

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: P936630

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

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936630
REPORT IS A COMBINATION OF REPORTS P933461 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-050D-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

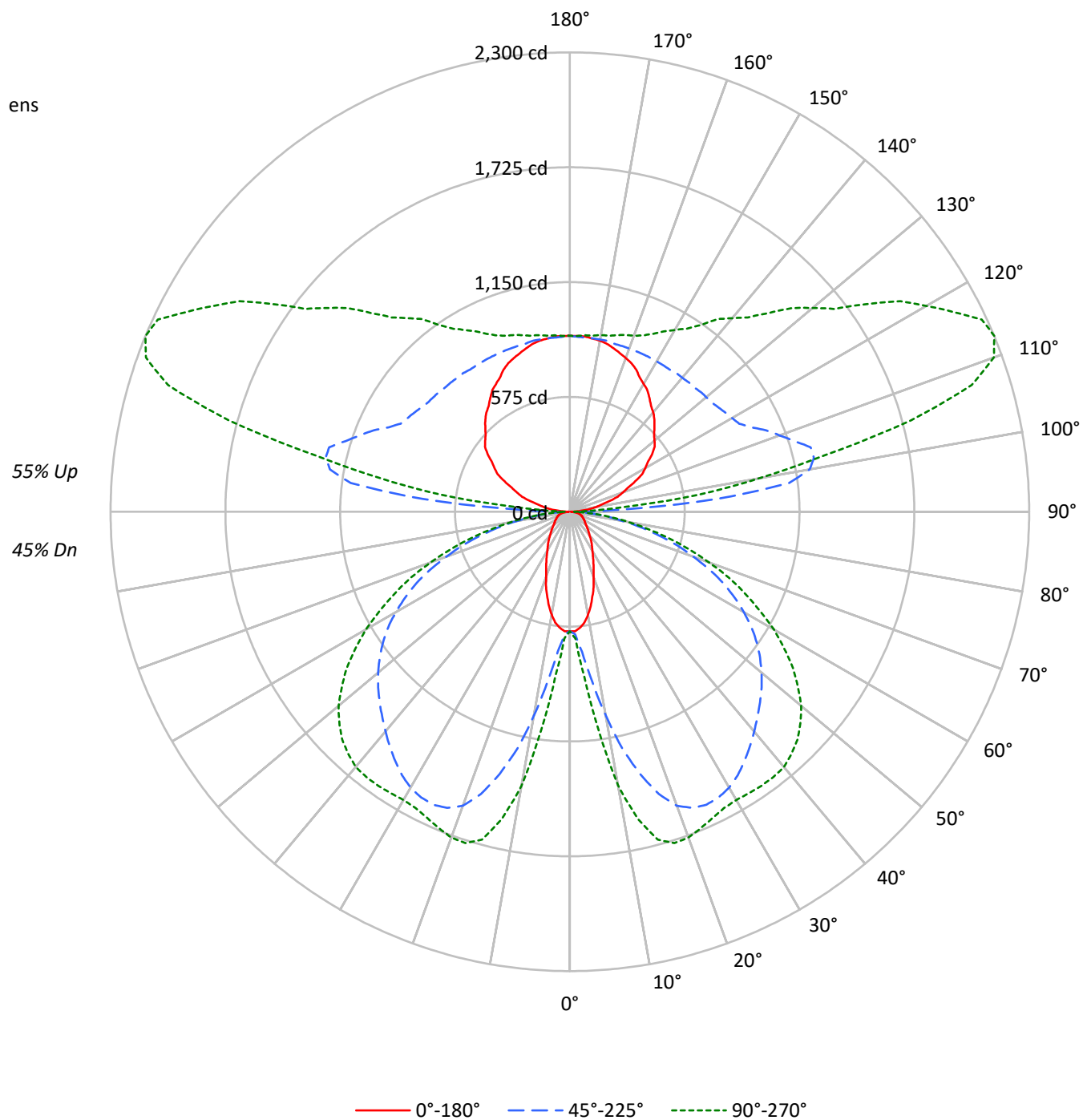
Lumens per Lamp: N/A
Luminaire Lumens: 10343.1 lumens
Efficiency: N/A
Efficacy: 121.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 85.2
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: P936630

CATALOG NUMBER: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-12-6500K

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
RCR																	
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	43	42
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16
8	51	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1851	1851	1851
5°	1809	2139	2488
10°	1641	3120	4124
15°	1396	4077	4980
20°	1136	4725	5076
25°	948	4946	4972
30°	800	4979	4963
35°	708	4897	5091
40°	617	4791	5224
45°	559	4714	5244
50°	514	4645	5157
55°	492	4543	4929
60°	504	4346	4568
65°	526	4044	4072
70°	561	3530	3440
75°	624	2880	2684
80°	687	2000	1809
85°	622	1063	926

