



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L20-835-(L18)-DIM-UNV-LW-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12326812.07
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 04-08-2022
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 6DR-TL-L20-835-(L18)-DIM-UNV-LW-OF-WH
 [LUMINAIRE] Black formed aluminum housing, white reflector, clear glas
 [MORE] s patterned 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	1410
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	83
Total Luminaire Watts	17
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	0.98
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.46 ft (Diameter)
Luminous Width (90-270)	0.46 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	23432	23432	23432
55	19508	19508	19508
65	14821	14821	14821
75	10748	10748	10748
85	7004	7004	7004

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CANDELA TABULATION

	<u>0</u>
0.0	896.641
0.5	896.460
1.0	895.738
1.5	894.655
2.0	893.301
2.5	891.496
3.0	889.690
3.5	887.614
4.0	885.718
4.5	883.823
5.0	882.469
5.5	881.205
6.0	880.031
6.5	878.858
7.0	877.594
7.5	876.421
8.0	875.247
8.5	874.164
9.0	873.081
9.5	872.178
10.0	871.275
10.5	870.553
11.0	869.921
11.5	869.560
12.0	868.928
12.5	868.296
13.0	867.394
13.5	866.220
14.0	864.776
14.5	863.151
15.0	861.436
15.5	859.270
16.0	856.923
16.5	854.576
17.0	852.229
17.5	849.791
18.0	847.174
18.5	844.195
19.0	840.855
19.5	837.154
20.0	832.911
20.5	828.307
21.0	822.620
21.5	815.850
22.0	808.177
22.5	799.512
23.0	790.033
23.5	779.743
24.0	768.369
24.5	756.092
25.0	742.823
25.5	729.012
26.0	714.298
26.5	698.952

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CANDELA TABULATION - (Cont.)

27.0	682.613
27.5	665.823
28.0	648.131
28.5	629.445
29.0	610.037
29.5	589.636
30.0	568.694
30.5	547.120
31.0	525.545
31.5	503.791
32.0	482.668
32.5	462.448
33.0	443.040
33.5	424.896
34.0	408.196
34.5	393.031
35.0	379.490
35.5	367.033
36.0	356.111
36.5	346.091
37.0	337.154
37.5	329.120
38.0	321.809
38.5	315.129
39.0	308.810
39.5	303.123
40.0	297.617
40.5	292.471
41.0	287.687
41.5	282.993
42.0	278.480
42.5	274.327
43.0	270.085
43.5	265.932
44.0	261.870
44.5	257.898
45.0	253.836
45.5	249.955
46.0	245.983
46.5	242.011
47.0	237.949
47.5	233.977
48.0	229.915
48.5	225.853
49.0	221.791
49.5	217.548
50.0	213.486
50.5	209.334
51.0	205.181
51.5	200.939
52.0	196.696
52.5	192.453
53.0	188.211
53.5	183.968
54.0	179.906
54.5	175.754

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CANDELA TABULATION - (Cont.)

55.0	171.421
55.5	167.178
56.0	162.935
56.5	158.964
57.0	154.992
57.5	150.839
58.0	146.687
58.5	142.625
59.0	138.653
59.5	134.681
60.0	130.890
60.5	127.099
61.0	123.398
61.5	119.697
62.0	116.176
62.5	112.656
63.0	109.225
63.5	105.795
64.0	102.455
64.5	99.206
65.0	95.956
65.5	92.796
66.0	89.646
66.5	86.550
67.0	83.490
67.5	80.493
68.0	77.550
68.5	74.598
69.0	71.737
69.5	68.902
70.0	66.149
70.5	63.486
71.0	60.877
71.5	58.350
72.0	55.913
72.5	53.548
73.0	51.246
73.5	48.989
74.0	46.822
74.5	44.701
75.0	42.616
75.5	40.603
76.0	38.626
76.5	36.685
77.0	34.799
77.5	32.948
78.0	31.152
78.5	29.392
79.0	27.667
79.5	26.006
80.0	24.355
80.5	22.757
81.0	21.177
81.5	19.606
82.0	18.072
82.5	16.546

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CANDELA TABULATION - (Cont.)

