



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CS-L15-835-XXX-DIM-UNV-RW-WH-AD.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM 13257153.17  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUEDATE] 02/08/2021  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] 4CS-L15-835-xxx-DIM-UNV-RW-WH-AD  
 [LUMINAIRE] Square Aluminum housing, optics, and trim enclosure  
 [LAMP] One white LED  
 [\_SEARCH\_SOURCETYPE] LED  
 [\_SEARCH\_APPLICATION] Indoor, Downlight  
 [\_SEARCH\_MOUNTING] Surface, Suspended, Wall

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1269
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	73
Total Luminaire Watts	17.295
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.82
Spacing Criterion (90-270)	0.82
Spacing Criterion (Diagonal)	0.88
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.21 ft
Luminous Width (90-270)	0.21 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	79901	83803	79760
55	67864	70420	67647
65	56345	59403	55757
75	26987	30924	26987
85	13975	13975	14260

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**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	1034.0	1034.0	1034.0	1034.0	1034.0
0.5	1036.0	1034.0	1033.0	1033.0	1033.0
1.0	1036.0	1033.0	1033.0	1032.0	1032.0
1.5	1034.0	1032.0	1031.0	1031.0	1031.0
2.0	1032.0	1030.0	1029.0	1029.0	1029.0
2.5	1030.0	1027.0	1027.0	1026.0	1026.0
3.0	1027.0	1024.0	1023.0	1023.0	1023.0
3.5	1022.0	1020.0	1019.0	1019.0	1020.0
4.0	1018.0	1016.0	1015.0	1015.0	1015.0
4.5	1013.0	1011.0	1011.0	1010.0	1010.0
5.0	1008.0	1006.0	1005.0	1005.0	1005.0
5.5	1003.0	999.9	999.3	999.1	999.3
6.0	996.6	993.9	993.3	992.8	993.2
6.5	989.8	987.1	987.0	986.7	986.6
7.0	982.5	980.3	979.8	979.3	979.9
7.5	975.6	973.3	972.7	972.6	973.1
8.0	967.4	965.7	965.1	964.7	965.0
8.5	959.9	957.9	957.0	956.9	957.1
9.0	951.8	949.8	948.6	948.6	948.7
9.5	943.2	941.3	940.1	939.8	940.1
10.0	934.7	932.1	931.5	930.7	931.6
10.5	925.8	922.6	922.0	921.8	921.7
11.0	915.9	912.7	912.4	911.8	912.3
11.5	905.5	902.8	902.3	901.7	902.8
12.0	894.8	892.6	892.3	891.7	892.0
12.5	884.9	881.9	881.4	881.0	881.6
13.0	874.2	871.2	870.9	870.1	871.0
13.5	862.5	860.0	859.8	859.5	859.5
14.0	851.2	848.7	848.5	847.9	847.9
14.5	839.4	836.7	836.8	836.1	836.3
15.0	827.2	824.7	824.5	823.9	824.3
15.5	814.7	812.5	812.3	811.7	811.6
16.0	802.2	800.2	799.6	799.1	799.4
16.5	789.5	787.5	787.6	787.0	787.0
17.0	776.5	775.2	774.7	774.3	774.4
17.5	763.6	762.1	761.9	761.4	761.3
18.0	750.6	749.1	748.9	748.5	748.3
18.5	737.4	735.9	735.8	735.4	735.4
19.0	724.3	722.8	722.7	722.2	722.2
19.5	711.3	709.6	709.7	709.1	709.2
20.0	698.0	696.5	696.6	695.8	696.0
20.5	684.9	683.2	683.5	682.5	682.8
21.0	671.7	670.0	670.4	669.4	669.5
21.5	658.6	656.9	657.3	656.2	656.2
22.0	645.6	643.8	644.1	643.0	643.1
22.5	632.6	630.7	631.0	630.0	630.1
23.0	619.9	617.8	618.1	617.1	617.1
23.5	607.0	605.0	605.3	604.3	604.2
24.0	594.4	592.6	592.7	591.6	591.4
24.5	582.0	580.1	580.4	579.1	578.9
25.0	569.5	567.9	568.0	566.7	566.5
25.5	557.3	555.8	555.9	554.7	554.2
26.0	545.2	543.8	544.0	542.7	542.2
26.5	533.1	532.0	532.3	530.8	530.3

