



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] made from 13537338.06 and 12316380.15

[TESTLAB]

[ISSUE DATE] 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-RN-WHD-WM

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

[MORE] narrow 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	3471
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	88
Total Luminaire Watts	39.5681
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	807	807	807
55	397	397	397
65	190	190	190
75	74	74	74
85	20	20	20

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CANDELA TABULATION

	<u>0</u>
0.0	6635.000
0.5	6627.000
1.0	6606.000
1.5	6569.000
2.0	6519.000
2.5	6456.000
3.0	6381.000
3.5	6295.000
4.0	6198.000
4.5	6091.000
5.0	5975.000
5.5	5850.000
6.0	5716.000
6.5	5572.000
7.0	5420.000
7.5	5262.000
8.0	5098.000
8.5	4927.000
9.0	4753.000
9.5	4574.000
10.0	4394.000
10.5	4211.000
11.0	4027.000
11.5	3843.000
12.0	3660.000
12.5	3480.000
13.0	3301.000
13.5	3126.000
14.0	2954.000
14.5	2787.000
15.0	2626.000
15.5	2471.000
16.0	2320.000
16.5	2177.000
17.0	2040.000
17.5	1909.000
18.0	1785.000
18.5	1667.000
19.0	1556.000
19.5	1452.000
20.0	1354.000
20.5	1261.000
21.0	1174.000
21.5	1094.000
22.0	1017.000
22.5	944.800
23.0	876.000
23.5	812.300
24.0	752.900
24.5	697.300
25.0	645.400
25.5	597.200
26.0	552.800
26.5	511.700

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27.0	473.800
27.5	438.900
28.0	406.800
28.5	377.600
29.0	350.700
29.5	326.000
30.0	303.300
30.5	282.300
31.0	263.200
31.5	245.600
32.0	229.300
32.5	214.300
33.0	200.600
33.5	188.000
34.0	176.300
34.5	165.600
35.0	155.900
35.5	146.900
36.0	138.700
36.5	131.200
37.0	124.300
37.5	118.000
38.0	112.200
38.5	106.900
39.0	102.100
39.5	97.600
40.0	93.400
40.5	89.500
41.0	85.900
41.5	82.500
42.0	79.400
42.5	76.500
43.0	73.700
43.5	71.100
44.0	68.700
44.5	66.400
45.0	64.300
45.5	62.200
46.0	60.300
46.5	58.400
47.0	56.600
47.5	54.800
48.0	53.100
48.5	51.500
49.0	49.900
49.5	48.400
50.0	46.900
50.5	45.500
51.0	44.100
51.5	42.800
52.0	41.500
52.5	40.300
53.0	39.100
53.5	37.900
54.0	36.800
54.5	35.800

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55.0	34.700
55.5	33.700
56.0	32.700
56.5	31.700
57.0	30.800
57.5	29.900
58.0	28.900
58.5	28.000
59.0	27.200
59.5	26.300
60.0	25.400
60.5	24.600
61.0	23.800
61.5	23.000
62.0	22.200
62.5	21.400
63.0	20.600
63.5	19.800
64.0	19.100
64.5	18.400
65.0	17.600
65.5	16.900
66.0	16.200
66.5	15.500
67.0	14.900
67.5	14.200
68.0	13.600
68.5	12.900
69.0	12.300
69.5	11.700
70.0	11.100
70.5	10.600
71.0	10.100
71.5	9.600
72.0	9.200
72.5	8.700
73.0	8.300
73.5	8.000
74.0	7.600
74.5	7.300
75.0	7.000
75.5	6.700
76.0	6.400
76.5	6.100
77.0	5.800
77.5	5.500
78.0	5.300
78.5	5.000
79.0	4.700
79.5	4.500
80.0	4.200
80.5	3.900
81.0	3.700
81.5	3.400
82.0	3.200
82.5	3.000

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83.0	2.700
83.5	2.500
84.0	2.300
84.5	2.100
85.0	1.900
85.5	1.700
86.0	1.400
86.5	1.300
87.0	1.100
87.5	0.900
88.0	0.700
88.5	0.500
89.0	0.400
89.5	0.300
90.0	3.460
90.5	3.493
91.0	3.393
91.5	3.325
92.0	3.458
92.5	3.490
93.0	3.523
93.5	3.588
94.0	3.553
94.5	3.686
95.0	3.751
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	4.925
103.0	4.923
103.5	5.120
104.0	5.218
104.5	5.349
105.0	5.479
105.5	5.577
106.0	5.707
106.5	5.838
107.0	5.968
107.5	5.966
108.0	6.229
108.5	6.359
109.0	6.490
109.5	6.653
110.0	6.816
110.5	7.011

