

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: P936729

Luminaire Tested: SQ4-FB-050U-075D-92765-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936729
REPORT IS A COMBINATION OF REPORTS P933462 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-075D-92765-1D-UNV-STD-W-12-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

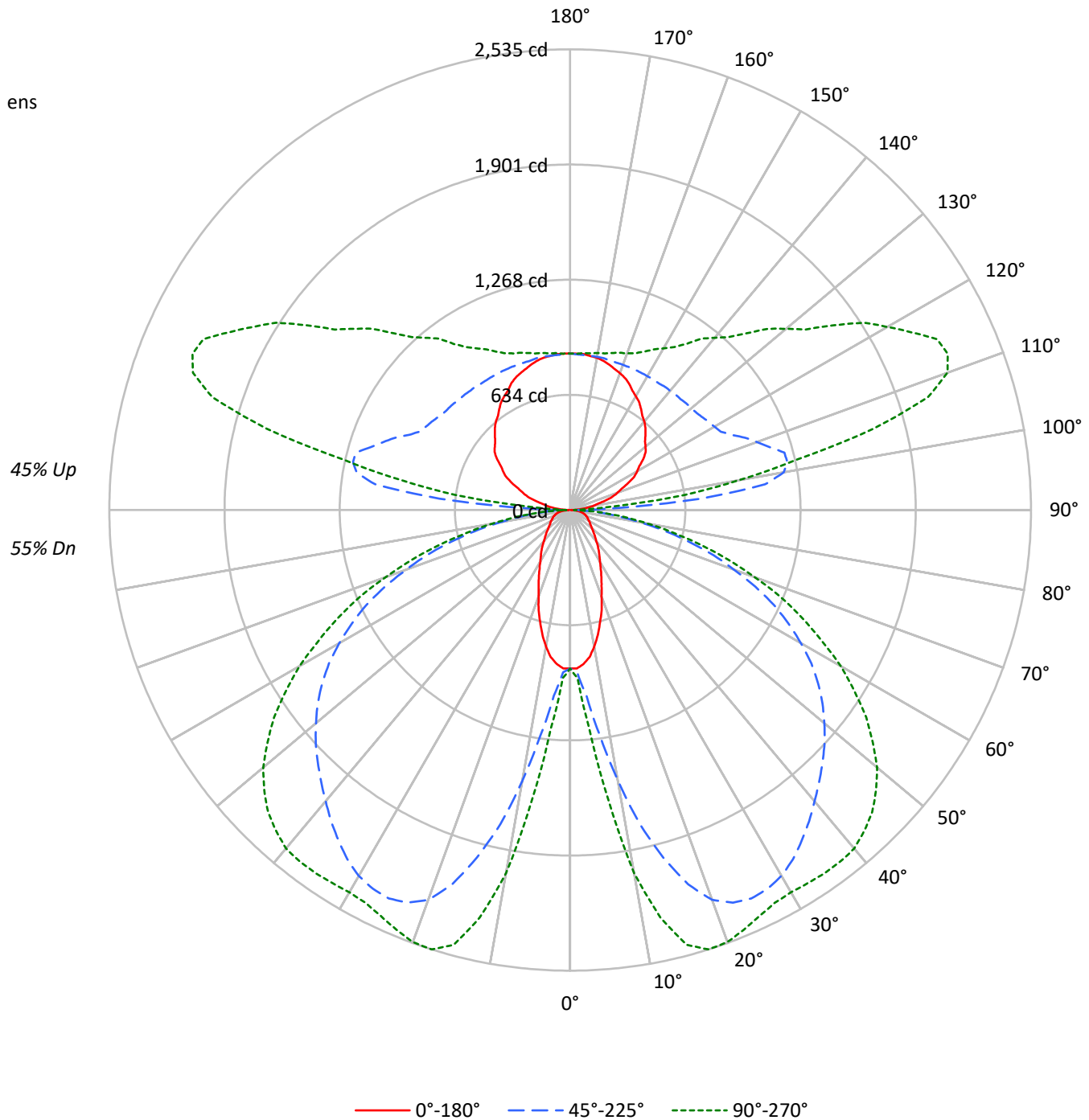
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12332.5 lumens
Efficiency: N/A
Efficacy: 112.9 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): 109.2
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

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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	50	30	10	0
RCR																					
0	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55			
1	98	94	89	86	91	87	83	80	75	72	69	63	61	59	53	51	50	45			
2	89	81	74	69	82	75	70	65	65	60	56	55	51	49	45	43	41	37			
3	81	71	63	57	74	66	59	53	56	51	47	48	44	40	40	37	34	30			
4	73	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25			
5	67	55	46	40	62	51	44	38	44	38	33	37	33	29	31	28	25	21			
6	62	49	40	34	57	46	38	32	39	33	29	33	29	25	28	24	21	18			
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	25	22	19	16			
8	53	40	32	26	49	37	30	25	32	26	22	27	23	19	23	19	16	14			
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	15	12			
10	46	33	25	20	42	31	24	19	27	21	17	23	18	15	19	16	13	11			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2697	2697	2697
5°	2636	3118	3626
10°	2392	4547	6011
15°	2034	5942	7258
20°	1656	6887	7397
25°	1382	7209	7247
30°	1166	7257	7233
35°	1032	7138	7421
40°	899	6984	7614
45°	815	6871	7643
50°	748	6770	7517
55°	717	6621	7184
60°	735	6333	6658
65°	766	5895	5935
70°	818	5144	5014
75°	910	4198	3912
80°	1002	2915	2636
85°	907	1549	1349

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7643 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.8	0.9
10°-20°	500.0	4.1
20°-30°	874.6	7.1
30°-40°	1125.8	9.1
40°-50°	1257.5	10.2
50°-60°	1204.4	9.8
60°-70°	954.5	7.7
70°-80°	561.2	4.6
80°-90°	159.2	1.3
90°-100°	419.8	3.4
100°-110°	1103.6	8.9
110°-120°	1144.3	9.3
120°-130°	917.9	7.4
130°-140°	720.2	5.8
140°-150°	552.8	4.5
150°-160°	398.1	3.2
160°-170°	243.6	2.0
170°-180°	82.3	0.7
0°-30°	1487.4	12.1
