

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: P938219

Luminaire Tested: SQ4-FB-150U-050D-840-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938219
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-840-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

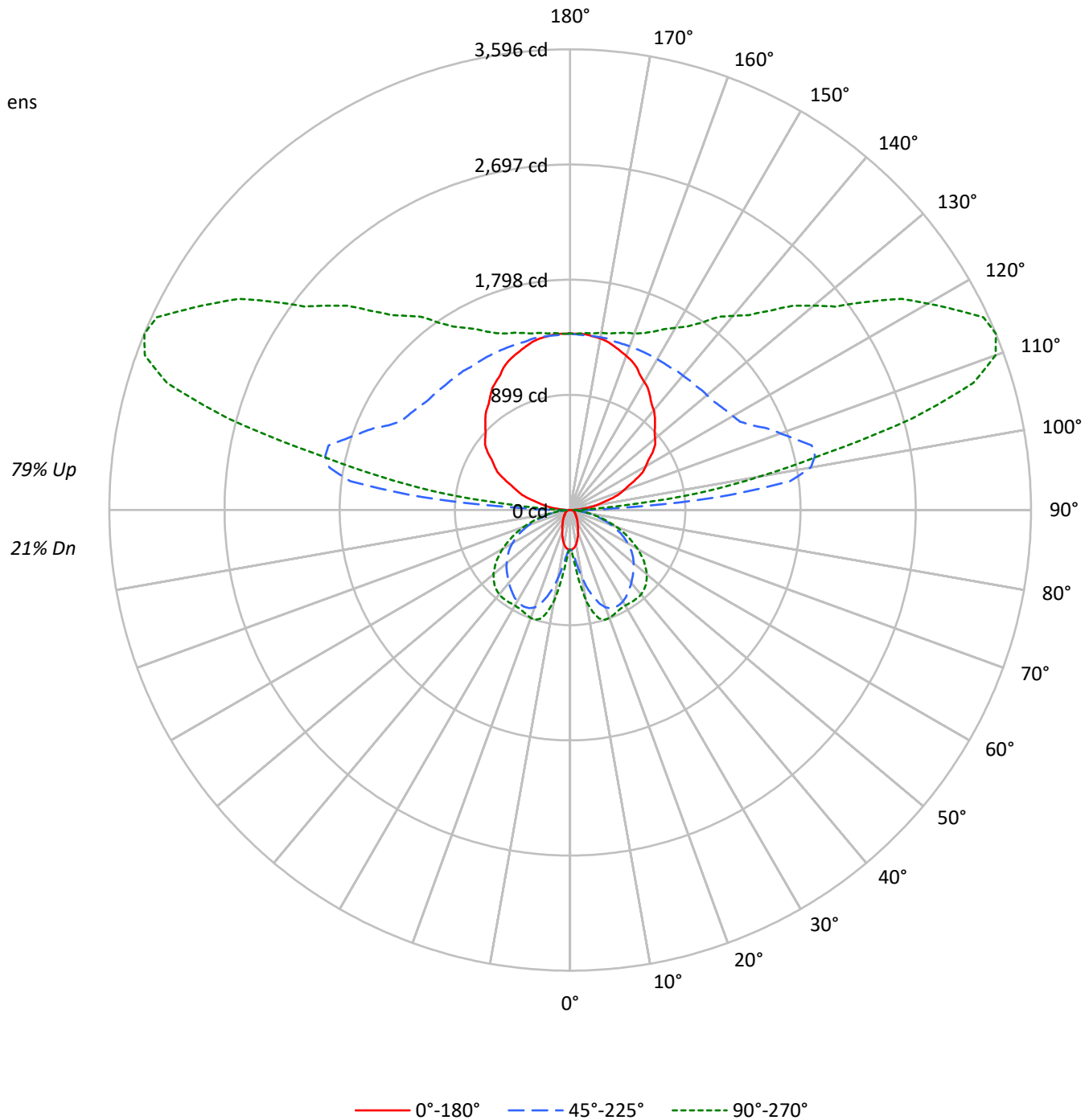
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11324.4 lumens
Efficiency: N/A
Efficacy: 135.8 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 (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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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
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°	1912	1912	1912
5°	1867	2209	2570
10°	1693	3220	4261
15°	1438	4205	5145
20°	1171	4872	5243
25°	976	5097	5137
30°	823	5128	5127
35°	727	5041	5259
40°	633	4930	5396
45°	573	4847	5418
50°	525	4772	5328
55°	502	4664	5092
60°	515	4458	4719
65°	533	4144	4206
70°	567	3611	3554
75°	628	2942	2774
80°	677	2037	1868
85°	596	1081	957

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5418 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.0	0.4
10°-20°	177.2	1.6
20°-30°	309.9	2.7
30°-40°	399.0	3.5
40°-50°	445.6	3.9
50°-60°	426.8	3.8
60°-70°	338.3	3.0
70°-80°	198.9	1.8
80°-90°	60.5	0.5
90°-100°	671.4	5.9
100°-110°	1765.0	15.6
110°-120°	1830.1	16.2
120°-130°	1468.0	13.0
130°-140°	1151.8	10.2
140°-150°	884.1	7.8
150°-160°	636.7	5.6
160°-170°	389.6	3.4
170°-180°	131.6	1.2
0°-30°	527.1	4.7
0°-40°	926.1	8.2
0°-60°	1798.5	15.9
0°-90°	2396.2	21.2
90°-120°	4266.5	37.7
90°-150°	7770.4	68.6
90°-180°	8928.0	78.8
0°-180°	11324.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	309	309	309	309	309	
5°	301	323	364	411	426	28
15°	226	416	702	851	878	63
25°	144	472	836	872	874	66
35°	97	451	787	832	865	61
45°	67	360	696	797	833	52
55°	48	228	590	686	705	43
65°	38	121	438	493	500	37
75°	28	74	240	264	265	29
85°	10	23	60	66	67	11
90°	9	26	70	35	35	8
95°	89	348	1156	596	406	99
105°	318	482	1951	2962	2764	337
115°	565	686	1563	3118	3559	558
125°	786	881	1422	2402	2834	698
135°	936	1031	1377	1939	2199	724
