



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L10-835-DIM-UNV-OM-OF-SG\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12316380.04

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 11/22/2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 4DR-TL-L10-835-DIM-UNV-OM-OF-SG

[LUMINAIRE] Black formed aluminum housing, specular reflector, no lens

[MORE] enclosure

[LAMP] One white LED

[\_SEARCH\_SOURCETYPE] LED

[\_SEARCH\_APPLICATION] Indoor, Classroom, Commercial, Corridor, Hotel, Industrial, Office, Downlight

[\_SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	919
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.76
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.38 ft (Diameter)
Luminous Width (90-270)	0.38 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	2282	2282	2282
55	662	662	662
65	233	233	233
75	103	103	103
85	51	51	51

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 4DR-TL-L10-835-DIM-UNV-OM-OF-SG\_.IES

CANDELA TABULATION

	<u>0</u>
0.0	1859.575
0.5	1860.952
1.0	1866.461
1.5	1871.510
2.0	1882.986
2.5	1890.331
3.0	1891.708
3.5	1892.167
4.0	1881.609
4.5	1867.379
5.0	1840.295
5.5	1805.867
6.0	1767.308
6.5	1724.158
7.0	1677.336
7.5	1628.677
8.0	1578.642
8.5	1529.066
9.0	1480.407
9.5	1433.126
10.0	1388.140
10.5	1345.908
11.0	1306.431
11.5	1269.248
12.0	1233.902
12.5	1200.851
13.0	1169.636
13.5	1139.799
14.0	1111.338
14.5	1085.173
15.0	1061.303
15.5	1040.187
16.0	1022.743
16.5	1007.136
17.0	992.447
17.5	979.593
18.0	968.117
18.5	958.478
19.0	951.592
19.5	945.624
20.0	940.575
20.5	934.607
21.0	928.640
21.5	922.213
22.0	915.328
22.5	906.606
23.0	896.048
23.5	883.195
24.0	867.128
24.5	846.013
25.0	821.683
25.5	795.977
26.0	770.730
26.5	742.728

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 4DR-TL-L10-835-DIM-UNV-OM-OF-SG\_.IES**

**CANDELA TABULATION - (Cont.)**

27.0	713.350
27.5	679.840
28.0	641.739
28.5	599.967
29.0	556.358
29.5	511.831
30.0	464.549
30.5	415.570
31.0	364.295
31.5	313.204
32.0	264.086
32.5	218.136
33.0	178.154
33.5	144.047
34.0	115.311
34.5	91.441
35.0	72.069
35.5	57.472
36.0	48.107
36.5	43.196
37.0	40.258
37.5	37.687
38.0	35.438
38.5	33.372
39.0	31.490
39.5	29.792
40.0	28.185
40.5	26.670
41.0	25.247
41.5	23.962
42.0	22.723
42.5	21.575
43.0	20.427
43.5	19.417
44.0	18.408
44.5	17.444
45.0	16.571
45.5	15.699
46.0	14.827
46.5	14.001
47.0	13.129
47.5	12.302
48.0	11.522
48.5	10.787
49.0	10.053
49.5	9.319
50.0	8.584
50.5	7.896
51.0	7.299
51.5	6.748
52.0	6.197
52.5	5.738
53.0	5.279
53.5	4.912
54.0	4.545
54.5	4.177

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 4DR-TL-L10-835-DIM-UNV-OM-OF-SG\_.IES

CANDELA TABULATION - (Cont.)

55.0	3.902
55.5	3.626
56.0	3.351
56.5	3.121
57.0	2.892
57.5	2.708
58.0	2.525
58.5	2.341
59.0	2.203
59.5	2.066
60.0	1.928
60.5	1.790
61.0	1.698
61.5	1.561
62.0	1.469
62.5	1.377
63.0	1.285
63.5	1.239
64.0	1.148
64.5	1.056
65.0	1.010
65.5	0.964
66.0	0.872
66.5	0.826
67.0	0.780
67.5	0.734
68.0	0.689
68.5	0.643
69.0	0.597
69.5	0.551
70.0	0.505
70.5	0.505
71.0	0.459
71.5	0.413
72.0	0.367
72.5	0.367
73.0	0.321
73.5	0.321
74.0	0.275
74.5	0.275
75.0	0.275
75.5	0.230
76.0	0.230
76.5	0.184
77.0	0.184
77.5	0.184
78.0	0.138
78.5	0.138
79.0	0.138
79.5	0.138
80.0	0.092
80.5	0.092
81.0	0.092
81.5	0.092
82.0	0.092
82.5	0.092

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 4DR-TL-L10-835-DIM-UNV-OM-OF-SG\_.IES

CANDELA TABULATION - (Cont.)

83.0	0.092
83.5	0.046
84.0	0.046
84.5	0.046
85.0	0.046
85.5	0.046
86.0	0.046
86.5	0.046
87.0	0.046
87.5	0.046
88.0	0.000
88.5	0.000
89.0	0.000
89.5	0.000
90.0	0.000
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  
PHOTOMETRIC FILENAME : 4DR-TL-L10-835-DIM-UNV-OM-OF-SG\_.IES

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
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  
PHOTOMETRIC FILENAME : 4DR-TL-L10-835-DIM-UNV-OM-OF-SG\_.IES

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

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 4DR-TL-L10-835-DIM-UNV-OM-OF-SG\_.IES

