

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: P936968

Luminaire Tested: SQ4-FB-050U-125D-93050-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936968
REPORT IS A COMBINATION OF REPORTS P933488 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-125D-93050-1D-UNV-STD-W-8-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

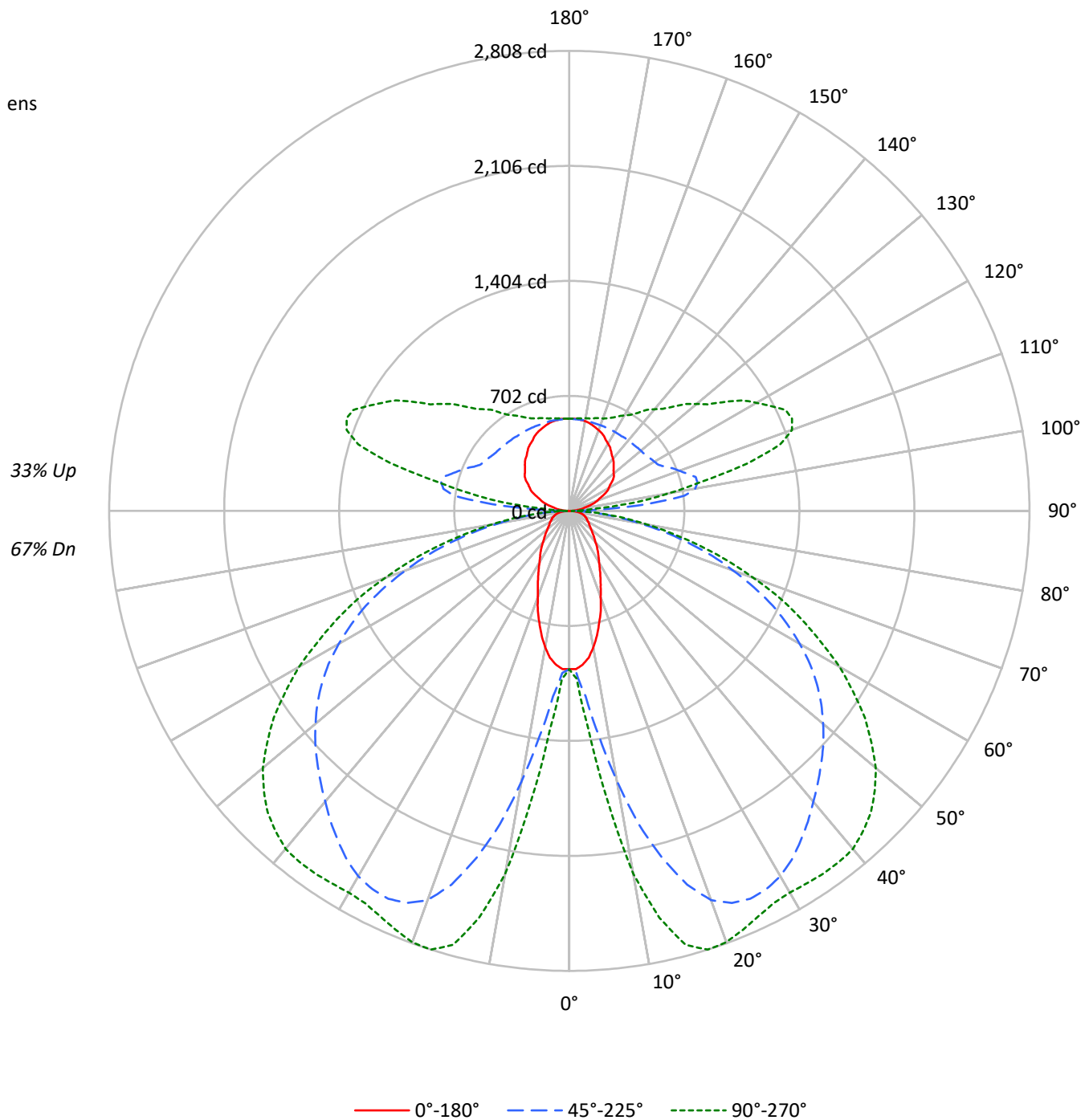
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11128.9 lumens
Efficiency: N/A
Efficacy: 99.4 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): 112
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





TEST NUMBER: P936968

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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	50	30	10	50	30	10	50	30	10	0				
RCR																																		
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67																
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55																
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45																
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37																
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31																
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26																
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23																
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20																
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17																
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15																
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4482	4482	4482
5°	4378	5180	6024
10°	3971	7551	9987
15°	3375	9865	12059
20°	2748	11432	12290
25°	2292	11963	12041
30°	1933	12039	12018
35°	1709	11839	12328
40°	1489	11579	12650
45°	1349	11388	12700
50°	1237	11217	12489
55°	1185	10967	11936
60°	1213	10485	11061
65°	1262	9753	9861
70°	1344	8505	8330
75°	1490	6935	6501
80°	1627	4809	4380
85°	1444	2552	2242

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12700 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.0	1.1
10°-20°	553.8	5.0
20°-30°	968.7	8.7
30°-40°	1247.0	11.2
40°-50°	1392.8	12.5
50°-60°	1334.0	12.0
60°-70°	1057.2	9.5
70°-80°	621.7	5.6
80°-90°	174.9	1.6
90°-100°	274.8	2.5
100°-110°	722.3	6.5
110°-120°	749.0	6.7
120°-130°	600.8	5.4
