

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: P936454

Luminaire Tested: SQ4-FB-025U-100D-93050-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

**Test Information**

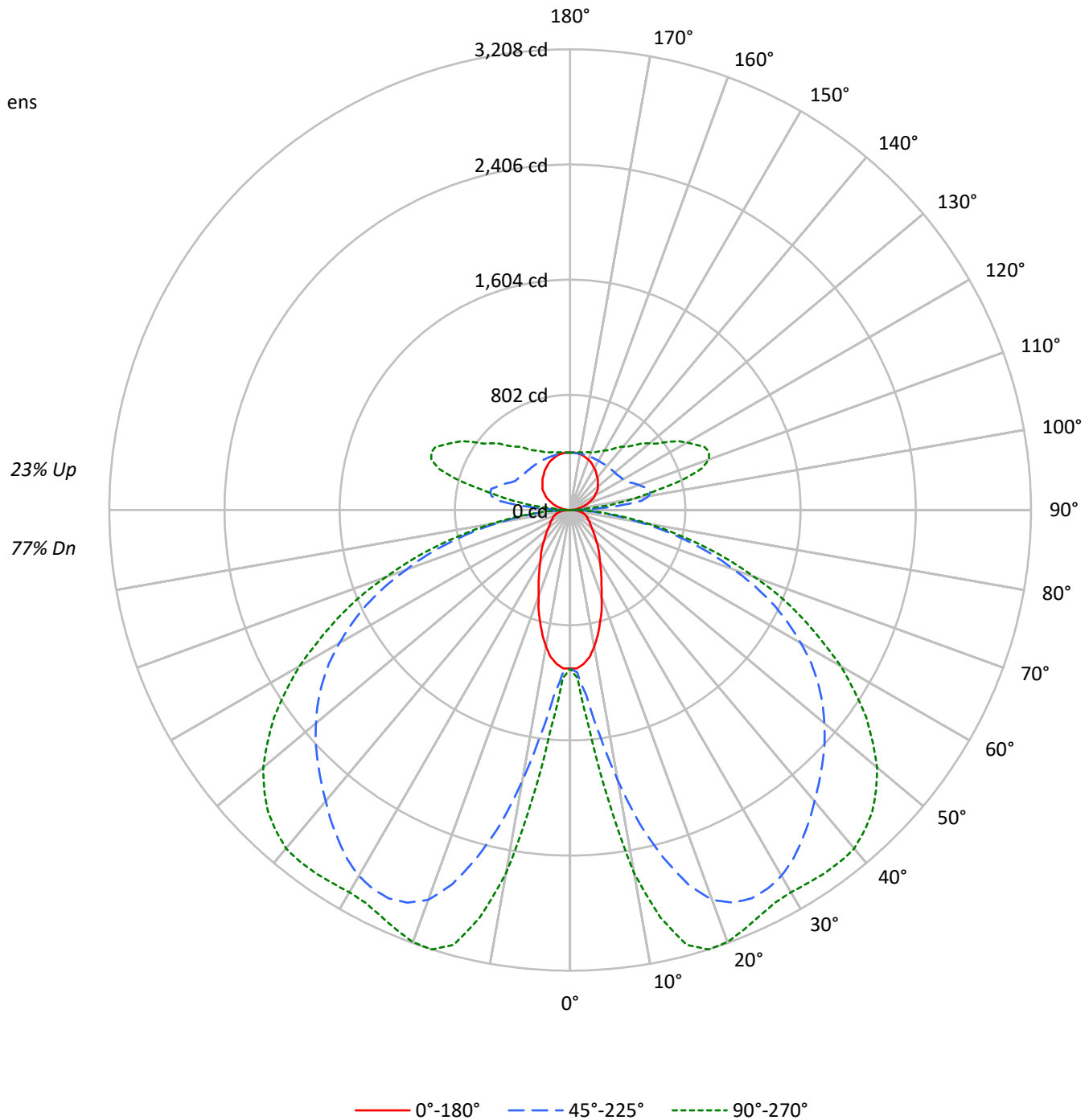
Test Method: LM-79-2019  
Report Number: P936454  
REPORT IS A COMBINATION OF REPORTS P933431 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-025U-100D-93050-1D-UNV-STD-W-12-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11137.7 lumens  
Efficiency: N/A  
Efficacy: 95.7 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): 116.4  
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





