



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L40-940-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-L40-940-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	3031
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	83
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	10895	10895	10895
55	7326	7326	7326
65	5452	5452	5452
75	3765	3765	3765
85	3144	3144	3144

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CANDELA TABULATION

	<u>0</u>
0.0	7335.938
0.5	7332.537
1.0	7322.331
1.5	7305.322
2.0	7281.510
2.5	7252.595
3.0	7216.876
3.5	7176.055
4.0	7131.832
4.5	7080.805
5.0	7026.376
5.5	6966.845
6.0	6900.511
6.5	6827.372
7.0	6749.131
7.5	6664.087
8.0	6572.239
8.5	6473.587
9.0	6368.132
9.5	6254.172
10.0	6135.110
10.5	6007.543
11.0	5871.472
11.5	5728.597
12.0	5578.919
12.5	5419.035
13.0	5255.750
13.5	5083.960
14.0	4907.067
14.5	4726.773
15.0	4539.675
15.5	4352.577
16.0	4162.078
16.5	3971.578
17.0	3784.480
17.5	3605.887
18.0	3422.191
18.5	3240.195
19.0	3061.602
19.5	2891.513
20.0	2729.928
20.5	2573.446
21.0	2420.366
21.5	2274.090
22.0	2132.916
22.5	2000.247
23.0	1874.381
23.5	1755.318
24.0	1643.400
24.5	1538.455
25.0	1439.633
25.5	1346.935
26.0	1260.359
26.5	1179.057

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CANDELA TABULATION - (Cont.)

27.0	1103.367
27.5	1032.610
28.0	966.276
28.5	904.703
29.0	846.873
29.5	792.785
30.0	741.928
30.5	694.473
31.0	650.080
31.5	608.408
32.0	569.458
32.5	532.889
33.0	498.531
33.5	466.384
34.0	436.108
34.5	408.043
35.0	381.850
35.5	357.357
36.0	334.565
36.5	313.474
37.0	293.914
37.5	275.884
38.0	259.216
38.5	243.908
39.0	229.790
39.5	216.863
40.0	205.127
40.5	194.412
41.0	184.547
41.5	175.532
42.0	167.197
42.5	159.543
43.0	152.400
43.5	145.936
44.0	139.813
44.5	134.370
45.0	129.098
45.5	124.335
46.0	119.743
46.5	115.490
47.0	111.578
47.5	108.007
48.0	104.605
48.5	101.373
49.0	98.311
49.5	95.250
50.0	92.528
50.5	89.977
51.0	87.426
51.5	85.044
52.0	82.833
52.5	80.452
53.0	78.411
53.5	76.370
54.0	74.329
54.5	72.288

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CANDELA TABULATION - (Cont.)

55.0	70.417
55.5	68.546
56.0	66.845
56.5	64.974
57.0	63.273
57.5	61.572
58.0	59.871
58.5	58.170
59.0	56.640
59.5	54.939
60.0	53.408
60.5	51.877
61.0	50.346
61.5	48.816
62.0	47.285
62.5	45.754
63.0	44.393
63.5	42.862
64.0	41.502
64.5	39.971
65.0	38.610
65.5	37.249
66.0	35.889
66.5	34.528
67.0	33.167
67.5	31.977
68.0	30.616
68.5	29.425
69.0	28.235
69.5	26.874
70.0	25.854
70.5	24.663
71.0	23.642
71.5	22.452
72.0	21.431
72.5	20.411
73.0	19.560
73.5	18.710
74.0	17.859
74.5	17.009
75.0	16.329
75.5	15.478
76.0	14.798
76.5	14.287
77.0	13.607
77.5	12.927
78.0	12.416
78.5	11.736
79.0	11.226
79.5	10.716
80.0	10.035
80.5	9.525
81.0	8.845
81.5	8.334
82.0	7.824
82.5	7.314

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CANDELA TABULATION - (Cont.)

83.0	6.804
83.5	6.123
84.0	5.613
84.5	5.103
85.0	4.592
85.5	4.082
86.0	3.742
86.5	3.232
87.0	2.721
87.5	2.211
88.0	1.701
88.5	1.361
89.0	1.191
89.5	0.850
90.0	0.680
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
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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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
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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
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	1864.95	N.A.	61.50
0-30	2549.93	N.A.	84.10
0-40	2802.05	N.A.	92.40
0-60	2969.37	N.A.	98.00
0-80	3025.62	N.A.	99.80
0-90	3030.87	N.A.	100.00
10-90	2388.02	N.A.	78.80
20-40	937.10	N.A.	30.90
20-50	1040.83	N.A.	34.30
40-70	205.80	N.A.	6.80
60-80	56.25	N.A.	1.90
70-80	17.77	N.A.	0.60
80-90	5.25	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	3030.89	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	642.86
10-20	1222.09
20-30	684.98
30-40	252.12
40-50	103.74
50-60	63.59
60-70	38.48
70-80	17.77
80-90	5.25
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

