

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: P938284

Luminaire Tested: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-4-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938284
REPORT IS A COMBINATION OF REPORTS P933629 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-4-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

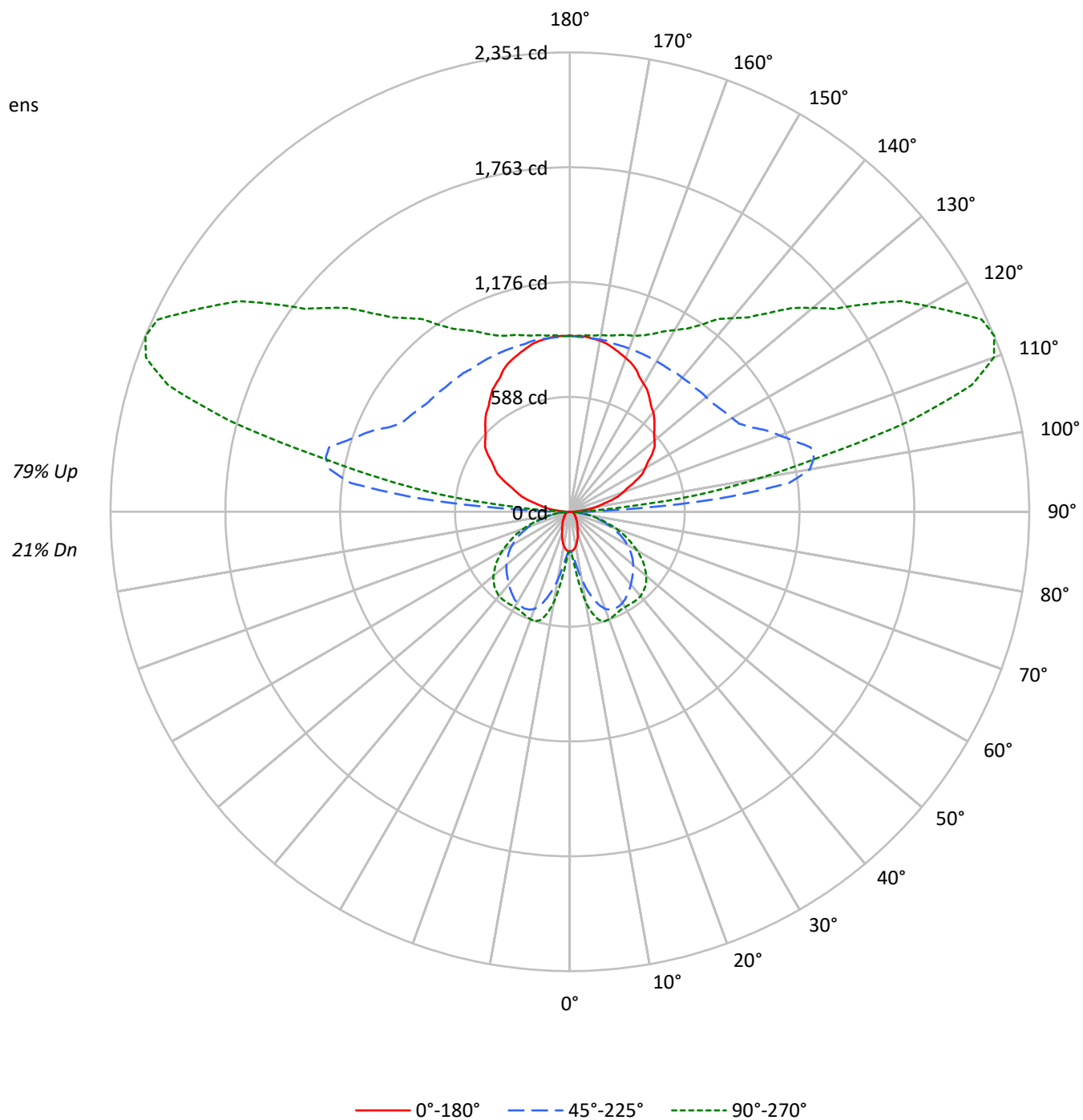
Lumens per Lamp: N/A
Luminaire Lumens: 7405.1 lumens
Efficiency: N/A
Efficacy: 133.2 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 55.6
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: P938284

CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-4-3500K

Luminous Intensity Polar Plot



TEST NUMBER: P938284

CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-4-3500K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1875	1875	1875
5°	1831	2166	2522
10°	1659	3156	4180
15°	1408	4120	5048
20°	1146	4772	5144
25°	954	4989	5040
30°	804	5017	5031
35°	709	4929	5160
40°	617	4818	5295
45°	557	4733	5316
50°	510	4658	5228
55°	487	4548	4996
60°	496	4343	4630
65°	515	4032	4126
70°	543	3510	3487
75°	597	2854	2720
80°	641	1973	1835
85°	538	1044	937

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5316 cd/sqm

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CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-4-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.2	0.4
10°-20°	115.9	1.6
20°-30°	202.7	2.7
30°-40°	261.0	3.5
40°-50°	291.5	3.9
50°-60°	279.2	3.8
60°-70°	221.2	3.0
70°-80°	130.1	1.8
80°-90°	39.6	0.5
90°-100°	439.0	5.9
100°-110°	1154.1	15.6
110°-120°	1196.6	16.2
120°-130°	959.8	13.0
130°-140°	753.1	10.2
140°-150°	578.1	7.8
150°-160°	416.3	5.6
160°-170°	254.7	3.4
170°-180°	86.1	1.2
0°-30°	344.8	4.7
0°-40°	605.8	8.2
0°-60°	1176.5	15.9
0°-90°	1567.4	21.2
90°-120°	2789.6	37.7
90°-150°	5080.6	68.6
90°-180°	5838.0	78.8
0°-180°	7405.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	202	202	202	202	202	
5°	197	211	238	269	279	18
15°	148	272	459	556	574	41
25°	94	309	547	571	571	43
35°	64	295	515	544	566	40
45°	44	235	455	521	545	34
55°	31	150	386	449	461	28
65°	25	79	287	322	327	24
75°	18	49	157	173	174	19
85°	6	15	39	43	44	7
90°	6	17	46	23	23	5
95°	58	227	756	390	265	64
105°	208	315	1276	1937	1807	220
115°	369	448	1022	2039	2327	365
125°	514	576	930	1571	1853	456
135°	612	674	900	1268	1438	474
145°	710	755	889	1082	1166	445
155°	803	825	889	976	1004	369
165°	866	878	889	924	936	244
175°	900	900	895	907	907	85
180°	900	900	900	900	900	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	202.1	202.1	202.1	202.1	202.1	202.1	202.1	202.1	202.1	202.1	202.1
2.5°	202.1	202.1	203.5	204.1	205.4	206.1	207.4	208.6	212.6	213.2	214.5
5°	197.0	199.6	208.0	211.2	220.4	232.8	237.9	246.4	264.0	269.1	272.4
7.5°	189.1	195.1	215.8	221.0	243.8	276.3	289.9	308.1	336.0	349.7	360.8
10°	176.8	189.1	226.3	238.6	275.6	325.0	350.4	375.8	418.0	436.8	444.0
12.5°	163.2	183.3	237.3	254.2	307.5	379.7	410.2	438.2	486.2	511.6	515.5
15°	147.6	174.9	247.7	272.4	341.3	425.1	458.9	493.4	538.3	556.4	561.0
17.5°	133.9	168.4	257.5	283.4	367.3	466.1	500.6	529.2	565.5	577.9	581.1
