



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] made from 13537338.07 and 12316380.15

[TESTLAB]

[ISSUEDATE] 02/09/2021

[MANUFAC] WILLIAMS INDOOR

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

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

[LUMINAIRE] White formed aluminum housing, wide distrib white painted flush prismatic lens trim 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	3133
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	79
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	3.440
90.5	3.540
91.0	3.574
91.5	3.774
92.0	4.242
92.5	4.709
93.0	5.277
93.5	5.945
94.0	6.613
94.5	7.548
95.0	8.483
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	29.826
103.0	31.363
103.5	33.166
104.0	34.903
104.5	36.673
105.0	38.443
105.5	40.280
106.0	42.151
106.5	44.088
107.0	46.058
107.5	47.996
108.0	50.167
108.5	52.304
109.0	54.475
109.5	56.713
110.0	58.984
110.5	61.322

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111.0	63.727
111.5	66.199
112.0	68.737
112.5	71.275
113.0	73.914
113.5	76.586
114.0	79.325
114.5	82.130
115.0	84.936
115.5	87.808
116.0	90.781
116.5	93.820
117.0	96.927
117.5	100.066
118.0	103.339
118.5	106.679
119.0	110.053
119.5	113.526
120.0	117.067
120.5	120.674
121.0	124.381
121.5	128.156
122.0	131.930
122.5	135.871
123.0	139.879
123.5	143.954
124.0	148.095
124.5	152.270
125.0	156.612
125.5	160.988
126.0	165.497
126.5	170.006
127.0	174.582
127.5	179.157
128.0	183.767
128.5	188.409
129.0	193.018
129.5	197.561
130.0	202.036
130.5	206.579
131.0	211.154
131.5	215.663
132.0	220.206
132.5	224.748
133.0	229.224
133.5	233.766
134.0	238.275
134.5	242.751
135.0	247.326
135.5	251.835
136.0	256.411
136.5	261.087
137.0	265.863
137.5	270.740
138.0	275.616
138.5	280.593

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139.0	285.669
139.5	290.946
140.0	296.391
140.5	302.135
141.0	308.214
141.5	314.527
142.0	321.140
142.5	328.120
143.0	335.368
143.5	343.050
144.0	351.500
144.5	360.184
145.0	369.636
145.5	379.656
146.0	390.444
146.5	401.800
147.0	413.924
147.5	426.616
148.0	440.076
148.5	454.104
149.0	468.900
149.5	484.264
150.0	500.062
150.5	515.760
151.0	532.226
151.5	549.594
152.0	567.062
152.5	584.764
153.0	602.900
153.5	621.270
154.0	639.406
154.5	658.110
155.0	677.248
155.5	695.618
156.0	714.088
156.5	731.790
157.0	749.492
157.5	766.960
158.0	783.994
158.5	800.126
159.0	815.824
159.5	830.520
160.0	844.648
160.5	857.674
161.0	869.698
161.5	881.054
162.0	891.842
162.5	901.528
163.0	910.546
163.5	918.896
164.0	926.244
164.5	932.924
165.0	938.936
165.5	943.946
166.0	949.056
166.5	953.298

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167.0	957.406
167.5	960.412
168.0	963.418
168.5	965.656
169.0	967.994
169.5	970.332
170.0	972.002
170.5	973.672
171.0	975.008
171.5	976.344
172.0	977.680
172.5	978.348
173.0	979.350
173.5	980.018
174.0	980.352
174.5	980.686
175.0	981.020
175.5	981.020
176.0	981.020
176.5	980.686
177.0	980.352
177.5	980.252
178.0	980.252
178.5	979.918
179.0	979.584
179.5	979.584
180.0	979.250

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Zone	Lumens	%Lamp	%Fixt
0-20	1240.44	N.A.	39.60
0-30	1552.81	N.A.	49.60
0-40	1656.9	N.A.	52.90
0-60	1739.01	N.A.	55.50
0-80	1764.22	N.A.	56.30
0-90	1766.45	N.A.	56.40
10-90	1247.61	N.A.	39.80
20-40	416.46	N.A.	13.30
20-50	467.19	N.A.	14.90
40-70	99.74	N.A.	3.20
60-80	25.21	N.A.	0.80
70-80	7.59	N.A.	0.20
80-90	2.22	N.A.	0.10
90-110	52.09	N.A.	1.70
90-120	137.02	N.A.	4.40
90-130	277.73	N.A.	8.90
90-150	704.50	N.A.	22.50
90-180	1366.71	N.A.	43.60
110-180	1314.63	N.A.	42.00
0-180	3133.16	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	10.85
100-110	41.23
110-120	84.93
120-130	140.71
130-140	190.93
140-150	235.84
150-160	307.53
160-170	261.31
170-180	93.37

