



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CS-L15-835-XXX-DIM-UNV-LW-OF-WH-XX.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] 13257153.14  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUEDATE] 01/25/2021  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] 4CS-L15-835-xxx-DIM-UNV-LW-OF-WH-xx  
 [LUMINAIRE] Aluminum housing, optics, and trim enclosure  
 [LAMP] One white LED  
 [\_SEARCH\_SOURCETYPE] LED  
 [\_SEARCH\_APPLICATION] Indoor, Downlight  
 [\_SEARCH\_MOUNTING] Pendant, Surface, Suspended, Wall

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1602
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	92
Total Luminaire Watts	17.3214
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.88
Spacing Criterion (90-270)	0.86
Spacing Criterion (Diagonal)	0.84
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	38351	47209	39019
55	31028	33585	31548
65	27114	27525	27408
75	21320	20936	22089
85	12834	11123	13689

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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	1852.0	1852.0	1852.0	1852.0	1852.0
0.5	1890.0	1861.0	1845.0	1839.0	1838.0
1.0	1889.0	1861.0	1845.0	1839.0	1838.0
1.5	1888.0	1860.0	1845.0	1839.0	1837.0
2.0	1887.0	1859.0	1844.0	1838.0	1837.0
2.5	1885.0	1858.0	1842.0	1837.0	1835.0
3.0	1884.0	1855.0	1840.0	1835.0	1834.0
3.5	1881.0	1853.0	1837.0	1832.0	1831.0
4.0	1877.0	1850.0	1835.0	1830.0	1828.0
4.5	1873.0	1847.0	1831.0	1826.0	1825.0
5.0	1869.0	1842.0	1827.0	1822.0	1820.0
5.5	1864.0	1838.0	1823.0	1817.0	1817.0
6.0	1859.0	1833.0	1818.0	1812.0	1813.0
6.5	1853.0	1827.0	1812.0	1808.0	1809.0
7.0	1848.0	1821.0	1807.0	1803.0	1804.0
7.5	1842.0	1815.0	1802.0	1798.0	1800.0
8.0	1836.0	1809.0	1797.0	1793.0	1794.0
8.5	1830.0	1803.0	1791.0	1787.0	1788.0
9.0	1822.0	1796.0	1785.0	1781.0	1782.0
9.5	1816.0	1789.0	1778.0	1775.0	1775.0
10.0	1807.0	1781.0	1771.0	1768.0	1767.0
10.5	1799.0	1773.0	1763.0	1760.0	1759.0
11.0	1790.0	1764.0	1755.0	1752.0	1750.0
11.5	1779.0	1755.0	1746.0	1744.0	1742.0
12.0	1769.0	1745.0	1737.0	1734.0	1732.0
12.5	1758.0	1735.0	1727.0	1725.0	1722.0
13.0	1746.0	1724.0	1717.0	1715.0	1710.0
13.5	1734.0	1712.0	1706.0	1703.0	1699.0
14.0	1720.0	1698.0	1694.0	1691.0	1686.0
14.5	1706.0	1685.0	1681.0	1677.0	1671.0
15.0	1690.0	1670.0	1667.0	1663.0	1657.0
15.5	1674.0	1655.0	1652.0	1648.0	1641.0
16.0	1657.0	1638.0	1635.0	1631.0	1624.0
16.5	1638.0	1621.0	1618.0	1614.0	1605.0
17.0	1619.0	1602.0	1601.0	1596.0	1586.0
17.5	1599.0	1583.0	1582.0	1576.0	1565.0
18.0	1577.0	1562.0	1563.0	1556.0	1542.0
18.5	1553.0	1540.0	1542.0	1534.0	1518.0
19.0	1528.0	1517.0	1521.0	1511.0	1492.0
19.5	1500.0	1493.0	1499.0	1486.0	1464.0
20.0	1471.0	1467.0	1475.0	1461.0	1434.0
20.5	1440.0	1440.0	1450.0	1433.0	1402.0
21.0	1405.0	1411.0	1424.0	1403.0	1368.0
21.5	1369.0	1379.0	1397.0	1372.0	1332.0
22.0	1331.0	1346.0	1369.0	1339.0	1294.0
22.5	1290.0	1312.0	1339.0	1305.0	1255.0
23.0	1248.0	1275.0	1309.0	1269.0	1214.0
23.5	1204.0	1237.0	1277.0	1232.0	1171.0
24.0	1158.0	1197.0	1245.0	1193.0	1128.0
24.5	1112.0	1157.0	1211.0	1153.0	1083.0
25.0	1065.0	1114.0	1176.0	1111.0	1038.0
25.5	1017.0	1071.0	1139.0	1068.0	991.9
26.0	967.5	1026.0	1102.0	1024.0	945.6
26.5	917.3	981.3	1063.0	980.0	898.4

