

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6LDR-L20-840-BL-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM 4792018053.05
[TESTLAB] UL, LLC
[ISSUE DATE] 2025-12-11
[TEST DATE] 11/11/2025
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] 6LDR-L20-840-BL-DIM-UNV
[LUMINAIRE] 4" recessed downlight with textured black finish reflector
[MORE] and top diffuser lens
[LAMP] LED
[BALLAST] 0-10V LED DRIVER

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	772
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	45
Total Luminaire Watts	17
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.00
Spacing Criterion (90-270)	1.00
Spacing Criterion (Diagonal)	0.94
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.50 ft (Diameter)
Luminous Width (90-270)	0.50 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	5442	5442	5442
55	705	705	705
65	245	245	245
75	106	106	106
85	70	70	70

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CANDELA TABULATION

	<u>0</u>
0.0	771.470
0.5	771.470
1.0	771.470
1.5	770.915
2.0	770.360
2.5	769.805
3.0	769.250
3.5	767.585
4.0	766.475
4.5	765.365
5.0	763.700
5.5	762.590
6.0	760.370
6.5	758.705
7.0	756.485
7.5	754.265
8.0	752.044
8.5	749.269
9.0	746.494
9.5	743.719
10.0	740.944
10.5	737.614
11.0	734.284
11.5	730.954
12.0	727.069
12.5	723.739
13.0	719.299
13.5	715.969
14.0	711.528
14.5	707.643
15.0	703.203
15.5	698.763
16.0	694.878
16.5	690.438
17.0	687.108
17.5	682.668
18.0	678.228
18.5	673.787
19.0	668.237
19.5	662.132
20.0	656.027
20.5	649.922
21.0	642.707
21.5	635.491
22.0	627.166
22.5	618.841
23.0	609.406
23.5	599.416
24.0	588.315
24.5	576.660
25.0	565.005
25.5	552.794
26.0	540.029
26.5	526.875

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CANDELA TABULATION - (Cont.)

27.0	513.388
27.5	499.513
28.0	485.305
28.5	470.874
29.0	456.388
29.5	441.736
30.0	427.139
30.5	412.431
31.0	397.668
31.5	382.960
32.0	368.363
32.5	353.877
33.0	339.558
33.5	325.516
34.0	311.696
34.5	297.987
35.0	284.611
35.5	271.458
36.0	258.526
36.5	245.705
37.0	233.217
37.5	220.896
38.0	208.852
38.5	197.030
39.0	185.375
39.5	173.886
40.0	162.730
40.5	151.852
41.0	141.251
41.5	130.983
42.0	121.049
42.5	111.447
43.0	102.345
43.5	93.631
44.0	85.361
44.5	77.591
45.0	70.265
45.5	63.383
46.0	57.000
46.5	51.117
47.0	45.733
47.5	40.794
48.0	36.298
48.5	32.191
49.0	28.528
49.5	25.253
50.0	22.312
50.5	19.703
51.0	17.427
51.5	15.485
52.0	13.764
52.5	12.266
53.0	10.989
53.5	9.879
54.0	8.936
54.5	8.103

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CANDELA TABULATION - (Cont.)

55.0	7.382
55.5	6.827
56.0	6.327
56.5	5.939
57.0	5.606
57.5	5.273
58.0	4.940
58.5	4.607
59.0	4.329
59.5	3.996
60.0	3.774
60.5	3.497
61.0	3.275
61.5	3.053
62.0	2.831
62.5	2.664
63.0	2.498
63.5	2.331
64.0	2.165
64.5	2.054
65.0	1.887
65.5	1.776
66.0	1.665
66.5	1.554
67.0	1.443
67.5	1.388
68.0	1.277
68.5	1.221
69.0	1.110
69.5	1.055
70.0	0.999
70.5	0.944
71.0	0.888
71.5	0.833
72.0	0.777
72.5	0.722
73.0	0.666
73.5	0.666
74.0	0.611
74.5	0.555
75.0	0.500
75.5	0.500
76.0	0.444
76.5	0.444
77.0	0.389
77.5	0.389
78.0	0.333
78.5	0.333
79.0	0.333
79.5	0.278
80.0	0.278
80.5	0.222
81.0	0.222
81.5	0.222
82.0	0.222
82.5	0.167

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CANDELA TABULATION - (Cont.)

83.0	0.167
83.5	0.167
84.0	0.111
84.5	0.111
85.0	0.111
85.5	0.111
86.0	0.111
86.5	0.056
87.0	0.056
87.5	0.056
88.0	0.056
88.5	0.056
89.0	0.056
89.5	0.056
90.0	0.000
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
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
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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

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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
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

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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	269.99	N.A.	35.00
0-30	524.47	N.A.	68.00
0-40	702.08	N.A.	91.00
0-60	768.98	N.A.	99.60
0-80	771.60	N.A.	100.00
0-90	771.73	N.A.	100.00
10-90	699.55	N.A.	90.60
20-40	432.09	N.A.	56.00
20-50	490.85	N.A.	63.60
40-70	68.93	N.A.	8.90
60-80	2.61	N.A.	0.30
70-80	0.59	N.A.	0.10
80-90	0.13	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	771.73	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	72.18
10-20	197.81
20-30	254.48
30-40	177.61
40-50	58.76
50-60	8.14
60-70	2.02
70-80	0.59
80-90	0.13
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

