

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: P937863

Luminaire Tested: SQ4-FB-125U-050D-93050-1D-UNV-STD-W-6-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937863
REPORT IS A COMBINATION OF REPORTS P933605 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-050D-93050-1D-UNV-STD-W-6-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

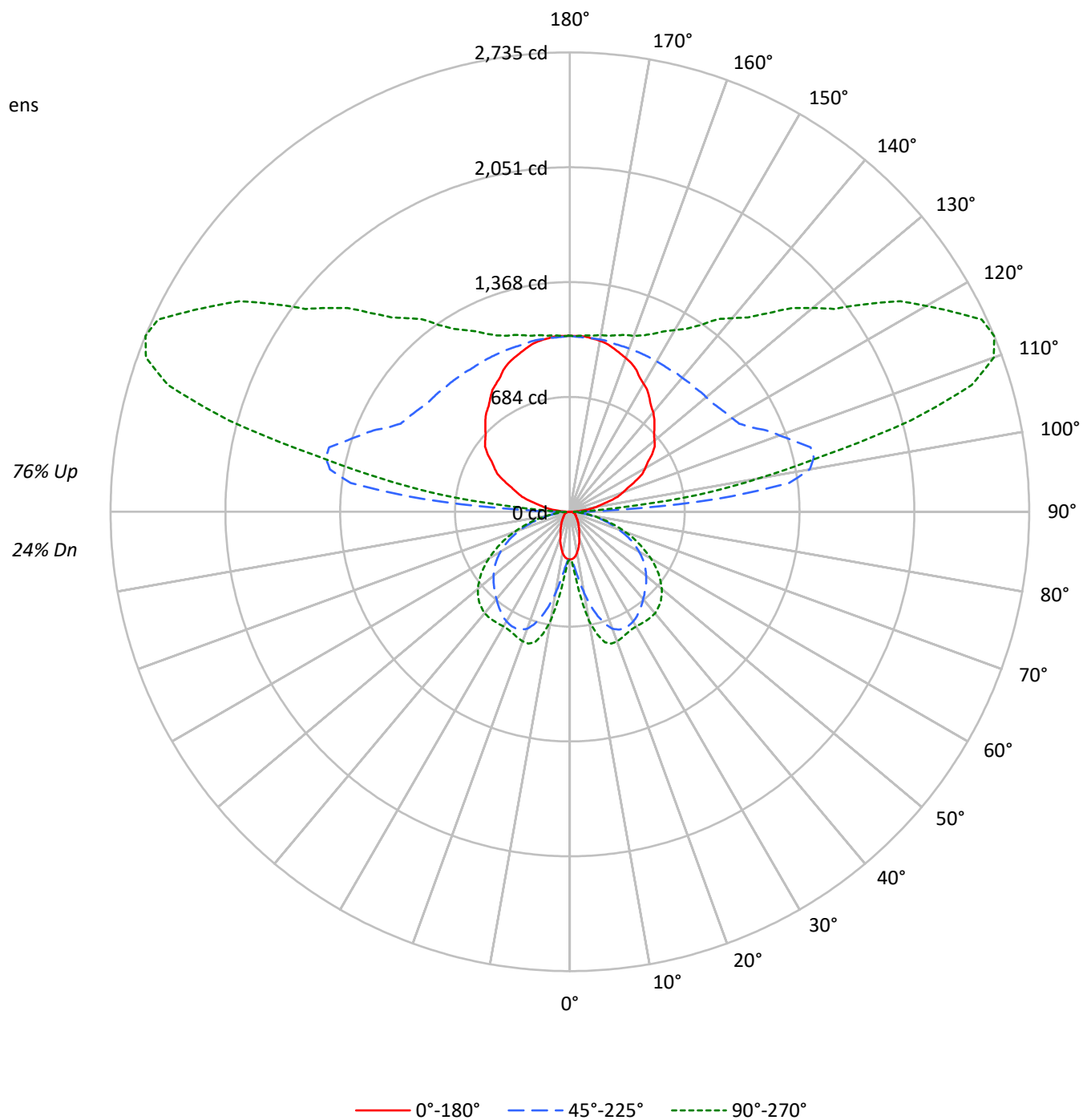
Lumens per Lamp: N/A
Luminaire Lumens: 8984.6 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 71.4
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: P937863

