	24.900
75.0	23.700
75.5	22.600
76.0	21.400
76.5	20.300
77.0	19.200
77.5	18.100
78.0	17.100
78.5	16.000
79.0	15.000
79.5	14.000
80.0	13.000
80.5	12.000
81.0	11.100
81.5	10.200
82.0	9.200
82.5	8.400

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83.0	7.500
83.5	6.600
84.0	5.800
84.5	4.900
85.0	4.100
85.5	3.400
86.0	2.700
86.5	2.200
87.0	1.700
87.5	1.300
88.0	0.900
88.5	0.600
89.0	0.300
89.5	0.100
90.0	3.260
90.5	3.293
91.0	3.293
91.5	3.325
92.0	3.358
92.5	3.390
93.0	3.423
93.5	3.488
94.0	3.553
94.5	3.586
95.0	3.651
95.5	3.716
96.0	3.782
96.5	3.847
97.0	3.912
97.5	3.977
98.0	4.042
98.5	4.140
99.0	4.205
99.5	4.271
100.0	4.368
100.5	4.466
101.0	4.531
101.5	4.629
102.0	4.727
102.5	4.825
103.0	4.923
103.5	5.020
104.0	5.118
104.5	5.249
105.0	5.379
105.5	5.477
106.0	5.607
106.5	5.738
107.0	5.868
107.5	5.966
108.0	6.129
108.5	6.259
109.0	6.390
109.5	6.553
110.0	6.716
110.5	6.911

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111.0	7.074
111.5	7.237
112.0	7.433
112.5	7.661
113.0	7.857
113.5	8.085
114.0	8.313
114.5	8.541
115.0	8.802
115.5	9.063
116.0	9.324
116.5	9.617
117.0	9.910
117.5	10.236
118.0	10.562
118.5	10.888
119.0	11.280
119.5	11.638
120.0	12.095
120.5	12.518
121.0	12.975
121.5	13.496
122.0	14.018
122.5	14.572
123.0	15.192
123.5	15.844
124.0	16.561
124.5	17.311
125.0	18.158
125.5	19.038
126.0	20.049
126.5	21.125
127.0	22.298
127.5	23.472
128.0	24.711
128.5	25.982
129.0	27.351
129.5	28.818
130.0	30.448
130.5	32.176
131.0	33.969
131.5	35.860
132.0	37.946
132.5	40.261
133.0	42.934
133.5	45.999
134.0	49.454
134.5	53.399
135.0	58.061
135.5	63.994
136.0	71.753
136.5	81.761
137.0	94.214
137.5	108.917
138.0	126.064
138.5	145.461

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139.0	166.684
139.5	189.797
140.0	214.801
140.5	242.479
141.0	272.960
141.5	305.625
142.0	340.996
142.5	378.812
143.0	419.236
143.5	462.594
144.0	508.886
144.5	557.460
145.0	607.664
145.5	658.194
146.0	708.398
146.5	759.254
147.0	810.110
147.5	861.944
148.0	913.778
148.5	965.286
149.0	1015.816
149.5	1066.020
150.0	1114.594
150.5	1161.538
151.0	1206.852
151.5	1249.884
152.0	1290.960
152.5	1328.776
153.0	1363.658
153.5	1395.606
154.0	1423.968
154.5	1450.374
155.0	1473.520
155.5	1495.036
156.0	1512.966
156.5	1527.636
157.0	1540.024
157.5	1550.130
158.0	1557.302
158.5	1562.844
159.0	1566.104
159.5	1568.060
160.0	1568.060
160.5	1567.082
161.0	1565.126
161.5	1562.844
162.0	1559.258
162.5	1555.020
163.0	1550.130
163.5	1544.262
164.0	1539.372
164.5	1533.504
165.0	1528.288
165.5	1523.072
166.0	1517.856
166.5	1512.640

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167.0	1507.424
167.5	1501.230
168.0	1495.362
168.5	1489.168
169.0	1482.648
169.5	1476.454
170.0	1469.934
170.5	1463.740
171.0	1457.546
171.5	1451.678
172.0	1445.158
172.5	1437.334
173.0	1428.532
173.5	1418.426
174.0	1407.994
174.5	1398.540
175.0	1389.412
175.5	1381.262
176.0	1373.764
176.5	1366.918
177.0	1359.420
177.5	1352.574
178.0	1346.054
178.5	1339.534
179.0	1336.274
179.5	1333.992
180.0	1332.688

