



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L15-935-DIM-UNV-ON-OFF-CS_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12316380.05
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 31 MARCH 2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 4DR-TL-L15-935-DIM-UNV-ON-OFF-CS
 [LUMINAIRE] Black formed aluminum housing, specular reflector
 [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	1207
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	14
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.18
Spacing Criterion (90-270)	0.18
Spacing Criterion (Diagonal)	0.20
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.38 ft (Diameter)
Luminous Width (90-270)	0.38 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	829	829	829
55	205	205	205
65	139	139	139
75	0	0	0
85	0	0	0

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CANDELA TABULATION

	<u>0</u>
0.0	12834.915
0.5	12744.571
1.0	12407.285
1.5	11919.426
2.0	11232.809
2.5	10431.756
3.0	9642.749
3.5	8853.742
4.0	8082.804
4.5	7305.843
5.0	6438.538
5.5	5544.731
6.0	4781.021
6.5	4223.898
7.0	3777.597
7.5	3417.424
8.0	3114.470
8.5	2856.085
9.0	2636.247
9.5	2442.308
10.0	2276.074
10.5	2130.921
11.0	2006.848
11.5	1897.833
12.0	1802.670
12.5	1720.156
13.0	1649.085
13.5	1585.844
14.0	1529.830
14.5	1477.431
15.0	1428.645
15.5	1381.063
16.0	1332.277
16.5	1284.094
17.0	1235.308
17.5	1187.124
18.0	1138.941
18.5	1088.950
19.0	1038.357
19.5	987.764
20.0	936.569
20.5	885.374
21.0	834.179
21.5	784.189
22.0	740.221
22.5	699.867
23.0	663.127
23.5	630.001
24.0	599.886
24.5	572.181
25.0	549.293
25.5	531.225
26.0	518.576
26.5	508.940

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CANDELA TABULATION - (Cont.)

27.0	499.905
27.5	488.462
28.0	471.597
28.5	451.119
29.0	427.630
29.5	401.731
30.0	373.423
30.5	343.308
31.0	307.171
31.5	268.021
32.0	227.668
32.5	188.518
33.0	152.983
33.5	124.073
34.0	97.572
34.5	74.685
35.0	53.604
35.5	36.740
36.0	24.092
36.5	16.262
37.0	13.853
37.5	13.250
38.0	12.648
38.5	12.046
39.0	11.444
39.5	10.841
40.0	10.239
40.5	9.637
41.0	9.637
41.5	9.034
42.0	8.432
42.5	8.432
43.0	7.830
43.5	7.228
44.0	6.625
44.5	6.625
45.0	6.023
45.5	6.023
46.0	5.421
46.5	4.818
47.0	4.818
47.5	4.216
48.0	4.216
48.5	3.614
49.0	3.614
49.5	3.614
50.0	3.011
50.5	3.011
51.0	2.409
51.5	2.409
52.0	2.409
52.5	1.807
53.0	1.807
53.5	1.807
54.0	1.807
54.5	1.807

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CANDELA TABULATION - (Cont.)

55.0	1.205
55.5	1.205
56.0	1.205
56.5	1.205
57.0	1.205
57.5	1.205
58.0	1.205
58.5	1.205
59.0	0.602
59.5	0.602
60.0	0.602
60.5	0.602
61.0	0.602
61.5	0.602
62.0	0.602
62.5	0.602
63.0	0.602
63.5	0.602
64.0	0.602
64.5	0.602
65.0	0.602
65.5	0.602
66.0	0.602
66.5	0.602
67.0	0.602
67.5	0.602
68.0	0.000
68.5	0.602
69.0	0.000
69.5	0.000
70.0	0.000
70.5	0.000
71.0	0.000
71.5	0.000
72.0	0.000
72.5	0.000
73.0	0.000
73.5	0.000
74.0	0.000
74.5	0.000
75.0	0.000
75.5	0.000
76.0	0.000
76.5	0.000
77.0	0.000
77.5	0.000
78.0	0.000
78.5	0.000
79.0	0.000
79.5	0.000
80.0	0.000
80.5	0.000
81.0	0.000
81.5	0.000
82.0	0.000
82.5	0.000

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CANDELA TABULATION - (Cont.)

83.0	0.000
83.5	0.000
84.0	0.000
84.5	0.000
85.0	0.000
85.5	0.000
86.0	0.000
86.5	0.000
87.0	0.000
87.5	0.000
88.0	0.000
88.5	0.000
89.0	0.000
89.5	0.000
90.0	0.000
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
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118.5	0.000
119.0	0.000
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128.0	0.000
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129.0	0.000
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133.5	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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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
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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
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154.5	0.000
155.0	0.000
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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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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	868.00	N.A.	71.90
0-30	1136.53	N.A.	94.20
0-40	1200.25	N.A.	99.40
0-60	1206.47	N.A.	100.00
0-80	1206.96	N.A.	100.00
0-90	1206.96	N.A.	100.00
10-90	738.83	N.A.	61.20
20-40	332.25	N.A.	27.50
20-50	337.06	N.A.	27.90
40-70	6.72	N.A.	0.60
60-80	0.49	N.A.	0.00
70-80	0.00	N.A.	0.00
80-90	0.00	N.A.	0.00
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	1206.96	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	468.13
10-20	399.87
20-30	268.53
30-40	63.72
40-50	4.82
50-60	1.41
60-70	0.49
70-80	0.00
80-90	0.00
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	115	113	111	109	113	111	109	108	107	105	104	103	102	101	100	99	98	97
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	97	96	95	93
3	108	103	99	96	106	102	98	96	99	96	94	97	95	93	95	93	91	90
4	104	99	95	92	103	98	94	91	96	93	90	94	91	89	92	90	88	87
5	101	95	91	88	100	94	90	88	93	89	87	91	88	86	90	87	85	84
6	98	92	88	85	97	91	87	84	90	86	84	89	86	83	87	85	83	82
7	95	89	85	82	94	88	84	81	87	84	81	86	83	81	85	82	80	79
8	93	86	82	79	92	85	82	79	85	81	78	84	80	78	83	80	78	77
9	90	83	79	77	89	83	79	76	82	79	76	81	78	76	81	78	76	75
10	88	81	77	74	87	81	77	74	80	76	74	79	76	74	79	76	74	73

