

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: P938251

Luminaire Tested: SQ4-FB-150U-050D-930-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938251
REPORT IS A COMBINATION OF REPORTS P933637 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-930-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

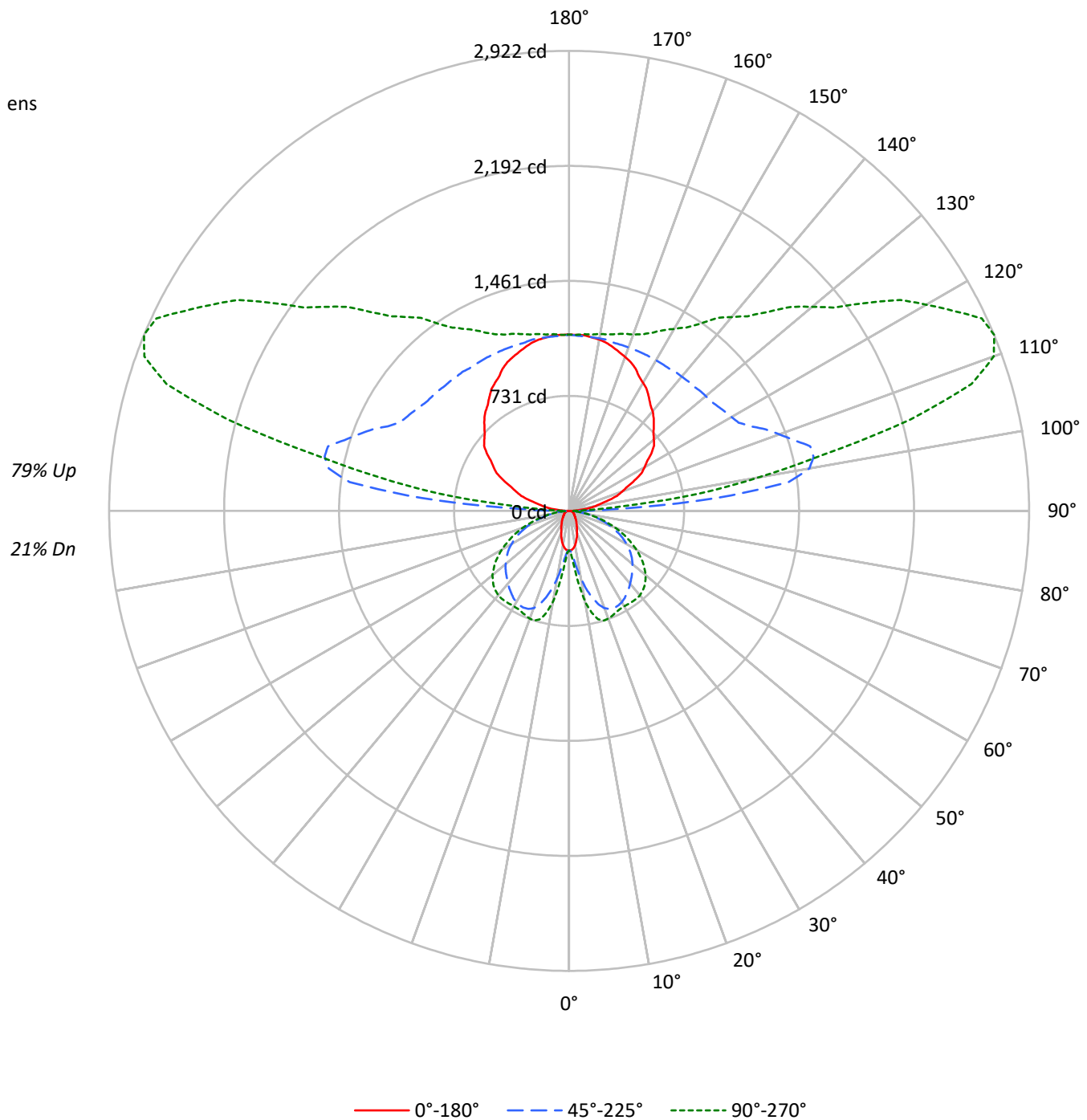
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9204.0 lumens
Efficiency: N/A
Efficacy: 110.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 83.4
Input Voltage (V): NR
Input Current (A_{in}): 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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	24	24	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	20	20	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	17	17	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	14	14	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	12	12	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	11	11	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	9	9	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	8	8	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	7	7	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	6	6	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1554	1554	1554
5°	1518	1795	2089
10°	1376	2617	3462
15°	1169	3418	4181
20°	951	3960	4262
25°	794	4143	4175
30°	669	4168	4167
35°	591	4098	4275
40°	514	4007	4386
45°	466	3939	4403
50°	427	3879	4331
55°	409	3791	4139
60°	418	3623	3835
65°	434	3368	3418
70°	462	2935	2889
75°	509	2391	2254
80°	550	1656	1519
85°	483	878	777

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4403 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.5	0.4
10°-20°	144.0	1.6
20°-30°	251.9	2.7
30°-40°	324.3	3.5
40°-50°	362.2	3.9
50°-60°	346.9	3.8
60°-70°	274.9	3.0
70°-80°	161.7	1.8
80°-90°	49.2	0.5
90°-100°	545.6	5.9
100°-110°	1434.5	15.6
110°-120°	1487.4	16.2
120°-130°	1193.1	13.0
130°-140°	936.2	10.2
140°-150°	718.5	7.8
150°-160°	517.5	5.6
160°-170°	316.6	3.4
170°-180°	107.0	1.2
0°-30°	428.4	4.7
0°-40°	752.7	8.2
0°-60°	1461.8	15.9
0°-90°	1947.5	21.2
90°-120°	3467.6	37.7
90°-150°	6315.4	68.6
90°-180°	7256.0	78.8
