



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 2DR-L9-927-DIM1-UNV-OW-OF-GD-TD_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 13131414.03
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 30 AUG 2023
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836
 [LUMCAT] 2DR-L9-927-DIM1-UNV-OW-OF-GD-TD
 [LUMINAIRE] 2 INCH RND RECESSED LED DOWNLIGHT
 [MORE] WITH OPEN WIDE REFL & TOP DIFFUSE LENS
 [LAMP] LED
 [BALLAST] 0-10V LED DRIVER
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] Indoor, Downlight
 [_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	440
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	41
Total Luminaire Watts	10.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.22
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.21 ft (Diameter)
Luminous Width (90-270)	0.21 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	52696	52696	52696
55	17932	17932	17932
65	2494	2494	2494
75	715	715	715
85	225	225	225

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 2DR-L9-927-DIM1-UNV-OW-OF-GD-TD_.IES

CANDELA TABULATION

	<u>0</u>
0.0	244.235
0.5	244.288
1.0	244.396
1.5	244.531
2.0	244.747
2.5	245.070
3.0	245.393
3.5	245.851
4.0	246.363
4.5	247.010
5.0	247.738
5.5	248.600
6.0	249.516
6.5	250.514
7.0	251.591
7.5	252.723
8.0	253.882
8.5	255.068
9.0	256.254
9.5	257.412
10.0	258.544
10.5	259.649
11.0	260.727
11.5	261.805
12.0	262.856
12.5	263.853
13.0	264.850
13.5	265.793
14.0	266.629
14.5	267.356
15.0	267.949
15.5	268.407
16.0	268.704
16.5	268.919
17.0	269.000
17.5	268.946
18.0	268.758
18.5	268.380
19.0	267.868
19.5	267.302
20.0	266.629
20.5	265.847
21.0	264.904
21.5	263.799
22.0	262.452
22.5	260.889
23.0	259.083
23.5	257.008
24.0	254.637
24.5	251.969
25.0	248.924
25.5	245.582
26.0	241.890
26.5	237.848

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 2DR-L9-927-DIM1-UNV-OW-OF-GD-TD_.IES

CANDELA TABULATION - (Cont.)

27.0	233.482
27.5	228.820
28.0	223.915
28.5	218.741
29.0	213.459
29.5	208.070
30.0	202.626
30.5	197.209
31.0	191.874
31.5	186.753
32.0	181.795
32.5	177.160
33.0	172.794
33.5	168.752
34.0	165.087
34.5	161.745
35.0	158.781
35.5	156.194
36.0	153.876
36.5	151.828
37.0	149.996
37.5	148.325
38.0	146.762
38.5	145.199
39.0	143.636
39.5	142.046
40.0	140.402
40.5	138.623
41.0	136.764
41.5	134.797
42.0	132.722
42.5	130.512
43.0	128.194
43.5	125.742
44.0	123.182
44.5	120.487
45.0	117.738
45.5	114.909
46.0	112.025
46.5	109.061
47.0	106.016
47.5	102.889
48.0	99.656
48.5	96.260
49.0	92.622
49.5	88.634
50.0	84.268
50.5	79.525
51.0	74.405
51.5	69.015
52.0	63.464
52.5	57.939
53.0	52.496
53.5	47.214
54.0	42.121
54.5	37.243

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 2DR-L9-927-DIM1-UNV-OW-OF-GD-TD_.IES

CANDELA TABULATION - (Cont.)

55.0	32.500
55.5	27.946
56.0	23.720
56.5	19.885
57.0	16.625
57.5	14.002
58.0	11.989
58.5	10.472
59.0	9.313
59.5	8.408
60.0	7.664
60.5	7.020
61.0	6.446
61.5	5.931
62.0	5.462
62.5	5.031
63.0	4.635
63.5	4.269
64.0	3.932
64.5	3.619
65.0	3.331
65.5	3.064
66.0	2.813
66.5	2.584
67.0	2.374
67.5	2.180
68.0	2.002
68.5	1.838
69.0	1.687
69.5	1.547
70.0	1.420
70.5	1.302
71.0	1.194
71.5	1.094
72.0	1.002
72.5	0.919
73.0	0.841
73.5	0.768
74.0	0.703
74.5	0.641
75.0	0.585
75.5	0.534
76.0	0.485
76.5	0.442
77.0	0.402
77.5	0.364
78.0	0.329
78.5	0.299
79.0	0.269
79.5	0.243
80.0	0.218
80.5	0.194
81.0	0.175
81.5	0.156
82.0	0.140
82.5	0.124

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 2DR-L9-927-DIM1-UNV-OW-OF-GD-TD_.IES

CANDELA TABULATION - (Cont.)