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

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 4DR-TL-L10-835-DIM-UNV-OM-OF-SG\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	463.56	N.A.	50.40
0-30	818.76	N.A.	89.10
0-40	900.75	N.A.	98.00
0-60	917.63	N.A.	99.80
0-80	918.97	N.A.	100.00
0-90	919.03	N.A.	100.00
10-90	759.80	N.A.	82.70
20-40	437.19	N.A.	47.60
20-50	450.24	N.A.	49.00
40-70	17.94	N.A.	2.00
60-80	1.34	N.A.	0.10
70-80	0.29	N.A.	0.00
80-90	0.06	N.A.	0.00
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	919.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	159.23
10-20	304.33
20-30	355.20
30-40	81.99
40-50	13.05
50-60	3.83
60-70	1.06
70-80	0.29
80-90	0.06
90-100	0.00
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

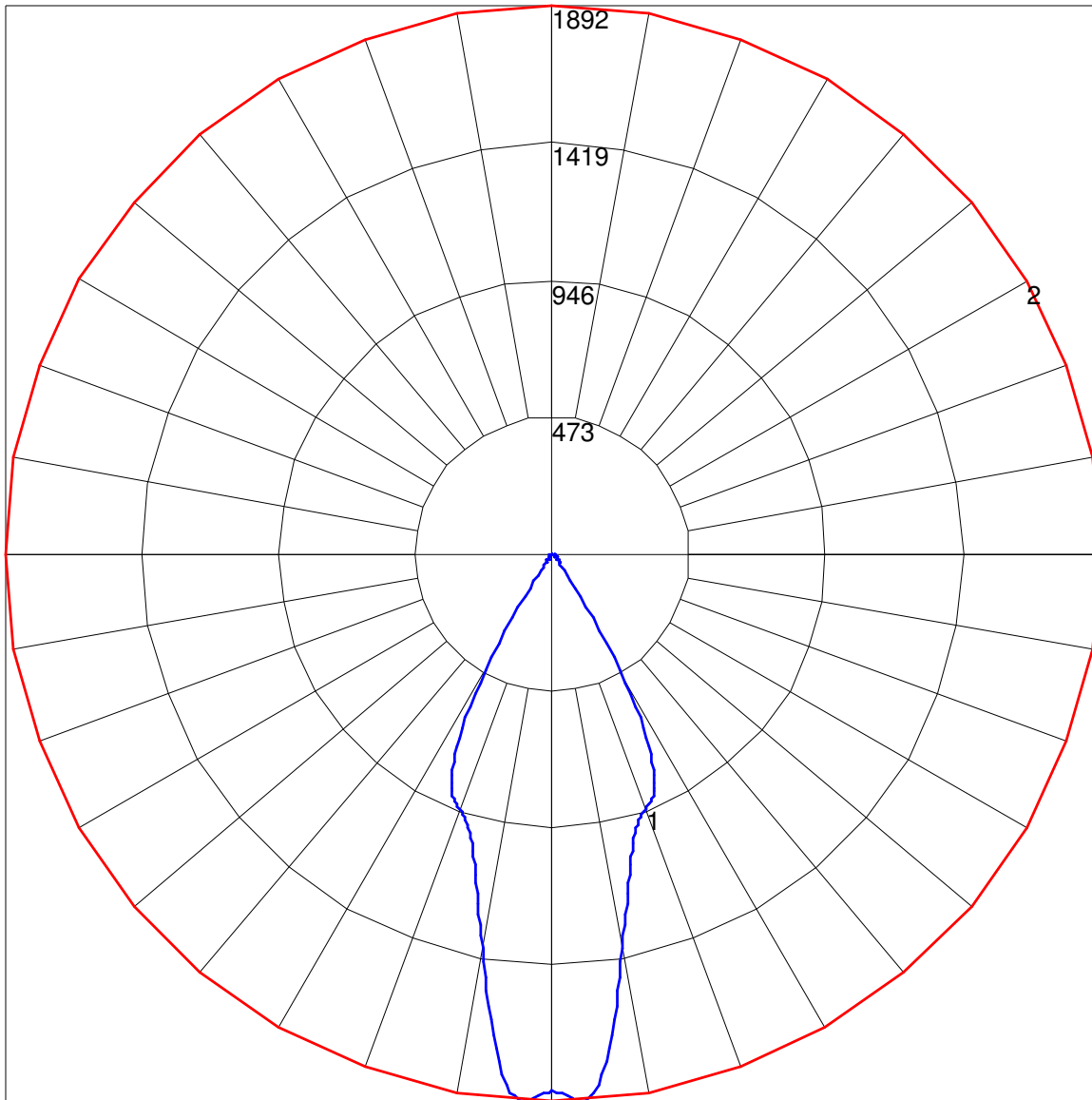
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 4DR-TL-L10-835-DIM-UNV-OM-OF-SG\_.IES**

**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	112	110	108	112	110	108	106	106	104	103	102	101	100	98	98	97	95
2	109	105	102	99	107	103	100	97	100	98	95	97	95	93	95	93	91	90
3	105	99	95	91	103	98	94	91	95	92	89	93	90	88	91	88	87	85
4	100	94	89	85	99	93	88	85	91	87	84	89	86	83	87	84	82	81
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76
6	92	85	79	76	91	84	79	75	82	78	75	81	77	74	80	77	74	73
7	89	80	75	72	87	80	75	71	79	74	71	78	74	71	76	73	70	69
8	85	77	72	68	84	76	71	68	75	71	68	74	70	67	73	70	67	66
9	82	73	68	65	81	73	68	65	72	67	64	71	67	64	70	67	64	63
10	79	70	65	62	78	70	65	62	69	64	61	68	64	61	67	64	61	60

POLAR GRAPH



Maximum Candela = 1892.167 Located At Horizontal Angle = 0, Vertical Angle = 3.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (3.5) (Through Max. Cd.)