0°-180°	9204.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	251	251	251	251	251	
5°	245	262	296	334	346	23
15°	183	338	570	691	713	51
25°	117	384	679	709	710	54
35°	79	367	640	676	703	49
45°	54	292	565	648	677	42
55°	39	186	480	557	573	35
65°	31	98	356	401	406	30
75°	23	60	196	215	216	24
85°	8	18	48	53	54	9
90°	8	21	57	29	29	7
95°	72	282	940	484	330	80
105°	258	391	1586	2408	2246	274
115°	459	557	1270	2534	2892	453
125°	638	716	1155	1952	2303	567
135°	761	838	1119	1576	1787	589
145°	883	939	1105	1345	1450	553
155°	998	1025	1105	1213	1249	458
165°	1077	1091	1105	1149	1163	304
175°	1119	1119	1113	1127	1127	106
180°	1119	1119	1119	1119	1119	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	251.2	251.2	251.2	251.2	251.2	251.2	251.2	251.2	251.2	251.2	251.2
2.5°	251.2	251.2	252.8	253.6	255.3	256.1	257.7	259.3	264.1	264.9	266.5
5°	244.8	248.0	258.5	262.5	273.8	289.2	295.6	306.1	327.9	334.4	338.5
7.5°	235.0	242.3	268.1	274.6	302.9	343.3	360.2	382.9	417.6	434.6	448.3
10°	219.7	235.0	281.0	296.5	342.5	403.8	435.4	466.9	519.4	542.7	551.7
12.5°	202.8	227.8	294.8	315.8	382.1	471.7	509.7	544.4	604.2	635.7	640.5
15°	183.3	217.3	307.7	338.5	424.1	528.2	570.2	613.1	668.8	691.4	697.1
17.5°	166.4	209.2	319.8	352.2	456.3	579.1	621.9	657.5	702.7	718.0	722.1
20°	145.4	196.3	327.9	369.9	490.3	616.3	657.5	685.0	715.6	725.3	727.0
22.5°	130.0	182.5	332.8	376.4	512.9	638.9	673.6	695.4	716.4	719.6	720.5
25°	117.2	167.2	332.0	383.7	532.3	652.6	679.3	695.4	707.5	709.1	709.1
27.5°	105.0	150.2	328.7	385.3	546.8	655.9	676.8	688.2	693.8	697.1	697.1
30°	94.5	134.1	320.6	382.1	553.3	652.6	669.6	675.2	680.9	685.8	688.2
32.5°	86.4	118.8	308.5	375.6	554.1	644.6	656.7	659.9	667.9	679.3	683.4
35°	79.2	103.4	294.8	366.7	549.3	631.6	639.7	643.0	659.1	676.0	681.7
37.5°	71.9	92.1	277.0	351.4	541.9	616.3	621.9	627.6	652.6	672.8	679.3
40°	64.6	82.4	256.1	334.4	530.7	597.7	602.6	611.4	644.6	667.9	674.4
42.5°	58.9	74.3	233.4	316.6	516.1	576.7	583.9	596.9	634.9	659.9	667.1
45°	54.1	66.2	209.2	292.4	497.5	554.9	565.4	583.1	623.5	647.8	654.2
47.5°	49.3	60.5	184.1	267.3	477.4	533.1	546.8	567.0	608.2	631.6	637.3
50°	45.2	54.9	159.2	240.7	455.5	509.7	525.8	546.8	588.8	610.6	617.9
52.5°	42.0	50.1	135.7	214.1	430.5	485.4	504.0	525.8	565.4	586.4	591.2
