

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: P937682

Luminaire Tested: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-4-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937682
REPORT IS A COMBINATION OF REPORTS P933567 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-4-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

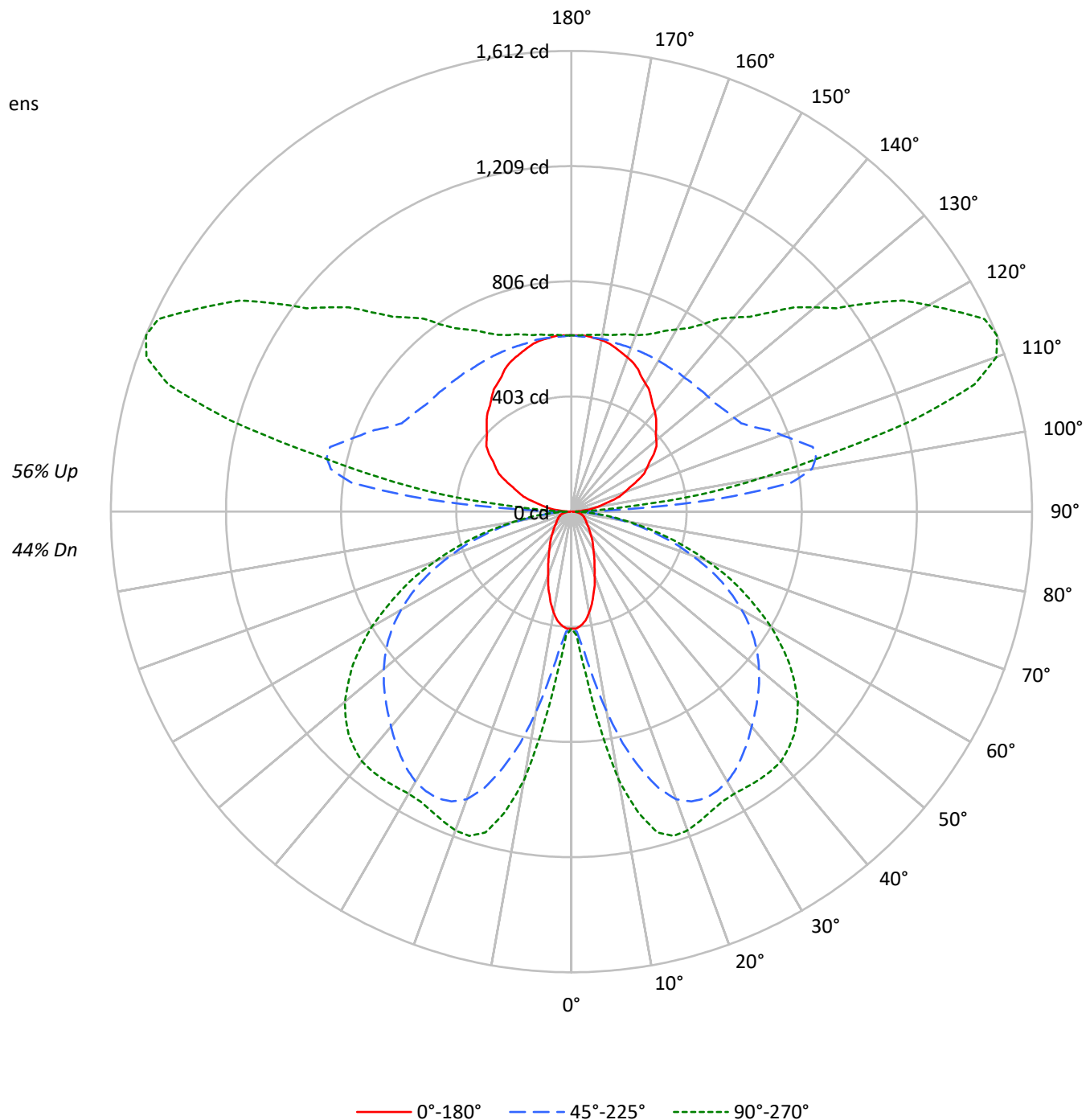
Lumens per Lamp: N/A
Luminaire Lumens: 7170.2 lumens
Efficiency: N/A
Efficacy: 123.6 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 58
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

TEST NUMBER: P937682

CATALOG NUMBER: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-4-2700K

Luminous Intensity Polar Plot



TEST NUMBER: P937682

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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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51			44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42			36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34			30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29			24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24			20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21			17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18			15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16			13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14			11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12			10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11			9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3798	3798	3798
5°	3707	4387	5105
10°	3358	6390	8463
15°	2850	8342	10219
20°	2317	9659	10414
25°	1931	10100	10204
30°	1627	10156	10184
35°	1436	9980	10448
40°	1249	9753	10720
45°	1128	9583	10762
50°	1033	9430	10583
55°	986	9209	10115
60°	1007	8792	9374
65°	1042	8165	8355
70°	1102	7106	7059
75°	1210	5779	5509
80°	1292	3994	3712
85°	1085	2109	1898

