

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: P937742

Luminaire Tested: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-6-6500K

Issue Date: 12/17/2024

**Test Information**

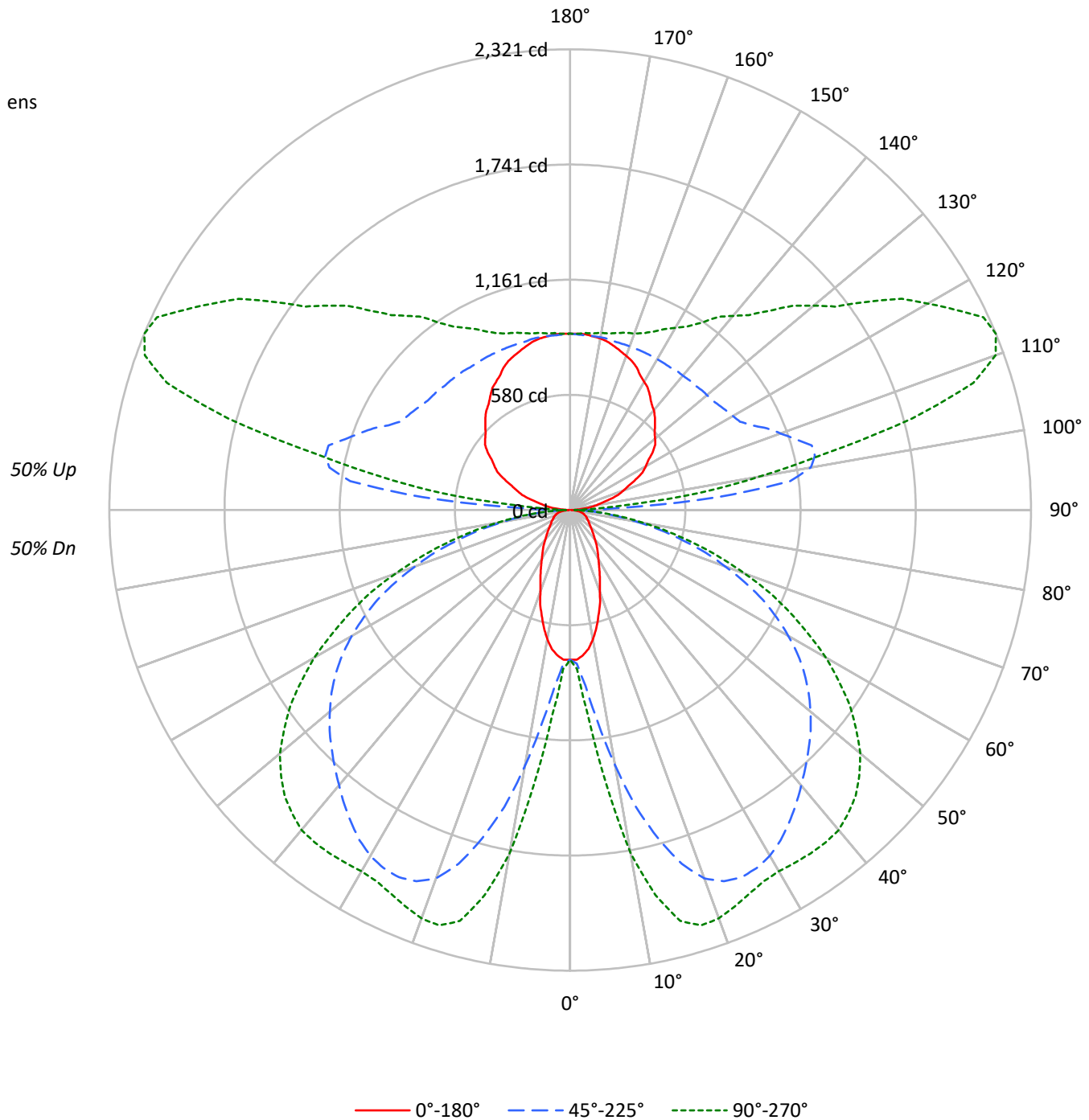
Test Method: LM-79-2019  
Report Number: P937742  
REPORT IS A COMBINATION OF REPORTS P933576 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-6-6500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11605.3 lumens  
Efficiency: N/A  
Efficacy: 112.5 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')  
CIE Type: General Diffuse  
  
Input Watts (W): 103.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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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### 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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4669	4669	4669
5°	4560	5395	6277
10°	4135	7864	10406
15°	3513	10271	12565
20°	2859	11899	12805
25°	2384	12449	12545
30°	2009	12524	12521
35°	1776	12313	12846
40°	1547	12039	13180
45°	1399	11838	13231
50°	1282	11656	13012
55°	1227	11391	12436
60°	1254	10886	11524
65°	1304	10120	10274
70°	1385	8820	8679
75°	1530	7185	6773
80°	1660	4977	4565
85°	1449	2635	2336

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13231 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.6	0.8
10°-20°	432.8	3.7
20°-30°	757.0	6.5
30°-40°	974.4	8.4
40°-50°	1088.4	9.4
50°-60°	1042.4	9.0
60°-70°	826.1	7.1
70°-80°	485.8	4.2
80°-90°	138.4	1.2
90°-100°	433.3	3.7
100°-110°	1139.2	9.8
110°-120°	1181.2	10.2
120°-130°	947.5	8.2
130°-140°	743.4	6.4
140°-150°	570.6	4.9
150°-160°	410.9	3.5
160°-170°	251.4	2.2
170°-180°	84.9	0.7
0°-30°	1287.4	11.1
0°-40°	2261.8	19.5
0°-60°	4392.6	37.8
0°-90°	5842.9	50.3
90°-120°	2753.7	23.7
90°-150°	5015.2	43.2
90°-180°	5762.0	49.6
0°-180°	11605.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	755	755	755	755	755	
5°	735	789	888	1005	1041	68
15°	551	1017	1714	2078	2143	153
25°	352	1153	2041	2131	2134	162
35°	238	1102	1922	2032	2112	149
45°	163	879	1699	1947	2034	126
55°	116	558	1442	1675	1721	106
65°	92	296	1070	1204	1221	91
75°	68	182	587	646	648	71
