

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: P936669

Luminaire Tested: SQ4-FB-050U-050D-935-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936669
REPORT IS A COMBINATION OF REPORTS P933461 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-050D-935-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

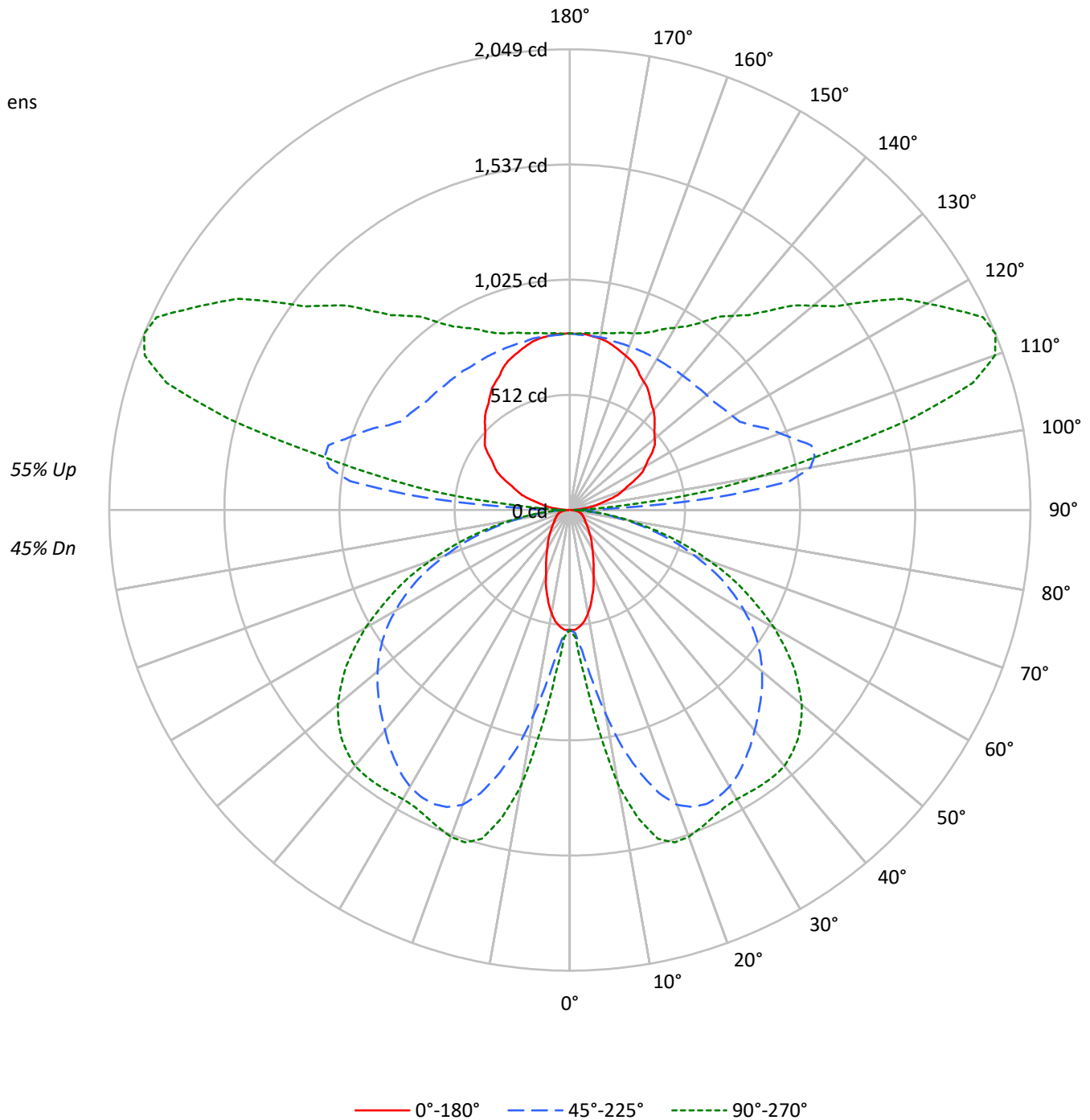
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9216.1 lumens
Efficiency: N/A
Efficacy: 108.2 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): 85.2
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: P936669
CATALOG NUMBER: SQ4-FB-050U-050D-935-1D-UNV-STD-W-12

