

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: P938239

Luminaire Tested: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-6-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938239
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-92765-1D-UNV-STD-W-6-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

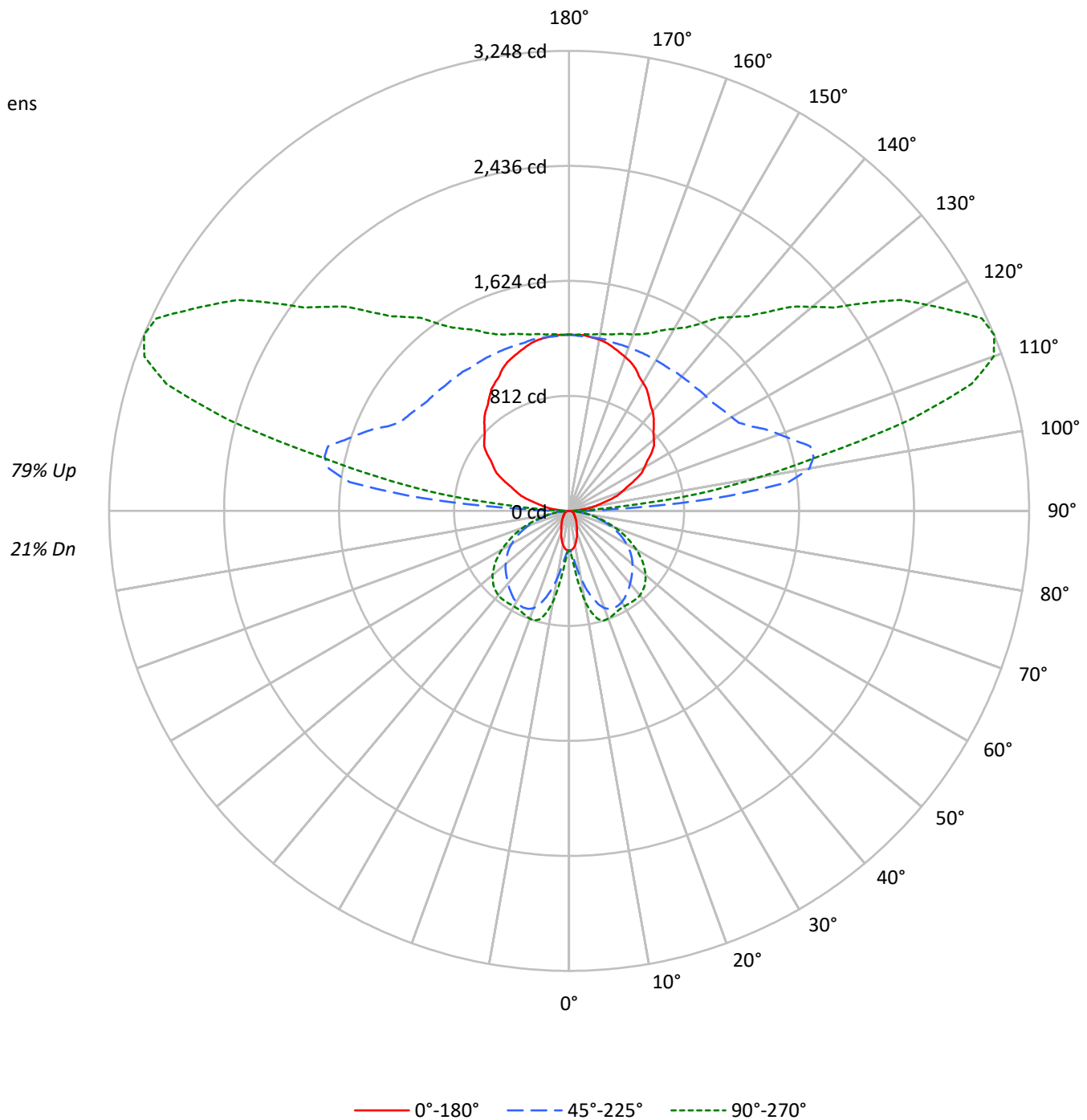
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10231.2 lumens
Efficiency: N/A
Efficacy: 122.7 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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CATALOG NUMBER: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-6-3500K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1727	1727	1727
5°	1687	1996	2322
10°	1529	2909	3849
15°	1299	3799	4648
20°	1058	4402	4737
25°	882	4605	4641
30°	744	4634	4632
35°	657	4555	4752
40°	573	4454	4876
45°	518	4379	4895
50°	475	4312	4814
55°	454	4214	4600
60°	465	4027	4263
65°	482	3744	3800
70°	512	3263	3211
75°	567	2658	2506
80°	612	1841	1689
85°	537	976	865

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4895 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.1	0.4
10°-20°	160.1	1.6
20°-30°	280.0	2.7
30°-40°	360.5	3.5
40°-50°	402.6	3.9
50°-60°	385.6	3.8
60°-70°	305.6	3.0
70°-80°	179.7	1.8
80°-90°	54.7	0.5
90°-100°	606.5	5.9
100°-110°	1594.6	15.6
110°-120°	1653.4	16.2
120°-130°	1326.3	13.0
130°-140°	1040.6	10.2
140°-150°	798.7	7.8
150°-160°	575.2	5.6
160°-170°	352.0	3.4
170°-180°	118.9	1.2
0°-30°	476.2	4.7
0°-40°	836.7	8.2
0°-60°	1624.9	15.9
0°-90°	2164.9	21.2
90°-120°	3854.6	37.7
90°-150°	7020.2	68.6
90°-180°	8066.0	78.8
0°-180°	10231.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	279	279	279	279	279	
5°	272	292	329	372	385	25
15°	204	376	634	768	793	57
25°	130	426	755	788	789	60
35°	88	408	711	752	781	55
45°	60	325	628	720	752	47
55°	43	206	533	620	637	39
65°	34	110	396	445	452	34
75°	25	67	217	239	240	26
85°	9	21	54	59	60	10
90°	8	23	64	32	32	7
95°	80	314	1045	539	367	89
105°	287	435	1763	2676	2497	305
115°	510	620	1412	2817	3215	504
125°	710	796	1284	2170	2560	630
