



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L50-940-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-L50-940-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	2971
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	68
Total Luminaire Watts	43.9
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	40118	40118	40118
55	33457	33457	33457
65	23604	23604	23604
75	14459	14459	14459
85	11403	11403	11403

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CANDELA TABULATION

	<u>0</u>
0.0	2197.918
0.5	2195.861
1.0	2193.805
1.5	2191.749
2.0	2187.637
2.5	2181.469
3.0	2175.301
3.5	2167.077
4.0	2158.853
4.5	2152.684
5.0	2144.460
5.5	2136.236
6.0	2128.012
6.5	2119.788
7.0	2111.563
7.5	2103.339
8.0	2093.059
8.5	2084.835
9.0	2076.611
9.5	2066.330
10.0	2058.106
10.5	2048.031
11.0	2038.162
11.5	2028.293
12.0	2018.424
12.5	2008.761
13.0	1998.892
13.5	1988.612
14.0	1978.537
14.5	1968.668
15.0	1959.416
15.5	1949.958
16.0	1940.706
16.5	1931.659
17.0	1923.229
17.5	1914.799
18.0	1906.575
18.5	1898.762
19.0	1890.949
19.5	1882.931
20.0	1874.706
20.5	1865.865
21.0	1855.791
21.5	1844.277
22.0	1831.324
22.5	1816.931
23.0	1801.305
23.5	1783.623
24.0	1764.297
24.5	1743.119
25.0	1719.680
25.5	1694.391
26.0	1666.223
26.5	1635.382

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**CANDELA TABULATION - (Cont.)**

27.0	1602.485
27.5	1566.710
28.0	1528.673
28.5	1487.347
29.0	1443.758
29.5	1396.469
30.0	1346.302
30.5	1293.255
31.0	1238.153
31.5	1181.818
32.0	1124.454
32.5	1067.501
33.0	1011.165
33.5	956.680
34.0	904.456
34.5	855.317
35.0	810.495
35.5	769.374
36.0	733.187
36.5	701.113
37.0	672.945
37.5	648.889
38.0	627.712
38.5	609.002
39.0	592.759
39.5	578.367
40.0	565.208
40.5	553.283
41.0	542.180
41.5	532.106
42.0	522.854
42.5	514.013
43.0	505.583
43.5	497.564
44.0	489.957
44.5	482.761
45.0	475.359
45.5	468.368
46.0	461.172
46.5	454.181
47.0	446.985
47.5	439.789
48.0	432.387
48.5	424.986
49.0	417.995
49.5	410.799
50.0	403.191
50.5	395.378
51.0	387.360
51.5	379.341
52.0	371.323
52.5	363.098
53.0	355.080
53.5	347.267
54.0	338.631
54.5	329.996

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**CANDELA TABULATION - (Cont.)**

55.0	321.566
55.5	312.931
56.0	304.501
56.5	296.071
57.0	287.641
57.5	279.212
58.0	271.193
58.5	262.969
59.0	254.950
59.5	247.137
60.0	239.324
60.5	231.511
61.0	223.904
61.5	216.502
62.0	209.100
62.5	201.904
63.0	194.708
63.5	187.512
64.0	180.727
64.5	173.736
65.0	167.157
65.5	160.372
66.0	153.998
66.5	147.624
67.0	141.456
67.5	135.288
68.0	129.326
68.5	123.363
69.0	117.812
69.5	112.055
70.0	106.709
70.5	101.363
71.0	96.223
71.5	91.289
72.0	86.354
72.5	81.831
73.0	77.513
73.5	73.607
74.0	69.700
74.5	66.205
75.0	62.710
75.5	59.625
76.0	56.541
76.5	53.869
77.0	51.401
77.5	48.934
78.0	46.467
78.5	43.999
79.0	41.738
79.5	39.476
80.0	37.215
80.5	34.953
81.0	32.691
81.5	30.635
82.0	28.373
82.5	26.317

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CANDELA TABULATION - (Cont.)

83.0	24.261
83.5	22.411
84.0	20.355
84.5	18.504
85.0	16.654
85.5	14.804
86.0	12.953
86.5	11.103
87.0	9.458
87.5	7.607
88.0	6.168
88.5	4.935
89.0	3.906
89.5	2.878
90.0	2.056
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
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122.5	0.000
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123.5	0.000
124.0	0.000
124.5	0.000
125.0	0.000
125.5	0.000
126.0	0.000
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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	755.25	N.A.	25.40
0-30	1526.82	N.A.	51.40
0-40	2060.65	N.A.	69.40
0-60	2715.74	N.A.	91.40
0-80	2952.24	N.A.	99.40
0-90	2971.2	N.A.	100.00
10-90	2769.3	N.A.	93.20
20-40	1305.4	N.A.	43.90
20-50	1673.71	N.A.	56.30
40-70	822.01	N.A.	27.70
60-80	236.49	N.A.	8.00
70-80	69.58	N.A.	2.30
80-90	18.97	N.A.	0.60
90-110	0.06	N.A.	0.00
90-120	0.06	N.A.	0.00
90-130	0.06	N.A.	0.00
90-150	0.06	N.A.	0.00
90-180	0.06	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2971.26	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	201.90
10-20	553.35
20-30	771.57
30-40	533.83
40-50	368.31
50-60	286.79
60-70	166.91
70-80	69.58
80-90	18.97
90-100	0.06
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	21.6	23.0	22.0	23.3	23.6	21.6	23.0	22.0	23.3	23.6
	3H	22.6	23.8	23.0	24.1	24.5	22.6	23.8	23.0	24.1	24.5
	4H	22.9	24.0	23.3	24.3	24.7	22.9	24.0	23.3	24.3	24.7
	6H	23.0	24.1	23.5	24.4	24.8	23.0	24.1	23.5	24.4	24.8
	8H	23.1	24.1	23.5	24.5	24.9	23.1	24.1	23.5	24.5	24.9
	12H	23.1	24.0	23.6	24.4	24.9	23.1	24.0	23.6	24.4	24.9