85°	24	56	146	160	163	26
90°	6	17	45	23	23	7
95°	57	224	746	385	262	64
105°	205	311	1259	1912	1784	218
115°	364	443	1009	2012	2297	360
125°	507	569	918	1551	1829	450
135°	604	665	889	1252	1419	468
145°	701	746	878	1068	1151	439
155°	792	814	878	964	992	364
165°	855	866	878	912	924	241
175°	889	889	884	895	895	84
180°	889	889	889	889	889	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	754.8	754.8	754.8	754.8	754.8	754.8	754.8	754.8	754.8	754.8	754.8
2.5°	754.8	754.8	759.7	762.1	767.0	769.4	774.2	779.1	793.6	796.1	801.0
5°	735.4	745.2	776.7	788.9	822.8	868.9	888.3	919.9	985.5	1004.9	1017.0
7.5°	706.3	728.1	805.8	825.2	910.2	1031.5	1082.5	1150.5	1254.8	1305.8	1347.1
10°	660.2	706.3	844.6	890.8	1029.2	1213.6	1308.3	1402.9	1560.7	1631.1	1657.8
12.5°	609.2	684.4	885.9	949.0	1148.0	1417.5	1531.5	1635.9	1815.5	1910.2	1924.7
15°	551.0	652.9	924.7	1017.0	1274.2	1587.4	1713.6	1842.2	2009.7	2077.6	2094.6
17.5°	500.0	628.6	961.2	1058.2	1371.4	1740.3	1868.9	1975.7	2111.7	2157.7	2169.9
20°	436.9	589.8	985.5	1111.7	1473.3	1852.0	1975.7	2058.2	2150.5	2179.5	2184.4
22.5°	390.8	548.6	1000.0	1131.1	1541.3	1919.8	2024.3	2089.8	2152.9	2162.6	2165.0
25°	352.0	502.4	997.6	1152.9	1599.5	1961.2	2041.3	2089.8	2126.2	2131.1	2131.1
27.5°	315.5	451.4	987.8	1157.8	1643.2	1970.8	2033.9	2068.0	2084.9	2094.6	2094.6
30°	284.0	402.9	963.6	1148.0	1662.6	1961.2	2012.1	2029.1	2046.1	2060.7	2068.0
32.5°	259.7	356.8	927.1	1128.6	1665.0	1936.9	1973.3	1983.0	2007.2	2041.3	2053.3
35°	237.9	310.7	885.9	1101.9	1650.5	1898.0	1922.3	1932.0	1980.6	2031.5	2048.5
37.5°	216.0	276.7	832.6	1055.8	1628.6	1852.0	1868.9	1885.9	1961.2	2021.8	2041.3
40°	194.2	247.6	769.4	1004.9	1594.6	1796.1	1810.6	1837.3	1936.9	2007.2	2026.7
42.5°	177.2	223.3	701.5	951.4	1550.9	1733.0	1754.8	1793.6	1907.7	1983.0	2004.8
45°	162.6	199.0	628.6	878.6	1495.1	1667.4	1699.0	1752.4	1873.8	1946.6	1966.0
47.5°	148.0	182.1	553.3	803.4	1434.5	1601.9	1643.2	1703.8	1827.7	1898.0	1915.1
50°	135.9	165.0	478.2	723.3	1368.9	1531.5	1580.1	1643.2	1769.4	1834.9	1856.7
52.5°	126.2	150.5	407.7	643.2	1293.6	1458.7	1514.5	1580.1	1699.0	1762.1	1776.7
55°	116.5	138.4	347.1	558.2	1216.0	1381.0	1441.7	1504.9	1621.3	1674.8	1684.4