**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

27.0	521.4	520.4	520.6	519.2	518.6
27.5	509.8	509.0	509.1	507.7	507.1
28.0	498.1	497.6	497.7	496.2	495.5
28.5	486.7	486.4	486.5	484.7	484.3
29.0	475.7	475.4	475.6	473.8	473.3
29.5	465.0	464.6	464.9	462.8	462.5
30.0	454.0	453.8	454.2	452.2	451.7
30.5	443.5	443.2	443.6	441.6	441.1
31.0	433.0	432.8	433.1	431.1	430.7
31.5	422.8	422.6	423.0	421.0	420.4
32.0	412.8	412.7	413.1	411.1	410.2
32.5	402.7	403.1	403.4	401.5	400.1
33.0	392.7	393.8	394.2	392.1	390.2
33.5	382.9	384.7	385.0	382.9	380.6
34.0	373.4	375.8	376.3	374.0	371.3
34.5	363.8	367.1	367.8	365.2	362.0
35.0	354.9	358.5	359.6	356.9	352.9
35.5	346.2	350.0	351.7	348.6	344.3
36.0	337.7	341.6	344.2	340.5	336.1
36.5	329.5	333.6	336.8	332.6	327.9
37.0	321.7	325.8	329.7	324.8	320.0
37.5	314.0	318.3	322.8	317.3	312.6
38.0	306.5	311.0	316.1	310.0	305.3
38.5	299.5	303.9	309.6	303.0	298.3
39.0	292.5	297.0	303.3	296.1	291.5
39.5	285.9	290.4	297.2	289.6	284.9
40.0	279.5	283.9	291.4	283.3	278.6
40.5	273.3	277.7	285.4	277.0	272.5
41.0	267.3	271.7	279.8	271.1	266.7
41.5	261.6	266.0	274.3	265.4	261.0
42.0	256.2	260.5	268.9	260.0	255.5
42.5	250.9	255.2	263.6	254.7	250.3
43.0	245.8	250.1	258.3	249.7	245.2
43.5	240.9	245.1	253.2	244.8	240.4
44.0	236.2	240.4	248.1	240.1	235.7
44.5	231.7	235.8	243.2	235.6	231.2
45.0	227.3	231.5	238.4	231.2	226.9
45.5	223.1	227.1	233.8	227.0	222.7
46.0	219.0	223.0	229.3	222.9	218.6
46.5	214.8	218.9	224.9	218.8	214.5
47.0	210.9	214.9	220.5	214.7	210.4
47.5	206.9	210.9	216.3	210.8	206.6
48.0	203.1	207.0	212.1	206.9	202.7
48.5	199.3	203.3	208.1	203.1	198.9
49.0	195.6	199.6	204.1	199.3	195.3
49.5	192.0	195.9	200.2	195.8	191.7
50.0	188.5	192.4	196.5	192.2	188.2
50.5	185.1	189.0	192.8	188.7	184.7
51.0	181.7	185.6	189.3	185.4	181.4
51.5	178.4	182.3	185.7	182.1	178.2
52.0	175.1	179.1	182.3	178.9	175.0
52.5	172.1	175.9	178.9	175.7	171.8
53.0	168.8	172.8	175.6	172.4	168.6
53.5	165.7	169.6	172.2	169.5	165.5
54.0	162.6	166.6	168.9	166.5	162.4
54.5	159.6	163.5	165.7	163.3	159.2

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**CANDELA TABULATION - (Cont.)**

