

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: P936508

Luminaire Tested: SQ4-FB-025U-100D-B50-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936508
REPORT IS A COMBINATION OF REPORTS P933455 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-025U-100D-B50-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

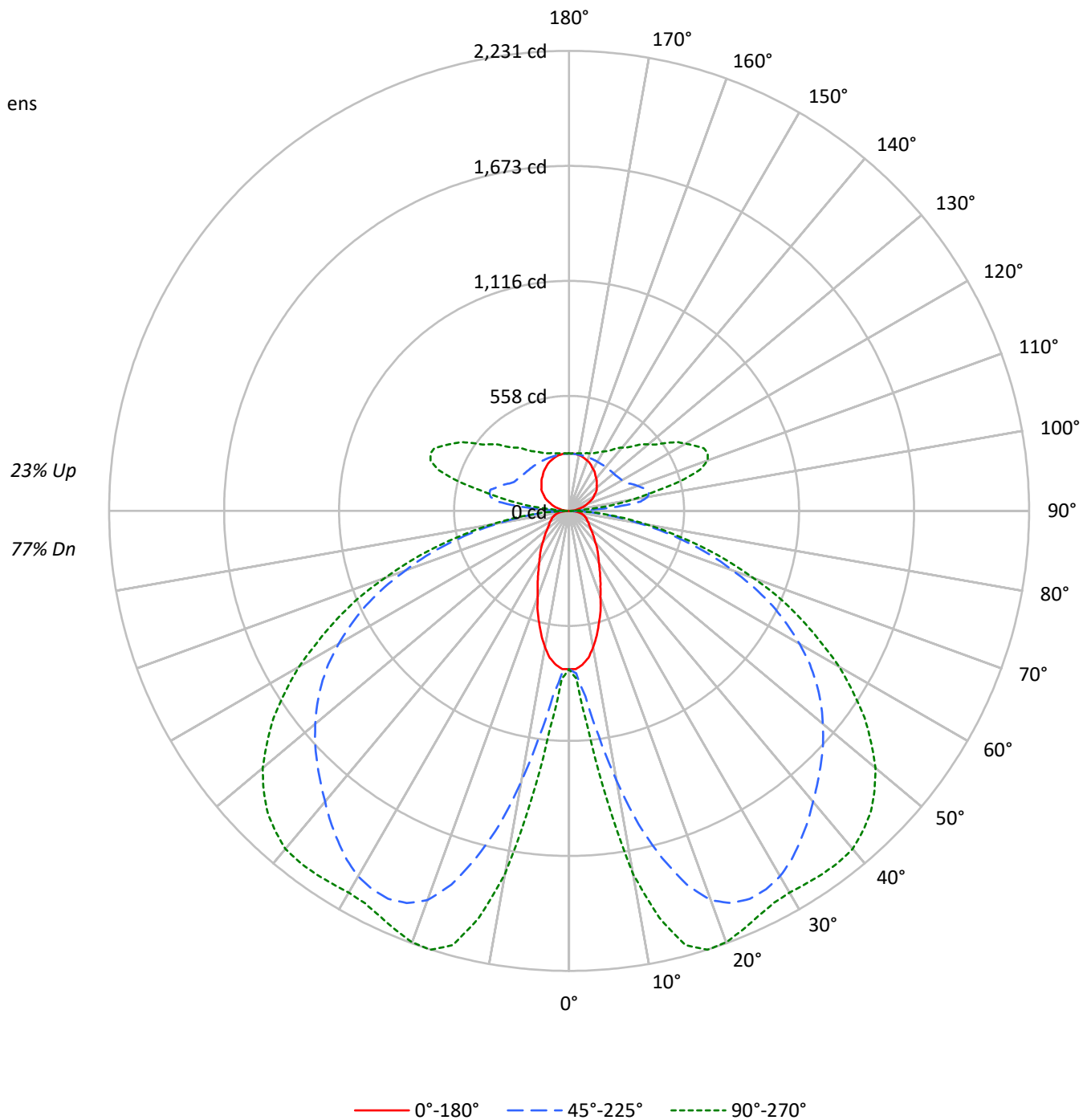
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7746.6 lumens
Efficiency: N/A
Efficacy: 99.8 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): 77.6
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: P936508
CATALOG NUMBER: SQ4-FB-025U-100D-B50-1D-UNV-STD-W-8

