

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: P936869

Luminaire Tested: SQ4-FB-050U-100D-935-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936869
REPORT IS A COMBINATION OF REPORTS P933463 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-935-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

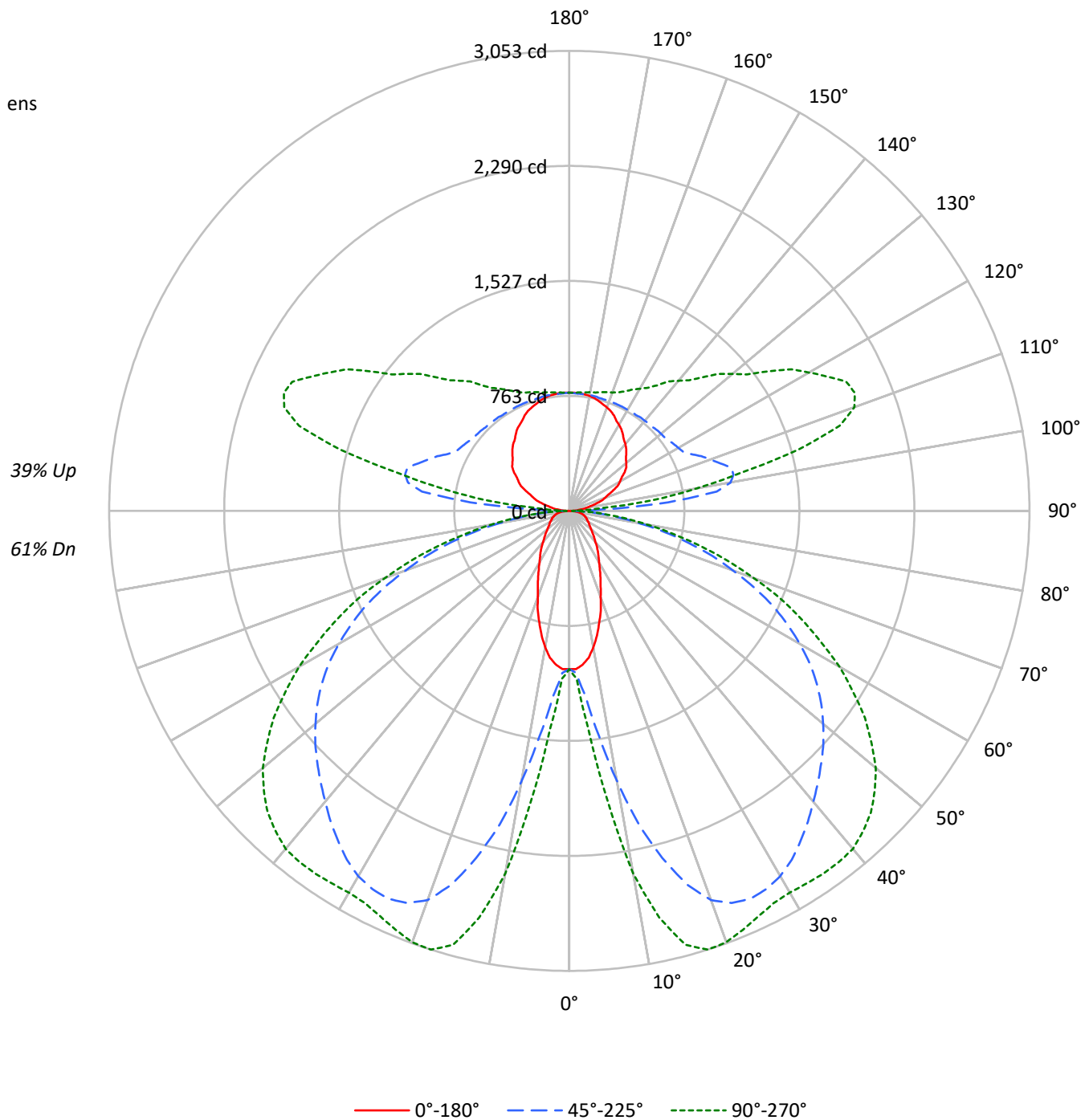
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13216.2 lumens
Efficiency: N/A
Efficacy: 97.5 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): 135.6
Input Voltage (V): NR
Input Current (A_{in}): 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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3249	3249	3249
5°	3175	3756	4366
10°	2881	5476	7239
15°	2449	7156	8741
20°	1995	8294	8908
25°	1664	8682	8727
30°	1404	8739	8711
35°	1242	8596	8936
40°	1083	8410	9169
45°	982	8274	9205
50°	901	8152	9052
55°	864	7973	8651
60°	885	7627	8017
65°	923	7098	7147
70°	985	6195	6038
75°	1096	5055	4712
80°	1206	3510	3175
85°	1092	1865	1625

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9205 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.9	1.0
10°-20°	602.1	4.6
20°-30°	1053.2	8.0
30°-40°	1355.8	10.3
40°-50°	1514.3	11.5
50°-60°	1450.4	11.0
60°-70°	1149.4	8.7
70°-80°	675.9	5.1
80°-90°	190.8	1.4
90°-100°	382.6	2.9
100°-110°	1005.9	7.6
110°-120°	1043.0	7.9
120°-130°	836.7	6.3
130°-140°	656.5	5.0
140°-150°	503.9	3.8
150°-160°	362.9	2.7
160°-170°	222.0	1.7
170°-180°	75.0	0.6
0°-30°	1791.1	13.6
0°-40°	3146.9	23.8
0°-60°	6111.6	46.2
0°-90°	8127.7	61.5
90°-120°	2431.6	18.4
90°-150°	4428.6	33.5
90°-180°	5089.0	38.5
0°-180°	13216.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1050	1050	1050	1050	1050	
5°	1023	1098	1236	1398	1449	94
15°	766	1415	2384	2891	2982	213
25°	490	1604	2840	2965	2968	226
35°	331	1533	2675	2826	2938	207
45°	226	1222	2364	2708	2830	175
55°	162	777	2006	2330	2394	148
65°	128	412	1489	1675	1699	127
75°	95	253	817	898	902	99
85°	34	78	203	223	226	36
90°	5	15	40	20	20	7
95°	51	198	659	340	231	56
105°	181	274	1112	1688	1575	192
115°	322	391	891	1777	2028	318
125°	448	502	810	1369	1615	398
