



## IES INDOOR REPORT

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

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from 12316380.31

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 6/13/2018

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 4PR-L18-8TW-DIM-UNV-LM-OF-WH

[LUMINAIRE] Black formed aluminum housing, clear plastic optic, white

[MORE] reflector, clear glass patterned lens enclosure

[LAMP] One white LED

[BALLAST] Philips XI025C070V054DSM5

[OTHER] 25.4 C, 120.056 V, 0.190316 A, 22.7567 W, 0.995979 PF, 59.9705

[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	1936
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	81
Total Luminaire Watts	24
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.58
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.56
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	17529	17529	17529
55	11169	11169	11169
65	8719	8719	8719
75	7368	7368	7368
85	5470	5470	5470

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CANDELA TABULATION

	<u>0</u>
0.0	4548.636
0.5	4546.818
1.0	4538.637
1.5	4526.820
2.0	4508.640
2.5	4486.824
3.0	4460.463
3.5	4430.466
4.0	4395.924
4.5	4359.564
5.0	4318.659
5.5	4274.118
6.0	4225.941
6.5	4173.219
7.0	4116.861
7.5	4055.958
8.0	3990.510
8.5	3920.517
9.0	3846.888
9.5	3768.714
10.0	3685.995
10.5	3599.640
11.0	3509.649
11.5	3416.022
12.0	3320.577
12.5	3221.496
13.0	3119.688
13.5	3016.062
14.0	2910.618
14.5	2804.265
15.0	2697.912
15.5	2590.650
16.0	2483.388
16.5	2377.035
17.0	2271.591
17.5	2167.056
18.0	2063.430
18.5	1962.531
19.0	1865.268
19.5	1769.823
20.0	1675.287
20.5	1585.296
21.0	1497.123
21.5	1412.586
22.0	1330.776
22.5	1251.693
23.0	1177.155
23.5	1106.253
24.0	1038.987
24.5	976.266
25.0	915.363
25.5	858.096
26.0	804.829
26.5	754.470

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**CANDELA TABULATION - (Cont.)**

27.0	707.475
27.5	663.479
28.0	622.665
28.5	584.760
29.0	549.400
29.5	516.403
30.0	485.679
30.5	456.863
31.0	430.321
31.5	405.778
32.0	382.871
32.5	361.327
33.0	341.329
33.5	322.695
34.0	305.424
34.5	289.335
35.0	274.336
35.5	260.338
36.0	247.157
36.5	235.067
37.0	223.523
37.5	212.797
38.0	202.980
38.5	193.708
39.0	185.072
39.5	176.891
40.0	169.165
40.5	161.893
41.0	155.166
41.5	148.803
42.0	142.895
42.5	137.168
43.0	131.896
43.5	126.896
44.0	122.170
44.5	117.715
45.0	113.443
45.5	109.353
46.0	105.444
46.5	101.717
47.0	98.172
47.5	94.809
48.0	91.536
48.5	88.446
49.0	85.537
49.5	82.719
50.0	79.992
50.5	77.447
51.0	74.992
51.5	72.629
52.0	70.357
52.5	68.266
53.0	66.175
53.5	64.175
54.0	62.266
54.5	60.448

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**CANDELA TABULATION - (Cont.)**

55.0	58.630
55.5	56.903
56.0	55.267
56.5	53.722
57.0	52.177
57.5	50.722
58.0	49.268
58.5	47.995
59.0	46.632
59.5	45.359
60.0	44.177
60.5	42.996
61.0	41.814
61.5	40.723
62.0	39.632
62.5	38.632
63.0	37.542
63.5	36.542
64.0	35.542
64.5	34.633
65.0	33.724
65.5	32.815
66.0	31.906
66.5	30.997
67.0	30.088
67.5	29.270
68.0	28.361
68.5	27.543
69.0	26.725
69.5	25.906
70.0	25.088
70.5	24.361
71.0	23.543
71.5	22.725
72.0	21.998
72.5	21.271
73.0	20.452
73.5	19.725
74.0	18.998
74.5	18.271
75.0	17.453
75.5	16.726
76.0	15.998
76.5	15.271
77.0	14.544
77.5	13.817
78.0	13.180
78.5	12.453
79.0	11.726
79.5	10.999
80.0	10.363
80.5	9.635
81.0	8.999
81.5	8.363
82.0	7.726
82.5	7.090

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CANDELA TABULATION - (Cont.)

83.0	6.454
83.5	5.908
84.0	5.363
84.5	4.818
85.0	4.363
85.5	3.909
86.0	3.454
86.5	3.091
87.0	2.727
87.5	2.363
88.0	2.000
88.5	1.727
89.0	1.454
89.5	1.182
90.0	1.000
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

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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
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

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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	1123.86	N.A.	58.00
0-30	1556.53	N.A.	80.40
0-40	1735.82	N.A.	89.70
0-60	1878.77	N.A.	97.00
0-80	1930.91	N.A.	99.70
0-90	1936.15	N.A.	100.00
10-90	1543.84	N.A.	79.70
20-40	611.96	N.A.	31.60
20-50	701.61	N.A.	36.20
40-70	176.57	N.A.	9.10
60-80	52.14	N.A.	2.70
70-80	18.52	N.A.	1.00
80-90	5.24	N.A.	0.30
90-110	0.03	N.A.	0.00
90-120	0.03	N.A.	0.00
90-130	0.03	N.A.	0.00
90-150	0.03	N.A.	0.00
90-180	0.03	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1936.18	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	392.32
10-20	731.54
20-30	432.67
30-40	179.29
40-50	89.64
50-60	53.30
60-70	33.62
70-80	18.52
80-90	5.24
90-100	0.03
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

