



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CS-L15-835-XXX-DIM-UNV-OW-CS.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 13257153.12
 [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-OW-CS
 [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	1160
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	67
Total Luminaire Watts	17.3312
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.76
Spacing Criterion (90-270)	0.76
Spacing Criterion (Diagonal)	0.80
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	52342	52623	54837
55	23011	29035	24051
65	1000	4646	1000
75	480	480	480
85	285	285	285

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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	1461.0	1461.0	1461.0	1461.0	1461.0
0.5	1470.0	1463.0	1459.0	1457.0	1457.0
1.0	1469.0	1462.0	1458.0	1456.0	1455.0
1.5	1467.0	1460.0	1456.0	1454.0	1453.0
2.0	1464.0	1457.0	1453.0	1451.0	1451.0
2.5	1460.0	1453.0	1449.0	1448.0	1446.0
3.0	1455.0	1449.0	1444.0	1443.0	1442.0
3.5	1449.0	1443.0	1439.0	1437.0	1436.0
4.0	1442.0	1436.0	1433.0	1431.0	1430.0
4.5	1435.0	1429.0	1425.0	1424.0	1423.0
5.0	1427.0	1421.0	1417.0	1416.0	1415.0
5.5	1418.0	1412.0	1409.0	1407.0	1407.0
6.0	1409.0	1402.0	1399.0	1398.0	1397.0
6.5	1399.0	1393.0	1390.0	1388.0	1388.0
7.0	1388.0	1382.0	1379.0	1378.0	1378.0
7.5	1377.0	1371.0	1368.0	1368.0	1367.0
8.0	1366.0	1360.0	1357.0	1356.0	1355.0
8.5	1353.0	1347.0	1345.0	1344.0	1343.0
9.0	1340.0	1334.0	1332.0	1332.0	1331.0
9.5	1327.0	1321.0	1320.0	1319.0	1318.0
10.0	1313.0	1307.0	1306.0	1305.0	1304.0
10.5	1297.0	1293.0	1291.0	1290.0	1289.0
11.0	1282.0	1278.0	1276.0	1276.0	1274.0
11.5	1266.0	1262.0	1261.0	1260.0	1258.0
12.0	1249.0	1246.0	1245.0	1244.0	1243.0
12.5	1232.0	1229.0	1228.0	1227.0	1226.0
13.0	1214.0	1211.0	1212.0	1210.0	1208.0
13.5	1195.0	1193.0	1194.0	1192.0	1190.0
14.0	1177.0	1174.0	1176.0	1174.0	1171.0
14.5	1157.0	1155.0	1157.0	1155.0	1152.0
15.0	1137.0	1136.0	1137.0	1135.0	1133.0
15.5	1117.0	1116.0	1118.0	1115.0	1113.0
16.0	1096.0	1095.0	1098.0	1095.0	1093.0
16.5	1076.0	1075.0	1077.0	1075.0	1072.0
17.0	1054.0	1054.0	1056.0	1054.0	1051.0
17.5	1034.0	1033.0	1035.0	1034.0	1031.0
18.0	1012.0	1012.0	1014.0	1012.0	1009.0
18.5	990.3	990.7	991.9	991.0	988.1
19.0	969.0	968.6	969.9	969.6	966.6
19.5	946.7	947.3	948.6	947.8	944.7
20.0	924.8	925.3	926.3	926.0	922.4
20.5	903.0	903.4	904.0	904.1	900.6
21.0	879.7	881.5	882.3	882.2	878.7
21.5	858.2	859.4	860.0	860.1	856.1
22.0	836.4	838.1	838.0	837.6	833.7
22.5	814.5	815.8	816.0	816.1	811.7
23.0	792.2	794.3	794.3	794.0	789.9
23.5	772.1	772.4	773.5	773.1	769.7
24.0	751.1	753.2	754.5	752.5	747.4
24.5	731.1	733.2	734.4	732.3	727.3
25.0	709.2	711.5	713.3	711.1	705.3
25.5	687.4	690.1	692.7	689.5	683.4
26.0	665.5	668.8	672.1	668.3	662.1
26.5	643.3	647.5	651.6	646.8	639.9

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CANDELA TABULATION - (Cont.)

