



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L10-830-DIM-UNV-SW-OF-WH\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM 12326812.11  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUEDATE] 12-16-2020  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] 6DR-TL-L10-830-DIM-UNV-SW-OF-WH  
 [LUMINAIRE] Black formed aluminum housing, white reflector, frosted pl  
 [MORE] astic 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	759
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	87
Total Luminaire Watts	8.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.94
Spacing Criterion (90-270)	0.94
Spacing Criterion (Diagonal)	1.02
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	13560	13560	13560
55	12359	12359	12359
65	12246	12246	12246
75	12787	12787	12787
85	10444	10444	10444

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CANDELA TABULATION

	<u>0</u>
0.0	426.947
0.5	426.832
1.0	426.546
1.5	426.031
2.0	425.286
2.5	424.370
3.0	423.283
3.5	422.081
4.0	420.707
4.5	419.276
5.0	417.844
5.5	416.241
6.0	414.524
6.5	412.749
7.0	410.803
7.5	408.799
8.0	406.681
8.5	404.449
9.0	402.159
9.5	399.754
10.0	397.293
10.5	394.717
11.0	392.026
11.5	389.164
12.0	386.244
12.5	383.153
13.0	380.004
13.5	376.684
14.0	373.249
14.5	369.757
15.0	366.093
15.5	362.372
16.0	358.594
16.5	354.758
17.0	350.923
17.5	347.030
18.0	343.137
18.5	339.187
19.0	335.294
19.5	331.344
20.0	327.337
20.5	323.387
21.0	319.323
21.5	315.201
22.0	311.022
22.5	306.728
23.0	302.378
23.5	297.970
24.0	293.504
24.5	288.982
25.0	284.459
25.5	279.937
26.0	275.414
26.5	270.949

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**CANDELA TABULATION - (Cont.)**

27.0	266.541
27.5	262.133
28.0	257.840
28.5	253.546
29.0	249.424
29.5	245.303
30.0	241.295
30.5	237.345
31.0	233.395
31.5	229.560
32.0	225.724
32.5	221.946
33.0	218.168
33.5	214.504
34.0	210.783
34.5	207.233
35.0	203.741
35.5	200.249
36.0	196.814
36.5	193.437
37.0	190.174
37.5	186.968
38.0	183.819
38.5	180.728
39.0	177.751
39.5	174.832
40.0	171.969
40.5	169.164
41.0	166.474
41.5	163.840
42.0	161.264
42.5	158.745
43.0	156.284
43.5	153.879
44.0	151.475
44.5	149.185
45.0	146.895
45.5	144.663
46.0	142.487
46.5	140.312
47.0	138.137
47.5	136.076
48.0	133.957
48.5	131.897
49.0	129.893
49.5	127.947
50.0	126.000
50.5	124.111
51.0	122.222
51.5	120.390
52.0	118.558
52.5	116.783
53.0	115.009
53.5	113.406
54.0	111.860
54.5	110.257

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**CANDELA TABULATION - (Cont.)**

55.0	108.597
55.5	106.937
56.0	105.334
56.5	103.788
57.0	102.472
57.5	100.983
58.0	99.438
58.5	97.949
59.0	96.461
59.5	94.972
60.0	93.484
60.5	92.053
61.0	90.622
61.5	89.191
62.0	87.759
62.5	86.328
63.0	84.897
63.5	83.523
64.0	82.092
64.5	80.661
65.0	79.287
65.5	77.856
66.0	76.424
66.5	74.993
67.0	73.562
67.5	72.188
68.0	70.757
68.5	69.383
69.0	67.952
69.5	66.578
70.0	65.147
70.5	63.773
71.0	62.399
71.5	60.968
72.0	59.594
72.5	58.163
73.0	56.726
73.5	55.260
74.0	53.766
74.5	52.243
75.0	50.703
75.5	49.141
76.0	47.543
76.5	45.918
77.0	44.257
77.5	42.569
78.0	40.840
78.5	39.082
79.0	37.308
79.5	35.493
80.0	33.655
80.5	31.795
81.0	29.906
81.5	27.988
82.0	26.042
82.5	24.067

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CANDELA TABULATION - (Cont.)

