

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: P937465

Luminaire Tested: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937465
REPORT IS A COMBINATION OF REPORTS P933581 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-8-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

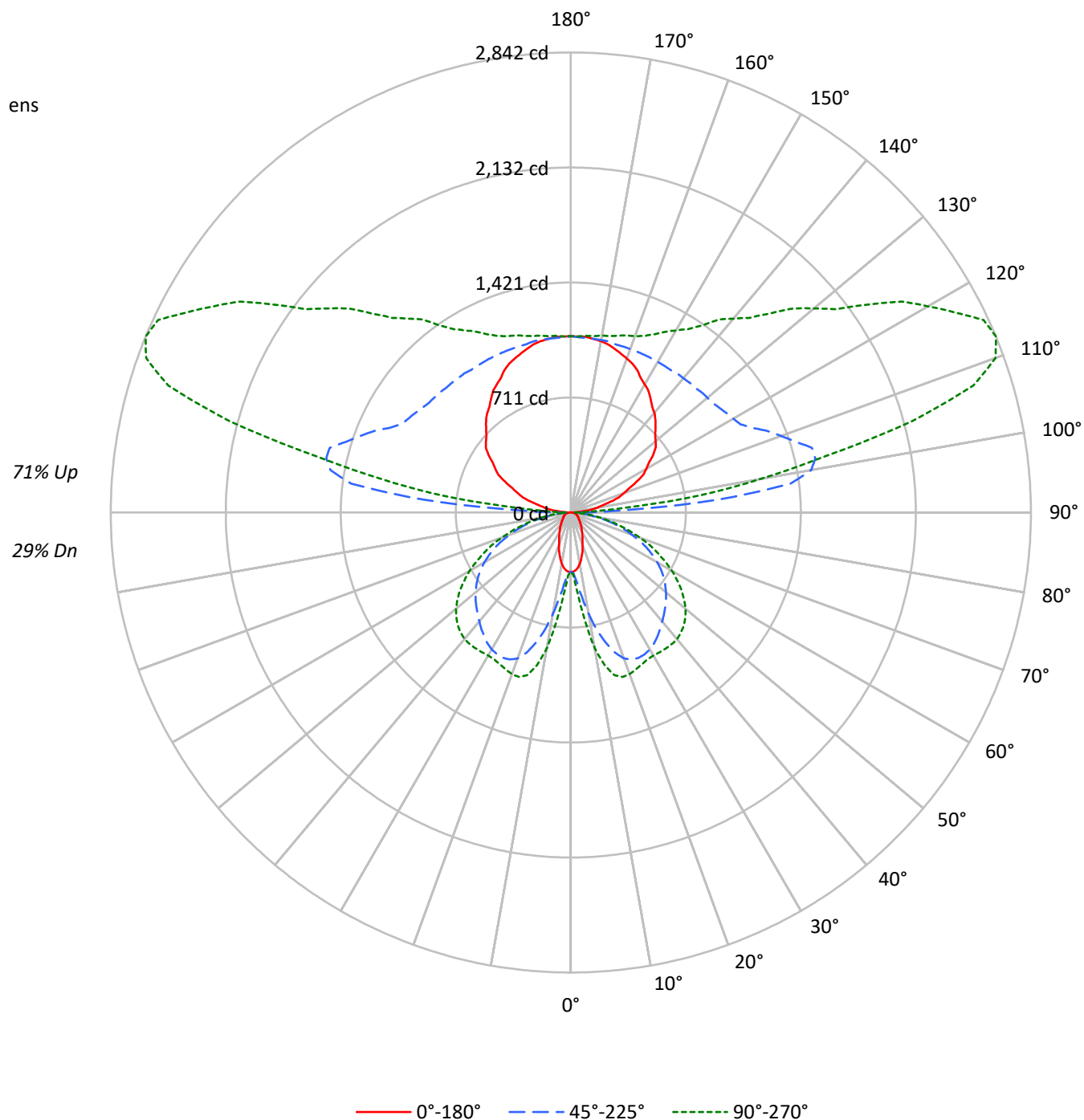
Lumens per Lamp: N/A
Luminaire Lumens: 9895.9 lumens
Efficiency: N/A
Efficacy: 120.1 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 82.4
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

