



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4PR-L18-8TW-DIM-UNV-LW-OF-WH.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN from 12316380.29  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUE DATE] 6/12/2018  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] 4PR-L18-8TW-DIM-UNV-LW-OF-WH  
 [LUMINAIRE] Black formed aluminum housing, white reflector, clear glass  
 [MORE] s patterned lens enclosure  
 [LAMP] One white LED  
 [BALLAST] Philips XI025C070V054DSM5  
 [OTHER] 25.3 C, 120.057 V, 0.19044 A, 22.7717 W, 0.995981 PF, 59.9693  
 [MORE] Hz  
 [OTHER] This test was performed using the calibrated photodetector met  
 [MORE] hod of absolute photometry.

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1664
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	69
Total Luminaire Watts	24
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.88
Spacing Criterion (90-270)	0.88
Spacing Criterion (Diagonal)	1.00
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.35 ft (Diameter)
Luminous Width (90-270)	0.35 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	42713	42713	42713
55	30735	30735	30735
65	24417	24417	24417
75	19916	19916	19916
85	14700	14700	14700

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CANDELA TABULATION

	<u>0</u>
0.0	1331.685
0.5	1330.776
1.0	1328.049
1.5	1322.595
2.0	1315.323
2.5	1306.233
3.0	1295.325
3.5	1283.508
4.0	1270.782
4.5	1256.238
5.0	1240.785
5.5	1225.332
6.0	1209.879
6.5	1192.608
7.0	1176.246
7.5	1158.975
8.0	1142.613
8.5	1125.342
9.0	1109.889
9.5	1094.436
10.0	1078.983
10.5	1064.439
11.0	1050.804
11.5	1037.169
12.0	1024.443
12.5	1012.626
13.0	1000.809
13.5	989.901
14.0	979.902
14.5	969.903
15.0	960.813
15.5	951.723
16.0	943.542
16.5	935.361
17.0	928.998
17.5	921.726
18.0	916.272
18.5	909.909
19.0	904.455
19.5	899.546
20.0	895.092
20.5	890.729
21.0	886.184
21.5	881.730
22.0	876.912
22.5	871.913
23.0	866.731
23.5	861.187
24.0	855.278
24.5	848.824
25.0	841.734
25.5	834.280
26.0	826.281
26.5	817.827

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**CANDELA TABULATION - (Cont.)**

27.0	808.828
27.5	799.647
28.0	789.921
28.5	779.831
29.0	769.468
29.5	758.742
30.0	747.289
30.5	735.017
31.0	722.291
31.5	709.293
32.0	695.476
32.5	681.386
33.0	666.842
33.5	651.571
34.0	635.664
34.5	619.029
35.0	602.212
35.5	584.760
36.0	566.852
36.5	548.309
37.0	529.583
37.5	510.949
38.0	492.223
38.5	473.225
39.0	454.409
39.5	435.865
40.0	418.140
40.5	400.414
41.0	383.416
41.5	367.236
42.0	351.965
42.5	337.421
43.0	323.513
43.5	310.514
44.0	298.334
44.5	286.971
45.0	276.427
45.5	266.701
46.0	257.701
46.5	249.430
47.0	241.703
47.5	234.613
48.0	227.977
48.5	221.705
49.0	215.887
49.5	210.343
50.0	205.070
50.5	199.980
51.0	195.253
51.5	190.708
52.0	186.345
52.5	181.982
53.0	177.709
53.5	173.437
54.0	169.347
54.5	165.256

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**CANDELA TABULATION - (Cont.)**