TEST NUMBER: P936454

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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	113	113	113	113	108	108	108	108	98	98	98	89	89	89	81	81	81	77			77
1	103	98	94	90	98	94	90	86	85	82	79	77	75	73	70	68	66	63			63
2	93	85	78	72	88	81	75	69	73	68	64	67	63	59	61	57	55	51			51
3	84	74	65	59	80	70	63	57	64	58	53	58	53	49	53	49	45	42			42
4	77	65	56	49	73	62	54	47	56	50	44	51	46	41	47	42	38	35			35
5	70	57	48	42	66	55	46	40	50	43	38	46	40	35	41	37	33	30			30
6	64	51	42	36	61	49	41	35	45	38	32	41	35	30	37	32	28	26			26
7	59	46	37	31	56	44	36	30	40	33	28	37	31	27	34	29	25	22			22
8	55	42	33	27	52	40	32	26	37	30	25	34	28	23	31	26	22	20			20
9	51	38	30	24	49	36	29	23	33	27	22	31	25	21	28	23	19	17			17
10	48	35	27	21	45	33	26	21	31	24	20	28	23	19	26	21	17	16			16

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

	0°	45°	90°
0°	3414	3414	3414
5°	3336	3946	4588
10°	3027	5754	7607
15°	2574	7520	9185
20°	2096	8716	9361
25°	1749	9123	9171
30°	1476	9183	9154
35°	1305	9033	9390
40°	1138	8837	9635
45°	1032	8694	9673
50°	947	8567	9513
55°	908	8379	9091
60°	931	8015	8425
65°	969	7459	7510
70°	1035	6510	6344
75°	1152	5312	4951
80°	1267	3689	3336
85°	1150	1960	1708