0°-40°	2613.2	21.2
0°-60°	5075.0	41.2
0°-90°	6750.0	54.7
90°-120°	2667.6	21.6
90°-150°	4858.5	39.4
90°-180°	5582.0	45.3
0°-180°	12332.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	872	872	872	872	872	
5°	850	911	1026	1161	1203	78
15°	636	1175	1980	2400	2476	177
25°	407	1332	2358	2462	2465	187
35°	275	1273	2221	2347	2440	172
45°	188	1015	1963	2249	2350	145
55°	135	645	1666	1935	1988	123
65°	107	342	1237	1391	1411	106
75°	78	210	679	746	749	82
85°	28	64	168	185	188	30
90°	6	16	44	22	22	7
95°	56	217	723	373	254	62
105°	199	301	1220	1852	1728	211
115°	353	429	977	1949	2225	349
125°	491	551	889	1502	1772	436
135°	586	644	861	1213	1375	453
145°	679	722	850	1034	1116	425
155°	768	789	850	933	961	353
165°	828	839	850	884	895	234
175°	861	861	856	867	867	82
180°	861	861	861	861	861	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	872.1	872.1	872.1	872.1	872.1	872.1	872.1	872.1	872.1	872.1	872.1
2.5°	872.1	872.1	877.7	880.5	886.1	888.9	894.5	900.1	916.9	919.8	925.4
5°	849.6	860.9	897.3	911.3	950.6	1003.9	1026.3	1062.9	1138.6	1161.0	1175.0
7.5°	816.0	841.2	931.0	953.4	1051.5	1191.8	1250.7	1329.2	1449.8	1508.7	1556.4
10°	762.7	816.0	975.8	1029.1	1189.0	1402.2	1511.5	1620.9	1803.1	1884.5	1915.3
12.5°	703.8	790.8	1023.5	1096.5	1326.4	1637.7	1769.5	1890.1	2097.6	2206.9	2223.8
15°	636.5	754.3	1068.5	1175.0	1472.3	1834.0	1979.8	2128.4	2321.9	2400.4	2420.0
17.5°	577.6	726.3	1110.5	1222.7	1584.4	2010.6	2159.3	2282.6	2439.7	2493.0	2507.0
20°	504.7	681.4	1138.6	1284.4	1702.2	2139.6	2282.6	2378.0	2484.5	2518.2	2523.8
22.5°	451.5	633.7	1155.4	1306.8	1780.7	2218.2	2338.7	2414.4	2487.3	2498.6	2501.4
25°	406.6	580.5	1152.6	1332.0	1848.0	2265.8	2358.4	2414.4	2456.5	2462.1	2462.1
27.5°	364.5	521.6	1141.4	1337.7	1898.5	2277.0	2349.9	2389.2	2408.8	2420.0	2420.0
30°	328.1	465.5	1113.3	1326.4	1920.9	2265.8	2324.7	2344.3	2364.0	2380.8	2389.2
32.5°	300.0	412.2	1071.3	1304.0	1923.7	2237.8	2279.8	2291.1	2319.1	2358.4	2372.4
35°	274.8	358.9	1023.5	1273.2	1906.9	2192.9	2221.0	2232.2	2288.3	2347.1	2366.8
37.5°	249.6	319.7	961.8	1219.9	1881.7	2139.6	2159.3	2178.9	2265.8	2335.9	2358.4
40°	224.3	286.0	888.9	1161.0	1842.4	2075.1	2092.0	2122.8	2237.8	2319.1	2341.5
42.5°	204.7	258.0	810.4	1099.3	1791.9	2002.2	2027.5	2072.3	2204.1	2291.1	2316.3
