



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L15-835-DIM-UNV-RW-OF-CS-AD-WET-CC_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12326812.16
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 12/15/2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 6DR-TL-L15-835-DIM-UNV-RW-OF-CS-AD-WET-CC
 [LUMINAIRE] Black formed aluminum housing, white reflector, frosted pl
 [MORE] astic 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	908
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	66
Total Luminaire Watts	13.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.20
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	17472	17472	17472
55	12712	12712	12712
65	9625	9625	9625
75	5690	5690	5690
85	4297	4297	4297

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CANDELA TABULATION

	<u>0</u>
0.0	457.612
0.5	457.612
1.0	457.399
1.5	457.045
2.0	456.620
2.5	456.125
3.0	455.487
3.5	454.779
4.0	454.071
4.5	453.433
5.0	452.725
5.5	452.087
6.0	451.379
6.5	450.671
7.0	449.892
7.5	449.042
8.0	448.263
8.5	447.413
9.0	446.492
9.5	445.571
10.0	444.580
10.5	443.588
11.0	442.455
11.5	441.322
12.0	440.118
12.5	438.843
13.0	437.497
13.5	436.151
14.0	434.664
14.5	433.106
15.0	431.477
15.5	429.848
16.0	428.148
16.5	426.448
17.0	424.819
17.5	423.048
18.0	421.349
18.5	419.578
19.0	417.736
19.5	415.895
20.0	414.053
20.5	412.070
21.0	410.087
21.5	407.892
22.0	405.625
22.5	403.075
23.0	400.455
23.5	397.692
24.0	394.718
24.5	391.672
25.0	388.485
25.5	385.227
26.0	381.827
26.5	378.428

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6DR-TL-L15-835-DIM-UNV-RW-OF-CS-AD-WET-CC_.IES****CANDELA TABULATION - (Cont.)**

27.0	374.886
27.5	371.345
28.0	367.733
28.5	364.121
29.0	360.508
29.5	356.755
30.0	353.001
30.5	349.105
31.0	345.210
31.5	341.102
32.0	337.065
32.5	332.815
33.0	328.495
33.5	324.103
34.0	319.571
34.5	314.967
35.0	310.221
35.5	305.476
36.0	300.518
36.5	295.631
37.0	290.602
37.5	285.574
38.0	280.474
38.5	275.375
39.0	270.204
39.5	264.963
40.0	259.722
40.5	254.410
41.0	249.098
41.5	243.857
42.0	238.545
42.5	233.233
43.0	227.991
43.5	222.679
44.0	217.438
44.5	212.197
45.0	207.027
45.5	201.856
46.0	196.757
46.5	191.728
47.0	186.770
47.5	181.883
48.0	177.067
48.5	172.322
49.0	167.718
49.5	163.185
50.0	158.865
50.5	154.615
51.0	150.578
51.5	146.753
52.0	142.999
52.5	139.245
53.0	135.633
53.5	132.092
54.0	128.692
54.5	125.363

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55.0	122.176
55.5	119.202
56.0	116.227
56.5	113.252
57.0	110.277
57.5	107.444
58.0	104.682
58.5	101.920
59.0	99.228
59.5	96.537
60.0	93.916
60.5	91.296
61.0	88.675
61.5	86.125
62.0	83.576
62.5	80.955
63.0	78.405
63.5	75.856
64.0	73.306
64.5	70.749
65.0	68.164
65.5	65.607
66.0	63.043
66.5	60.521
67.0	58.000
67.5	55.500
68.0	53.035
68.5	50.599
69.0	48.198
69.5	45.839
70.0	43.516
70.5	41.257
71.0	39.054
71.5	36.901
72.0	34.818
72.5	32.849
73.0	31.022
73.5	29.294
74.0	27.679
74.5	26.142
75.0	24.676
75.5	23.316
76.0	22.041
76.5	20.922
77.0	19.909
77.5	18.911
78.0	17.933
78.5	16.977
79.0	16.056
79.5	15.143
80.0	14.257
80.5	13.386
81.0	12.536
81.5	11.701
82.0	10.879
82.5	10.064

