

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L10-835-EM7W-DIM-UNV-LM-OF-WH (EMER MODE ONLY).IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12316380.09

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 6/11/2018

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 4DR-TL-L10-835-EM7W-DIM-UNV-LM-OF-WH (EMER MODE ONLY)

[LUMINAIRE] Black formed aluminum housing, white reflector, clear plas

[MORE] tic optic, clear glass patterned enclosure

[LAMP] One white LED

[OTHER] This test was performed using the calibrated photodetector met

[MORE] hod of absolute photometry.

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	693
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	99
Total Luminaire Watts	7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.54
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	5259	5259	5259
55	4099	4099	4099
65	3426	3426	3426
75	2756	2756	2756
85	1646	1646	1646

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CANDELA TABULATION

	<u>0</u>
0.0	1793.147
0.5	1792.374
1.0	1789.670
1.5	1785.421
2.0	1780.013
2.5	1772.674
3.0	1764.175
3.5	1754.132
4.0	1742.543
4.5	1730.182
5.0	1716.276
5.5	1700.824
6.0	1683.828
6.5	1664.900
7.0	1644.426
7.5	1622.022
8.0	1597.686
8.5	1571.418
9.0	1543.605
9.5	1513.475
10.0	1481.027
10.5	1446.261
11.0	1409.950
11.5	1371.707
12.0	1331.147
12.5	1289.042
13.0	1245.005
13.5	1199.423
14.0	1151.910
14.5	1102.851
15.0	1053.406
15.5	1003.189
16.0	952.972
16.5	902.368
17.0	852.150
17.5	803.478
18.0	755.192
18.5	708.838
19.0	664.415
19.5	621.537
20.0	580.977
20.5	541.962
21.0	505.650
21.5	471.271
22.0	438.823
22.5	408.692
23.0	380.262
23.5	353.762
24.0	329.156
24.5	306.172
25.0	284.848
25.5	265.032
26.0	246.451
26.5	229.300

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27.0	213.308
27.5	198.668
28.0	185.032
28.5	172.439
29.0	160.889
29.5	150.111
30.0	140.107
30.5	130.874
31.0	122.337
31.5	114.496
32.0	107.233
32.5	100.551
33.0	94.409
33.5	88.730
34.0	83.554
34.5	78.764
35.0	74.438
35.5	70.420
36.0	66.750
36.5	63.390
37.0	60.299
37.5	57.480
38.0	54.930
38.5	52.574
39.0	50.411
39.5	48.440
40.0	46.625
40.5	44.925
41.0	43.341
41.5	41.912
42.0	40.560
42.5	39.285
43.0	38.127
43.5	37.006
44.0	35.963
44.5	34.998
45.0	34.032
45.5	33.143
46.0	32.332
46.5	31.521
47.0	30.748
47.5	30.053
48.0	29.319
48.5	28.663
49.0	28.006
49.5	27.349
50.0	26.770
50.5	26.190
51.0	25.649
51.5	25.070
52.0	24.529
52.5	24.027
53.0	23.486
53.5	22.984
54.0	22.482
54.5	21.980

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55.0	21.516
55.5	21.053
56.0	20.589
56.5	20.126
57.0	19.623
57.5	19.198
58.0	18.774
58.5	18.387
59.0	17.962
59.5	17.537
60.0	17.113
60.5	16.688
61.0	16.340
61.5	15.915
62.0	15.529
62.5	15.142
63.0	14.756
63.5	14.409
64.0	14.022
64.5	13.636
65.0	13.250
65.5	12.902
66.0	12.554
66.5	12.207
67.0	11.820
67.5	11.473
68.0	11.125
68.5	10.777
69.0	10.430
69.5	10.082
70.0	9.734
70.5	9.425
71.0	9.116
71.5	8.730
72.0	8.421
72.5	8.112
73.0	7.803
73.5	7.455
74.0	7.146
74.5	6.837
75.0	6.528
75.5	6.219
76.0	5.910
76.5	5.601
77.0	5.292
77.5	5.060
78.0	4.751
78.5	4.481
79.0	4.211
79.5	3.940
80.0	3.670
80.5	3.399
81.0	3.129
81.5	2.936
82.0	2.627
82.5	2.434