135°	534	587	785	1105	1253	413
145°	619	658	775	943	1017	388
155°	700	719	775	851	876	321
165°	755	765	775	806	816	213
175°	785	785	780	790	790	75
180°	785	785	785	785	785	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3
2.5°	1050.3	1050.3	1057.0	1060.4	1067.1	1070.5	1077.3	1084.0	1104.3	1107.7	1114.4
5°	1023.3	1036.7	1080.7	1097.5	1144.8	1209.0	1236.0	1279.9	1371.0	1398.0	1414.9
7.5°	982.7	1013.1	1121.1	1148.2	1266.3	1435.2	1506.2	1600.7	1745.9	1816.8	1874.2
10°	918.5	982.7	1175.2	1239.3	1431.9	1688.5	1820.2	1951.9	2171.4	2269.3	2306.4
12.5°	847.7	952.3	1232.6	1320.4	1597.3	1972.1	2130.9	2276.1	2526.0	2657.7	2677.9
15°	766.5	908.4	1286.6	1414.9	1772.9	2208.6	2384.2	2563.2	2796.2	2890.7	2914.4
17.5°	695.7	874.7	1337.3	1472.3	1908.0	2421.3	2600.3	2748.9	2938.0	3002.1	3019.1
20°	607.8	820.6	1371.0	1546.6	2049.8	2576.6	2748.9	2863.7	2992.0	3032.5	3039.3
22.5°	543.7	763.2	1391.3	1573.6	2144.4	2671.2	2816.4	2907.6	2995.4	3008.9	3012.2
25°	489.6	699.1	1387.9	1604.1	2225.4	2728.6	2840.1	2907.6	2958.2	2965.0	2965.0
27.5°	439.0	628.1	1374.4	1610.8	2286.3	2742.1	2829.9	2877.2	2900.8	2914.4	2914.4
30°	395.1	560.6	1340.6	1597.3	2313.3	2728.6	2799.5	2823.2	2846.8	2867.1	2877.2
32.5°	361.3	496.4	1290.0	1570.3	2316.6	2694.9	2745.5	2759.0	2792.8	2840.1	2856.9
35°	330.9	432.2	1232.6	1533.2	2296.3	2640.8	2674.6	2688.1	2755.6	2826.5	2850.2
37.5°	300.6	385.0	1158.3	1469.0	2266.0	2576.6	2600.3	2623.9	2728.6	2813.0	2840.1
40°	270.2	344.5	1070.5	1398.0	2218.7	2499.0	2519.2	2556.3	2694.9	2792.8	2819.8
42.5°	246.5	310.7	976.0	1323.8	2157.9	2411.2	2441.6	2495.6	2654.3	2759.0	2789.4
45°	226.3	276.9	874.7	1222.4	2080.2	2320.0	2363.9	2438.2	2607.0	2708.3	2735.3
47.5°	206.0	253.3	770.0	1117.8	1995.8	2228.8	2286.3	2370.6	2542.9	2640.8	2664.5
50°	189.1	229.6	665.2	1006.4	1904.6	2130.9	2198.4	2286.3	2461.9	2553.0	2583.4
52.5°	175.6	209.3	567.3	894.9	1799.9	2029.5	2107.3	2198.4	2363.9	2451.7	2472.0
55°	162.1	192.5	482.9	776.7	1691.9	1921.5	2005.9	2093.7	2255.8	2330.1	2343.6
57.5°	155.3	179.0	412.0	665.2	1577.1	1799.9	1894.5	1975.5	2127.5	2184.9	2198.4
