



## IES INDOOR REPORT

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

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12326812.14

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 10/28/2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 6DR-TL-L40-935-DIM-UNV-RM-OF-WH

[LUMINAIRE] Black formed aluminum housing, white reflector, frosted pl

[MORE] astic optic, clear glass 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	2959
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	81
Total Luminaire Watts	36.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.58
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.56
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	10636	10636	10636
55	7152	7152	7152
65	5322	5322	5322
75	3676	3676	3676
85	3070	3070	3070

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CANDELA TABULATION

	<u>0</u>
0.0	7161.710
0.5	7158.390
1.0	7148.427
1.5	7131.822
2.0	7108.575
2.5	7080.346
3.0	7045.476
3.5	7005.624
4.0	6962.451
4.5	6912.636
5.0	6859.501
5.5	6801.383
6.0	6736.624
6.5	6665.223
7.0	6588.840
7.5	6505.815
8.0	6416.149
8.5	6319.840
9.0	6216.889
9.5	6105.636
10.0	5989.402
10.5	5864.865
11.0	5732.025
11.5	5592.544
12.0	5446.420
12.5	5290.334
13.0	5130.926
13.5	4963.216
14.0	4790.525
14.5	4614.513
15.0	4431.858
15.5	4249.204
16.0	4063.229
16.5	3877.253
17.0	3694.599
17.5	3520.247
18.0	3340.914
18.5	3163.241
19.0	2988.889
19.5	2822.840
20.0	2665.093
20.5	2512.327
21.0	2362.883
21.5	2220.080
22.0	2082.259
22.5	1952.741
23.0	1829.864
23.5	1713.630
24.0	1604.369
24.5	1501.917
25.0	1405.442
25.5	1314.945
26.0	1230.426
26.5	1151.054

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**CANDELA TABULATION - (Cont.)**

27.0	1077.162
27.5	1008.086
28.0	943.327
28.5	883.217
29.0	826.760
29.5	773.956
30.0	724.307
30.5	677.980
31.0	634.641
31.5	593.959
32.0	555.933
32.5	520.233
33.0	486.691
33.5	455.307
34.0	425.751
34.5	398.353
35.0	372.781
35.5	348.870
36.0	326.619
36.5	306.029
37.0	286.933
37.5	269.332
38.0	253.059
38.5	238.115
39.0	224.333
39.5	211.713
40.0	200.256
40.5	189.794
41.0	180.164
41.5	171.363
42.0	163.227
42.5	155.754
43.0	148.780
43.5	142.470
44.0	136.493
44.5	131.179
45.0	126.031
45.5	121.382
46.0	116.899
46.5	112.748
47.0	108.928
47.5	105.441
48.0	102.120
48.5	98.965
49.0	95.977
49.5	92.988
50.0	90.331
50.5	87.840
51.0	85.349
51.5	83.025
52.0	80.866
52.5	78.541
53.0	76.549
53.5	74.556
54.0	72.564
54.5	70.571

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**CANDELA TABULATION - (Cont.)**

55.0	68.744
55.5	66.918
56.0	65.257
56.5	63.431
57.0	61.770
57.5	60.110
58.0	58.449
58.5	56.789
59.0	55.294
59.5	53.634
60.0	52.140
60.5	50.645
61.0	49.151
61.5	47.656
62.0	46.162
62.5	44.667
63.0	43.339
63.5	41.844
64.0	40.516
64.5	39.022
65.0	37.693
65.5	36.365
66.0	35.036
66.5	33.708
67.0	32.380
67.5	31.217
68.0	29.889
68.5	28.727
69.0	27.564
69.5	26.236
70.0	25.240
70.5	24.077
71.0	23.081
71.5	21.919
72.0	20.922
72.5	19.926
73.0	19.096
73.5	18.265
74.0	17.435
74.5	16.605
75.0	15.941
75.5	15.110
76.0	14.446
76.5	13.948
77.0	13.284
77.5	12.620
78.0	12.122
78.5	11.457
79.0	10.959
79.5	10.461
80.0	9.797
80.5	9.299
81.0	8.635
81.5	8.136
82.0	7.638
82.5	7.140

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CANDELA TABULATION - (Cont.)