145°	1086	1156	1360	1655	1784	680
155°	1228	1262	1360	1493	1536	564
165°	1325	1342	1360	1413	1431	374
175°	1377	1377	1369	1386	1386	131
180°	1377	1377	1377	1377	1377	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	309.0	309.0	309.0	309.0	309.0	309.0	309.0	309.0	309.0	309.0	309.0
2.5°	309.0	309.0	311.0	312.0	314.1	315.1	317.0	319.0	325.0	325.9	327.9
5°	301.1	305.1	318.0	323.0	336.9	355.8	363.7	376.6	403.5	411.4	416.4
7.5°	289.2	298.2	329.9	337.9	372.7	422.4	443.2	471.1	513.8	534.7	551.6
10°	270.3	289.2	345.8	364.8	421.4	496.9	535.7	574.4	639.0	667.8	678.8
12.5°	249.5	280.3	362.7	388.6	470.1	580.4	627.1	669.9	743.4	782.1	788.0
15°	225.6	267.4	378.6	416.4	521.8	649.9	701.6	754.3	822.9	850.7	857.7
17.5°	204.7	257.4	393.5	433.3	561.5	712.5	765.2	809.0	864.6	883.5	888.4
20°	178.9	241.5	403.5	455.2	603.3	758.3	809.0	842.8	880.5	892.5	894.4
22.5°	160.0	224.6	409.4	463.1	631.0	786.1	828.8	855.6	881.5	885.4	886.4
25°	144.1	205.7	408.4	472.1	654.9	802.9	835.7	855.6	870.5	872.5	872.5
27.5°	129.2	184.9	404.5	474.0	672.8	807.0	832.8	846.7	853.6	857.7	857.7
30°	116.3	165.0	394.5	470.1	680.7	802.9	823.9	830.8	837.7	843.8	846.7
32.5°	106.3	146.1	379.6	462.1	681.7	793.1	808.0	811.9	821.8	835.7	840.8
35°	97.4	127.3	362.7	451.2	675.8	777.2	787.0	791.1	811.0	831.8	838.7
37.5°	88.4	113.3	340.9	432.3	666.8	758.3	765.2	772.2	802.9	827.8	835.7
40°	79.5	101.4	315.1	411.4	653.0	735.4	741.4	752.3	793.1	821.8	829.8
42.5°	72.5	91.4	287.2	389.6	635.0	709.6	718.5	734.4	781.1	811.9	820.8
45°	66.6	81.5	257.4	359.7	612.2	682.7	695.7	717.5	767.2	797.0	804.9
47.5°	60.7	74.5	226.5	328.9	587.4	655.9	672.8	697.6	748.3	777.2	784.1
50°	55.6	67.6	195.8	296.1	560.5	627.1	646.9	672.8	724.5	751.3	760.3
52.5°	51.7	61.7	167.0	263.4	529.7	597.2	620.2	646.9	695.7	721.5	727.5
55°	47.7	56.6	142.1	228.5	497.9	565.4	590.3	616.1	663.8	685.7	689.7
57.5°	45.7	52.7	121.2	195.8	464.1	529.7	557.5	581.3	626.1	643.0	646.9
60°	42.8	49.7	105.3	168.0	427.3	495.9	519.8	543.6	581.3	595.3	598.2
62.5°	39.7	47.7	93.5	141.1	389.6	456.2	480.0	501.9	533.6	543.6	547.5
