

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: P936930

Luminaire Tested: SQ4-FB-050U-125D-92765-1D-UNV-STD-W-12-6500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936930
REPORT IS A COMBINATION OF REPORTS P933464 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-125D-92765-1D-UNV-STD-W-12-6500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

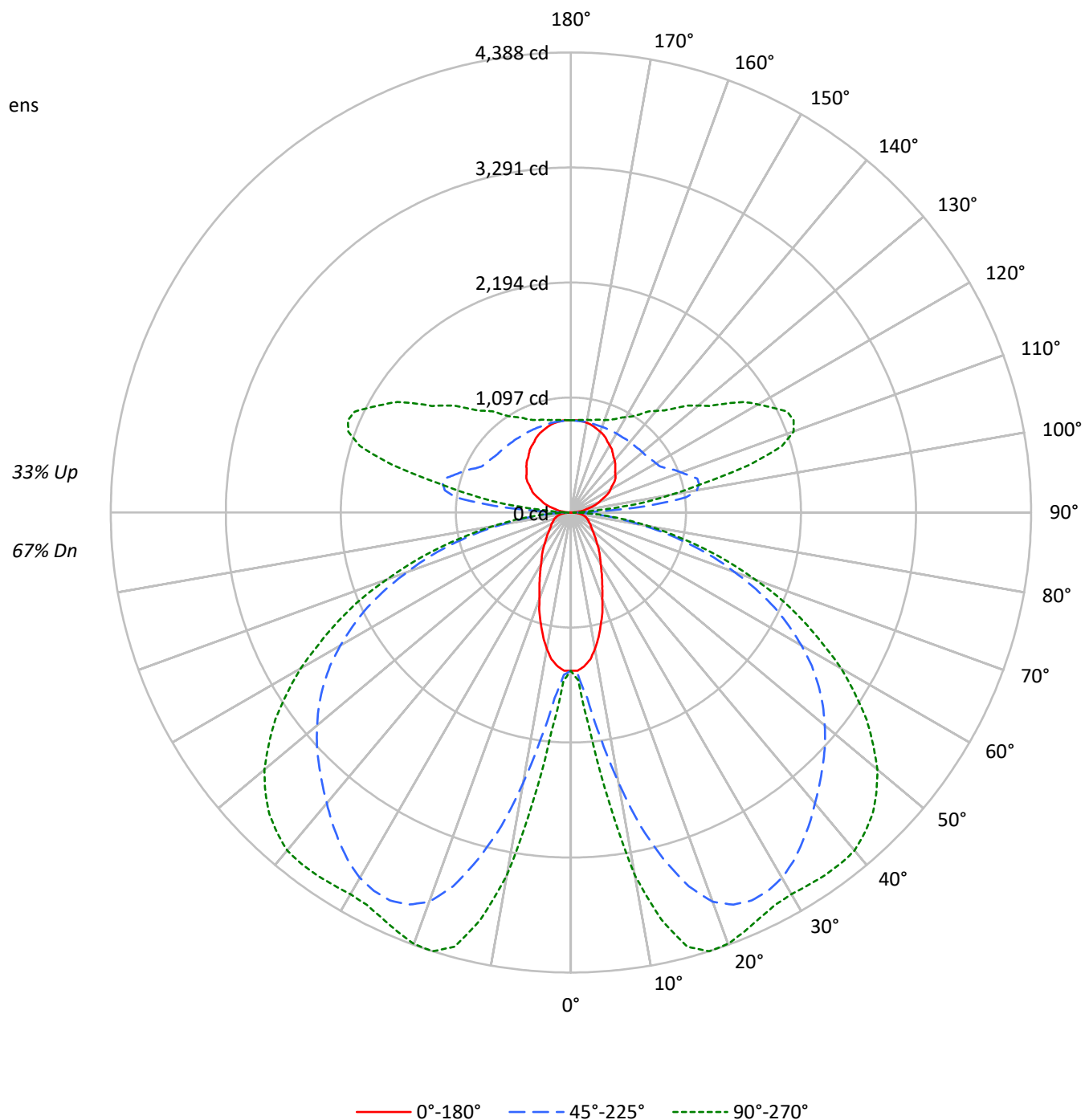
Lumens per Lamp: N/A
Luminaire Lumens: 17393.1 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 168
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

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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
RCR																	
0	111	111	111	111	105	105	105	105	93	93	93		82	82	82		72
1	101	96	92	88	95	91	87	83	80	78	75		71	69	67		62
2	91	83	76	71	86	78	72	67	70	65	61		61	58	55		54
3	83	72	64	58	77	68	61	55	61	55	50		54	49	45		47
4	75	64	55	48	70	60	52	46	53	47	42		47	42	38		42
5	69	56	47	41	64	53	45	39	47	41	36		42	37	32		37
6	63	50	41	35	59	47	39	34	42	36	31		38	32	28		33
7	58	45	36	30	55	43	35	29	38	32	27		34	29	24		30
8	54	41	32	27	51	39	31	26	35	28	24		31	26	22		27
9	50	37	29	24	47	35	28	23	32	25	21		28	23	19		25
10	47	34	26	21	44	32	25	20	29	23	19		26	21	17		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4670	4670	4670
5°	4563	5399	6277
10°	4141	7871	10406
15°	3521	10286	12565
20°	2867	11923	12805
25°	2393	12480	12545
30°	2019	12562	12521
35°	1786	12356	12845
40°	1557	12089	13180
45°	1411	11894	13232
50°	1295	11719	13013
55°	1242	11462	12436
60°	1273	10963	11525
65°	1326	10203	10273
70°	1416	8904	8679
75°	1575	7267	6773
80°	1733	5045	4564
85°	1575	2682	2336

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 13232 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.3	1.1
10°-20°	865.5	5.0
20°-30°	1513.9	8.7
30°-40°	1948.8	11.2
40°-50°	2176.8	12.5
50°-60°	2084.9	12.0
60°-70°	1652.3	9.5
70°-80°	971.6	5.6
80°-90°	273.3	1.6
90°-100°	429.4	2.5
100°-110°	1129.0	6.5
110°-120°	1170.6	6.7
120°-130°	939.0	5.4
130°-140°	736.8	4.2
140°-150°	565.5	3.3
150°-160°	407.3	2.3
160°-170°	249.2	1.4
170°-180°	84.2	0.5
0°-30°	2574.7	14.8
0°-40°	4523.5	26.0
0°-60°	8785.2	50.5
0°-90°	11682.3	67.2
90°-120°	2729.0	15.7
90°-150°	4970.2	28.6
90°-180°	5711.0	32.8
