

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P936778

Luminaire Tested: SQ4-FB-050U-075D-B2750-1D-UNV-W2A-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936778
REPORT IS A COMBINATION OF REPORTS P933462 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-075D-B2750-1D-UNV-W2A-W-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

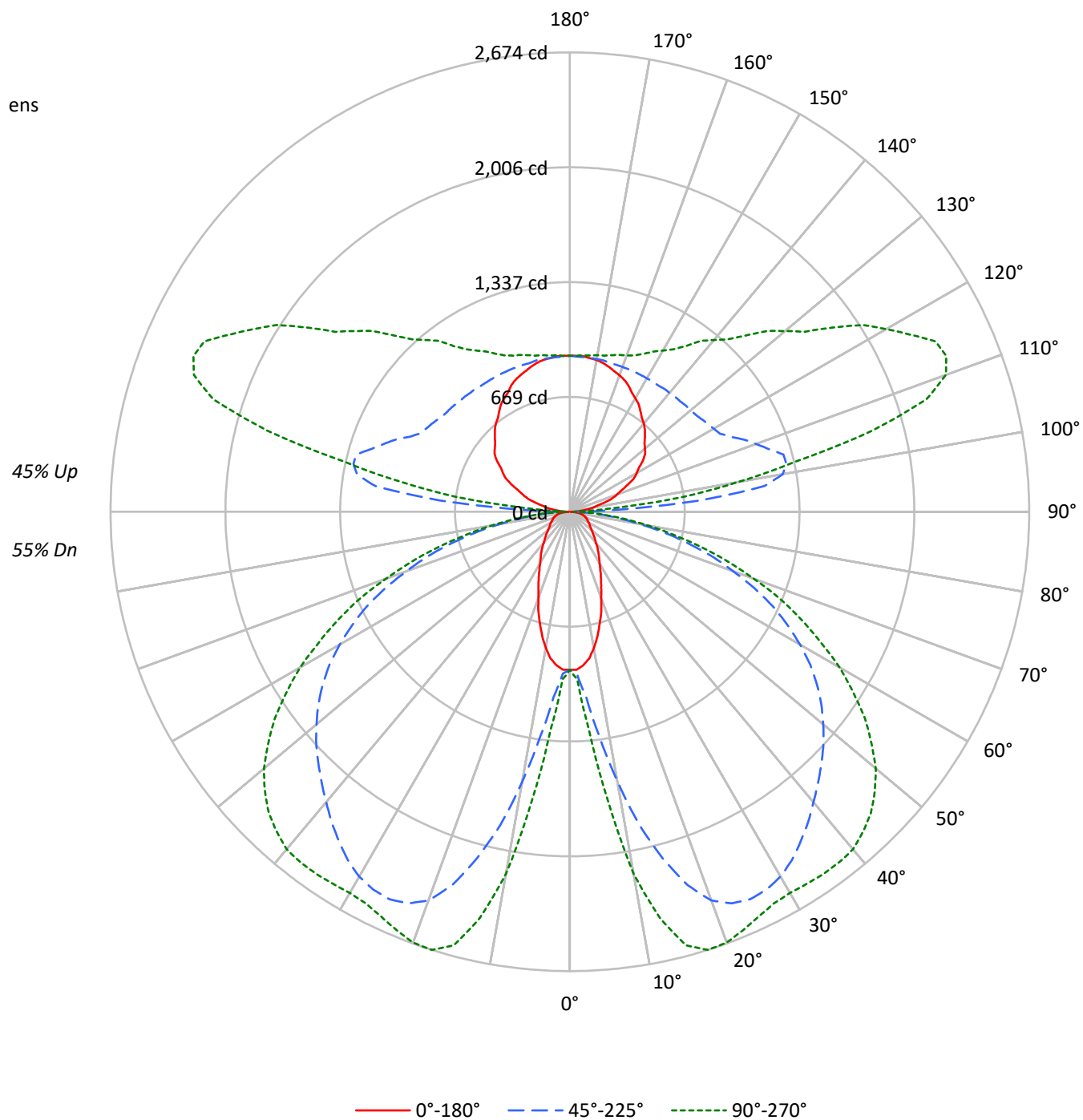
Lumens per Lamp: N/A
Luminaire Lumens: 13009.2 lumens
Efficiency: N/A
Efficacy: 119.1 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 109.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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CATALOG NUMBER: SQ4-FB-050U-075D-B2750-1D-UNV-W2A-W-12-3000K

Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60
1	98	94	89	86	91	87	83	80	75	72	69	63	61	59	53	51	50
2	89	81	74	69	82	75	70	65	65	60	56	55	51	49	45	43	41
3	81	71	63	57	74	66	59	53	56	51	47	48	44	40	40	37	34
4	73	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29
5	67	55	46	40	62	51	44	38	44	38	33	37	33	29	31	28	25
6	62	49	40	34	57	46	38	32	39	33	29	33	29	25	28	24	21
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	25	22	19
8	53	40	32	26	49	37	30	25	32	26	22	27	23	19	23	19	16
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	15
10	46	33	25	20	42	31	24	19	27	21	17	23	18	15	19	16	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2845	2845	2845
5°	2781	3289	3825
10°	2523	4797	6341
15°	2145	6268	7657
20°	1747	7265	7803
25°	1458	7605	7645
30°	1230	7655	7630
35°	1088	7530	7828
40°	949	7367	8032
45°	860	7248	8063
50°	789	7142	7930
55°	757	6985	7578
60°	776	6681	7023
65°	808	6218	6261
70°	863	5426	5289
75°	960	4428	4127
80°	1056	3075	2781
85°	959	1634	1423

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 8063 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.0	0.9
10°-20°	527.4	4.1
20°-30°	922.5	7.1
30°-40°	1187.6	9.1
40°-50°	1326.5	10.2
50°-60°	1270.5	9.8
60°-70°	1006.9	7.7
70°-80°	592.0	4.6
80°-90°	167.9	1.3
90°-100°	442.8	3.4
100°-110°	1164.2	8.9
110°-120°	1207.1	9.3
120°-130°	968.3	7.4
130°-140°	759.7	5.8
140°-150°	583.1	4.5
150°-160°	420.0	3.2
160°-170°	256.9	2.0
170°-180°	86.8	0.7
0°-30°	1569.0	12.1
0°-40°	2756.6	21.2
0°-60°	5353.6	41.2
0°-90°	7120.4	54.7