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111.0	7.174
111.5	7.337
112.0	7.533
112.5	7.761
113.0	7.957
113.5	8.185
114.0	8.413
114.5	8.641
115.0	8.902
115.5	9.163
116.0	9.424
116.5	9.717
117.0	10.010
117.5	10.336
118.0	10.662
118.5	10.988
119.0	11.380
119.5	11.738
120.0	12.195
120.5	12.618
121.0	13.075
121.5	13.596
122.0	14.118
122.5	14.672
123.0	15.292
123.5	15.944
124.0	16.661
124.5	17.411
125.0	18.258
125.5	19.138
126.0	20.149
126.5	21.225
127.0	22.398
127.5	23.572
128.0	24.811
128.5	26.082
129.0	27.451
129.5	28.918
130.0	30.548
130.5	32.276
131.0	34.169
131.5	36.060
132.0	38.146
132.5	40.461
133.0	43.134
133.5	46.199
134.0	49.654
134.5	53.599
135.0	58.361
135.5	64.294
136.0	72.053
136.5	82.061
137.0	94.514
137.5	109.317
138.0	126.464
138.5	145.861

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139.0	167.084
139.5	190.297
140.0	215.301
140.5	242.979
141.0	273.560
141.5	306.225
142.0	341.596
142.5	379.512
143.0	419.936
143.5	463.294
144.0	509.686
144.5	558.260
145.0	608.564
145.5	659.094
146.0	709.398
146.5	760.254
147.0	811.210
147.5	863.044
148.0	914.978
148.5	966.486
149.0	1017.116
149.5	1067.320
150.0	1115.994
150.5	1162.938
151.0	1208.352
151.5	1251.384
152.0	1292.560
152.5	1330.376
153.0	1365.358
153.5	1397.306
154.0	1425.768
154.5	1452.174
155.0	1475.420
155.5	1496.936
156.0	1514.966
156.5	1529.636
157.0	1542.024
157.5	1552.230
158.0	1559.402
158.5	1565.044
159.0	1568.304
159.5	1570.260
160.0	1570.360
160.5	1569.382
161.0	1567.426
161.5	1565.144
162.0	1561.658
162.5	1557.420
163.0	1552.530
163.5	1546.662
164.0	1541.772
164.5	1535.904
165.0	1530.688
165.5	1525.472
166.0	1520.356
166.5	1515.040

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167.0	1509.924
167.5	1503.730
168.0	1497.862
168.5	1491.568
169.0	1485.048
169.5	1478.854
170.0	1472.334
170.5	1466.140
171.0	1459.946
171.5	1454.078
172.0	1447.558
172.5	1439.734
173.0	1430.932
173.5	1420.826
174.0	1410.394
174.5	1400.940
175.0	1391.812
175.5	1383.662
176.0	1376.164
176.5	1369.318
177.0	1361.820
177.5	1354.874
178.0	1348.354
178.5	1341.834
179.0	1338.574
179.5	1336.292
180.0	1334.988

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Zone	Lumens	%Lamp	%Fixt
0-20	1240.44	N.A.	35.70
0-30	1552.81	N.A.	44.70
0-40	1656.9	N.A.	47.70
0-60	1739.01	N.A.	50.10
0-80	1764.22	N.A.	50.80
0-90	1766.45	N.A.	50.90
10-90	1247.61	N.A.	35.90
20-40	416.46	N.A.	12.00
20-50	467.19	N.A.	13.50
40-70	99.74	N.A.	2.90
60-80	25.21	N.A.	0.70
70-80	7.59	N.A.	0.20
80-90	2.22	N.A.	0.10
90-110	9.89	N.A.	0.30
90-120	18.88	N.A.	0.50
90-130	36.06	N.A.	1.00
90-150	478.09	N.A.	13.80
90-180	1704.36	N.A.	49.10
110-180	1694.47	N.A.	48.80
0-180	3470.81	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	518.83
10-20	721.61
20-30	312.37
30-40	104.09
40-50	50.74
50-60	31.38
60-70	17.62
70-80	7.59
80-90	2.22
90-100	4.09
100-110	5.80
110-120	8.99
120-130	17.18
130-140	60.39
140-150	381.64
150-160	655.53
160-170	434.97
170-180	135.77

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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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	101	98	95	92	93	91	88	86	78	76	75	66	65	64	55	54	54	49
2	95	89	85	81	88	83	80	76	72	70	67	62	60	59	52	51	51	46
3	89	82	77	73	83	77	73	69	67	64	62	59	56	55	50	49	48	44
4	84	76	70	66	78	72	67	63	63	60	57	56	53	51	48	47	46	42
5	79	71	65	60	74	67	62	58	60	56	53	53	50	48	47	45	43	41
6	75	66	60	56	71	63	58	54	56	53	50	50	48	46	45	43	42	39
7	72	62	56	52	67	59	54	50	54	50	47	48	45	43	43	41	40	38
8	68	59	53	49	64	56	51	47	51	47	44	46	43	41	42	40	38	36
9	65	56	50	46	61	53	48	45	49	45	42	44	42	40	40	38	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