CATALOG NUMBER: SQ4-FB-125U-050D-93050-1D-UNV-STD-W-6-4000K

Luminous Intensity Polar Plot



TEST NUMBER: P937863

CATALOG NUMBER: SQ4-FB-125U-050D-93050-1D-UNV-STD-W-6-4000K

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	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33			24
1	92	88	84	80	81	78	75	72	60	58	56	44	42	41	28	28	27			20
2	83	76	70	65	74	68	63	58	52	49	46	38	36	34	25	23	22			16
3	76	66	59	54	67	59	53	48	46	42	38	33	30	28	21	20	19			13
4	69	58	51	45	61	52	46	41	40	36	32	29	26	24	19	17	16			11
5	63	52	44	38	56	46	39	34	36	31	27	26	23	20	17	15	13			10
6	58	46	38	33	51	41	34	29	32	27	23	23	20	17	15	13	12			8
7	53	41	34	28	47	37	30	26	29	24	20	21	18	15	14	12	10			7
8	49	37	30	25	44	33	27	22	26	21	18	19	16	13	12	10	9			6
9	46	34	27	22	40	30	24	20	24	19	16	17	14	12	11	9	8			6
10	42	31	24	19	38	28	21	17	22	17	14	16	13	10	10	9	7			5

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1751	1751	1751
5°	1711	2024	2355
10°	1551	2950	3903
15°	1317	3853	4714
20°	1072	4464	4804
25°	895	4670	4706
30°	753	4698	4697
35°	666	4619	4818
40°	581	4516	4944
45°	525	4440	4964
50°	481	4372	4881
55°	460	4273	4665
60°	471	4084	4323
65°	489	3796	3853
70°	521	3309	3256
75°	574	2695	2541
80°	622	1867	1712
85°	543	990	876

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 4964 cd/sqm

TEST NUMBER: P937863

CATALOG NUMBER: SQ4-FB-125U-050D-93050-1D-UNV-STD-W-6-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.6	0.4
10°-20°	162.3	1.8
20°-30°	283.9	3.2
30°-40°	365.5	4.1
40°-50°	408.3	4.5
50°-60°	391.0	4.4
60°-70°	309.9	3.4
70°-80°	182.2	2.0
80°-90°	54.6	0.6
90°-100°	510.6	5.7
100°-110°	1342.3	14.9
110°-120°	1391.8	15.5
120°-130°	1116.4	12.4
130°-140°	876.0	9.7
140°-150°	672.4	7.5
150°-160°	484.2	5.4
160°-170°	296.3	3.3
170°-180°	100.1	1.1
0°-30°	482.9	5.4
0°-40°	848.4	9.4
0°-60°	1647.7	18.3
0°-90°	2194.5	24.4
90°-120°	3244.7	36.1
90°-150°	5909.5	65.8
90°-180°	6790.0	75.6
0°-180°	8984.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	283	283	283	283	283	
5°	276	296	333	377	391	25
15°	207	382	643	779	804	58
25°	132	432	766	799	800	61
35°	89	413	721	762	792	56
45°	61	330	637	730	763	47
55°	44	209	541	628	646	40
65°	35	111	402	452	458	34
75°	26	68	220	242	243	27
85°	9	21	55	60	61	10
90°	7	20	53	27	27	6
95°	68	264	880	453	309	75
105°	242	366	1484	2253	2102	256
115°	430	522	1189	2371	2706	424
125°	598	670	1081	1827	2155	531
135°	712	784	1048	1475	1672	551
145°	826	879	1034	1258	1357	517
155°	934	960	1034	1135	1168	429
165°	1007	1021	1034	1075	1088	284
175°	1048	1048	1041	1054	1054	99
180°	1048	1048	1048	1048	1048	