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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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	86
3	102	95	90	86	100	94	89	86	91	87	84	89	86	83	87	84	82	80
4	97	89	83	79	95	88	83	78	86	81	78	84	80	77	82	78	76	74
5	92	83	77	73	90	82	76	72	80	75	72	79	74	71	77	73	70	69
6	87	78	72	67	85	77	71	67	75	70	66	74	69	66	73	69	66	64
7	82	73	67	62	81	72	66	62	71	66	62	70	65	61	68	64	61	60
8	78	68	62	58	77	68	62	58	67	61	58	66	61	57	65	60	57	56
9	74	64	58	54	73	64	58	54	63	58	54	62	57	54	61	57	54	52
10	71	61	55	51	70	60	55	51	59	54	51	59	54	50	58	53	50	49

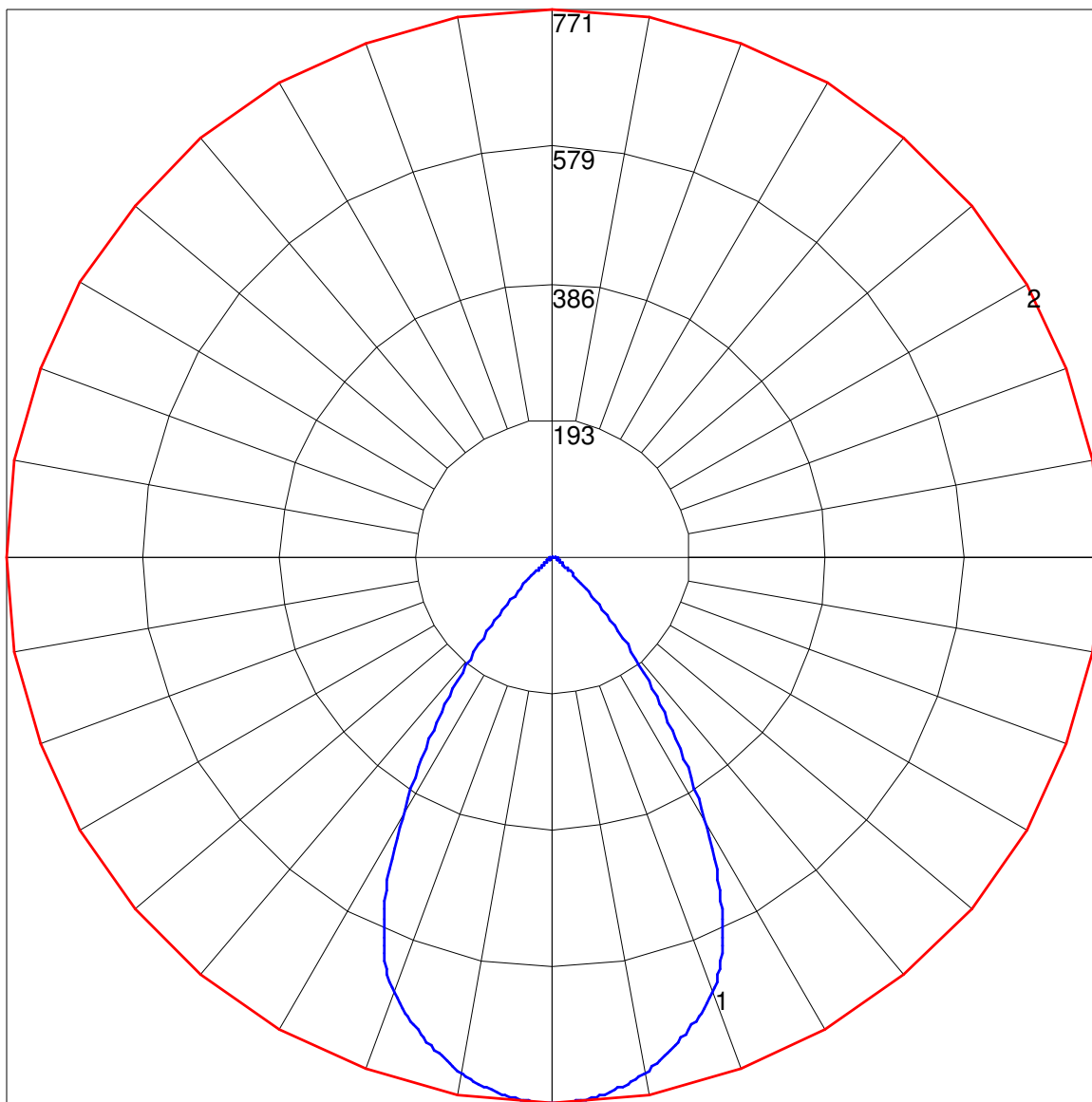
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UGR TABLE - CORRECTED

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	0.0	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.1	0.4
	3H	0.0	0.0	0.0	0.2	0.5	0.0	0.0	0.0	0.2	0.5
	4H	0.0	0.0	0.0	0.1	0.5	0.0	0.0	0.0	0.1	0.5
	6H	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.4
	8H	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3
	12H	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3
4H	2H	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3
	3H	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.4
	4H	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.4
	6H	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.4
	8H	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3
	12H	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
8H	4H	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
	6H	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
	8H	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
	12H	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
12H	4H	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
	6H	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
	8H	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1

Maximum UGR = 0.5

POLAR GRAPH



Maximum Candela = 771.47 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.)