



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CR-L12-835-XXX-DIM-UNV-OW-OF-SG-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 13131414.04
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 09/13/2022
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836
 [LUMCAT] 4CRR-L12-835-xxx-DIM-UNV-OW-OF-SG-xx
 [LUMINAIRE] 4 INCH DIA. LED DOWNLIGHT CYLINDER
 [MORE] WITH OPEN WIDE DISTRIBUTION, ANODIZED TRIM
 [LAMP] COB LED
 [LAMPCAT] BRIDGELUX VERO COB 80 CRI, 3500K CCT
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] Indoor, Downlight
 [_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1126
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	79
Total Luminaire Watts	14.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.02
Spacing Criterion (90-270)	1.02
Spacing Criterion (Diagonal)	0.88
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.21 ft (Diameter)
Luminous Width (90-270)	0.21 ft (Diameter)
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	70011	70011	70011
55	26979	26979	26979
65	9774	9774	9774
75	3561	3561	3561
85	1093	1093	1093

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CANDELA TABULATION

	<u>0</u>
0.0	1022.085
0.5	1022.085
1.0	1021.583
1.5	1020.579
2.0	1019.575
2.5	1018.069
3.0	1016.563
3.5	1015.056
4.0	1013.048
4.5	1012.044
5.0	1010.538
5.5	1010.036
6.0	1009.032
6.5	1008.530
7.0	1008.028
7.5	1007.526
8.0	1007.526
8.5	1007.024
9.0	1006.522
9.5	1006.522
10.0	1006.522
10.5	1006.020
11.0	1006.020
11.5	1006.020
12.0	1006.020
12.5	1006.020
13.0	1005.016
13.5	1004.012
14.0	1002.004
14.5	999.996
15.0	996.984
15.5	993.972
16.0	990.960
16.5	987.948
17.0	984.936
17.5	981.924
18.0	978.410
18.5	974.394
19.0	970.378
19.5	965.860
20.0	961.342
20.5	954.816
21.0	948.290
21.5	937.748
22.0	924.193
22.5	908.129
23.0	891.061
23.5	872.487
24.0	852.908
24.5	830.820
25.0	807.226
25.5	779.114
26.0	749.495
26.5	716.865

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CANDELA TABULATION - (Cont.)

27.0	683.230
27.5	649.094
28.0	614.958
28.5	581.825
29.0	550.199
29.5	521.082
30.0	494.677
30.5	470.681
31.0	448.442
31.5	427.709
32.0	407.980
32.5	389.356
33.0	372.438
33.5	357.880
34.0	345.430
34.5	335.340
35.0	326.806
35.5	319.075
36.0	311.143
36.5	302.760
37.0	294.226
37.5	285.642
38.0	276.907
38.5	267.921
39.0	258.885
39.5	249.748
40.0	240.612
40.5	231.475
41.0	222.389
41.5	213.503
42.0	204.768
42.5	196.234
43.0	187.801
43.5	179.618
44.0	171.636
44.5	163.905
45.0	156.425
45.5	149.246
46.0	142.269
46.5	135.491
47.0	129.066
47.5	122.791
48.0	116.767
48.5	110.893
49.0	105.120
49.5	99.397
50.0	93.875
50.5	88.554
51.0	83.433
51.5	78.564
52.0	73.845
52.5	69.277
53.0	64.809
53.5	60.492
54.0	56.425
54.5	52.560

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PHOTOMETRIC FILENAME : 4CR-L12-835-XXX-DIM-UNV-OW-OF-SG-XX_.IES

CANDELA TABULATION - (Cont.)