130°-140°	471.4	4.2
140°-150°	361.8	3.3
150°-160°	260.6	2.3
160°-170°	159.4	1.4
170°-180°	53.9	0.5
0°-30°	1647.4	14.8
0°-40°	2894.4	26.0
0°-60°	5621.2	50.5
0°-90°	7474.9	67.2
90°-120°	1746.1	15.7
90°-150°	3180.1	28.6
90°-180°	3654.0	32.8
0°-180°	11128.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	966	966	966	966	966	
5°	941	1010	1137	1286	1332	87
15°	705	1301	2193	2659	2743	196
25°	450	1475	2612	2727	2730	207
35°	304	1410	2460	2600	2702	190
45°	208	1124	2174	2491	2603	161
55°	149	714	1845	2143	2202	136
65°	118	379	1370	1541	1562	117
75°	87	233	752	826	829	91
85°	31	71	186	205	208	33
90°	4	11	29	14	14	5
95°	36	142	473	244	166	40
105°	130	197	799	1212	1131	138
115°	231	281	640	1276	1456	228
125°	322	360	582	983	1160	285
135°	383	422	564	794	900	296
145°	444	473	556	677	730	278
155°	502	516	556	611	629	231
165°	542	549	556	578	586	153
175°	564	564	560	567	567	54
180°	564	564	564	564	564	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	966.0	966.0	966.0	966.0	966.0	966.0	966.0	966.0	966.0	966.0	966.0
2.5°	966.0	966.0	972.2	975.3	981.5	984.6	990.8	997.1	1015.7	1018.8	1025.0
5°	941.1	953.6	994.0	1009.5	1053.0	1112.0	1136.8	1177.2	1261.0	1285.9	1301.4
7.5°	903.8	931.8	1031.2	1056.1	1164.7	1320.1	1385.3	1472.3	1605.8	1671.0	1723.9
10°	844.8	903.8	1080.9	1139.9	1317.0	1553.0	1674.2	1795.3	1997.2	2087.3	2121.4
12.5°	779.6	875.9	1133.7	1214.5	1469.1	1813.9	1959.9	2093.4	2323.3	2444.5	2463.1
15°	705.1	835.6	1183.4	1301.4	1630.7	2031.3	2192.8	2357.5	2571.8	2658.7	2680.5
17.5°	639.8	804.5	1230.0	1354.2	1754.9	2227.1	2391.6	2528.3	2702.2	2761.3	2776.8
20°	559.1	754.8	1261.0	1422.5	1885.4	2369.9	2528.3	2633.9	2752.0	2789.2	2795.4
22.5°	500.1	701.9	1279.7	1447.4	1972.3	2456.9	2590.5	2674.3	2755.0	2767.5	2770.6
25°	450.4	642.9	1276.6	1475.4	2046.9	2509.7	2612.2	2674.3	2720.9	2727.1	2727.1
27.5°	403.8	577.7	1264.1	1481.6	2102.8	2522.1	2602.9	2646.4	2668.1	2680.5	2680.5
30°	363.4	515.6	1233.1	1469.1	2127.7	2509.7	2574.9	2596.6	2618.4	2637.0	2646.4
32.5°	332.4	456.6	1186.5	1444.3	2130.7	2478.6	2525.2	2537.6	2568.7	2612.2	2627.7
35°	304.4	397.5	1133.7	1410.1	2112.1	2429.0	2460.0	2472.4	2534.5	2599.7	2621.5
37.5°	276.4	354.0	1065.4	1351.1	2084.2	2369.9	2391.6	2413.4	2509.7	2587.3	2612.2
40°	248.5	316.8	984.6	1285.9	2040.7	2298.5	2317.1	2351.2	2478.6	2568.7	2593.5
