



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L40-840-DIM-UNV-LM-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12326812.09

[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-LM-OF-WH

[LUMINAIRE] Black formed aluminum housing, white reflector, frosted pl

[MORE] astic optic, clear glass 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	3758
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	36.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.60
Spacing Criterion (90-270)	0.60
Spacing Criterion (Diagonal)	0.56
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	16784	16784	16784
55	12289	12289	12289
65	10013	10013	10013
75	8150	8150	8150
85	5361	5361	5361

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CANDELA TABULATION

	<u>0</u>
0.0	8871.991
0.5	8867.901
1.0	8855.630
1.5	8837.223
2.0	8812.681
2.5	8777.913
3.0	8739.054
3.5	8694.061
4.0	8640.886
4.5	8585.666
5.0	8524.311
5.5	8454.774
6.0	8379.103
6.5	8295.250
7.0	8205.262
7.5	8107.094
8.0	7998.699
8.5	7882.124
9.0	7759.413
9.5	7628.522
10.0	7487.404
10.5	7338.106
11.0	7178.582
11.5	7006.787
12.0	6828.856
12.5	6640.700
13.0	6444.362
13.5	6237.799
14.0	6025.101
14.5	5804.221
15.0	5579.251
15.5	5350.191
16.0	5121.131
16.5	4890.026
17.0	4665.056
17.5	4440.086
18.0	4213.071
18.5	3990.146
19.0	3769.267
19.5	3556.568
20.0	3350.005
20.5	3151.623
21.0	2965.511
21.5	2787.580
22.0	2609.650
22.5	2441.945
23.0	2282.421
23.5	2131.078
24.0	1990.165
24.5	1856.819
25.0	1732.268
25.5	1614.874
26.0	1506.071
26.5	1404.221

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CANDELA TABULATION - (Cont.)

27.0	1309.529
27.5	1221.791
28.0	1139.983
28.5	1064.312
29.0	994.162
29.5	928.716
30.0	868.179
30.5	811.732
31.0	759.375
31.5	710.700
32.0	665.297
32.5	623.166
33.0	583.899
33.5	547.290
34.0	513.545
34.5	482.253
35.0	453.007
35.5	426.216
36.0	401.264
36.5	378.563
37.0	357.497
37.5	338.273
38.0	320.889
38.5	304.732
39.0	290.007
39.5	276.508
40.0	264.237
40.5	252.784
41.0	242.354
41.5	232.741
42.0	223.743
42.5	215.562
43.0	207.790
43.5	200.632
44.0	194.088
44.5	187.748
45.0	181.817
45.5	176.295
46.0	171.182
46.5	166.273
47.0	161.569
47.5	157.070
48.0	152.979
48.5	148.889
49.0	145.003
49.5	141.322
50.0	137.845
50.5	134.368
51.0	131.096
51.5	127.824
52.0	124.756
52.5	121.893
53.0	118.825
53.5	115.962
54.0	113.303
54.5	110.644

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CANDELA TABULATION - (Cont.)

55.0	107.986
55.5	105.327
56.0	102.873
56.5	100.418
57.0	97.964
57.5	95.510
58.0	93.260
58.5	91.011
59.0	88.761
59.5	86.716
60.0	84.670
60.5	82.421
61.0	80.376
61.5	78.330
62.0	76.285
62.5	74.445
63.0	72.399
63.5	70.559
64.0	68.718
64.5	66.877
65.0	64.832
65.5	62.992
66.0	61.151
66.5	59.515
67.0	57.674
67.5	55.833
68.0	54.197
68.5	52.561
69.0	50.720
69.5	49.084
70.0	47.448
70.5	45.812
71.0	44.380
71.5	42.744
72.0	41.108
72.5	39.676
73.0	38.040
73.5	36.609
74.0	35.177
74.5	33.745
75.0	32.314
75.5	30.882
76.0	29.451
76.5	28.019
77.0	26.587
77.5	25.360
78.0	23.929
78.5	22.701
79.0	21.474
79.5	20.043
80.0	18.816
80.5	17.589
81.0	16.361
81.5	15.134
82.0	13.907
82.5	12.680

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CANDELA TABULATION - (Cont.)

