



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L10-835-DIM-UNV-SW-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12316380.11
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 04-12-2024
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 4DR-TL-L10-835-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, Commercial, Corridor, Hotel, Office, Downlight
 [_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	573
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	64
Total Luminaire Watts	9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.28
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	20680	20680	20680
55	17651	17651	17651
65	15056	15056	15056
75	12450	12450	12450
85	7705	7705	7705

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CANDELA TABULATION

	<u>0</u>
0.0	241.108
0.5	241.065
1.0	240.936
1.5	240.807
2.0	240.549
2.5	240.291
3.0	239.948
3.5	239.604
4.0	239.260
4.5	238.916
5.0	238.615
5.5	238.271
6.0	237.928
6.5	237.584
7.0	237.197
7.5	236.767
8.0	236.337
8.5	235.908
9.0	235.435
9.5	234.962
10.0	234.446
10.5	233.931
11.0	233.372
11.5	232.770
12.0	232.169
12.5	231.524
13.0	230.836
13.5	230.106
14.0	229.332
14.5	228.515
15.0	227.656
15.5	226.796
16.0	225.894
16.5	225.034
17.0	224.089
17.5	223.143
18.0	222.198
18.5	221.252
19.0	220.307
19.5	219.361
20.0	218.415
20.5	217.470
21.0	216.481
21.5	215.450
22.0	214.376
22.5	213.172
23.0	211.969
23.5	210.636
24.0	209.304
24.5	207.886
25.0	206.425
25.5	204.963
26.0	203.416
26.5	201.869

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CANDELA TABULATION - (Cont.)

27.0	200.279
27.5	198.645
28.0	197.012
28.5	195.422
29.0	193.832
29.5	192.199
30.0	190.609
30.5	188.932
31.0	187.213
31.5	185.537
32.0	183.818
32.5	182.099
33.0	180.337
33.5	178.532
34.0	176.770
34.5	174.964
35.0	173.159
35.5	171.311
36.0	169.463
36.5	167.572
37.0	165.681
37.5	163.790
38.0	161.856
38.5	159.879
39.0	157.988
39.5	156.011
40.0	154.034
40.5	152.100
41.0	150.080
41.5	148.146
42.0	146.126
42.5	144.149
43.0	142.129
43.5	140.066
44.0	138.003
44.5	135.940
45.0	133.834
45.5	131.771
46.0	129.665
46.5	127.559
47.0	125.454
47.5	123.305
48.0	121.199
48.5	119.050
49.0	116.944
49.5	114.838
50.0	112.732
50.5	110.669
51.0	108.606
51.5	106.543
52.0	104.523
52.5	102.503
53.0	100.526
53.5	98.549
54.0	96.572
54.5	94.638

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PHOTOMETRIC FILENAME : 4DR-TL-L10-835-DIM-UNV-SW-OF-WH_.IES

CANDELA TABULATION - (Cont.)

55.0	92.661
55.5	90.727
56.0	88.965
56.5	87.074
57.0	85.269
57.5	83.464
58.0	81.659
58.5	79.854
59.0	78.134
59.5	76.415
60.0	74.696
60.5	73.063
61.0	71.387
61.5	69.668
62.0	67.992
62.5	66.315
63.0	64.682
63.5	63.049
64.0	61.416
64.5	59.826
65.0	58.236
65.5	56.645
66.0	55.055
66.5	53.508
67.0	52.004
67.5	50.499
68.0	48.995
68.5	47.534
69.0	46.073
69.5	44.611
70.0	43.150
70.5	41.732
71.0	40.322
71.5	38.921
72.0	37.537
72.5	36.175
73.0	34.817
73.5	33.471
74.0	32.139
74.5	30.807
75.0	29.492
75.5	28.194
76.0	26.896
76.5	25.611
77.0	24.343
77.5	23.079
78.0	21.833
78.5	20.608
79.0	19.392
79.5	18.188
80.0	17.015
80.5	15.859
81.0	14.716
81.5	13.581
82.0	12.468
82.5	11.372

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CANDELA TABULATION - (Cont.)