135°	846	931	1244	1752	1987	655
145°	981	1044	1228	1495	1612	615
155°	1109	1140	1228	1349	1388	510
165°	1197	1212	1228	1277	1293	338
175°	1244	1244	1237	1253	1253	118
180°	1244	1244	1244	1244	1244	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	279.2	279.2	279.2	279.2	279.2	279.2	279.2	279.2	279.2	279.2	279.2
2.5°	279.2	279.2	281.0	281.9	283.8	284.7	286.4	288.2	293.6	294.5	296.3
5°	272.1	275.6	287.3	291.8	304.4	321.4	328.6	340.3	364.5	371.7	376.2
7.5°	261.3	269.4	298.0	305.3	336.7	381.6	400.4	425.6	464.2	483.1	498.3
10°	244.2	261.3	312.4	329.6	380.7	448.9	484.0	519.0	577.3	603.3	613.2
12.5°	225.4	253.2	327.7	351.1	424.7	524.3	566.5	605.2	671.6	706.6	712.0
15°	203.8	241.5	342.1	376.2	471.4	587.2	633.8	681.5	743.5	768.5	774.9
17.5°	185.0	232.5	355.5	391.5	507.3	643.8	691.3	730.9	781.1	798.2	802.6
20°	161.7	218.2	364.5	411.2	545.0	685.1	730.9	761.4	795.5	806.3	808.1
22.5°	144.5	202.9	369.9	418.4	570.1	710.2	748.8	773.0	796.4	800.0	800.9
25°	130.2	185.8	369.0	426.5	591.7	725.4	755.1	773.0	786.5	788.3	788.3
27.5°	116.8	167.0	365.4	428.3	607.9	729.1	752.4	765.0	771.2	774.9	774.9
30°	105.1	149.1	356.4	424.7	615.0	725.4	744.4	750.6	756.9	762.3	765.0
32.5°	96.0	132.0	342.9	417.5	615.9	716.5	730.0	733.6	742.5	755.1	759.6
35°	88.0	115.0	327.7	407.7	610.6	702.1	711.1	714.7	732.7	751.5	757.7
37.5°	79.9	102.4	308.0	390.6	602.4	685.1	691.3	697.7	725.4	747.9	755.1
40°	71.9	91.6	284.7	371.7	589.9	664.4	669.8	679.6	716.5	742.5	749.7
42.5°	65.5	82.6	259.5	352.0	573.7	641.1	649.1	663.5	705.7	733.6	741.6
45°	60.2	73.6	232.5	325.0	553.1	616.8	628.5	648.2	693.1	720.1	727.2
47.5°	54.8	67.3	204.7	297.2	530.7	592.6	607.9	630.3	676.1	702.1	708.4
50°	50.3	61.1	176.9	267.5	506.4	566.5	584.5	607.9	654.6	678.7	686.9
52.5°	46.7	55.7	150.9	238.0	478.5	539.6	560.3	584.5	628.5	651.9	657.2
55°	43.1	51.1	128.4	206.5	449.8	510.8	533.3	556.6	599.8	619.5	623.1
57.5°	41.3	47.6	109.5	176.9	419.3	478.5	503.7	525.2	565.7	580.9	584.5
60°	38.7	44.9	95.2	151.7	386.1	448.0	469.6	491.1	525.2	537.8	540.5
62.5°	35.9	43.1	84.4	127.5	352.0	412.1	433.6	453.5	482.1	491.1	494.7