55.0	156.6	160.5	162.5	160.4	156.1
55.5	153.6	157.5	159.3	157.3	153.1
56.0	150.5	154.6	156.2	154.3	149.9
56.5	147.5	151.5	153.0	151.3	146.8
57.0	144.6	148.5	150.0	148.3	143.9
57.5	141.6	145.6	146.8	145.3	140.9
58.0	138.5	142.6	143.8	142.3	137.8
58.5	135.5	139.5	140.7	139.2	134.7
59.0	132.4	136.6	137.6	136.3	131.8
59.5	129.4	133.6	134.7	133.3	128.7
60.0	126.4	130.7	131.6	130.2	125.7
60.5	123.4	127.6	128.5	127.1	122.7
61.0	120.5	124.6	125.6	124.0	119.6
61.5	117.4	121.6	122.6	121.0	116.5
62.0	114.5	118.5	119.5	118.0	113.7
62.5	111.5	115.5	116.5	114.8	110.5
63.0	108.5	112.3	113.5	111.7	107.5
63.5	105.3	109.3	110.4	108.6	104.4
64.0	102.3	106.0	107.3	105.5	101.2
64.5	99.0	102.8	104.1	102.2	98.0
65.0	95.8	99.6	101.0	98.9	94.8
65.5	92.7	96.3	97.7	95.6	91.3
66.0	89.5	93.0	94.4	92.3	88.3
66.5	86.2	89.7	91.2	89.0	84.9
67.0	82.8	86.3	87.8	85.6	81.6
67.5	79.6	82.8	84.4	82.2	78.1
68.0	76.1	79.5	81.0	78.7	74.8
68.5	72.7	76.1	77.6	75.3	71.3
69.0	69.2	72.6	74.0	71.7	67.8
69.5	65.8	69.0	70.5	68.2	64.4
70.0	62.2	65.5	66.9	64.6	60.9
70.5	58.6	61.9	63.3	61.2	57.5
71.0	55.0	58.3	59.6	57.5	54.0
71.5	51.5	54.7	56.1	53.9	50.6
72.0	48.0	51.1	52.4	50.4	47.1
72.5	44.5	47.5	48.9	46.9	43.8
73.0	41.1	44.0	45.3	43.4	40.5
73.5	37.7	40.6	41.9	40.1	37.3
74.0	34.4	37.2	38.5	36.8	34.1
74.5	31.1	33.9	35.3	33.7	31.1
75.0	28.1	30.8	32.2	30.7	28.1
75.5	25.3	27.9	29.2	27.8	25.2
76.0	22.5	25.2	26.4	25.0	22.6
76.5	19.8	22.6	23.9	22.4	20.6
77.0	18.0	20.2	21.5	20.1	18.8
77.5	16.4	18.1	19.5	18.3	17.1
78.0	15.4	16.5	17.6	16.7	15.5
78.5	14.5	15.1	16.0	15.2	14.4
79.0	13.7	14.0	14.6	13.8	13.5
79.5	12.9	13.1	13.4	12.9	12.7
80.0	12.1	12.3	12.3	12.1	12.0
80.5	11.2	11.5	11.3	11.3	11.1
81.0	10.5	10.7	10.4	10.5	10.4
81.5	9.7	9.9	9.6	9.7	9.6
82.0	8.9	9.2	8.9	9.0	8.9
82.5	8.2	8.5	8.1	8.3	8.2

**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

83.0	7.5	7.7	7.5	7.6	7.5
83.5	6.8	7.0	6.8	6.9	6.9
84.0	6.2	6.4	6.1	6.3	6.2
84.5	5.5	5.7	5.4	5.6	5.5
85.0	4.9	5.1	4.9	5.0	5.0
85.5	4.3	4.4	4.3	4.4	4.4
86.0	3.7	3.9	3.7	3.8	3.8
86.5	3.2	3.3	3.2	3.3	3.3
87.0	2.6	2.7	2.6	2.7	2.7
87.5	2.1	2.2	2.1	2.2	2.2
88.0	1.6	1.7	1.6	1.7	1.8
88.5	1.2	1.2	1.2	1.3	1.3
89.0	0.7	0.8	0.8	0.9	0.9
89.5	0.4	0.5	0.5	0.6	0.7
90.0	0.0	0.0	0.0	0.0	0.0
90.5	0.0	0.0	0.0	0.0	0.0
91.0	0.0	0.0	0.0	0.0	0.0
91.5	0.0	0.0	0.0	0.0	0.0
92.0	0.0	0.0	0.0	0.0	0.0
92.5	0.0	0.0	0.0	0.0	0.0
93.0	0.0	0.0	0.0	0.0	0.0
93.5	0.0	0.0	0.0	0.0	0.0
94.0	0.0	0.0	0.0	0.0	0.0
94.5	0.0	0.0	0.0	0.0	0.0
95.0	0.0	0.0	0.0	0.0	0.0
95.5	0.0	0.0	0.0	0.0	0.0
96.0	0.0	0.0	0.0	0.0	0.0
96.5	0.0	0.0	0.0	0.0	0.0
97.0	0.0	0.0	0.0	0.0	0.0
97.5	0.0	0.0	0.0	0.0	0.0
98.0	0.0	0.0	0.0	0.0	0.0
98.5	0.0	0.0	0.0	0.0	0.0
99.0	0.0	0.0	0.0	0.0	0.0
99.5	0.0	0.0	0.0	0.0	0.0
100.0	0.0	0.0	0.0	0.0	0.0
100.5	0.0	0.0	0.0	0.0	0.0
101.0	0.0	0.0	0.0	0.0	0.0
101.5	0.0	0.0	0.0	0.0	0.0
102.0	0.0	0.0	0.0	0.0	0.0
102.5	0.0	0.0	0.0	0.0	0.0
103.0	0.0	0.0	0.0	0.0	0.0
103.5	0.0	0.0	0.0	0.0	0.0
104.0	0.0	0.0	0.0	0.0	0.0
104.5	0.0	0.0	0.0	0.0	0.0
105.0	0.0	0.0	0.0	0.0	0.0
105.5	0.0	0.0	0.0	0.0	0.0
106.0	0.0	0.0	0.0	0.0	0.0
106.5	0.0	0.0	0.0	0.0	0.0
107.0	0.0	0.0	0.0	0.0	0.0
107.5	0.0	0.0	0.0	0.0	0.0
108.0	0.0	0.0	0.0	0.0	0.0
108.5	0.0	0.0	0.0	0.0	0.0
109.0	0.0	0.0	0.0	0.0	0.0
109.5	0.0	0.0	0.0	0.0	0.0
110.0	0.0	0.0	0.0	0.0	0.0
110.5	0.0	0.0	0.0	0.0	0.0