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Zone	Lumens	%Lamp	%Fixt
0-20	367.94	N.A.	12.20
0-30	712.01	N.A.	23.50
0-40	921.69	N.A.	30.50
0-60	1222.29	N.A.	40.40
0-80	1317.94	N.A.	43.60
0-90	1323.44	N.A.	43.80
10-90	1225.53	N.A.	40.50
20-40	553.74	N.A.	18.30
20-50	724.34	N.A.	23.90
40-70	370.13	N.A.	12.20
60-80	95.65	N.A.	3.20
70-80	26.12	N.A.	0.90
80-90	5.50	N.A.	0.20
90-110	9.76	N.A.	0.30
90-120	18.65	N.A.	0.60
90-130	35.75	N.A.	1.20
90-150	477.01	N.A.	15.80
90-180	1701.53	N.A.	56.20
110-180	1691.77	N.A.	55.90
0-180	3024.97	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	97.90
10-20	270.04
20-30	344.07
30-40	209.67
40-50	170.60
50-60	130.01
60-70	69.53
70-80	26.12
80-90	5.50
90-100	4.04
100-110	5.72
110-120	8.89
120-130	17.09
130-140	60.18
140-150	381.08
150-160	654.68
160-170	434.29
170-180	135.54

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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	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50	44
1	98	94	90	87	89	86	83	81	72	70	68	59	57	56	46	46	45	39
2	90	83	78	74	82	77	72	68	64	61	58	53	51	49	42	41	40	35
3	83	75	68	63	76	69	63	59	58	54	51	48	45	43	39	37	36	31
4	77	67	60	55	70	62	56	51	53	48	45	44	41	38	36	34	32	28
5	71	61	53	48	65	56	50	45	48	43	40	40	37	34	33	31	29	26
6	66	55	48	42	61	51	45	40	44	39	35	37	34	31	31	28	26	24
7	61	50	43	38	56	47	40	36	40	35	32	34	31	28	29	26	24	22
8	57	46	39	34	53	43	37	32	37	32	29	32	28	26	27	24	22	20
9	54	42	36	31	50	40	34	29	35	30	26	30	26	24	25	22	21	19
10	50	39	33	28	47	37	31	27	32	28	24	28	24	22	24	21	19	17

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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	6.3	7.0	7.3	8.0	9.4	6.3	7.0	7.3	8.0	9.4
	3H	6.7	7.4	7.8	8.4	9.8	6.7	7.4	7.8	8.4	9.8
	4H	6.8	7.4	7.8	8.4	9.8	6.8	7.4	7.8	8.4	9.8
	6H	6.8	7.3	7.8	8.4	9.7	6.8	7.3	7.8	8.4	9.7
	8H	6.7	7.3	7.8	8.3	9.7	6.7	7.3	7.8	8.3	9.7
	12H	6.7	7.2	7.7	8.2	9.6	6.7	7.2	7.7	8.2	9.6

UGR Viewed Endwise

4H	2H	6.3	6.9	7.4	8.0	9.4	6.3	6.9	7.4	8.0	9.4
	3H	6.9	7.4	7.9	8.4	9.8	6.9	7.4	7.9	8.4	9.8
	4H	7.0	7.4	8.0	8.5	9.9	7.0	7.4	8.0	8.5	9.9
	6H	7.0	7.4	8.0	8.4	9.9	7.0	7.4	8.0	8.4	9.9
	8H	6.9	7.3	8.0	8.4	9.8	6.9	7.3	8.0	8.4	9.8
	12H	6.9	7.2	8.0	8.3	9.7	6.9	7.2	8.0	8.3	9.7

8H	4H	6.9	7.2	7.9	8.3	9.7	6.9	7.2	7.9	8.3	9.7
	6H	6.9	7.2	8.0	8.3	9.7	6.9	7.2	8.0	8.3	9.7
	8H	6.9	7.2	8.0	8.3	9.7	6.9	7.2	8.0	8.3	9.7
	12H	6.9	7.1	8.0	8.2	9.7	6.9	7.1	8.0	8.2	9.7

