

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: P938598

Luminaire Tested: SQ4-FB-150U-125D-B35-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

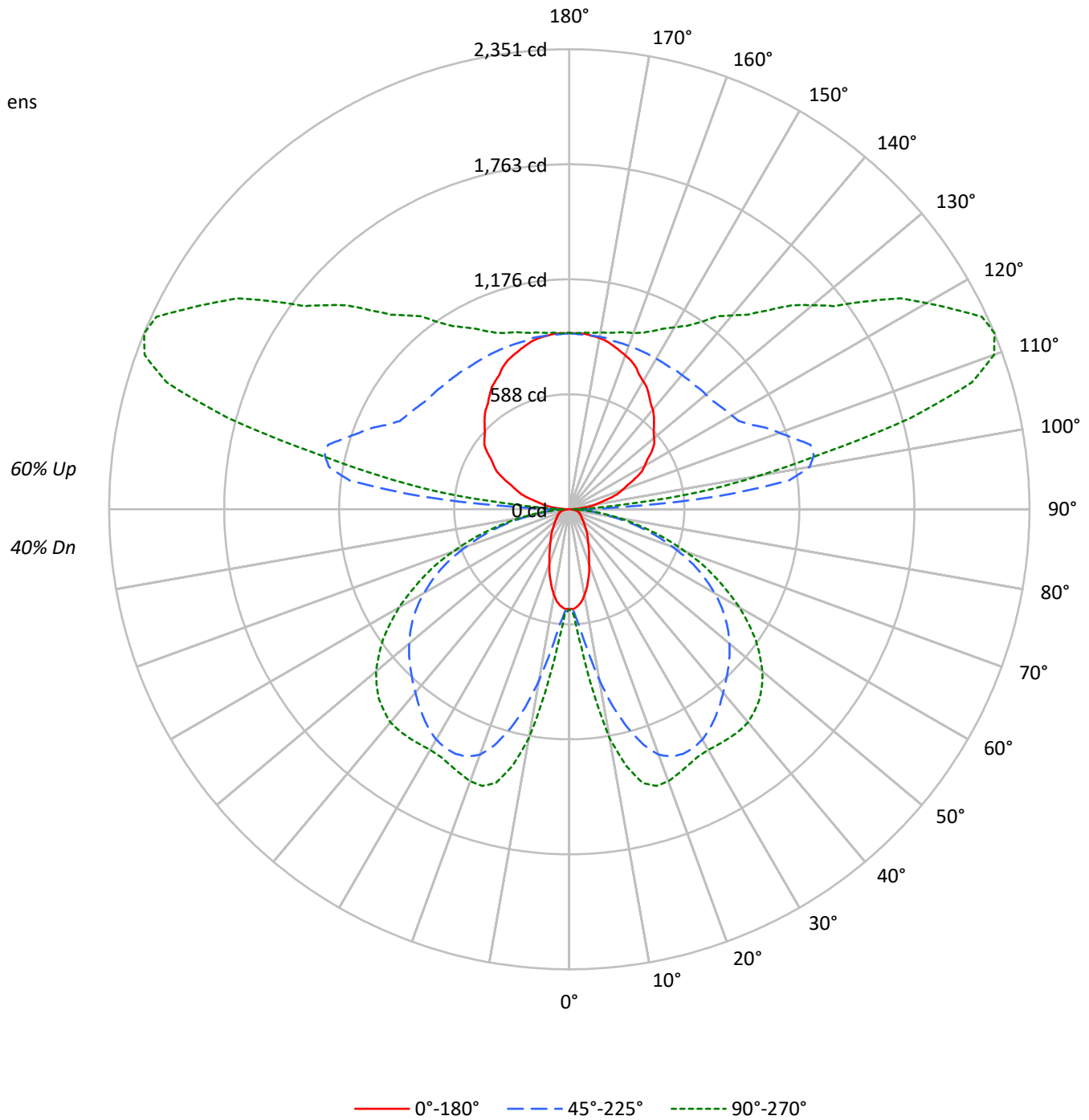
Test Method: LM-79-2019  
Report Number: P938598  
REPORT IS A COMBINATION OF REPORTS P933632 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-125D-B35-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9786.0 lumens  
Efficiency: N/A  
Efficacy: 117.6 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')  
CIE Type: General Diffuse  
  
