

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: P936848

Luminaire Tested: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-8-6500K

Issue Date: 12/17/2024

**Test Information**

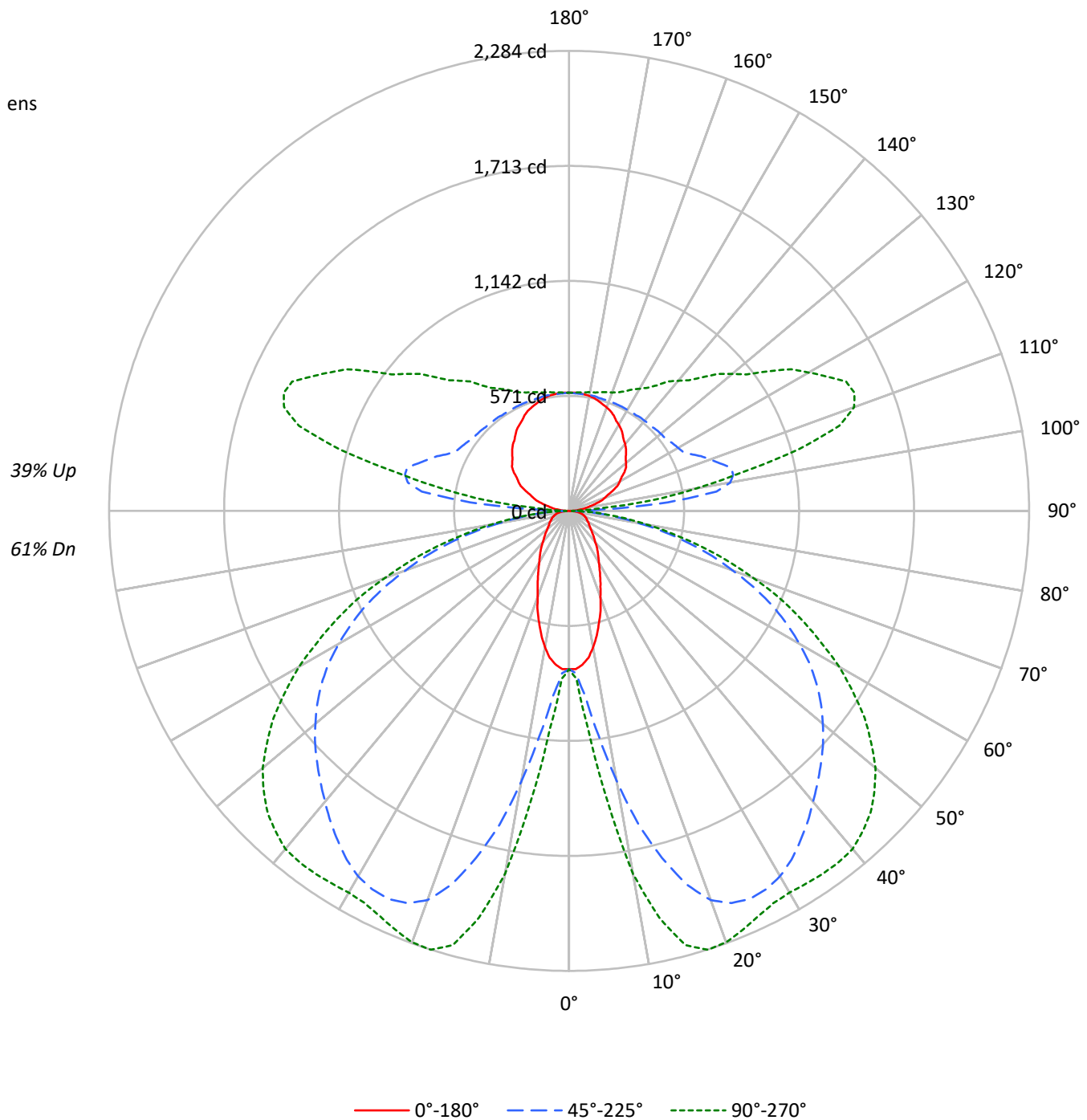
Test Method: LM-79-2019  
Report Number: P936848  
REPORT IS A COMBINATION OF REPORTS P933487 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-8-6500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9889.0 lumens  
Efficiency: N/A  
Efficacy: 109.4 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-Direct  
  