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**CANDELA TABULATION - (Cont.)**

27.0	867.0	935.6	1024.0	935.7	851.6
27.5	817.3	889.6	984.0	890.7	807.4
28.0	770.0	843.8	943.3	845.9	760.8
28.5	721.4	798.4	901.9	802.8	715.3
29.0	676.0	754.1	860.6	759.9	672.6
29.5	629.6	710.3	819.1	717.3	629.2
30.0	585.0	667.6	778.3	675.8	587.5
30.5	542.5	625.3	738.9	635.4	547.3
31.0	502.4	584.3	698.3	595.6	508.9
31.5	464.2	545.0	658.9	557.3	473.0
32.0	429.1	507.8	620.3	520.9	438.9
32.5	396.8	472.7	582.9	486.4	407.4
33.0	366.3	439.5	547.0	453.8	378.3
33.5	338.4	408.4	512.2	423.0	350.9
34.0	313.5	379.4	479.4	394.4	326.1
34.5	290.2	352.4	448.2	367.5	303.0
35.0	269.3	327.7	419.0	342.6	282.3
35.5	250.7	305.0	391.6	319.6	263.4
36.0	233.8	284.2	365.7	298.5	246.3
36.5	218.7	265.4	341.7	278.9	230.8
37.0	205.3	248.1	319.4	260.9	216.8
37.5	193.2	232.4	298.6	244.4	204.1
38.0	182.5	218.2	279.3	229.6	192.7
38.5	172.9	205.5	261.7	216.0	182.4
39.0	164.5	193.9	245.5	203.8	173.2
39.5	156.8	183.6	230.8	192.7	164.9
40.0	150.1	174.2	217.3	182.7	157.4
40.5	144.1	165.7	204.9	173.7	150.6
41.0	138.5	158.2	193.8	165.6	144.3
41.5	133.6	151.4	183.7	158.4	138.7
42.0	129.1	145.4	174.5	151.8	133.6
42.5	125.1	139.9	166.0	145.7	129.0
43.0	121.3	134.9	158.5	140.3	124.7
43.5	117.9	130.5	151.5	135.2	120.8
44.0	114.8	126.4	145.2	130.6	117.1
44.5	111.9	122.7	139.5	126.4	114.0
45.0	109.1	119.2	134.3	122.5	111.0
45.5	106.5	116.1	129.5	118.9	108.0
46.0	104.0	113.0	125.1	115.5	105.3
46.5	101.6	110.1	120.9	112.3	102.7
47.0	99.3	107.3	117.1	109.4	100.3
47.5	97.0	104.7	113.5	106.5	98.0
48.0	94.9	102.2	110.3	103.8	95.9
48.5	92.9	99.9	107.1	101.3	93.7
49.0	90.9	97.6	104.2	98.8	91.7
49.5	88.9	95.4	101.3	96.5	89.7
50.0	87.1	93.3	98.7	94.3	88.0
50.5	85.3	91.3	96.1	92.3	86.3
51.0	83.6	89.3	93.7	90.3	84.7
51.5	82.0	87.4	91.4	88.4	83.1
52.0	80.3	85.6	89.1	86.6	81.4
52.5	78.7	83.8	87.0	84.9	79.9
53.0	77.2	82.2	85.0	83.2	78.4
53.5	75.7	80.4	83.0	81.5	77.0
54.0	74.3	78.9	81.1	79.9	75.6
54.5	72.9	77.2	79.2	78.4	74.1

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**CANDELA TABULATION - (Cont.)**

