



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] made from 13537338.07 and UL12316380.14

[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-RM-WHD-WM

[LUMINAIRE] White formed aluminum housing, wide distrib white painted flush prismatic lens trim up,

[MORE] medium 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	3159
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	80
Total Luminaire Watts	39.5717
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	939	939	939
55	483	483	483
65	240	240	240
75	96	96	96
85	27	27	27

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CANDELA TABULATION

	<u>0</u>
0.0	5176.000
0.5	5172.000
1.0	5160.000
1.5	5141.000
2.0	5115.000
2.5	5082.000
3.0	5043.000
3.5	4997.000
4.0	4944.000
4.5	4887.000
5.0	4824.000
5.5	4754.000
6.0	4679.000
6.5	4599.000
7.0	4513.000
7.5	4421.000
8.0	4325.000
8.5	4223.000
9.0	4118.000
9.5	4009.000
10.0	3896.000
10.5	3780.000
11.0	3661.000
11.5	3540.000
12.0	3417.000
12.5	3295.000
13.0	3173.000
13.5	3050.000
14.0	2926.000
14.5	2802.000
15.0	2680.000
15.5	2559.000
16.0	2438.000
16.5	2320.000
17.0	2203.000
17.5	2088.000
18.0	1975.000
18.5	1865.000
19.0	1760.000
19.5	1657.000
20.0	1557.000
20.5	1462.000
21.0	1370.000
21.5	1282.000
22.0	1199.000
22.5	1120.000
23.0	1046.000
23.5	975.200
24.0	908.200
24.5	845.100
25.0	786.100
25.5	731.200
26.0	680.000
26.5	632.000

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27.0	587.400
27.5	546.100
28.0	507.700
28.5	471.900
29.0	439.100
29.5	408.500
30.0	380.200
30.5	354.200
31.0	330.200
31.5	308.000
32.0	287.500
32.5	268.700
33.0	251.300
33.5	235.100
34.0	220.300
34.5	206.500
35.0	193.800
35.5	182.100
36.0	171.200
36.5	161.200
37.0	151.900
37.5	143.500
38.0	135.700
38.5	128.700
39.0	122.200
39.5	116.300
40.0	111.000
40.5	106.000
41.0	101.500
41.5	97.300
42.0	93.400
42.5	89.800
43.0	86.400
43.5	83.200
44.0	80.200
44.5	77.400
45.0	74.800
45.5	72.400
46.0	70.100
46.5	67.900
47.0	65.800
47.5	63.900
48.0	62.100
48.5	60.300
49.0	58.600
49.5	57.000
50.0	55.500
50.5	54.000
51.0	52.600
51.5	51.100
52.0	49.800
52.5	48.400
53.0	47.200
53.5	45.900
54.0	44.600
54.5	43.400

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55.0	42.200
55.5	41.000
56.0	39.900
56.5	38.800
57.0	37.700
57.5	36.600
58.0	35.500
58.5	34.500
59.0	33.500
59.5	32.500
60.0	31.500
60.5	30.500
61.0	29.500
61.5	28.600
62.0	27.600
62.5	26.700
63.0	25.700
63.5	24.800
64.0	23.900
64.5	23.000
65.0	22.200
65.5	21.300
66.0	20.500
66.5	19.600
67.0	18.800
67.5	18.000
68.0	17.200
68.5	16.500
69.0	15.700
69.5	15.000
70.0	14.300
70.5	13.700
71.0	13.100
71.5	12.500
72.0	11.900
72.5	11.400
73.0	10.900
73.5	10.400
74.0	10.000
74.5	9.500
75.0	9.100
75.5	8.700
76.0	8.300
76.5	8.000
77.0	7.600
77.5	7.200
78.0	6.900
78.5	6.500
79.0	6.200
79.5	5.900
80.0	5.500
80.5	5.200
81.0	4.900
81.5	4.600
82.0	4.200
82.5	3.900

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83.0	3.600
83.5	3.300
84.0	3.000
84.5	2.700
85.0	2.500
85.5	2.200
86.0	1.900
86.5	1.600
87.0	1.400
87.5	1.200
88.0	1.000
88.5	0.800
89.0	0.700
89.5	0.500
90.0	3.640
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	1158.21	N.A.	36.70
0-30	1534.09	N.A.	48.60
0-40	1663.07	N.A.	52.60
0-60	1760.57	N.A.	55.70
0-80	1792.58	N.A.	56.70
0-90	1795.51	N.A.	56.80
10-90	1364.91	N.A.	43.20
20-40	504.85	N.A.	16.00
20-50	564.32	N.A.	17.90
40-70	119.62	N.A.	3.80
60-80	32.01	N.A.	1.00
70-80	9.89	N.A.	0.30
80-90	2.93	N.A.	0.10
90-110	51.97	N.A.	1.60
90-120	136.81	N.A.	4.30
90-130	277.43	N.A.	8.80
90-150	703.44	N.A.	22.30
90-180	1363.89	N.A.	43.20
110-180	1311.92	N.A.	41.50
0-180	3159.4	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	430.60
10-20	727.61
20-30	375.88
30-40	128.98
40-50	59.47
50-60	38.03
60-70	22.12
70-80	9.89
80-90	2.93
90-100	10.81
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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	57
1	102	99	96	94	95	93	90	88	81	79	78	70	69	68	60	59	59	54
2	96	91	86	83	90	85	82	78	75	73	70	66	64	62	57	56	55	51
3	91	84	78	74	85	79	74	71	70	67	64	62	60	58	55	53	52	48
4	85	78	72	67	80	74	69	65	66	62	59	59	56	54	52	51	49	46
5	81	72	66	62	76	69	64	60	62	58	55	56	53	51	50	48	47	44
6	77	68	62	57	72	65	59	55	59	55	52	53	50	48	48	46	44	42
7	73	64	58	53	69	61	56	52	56	52	49	51	48	46	46	44	42	40
8	69	60	54	50	66	58	52	49	53	49	46	49	46	43	45	42	41	39
9	66	57	51	47	63	55	50	46	51	47	44	47	44	41	43	41	39	37
10	63	54	48	45	60	52	47	44	48	44	42	45	42	40	41	39	38	36

