

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: P936866

Luminaire Tested: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936866
REPORT IS A COMBINATION OF REPORTS P933487 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

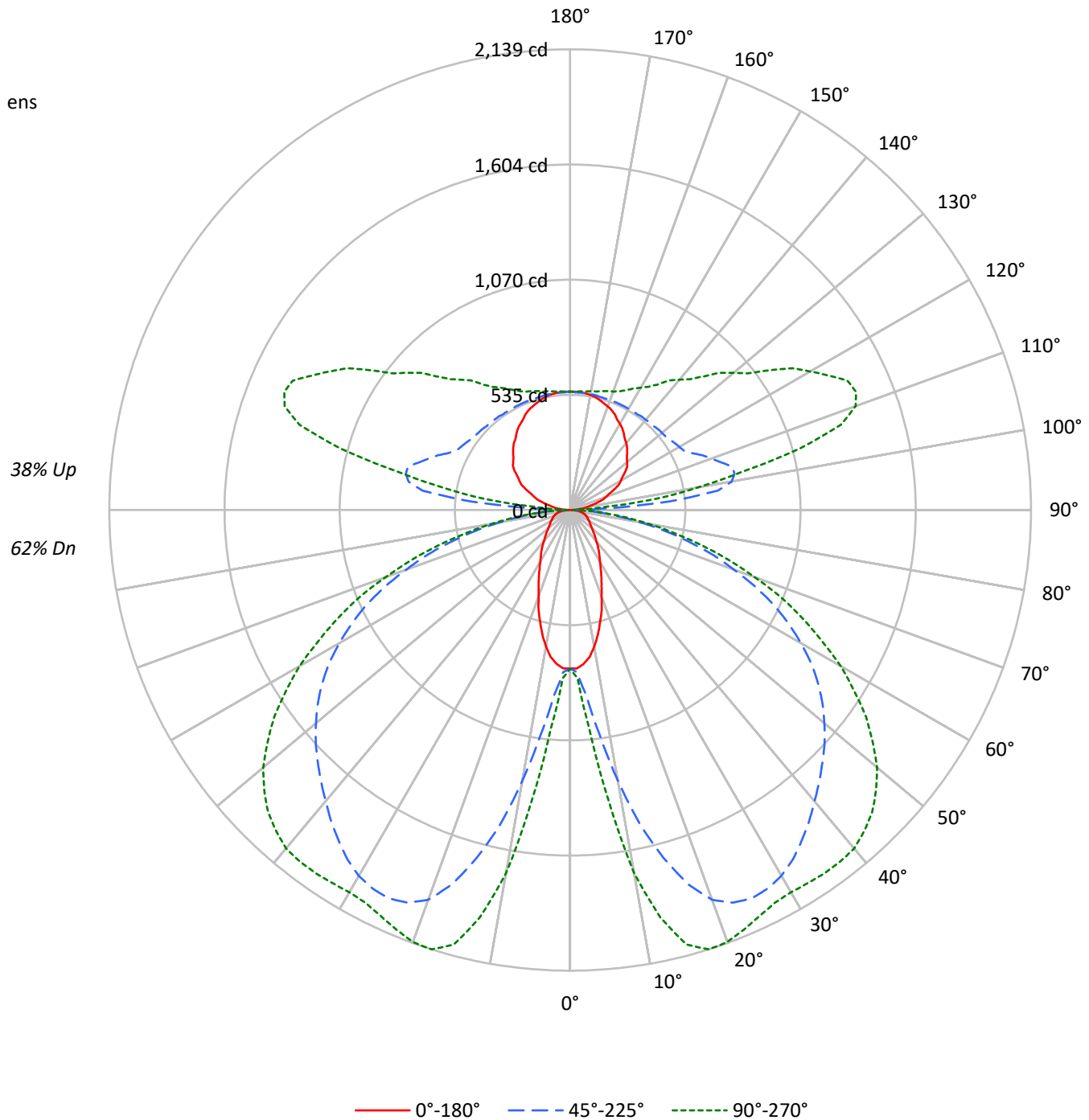
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9259.3 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 90.4
Input Voltage (V): NR
Input Current (A_{in}): 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: P936866
CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P936866