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CANDELA TABULATION - (Cont.)

111.0	0.0	0.0	0.0	0.0	0.0
111.5	0.0	0.0	0.0	0.0	0.0
112.0	0.0	0.0	0.0	0.0	0.0
112.5	0.0	0.0	0.0	0.0	0.0
113.0	0.0	0.0	0.0	0.0	0.0
113.5	0.0	0.0	0.0	0.0	0.0
114.0	0.0	0.0	0.0	0.0	0.0
114.5	0.0	0.0	0.0	0.0	0.0
115.0	0.0	0.0	0.0	0.0	0.0
115.5	0.0	0.0	0.0	0.0	0.0
116.0	0.0	0.0	0.0	0.0	0.0
116.5	0.0	0.0	0.0	0.0	0.0
117.0	0.0	0.0	0.0	0.0	0.0
117.5	0.0	0.0	0.0	0.0	0.0
118.0	0.0	0.0	0.0	0.0	0.0
118.5	0.0	0.0	0.0	0.0	0.0
119.0	0.0	0.0	0.0	0.0	0.0
119.5	0.0	0.0	0.0	0.0	0.0
120.0	0.0	0.0	0.0	0.0	0.0
120.5	0.0	0.0	0.0	0.0	0.0
121.0	0.0	0.0	0.0	0.0	0.0
121.5	0.0	0.0	0.0	0.0	0.0
122.0	0.0	0.0	0.0	0.0	0.0
122.5	0.0	0.0	0.0	0.0	0.0
123.0	0.0	0.0	0.0	0.0	0.0
123.5	0.0	0.0	0.0	0.0	0.0
124.0	0.0	0.0	0.0	0.0	0.0
124.5	0.0	0.0	0.0	0.0	0.0
125.0	0.0	0.0	0.0	0.0	0.0
125.5	0.0	0.0	0.0	0.0	0.0
126.0	0.0	0.0	0.0	0.0	0.0
126.5	0.0	0.0	0.0	0.0	0.0
127.0	0.0	0.0	0.0	0.0	0.0
127.5	0.0	0.0	0.0	0.0	0.0
128.0	0.0	0.0	0.0	0.0	0.0
128.5	0.0	0.0	0.0	0.0	0.0
129.0	0.0	0.0	0.0	0.0	0.0
129.5	0.0	0.0	0.0	0.0	0.0
130.0	0.0	0.0	0.0	0.0	0.0
130.5	0.0	0.0	0.0	0.0	0.0
131.0	0.0	0.0	0.0	0.0	0.0
131.5	0.0	0.0	0.0	0.0	0.0
132.0	0.0	0.0	0.0	0.0	0.0
132.5	0.0	0.0	0.0	0.0	0.0
133.0	0.0	0.0	0.0	0.0	0.0
133.5	0.0	0.0	0.0	0.0	0.0
134.0	0.0	0.0	0.0	0.0	0.0
134.5	0.0	0.0	0.0	0.0	0.0
135.0	0.0	0.0	0.0	0.0	0.0
135.5	0.0	0.0	0.0	0.0	0.0
136.0	0.0	0.0	0.0	0.0	0.0
136.5	0.0	0.0	0.0	0.0	0.0
137.0	0.0	0.0	0.0	0.0	0.0
137.5	0.0	0.0	0.0	0.0	0.0
138.0	0.0	0.0	0.0	0.0	0.0
138.5	0.0	0.0	0.0	0.0	0.0

IES INDOOR REPORT  
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CANDELA TABULATION - (Cont.)