27.0	621.1	626.5	631.2	625.7	618.1
27.5	599.0	605.6	611.2	604.8	596.6
28.0	576.9	584.8	591.1	583.8	575.2
28.5	555.1	564.1	571.6	563.0	553.9
29.0	533.9	543.6	552.2	542.3	533.0
29.5	512.8	523.5	532.8	522.3	512.4
30.0	492.2	503.2	513.9	502.0	492.5
30.5	472.1	483.3	495.1	482.1	472.7
31.0	452.5	463.6	476.5	462.7	453.3
31.5	433.7	444.4	458.2	443.6	434.8
32.0	415.6	425.7	440.5	425.3	416.7
32.5	398.3	407.7	423.3	407.7	399.7
33.0	381.3	390.1	406.4	390.5	383.1
33.5	365.3	373.3	389.8	373.9	367.1
34.0	350.0	357.0	373.8	358.1	352.0
34.5	335.4	341.3	358.1	342.8	337.7
35.0	321.6	326.5	343.2	328.4	324.4
35.5	308.4	312.4	328.6	314.7	311.6
36.0	295.8	299.0	314.7	301.6	299.4
36.5	283.8	286.1	301.0	289.2	288.0
37.0	272.5	274.0	287.9	277.3	277.1
37.5	261.6	262.4	275.3	266.0	266.8
38.0	251.3	251.4	263.1	255.3	257.0
38.5	241.5	241.1	251.6	245.4	247.7
39.0	232.3	231.3	240.7	235.8	238.9
39.5	223.4	222.0	230.2	226.8	230.5
40.0	215.0	213.3	220.4	218.2	222.3
40.5	207.0	204.9	211.1	210.0	214.5
41.0	199.5	196.9	202.3	202.3	207.0
41.5	192.3	189.4	194.3	195.1	200.0
42.0	185.4	182.3	186.7	188.2	193.2
42.5	178.7	175.6	179.6	181.6	186.4
43.0	172.4	169.2	172.9	175.3	180.0
43.5	166.2	163.0	166.5	169.2	173.8
44.0	160.2	157.2	160.6	163.3	167.7
44.5	154.4	151.5	154.9	157.7	161.8
45.0	148.9	146.1	149.7	152.3	156.0
45.5	143.3	140.8	144.6	147.1	150.1
46.0	137.9	135.7	139.7	141.9	144.4
46.5	132.5	130.7	135.0	136.8	138.9
47.0	127.3	125.8	130.4	131.8	133.4
47.5	122.1	121.1	126.0	127.0	127.8
48.0	116.9	116.5	121.8	122.2	122.3
48.5	111.9	111.9	117.5	117.6	117.1
49.0	107.0	107.5	113.4	113.1	111.8
49.5	102.0	103.1	109.3	108.5	106.5
50.0	97.1	98.9	105.4	104.1	101.5
50.5	92.3	94.7	101.4	99.7	96.4
51.0	87.7	90.6	97.5	95.5	91.6
51.5	83.0	86.5	93.8	91.2	86.7
52.0	78.4	82.4	89.9	87.0	82.0
52.5	74.0	78.5	86.0	82.9	77.3
53.0	69.6	74.5	82.2	78.8	72.7
53.5	65.3	70.6	78.4	74.8	68.2
54.0	61.1	66.8	74.6	70.8	63.8
54.5	57.1	63.0	70.8	66.8	59.6

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CANDELA TABULATION - (Cont.)