42.5°	226.8	285.8	897.7	1217.6	1984.8	2217.7	2245.7	2295.3	2441.3	2537.6	2565.6
45°	208.1	254.7	804.5	1124.4	1913.3	2133.8	2174.2	2242.6	2397.8	2491.1	2515.9
47.5°	189.5	232.9	708.2	1028.1	1835.7	2049.9	2102.8	2180.4	2338.8	2429.0	2450.7
50°	173.9	211.3	611.9	925.6	1751.8	1959.9	2022.0	2102.8	2264.3	2348.2	2376.1
52.5°	161.5	192.5	521.8	823.1	1655.5	1866.7	1938.2	2022.0	2174.2	2255.0	2273.6
55°	149.1	177.0	444.2	714.4	1556.1	1767.3	1845.0	1925.8	2074.8	2143.2	2155.6
57.5°	142.9	164.6	378.9	611.9	1450.5	1655.5	1742.5	1817.0	1956.8	2009.6	2022.0
60°	133.5	155.3	329.3	524.9	1335.6	1549.9	1624.4	1699.0	1817.0	1860.5	1869.8
62.5°	124.3	149.1	292.0	441.0	1217.6	1425.6	1500.2	1568.5	1667.9	1699.0	1711.4
65°	118.0	142.9	264.0	378.9	1096.5	1295.2	1369.8	1428.8	1509.5	1540.6	1546.8
67.5°	111.8	136.6	242.3	326.1	975.3	1164.7	1220.6	1276.6	1338.7	1369.8	1372.9
70°	102.5	130.5	223.6	288.9	851.1	1015.7	1062.2	1121.2	1171.0	1186.5	1195.8
72.5°	96.3	121.1	211.3	260.9	723.7	872.8	916.3	950.5	994.0	1009.5	1009.5
75°	87.0	108.7	198.8	232.9	593.3	714.4	751.7	785.8	820.0	826.2	816.9
77.5°	77.6	96.3	170.9	195.7	462.8	565.3	596.3	615.0	642.9	649.2	652.3
80°	65.2	83.9	133.5	152.2	335.4	416.2	437.9	453.5	478.3	478.3	484.5
82.5°	49.7	65.2	96.3	108.7	226.8	285.8	304.4	313.7	329.3	329.3	329.3
85°	31.0	40.4	62.1	71.4	136.6	173.9	186.4	189.5	201.9	205.0	205.0
87.5°	15.5	21.7	40.4	43.5	71.4	90.1	90.1	96.3	96.3	93.1	90.1
90°	3.8	6.8	9.8	10.6	16.6	24.7	28.7	25.5	19.2	14.4	14.4
92.5°	15.1	40.8	66.6	73.0	102.7	142.2	161.9	141.9	101.9	71.9	69.0
95°	36.3	83.4	130.5	142.2	252.5	399.7	473.3	422.3	320.5	244.0	235.4
97.5°	62.8	104.3	145.8	156.2	340.2	585.5	708.2	676.0	611.6	563.3	546.8
100°	83.2	120.9	158.5	167.9	372.1	644.3	780.4	782.8	787.5	791.0	771.3
102.5°	100.7	135.8	170.9	179.7	386.7	662.9	800.9	841.9	923.9	985.4	968.6
105°	130.1	159.9	189.7	197.1	397.6	665.0	798.6	890.5	1074.5	1212.5	1203.4
107.5°	160.4	188.1	215.8	222.8	399.6	635.3	753.2	881.4	1138.0	1330.5	1332.7
110°	180.8	205.8	231.0	237.2	396.6	609.1	715.3	858.8	1145.6	1360.7	1370.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	200.9	224.7	248.6	254.6	396.7	586.2	680.9	827.7	1121.2	1341.4	1355.9
115°	231.2	253.2	275.2	280.7	400.4	560.0	639.7	781.1	1063.9	1276.0	1296.0
117.5°	261.0	281.0	301.0	306.1	407.8	543.5	611.3	738.9	994.1	1185.6	1207.8
