

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L15-940-(L11)-EM10W-DIM1-UNV-LW-OF-CS-WETCC (EMER MODE)_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]GEN FROM 12316380.07
[TESTLAB] UL Verification Services Inc.
[ISSUE DATE] 09-12-2023
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] 4DR-TL-L15-940-(L11)-EM10W-DIM1-UNV-LW-OF-CS-WETCC
[LUMINAIRE] Black formed aluminum housing, specular reflector, clear patterned glass lens enclosure
[MORE] One white LED
[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	759
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	76
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.00
Spacing Criterion (90-270)	1.00
Spacing Criterion (Diagonal)	0.90
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.35 ft (Diameter)
Luminous Width (90-270)	0.35 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	20952	20952	20952
55	17217	17217	17217
65	12595	12595	12595
75	8719	8719	8719
85	4754	4754	4754

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L15-940-(L11)-EM10W-DIM1-UNV-LW-OF-CS-WETCC (EMER MODE)_.IES

CANDELA TABULATION

	<u>0</u>
0.0	533.349
0.5	533.180
1.0	532.843
1.5	532.394
2.0	531.945
2.5	531.439
3.0	530.765
3.5	530.372
4.0	530.091
4.5	529.922
5.0	529.698
5.5	529.473
6.0	529.304
6.5	529.080
7.0	528.911
7.5	528.799
8.0	528.743
8.5	528.574
9.0	528.406
9.5	528.069
10.0	527.844
10.5	527.451
11.0	527.058
11.5	526.552
12.0	525.990
12.5	525.316
13.0	524.530
13.5	523.631
14.0	522.508
14.5	521.160
15.0	519.531
15.5	517.565
16.0	515.374
16.5	512.790
17.0	509.981
17.5	506.836
18.0	503.129
18.5	499.309
19.0	495.152
19.5	490.490
20.0	485.378
20.5	479.817
21.0	473.807
21.5	467.347
22.0	460.213
22.5	452.630
23.0	444.485
23.5	435.723
24.0	426.286
24.5	416.231
25.0	405.334
25.5	393.931
26.0	381.742
26.5	368.822

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4DR-TL-L15-940-(L11)-EM10W-DIM1-UNV-LW-OF-CS-WETCC (EMER MODE)_.IES****CANDELA TABULATION - (Cont.)**

27.0	355.454
27.5	341.523
28.0	327.368
28.5	313.156
29.0	299.226
29.5	285.576
30.0	272.432
30.5	260.074
31.0	248.503
31.5	237.943
32.0	228.337
32.5	219.687
33.0	211.991
33.5	205.138
34.0	199.016
34.5	193.623
35.0	188.736
35.5	184.299
36.0	180.367
36.5	176.660
37.0	173.289
37.5	170.144
38.0	167.223
38.5	164.414
39.0	161.830
39.5	159.302
40.0	156.943
40.5	154.584
41.0	152.337
41.5	150.147
42.0	148.068
42.5	145.990
43.0	143.911
43.5	141.833
44.0	139.755
44.5	137.676
45.0	135.598
45.5	133.520
46.0	131.441
46.5	129.363
47.0	127.172
47.5	124.982
48.0	122.791
48.5	120.544
49.0	118.241
49.5	115.938
50.0	113.691
50.5	111.388
51.0	109.085
51.5	106.782
52.0	104.535
52.5	102.288
53.0	99.985
53.5	97.626
54.0	95.211
54.5	92.795

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4DR-TL-L15-940-(L11)-EM10W-DIM1-UNV-LW-OF-CS-WETCC (EMER MODE)_.IES****CANDELA TABULATION - (Cont.)**

55.0	90.380
55.5	87.965
56.0	85.605
56.5	83.302
57.0	80.999
57.5	78.696
58.0	76.449
58.5	74.259
59.0	72.068
59.5	69.934
60.0	67.855
60.5	65.777
61.0	63.755
61.5	61.789
62.0	59.823
62.5	57.857
63.0	55.981
63.5	54.116
64.0	52.284
64.5	50.481
65.0	48.718
65.5	46.999
66.0	45.302
66.5	43.651
67.0	42.039
67.5	40.455
68.0	38.921
68.5	37.421
69.0	35.922
69.5	34.472
70.0	33.063
70.5	31.675
71.0	30.321
71.5	29.001
72.0	27.726
72.5	26.468
73.0	25.243
73.5	24.053
74.0	22.884
74.5	21.755
75.0	20.654
75.5	19.587
76.0	18.542
76.5	17.526
77.0	16.554
77.5	15.588
78.0	14.655
78.5	13.751
79.0	12.863
79.5	12.009
80.0	11.173
80.5	10.358
81.0	9.555
81.5	8.774
82.0	8.010
82.5	7.269