55.0	161.347
55.5	157.439
56.0	153.712
56.5	150.076
57.0	146.440
57.5	142.713
58.0	139.077
58.5	135.532
59.0	131.987
59.5	128.623
60.0	125.169
60.5	121.897
61.0	118.624
61.5	115.352
62.0	112.261
62.5	109.171
63.0	106.080
63.5	103.081
64.0	100.172
64.5	97.263
65.0	94.445
65.5	91.627
66.0	88.900
66.5	86.173
67.0	83.537
67.5	80.992
68.0	78.447
68.5	75.992
69.0	73.538
69.5	71.084
70.0	68.811
70.5	66.448
71.0	64.175
71.5	61.903
72.0	59.721
72.5	57.540
73.0	55.358
73.5	53.267
74.0	51.177
74.5	49.177
75.0	47.177
75.5	45.177
76.0	43.268
76.5	41.359
77.0	39.451
77.5	37.542
78.0	35.724
78.5	33.815
79.0	32.088
79.5	30.270
80.0	28.543
80.5	26.815
81.0	25.088
81.5	23.452
82.0	21.725
82.5	20.089

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CANDELA TABULATION - (Cont.)

83.0	18.453
83.5	16.726
84.0	15.089
84.5	13.362
85.0	11.726
85.5	10.363
86.0	9.181
86.5	8.090
87.0	7.181
87.5	6.363
88.0	5.454
88.5	4.636
89.0	3.818
89.5	2.909
90.0	2.091
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  
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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
120.5	0.000
121.0	0.000
121.5	0.000
122.0	0.000
122.5	0.000
123.0	0.000
123.5	0.000
124.0	0.000
124.5	0.000
125.0	0.000
125.5	0.000
126.0	0.000
126.5	0.000
127.0	0.000
127.5	0.000
128.0	0.000
128.5	0.000
129.0	0.000
129.5	0.000
130.0	0.000
130.5	0.000
131.0	0.000
131.5	0.000
132.0	0.000
132.5	0.000
133.0	0.000
133.5	0.000
134.0	0.000
134.5	0.000
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

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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
147.0	0.000
147.5	0.000
148.0	0.000
148.5	0.000
149.0	0.000
149.5	0.000
150.0	0.000
150.5	0.000
151.0	0.000
151.5	0.000
152.0	0.000
152.5	0.000
153.0	0.000
153.5	0.000
154.0	0.000
154.5	0.000
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
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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

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**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	385.03	N.A.	23.10
0-30	769.12	N.A.	46.20
0-40	1138.46	N.A.	68.40
0-60	1504.84	N.A.	90.40
0-80	1649.3	N.A.	99.10
0-90	1663.76	N.A.	100.00
10-90	1550.75	N.A.	93.20
20-40	753.44	N.A.	45.30
20-50	974.66	N.A.	58.60
40-70	460.58	N.A.	27.70
60-80	144.46	N.A.	8.70
70-80	50.26	N.A.	3.00
80-90	14.46	N.A.	0.90
90-110	0.06	N.A.	0.00
90-120	0.06	N.A.	0.00
90-130	0.06	N.A.	0.00
90-150	0.06	N.A.	0.00
90-180	0.06	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1663.82	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	113.02
10-20	272.01
20-30	384.10
30-40	369.34
40-50	221.22
50-60	145.16
60-70	94.20
70-80	50.26
80-90	14.46
90-100	0.06
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