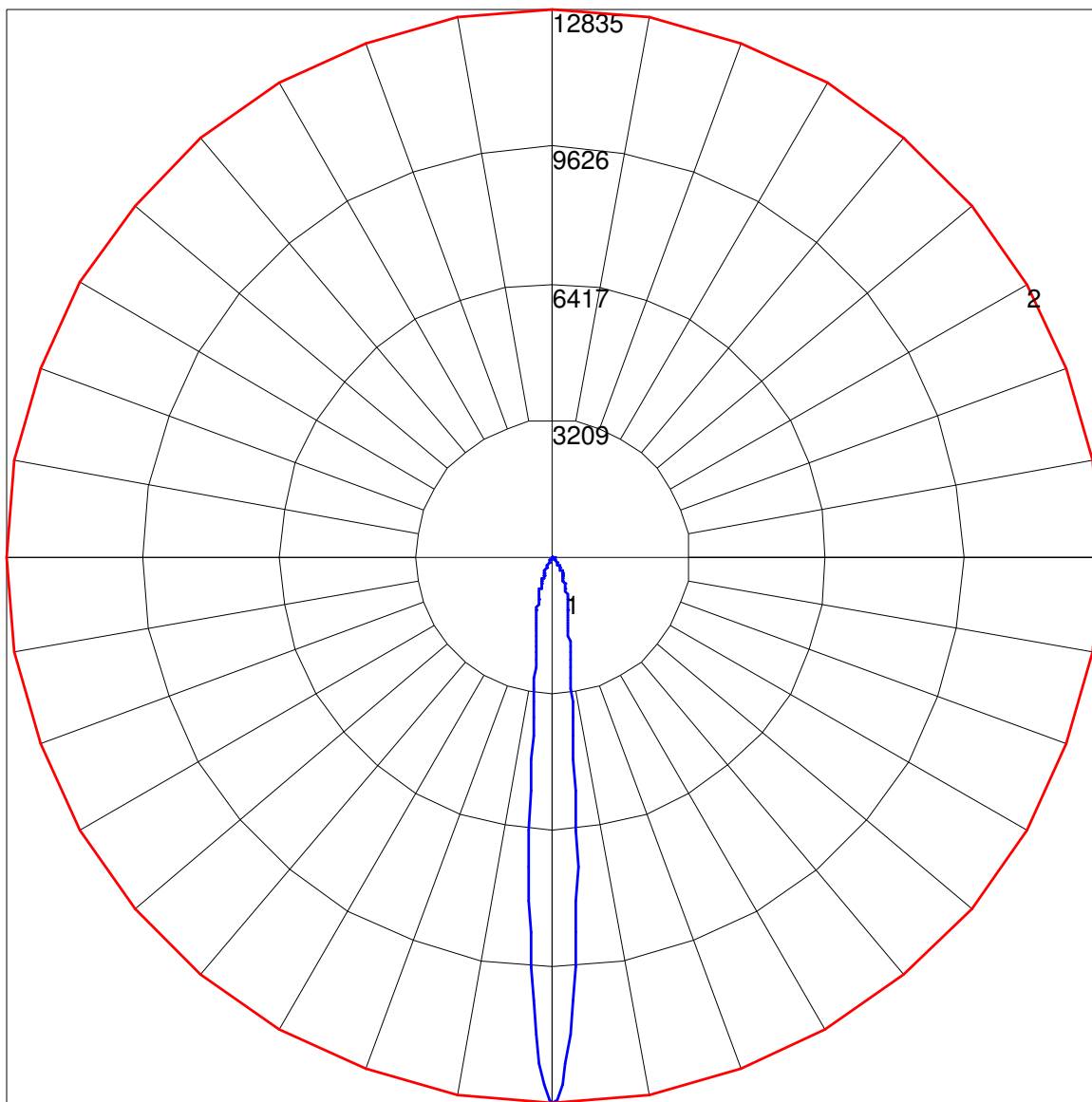
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UGR TABLE - CORRECTED

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	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	3H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	4H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	6H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	8H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	12H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
4H	2H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	3H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	4H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	6H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	8H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	12H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
8H	4H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	6H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	8H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	12H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
12H	4H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	6H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	8H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

Maximum UGR = 0.9

POLAR GRAPH



Maximum Candela = 12834.915 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.)