



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L40-940-DIM-UNV-LW-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12326812.07

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 11/16/2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 6DR-TL-L40-940-DIM-UNV-LW-OF-WH

[LUMINAIRE] Black formed aluminum housing, white reflector, clear glas

[MORE] s patterned lens enclosure

[LAMP] One white LED

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Healthcare, Office, Downlight

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2622
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	72
Total Luminaire Watts	36.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	0.98
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	43590	43590	43590
55	36291	36291	36291
65	27570	27570	27570
75	19994	19994	19994
85	13029	13029	13029

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CANDELA TABULATION

	<u>0</u>
0.0	1668.006
0.5	1667.670
1.0	1666.327
1.5	1664.312
2.0	1661.793
2.5	1658.434
3.0	1655.076
3.5	1651.213
4.0	1647.687
4.5	1644.161
5.0	1641.642
5.5	1639.291
6.0	1637.108
6.5	1634.925
7.0	1632.574
7.5	1630.391
8.0	1628.208
8.5	1626.193
9.0	1624.177
9.5	1622.498
10.0	1620.819
10.5	1619.475
11.0	1618.300
11.5	1617.628
12.0	1616.453
12.5	1615.277
13.0	1613.598
13.5	1611.415
14.0	1608.728
14.5	1605.706
15.0	1602.515
15.5	1598.485
16.0	1594.119
16.5	1589.753
17.0	1585.387
17.5	1580.853
18.0	1575.983
18.5	1570.441
19.0	1564.228
19.5	1557.343
20.0	1549.450
20.5	1540.886
21.0	1530.307
21.5	1517.713
22.0	1503.439
22.5	1487.318
23.0	1469.686
23.5	1450.542
24.0	1429.384
24.5	1406.546
25.0	1381.861
25.5	1356.168
26.0	1328.796
26.5	1300.249

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CANDELA TABULATION - (Cont.)

27.0	1269.854
27.5	1238.620
28.0	1205.707
28.5	1170.946
29.0	1134.842
29.5	1096.891
30.0	1057.932
30.5	1017.798
31.0	977.663
31.5	937.193
32.0	897.899
32.5	860.283
33.0	824.179
33.5	790.426
34.0	759.360
34.5	731.149
35.0	705.960
35.5	682.786
36.0	662.467
36.5	643.827
37.0	627.203
37.5	612.257
38.0	598.655
38.5	586.229
39.0	574.474
39.5	563.895
40.0	553.651
40.5	544.079
41.0	535.179
41.5	526.447
42.0	518.051
42.5	510.326
43.0	502.434
43.5	494.709
44.0	487.152
44.5	479.764
45.0	472.207
45.5	464.986
46.0	457.598
46.5	450.209
47.0	442.652
47.5	435.263
48.0	427.707
48.5	420.150
49.0	412.593
49.5	404.701
50.0	397.144
50.5	389.420
51.0	381.695
51.5	373.803
52.0	365.910
52.5	358.018
53.0	350.125
53.5	342.233
54.0	334.676
54.5	326.951

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CANDELA TABULATION - (Cont.)

55.0	318.891
55.5	310.998
56.0	303.106
56.5	295.717
57.0	288.328
57.5	280.604
58.0	272.879
58.5	265.323
59.0	257.934
59.5	250.545
60.0	243.492
60.5	236.439
61.0	229.554
61.5	222.669
62.0	216.120
62.5	209.571
63.0	203.190
63.5	196.809
64.0	190.596
64.5	184.550
65.0	178.505
65.5	172.628
66.0	166.767
66.5	161.007
67.0	155.314
67.5	149.739
68.0	144.265
68.5	138.774
69.0	133.451
69.5	128.178
70.0	123.056
70.5	118.102
71.0	113.249
71.5	108.547
72.0	104.013
72.5	99.614
73.0	95.331
73.5	91.133
74.0	87.103
74.5	83.157
75.0	79.278
75.5	75.533
76.0	71.855
76.5	68.245
77.0	64.735
77.5	61.293
78.0	57.951
78.5	54.677
79.0	51.469
79.5	48.379
80.0	45.306
80.5	42.334
81.0	39.395
81.5	36.473
82.0	33.619
82.5	30.781

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CANDELA TABULATION - (Cont.)