120°	278.4	297.2	316.1	320.8	413.9	538.0	600.0	716.5	949.7	1124.6	1146.2
122.5°	295.4	314.4	333.4	338.2	422.5	535.0	591.3	696.3	906.3	1063.8	1085.1
125°	321.6	338.8	356.2	360.5	434.3	532.6	581.8	671.0	849.4	983.2	1002.9
127.5°	342.8	360.2	377.6	382.0	446.0	531.3	573.8	650.5	803.6	918.5	935.0
130°	354.0	372.9	391.8	396.4	454.5	532.1	570.8	639.0	775.4	877.6	892.9
132.5°	365.8	384.6	403.5	408.2	461.5	532.6	568.2	629.3	751.3	842.8	856.5
135°	383.2	400.4	417.5	421.8	469.0	532.1	563.6	614.8	717.0	793.6	805.5
137.5°	401.0	418.0	435.0	439.2	480.4	535.4	562.9	606.1	692.6	757.4	767.0
140°	415.7	431.4	447.0	451.0	487.4	535.9	560.3	597.6	672.2	728.2	737.2
142.5°	427.1	441.5	456.0	459.6	493.2	537.9	560.3	593.0	658.6	707.8	715.6
145°	444.5	457.1	469.8	472.9	500.8	538.0	556.5	583.3	637.0	677.2	683.0
147.5°	461.9	474.2	486.5	489.5	511.8	541.6	556.5	577.6	619.7	651.4	656.2
150°	473.3	484.4	495.5	498.2	517.7	543.6	556.5	574.3	610.0	636.7	640.6
152.5°	485.0	493.4	501.8	503.9	521.4	544.8	556.5	571.7	602.1	625.0	628.0
155°	502.3	508.6	514.8	516.4	529.8	547.6	556.5	568.6	592.7	610.9	612.9
157.5°	515.2	521.3	527.3	528.9	538.0	550.3	556.5	565.9	584.7	598.8	600.2
160°	523.9	528.7	533.4	534.6	541.9	551.6	556.5	564.6	580.6	592.7	593.6
162.5°	532.6	536.2	539.7	540.6	545.9	553.0	556.5	563.3	577.0	587.1	587.9
165°	542.1	545.3	548.4	549.2	551.6	554.8	556.5	561.4	571.1	578.4	579.2
167.5°	550.8	552.3	553.8	554.2	556.2	558.9	560.3	563.5	569.9	574.7	575.0
170°	556.5	558.0	559.5	559.9	560.0	560.2	560.3	563.5	569.9	574.7	574.7
172.5°	559.5	559.9	560.2	560.3	560.3	560.3	560.3	562.8	567.9	571.6	571.4
175°	563.6	563.6	563.6	563.6	562.5	561.0	560.3	561.8	565.0	567.4	567.4
177.5°	563.6	563.6	563.6	563.6	562.7	561.5	561.0	562.3	564.7	566.7	566.3
180°	563.6	563.6	563.6	563.6	563.6	563.6	563.6	563.6	563.6	563.6	563.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	966.0	966.0
2.5°	1031.2	1025.0
5°	1326.3	1332.5
7.5°	1785.9	1782.9
10°	2220.8	2248.8
12.5°	2537.6	2543.9
15°	2730.2	2742.6
17.5°	2804.8	2807.9
20°	2807.9	2801.6
22.5°	2773.7	2767.5
25°	2733.4	2730.2
27.5°	2696.0	2699.1
30°	2680.5	2689.9
32.5°	2680.5	2696.0
35°	2686.7	2702.2
37.5°	2683.6	2702.2
40°	2671.2	2693.0
42.5°	2637.0	2652.6
45°	2584.2	2602.9
47.5°	2515.9	2528.3
50°	2429.0	2441.3
52.5°	2320.2	2323.3