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5244 cd/sqm

TEST NUMBER: P936630

CATALOG NUMBER: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-12-6500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.4	0.7
10°-20°	343.0	3.3
20°-30°	600.0	5.8
30°-40°	772.4	7.5
40°-50°	862.8	8.3
50°-60°	826.3	8.0
60°-70°	654.9	6.3
70°-80°	385.1	3.7
80°-90°	110.4	1.1
90°-100°	429.4	4.2
100°-110°	1129.0	10.9
110°-120°	1170.6	11.3
120°-130°	939.0	9.1
130°-140°	736.8	7.1
140°-150°	565.5	5.5
150°-160°	407.3	3.9
160°-170°	249.2	2.4
170°-180°	84.2	0.8
0°-30°	1020.5	9.9
0°-40°	1792.9	17.3
0°-60°	3482.0	33.7
0°-90°	4632.3	44.8
90°-120°	2729.0	26.4
90°-150°	4970.2	48.1
90°-180°	5711.0	55.2
0°-180°	10343.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	583	625	704	796	825	54
15°	437	806	1358	1647	1699	122
25°	279	914	1618	1689	1691	129
35°	189	874	1524	1610	1674	118
45°	129	696	1347	1543	1612	100
55°	92	442	1143	1328	1364	84
65°	73	235	848	954	968	72
75°	54	144	466	512	514	56
85°	19	44	115	127	129	20
90°	6	16	45	22	22	6
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	

TEST NUMBER: P936630

CATALOG NUMBER: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-12-6500K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	598.4	598.4	598.4	598.4	598.4	598.4	598.4	598.4	598.4	598.4	598.4
2.5°	598.4	598.4	602.2	604.1	607.9	609.9	613.8	617.6	629.2	631.1	634.9
5°	583.0	590.6	615.7	625.3	652.2	688.7	704.1	729.2	781.1	796.5	806.2
7.5°	559.9	577.2	638.7	654.1	721.5	817.7	858.1	912.0	994.7	1035.1	1067.8
10°	523.3	559.9	669.5	706.1	815.7	962.0	1037.0	1112.1	1237.1	1293.0	1314.1
12.5°	482.9	542.5	702.2	752.2	910.0	1123.6	1214.1	1296.8	1439.2	1514.2	1525.7
15°	436.8	517.6	733.0	806.2	1010.1	1258.3	1358.4	1460.3	1593.1	1646.9	1660.4
17.5°	396.3	498.3	761.9	838.9	1087.1	1379.5	1481.4	1566.1	1673.9	1710.4	1720.1
20°	346.3	467.6	781.1	881.2	1167.9	1468.0	1566.1	1631.6	1704.7	1727.7	1731.6
22.5°	309.8	434.8	792.7	896.6	1221.7	1521.9	1604.6	1656.6	1706.6	1714.3	1716.2
25°	279.0	398.3	790.8	913.9	1267.9	1554.6	1618.1	1656.6	1685.4	1689.3	1689.3
27.5°	250.1	357.9	783.0	917.8	1302.5	1562.3	1612.3	1639.2	1652.7	1660.4	1660.4
30°	225.1	319.4	763.8	910.0	1317.9	1554.6	1595.0	1608.5	1621.9	1633.5	1639.2
32.5°	205.9	282.8	734.9	894.6	1319.8	1535.4	1564.2	1571.9	1591.1	1618.1	1627.7
35°	188.6	246.3	702.2	873.5	1308.4	1504.6	1523.8	1531.5	1570.0	1610.4	1623.8
37.5°	171.3	219.4	660.0	837.0	1291.0	1468.0	1481.4	1494.9	1554.6	1602.7	1618.1
40°	153.9	196.2	609.9	796.5	1264.1	1423.8	1435.3	1456.5	1535.4	1591.1	1606.5
42.5°	140.5	177.0	556.0	754.2	1229.5	1373.8	1391.1	1421.9	1512.2	1571.9	1589.2
45°	128.9	157.8	498.3	696.5	1185.2	1321.7	1346.8	1389.2	1485.4	1543.0	1558.4
47.5°	117.3	144.3	438.7	636.8	1137.1	1269.8	1302.5	1350.6	1448.7	1504.6	1518.1
50°	107.8	130.8	379.0	573.3	1085.1	1214.1	1252.5	1302.5	1402.6	1454.6	1471.9
52.5°	100.0	119.3	323.2	509.8	1025.5	1156.3	1200.6	1252.5	1346.8	1396.8	1408.4
55°	92.4	109.7	275.1	442.5	963.9	1094.7	1142.8	1192.9	1285.2	1327.6	1335.2
57.5°	88.5	101.9	234.7	379.0	898.5	1025.5	1079.4	1125.5	1212.1	1244.9	1252.5
60°	82.7	96.2	204.0	325.2	827.3	960.1	1006.3	1052.4	1125.5	1152.5	1158.2
62.5°	77.0	92.4	180.8	273.2	754.2	883.1	929.3	971.6	1033.2	1052.4	1060.1
65°	73.1	88.5	163.5	234.7	679.2	802.3	848.5	885.1	935.1	954.3	958.1
67.5°	69.2	84.6	150.0	202.0	604.1	721.5	756.2	790.8	829.2	848.5	850.4
70°	63.5	80.8	138.6	178.9	527.1	629.2	658.1	694.6	725.4	734.9	740.8
72.5°	59.7	75.1	130.8	161.6	448.3	540.6	567.6	588.7	615.7	625.3	625.3
75°	53.8	67.3	123.2	144.3	367.5	442.5	465.6	486.8	507.9	511.8	506.0
77.5°	48.1	59.7	105.9	121.2	286.7	350.2	369.4	380.9	398.3	402.1	404.0
80°	40.4	51.9	82.7	94.3	207.8	257.8	271.3	280.9	296.3	296.3	300.1
82.5°	30.8	40.4	59.7	67.3	140.5	177.0	188.6	194.3	204.0	204.0	204.0
85°	19.2	25.1	38.4	44.3	84.6	107.8	115.4	117.3	125.1	127.0	127.0
87.5°	9.7	13.5	25.1	27.0	44.3	55.8	55.8	59.7	59.7	57.8	55.8
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