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83.0	2.163
83.5	1.970
84.0	1.738
84.5	1.507
85.0	1.313
85.5	1.082
86.0	0.927
86.5	0.734
87.0	0.618
87.5	0.502
88.0	0.386
88.5	0.309
89.0	0.232
89.5	0.155
90.0	0.116
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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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

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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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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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Zone	Lumens	%Lamp	%Fixt
0-20	438.28	N.A.	63.20
0-30	575.62	N.A.	83.10
0-40	625.12	N.A.	90.20
0-60	671.28	N.A.	96.90
0-80	691.40	N.A.	99.80
0-90	693.03	N.A.	100.00
10-90	536.53	N.A.	77.40
20-40	186.85	N.A.	27.00
20-50	213.66	N.A.	30.80
40-70	59.33	N.A.	8.60
60-80	20.12	N.A.	2.90
70-80	6.94	N.A.	1.00
80-90	1.63	N.A.	0.20
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	693.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	156.50
10-20	281.78
20-30	137.34
30-40	49.51
40-50	26.81
50-60	19.34
60-70	13.18
70-80	6.94
80-90	1.63
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

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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	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	109	104	101	97	107	103	99	96	99	97	94	96	94	92	94	92	90	89
3	104	98	94	90	102	97	93	89	94	91	88	92	89	87	90	87	85	84
4	100	93	88	84	98	92	87	84	90	86	83	88	85	82	86	83	81	80
5	96	88	83	80	94	88	83	79	86	82	79	84	81	78	83	80	77	76
6	92	84	79	75	91	84	79	75	82	78	75	81	77	74	80	76	74	72
7	89	81	76	72	88	80	75	72	79	74	71	78	74	71	77	73	71	69
8	86	77	72	69	84	77	72	69	76	71	68	75	71	68	74	70	68	67
9	83	74	69	66	82	74	69	66	73	69	66	72	68	65	71	68	65	64
10	80	72	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

X=2H	Y=2H	10.7	11.7	11.0	12.0	12.3	10.7	11.7	11.0	12.0	12.3
	3H	12.1	13.0	12.5	13.3	13.7	12.1	13.0	12.5	13.3	13.7
	4H	12.6	13.5	13.0	13.8	14.2	12.6	13.5	13.0	13.8	14.2
	6H	12.9	13.7	13.4	14.1	14.5	12.9	13.7	13.4	14.1	14.5
	8H	13.0	13.7	13.5	14.1	14.5	13.0	13.7	13.5	14.1	14.5
	12H	13.0	13.7	13.5	14.1	14.5	13.0	13.7	13.5	14.1	14.5

UGR Viewed Endwise

4H	2H	11.1	11.9	11.5	12.3	12.7	11.1	11.9	11.5	12.3	12.7
	3H	12.7	13.4	13.2	13.8	14.2	12.7	13.4	13.2	13.8	14.2
	4H	13.4	14.0	13.8	14.4	14.8	13.4	14.0	13.8	14.4	14.8
	6H	13.8	14.3	14.3	14.8	15.2	13.8	14.3	14.3	14.8	15.2
	8H	13.9	14.4	14.4	14.8	15.3	13.9	14.4	14.4	14.8	15.3
	12H	13.9	14.4	14.4	14.8	15.3	13.9	14.4	14.4	14.8	15.3

8H	4H	13.5	14.0	14.0	14.5	14.9	13.5	14.0	14.0	14.5	14.9
	6H	14.1	14.4	14.6	14.9	15.4	14.1	14.4	14.6	14.9	15.4
	8H	14.2	14.6	14.7	15.1	15.6	14.2	14.6	14.7	15.1	15.6
	12H	14.3	14.6	14.8	15.1	15.7	14.3	14.6	14.8	15.1	15.7