Luminous Intensity Polar Plot





TEST NUMBER: P936669

CATALOG NUMBER: SQ4-FB-050U-050D-935-1D-UNV-STD-W-12

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	50	30	10	0
RCR																					
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45	45	45	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	43	42	37	37	37	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35	30	30	30	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25	25	25	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21	21	21	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	18	18	18	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15	15	15	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13	13	13	13
8	51	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12	12	12	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10	10	10	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9	9	9	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1649	1649	1649
5°	1612	1906	2216
10°	1462	2780	3675
15°	1244	3633	4437
20°	1013	4211	4523
25°	845	4407	4430
30°	713	4436	4422
35°	631	4364	4536
40°	550	4269	4655
45°	498	4200	4673
50°	457	4139	4595
55°	439	4048	4392
60°	449	3872	4070
65°	469	3604	3628
70°	500	3145	3065
75°	556	2566	2392
80°	612	1782	1612
85°	554	947	824

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4673 cd/sqm



TEST NUMBER: P936669

CATALOG NUMBER: SQ4-FB-050U-050D-935-1D-UNV-STD-W-12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.0	0.7
10°-20°	305.7	3.3
20°-30°	534.7	5.8
30°-40°	688.3	7.5
40°-50°	768.8	8.3
50°-60°	736.3	8.0
60°-70°	583.5	6.3
70°-80°	343.1	3.7
80°-90°	98.3	1.1
90°-100°	382.6	4.2
100°-110°	1005.9	10.9
110°-120°	1043.0	11.3
120°-130°	836.7	9.1
130°-140°	656.5	7.1
140°-150°	503.9	5.5
150°-160°	362.9	3.9
160°-170°	222.0	2.4
170°-180°	75.0	0.8
0°-30°	909.3	9.9
0°-40°	1597.5	17.3
0°-60°	3102.6	33.7
0°-90°	4127.5	44.8
90°-120°	2431.6	26.4
90°-150°	4428.6	48.1
90°-180°	5089.0	55.2
0°-180°	9216.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	533	533	533	533	533	
5°	520	557	627	710	735	48
15°	389	718	1210	1468	1514	108
25°	249	814	1442	1505	1507	115
35°	168	778	1358	1435	1492	105
45°	115	621	1200	1375	1437	89
55°	82	394	1018	1183	1216	75
65°	65	209	756	850	862	65
75°	48	129	415	456	458	50
85°	17	39	103	113	115	18
90°	5	15	40	20	20	6
95°	51	198	659	340	231	56
105°	181	274	1112	1688	1575	192
115°	322	391	891	1777	2028	318
125°	448	502	810	1369	1615	398
135°	534	587	785	1105	1253	413
145°	619	658	775	943	1017	388
155°	700	719	775	851	876	321
165°	755	765	775	806	816	213
175°	785	785	780	790	790	75
180°	785	785	785	785	785	



