



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-OW-CSU-LN-WHD-WM_IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] made from 13537338.06 and 12316380.10

[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-LN-WHD-WM

[LUMINAIRE] White formed aluminum housing, wide distrib anodized aluminum reflector trim w/clear cover glass 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	3535
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	89
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	3.460
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	1268.9	N.A.	35.90
0-30	1572.87	N.A.	44.50
0-40	1681.58	N.A.	47.60
0-60	1785.52	N.A.	50.50
0-80	1829.51	N.A.	51.80
0-90	1833.13	N.A.	51.90
10-90	1294.00	N.A.	36.60
20-40	412.68	N.A.	11.70
20-50	473.87	N.A.	13.40
40-70	132.65	N.A.	3.80
60-80	44.00	N.A.	1.20
70-80	15.28	N.A.	0.40
80-90	3.62	N.A.	0.10
90-110	9.77	N.A.	0.30
90-120	18.66	N.A.	0.50
90-130	35.75	N.A.	1.00
90-150	477.02	N.A.	13.50
90-180	1701.54	N.A.	48.10
110-180	1691.77	N.A.	47.90
0-180	3534.67	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	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 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	99	99	99	99	84	84	84	71	71	71	58	58	58	52
1	101	98	95	92	94	91	88	86	78	76	75	66	65	64	55	55	54	49
2	95	89	85	81	88	83	80	76	72	70	68	62	61	59	53	52	51	47
3	89	82	77	72	83	77	72	69	68	64	62	59	57	55	51	49	48	45
4	84	76	70	66	78	72	67	63	63	60	57	56	53	51	49	47	46	43
5	79	71	65	60	74	67	62	58	60	56	53	53	50	48	47	45	44	41
6	75	66	60	56	71	63	58	54	57	53	50	51	48	46	45	43	42	39
7	72	62	56	52	67	59	54	50	54	50	47	48	46	43	43	41	40	38
8	68	59	53	49	64	56	51	47	51	47	44	46	44	41	42	40	38	37
9	65	56	50	46	61	53	48	45	49	45	42	45	42	40	41	39	37	35
10	62	53	47	44	59	51	46	43	47	43	40	43	40	38	39	37	36	34

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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	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	3H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	4H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	6H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	8H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	12H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

UGR Viewed Endwise

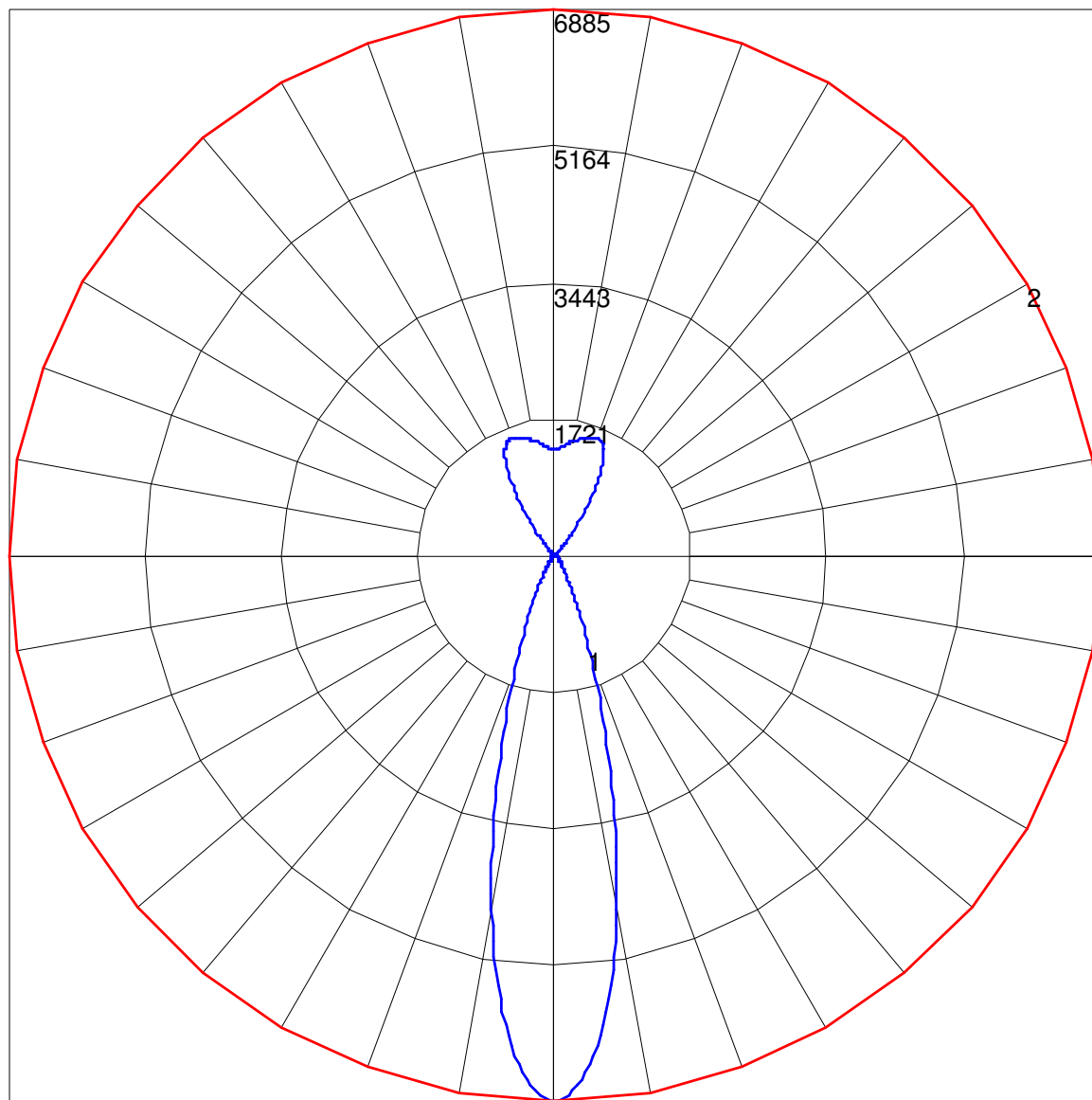
4H	2H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	3H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	4H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	6H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	8H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	12H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
8H	4H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	6H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	8H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	12H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
12H	4H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	6H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	8H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

Maximum UGR = 4.4

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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.)