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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	74	74	74	62	62	62	56
1	102	99	96	94	95	93	90	88	81	79	78	70	69	68	60	59	58	54
2	96	91	87	83	90	86	82	79	75	73	71	66	64	63	57	56	55	51
3	91	84	79	75	85	80	75	71	71	68	65	63	60	59	55	54	52	49
4	86	78	73	68	81	74	69	66	67	63	60	59	57	55	53	51	50	47
5	82	73	67	63	77	70	65	61	63	59	56	57	54	52	51	49	48	45
6	77	69	63	59	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	47	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	44	42	41	39
10	65	56	50	47	62	54	49	46	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	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	3H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	4H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	6H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	8H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	12H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

UGR Viewed Endwise

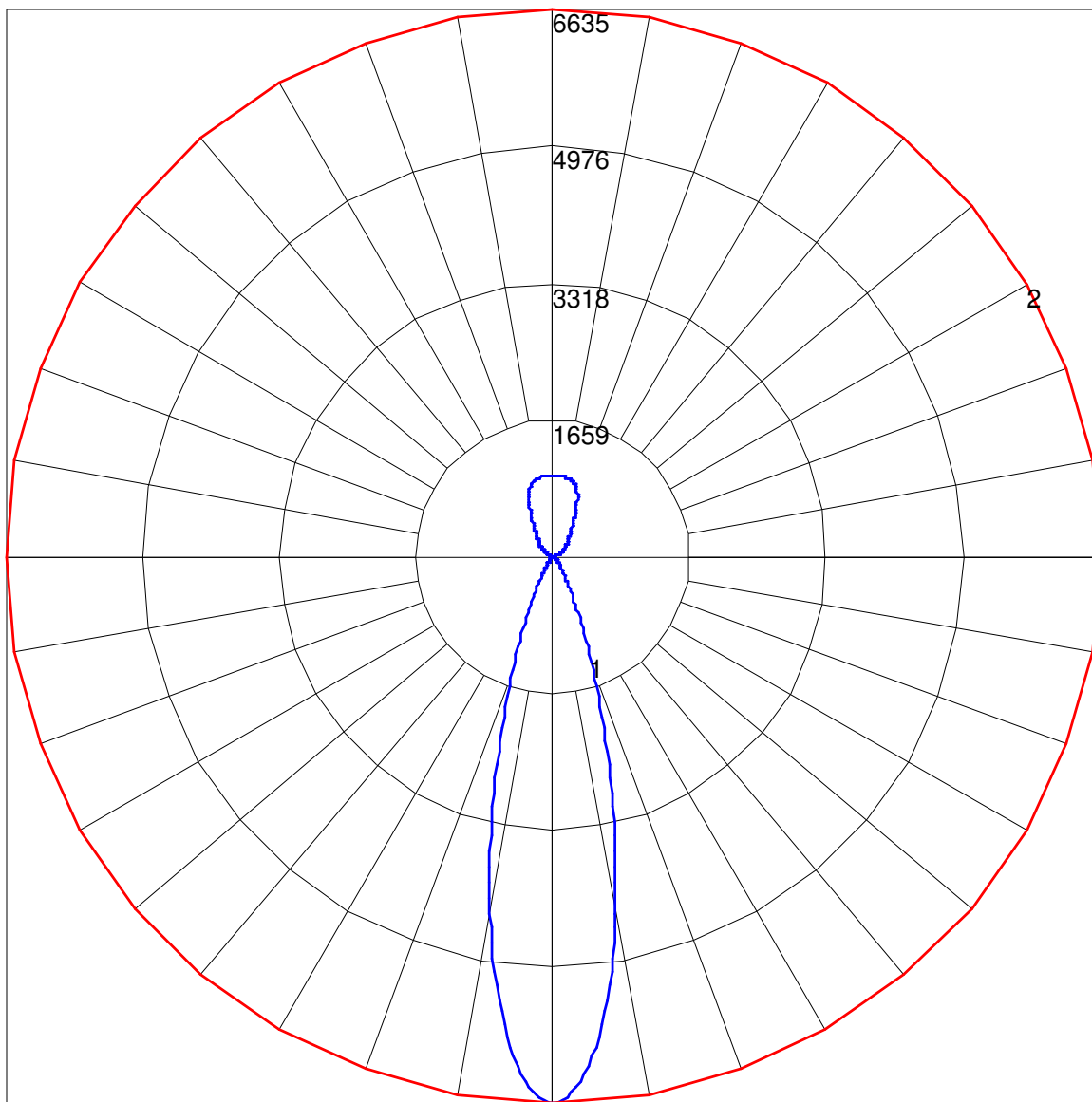
4H	2H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	3H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	4H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	6H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	8H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	12H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
8H	4H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	6H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	8H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	12H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
12H	4H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	6H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	8H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Maximum UGR = 4.0

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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.)