55.0	53.1	59.3	67.0	62.9	55.5
55.5	49.3	55.6	63.2	58.9	51.4
56.0	45.6	52.0	59.5	55.1	47.5
56.5	42.0	48.4	55.8	51.4	43.7
57.0	38.6	44.9	52.1	47.7	40.0
57.5	35.3	41.6	48.5	44.1	36.5
58.0	32.2	38.3	45.0	40.6	33.2
58.5	29.2	35.1	41.4	37.2	29.9
59.0	26.4	32.0	38.1	33.8	26.7
59.5	23.6	29.0	34.8	30.6	23.7
60.0	20.9	26.2	31.6	27.6	20.7
60.5	18.1	23.5	28.5	24.6	17.8
61.0	15.6	20.9	25.7	21.7	15.0
61.5	13.1	18.3	22.8	19.0	12.5
62.0	10.9	15.9	20.1	16.2	10.3
62.5	9.0	13.5	17.6	13.6	8.2
63.0	7.0	11.2	15.3	11.2	5.7
63.5	4.2	9.1	13.2	9.0	3.7
64.0	2.2	7.3	11.2	7.1	2.3
64.5	1.8	5.7	9.5	5.4	1.9
65.0	1.7	4.0	7.9	3.5	1.7
65.5	1.6	2.2	6.5	2.3	1.6
66.0	1.5	1.5	5.3	1.6	1.5
66.5	1.4	1.4	4.3	1.4	1.5
67.0	1.3	1.3	3.4	1.3	1.4
67.5	1.3	1.2	2.7	1.2	1.3
68.0	1.2	1.1	2.2	1.2	1.2
68.5	1.1	1.1	1.8	1.1	1.2
69.0	1.1	1.0	1.4	1.0	1.1
69.5	1.0	0.9	1.2	1.0	1.0
70.0	0.9	0.9	1.0	0.9	1.0
70.5	0.9	0.8	0.9	0.9	0.9
71.0	0.8	0.8	0.8	0.8	0.9
71.5	0.8	0.7	0.7	0.8	0.8
72.0	0.7	0.7	0.7	0.7	0.8
72.5	0.7	0.7	0.7	0.7	0.7
73.0	0.7	0.6	0.6	0.6	0.7
73.5	0.6	0.6	0.6	0.6	0.6
74.0	0.6	0.6	0.5	0.6	0.6
74.5	0.5	0.5	0.5	0.5	0.6
75.0	0.5	0.5	0.5	0.5	0.5
75.5	0.5	0.4	0.5	0.5	0.5
76.0	0.5	0.4	0.4	0.4	0.5
76.5	0.4	0.4	0.4	0.4	0.4
77.0	0.4	0.4	0.4	0.4	0.4
77.5	0.4	0.4	0.4	0.4	0.4
78.0	0.4	0.3	0.3	0.3	0.4
78.5	0.3	0.3	0.3	0.3	0.3
79.0	0.3	0.3	0.3	0.3	0.3
79.5	0.3	0.3	0.3	0.3	0.3
80.0	0.3	0.3	0.3	0.3	0.3
80.5	0.2	0.2	0.2	0.2	0.3
81.0	0.2	0.2	0.2	0.2	0.2
81.5	0.2	0.2	0.2	0.2	0.2
82.0	0.2	0.2	0.2	0.2	0.2
82.5	0.2	0.2	0.2	0.2	0.2

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CANDELA TABULATION - (Cont.)

83.0	0.2	0.2	0.2	0.2	0.2
83.5	0.2	0.2	0.2	0.2	0.2
84.0	0.1	0.1	0.1	0.1	0.2
84.5	0.1	0.1	0.1	0.1	0.1
85.0	0.1	0.1	0.1	0.1	0.1
85.5	0.1	0.1	0.1	0.1	0.1
86.0	0.1	0.1	0.1	0.1	0.1
86.5	0.1	0.1	0.1	0.1	0.1
87.0	0.1	0.1	0.1	0.1	0.1
87.5	0.1	0.1	0.1	0.1	0.1
88.0	0.1	0.1	0.1	0.1	0.1
88.5	0.1	0.1	0.1	0.1	0.1
89.0	0.1	0.0	0.0	0.0	0.1
89.5	0.0	0.0	0.0	0.0	0.0
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