139.0	0.0	0.0	0.0	0.0	0.0
139.5	0.0	0.0	0.0	0.0	0.0
140.0	0.0	0.0	0.0	0.0	0.0
140.5	0.0	0.0	0.0	0.0	0.0
141.0	0.0	0.0	0.0	0.0	0.0
141.5	0.0	0.0	0.0	0.0	0.0
142.0	0.0	0.0	0.0	0.0	0.0
142.5	0.0	0.0	0.0	0.0	0.0
143.0	0.0	0.0	0.0	0.0	0.0
143.5	0.0	0.0	0.0	0.0	0.0
144.0	0.0	0.0	0.0	0.0	0.0
144.5	0.0	0.0	0.0	0.0	0.0
145.0	0.0	0.0	0.0	0.0	0.0
145.5	0.0	0.0	0.0	0.0	0.0
146.0	0.0	0.0	0.0	0.0	0.0
146.5	0.0	0.0	0.0	0.0	0.0
147.0	0.0	0.0	0.0	0.0	0.0
147.5	0.0	0.0	0.0	0.0	0.0
148.0	0.0	0.0	0.0	0.0	0.0
148.5	0.0	0.0	0.0	0.0	0.0
149.0	0.0	0.0	0.0	0.0	0.0
149.5	0.0	0.0	0.0	0.0	0.0
150.0	0.0	0.0	0.0	0.0	0.0
150.5	0.0	0.0	0.0	0.0	0.0
151.0	0.0	0.0	0.0	0.0	0.0
151.5	0.0	0.0	0.0	0.0	0.0
152.0	0.0	0.0	0.0	0.0	0.0
152.5	0.0	0.0	0.0	0.0	0.0
153.0	0.0	0.0	0.0	0.0	0.0
153.5	0.0	0.0	0.0	0.0	0.0
154.0	0.0	0.0	0.0	0.0	0.0
154.5	0.0	0.0	0.0	0.0	0.0
155.0	0.0	0.0	0.0	0.0	0.0
155.5	0.0	0.0	0.0	0.0	0.0
156.0	0.0	0.0	0.0	0.0	0.0
156.5	0.0	0.0	0.0	0.0	0.0
157.0	0.0	0.0	0.0	0.0	0.0
157.5	0.0	0.0	0.0	0.0	0.0
158.0	0.0	0.0	0.0	0.0	0.0
158.5	0.0	0.0	0.0	0.0	0.0
159.0	0.0	0.0	0.0	0.0	0.0
159.5	0.0	0.0	0.0	0.0	0.0
160.0	0.0	0.0	0.0	0.0	0.0
160.5	0.0	0.0	0.0	0.0	0.0
161.0	0.0	0.0	0.0	0.0	0.0
161.5	0.0	0.0	0.0	0.0	0.0
162.0	0.0	0.0	0.0	0.0	0.0
162.5	0.0	0.0	0.0	0.0	0.0
163.0	0.0	0.0	0.0	0.0	0.0
163.5	0.0	0.0	0.0	0.0	0.0
164.0	0.0	0.0	0.0	0.0	0.0
164.5	0.0	0.0	0.0	0.0	0.0
165.0	0.0	0.0	0.0	0.0	0.0
165.5	0.0	0.0	0.0	0.0	0.0
166.0	0.0	0.0	0.0	0.0	0.0
166.5	0.0	0.0	0.0	0.0	0.0

IES INDOOR REPORT  
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CANDELA TABULATION - (Cont.)