90°-120°	2814.0	21.6
90°-150°	5125.1	39.4
90°-180°	5889.0	45.3
0°-180°	13009.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	920	920	920	920	920	
5°	896	961	1083	1225	1269	83
15°	672	1240	2088	2532	2612	187
25°	429	1405	2488	2597	2600	198
35°	290	1343	2343	2476	2574	181
45°	198	1071	2071	2372	2479	153
55°	142	680	1757	2041	2097	129
65°	112	361	1305	1467	1488	111
75°	83	222	716	787	790	87
85°	30	68	178	195	198	31
90°	6	17	46	23	23	7
95°	59	229	763	393	268	65
105°	210	318	1287	1954	1823	222
115°	372	452	1031	2056	2347	368
125°	518	581	938	1584	1869	460
135°	618	680	908	1279	1450	478
145°	716	762	897	1091	1177	449
155°	810	832	897	985	1013	372
165°	874	885	897	932	944	247
175°	908	908	903	914	914	86
180°	908	908	908	908	908	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9
2.5°	919.9	919.9	925.9	928.8	934.7	937.7	943.6	949.5	967.3	970.2	976.1
5°	896.3	908.1	946.6	961.4	1002.8	1059.0	1082.6	1121.2	1201.0	1224.7	1239.5
7.5°	860.8	887.4	982.1	1005.7	1109.2	1257.2	1319.4	1402.2	1529.4	1591.5	1641.8
10°	804.6	860.8	1029.4	1085.6	1254.3	1479.1	1594.5	1709.8	1902.1	1987.9	2020.4
12.5°	742.5	834.2	1079.7	1156.7	1399.2	1727.6	1866.6	1993.8	2212.7	2328.0	2345.8
15°	671.5	795.7	1127.1	1239.5	1553.0	1934.6	2088.4	2245.2	2449.3	2532.1	2552.9
17.5°	609.3	766.1	1171.5	1289.8	1671.4	2121.0	2277.8	2407.9	2573.6	2629.8	2644.6
20°	532.4	718.8	1201.0	1354.9	1795.6	2257.1	2407.9	2508.5	2620.9	2656.4	2662.3
22.5°	476.2	668.5	1218.8	1378.5	1878.4	2339.9	2467.1	2546.9	2623.8	2635.7	2638.6
25°	428.9	612.3	1215.8	1405.1	1949.4	2390.2	2487.8	2546.9	2591.3	2597.2	2597.2
27.5°	384.5	550.2	1204.0	1411.1	2002.7	2402.0	2478.9	2520.3	2541.0	2552.9	2552.9
30°	346.1	491.0	1174.4	1399.2	2026.3	2390.2	2452.3	2473.0	2493.7	2511.4	2520.3
32.5°	316.5	434.8	1130.1	1375.6	2029.3	2360.6	2405.0	2416.8	2446.4	2487.8	2502.6
35°	289.9	378.6	1079.7	1343.0	2011.5	2313.3	2342.8	2354.7	2413.8	2475.9	2496.7
37.5°	263.3	337.2	1014.6	1286.8	1984.9	2257.1	2277.8	2298.5	2390.2	2464.1	2487.8
40°	236.6	301.7	937.7	1224.7	1943.5	2189.0	2206.8	2239.3	2360.6	2446.4	2470.0
42.5°	215.9	272.1	854.9	1159.6	1890.3	2112.1	2138.7	2186.1	2325.1	2416.8	2443.4
45°	198.2	242.6	766.1	1070.8	1822.2	2032.2	2070.7	2135.8	2283.7	2372.4	2396.1
