



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] made from 13537338.07 and UL12316380.12

[TESTLAB]

[ISSUE DATE] 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-RW-WHD-WM

[LUMINAIRE] White formed aluminum housing, wide distrib white painted flush prismatic lens trim 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	2687
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	68
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	3.240
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	367.94	N.A.	13.70
0-30	712.01	N.A.	26.50
0-40	921.69	N.A.	34.30
0-60	1222.29	N.A.	45.50
0-80	1317.94	N.A.	49.00
0-90	1323.44	N.A.	49.20
10-90	1225.53	N.A.	45.60
20-40	553.74	N.A.	20.60
20-50	724.34	N.A.	27.00
40-70	370.13	N.A.	13.80
60-80	95.65	N.A.	3.60
70-80	26.12	N.A.	1.00
80-90	5.50	N.A.	0.20
90-110	51.96	N.A.	1.90
90-120	136.79	N.A.	5.10
90-130	277.42	N.A.	10.30
90-150	703.42	N.A.	26.20
90-180	1363.88	N.A.	50.80
110-180	1311.92	N.A.	48.80
0-180	2687.32	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	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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	55	55	55	49
1	99	95	92	89	91	88	85	83	75	73	71	62	61	60	51	50	50	44
2	91	85	80	75	84	79	74	70	67	64	61	57	54	52	47	45	44	39
3	84	76	70	64	78	71	65	61	61	57	53	52	49	46	43	41	39	35
4	78	68	61	56	72	64	58	53	55	51	47	47	44	41	40	37	35	32
5	72	62	55	49	67	58	52	47	50	45	42	43	40	37	37	34	32	29
6	67	56	49	44	62	53	46	42	46	41	37	40	36	33	34	31	29	26
7	63	52	44	39	58	48	42	37	42	37	34	37	33	30	32	29	27	24
8	59	47	40	36	54	45	38	34	39	34	31	34	31	28	30	27	25	22
9	55	44	37	32	51	41	35	31	37	32	28	32	28	26	28	25	23	21
10	52	41	34	30	48	38	32	28	34	29	26	30	26	24	26	23	21	19

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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	6.8	7.6	7.8	8.6	9.8	6.8	7.6	7.8	8.6	9.8
	3H	7.3	8.0	8.3	9.0	10.3	7.3	8.0	8.3	9.0	10.3
	4H	7.3	8.0	8.4	9.0	10.3	7.3	8.0	8.4	9.0	10.3
	6H	7.3	7.9	8.3	8.9	10.2	7.3	7.9	8.3	8.9	10.2
	8H	7.3	7.8	8.3	8.8	10.2	7.3	7.8	8.3	8.8	10.2
	12H	7.2	7.8	8.3	8.8	10.1	7.2	7.8	8.3	8.8	10.1

UGR Viewed Endwise

4H	2H	6.9	7.5	7.9	8.5	9.8	6.9	7.5	7.9	8.5	9.8
	3H	7.4	8.0	8.5	9.0	10.3	7.4	8.0	8.5	9.0	10.3
	4H	7.5	8.0	8.6	9.0	10.4	7.5	8.0	8.6	9.0	10.4
	6H	7.5	7.9	8.6	9.0	10.3	7.5	7.9	8.6	9.0	10.3
	8H	7.5	7.9	8.6	8.9	10.3	7.5	7.9	8.6	8.9	10.3
	12H	7.4	7.8	8.5	8.8	10.2	7.4	7.8	8.5	8.8	10.2

8H	4H	7.4	7.8	8.5	8.9	10.2	7.4	7.8	8.5	8.9	10.2
	6H	7.5	7.8	8.5	8.9	10.2	7.5	7.8	8.5	8.9	10.2
	8H	7.5	7.7	8.5	8.8	10.2	7.5	7.7	8.5	8.8	10.2
	12H	7.4	7.7	8.5	8.7	10.1	7.4	7.7	8.5	8.7	10.1