83.0	22.069
83.5	20.059
84.0	18.027
84.5	15.989
85.0	13.945
85.5	11.907
86.0	9.887
86.5	7.957
87.0	6.246
87.5	4.855
88.0	3.647
88.5	2.576
89.0	1.626
89.5	0.910
90.0	0.464
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
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128.5	0.000
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131.5	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
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	141.55	N.A.	18.70
0-30	271.93	N.A.	35.80
0-40	399.61	N.A.	52.70
0-60	610.85	N.A.	80.50
0-80	742.39	N.A.	97.90
0-90	758.51	N.A.	100.00
10-90	719.28	N.A.	94.80
20-40	258.06	N.A.	34.00
20-50	371.84	N.A.	49.00
40-70	289.74	N.A.	38.20
60-80	131.53	N.A.	17.30
70-80	53.04	N.A.	7.00
80-90	16.13	N.A.	2.10
90-110	0.01	N.A.	0.00
90-120	0.01	N.A.	0.00
90-130	0.01	N.A.	0.00
90-150	0.01	N.A.	0.00
90-180	0.01	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	758.53	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	39.23
10-20	102.32
20-30	130.38
30-40	127.68
40-50	113.78
50-60	97.46
60-70	78.50
70-80	53.04
80-90	16.13
90-100	0.01
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	109	104	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85
2	100	92	85	80	97	90	84	79	87	82	77	83	79	75	80	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	85	73	65	59	82	72	64	58	69	63	57	67	61	57	65	60	56	54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	48
6	73	60	52	46	71	59	51	46	58	50	45	56	50	45	54	49	44	42
7	68	55	47	41	66	54	47	41	53	46	41	52	45	40	50	44	40	38
8	64	51	43	37	62	50	43	37	49	42	37	48	41	37	47	41	37	35
9	60	47	39	34	59	47	39	34	45	39	34	44	38	34	43	38	33	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

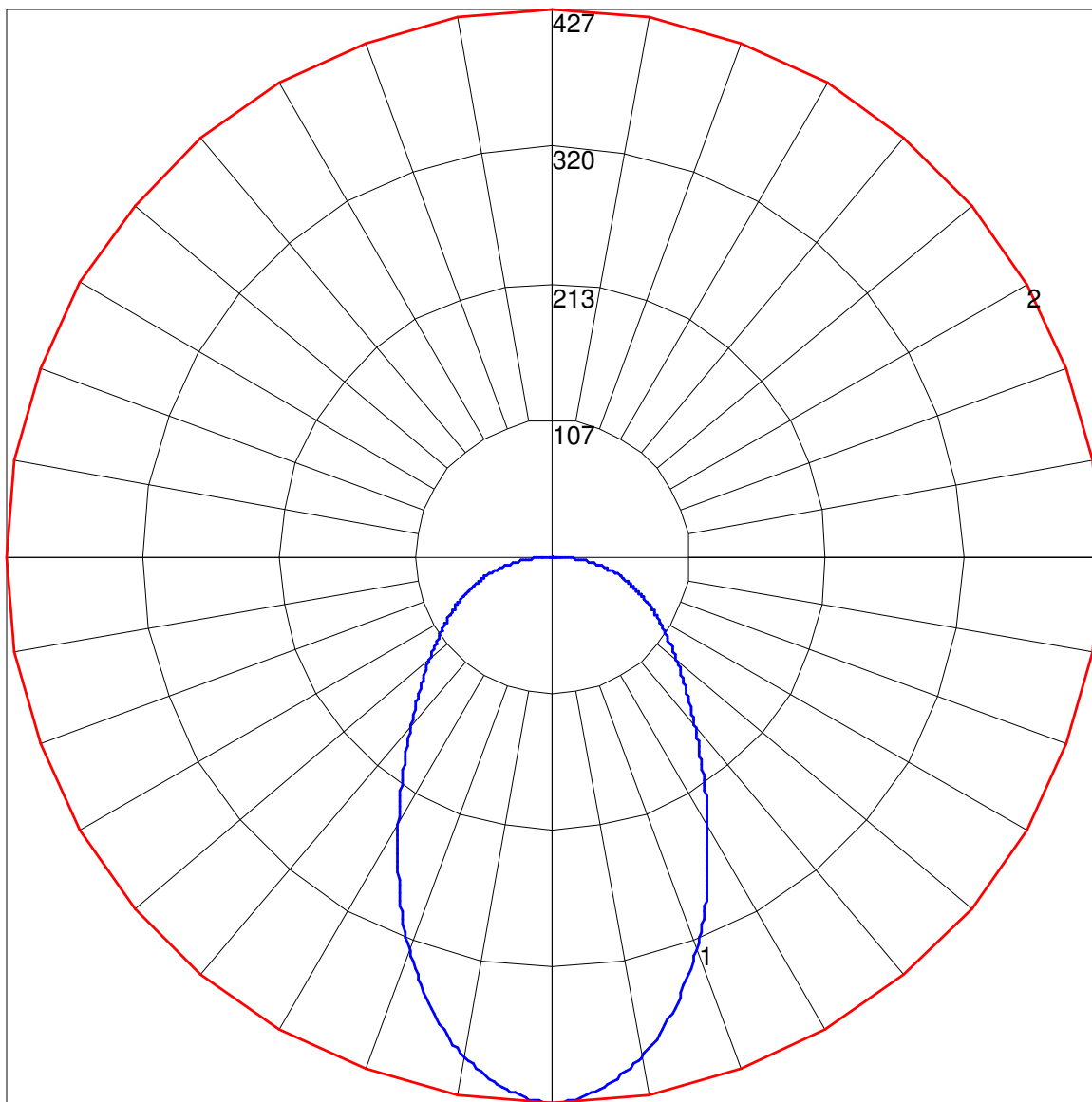
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**UGR TABLE - CORRECTED**

