



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L20-935-DIM-UNV-RW-OF-WH-IP\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] 12326812.12  
[TESTLAB] UL Verification Services Inc.  
[ISSUEDATE] 01-18-2024  
[MANUFAC] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
[LUMCAT] 6DR-TL-L20-935-DIM-UNV-RW-OF-WH-IP  
[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	1185
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	61
Total Luminaire Watts	19.5
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	16000	16000	16000
55	13343	13343	13343
65	9414	9414	9414
75	5767	5767	5767
85	4548	4548	4548

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CANDELA TABULATION

	<u>0</u>
0.0	876.580
0.5	875.760
1.0	874.940
1.5	874.120
2.0	872.480
2.5	870.020
3.0	867.560
3.5	864.280
4.0	861.000
4.5	858.540
5.0	855.260
5.5	851.980
6.0	848.700
6.5	845.420
7.0	842.140
7.5	838.860
8.0	834.760
8.5	831.480
9.0	828.200
9.5	824.100
10.0	820.820
10.5	816.802
11.0	812.866
11.5	808.930
12.0	804.994
12.5	801.140
13.0	797.204
13.5	793.104
14.0	789.086
14.5	785.150
15.0	781.460
15.5	777.688
16.0	773.998
16.5	770.390
17.0	767.028
17.5	763.666
18.0	760.386
18.5	757.270
19.0	754.154
19.5	750.956
20.0	747.676
20.5	744.150
21.0	740.132
21.5	735.540
22.0	730.374
22.5	724.634
23.0	718.402
23.5	711.350
24.0	703.642
24.5	695.196
25.0	685.848
25.5	675.762
26.0	664.528
26.5	652.228

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**CANDELA TABULATION - (Cont.)**

27.0	639.108
27.5	624.840
28.0	609.670
28.5	593.188
29.0	575.804
29.5	556.944
30.0	536.936
30.5	515.780
31.0	493.804
31.5	471.336
32.0	448.458
32.5	425.744
33.0	403.276
33.5	381.546
34.0	360.718
34.5	341.120
35.0	323.244
35.5	306.844
36.0	292.412
36.5	279.620
37.0	268.386
37.5	258.792
38.0	250.346
38.5	242.884
39.0	236.406
39.5	230.666
40.0	225.418
40.5	220.662
41.0	216.234
41.5	212.216
42.0	208.526
42.5	205.000
43.0	201.638
43.5	198.440
44.0	195.406
44.5	192.536
45.0	189.584
45.5	186.796
46.0	183.926
46.5	181.138
47.0	178.268
47.5	175.398
48.0	172.446
48.5	169.494
49.0	166.706
49.5	163.836
50.0	160.802
50.5	157.686
51.0	154.488
51.5	151.290
52.0	148.092
52.5	144.812
53.0	141.614
53.5	138.498
54.0	135.054
54.5	131.610

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CANDELA TABULATION - (Cont.)

55.0	128.248
55.5	124.804
56.0	121.442
56.5	118.080
57.0	114.718
57.5	111.356
58.0	108.158
58.5	104.878
59.0	101.680
59.5	98.564
60.0	95.448
60.5	92.332
61.0	89.298
61.5	86.346
62.0	83.394
62.5	80.524
63.0	77.654
63.5	74.784
64.0	72.078
64.5	69.290
65.0	66.666
65.5	63.960
66.0	61.418
66.5	58.876
67.0	56.416
67.5	53.956
68.0	51.578
68.5	49.200
69.0	46.986
69.5	44.690
70.0	42.558
70.5	40.426
71.0	38.376
71.5	36.408
72.0	34.440
72.5	32.636
73.0	30.914
73.5	29.356
74.0	27.798
74.5	26.404
75.0	25.010
75.5	23.780
76.0	22.550
76.5	21.484
77.0	20.500
77.5	19.516
78.0	18.532
78.5	17.548
79.0	16.646
79.5	15.744
80.0	14.842
80.5	13.940
81.0	13.038
81.5	12.218
82.0	11.316
82.5	10.496

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CANDELA TABULATION - (Cont.)

83.0	9.676
83.5	8.938
84.0	8.118
84.5	7.380
85.0	6.642
85.5	5.904
86.0	5.166
86.5	4.428
87.0	3.772
87.5	3.034
88.0	2.460
88.5	1.968
89.0	1.558
89.5	1.148
90.0	0.820
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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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

IES INDOOR REPORT  
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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	301.21	N.A.	25.40
0-30	608.93	N.A.	51.40
0-40	821.83	N.A.	69.40
0-60	1083.1	N.A.	91.40
0-80	1177.42	N.A.	99.40
0-90	1184.98	N.A.	100.00
10-90	1104.46	N.A.	93.20
20-40	520.62	N.A.	43.90
20-50	667.51	N.A.	56.30
40-70	327.83	N.A.	27.70
60-80	94.32	N.A.	8.00
70-80	27.75	N.A.	2.30
80-90	7.56	N.A.	0.60
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	1185.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	80.52
10-20	220.69
20-30	307.72
30-40	212.90
40-50	146.89
50-60	114.38
60-70	66.57
70-80	27.75
80-90	7.56
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	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	61	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	18.5	19.8	18.9	20.1	20.4	18.5	19.8	18.9	20.1	20.4
	3H	19.5	20.6	19.9	21.0	21.3	19.5	20.6	19.9	21.0	21.3
	4H	19.7	20.8	20.1	21.2	21.6	19.7	20.8	20.1	21.2	21.6
	6H	19.9	20.9	20.3	21.3	21.7	19.9	20.9	20.3	21.3	21.7
	8H	19.9	20.9	20.4	21.3	21.7	19.9	20.9	20.4	21.3	21.7
	12H	20.0	20.9	20.4	21.3	21.7	20.0	20.9	20.4	21.3	21.7