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4DR-TL-L15-940-(L11)-EM10W-DIM1-UNV-LW-OF-CS-WETCC (EMER MODE)_.IES****CANDELA TABULATION - (Cont.)**

83.0	6.533
83.5	5.819
84.0	5.123
84.5	4.443
85.0	3.792
85.5	3.162
86.0	2.561
86.5	1.994
87.0	1.494
87.5	1.078
88.0	0.753
88.5	0.477
89.0	0.298
89.5	0.202
90.0	0.140
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-L15-940-(L11)-EM10W-DIM1-UNV-LW-OF-CS-WETCC (EMER MODE)_.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-L15-940-(L11)-EM10W-DIM1-UNV-LW-OF-CS-WETCC (EMER MODE)_.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-L15-940-(L11)-EM10W-DIM1-UNV-LW-OF-CS-WETCC (EMER MODE)_.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-L15-940-(L11)-EM10W-DIM1-UNV-LW-OF-CS-WETCC (EMER MODE)_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	195.91	N.A.	25.80
0-30	375.78	N.A.	49.50
0-40	498.30	N.A.	65.60
0-60	683.50	N.A.	90.00
0-80	754.49	N.A.	99.40
0-90	759.24	N.A.	100.00
10-90	708.72	N.A.	93.30
20-40	302.39	N.A.	39.80
20-50	406.81	N.A.	53.60
40-70	233.92	N.A.	30.80
60-80	71.00	N.A.	9.40
70-80	22.28	N.A.	2.90
80-90	4.75	N.A.	0.60
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	759.25	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	50.52
10-20	145.39
20-30	179.87
30-40	122.52
40-50	104.43
50-60	80.78
60-70	48.71
70-80	22.28
80-90	4.75
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-L15-940-(L11)-EM10W-DIM1-UNV-LW-OF-CS-WETCC (EMER MODE)_.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	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56
6	79	67	60	54	77	66	59	54	65	58	54	63	58	53	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47
8	70	58	51	46	68	57	50	45	56	50	45	55	49	45	54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40
10	62	51	44	39	61	50	43	39	49	43	39	48	43	39	47	42	39	37

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L15-940-(L11)-EM10W-DIM1-UNV-LW-OF-CS-WETCC (EMER MODE)_.IES

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	19.7	21.1	20.0	21.4	21.7	19.7	21.1	20.0	21.4	21.7
	3H	20.8	22.0	21.2	22.4	22.7	20.8	22.0	21.2	22.4	22.7
	4H	21.2	22.3	21.6	22.6	23.0	21.2	22.3	21.6	22.6	23.0
	6H	21.4	22.4	21.8	22.8	23.2	21.4	22.4	21.8	22.8	23.2
	8H	21.4	22.4	21.8	22.8	23.2	21.4	22.4	21.8	22.8	23.2
	12H	21.4	22.4	21.9	22.8	23.2	21.4	22.4	21.9	22.8	23.2