57.5°	111.7	128.6	296.1	478.2	1133.5	1293.6	1361.6	1419.9	1529.1	1570.4	1580.1
60°	104.3	121.3	257.3	410.2	1043.7	1211.1	1269.4	1327.7	1419.9	1453.9	1461.2
62.5°	97.1	116.5	228.1	344.6	951.4	1114.1	1172.3	1225.7	1303.4	1327.7	1337.3
65°	92.3	111.7	206.3	296.1	856.7	1012.1	1070.4	1116.5	1179.6	1203.8	1208.7
67.5°	87.4	106.8	189.3	254.8	762.1	910.2	953.9	997.6	1046.1	1070.4	1072.8
70°	80.1	101.9	174.8	225.8	665.0	793.6	830.1	876.2	915.1	927.1	934.5
72.5°	75.3	94.7	165.0	203.9	565.5	682.1	716.0	742.7	776.7	788.9	788.9
75°	68.0	84.9	155.4	182.1	463.6	558.2	587.4	614.1	640.7	645.6	638.4
77.5°	60.7	75.3	133.5	152.9	361.6	441.8	466.0	480.6	502.4	507.3	509.7
80°	51.0	65.5	104.3	119.0	262.1	325.2	342.2	354.4	373.8	373.8	378.7
82.5°	38.8	51.0	75.3	84.9	177.2	223.3	237.9	245.2	257.3	257.3	257.3
85°	24.3	31.6	48.6	55.8	106.8	135.9	145.6	148.0	157.8	160.2	160.2
87.5°	12.1	17.0	31.6	33.9	55.8	70.4	70.4	75.3	75.3	72.9	70.4
90°	5.9	10.7	15.5	16.7	26.3	39.0	45.3	40.3	30.2	22.7	22.7
92.5°	23.9	64.4	105.0	115.1	161.9	224.1	255.3	223.7	160.6	113.3	108.8
95°	57.3	131.5	205.8	224.3	398.4	630.3	746.3	666.0	505.3	384.8	371.1
97.5°	99.1	164.6	230.1	246.4	536.5	923.4	1116.8	1066.1	964.5	888.3	862.3
100°	131.3	190.7	250.0	264.9	586.8	1016.1	1230.7	1234.4	1241.9	1247.4	1216.5
102.5°	158.7	214.2	269.6	283.4	610.0	1045.3	1262.9	1327.7	1457.0	1554.1	1527.6
105°	205.2	252.1	299.1	310.9	627.1	1048.7	1259.4	1404.5	1694.5	1912.0	1897.8
107.5°	252.9	296.7	340.5	351.4	630.2	1001.9	1187.8	1390.1	1794.7	2098.2	2101.6
110°	285.1	324.6	364.2	374.1	625.4	960.6	1128.1	1354.3	1806.6	2145.9	2160.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	316.8	354.5	392.1	401.5	625.6	924.4	1073.8	1305.3	1768.3	2115.5	2138.2
115°	364.5	399.2	433.9	442.6	631.4	882.9	1008.8	1231.8	1677.8	2012.3	2044.0
117.5°	411.6	443.2	474.7	482.6	643.0	857.0	964.0	1165.3	1567.8	1869.6	1904.7
120°	439.1	468.8	498.5	505.9	652.7	848.3	946.2	1130.0	1497.8	1773.6	1807.7
122.5°	466.0	495.9	525.9	533.4	666.4	843.7	932.5	1098.1	1429.2	1677.5	1711.2
125°	507.1	534.4	561.8	568.6	684.9	840.0	917.6	1058.2	1339.5	1550.6	1581.5
127.5°	540.5	568.1	595.7	602.6	703.4	837.8	905.0	1025.8	1267.3	1448.5	1474.6