Input Watts (W): 90.4  
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-050U-100D-92765-1D-UNV-STD-W-8-6500K

### 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	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°	3646	3646	3646
5°	3562	4214	4901
10°	3231	6143	8125
15°	2746	8026	9811
20°	2236	9300	9999
25°	1865	9732	9795
30°	1573	9794	9777
35°	1391	9631	10030
40°	1211	9420	10291
45°	1097	9265	10332
50°	1006	9126	10160
55°	963	8921	9710
60°	986	8530	8999
65°	1026	7934	8022
70°	1094	6920	6776
75°	1213	5642	5289
80°	1325	3913	3564
85°	1174	2077	1824

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10332 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.7	1.0
10°-20°	450.5	4.6
20°-30°	788.1	8.0
30°-40°	1014.5	10.3
40°-50°	1133.1	11.5
50°-60°	1085.3	11.0
60°-70°	860.1	8.7
70°-80°	505.8	5.1
80°-90°	142.7	1.4
90°-100°	286.3	2.9
100°-110°	752.6	7.6
110°-120°	780.4	7.9
120°-130°	626.0	6.3
130°-140°	491.2	5.0
140°-150°	377.0	3.8
150°-160°	271.5	2.7
160°-170°	166.1	1.7
170°-180°	56.1	0.6
0°-30°	1340.3	13.6
0°-40°	2354.7	23.8
0°-60°	4573.1	46.2
0°-90°	6081.7	61.5
90°-120°	1819.3	18.4
90°-150°	3313.5	33.5
90°-180°	3807.0	38.5
0°-180°	9889.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	786	786	786	786	786	
5°	766	821	925	1046	1084	71
15°	574	1059	1784	2163	2231	160
25°	366	1200	2125	2219	2221	169
35°	248	1147	2001	2115	2198	155
45°	169	915	1769	2027	2118	131
55°	121	581	1501	1744	1792	111
65°	96	308	1114	1253	1271	95
75°	71	190	612	672	675	74
85°	25	58	152	167	169	27
90°	4	11	30	15	15	5
95°	38	148	493	254	173	42
105°	136	205	832	1263	1178	144
115°	241	292	667	1330	1518	238
125°	335	376	606	1024	1208	297
135°	399	440	587	827	938	309
145°	463	493	580	706	761	290
155°	523	538	580	636	655	240
165°	565	572	580	603	610	159
175°	587	587	584	591	591	56
180°	587	587	587	587	587	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9
2.5°	785.9	785.9	791.0	793.4	798.5	801.0	806.1	811.1	826.3	828.8	833.9
5°	765.6	775.8	808.7	821.3	856.7	904.7	924.8	957.7	1025.9	1046.2	1058.8
7.5°	735.3	758.1	839.0	859.1	947.6	1073.9	1127.0	1197.7	1306.4	1359.5	1402.4
10°	687.3	735.3	879.4	927.4	1071.4	1263.4	1362.0	1460.6	1624.8	1698.1	1725.8
12.5°	634.2	712.6	922.3	988.0	1195.2	1475.7	1594.5	1703.2	1890.1	1988.7	2003.8
15°	573.6	679.8	962.8	1058.8	1326.6	1652.6	1784.0	1917.9	2092.2	2163.0	2180.7
17.5°	520.6	654.5	1000.7	1101.7	1427.7	1811.8	1945.8	2056.9	2198.4	2246.4	2259.1
20°	454.9	614.1	1025.9	1157.3	1533.8	1928.1	2056.9	2142.8	2238.8	2269.1	2274.2
22.5°	406.9	571.0	1041.1	1177.6	1604.6	1998.8	2107.4	2175.6	2241.4	2251.5	2254.0
25°	366.4	523.0	1038.5	1200.3	1665.2	2041.8	2125.1	2175.6	2213.6	2218.7	2218.7
27.5°	328.5	470.0	1028.5	1205.4	1710.7	2051.9	2117.6	2153.0	2170.7	2180.7	2180.7
30°	295.7	419.5	1003.1	1195.2	1730.9	2041.8	2094.8	2112.5	2130.2	2145.3	2153.0
32.5°	270.4	371.5	965.3	1175.0	1733.5	2016.5	2054.4	2064.5	2089.8	2125.1	2137.8
35°	247.7	323.5	922.3	1147.2	1718.3	1976.1	2001.3	2011.4	2061.9	2115.0	2132.7
37.5°	224.9	288.1	866.7	1099.2	1695.5	1928.1	1945.8	1963.4	2041.8	2104.9	2125.1
40°	202.1	257.8	801.0	1046.2	1660.1	1869.9	1885.0	1912.9	2016.5	2089.8	2109.9
42.5°	184.4	232.5	730.2	990.5	1614.7	1804.2	1827.0	1867.3	1986.1	2064.5	2087.3
45°	169.3	207.2	654.5	914.7	1556.6	1736.0	1768.9	1824.4	1950.7	2026.6	2046.8
47.5°	154.1	189.5	576.1	836.4	1493.4	1667.8	1710.7	1773.9	1902.7	1976.1	1993.8
50°	141.5	171.8	497.8	753.0	1425.2	1594.5	1645.0	1710.7	1842.1	1910.4	1933.0
52.5°	131.4	156.6	424.5	669.6	1346.8	1518.6	1576.8	1645.0	1768.9	1834.6	1849.7
55°	121.2	144.0	361.3	581.2	1266.0	1437.8	1500.9	1566.7	1688.0	1743.5	1753.7
