

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: P938288

Luminaire Tested: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-6-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938288
REPORT IS A COMBINATION OF REPORTS P933637 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-6-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

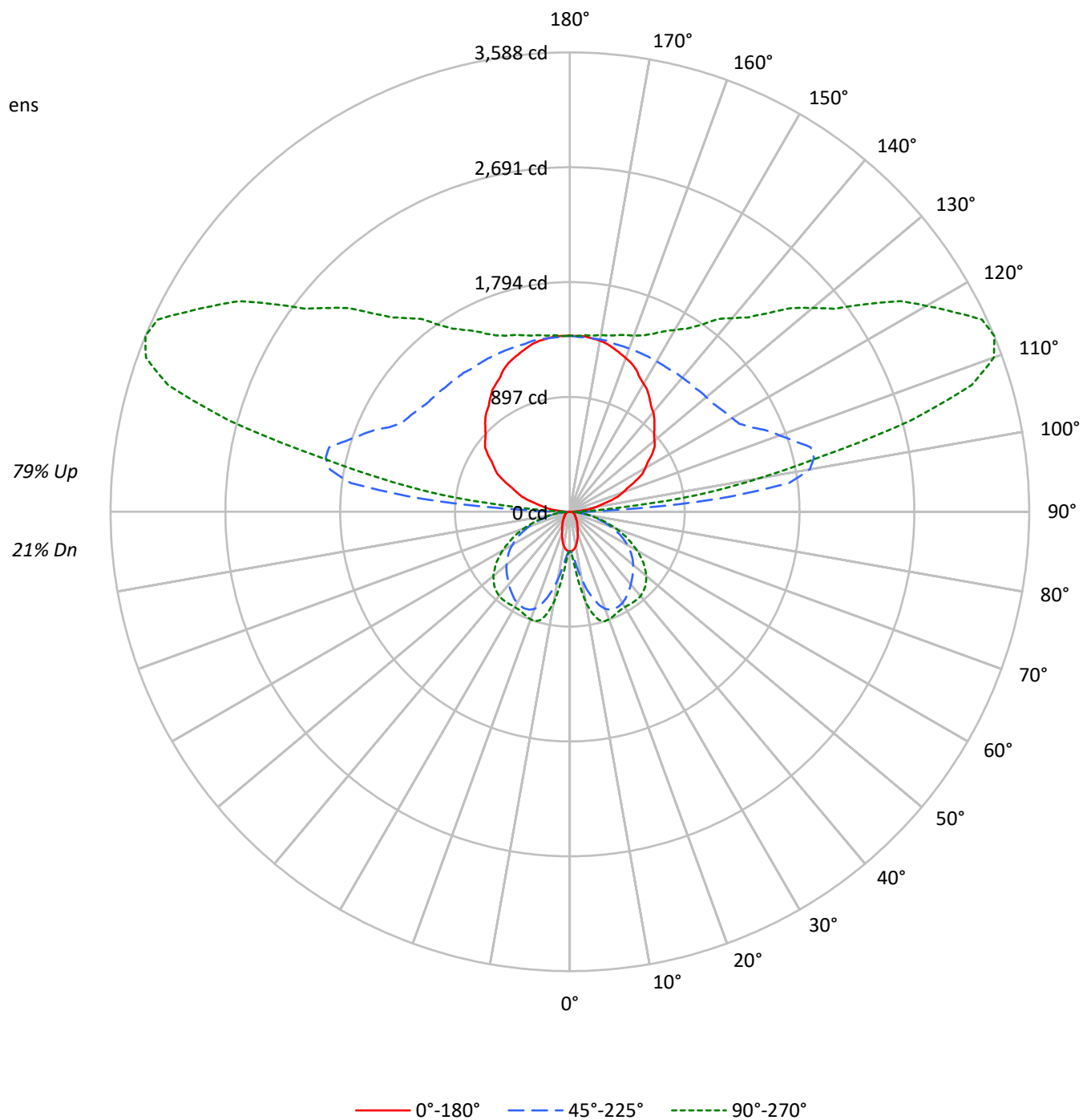
Lumens per Lamp: N/A
Luminaire Lumens: 11301.5 lumens
Efficiency: N/A
Efficacy: 135.5 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 83.4
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: P938288

CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-6-3000K

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
RCR																	
0	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1908	1908	1908
5°	1863	2204	2565
10°	1690	3213	4252
15°	1435	4197	5135
20°	1169	4862	5233
25°	975	5087	5126
30°	821	5118	5117
35°	726	5031	5249
40°	632	4920	5386
45°	572	4837	5407
50°	524	4762	5317
55°	501	4654	5082
60°	513	4448	4710
65°	533	4136	4197
70°	566	3604	3547
75°	626	2936	2768
80°	677	2033	1865
85°	596	1079	955

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5407 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.9	0.4
10°-20°	176.8	1.6
20°-30°	309.3	2.7
30°-40°	398.2	3.5
40°-50°	444.7	3.9
50°-60°	426.0	3.8
60°-70°	337.6	3.0
70°-80°	198.5	1.8
80°-90°	60.4	0.5
90°-100°	670.0	5.9
100°-110°	1761.4	15.6
110°-120°	1826.4	16.2
120°-130°	1465.0	13.0
130°-140°	1149.5	10.2
140°-150°	882.3	7.8
150°-160°	635.4	5.6
160°-170°	388.8	3.4
170°-180°	131.3	1.2
0°-30°	526.0	4.7
0°-40°	924.2	8.2
0°-60°	1794.9	15.9
0°-90°	2391.4	21.2
90°-120°	4257.9	37.7
90°-150°	7754.7	68.6
90°-180°	8910.0	78.8
0°-180°	11301.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	308	308	308	308	308	
5°	300	322	363	411	426	28
15°	225	416	700	849	876	63
25°	144	471	834	871	872	66
35°	97	450	785	830	863	61
45°	66	359	694	795	831	51
55°	48	228	589	684	703	43
65°	38	121	437	492	499	37
75°	28	74	240	264	265	29
85°	10	23	60	66	66	11
90°	9	26	70	35	35	8
95°	88	347	1154	595	405	98
105°	317	481	1947	2956	2758	336
115°	564	684	1560	3111	3552	557
125°	784	879	1419	2398	2828	696
135°	934	1029	1374	1935	2194	723
145°	1084	1153	1357	1651	1780	679
155°	1225	1259	1357	1490	1533	563
165°	1322	1339	1357	1410	1428	373
175°	1374	1374	1366	1384	1384	130
180°	1374	1374	1374	1374	1374	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	308.4	308.4	308.4	308.4	308.4	308.4	308.4	308.4	308.4	308.4	308.4
2.5°	308.4	308.4	310.4	311.4	313.4	314.4	316.4	318.4	324.3	325.3	327.3
5°	300.5	304.5	317.4	322.3	336.2	355.1	362.9	375.9	402.7	410.6	415.6
7.5°	288.6	297.6	329.2	337.2	371.9	421.5	442.3	470.1	512.7	533.6	550.5
10°	269.8	288.6	345.1	364.0	420.5	495.9	534.6	573.3	637.7	666.4	677.4
12.5°	249.0	279.7	362.0	387.8	469.1	579.2	625.8	668.5	741.9	780.5	786.4
15°	225.1	266.8	377.8	415.6	520.7	648.6	700.2	752.8	821.2	848.9	855.9
17.5°	204.3	256.9	392.7	432.5	560.3	711.1	763.7	807.3	862.8	881.7	886.6
20°	178.6	241.0	402.7	454.3	602.1	756.8	807.3	841.1	878.7	890.7	892.6