45°	187.9	229.9	726.3	1015.1	1727.4	1926.5	1963.0	2024.7	2164.9	2249.0	2271.4
47.5°	171.1	210.3	639.3	928.2	1657.3	1850.8	1898.5	1968.6	2111.6	2192.9	2212.5
50°	157.0	190.7	552.4	835.6	1581.6	1769.5	1825.6	1898.5	2044.3	2120.0	2145.2
52.5°	145.8	173.9	471.1	743.1	1494.7	1685.4	1749.9	1825.6	1963.0	2035.9	2052.7
55°	134.6	159.8	401.0	644.9	1405.0	1595.6	1665.7	1738.6	1873.2	1934.9	1946.2
57.5°	129.0	148.6	342.1	552.4	1309.6	1494.7	1573.2	1640.5	1766.7	1814.4	1825.6
60°	120.6	140.2	297.2	473.9	1205.9	1399.3	1466.6	1533.9	1640.5	1679.8	1688.2
62.5°	112.2	134.6	263.6	398.2	1099.3	1287.2	1354.5	1416.2	1505.9	1533.9	1545.2
65°	106.6	129.0	238.4	342.1	989.9	1169.4	1236.7	1290.0	1362.9	1390.9	1396.5
67.5°	100.9	123.4	218.7	294.4	880.5	1051.5	1102.1	1152.6	1208.7	1236.7	1239.5
70°	92.5	117.8	201.9	260.8	768.3	916.9	959.0	1012.3	1057.2	1071.3	1079.7
72.5°	86.9	109.4	190.7	235.5	653.4	788.0	827.2	858.1	897.3	911.3	911.3
75°	78.5	98.1	179.5	210.3	535.6	644.9	678.6	709.4	740.3	745.9	737.5
77.5°	70.1	86.9	154.2	176.7	417.8	510.3	538.4	555.2	580.5	586.1	588.9
80°	58.9	75.7	120.6	137.4	302.8	375.8	395.4	409.4	431.8	431.8	437.4
82.5°	44.9	58.9	86.9	98.1	204.7	258.0	274.8	283.2	297.2	297.2	297.2
85°	28.0	36.5	56.1	64.5	123.4	157.0	168.2	171.1	182.3	185.1	185.1
87.5°	14.0	19.6	36.5	39.3	64.5	81.3	81.3	86.9	86.9	84.1	81.3
90°	5.8	10.4	15.0	16.2	25.4	37.8	43.9	39.1	29.3	22.0	22.0
92.5°	23.1	62.3	101.7	111.5	156.8	217.1	247.3	216.8	155.6	109.8	105.4
95°	55.5	127.4	199.4	217.3	385.8	610.6	723.0	645.1	489.5	372.8	359.5
97.5°	95.9	159.4	222.8	238.7	519.8	894.5	1081.9	1032.8	934.3	860.6	835.4
100°	127.1	184.7	242.2	256.6	568.5	984.3	1192.3	1195.9	1203.1	1208.5	1178.5
102.5°	153.8	207.4	261.1	274.5	590.8	1012.7	1223.5	1286.2	1411.5	1505.5	1479.8
105°	198.8	244.2	289.7	301.1	607.4	1015.8	1220.1	1360.6	1641.5	1852.3	1838.5
107.5°	245.1	287.4	329.9	340.4	610.5	970.7	1150.7	1346.7	1738.7	2032.7	2036.1
110°	276.3	314.5	352.9	362.4	605.9	930.6	1093.0	1312.0	1750.2	2078.9	2093.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	306.9	343.3	379.8	388.9	606.1	895.5	1040.3	1264.6	1713.0	2049.4	2071.5
115°	353.1	386.8	420.4	428.8	611.7	855.4	977.3	1193.3	1625.4	1949.4	1980.1
117.5°	398.7	429.3	459.9	467.5	623.0	830.3	934.0	1128.9	1518.8	1811.3	1845.2
120°	425.4	454.2	482.9	490.1	632.2	821.9	916.7	1094.8	1451.0	1718.3	1751.3