83.0	6.642
83.5	5.978
84.0	5.480
84.5	4.981
85.0	4.483
85.5	3.985
86.0	3.653
86.5	3.155
87.0	2.657
87.5	2.159
88.0	1.660
88.5	1.328
89.0	1.162
89.5	0.830
90.0	0.664
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

IES INDOOR REPORT  
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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
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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
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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	1820.66	N.A.	61.50
0-30	2489.37	N.A.	84.10
0-40	2735.5	N.A.	92.40
0-60	2898.85	N.A.	98.00
0-80	2953.76	N.A.	99.80
0-90	2958.89	N.A.	100.00
10-90	2331.3	N.A.	78.80
20-40	914.84	N.A.	30.90
20-50	1016.11	N.A.	34.30
40-70	200.91	N.A.	6.80
60-80	54.91	N.A.	1.90
70-80	17.35	N.A.	0.60
80-90	5.13	N.A.	0.20
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	2958.91	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	627.59
10-20	1193.07
20-30	668.71
30-40	246.13
40-50	101.27
50-60	62.08
60-70	37.56
70-80	17.35
80-90	5.13
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	114	111	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	94
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89
3	104	99	94	91	103	97	93	90	95	91	89	92	90	87	90	88	86	84
4	100	94	89	85	98	92	88	84	90	86	83	88	85	83	87	84	82	80
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76
6	92	85	80	76	91	84	79	76	83	78	75	81	77	75	80	77	74	73
7	89	81	76	72	88	80	75	72	79	75	72	78	74	71	77	73	71	70
8	86	77	72	69	85	77	72	69	76	72	68	75	71	68	74	71	68	67
9	83	74	69	66	82	74	69	66	73	69	66	72	68	65	71	68	65	64
10	80	71	67	63	79	71	66	63	70	66	63	70	66	63	69	65	63	62

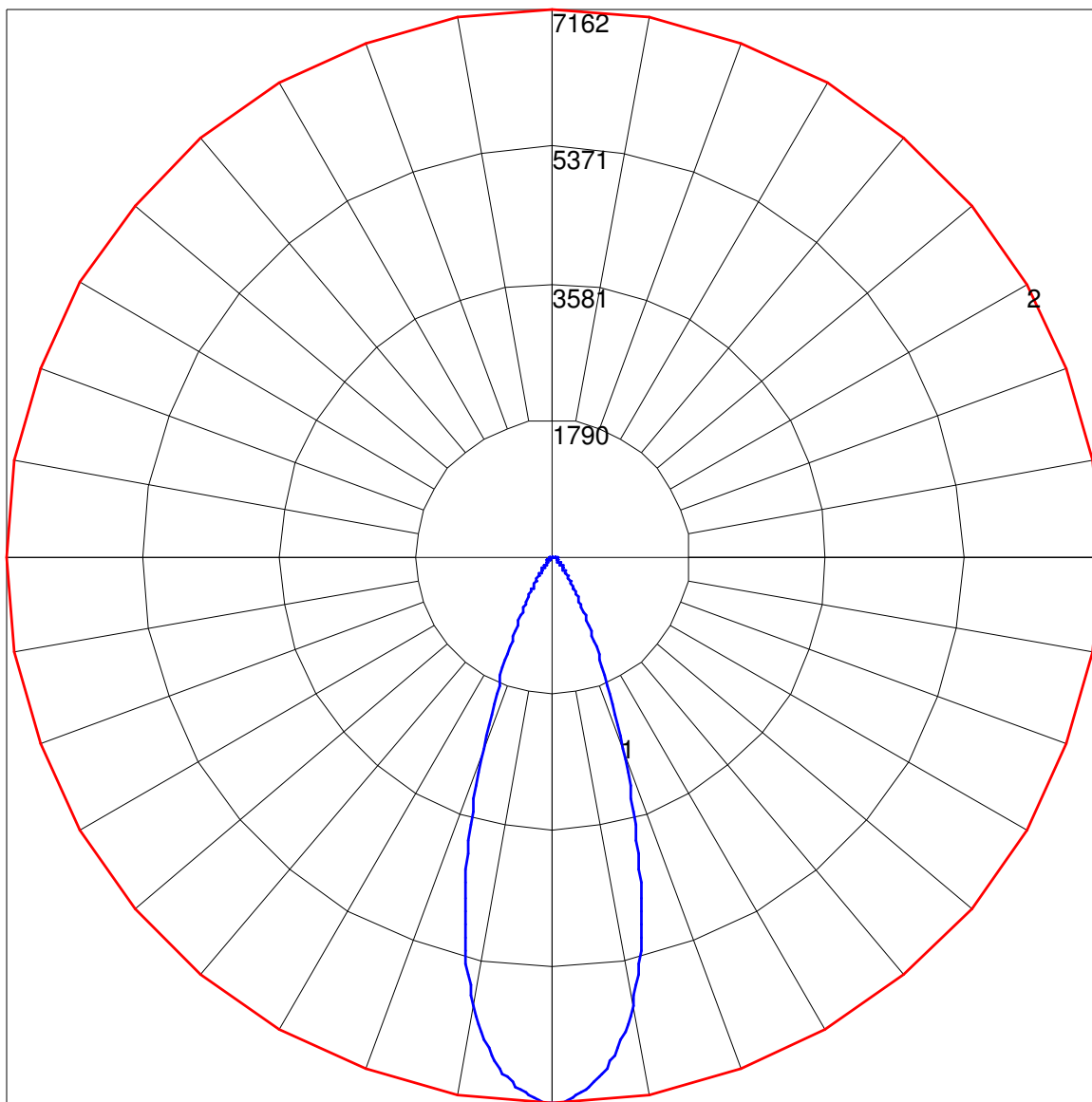
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**UGR TABLE - CORRECTED**