22.5°	159.6	224.1	408.6	462.1	629.8	784.5	827.2	853.9	879.7	883.7	884.6
25°	143.9	205.3	407.6	471.1	653.6	801.3	834.1	853.9	868.8	870.7	870.7
27.5°	129.0	184.5	403.7	473.1	671.5	805.4	831.1	845.0	851.9	855.9	855.9
30°	116.1	164.7	393.7	469.1	679.4	801.3	822.2	829.1	836.0	842.0	845.0
32.5°	106.1	145.8	378.8	461.2	680.3	791.5	806.4	810.3	820.2	834.1	839.1
35°	97.2	127.0	362.0	450.3	674.4	775.6	785.4	789.5	809.3	830.1	837.0
37.5°	88.2	113.1	340.2	431.5	665.5	756.8	763.7	770.7	801.3	826.2	834.1
40°	79.4	101.2	314.4	410.6	651.6	733.9	739.9	750.7	791.5	820.2	828.1
42.5°	72.4	91.2	286.6	388.8	633.7	708.1	717.0	732.9	779.5	810.3	819.2
45°	66.5	81.3	256.9	359.0	610.9	681.3	694.2	716.0	765.6	795.4	803.3
47.5°	60.5	74.3	226.1	328.2	586.2	654.6	671.5	696.2	746.8	775.6	782.5
50°	55.5	67.4	195.4	295.5	559.4	625.8	645.6	671.5	723.0	749.8	758.7
52.5°	51.6	61.5	166.6	262.9	528.6	596.0	618.9	645.6	694.2	720.1	726.0
55°	47.6	56.5	141.8	228.1	496.8	564.3	589.1	614.9	662.5	684.3	688.3
57.5°	45.7	52.6	121.0	195.4	463.1	528.6	556.4	580.2	624.8	641.7	645.6
60°	42.7	49.6	105.1	167.6	426.4	494.9	518.7	542.5	580.2	594.1	597.0
62.5°	39.6	47.6	93.3	140.8	388.8	455.2	479.0	500.9	532.5	542.5	546.4
65°	37.7	45.7	84.3	121.0	350.1	413.5	437.4	456.2	482.0	491.9	493.9
67.5°	35.7	43.7	77.4	104.1	311.4	371.9	389.8	407.6	427.4	437.4	438.4
70°	32.7	41.6	71.4	92.2	271.7	324.3	339.2	358.0	373.9	378.8	381.9
72.5°	30.8	38.7	67.4	83.3	231.1	278.6	292.5	303.5	317.4	322.3	322.3
75°	27.8	34.7	63.5	74.3	189.4	228.1	240.0	250.9	261.8	263.9	260.8
77.5°	24.7	30.8	54.5	62.5	147.8	180.5	190.4	196.4	205.3	207.3	208.2
80°	20.8	26.8	42.7	48.6	107.1	132.9	139.8	144.8	152.7	152.7	154.7
82.5°	15.9	20.8	30.8	34.7	72.4	91.2	97.2	100.2	105.1	105.1	105.1
85°	10.0	12.9	19.8	22.8	43.7	55.5	59.6	60.5	64.5	65.5	65.5
87.5°	4.9	6.9	12.9	13.9	22.8	28.8	28.8	30.8	30.8	29.8	28.8
90°	9.3	16.7	24.0	25.8	40.6	60.2	70.1	62.3	46.7	35.1	35.1
92.5°	36.9	99.6	162.4	178.1	250.3	346.7	394.8	346.0	248.5	175.3	168.3
95°	88.5	203.3	318.2	346.9	616.0	974.7	1154.0	1029.8	781.3	595.0	573.9
97.5°	153.1	254.4	355.7	381.0	829.6	1427.8	1726.9	1648.4	1491.3	1373.6	1333.4
100°	202.9	294.8	386.6	409.6	907.4	1571.2	1903.1	1908.8	1920.3	1928.9	1881.1
102.5°	245.4	331.1	416.8	438.2	943.1	1616.3	1952.9	2052.9	2252.9	2403.0	2362.0
105°	317.3	389.9	462.4	480.6	969.5	1621.4	1947.4	2171.6	2620.1	2956.5	2934.4
107.5°	391.1	458.8	526.4	543.3	974.4	1549.2	1836.6	2149.5	2775.1	3244.3	3249.7
110°	440.9	502.1	563.1	578.4	967.1	1485.2	1744.3	2094.1	2793.5	3318.1	3341.1

