



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L40-940-DIM-UNV-RW-OF-WH\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12326812.12

[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-RW-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	2426
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	66
Total Luminaire Watts	36.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.04
Spacing Criterion (90-270)	1.04
Spacing Criterion (Diagonal)	0.94
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.48 ft (Diameter)
Luminous Width (90-270)	0.48 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	32759	32759	32759
55	27319	27319	27319
65	19274	19274	19274
75	11807	11807	11807
85	9311	9311	9311

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CANDELA TABULATION

	<u>0</u>
0.0	1794.733
0.5	1793.055
1.0	1791.376
1.5	1789.697
2.0	1786.339
2.5	1781.302
3.0	1776.266
3.5	1769.550
4.0	1762.834
4.5	1757.798
5.0	1751.082
5.5	1744.367
6.0	1737.651
6.5	1730.936
7.0	1724.220
7.5	1717.504
8.0	1709.110
8.5	1702.394
9.0	1695.679
9.5	1687.284
10.0	1680.569
10.5	1672.342
11.0	1664.284
11.5	1656.225
12.0	1648.166
12.5	1640.276
13.0	1632.217
13.5	1623.822
14.0	1615.596
14.5	1607.537
15.0	1599.982
15.5	1592.259
16.0	1584.704
16.5	1577.317
17.0	1570.434
17.5	1563.550
18.0	1556.835
18.5	1550.455
19.0	1544.075
19.5	1537.527
20.0	1530.812
20.5	1523.593
21.0	1515.366
21.5	1505.964
22.0	1495.387
22.5	1483.635
23.0	1470.876
23.5	1456.437
24.0	1440.656
24.5	1423.363
25.0	1404.224
25.5	1383.573
26.0	1360.572
26.5	1335.389

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CANDELA TABULATION - (Cont.)

27.0	1308.527
27.5	1279.314
28.0	1248.255
28.5	1214.509
29.0	1178.917
29.5	1140.302
30.0	1099.337
30.5	1056.022
31.0	1011.028
31.5	965.026
32.0	918.185
32.5	871.680
33.0	825.678
33.5	781.188
34.0	738.544
34.5	698.418
35.0	661.818
35.5	628.241
36.0	598.692
36.5	572.501
37.0	549.501
37.5	529.858
38.0	512.565
38.5	497.287
39.0	484.024
39.5	472.272
40.0	461.527
40.5	451.789
41.0	442.723
41.5	434.497
42.0	426.942
42.5	419.722
43.0	412.839
43.5	406.291
44.0	400.079
44.5	394.203
45.0	388.159
45.5	382.451
46.0	376.575
46.5	370.867
47.0	364.991
47.5	359.115
48.0	353.071
48.5	347.027
49.0	341.318
49.5	335.442
50.0	329.230
50.5	322.851
51.0	316.303
51.5	309.755
52.0	303.208
52.5	296.492
53.0	289.944
53.5	283.565
54.0	276.513
54.5	269.462

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**CANDELA TABULATION - (Cont.)**

55.0	262.578
55.5	255.527
56.0	248.644
56.5	241.760
57.0	234.877
57.5	227.993
58.0	221.446
58.5	214.730
59.0	208.182
59.5	201.803
60.0	195.423
60.5	189.043
61.0	182.831
61.5	176.787
62.0	170.743
62.5	164.867
63.0	158.991
63.5	153.115
64.0	147.574
64.5	141.866
65.0	136.494
65.5	130.953
66.0	125.749
66.5	120.544
67.0	115.508
67.5	110.471
68.0	105.602
68.5	100.733
69.0	96.200
69.5	91.500
70.0	87.134
70.5	82.769
71.0	78.572
71.5	74.543
72.0	70.513
72.5	66.820
73.0	63.294
73.5	60.104
74.0	56.914
74.5	54.060
75.0	51.206
75.5	48.688
76.0	46.169
76.5	43.987
77.0	41.972
77.5	39.958
78.0	37.943
78.5	35.928
79.0	34.081
79.5	32.235
80.0	30.388
80.5	28.541
81.0	26.694
81.5	25.015
82.0	23.169
82.5	21.490

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CANDELA TABULATION - (Cont.)