83.0	15.057
83.5	13.594
84.0	12.150
84.5	10.733
85.0	9.352
85.5	8.016
86.0	6.725
86.5	5.479
87.0	4.270
87.5	3.259
88.0	2.491
88.5	1.823
89.0	1.264
89.5	0.794
90.0	0.506
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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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
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127.0	0.000
127.5	0.000
128.0	0.000
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129.5	0.000
130.0	0.000
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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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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
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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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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	326.62	N.A.	23.20
0-30	660.23	N.A.	46.80
0-40	907.60	N.A.	64.40
0-60	1256.89	N.A.	89.20
0-80	1398.37	N.A.	99.20
0-90	1409.55	N.A.	100.00
10-90	1325.64	N.A.	94.00
20-40	580.98	N.A.	41.20
20-50	777.00	N.A.	55.10
40-70	444.94	N.A.	31.60
60-80	141.48	N.A.	10.00
70-80	45.83	N.A.	3.30
80-90	11.18	N.A.	0.80
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	1409.56	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	83.91
10-20	242.71
20-30	333.61
30-40	247.37
40-50	196.02
50-60	153.27
60-70	95.65
70-80	45.83
80-90	11.18
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	78
3	96	87	80	75	93	85	79	74	83	77	73	80	75	72	77	74	70	69
4	89	79	71	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38
10	61	49	42	37	60	49	42	37	48	42	37	47	41	37	46	41	37	35

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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