0°-180°	17393.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1510	1510	1510	1510	1510	
5°	1471	1578	1777	2010	2082	136
15°	1102	2034	3427	4155	4286	307
25°	704	2306	4082	4262	4267	324
35°	476	2204	3845	4063	4223	297
45°	325	1757	3398	3893	4068	252
55°	233	1116	2884	3349	3442	212
65°	184	592	2141	2408	2442	183
75°	136	364	1175	1291	1296	142
85°	49	112	291	320	325	51
90°	6	16	45	22	22	8
95°	57	222	740	381	260	63
105°	203	308	1248	1895	1768	216
115°	361	439	1000	1994	2276	357
125°	503	564	909	1537	1813	446
135°	599	659	881	1240	1407	463
145°	695	739	870	1058	1141	435
155°	785	807	870	955	983	361
165°	847	858	870	904	915	239
175°	881	881	876	887	887	84
180°	881	881	881	881	881	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7	1509.7
2.5°	1509.7	1509.7	1519.4	1524.3	1533.9	1538.8	1548.6	1558.2	1587.4	1592.3	1601.9
5°	1470.8	1490.2	1553.3	1577.6	1645.6	1737.9	1776.7	1839.8	1970.8	2009.7	2033.9
7.5°	1412.6	1456.3	1611.7	1650.5	1820.4	2063.1	2165.0	2301.0	2509.7	2611.6	2694.2
10°	1320.4	1412.6	1689.3	1781.5	2058.2	2427.1	2616.4	2805.8	3121.3	3262.1	3315.5
12.5°	1218.5	1368.9	1771.8	1898.0	2296.1	2834.9	3063.1	3271.8	3631.0	3820.4	3849.4
15°	1101.9	1305.8	1849.5	2033.9	2548.5	3174.8	3427.1	3684.4	4019.4	4155.3	4189.3
17.5°	1000.0	1257.3	1922.3	2116.4	2742.6	3480.5	3737.9	3951.4	4223.2	4315.5	4339.8
20°	873.8	1179.6	1970.8	2223.2	2946.6	3703.8	3951.4	4116.4	4301.0	4359.2	4368.8
22.5°	781.5	1097.0	2000.0	2262.1	3082.5	3839.8	4048.5	4179.5	4305.7	4325.1	4330.0
25°	703.9	1004.9	1995.1	2305.8	3198.9	3922.3	4082.5	4179.5	4252.4	4262.0	4262.0
27.5°	631.1	902.9	1975.7	2315.5	3286.3	3941.7	4067.9	4135.8	4169.9	4189.3	4189.3
30°	568.0	805.8	1927.1	2296.1	3325.2	3922.3	4024.2	4058.2	4092.2	4121.3	4135.8
32.5°	519.4	713.6	1854.3	2257.3	3330.0	3873.7	3946.6	3966.0	4014.5	4082.5	4106.8
35°	475.7	621.3	1771.8	2203.8	3301.0	3796.1	3844.6	3864.1	3961.1	4063.1	4097.0
37.5°	432.0	553.3	1665.0	2111.7	3257.3	3703.8	3737.9	3771.8	3922.3	4043.6	4082.5
40°	388.3	495.1	1538.8	2009.7	3189.3	3592.2	3621.3	3674.7	3873.7	4014.5	4053.3
42.5°	354.4	446.6	1402.9	1902.9	3101.9	3466.0	3509.7	3587.3	3815.5	3966.0	4009.7
45°	325.2	398.1	1257.3	1757.3	2990.2	3334.9	3398.0	3504.8	3747.5	3893.1	3932.0