83.0	11.658
83.5	10.430
84.0	9.408
84.5	8.181
85.0	7.158
85.5	6.136
86.0	5.113
86.5	4.295
87.0	3.477
87.5	2.863
88.0	2.250
88.5	1.841
89.0	1.432
89.5	1.023
90.0	0.614
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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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
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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	2281.75	N.A.	60.70
0-30	3108.13	N.A.	82.70
0-40	3408.63	N.A.	90.70
0-60	3650.19	N.A.	97.10
0-80	3749.03	N.A.	99.80
0-90	3757.77	N.A.	100.00
10-90	2976.49	N.A.	79.20
20-40	1126.88	N.A.	30.00
20-50	1271.14	N.A.	33.80
40-70	306.08	N.A.	8.10
60-80	98.85	N.A.	2.60
70-80	34.33	N.A.	0.90
80-90	8.74	N.A.	0.20
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	3757.79	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	781.28
10-20	1500.47
20-30	826.38
30-40	300.50
40-50	144.26
50-60	97.30
60-70	64.52
70-80	34.33
80-90	8.74
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	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	109	104	100	97	107	102	99	96	99	96	94	96	94	92	94	92	90	89
3	104	98	94	90	102	97	93	89	94	91	88	92	89	86	90	87	85	84
4	100	93	88	84	98	92	87	83	90	86	83	88	84	82	86	83	81	79
5	96	88	83	79	94	87	82	79	85	81	78	84	80	77	82	79	77	75
6	92	84	79	75	90	83	78	75	82	77	74	80	76	74	79	76	73	72
7	88	80	75	71	87	79	74	71	78	74	71	77	73	70	76	73	70	69
8	85	77	71	68	84	76	71	68	75	71	67	74	70	67	73	70	67	66
9	82	73	68	65	81	73	68	65	72	68	65	71	67	64	71	67	64	63
10	79	71	66	62	78	70	65	62	69	65	62	69	65	62	68	64	62	61

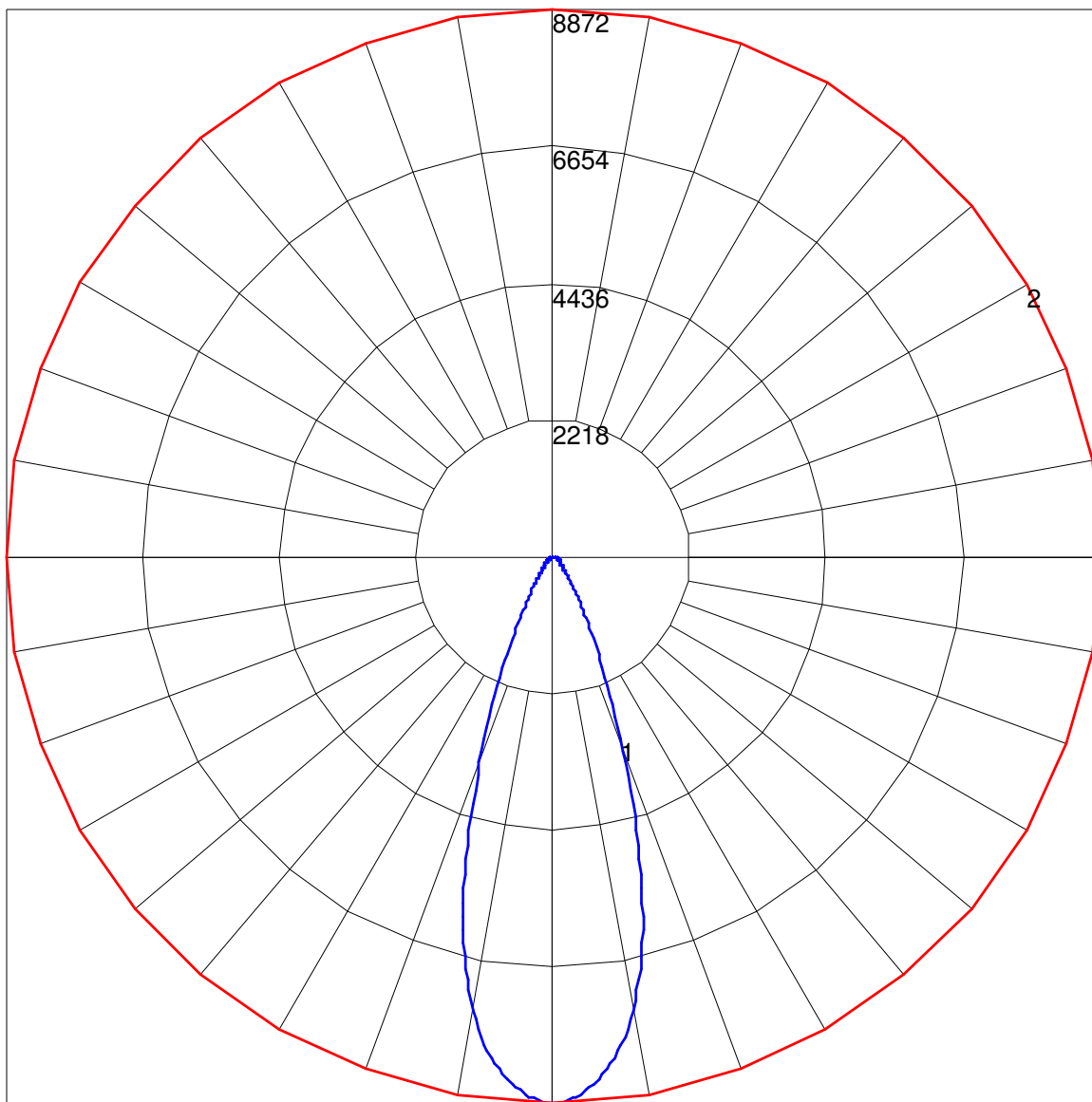
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UGR TABLE - CORRECTED

