

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: P937687

Luminaire Tested: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-6-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937687
REPORT IS A COMBINATION OF REPORTS P933575 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-6-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

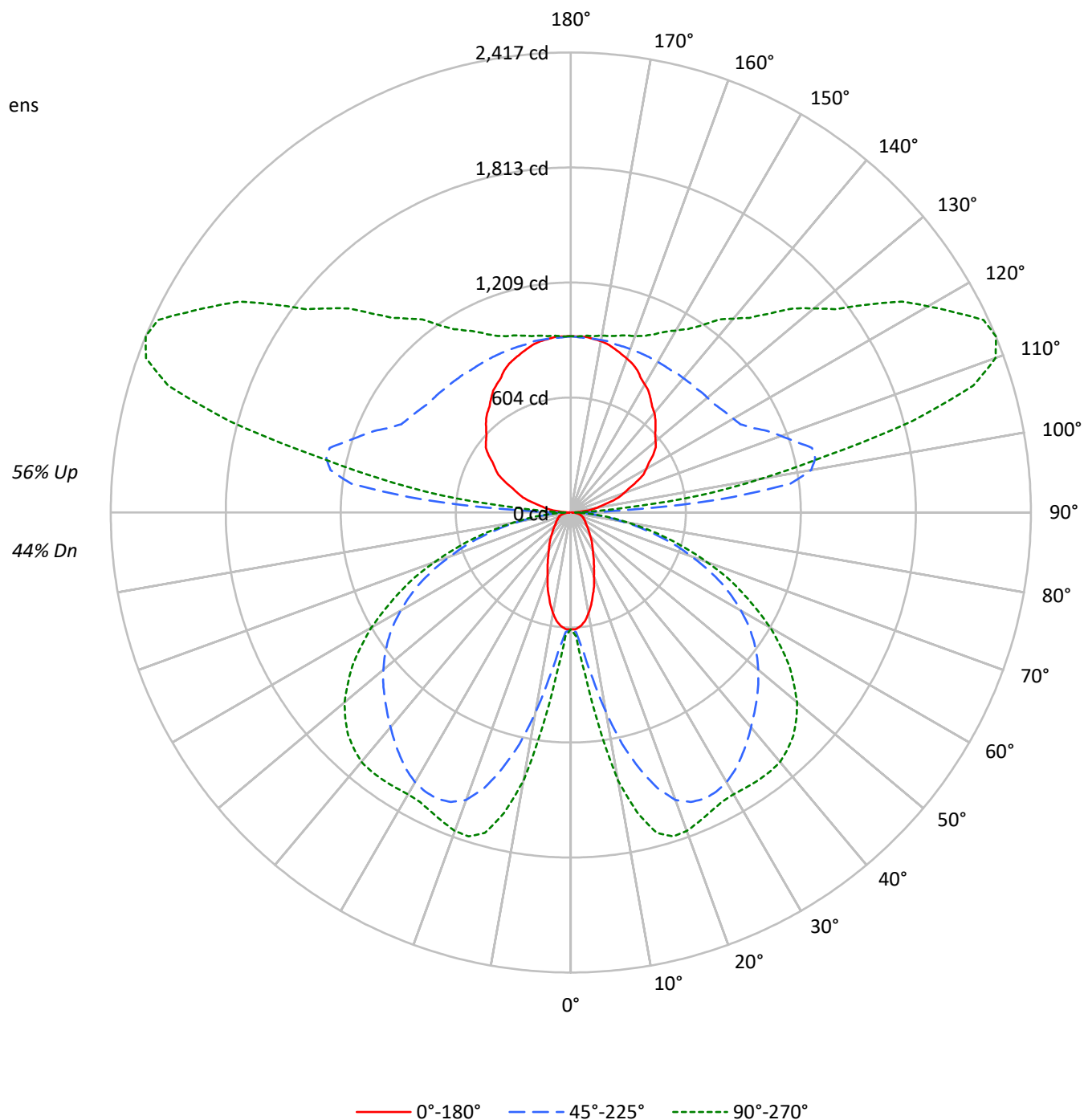
Lumens per Lamp: N/A
Luminaire Lumens: 10754.8 lumens
Efficiency: N/A
Efficacy: 123.6 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 87
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