83.0	28.010
83.5	25.290
84.0	22.603
84.5	19.966
85.0	17.397
85.5	14.912
86.0	12.510
86.5	10.193
87.0	7.943
87.5	6.062
88.0	4.635
88.5	3.392
89.0	2.351
89.5	1.478
90.0	0.940
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
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124.0	0.000
124.5	0.000
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131.5	0.000
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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
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153.5	0.000
154.0	0.000
154.5	0.000
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156.5	0.000
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158.0	0.000
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159.5	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	607.60	N.A.	23.20
0-30	1228.21	N.A.	46.80
0-40	1688.39	N.A.	64.40
0-60	2338.17	N.A.	89.20
0-80	2601.36	N.A.	99.20
0-90	2622.16	N.A.	100.00
10-90	2466.06	N.A.	94.00
20-40	1080.79	N.A.	41.20
20-50	1445.45	N.A.	55.10
40-70	827.71	N.A.	31.60
60-80	263.19	N.A.	10.00
70-80	85.26	N.A.	3.30
80-90	20.80	N.A.	0.80
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	2622.18	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	156.09
10-20	451.51
20-30	620.61
30-40	460.19
40-50	364.65
50-60	285.12
60-70	177.93
70-80	85.26
80-90	20.80
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78
3	96	87	80	75	93	85	79	74	83	77	73	80	75	72	78	74	70	69
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	52	50
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38
10	61	49	42	37	60	49	42	37	48	42	37	47	41	37	46	41	37	35

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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