60°	145.2	168.9	357.9	570.7	1452.1	1685.1	1766.2	1847.2	1975.5	2022.8	2033.0
62.5°	135.0	162.1	317.5	479.5	1323.8	1550.0	1631.1	1705.4	1813.5	1847.2	1860.7
65°	128.3	155.3	287.0	412.0	1192.1	1408.2	1489.2	1553.5	1641.2	1674.9	1681.8
67.5°	121.6	148.6	263.4	354.6	1060.4	1266.3	1327.2	1387.9	1455.5	1489.2	1492.6
70°	111.4	141.9	243.2	314.0	925.3	1104.3	1155.0	1219.1	1273.1	1290.0	1300.2
72.5°	104.7	131.7	229.6	283.6	786.8	949.0	996.2	1033.4	1080.7	1097.5	1097.5
75°	94.6	118.2	216.2	253.3	645.0	776.7	817.2	854.4	891.5	898.3	888.1
77.5°	84.4	104.7	185.7	212.7	503.2	614.6	648.4	668.6	699.1	705.8	709.2
80°	70.9	91.2	145.2	165.5	364.7	452.5	476.2	493.1	520.1	520.1	526.8
82.5°	54.0	70.9	104.7	118.2	246.5	310.7	330.9	341.1	357.9	357.9	357.9
85°	33.7	43.9	67.6	77.7	148.6	189.1	202.6	206.0	219.5	222.9	222.9
87.5°	16.9	23.6	43.9	47.3	77.7	97.9	97.9	104.7	104.7	101.3	97.9
90°	5.3	9.5	13.7	14.7	23.2	34.4	40.0	35.6	26.7	20.0	20.0
92.5°	21.0	56.8	92.7	101.6	142.9	197.9	225.4	197.6	141.9	100.1	96.1
95°	50.6	116.1	181.7	198.1	351.7	556.6	659.0	588.1	446.2	339.8	327.7
97.5°	87.4	145.3	203.1	217.6	473.8	815.4	986.2	941.4	851.7	784.4	761.5
100°	115.9	168.4	220.8	233.9	518.2	897.2	1086.8	1090.0	1096.6	1101.6	1074.2
102.5°	140.2	189.1	238.0	250.2	538.5	923.1	1115.3	1172.4	1286.6	1372.3	1348.9
105°	181.2	222.6	264.0	274.4	553.6	926.0	1112.1	1240.2	1496.3	1688.4	1675.8
107.5°	223.4	262.0	300.7	310.3	556.5	884.8	1048.9	1227.6	1584.9	1852.8	1855.9
110°	251.9	286.7	321.6	330.3	552.3	848.3	996.2	1196.0	1595.4	1894.9	1908.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	279.7	312.9	346.2	354.5	552.4	816.3	948.3	1152.7	1561.5	1868.1	1888.2
115°	321.9	352.6	383.2	390.9	557.5	779.8	890.9	1087.7	1481.5	1776.9	1804.9
117.5°	363.5	391.3	419.2	426.2	567.9	756.8	851.3	1029.0	1384.4	1651.0	1681.9
120°	387.7	414.0	440.1	446.7	576.3	749.2	835.6	997.9	1322.6	1566.2	1596.3
122.5°	411.4	437.9	464.3	471.0	588.5	745.1	823.4	969.6	1262.1	1481.4	1511.0
125°	447.8	471.9	496.0	502.1	604.8	741.8	810.3	934.5	1182.8	1369.2	1396.5
127.5°	477.3	501.7	526.0	532.1	621.1	739.8	799.2	905.8	1119.1	1279.1	1302.2