122.5°	451.4	480.4	509.4	516.7	645.6	817.4	903.3	1063.7	1384.6	1625.2	1657.7
125°	491.3	517.7	544.2	550.8	663.5	813.8	888.9	1025.2	1297.7	1502.1	1532.1
127.5°	523.6	550.4	577.1	583.7	681.4	811.6	876.8	993.8	1227.7	1403.3	1428.6
130°	541.0	569.8	598.5	605.7	694.5	812.9	872.2	976.3	1184.6	1340.8	1364.2
132.5°	558.9	587.6	616.4	623.6	705.1	813.8	868.1	961.3	1147.8	1287.7	1308.6
135°	585.5	611.7	637.8	644.4	716.6	813.0	861.1	939.3	1095.5	1212.6	1230.6
137.5°	612.6	638.6	664.6	671.0	734.0	818.1	860.0	926.0	1058.1	1157.1	1171.8
140°	635.1	659.1	682.9	688.9	744.6	818.8	855.9	912.9	1027.1	1112.6	1126.4
142.5°	652.5	674.6	696.7	702.2	753.5	821.8	855.9	906.0	1006.2	1081.4	1093.2
145°	679.1	698.3	717.6	722.4	765.1	821.8	850.2	891.1	973.1	1034.5	1043.5
147.5°	705.7	724.4	743.2	747.9	782.0	827.5	850.2	882.5	947.0	995.3	1002.8
150°	723.0	739.9	756.9	761.1	790.9	830.4	850.2	877.4	931.8	972.7	978.7
152.5°	740.9	753.7	766.6	769.8	796.6	832.4	850.2	873.5	919.9	954.8	959.4
155°	767.5	777.0	786.6	788.9	809.4	836.6	850.2	868.7	905.6	933.4	936.4
157.5°	787.2	796.5	805.6	808.0	822.1	840.9	850.2	864.6	893.3	914.9	917.0
160°	800.5	807.7	814.9	816.7	827.9	842.7	850.2	862.5	887.1	905.6	906.9
162.5°	813.8	819.2	824.6	825.9	834.0	844.8	850.2	860.6	881.3	896.9	898.1
165°	828.2	833.1	838.0	839.2	842.8	847.8	850.2	857.7	872.5	883.7	884.9
167.5°	841.5	843.8	846.1	846.7	849.7	853.9	855.9	860.8	870.6	877.9	878.4
170°	850.2	852.5	854.8	855.3	855.5	855.8	855.9	860.8	870.6	877.9	877.9
172.5°	854.8	855.3	855.8	855.9	855.9	855.9	855.9	859.7	867.5	873.3	872.8
175°	861.1	861.1	861.1	861.1	859.4	857.0	855.9	858.3	863.3	866.9	866.9
177.5°	861.1	861.1	861.1	861.1	859.8	858.1	857.1	859.1	862.9	865.8	865.3
180°	861.1	861.1	861.1	861.1	861.1	861.1	861.1	861.1	861.1	861.1	861.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	872.1	872.1
2.5°	931.0	925.4
5°	1197.5	1203.1
7.5°	1612.5	1609.7
10°	2005.0	2030.3
12.5°	2291.1	2296.7
15°	2464.9	2476.1
17.5°	2532.2	2535.0
20°	2535.0	2529.4
22.5°	2504.2	2498.6
25°	2467.7	2464.9
27.5°	2434.1	2436.9
30°	2420.0	2428.5
32.5°	2420.0	2434.1
35°	2425.7	2439.7
37.5°	2422.9	2439.7
40°	2411.6	2431.3
42.5°	2380.8	2394.8
45°	2333.1	2349.9
47.5°	2271.4	2282.6
50°	2192.9	2204.1
52.5°	2094.8	2097.6
55°	1977.0	1988.2