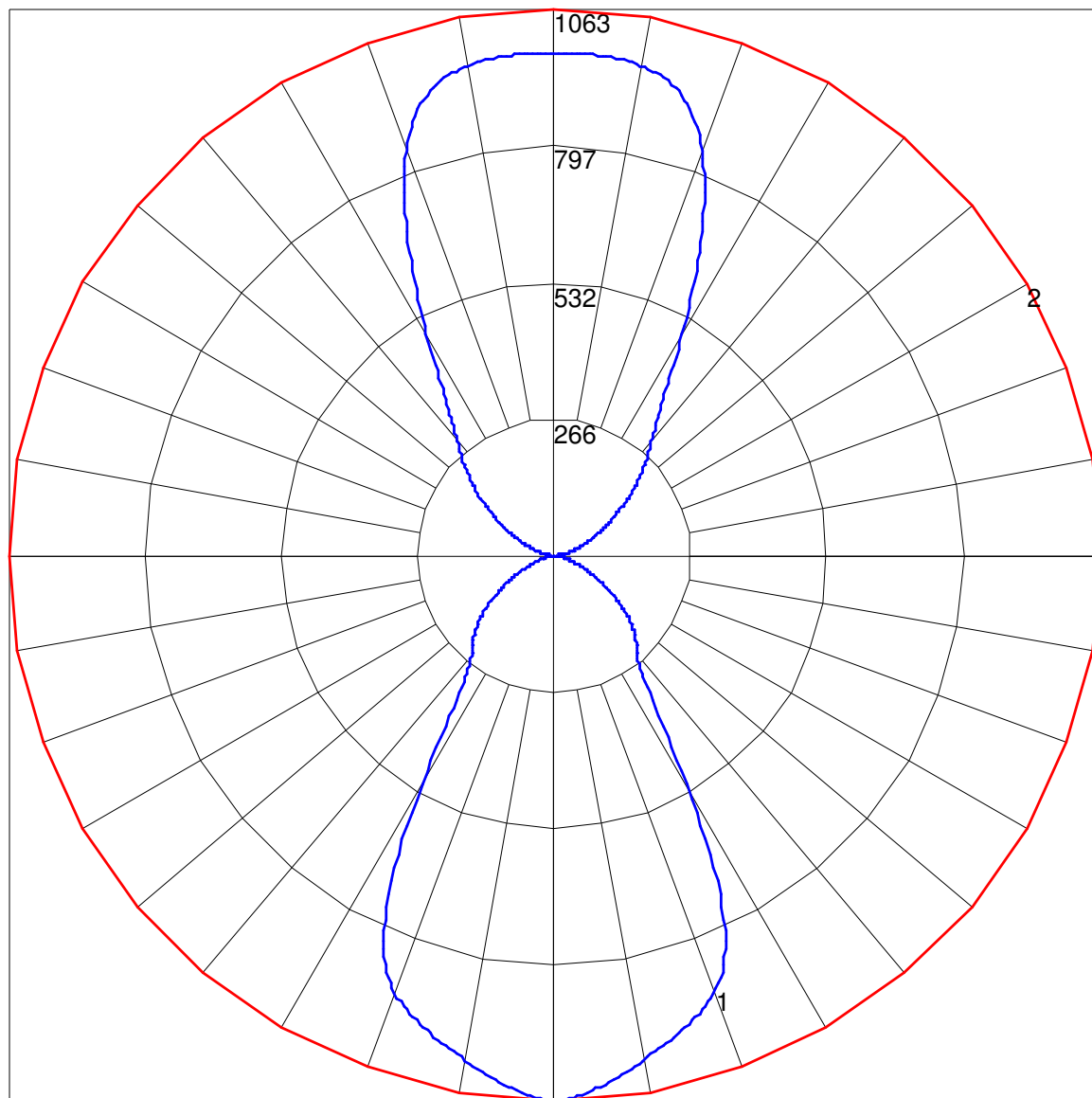
12H	4H	7.4	7.7	8.4	8.8	10.1	7.4	7.7	8.4	8.8	10.1
	6H	7.4	7.7	8.5	8.8	10.2	7.4	7.7	8.5	8.8	10.2
	8H	7.4	7.7	8.5	8.7	10.1	7.4	7.7	8.5	8.7	10.1

Maximum UGR = 10.4

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POLAR GRAPH



Maximum Candela = 1063 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.)