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CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-8-3000K

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	50	30	10
RCR																				
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37			29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30			23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25			19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21			16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18			13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15			11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13			10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11			8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10			7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9			7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8			6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1699	1699	1699
5°	1660	1965	2285
10°	1506	2864	3788
15°	1280	3742	4574
20°	1042	4336	4661
25°	869	4537	4567
30°	733	4566	4558
35°	648	4490	4676
40°	565	4391	4798
45°	512	4319	4817
50°	469	4254	4737
55°	450	4159	4527
60°	460	3977	4195
65°	479	3699	3740
70°	510	3226	3160
75°	565	2630	2465
80°	619	1824	1661
85°	550	968	851

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 4817 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.4	0.5
10°-20°	210.0	2.1
20°-30°	367.4	3.7
30°-40°	472.9	4.8
40°-50°	528.3	5.3
50°-60°	506.0	5.1
60°-70°	401.0	4.1
70°-80°	235.8	2.4
80°-90°	69.7	0.7
90°-100°	530.7	5.4
100°-110°	1395.2	14.1
110°-120°	1446.6	14.6
120°-130°	1160.4	11.7
130°-140°	910.5	9.2
140°-150°	698.8	7.1
150°-160°	503.3	5.1
160°-170°	307.9	3.1
170°-180°	104.0	1.1
0°-30°	624.8	6.3
0°-40°	1097.8	11.1
0°-60°	2132.0	21.5
0°-90°	2838.5	28.7
90°-120°	3372.5	34.1
90°-150°	6142.2	62.1
90°-180°	7057.0	71.3
0°-180°	9895.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	366	366	366	366	366	
5°	357	383	431	488	505	33
15°	267	494	832	1008	1040	74
25°	171	560	991	1034	1036	79
35°	115	535	933	986	1025	72
45°	79	426	825	945	987	61
55°	57	271	700	813	835	52
65°	45	144	520	584	593	44
75°	33	88	285	313	314	35
85°	12	27	71	78	79	13
90°	7	20	56	28	28	7
95°	70	275	914	471	321	78
105°	251	381	1542	2342	2185	266
115°	446	542	1236	2464	2813	441
125°	621	696	1124	1899	2240	551
135°	740	815	1089	1533	1738	573
145°	858	913	1075	1308	1410	538
155°	970	997	1075	1180	1214	446
165°	1047	1061	1075	1117	1131	295
175°	1089	1089	1082	1096	1096	103
180°	1089	1089	1089	1089	1089	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	366.3	366.3	366.3	366.3	366.3	366.3	366.3	366.3	366.3	366.3	366.3
2.5°	366.3	366.3	368.7	369.9	372.2	373.5	375.8	378.2	385.2	386.4	388.7
5°	356.9	361.7	377.0	382.9	399.4	421.8	431.2	446.4	478.3	487.7	493.6
7.5°	342.8	353.4	391.1	400.5	441.8	500.6	525.4	558.4	609.0	633.8	653.8
10°	320.4	342.8	410.0	432.4	499.5	589.0	635.0	680.9	757.4	791.6	804.6