57.5°	1850.8	1853.6
60°	1710.6	1719.0
62.5°	1562.0	1562.0
65°	1405.0	1410.6
67.5°	1242.3	1256.3
70°	1076.9	1079.7
72.5°	914.1	914.1
75°	745.9	748.7
77.5°	586.1	586.1
80°	434.6	437.4
82.5°	300.0	305.6
85°	187.9	187.9
87.5°	86.9	78.5
90°	22.0	22.0
92.5°	88.0	70.5
95°	306.6	253.7
97.5°	734.7	634.0
100°	1058.6	938.6
102.5°	1377.1	1274.4
105°	1783.3	1728.1
107.5°	2049.3	2062.7
110°	2150.8	2208.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2159.9	2248.2
115°	2102.6	2225.2
117.5°	1981.1	2117.0
120°	1883.3	2015.3
122.5°	1788.0	1918.2
125°	1652.0	1772.0
127.5°	1529.7	1631.0
130°	1457.8	1551.2
132.5°	1392.3	1476.1
135°	1302.8	1375.0
137.5°	1230.9	1290.0
140°	1181.6	1236.8
142.5°	1140.8	1188.3
145°	1079.5	1115.5
147.5°	1032.5	1062.3
150°	1002.8	1027.1
152.5°	977.6	995.8
155°	948.5	960.6
157.5°	925.5	934.0
160°	911.8	916.7
162.5°	902.7	907.4
165°	889.8	894.7
167.5°	880.5	882.5
170°	877.9	877.9
172.5°	871.1	869.3
175°	866.9	866.9
177.5°	863.2	861.1
180°	861.1	861.1



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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	4.88	5.83	5.78	6.76	7.96	18.07	19.02	18.98	19.95	21.15
	3H	5.59	6.44	6.51	7.38	8.61	19.92	20.78	20.84	21.72	22.94
	4H	5.89	6.70	6.83	7.65	8.88	20.57	21.38	21.51	22.33	23.56
	6H	6.15	6.89	7.09	7.85	9.09	21.01	21.76	21.96	22.71	23.96
	8H	6.22	6.93	7.17	7.90	9.14	21.14	21.85	22.09	22.82	24.06
	12H	6.24	6.92	7.20	7.88	9.15	21.21	21.89	22.17	22.86	24.12
4H	2H	12.11	12.92	13.05	13.87	15.10	18.36	19.16	19.29	20.11	21.34
	3H	13.69	14.37	14.64	15.34	16.59	20.41	21.09	21.36	22.07	23.31
	4H	13.79	14.41	14.75	15.38	16.65	21.19	21.81	22.15	22.78	24.05
	6H	13.80	14.34	14.77	15.33	16.60	21.74	22.27	22.71	23.27	24.54
	8H	13.78	14.28	14.76	15.27	16.55	21.90	22.40	22.88	23.39	24.68
	12H	13.74	14.19	14.74	15.20	16.49	22.00	22.46	23.00	23.46	24.75
8H	4H	15.24	15.74	16.22	16.73	18.02	21.26	21.76	22.23	22.74	24.03
	6H	15.49	15.90	16.49	16.93	18.22	21.89	22.31	22.89	23.34	24.62
	8H	15.51	15.87	16.52	16.89	18.19	22.12	22.48	23.13	23.50	24.80
	12H	15.48	15.80	16.49	16.81	18.16	22.27	22.59	23.28	23.60	24.95
12H	4H	15.39	15.84	16.39	16.85	18.14	21.21	21.67	22.21	22.67	23.96
	6H	15.75	16.12	16.76	17.13	18.43	21.88	22.25	22.89	23.26	24.56
	8H	15.82	16.15	16.84	17.16	18.50	22.11	22.44	23.13	23.45	24.80