83.0	0.110
83.5	0.094
84.0	0.084
84.5	0.073
85.0	0.062
85.5	0.054
86.0	0.046
86.5	0.040
87.0	0.032
87.5	0.027
88.0	0.024
88.5	0.019
89.0	0.016
89.5	0.013
90.0	0.011
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 2DR-L9-927-DIM1-UNV-OW-OF-GD-TD_.IES

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
123.0	0.000
123.5	0.000
124.0	0.000
124.5	0.000
125.0	0.000
125.5	0.000
126.0	0.000
126.5	0.000
127.0	0.000
127.5	0.000
128.0	0.000
128.5	0.000
129.0	0.000
129.5	0.000
130.0	0.000
130.5	0.000
131.0	0.000
131.5	0.000
132.0	0.000
132.5	0.000
133.0	0.000
133.5	0.000
134.0	0.000
134.5	0.000
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 2DR-L9-927-DIM1-UNV-OW-OF-GD-TD_.IES

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
149.5	0.000
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
154.0	0.000
154.5	0.000
155.0	0.000
155.5	0.000
156.0	0.000
156.5	0.000
157.0	0.000
157.5	0.000
158.0	0.000
158.5	0.000
159.0	0.000
159.5	0.000
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 2DR-L9-927-DIM1-UNV-OW-OF-GD-TD_.IES

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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 2DR-L9-927-DIM1-UNV-OW-OF-GD-TD_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	99.56	N.A.	22.60
0-30	211.48	N.A.	48.10
0-40	313.45	N.A.	71.30
0-60	435.42	N.A.	99.00
0-80	439.76	N.A.	100.00
0-90	439.85	N.A.	100.00
10-90	415.84	N.A.	94.50
20-40	213.89	N.A.	48.60
20-50	303.23	N.A.	68.90
40-70	125.62	N.A.	28.60
60-80	4.34	N.A.	1.00
70-80	0.70	N.A.	0.20
80-90	0.09	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	439.85	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	24.02
10-20	75.55
20-30	111.92
30-40	101.97
40-50	89.34
50-60	32.63
60-70	3.65
70-80	0.70
80-90	0.09
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 2DR-L9-927-DIM1-UNV-OW-OF-GD-TD_.IES

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	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	91	103	98	93	90	94	91	88	91	88	86	89	86	84	82
3	98	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	74
4	92	83	76	71	90	82	75	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	80	70	63	57	79	69	62	57	67	61	57	66	60	56	64	60	56	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45
9	67	55	48	43	65	55	48	43	54	47	43	53	47	43	52	47	43	41
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	39	38

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 2DR-L9-927-DIM1-UNV-OW-OF-GD-TD_.IES