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-3500K

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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3414	3414	3414
5°	3335	3946	4589
10°	3025	5752	7608
15°	2571	7515	9186
20°	2093	8708	9362
25°	1746	9113	9172
30°	1472	9170	9155
35°	1302	9018	9391
40°	1135	8820	9636
45°	1028	8675	9674
50°	942	8545	9514
55°	902	8354	9092
60°	924	7987	8426
65°	961	7429	7511
70°	1024	6479	6345
75°	1136	5283	4952
80°	1240	3664	3337
85°	1099	1944	1709

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9674 cd/sqm



TEST NUMBER: P936866

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.2	1.0
10°-20°	421.9	4.6
20°-30°	737.9	8.0
30°-40°	949.9	10.3
40°-50°	1061.0	11.5
50°-60°	1016.2	11.0
60°-70°	805.3	8.7
70°-80°	473.6	5.1
80°-90°	133.7	1.4
90°-100°	268.0	2.9
100°-110°	704.7	7.6
110°-120°	730.7	7.9
120°-130°	586.1	6.3
130°-140°	459.9	5.0
140°-150°	353.0	3.8
150°-160°	254.2	2.7
160°-170°	155.5	1.7
170°-180°	52.6	0.6
0°-30°	1254.9	13.6
0°-40°	2204.8	23.8
0°-60°	4282.0	46.2
0°-90°	5694.5	61.5
90°-120°	1703.5	18.4
90°-150°	3102.5	33.5
90°-180°	3565.0	38.5
0°-180°	9259.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	736	736	736	736	736	
5°	717	769	866	980	1015	66
15°	537	991	1670	2025	2089	149
25°	343	1124	1990	2077	2080	158
35°	232	1074	1874	1980	2058	145
45°	159	856	1656	1898	1983	123
55°	114	544	1405	1632	1678	103
65°	90	289	1043	1174	1190	89
75°	66	178	573	629	632	69
85°	24	54	142	156	159	25
90°	4	10	28	14	14	5
95°	36	139	462	238	162	39
105°	127	192	779	1183	1104	135
115°	226	274	624	1245	1421	223
125°	314	352	568	959	1132	279
135°	374	412	550	774	878	289
145°	434	461	543	661	712	272
155°	490	504	543	596	613	225
165°	529	536	543	564	571	149
175°	550	550	547	554	554	52
180°	550	550	550	550	550	