Luminous Intensity Polar Plot





TEST NUMBER: P936508

CATALOG NUMBER: SQ4-FB-025U-100D-B50-1D-UNV-STD-W-8

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	113	113	113	113	108	108	108	108	98	98	98	89	89	89	81	81	81	77				77
1	103	98	94	90	98	94	90	86	85	82	79	77	75	73	70	68	66	63				63
2	93	85	78	72	88	81	75	69	73	68	64	67	63	59	61	57	55	51				51
3	84	74	65	59	80	70	63	57	64	58	53	58	53	49	53	49	45	42				42
4	77	65	56	49	73	62	54	47	56	50	44	51	46	41	47	42	38	35				35
5	70	57	48	42	66	55	46	40	50	43	38	46	40	35	41	37	33	30				30
6	64	51	42	36	61	49	41	35	45	38	32	41	35	30	37	32	28	26				26
7	59	46	37	31	56	44	36	30	40	33	28	37	31	27	34	29	25	22				22
8	55	42	33	27	52	40	32	26	37	30	25	34	28	23	31	26	22	20				20
9	51	38	30	24	49	36	29	23	33	27	22	31	25	21	28	23	20	17				17
10	48	35	27	21	45	33	26	21	31	24	20	28	23	19	26	21	17	16				16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3562	3562	3562
5°	3479	4116	4787
10°	3156	6000	7936
15°	2682	7839	9583
20°	2184	9084	9767
25°	1822	9506	9568
30°	1536	9567	9551
35°	1358	9408	9797
40°	1183	9201	10052
45°	1072	9050	10092
50°	983	8914	9924
55°	941	8715	9485
60°	964	8332	8790
65°	1003	7750	7836
70°	1068	6759	6620
75°	1183	5511	5166
80°	1292	3822	3481
85°	1150	2028	1782

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10092 cd/sqm



TEST NUMBER: P936508

CATALOG NUMBER: SQ4-FB-025U-100D-B50-1D-UNV-STD-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.3	1.3
10°-20°	440.1	5.7
20°-30°	769.8	9.9
30°-40°	990.9	12.8
40°-50°	1106.8	14.3
50°-60°	1060.1	13.7
60°-70°	840.1	10.8
70°-80°	494.0	6.4
80°-90°	138.3	1.8
90°-100°	135.9	1.8
100°-110°	357.3	4.6
110°-120°	370.4	4.8
120°-130°	297.1	3.8
130°-140°	233.1	3.0
140°-150°	179.0	2.3
150°-160°	128.9	1.7
160°-170°	78.9	1.0
170°-180°	26.6	0.3
0°-30°	1309.2	16.9
0°-40°	2300.1	29.7
0°-60°	4467.0	57.7
0°-90°	5939.4	76.7
90°-120°	863.6	11.1
90°-150°	1572.8	20.3
90°-180°	1807.0	23.3
0°-180°	7746.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	748	802	903	1022	1059	69
15°	560	1034	1743	2113	2180	156
25°	358	1172	2076	2167	2170	165
35°	242	1121	1955	2066	2147	151
45°	165	894	1728	1980	2068	128
55°	118	568	1466	1703	1750	108
65°	94	301	1088	1224	1242	93
75°	69	185	597	657	659	72
85°	25	57	148	163	165	26
90°	2	5	14	7	7	3
95°	18	70	234	121	82	20
105°	64	98	395	600	559	68
115°	114	139	316	631	720	113
125°	159	178	288	486	574	141
135°	190	209	279	393	445	147
145°	220	234	275	335	361	138
155°	248	255	275	302	311	114
165°	268	272	275	286	290	76
175°	279	279	277	281	281	26
180°	279	279	279	279	279	