83.0	19.811
83.5	18.300
84.0	16.621
84.5	15.110
85.0	13.599
85.5	12.088
86.0	10.577
86.5	9.066
87.0	7.723
87.5	6.212
88.0	5.037
88.5	4.029
89.0	3.190
89.5	2.350
90.0	1.679
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
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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	616.71	N.A.	25.40
0-30	1246.74	N.A.	51.40
0-40	1682.65	N.A.	69.40
0-60	2217.57	N.A.	91.40
0-80	2410.68	N.A.	99.40
0-90	2426.17	N.A.	100.00
10-90	2261.3	N.A.	93.20
20-40	1065.94	N.A.	43.90
20-50	1366.69	N.A.	56.30
40-70	671.22	N.A.	27.70
60-80	193.11	N.A.	8.00
70-80	56.82	N.A.	2.30
80-90	15.49	N.A.	0.60
90-110	0.05	N.A.	0.00
90-120	0.05	N.A.	0.00
90-130	0.05	N.A.	0.00
90-150	0.05	N.A.	0.00
90-180	0.05	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2426.21	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	164.87
10-20	451.84
20-30	630.04
30-40	435.90
40-50	300.75
50-60	234.18
60-70	136.29
70-80	56.82
80-90	15.49
90-100	0.05
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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	62	83	73	66	61	71	65	61	69	64	60	68	63	59	58
6	79	68	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38

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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	20.9	22.3	21.3	22.6	22.9	20.9	22.3	21.3	22.6	22.9
	3H	21.9	23.1	22.3	23.4	23.8	21.9	23.1	22.3	23.4	23.8
	4H	22.2	23.3	22.6	23.6	24.0	22.2	23.3	22.6	23.6	24.0
	6H	22.3	23.4	22.8	23.7	24.1	22.3	23.4	22.8	23.7	24.1
	8H	22.4	23.4	22.8	23.8	24.2	22.4	23.4	22.8	23.8	24.2
	12H	22.4	23.3	22.9	23.7	24.2	22.4	23.3	22.9	23.7	24.2