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					UGR Viewed Endwise				
X=2H	Y=2H	11.4	12.4	11.8	12.7	13.0	11.4	12.4	11.8	12.7	13.0
	3H	12.5	13.4	12.9	13.7	14.1	12.5	13.4	12.9	13.7	14.1
	4H	12.8	13.6	13.2	14.0	14.4	12.8	13.6	13.2	14.0	14.4
	6H	13.0	13.8	13.5	14.2	14.6	13.0	13.8	13.5	14.2	14.6
	8H	13.1	13.8	13.6	14.2	14.6	13.1	13.8	13.6	14.2	14.6
	12H	13.2	13.8	13.6	14.2	14.6	13.2	13.8	13.6	14.2	14.6
4H	2H	11.7	12.5	12.1	12.9	13.3	11.7	12.5	12.1	12.9	13.3
	3H	13.0	13.6	13.4	14.1	14.5	13.0	13.6	13.4	14.1	14.5
	4H	13.4	14.0	13.8	14.4	14.8	13.4	14.0	13.8	14.4	14.8
	6H	13.7	14.2	14.2	14.7	15.2	13.7	14.2	14.2	14.7	15.2
	8H	13.9	14.3	14.3	14.8	15.2	13.9	14.3	14.3	14.8	15.2
	12H	13.9	14.3	14.4	14.8	15.3	13.9	14.3	14.4	14.8	15.3
8H	4H	13.5	13.9	14.0	14.4	14.9	13.5	13.9	14.0	14.4	14.9
	6H	13.9	14.3	14.5	14.8	15.3	13.9	14.3	14.5	14.8	15.3
	8H	14.1	14.4	14.7	15.0	15.5	14.1	14.4	14.7	15.0	15.5
	12H	14.3	14.5	14.8	15.0	15.6	14.3	14.5	14.8	15.0	15.6
12H	4H	13.5	13.9	14.0	14.3	14.8	13.5	13.9	14.0	14.3	14.8
	6H	13.9	14.3	14.5	14.7	15.3	13.9	14.3	14.5	14.7	15.3
	8H	14.2	14.4	14.7	14.9	15.5	14.2	14.4	14.7	14.9	15.5

Maximum UGR = 15.6

POLAR GRAPH



Maximum Candela = 7161.71 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.)