TEST NUMBER: P936508

CATALOG NUMBER: SQ4-FB-025U-100D-B50-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7
2.5°	767.7	767.7	772.6	775.0	780.0	782.4	787.4	792.3	807.2	809.6	814.5
5°	747.9	757.8	789.9	802.2	836.8	883.7	903.4	935.5	1002.1	1021.9	1034.2
7.5°	718.2	740.5	819.5	839.2	925.6	1049.0	1100.8	1169.9	1276.1	1328.0	1369.9
10°	671.4	718.2	859.0	905.9	1046.5	1234.1	1330.4	1426.7	1587.1	1658.7	1685.8
12.5°	619.5	696.0	900.9	965.1	1167.5	1441.4	1557.4	1663.6	1846.2	1942.5	1957.3
15°	560.3	664.0	940.4	1034.2	1295.8	1614.2	1742.6	1873.4	2043.7	2112.8	2130.1
17.5°	508.5	639.3	977.4	1076.2	1394.6	1769.7	1900.6	2009.1	2147.4	2194.2	2206.7
20°	444.3	599.8	1002.1	1130.4	1498.2	1883.3	2009.1	2093.1	2186.9	2216.5	2221.4
22.5°	397.4	557.8	1016.9	1150.2	1567.3	1952.4	2058.5	2125.1	2189.4	2199.2	2201.7
25°	357.9	510.9	1014.4	1172.5	1626.6	1994.4	2075.8	2125.1	2162.2	2167.2	2167.2
27.5°	320.8	459.1	1004.6	1177.4	1671.0	2004.3	2068.4	2103.0	2120.3	2130.1	2130.1
30°	288.8	409.7	979.9	1167.5	1690.7	1994.4	2046.2	2063.5	2080.8	2095.5	2103.0
32.5°	264.1	362.9	942.9	1147.7	1693.2	1969.7	2006.7	2016.6	2041.3	2075.8	2088.1
35°	241.9	316.0	900.9	1120.6	1678.4	1930.2	1954.9	1964.8	2014.1	2065.9	2083.2
37.5°	219.7	281.4	846.6	1073.7	1656.2	1883.3	1900.6	1917.9	1994.4	2056.0	2075.8
40°	197.4	251.8	782.4	1021.9	1621.6	1826.5	1841.3	1868.5	1969.7	2041.3	2061.0
42.5°	180.2	227.1	713.3	967.5	1577.2	1762.4	1784.6	1824.0	1940.0	2016.6	2038.8
45°	165.4	202.4	639.3	893.5	1520.5	1695.7	1727.8	1782.1	1905.5	1979.5	1999.3
47.5°	150.6	185.1	562.7	817.0	1458.7	1629.1	1671.0	1732.8	1858.6	1930.2	1947.5
50°	138.2	167.8	486.2	735.5	1392.1	1557.4	1606.9	1671.0	1799.4	1866.0	1888.2
52.5°	128.3	153.0	414.7	654.1	1315.5	1483.4	1540.2	1606.9	1727.8	1792.0	1806.7
55°	118.4	140.7	353.0	567.7	1236.6	1404.5	1466.1	1530.4	1648.8	1703.1	1713.0
57.5°	113.6	130.9	301.1	486.2	1152.6	1315.5	1384.7	1444.0	1555.0	1597.0	1606.9
60°	106.1	123.4	261.6	417.1	1061.4	1231.7	1290.9	1350.1	1444.0	1478.5	1485.9
62.5°	98.7	118.4	232.0	350.5	967.5	1132.9	1192.2	1246.5	1325.4	1350.1	1360.0
65°	93.8	113.6	209.8	301.1	871.3	1029.3	1088.5	1135.4	1199.5	1224.3	1229.2
67.5°	88.8	108.6	192.5	259.2	775.0	925.6	970.1	1014.4	1063.8	1088.5	1091.0
70°	81.4	103.7	177.7	229.6	676.3	807.2	844.1	891.0	930.5	942.9	950.3
72.5°	76.5	96.3	167.8	207.3	575.1	693.6	728.1	755.3	789.9	802.2	802.2
75°	69.1	86.4	157.9	185.1	471.5	567.7	597.3	624.5	651.7	656.6	649.1
77.5°	61.7	76.5	135.7	155.5	367.8	449.3	473.9	488.7	510.9	515.8	518.4
80°	51.8	66.7	106.1	121.0	266.6	330.7	348.0	360.3	380.1	380.1	385.1
82.5°	39.5	51.8	76.5	86.4	180.2	227.1	241.9	249.3	261.6	261.6	261.6
85°	24.7	32.1	49.4	56.8	108.6	138.2	148.1	150.6	160.5	162.9	162.9
87.5°	12.3	17.3	32.1	34.6	56.8	71.5	71.5	76.5	76.5	74.1	71.5
90°	1.9	3.4	4.9	5.2	8.2	12.2	14.2	12.6	9.4	7.1	7.1
92.5°	7.5	20.2	33.0	36.1	50.8	70.3	80.0	70.1	50.4	35.6	34.2
95°	17.9	41.2	64.5	70.3	124.9	197.6	234.1	208.8	158.5	120.7	116.4
97.5°	31.1	51.7	72.1	77.2	168.2	289.5	350.2	334.4	302.5	278.6	270.5
100°	41.2	59.8	78.4	83.0	184.0	318.6	385.9	387.1	389.5	391.3	381.5
102.5°	49.8	67.2	84.5	88.8	191.3	327.8	396.1	416.4	456.9	487.4	479.0
105°	64.4	79.1	93.9	97.5	196.7	328.9	395.0	440.5	531.4	599.6	595.1
107.5°	79.3	93.0	106.8	110.2	197.6	314.2	372.5	435.9	562.8	658.0	659.1
110°	89.5	101.8	114.2	117.3	196.1	301.2	353.8	424.7	566.6	672.9	677.6