57.5°	116.3	134.0	308.3	497.8	1180.0	1346.8	1417.6	1478.3	1592.0	1634.9	1645.0
60°	108.6	126.3	267.8	427.0	1086.6	1260.9	1321.6	1382.2	1478.3	1513.7	1521.2
62.5°	101.1	121.2	237.5	358.9	990.5	1159.9	1220.5	1276.1	1356.9	1382.2	1392.3
65°	96.0	116.3	214.8	308.3	892.0	1053.7	1114.3	1162.3	1228.0	1253.4	1258.4
67.5°	90.9	111.2	197.1	265.3	793.4	947.6	993.1	1038.5	1089.1	1114.3	1116.9
70°	83.4	106.1	182.0	235.0	692.4	826.3	864.2	912.2	952.7	965.3	972.8
72.5°	78.3	98.6	171.8	212.3	588.7	710.1	745.4	773.3	808.7	821.3	821.3
75°	70.8	88.4	161.7	189.5	482.7	581.2	611.5	639.3	667.1	672.2	664.6
77.5°	63.2	78.3	138.9	159.2	376.5	459.9	485.2	500.3	523.0	528.1	530.7
80°	53.1	68.3	108.6	123.8	272.9	338.6	356.3	368.9	389.2	389.2	394.2
82.5°	40.4	53.1	78.3	88.4	184.4	232.5	247.7	255.2	267.8	267.8	267.8
85°	25.2	32.9	50.6	58.1	111.2	141.5	151.7	154.1	164.3	166.8	166.8
87.5°	12.6	17.7	32.9	35.4	58.1	73.2	73.2	78.3	78.3	75.8	73.2
90°	3.9	7.1	10.2	11.0	17.3	25.7	29.9	26.6	20.0	15.0	15.0
92.5°	15.8	42.6	69.4	76.1	107.0	148.1	168.7	147.8	106.1	74.9	71.9
95°	37.9	86.9	136.0	148.2	263.1	416.4	493.1	440.0	333.9	254.3	245.3
97.5°	65.4	108.6	151.9	162.7	354.5	610.1	737.9	704.3	637.2	586.9	569.7
100°	86.7	125.9	165.1	175.0	387.7	671.3	813.1	815.6	820.5	824.1	803.7
102.5°	104.9	141.5	178.0	187.2	402.9	690.7	834.5	877.2	962.7	1026.8	1009.3
105°	135.6	166.6	197.6	205.4	414.3	692.9	832.1	927.9	1119.6	1263.3	1253.9
107.5°	167.1	196.0	224.9	232.2	416.3	662.0	784.7	918.4	1185.8	1386.3	1388.6
110°	188.4	214.5	240.7	247.2	413.3	634.6	745.4	894.8	1193.6	1417.7	1427.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	209.3	234.2	259.0	265.2	413.4	610.8	709.5	862.4	1168.3	1397.7	1412.8
115°	240.9	263.8	286.8	292.5	417.2	583.5	666.6	813.9	1108.5	1329.5	1350.3
117.5°	271.9	292.8	313.6	318.9	424.9	566.3	636.9	769.9	1035.8	1235.3	1258.4
120°	290.1	309.7	329.4	334.3	431.2	560.5	625.2	746.6	989.6	1171.8	1194.3
122.5°	307.8	327.6	347.4	352.4	440.2	557.5	616.1	725.5	944.3	1108.4	1130.6
125°	335.1	353.0	371.1	375.6	452.5	555.0	606.2	699.2	885.1	1024.5	1044.9
127.5°	357.1	375.3	393.5	398.1	464.7	553.5	597.9	677.7	837.3	957.1	974.3
130°	368.9	388.5	408.2	413.1	473.6	554.4	594.8	665.8	807.9	914.4	930.4
132.5°	381.1	400.7	420.4	425.3	480.9	555.0	592.1	655.7	782.8	878.2	892.4
135°	399.3	417.2	435.0	439.5	488.7	554.4	587.3	640.6	747.1	826.9	839.3
137.5°	417.9	435.5	453.2	457.6	500.6	557.8	586.5	631.6	721.6	789.1	799.2
140°	433.2	449.5	465.8	469.9	507.8	558.4	583.8	622.7	700.4	758.7	768.1
142.5°	445.0	460.0	475.1	478.9	513.9	560.4	583.8	617.9	686.3	737.5	745.6
145°	463.2	476.3	489.5	492.7	521.8	560.5	579.8	607.8	663.7	705.6	711.7
147.5°	481.3	494.1	506.9	510.0	533.3	564.3	579.8	601.8	645.7	678.7	683.8
150°	493.1	504.7	516.2	519.1	539.4	566.4	579.8	598.4	635.6	663.4	667.5
152.5°	505.3	514.1	522.8	525.0	543.3	567.7	579.8	595.7	627.4	651.2	654.3
155°	523.4	529.9	536.4	538.0	552.0	570.6	579.8	592.5	617.6	636.5	638.6
157.5°	536.8	543.1	549.4	551.1	560.6	573.4	579.8	589.6	609.2	623.9	625.4
160°	545.9	550.9	555.7	557.0	564.6	574.8	579.8	588.2	605.0	617.6	618.5
162.5°	555.0	558.7	562.3	563.3	568.8	576.2	579.8	586.9	601.2	611.8	612.5
165°	564.8	568.2	571.4	572.3	574.8	578.1	579.8	584.9	595.0	602.7	603.5
167.5°	573.9	575.4	577.1	577.4	579.5	582.3	583.8	587.1	593.8	598.8	599.2
170°	579.8	581.4	583.0	583.4	583.5	583.7	583.8	587.1	593.8	598.8	598.8
172.5°	583.0	583.4	583.7	583.8	583.8	583.8	583.8	586.4	591.7	595.6	595.3
175°	587.3	587.3	587.3	587.3	586.1	584.5	583.8	585.4	588.7	591.2	591.2
177.5°	587.3	587.3	587.3	587.3	586.3	585.1	584.5	585.9	588.4	590.4	590.1
180°	587.3	587.3	587.3	587.3	587.3	587.3	587.3	587.3	587.3	587.3	587.3