130°	493.1	519.4	545.5	552.1	633.0	741.0	795.0	889.9	1079.8	1222.2	1243.5
132.5°	509.4	535.7	561.9	568.5	642.7	741.8	791.3	876.3	1046.3	1173.7	1192.8
135°	533.7	557.5	581.4	587.4	653.2	741.1	784.9	856.2	998.5	1105.3	1121.7
137.5°	558.4	582.1	605.8	611.7	669.1	745.7	783.9	844.1	964.5	1054.7	1068.2
140°	578.9	600.7	622.5	627.9	678.7	746.4	780.2	832.1	936.2	1014.1	1026.7
142.5°	594.8	614.9	635.1	640.1	686.8	749.1	780.2	825.8	917.2	985.7	996.5
145°	619.0	636.5	654.1	658.5	697.4	749.1	775.0	812.3	887.0	943.0	951.2
147.5°	643.3	660.3	677.4	681.7	712.8	754.3	775.0	804.4	863.2	907.2	914.0
150°	659.0	674.4	689.9	693.8	720.9	756.9	775.0	799.8	849.4	886.6	892.1
152.5°	675.4	687.1	698.8	701.7	726.2	758.7	775.0	796.2	838.5	870.3	874.5
155°	699.6	708.3	717.0	719.1	737.7	762.5	775.0	791.8	825.5	850.8	853.5
157.5°	717.6	726.0	734.3	736.5	749.3	766.5	775.0	788.1	814.3	833.9	835.9
160°	729.7	736.2	742.8	744.4	754.6	768.2	775.0	786.2	808.6	825.5	826.6
162.5°	741.8	746.7	751.6	752.8	760.2	770.0	775.0	784.4	803.4	817.6	818.6
165°	755.0	759.4	763.8	764.9	768.2	772.8	775.0	781.8	795.3	805.5	806.6
167.5°	767.1	769.1	771.2	771.7	774.6	778.3	780.2	784.6	793.6	800.2	800.7
170°	775.0	777.0	779.2	779.7	779.8	780.1	780.2	784.6	793.6	800.2	800.2
172.5°	779.2	779.6	780.1	780.2	780.2	780.2	780.2	783.7	790.7	796.0	795.6
175°	784.9	784.9	784.9	784.9	783.3	781.2	780.2	782.4	786.9	790.2	790.2
177.5°	784.9	784.9	784.9	784.9	783.8	782.1	781.3	783.1	786.6	789.2	788.7
180°	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1050.3	1050.3
2.5°	1121.1	1114.4
5°	1442.0	1448.7
7.5°	1941.8	1938.4
10°	2414.6	2444.9
12.5°	2759.0	2765.8
15°	2968.4	2981.9
17.5°	3049.4	3052.8
20°	3052.8	3046.1
22.5°	3015.7	3008.9
25°	2971.8	2968.4
27.5°	2931.2	2934.6
30°	2914.4	2924.5
32.5°	2914.4	2931.2
35°	2921.1	2938.0
37.5°	2917.7	2938.0
40°	2904.2	2927.8
42.5°	2867.1	2883.9
45°	2809.6	2829.9
47.5°	2735.3	2748.9
50°	2640.8	2654.3
52.5°	2522.6	2526.0
55°	2380.7	2394.3
57.5°	2228.8	2232.2
60°	2060.0	2070.1
62.5°	1881.0	1881.0
65°	1691.9	1698.6
67.5°	1496.0	1512.9
70°	1296.7	1300.2
72.5°	1100.9	1100.9
75°	898.3	901.7
77.5°	705.8	705.8
80°	523.5	526.8