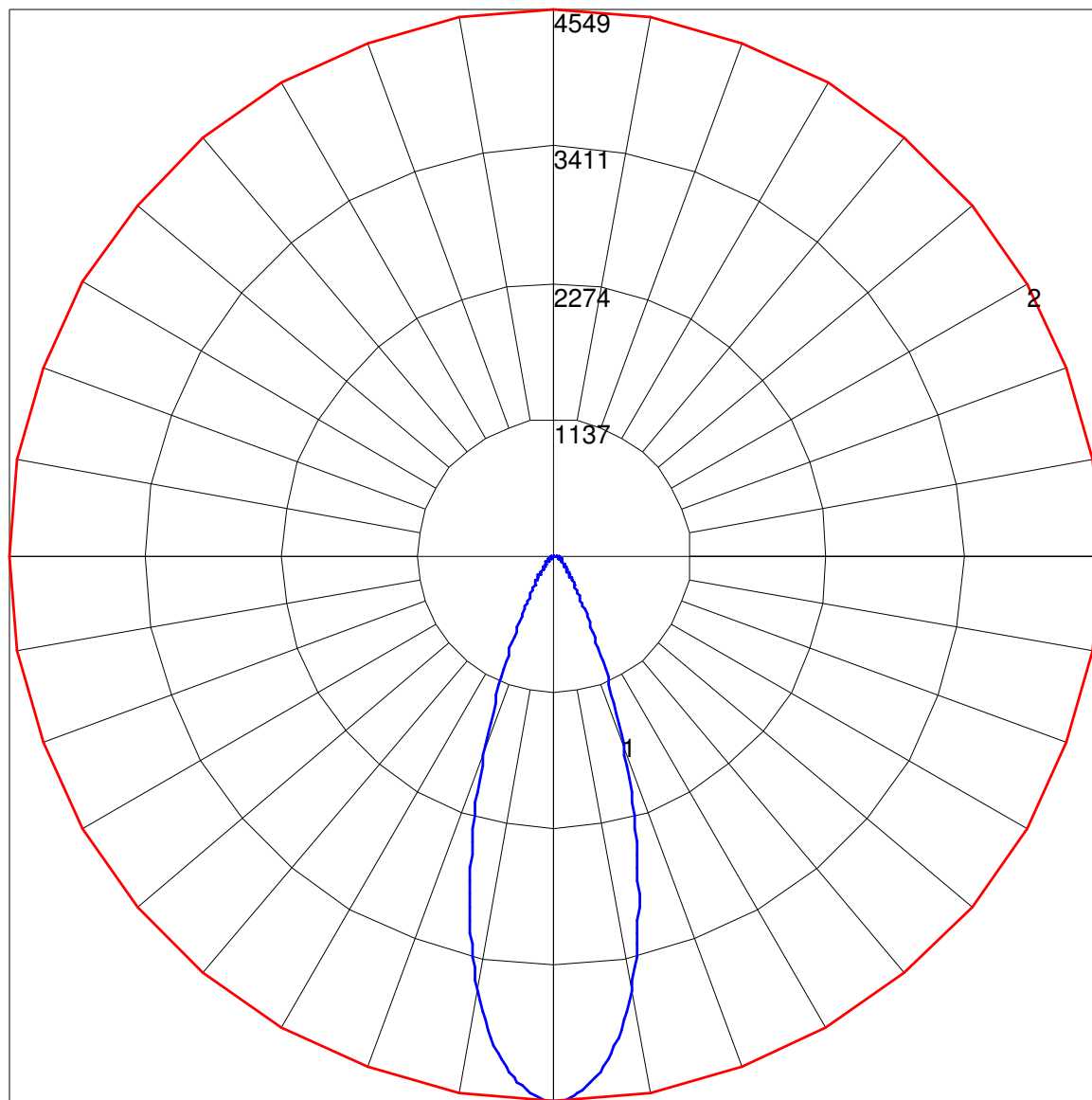
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	103	101	99	97	101	99	97	95	95	94	92	92	91	90	89	88	87	85
2	99	94	91	88	97	93	90	87	90	87	85	87	85	83	85	83	82	80
3	94	89	85	81	92	87	84	80	85	82	79	83	80	78	81	79	77	75
4	90	84	79	76	89	83	78	75	81	77	74	79	76	73	77	75	73	71
5	86	79	75	71	85	79	74	71	77	73	70	75	72	69	74	71	69	68
6	83	75	71	67	81	75	70	67	73	69	66	72	69	66	71	68	65	64
7	79	72	67	64	78	71	67	63	70	66	63	69	65	63	68	65	62	61
8	76	69	64	61	75	68	64	60	67	63	60	66	63	60	66	62	60	59
9	74	66	61	58	73	65	61	58	65	60	58	64	60	57	63	60	57	56
10	71	63	58	55	70	63	58	55	62	58	55	61	58	55	61	57	55	54

POLAR GRAPH



Maximum Candela = 4548.636 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.)