TEST NUMBER: P937687

CATALOG NUMBER: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-6-2700K

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	50	30	10
RCR																				
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51			44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42			36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34			30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29			24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24			20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21			17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18			15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16			13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14			11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12			10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11			9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3797	3797	3797
5°	3709	4388	5104
10°	3362	6395	8462
15°	2857	8353	10218
20°	2325	9677	10414
25°	1939	10124	10202
30°	1634	10185	10183
35°	1444	10014	10447
40°	1258	9791	10718
45°	1138	9628	10760
50°	1044	9479	10583
55°	998	9264	10113
60°	1021	8853	9372
65°	1060	8230	8354
70°	1126	7173	7058
75°	1244	5843	5508
80°	1347	4047	3712
85°	1175	2143	1900

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10760 cd/sqm

TEST NUMBER: P937687

CATALOG NUMBER: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-6-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.4	0.7
10°-20°	351.9	3.3
20°-30°	615.6	5.7
30°-40°	792.4	7.4
40°-50°	885.1	8.2
50°-60°	847.8	7.9
60°-70°	671.8	6.2
70°-80°	395.1	3.7
80°-90°	113.3	1.1
90°-100°	451.3	4.2
100°-110°	1186.6	11.0
110°-120°	1230.4	11.4
120°-130°	986.9	9.2
130°-140°	774.4	7.2
140°-150°	594.4	5.5
150°-160°	428.0	4.0
160°-170°	261.9	2.4
170°-180°	88.5	0.8
0°-30°	1046.9	9.7
0°-40°	1839.4	17.1
0°-60°	3572.3	33.2
0°-90°	4752.5	44.2
90°-120°	2868.3	26.7
90°-150°	5223.9	48.6
90°-180°	6002.0	55.8
0°-180°	10754.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	614	614	614	614	614	
5°	598	642	722	817	847	55
15°	448	827	1394	1690	1743	125
25°	286	938	1660	1733	1735	132
35°	193	896	1563	1652	1717	121
45°	132	714	1382	1583	1654	102
55°	95	454	1172	1362	1400	86
65°	75	241	870	979	993	74
75°	55	148	478	525	527	58
85°	20	45	118	130	132	21
90°	6	17	47	24	24	6
95°	60	234	777	401	273	66
105°	214	324	1312	1992	1858	227
115°	380	461	1051	2096	2392	375
125°	528	592	956	1615	1905	469
135°	630	693	926	1304	1478	487
145°	730	777	914	1112	1199	457
155°	825	848	914	1004	1033	379
165°	890	902	914	950	962	251
175°	926	926	920	932	932	88
180°	926	926	926	926	926	