20°	117.1	157.9	264.0	297.8	394.6	496.0	529.2	551.3	576.0	583.7	585.1
22.5°	104.7	146.9	267.8	302.9	412.8	514.2	542.2	559.7	576.6	579.2	579.8
25°	94.3	134.6	267.2	308.8	428.4	525.2	546.7	559.7	569.5	570.7	570.7
27.5°	84.5	120.9	264.5	310.1	440.1	527.8	544.8	553.9	558.4	561.0	561.0
30°	76.1	107.9	258.0	307.5	445.3	525.2	538.9	543.4	548.0	551.9	553.9
32.5°	69.6	95.5	248.4	302.2	445.9	518.7	528.5	531.1	537.6	546.7	549.9
35°	63.7	83.2	237.3	295.2	442.1	508.3	514.8	517.4	530.4	544.1	548.6
37.5°	57.8	74.1	223.0	282.8	436.1	496.0	500.6	505.1	525.2	541.5	546.7
40°	52.0	66.3	206.1	269.1	427.1	481.0	485.0	492.1	518.7	537.6	542.8
42.5°	47.5	59.8	187.9	254.8	415.4	464.2	470.0	480.4	511.0	531.1	536.9
45°	43.5	53.3	168.4	235.3	400.4	446.6	455.0	469.4	501.8	521.3	526.6
47.5°	39.6	48.7	148.3	215.2	384.2	429.1	440.1	456.3	489.5	508.3	512.9
50°	36.4	44.2	128.1	193.7	366.7	410.2	423.2	440.1	473.9	491.5	497.3
52.5°	33.8	40.3	109.2	172.3	346.5	390.7	405.6	423.2	455.0	471.9	475.9
55°	31.2	37.0	92.9	149.5	325.7	369.9	386.1	403.0	434.2	448.6	451.2
57.5°	29.9	34.5	79.3	128.1	303.6	346.5	364.6	380.2	409.5	420.5	423.2
60°	27.9	32.5	68.9	109.9	279.6	324.4	340.0	355.6	380.2	389.3	391.4
62.5°	26.0	31.2	61.1	92.3	254.8	298.4	314.0	328.3	349.0	355.6	358.1
65°	24.7	29.9	55.2	79.3	229.5	271.0	286.6	299.0	315.9	322.4	323.7
67.5°	23.4	28.6	50.7	68.2	204.1	243.8	255.4	267.2	280.1	286.6	287.3
70°	21.4	27.3	46.8	60.5	178.1	212.6	222.3	234.7	245.1	248.4	250.3
72.5°	20.2	25.4	44.2	54.7	151.5	182.7	191.8	198.9	208.0	211.2	211.2
75°	18.2	22.8	41.6	48.7	124.1	149.5	157.3	164.4	171.6	172.9	170.9
77.5°	16.3	20.2	35.8	41.0	96.9	118.3	124.8	128.7	134.6	135.9	136.5
80°	13.7	17.5	27.9	31.9	70.3	87.1	91.7	94.9	100.1	100.1	101.5
82.5°	10.4	13.7	20.2	22.8	47.5	59.8	63.7	65.7	68.9	68.9	68.9
85°	6.5	8.4	13.0	14.9	28.6	36.4	39.1	39.6	42.2	42.9	42.9
87.5°	3.3	4.6	8.4	9.1	14.9	18.9	18.9	20.2	20.2	19.5	18.9
90°	6.0	10.9	15.7	17.0	26.6	39.5	45.9	40.8	30.6	23.0	23.0
92.5°	24.1	65.2	106.4	116.7	164.0	227.0	258.6	226.6	162.8	114.8	110.3
95°	58.0	133.2	208.4	227.2	403.5	638.6	756.1	674.7	511.9	389.8	376.0
97.5°	100.3	166.7	233.0	249.6	543.5	935.5	1131.4	1080.0	977.0	899.9	873.6
100°	132.9	193.1	253.3	268.3	594.5	1029.4	1246.8	1250.6	1258.1	1263.8	1232.4
102.5°	160.8	217.0	273.1	287.1	617.9	1058.9	1279.5	1345.0	1476.1	1574.4	1547.6
105°	207.9	255.5	303.0	314.9	635.2	1062.2	1275.8	1422.7	1716.6	1937.0	1922.6
107.5°	256.3	300.6	345.0	356.0	638.5	1015.0	1203.3	1408.2	1818.1	2125.6	2129.1
110°	288.9	328.9	369.0	379.0	633.6	973.1	1142.8	1372.0	1830.2	2174.0	2189.0