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	19.4	21.0	19.8	21.3	21.6	19.4	21.0	19.8	21.3	21.6
	3H	21.6	23.0	21.9	23.3	23.7	21.6	23.0	21.9	23.3	23.7
	4H	22.5	23.8	22.9	24.2	24.5	22.5	23.8	22.9	24.2	24.5
	6H	23.2	24.5	23.6	24.8	25.2	23.2	24.5	23.6	24.8	25.2
	8H	23.5	24.7	23.9	25.1	25.5	23.5	24.7	23.9	25.1	25.5
	12H	23.6	24.8	24.1	25.2	25.6	23.6	24.8	24.1	25.2	25.6
4H	2H	20.1	21.5	20.5	21.8	22.2	20.1	21.5	20.5	21.8	22.2
	3H	22.5	23.6	22.9	24.0	24.4	22.5	23.6	22.9	24.0	24.4
	4H	23.6	24.6	24.0	25.0	25.4	23.6	24.6	24.0	25.0	25.4
	6H	24.5	25.4	24.9	25.8	26.3	24.5	25.4	24.9	25.8	26.3
	8H	24.8	25.6	25.3	26.1	26.5	24.8	25.6	25.3	26.1	26.5
	12H	25.0	25.8	25.5	26.2	26.7	25.0	25.8	25.5	26.2	26.7
8H	4H	24.0	24.8	24.5	25.3	25.7	24.0	24.8	24.5	25.3	25.7
	6H	25.1	25.7	25.6	26.2	26.7	25.1	25.7	25.6	26.2	26.7
	8H	25.5	26.1	26.0	26.6	27.1	25.5	26.1	26.0	26.6	27.1
	12H	25.8	26.3	26.3	26.8	27.4	25.8	26.3	26.3	26.8	27.4
12H	4H	24.0	24.8	24.5	25.3	25.7	24.0	24.8	24.5	25.3	25.7
	6H	25.2	25.8	25.7	26.2	26.8	25.2	25.8	25.7	26.2	26.8
	8H	25.6	26.2	26.1	26.7	27.2	25.6	26.2	26.1	26.7	27.2

Maximum UGR = 27.4

POLAR GRAPH



Maximum Candela = 426.947 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.)