12.5°	295.7	332.2	430.0	460.6	557.2	688.0	743.4	794.0	881.2	927.1	934.2
15°	267.4	316.9	448.8	493.6	618.5	770.4	831.8	894.1	975.4	1008.4	1016.6
17.5°	242.7	305.1	466.6	513.6	665.6	844.7	907.1	958.9	1024.9	1047.3	1053.2
20°	212.0	286.2	478.3	539.5	715.1	898.9	958.9	999.0	1043.8	1057.9	1060.3
22.5°	189.6	266.2	485.3	548.9	748.0	931.9	982.5	1014.3	1044.9	1049.7	1050.8
25°	170.8	243.8	484.2	559.6	776.3	951.9	990.7	1014.3	1032.0	1034.4	1034.4
27.5°	153.2	219.1	479.5	561.9	797.6	956.6	987.2	1003.7	1012.0	1016.6	1016.6
30°	137.8	195.6	467.7	557.2	807.0	951.9	976.6	984.8	993.1	1000.2	1003.7
32.5°	126.0	173.2	450.0	547.8	808.1	940.0	957.8	962.4	974.2	990.7	996.6
35°	115.4	150.8	430.0	534.8	801.1	921.2	933.0	937.8	961.3	986.1	994.2
37.5°	104.9	134.3	404.1	512.5	790.5	898.9	907.1	915.4	951.9	981.3	990.7
40°	94.2	120.2	373.5	487.7	774.0	871.8	878.8	891.8	940.0	974.2	983.7
42.5°	86.0	108.4	340.4	461.8	752.8	841.1	851.8	870.6	926.0	962.4	973.1
45°	79.0	96.6	305.1	426.4	725.7	809.4	824.6	850.5	909.5	944.8	954.2
47.5°	71.8	88.4	268.6	390.0	696.2	777.6	797.6	827.0	887.1	921.2	929.5
50°	66.0	80.1	232.0	351.1	664.4	743.4	766.9	797.6	858.8	890.6	901.2
52.5°	61.2	73.1	197.9	312.1	627.9	708.0	735.1	766.9	824.6	855.3	862.3
55°	56.6	67.2	168.5	271.0	590.2	670.3	699.7	730.4	787.0	812.9	817.6
57.5°	54.2	62.4	143.7	232.0	550.2	627.9	660.9	689.2	742.2	762.2	766.9
60°	50.7	58.9	124.9	199.1	506.6	587.8	616.1	644.4	689.2	705.6	709.2
62.5°	47.2	56.6	110.8	167.3	461.8	540.8	569.0	595.0	632.6	644.4	649.2
65°	44.8	54.2	100.1	143.7	415.9	491.2	519.5	541.9	572.6	584.3	586.7
67.5°	42.4	51.8	91.9	123.7	369.9	441.8	463.0	484.2	507.7	519.5	520.7
70°	38.9	49.4	84.8	109.5	322.8	385.2	402.9	425.3	444.2	450.0	453.6
72.5°	36.5	45.9	80.1	99.0	274.5	331.0	347.5	360.5	377.0	382.9	382.9
75°	33.0	41.2	75.4	88.4	225.0	271.0	285.1	298.0	311.0	313.4	309.9
77.5°	29.4	36.5	64.8	74.2	175.6	214.4	226.2	233.3	243.8	246.2	247.4
80°	24.8	31.8	50.7	57.7	127.3	157.8	166.1	172.0	181.5	181.5	183.7
82.5°	18.9	24.8	36.5	41.2	86.0	108.4	115.4	119.0	124.9	124.9	124.9
85°	11.8	15.3	23.5	27.1	51.8	66.0	70.7	71.8	76.6	77.7	77.7
87.5°	5.9	8.3	15.3	16.5	27.1	34.2	34.2	36.5	36.5	35.3	34.2
90°	7.3	13.2	19.0	20.5	32.1	47.7	55.5	49.4	37.0	27.8	27.8
92.5°	29.2	79.0	128.7	141.1	198.2	274.6	312.7	274.0	196.8	138.9	133.3
95°	70.2	161.1	252.0	274.7	487.8	771.9	914.0	815.7	618.9	471.3	454.6
97.5°	121.3	201.5	281.8	301.8	657.1	1130.9	1367.8	1305.6	1181.2	1088.0	1056.2
100°	160.7	233.5	306.3	324.4	718.7	1244.5	1507.3	1511.9	1521.0	1527.8	1489.9
102.5°	194.4	262.2	330.1	347.0	746.9	1280.1	1546.8	1626.0	1784.5	1903.4	1870.9
105°	251.4	308.8	366.3	380.7	767.9	1284.3	1542.4	1720.0	2075.2	2341.7	2324.2
107.5°	309.8	363.4	416.9	430.4	771.9	1227.1	1454.7	1702.5	2198.0	2569.6	2573.9
110°	349.2	397.6	446.0	458.1	766.0	1176.4	1381.7	1658.7	2212.6	2628.1	2646.3