167.0	0.0	0.0	0.0	0.0	0.0
167.5	0.0	0.0	0.0	0.0	0.0
168.0	0.0	0.0	0.0	0.0	0.0
168.5	0.0	0.0	0.0	0.0	0.0
169.0	0.0	0.0	0.0	0.0	0.0
169.5	0.0	0.0	0.0	0.0	0.0
170.0	0.0	0.0	0.0	0.0	0.0
170.5	0.0	0.0	0.0	0.0	0.0
171.0	0.0	0.0	0.0	0.0	0.0
171.5	0.0	0.0	0.0	0.0	0.0
172.0	0.0	0.0	0.0	0.0	0.0
172.5	0.0	0.0	0.0	0.0	0.0
173.0	0.0	0.0	0.0	0.0	0.0
173.5	0.0	0.0	0.0	0.0	0.0
174.0	0.0	0.0	0.0	0.0	0.0
174.5	0.0	0.0	0.0	0.0	0.0
175.0	0.0	0.0	0.0	0.0	0.0
175.5	0.0	0.0	0.0	0.0	0.0
176.0	0.0	0.0	0.0	0.0	0.0
176.5	0.0	0.0	0.0	0.0	0.0
177.0	0.0	0.0	0.0	0.0	0.0
177.5	0.0	0.0	0.0	0.0	0.0
178.0	0.0	0.0	0.0	0.0	0.0
178.5	0.0	0.0	0.0	0.0	0.0
179.0	0.0	0.0	0.0	0.0	0.0
179.5	0.0	0.0	0.0	0.0	0.0
180.0	0.0	0.0	0.0	0.0	0.0



**IES INDOOR REPORT**  
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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	322.71	N.A.	25.40
0-30	583.12	N.A.	46.00
0-40	807.77	N.A.	63.70
0-60	1131.28	N.A.	89.20
0-80	1263.15	N.A.	99.50
0-90	1268.96	N.A.	100.00
10-90	1175.35	N.A.	92.60
20-40	485.06	N.A.	38.20
20-50	665.36	N.A.	52.40
40-70	420.50	N.A.	33.10
60-80	131.87	N.A.	10.40
70-80	34.88	N.A.	2.70
80-90	5.80	N.A.	0.50
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	1268.96	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	93.61
10-20	229.11
20-30	260.41
30-40	224.66
40-50	180.30
50-60	143.21
60-70	96.99
70-80	34.88
80-90	5.80
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 : 4CS-L15-835-XXX-DIM-UNV-RW-WH-AD.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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	103	97	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50
7	73	61	54	49	71	61	53	48	59	53	48	58	52	48	57	51	47	46
8	69	57	50	44	67	56	49	44	55	49	44	54	48	44	53	48	44	42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	44	40	39
10	61	50	43	38	60	49	43	38	48	42	38	47	42	38	47	41	38	36