TEST NUMBER: P937863

CATALOG NUMBER: SQ4-FB-125U-050D-93050-1D-UNV-STD-W-6-4000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1
2.5°	283.1	283.1	284.9	285.8	287.8	288.7	290.5	292.3	297.7	298.6	300.4
5°	275.9	279.5	291.4	295.9	308.7	325.9	333.2	345.0	369.7	376.9	381.5
7.5°	264.9	273.2	302.2	309.6	341.4	387.0	406.1	431.6	470.7	489.9	505.4
10°	247.7	264.9	316.8	334.2	386.1	455.2	490.8	526.3	585.5	611.8	621.8
12.5°	228.6	256.8	332.3	356.0	430.7	531.7	574.5	613.7	681.0	716.5	722.0
15°	206.6	244.9	346.9	381.5	478.0	595.4	642.8	691.1	753.9	779.3	785.8
17.5°	187.5	235.8	360.5	397.0	514.4	652.8	701.0	741.1	792.1	809.4	813.9
20°	163.9	221.2	369.7	417.0	552.7	694.7	741.1	772.1	806.7	817.6	819.4
22.5°	146.5	205.7	375.1	424.2	578.1	720.1	759.3	783.9	807.6	811.2	812.1
25°	132.1	188.5	374.2	432.5	600.0	735.6	765.7	783.9	797.5	799.3	799.3
27.5°	118.4	169.4	370.6	434.3	616.4	739.3	763.0	775.7	782.1	785.8	785.8
30°	106.5	151.2	361.4	430.7	623.7	735.6	754.8	761.1	767.5	773.0	775.7
32.5°	97.4	133.9	347.8	423.3	624.6	726.6	740.2	743.9	752.9	765.7	770.3
35°	89.2	116.6	332.3	413.4	619.1	712.0	721.1	724.8	743.0	762.1	768.4
37.5°	81.0	103.8	312.3	396.1	610.9	694.7	701.0	707.5	735.6	758.4	765.7
40°	72.9	92.9	288.7	376.9	598.2	673.7	679.2	689.2	726.6	752.9	760.2
42.5°	66.4	83.7	263.1	356.9	581.7	650.1	658.2	672.8	715.6	743.9	752.0
45°	61.0	74.7	235.8	329.6	560.8	625.5	637.3	657.3	702.9	730.2	737.4
47.5°	55.6	68.2	207.6	301.3	538.1	600.9	616.4	639.1	685.6	712.0	718.3
50°	51.0	61.9	179.4	271.3	513.5	574.5	592.7	616.4	663.8	688.3	696.5
52.5°	47.3	56.5	153.0	241.3	485.3	547.2	568.2	592.7	637.3	661.0	666.5
55°	43.7	51.9	130.2	209.4	456.1	518.0	540.8	564.5	608.2	628.2	631.9
57.5°	41.9	48.2	111.1	179.4	425.2	485.3	510.8	532.6	573.6	589.1	592.7
60°	39.2	45.5	96.5	153.9	391.5	454.3	476.2	498.0	532.6	545.4	548.1
62.5°	36.4	43.7	85.6	129.3	356.9	417.9	439.7	459.8	488.9	498.0	501.6
65°	34.6	41.9	77.4	111.1	321.4	379.6	401.5	418.8	442.4	451.6	453.4
67.5°	32.8	40.1	71.1	95.6	285.8	341.4	357.8	374.2	392.4	401.5	402.4
70°	30.1	38.2	65.5	84.6	249.5	297.7	311.4	328.7	343.2	347.8	350.6
72.5°	28.2	35.5	61.9	76.5	212.2	255.8	268.6	278.6	291.4	295.9	295.9
75°	25.5	31.9	58.3	68.2	173.9	209.4	220.3	230.4	240.3	242.2	239.4
77.5°	22.7	28.2	50.1	57.4	135.7	165.7	174.8	180.3	188.5	190.3	191.2
80°	19.1	24.6	39.2	44.6	98.3	122.0	128.4	133.0	140.2	140.2	142.0
82.5°	14.6	19.1	28.2	31.9	66.4	83.7	89.2	92.0	96.5	96.5	96.5
85°	9.1	11.9	18.2	20.9	40.1	51.0	54.7	55.6	59.2	60.1	60.1
87.5°	4.5	6.3	11.9	12.8	20.9	26.4	26.4	28.2	28.2	27.3	26.4
90°	7.1	12.7	18.3	19.6	30.9	45.9	53.4	47.4	35.6	26.7	26.7
92.5°	28.2	75.9	123.7	135.7	190.7	264.1	300.9	263.7	189.4	133.6	128.3
95°	67.5	155.0	242.4	264.3	469.3	742.8	879.5	784.8	595.4	453.4	437.3
97.5°	116.7	193.8	271.0	290.3	632.2	1088.1	1316.0	1256.2	1136.5	1046.7	1016.1
100°	154.7	224.7	294.6	312.1	691.5	1197.3	1450.2	1454.6	1463.4	1469.9	1433.4
102.5°	187.0	252.3	317.6	333.9	718.7	1231.7	1488.2	1564.4	1716.9	1831.2	1800.0
105°	241.9	297.2	352.4	366.2	738.8	1235.6	1484.0	1654.9	1996.7	2253.0	2236.2
107.5°	298.1	349.6	401.2	414.0	742.6	1180.6	1399.7	1638.1	2114.8	2472.4	2476.4
110°	336.0	382.5	429.0	440.7	736.9	1131.8	1329.3	1595.8	2128.8	2528.7	2546.1