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	320.9	359.1	397.3	406.8	633.8	936.5	1087.9	1322.4	1791.4	2143.1	2166.2
115°	369.3	404.5	439.6	448.5	639.6	894.6	1022.0	1247.9	1699.7	2038.6	2070.7
117.5°	417.1	449.0	481.0	489.0	651.6	868.3	976.7	1180.5	1588.3	1894.1	1929.7
120°	444.8	474.9	504.9	512.5	661.1	859.4	958.5	1144.8	1517.4	1796.8	1831.3
122.5°	472.0	502.3	532.8	540.3	675.1	854.9	944.7	1112.4	1447.9	1699.5	1733.5
125°	513.8	541.4	569.1	576.0	693.8	851.0	929.6	1072.0	1357.0	1570.7	1602.1
127.5°	547.6	575.5	603.4	610.4	712.5	848.7	916.9	1039.3	1283.9	1467.5	1493.9
130°	565.7	595.7	625.8	633.3	726.3	850.1	912.0	1020.9	1238.8	1402.1	1426.6
132.5°	584.4	614.5	644.6	652.1	737.3	851.0	907.8	1005.2	1200.3	1346.5	1368.4
135°	612.2	639.6	667.0	673.8	749.4	850.1	900.5	982.2	1145.5	1267.9	1286.8
137.5°	640.6	667.7	694.9	701.7	767.5	855.4	899.3	968.3	1106.4	1210.0	1225.4
140°	664.2	689.2	714.2	720.5	778.7	856.3	895.1	954.7	1073.9	1163.4	1177.8
142.5°	682.4	705.4	728.5	734.3	787.9	859.3	895.1	947.5	1052.2	1130.8	1143.2
145°	710.2	730.3	750.4	755.4	800.0	859.4	889.1	931.9	1017.5	1081.8	1091.2
147.5°	737.9	757.6	777.1	782.1	817.7	865.3	889.1	922.8	990.1	1040.7	1048.5
150°	756.1	773.8	791.5	795.9	826.9	868.3	889.1	917.5	974.4	1017.2	1023.5
152.5°	774.8	788.3	801.7	805.0	833.0	870.4	889.1	913.4	962.0	998.5	1003.2
155°	802.6	812.6	822.5	825.0	846.3	874.8	889.1	908.4	947.1	976.1	979.3
157.5°	823.2	832.9	842.4	844.9	859.6	879.3	889.1	904.1	934.1	956.7	958.9
160°	837.0	844.6	852.1	854.0	865.7	881.3	889.1	901.9	927.7	947.0	948.3
162.5°	851.0	856.6	862.2	863.7	872.1	883.4	889.1	899.9	921.7	938.0	939.2
165°	866.1	871.1	876.3	877.5	881.4	886.5	889.1	896.8	912.4	924.0	925.3
167.5°	879.9	882.4	884.8	885.4	888.6	892.9	895.1	900.2	910.4	918.0	918.6
170°	889.1	891.5	893.9	894.5	894.7	895.0	895.1	900.2	910.4	918.0	918.0
172.5°	893.9	894.4	895.0	895.1	895.1	895.1	895.1	899.1	907.2	913.2	912.7
175°	900.5	900.5	900.5	900.5	898.7	896.2	895.1	897.6	902.7	906.6	906.6
177.5°	900.5	900.5	900.5	900.5	899.1	897.3	896.3	898.4	902.3	905.3	904.8
180°	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5	900.5