TEST NUMBER: P938288

CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-6-3000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	489.8	548.0	606.2	620.8	967.4	1429.4	1660.4	2018.3	2734.2	3271.1	3306.4
115°	563.6	617.3	671.1	684.5	976.2	1365.3	1559.9	1904.7	2594.3	3111.4	3160.3
117.5°	636.5	685.3	734.1	746.3	994.5	1325.3	1490.7	1801.9	2424.2	2891.0	2945.2
120°	679.0	724.9	770.9	782.3	1009.2	1311.8	1463.0	1747.4	2316.0	2742.5	2795.1
122.5°	720.5	766.8	813.2	824.7	1030.4	1304.7	1441.8	1697.9	2209.9	2594.0	2645.9
125°	784.1	826.3	868.6	879.1	1059.0	1298.9	1418.8	1636.3	2071.2	2397.5	2445.3
127.5°	835.7	878.3	921.0	931.7	1087.6	1295.4	1399.3	1586.1	1959.6	2239.7	2280.1
130°	863.4	909.4	955.3	966.8	1108.6	1297.6	1392.0	1558.3	1890.8	2140.1	2177.4
132.5°	892.0	938.0	983.9	995.4	1125.4	1298.9	1385.5	1534.3	1832.0	2055.2	2088.6
135°	934.4	976.2	1018.1	1028.6	1143.9	1297.6	1374.5	1499.1	1748.4	1935.3	1964.1
137.5°	977.8	1019.2	1060.6	1071.0	1171.6	1305.6	1372.6	1478.0	1688.7	1846.8	1870.3
140°	1013.8	1052.0	1090.0	1099.6	1188.4	1306.9	1366.2	1457.2	1639.2	1775.8	1797.8
142.5°	1041.4	1076.7	1112.0	1120.8	1202.6	1311.7	1366.2	1446.2	1606.0	1725.9	1744.8
145°	1083.9	1114.7	1145.4	1153.1	1221.1	1311.7	1356.9	1422.3	1553.1	1651.3	1665.6
147.5°	1126.3	1156.3	1186.2	1193.7	1248.1	1320.6	1356.9	1408.4	1511.2	1588.4	1600.4
150°	1154.0	1181.0	1208.0	1214.9	1262.2	1325.4	1356.9	1400.4	1487.3	1552.5	1562.1
152.5°	1182.6	1203.1	1223.6	1228.8	1271.4	1328.4	1356.9	1394.0	1468.3	1523.9	1531.2
155°	1225.0	1240.2	1255.4	1259.1	1291.8	1335.2	1356.9	1386.4	1445.5	1489.7	1494.6
157.5°	1256.4	1271.2	1285.9	1289.6	1312.1	1341.9	1356.9	1379.9	1425.9	1460.3	1463.6
160°	1277.7	1289.1	1300.5	1303.4	1321.2	1345.0	1356.9	1376.7	1416.0	1445.5	1447.4
162.5°	1298.9	1307.4	1316.0	1318.2	1331.1	1348.4	1356.9	1373.5	1406.7	1431.7	1433.5
165°	1321.9	1329.7	1337.4	1339.4	1345.2	1353.0	1356.9	1368.9	1392.6	1410.5	1412.4
167.5°	1343.1	1346.8	1350.5	1351.4	1356.3	1362.9	1366.2	1374.0	1389.6	1401.2	1402.0
170°	1356.9	1360.6	1364.3	1365.2	1365.5	1366.0	1366.2	1374.0	1389.6	1401.2	1401.2
172.5°	1364.3	1365.1	1366.0	1366.2	1366.2	1366.2	1366.2	1372.3	1384.6	1393.8	1393.1
175°	1374.5	1374.5	1374.5	1374.5	1371.7	1368.1	1366.2	1370.0	1377.8	1383.7	1383.7
177.5°	1374.5	1374.5	1374.5	1374.5	1372.3	1369.5	1368.0	1371.0	1377.2	1381.9	1381.1
180°	1374.5	1374.5	1374.5	1374.5	1374.5	1374.5	1374.5	1374.5	1374.5	1374.5	1374.5