55°	38.8	46.0	115.5	185.7	404.6	459.6	479.8	500.8	539.5	557.3	560.6
57.5°	37.2	42.8	98.5	159.2	377.2	430.5	453.1	472.5	508.9	522.6	525.8
60°	34.8	40.4	85.6	136.5	347.3	403.0	422.5	441.8	472.5	483.8	486.2
62.5°	32.3	38.8	76.0	114.7	316.6	370.7	390.1	407.9	433.7	441.8	445.0
65°	30.7	37.2	68.7	98.5	285.1	336.8	356.2	371.5	392.5	400.6	402.2
67.5°	29.1	35.6	63.0	84.8	253.6	302.9	317.4	332.0	348.1	356.2	357.0
70°	26.7	33.9	58.1	75.1	221.3	264.1	276.2	291.6	304.5	308.5	311.0
72.5°	25.1	31.5	54.9	67.9	188.2	226.9	238.3	247.2	258.5	262.5	262.5
75°	22.6	28.3	51.7	60.5	154.3	185.7	195.5	204.4	213.2	214.9	212.4
77.5°	20.2	25.1	44.4	50.9	120.4	147.0	155.1	160.0	167.2	168.8	169.6
80°	16.9	21.8	34.8	39.6	87.2	108.2	113.9	118.0	124.4	124.4	126.0
82.5°	12.9	16.9	25.1	28.3	58.9	74.3	79.2	81.6	85.6	85.6	85.6
85°	8.1	10.5	16.1	18.5	35.6	45.2	48.5	49.3	52.5	53.3	53.3
87.5°	4.0	5.6	10.5	11.3	18.5	23.4	23.4	25.1	25.1	24.3	23.4
90°	7.5	13.6	19.5	21.0	33.1	49.1	57.1	50.7	38.1	28.6	28.6
92.5°	30.0	81.1	132.3	145.0	203.9	282.3	321.5	281.8	202.4	142.8	137.1
95°	72.1	165.6	259.1	282.5	501.6	793.8	939.8	838.7	636.3	484.5	467.3
97.5°	124.7	207.2	289.6	310.3	675.6	1162.8	1406.4	1342.5	1214.5	1118.7	1085.9
100°	165.3	240.1	314.9	333.6	739.0	1279.6	1549.9	1554.5	1563.9	1570.9	1532.0
102.5°	199.9	269.6	339.4	356.9	768.1	1316.3	1590.4	1671.8	1834.8	1957.0	1923.6
105°	258.4	317.5	376.6	391.4	789.6	1320.5	1585.9	1768.5	2133.8	2407.8	2389.8
107.5°	318.6	373.6	428.7	442.5	793.5	1261.7	1495.7	1750.5	2260.0	2642.2	2646.5
110°	359.1	408.9	458.6	471.0	787.6	1209.6	1420.6	1705.4	2275.1	2702.3	2721.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	398.9	446.3	493.7	505.6	787.8	1164.1	1352.3	1643.7	2226.7	2664.0	2692.7
115°	459.0	502.8	546.5	557.4	795.1	1111.9	1270.3	1551.2	2112.8	2533.9	2573.8
117.5°	518.3	558.1	597.8	607.8	809.9	1079.3	1214.1	1467.5	1974.3	2354.4	2398.6
120°	552.9	590.4	627.8	637.1	821.9	1068.3	1191.5	1423.1	1886.2	2233.5	2276.3
122.5°	586.8	624.5	662.2	671.6	839.1	1062.5	1174.2	1382.8	1799.8	2112.5	2154.9
125°	638.5	672.9	707.4	716.0	862.4	1057.8	1155.4	1332.6	1686.8	1952.5	1991.4
127.5°	680.6	715.3	750.1	758.8	885.7	1055.0	1139.6	1291.7	1595.9	1824.0	1856.9