83.0	10.289
83.5	9.219
84.0	8.174
84.5	7.147
85.0	6.146
85.5	5.187
86.0	4.294
86.5	3.511
87.0	2.798
87.5	2.158
88.0	1.607
88.5	1.173
89.0	0.817
89.5	0.529
90.0	0.327
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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PHOTOMETRIC FILENAME : 4DR-TL-L10-835-DIM-UNV-SW-OF-WH_.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
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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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PHOTOMETRIC FILENAME : 4DR-TL-L10-835-DIM-UNV-SW-OF-WH_.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
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150.0	0.000
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151.0	0.000
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152.0	0.000
152.5	0.000
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154.0	0.000
154.5	0.000
155.0	0.000
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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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PHOTOMETRIC FILENAME : 4DR-TL-L10-835-DIM-UNV-SW-OF-WH_.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

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	86.81	N.A.	15.20
0-30	181.64	N.A.	31.70
0-40	289.76	N.A.	50.60
0-60	475.96	N.A.	83.10
0-80	565.08	N.A.	98.70
0-90	572.68	N.A.	100.00
10-90	550.03	N.A.	96.00
20-40	202.95	N.A.	35.40
20-50	306.01	N.A.	53.40
40-70	244.03	N.A.	42.60
60-80	89.12	N.A.	15.60
70-80	31.29	N.A.	5.50
80-90	7.60	N.A.	1.30
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	572.69	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	22.65
10-20	64.16
20-30	94.83
30-40	108.12
40-50	103.07
50-60	83.14
60-70	57.83
70-80	31.29
80-90	7.60
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	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56	53
5	78	66	57	51	76	64	56	50	62	55	50	60	54	49	59	53	49	47
6	72	59	51	45	70	58	50	44	57	49	44	55	49	44	53	48	43	41
7	67	54	46	40	65	53	45	40	52	44	39	50	44	39	49	43	39	37
8	63	49	41	36	61	49	41	35	47	40	35	46	40	35	45	39	35	33
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30
10	55	42	34	29	54	42	34	29	41	34	29	40	33	29	39	33	29	27

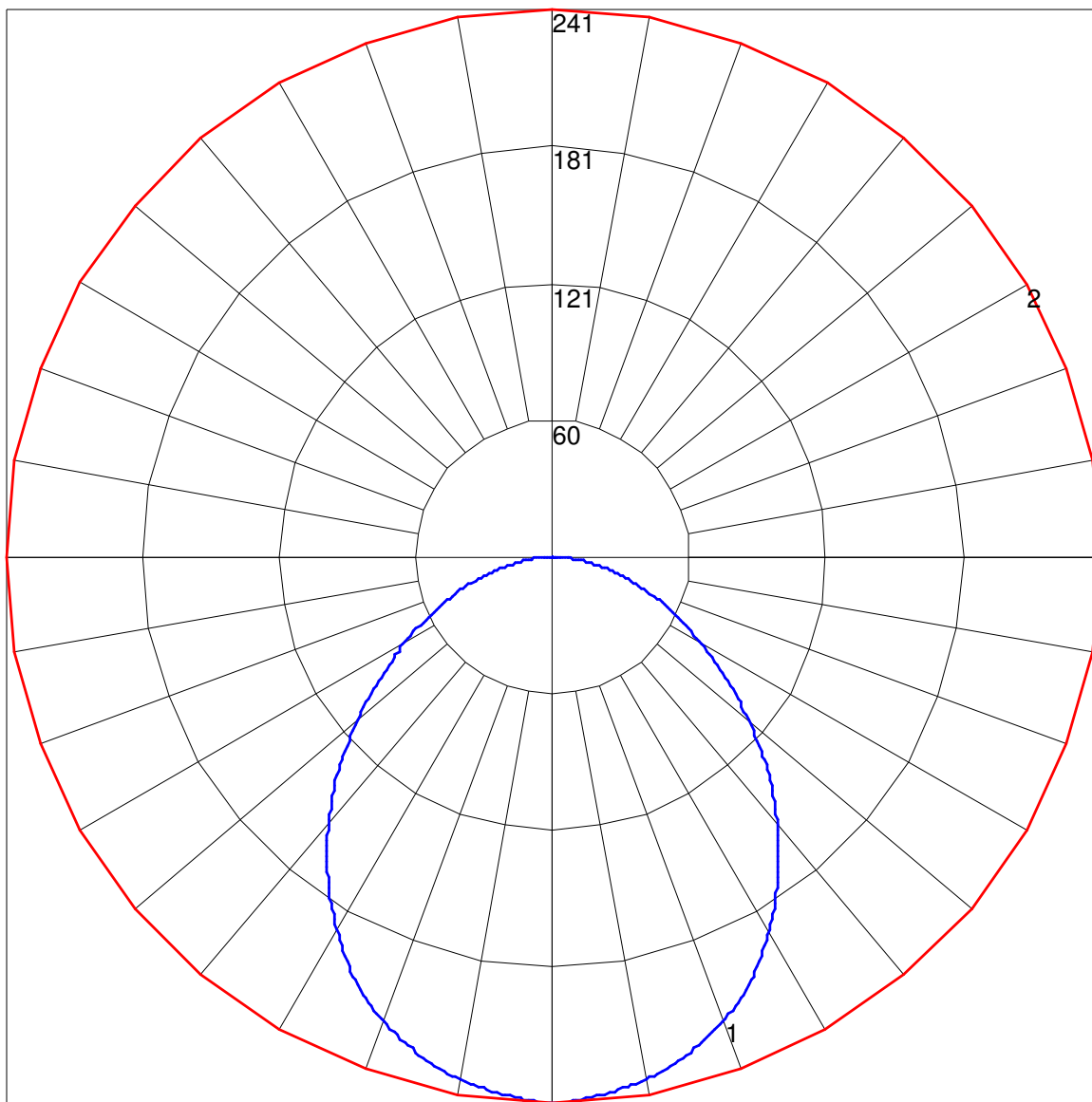
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UGR TABLE - CORRECTED