65°	34.1	41.3	76.3	109.5	317.0	374.4	396.0	413.0	436.3	445.3	447.1
67.5°	32.3	39.5	70.1	94.3	281.9	336.7	352.9	369.0	387.0	396.0	396.9
70°	29.6	37.7	64.6	83.5	246.0	293.6	307.1	324.1	338.5	342.9	345.7
72.5°	27.8	35.0	61.1	75.4	209.2	252.3	264.8	274.7	287.3	291.8	291.8
75°	25.2	31.4	57.5	67.3	171.5	206.5	217.3	227.2	237.0	238.9	236.1
77.5°	22.4	27.8	49.4	56.6	133.8	163.4	172.4	177.8	185.8	187.6	188.5
80°	18.8	24.3	38.7	44.0	96.9	120.3	126.6	131.1	138.3	138.3	140.1
82.5°	14.4	18.8	27.8	31.4	65.5	82.6	88.0	90.7	95.2	95.2	95.2
85°	9.0	11.7	17.9	20.6	39.5	50.3	53.9	54.8	58.4	59.3	59.3
87.5°	4.5	6.2	11.7	12.6	20.6	26.1	26.1	27.8	27.8	27.0	26.1
90°	8.4	15.1	21.7	23.4	36.8	54.5	63.5	56.4	42.3	31.8	31.8
92.5°	33.4	90.2	147.0	161.2	226.6	313.8	357.4	313.2	224.9	158.7	152.4
95°	80.2	184.1	288.0	314.0	557.6	882.4	1044.7	932.3	707.3	538.6	519.5
97.5°	138.6	230.3	322.0	344.9	751.1	1292.6	1563.3	1492.3	1350.1	1243.5	1207.1
100°	183.7	266.9	350.0	370.8	821.5	1422.4	1722.8	1728.0	1738.5	1746.2	1702.9
102.5°	222.2	299.7	377.3	396.7	853.8	1463.2	1767.9	1858.4	2039.5	2175.4	2138.3
105°	287.2	352.9	418.6	435.1	877.7	1467.8	1762.9	1965.9	2372.0	2676.5	2656.5
107.5°	354.1	415.3	476.6	491.8	882.1	1402.5	1662.7	1945.9	2512.3	2937.1	2941.9
110°	399.2	454.5	509.8	523.6	875.5	1344.6	1579.1	1895.7	2529.0	3003.8	3024.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	443.5	496.1	548.8	562.0	875.7	1294.0	1503.2	1827.2	2475.2	2961.3	2993.2
115°	510.2	558.9	607.5	619.7	883.8	1236.0	1412.1	1724.3	2348.6	2816.8	2861.0
117.5°	576.2	620.4	664.6	675.6	900.3	1199.8	1349.6	1631.3	2194.6	2617.2	2666.3
120°	614.7	656.3	697.9	708.2	913.6	1187.5	1324.5	1581.9	2096.7	2482.7	2530.4
122.5°	652.2	694.2	736.1	746.6	932.8	1181.1	1305.3	1537.1	2000.6	2348.3	2395.3
125°	709.8	748.0	786.3	795.9	958.7	1175.8	1284.4	1481.3	1875.0	2170.4	2213.7
127.5°	756.6	795.1	833.8	843.4	984.6	1172.7	1266.8	1435.9	1774.0	2027.6	2064.2
130°	781.7	823.3	864.9	875.2	1003.6	1174.7	1260.2	1410.7	1711.7	1937.4	1971.2
132.5°	807.6	849.1	890.7	901.1	1018.8	1175.8	1254.3	1389.0	1658.5	1860.6	1890.8