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9673 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.8	1.3
10°-20°	632.7	5.7
20°-30°	1106.7	9.9
30°-40°	1424.7	12.8
40°-50°	1591.3	14.3
50°-60°	1524.1	13.7
60°-70°	1207.9	10.8
70°-80°	710.3	6.4
80°-90°	198.8	1.8
90°-100°	195.4	1.8
100°-110°	513.7	4.6
110°-120°	532.6	4.8
120°-130°	427.2	3.8
130°-140°	335.2	3.0
140°-150°	257.3	2.3
150°-160°	185.3	1.7
160°-170°	113.4	1.0
170°-180°	38.3	0.3
0°-30°	1882.2	16.9
0°-40°	3306.9	29.7
0°-60°	6422.3	57.7
0°-90°	8539.2	76.7
90°-120°	1241.7	11.1
90°-150°	2261.5	20.3
90°-180°	2598.0	23.3
0°-180°	11137.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1104	1104	1104	1104	1104	
5°	1075	1153	1299	1469	1522	99
15°	806	1487	2505	3038	3134	224
25°	514	1686	2984	3116	3119	237
35°	348	1611	2811	2970	3087	217
45°	238	1285	2484	2846	2974	184
55°	170	816	2108	2449	2516	155
65°	135	433	1565	1760	1785	134
75°	99	266	859	944	948	104
85°	36	82	213	234	238	38
90°	3	8	20	10	10	5
95°	26	101	336	174	118	29
105°	93	140	568	862	804	98
115°	164	200	455	907	1036	162
125°	229	256	414	699	825	203
135°	272	300	401	564	640	211
145°	316	336	396	482	519	198
155°	357	367	396	434	447	164
165°	386	391	396	411	416	109
175°	401	401	398	404	404	38
180°	401	401	401	401	401	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7
2.5°	1103.7	1103.7	1110.7	1114.3	1121.4	1125.0	1132.0	1139.1	1160.4	1164.0	1171.1
5°	1075.3	1089.4	1135.6	1153.3	1203.0	1270.4	1298.8	1344.9	1440.7	1469.1	1486.8
7.5°	1032.7	1064.6	1178.1	1206.5	1330.7	1508.2	1582.7	1682.0	1834.7	1909.2	1969.5
10°	965.2	1032.7	1234.9	1302.3	1504.7	1774.3	1912.7	2051.2	2281.8	2384.7	2423.7
12.5°	890.7	1000.7	1295.2	1387.6	1678.5	2072.4	2239.2	2391.8	2654.4	2792.8	2814.1
15°	805.5	954.6	1352.0	1486.8	1863.1	2320.8	2505.4	2693.5	2938.3	3037.6	3062.5
17.5°	731.0	919.1	1405.3	1547.2	2005.0	2544.4	2732.5	2888.6	3087.3	3154.7	3172.5
20°	638.7	862.4	1440.7	1625.3	2154.0	2707.6	2888.6	3009.2	3144.1	3186.7	3193.8
22.5°	571.3	802.0	1462.0	1653.6	2253.4	2807.0	2959.5	3055.4	3147.6	3161.9	3165.4
25°	514.5	734.6	1458.5	1685.6	2338.6	2867.3	2984.4	3055.4	3108.6	3115.7	3115.7
27.5°	461.4	660.0	1444.3	1692.7	2402.5	2881.5	2973.8	3023.5	3048.3	3062.5	3062.5
30°	415.2	589.1	1408.8	1678.5	2430.9	2867.3	2941.8	2966.7	2991.5	3012.8	3023.5
32.5°	379.7	521.6	1355.6	1650.1	2434.4	2831.9	2885.1	2899.3	2934.7	2984.4	3002.2
35°	347.7	454.2	1295.2	1611.1	2413.0	2775.0	2810.6	2824.7	2895.7	2970.2	2995.1
37.5°	315.9	404.6	1217.2	1543.7	2381.2	2707.6	2732.5	2757.3	2867.3	2956.1	2984.4
40°	283.9	362.0	1125.0	1469.1	2331.5	2626.0	2647.3	2686.3	2831.9	2934.7	2963.1
42.5°	259.0	326.5	1025.6	1391.0	2267.6	2533.7	2565.7	2622.5	2789.3	2899.3	2931.2
45°	237.8	291.0	919.1	1284.6	2186.0	2437.9	2484.0	2562.1	2739.6	2846.0	2874.4
47.5°	216.5	266.2	809.1	1174.6	2097.3	2342.1	2402.5	2491.1	2672.1	2775.0	2799.9
50°	198.8	241.3	699.1	1057.5	2001.5	2239.2	2310.2	2402.5	2587.0	2682.8	2714.8
52.5°	184.5	220.0	596.2	940.4	1891.4	2132.7	2214.4	2310.2	2484.0	2576.3	2597.7
55°	170.4	202.3	507.5	816.2	1777.9	2019.2	2107.9	2200.1	2370.5	2448.6	2462.7
57.5°	163.2	188.1	433.0	699.1	1657.2	1891.4	1990.8	2076.0	2235.7	2295.9	2310.2
60°	152.6	177.5	376.1	599.7	1525.9	1770.7	1856.0	1941.1	2076.0	2125.6	2136.3
62.5°	141.9	170.4	333.6	503.9	1391.0	1628.8	1714.0	1792.1	1905.7	1941.1	1955.3
65°	134.8	163.2	301.6	433.0	1252.7	1479.8	1564.9	1632.4	1724.6	1760.1	1767.3
67.5°	127.8	156.1	276.8	372.6	1114.3	1330.7	1394.6	1458.5	1529.5	1564.9	1568.5
70°	117.1	149.1	255.5	330.0	972.3	1160.4	1213.7	1281.1	1337.9	1355.6	1366.2
72.5°	110.0	138.4	241.3	298.0	826.8	997.2	1046.9	1085.9	1135.6	1153.3	1153.3
75°	99.4	124.2	227.1	266.2	677.8	816.2	858.8	897.8	936.9	943.9	933.3
77.5°	88.7	110.0	195.2	223.6	528.8	645.9	681.3	702.6	734.6	741.7	745.3
80°	74.5	95.8	152.6	173.9	383.3	475.5	500.4	518.1	546.5	546.5	553.6
82.5°	56.8	74.5	110.0	124.2	259.0	326.5	347.7	358.4	376.1	376.1	376.1
85°	35.5	46.1	71.0	81.7	156.1	198.8	212.9	216.5	230.6	234.2	234.2
87.5°	17.7	24.8	46.1	49.7	81.7	102.9	102.9	110.0	110.0	106.5	102.9
90°	2.7	4.8	7.0	7.5	11.8	17.5	20.4	18.2	13.6	10.2	10.2
92.5°	10.7	29.0	47.4	51.9	73.0	101.1	115.1	100.9	72.4	51.1	49.1
95°	25.8	59.3	92.8	101.2	179.6	284.3	336.5	300.3	227.9	173.5	167.3
97.5°	44.7	74.2	103.8	111.1	241.9	416.4	503.6	480.7	434.9	400.6	388.8
100°	59.2	85.9	112.7	119.4	264.7	458.2	555.0	556.7	560.0	562.5	548.6
102.5°	71.5	96.5	121.5	127.8	275.0	471.4	569.5	598.7	657.0	700.8	688.8
105°	92.6	113.7	134.8	140.1	282.7	472.8	567.9	633.3	764.1	862.2	855.7
107.5°	114.1	133.8	153.5	158.5	284.2	451.8	535.6	626.8	809.3	946.2	947.7
110°	128.6	146.4	164.2	168.7	282.0	433.2	508.7	610.7	814.6	967.7	974.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	142.9	159.8	176.8	181.0	282.1	416.9	484.3	588.7	797.4	954.0	964.3
115°	164.4	180.0	195.7	199.7	284.7	398.1	454.9	555.5	756.5	907.4	921.6
117.5°	185.6	199.8	214.1	217.7	290.0	386.5	434.8	525.5	707.0	843.1	859.0
120°	198.0	211.4	224.8	228.1	294.3	382.5	426.6	509.5	675.4	799.8	815.2
122.5°	210.1	223.6	237.1	240.5	300.5	380.4	420.4	495.1	644.4	756.4	771.6
125°	228.7	241.0	253.4	256.4	308.9	378.8	413.7	477.1	604.0	699.1	713.1
127.5°	243.7	256.1	268.6	271.7	317.2	377.8	408.1	462.5	571.5	653.1	664.9
130°	251.8	265.2	278.6	281.9	323.3	378.4	405.9	454.5	551.4	624.1	635.0
132.5°	260.2	273.5	286.9	290.3	328.2	378.8	404.1	447.5	534.3	599.4	609.2
135°	272.5	284.7	296.9	299.9	333.6	378.4	400.8	437.2	509.9	564.4	572.8
137.5°	285.2	297.2	309.2	312.3	341.7	380.8	400.3	431.0	492.4	538.5	545.4
140°	295.6	306.7	317.9	320.7	346.6	381.1	398.4	424.9	478.0	517.8	524.3
142.5°	303.7	314.0	324.3	326.9	350.7	382.5	398.4	421.7	468.3	503.3	508.9
145°	316.1	325.1	334.0	336.3	356.1	382.5	395.7	414.8	452.9	481.5	485.7
147.5°	328.5	337.2	345.9	348.1	363.9	385.2	395.7	410.8	440.8	463.2	466.7
150°	336.5	344.4	352.3	354.3	368.1	386.5	395.7	408.4	433.8	452.8	455.5
152.5°	344.9	350.9	356.8	358.3	370.7	387.4	395.7	406.6	428.2	444.4	446.6
155°	357.2	361.6	366.1	367.2	376.7	389.4	395.7	404.3	421.6	434.5	435.9
157.5°	366.4	370.7	375.0	376.1	382.7	391.3	395.7	402.4	415.8	425.8	426.8
160°	372.6	375.9	379.3	380.1	385.3	392.2	395.7	401.5	412.9	421.5	422.1
162.5°	378.8	381.3	383.8	384.4	388.2	393.2	395.7	400.6	410.2	417.5	418.0
165°	385.5	387.8	390.1	390.6	392.3	394.6	395.7	399.2	406.1	411.3	411.8
167.5°	391.7	392.8	393.8	394.1	395.5	397.4	398.4	400.7	405.2	408.6	408.9
170°	395.7	396.8	397.9	398.1	398.2	398.3	398.4	400.7	405.2	408.6	408.6
172.5°	397.9	398.1	398.3	398.4	398.4	398.4	398.4	400.2	403.8	406.5	406.3
175°	400.8	400.8	400.8	400.8	400.0	399.0	398.4	399.6	401.8	403.5	403.5
177.5°	400.8	400.8	400.8	400.8	400.2	399.4	399.0	399.8	401.6	403.0	402.7
180°	400.8	400.8	400.8	400.8	400.8	400.8	400.8	400.8	400.8	400.8	400.8