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	14.2	15.2	14.5	15.5	15.8	14.2	15.2	14.5	15.5	15.8
	3H	15.6	16.5	16.0	16.8	17.2	15.6	16.5	16.0	16.8	17.2
	4H	16.1	16.9	16.5	17.3	17.7	16.1	16.9	16.5	17.3	17.7
	6H	16.4	17.2	16.9	17.6	18.0	16.4	17.2	16.9	17.6	18.0
	8H	16.5	17.2	17.0	17.6	18.0	16.5	17.2	17.0	17.6	18.0
	12H	16.6	17.2	17.0	17.6	18.1	16.6	17.2	17.0	17.6	18.1
4H	2H	14.6	15.4	15.0	15.8	16.2	14.6	15.4	15.0	15.8	16.2
	3H	16.2	16.9	16.6	17.3	17.7	16.2	16.9	16.6	17.3	17.7
	4H	16.8	17.4	17.2	17.8	18.3	16.8	17.4	17.2	17.8	18.3
	6H	17.3	17.8	17.7	18.2	18.7	17.3	17.8	17.7	18.2	18.7
	8H	17.4	17.9	17.9	18.3	18.8	17.4	17.9	17.9	18.3	18.8
	12H	17.5	17.9	17.9	18.4	18.8	17.5	17.9	17.9	18.4	18.8
8H	4H	17.0	17.5	17.5	17.9	18.4	17.0	17.5	17.5	17.9	18.4
	6H	17.5	17.9	18.1	18.4	18.9	17.5	17.9	18.1	18.4	18.9
	8H	17.7	18.1	18.3	18.6	19.1	17.7	18.1	18.3	18.6	19.1
	12H	17.9	18.2	18.4	18.7	19.2	17.9	18.2	18.4	18.7	19.2
12H	4H	17.0	17.4	17.5	17.9	18.3	17.0	17.4	17.5	17.9	18.3
	6H	17.6	17.9	18.1	18.4	18.9	17.6	17.9	18.1	18.4	18.9
	8H	17.8	18.1	18.3	18.6	19.2	17.8	18.1	18.3	18.6	19.2

Maximum UGR = 19.2

POLAR GRAPH



Maximum Candela = 8871.991 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.)