TEST NUMBER: P937687

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.8
2.5°	613.8	613.8	617.8	619.8	623.7	625.7	629.7	633.7	645.4	647.4	651.4
5°	598.1	606.0	631.7	641.5	669.1	706.7	722.4	748.1	801.4	817.2	827.1
7.5°	574.4	592.1	655.4	671.1	740.2	838.9	880.4	935.6	1020.5	1061.9	1095.5
10°	536.8	574.4	686.9	724.4	836.9	986.9	1063.9	1140.9	1269.2	1326.5	1348.2
12.5°	495.4	556.7	720.5	771.8	933.7	1152.8	1245.5	1330.4	1476.5	1553.5	1565.3
15°	448.1	531.0	752.1	827.1	1036.2	1290.9	1393.6	1498.2	1634.3	1689.6	1703.5
17.5°	406.7	511.2	781.7	860.6	1115.2	1415.3	1519.9	1606.7	1717.3	1754.8	1764.6
20°	355.3	479.7	801.4	904.1	1198.2	1506.1	1606.7	1673.9	1748.9	1772.6	1776.5
22.5°	317.8	446.1	813.2	919.8	1253.4	1561.3	1646.2	1699.5	1750.9	1758.7	1760.7
25°	286.3	408.6	811.2	937.6	1300.8	1594.9	1660.0	1699.5	1729.2	1733.0	1733.0
27.5°	256.6	367.1	803.4	941.5	1336.3	1602.8	1654.1	1681.7	1695.6	1703.5	1703.5
30°	231.0	327.7	783.7	933.7	1352.1	1594.9	1636.3	1650.2	1664.0	1675.8	1681.7
32.5°	211.3	290.1	754.0	917.8	1354.1	1575.2	1604.8	1612.6	1632.3	1660.0	1669.9
35°	193.4	252.7	720.5	896.1	1342.2	1543.6	1563.3	1571.2	1610.6	1652.2	1665.9
37.5°	175.7	225.0	677.1	858.7	1324.5	1506.1	1519.9	1533.7	1594.9	1644.2	1660.0
40°	157.9	201.3	625.7	817.2	1296.8	1460.6	1472.5	1494.2	1575.2	1632.3	1648.2
42.5°	144.1	181.6	570.4	773.8	1261.3	1409.3	1427.1	1458.6	1551.5	1612.6	1630.5
45°	132.3	161.8	511.2	714.5	1215.9	1356.1	1381.8	1425.2	1523.8	1583.0	1598.9
47.5°	120.4	148.0	450.1	653.4	1166.5	1302.8	1336.3	1385.6	1486.3	1543.6	1557.3
50°	110.6	134.3	388.8	588.2	1113.2	1245.5	1285.0	1336.3	1438.9	1492.2	1510.0
52.5°	102.7	122.4	331.6	523.1	1052.1	1186.3	1231.7	1285.0	1381.8	1433.0	1444.9
55°	94.7	112.5	282.3	454.0	988.9	1123.1	1172.5	1223.8	1318.5	1361.9	1369.9
57.5°	90.8	104.6	240.8	388.8	921.8	1052.1	1107.4	1154.8	1243.5	1277.1	1285.0
60°	84.9	98.7	209.3	333.6	848.8	984.9	1032.4	1079.7	1154.8	1182.4	1188.2
62.5°	79.0	94.7	185.6	280.3	773.8	906.0	953.4	996.8	1059.9	1079.7	1087.6
65°	75.0	90.8	167.8	240.8	696.8	823.1	870.5	908.0	959.3	979.1	983.0
67.5°	71.0	86.9	154.0	207.3	619.8	740.2	775.7	811.2	850.8	870.5	872.5
70°	65.1	82.9	142.1	183.6	540.8	645.4	675.1	712.5	744.1	754.0	759.9
72.5°	61.2	77.0	134.3	165.8	460.0	554.7	582.3	604.0	631.7	641.5	641.5
75°	55.3	69.1	126.3	148.0	377.0	454.0	477.7	499.4	521.1	525.1	519.1
77.5°	49.3	61.2	108.6	124.4	294.1	359.3	379.0	390.8	408.6	412.5	414.5
80°	41.4	53.3	84.9	96.7	213.1	264.5	278.3	288.1	304.0	304.0	308.0
82.5°	31.6	41.4	61.2	69.1	144.1	181.6	193.4	199.4	209.3	209.3	209.3
85°	19.7	25.7	39.4	45.4	86.9	110.6	118.4	120.4	128.3	130.3	130.3
87.5°	9.9	13.8	25.7	27.6	45.4	57.3	57.3	61.2	61.2	59.3	57.3
90°	6.2	11.2	16.1	17.4	27.4	40.6	47.2	41.9	31.5	23.6	23.6
92.5°	24.9	67.1	109.4	119.9	168.6	233.5	265.9	233.1	167.3	118.0	113.3
95°	59.7	137.0	214.3	233.7	414.9	656.6	777.4	693.7	526.3	400.8	386.5
97.5°	103.2	171.4	239.6	256.7	558.9	961.8	1163.3	1110.4	1004.7	925.3	898.2
100°	136.8	198.6	260.5	275.9	611.2	1058.3	1282.0	1285.8	1293.6	1299.4	1267.1
102.5°	165.3	223.1	280.8	295.2	635.3	1088.8	1315.5	1382.9	1517.7	1618.8	1591.2
105°	213.7	262.6	311.5	323.8	653.2	1092.3	1311.8	1462.9	1765.0	1991.6	1976.8
107.5°	263.4	309.1	354.7	366.0	656.5	1043.6	1237.2	1448.0	1869.4	2185.5	2189.1
110°	297.0	338.1	379.4	389.6	651.5	1000.6	1175.1	1410.6	1881.8	2235.2	2250.7

