



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6PR-TL-L20-840-DIM-UNV-LW-OF-WH-AD_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12326812.29
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 12/12/2019
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 6PR-TL-L20-840-DIM-UNV-LW-OF-WH-AD
 [LUMINAIRE] Black formed aluminum housing, white reflector, clear glas
 [MORE] s patterned lens enclosure
 [LAMP] One white LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1895
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	83
Total Luminaire Watts	22.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.26
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.46 ft (Diameter)
Luminous Width (90-270)	0.46 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	44034	44034	44034
55	21741	21741	21741
65	14727	14727	14727
75	10952	10952	10952
85	7585	7585	7585

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CANDELA TABULATION

	<u>0</u>
0.0	1003.286
0.5	1002.427
1.0	1001.569
1.5	1000.711
2.0	998.994
2.5	997.278
3.0	994.703
3.5	992.987
4.0	990.412
4.5	987.837
5.0	985.263
5.5	982.688
6.0	980.113
6.5	977.538
7.0	974.964
7.5	971.531
8.0	968.956
8.5	966.381
9.0	962.948
9.5	959.515
10.0	956.941
10.5	953.508
11.0	950.075
11.5	947.500
12.0	944.067
12.5	940.634
13.0	937.201
13.5	933.768
14.0	930.335
14.5	926.902
15.0	922.611
15.5	919.178
16.0	915.745
16.5	912.312
17.0	908.021
17.5	904.588
18.0	902.013
18.5	898.580
19.0	895.147
19.5	891.714
20.0	888.281
20.5	885.706
21.0	882.273
21.5	878.841
22.0	874.549
22.5	870.258
23.0	866.825
23.5	861.676
24.0	857.642
24.5	853.093
25.0	848.459
25.5	843.824
26.0	839.190
26.5	834.384

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CANDELA TABULATION - (Cont.)

27.0	829.663
27.5	824.943
28.0	820.223
28.5	815.588
29.0	811.125
29.5	806.576
30.0	801.684
30.5	796.793
31.0	791.643
31.5	786.322
32.0	780.486
32.5	774.307
33.0	767.956
33.5	761.090
34.0	753.709
34.5	745.813
35.0	737.574
35.5	728.648
36.0	719.379
36.5	709.595
37.0	699.210
37.5	688.568
38.0	677.411
38.5	665.567
39.0	653.294
39.5	640.421
40.0	627.290
40.5	613.558
41.0	600.083
41.5	586.008
42.0	571.675
42.5	556.742
43.0	541.551
43.5	525.845
44.0	509.968
44.5	493.661
45.0	477.011
45.5	459.846
46.0	442.167
46.5	424.315
47.0	406.292
47.5	388.441
48.0	370.675
48.5	353.081
49.0	336.174
49.5	319.438
50.0	303.818
50.5	288.627
51.0	274.552
51.5	261.335
52.0	248.976
52.5	237.476
53.0	226.662
53.5	216.620
54.0	207.523
54.5	198.941

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CANDELA TABULATION - (Cont.)

55.0	191.045
55.5	183.750
56.0	176.970
56.5	170.619
57.0	164.439
57.5	158.689
58.0	153.282
58.5	148.047
59.0	143.241
59.5	138.606
60.0	133.972
60.5	129.595
61.0	125.303
61.5	121.184
62.0	117.150
62.5	113.288
63.0	109.512
63.5	105.821
64.0	102.217
64.5	98.784
65.0	95.351
65.5	92.089
66.0	88.828
66.5	85.653
67.0	82.563
67.5	79.645
68.0	76.641
68.5	73.895
69.0	71.062
69.5	68.402
70.0	65.741
70.5	63.252
71.0	60.849
71.5	58.446
72.0	56.129
72.5	53.983
73.0	51.752
73.5	49.606
74.0	47.547
74.5	45.487
75.0	43.427
75.5	41.539
76.0	39.565
76.5	37.763
77.0	35.875
77.5	34.072
78.0	32.270
78.5	30.553
79.0	28.837
79.5	27.120
80.0	25.490
80.5	23.859
81.0	22.228
81.5	20.598
82.0	19.053
82.5	17.508

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CANDELA TABULATION - (Cont.)