TEST NUMBER: P936508

CATALOG NUMBER: SQ4-FB-025U-100D-B50-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	99.4	111.1	122.9	125.9	196.2	289.9	336.8	409.4	554.5	663.4	670.6
115°	114.3	125.2	136.1	138.8	198.0	276.9	316.3	386.3	526.2	631.1	641.0
117.5°	129.1	139.0	148.9	151.4	201.7	268.8	302.3	365.5	491.7	586.4	597.4
120°	137.7	147.0	156.4	158.7	204.7	266.1	296.7	354.4	469.7	556.2	566.8
122.5°	146.1	155.5	164.9	167.3	209.0	264.6	292.4	344.4	448.2	526.1	536.7
125°	159.1	167.7	176.2	178.3	214.8	263.5	287.8	331.9	420.1	486.2	496.0
127.5°	169.5	178.1	186.8	188.9	220.6	262.7	283.8	321.8	397.5	454.3	462.5
130°	175.1	184.5	193.7	196.0	224.8	263.2	282.3	316.1	383.5	434.0	441.6
132.5°	180.9	190.3	199.5	201.8	228.3	263.5	281.0	311.2	371.5	416.8	423.7
135°	189.5	198.0	206.5	208.7	232.0	263.2	278.8	304.1	354.6	392.6	398.4
137.5°	198.3	206.7	215.1	217.2	237.6	264.8	278.4	299.8	342.5	374.5	379.3
140°	205.6	213.3	221.1	223.0	241.1	265.1	277.1	295.6	332.5	360.2	364.6
142.5°	211.3	218.4	225.6	227.3	244.0	266.1	277.1	293.4	325.8	350.1	353.9
145°	219.9	226.1	232.3	233.9	247.7	266.1	275.2	288.5	315.0	334.9	337.8
147.5°	228.5	234.5	240.6	242.1	253.1	267.9	275.2	285.7	306.5	322.1	324.6
150°	234.1	239.6	245.0	246.4	256.0	268.8	275.2	284.0	301.7	314.9	316.8
152.5°	239.9	244.0	248.2	249.2	257.9	269.5	275.2	282.7	297.8	309.1	310.6
155°	248.4	251.5	254.6	255.4	262.0	270.9	275.2	281.2	293.2	302.1	303.1
157.5°	254.8	257.8	260.8	261.5	266.1	272.2	275.2	279.9	289.2	296.2	296.8
160°	259.1	261.4	263.8	264.3	268.0	272.8	275.2	279.3	287.2	293.2	293.6
162.5°	263.4	265.2	266.8	267.3	269.9	273.5	275.2	278.6	285.3	290.4	290.8
165°	268.2	269.7	271.3	271.7	272.9	274.5	275.2	277.7	282.4	286.1	286.5
167.5°	272.4	273.2	273.9	274.1	275.2	276.5	277.1	278.7	281.9	284.2	284.4
170°	275.2	276.0	276.7	276.9	277.0	277.1	277.1	278.7	281.9	284.2	284.2
172.5°	276.7	276.9	277.1	277.1	277.1	277.1	277.1	278.3	280.9	282.7	282.5
175°	278.8	278.8	278.8	278.8	278.2	277.5	277.1	277.9	279.5	280.7	280.7
177.5°	278.8	278.8	278.8	278.8	278.3	277.8	277.5	278.1	279.4	280.3	280.1
180°	278.8	278.8	278.8	278.8	278.8	278.8	278.8	278.8	278.8	278.8	278.8