135°	845.9	883.8	921.7	931.2	1035.5	1174.7	1244.3	1357.1	1582.8	1752.0	1778.1
137.5°	885.2	922.7	960.2	969.6	1060.6	1181.9	1242.6	1338.0	1528.8	1671.9	1693.2
140°	917.8	952.3	986.8	995.4	1075.9	1183.2	1236.8	1319.2	1484.0	1607.6	1627.5
142.5°	942.8	974.7	1006.7	1014.6	1088.7	1187.5	1236.8	1309.2	1453.9	1562.4	1579.6
145°	981.3	1009.1	1037.0	1043.9	1105.4	1187.5	1228.4	1287.6	1406.1	1494.9	1507.8
147.5°	1019.6	1046.8	1073.8	1080.6	1129.9	1195.6	1228.4	1275.0	1368.1	1438.0	1448.8
150°	1044.7	1069.2	1093.6	1099.8	1142.6	1199.9	1228.4	1267.8	1346.4	1405.4	1414.2
152.5°	1070.6	1089.2	1107.7	1112.4	1151.0	1202.6	1228.4	1262.0	1329.2	1379.5	1386.1
155°	1109.0	1122.7	1136.5	1139.9	1169.4	1208.8	1228.4	1255.1	1308.6	1348.7	1353.0
157.5°	1137.4	1150.8	1164.2	1167.5	1187.8	1214.9	1228.4	1249.2	1290.8	1322.0	1325.0
160°	1156.7	1167.0	1177.4	1180.0	1196.1	1217.6	1228.4	1246.3	1281.9	1308.6	1310.4
162.5°	1175.8	1183.6	1191.4	1193.3	1205.0	1220.7	1228.4	1243.4	1273.5	1296.1	1297.8
165°	1196.7	1203.8	1210.7	1212.5	1217.8	1224.9	1228.4	1239.2	1260.7	1276.9	1278.7
167.5°	1215.9	1219.2	1222.6	1223.4	1227.9	1233.9	1236.8	1243.9	1258.0	1268.5	1269.2
170°	1228.4	1231.7	1235.1	1235.9	1236.2	1236.6	1236.8	1243.9	1258.0	1268.5	1268.5
172.5°	1235.1	1235.8	1236.6	1236.8	1236.8	1236.8	1236.8	1242.3	1253.5	1261.8	1261.2
175°	1244.3	1244.3	1244.3	1244.3	1241.8	1238.5	1236.8	1240.3	1247.3	1252.6	1252.6
177.5°	1244.3	1244.3	1244.3	1244.3	1242.3	1239.8	1238.4	1241.2	1246.8	1251.0	1250.3
180°	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	279.2	279.2
2.5°	298.0	296.3
5°	383.4	385.2
7.5°	516.3	515.4
10°	642.0	650.0
12.5°	733.6	735.3
15°	789.3	792.8
17.5°	810.8	811.7
20°	811.7	809.9
22.5°	801.8	800.0
25°	790.1	789.3
27.5°	779.3	780.2
30°	774.9	777.6
32.5°	774.9	779.3
35°	776.7	781.1
37.5°	775.8	781.1
40°	772.1	778.5
42.5°	762.3	766.8
45°	747.0	752.4
47.5°	727.2	730.9
50°	702.1	705.7
52.5°	670.7	671.6
55°	633.0	636.6
57.5°	592.6	593.5
60°	547.7	550.4
62.5°	500.1	500.1
65°	449.8	451.6
67.5°	397.8	402.2
70°	344.8	345.7
72.5°	292.7	292.7
75°	238.9	239.8
77.5°	187.6	187.6
80°	139.2	140.1
82.5°	96.0	97.8