83.0	15.963
83.5	14.504
84.0	12.959
84.5	11.586
85.0	10.127
85.5	8.754
86.0	7.381
86.5	6.094
87.0	4.892
87.5	3.862
88.0	3.004
88.5	2.231
89.0	1.631
89.5	1.116
90.0	0.687
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
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134.0	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

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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	353.67	N.A.	18.70
0-30	744.66	N.A.	39.30
0-40	1200.75	N.A.	63.40
0-60	1740.96	N.A.	91.90
0-80	1883.21	N.A.	99.40
0-90	1895.2	N.A.	100.00
10-90	1802.06	N.A.	95.10
20-40	847.08	N.A.	44.70
20-50	1208.99	N.A.	63.80
40-70	635.88	N.A.	33.60
60-80	142.25	N.A.	7.50
70-80	46.58	N.A.	2.50
80-90	11.99	N.A.	0.60
90-110	0.02	N.A.	0.00
90-120	0.02	N.A.	0.00
90-130	0.02	N.A.	0.00
90-150	0.02	N.A.	0.00
90-180	0.02	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1895.22	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	93.14
10-20	260.52
20-30	390.99
30-40	456.10
40-50	361.91
50-60	178.31
60-70	95.67
70-80	46.58
80-90	11.99
90-100	0.02
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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78
3	96	87	80	75	93	85	79	74	83	77	73	80	75	72	78	74	70	69
4	89	79	71	66	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	49
7	72	60	52	47	70	59	52	46	58	51	46	56	50	46	55	50	46	44
8	67	55	47	42	66	54	47	42	53	47	42	52	46	42	51	45	41	40
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33

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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