65°	37.7	45.7	84.5	121.2	350.8	414.4	438.3	457.1	482.9	492.9	494.9
67.5°	35.8	43.8	77.6	104.3	312.0	372.7	390.6	408.4	428.3	438.3	439.3
70°	32.8	41.7	71.5	92.4	272.3	325.0	339.9	358.7	374.6	379.6	382.7
72.5°	30.8	38.7	67.6	83.5	231.6	279.2	293.1	304.1	318.0	323.0	323.0
75°	27.9	34.8	63.6	74.5	189.8	228.5	240.5	251.4	262.3	264.4	261.3
77.5°	24.8	30.8	54.6	62.6	148.1	180.9	190.8	196.8	205.7	207.7	208.7
80°	20.8	26.9	42.8	48.7	107.3	133.2	140.1	145.1	153.0	153.0	155.0
82.5°	15.9	20.8	30.8	34.8	72.5	91.4	97.4	100.4	105.3	105.3	105.3
85°	10.0	12.9	19.9	22.8	43.8	55.6	59.7	60.7	64.6	65.6	65.6
87.5°	4.9	6.9	12.9	13.9	22.8	28.8	28.8	30.8	30.8	29.8	28.8
90°	9.3	16.7	24.0	25.9	40.7	60.4	70.2	62.4	46.8	35.2	35.2
92.5°	37.0	99.8	162.7	178.4	250.9	347.4	395.6	346.7	249.0	175.7	168.7
95°	88.7	203.7	318.8	347.6	617.2	976.6	1156.4	1031.9	782.9	596.2	575.0
97.5°	153.4	254.9	356.4	381.8	831.3	1430.7	1730.4	1651.7	1494.4	1376.4	1336.1
100°	203.3	295.4	387.4	410.4	909.3	1574.4	1906.9	1912.7	1924.2	1932.8	1884.9
102.5°	245.9	331.8	417.6	439.1	945.0	1619.5	1956.8	2057.0	2257.5	2407.9	2366.8
105°	317.9	390.7	463.4	481.6	971.5	1624.7	1951.3	2176.0	2625.4	2962.5	2940.4
107.5°	391.9	459.7	527.5	544.4	976.3	1552.3	1840.3	2153.8	2780.7	3250.9	3256.3
110°	441.8	503.1	564.2	579.6	969.0	1488.2	1747.9	2098.3	2799.2	3324.8	3347.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	490.8	549.1	607.4	622.0	969.3	1432.3	1663.8	2022.4	2739.7	3277.7	3313.1
115°	564.7	618.6	672.4	685.9	978.2	1368.1	1563.0	1908.5	2599.5	3117.7	3166.7
117.5°	637.8	686.7	735.6	747.8	996.5	1328.0	1493.8	1805.6	2429.1	2896.8	2951.2
120°	680.3	726.4	772.4	783.9	1011.2	1314.4	1466.0	1750.9	2320.7	2748.0	2800.8
122.5°	721.9	768.4	814.8	826.4	1032.5	1307.3	1444.8	1701.3	2214.4	2599.2	2651.3
125°	785.7	827.9	870.3	880.9	1061.1	1301.5	1421.6	1639.6	2075.4	2402.3	2450.2
127.5°	837.4	880.1	922.9	933.6	1089.8	1298.0	1402.2	1589.3	1963.6	2244.2	2284.8
130°	865.2	911.2	957.3	968.7	1110.8	1300.2	1394.9	1561.4	1894.6	2144.5	2181.8
132.5°	893.8	939.9	985.9	997.4	1127.7	1301.5	1388.3	1537.4	1835.7	2059.4	2092.9