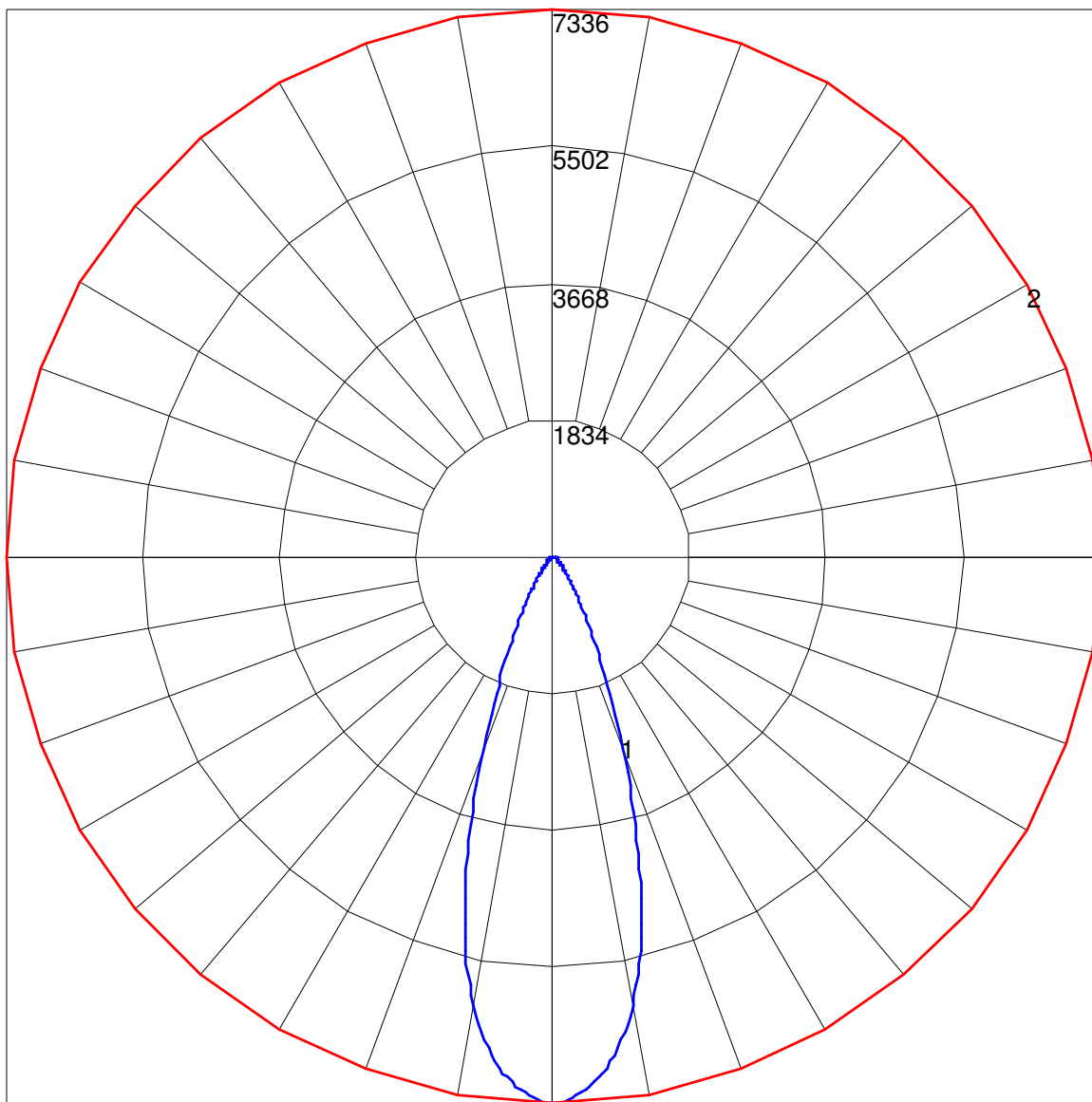
Reflectances

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	11.5	12.5	11.9	12.8	13.1	11.5	12.5	11.9	12.8	13.1
	3H	12.6	13.5	13.0	13.8	14.2	12.6	13.5	13.0	13.8	14.2
	4H	12.9	13.7	13.3	14.1	14.5	12.9	13.7	13.3	14.1	14.5
	6H	13.1	13.9	13.6	14.3	14.7	13.1	13.9	13.6	14.3	14.7
	8H	13.2	13.9	13.7	14.3	14.7	13.2	13.9	13.7	14.3	14.7
	12H	13.3	13.9	13.7	14.3	14.7	13.3	13.9	13.7	14.3	14.7
4H	2H	11.8	12.6	12.2	13.0	13.4	11.8	12.6	12.2	13.0	13.4
	3H	13.1	13.7	13.5	14.2	14.6	13.1	13.7	13.5	14.2	14.6
	4H	13.5	14.1	13.9	14.5	14.9	13.5	14.1	13.9	14.5	14.9
	6H	13.8	14.3	14.3	14.8	15.3	13.8	14.3	14.3	14.8	15.3
	8H	14.0	14.4	14.4	14.9	15.3	14.0	14.4	14.4	14.9	15.3
	12H	14.0	14.4	14.5	14.9	15.4	14.0	14.4	14.5	14.9	15.4
8H	4H	13.6	14.0	14.1	14.5	15.0	13.6	14.0	14.1	14.5	15.0
	6H	14.0	14.4	14.6	14.9	15.4	14.0	14.4	14.6	14.9	15.4
	8H	14.2	14.5	14.8	15.1	15.6	14.2	14.5	14.8	15.1	15.6
	12H	14.4	14.6	14.9	15.1	15.7	14.4	14.6	14.9	15.1	15.7
12H	4H	13.6	14.0	14.1	14.4	14.9	13.6	14.0	14.1	14.4	14.9
	6H	14.0	14.4	14.6	14.8	15.4	14.0	14.4	14.6	14.8	15.4
	8H	14.3	14.5	14.8	15.0	15.6	14.3	14.5	14.8	15.0	15.6

Maximum UGR = 15.7

POLAR GRAPH



Maximum Candela = 7335.938 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.)