55.0	71.6	75.7	77.5	76.8	72.8
55.5	70.2	74.1	75.7	75.3	71.5
56.0	68.9	72.6	74.0	73.8	70.2
56.5	67.7	71.2	72.3	72.2	69.0
57.0	66.5	69.8	70.6	70.8	67.6
57.5	65.3	68.4	69.0	69.3	66.4
58.0	64.1	67.0	67.5	67.9	65.2
58.5	62.9	65.5	65.9	66.5	63.9
59.0	61.8	64.1	64.3	65.1	62.7
59.5	60.7	62.8	62.8	63.6	61.3
60.0	59.4	61.4	61.3	62.2	60.0
60.5	58.2	60.1	59.9	60.8	58.7
61.0	57.0	58.8	58.4	59.4	57.3
61.5	55.7	57.4	56.9	57.9	55.9
62.0	54.4	56.1	55.5	56.5	54.6
62.5	53.0	54.8	54.0	55.0	53.2
63.0	51.6	53.4	52.6	53.6	51.9
63.5	50.2	52.0	51.2	52.1	50.5
64.0	48.8	50.6	49.7	50.7	49.2
64.5	47.4	49.3	48.3	49.3	47.9
65.0	46.1	47.8	46.8	47.9	46.6
65.5	44.7	46.4	45.4	46.6	45.4
66.0	43.5	45.1	44.0	45.2	44.2
66.5	42.2	43.7	42.6	43.9	42.9
67.0	41.0	42.3	41.3	42.6	41.7
67.5	39.8	40.9	39.9	41.2	40.4
68.0	38.5	39.6	38.6	39.9	39.2
68.5	37.3	38.3	37.3	38.7	38.0
69.0	36.1	37.0	36.0	37.4	36.8
69.5	34.9	35.7	34.8	36.1	35.6
70.0	33.7	34.4	33.5	34.8	34.4
70.5	32.5	33.1	32.3	33.5	33.2
71.0	31.3	31.9	31.0	32.3	32.0
71.5	30.1	30.6	29.8	31.0	30.9
72.0	28.9	29.4	28.7	29.8	29.7
72.5	27.8	28.2	27.5	28.6	28.6
73.0	26.6	27.1	26.3	27.4	27.4
73.5	25.5	25.9	25.2	26.2	26.3
74.0	24.4	24.7	24.0	25.0	25.2
74.5	23.3	23.6	22.9	23.9	24.1
75.0	22.2	22.5	21.8	22.8	23.0
75.5	21.1	21.4	20.7	21.7	22.0
76.0	20.1	20.3	19.7	20.6	20.9
76.5	19.1	19.3	18.7	19.5	19.9
77.0	18.1	18.2	17.6	18.5	18.9
77.5	17.1	17.2	16.6	17.4	17.8
78.0	16.1	16.2	15.6	16.4	16.8
78.5	15.2	15.2	14.7	15.4	15.9
79.0	14.2	14.2	13.7	14.4	14.9
79.5	13.3	13.3	12.8	13.5	14.0
80.0	12.4	12.4	11.9	12.5	13.0
80.5	11.5	11.4	11.0	11.6	12.1
81.0	10.7	10.6	10.1	10.7	11.2
81.5	9.8	9.7	9.2	9.8	10.4
82.0	9.0	8.8	8.4	9.0	9.5
82.5	8.2	8.0	7.6	8.1	8.7

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**CANDELA TABULATION - (Cont.)**

83.0	7.4	7.2	6.8	7.3	7.9
83.5	6.6	6.4	6.0	6.5	7.1
84.0	5.9	5.7	5.3	5.8	6.3
84.5	5.2	5.0	4.6	5.0	5.6
85.0	4.5	4.2	3.9	4.3	4.8
85.5	3.8	3.5	3.2	3.5	4.1
86.0	3.1	2.9	2.6	2.8	3.3
86.5	2.3	2.2	1.9	2.1	2.4
87.0	1.2	1.4	1.3	1.3	1.3
87.5	0.7	0.9	0.9	0.7	0.7
88.0	0.5	0.6	0.6	0.5	0.5
88.5	0.4	0.4	0.4	0.4	0.4
89.0	0.3	0.3	0.3	0.3	0.3
89.5	0.1	0.2	0.2	0.2	0.2
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  
PHOTOMETRIC FILENAME : 4CS-L15-835-XXX-DIM-UNV-LW-OF-WH-XX.IES