TEST NUMBER: P937687

CATALOG NUMBER: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-6-2700K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	330.0	369.2	408.5	418.2	651.7	962.9	1118.5	1359.6	1841.9	2203.6	2227.3
115°	379.7	415.8	452.0	461.0	657.7	919.7	1050.8	1283.0	1747.7	2096.1	2129.0
117.5°	428.8	461.6	494.5	502.7	669.8	892.7	1004.2	1213.8	1633.0	1947.5	1984.0
120°	457.4	488.3	519.2	527.0	679.9	883.7	985.5	1177.1	1560.1	1847.5	1882.9
122.5°	485.4	516.5	547.8	555.6	694.1	878.9	971.3	1143.8	1488.7	1747.4	1782.4
125°	528.2	556.7	585.2	592.2	713.4	875.0	955.8	1102.3	1395.3	1615.1	1647.4
127.5°	563.0	591.7	620.5	627.7	732.7	872.7	942.7	1068.5	1320.1	1508.8	1536.0
130°	581.7	612.6	643.5	651.3	746.8	874.1	937.7	1049.7	1273.7	1441.7	1466.8
132.5°	600.9	631.9	662.7	670.5	758.2	875.0	933.4	1033.6	1234.1	1384.5	1407.0
135°	629.5	657.7	685.8	692.9	770.6	874.1	925.9	1009.8	1177.8	1303.8	1323.2
137.5°	658.7	686.5	714.5	721.5	789.2	879.6	924.7	995.7	1137.6	1244.1	1259.9
140°	683.0	708.7	734.4	740.7	800.6	880.4	920.3	981.7	1104.3	1196.2	1211.0
142.5°	701.6	725.4	749.1	755.1	810.1	883.6	920.3	974.2	1081.9	1162.6	1175.4
145°	730.2	750.9	771.6	776.8	822.6	883.7	914.1	958.2	1046.3	1112.3	1122.0
147.5°	758.8	778.9	799.0	804.1	840.7	889.6	914.1	948.8	1018.1	1070.1	1078.1
150°	777.4	795.6	813.8	818.4	850.3	892.8	914.1	943.4	1001.9	1045.8	1052.3
152.5°	796.7	810.5	824.3	827.8	856.6	894.9	914.1	939.1	989.1	1026.6	1031.5
155°	825.3	835.4	845.6	848.2	870.2	899.5	914.1	934.0	973.8	1003.6	1006.9
157.5°	846.4	856.4	866.2	868.7	883.9	904.1	914.1	929.6	960.5	983.7	986.0
160°	860.6	868.4	876.2	878.1	890.1	906.2	914.1	927.4	953.9	973.8	975.1
162.5°	875.0	880.8	886.5	888.0	896.7	908.4	914.1	925.3	947.7	964.4	965.6
165°	890.5	895.7	901.0	902.3	906.3	911.5	914.1	922.1	938.1	950.2	951.5
167.5°	904.8	907.3	909.7	910.3	913.6	918.1	920.3	925.6	936.0	943.9	944.5
170°	914.1	916.6	919.1	919.7	919.9	920.2	920.3	925.6	936.0	943.9	943.9
172.5°	919.1	919.6	920.2	920.3	920.3	920.3	920.3	924.5	932.8	938.9	938.4
175°	925.9	925.9	925.9	925.9	924.0	921.5	920.3	922.9	928.2	932.2	932.2
177.5°	925.9	925.9	925.9	925.9	924.5	922.6	921.6	923.7	927.8	930.9	930.3
180°	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	613.8	613.8
2.5°	655.4	651.4
5°	842.8	846.8
7.5°	1134.9	1133.0
10°	1411.3	1429.1
12.5°	1612.6	1616.6
15°	1735.0	1742.9
17.5°	1782.4	1784.3
20°	1784.3	1780.4
22.5°	1762.6	1758.7
25°	1737.0	1735.0
27.5°	1713.3	1715.3
30°	1703.5	1709.3
32.5°	1703.5	1713.3
35°	1707.4	1717.3
37.5°	1705.5	1717.3
40°	1697.5	1711.3
42.5°	1675.8	1685.7
45°	1642.3	1654.1
47.5°	1598.9	1606.7
50°	1543.6	1551.5
52.5°	1474.5	1476.5
55°	1391.6	1399.5
57.5°	1302.8	1304.8
60°	1204.1	1209.9
62.5°	1099.5	1099.5
65°	988.9	992.8
67.5°	874.4	884.2
70°	758.0	759.9
72.5°	643.5	643.5
75°	525.1	527.0
77.5°	412.5	412.5
80°	306.0	308.0
82.5°	211.3	215.1
85°	132.3	132.3
87.5°	61.2	55.3
90°	23.6	23.6
92.5°	94.5	75.8
95°	329.7	272.8
97.5°	789.9	681.7
100°	1138.1	1009.1
102.5°	1480.7	1370.2
105°	1917.4	1858.0
107.5°	2203.6	2217.9
110°	2312.6	2374.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2322.3	2417.3
115°	2260.7	2392.5
117.5°	2130.1	2276.3
120°	2025.0	2166.9
122.5°	1922.5	2062.5
125°	1776.3	1905.2
127.5°	1644.9	1753.7
130°	1567.4	1667.9
132.5°	1497.1	1587.1
135°	1400.8	1478.4
137.5°	1323.5	1387.0
140°	1270.5	1329.9
142.5°	1226.6	1277.7
145°	1160.7	1199.4
147.5°	1110.1	1142.2
150°	1078.3	1104.3
152.5°	1051.1	1070.7
155°	1019.8	1032.8
157.5°	995.1	1004.2
160°	980.4	985.5
162.5°	970.6	975.6
165°	956.8	961.9
167.5°	946.7	948.9
170°	943.9	943.9
172.5°	936.5	934.6
175°	932.2	932.2
177.5°	928.1	925.9
180°	925.9	925.9