130°	703.2	740.6	778.0	787.3	902.8	1056.7	1133.7	1269.1	1539.8	1742.9	1773.3
132.5°	726.5	763.9	801.3	810.6	916.5	1057.8	1128.4	1249.5	1492.0	1673.8	1701.0
135°	761.0	795.1	829.2	837.7	931.6	1056.7	1119.4	1220.9	1423.9	1576.1	1599.6
137.5°	796.3	830.1	863.8	872.2	954.1	1063.3	1117.9	1203.7	1375.3	1504.0	1523.2
140°	825.6	856.7	887.7	895.5	967.9	1064.4	1112.6	1186.8	1335.0	1446.2	1464.1
142.5°	848.1	876.9	905.6	912.8	979.4	1068.2	1112.6	1177.8	1307.9	1405.6	1421.0
145°	882.7	907.8	932.8	939.1	994.4	1068.2	1105.1	1158.3	1264.9	1344.8	1356.4
147.5°	917.3	941.7	966.0	972.1	1016.4	1075.5	1105.1	1147.0	1230.8	1293.6	1303.3
150°	939.8	961.8	983.8	989.4	1027.9	1079.4	1105.1	1140.5	1211.2	1264.3	1272.2
152.5°	963.1	979.8	996.5	1000.7	1035.5	1081.9	1105.1	1135.3	1195.7	1241.0	1247.0
155°	997.6	1010.0	1022.4	1025.4	1052.0	1087.4	1105.1	1129.1	1177.2	1213.3	1217.2
157.5°	1023.2	1035.2	1047.3	1050.2	1068.6	1092.9	1105.1	1123.8	1161.2	1189.2	1192.0
160°	1040.5	1049.8	1059.2	1061.5	1076.0	1095.4	1105.1	1121.1	1153.2	1177.2	1178.8
162.5°	1057.8	1064.8	1071.8	1073.5	1084.0	1098.1	1105.1	1118.6	1145.6	1166.0	1167.5
165°	1076.6	1082.9	1089.2	1090.8	1095.5	1101.9	1105.1	1114.8	1134.2	1148.7	1150.3
167.5°	1093.8	1096.8	1099.9	1100.6	1104.6	1110.0	1112.6	1119.0	1131.7	1141.1	1141.8
170°	1105.1	1108.1	1111.1	1111.8	1112.1	1112.5	1112.6	1119.0	1131.7	1141.1	1141.1
172.5°	1111.1	1111.8	1112.5	1112.6	1112.6	1112.6	1112.6	1117.6	1127.7	1135.1	1134.6
175°	1119.4	1119.4	1119.4	1119.4	1117.1	1114.2	1112.6	1115.8	1122.1	1126.8	1126.8
177.5°	1119.4	1119.4	1119.4	1119.4	1117.6	1115.3	1114.1	1116.6	1121.6	1125.4	1124.8
180°	1119.4	1119.4	1119.4	1119.4	1119.4	1119.4	1119.4	1119.4	1119.4	1119.4	1119.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	251.2	251.2
2.5°	268.1	266.5
5°	344.9	346.5
7.5°	464.5	463.7
10°	577.5	584.7
12.5°	659.9	661.5
15°	710.0	713.2
17.5°	729.4	730.2
20°	730.2	728.6
22.5°	721.3	719.6
25°	710.8	710.0
27.5°	701.1	701.9
30°	697.1	699.5
32.5°	697.1	701.1
35°	698.7	702.7
37.5°	697.9	702.7
40°	694.6	700.3
42.5°	685.8	689.8
45°	672.0	676.8
47.5°	654.2	657.5
50°	631.6	634.9
52.5°	603.4	604.2
55°	569.4	572.7
57.5°	533.1	533.9
60°	492.7	495.1
62.5°	449.9	449.9