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CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-4-3500K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	202.1	202.1
2.5°	215.8	214.5
5°	277.6	278.9
7.5°	373.7	373.2
10°	464.8	470.6
12.5°	531.1	532.4
15°	571.4	574.0
17.5°	587.0	587.7
20°	587.7	586.3
22.5°	580.5	579.2
25°	572.1	571.4
27.5°	564.2	564.9
30°	561.0	563.0
32.5°	561.0	564.2
35°	562.3	565.5
37.5°	561.6	565.5
40°	559.0	563.6
42.5°	551.9	555.1
45°	540.8	544.8
47.5°	526.6	529.2
50°	508.3	511.0
52.5°	485.6	486.2
55°	458.3	460.9
57.5°	429.1	429.7
60°	396.5	398.5
62.5°	362.1	362.1
65°	325.7	326.9
67.5°	288.0	291.2
70°	249.6	250.3
72.5°	211.9	211.9
75°	172.9	173.5
77.5°	135.9	135.9
80°	100.8	101.5
82.5°	69.6	70.8
85°	43.5	43.5
87.5°	20.2	18.2
90°	23.0	23.0
92.5°	92.0	73.7
95°	320.6	265.3
97.5°	768.3	663.0
100°	1107.0	981.5
102.5°	1440.1	1332.7
105°	1864.8	1807.1
107.5°	2143.0	2157.0
110°	2249.1	2309.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2258.6	2351.0
115°	2198.8	2326.9
117.5°	2071.7	2213.8
120°	1969.4	2107.5
122.5°	1869.8	2005.9
125°	1727.5	1853.0
127.5°	1599.7	1705.5
130°	1524.3	1622.1
132.5°	1455.9	1543.5
135°	1362.3	1437.8
137.5°	1287.2	1348.9
140°	1235.6	1293.3
142.5°	1192.9	1242.5
145°	1128.9	1166.5
147.5°	1079.7	1110.9
150°	1048.7	1073.9
152.5°	1022.3	1041.3
155°	991.9	1004.5
157.5°	967.7	976.7
160°	953.4	958.5
162.5°	944.0	948.8
165°	930.4	935.6
167.5°	920.7	922.9
170°	918.0	918.0
172.5°	910.9	909.0
175°	906.6	906.6
177.5°	902.6	900.5
180°	900.5	900.5



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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	0.27	0.77	1.42	3.05	12.74	13.41	13.91	14.56	16.19
	3H	0.29	0.89	1.47	2.05	3.69	14.55	15.15	15.72	16.31	17.95
	4H	0.58	1.15	1.77	2.31	3.96	15.18	15.74	16.36	16.90	18.55
	6H	0.82	1.35	2.01	2.51	4.17	15.58	16.10	16.77	17.27	18.93
	8H	0.89	1.38	2.08	2.56	4.21	15.69	16.19	16.88	17.37	19.02
	12H	0.90	1.37	2.09	2.54	4.21	15.75	16.22	16.94	17.39	19.06
4H	2H	6.77	7.33	7.96	8.50	10.14	12.99	13.56	14.18	14.72	16.37
	3H	8.32	8.79	9.51	9.98	11.64	15.00	15.48	16.20	16.66	18.32
	4H	8.41	8.84	9.60	10.02	11.69	15.75	16.19	16.95	17.36	19.04
	6H	8.40	8.78	9.60	9.98	11.64	16.27	16.64	17.47	17.84	19.50
	8H	8.38	8.73	9.57	9.91	11.60	16.42	16.77	17.62	17.95	19.64
	12H	8.32	8.64	9.54	9.84	11.53	16.49	16.81	17.71	18.01	19.70
8H	4H	9.82	10.17	11.02	11.36	13.04	15.80	16.14	16.99	17.33	19.02
	6H	10.06	10.34	11.27	11.58	13.26	16.40	16.69	17.62	17.92	19.60
	8H	10.07	10.32	11.29	11.53	13.23	16.61	16.86	17.84	18.07	19.77
	12H	10.03	10.25	11.26	11.46	13.19	16.74	16.96	17.97	18.16	19.90
12H	4H	9.95	10.27	11.17	11.47	13.16	15.74	16.06	16.95	17.25	18.94
	6H	10.31	10.56	11.53	11.77	13.47	16.38	16.63	17.61	17.84	19.54
	8H	10.37	10.59	11.59	11.79	13.52	16.60	16.82	17.82	18.02	19.75

END OF REPORT