TEST NUMBER: P937863

CATALOG NUMBER: SQ4-FB-125U-050D-93050-1D-UNV-STD-W-6-4000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	373.3	417.6	462.0	473.1	737.2	1089.3	1265.3	1538.0	2083.6	2492.7	2519.6
115°	429.5	470.4	511.4	521.6	744.0	1040.5	1188.7	1451.5	1977.1	2371.2	2408.5
117.5°	485.1	522.3	559.4	568.7	757.8	1009.9	1136.0	1373.1	1847.4	2203.2	2244.4
120°	517.4	552.4	587.4	596.1	769.0	999.6	1114.9	1331.6	1764.9	2089.9	2130.1
122.5°	549.1	584.4	619.7	628.5	785.2	994.2	1098.8	1293.9	1684.1	1976.8	2016.3
125°	597.5	629.7	661.9	669.9	807.0	989.8	1081.2	1246.9	1578.4	1827.1	1863.5
127.5°	636.9	669.4	701.9	710.0	828.9	987.3	1066.5	1208.8	1493.4	1706.9	1737.6
130°	658.0	693.0	727.9	736.7	844.7	988.7	1060.8	1187.5	1440.8	1630.9	1659.3
132.5°	679.8	714.8	749.7	758.5	857.6	989.8	1055.9	1169.3	1396.1	1566.2	1591.6
135°	712.1	744.0	775.8	783.8	871.7	988.9	1047.5	1142.4	1332.4	1474.9	1496.8
137.5°	745.1	776.7	808.3	816.2	892.8	995.0	1046.0	1126.3	1286.9	1407.3	1425.3
140°	772.6	801.6	830.7	837.9	905.6	995.9	1041.1	1110.5	1249.2	1353.2	1370.1
142.5°	793.6	820.5	847.4	854.1	916.5	999.6	1041.1	1102.0	1223.9	1315.3	1329.8
145°	826.0	849.4	872.8	878.7	930.5	999.6	1034.1	1083.9	1183.6	1258.4	1269.3
147.5°	858.4	881.2	904.0	909.7	951.1	1006.4	1034.1	1073.2	1151.7	1210.6	1219.6
150°	879.5	900.1	920.6	925.8	961.9	1010.0	1034.1	1067.2	1133.4	1183.1	1190.5
152.5°	901.2	916.8	932.5	936.4	969.0	1012.3	1034.1	1062.3	1118.9	1161.3	1166.8
155°	933.6	945.2	956.7	959.6	984.4	1017.5	1034.1	1056.6	1101.6	1135.3	1139.1
157.5°	957.5	968.7	979.9	982.7	999.8	1022.7	1034.1	1051.5	1086.6	1112.8	1115.3
160°	973.6	982.4	991.2	993.3	1006.9	1025.0	1034.1	1049.1	1079.0	1101.6	1103.0
162.5°	989.8	996.3	1002.9	1004.5	1014.4	1027.5	1034.1	1046.7	1072.0	1091.0	1092.4
165°	1007.4	1013.3	1019.3	1020.8	1025.2	1031.1	1034.1	1043.1	1061.3	1074.9	1076.3
167.5°	1023.6	1026.4	1029.2	1029.9	1033.6	1038.6	1041.1	1047.1	1058.9	1067.8	1068.5
170°	1034.1	1036.9	1039.7	1040.4	1040.7	1040.9	1041.1	1047.1	1058.9	1067.8	1067.8
172.5°	1039.7	1040.3	1040.9	1041.1	1041.1	1041.1	1041.1	1045.8	1055.1	1062.2	1061.7
175°	1047.5	1047.5	1047.5	1047.5	1045.4	1042.6	1041.1	1044.1	1050.1	1054.5	1054.5
177.5°	1047.5	1047.5	1047.5	1047.5	1045.8	1043.6	1042.5	1044.8	1049.5	1053.1	1052.4
180°	1047.5	1047.5	1047.5	1047.5	1047.5	1047.5	1047.5	1047.5	1047.5	1047.5	1047.5