TEST NUMBER: P936866

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	735.9	735.9	735.9	735.9	735.9	735.9	735.9	735.9	735.9	735.9	735.9
2.5°	735.9	735.9	740.6	742.9	747.7	750.0	754.7	759.5	773.7	776.1	780.8
5°	716.9	726.4	757.2	769.0	802.1	847.1	865.9	896.7	960.6	979.6	991.4
7.5°	688.5	709.8	785.5	804.4	887.3	1005.5	1055.2	1121.5	1223.3	1273.0	1313.2
10°	643.6	688.5	823.4	868.4	1003.2	1183.0	1275.3	1367.6	1521.3	1590.0	1615.9
12.5°	593.9	667.2	863.6	925.1	1119.1	1381.7	1492.9	1594.7	1769.8	1862.1	1876.2
15°	537.1	636.5	901.5	991.4	1242.2	1547.4	1670.4	1795.8	1959.0	2025.3	2041.8
17.5°	487.4	612.8	936.9	1031.6	1336.8	1696.4	1821.9	1925.9	2058.4	2103.4	2115.3
20°	425.9	575.0	960.6	1083.6	1436.2	1805.3	1925.9	2006.4	2096.3	2124.7	2129.4
22.5°	381.0	534.7	974.8	1102.6	1502.4	1871.6	1973.3	2037.1	2098.7	2108.1	2110.5
25°	343.1	489.7	972.4	1123.9	1559.2	1911.8	1989.8	2037.1	2072.6	2077.4	2077.4
27.5°	307.5	440.0	963.0	1128.6	1601.8	1921.3	1982.8	2015.9	2032.4	2041.8	2041.8
30°	276.8	392.8	939.3	1119.1	1620.7	1911.8	1961.4	1978.0	1994.6	2008.7	2015.9
32.5°	253.2	347.8	903.8	1100.2	1623.1	1888.1	1923.6	1933.1	1956.7	1989.8	2001.6
35°	231.9	302.9	863.6	1074.2	1608.9	1850.3	1873.9	1883.4	1930.7	1980.3	1996.9
37.5°	210.6	269.8	811.5	1029.3	1587.6	1805.3	1821.9	1838.4	1911.8	1970.9	1989.8
40°	189.3	241.4	750.0	979.6	1554.4	1750.9	1765.0	1791.1	1888.1	1956.7	1975.6
42.5°	172.7	217.7	683.7	927.5	1511.9	1689.4	1710.7	1748.5	1859.7	1933.1	1954.4
45°	158.6	194.0	612.8	856.5	1457.5	1625.4	1656.2	1708.3	1826.5	1897.5	1916.5
47.5°	144.3	177.5	539.4	783.1	1398.3	1561.6	1601.8	1661.0	1781.6	1850.3	1866.8
50°	132.5	160.9	466.1	705.1	1334.5	1492.9	1540.3	1601.8	1724.8	1788.7	1810.0
52.5°	123.0	146.7	397.5	627.0	1261.0	1421.9	1476.4	1540.3	1656.2	1717.7	1731.9
55°	113.5	134.8	338.3	544.2	1185.4	1346.3	1405.4	1467.0	1580.5	1632.5	1642.0
57.5°	108.9	125.4	288.6	466.1	1104.9	1261.0	1327.3	1384.2	1490.6	1530.8	1540.3
60°	101.7	118.3	250.8	399.8	1017.4	1180.6	1237.4	1294.2	1384.2	1417.3	1424.4
62.5°	94.6	113.5	222.4	336.0	927.5	1086.0	1142.8	1194.9	1270.5	1294.2	1303.7
65°	89.9	108.9	201.1	288.6	835.2	986.6	1043.4	1088.3	1149.8	1173.6	1178.3
67.5°	85.1	104.1	184.5	248.4	742.9	887.3	929.9	972.4	1019.8	1043.4	1045.8
70°	78.1	99.4	170.4	220.1	648.3	773.7	809.2	854.1	892.0	903.8	910.9
72.5°	73.3	92.3	160.9	198.8	551.2	664.9	698.0	724.0	757.2	769.0	769.0
75°	66.3	82.8	151.4	177.5	452.0	544.2	572.6	598.6	624.7	629.4	622.2
77.5°	59.2	73.3	130.1	149.1	352.6	430.6	454.3	468.4	489.7	494.5	496.9
80°	49.7	63.9	101.7	115.9	255.5	317.0	333.6	345.4	364.4	364.4	369.1
82.5°	37.9	49.7	73.3	82.8	172.7	217.7	231.9	239.0	250.8	250.8	250.8
85°	23.6	30.8	47.4	54.4	104.1	132.5	142.0	144.3	153.8	156.1	156.1
87.5°	11.8	16.6	30.8	33.1	54.4	68.6	68.6	73.3	73.3	71.0	68.6
90°	3.7	6.6	9.6	10.3	16.2	24.1	28.0	24.9	18.7	14.1	14.1
92.5°	14.8	39.8	65.0	71.3	100.2	138.7	157.9	138.4	99.4	70.1	67.3
95°	35.5	81.4	127.3	138.8	246.4	389.9	461.7	412.0	312.6	238.1	229.6
97.5°	61.2	101.7	142.3	152.4	331.9	571.2	690.9	659.5	596.6	549.5	533.4
100°	81.2	117.9	154.6	163.8	363.0	628.6	761.4	763.7	768.3	771.7	752.5
102.5°	98.2	132.5	166.7	175.3	377.3	646.7	781.3	821.4	901.4	961.4	945.0
105°	127.0	156.0	185.1	192.3	387.9	648.7	779.1	868.8	1048.3	1182.9	1174.0
107.5°	156.5	183.5	210.6	217.4	389.8	619.8	734.8	859.9	1110.3	1298.0	1300.2
110°	176.4	200.8	225.4	231.4	387.0	594.2	697.9	837.8	1117.6	1327.5	1336.7



