



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L40-935-DIM-UNV-LW-OF-WH-AD\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM 12326812.07  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUEDATE] 10-20-2023  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] 6DR-TL-L40-935-DIM-UNV-LW-OF-WH-AD  
 [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	2175
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	60
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	36162	36162	36162
55	30107	30107	30107
65	22872	22872	22872
75	16587	16587	16587
85	10809	10809	10809

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CANDELA TABULATION

	<u>0</u>
0.0	1383.774
0.5	1383.496
1.0	1382.381
1.5	1380.709
2.0	1378.620
2.5	1375.833
3.0	1373.047
3.5	1369.843
4.0	1366.918
4.5	1363.992
5.0	1361.902
5.5	1359.952
6.0	1358.141
6.5	1356.330
7.0	1354.380
7.5	1352.569
8.0	1350.758
8.5	1349.086
9.0	1347.414
9.5	1346.021
10.0	1344.628
10.5	1343.513
11.0	1342.538
11.5	1341.981
12.0	1341.006
12.5	1340.031
13.0	1338.637
13.5	1336.826
14.0	1334.597
14.5	1332.090
15.0	1329.443
15.5	1326.100
16.0	1322.477
16.5	1318.855
17.0	1315.233
17.5	1311.472
18.0	1307.432
18.5	1302.835
19.0	1297.680
19.5	1291.968
20.0	1285.421
20.5	1278.316
21.0	1269.539
21.5	1259.091
22.0	1247.250
22.5	1233.876
23.0	1219.248
23.5	1203.367
24.0	1185.814
24.5	1166.867
25.0	1146.389
25.5	1125.074
26.0	1102.366
26.5	1078.684

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**CANDELA TABULATION - (Cont.)**

27.0	1053.468
27.5	1027.556
28.0	1000.252
28.5	971.414
29.0	941.462
29.5	909.978
30.0	877.658
30.5	844.363
31.0	811.067
31.5	777.494
32.0	744.895
32.5	713.689
33.0	683.737
33.5	655.736
34.0	629.963
34.5	606.559
35.0	585.663
35.5	566.438
36.0	549.581
36.5	534.118
37.0	520.326
37.5	507.927
38.0	496.643
38.5	486.334
39.0	476.582
39.5	467.806
40.0	459.308
40.5	451.367
41.0	443.984
41.5	436.739
42.0	429.774
42.5	423.366
43.0	416.818
43.5	410.410
44.0	404.141
44.5	398.011
45.0	391.742
45.5	385.752
46.0	379.622
46.5	373.492
47.0	367.223
47.5	361.094
48.0	354.825
48.5	348.556
49.0	342.287
49.5	335.739
50.0	329.470
50.5	323.062
51.0	316.653
51.5	310.106
52.0	303.558
52.5	297.011
53.0	290.463
53.5	283.915
54.0	277.646
54.5	271.238

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CANDELA TABULATION - (Cont.)

55.0	264.551
55.5	258.004
56.0	251.456
56.5	245.326
57.0	239.197
57.5	232.788
58.0	226.380
58.5	220.111
59.0	213.981
59.5	207.852
60.0	202.001
60.5	196.150
61.0	190.438
61.5	184.726
62.0	179.293
62.5	173.860
63.0	168.566
63.5	163.272
64.0	158.118
64.5	153.103
65.0	148.087
65.5	143.212
66.0	138.350
66.5	133.571
67.0	128.849
67.5	124.223
68.0	119.682
68.5	115.126
69.0	110.710
69.5	106.336
70.0	102.087
70.5	97.977
71.0	93.951
71.5	90.051
72.0	86.289
72.5	82.639
73.0	79.087
73.5	75.604
74.0	72.261
74.5	68.987
75.0	65.769
75.5	62.662
76.0	59.611
76.5	56.616
77.0	53.704
77.5	50.848
78.0	48.076
78.5	45.360
79.0	42.699
79.5	40.135
80.0	37.586
80.5	35.120
81.0	32.682
81.5	30.258
82.0	27.890
82.5	25.536

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CANDELA TABULATION - (Cont.)

83.0	23.237
83.5	20.980
84.0	18.751
84.5	16.564
85.0	14.433
85.5	12.371
86.0	10.379
86.5	8.456
87.0	6.589
87.5	5.029
88.0	3.845
88.5	2.814
89.0	1.950
89.5	1.226
90.0	0.780
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
127.5	0.000
128.0	0.000
128.5	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	504.06	N.A.	23.20
0-30	1018.92	N.A.	46.80
0-40	1400.69	N.A.	64.40
0-60	1939.74	N.A.	89.20
0-80	2158.08	N.A.	99.20
0-90	2175.33	N.A.	100.00
10-90	2045.84	N.A.	94.00
20-40	896.62	N.A.	41.20
20-50	1199.14	N.A.	55.10
40-70	686.66	N.A.	31.60
60-80	218.34	N.A.	10.00
70-80	70.73	N.A.	3.30
80-90	17.25	N.A.	0.80
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	2175.36	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	129.49
10-20	374.57
20-30	514.85
30-40	381.77
40-50	302.52
50-60	236.53
60-70	147.61
70-80	70.73
80-90	17.25
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	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	58	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	21.7	23.1	22.1	23.4	23.7	21.7	23.1	22.1	23.4	23.7
	3H	22.9	24.2	23.3	24.5	24.8	22.9	24.2	23.3	24.5	24.8
	4H	23.3	24.5	23.7	24.8	25.2	23.3	24.5	23.7	24.8	25.2
	6H	23.6	24.6	24.0	25.0	25.4	23.6	24.6	24.0	25.0	25.4
	8H	23.6	24.7	24.1	25.1	25.5	23.6	24.7	24.1	25.1	25.5
	12H	23.7	24.6	24.1	25.0	25.5	23.7	24.6	24.1	25.0	25.5