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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

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	445.97	N.A.	38.50
0-30	768.98	N.A.	66.30
0-40	979.21	N.A.	84.40
0-60	1151.46	N.A.	99.30
0-80	1159.7	N.A.	100.00
0-90	1159.84	N.A.	100.00
10-90	1028.03	N.A.	88.60
20-40	533.24	N.A.	46.00
20-50	650.60	N.A.	56.10
40-70	179.93	N.A.	15.50
60-80	8.25	N.A.	0.70
70-80	0.56	N.A.	0.00
80-90	0.14	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	1159.84	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	131.82
10-20	314.15
20-30	323.01
30-40	210.23
40-50	117.36
50-60	54.88
60-70	7.69
70-80	0.56
80-90	0.14
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-OW-CS.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	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86
3	102	95	90	85	100	93	89	85	91	87	83	88	85	82	86	83	81	79
4	96	88	82	78	94	87	82	78	85	80	77	83	79	76	81	78	75	73
5	91	82	76	72	89	81	76	71	79	75	71	78	73	70	76	72	69	68
6	86	77	71	66	85	76	70	66	75	69	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	62	57	76	67	61	57	66	61	57	65	60	57	64	60	57	55
9	74	64	58	54	73	64	58	54	63	57	54	62	57	53	61	56	53	52
10	71	61	55	51	69	60	54	51	59	54	50	59	54	50	58	53	50	49

IES INDOOR REPORT
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UGR TABLE - CORRECTED