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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

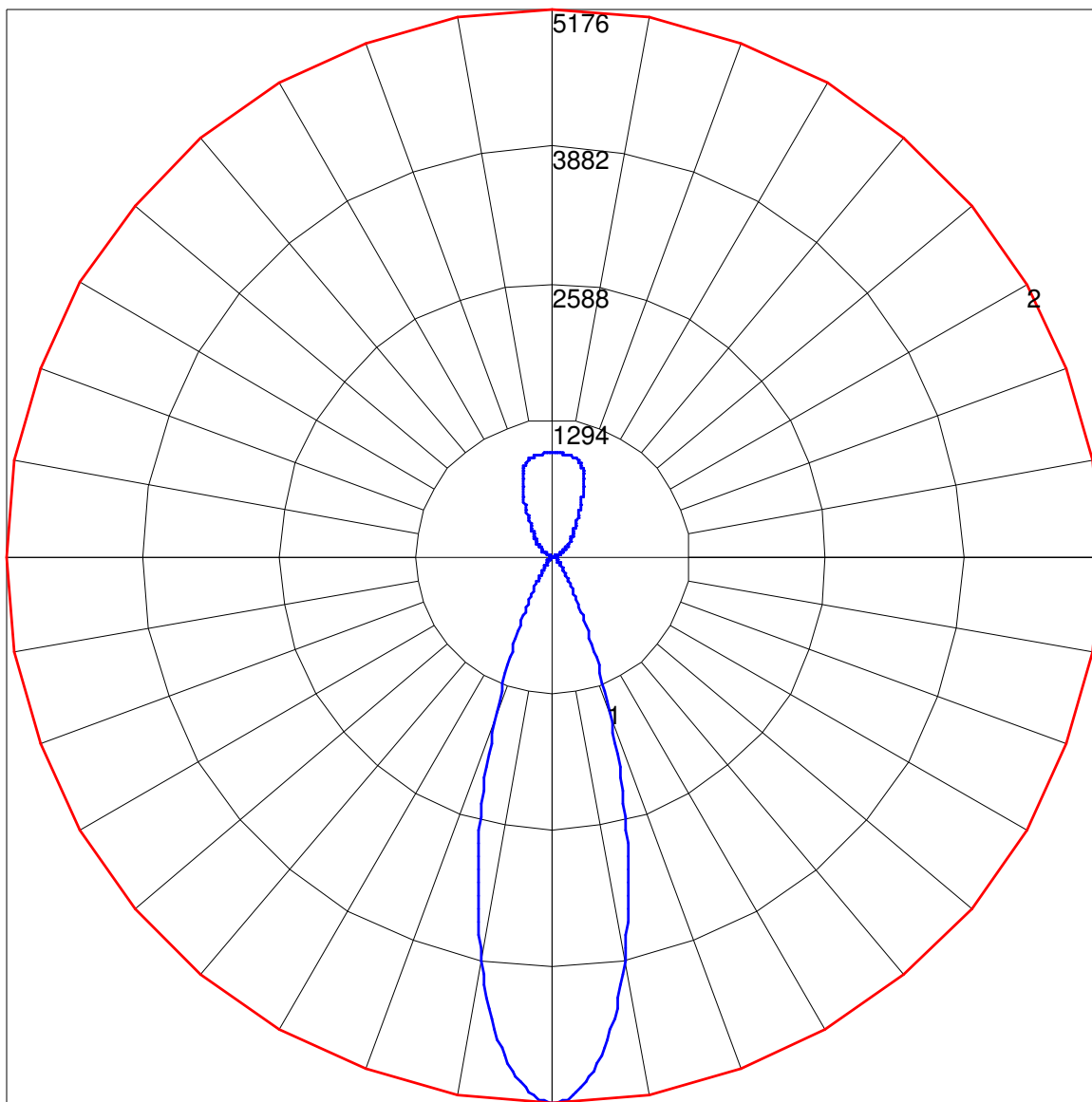
4H	2H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	3H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	4H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	6H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	8H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	12H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
8H	4H	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	6H	4.0	4.0	4.0	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 = 5176 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.)