



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12326812.14

[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-RM-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	3645
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	36.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.58
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.56
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	13102	13102	13102
55	8811	8811	8811
65	6556	6556	6556
75	4528	4528	4528
85	3782	3782	3782

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CANDELA TABULATION

	<u>0</u>
0.0	8822.026
0.5	8817.935
1.0	8805.662
1.5	8785.208
2.0	8756.571
2.5	8721.799
3.0	8678.844
3.5	8629.753
4.0	8576.572
4.5	8515.208
5.0	8449.754
5.5	8378.163
6.0	8298.391
6.5	8210.436
7.0	8116.345
7.5	8014.073
8.0	7903.619
8.5	7784.983
9.0	7658.165
9.5	7521.120
10.0	7377.938
10.5	7224.529
11.0	7060.893
11.5	6889.076
12.0	6709.076
12.5	6516.804
13.0	6320.440
13.5	6113.850
14.0	5901.123
14.5	5684.305
15.0	5459.306
15.5	5234.306
16.0	5005.216
16.5	4776.126
17.0	4551.126
17.5	4336.354
18.0	4115.445
18.5	3896.582
19.0	3681.810
19.5	3477.265
20.0	3282.947
20.5	3094.766
21.0	2910.675
21.5	2734.767
22.0	2564.994
22.5	2405.449
23.0	2254.086
23.5	2110.904
24.0	1976.314
24.5	1850.109
25.0	1731.269
25.5	1619.792
26.0	1515.678
26.5	1417.906

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CANDELA TABULATION - (Cont.)

27.0	1326.883
27.5	1241.793
28.0	1162.020
28.5	1087.975
29.0	1018.430
29.5	953.384
30.0	892.225
30.5	835.157
31.0	781.771
31.5	731.657
32.0	684.817
32.5	640.839
33.0	599.521
33.5	560.862
34.0	524.453
34.5	490.703
35.0	459.204
35.5	429.749
36.0	402.340
36.5	376.976
37.0	353.454
37.5	331.772
38.0	311.727
38.5	293.318
39.0	276.340
39.5	260.795
40.0	246.681
40.5	233.795
41.0	221.931
41.5	211.090
42.0	201.068
42.5	191.863
43.0	183.272
43.5	175.500
44.0	168.136
44.5	161.591
45.0	155.250
45.5	149.522
46.0	144.000
46.5	138.886
47.0	134.182
47.5	129.886
48.0	125.795
48.5	121.909
49.0	118.227
49.5	114.545
50.0	111.272
50.5	108.204
51.0	105.136
51.5	102.272
52.0	99.613
52.5	96.750
53.0	94.295
53.5	91.841
54.0	89.386
54.5	86.932

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CANDELA TABULATION - (Cont.)

55.0	84.682
55.5	82.432
56.0	80.386
56.5	78.136
57.0	76.091
57.5	74.045
58.0	72.000
58.5	69.954
59.0	68.113
59.5	66.068
60.0	64.227
60.5	62.386
61.0	60.545
61.5	58.704
62.0	56.864
62.5	55.023
63.0	53.386
63.5	51.545
64.0	49.909
64.5	48.068
65.0	46.432
65.5	44.795
66.0	43.159
66.5	41.523
67.0	39.886
67.5	38.454
68.0	36.818
68.5	35.386
69.0	33.954
69.5	32.318
70.0	31.091
70.5	29.659
71.0	28.432
71.5	27.000
72.0	25.773
72.5	24.545
73.0	23.523
73.5	22.500
74.0	21.477
74.5	20.454
75.0	19.636
75.5	18.614
76.0	17.795
76.5	17.182
77.0	16.364
77.5	15.545
78.0	14.932
78.5	14.114
79.0	13.500
79.5	12.886
80.0	12.068
80.5	11.455
81.0	10.636
81.5	10.023
82.0	9.409
82.5	8.795

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CANDELA TABULATION - (Cont.)