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	785.9	785.9
2.5°	839.0	833.9
5°	1079.0	1084.0
7.5°	1452.9	1450.4
10°	1806.7	1829.5
12.5°	2064.5	2069.6
15°	2221.1	2231.3
17.5°	2281.8	2284.3
20°	2284.3	2279.3
22.5°	2256.5	2251.5
25°	2223.7	2221.1
27.5°	2193.3	2195.9
30°	2180.7	2188.3
32.5°	2180.7	2193.3
35°	2185.8	2198.4
37.5°	2183.3	2198.4
40°	2173.1	2190.8
42.5°	2145.3	2157.9
45°	2102.4	2117.6
47.5°	2046.8	2056.9
50°	1976.1	1986.1
52.5°	1887.6	1890.1
55°	1781.5	1791.6
57.5°	1667.8	1670.3
60°	1541.4	1549.0
62.5°	1407.5	1407.5
65°	1266.0	1271.1
67.5°	1119.4	1132.0
70°	970.3	972.8
72.5°	823.8	823.8
75°	672.2	674.7
77.5°	528.1	528.1
80°	391.7	394.2
82.5°	270.4	275.5
85°	169.3	169.3
87.5°	78.3	70.8
90°	15.0	15.0
92.5°	60.0	48.1
95°	209.1	173.1
97.5°	501.0	432.4
100°	721.9	640.1
102.5°	939.2	869.1
105°	1216.2	1178.5
107.5°	1397.7	1406.8
110°	1466.8	1506.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1473.0	1533.3
115°	1433.9	1517.5
117.5°	1351.2	1443.9
120°	1284.4	1374.4
122.5°	1219.4	1308.3
125°	1126.7	1208.5
127.5°	1043.3	1112.3
130°	994.2	1057.9
132.5°	949.6	1006.7
135°	888.5	937.7
137.5°	839.5	879.8
140°	805.8	843.5
142.5°	778.0	810.4
145°	736.3	760.7
147.5°	704.1	724.5
150°	684.0	700.4
152.5°	666.8	679.2
155°	646.9	655.1
157.5°	631.2	636.9
160°	621.8	625.2
162.5°	615.7	618.8
165°	606.8	610.1
167.5°	600.5	601.9
170°	598.8	598.8
172.5°	594.1	592.8
175°	591.2	591.2
177.5°	588.7	587.3
180°	587.3	587.3