UGR Viewed Endwise

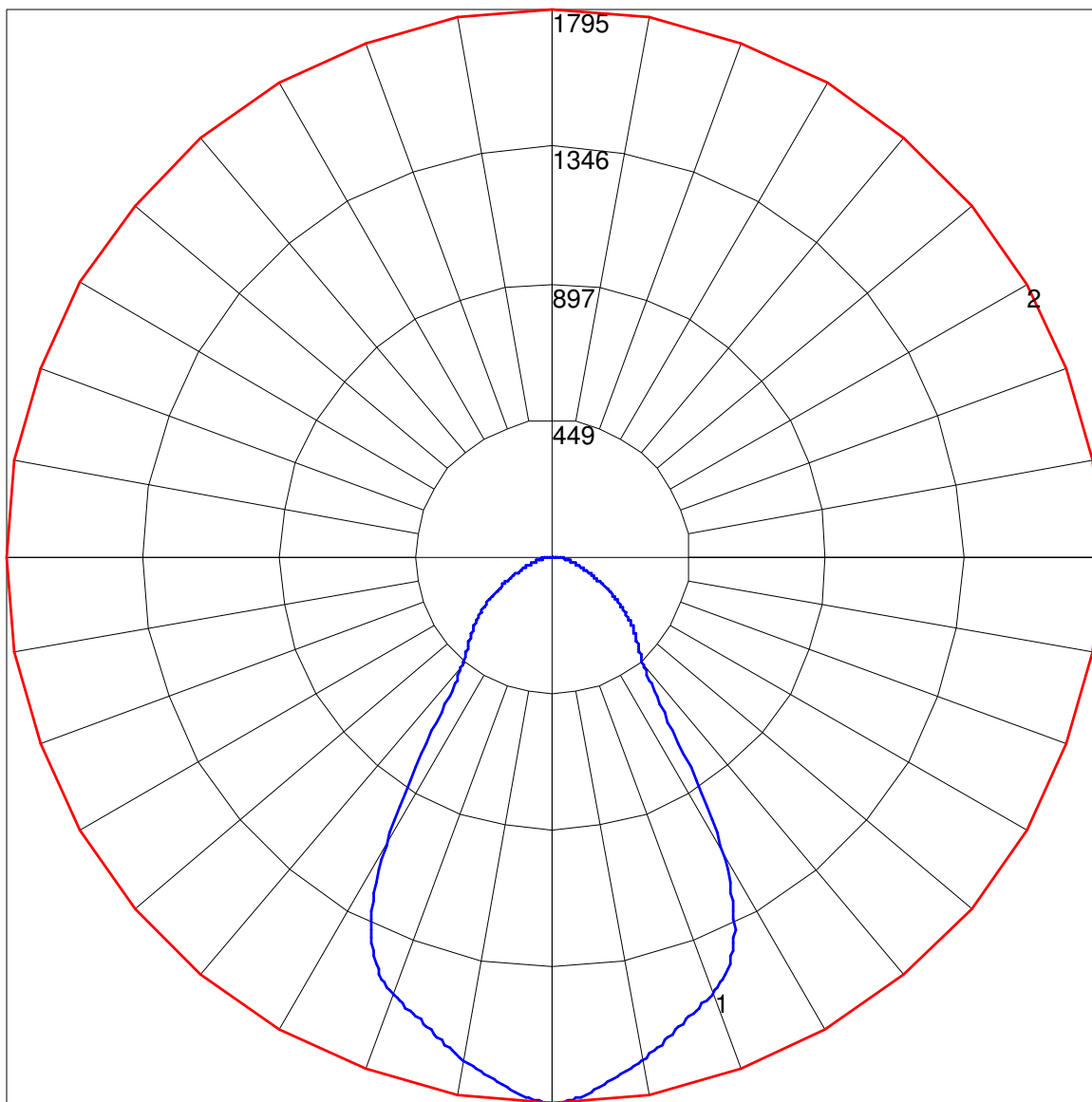
4H	2H	21.3	22.4	21.7	22.7	23.1	21.3	22.4	21.7	22.7	23.1
	3H	22.4	23.3	22.8	23.7	24.1	22.4	23.3	22.8	23.7	24.1
	4H	22.8	23.6	23.2	24.0	24.4	22.8	23.6	23.2	24.0	24.4
	6H	23.0	23.7	23.5	24.2	24.6	23.0	23.7	23.5	24.2	24.6
	8H	23.1	23.7	23.6	24.2	24.7	23.1	23.7	23.6	24.2	24.7
	12H	23.2	23.7	23.6	24.2	24.7	23.2	23.7	23.6	24.2	24.7

8H	4H	22.8	23.5	23.3	23.9	24.4	22.8	23.5	23.3	23.9	24.4
	6H	23.2	23.7	23.7	24.2	24.7	23.2	23.7	23.7	24.2	24.7
	8H	23.3	23.8	23.8	24.3	24.8	23.3	23.8	23.8	24.3	24.8
	12H	23.4	23.8	23.9	24.3	24.9	23.4	23.8	23.9	24.3	24.9

12H	4H	22.8	23.4	23.3	23.9	24.4	22.8	23.4	23.3	23.9	24.4
	6H	23.2	23.7	23.7	24.1	24.7	23.2	23.7	23.7	24.1	24.7
	8H	23.3	23.8	23.9	24.3	24.8	23.3	23.8	23.9	24.3	24.8

Maximum UGR = 24.9

POLAR GRAPH



Maximum Candela = 1794.733 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.)