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	387.9	434.1	480.3	491.8	766.2	1132.2	1315.2	1598.7	2165.6	2590.9	2618.8
115°	446.4	489.0	531.5	542.2	773.3	1081.5	1235.5	1508.7	2054.9	2464.5	2503.2
117.5°	504.1	542.8	581.4	591.1	787.7	1049.7	1180.7	1427.2	1920.1	2289.8	2332.8
120°	537.8	574.1	610.5	619.6	799.3	1039.0	1158.8	1384.0	1834.4	2172.2	2213.9
122.5°	570.6	607.3	644.1	653.2	816.1	1033.3	1142.0	1344.8	1750.4	2054.6	2095.8
125°	621.0	654.5	688.0	696.3	838.8	1028.8	1123.7	1296.0	1640.6	1899.0	1936.9
127.5°	662.0	695.7	729.5	737.9	861.4	1026.1	1108.4	1256.3	1552.1	1774.0	1806.0
130°	683.8	720.2	756.6	765.7	877.9	1027.7	1102.5	1234.2	1497.6	1695.1	1724.6
132.5°	706.5	742.9	779.2	788.4	891.4	1028.8	1097.4	1215.3	1451.0	1627.8	1654.3
135°	740.1	773.3	806.5	814.7	906.1	1027.8	1088.7	1187.4	1384.8	1532.9	1555.7
137.5°	774.5	807.2	840.1	848.3	927.9	1034.1	1087.2	1170.6	1337.6	1462.7	1481.4
140°	802.9	833.2	863.4	870.9	941.3	1035.2	1082.1	1154.2	1298.4	1406.5	1424.0
142.5°	824.9	852.8	880.8	887.7	952.5	1038.9	1082.1	1145.4	1272.0	1367.1	1382.1
145°	858.5	882.9	907.3	913.3	967.2	1038.9	1074.8	1126.6	1230.1	1307.9	1319.2
147.5°	892.1	915.8	939.5	945.5	988.6	1046.1	1074.8	1115.5	1197.0	1258.2	1267.6
150°	914.0	935.5	956.9	962.3	999.8	1049.7	1074.8	1109.2	1178.1	1229.7	1237.4
152.5°	936.7	953.0	969.2	973.2	1007.1	1052.2	1074.8	1104.2	1163.0	1207.0	1212.8
155°	970.3	982.3	994.3	997.3	1023.1	1057.6	1074.8	1098.1	1145.0	1180.0	1183.8
157.5°	995.1	1006.8	1018.6	1021.5	1039.2	1062.9	1074.8	1093.0	1129.3	1156.6	1159.3
160°	1012.0	1021.1	1030.2	1032.4	1046.6	1065.4	1074.8	1090.4	1121.6	1145.0	1146.5
162.5°	1028.8	1035.6	1042.5	1044.1	1054.3	1067.9	1074.8	1088.0	1114.2	1134.0	1135.5
165°	1047.0	1053.2	1059.3	1060.9	1065.6	1071.7	1074.8	1084.2	1103.1	1117.2	1118.8
167.5°	1063.8	1066.7	1069.7	1070.4	1074.2	1079.4	1082.1	1088.2	1100.6	1109.8	1110.4
170°	1074.8	1077.7	1080.7	1081.4	1081.6	1081.9	1082.1	1088.2	1100.6	1109.8	1109.8
172.5°	1080.7	1081.3	1081.9	1082.1	1082.1	1082.1	1082.1	1087.0	1096.7	1104.0	1103.5
175°	1088.7	1088.7	1088.7	1088.7	1086.5	1083.6	1082.1	1085.1	1091.3	1095.9	1095.9
177.5°	1088.7	1088.7	1088.7	1088.7	1087.0	1084.7	1083.6	1086.0	1090.8	1094.5	1093.9
180°	1088.7	1088.7	1088.7	1088.7	1088.7	1088.7	1088.7	1088.7	1088.7	1088.7	1088.7