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10762 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.9	0.7
10°-20°	234.6	3.3
20°-30°	410.4	5.7
30°-40°	528.3	7.4
40°-50°	590.2	8.2
50°-60°	565.2	7.9
60°-70°	448.0	6.2
70°-80°	263.4	3.7
80°-90°	75.5	1.1
90°-100°	300.9	4.2
100°-110°	791.1	11.0
110°-120°	820.2	11.4
120°-130°	657.9	9.2
130°-140°	516.2	7.2
140°-150°	396.2	5.5
150°-160°	285.4	4.0
160°-170°	174.6	2.4
170°-180°	59.0	0.8
0°-30°	698.0	9.7
0°-40°	1226.4	17.1
0°-60°	2381.8	33.2
0°-90°	3168.6	44.2
90°-120°	1912.2	26.7
90°-150°	3482.6	48.6
90°-180°	4002.0	55.8
0°-180°	7170.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	409	409	409	409	409	
5°	399	428	482	545	565	37
15°	299	551	929	1127	1162	83
25°	191	625	1107	1156	1157	88
35°	129	598	1042	1102	1145	81
45°	88	476	921	1056	1103	68
55°	63	303	782	908	933	58
65°	50	161	580	653	662	50
75°	37	99	318	350	351	39
85°	13	30	79	87	88	14
90°	4	12	32	16	16	4
95°	40	156	518	267	182	44
105°	142	216	875	1328	1239	151
115°	253	307	701	1397	1595	250
125°	352	395	637	1077	1270	313
135°	420	462	617	869	986	325
145°	487	518	610	742	800	305
155°	550	566	610	669	688	253
165°	594	602	610	634	641	168
175°	617	617	614	621	621	59
180°	617	617	617	617	617	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	409.3	409.3	409.3	409.3	409.3	409.3	409.3	409.3	409.3	409.3	409.3
2.5°	409.3	409.3	411.9	413.2	415.8	417.2	419.8	422.4	430.4	431.7	434.3
5°	398.8	404.1	421.1	427.7	446.1	471.1	481.7	498.8	534.4	544.8	551.4
7.5°	383.0	394.8	436.9	447.5	493.5	559.4	586.9	623.8	680.4	708.1	730.4
10°	358.0	383.0	458.0	483.0	558.0	658.1	709.4	760.6	846.2	884.3	898.9
12.5°	330.4	371.1	480.4	514.5	622.5	768.6	830.5	887.0	984.4	1035.7	1043.6
15°	298.7	354.0	501.4	551.4	690.9	860.7	929.2	998.9	1089.7	1126.6	1135.7
17.5°	271.1	340.8	521.1	573.8	743.6	943.6	1013.3	1071.3	1145.0	1170.0	1176.6
20°	236.8	319.8	534.4	602.8	798.9	1004.2	1071.3	1116.0	1166.0	1181.9	1184.4
22.5°	211.8	297.4	542.2	613.2	835.6	1041.0	1097.6	1133.1	1167.3	1172.6	1173.9
25°	190.8	272.4	540.9	625.1	867.3	1063.3	1106.8	1133.1	1152.9	1155.5	1155.5
27.5°	171.1	244.8	535.6	627.8	890.9	1068.6	1102.9	1121.3	1130.5	1135.7	1135.7
30°	154.0	218.4	522.5	622.5	901.5	1063.3	1091.0	1100.2	1109.4	1117.3	1121.3
32.5°	140.8	193.4	502.8	611.9	902.8	1050.2	1069.9	1075.2	1088.3	1106.8	1113.4
35°	129.0	168.4	480.4	597.5	894.9	1029.2	1042.3	1047.6	1073.9	1101.6	1110.7
37.5°	117.1	150.0	451.4	572.5	883.1	1004.2	1013.3	1022.6	1063.3	1096.3	1106.8
40°	105.3	134.3	417.2	544.8	864.6	973.9	981.8	996.3	1050.2	1088.3	1098.9
42.5°	96.1	121.1	380.4	515.9	840.9	939.6	951.5	972.6	1034.4	1075.2	1087.0
45°	88.1	107.9	340.8	476.4	810.6	904.2	921.2	950.2	1016.0	1055.5	1066.0
47.5°	80.3	98.7	300.1	435.7	777.8	868.6	890.9	923.9	991.0	1029.2	1038.3
50°	73.7	89.5	259.3	392.2	742.2	830.5	856.8	890.9	959.4	994.9	1006.8
52.5°	68.4	81.6	221.1	348.8	701.5	790.9	821.2	856.8	921.2	955.5	963.3
55°	63.1	75.0	188.2	302.7	659.4	748.8	781.8	815.9	879.2	908.1	913.3
57.5°	60.6	69.7	160.6	259.3	614.6	701.5	738.3	769.9	829.1	851.5	856.8
60°	56.6	65.8	139.5	222.4	565.9	656.7	688.3	719.9	769.9	788.3	792.2
62.5°	52.7	63.1	123.7	186.8	515.9	604.1	635.6	664.6	706.8	719.9	725.2
65°	50.0	60.6	111.9	160.6	464.5	548.8	580.4	605.4	639.6	652.8	655.4
67.5°	47.4	57.9	102.7	138.1	413.2	493.5	517.2	540.9	567.2	580.4	581.7
70°	43.4	55.3	94.7	122.4	360.6	430.4	450.1	475.1	496.1	502.8	506.7
72.5°	40.8	51.3	89.5	110.6	306.7	369.8	388.2	402.7	421.1	427.7	427.7
75°	36.9	46.0	84.3	98.7	251.4	302.7	318.5	333.0	347.4	350.1	346.1
77.5°	32.9	40.8	72.4	82.9	196.1	239.5	252.7	260.6	272.4	275.1	276.4
80°	27.6	35.6	56.6	64.4	142.1	176.4	185.6	192.1	202.7	202.7	205.3
82.5°	21.0	27.6	40.8	46.0	96.1	121.1	129.0	133.0	139.5	139.5	139.5
85°	13.1	17.1	26.3	30.3	57.9	73.7	79.0	80.3	85.6	86.9	86.9
87.5°	6.6	9.2	17.1	18.4	30.3	38.1	38.1	40.8	40.8	39.4	38.1
90°	4.2	7.5	10.8	11.6	18.2	27.1	31.5	28.0	21.0	15.7	15.7
92.5°	16.5	44.7	72.9	80.0	112.4	155.7	177.3	155.4	111.6	78.7	75.6
95°	39.7	91.3	142.9	155.8	276.6	437.6	518.2	462.4	350.9	267.2	257.8
97.5°	68.7	114.2	159.8	171.1	372.6	641.2	775.5	740.2	669.7	616.8	598.8
100°	91.1	132.4	173.6	184.0	407.6	705.7	854.7	857.3	862.3	866.2	844.7
102.5°	110.2	148.7	187.1	196.8	423.6	725.9	877.1	922.0	1011.8	1079.2	1060.7
105°	142.5	175.1	207.7	215.8	435.5	728.2	874.6	975.3	1176.7	1327.8	1317.9
107.5°	175.7	206.1	236.5	244.0	437.6	695.7	824.8	965.3	1246.3	1457.0	1459.4
110°	198.0	225.5	252.9	259.8	434.3	667.0	783.4	940.4	1254.6	1490.1	1500.5