82.5°	361.3	368.1
85°	226.3	226.3
87.5°	104.7	94.6
90°	20.0	20.0
92.5°	80.2	64.2
95°	279.5	231.2
97.5°	669.7	577.9
100°	964.9	855.6
102.5°	1255.3	1161.6
105°	1625.5	1575.2
107.5°	1868.0	1880.2
110°	1960.5	2012.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1968.8	2049.3
115°	1916.6	2028.3
117.5°	1805.8	1929.7
120°	1716.7	1837.0
122.5°	1629.8	1748.5
125°	1505.8	1615.2
127.5°	1394.4	1486.7
130°	1328.8	1414.0
132.5°	1269.1	1345.5
135°	1187.5	1253.3
137.5°	1122.0	1175.8
140°	1077.0	1127.4
142.5°	1039.9	1083.1
145°	984.0	1016.8
147.5°	941.1	968.3
150°	914.1	936.2
152.5°	891.1	907.7
155°	864.6	875.6
157.5°	843.6	851.3
160°	831.1	835.6
162.5°	822.9	827.1
165°	811.1	815.5
167.5°	802.6	804.5
170°	800.2	800.2
172.5°	794.0	792.4
175°	790.2	790.2
177.5°	786.8	784.9
180°	784.9	784.9



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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	6.09	7.11	6.93	7.98	9.08	19.28	20.30	20.12	21.18	22.27
	3H	6.80	7.73	7.66	8.61	9.73	21.14	22.06	21.99	22.94	24.06
	4H	7.11	7.98	7.98	8.87	10.00	21.79	22.67	22.66	23.55	24.68
	6H	7.37	8.18	8.25	9.07	10.21	22.24	23.04	23.12	23.94	25.08
	8H	7.44	8.21	8.33	9.12	10.27	22.36	23.13	23.26	24.05	25.19
	12H	7.46	8.20	8.36	9.11	10.28	22.44	23.17	23.34	24.08	25.25
4H	2H	13.33	14.20	14.21	15.09	16.22	19.57	20.45	20.45	21.33	22.46
	3H	14.91	15.64	15.80	16.56	17.71	21.64	22.37	22.53	23.29	24.44
	4H	15.01	15.68	15.91	16.60	17.77	22.42	23.08	23.32	24.00	25.17
	6H	15.03	15.61	15.95	16.55	17.72	22.97	23.55	23.88	24.49	25.66
	8H	15.02	15.56	15.93	16.49	17.68	23.14	23.68	24.06	24.61	25.80
	12H	14.98	15.47	15.92	16.42	17.61	23.24	23.73	24.18	24.68	25.88
8H	4H	16.48	17.02	17.39	17.95	19.14	22.49	23.03	23.41	23.97	25.15
	6H	16.73	17.18	17.67	18.15	19.34	23.13	23.58	24.08	24.56	25.74
	8H	16.75	17.15	17.70	18.11	19.31	23.36	23.76	24.31	24.72	25.92
	12H	16.72	17.07	17.68	18.03	19.28	23.51	23.86	24.47	24.82	26.07
12H	4H	16.63	17.12	17.57	18.07	19.26	22.45	22.94	23.39	23.89	25.09
	6H	16.99	17.39	17.94	18.35	19.56	23.12	23.52	24.07	24.48	25.68
	8H	17.07	17.42	18.02	18.38	19.63	23.36	23.71	24.32	24.67	25.92