UGR Viewed Endwise

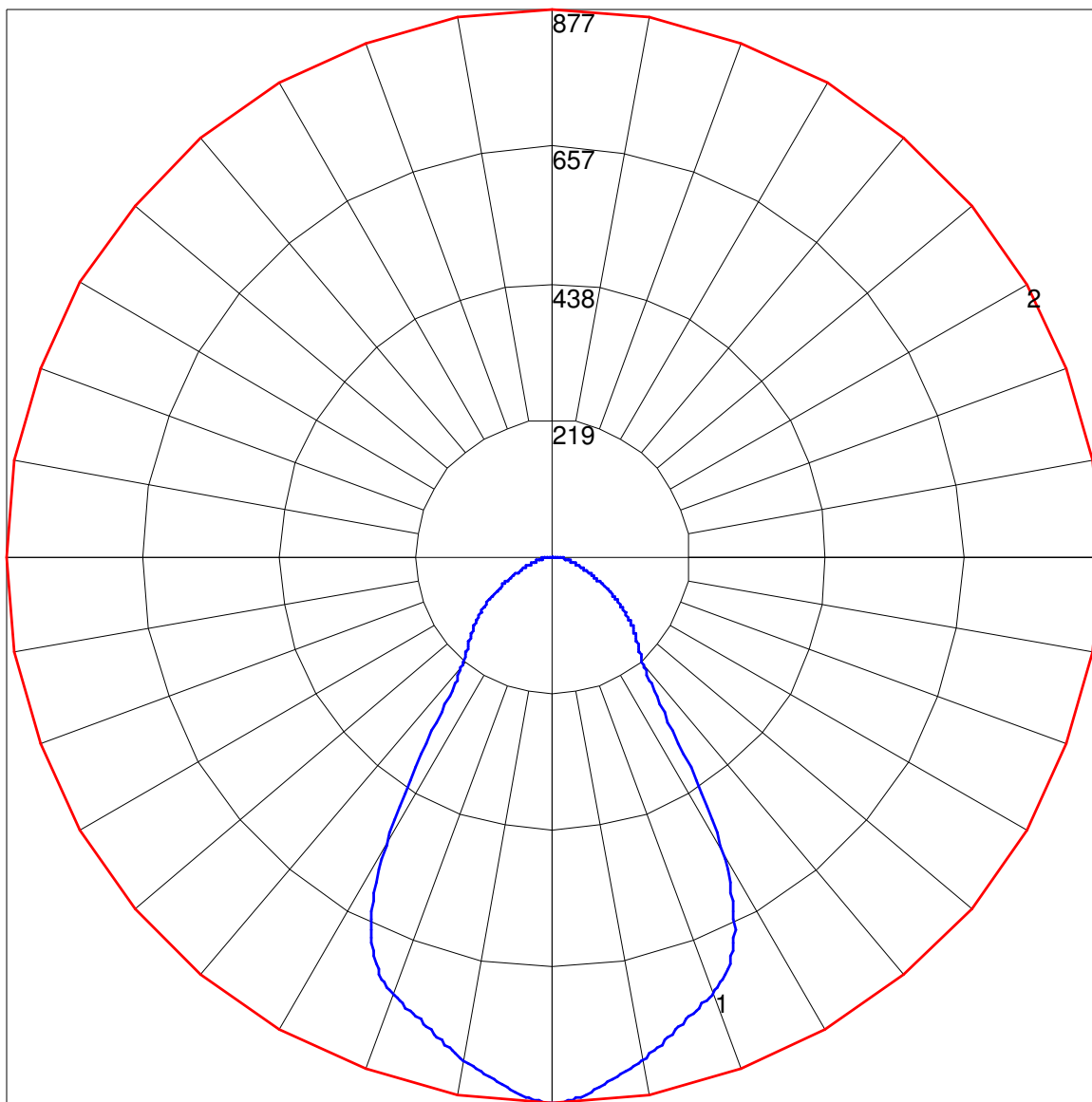
4H	2H	18.8	19.9	19.2	20.3	20.7	18.8	19.9	19.2	20.3	20.7
	3H	20.0	20.9	20.4	21.3	21.7	20.0	20.9	20.4	21.3	21.7
	4H	20.3	21.1	20.7	21.5	22.0	20.3	21.1	20.7	21.5	22.0
	6H	20.6	21.3	21.0	21.7	22.2	20.6	21.3	21.0	21.7	22.2
	8H	20.6	21.3	21.1	21.7	22.2	20.6	21.3	21.1	21.7	22.2
	12H	20.7	21.3	21.2	21.8	22.2	20.7	21.3	21.2	21.8	22.2

8H	4H	20.4	21.0	20.8	21.5	21.9	20.4	21.0	20.8	21.5	21.9
	6H	20.7	21.2	21.2	21.7	22.2	20.7	21.2	21.2	21.7	22.2
	8H	20.9	21.3	21.4	21.8	22.3	20.9	21.3	21.4	21.8	22.3
	12H	21.0	21.4	21.5	21.9	22.4	21.0	21.4	21.5	21.9	22.4

12H	4H	20.4	20.9	20.9	21.4	21.9	20.4	20.9	20.9	21.4	21.9
	6H	20.7	21.2	21.3	21.7	22.2	20.7	21.2	21.3	21.7	22.2
	8H	20.9	21.3	21.4	21.8	22.4	20.9	21.3	21.4	21.8	22.4

Maximum UGR = 22.4

POLAR GRAPH



Maximum Candela = 876.58 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.)