135°	936.3	978.2	1020.2	1030.7	1146.2	1300.2	1377.3	1502.2	1751.9	1939.2	1968.1
137.5°	979.8	1021.3	1062.8	1073.2	1173.9	1308.2	1375.4	1481.0	1692.1	1850.5	1874.1
140°	1015.9	1054.1	1092.2	1101.8	1190.8	1309.6	1369.0	1460.2	1642.6	1779.4	1801.4
142.5°	1043.5	1078.9	1114.3	1123.1	1205.1	1314.3	1369.0	1449.1	1609.3	1729.4	1748.4
145°	1086.1	1116.9	1147.8	1155.5	1223.5	1314.3	1359.7	1425.2	1556.3	1654.6	1668.9
147.5°	1128.6	1158.6	1188.6	1196.1	1250.6	1323.3	1359.7	1411.3	1514.3	1591.7	1603.6
150°	1156.4	1183.4	1210.5	1217.3	1264.7	1328.1	1359.7	1403.3	1490.3	1555.6	1565.3
152.5°	1185.0	1205.6	1226.1	1231.2	1274.0	1331.1	1359.7	1396.8	1471.2	1527.0	1534.3
155°	1227.5	1242.7	1257.9	1261.7	1294.4	1337.9	1359.7	1389.2	1448.4	1492.8	1497.6
157.5°	1258.9	1273.7	1288.5	1292.2	1314.7	1344.7	1359.7	1382.7	1428.7	1463.2	1466.6
160°	1280.3	1291.7	1303.2	1306.0	1323.9	1347.7	1359.7	1379.4	1418.9	1448.4	1450.4
162.5°	1301.5	1310.1	1318.7	1320.9	1333.8	1351.1	1359.7	1376.3	1409.6	1434.6	1436.5
165°	1324.6	1332.4	1340.1	1342.1	1347.9	1355.7	1359.7	1371.6	1395.5	1413.3	1415.3
167.5°	1345.9	1349.5	1353.3	1354.2	1359.1	1365.7	1369.0	1376.8	1392.4	1404.0	1404.8
170°	1359.7	1363.3	1367.1	1368.0	1368.3	1368.8	1369.0	1376.8	1392.4	1404.0	1404.0
172.5°	1367.1	1367.9	1368.8	1369.0	1369.0	1369.0	1369.0	1375.1	1387.4	1396.6	1395.9
175°	1377.3	1377.3	1377.3	1377.3	1374.5	1370.8	1369.0	1372.8	1380.6	1386.5	1386.5
177.5°	1377.3	1377.3	1377.3	1377.3	1375.1	1372.2	1370.8	1373.8	1380.0	1384.7	1383.9
180°	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	309.0	309.0
2.5°	329.9	327.9
5°	424.3	426.3
7.5°	571.5	570.5
10°	710.6	719.5
12.5°	811.9	813.9
15°	873.6	877.5
17.5°	897.4	898.4
20°	898.4	896.4
22.5°	887.4	885.4
25°	874.6	873.6
27.5°	862.6	863.6
30°	857.7	860.6
32.5°	857.7	862.6
35°	859.7	864.6
37.5°	858.7	864.6
40°	854.6	861.6
42.5°	843.8	848.7
45°	826.9	832.8
47.5°	804.9	809.0
50°	777.2	781.1
52.5°	742.4	743.4
55°	700.6	704.6
57.5°	655.9	656.9
60°	606.2	609.2
62.5°	553.6	553.6
65°	497.9	499.8
67.5°	440.3	445.2
70°	381.7	382.7
72.5°	324.0	324.0
75°	264.4	265.4
77.5°	207.7	207.7
80°	154.0	155.0
82.5°	106.3	108.3