TEST NUMBER: P936669

CATALOG NUMBER: SQ4-FB-050U-050D-935-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2
2.5°	533.2	533.2	536.6	538.3	541.7	543.4	546.9	550.3	560.6	562.3	565.7
5°	519.5	526.3	548.6	557.1	581.1	613.7	627.4	649.7	696.0	709.7	718.3
7.5°	498.8	514.3	569.1	582.9	642.9	728.6	764.6	812.6	886.3	922.3	951.4
10°	466.3	498.8	596.6	629.2	726.8	857.2	924.0	990.9	1102.3	1152.1	1170.9
12.5°	430.3	483.4	625.7	670.3	810.8	1001.2	1081.8	1155.5	1282.3	1349.2	1359.5
15°	389.2	461.2	653.1	718.3	900.1	1121.1	1210.4	1301.2	1419.5	1467.5	1479.5
17.5°	353.2	444.0	678.9	747.5	968.6	1229.2	1320.0	1395.5	1491.5	1524.1	1532.7
20°	308.6	416.6	696.0	785.2	1040.6	1308.1	1395.5	1453.8	1518.9	1539.5	1542.9
22.5°	276.0	387.4	706.3	798.9	1088.6	1356.0	1429.7	1476.1	1520.6	1527.5	1529.2
25°	248.6	354.9	704.6	814.3	1129.8	1385.2	1441.8	1476.1	1501.7	1505.2	1505.2
27.5°	222.9	318.9	697.7	817.7	1160.6	1392.1	1436.6	1460.6	1472.6	1479.5	1479.5
30°	200.6	284.6	680.6	810.8	1174.3	1385.2	1421.2	1433.2	1445.2	1455.5	1460.6
32.5°	183.4	252.0	654.8	797.1	1176.0	1368.1	1393.8	1400.6	1417.7	1441.8	1450.4
35°	168.0	219.5	625.7	778.3	1165.8	1340.6	1357.7	1364.6	1398.9	1434.9	1446.9
37.5°	152.6	195.4	588.1	745.8	1150.3	1308.1	1320.0	1332.0	1385.2	1428.0	1441.8
40°	137.2	174.8	543.4	709.7	1126.3	1268.6	1278.9	1297.8	1368.1	1417.7	1431.4
42.5°	125.2	157.7	495.4	672.1	1095.5	1224.1	1239.5	1266.9	1347.4	1400.6	1416.0
45°	114.8	140.6	444.0	620.6	1056.1	1177.7	1200.0	1237.8	1323.5	1374.9	1388.6
47.5°	104.5	128.6	390.9	567.4	1013.2	1131.5	1160.6	1203.4	1290.9	1340.6	1352.6
50°	96.0	116.6	337.7	510.9	966.8	1081.8	1116.0	1160.6	1249.8	1296.1	1311.5
52.5°	89.1	106.3	288.0	454.3	913.8	1030.3	1069.8	1116.0	1200.0	1244.6	1254.9
55°	82.3	97.7	245.1	394.3	858.9	975.5	1018.3	1062.9	1145.2	1182.9	1189.7
57.5°	78.9	90.8	209.2	337.7	800.6	913.8	961.7	1002.9	1080.0	1109.2	1116.0
60°	73.7	85.7	181.7	289.8	737.2	855.5	896.6	937.7	1002.9	1026.9	1032.0
62.5°	68.6	82.3	161.1	243.4	672.1	786.9	828.1	865.7	920.6	937.7	944.6
65°	65.2	78.9	145.7	209.2	605.2	714.9	756.1	788.6	833.2	850.3	853.7
67.5°	61.7	75.4	133.7	180.0	538.3	642.9	673.8	704.6	738.9	756.1	757.8
70°	56.6	72.0	123.5	159.4	469.7	560.6	586.3	618.9	646.3	654.8	660.0
72.5°	53.2	66.9	116.6	144.0	399.4	481.7	505.7	524.6	548.6	557.1	557.1
75°	48.0	60.0	109.7	128.6	327.4	394.3	414.8	433.8	452.6	456.0	450.9
77.5°	42.9	53.2	94.3	108.0	255.4	312.0	329.1	339.4	354.9	358.3	360.0
80°	36.0	46.3	73.7	84.0	185.1	229.7	241.7	250.3	264.0	264.0	267.4
82.5°	27.4	36.0	53.2	60.0	125.2	157.7	168.0	173.1	181.7	181.7	181.7
85°	17.1	22.3	34.3	39.4	75.4	96.0	102.8	104.5	111.4	113.1	113.1
87.5°	8.6	12.0	22.3	24.0	39.4	49.8	49.8	53.2	53.2	51.5	49.8
90°	5.3	9.5	13.7	14.7	23.2	34.4	40.0	35.6	26.7	20.0	20.0
92.5°	21.0	56.8	92.7	101.6	142.9	197.9	225.4	197.6	141.9	100.1	96.1
95°	50.6	116.1	181.7	198.1	351.7	556.6	659.0	588.1	446.2	339.8	327.7
97.5°	87.4	145.3	203.1	217.6	473.8	815.4	986.2	941.4	851.7	784.4	761.5
100°	115.9	168.4	220.8	233.9	518.2	897.2	1086.8	1090.0	1096.6	1101.6	1074.2
102.5°	140.2	189.1	238.0	250.2	538.5	923.1	1115.3	1172.4	1286.6	1372.3	1348.9
105°	181.2	222.6	264.0	274.4	553.6	926.0	1112.1	1240.2	1496.3	1688.4	1675.8
107.5°	223.4	262.0	300.7	310.3	556.5	884.8	1048.9	1227.6	1584.9	1852.8	1855.9
110°	251.9	286.7	321.6	330.3	552.3	848.3	996.2	1196.0	1595.4	1894.9	1908.1