TEST NUMBER: P936866

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	196.0	219.3	242.5	248.4	387.0	571.9	664.3	807.5	1093.9	1308.7	1322.8
115°	225.5	247.0	268.5	273.9	390.6	546.3	624.1	762.1	1037.9	1244.8	1264.4
117.5°	254.6	274.1	293.7	298.6	397.9	530.2	596.4	720.9	969.9	1156.7	1178.3
120°	271.6	290.0	308.4	313.0	403.8	524.8	585.4	699.1	926.6	1097.2	1118.2
122.5°	288.2	306.7	325.3	329.9	412.2	522.0	576.8	679.3	884.2	1037.8	1058.6
125°	313.7	330.5	347.5	351.7	423.7	519.6	567.6	654.7	828.7	959.2	978.4
127.5°	334.4	351.4	368.4	372.7	435.1	518.3	559.8	634.6	784.0	896.1	912.2
130°	345.4	363.8	382.2	386.8	443.4	519.1	556.9	623.4	756.4	856.2	871.1
132.5°	356.9	375.2	393.7	398.2	450.3	519.6	554.4	613.9	733.0	822.3	835.6
135°	373.9	390.6	407.3	411.5	457.6	519.1	549.9	599.8	699.5	774.3	785.8
137.5°	391.3	407.8	424.4	428.5	468.7	522.3	549.2	591.4	675.7	738.9	748.3
140°	405.6	420.9	436.1	440.0	475.5	522.9	546.6	583.0	655.8	710.4	719.2
142.5°	416.7	430.7	444.9	448.4	481.1	524.7	546.6	578.6	642.6	690.6	698.2
145°	433.7	446.0	458.3	461.4	488.6	524.8	542.9	569.1	621.4	660.7	666.4
147.5°	450.6	462.6	474.6	477.6	499.3	528.4	542.9	563.5	604.6	635.5	640.2
150°	461.7	472.5	483.4	486.1	505.0	530.3	542.9	560.3	595.1	621.2	625.0
152.5°	473.2	481.4	489.6	491.6	508.7	531.5	542.9	557.8	587.4	609.7	612.7
155°	490.1	496.2	502.3	503.8	516.9	534.2	542.9	554.7	578.3	596.0	598.0
157.5°	502.6	508.5	514.4	516.0	524.9	536.9	542.9	552.0	570.4	584.2	585.5
160°	511.1	515.8	520.4	521.5	528.7	538.2	542.9	550.8	566.5	578.3	579.1
162.5°	519.6	523.1	526.5	527.4	532.6	539.5	542.9	549.5	562.9	572.8	573.5
165°	528.9	532.0	535.0	535.8	538.2	541.3	542.9	547.7	557.2	564.3	565.1
167.5°	537.4	538.8	540.3	540.7	542.6	545.2	546.6	549.7	556.0	560.6	561.0
170°	542.9	544.3	545.9	546.2	546.3	546.5	546.6	549.7	556.0	560.6	560.6
172.5°	545.9	546.2	546.5	546.6	546.6	546.6	546.6	549.1	554.0	557.7	557.4
175°	549.9	549.9	549.9	549.9	548.8	547.3	546.6	548.1	551.2	553.6	553.6
177.5°	549.9	549.9	549.9	549.9	549.0	547.8	547.3	548.6	551.0	552.9	552.5
180°	549.9	549.9	549.9	549.9	549.9	549.9	549.9	549.9	549.9	549.9	549.9