Input Watts (W): 83.2  
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				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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	39	39	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	32	32	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	27	27	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	23	23	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	19	19	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	17	17	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	15	15	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	13	13	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	11	11	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	10	10	10	8

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

	0°	45°	90°
0°	4731	4731	4731
5°	4617	5465	6360
10°	4183	7960	10544
15°	3552	10392	12732
20°	2889	12034	12976
25°	2407	12584	12713
30°	2027	12653	12689
35°	1789	12434	13016
40°	1557	12151	13355
45°	1407	11940	13407
50°	1288	11749	13186
55°	1229	11471	12601
60°	1254	10954	11678
65°	1298	10172	10410
70°	1373	8854	8795
75°	1505	7200	6863
80°	1610	4976	4625
85°	1358	2626	2368

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13407 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.0	0.7
10°-20°	292.3	3.0
20°-30°	511.4	5.2
30°-40°	658.3	6.7
40°-50°	735.3	7.5
50°-60°	704.2	7.2
60°-70°	558.1	5.7
70°-80°	328.2	3.4
80°-90°	94.6	1.0
90°-100°	439.0	4.5
100°-110°	1154.1	11.8
110°-120°	1196.6	12.2
120°-130°	959.8	9.8
130°-140°	753.1	7.7
140°-150°	578.1	5.9
150°-160°	416.3	4.3
160°-170°	254.7	2.6
170°-180°	86.1	0.9
0°-30°	869.7	8.9
0°-40°	1527.9	15.6
0°-60°	2967.4	30.3
0°-90°	3948.3	40.3
90°-120°	2789.6	28.5
90°-150°	5080.6	51.9
90°-180°	5838.0	59.7
0°-180°	9786.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	510	510	510	510	510	
5°	497	533	600	679	703	46
15°	372	687	1158	1404	1448	104
25°	238	779	1379	1440	1441	110
35°	161	744	1299	1372	1426	100
45°	110	594	1148	1315	1374	85
55°	79	377	974	1131	1162	72
65°	62	200	723	813	825	62
75°	46	123	397	436	438	48
85°	16	38	98	108	110	17
90°	6	17	46	23	23	6
95°	58	227	756	390	265	64
105°	208	315	1276	1937	1807	220
115°	369	448	1022	2039	2327	365
125°	514	576	930	1571	1853	456
135°	612	674	900	1268	1438	474
145°	710	755	889	1082	1166	445
155°	803	825	889	976	1004	369
165°	866	878	889	924	936	244
175°	900	900	895	907	907	85
180°	900	900	900	900	900	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	509.9	509.9	509.9	509.9	509.9	509.9	509.9	509.9	509.9	509.9	509.9
2.5°	509.9	509.9	513.2	514.8	518.1	519.8	523.1	526.4	536.1	537.8	541.1
5°	496.8	503.4	524.7	532.9	555.8	587.0	600.1	621.4	665.7	678.8	687.0
7.5°	477.1	491.9	544.4	557.5	614.8	696.8	731.3	777.2	847.7	882.1	910.0
10°	445.9	477.1	570.5	601.7	695.2	819.8	883.7	947.7	1054.3	1101.8	1119.9
12.5°	411.5	462.4	598.5	641.1	775.6	957.6	1034.6	1105.1	1226.5	1290.4	1300.2