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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	5.08	5.93	6.08	6.94	8.29	18.25	19.09	19.24	20.11	21.45
	3H	5.79	6.54	6.79	7.57	8.94	20.08	20.84	21.09	21.86	23.23
	4H	6.08	6.80	7.11	7.83	9.21	20.72	21.44	21.74	22.47	23.84
	6H	6.33	7.00	7.37	8.03	9.42	21.15	21.81	22.18	22.84	24.23
	8H	6.40	7.03	7.44	8.08	9.47	21.26	21.90	22.30	22.94	24.33
	12H	6.42	7.02	7.46	8.06	9.47	21.33	21.93	22.37	22.97	24.38
4H	2H	12.29	13.01	13.31	14.03	15.41	18.52	19.24	19.55	20.26	21.64
	3H	13.85	14.46	14.89	15.51	16.90	20.56	21.16	21.59	22.21	23.61
	4H	13.95	14.50	14.99	15.55	16.96	21.32	21.87	22.36	22.92	24.33
	6H	13.96	14.43	15.01	15.50	16.91	21.86	22.33	22.91	23.40	24.81
	8H	13.93	14.38	14.99	15.44	16.86	22.01	22.46	23.07	23.52	24.95
	12H	13.89	14.29	14.96	15.37	16.80	22.10	22.51	23.18	23.58	25.01
8H	4H	15.39	15.83	16.44	16.89	18.32	21.38	21.82	22.44	22.89	24.31
	6H	15.63	16.00	16.71	17.10	18.52	22.00	22.37	23.08	23.48	24.90
	8H	15.65	15.97	16.73	17.06	18.50	22.22	22.55	23.31	23.63	25.07
	12H	15.61	15.90	16.70	16.98	18.46	22.36	22.65	23.45	23.73	25.21
12H	4H	15.53	15.93	16.60	17.01	18.44	21.33	21.73	22.41	22.81	24.24
	6H	15.89	16.21	16.97	17.30	18.74	21.99	22.31	23.07	23.40	24.84
	8H	15.95	16.24	17.04	17.32	18.80	22.21	22.50	23.30	23.58	25.06