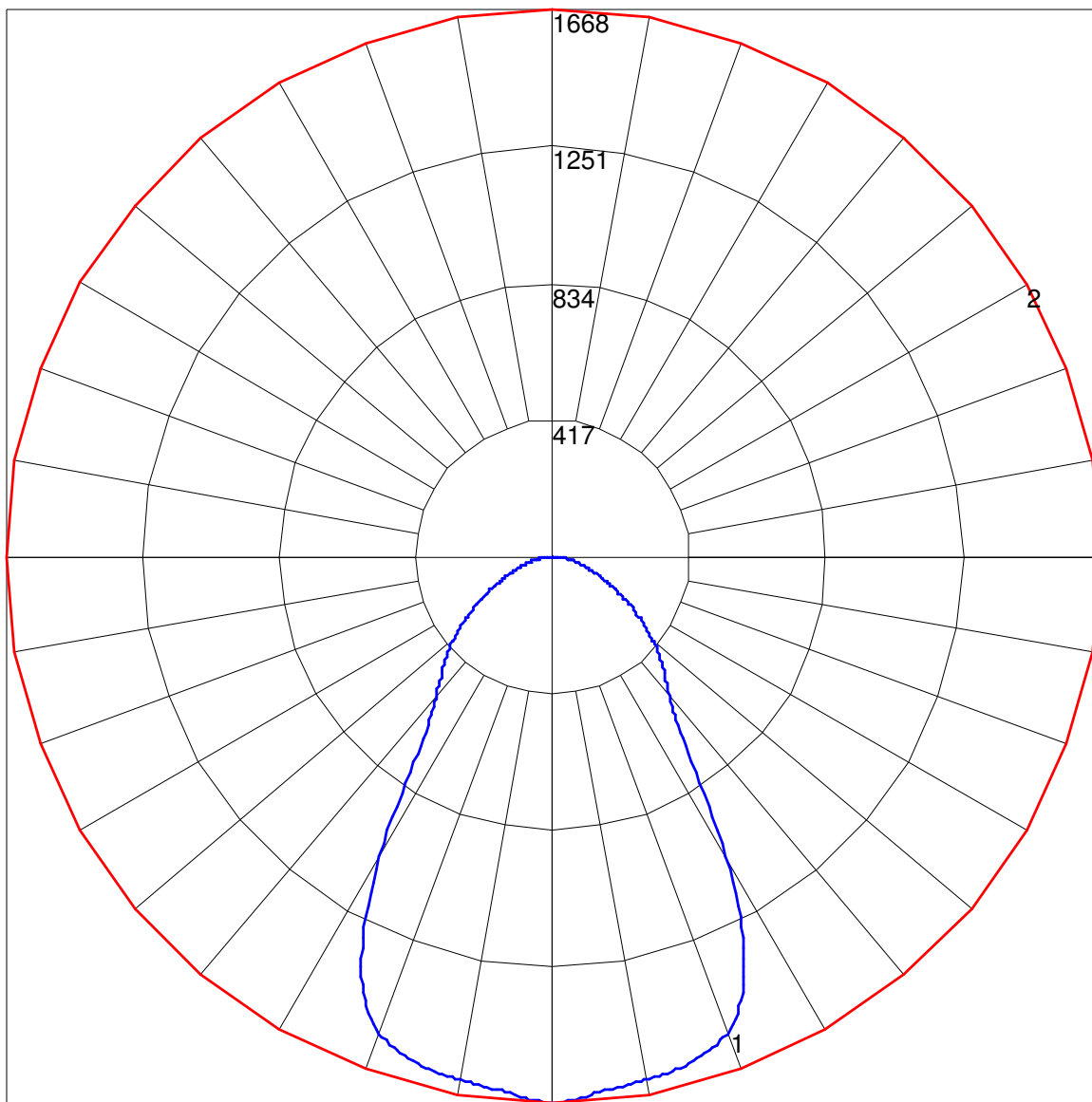
X=2H	Y=2H	22.4	23.8	22.8	24.1	24.4	22.4	23.8	22.8	24.1	24.4
	3H	23.6	24.9	24.0	25.2	25.5	23.6	24.9	24.0	25.2	25.5
	4H	24.0	25.2	24.4	25.5	25.9	24.0	25.2	24.4	25.5	25.9
	6H	24.3	25.3	24.7	25.7	26.1	24.3	25.3	24.7	25.7	26.1
	8H	24.3	25.4	24.8	25.8	26.2	24.3	25.4	24.8	25.8	26.2
	12H	24.4	25.4	24.8	25.7	26.2	24.4	25.4	24.8	25.7	26.2

UGR Viewed Endwise

4H	2H	22.8	24.0	23.2	24.3	24.7	22.8	24.0	23.2	24.3	24.7
	3H	24.2	25.2	24.6	25.6	26.0	24.2	25.2	24.6	25.6	26.0
	4H	24.7	25.6	25.2	26.0	26.4	24.7	25.6	25.2	26.0	26.4
	6H	25.1	25.8	25.6	26.3	26.7	25.1	25.8	25.6	26.3	26.7
	8H	25.2	25.9	25.6	26.3	26.8	25.2	25.9	25.6	26.3	26.8
	12H	25.3	25.9	25.7	26.4	26.8	25.3	25.9	25.7	26.4	26.8
8H	4H	24.9	25.6	25.3	26.0	26.5	24.9	25.6	25.3	26.0	26.5
	6H	25.3	25.9	25.8	26.4	26.9	25.3	25.9	25.8	26.4	26.9
	8H	25.5	26.0	26.0	26.5	27.0	25.5	26.0	26.0	26.5	27.0
	12H	25.6	26.1	26.1	26.6	27.1	25.6	26.1	26.1	26.6	27.1
12H	4H	24.9	25.5	25.4	26.0	26.4	24.9	25.5	25.4	26.0	26.4
	6H	25.4	25.9	25.9	26.3	26.9	25.4	25.9	25.9	26.3	26.9
	8H	25.6	26.0	26.1	26.5	27.1	25.6	26.0	26.1	26.5	27.1

Maximum UGR = 27.1

POLAR GRAPH



Maximum Candela = 1668.006 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.)