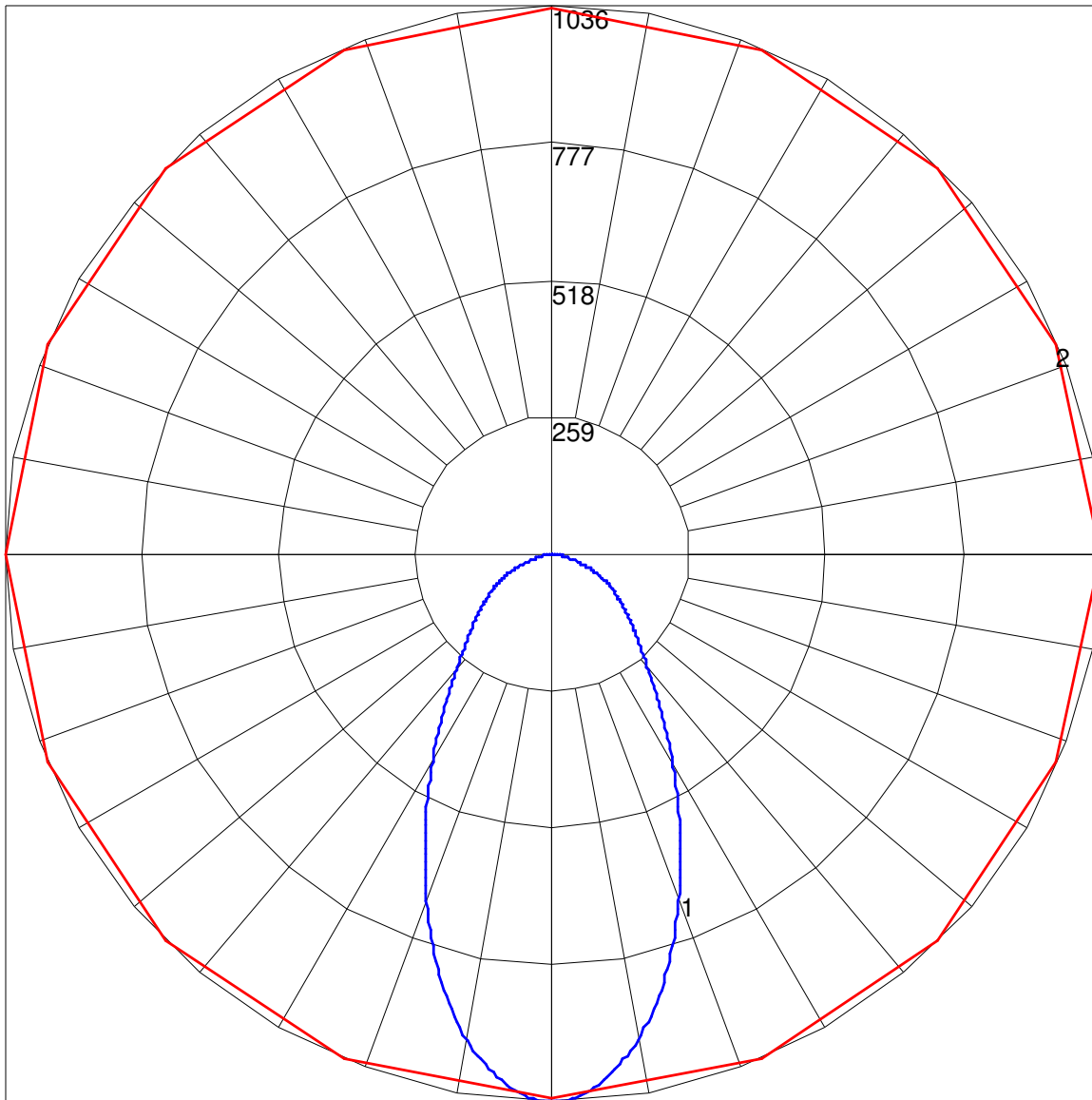
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 4CS-L15-835-XXX-DIM-UNV-RW-WH-AD.IES**

**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	25.7	27.1	26.1	27.4	27.8	25.7	27.1	26.1	27.4	27.7
	3H	27.0	28.3	27.4	28.6	29.0	27.0	28.2	27.4	28.6	28.9
	4H	27.2	28.4	27.6	28.8	29.1	27.2	28.4	27.6	28.7	29.1
	6H	27.3	28.3	27.7	28.7	29.1	27.2	28.3	27.6	28.7	29.1
	8H	27.3	28.3	27.7	28.7	29.1	27.2	28.2	27.7	28.6	29.0
	12H	27.2	28.2	27.7	28.6	29.0	27.2	28.2	27.6	28.6	29.0
4H	2H	26.3	27.4	26.7	27.8	28.2	26.3	27.4	26.7	27.8	28.1
	3H	27.7	28.7	28.1	29.1	29.5	27.6	28.6	28.1	29.0	29.4
	4H	27.9	28.8	28.4	29.2	29.7	27.9	28.8	28.3	29.2	29.6
	6H	28.0	28.7	28.5	29.2	29.7	28.0	28.7	28.4	29.2	29.6
	8H	28.0	28.7	28.5	29.1	29.6	28.0	28.7	28.4	29.1	29.6
	12H	28.0	28.6	28.5	29.1	29.6	28.0	28.6	28.4	29.1	29.5
8H	4H	28.0	28.7	28.4	29.1	29.6	27.9	28.6	28.4	29.1	29.6
	6H	28.1	28.6	28.6	29.1	29.6	28.0	28.6	28.5	29.1	29.6
	8H	28.1	28.6	28.6	29.1	29.6	28.1	28.6	28.6	29.1	29.6
	12H	28.1	28.6	28.6	29.1	29.6	28.1	28.5	28.6	29.0	29.6
12H	4H	28.0	28.6	28.4	29.1	29.5	27.9	28.5	28.4	29.0	29.5
	6H	28.1	28.6	28.6	29.0	29.6	28.0	28.5	28.5	29.0	29.5
	8H	28.1	28.5	28.6	29.0	29.6	28.1	28.5	28.6	29.0	29.6

Maximum UGR = 29.7

POLAR GRAPH



Maximum Candela = 1036 Located At Horizontal Angle = 0, Vertical Angle = .5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)