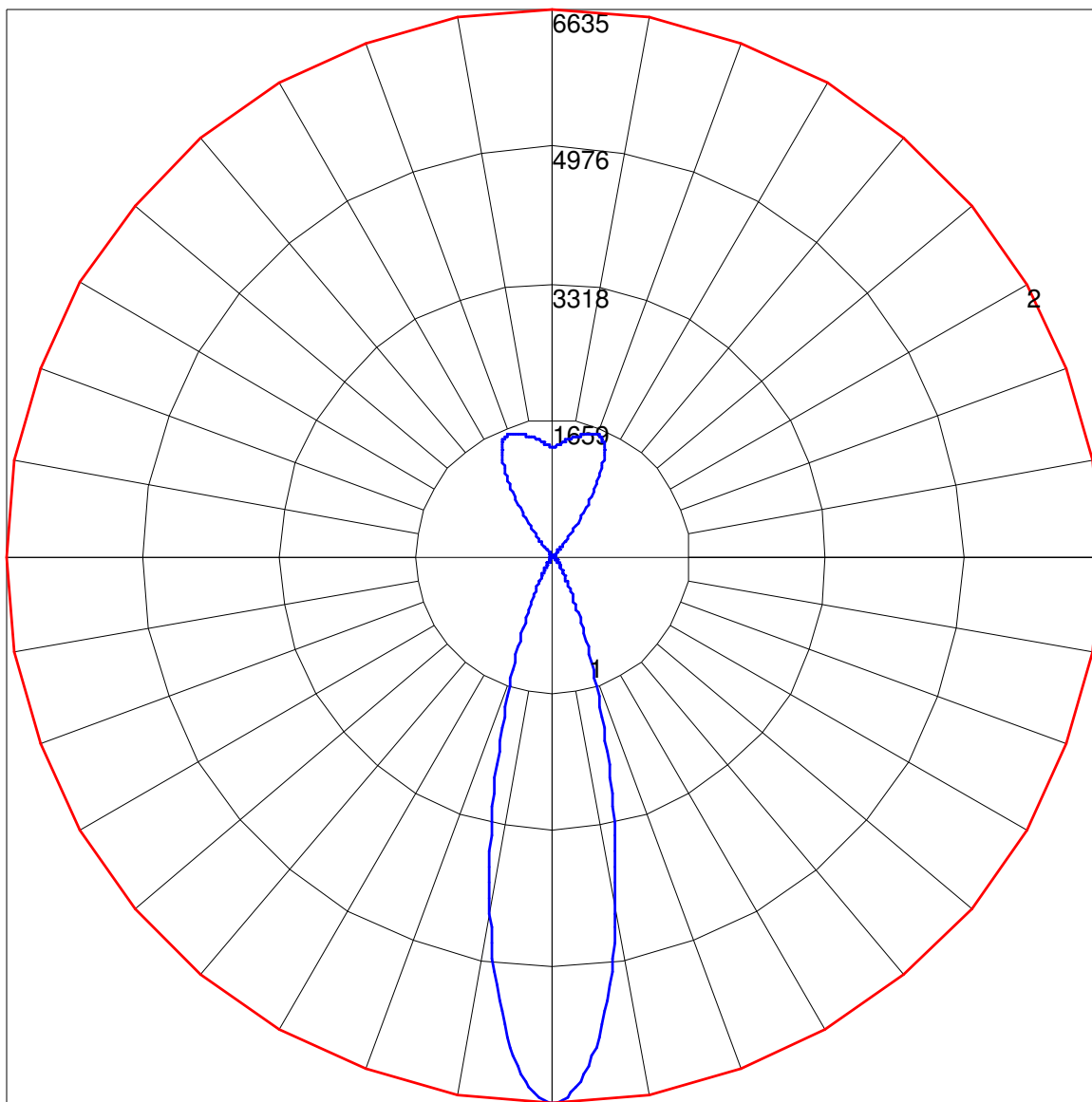
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	3H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	4H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	6H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	8H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	12H	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
4H	2H	4.4	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	4.4
	4H	4.4	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	4.4
	8H	4.4	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	4.4
8H	4H	4.4	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	4.4
	8H	4.4	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	4.4
12H	4H	4.4	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	4.4
	8H	4.4	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 = 6635 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.)