47.5°	180.4	221.8	674.4	979.1	1748.3	1952.4	2002.7	2076.6	2227.5	2313.3	2334.0
50°	165.6	201.1	582.7	881.5	1668.4	1866.6	1925.8	2002.7	2156.5	2236.3	2263.0
52.5°	153.8	183.4	496.9	783.9	1576.7	1777.9	1845.9	1925.8	2070.7	2147.6	2165.4
55°	142.0	168.6	423.0	680.3	1482.1	1683.2	1757.2	1834.1	1976.0	2041.1	2053.0
57.5°	136.1	156.8	360.9	582.7	1381.5	1576.7	1659.5	1730.5	1863.6	1913.9	1925.8
60°	127.2	147.9	313.5	499.9	1272.0	1476.1	1547.1	1618.1	1730.5	1771.9	1780.8
62.5°	118.3	142.0	278.1	420.0	1159.6	1357.8	1428.8	1493.9	1588.5	1618.1	1630.0
65°	112.4	136.1	251.4	360.9	1044.2	1233.6	1304.6	1360.8	1437.7	1467.3	1473.2
67.5°	106.5	130.2	230.7	310.6	928.8	1109.2	1162.6	1215.8	1275.0	1304.6	1307.5
70°	97.6	124.2	213.0	275.1	810.5	967.3	1011.6	1067.8	1115.2	1130.1	1138.9
72.5°	91.7	115.4	201.1	248.5	689.2	831.2	872.6	905.1	946.6	961.4	961.4
75°	82.8	103.5	189.3	221.8	565.0	680.3	715.8	748.4	780.9	786.8	778.0
77.5°	74.0	91.7	162.7	186.4	440.7	538.4	567.9	585.7	612.3	618.2	621.2
80°	62.1	79.9	127.2	144.9	319.5	396.4	417.1	431.9	455.5	455.5	461.4
82.5°	47.3	62.1	91.7	103.5	215.9	272.1	289.9	298.8	313.5	313.5	313.5
85°	29.6	38.5	59.2	68.0	130.2	165.6	177.5	180.4	192.3	195.2	195.2
87.5°	14.8	20.7	38.5	41.4	68.0	85.8	85.8	91.7	91.7	88.7	85.8
90°	6.1	10.9	15.9	17.1	26.8	39.8	46.3	41.2	30.9	23.2	23.2
92.5°	24.4	65.8	107.3	117.6	165.4	229.0	260.9	228.7	164.2	115.9	111.2
95°	58.6	134.4	210.3	229.2	407.0	644.2	762.7	680.5	516.4	393.2	379.2
97.5°	101.2	168.1	235.1	251.8	548.3	943.6	1141.3	1089.4	985.6	907.8	881.3
100°	134.1	194.8	255.5	270.7	599.7	1038.4	1257.7	1261.5	1269.1	1274.8	1243.1
102.5°	162.2	218.8	275.4	289.6	623.3	1068.2	1290.7	1356.7	1489.0	1588.2	1561.0
105°	209.7	257.6	305.6	317.6	640.7	1071.6	1287.0	1435.2	1731.6	1954.0	1939.4
107.5°	258.5	303.2	348.0	359.1	644.1	1024.0	1213.9	1420.6	1834.2	2144.3	2147.8
110°	291.5	331.8	372.2	382.3	639.1	981.7	1152.9	1384.0	1846.3	2193.0	2208.1

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	323.7	362.2	400.6	410.3	639.3	944.7	1097.4	1334.0	1807.0	2161.9	2185.2
115°	372.5	408.0	443.5	452.4	645.2	902.4	1031.0	1258.8	1714.6	2056.4	2088.7
117.5°	420.6	452.9	485.1	493.2	657.2	875.9	985.2	1190.9	1602.2	1910.7	1946.5
120°	448.7	479.1	509.4	517.0	666.9	867.0	967.0	1154.9	1530.7	1812.6	1847.4