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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	6.48	7.51	7.33	8.38	9.47	19.66	20.69	20.50	21.56	22.65
	3H	7.20	8.12	8.06	9.01	10.13	21.51	22.44	22.37	23.32	24.44
	4H	7.51	8.38	8.38	9.27	10.40	22.17	23.04	23.04	23.93	25.06
	6H	7.77	8.57	8.65	9.47	10.61	22.61	23.41	23.49	24.31	25.45
	8H	7.84	8.61	8.73	9.52	10.67	22.73	23.50	23.62	24.41	25.56
	12H	7.86	8.60	8.76	9.50	10.67	22.80	23.54	23.70	24.45	25.62
4H	2H	13.72	14.59	14.59	15.48	16.61	19.96	20.83	20.83	21.72	22.85
	3H	15.30	16.03	16.19	16.95	18.10	22.02	22.75	22.90	23.67	24.81
	4H	15.40	16.07	16.30	16.99	18.16	22.79	23.46	23.69	24.37	25.55
	6H	15.42	16.00	16.34	16.94	18.11	23.34	23.92	24.25	24.86	26.03
	8H	15.40	15.95	16.32	16.88	18.07	23.51	24.05	24.42	24.98	26.17
	12H	15.37	15.86	16.31	16.81	18.00	23.61	24.10	24.55	25.05	26.24
8H	4H	16.86	17.40	17.78	18.34	19.52	22.87	23.41	23.78	24.34	25.53
	6H	17.11	17.56	18.06	18.54	19.72	23.50	23.95	24.45	24.93	26.11
	8H	17.13	17.53	18.09	18.50	19.70	23.72	24.12	24.68	25.09	26.29
	12H	17.11	17.46	18.07	18.42	19.67	23.88	24.23	24.84	25.19	26.44
12H	4H	17.01	17.50	17.95	18.45	19.65	22.83	23.32	23.76	24.27	25.46
	6H	17.37	17.77	18.33	18.74	19.94	23.49	23.89	24.44	24.85	26.06
	8H	17.45	17.80	18.41	18.76	20.01	23.73	24.08	24.68	25.04	26.29