TEST NUMBER: P936866

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	735.9	735.9
2.5°	785.5	780.8
5°	1010.3	1015.0
7.5°	1360.4	1358.1
10°	1691.7	1713.0
12.5°	1933.1	1937.8
15°	2079.7	2089.2
17.5°	2136.5	2138.9
20°	2138.9	2134.2
22.5°	2112.8	2108.1
25°	2082.1	2079.7
27.5°	2053.7	2056.1
30°	2041.8	2049.0
32.5°	2041.8	2053.7
35°	2046.6	2058.4
37.5°	2044.3	2058.4
40°	2034.8	2051.3
42.5°	2008.7	2020.5
45°	1968.5	1982.8
47.5°	1916.5	1925.9
50°	1850.3	1859.7
52.5°	1767.4	1769.8
55°	1668.1	1677.5
57.5°	1561.6	1563.9
60°	1443.2	1450.4
62.5°	1317.9	1317.9
65°	1185.4	1190.1
67.5°	1048.1	1060.0
70°	908.6	910.9
72.5°	771.3	771.3
75°	629.4	631.7
77.5°	494.5	494.5
80°	366.7	369.1
82.5°	253.2	257.9
85°	158.6	158.6
87.5°	73.3	66.3
90°	14.1	14.1
92.5°	56.1	45.0
95°	195.8	162.1
97.5°	469.1	404.9
100°	676.0	599.3
102.5°	879.4	813.7
105°	1138.7	1103.5
107.5°	1308.7	1317.2
110°	1373.4	1410.2



TEST NUMBER: P936866

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1379.2	1435.6
115°	1342.6	1420.9
117.5°	1265.2	1351.9
120°	1202.6	1286.9
122.5°	1141.8	1225.0
125°	1054.9	1131.6
127.5°	976.9	1041.5
130°	930.9	990.6
132.5°	889.1	942.6
135°	831.9	878.0
137.5°	786.1	823.8
140°	754.5	789.8
142.5°	728.4	758.8
145°	689.4	712.3
147.5°	659.3	678.4
150°	640.4	655.8
152.5°	624.3	635.9
155°	605.7	613.4
157.5°	591.0	596.4
160°	582.2	585.4
162.5°	576.5	579.4
165°	568.2	571.3
167.5°	562.3	563.6
170°	560.6	560.6
172.5°	556.3	555.1
175°	553.6	553.6
177.5°	551.2	549.9
180°	549.9	549.9



TEST NUMBER: P936866

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-3500K

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	6.25	7.28	7.10	8.15	9.24	19.43	20.46	20.28	21.33	22.42
	3H	6.97	7.89	7.83	8.78	9.90	21.28	22.21	22.14	23.09	24.21
	4H	7.28	8.15	8.15	9.04	10.17	21.94	22.81	22.81	23.70	24.83
	6H	7.54	8.34	8.42	9.24	10.38	22.38	23.18	23.26	24.08	25.22
	8H	7.61	8.38	8.50	9.29	10.44	22.50	23.27	23.39	24.19	25.33
	12H	7.63	8.37	8.53	9.27	10.44	22.58	23.31	23.48	24.22	25.39
4H	2H	13.49	14.36	14.37	15.25	16.38	19.73	20.60	20.60	21.49	22.62
	3H	15.07	15.81	15.96	16.72	17.87	21.79	22.52	22.68	23.44	24.59
	4H	15.17	15.84	16.07	16.76	17.93	22.56	23.23	23.46	24.15	25.32
	6H	15.19	15.77	16.11	16.71	17.89	23.11	23.69	24.03	24.63	25.80
	8H	15.18	15.72	16.09	16.65	17.84	23.28	23.82	24.20	24.75	25.94
	12H	15.14	15.63	16.08	16.58	17.78	23.38	23.87	24.32	24.82	26.01
8H	4H	16.63	17.18	17.55	18.11	19.30	22.64	23.18	23.55	24.11	25.30
	6H	16.88	17.33	17.83	18.31	19.49	23.27	23.72	24.22	24.70	25.88
	8H	16.90	17.30	17.86	18.27	19.47	23.50	23.90	24.45	24.86	26.06
	12H	16.88	17.23	17.84	18.19	19.44	23.65	24.00	24.61	24.96	26.21
12H	4H	16.78	17.28	17.72	18.23	19.42	22.60	23.09	23.54	24.04	25.23
	6H	17.14	17.54	18.10	18.51	19.71	23.26	23.66	24.21	24.62	25.83
	8H	17.22	17.57	18.18	18.53	19.78	23.50	23.85	24.46	24.81	26.06