130°	558.4	588.2	617.8	625.3	717.0	839.2	900.3	1007.7	1222.8	1384.1	1408.2
132.5°	576.9	606.6	636.3	643.7	727.9	840.0	896.0	992.3	1184.8	1329.2	1350.8
135°	604.3	631.4	658.4	665.2	739.8	839.2	888.9	969.5	1130.7	1251.7	1270.3
137.5°	632.3	659.1	686.0	692.7	757.7	844.4	887.7	955.9	1092.2	1194.4	1209.6
140°	655.7	680.3	705.0	711.1	768.6	845.2	883.5	942.4	1060.1	1148.4	1162.6
142.5°	673.5	696.4	719.2	724.9	777.8	848.2	883.5	935.3	1038.6	1116.2	1128.4
145°	701.0	720.9	740.8	745.7	789.7	848.3	877.6	919.9	1004.5	1067.9	1077.2
147.5°	728.4	747.7	767.1	771.9	807.1	854.1	877.6	910.9	977.4	1027.3	1035.0
150°	746.3	763.8	781.3	785.7	816.3	857.1	877.6	905.7	961.8	1004.0	1010.2
152.5°	764.9	778.1	791.3	794.7	822.3	859.1	877.6	901.6	949.6	985.5	990.2
155°	792.3	802.1	811.8	814.3	835.4	863.5	877.6	896.7	934.9	963.5	966.6
157.5°	812.6	822.1	831.6	834.0	848.5	867.9	877.6	892.4	922.2	944.4	946.6
160°	826.2	833.7	841.2	843.0	854.5	869.9	877.6	890.3	915.7	934.9	936.1
162.5°	840.0	845.6	851.1	852.5	860.9	872.0	877.6	888.3	909.8	925.9	927.0
165°	854.9	859.9	865.0	866.2	870.0	875.1	877.6	885.2	900.6	912.2	913.5
167.5°	868.6	871.0	873.4	874.0	877.1	881.4	883.5	888.6	898.6	906.2	906.8
170°	877.6	880.0	882.4	882.9	883.1	883.4	883.5	888.6	898.6	906.2	906.2
172.5°	882.4	882.9	883.4	883.5	883.5	883.5	883.5	887.5	895.5	901.4	900.9
175°	888.9	888.9	888.9	888.9	887.1	884.7	883.5	886.0	891.1	894.9	894.9
177.5°	888.9	888.9	888.9	888.9	887.5	885.7	884.8	886.8	890.7	893.7	893.1
180°	888.9	888.9	888.9	888.9	888.9	888.9	888.9	888.9	888.9	888.9	888.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	754.8	754.8
2.5°	805.8	801.0
5°	1036.4	1041.3
7.5°	1395.7	1393.2
10°	1735.4	1757.3
12.5°	1983.0	1987.8
15°	2133.5	2143.2
17.5°	2191.7	2194.2
20°	2194.2	2189.3
22.5°	2167.4	2162.6
25°	2135.8	2133.5
27.5°	2106.8	2109.2
30°	2094.6	2101.9
32.5°	2094.6	2106.8
35°	2099.5	2111.7
37.5°	2097.0	2111.7
40°	2087.4	2104.3
42.5°	2060.7	2072.8
45°	2019.4	2033.9
47.5°	1966.0	1975.7
50°	1898.0	1907.7
52.5°	1813.0	1815.5
55°	1711.1	1720.9
57.5°	1601.9	1604.3
60°	1480.6	1487.8
62.5°	1352.0	1352.0
65°	1216.0	1220.9
67.5°	1075.2	1087.4
70°	932.0	934.5
72.5°	791.2	791.2