122.5°	476.1	506.8	537.4	545.1	681.0	862.3	952.9	1122.1	1460.6	1714.4	1748.7
125°	518.2	546.1	574.0	581.0	700.0	858.4	937.7	1081.4	1368.9	1584.5	1616.2
127.5°	552.4	580.6	608.8	615.8	718.8	856.1	924.9	1048.3	1295.1	1480.3	1507.0
130°	570.7	601.1	631.3	638.9	732.6	857.5	920.0	1029.9	1249.7	1414.4	1439.1
132.5°	589.5	619.9	650.3	657.9	743.8	858.4	915.7	1014.1	1210.8	1358.3	1380.4
135°	617.6	645.2	672.8	679.7	756.0	857.6	908.4	990.8	1155.6	1279.1	1298.2
137.5°	646.2	673.6	701.0	707.8	774.3	862.9	907.2	976.8	1116.2	1220.6	1236.1
140°	670.0	695.2	720.4	726.7	785.4	863.7	902.9	963.0	1083.4	1173.6	1188.2
142.5°	688.3	711.6	735.0	740.8	794.8	866.9	902.9	955.7	1061.4	1140.7	1153.2
145°	716.3	736.6	757.0	762.1	807.0	866.9	896.9	940.1	1026.5	1091.3	1100.8
147.5°	744.4	764.2	784.0	788.9	824.9	872.9	896.9	930.9	998.9	1049.9	1057.8
150°	762.7	780.5	798.5	802.9	834.3	876.0	896.9	925.6	982.9	1026.0	1032.4
152.5°	781.6	795.1	808.7	812.1	840.4	878.0	896.9	921.4	970.4	1007.2	1012.0
155°	809.6	819.7	829.7	832.2	853.8	882.5	896.9	916.4	955.3	984.6	987.8
157.5°	830.4	840.2	849.8	852.3	867.2	887.0	896.9	912.0	942.3	965.1	967.4
160°	844.4	852.0	859.6	861.5	873.3	889.0	896.9	909.9	935.8	955.3	956.6
162.5°	858.4	864.1	869.8	871.2	879.8	891.1	896.9	907.8	929.7	946.2	947.3
165°	873.7	878.8	883.9	885.2	889.1	894.3	896.9	904.8	920.4	932.2	933.4
167.5°	887.7	890.1	892.5	893.1	896.4	900.7	902.9	908.0	918.4	926.1	926.6
170°	896.9	899.2	901.7	902.3	902.5	902.8	902.9	908.0	918.4	926.1	926.1
172.5°	901.7	902.2	902.8	902.9	902.9	902.9	902.9	906.9	915.1	921.2	920.7
175°	908.4	908.4	908.4	908.4	906.5	904.1	902.9	905.4	910.7	914.5	914.5
177.5°	908.4	908.4	908.4	908.4	907.0	905.1	904.2	906.2	910.3	913.3	912.7
180°	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	919.9	919.9
2.5°	982.1	976.1
5°	1263.2	1269.1
7.5°	1700.9	1698.0
10°	2115.1	2141.7
12.5°	2416.8	2422.7
15°	2600.2	2612.0
17.5°	2671.2	2674.1
20°	2674.1	2668.2
22.5°	2641.6	2635.7
25°	2603.1	2600.2
27.5°	2567.6	2570.6
30°	2552.9	2561.7
32.5°	2552.9	2567.6
35°	2558.8	2573.6
37.5°	2555.8	2573.6
40°	2544.0	2564.7
42.5°	2511.4	2526.2
45°	2461.2	2478.9
47.5°	2396.1	2407.9
50°	2313.3	2325.1
52.5°	2209.7	2212.7
55°	2085.5	2097.3