83.0	8.182
83.5	7.364
84.0	6.750
84.5	6.136
85.0	5.523
85.5	4.909
86.0	4.500
86.5	3.886
87.0	3.273
87.5	2.659
88.0	2.045
88.5	1.636
89.0	1.432
89.5	1.023
90.0	0.818
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
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100.0	0.000
100.5	0.000
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103.0	0.000
103.5	0.000
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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
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
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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
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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	2242.75	N.A.	61.50
0-30	3066.49	N.A.	84.10
0-40	3369.68	N.A.	92.40
0-60	3570.9	N.A.	98.00
0-80	3638.54	N.A.	99.80
0-90	3644.85	N.A.	100.00
10-90	2871.77	N.A.	78.80
20-40	1126.93	N.A.	30.90
20-50	1251.68	N.A.	34.30
40-70	247.49	N.A.	6.80
60-80	67.64	N.A.	1.90
70-80	21.37	N.A.	0.60
80-90	6.32	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	3644.88	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	773.08
10-20	1469.66
20-30	823.74
30-40	303.19
40-50	124.75
50-60	76.47
60-70	46.27
70-80	21.37
80-90	6.32
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	112	109	107	105	105	104	102	102	100	99	98	97	96	94
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89
3	104	99	94	91	103	97	93	90	95	91	89	92	90	87	90	88	86	84
4	100	94	89	85	98	92	88	84	90	86	83	88	85	83	87	84	82	80
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76
6	92	85	80	76	91	84	79	76	83	78	75	81	77	75	80	77	74	73
7	89	81	76	72	88	80	75	72	79	75	72	78	74	71	77	73	71	70
8	86	77	72	69	85	77	72	69	76	72	68	75	71	68	74	71	68	67
9	83	74	69	66	82	74	69	66	73	69	66	72	68	65	71	68	65	64
10	80	71	67	63	79	71	66	63	70	66	63	70	66	63	69	65	63	62