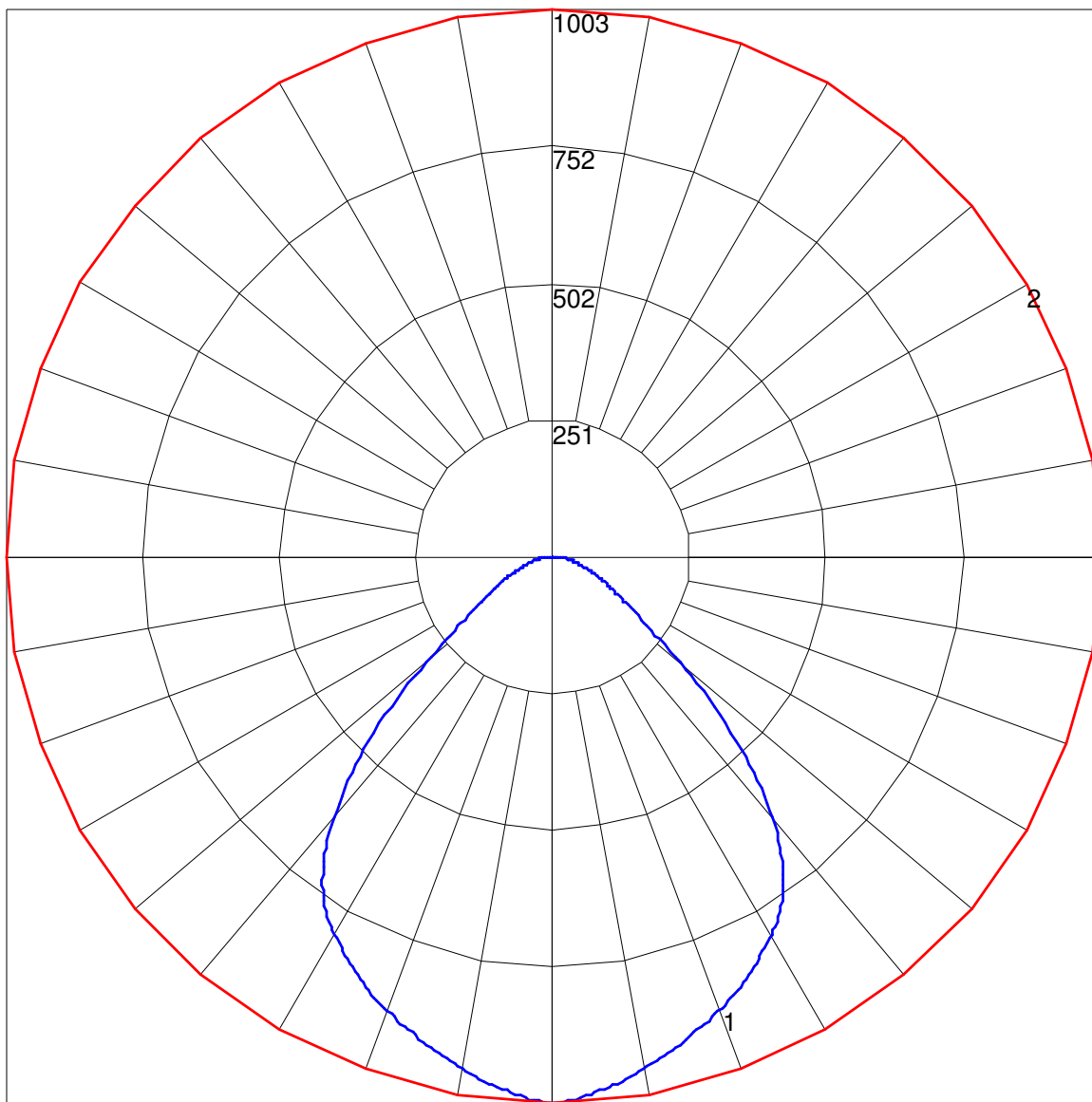
X=2H	Y=2H	19.5	20.9	19.9	21.2	21.5	19.5	20.9	19.9	21.2	21.5
	3H	20.6	21.8	21.0	22.1	22.5	20.6	21.8	21.0	22.1	22.5
	4H	21.0	22.1	21.4	22.5	22.8	21.0	22.1	21.4	22.5	22.8
	6H	21.2	22.3	21.6	22.7	23.1	21.2	22.3	21.6	22.7	23.1
	8H	21.3	22.3	21.7	22.7	23.1	21.3	22.3	21.7	22.7	23.1
	12H	21.4	22.3	21.8	22.7	23.1	21.4	22.3	21.8	22.7	23.1

UGR Viewed Endwise

4H	2H	19.9	21.0	20.3	21.3	21.7	19.9	21.0	20.3	21.3	21.7
	3H	21.1	22.1	21.5	22.5	22.9	21.1	22.1	21.5	22.5	22.9
	4H	21.6	22.5	22.1	22.9	23.3	21.6	22.5	22.1	22.9	23.3
	6H	22.0	22.7	22.5	23.2	23.7	22.0	22.7	22.5	23.2	23.7
	8H	22.1	22.8	22.6	23.3	23.7	22.1	22.8	22.6	23.3	23.7
	12H	22.2	22.8	22.7	23.3	23.8	22.2	22.8	22.7	23.3	23.8
8H	4H	21.8	22.5	22.3	22.9	23.4	21.8	22.5	22.3	22.9	23.4
	6H	22.3	22.8	22.8	23.3	23.8	22.3	22.8	22.8	23.3	23.8
	8H	22.4	22.9	23.0	23.5	23.9	22.4	22.9	23.0	23.5	23.9
	12H	22.6	23.0	23.1	23.5	24.1	22.6	23.0	23.1	23.5	24.1
12H	4H	21.8	22.4	22.3	22.9	23.3	21.8	22.4	22.3	22.9	23.3
	6H	22.3	22.8	22.8	23.3	23.8	22.3	22.8	22.8	23.3	23.8
	8H	22.5	22.9	23.0	23.4	24.0	22.5	22.9	23.0	23.4	24.0

Maximum UGR = 24.1

POLAR GRAPH



Maximum Candela = 1003.286 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.)