55.0	48.895
55.5	45.432
56.0	42.269
56.5	39.307
57.0	36.596
57.5	34.136
58.0	31.877
58.5	29.769
59.0	27.811
59.5	26.054
60.0	24.398
60.5	22.891
61.0	21.486
61.5	20.181
62.0	18.976
62.5	17.821
63.0	16.717
63.5	15.713
64.0	14.809
64.5	13.906
65.0	13.052
65.5	12.249
66.0	11.446
66.5	10.743
67.0	10.040
67.5	9.388
68.0	8.735
68.5	8.133
69.0	7.580
69.5	7.028
70.0	6.526
70.5	6.074
71.0	5.622
71.5	5.221
72.0	4.819
72.5	4.418
73.0	4.066
73.5	3.765
74.0	3.464
74.5	3.163
75.0	2.912
75.5	2.661
76.0	2.410
76.5	2.209
77.0	2.008
77.5	1.807
78.0	1.657
78.5	1.506
79.0	1.355
79.5	1.205
80.0	1.054
80.5	0.954
81.0	0.853
81.5	0.753
82.0	0.703
82.5	0.602

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PHOTOMETRIC FILENAME : 4CR-L12-835-XXX-DIM-UNV-OW-OF-SG-XX_.IES

CANDELA TABULATION - (Cont.)

83.0	0.552
83.5	0.452
84.0	0.402
84.5	0.351
85.0	0.301
85.5	0.251
86.0	0.201
86.5	0.201
87.0	0.151
87.5	0.100
88.0	0.100
88.5	0.100
89.0	0.050
89.5	0.050
90.0	0.050
90.5	0.000
91.0	0.000
91.5	0.000
92.0	0.000
92.5	0.000
93.0	0.000
93.5	0.000
94.0	0.000
94.5	0.000
95.0	0.000
95.5	0.000
96.0	0.000
96.5	0.000
97.0	0.000
97.5	0.000
98.0	0.000
98.5	0.000
99.0	0.000
99.5	0.000
100.0	0.000
100.5	0.000
101.0	0.000
101.5	0.000
102.0	0.000
102.5	0.000
103.0	0.000
103.5	0.000
104.0	0.000
104.5	0.000
105.0	0.000
105.5	0.000
106.0	0.000
106.5	0.000
107.0	0.000
107.5	0.000
108.0	0.000
108.5	0.000
109.0	0.000
109.5	0.000
110.0	0.000
110.5	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CR-L12-835-XXX-DIM-UNV-OW-OF-SG-XX_.IES

CANDELA TABULATION - (Cont.)

111.0	0.000
111.5	0.000
112.0	0.000
112.5	0.000
113.0	0.000
113.5	0.000
114.0	0.000
114.5	0.000
115.0	0.000
115.5	0.000
116.0	0.000
116.5	0.000
117.0	0.000
117.5	0.000
118.0	0.000
118.5	0.000
119.0	0.000
119.5	0.000
120.0	0.000
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121.0	0.000
121.5	0.000
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124.0	0.000
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135.0	0.000
135.5	0.000
136.0	0.000
136.5	0.000
137.0	0.000
137.5	0.000
138.0	0.000
138.5	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CR-L12-835-XXX-DIM-UNV-OW-OF-SG-XX_.IES

CANDELA TABULATION - (Cont.)

139.0	0.000
139.5	0.000
140.0	0.000
140.5	0.000
141.0	0.000
141.5	0.000
142.0	0.000
142.5	0.000
143.0	0.000
143.5	0.000
144.0	0.000
144.5	0.000
145.0	0.000
145.5	0.000
146.0	0.000
146.5	0.000
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147.5	0.000
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148.5	0.000
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151.0	0.000
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152.0	0.000
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155.0	0.000
155.5	0.000
156.0	0.000
156.5	0.000
157.0	0.000
157.5	0.000
158.0	0.000
158.5	0.000
159.0	0.000
159.5	0.000
160.0	0.000
160.5	0.000
161.0	0.000
161.5	0.000
162.0	0.000
162.5	0.000
163.0	0.000
163.5	0.000
164.0	0.000
164.5	0.000
165.0	0.000
165.5	0.000
166.0	0.000
166.5	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CR-L12-835-XXX-DIM-UNV-OW-OF-SG-XX_.IES

CANDELA TABULATION - (Cont.)