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  
PHOTOMETRIC FILENAME : 4CS-L15-835-XXX-DIM-UNV-LW-OF-WH-XX.IES

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**  
**PHOTOMETRIC FILENAME : 4CS-L15-835-XXX-DIM-UNV-LW-OF-WH-XX.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	636.86	N.A.	39.80
0-30	1133.28	N.A.	70.80
0-40	1360.47	N.A.	84.90
0-60	1525.6	N.A.	95.30
0-80	1596.43	N.A.	99.70
0-90	1601.62	N.A.	100.00
10-90	1428.4	N.A.	89.20
20-40	723.62	N.A.	45.20
20-50	820.75	N.A.	51.20
40-70	212.01	N.A.	13.20
60-80	70.82	N.A.	4.40
70-80	23.94	N.A.	1.50
80-90	5.20	N.A.	0.30
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	1601.62	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	173.22
10-20	463.64
20-30	496.42
30-40	227.20
40-50	97.13
50-60	67.99
60-70	46.88
70-80	23.94
80-90	5.20
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-LW-OF-WH-XX.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	113	110	107	105	110	108	105	103	103	102	100	100	98	97	96	95	94	92
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85
3	101	94	89	84	99	93	88	84	90	86	82	87	84	81	85	82	80	78
4	96	87	82	77	94	86	81	77	84	79	76	82	78	75	80	77	74	72
5	91	82	76	71	89	81	75	71	79	74	70	77	73	69	76	72	69	67
6	86	77	70	66	84	76	70	66	74	69	65	73	68	65	72	68	64	63
7	82	72	66	62	80	71	66	61	70	65	61	69	64	61	68	64	60	59
8	78	68	62	58	77	67	62	58	66	61	57	65	61	57	64	60	57	55
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	61	55	51	60	55	51	59	54	51	58	54	51	49

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CS-L15-835-XXX-DIM-UNV-LW-OF-WH-XX.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

X=2H	Y=2H	20.1	21.2	20.5	21.5	21.9	20.2	21.3	20.6	21.6	22.0
	3H	21.6	22.6	22.0	22.9	23.3	21.7	22.7	22.1	23.0	23.4
	4H	22.1	23.0	22.5	23.3	23.7	22.2	23.1	22.6	23.4	23.8
	6H	22.4	23.2	22.8	23.6	24.0	22.5	23.3	22.9	23.7	24.1
	8H	22.4	23.2	22.9	23.6	24.0	22.6	23.4	23.0	23.7	24.2
	12H	22.5	23.2	22.9	23.6	24.0	22.6	23.3	23.0	23.7	24.2

