



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L40-840-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] 11/16/2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 6DR-TL-L40-840-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	3152
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	36.5
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	52398	52398	52398
55	43623	43623	43623
65	33141	33141	33141
75	24034	24034	24034
85	15662	15662	15662

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CANDELA TABULATION

	<u>0</u>
0.0	2005.042
0.5	2004.638
1.0	2003.023
1.5	2000.601
2.0	1997.573
2.5	1993.536
3.0	1989.499
3.5	1984.856
4.0	1980.617
4.5	1976.378
5.0	1973.350
5.5	1970.524
6.0	1967.900
6.5	1965.276
7.0	1962.450
7.5	1959.826
8.0	1957.201
8.5	1954.779
9.0	1952.357
9.5	1950.338
10.0	1948.320
10.5	1946.705
11.0	1945.292
11.5	1944.485
12.0	1943.072
12.5	1941.659
13.0	1939.640
13.5	1937.016
14.0	1933.786
14.5	1930.153
15.0	1926.317
15.5	1921.473
16.0	1916.225
16.5	1910.976
17.0	1905.728
17.5	1900.278
18.0	1894.424
18.5	1887.763
19.0	1880.294
19.5	1872.018
20.0	1862.531
20.5	1852.236
21.0	1839.519
21.5	1824.380
22.0	1807.222
22.5	1787.844
23.0	1766.649
23.5	1743.637
24.0	1718.203
24.5	1690.751
25.0	1661.078
25.5	1630.194
26.0	1597.291
26.5	1562.976

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CANDELA TABULATION - (Cont.)

27.0	1526.440
27.5	1488.894
28.0	1449.330
28.5	1407.546
29.0	1364.147
29.5	1318.527
30.0	1271.697
30.5	1223.453
31.0	1175.209
31.5	1126.562
32.0	1079.327
32.5	1034.111
33.0	990.712
33.5	950.139
34.0	912.795
34.5	878.884
35.0	848.605
35.5	820.749
36.0	796.324
36.5	773.918
37.0	753.934
37.5	735.969
38.0	719.619
38.5	704.681
39.0	690.551
39.5	677.834
40.0	665.521
40.5	654.015
41.0	643.317
41.5	632.820
42.0	622.728
42.5	613.442
43.0	603.955
43.5	594.670
44.0	585.586
44.5	576.704
45.0	567.621
45.5	558.941
46.0	550.059
46.5	541.178
47.0	532.094
47.5	523.212
48.0	514.129
48.5	505.045
49.0	495.962
49.5	486.474
50.0	477.391
50.5	468.105
51.0	458.820
51.5	449.333
52.0	439.846
52.5	430.358
53.0	420.871
53.5	411.384
54.0	402.300
54.5	393.015

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CANDELA TABULATION - (Cont.)

55.0	383.326
55.5	373.838
56.0	364.351
56.5	355.469
57.0	346.588
57.5	337.302
58.0	328.017
58.5	318.933
59.0	310.052
59.5	301.170
60.0	292.692
60.5	284.214
61.0	275.938
61.5	267.662
62.0	259.789
62.5	251.917
63.0	244.246
63.5	236.576
64.0	229.107
64.5	221.840
65.0	214.574
65.5	207.509
66.0	200.464
66.5	193.540
67.0	186.697
67.5	179.996
68.0	173.415
68.5	166.814
69.0	160.415
69.5	154.077
70.0	147.921
70.5	141.966
71.0	136.132
71.5	130.480
72.0	125.030
72.5	119.741
73.0	114.594
73.5	109.548
74.0	104.703
74.5	99.959
75.0	95.296
75.5	90.795
76.0	86.374
76.5	82.035
77.0	77.816
77.5	73.678
78.0	69.661
78.5	65.725
79.0	61.869
79.5	58.155
80.0	54.461
80.5	50.888
81.0	47.356
81.5	43.843
82.0	40.412
82.5	37.000

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CANDELA TABULATION - (Cont.)

83.0	33.670
83.5	30.400
84.0	27.170
84.5	24.001
85.0	20.912
85.5	17.925
86.0	15.038
86.5	12.253
87.0	9.548
87.5	7.287
88.0	5.571
88.5	4.078
89.0	2.826
89.5	1.776
90.0	1.130
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
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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
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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	730.37	N.A.	23.20
0-30	1476.38	N.A.	46.80
0-40	2029.55	N.A.	64.40
0-60	2810.61	N.A.	89.20
0-80	3126.99	N.A.	99.20
0-90	3151.99	N.A.	100.00
10-90	2964.36	N.A.	94.00
20-40	1299.18	N.A.	41.20
20-50	1737.51	N.A.	55.10
40-70	994.95	N.A.	31.60
60-80	316.37	N.A.	10.00
70-80	102.48	N.A.	3.30
80-90	25.00	N.A.	0.80
90-110	0.03	N.A.	0.00
90-120	0.03	N.A.	0.00
90-130	0.03	N.A.	0.00
90-150	0.03	N.A.	0.00
90-180	0.03	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3152.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	187.63
10-20	542.74
20-30	746.01
30-40	553.17
40-50	438.34
50-60	342.73
60-70	213.89
70-80	102.48
80-90	25.00
90-100	0.03
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	101	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	78	74	70	69
4	89	79	72	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	52	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	23.0	24.4	23.4	24.7	25.0	23.0	24.4	23.4	24.7	25.0
	3H	24.2	25.5	24.6	25.8	26.1	24.2	25.5	24.6	25.8	26.1
	4H	24.6	25.8	25.0	26.1	26.5	24.6	25.8	25.0	26.1	26.5
	6H	24.9	25.9	25.3	26.3	26.7	24.9	25.9	25.3	26.3	26.7
	8H	24.9	26.0	25.4	26.4	26.8	24.9	26.0	25.4	26.4	26.8
	12H	25.0	26.0	25.4	26.3	26.8	25.0	26.0	25.4	26.3	26.8