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6DR-TL-L15-835-DIM-UNV-RW-OF-CS-AD-WET-CC_.IES****CANDELA TABULATION - (Cont.)**

83.0	9.271
83.5	8.499
84.0	7.748
84.5	6.998
85.0	6.275
85.5	5.560
86.0	4.866
86.5	4.193
87.0	3.534
87.5	2.883
88.0	2.316
88.5	1.849
89.0	1.445
89.5	1.112
90.0	0.807
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 : 6DR-TL-L15-835-DIM-UNV-RW-OF-CS-AD-WET-CC_.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 : 6DR-TL-L15-835-DIM-UNV-RW-OF-CS-AD-WET-CC_.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 : 6DR-TL-L15-835-DIM-UNV-RW-OF-CS-AD-WET-CC_.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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Zone	Lumens	%Lamp	%Fixt
0-20	164.60	N.A.	18.10
0-30	342.74	N.A.	37.70
0-40	535.56	N.A.	59.00
0-60	805.67	N.A.	88.70
0-80	900.72	N.A.	99.20
0-90	907.94	N.A.	100.00
10-90	864.98	N.A.	95.30
20-40	370.97	N.A.	40.90
20-50	530.71	N.A.	58.50
40-70	337.57	N.A.	37.20
60-80	95.05	N.A.	10.50
70-80	27.59	N.A.	3.00
80-90	7.22	N.A.	0.80
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	907.96	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	42.97
10-20	121.63
20-30	178.14
30-40	192.82
40-50	159.75
50-60	110.36
60-70	67.46
70-80	27.59
80-90	7.22
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	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	90	88
2	102	95	89	84	100	93	88	83	90	85	82	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	75	68	63	73	67	62	71	65	61	69	64	60	58
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42
8	66	53	45	40	64	53	45	40	51	45	40	50	44	40	49	43	39	38
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36	34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31

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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	19.0	20.5	19.4	20.8	21.1	19.0	20.5	19.4	20.8	21.1
	3H	20.1	21.4	20.5	21.8	22.1	20.1	21.4	20.5	21.8	22.1
	4H	20.4	21.6	20.8	22.0	22.3	20.4	21.6	20.8	22.0	22.3
	6H	20.6	21.7	21.0	22.1	22.5	20.6	21.7	21.0	22.1	22.5
	8H	20.6	21.7	21.1	22.1	22.5	20.6	21.7	21.1	22.1	22.5
	12H	20.7	21.7	21.1	22.1	22.5	20.7	21.7	21.1	22.1	22.5

UGR Viewed Endwise

4H	2H	19.4	20.7	19.8	21.0	21.4	19.4	20.7	19.8	21.0	21.4
	3H	20.7	21.7	21.1	22.1	22.5	20.7	21.7	21.1	22.1	22.5
	4H	21.1	21.9	21.5	22.4	22.8	21.1	21.9	21.5	22.4	22.8
	6H	21.3	22.1	21.8	22.5	23.0	21.3	22.1	21.8	22.5	23.0
	8H	21.4	22.1	21.9	22.6	23.0	21.4	22.1	21.9	22.6	23.0
	12H	21.5	22.1	21.9	22.6	23.0	21.5	22.1	21.9	22.6	23.0

8H	4H	21.1	21.9	21.6	22.3	22.8	21.1	21.9	21.6	22.3	22.8
	6H	21.5	22.1	22.0	22.6	23.1	21.5	22.1	22.0	22.6	23.1
	8H	21.6	22.1	22.1	22.7	23.1	21.6	22.1	22.1	22.7	23.1
	12H	21.7	22.2	22.2	22.7	23.3	21.7	22.2	22.2	22.7	23.3