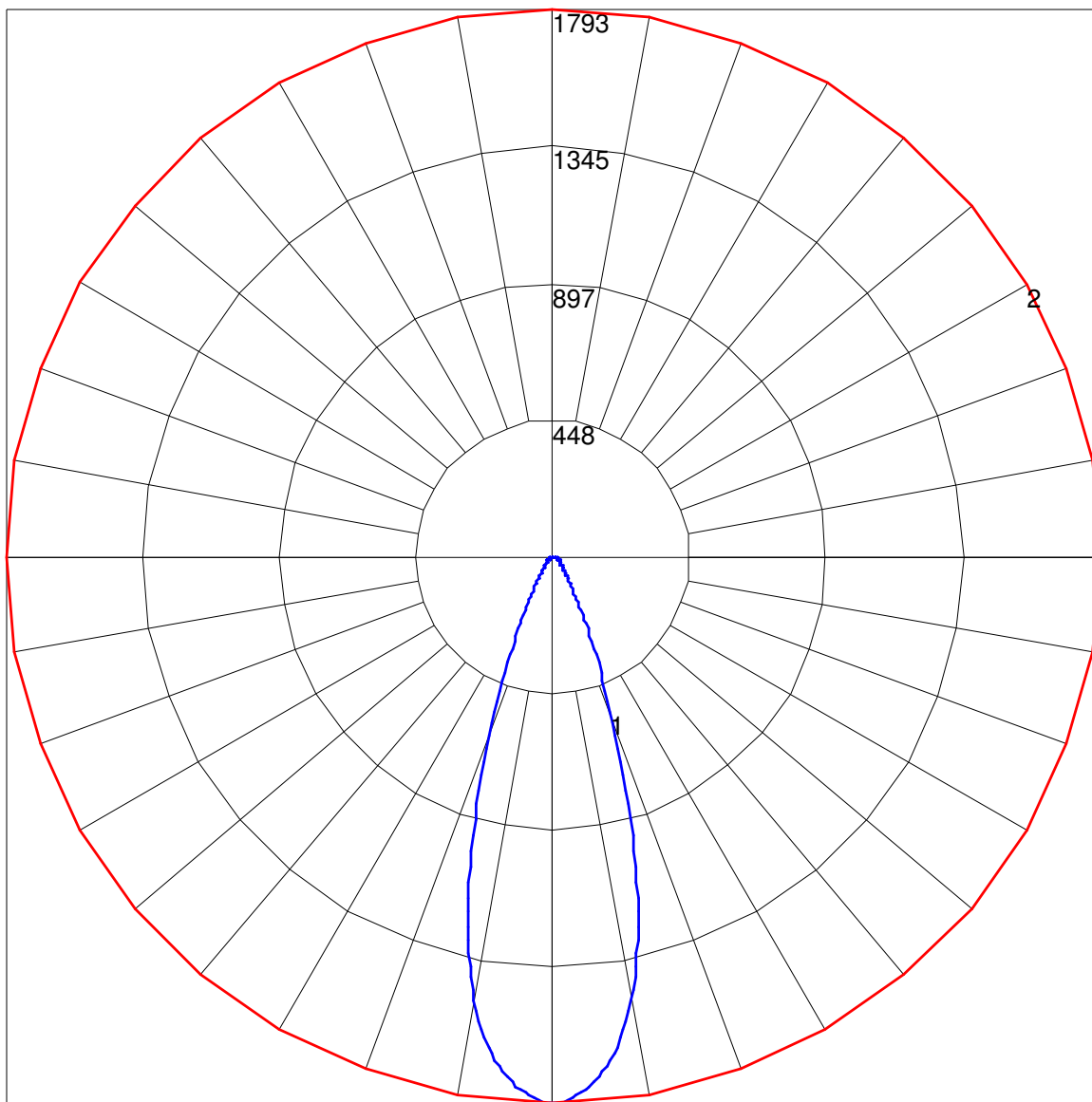
12H	4H	13.5	13.9	14.0	14.4	14.9	13.5	13.9	14.0	14.4	14.9
	6H	14.1	14.4	14.6	14.9	15.4	14.1	14.4	14.6	14.9	15.4
	8H	14.2	14.6	14.8	15.1	15.6	14.2	14.6	14.8	15.1	15.6

Maximum UGR = 15.7

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POLAR GRAPH



Maximum Candela = 1793.147 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.)