47.5°	296.1	364.1	1106.8	1606.8	2868.9	3203.8	3286.3	3407.7	3655.3	3796.1	3830.0
50°	271.8	330.1	956.3	1446.6	2737.9	3063.1	3160.1	3286.3	3538.8	3669.9	3713.6
52.5°	252.4	301.0	815.5	1286.4	2587.4	2917.4	3029.1	3160.1	3398.0	3524.2	3553.3
55°	233.0	276.7	694.2	1116.5	2432.0	2762.1	2883.5	3009.7	3242.6	3349.4	3368.9
57.5°	223.3	257.3	592.3	956.3	2266.9	2587.4	2723.2	2839.8	3058.2	3140.7	3160.1
60°	208.7	242.7	514.5	820.4	2087.4	2422.3	2538.8	2655.3	2839.8	2907.7	2922.3
62.5°	194.2	233.0	456.3	689.3	1902.9	2228.1	2344.6	2451.4	2606.8	2655.3	2674.8
65°	184.4	223.3	412.6	592.3	1713.6	2024.3	2140.7	2233.0	2359.2	2407.7	2417.4
67.5°	174.8	213.6	378.7	509.7	1524.3	1820.4	1907.7	1995.1	2092.2	2140.7	2145.6
70°	160.2	203.9	349.5	451.4	1330.1	1587.4	1660.1	1752.4	1830.1	1854.3	1868.9
72.5°	150.5	189.3	330.1	407.7	1131.1	1364.1	1432.0	1485.4	1553.3	1577.6	1577.6
75°	135.9	169.9	310.7	364.1	927.1	1116.5	1174.8	1228.1	1281.5	1291.2	1276.7
77.5°	121.3	150.5	267.0	305.8	723.3	883.5	932.0	961.2	1004.9	1014.5	1019.4
80°	101.9	131.1	208.7	237.9	524.3	650.5	684.4	708.7	747.6	747.6	757.3
82.5°	77.6	101.9	150.5	169.9	354.4	446.6	475.7	490.2	514.5	514.5	514.5
85°	48.6	63.1	97.1	111.7	213.6	271.8	291.3	296.1	315.5	320.4	320.4
87.5°	24.3	33.9	63.1	68.0	111.7	140.8	140.8	150.5	150.5	145.6	140.8
90°	5.9	10.6	15.4	16.5	26.0	38.6	44.9	40.0	29.9	22.5	22.5
92.5°	23.6	63.8	104.0	114.1	160.4	222.1	253.0	221.7	159.2	112.4	107.9
95°	56.8	130.3	204.0	222.3	394.7	624.7	739.6	660.0	500.8	381.3	367.8
97.5°	98.1	163.0	228.0	244.2	531.7	915.1	1106.8	1056.5	955.8	880.4	854.6
100°	130.0	188.9	247.7	262.5	581.6	1007.0	1219.7	1223.4	1230.7	1236.3	1205.6
102.5°	157.3	212.2	267.1	280.8	604.4	1035.9	1251.7	1315.7	1443.9	1540.1	1513.8
105°	203.4	249.9	296.3	308.0	621.3	1039.2	1248.1	1391.8	1679.3	1894.9	1880.7
107.5°	250.7	294.0	337.4	348.2	624.6	993.0	1177.2	1377.7	1778.7	2079.4	2082.9
110°	282.7	321.8	361.0	370.7	619.8	952.0	1118.1	1342.2	1790.5	2126.7	2141.4

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	313.9	351.2	388.5	397.9	620.0	916.1	1064.2	1293.6	1752.4	2096.5	2119.1
115°	361.2	395.7	430.1	438.7	625.7	875.1	999.8	1220.8	1662.7	1994.2	2025.6
117.5°	407.9	439.2	470.4	478.3	637.3	849.4	955.4	1154.9	1553.7	1852.9	1887.6
120°	435.2	464.6	494.0	501.3	646.8	840.8	937.7	1120.0	1484.4	1757.8	1791.5