167.0	0.000
167.5	0.000
168.0	0.000
168.5	0.000
169.0	0.000
169.5	0.000
170.0	0.000
170.5	0.000
171.0	0.000
171.5	0.000
172.0	0.000
172.5	0.000
173.0	0.000
173.5	0.000
174.0	0.000
174.5	0.000
175.0	0.000
175.5	0.000
176.0	0.000
176.5	0.000
177.0	0.000
177.5	0.000
178.0	0.000
178.5	0.000
179.0	0.000
179.5	0.000
180.0	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	377.02	N.A.	33.50
0-30	728.64	N.A.	64.70
0-40	939.71	N.A.	83.50
0-60	1108.63	N.A.	98.50
0-80	1125.6	N.A.	100.00
0-90	1126.01	N.A.	100.00
10-90	1029.64	N.A.	91.40
20-40	562.68	N.A.	50.00
20-50	685.18	N.A.	60.80
40-70	182.52	N.A.	16.20
60-80	16.97	N.A.	1.50
70-80	3.37	N.A.	0.30
80-90	0.42	N.A.	0.00
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1126.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	96.37
10-20	280.65
20-30	351.62
30-40	211.07
40-50	122.49
50-60	46.43
60-70	13.60
70-80	3.37
80-90	0.42
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	107	105	111	108	105	103	104	102	100	100	99	97	97	95	94	93
2	107	102	97	94	105	100	96	92	97	93	90	94	91	89	91	89	87	85
3	101	94	89	84	99	92	88	84	90	86	82	87	84	81	85	82	80	78
4	95	87	81	77	93	86	80	76	84	79	75	82	78	74	80	76	73	72
5	90	81	75	70	88	80	74	70	78	73	69	76	72	68	75	71	68	66
6	85	75	69	64	83	75	69	64	73	68	64	72	67	63	70	66	63	61
7	80	71	64	60	79	70	64	59	68	63	59	67	62	59	66	62	58	57
8	76	66	60	55	75	65	59	55	64	59	55	63	58	55	62	58	54	53
9	72	62	56	52	71	62	56	51	61	55	51	60	55	51	59	54	51	49
10	69	58	52	48	68	58	52	48	57	52	48	56	51	48	56	51	48	46

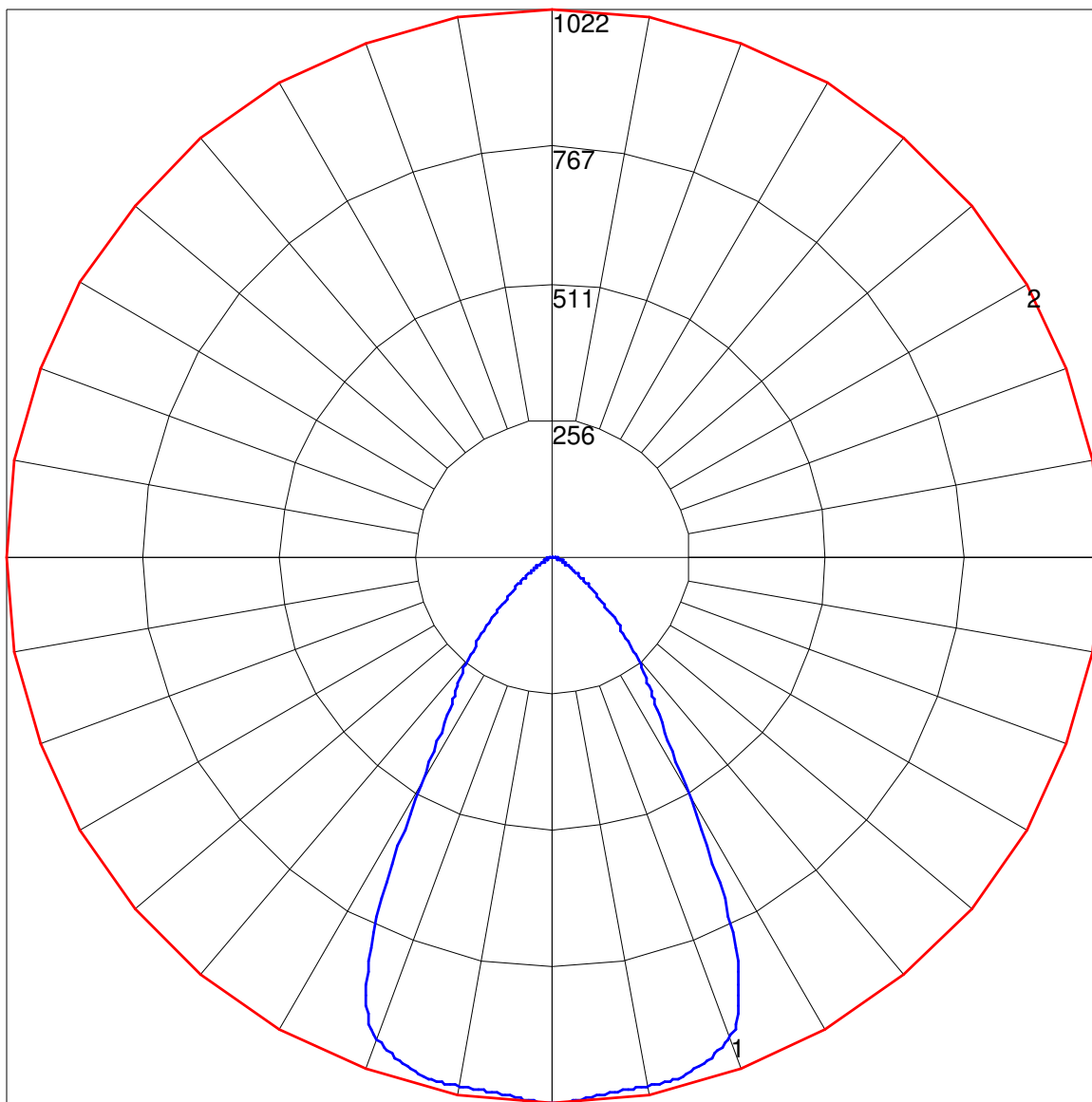
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UGR TABLE - CORRECTED