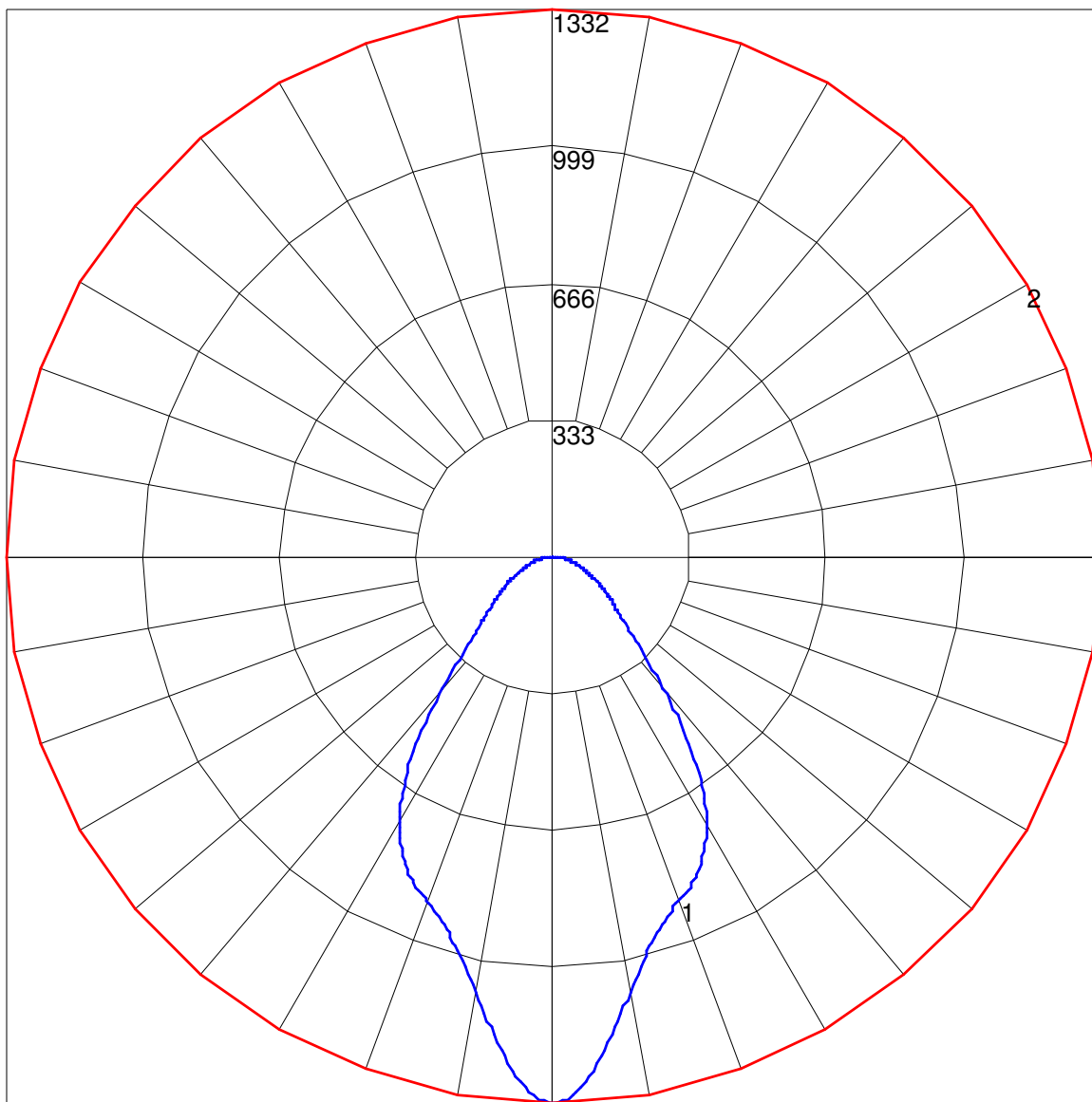
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	108	108	108	108	106	106	106	106	101	101	101	97	97	97	93	93	93	91
1	101	98	95	92	99	96	93	90	92	90	88	88	87	85	85	84	82	81
2	94	88	83	79	92	86	82	78	83	80	76	81	77	75	78	75	73	71
3	88	80	74	69	85	78	73	68	76	71	67	74	70	66	71	68	65	63
4	82	73	66	61	80	72	65	61	69	64	60	67	63	59	66	62	58	57
5	76	66	60	55	75	66	59	54	64	58	54	62	57	53	61	56	53	51
6	71	61	54	49	70	60	54	49	59	53	49	57	52	48	56	52	48	46
7	67	56	50	45	66	56	49	45	54	49	44	53	48	44	52	47	44	42
8	63	52	46	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39
9	59	49	42	38	58	48	42	38	47	42	38	46	41	37	46	41	37	36
10	56	46	39	35	55	45	39	35	44	39	35	43	38	35	43	38	35	33

POLAR GRAPH



Maximum Candela = 1331.685 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.)