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	366.3	366.3
2.5°	391.1	388.7
5°	503.0	505.4
7.5°	677.3	676.2
10°	842.3	852.9
12.5°	962.4	964.8
15°	1035.5	1040.3
17.5°	1063.8	1064.9
20°	1064.9	1062.6
22.5°	1052.0	1049.7
25°	1036.7	1035.5
27.5°	1022.5	1023.7
30°	1016.6	1020.2
32.5°	1016.6	1022.5
35°	1019.0	1024.9
37.5°	1017.9	1024.9
40°	1013.1	1021.4
42.5°	1000.2	1006.1
45°	980.2	987.2
47.5°	954.2	958.9
50°	921.2	926.0
52.5°	880.0	881.2
55°	830.5	835.3
57.5°	777.6	778.7
60°	718.6	722.1
62.5°	656.2	656.2
65°	590.2	592.6
67.5°	521.9	527.8
70°	452.4	453.6
72.5°	384.1	384.1
75°	313.4	314.5
77.5°	246.2	246.2
80°	182.6	183.7
82.5°	126.0	128.4
85°	79.0	79.0
87.5°	36.5	33.0
90°	27.8	27.8
92.5°	111.3	89.1
95°	387.7	320.8
97.5°	928.8	801.5
100°	1338.3	1186.6
102.5°	1741.0	1611.1
105°	2254.4	2184.6
107.5°	2590.8	2607.7
110°	2719.0	2791.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2730.5	2842.2
115°	2658.1	2813.0
117.5°	2504.6	2676.4
120°	2380.9	2547.8
122.5°	2260.4	2425.0
125°	2088.5	2240.2
127.5°	1933.9	2061.9
130°	1842.9	1961.1
132.5°	1760.2	1866.0
135°	1647.0	1738.2
137.5°	1556.1	1630.8
140°	1493.7	1563.6
142.5°	1442.2	1502.2
145°	1364.7	1410.1
147.5°	1305.2	1342.9
150°	1267.8	1298.4
152.5°	1235.9	1258.9
155°	1199.1	1214.3
157.5°	1170.0	1180.7
160°	1152.7	1158.8
162.5°	1141.3	1147.1
165°	1124.9	1131.1
167.5°	1113.1	1115.7
170°	1109.8	1109.8
172.5°	1101.2	1098.9
175°	1095.9	1095.9
177.5°	1091.3	1088.7
180°	1088.7	1088.7

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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	0.47	1.19	1.59	2.30	3.85	13.65	14.37	14.77	15.48	17.03
	3H	1.17	1.81	2.29	2.93	4.49	15.48	16.13	16.61	17.25	18.81
	4H	1.46	2.07	2.59	3.19	4.76	16.12	16.73	17.25	17.85	19.42
	6H	1.70	2.26	2.84	3.39	4.97	16.54	17.11	17.69	18.23	19.81
	8H	1.77	2.30	2.91	3.44	5.01	16.66	17.20	17.80	18.34	19.91
	12H	1.78	2.29	2.93	3.42	5.01	16.72	17.23	17.87	18.37	19.96
4H	2H	7.67	8.28	8.81	9.41	10.97	13.91	14.52	15.05	15.64	17.21
	3H	9.23	9.74	10.37	10.89	12.46	15.94	16.45	17.09	17.60	19.18
	4H	9.31	9.78	10.46	10.92	12.52	16.70	17.17	17.85	18.31	19.91
	6H	9.32	9.72	10.47	10.88	12.47	17.23	17.64	18.39	18.80	20.38
	8H	9.29	9.67	10.45	10.82	12.42	17.39	17.77	18.55	18.92	20.52
	12H	9.24	9.58	10.41	10.74	12.35	17.48	17.82	18.65	18.98	20.59
8H	4H	10.75	11.12	11.90	12.28	13.88	16.75	17.13	17.91	18.28	19.88
	6H	10.98	11.29	12.16	12.49	14.09	17.37	17.68	18.55	18.88	20.48
	8H	11.00	11.27	12.18	12.44	14.06	17.59	17.86	18.77	19.03	20.66
	12H	10.96	11.20	12.15	12.37	14.02	17.73	17.97	18.91	19.14	20.79
12H	4H	10.88	11.23	12.06	12.39	14.00	16.70	17.04	17.87	18.20	19.81
	6H	11.24	11.51	12.42	12.68	14.31	17.35	17.63	18.54	18.80	20.42
	8H	11.30	11.54	12.49	12.71	14.36	17.58	17.82	18.76	18.99	20.64

END OF REPORT