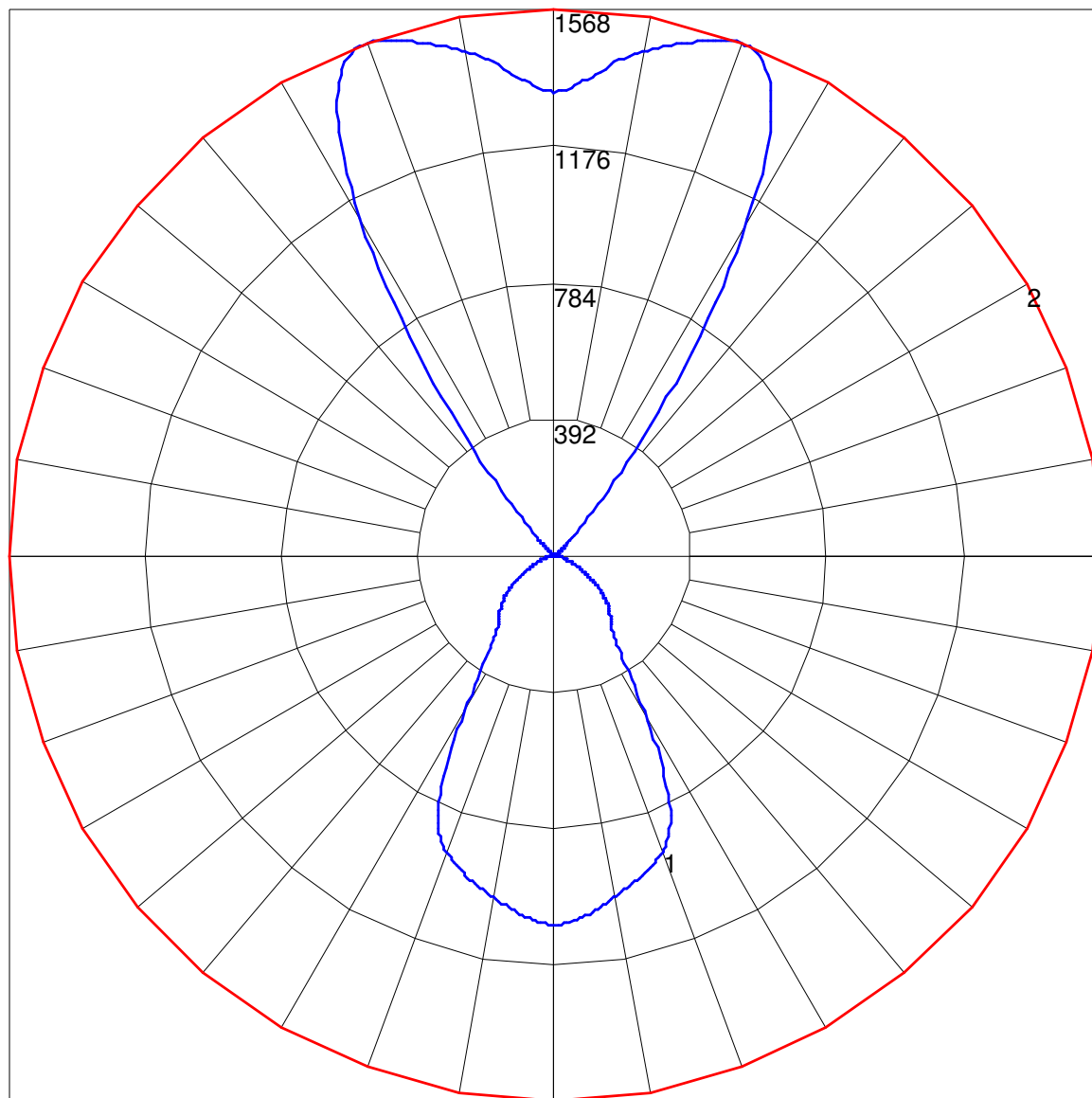
12H	4H	6.8	7.2	7.9	8.2	9.7	6.8	7.2	7.9	8.2	9.7
	6H	6.9	7.1	8.0	8.2	9.7	6.9	7.1	8.0	8.2	9.7
	8H	6.8	7.1	8.0	8.2	9.7	6.8	7.1	8.0	8.2	9.7

Maximum UGR = 9.9

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POLAR GRAPH



Maximum Candela = 1568.06 Located At Horizontal Angle = 0, Vertical Angle = 159.5

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

2 - Horizontal Cone Through Vertical Angle (159.5) (Through Max. Cd.)