



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6PR-TL-L20-940-DIM-UNV-LW-OF-CS_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from UL 12326812.29
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 08-04-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 6PR-TL-L20-940-DIM-UNV-LW-OF-CS
 [LUMINAIRE] Black formed aluminum housing, reflector, clear glas
 [MORE] s patterned lens enclosure
 [LAMP] One white LED
 [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	1855
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	82
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	43098	43098	43098
55	21279	21279	21279
65	14414	14414	14414
75	10720	10720	10720
85	7423	7423	7423

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CANDELA TABULATION

	<u>0</u>
0.0	981.960
0.5	981.120
1.0	980.280
1.5	979.440
2.0	977.760
2.5	976.080
3.0	973.560
3.5	971.880
4.0	969.360
4.5	966.840
5.0	964.320
5.5	961.800
6.0	959.280
6.5	956.760
7.0	954.240
7.5	950.880
8.0	948.360
8.5	945.840
9.0	942.480
9.5	939.120
10.0	936.600
10.5	933.240
11.0	929.880
11.5	927.360
12.0	924.000
12.5	920.640
13.0	917.280
13.5	913.920
14.0	910.560
14.5	907.200
15.0	903.000
15.5	899.640
16.0	896.280
16.5	892.920
17.0	888.720
17.5	885.360
18.0	882.840
18.5	879.480
19.0	876.120
19.5	872.760
20.0	869.400
20.5	866.880
21.0	863.520
21.5	860.160
22.0	855.960
22.5	851.760
23.0	848.400
23.5	843.360
24.0	839.412
24.5	834.960
25.0	830.424
25.5	825.888
26.0	821.352
26.5	816.648

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CANDELA TABULATION - (Cont.)

27.0	812.028
27.5	807.408
28.0	802.788
28.5	798.252
29.0	793.884
29.5	789.432
30.0	784.644
30.5	779.856
31.0	774.816
31.5	769.608
32.0	763.896
32.5	757.848
33.0	751.632
33.5	744.912
34.0	737.688
34.5	729.960
35.0	721.896
35.5	713.160
36.0	704.088
36.5	694.512
37.0	684.348
37.5	673.932
38.0	663.012
38.5	651.420
39.0	639.408
39.5	626.808
40.0	613.956
40.5	600.516
41.0	587.328
41.5	573.552
42.0	559.524
42.5	544.908
43.0	530.040
43.5	514.668
44.0	499.128
44.5	483.168
45.0	466.872
45.5	450.072
46.0	432.768
46.5	415.296
47.0	397.656
47.5	380.184
48.0	362.796
48.5	345.576
49.0	329.028
49.5	312.648
50.0	297.360
50.5	282.492
51.0	268.716
51.5	255.780
52.0	243.684
52.5	232.428
53.0	221.844
53.5	212.016
54.0	203.112
54.5	194.712

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CANDELA TABULATION - (Cont.)

55.0	186.984
55.5	179.844
56.0	173.208
56.5	166.992
57.0	160.944
57.5	155.316
58.0	150.024
58.5	144.900
59.0	140.196
59.5	135.660
60.0	131.124
60.5	126.840
61.0	122.640
61.5	118.608
62.0	114.660
62.5	110.880
63.0	107.184
63.5	103.572
64.0	100.044
64.5	96.684
65.0	93.324
65.5	90.132
66.0	86.940
66.5	83.832
67.0	80.808
67.5	77.952
68.0	75.012
68.5	72.324
69.0	69.552
69.5	66.948
70.0	64.344
70.5	61.908
71.0	59.556
71.5	57.204
72.0	54.936
72.5	52.836
73.0	50.652
73.5	48.552
74.0	46.536
74.5	44.520
75.0	42.504
75.5	40.656
76.0	38.724
76.5	36.960
77.0	35.112
77.5	33.348
78.0	31.584
78.5	29.904
79.0	28.224
79.5	26.544
80.0	24.948
80.5	23.352
81.0	21.756
81.5	20.160
82.0	18.648
82.5	17.136

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CANDELA TABULATION - (Cont.)

83.0	15.624
83.5	14.196
84.0	12.684
84.5	11.340
85.0	9.912
85.5	8.568
86.0	7.224
86.5	5.964
87.0	4.788
87.5	3.780
88.0	2.940
88.5	2.184
89.0	1.596
89.5	1.092
90.0	0.672
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
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128.0	0.000
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130.0	0.000
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131.0	0.000
131.5	0.000
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133.5	0.000
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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
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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	346.15	N.A.	18.70
0-30	728.83	N.A.	39.30
0-40	1175.23	N.A.	63.40
0-60	1703.96	N.A.	91.90
0-80	1843.18	N.A.	99.40
0-90	1854.92	N.A.	100.00
10-90	1763.75	N.A.	95.10
20-40	829.08	N.A.	44.70
20-50	1183.29	N.A.	63.80
40-70	622.37	N.A.	33.60
60-80	139.22	N.A.	7.50
70-80	45.59	N.A.	2.50
80-90	11.73	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	1854.94	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	91.16
10-20	254.98
20-30	382.68
30-40	446.40
40-50	354.21
50-60	174.52
60-70	93.64
70-80	45.59
80-90	11.73
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	98	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	82	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	21.7	22.7	23.1	21.2	22.3	21.7	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