57.5°	1952.4	1955.3
60°	1804.5	1813.4
62.5°	1647.7	1647.7
65°	1482.1	1488.0
67.5°	1310.5	1325.3
70°	1136.0	1138.9
72.5°	964.3	964.3
75°	786.8	789.8
77.5°	618.2	618.2
80°	458.5	461.4
82.5°	316.5	322.4
85°	198.2	198.2
87.5°	91.7	82.8
90°	23.2	23.2
92.5°	92.8	74.3
95°	323.4	267.6
97.5°	775.0	668.8
100°	1116.6	990.1
102.5°	1452.7	1344.3
105°	1881.2	1822.9
107.5°	2161.8	2175.9
110°	2268.8	2329.5

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2278.4	2371.6
115°	2218.0	2347.3
117.5°	2089.8	2233.2
120°	1986.7	2125.9
122.5°	1886.1	2023.5
125°	1742.7	1869.3
127.5°	1613.7	1720.5
130°	1537.8	1636.4
132.5°	1468.7	1557.1
135°	1374.3	1450.4
137.5°	1298.5	1360.8
140°	1246.4	1304.7
142.5°	1203.4	1253.5
145°	1138.7	1176.7
147.5°	1089.1	1120.6
150°	1057.9	1083.4
152.5°	1031.3	1050.5
155°	1000.6	1013.3
157.5°	976.2	985.2
160°	961.8	967.0
162.5°	952.3	957.2
165°	938.7	943.8
167.5°	928.8	931.0
170°	926.1	926.1
172.5°	918.9	917.0
175°	914.5	914.5
177.5°	910.6	908.4
180°	908.4	908.4

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	5.06	6.01	5.97	6.95	8.14	18.26	19.20	19.16	20.14	21.34
	3H	5.78	6.63	6.69	7.57	8.79	20.11	20.96	21.03	21.90	23.12
	4H	6.08	6.89	7.01	7.83	9.06	20.76	21.57	21.69	22.52	23.75
	6H	6.33	7.08	7.28	8.03	9.28	21.20	21.95	22.15	22.90	24.14
	8H	6.40	7.12	7.36	8.09	9.33	21.33	22.04	22.28	23.01	24.25
	12H	6.42	7.10	7.38	8.07	9.33	21.40	22.08	22.36	23.04	24.31
4H	2H	12.30	13.11	13.24	14.05	15.28	18.54	19.35	19.48	20.30	21.53
	3H	13.87	14.55	14.82	15.53	16.77	20.60	21.28	21.55	22.25	23.50
	4H	13.97	14.59	14.93	15.56	16.83	21.37	21.99	22.33	22.96	24.23
	6H	13.99	14.52	14.96	15.52	16.79	21.92	22.46	22.90	23.45	24.72
	8H	13.97	14.47	14.94	15.46	16.74	22.09	22.59	23.06	23.58	24.86
	12H	13.93	14.38	14.92	15.38	16.68	22.19	22.64	23.19	23.65	24.94
8H	4H	15.43	15.93	16.40	16.92	18.20	21.44	21.94	22.42	22.93	24.21
	6H	15.67	16.09	16.67	17.12	18.40	22.08	22.49	23.08	23.52	24.81
	8H	15.69	16.06	16.70	17.08	18.38	22.30	22.67	23.31	23.69	24.99
	12H	15.67	15.99	16.68	17.00	18.35	22.46	22.78	23.47	23.79	25.14
12H	4H	15.58	16.03	16.57	17.03	18.32	21.40	21.85	22.39	22.86	24.15
	6H	15.93	16.30	16.94	17.32	18.62	22.06	22.43	23.07	23.45	24.75
	8H	16.01	16.33	17.02	17.34	18.69	22.30	22.62	23.31	23.64	24.98