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1103.7	1103.7
2.5°	1178.1	1171.1
5°	1515.3	1522.4
7.5°	2040.5	2036.9
10°	2537.3	2569.2
12.5°	2899.3	2906.4
15°	3119.3	3133.5
17.5°	3204.4	3208.0
20°	3208.0	3200.9
22.5°	3169.0	3161.9
25°	3122.8	3119.3
27.5°	3080.2	3083.8
30°	3062.5	3073.2
32.5°	3062.5	3080.2
35°	3069.6	3087.3
37.5°	3066.0	3087.3
40°	3051.9	3076.7
42.5°	3012.8	3030.5
45°	2952.5	2973.8
47.5°	2874.4	2888.6
50°	2775.0	2789.3
52.5°	2650.8	2654.4
55°	2501.8	2516.0
57.5°	2342.1	2345.6
60°	2164.7	2175.3
62.5°	1976.6	1976.6
65°	1777.9	1785.0
67.5°	1572.1	1589.8
70°	1362.7	1366.2
72.5°	1156.8	1156.8
75°	943.9	947.5
77.5°	741.7	741.7
80°	550.1	553.6
82.5°	379.7	386.8
85°	237.8	237.8
87.5°	110.0	99.4
90°	10.2	10.2
92.5°	41.0	32.9
95°	142.7	118.1
97.5°	342.0	295.1
100°	492.8	436.9
102.5°	641.0	593.1
105°	830.0	804.3
107.5°	954.0	960.1
110°	1001.1	1027.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1005.3	1046.4
115°	978.7	1035.7
117.5°	922.2	985.4
120°	876.6	938.0
122.5°	832.3	892.9
125°	768.9	824.8
127.5°	712.0	759.1
130°	678.6	722.1
132.5°	648.1	687.1
135°	606.4	640.0
137.5°	572.9	600.5
140°	550.0	575.7
142.5°	531.0	553.1
145°	502.4	519.2
147.5°	480.6	494.5
150°	466.8	478.0
152.5°	455.0	463.5
155°	441.5	447.1
157.5°	430.8	434.8
160°	424.4	426.6
162.5°	420.2	422.3
165°	414.2	416.4
167.5°	409.8	410.8
170°	408.6	408.6
172.5°	405.4	404.6
175°	403.5	403.5
177.5°	401.8	400.8
180°	400.8	400.8