85°	60.2	60.2
87.5°	27.8	25.2
90°	31.8	31.8
92.5°	127.1	101.8
95°	443.0	366.6
97.5°	1061.6	916.1
100°	1529.6	1356.2
102.5°	1989.8	1841.4
105°	2576.7	2496.9
107.5°	2961.2	2980.5
110°	3107.7	3190.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3120.9	3248.5
115°	3038.0	3215.1
117.5°	2862.6	3059.0
120°	2721.2	2912.0
122.5°	2583.5	2771.7
125°	2387.0	2560.4
127.5°	2210.4	2356.7
130°	2106.3	2241.4
132.5°	2011.8	2132.8
135°	1882.4	1986.7
137.5°	1778.6	1864.0
140°	1707.3	1787.1
142.5°	1648.3	1717.0
145°	1559.8	1611.7
147.5°	1491.8	1534.9
150°	1449.1	1484.0
152.5°	1412.5	1438.9
155°	1370.4	1387.9
157.5°	1337.3	1349.6
160°	1317.4	1324.5
162.5°	1304.4	1311.1
165°	1285.6	1292.7
167.5°	1272.3	1275.2
170°	1268.5	1268.5
172.5°	1258.6	1256.0
175°	1252.6	1252.6
177.5°	1247.3	1244.3
180°	1244.3	1244.3



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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	0.00	0.00	0.49	1.14	2.77	12.49	13.15	13.66	14.31	15.94
	3H	0.01	0.61	1.19	1.77	3.41	14.31	14.90	15.48	16.07	17.71
	4H	0.30	0.87	1.48	2.03	3.68	14.94	15.51	16.12	16.67	18.32
	6H	0.54	1.06	1.73	2.23	3.89	15.36	15.88	16.55	17.04	18.70
	8H	0.60	1.10	1.79	2.28	3.93	15.47	15.96	16.66	17.14	18.79
	12H	0.61	1.08	1.81	2.26	3.93	15.53	16.00	16.72	17.17	18.84
4H	2H	6.51	7.07	7.70	8.24	9.88	12.74	13.31	13.93	14.47	16.12
	3H	8.06	8.53	9.25	9.72	11.38	14.76	15.23	15.96	16.42	18.08
	4H	8.14	8.58	9.34	9.75	11.43	15.52	15.95	16.71	17.13	18.81
	6H	8.14	8.51	9.34	9.71	11.38	16.04	16.41	17.24	17.61	19.28
	8H	8.11	8.46	9.31	9.65	11.33	16.19	16.54	17.39	17.73	19.42
	12H	8.06	8.38	9.27	9.57	11.26	16.27	16.59	17.49	17.79	19.48
8H	4H	9.57	9.91	10.76	11.10	12.79	15.56	15.91	16.76	17.10	18.78
	6H	9.80	10.09	11.02	11.32	13.00	16.17	16.46	17.39	17.69	19.37
	8H	9.81	10.06	11.04	11.27	12.97	16.39	16.64	17.61	17.85	19.55
	12H	9.77	9.99	11.00	11.20	12.93	16.52	16.74	17.75	17.95	19.68
12H	4H	9.70	10.02	10.91	11.21	12.90	15.50	15.82	16.72	17.02	18.71
	6H	10.05	10.30	11.28	11.51	13.21	16.16	16.41	17.38	17.61	19.32
	8H	10.11	10.33	11.34	11.54	13.27	16.37	16.59	17.60	17.80	19.53