### UGR Viewed Endwise

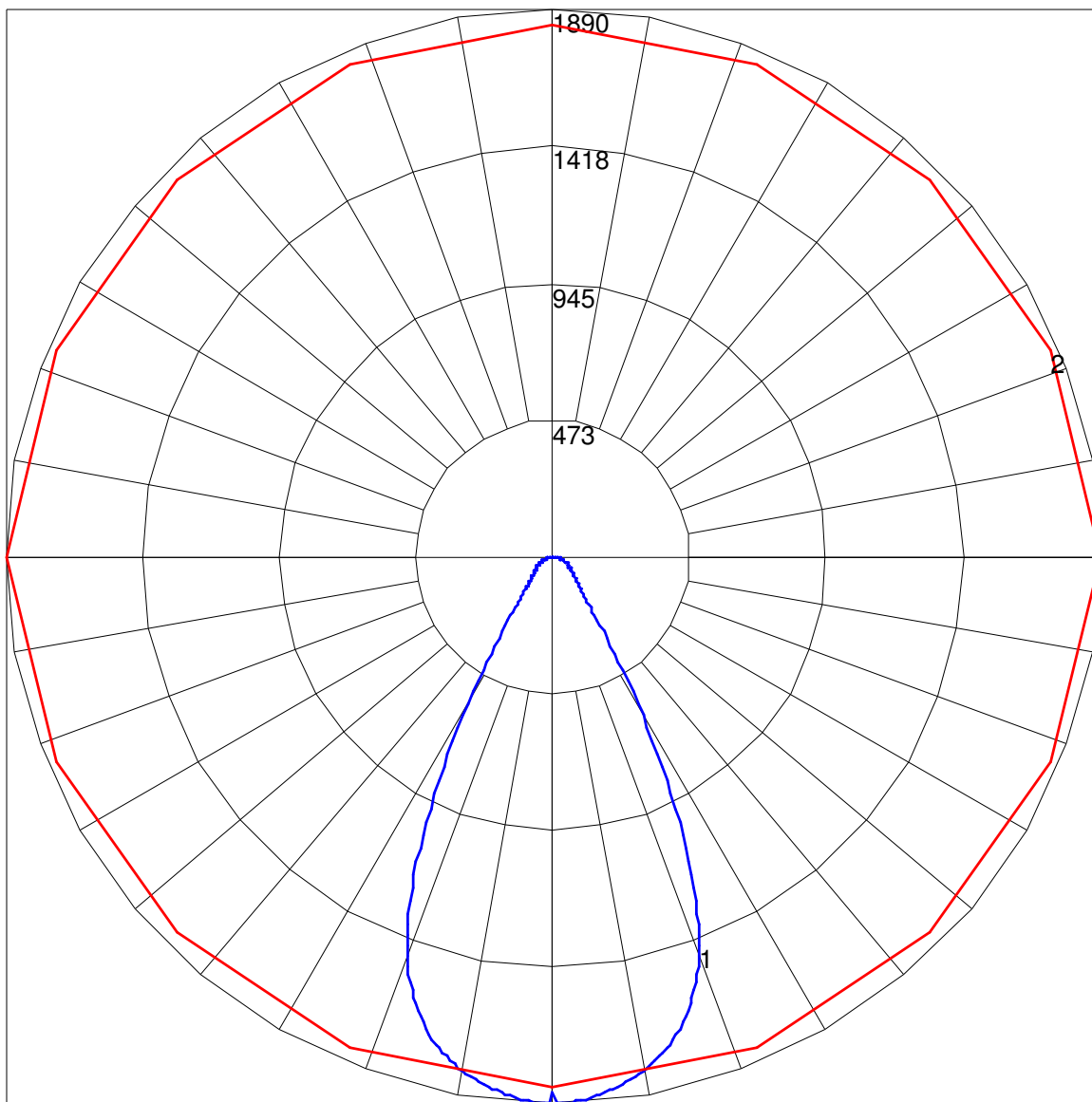
4H	2H	20.6	21.5	21.0	21.8	22.2	20.6	21.6	21.1	21.9	22.3
	3H	22.2	23.0	22.7	23.4	23.8	22.3	23.1	22.7	23.5	23.9
	4H	22.8	23.5	23.3	23.9	24.3	22.9	23.6	23.4	24.0	24.4
	6H	23.2	23.8	23.7	24.2	24.7	23.3	23.9	23.8	24.3	24.8
	8H	23.3	23.8	23.8	24.3	24.8	23.4	24.0	23.9	24.4	24.9
	12H	23.4	23.8	23.8	24.3	24.8	23.5	23.9	24.0	24.4	24.9

8H	4H	23.0	23.5	23.4	23.9	24.4	23.0	23.6	23.5	24.0	24.5
	6H	23.5	23.9	24.0	24.4	24.9	23.6	24.0	24.1	24.5	25.0
	8H	23.6	24.0	24.2	24.5	25.0	23.7	24.1	24.3	24.6	25.1
	12H	23.7	24.0	24.2	24.5	25.1	23.8	24.1	24.3	24.6	25.2

12H	4H	22.9	23.4	23.4	23.9	24.4	23.0	23.5	23.5	24.0	24.5
	6H	23.5	23.8	24.0	24.3	24.9	23.6	23.9	24.1	24.4	25.0
	8H	23.6	24.0	24.2	24.5	25.1	23.8	24.1	24.3	24.6	25.2

Maximum UGR = 25.2

POLAR GRAPH



Maximum Candela = 1890 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.)