85°	66.6	66.6
87.5°	30.8	27.9
90°	35.2	35.2
92.5°	140.7	112.7
95°	490.3	405.8
97.5°	1175.0	1014.0
100°	1693.0	1501.2
102.5°	2202.4	2038.1
105°	2852.1	2763.7
107.5°	3277.6	3298.9
110°	3439.8	3531.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3454.3	3595.6
115°	3362.7	3558.7
117.5°	3168.5	3385.9
120°	3012.0	3223.2
122.5°	2859.6	3067.8
125°	2642.1	2834.0
127.5°	2446.6	2608.5
130°	2331.4	2480.9
132.5°	2226.8	2360.7
135°	2083.6	2199.0
137.5°	1968.7	2063.1
140°	1889.7	1978.1
142.5°	1824.4	1900.4
145°	1726.4	1783.9
147.5°	1651.2	1699.0
150°	1603.9	1642.6
152.5°	1563.4	1592.7
155°	1516.9	1536.2
157.5°	1480.2	1493.8
160°	1458.2	1466.0
162.5°	1443.8	1451.2
165°	1423.0	1430.8
167.5°	1408.2	1411.5
170°	1404.0	1404.0
172.5°	1393.1	1390.2
175°	1386.5	1386.5
177.5°	1380.5	1377.3
180°	1377.3	1377.3



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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	0.34	0.84	1.49	3.12	12.84	13.51	14.01	14.66	16.29
	3H	0.37	0.96	1.54	2.12	3.77	14.66	15.26	15.83	16.42	18.06
	4H	0.66	1.22	1.84	2.38	4.03	15.29	15.86	16.48	17.02	18.67
	6H	0.90	1.42	2.08	2.58	4.24	15.71	16.23	16.90	17.39	19.05
	8H	0.96	1.45	2.15	2.63	4.28	15.82	16.32	17.01	17.50	19.15
	12H	0.97	1.44	2.16	2.61	4.28	15.88	16.35	17.08	17.52	19.20
4H	2H	6.86	7.43	8.05	8.59	10.24	13.09	13.66	14.28	14.82	16.47
	3H	8.41	8.88	9.60	10.07	11.73	15.11	15.59	16.31	16.77	18.43
	4H	8.49	8.93	9.69	10.11	11.78	15.87	16.31	17.06	17.48	19.16
	6H	8.49	8.87	9.69	10.07	11.73	16.39	16.77	17.59	17.96	19.63
	8H	8.47	8.81	9.66	10.00	11.69	16.55	16.89	17.74	18.08	19.77
	12H	8.41	8.73	9.63	9.93	11.62	16.63	16.94	17.84	18.14	19.83
8H	4H	9.92	10.27	11.12	11.46	13.14	15.91	16.26	17.11	17.45	19.13
	6H	10.15	10.44	11.37	11.67	13.35	16.53	16.82	17.75	18.05	19.73
	8H	10.17	10.42	11.39	11.62	13.33	16.74	16.99	17.96	18.20	19.90
	12H	10.13	10.35	11.35	11.55	13.28	16.87	17.09	18.10	18.30	20.03
12H	4H	10.05	10.37	11.27	11.57	13.26	15.85	16.17	17.07	17.37	19.06
	6H	10.41	10.66	11.63	11.86	13.57	16.51	16.76	17.73	17.97	19.67
	8H	10.47	10.69	11.69	11.89	13.62	16.73	16.95	17.95	18.15	19.88