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CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-6-3000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	308.4	308.4
2.5°	329.2	327.3
5°	423.5	425.5
7.5°	570.3	569.3
10°	709.1	718.0
12.5°	810.3	812.3
15°	871.8	875.8
17.5°	895.6	896.6
20°	896.6	894.6
22.5°	885.6	883.7
25°	872.8	871.8
27.5°	860.9	861.9
30°	855.9	858.9
32.5°	855.9	860.9
35°	857.9	862.8
37.5°	856.9	862.8
40°	852.9	859.9
42.5°	842.0	847.0
45°	825.2	831.1
47.5°	803.3	807.3
50°	775.6	779.5
52.5°	740.9	741.9
55°	699.2	703.2
57.5°	654.6	655.6
60°	605.0	608.0
62.5°	552.5	552.5
65°	496.8	498.8
67.5°	439.4	444.3
70°	380.9	381.9
72.5°	323.3	323.3
75°	263.9	264.8
77.5°	207.3	207.3
80°	153.7	154.7
82.5°	106.1	108.1
85°	66.5	66.5
87.5°	30.8	27.8
90°	35.1	35.1
92.5°	140.4	112.5
95°	489.4	405.0
97.5°	1172.6	1011.9
100°	1689.6	1498.1
102.5°	2198.0	2034.0
105°	2846.3	2758.1
107.5°	3271.0	3292.3
110°	3432.9	3524.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3447.4	3588.3
115°	3355.9	3551.5
117.5°	3162.1	3379.0
120°	3005.9	3216.6
122.5°	2853.8	3061.6
125°	2636.8	2828.2
127.5°	2441.6	2603.2
130°	2326.7	2475.8
132.5°	2222.2	2355.9
135°	2079.4	2194.5
137.5°	1964.7	2059.0
140°	1885.9	1974.1
142.5°	1820.7	1896.6
145°	1722.9	1780.3
147.5°	1647.9	1695.5
150°	1600.7	1639.2
152.5°	1560.2	1589.4
155°	1513.8	1533.1
157.5°	1477.2	1490.7
160°	1455.2	1463.0
162.5°	1440.8	1448.2
165°	1420.1	1427.9
167.5°	1405.3	1408.6
170°	1401.2	1401.2
172.5°	1390.3	1387.4
175°	1383.7	1383.7
177.5°	1377.7	1374.5
180°	1374.5	1374.5

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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	0.00	0.33	0.84	1.49	3.12	12.83	13.50	14.00	14.65	16.28
	3H	0.36	0.96	1.53	2.12	3.76	14.65	15.25	15.83	16.41	18.06
	4H	0.65	1.22	1.83	2.38	4.03	15.29	15.85	16.47	17.01	18.66
	6H	0.89	1.41	2.08	2.57	4.23	15.70	16.22	16.89	17.39	19.05
	8H	0.95	1.45	2.14	2.63	4.28	15.81	16.31	17.01	17.49	19.14
	12H	0.96	1.43	2.16	2.61	4.28	15.87	16.34	17.07	17.52	19.19
4H	2H	6.85	7.42	8.04	8.58	10.23	13.08	13.65	14.27	14.81	16.46
	3H	8.40	8.88	9.60	10.06	11.72	15.11	15.58	16.30	16.77	18.43
	4H	8.49	8.92	9.68	10.10	11.78	15.86	16.30	17.06	17.47	19.15
	6H	8.49	8.86	9.69	10.06	11.72	16.38	16.76	17.58	17.96	19.62
	8H	8.46	8.81	9.66	10.00	11.68	16.54	16.89	17.74	18.08	19.76
	12H	8.40	8.72	9.62	9.92	11.61	16.62	16.94	17.83	18.14	19.82
8H	4H	9.91	10.26	11.11	11.45	13.13	15.91	16.25	17.10	17.44	19.13
	6H	10.14	10.43	11.36	11.66	13.34	16.52	16.81	17.74	18.04	19.72
	8H	10.16	10.41	11.38	11.62	13.32	16.73	16.99	17.96	18.19	19.89
	12H	10.12	10.34	11.34	11.54	13.28	16.87	17.09	18.09	18.29	20.02
12H	4H	10.04	10.36	11.26	11.56	13.25	15.85	16.16	17.06	17.36	19.05
	6H	10.40	10.65	11.62	11.86	13.56	16.50	16.75	17.72	17.96	19.66
	8H	10.46	10.68	11.68	11.88	13.62	16.72	16.94	17.94	18.14	19.88