15°	372.2	441.1	624.7	687.0	860.8	1072.3	1157.6	1244.5	1357.7	1403.5	1415.0
17.5°	337.8	424.7	649.3	714.9	926.4	1175.6	1262.5	1334.7	1426.5	1457.7	1465.8
20°	295.2	398.5	665.7	751.0	995.3	1251.1	1334.7	1390.4	1452.7	1472.4	1475.7
22.5°	264.0	370.5	675.5	764.1	1041.2	1296.9	1367.5	1411.7	1454.4	1461.0	1462.5
25°	237.8	339.4	673.9	778.8	1080.5	1324.8	1379.0	1411.7	1436.3	1439.6	1439.6
27.5°	213.2	304.9	667.4	782.1	1110.0	1331.4	1374.0	1397.0	1408.4	1415.0	1415.0
30°	191.9	272.2	651.0	775.6	1123.2	1324.8	1359.2	1370.7	1382.2	1392.1	1397.0
32.5°	175.5	241.0	626.4	762.4	1124.8	1308.4	1333.1	1339.5	1356.0	1379.0	1387.1
35°	160.7	209.9	598.5	744.4	1114.9	1282.2	1298.6	1305.1	1337.9	1372.4	1383.8
37.5°	145.9	186.9	562.4	713.3	1100.2	1251.1	1262.5	1274.0	1324.8	1365.8	1379.0
40°	131.2	167.2	519.8	678.8	1077.2	1213.3	1223.2	1241.2	1308.4	1356.0	1369.1
42.5°	119.7	150.9	473.8	642.7	1047.7	1170.7	1185.5	1211.7	1288.8	1339.5	1354.4
45°	109.9	134.5	424.7	593.5	1010.0	1126.5	1147.8	1183.8	1265.8	1315.0	1328.1
47.5°	100.0	123.0	373.8	542.7	969.0	1082.2	1110.0	1151.1	1234.6	1282.2	1293.7
50°	91.9	111.5	323.0	488.6	924.7	1034.6	1067.5	1110.0	1195.3	1239.5	1254.4
52.5°	85.3	101.6	275.5	434.5	873.9	985.4	1023.2	1067.5	1147.8	1190.4	1200.2
55°	78.7	93.4	234.5	377.1	821.4	933.0	973.9	1016.6	1095.3	1131.3	1137.9
57.5°	75.4	86.9	200.0	323.0	765.7	873.9	919.9	959.2	1033.0	1060.9	1067.5
60°	70.5	82.0	173.8	277.1	705.0	818.2	857.6	896.9	959.2	982.2	987.0
62.5°	65.6	78.7	154.2	232.9	642.7	752.6	792.0	828.0	880.5	896.9	903.4
65°	62.3	75.4	139.3	200.0	578.8	683.7	723.1	754.3	796.9	813.3	816.6
67.5°	59.0	72.2	127.9	172.2	514.8	614.8	644.4	673.9	706.7	723.1	724.7
70°	54.1	68.9	118.0	152.5	449.2	536.1	560.8	591.9	618.1	626.4	631.3
72.5°	50.9	64.0	111.5	137.7	382.1	460.8	483.7	501.7	524.7	532.9	532.9
75°	45.9	57.4	104.9	123.0	313.2	377.1	396.8	414.8	432.9	436.1	431.2
77.5°	41.0	50.9	90.2	103.3	244.3	298.5	314.8	324.6	339.4	342.6	344.3
80°	34.4	44.3	70.5	80.3	177.0	219.7	231.2	239.3	252.5	252.5	255.8
82.5°	26.3	34.4	50.9	57.4	119.7	150.9	160.7	165.6	173.8	173.8	173.8
85°	16.4	21.3	32.8	37.7	72.2	91.9	98.4	100.0	106.6	108.2	108.2
87.5°	8.2	11.4	21.3	23.0	37.7	47.6	47.6	50.9	50.9	49.2	47.6
90°	6.0	10.9	15.7	17.0	26.6	39.5	45.9	40.8	30.6	23.0	23.0
92.5°	24.1	65.2	106.4	116.7	164.0	227.0	258.6	226.6	162.8	114.8	110.3
95°	58.0	133.2	208.4	227.2	403.5	638.6	756.1	674.7	511.9	389.8	376.0
97.5°	100.3	166.7	233.0	249.6	543.5	935.5	1131.4	1080.0	977.0	899.9	873.6
100°	132.9	193.1	253.3	268.3	594.5	1029.4	1246.8	1250.6	1258.1	1263.8	1232.4
102.5°	160.8	217.0	273.1	287.1	617.9	1058.9	1279.5	1345.0	1476.1	1574.4	1547.6
105°	207.9	255.5	303.0	314.9	635.2	1062.2	1275.8	1422.7	1716.6	1937.0	1922.6
107.5°	256.3	300.6	345.0	356.0	638.5	1015.0	1203.3	1408.2	1818.1	2125.6	2129.1
110°	288.9	328.9	369.0	379.0	633.6	973.1	1142.8	1372.0	1830.2	2174.0	2189.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	320.9	359.1	397.3	406.8	633.8	936.5	1087.9	1322.4	1791.4	2143.1	2166.2