TEST NUMBER: P937863

CATALOG NUMBER: SQ4-FB-125U-050D-93050-1D-UNV-STD-W-6-4000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	283.1	283.1
2.5°	302.2	300.4
5°	388.8	390.6
7.5°	523.5	522.6
10°	651.0	659.1
12.5°	743.9	745.7
15°	800.3	804.0
17.5°	822.2	823.1
20°	823.1	821.3
22.5°	813.0	811.2
25°	801.2	800.3
27.5°	790.3	791.2
30°	785.8	788.5
32.5°	785.8	790.3
35°	787.6	792.1
37.5°	786.7	792.1
40°	783.0	789.4
42.5°	773.0	777.5
45°	757.5	763.0
47.5°	737.4	741.1
50°	712.0	715.6
52.5°	680.1	681.0
55°	641.8	645.6
57.5°	600.9	601.8
60°	555.4	558.1
62.5°	507.2	507.2
65°	456.1	457.9
67.5°	403.3	407.9
70°	349.7	350.6
72.5°	296.8	296.8
75°	242.2	243.1
77.5°	190.3	190.3
80°	141.1	142.0
82.5°	97.4	99.2
85°	61.0	61.0
87.5°	28.2	25.5
90°	26.7	26.7
92.5°	107.0	85.7
95°	372.9	308.6
97.5°	893.7	771.2
100°	1287.6	1141.7
102.5°	1675.0	1550.1
105°	2169.0	2101.9
107.5°	2492.6	2508.9
110°	2616.1	2686.1

TEST NUMBER: P937863

CATALOG NUMBER: SQ4-FB-125U-050D-93050-1D-UNV-STD-W-6-4000K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2627.0	2734.6
115°	2557.4	2706.4
117.5°	2409.7	2575.0
120°	2290.7	2451.3
122.5°	2174.7	2333.1
125°	2009.5	2155.4
127.5°	1860.7	1983.8
130°	1773.1	1886.8
132.5°	1693.6	1795.4
135°	1584.6	1672.4
137.5°	1497.1	1569.0
140°	1437.2	1504.4
142.5°	1387.5	1445.4
145°	1313.0	1356.7
147.5°	1255.9	1292.1
150°	1219.9	1249.2
152.5°	1189.0	1211.2
155°	1153.7	1168.4
157.5°	1125.7	1136.0
160°	1109.0	1114.9
162.5°	1098.1	1103.7
165°	1082.3	1088.2
167.5°	1070.9	1073.4
170°	1067.8	1067.8
172.5°	1059.5	1057.3
175°	1054.5	1054.5
177.5°	1050.0	1047.5
180°	1047.5	1047.5

TEST NUMBER: P937863

CATALOG NUMBER: SQ4-FB-125U-050D-93050-1D-UNV-STD-W-6-4000K

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	0.62	1.08	1.76	3.35	13.10	13.79	14.24	14.92	16.52
	3H	0.63	1.24	1.78	2.39	4.00	14.92	15.53	16.07	16.68	18.29
	4H	0.92	1.50	2.08	2.65	4.26	15.55	16.14	16.71	17.28	18.90
	6H	1.16	1.70	2.33	2.84	4.47	15.97	16.51	17.14	17.66	19.28
	8H	1.22	1.73	2.39	2.90	4.51	16.08	16.60	17.25	17.76	19.37
	12H	1.23	1.72	2.41	2.87	4.51	16.14	16.63	17.32	17.79	19.42
4H	2H	7.12	7.70	8.29	8.85	10.46	13.35	13.94	14.52	15.08	16.69
	3H	8.67	9.16	9.85	10.33	11.96	15.38	15.87	16.55	17.04	18.66
	4H	8.76	9.21	9.93	10.37	12.01	16.13	16.58	17.31	17.74	19.38
	6H	8.76	9.14	9.94	10.33	11.96	16.66	17.04	17.84	18.22	19.86
	8H	8.73	9.09	9.91	10.26	11.91	16.81	17.17	17.99	18.34	19.99
	12H	8.68	9.01	9.87	10.19	11.84	16.89	17.22	18.09	18.40	20.06
8H	4H	10.18	10.54	11.36	11.72	13.37	16.18	16.54	17.36	17.71	19.36
	6H	10.42	10.72	11.62	11.93	13.58	16.79	17.09	17.99	18.31	19.95
	8H	10.43	10.69	11.64	11.88	13.55	17.01	17.27	18.21	18.46	20.13
	12H	10.39	10.62	11.60	11.81	13.51	17.14	17.37	18.35	18.56	20.26
12H	4H	10.32	10.64	11.51	11.83	13.48	16.12	16.45	17.32	17.63	19.29
	6H	10.67	10.93	11.88	12.12	13.79	16.77	17.03	17.98	18.23	19.89
	8H	10.73	10.96	11.94	12.15	13.85	16.99	17.22	18.20	18.41	20.11