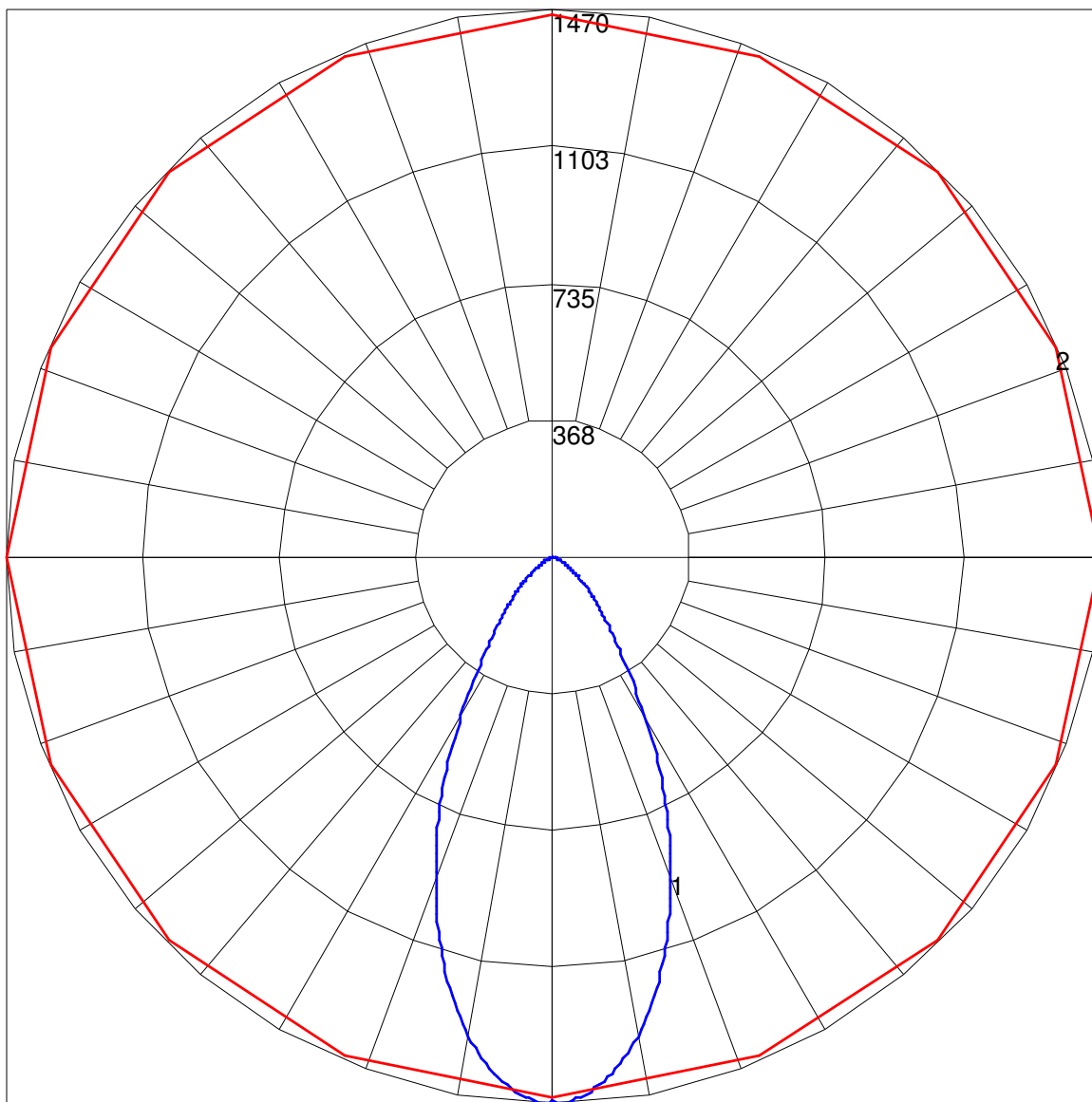
Reflectances

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	17.4	18.5	17.8	18.8	19.1	17.8	18.9	18.2	19.2	19.5
	3H	17.3	18.2	17.7	18.5	18.9	17.6	18.6	18.0	18.9	19.3
	4H	17.2	18.0	17.6	18.4	18.8	17.5	18.4	17.9	18.8	19.2
	6H	17.1	17.9	17.5	18.2	18.6	17.4	18.3	17.9	18.6	19.0
	8H	17.0	17.8	17.4	18.2	18.6	17.4	18.1	17.8	18.5	19.0
	12H	17.0	17.7	17.4	18.1	18.5	17.3	18.1	17.8	18.4	18.9
4H	2H	17.2	18.1	17.6	18.5	18.9	17.6	18.5	18.0	18.8	19.2
	3H	17.1	17.8	17.5	18.2	18.6	17.4	18.1	17.8	18.5	19.0
	4H	17.0	17.6	17.4	18.0	18.5	17.3	18.0	17.8	18.4	18.8
	6H	16.8	17.4	17.3	17.8	18.3	17.2	17.8	17.7	18.2	18.7
	8H	16.8	17.3	17.3	17.7	18.2	17.1	17.7	17.6	18.1	18.6
	12H	16.7	17.2	17.2	17.6	18.1	17.1	17.5	17.6	18.0	18.5
8H	4H	16.8	17.3	17.3	17.7	18.2	17.1	17.7	17.6	18.1	18.6
	6H	16.7	17.1	17.2	17.6	18.0	17.0	17.4	17.5	17.9	18.4
	8H	16.6	16.9	17.1	17.5	18.0	17.0	17.3	17.5	17.8	18.3
	12H	16.5	16.8	17.0	17.3	17.9	16.9	17.2	17.4	17.7	18.3
12H	4H	16.7	17.2	17.2	17.6	18.1	17.1	17.5	17.6	18.0	18.5
	6H	16.6	17.0	17.1	17.4	18.0	17.0	17.3	17.5	17.8	18.3
	8H	16.5	16.8	17.0	17.3	17.9	16.9	17.2	17.4	17.7	18.3

Maximum UGR = 19.5

POLAR GRAPH



Maximum Candela = 1470 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.)