UGR TABLE - CORRECTED

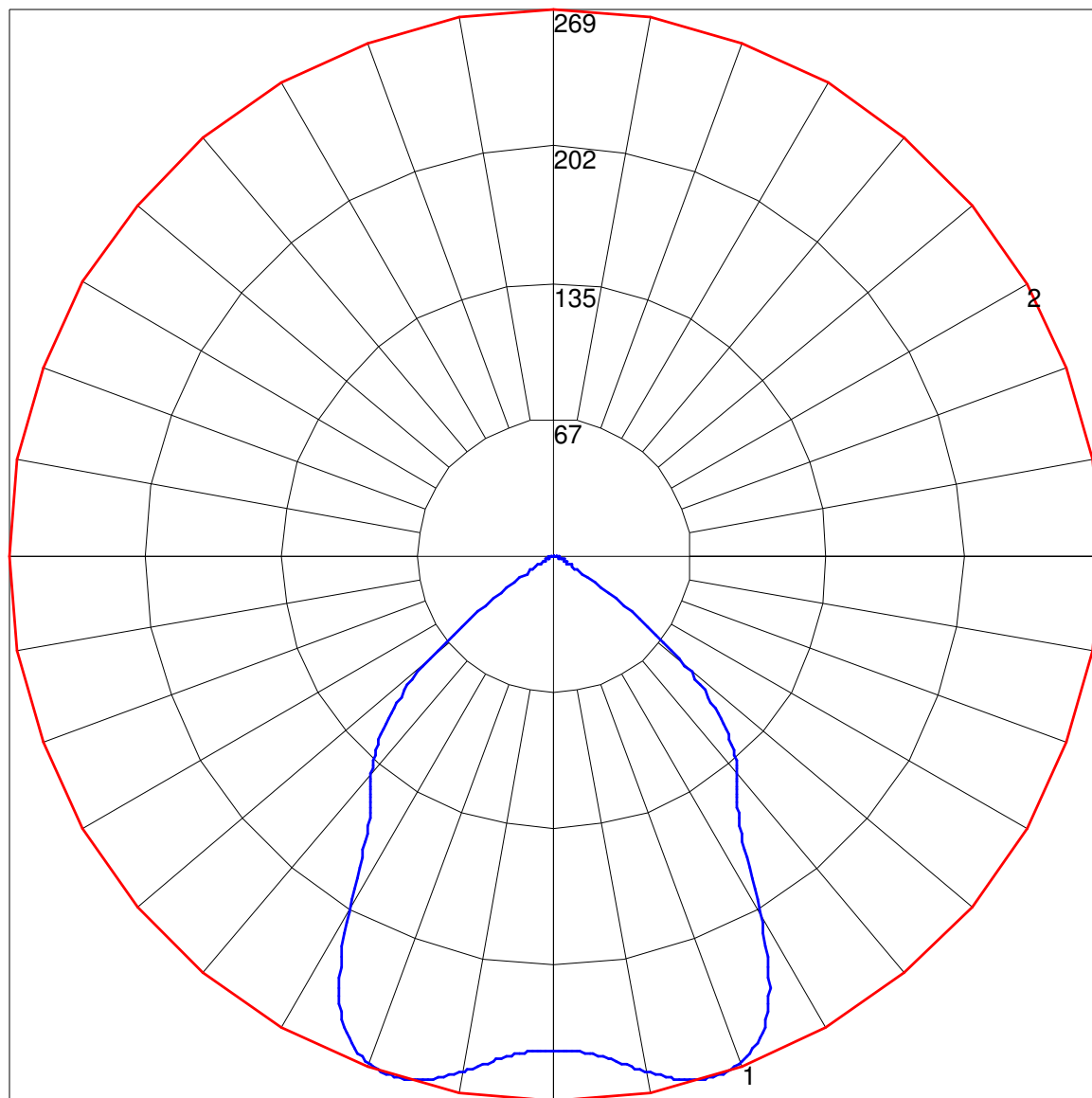
Reflectances

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	13.1	14.4	13.4	14.7	15.0	13.1	14.4	13.4	14.7	15.0
	3H	13.1	14.2	13.5	14.5	14.9	13.1	14.2	13.5	14.5	14.9
	4H	13.0	14.0	13.4	14.4	14.8	13.0	14.0	13.4	14.4	14.8
	6H	12.9	13.9	13.4	14.3	14.6	12.9	13.9	13.4	14.3	14.6
	8H	12.9	13.8	13.3	14.2	14.6	12.9	13.8	13.3	14.2	14.6
	12H	12.8	13.7	13.3	14.1	14.5	12.8	13.7	13.3	14.1	14.5
4H	2H	13.0	14.0	13.4	14.4	14.7	13.0	14.0	13.4	14.4	14.7
	3H	13.0	13.8	13.4	14.2	14.6	13.0	13.8	13.4	14.2	14.6
	4H	12.9	13.6	13.3	14.1	14.5	12.9	13.6	13.3	14.1	14.5
	6H	12.8	13.5	13.3	13.9	14.4	12.8	13.5	13.3	13.9	14.4
	8H	12.8	13.4	13.2	13.8	14.3	12.8	13.4	13.2	13.8	14.3
	12H	12.7	13.2	13.2	13.7	14.2	12.7	13.2	13.2	13.7	14.2
8H	4H	12.8	13.4	13.2	13.8	14.3	12.8	13.4	13.2	13.8	14.3
	6H	12.7	13.2	13.2	13.7	14.1	12.7	13.2	13.2	13.7	14.1
	8H	12.6	13.1	13.1	13.6	14.1	12.6	13.1	13.1	13.6	14.1
	12H	12.6	13.0	13.1	13.4	14.0	12.6	13.0	13.1	13.4	14.0
12H	4H	12.7	13.2	13.2	13.7	14.2	12.7	13.2	13.2	13.7	14.2
	6H	12.6	13.1	13.2	13.5	14.1	12.6	13.1	13.2	13.5	14.1
	8H	12.6	13.0	13.1	13.4	14.0	12.6	13.0	13.1	13.4	14.0

Maximum UGR = 15.0

POLAR GRAPH



Maximum Candela = 269 Located At Horizontal Angle = 0, Vertical Angle = 17
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (17) (Through Max. Cd.)