

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 6LDR-L20-840-CS-DIM-UNV\_.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] GEN FROM 4792018053.03  
[TESTLAB] UL, LLC  
[ISSUE DATE] 2025-12-11  
[TEST DATE] 11/12/2025  
[MANUFACT] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
[LUMCAT] 6LDR-L20-840-CS-DIM-UNV  
[LUMINAIRE] 6" recessed downlight with clear semi-specular finish refl  
[MORE] ector 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	2101
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	124
Total Luminaire Watts	17
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.86
Spacing Criterion (90-270)	0.86
Spacing Criterion (Diagonal)	0.90
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	21023	21023	21023
55	2303	2303	2303
65	255	255	255
75	94	94	94
85	80	80	80

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CANDELA TABULATION

	<u>0</u>
0.0	2318.872
0.5	2318.872
1.0	2318.872
1.5	2320.141
2.0	2321.410
2.5	2322.680
3.0	2323.949
3.5	2324.583
4.0	2323.314
4.5	2320.776
5.0	2315.699
5.5	2308.718
6.0	2298.564
6.5	2287.141
7.0	2273.180
7.5	2257.949
8.0	2237.642
8.5	2217.969
9.0	2195.123
9.5	2169.103
10.0	2143.084
10.5	2114.527
11.0	2084.065
11.5	2051.066
12.0	2020.604
12.5	1987.604
13.0	1952.701
13.5	1924.778
14.0	1892.413
14.5	1861.317
15.0	1833.394
15.5	1807.375
16.0	1778.183
16.5	1756.606
17.0	1733.125
17.5	1709.644
18.0	1688.702
18.5	1665.856
19.0	1645.549
19.5	1625.876
20.0	1606.203
20.5	1586.530
21.0	1566.857
21.5	1547.184
22.0	1527.511
22.5	1505.934
23.0	1485.626
23.5	1464.050
24.0	1441.838
24.5	1418.992
25.0	1394.877
25.5	1369.492
26.0	1343.473
26.5	1315.550

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**CANDELA TABULATION - (Cont.)**

27.0	1286.993
27.5	1257.801
28.0	1226.705
28.5	1195.609
29.0	1163.244
29.5	1131.513
30.0	1097.879
30.5	1064.879
31.0	1031.244
31.5	998.245
32.0	964.610
32.5	930.976
33.0	897.976
33.5	865.611
34.0	832.611
34.5	800.880
35.0	772.323
35.5	741.861
36.0	711.400
36.5	681.573
37.0	651.746
37.5	622.364
38.0	593.679
38.5	565.503
39.0	537.961
39.5	511.053
40.0	484.780
40.5	459.459
41.0	434.709
41.5	410.975
42.0	388.065
42.5	366.171
43.0	345.229
43.5	325.366
44.0	306.327
44.5	288.431
45.0	271.424
45.5	255.241
46.0	239.883
46.5	225.224
47.0	211.199
47.5	197.745
48.0	184.799
48.5	172.234
49.0	159.859
49.5	147.738
50.0	135.743
50.5	123.813
51.0	111.946
51.5	99.951
52.0	88.021
52.5	75.900
53.0	63.905
53.5	52.355
54.0	41.631
54.5	32.175

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**CANDELA TABULATION - (Cont.)**

55.0	24.115
55.5	17.896
56.0	13.517
56.5	10.598
57.0	8.758
57.5	7.488
58.0	6.537
58.5	5.838
59.0	5.267
59.5	4.760
60.0	4.315
60.5	3.998
61.0	3.617
61.5	3.363
62.0	3.110
62.5	2.856
63.0	2.602
63.5	2.412
64.0	2.285
64.5	2.094
65.0	1.967
65.5	1.777
66.0	1.713
66.5	1.587
67.0	1.460
67.5	1.333
68.0	1.269
68.5	1.142
69.0	1.079
69.5	1.015
70.0	0.952
70.5	0.888
71.0	0.825
71.5	0.762
72.0	0.698
72.5	0.635
73.0	0.571
73.5	0.571
74.0	0.508
74.5	0.508
75.0	0.444
75.5	0.444
76.0	0.381
76.5	0.381
77.0	0.317
77.5	0.317
78.0	0.317
78.5	0.254
79.0	0.254
79.5	0.254
80.0	0.190
80.5	0.190
81.0	0.190
81.5	0.190
82.0	0.190
82.5	0.127

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CANDELA TABULATION - (Cont.)