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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	7.41	8.64	8.09	9.35	10.17	20.60	21.83	21.28	22.54	23.37
	3H	8.14	9.25	8.83	9.97	10.83	22.47	23.58	23.16	24.30	25.16
	4H	8.45	9.51	9.17	10.23	11.11	23.14	24.19	23.85	24.91	25.79
	6H	8.72	9.70	9.45	10.43	11.32	23.59	24.56	24.32	25.30	26.19
	8H	8.80	9.73	9.54	10.49	11.38	23.72	24.65	24.46	25.41	26.30
	12H	8.83	9.72	9.58	10.47	11.39	23.81	24.70	24.55	25.45	26.37
4H	2H	14.67	15.73	15.39	16.45	17.33	20.92	21.97	21.63	22.69	23.57
	3H	16.27	17.16	17.00	17.92	18.81	23.00	23.89	23.73	24.65	25.54
	4H	16.38	17.19	17.13	17.95	18.87	23.79	24.59	24.53	25.36	26.28
	6H	16.42	17.12	17.18	17.91	18.83	24.35	25.05	25.12	25.84	26.77
	8H	16.40	17.06	17.17	17.84	18.79	24.53	25.18	25.29	25.97	26.91
	12H	16.38	16.97	17.17	17.78	18.72	24.64	25.23	25.43	26.04	26.99
8H	4H	17.86	18.52	18.63	19.31	20.25	23.88	24.53	24.65	25.32	26.26
	6H	18.12	18.67	18.92	19.50	20.44	24.53	25.08	25.33	25.90	26.84
	8H	18.15	18.63	18.96	19.46	20.42	24.76	25.24	25.57	26.07	27.03
	12H	18.13	18.56	18.95	19.38	20.39	24.92	25.35	25.74	26.17	27.18
12H	4H	18.03	18.62	18.82	19.43	20.37	23.85	24.44	24.64	25.25	26.20
	6H	18.39	18.88	19.20	19.70	20.66	24.52	25.01	25.33	25.83	26.79
	8H	18.48	18.91	19.29	19.72	20.74	24.77	25.20	25.58	26.01	27.03