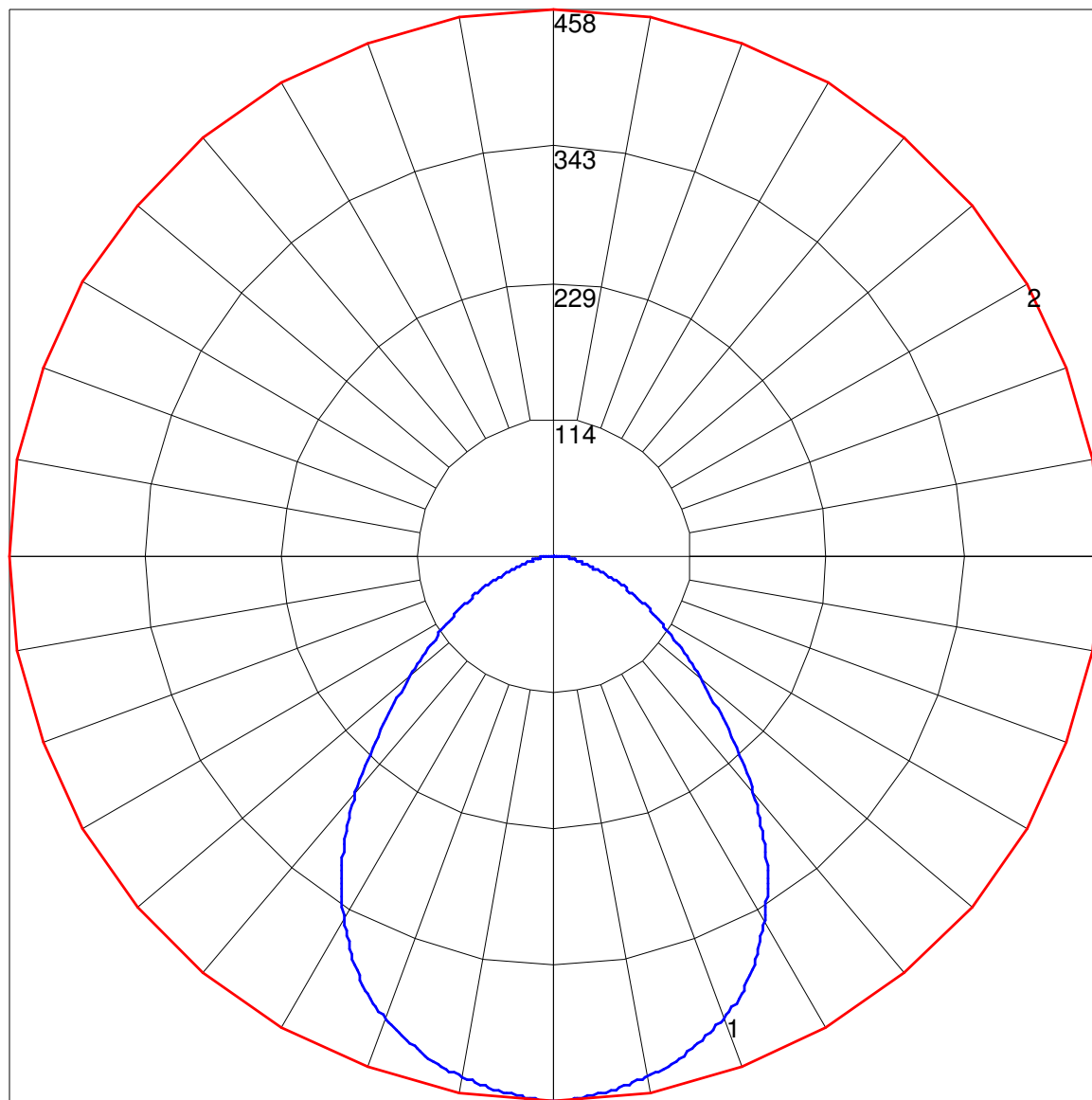
12H	4H	21.1	21.8	21.6	22.3	22.7	21.1	21.8	21.6	22.3	22.7
	6H	21.5	22.0	22.0	22.5	23.0	21.5	22.0	22.0	22.5	23.0
	8H	21.7	22.1	22.2	22.6	23.2	21.7	22.1	22.2	22.6	23.2

Maximum UGR = 23.3

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POLAR GRAPH



Maximum Candela = 457.612 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.)