TEST NUMBER: P936508

CATALOG NUMBER: SQ4-FB-025U-100D-B50-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	767.7	767.7
2.5°	819.5	814.5
5°	1053.9	1058.9
7.5°	1419.2	1416.8
10°	1764.8	1787.0
12.5°	2016.6	2021.5
15°	2169.6	2179.5
17.5°	2228.8	2231.3
20°	2231.3	2226.4
22.5°	2204.1	2199.2
25°	2172.1	2169.6
27.5°	2142.4	2144.9
30°	2130.1	2137.6
32.5°	2130.1	2142.4
35°	2135.0	2147.4
37.5°	2132.6	2147.4
40°	2122.7	2140.0
42.5°	2095.5	2107.9
45°	2053.6	2068.4
47.5°	1999.3	2009.1
50°	1930.2	1940.0
52.5°	1843.8	1846.2
55°	1740.1	1750.0
57.5°	1629.1	1631.5
60°	1505.6	1513.1
62.5°	1374.8	1374.8
65°	1236.6	1241.6
67.5°	1093.4	1105.8
70°	947.8	950.3
72.5°	804.6	804.6
75°	656.6	659.0
77.5°	515.8	515.8
80°	382.6	385.1
82.5°	264.1	269.1
85°	165.4	165.4
87.5°	76.5	69.1
90°	7.1	7.1
92.5°	28.5	22.8
95°	99.3	82.1
97.5°	237.8	205.2
100°	342.7	303.8
102.5°	445.8	412.5
105°	577.3	559.4
107.5°	663.4	667.7
110°	696.2	714.9



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CATALOG NUMBER: SQ4-FB-025U-100D-B50-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	699.2	727.8
115°	680.7	720.3
117.5°	641.4	685.4
120°	609.6	652.4
122.5°	578.8	620.9
125°	534.8	573.7
127.5°	495.2	528.0
130°	471.9	502.1
132.5°	450.7	477.8
135°	421.7	445.1
137.5°	398.4	417.6
140°	382.5	400.4
142.5°	369.3	384.6
145°	349.5	361.1
147.5°	334.2	343.9
150°	324.7	332.5
152.5°	316.4	322.3
155°	307.0	310.9
157.5°	299.6	302.3
160°	295.1	296.7
162.5°	292.2	293.7
165°	288.0	289.6
167.5°	285.1	285.7
170°	284.2	284.2
172.5°	282.0	281.4
175°	280.7	280.7
177.5°	279.5	278.8
180°	278.8	278.8



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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	7.55	8.78	8.23	9.49	10.32	20.73	21.96	21.41	22.67	23.50
	3H	8.28	9.40	8.97	10.11	10.97	22.59	23.71	23.29	24.42	25.28
	4H	8.60	9.65	9.31	10.38	11.25	23.26	24.31	23.97	25.04	25.91
	6H	8.87	9.84	9.59	10.58	11.46	23.71	24.68	24.43	25.42	26.30
	8H	8.94	9.88	9.68	10.63	11.52	23.84	24.77	24.57	25.52	26.41
	12H	8.97	9.86	9.72	10.61	11.53	23.92	24.81	24.66	25.56	26.48
4H	2H	14.81	15.86	15.52	16.59	17.46	21.05	22.10	21.76	22.82	23.70
	3H	16.41	17.29	17.14	18.06	18.95	23.12	24.01	23.85	24.77	25.66
	4H	16.52	17.33	17.26	18.09	19.01	23.91	24.71	24.65	25.48	26.40
	6H	16.55	17.25	17.32	18.04	18.97	24.47	25.17	25.23	25.96	26.89
	8H	16.54	17.20	17.31	17.98	18.92	24.64	25.30	25.41	26.08	27.02
	12H	16.51	17.11	17.30	17.91	18.86	24.75	25.35	25.54	26.15	27.10
8H	4H	18.00	18.65	18.76	19.44	20.38	24.00	24.66	24.77	25.44	26.38
	6H	18.26	18.80	19.05	19.63	20.57	24.65	25.19	25.44	26.02	26.96
	8H	18.28	18.77	19.09	19.59	20.55	24.87	25.36	25.68	26.18	27.14
	12H	18.27	18.70	19.08	19.51	20.53	25.03	25.46	25.85	26.28	27.30
12H	4H	18.16	18.75	18.95	19.56	20.50	23.97	24.56	24.76	25.37	26.32
	6H	18.52	19.01	19.33	19.83	20.79	24.63	25.12	25.44	25.95	26.90
	8H	18.61	19.04	19.42	19.85	20.87	24.88	25.31	25.70	26.13	27.14