55°	2189.7	2202.2
57.5°	2049.9	2053.1
60°	1894.7	1904.0
62.5°	1730.0	1730.0
65°	1556.1	1562.4
67.5°	1376.0	1391.5
70°	1192.7	1195.8
72.5°	1012.6	1012.6
75°	826.2	829.3
77.5°	649.2	649.2
80°	481.4	484.5
82.5°	332.4	338.5
85°	208.1	208.1
87.5°	96.3	87.0
90°	14.4	14.4
92.5°	57.5	46.2
95°	200.7	166.1
97.5°	480.9	415.0
100°	692.9	614.3
102.5°	901.4	834.1
105°	1167.2	1131.1
107.5°	1341.4	1350.1
110°	1407.7	1445.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1413.7	1471.5
115°	1376.2	1456.4
117.5°	1296.8	1385.7
120°	1232.6	1319.1
122.5°	1170.3	1255.6
125°	1081.3	1159.9
127.5°	1001.3	1067.6
130°	954.1	1015.3
132.5°	911.4	966.1
135°	852.7	900.0
137.5°	805.7	844.4
140°	773.3	809.5
142.5°	746.6	777.7
145°	706.6	730.1
147.5°	675.8	695.3
150°	656.4	672.2
152.5°	639.9	651.8
155°	620.8	628.7
157.5°	605.8	611.3
160°	596.8	600.0
162.5°	590.9	593.9
165°	582.4	585.6
167.5°	576.3	577.7
170°	574.7	574.7
172.5°	570.2	569.0
175°	567.4	567.4
177.5°	565.0	563.6
180°	563.6	563.6



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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	7.64	8.74	8.43	9.56	10.55	20.82	21.92	21.61	22.73	23.73
	3H	8.37	9.35	9.16	10.18	11.21	22.68	23.67	23.48	24.49	25.52
	4H	8.68	9.61	9.49	10.44	11.48	23.34	24.27	24.15	25.10	26.14
	6H	8.94	9.80	9.77	10.64	11.70	23.78	24.64	24.61	25.48	26.54
	8H	9.01	9.84	9.85	10.70	11.75	23.91	24.73	24.74	25.59	26.64
	12H	9.04	9.83	9.88	10.68	11.76	23.98	24.77	24.83	25.62	26.70
4H	2H	14.89	15.82	15.71	16.66	17.69	21.12	22.06	21.94	22.89	23.93
	3H	16.48	17.26	17.31	18.13	19.18	23.19	23.98	24.02	24.84	25.90
	4H	16.58	17.30	17.43	18.16	19.24	23.97	24.68	24.81	25.55	26.63
	6H	16.61	17.23	17.47	18.12	19.20	24.52	25.14	25.38	26.03	27.12
	8H	16.59	17.17	17.45	18.05	19.15	24.69	25.27	25.56	26.15	27.25
	12H	16.56	17.08	17.44	17.98	19.09	24.80	25.32	25.68	26.22	27.33
8H	4H	18.05	18.63	18.91	19.51	20.61	24.05	24.63	24.92	25.51	26.61
	6H	18.30	18.78	19.19	19.71	20.81	24.69	25.17	25.58	26.10	27.20
	8H	18.32	18.75	19.23	19.67	20.78	24.91	25.34	25.82	26.26	27.38
	12H	18.30	18.68	19.21	19.59	20.76	25.07	25.45	25.98	26.36	27.53
12H	4H	18.20	18.73	19.09	19.63	20.73	24.01	24.54	24.90	25.44	26.55
	6H	18.56	18.99	19.47	19.91	21.02	24.68	25.11	25.58	26.02	27.14
	8H	18.64	19.02	19.55	19.93	21.10	24.92	25.30	25.83	26.21	27.37