UGR Viewed Endwise

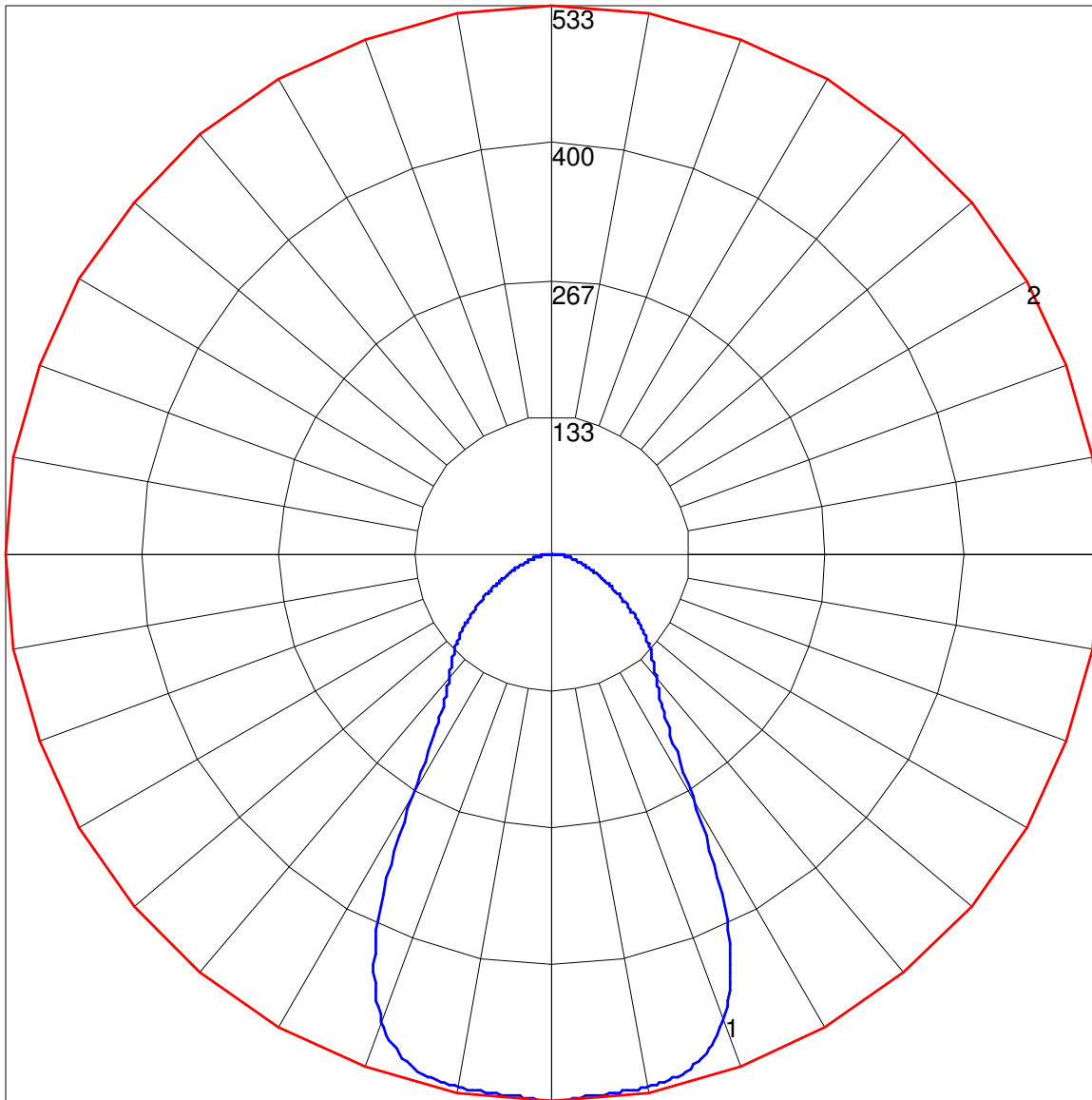
4H	2H	20.1	21.2	20.5	21.6	21.9	20.1	21.2	20.5	21.6	21.9
	3H	21.4	22.3	21.8	22.7	23.1	21.4	22.3	21.8	22.7	23.1
	4H	21.8	22.7	22.2	23.1	23.5	21.8	22.7	22.2	23.1	23.5
	6H	22.1	22.8	22.6	23.3	23.8	22.1	22.8	22.6	23.3	23.8
	8H	22.2	22.9	22.7	23.3	23.8	22.2	22.9	22.7	23.3	23.8
	12H	22.2	22.8	22.7	23.3	23.8	22.2	22.8	22.7	23.3	23.8
8H	4H	21.9	22.6	22.4	23.1	23.5	21.9	22.6	22.4	23.1	23.5
	6H	22.3	22.9	22.8	23.4	23.9	22.3	22.9	22.8	23.4	23.9
	8H	22.4	22.9	22.9	23.4	23.9	22.4	22.9	22.9	23.4	23.9
	12H	22.5	22.9	23.0	23.4	24.0	22.5	22.9	23.0	23.4	24.0
12H	4H	21.9	22.5	22.4	23.0	23.5	21.9	22.5	22.4	23.0	23.5
	6H	22.3	22.8	22.8	23.3	23.8	22.3	22.8	22.8	23.3	23.8
	8H	22.5	22.9	23.0	23.4	24.0	22.5	22.9	23.0	23.4	24.0

Maximum UGR = 24.0

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L15-940-(L11)-EM10W-DIM1-UNV-LW-OF-CS-WETCC (EMER MODE)_.IES

POLAR GRAPH



Maximum Candela = 533.349 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.)