122.5°	461.7	491.5	521.1	528.6	660.4	836.2	924.1	1088.1	1416.4	1662.5	1695.8
125°	502.6	529.6	556.7	563.5	678.8	832.5	909.3	1048.8	1327.5	1536.6	1567.3
127.5°	535.7	563.0	590.4	597.1	697.1	830.3	896.9	1016.6	1256.0	1435.5	1461.4
130°	553.4	582.9	612.3	619.6	710.5	831.6	892.2	998.7	1211.9	1371.7	1395.6
132.5°	571.7	601.2	630.6	638.0	721.4	832.5	888.0	983.4	1174.2	1317.3	1338.7
135°	599.0	625.7	652.5	659.2	733.1	831.7	880.9	960.9	1120.7	1240.5	1258.9
137.5°	626.7	653.3	679.9	686.5	750.9	836.9	879.8	947.3	1082.4	1183.7	1198.8
140°	649.7	674.2	698.6	704.7	761.7	837.6	875.6	933.9	1050.7	1138.2	1152.3
142.5°	667.5	690.1	712.7	718.4	770.8	840.7	875.6	926.8	1029.3	1106.2	1118.4
145°	694.7	714.4	734.1	739.0	782.6	840.7	869.8	911.6	995.5	1058.3	1067.5
147.5°	721.9	741.0	760.3	765.1	800.0	846.5	869.8	902.7	968.7	1018.2	1025.8
150°	739.6	756.9	774.3	778.6	809.0	849.5	869.8	897.6	953.2	995.0	1001.2
152.5°	758.0	771.1	784.3	787.5	815.0	851.5	869.8	893.6	941.1	976.8	981.4
155°	785.1	794.9	804.6	807.0	828.0	855.8	869.8	888.7	926.5	954.9	957.9
157.5°	805.3	814.8	824.1	826.5	841.0	860.2	869.8	884.5	913.8	935.9	938.1
160°	818.9	826.2	833.6	835.4	846.9	862.1	869.8	882.4	907.5	926.5	927.7
162.5°	832.5	838.0	843.6	844.9	853.2	864.2	869.8	880.4	901.6	917.6	918.7
165°	847.3	852.3	857.2	858.5	862.2	867.3	869.8	877.4	892.6	904.0	905.2
167.5°	860.9	863.2	865.5	866.1	869.3	873.5	875.6	880.6	890.6	898.1	898.6
170°	869.8	872.0	874.4	875.0	875.2	875.5	875.6	880.6	890.6	898.1	898.1
172.5°	874.4	874.9	875.5	875.6	875.6	875.6	875.6	879.5	887.4	893.4	892.9
175°	880.9	880.9	880.9	880.9	879.1	876.7	875.6	878.1	883.1	886.9	886.9
177.5°	880.9	880.9	880.9	880.9	879.6	877.8	876.8	878.8	882.8	885.7	885.1
180°	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1509.7	1509.7
2.5°	1611.7	1601.9
5°	2072.8	2082.5
7.5°	2791.2	2786.3
10°	3470.8	3514.5
12.5°	3966.0	3975.7
15°	4266.9	4286.3
17.5°	4383.5	4388.3
20°	4388.3	4378.6
22.5°	4334.9	4325.1
25°	4271.8	4266.9
27.5°	4213.6	4218.4
30°	4189.3	4203.8
32.5°	4189.3	4213.6
35°	4198.9	4223.2
37.5°	4194.1	4223.2
40°	4174.7	4208.7
42.5°	4121.3	4145.6
45°	4038.8	4067.9
47.5°	3932.0	3951.4
50°	3796.1	3815.5
52.5°	3626.2	3631.0
55°	3422.3	3441.7
57.5°	3203.8	3208.7
60°	2961.1	2975.7
62.5°	2703.8	2703.8