115°	369.3	404.5	439.6	448.5	639.6	894.6	1022.0	1247.9	1699.7	2038.6	2070.7
117.5°	417.1	449.0	481.0	489.0	651.6	868.3	976.7	1180.5	1588.3	1894.1	1929.7
120°	444.8	474.9	504.9	512.5	661.1	859.4	958.5	1144.8	1517.4	1796.8	1831.3
122.5°	472.0	502.3	532.8	540.3	675.1	854.9	944.7	1112.4	1447.9	1699.5	1733.5
125°	513.8	541.4	569.1	576.0	693.8	851.0	929.6	1072.0	1357.0	1570.7	1602.1
127.5°	547.6	575.5	603.4	610.4	712.5	848.7	916.9	1039.3	1283.9	1467.5	1493.9
130°	565.7	595.7	625.8	633.3	726.3	850.1	912.0	1020.9	1238.8	1402.1	1426.6
132.5°	584.4	614.5	644.6	652.1	737.3	851.0	907.8	1005.2	1200.3	1346.5	1368.4
135°	612.2	639.6	667.0	673.8	749.4	850.1	900.5	982.2	1145.5	1267.9	1286.8
137.5°	640.6	667.7	694.9	701.7	767.5	855.4	899.3	968.3	1106.4	1210.0	1225.4
140°	664.2	689.2	714.2	720.5	778.7	856.3	895.1	954.7	1073.9	1163.4	1177.8
142.5°	682.4	705.4	728.5	734.3	787.9	859.3	895.1	947.5	1052.2	1130.8	1143.2
145°	710.2	730.3	750.4	755.4	800.0	859.4	889.1	931.9	1017.5	1081.8	1091.2
147.5°	737.9	757.6	777.1	782.1	817.7	865.3	889.1	922.8	990.1	1040.7	1048.5
150°	756.1	773.8	791.5	795.9	826.9	868.3	889.1	917.5	974.4	1017.2	1023.5
152.5°	774.8	788.3	801.7	805.0	833.0	870.4	889.1	913.4	962.0	998.5	1003.2
155°	802.6	812.6	822.5	825.0	846.3	874.8	889.1	908.4	947.1	976.1	979.3
157.5°	823.2	832.9	842.4	844.9	859.6	879.3	889.1	904.1	934.1	956.7	958.9
160°	837.0	844.6	852.1	854.0	865.7	881.3	889.1	901.9	927.7	947.0	948.3
162.5°	851.0	856.6	862.2	863.7	872.1	883.4	889.1	899.9	921.7	938.0	939.2
165°	866.1	871.1	876.3	877.5	881.4	886.5	889.1	896.8	912.4	924.0	925.3
167.5°	879.9	882.4	884.8	885.4	888.6	892.9	895.1	900.2	910.4	918.0	918.6
170°	889.1	891.5	893.9	894.5	894.7	895.0	895.1	900.2	910.4	918.0	918.0
172.5°	893.9	894.4	895.0	895.1	895.1	895.1	895.1	899.1	907.2	913.2	912.7
175°	900.5	900.5	900.5	900.5	898.7	896.2	895.1	897.6	902.7	906.6	906.6
177.5°	900.5	900.5	900.5	900.5	899.1	897.3	896.3	898.4	902.3	905.3	904.8
180°	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	509.9	509.9
2.5°	544.4	541.1
5°	700.1	703.4
7.5°	942.8	941.2
10°	1172.3	1187.1
12.5°	1339.5	1342.8
15°	1441.3	1447.8
17.5°	1480.6	1482.3
20°	1482.3	1479.0
22.5°	1464.2	1461.0
25°	1442.8	1441.3
27.5°	1423.2	1424.8
30°	1415.0	1420.0
32.5°	1415.0	1423.2
35°	1418.3	1426.5
37.5°	1416.7	1426.5
40°	1410.1	1421.5
42.5°	1392.1	1400.2
45°	1364.2	1374.0
47.5°	1328.1	1334.7
50°	1282.2	1288.8
52.5°	1224.8	1226.5
55°	1155.9	1162.5
57.5°	1082.2	1083.8
60°	1000.2	1005.1
62.5°	913.3	913.3
65°	821.4	824.7
67.5°	726.4	734.6
70°	629.7	631.3
72.5°	534.5	534.5
75°	436.1	437.8
77.5°	342.6	342.6
80°	254.2	255.8
82.5°	175.5	178.7
85°	109.9	109.9
87.5°	50.9	45.9
90°	23.0	23.0
92.5°	92.0	73.7
95°	320.6	265.3
97.5°	768.3	663.0
100°	1107.0	981.5
102.5°	1440.1	1332.7
105°	1864.8	1807.1
107.5°	2143.0	2157.0
110°	2249.1	2309.3