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UGR TABLE - CORRECTED

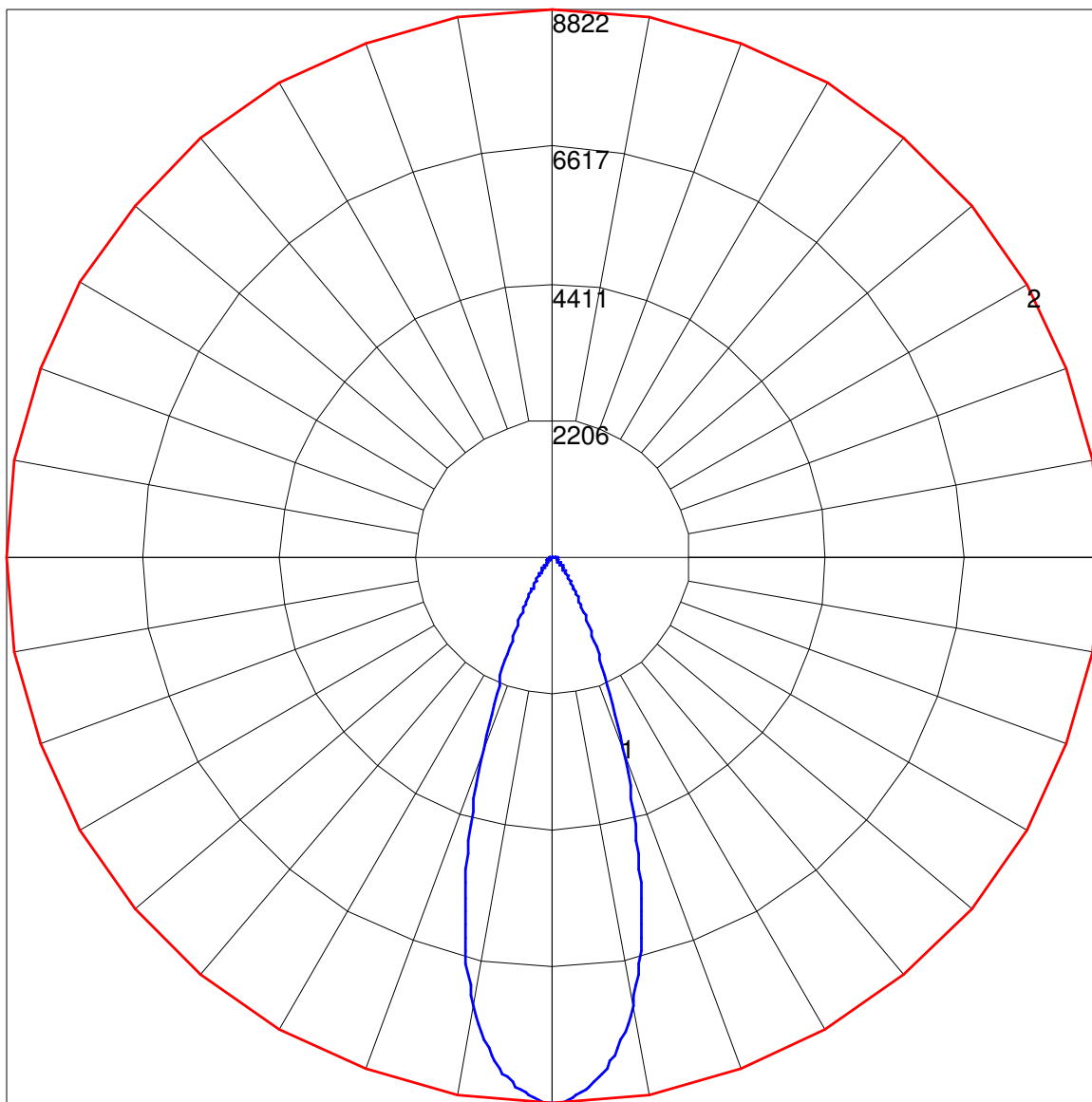
Reflectances

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	12.2	13.2	12.6	13.5	13.8	12.2	13.2	12.6	13.5	13.8
	3H	13.3	14.2	13.7	14.5	14.9	13.3	14.2	13.7	14.5	14.9
	4H	13.6	14.4	14.0	14.8	15.2	13.6	14.4	14.0	14.8	15.2
	6H	13.8	14.6	14.3	15.0	15.4	13.8	14.6	14.3	15.0	15.4
	8H	13.9	14.6	14.4	15.0	15.4	13.9	14.6	14.4	15.0	15.4
	12H	14.0	14.6	14.4	15.0	15.4	14.0	14.6	14.4	15.0	15.4
4H	2H	12.5	13.3	12.9	13.7	14.1	12.5	13.3	12.9	13.7	14.1
	3H	13.8	14.4	14.2	14.9	15.3	13.8	14.4	14.2	14.9	15.3
	4H	14.2	14.8	14.6	15.2	15.6	14.2	14.8	14.6	15.2	15.6
	6H	14.5	15.0	15.0	15.5	16.0	14.5	15.0	15.0	15.5	16.0
	8H	14.7	15.1	15.1	15.6	16.0	14.7	15.1	15.1	15.6	16.0
	12H	14.7	15.1	15.2	15.6	16.1	14.7	15.1	15.2	15.6	16.1
8H	4H	14.3	14.7	14.8	15.2	15.7	14.3	14.7	14.8	15.2	15.7
	6H	14.7	15.1	15.3	15.6	16.1	14.7	15.1	15.3	15.6	16.1
	8H	14.9	15.2	15.5	15.8	16.3	14.9	15.2	15.5	15.8	16.3
	12H	15.1	15.3	15.6	15.8	16.4	15.1	15.3	15.6	15.8	16.4
12H	4H	14.3	14.7	14.8	15.1	15.6	14.3	14.7	14.8	15.1	15.6
	6H	14.7	15.1	15.3	15.5	16.1	14.7	15.1	15.3	15.5	16.1
	8H	15.0	15.2	15.5	15.7	16.3	15.0	15.2	15.5	15.7	16.3

Maximum UGR = 16.4

POLAR GRAPH



Maximum Candela = 8822.026 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.)