65°	404.6	406.2
67.5°	357.8	361.8
70°	310.2	311.0
72.5°	263.3	263.3
75°	214.9	215.7
77.5°	168.8	168.8
80°	125.2	126.0
82.5°	86.4	88.0
85°	54.1	54.1
87.5°	25.1	22.6
90°	28.6	28.6
92.5°	114.3	91.6
95°	398.5	329.8
97.5°	955.0	824.1
100°	1376.0	1220.1
102.5°	1790.0	1656.5
105°	2318.0	2246.2
107.5°	2663.9	2681.2
110°	2795.7	2870.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2807.5	2922.4
115°	2733.0	2892.3
117.5°	2575.2	2751.9
120°	2448.0	2619.6
122.5°	2324.1	2493.4
125°	2147.4	2303.3
127.5°	1988.5	2120.1
130°	1894.8	2016.3
132.5°	1809.8	1918.7
135°	1693.4	1787.2
137.5°	1600.1	1676.8
140°	1535.9	1607.7
142.5°	1482.8	1544.6
145°	1403.2	1449.9
147.5°	1342.1	1380.8
150°	1303.6	1335.0
152.5°	1270.7	1294.4
155°	1232.8	1248.6
157.5°	1203.1	1214.1
160°	1185.1	1191.5
162.5°	1173.4	1179.4
165°	1156.6	1162.9
167.5°	1144.5	1147.2
170°	1141.1	1141.1
172.5°	1132.2	1129.9
175°	1126.8	1126.8
177.5°	1122.0	1119.4
180°	1119.4	1119.4



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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	0.00	0.00	0.12	0.77	2.40	12.12	12.79	13.29	13.94	15.57
	3H	0.00	0.24	0.82	1.40	3.05	13.94	14.54	15.11	15.70	17.34
	4H	0.00	0.50	1.12	1.66	3.31	14.57	15.14	15.76	16.30	17.95
	6H	0.18	0.70	1.37	1.86	3.52	14.99	15.51	16.18	16.67	18.33
	8H	0.24	0.73	1.43	1.91	3.56	15.10	15.60	16.29	16.78	18.43
	12H	0.25	0.72	1.44	1.89	3.56	15.16	15.63	16.36	16.80	18.48
4H	2H	6.14	6.70	7.33	7.87	9.51	12.37	12.94	13.56	14.10	15.75
	3H	7.69	8.16	8.88	9.35	11.01	14.39	14.87	15.59	16.05	17.71
	4H	7.77	8.21	8.97	9.39	11.06	15.15	15.59	16.34	16.76	18.44
	6H	7.77	8.15	8.97	9.34	11.01	15.67	16.04	16.87	17.24	18.91
	8H	7.74	8.09	8.94	9.28	10.97	15.83	16.17	17.02	17.36	19.05
	12H	7.69	8.01	8.91	9.21	10.90	15.91	16.22	17.12	17.42	19.11
8H	4H	9.20	9.55	10.40	10.74	12.42	15.19	15.54	16.39	16.73	18.41
	6H	9.43	9.72	10.65	10.95	12.63	15.81	16.10	17.02	17.33	19.01
	8H	9.45	9.70	10.67	10.90	12.61	16.02	16.27	17.24	17.48	19.18
	12H	9.40	9.63	10.63	10.83	12.56	16.15	16.37	17.38	17.58	19.31
12H	4H	9.33	9.65	10.55	10.85	12.54	15.13	15.45	16.35	16.65	18.34
	6H	9.69	9.94	10.91	11.14	12.85	15.79	16.04	17.01	17.25	18.95
	8H	9.75	9.97	10.97	11.17	12.90	16.01	16.23	17.23	17.43	19.16