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2258.6	2351.0
115°	2198.8	2326.9
117.5°	2071.7	2213.8
120°	1969.4	2107.5
122.5°	1869.8	2005.9
125°	1727.5	1853.0
127.5°	1599.7	1705.5
130°	1524.3	1622.1
132.5°	1455.9	1543.5
135°	1362.3	1437.8
137.5°	1287.2	1348.9
140°	1235.6	1293.3
142.5°	1192.9	1242.5
145°	1128.9	1166.5
147.5°	1079.7	1110.9
150°	1048.7	1073.9
152.5°	1022.3	1041.3
155°	991.9	1004.5
157.5°	967.7	976.7
160°	953.4	958.5
162.5°	944.0	948.8
165°	930.4	935.6
167.5°	920.7	922.9
170°	918.0	918.0
172.5°	910.9	909.0
175°	906.6	906.6
177.5°	902.6	900.5
180°	900.5	900.5



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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	5.44	6.25	6.47	7.29	8.69	18.58	19.39	19.61	20.43	21.83
	3H	6.14	6.87	7.18	7.92	9.34	20.40	21.13	21.44	22.18	23.59
	4H	6.44	7.13	7.49	8.18	9.61	21.03	21.72	22.08	22.77	24.20
	6H	6.69	7.32	7.75	8.38	9.82	21.45	22.08	22.51	23.14	24.58
	8H	6.75	7.36	7.82	8.43	9.87	21.56	22.17	22.62	23.24	24.67
	12H	6.77	7.35	7.84	8.41	9.87	21.62	22.19	22.69	23.26	24.72
4H	2H	12.62	13.31	13.68	14.37	15.79	18.85	19.54	19.91	20.59	22.02
	3H	14.19	14.77	15.25	15.85	17.29	20.87	21.45	21.94	22.53	23.97
	4H	14.28	14.81	15.35	15.88	17.34	21.63	22.16	22.70	23.23	24.69
	6H	14.29	14.75	15.37	15.84	17.29	22.15	22.61	23.23	23.70	25.16
	8H	14.27	14.69	15.35	15.78	17.25	22.31	22.73	23.39	23.82	25.29
	12H	14.22	14.61	15.32	15.71	17.18	22.39	22.77	23.49	23.87	25.35
8H	4H	15.71	16.14	16.79	17.22	18.70	21.68	22.11	22.77	23.20	24.67
	6H	15.95	16.30	17.06	17.43	18.90	22.30	22.65	23.40	23.78	25.25
	8H	15.97	16.28	17.08	17.39	18.88	22.51	22.82	23.62	23.93	25.42
	12H	15.94	16.21	17.05	17.31	18.84	22.64	22.92	23.76	24.02	25.55
12H	4H	15.85	16.24	16.95	17.33	18.81	21.63	22.02	22.73	23.12	24.60
	6H	16.21	16.52	17.32	17.63	19.11	22.28	22.59	23.39	23.70	25.19
	8H	16.27	16.55	17.39	17.65	19.18	22.50	22.77	23.62	23.88	25.41