83.0	0.127
83.5	0.127
84.0	0.127
84.5	0.127
85.0	0.127
85.5	0.127
86.0	0.063
86.5	0.063
87.0	0.063
87.5	0.063
88.0	0.063
88.5	0.063
89.0	0.063
89.5	0.063
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
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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	731.75	N.A.	34.80
0-30	1362.84	N.A.	64.90
0-40	1843.8	N.A.	87.80
0-60	2098.21	N.A.	99.90
0-80	2100.86	N.A.	100.00
0-90	2100.98	N.A.	100.00
10-90	1885.35	N.A.	89.70
20-40	1112.05	N.A.	52.90
20-50	1328.92	N.A.	63.30
40-70	256.54	N.A.	12.20
60-80	2.65	N.A.	0.10
70-80	0.52	N.A.	0.00
80-90	0.12	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	2100.98	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	215.63
10-20	516.12
20-30	631.09
30-40	480.96
40-50	216.87
50-60	37.54
60-70	2.13
70-80	0.52
80-90	0.12
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	110	108	106	111	108	106	104	104	102	101	101	99	98	97	96	95	93
2	107	102	98	95	105	101	97	94	97	94	92	94	92	90	92	90	88	86
3	102	95	90	86	100	94	89	85	91	87	84	89	85	82	86	84	81	80
4	96	88	83	78	94	87	82	78	85	81	77	83	79	76	81	78	75	74
5	91	82	76	72	89	82	76	72	80	75	71	78	74	70	76	73	70	68
6	86	77	71	66	85	76	70	66	75	70	66	73	69	65	72	68	65	63
7	82	72	66	62	80	71	66	61	70	65	61	69	64	61	68	64	60	59
8	78	68	61	57	76	67	61	57	66	61	57	65	60	57	64	60	56	55
9	74	64	58	53	73	63	57	53	62	57	53	61	56	53	60	56	53	51
10	70	60	54	50	69	60	54	50	59	53	50	58	53	50	57	53	50	48

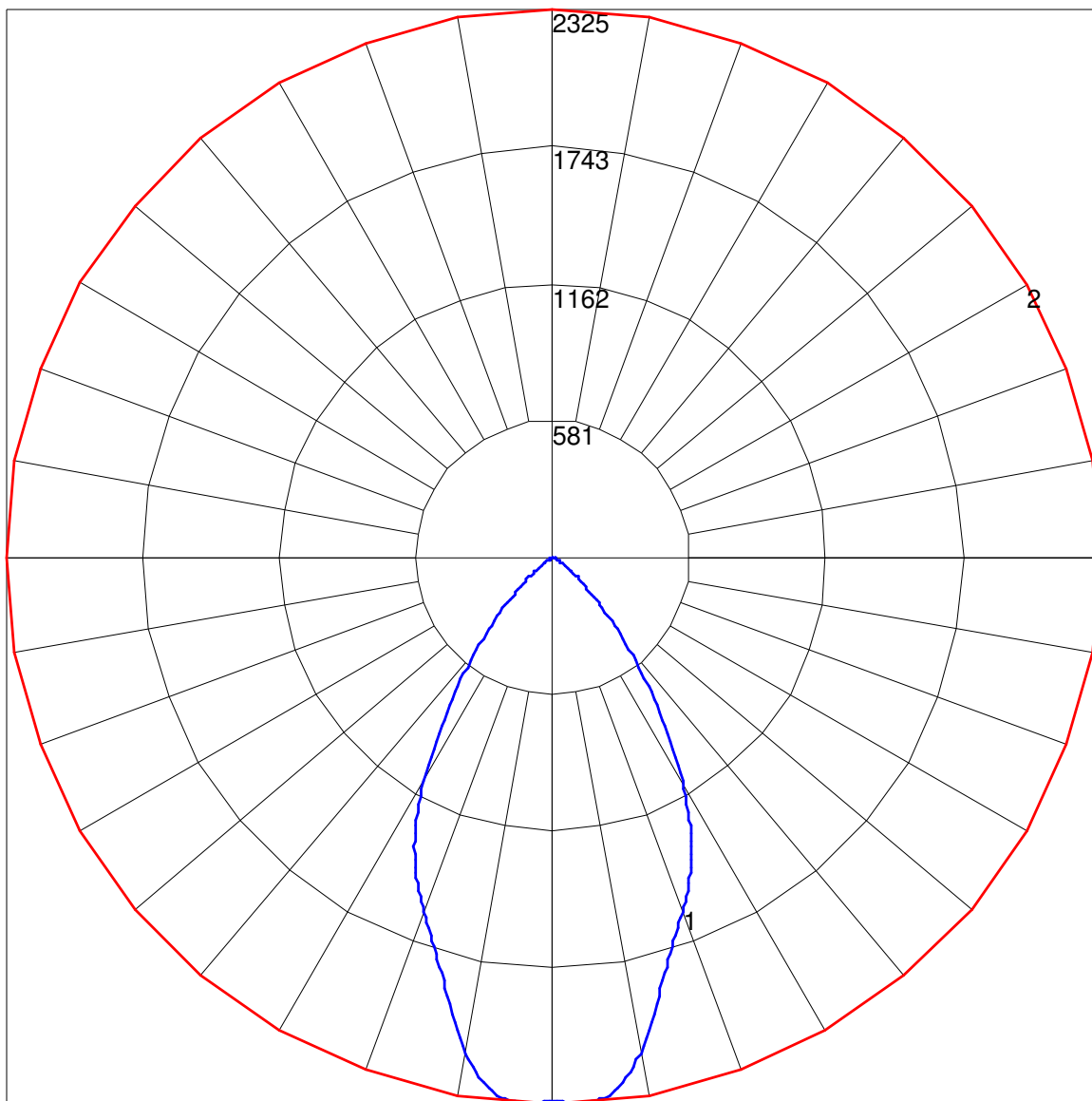
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**UGR TABLE - CORRECTED**

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	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	3H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	4H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	6H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	8H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	12H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
4H	2H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	3H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	4H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	6H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	8H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	12H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
8H	4H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	6H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	8H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	12H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
12H	4H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	6H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	8H	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6

Maximum UGR = 2.6

POLAR GRAPH



Maximum Candela = 2324.583 Located At Horizontal Angle = 0, Vertical Angle = 3.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (3.5) (Through Max. Cd.)