TEST NUMBER: P936669

CATALOG NUMBER: SQ4-FB-050U-050D-935-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	279.7	312.9	346.2	354.5	552.4	816.3	948.3	1152.7	1561.5	1868.1	1888.2
115°	321.9	352.6	383.2	390.9	557.5	779.8	890.9	1087.7	1481.5	1776.9	1804.9
117.5°	363.5	391.3	419.2	426.2	567.9	756.8	851.3	1029.0	1384.4	1651.0	1681.9
120°	387.7	414.0	440.1	446.7	576.3	749.2	835.6	997.9	1322.6	1566.2	1596.3
122.5°	411.4	437.9	464.3	471.0	588.5	745.1	823.4	969.6	1262.1	1481.4	1511.0
125°	447.8	471.9	496.0	502.1	604.8	741.8	810.3	934.5	1182.8	1369.2	1396.5
127.5°	477.3	501.7	526.0	532.1	621.1	739.8	799.2	905.8	1119.1	1279.1	1302.2
130°	493.1	519.4	545.5	552.1	633.0	741.0	795.0	889.9	1079.8	1222.2	1243.5
132.5°	509.4	535.7	561.9	568.5	642.7	741.8	791.3	876.3	1046.3	1173.7	1192.8
135°	533.7	557.5	581.4	587.4	653.2	741.1	784.9	856.2	998.5	1105.3	1121.7
137.5°	558.4	582.1	605.8	611.7	669.1	745.7	783.9	844.1	964.5	1054.7	1068.2
140°	578.9	600.7	622.5	627.9	678.7	746.4	780.2	832.1	936.2	1014.1	1026.7
142.5°	594.8	614.9	635.1	640.1	686.8	749.1	780.2	825.8	917.2	985.7	996.5
145°	619.0	636.5	654.1	658.5	697.4	749.1	775.0	812.3	887.0	943.0	951.2
147.5°	643.3	660.3	677.4	681.7	712.8	754.3	775.0	804.4	863.2	907.2	914.0
150°	659.0	674.4	689.9	693.8	720.9	756.9	775.0	799.8	849.4	886.6	892.1
152.5°	675.4	687.1	698.8	701.7	726.2	758.7	775.0	796.2	838.5	870.3	874.5
155°	699.6	708.3	717.0	719.1	737.7	762.5	775.0	791.8	825.5	850.8	853.5
157.5°	717.6	726.0	734.3	736.5	749.3	766.5	775.0	788.1	814.3	833.9	835.9
160°	729.7	736.2	742.8	744.4	754.6	768.2	775.0	786.2	808.6	825.5	826.6
162.5°	741.8	746.7	751.6	752.8	760.2	770.0	775.0	784.4	803.4	817.6	818.6
165°	755.0	759.4	763.8	764.9	768.2	772.8	775.0	781.8	795.3	805.5	806.6
167.5°	767.1	769.1	771.2	771.7	774.6	778.3	780.2	784.6	793.6	800.2	800.7
170°	775.0	777.0	779.2	779.7	779.8	780.1	780.2	784.6	793.6	800.2	800.2
172.5°	779.2	779.6	780.1	780.2	780.2	780.2	780.2	783.7	790.7	796.0	795.6
175°	784.9	784.9	784.9	784.9	783.3	781.2	780.2	782.4	786.9	790.2	790.2
177.5°	784.9	784.9	784.9	784.9	783.8	782.1	781.3	783.1	786.6	789.2	788.7
180°	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9