UGR Viewed Endwise

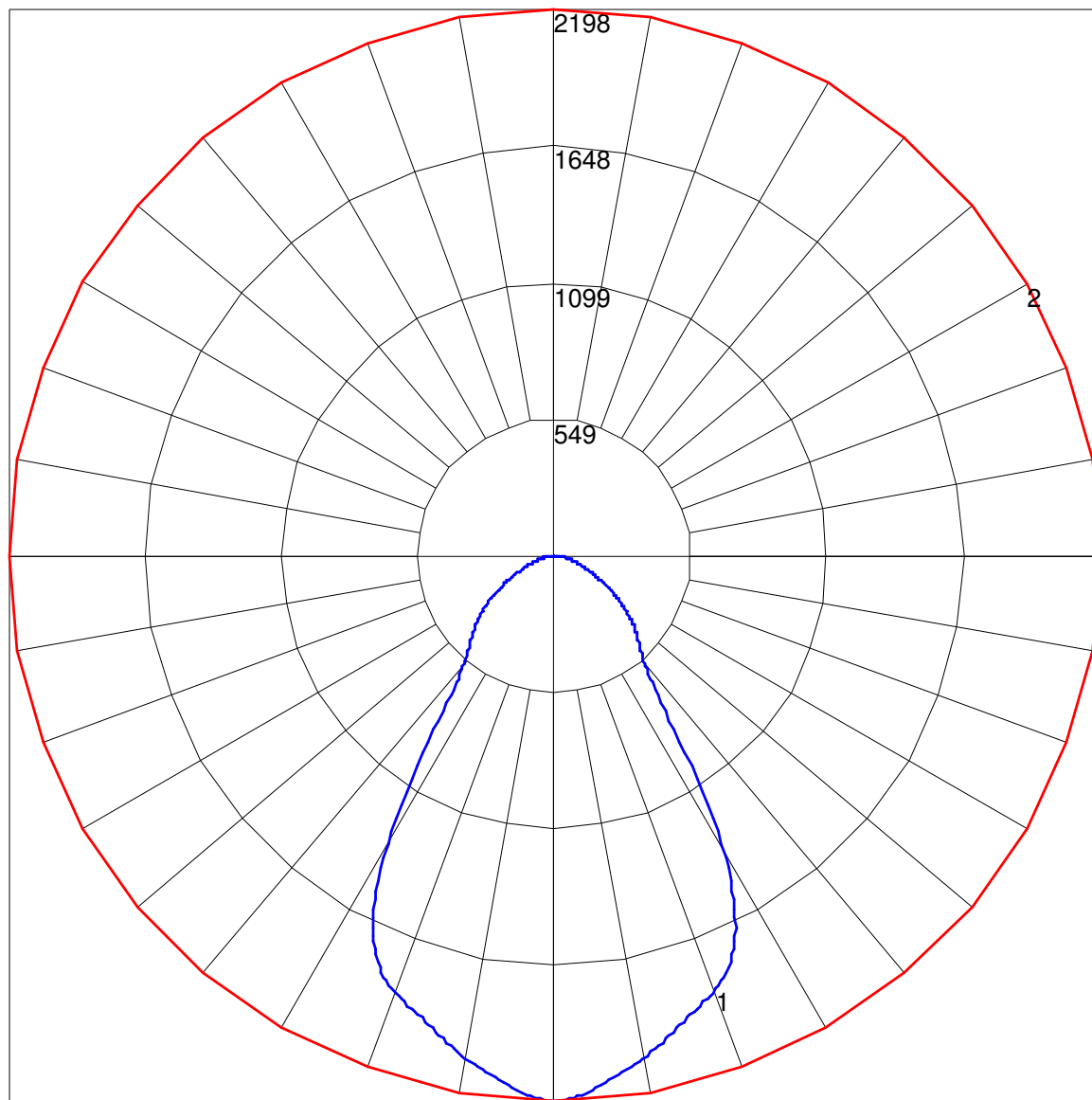
4H	2H	22.0	23.1	22.4	23.4	23.8	22.0	23.1	22.4	23.4	23.8
	3H	23.1	24.0	23.5	24.4	24.8	23.1	24.0	23.5	24.4	24.8
	4H	23.5	24.3	23.9	24.7	25.1	23.5	24.3	23.9	24.7	25.1
	6H	23.7	24.4	24.2	24.9	25.3	23.7	24.4	24.2	24.9	25.3
	8H	23.8	24.4	24.3	24.9	25.4	23.8	24.4	24.3	24.9	25.4
	12H	23.9	24.4	24.3	24.9	25.4	23.9	24.4	24.3	24.9	25.4

8H	4H	23.5	24.2	24.0	24.6	25.1	23.5	24.2	24.0	24.6	25.1
	6H	23.9	24.4	24.4	24.9	25.4	23.9	24.4	24.4	24.9	25.4
	8H	24.0	24.5	24.5	25.0	25.5	24.0	24.5	24.5	25.0	25.5
	12H	24.1	24.5	24.6	25.0	25.6	24.1	24.5	24.6	25.0	25.6

12H	4H	23.5	24.1	24.0	24.6	25.1	23.5	24.1	24.0	24.6	25.1
	6H	23.9	24.4	24.4	24.8	25.4	23.9	24.4	24.4	24.8	25.4
	8H	24.0	24.5	24.6	25.0	25.5	24.0	24.5	24.6	25.0	25.5

Maximum UGR = 25.6

POLAR GRAPH



Maximum Candela = 2197.918 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.)