### UGR Viewed Endwise

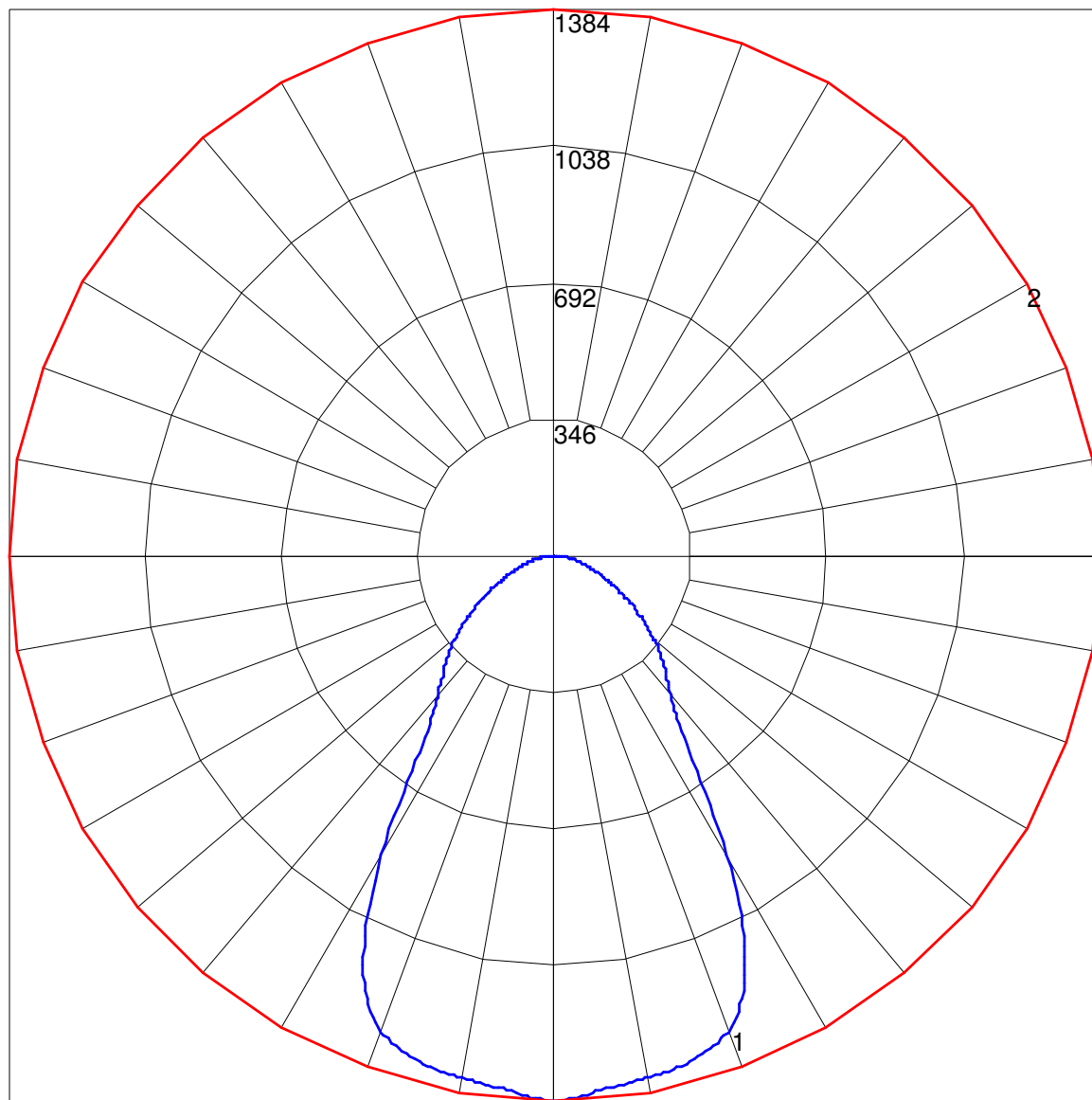
4H	2H	22.1	23.3	22.5	23.6	24.0	22.1	23.3	22.5	23.6	24.0
	3H	23.5	24.5	23.9	24.9	25.3	23.5	24.5	23.9	24.9	25.3
	4H	24.0	24.9	24.4	25.3	25.7	24.0	24.9	24.4	25.3	25.7
	6H	24.4	25.1	24.9	25.6	26.0	24.4	25.1	24.9	25.6	26.0
	8H	24.5	25.2	24.9	25.6	26.1	24.5	25.2	24.9	25.6	26.1
	12H	24.6	25.2	25.0	25.7	26.1	24.6	25.2	25.0	25.7	26.1

8H	4H	24.2	24.9	24.6	25.3	25.8	24.2	24.9	24.6	25.3	25.8
	6H	24.6	25.2	25.1	25.7	26.2	24.6	25.2	25.1	25.7	26.2
	8H	24.8	25.3	25.3	25.8	26.3	24.8	25.3	25.3	25.8	26.3
	12H	24.9	25.4	25.4	25.9	26.4	24.9	25.4	25.4	25.9	26.4

12H	4H	24.2	24.8	24.6	25.3	25.7	24.2	24.8	24.6	25.3	25.7
	6H	24.7	25.2	25.2	25.6	26.2	24.7	25.2	25.2	25.6	26.2
	8H	24.9	25.3	25.4	25.8	26.4	24.9	25.3	25.4	25.8	26.4

Maximum UGR = 26.4

POLAR GRAPH



Maximum Candela = 1383.774 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.)