TEST NUMBER: P936630

CATALOG NUMBER: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-12-6500K

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

TEST NUMBER: P936630

CATALOG NUMBER: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-12-6500K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	598.4	598.4
2.5°	638.7	634.9
5°	821.6	825.4
7.5°	1106.3	1104.4
10°	1375.7	1393.0
12.5°	1571.9	1575.7
15°	1691.2	1698.9
17.5°	1737.4	1739.3
20°	1739.3	1735.5
22.5°	1718.1	1714.3
25°	1693.1	1691.2
27.5°	1670.0	1672.0
30°	1660.4	1666.2
32.5°	1660.4	1670.0
35°	1664.3	1673.9
37.5°	1662.3	1673.9
40°	1654.6	1668.1
42.5°	1633.5	1643.1
45°	1600.8	1612.3
47.5°	1558.4	1566.1
50°	1504.6	1512.2
52.5°	1437.3	1439.2
55°	1356.5	1364.1
57.5°	1269.8	1271.7
60°	1173.6	1179.4
62.5°	1071.7	1071.7
65°	963.9	967.8
67.5°	852.4	861.9
70°	738.9	740.8
72.5°	627.3	627.3
75°	511.8	513.7
77.5°	402.1	402.1
80°	298.2	300.1
82.5°	205.9	209.7
85°	128.9	128.9
87.5°	59.7	53.8
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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CATALOG NUMBER: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-12-6500K

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	2.65	3.50	3.65	4.51	5.85	15.85	16.69	16.84	17.70	19.05
	3H	3.36	4.12	4.36	5.14	6.50	17.69	18.45	18.69	19.47	20.83
	4H	3.65	4.38	4.67	5.40	6.77	18.34	19.06	19.35	20.08	21.45
	6H	3.90	4.57	4.93	5.60	6.98	18.77	19.44	19.80	20.47	21.85
	8H	3.97	4.61	5.00	5.65	7.03	18.89	19.53	19.93	20.57	21.95
	12H	3.99	4.59	5.03	5.63	7.03	18.97	19.57	20.00	20.61	22.01
4H	2H	9.88	10.60	10.90	11.62	12.99	16.12	16.84	17.14	17.86	19.23
	3H	11.44	12.05	12.47	13.10	14.48	18.17	18.77	19.20	19.82	21.21
	4H	11.54	12.09	12.57	13.13	14.54	18.94	19.49	19.98	20.53	21.94
	6H	11.55	12.02	12.59	13.09	14.49	19.48	19.96	20.53	21.02	22.42
	8H	11.52	11.97	12.57	13.03	14.44	19.65	20.09	20.70	21.15	22.57
	12H	11.48	11.88	12.55	12.95	14.38	19.74	20.15	20.81	21.22	22.64
8H	4H	12.98	13.43	14.03	14.49	15.90	19.00	19.44	20.05	20.50	21.92
	6H	13.22	13.59	14.30	14.69	16.11	19.63	20.00	20.70	21.10	22.51
	8H	13.24	13.57	14.32	14.65	16.08	19.85	20.18	20.93	21.26	22.69
	12H	13.21	13.50	14.30	14.58	16.05	20.00	20.29	21.09	21.37	22.84
12H	4H	13.13	13.53	14.20	14.60	16.03	18.95	19.35	20.02	20.43	21.85
	6H	13.48	13.81	14.57	14.89	16.33	19.61	19.94	20.69	21.02	22.46
	8H	13.55	13.84	14.64	14.92	16.39	19.84	20.13	20.93	21.21	22.68

END OF REPORT