UGR Viewed Endwise

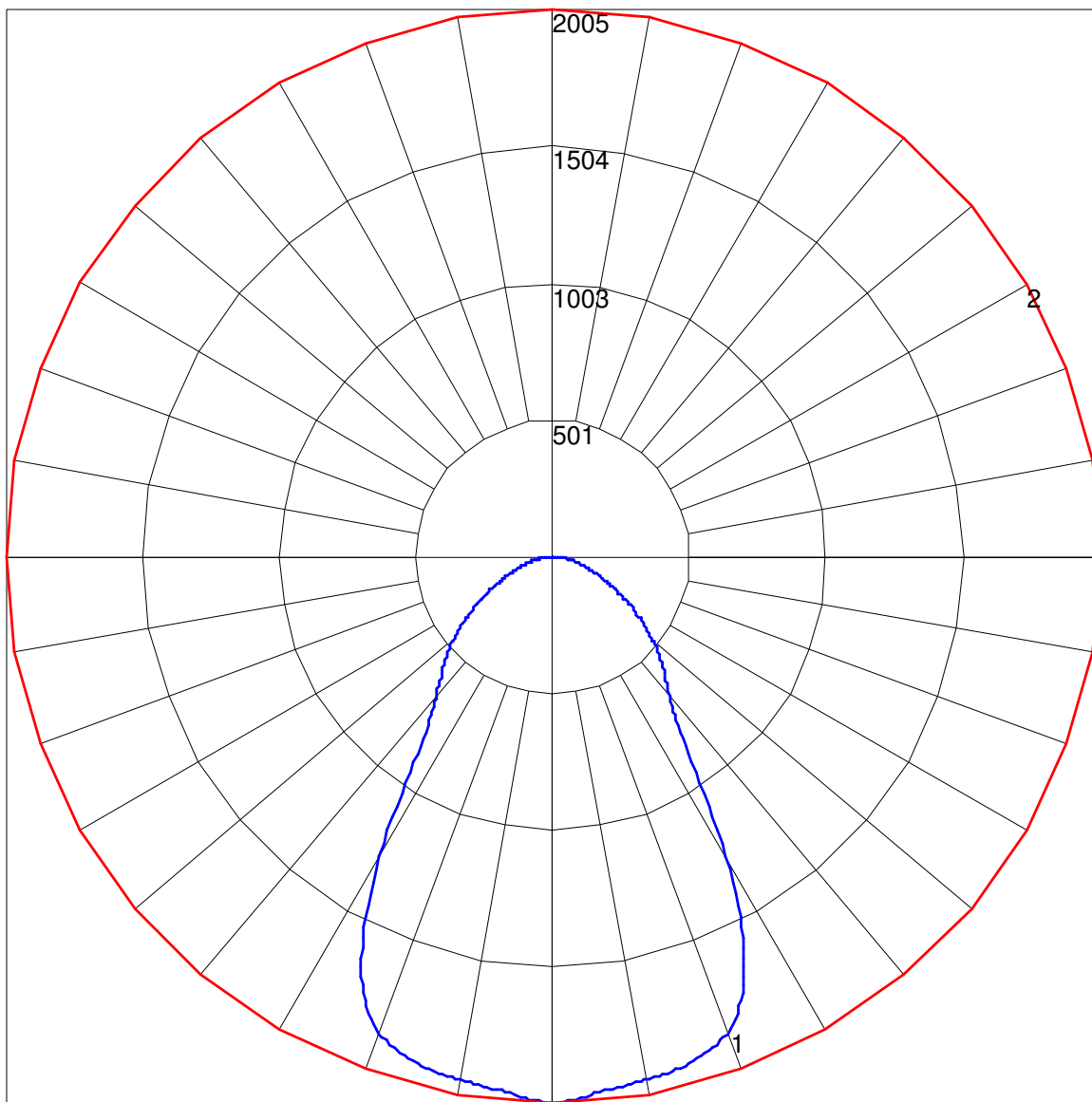
4H	2H	23.4	24.6	23.8	24.9	25.3	23.4	24.6	23.8	24.9	25.3
	3H	24.8	25.8	25.2	26.2	26.6	24.8	25.8	25.2	26.2	26.6
	4H	25.3	26.2	25.8	26.6	27.0	25.3	26.2	25.8	26.6	27.0
	6H	25.7	26.4	26.2	26.9	27.3	25.7	26.4	26.2	26.9	27.3
	8H	25.8	26.5	26.2	26.9	27.4	25.8	26.5	26.2	26.9	27.4
	12H	25.9	26.5	26.3	27.0	27.4	25.9	26.5	26.3	27.0	27.4

8H	4H	25.5	26.2	25.9	26.6	27.1	25.5	26.2	25.9	26.6	27.1
	6H	25.9	26.5	26.4	27.0	27.5	25.9	26.5	26.4	27.0	27.5
	8H	26.1	26.6	26.6	27.1	27.6	26.1	26.6	26.6	27.1	27.6
	12H	26.2	26.7	26.7	27.2	27.7	26.2	26.7	26.7	27.2	27.7

12H	4H	25.5	26.1	25.9	26.6	27.0	25.5	26.1	25.9	26.6	27.0
	6H	26.0	26.5	26.5	26.9	27.5	26.0	26.5	26.5	26.9	27.5
	8H	26.2	26.6	26.7	27.1	27.7	26.2	26.6	26.7	27.1	27.7

Maximum UGR = 27.7

POLAR GRAPH



Maximum Candela = 2005.042 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.)