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	20.8	22.4	21.2	22.7	23.0	20.8	22.4	21.2	22.7	23.0
	3H	22.4	23.8	22.8	24.2	24.5	22.4	23.8	22.8	24.2	24.5
	4H	23.0	24.3	23.4	24.7	25.0	23.0	24.3	23.4	24.7	25.0
	6H	23.4	24.6	23.8	25.0	25.4	23.4	24.6	23.8	25.0	25.4
	8H	23.5	24.7	23.9	25.1	25.5	23.5	24.7	23.9	25.1	25.5
	12H	23.6	24.7	24.0	25.1	25.5	23.6	24.7	24.0	25.1	25.5
4H	2H	21.4	22.7	21.8	23.1	23.4	21.4	22.7	21.8	23.1	23.4
	3H	23.2	24.3	23.6	24.7	25.1	23.2	24.3	23.6	24.7	25.1
	4H	23.9	24.9	24.3	25.3	25.7	23.9	24.9	24.3	25.3	25.7
	6H	24.4	25.3	24.8	25.7	26.2	24.4	25.3	24.8	25.7	26.2
	8H	24.5	25.4	25.0	25.8	26.3	24.5	25.4	25.0	25.8	26.3
	12H	24.6	25.4	25.1	25.8	26.3	24.6	25.4	25.1	25.8	26.3
8H	4H	24.1	24.9	24.6	25.4	25.8	24.1	24.9	24.6	25.4	25.8
	6H	24.7	25.4	25.2	25.9	26.4	24.7	25.4	25.2	25.9	26.4
	8H	25.0	25.6	25.5	26.1	26.6	25.0	25.6	25.5	26.1	26.6
	12H	25.1	25.6	25.6	26.1	26.7	25.1	25.6	25.6	26.1	26.7
12H	4H	24.1	24.9	24.6	25.4	25.8	24.1	24.9	24.6	25.4	25.8
	6H	24.8	25.4	25.3	25.9	26.4	24.8	25.4	25.3	25.9	26.4
	8H	25.0	25.6	25.6	26.1	26.6	25.0	25.6	25.6	26.1	26.6

Maximum UGR = 26.7

POLAR GRAPH



Maximum Candela = 241.108 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.)