TEST NUMBER: P936669

CATALOG NUMBER: SQ4-FB-050U-050D-935-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	533.2	533.2
2.5°	569.1	565.7
5°	732.0	735.4
7.5°	985.8	984.1
10°	1225.8	1241.2
12.5°	1400.6	1404.0
15°	1506.9	1513.7
17.5°	1548.1	1549.8
20°	1549.8	1546.4
22.5°	1530.9	1527.5
25°	1508.6	1506.9
27.5°	1488.0	1489.8
30°	1479.5	1484.6
32.5°	1479.5	1488.0
35°	1482.9	1491.5
37.5°	1481.2	1491.5
40°	1474.3	1486.3
42.5°	1455.5	1464.1
45°	1426.3	1436.6
47.5°	1388.6	1395.5
50°	1340.6	1347.4
52.5°	1280.6	1282.3
55°	1208.6	1215.5
57.5°	1131.5	1133.2
60°	1045.7	1050.9
62.5°	954.9	954.9
65°	858.9	862.3
67.5°	759.5	768.0
70°	658.3	660.0
72.5°	558.9	558.9
75°	456.0	457.7
77.5°	358.3	358.3
80°	265.7	267.4
82.5°	183.4	186.8
85°	114.8	114.8
87.5°	53.2	48.0
90°	20.0	20.0
92.5°	80.2	64.2
95°	279.5	231.2
97.5°	669.7	577.9
100°	964.9	855.6
102.5°	1255.3	1161.6
105°	1625.5	1575.2
107.5°	1868.0	1880.2
110°	1960.5	2012.9



TEST NUMBER: P936669

CATALOG NUMBER: SQ4-FB-050U-050D-935-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1968.8	2049.3
115°	1916.6	2028.3
117.5°	1805.8	1929.7
120°	1716.7	1837.0
122.5°	1629.8	1748.5
125°	1505.8	1615.2
127.5°	1394.4	1486.7
130°	1328.8	1414.0
132.5°	1269.1	1345.5
135°	1187.5	1253.3
137.5°	1122.0	1175.8
140°	1077.0	1127.4
142.5°	1039.9	1083.1
145°	984.0	1016.8
147.5°	941.1	968.3
150°	914.1	936.2
152.5°	891.1	907.7
155°	864.6	875.6
157.5°	843.6	851.3
160°	831.1	835.6
162.5°	822.9	827.1
165°	811.1	815.5
167.5°	802.6	804.5
170°	800.2	800.2
172.5°	794.0	792.4
175°	790.2	790.2
177.5°	786.8	784.9
180°	784.9	784.9



TEST NUMBER: P936669
 CATALOG NUMBER: SQ4-FB-050U-050D-935-1D-UNV-STD-W-12

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	2.25	3.10	3.25	4.11	5.45	15.44	16.29	16.44	17.30	18.64
	3H	2.96	3.72	3.96	4.74	6.10	17.29	18.05	18.29	19.07	20.43
	4H	3.26	3.98	4.27	5.00	6.37	17.94	18.66	18.95	19.68	21.05
	6H	3.51	4.17	4.53	5.20	6.58	18.37	19.04	19.40	20.06	21.45
	8H	3.57	4.21	4.61	5.25	6.63	18.49	19.13	19.53	20.17	21.55
	12H	3.59	4.19	4.63	5.23	6.63	18.56	19.17	19.60	20.21	21.61
4H	2H	9.48	10.20	10.50	11.22	12.59	15.72	16.44	16.74	17.46	18.83
	3H	11.04	11.65	12.07	12.70	14.08	17.77	18.37	18.80	19.42	20.81
	4H	11.13	11.69	12.17	12.73	14.14	18.54	19.09	19.58	20.13	21.54
	6H	11.14	11.62	12.19	12.69	14.09	19.08	19.56	20.13	20.62	22.02
	8H	11.12	11.57	12.17	12.63	14.04	19.24	19.69	20.29	20.75	22.17
	12H	11.08	11.48	12.15	12.55	13.98	19.34	19.74	20.41	20.82	22.24
8H	4H	12.58	13.03	13.63	14.09	15.50	18.60	19.04	19.65	20.10	21.52
	6H	12.82	13.19	13.90	14.29	15.71	19.23	19.60	20.30	20.70	22.11
	8H	12.84	13.17	13.92	14.25	15.68	19.45	19.78	20.53	20.86	22.29
	12H	12.81	13.10	13.90	14.17	15.65	19.60	19.89	20.68	20.96	22.44
12H	4H	12.73	13.13	13.80	14.20	15.63	18.55	18.95	19.62	20.02	21.45
	6H	13.08	13.41	14.16	14.49	15.93	19.21	19.54	20.29	20.62	22.05
	8H	13.15	13.44	14.24	14.52	15.99	19.44	19.73	20.53	20.81	22.28