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	16.4	17.5	16.8	17.8	18.1	16.4	17.5	16.8	17.8	18.1
	3H	16.6	17.6	17.0	17.9	18.3	16.6	17.6	17.0	17.9	18.3
	4H	16.6	17.5	17.0	17.8	18.2	16.6	17.5	17.0	17.8	18.2
	6H	16.5	17.3	16.9	17.7	18.1	16.5	17.3	16.9	17.7	18.1
	8H	16.5	17.2	16.9	17.6	18.0	16.5	17.2	16.9	17.6	18.0
	12H	16.4	17.1	16.9	17.5	18.0	16.4	17.1	16.9	17.5	18.0
4H	2H	16.4	17.3	16.8	17.6	18.0	16.4	17.3	16.8	17.6	18.0
	3H	16.7	17.4	17.1	17.8	18.2	16.7	17.4	17.1	17.8	18.2
	4H	16.6	17.3	17.1	17.7	18.1	16.6	17.3	17.1	17.7	18.1
	6H	16.6	17.1	17.1	17.6	18.0	16.6	17.1	17.1	17.6	18.0
	8H	16.5	17.0	17.0	17.5	18.0	16.5	17.0	17.0	17.5	18.0
	12H	16.5	16.9	17.0	17.4	17.9	16.5	16.9	17.0	17.4	17.9
8H	4H	16.5	17.0	17.0	17.5	18.0	16.5	17.0	17.0	17.5	18.0
	6H	16.5	16.9	17.0	17.4	17.8	16.5	16.9	17.0	17.4	17.8
	8H	16.4	16.8	16.9	17.3	17.8	16.4	16.8	16.9	17.3	17.8
	12H	16.4	16.7	16.9	17.2	17.7	16.4	16.7	16.9	17.2	17.7
12H	4H	16.5	16.9	17.0	17.4	17.9	16.5	16.9	17.0	17.4	17.9
	6H	16.4	16.8	16.9	17.2	17.8	16.4	16.8	16.9	17.2	17.8
	8H	16.4	16.7	16.9	17.2	17.7	16.4	16.7	16.9	17.2	17.7

Maximum UGR = 18.3

POLAR GRAPH



Maximum Candela = 1022.085 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.)