65°	2432.0	2441.7
67.5°	2150.5	2174.8
70°	1864.1	1868.9
72.5°	1582.5	1582.5
75°	1291.2	1296.1
77.5°	1014.5	1014.5
80°	752.4	757.3
82.5°	519.4	529.2
85°	325.2	325.2
87.5°	150.5	135.9
90°	22.5	22.5
92.5°	90.0	72.1
95°	313.6	259.5
97.5°	751.6	648.6
100°	1082.9	960.2
102.5°	1408.8	1303.7
105°	1824.3	1767.8
107.5°	2096.5	2110.1
110°	2200.2	2259.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2209.6	2299.9
115°	2151.0	2276.3
117.5°	2026.7	2165.7
120°	1926.6	2061.6
122.5°	1829.1	1962.3
125°	1690.0	1812.8
127.5°	1564.9	1668.5
130°	1491.3	1586.9
132.5°	1424.3	1510.0
135°	1332.7	1406.6
137.5°	1259.2	1319.6
140°	1208.7	1265.2
142.5°	1167.0	1215.6
145°	1104.3	1141.1
147.5°	1056.2	1086.7
150°	1025.9	1050.7
152.5°	1000.1	1018.7
155°	970.3	982.7
157.5°	946.7	955.4
160°	932.8	937.7
162.5°	923.5	928.3
165°	910.3	915.3
167.5°	900.7	902.8
170°	898.1	898.1
172.5°	891.1	889.3
175°	886.9	886.9
177.5°	883.0	880.9
180°	880.9	880.9

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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	7.79	8.89	8.58	9.70	10.70	20.98	22.08	21.77	22.90	23.89
	3H	8.51	9.50	9.31	10.33	11.36	22.85	23.83	23.64	24.66	25.69
	4H	8.82	9.76	9.64	10.59	11.63	23.50	24.44	24.32	25.27	26.31
	6H	9.09	9.95	9.91	10.79	11.84	23.95	24.82	24.78	25.66	26.71
	8H	9.16	9.99	10.00	10.84	11.90	24.08	24.91	24.92	25.77	26.82
	12H	9.19	9.97	10.03	10.83	11.91	24.16	24.95	25.01	25.80	26.88
4H	2H	15.04	15.98	15.86	16.81	17.85	21.28	22.22	22.10	23.05	24.09
	3H	16.63	17.42	17.46	18.28	19.34	23.36	24.14	24.19	25.01	26.06
	4H	16.74	17.45	17.58	18.32	19.40	24.14	24.85	24.98	25.72	26.80
	6H	16.76	17.38	17.62	18.27	19.35	24.70	25.32	25.56	26.20	27.29
	8H	16.74	17.32	17.61	18.21	19.31	24.87	25.45	25.73	26.33	27.43
	12H	16.71	17.24	17.60	18.14	19.24	24.97	25.50	25.86	26.40	27.51
8H	4H	18.20	18.79	19.07	19.67	20.77	24.22	24.80	25.08	25.68	26.78
	6H	18.46	18.94	19.35	19.86	20.96	24.86	25.35	25.76	26.27	27.37
	8H	18.48	18.91	19.38	19.83	20.94	25.09	25.52	25.99	26.44	27.55
	12H	18.46	18.84	19.37	19.75	20.92	25.25	25.63	26.16	26.54	27.70
12H	4H	18.36	18.89	19.25	19.79	20.89	24.18	24.71	25.07	25.61	26.72
	6H	18.72	19.15	19.62	20.07	21.18	24.85	25.28	25.75	26.20	27.31
	8H	18.80	19.18	19.71	20.09	21.26	25.09	25.47	26.00	26.38	27.55