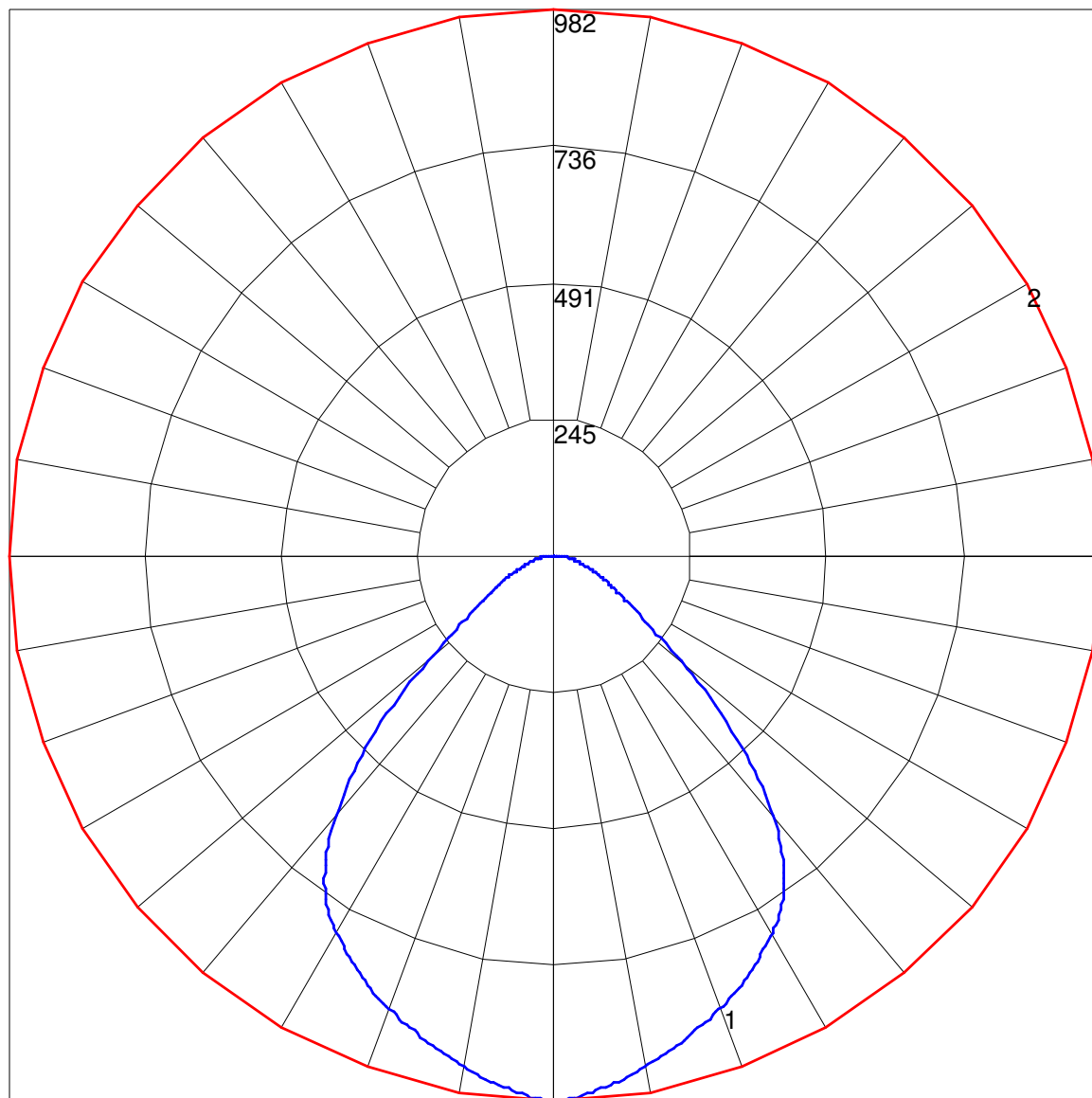
4H	2H	19.9	21.0	20.3	21.4	21.7	19.9	21.0	20.3	21.4	21.7
	3H	21.1	22.1	21.6	22.5	22.9	21.1	22.1	21.6	22.5	22.9
	4H	21.6	22.5	22.1	22.9	23.3	21.6	22.5	22.1	22.9	23.3
	6H	22.0	22.8	22.5	23.2	23.7	22.0	22.8	22.5	23.2	23.7
	8H	22.1	22.8	22.6	23.3	23.7	22.1	22.8	22.6	23.3	23.7
	12H	22.2	22.8	22.7	23.3	23.8	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 = 981.96 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.)