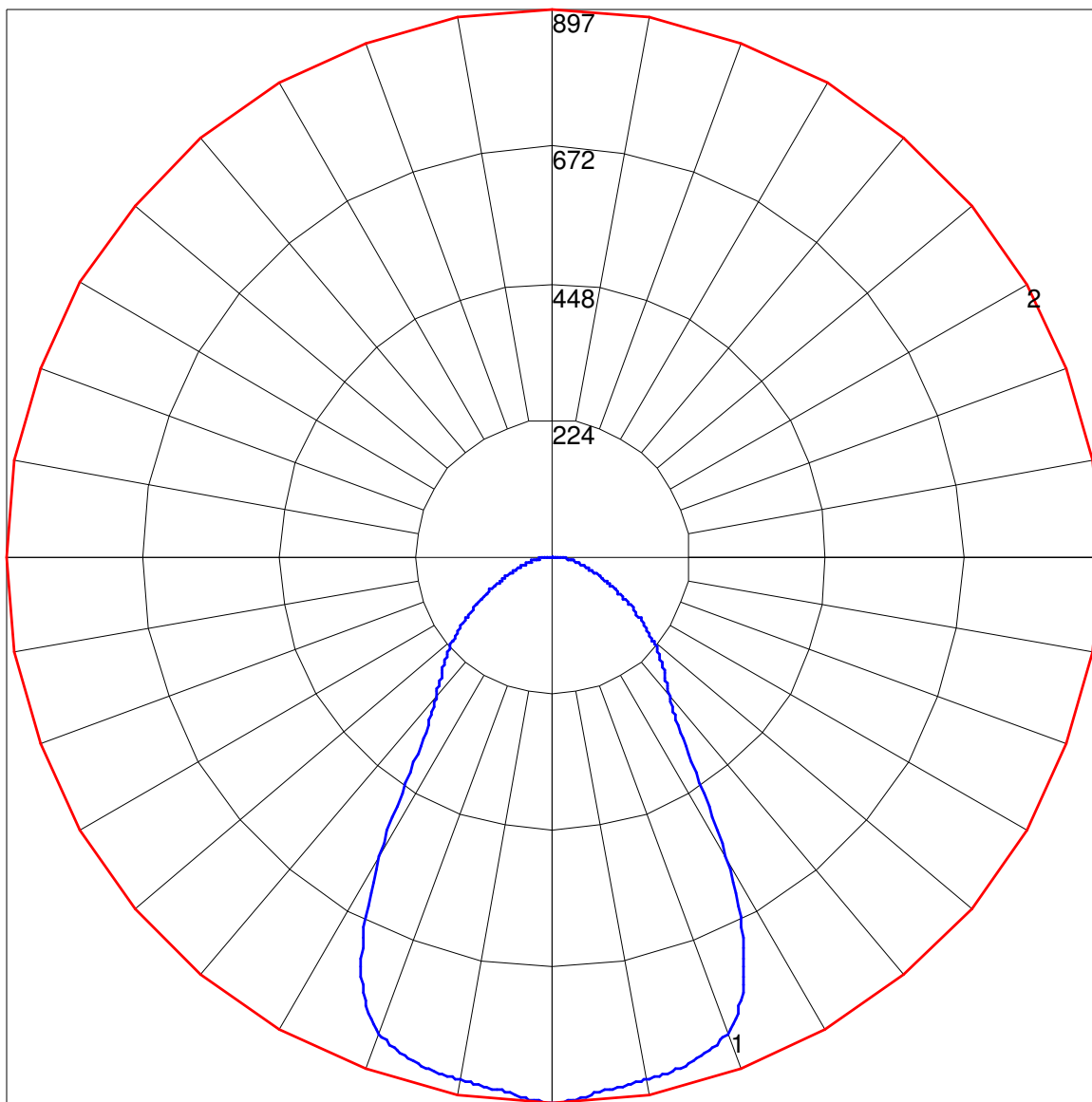
X=2H	Y=2H	20.2	21.6	20.6	21.9	22.2	20.2	21.6	20.6	21.9	22.2
	3H	21.4	22.7	21.8	23.0	23.3	21.4	22.7	21.8	23.0	23.3
	4H	21.8	23.0	22.2	23.3	23.7	21.8	23.0	22.2	23.3	23.7
	6H	22.1	23.1	22.5	23.5	23.9	22.1	23.1	22.5	23.5	23.9
	8H	22.1	23.2	22.6	23.6	24.0	22.1	23.2	22.6	23.6	24.0
	12H	22.2	23.2	22.6	23.5	24.0	22.2	23.2	22.6	23.5	24.0

UGR Viewed Endwise

4H	2H	20.6	21.8	21.0	22.1	22.5	20.6	21.8	21.0	22.1	22.5
	3H	22.0	23.0	22.4	23.4	23.8	22.0	23.0	22.4	23.4	23.8
	4H	22.5	23.4	22.9	23.8	24.2	22.5	23.4	22.9	23.8	24.2
	6H	22.9	23.6	23.4	24.1	24.5	22.9	23.6	23.4	24.1	24.5
	8H	23.0	23.7	23.4	24.1	24.6	23.0	23.7	23.4	24.1	24.6
	12H	23.1	23.7	23.5	24.2	24.6	23.1	23.7	23.5	24.2	24.6
8H	4H	22.7	23.4	23.1	23.8	24.3	22.7	23.4	23.1	23.8	24.3
	6H	23.1	23.7	23.6	24.2	24.7	23.1	23.7	23.6	24.2	24.7
	8H	23.3	23.8	23.8	24.3	24.8	23.3	23.8	23.8	24.3	24.8
	12H	23.4	23.9	23.9	24.4	24.9	23.4	23.9	23.9	24.4	24.9
12H	4H	22.7	23.3	23.1	23.8	24.2	22.7	23.3	23.1	23.8	24.2
	6H	23.2	23.7	23.7	24.1	24.7	23.2	23.7	23.7	24.1	24.7
	8H	23.4	23.8	23.9	24.3	24.9	23.4	23.8	23.9	24.3	24.9

Maximum UGR = 24.9

POLAR GRAPH



Maximum Candela = 896.641 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.)