75°	645.6	648.0
77.5°	507.3	507.3
80°	376.2	378.7
82.5°	259.7	264.6
85°	162.6	162.6
87.5°	75.3	68.0
90°	22.7	22.7
92.5°	90.7	72.8
95°	316.5	261.9
97.5°	758.4	654.4
100°	1092.6	968.8
102.5°	1421.5	1315.4
105°	1840.8	1783.8
107.5°	2115.5	2129.3
110°	2220.2	2279.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2229.5	2320.7
115°	2170.4	2296.9
117.5°	2045.0	2185.3
120°	1944.0	2080.3
122.5°	1845.6	1980.1
125°	1705.3	1829.1
127.5°	1579.2	1683.6
130°	1504.8	1601.2
132.5°	1437.3	1523.7
135°	1344.8	1419.3
137.5°	1270.6	1331.6
140°	1219.7	1276.7
142.5°	1177.6	1226.6
145°	1114.3	1151.4
147.5°	1065.8	1096.6
150°	1035.2	1060.1
152.5°	1009.1	1027.9
155°	979.0	991.5
157.5°	955.3	964.0
160°	941.2	946.2
162.5°	931.8	936.6
165°	918.5	923.5
167.5°	908.9	911.0
170°	906.2	906.2
172.5°	899.1	897.3
175°	894.9	894.9
177.5°	891.0	888.9
180°	888.9	888.9



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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	6.39	7.29	7.33	8.26	9.52	19.55	20.45	20.50	21.42	22.69
	3H	7.10	7.91	8.05	8.88	10.17	21.39	22.20	22.35	23.18	24.46
	4H	7.40	8.16	8.37	9.15	10.44	22.03	22.80	23.00	23.78	25.08
	6H	7.65	8.36	8.63	9.34	10.65	22.46	23.17	23.44	24.16	25.47
	8H	7.72	8.39	8.71	9.40	10.70	22.58	23.26	23.57	24.26	25.57
	12H	7.74	8.38	8.73	9.38	10.71	22.65	23.29	23.64	24.29	25.62
4H	2H	13.60	14.37	14.58	15.35	16.64	19.83	20.60	20.81	21.58	22.88
	3H	15.17	15.82	16.16	16.83	18.13	21.88	22.52	22.86	23.53	24.84
	4H	15.27	15.86	16.26	16.86	18.19	22.64	23.23	23.64	24.23	25.57
	6H	15.28	15.79	16.29	16.82	18.15	23.18	23.69	24.19	24.72	26.04
	8H	15.26	15.74	16.27	16.76	18.10	23.34	23.82	24.35	24.84	26.18
	12H	15.22	15.65	16.25	16.68	18.03	23.43	23.86	24.46	24.90	26.25
8H	4H	16.71	17.19	17.72	18.21	19.55	22.71	23.18	23.72	24.20	25.55
	6H	16.96	17.35	17.99	18.41	19.76	23.33	23.73	24.37	24.79	26.13
	8H	16.98	17.32	18.02	18.37	19.73	23.55	23.90	24.59	24.95	26.31
	12H	16.95	17.25	17.99	18.30	19.70	23.69	24.00	24.74	25.04	26.45
12H	4H	16.86	17.29	17.89	18.32	19.67	22.66	23.09	23.69	24.13	25.48
	6H	17.22	17.56	18.26	18.61	19.97	23.32	23.67	24.36	24.71	26.07
	8H	17.29	17.59	18.33	18.64	20.04	23.55	23.85	24.59	24.90	26.30