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	220.0	246.1	272.2	278.8	434.5	641.9	745.7	906.5	1227.9	1469.0	1484.8
115°	253.1	277.2	301.3	307.4	438.4	613.2	700.6	855.5	1165.1	1397.4	1419.3
117.5°	285.9	307.8	329.7	335.2	446.6	595.2	669.5	809.2	1088.7	1298.4	1322.7
120°	304.9	325.5	346.1	351.3	453.2	589.1	657.1	784.7	1040.1	1231.7	1255.4
122.5°	323.6	344.4	365.2	370.4	462.7	585.9	647.5	762.4	992.4	1164.9	1188.2
125°	352.2	371.1	390.0	394.8	475.6	583.3	637.1	734.8	930.2	1076.7	1098.2
127.5°	375.3	394.4	413.6	418.4	488.4	581.8	628.5	712.3	880.1	1005.9	1024.0
130°	387.7	408.4	429.0	434.2	497.8	582.8	625.2	699.9	849.2	961.1	977.9
132.5°	400.6	421.2	441.8	447.0	505.4	583.3	622.2	689.0	822.7	923.0	938.0
135°	419.7	438.4	457.3	461.9	513.7	582.8	617.3	673.3	785.1	869.1	882.1
137.5°	439.1	457.8	476.3	481.0	526.1	586.3	616.4	663.7	758.4	829.4	839.9
140°	455.3	472.4	489.5	493.8	533.8	586.9	613.5	654.4	736.1	797.5	807.4
142.5°	467.7	483.6	499.4	503.4	540.1	589.0	613.5	649.4	721.2	775.1	783.7
145°	486.7	500.6	514.3	517.8	548.4	589.1	609.5	638.8	697.5	741.5	748.0
147.5°	505.9	519.3	532.7	536.0	560.5	593.1	609.5	632.6	678.8	713.4	718.8
150°	518.2	530.4	542.5	545.6	566.9	595.3	609.5	629.0	667.9	697.2	701.5
152.5°	531.1	540.2	549.5	551.8	571.0	596.6	609.5	626.1	659.4	684.4	687.6
155°	550.2	557.0	563.8	565.5	580.2	599.7	609.5	622.7	649.2	669.0	671.2
157.5°	564.2	570.9	577.5	579.2	589.2	602.7	609.5	619.7	640.3	655.8	657.3
160°	573.8	579.0	584.1	585.3	593.4	604.1	609.5	618.3	635.9	649.2	650.1
162.5°	583.3	587.1	591.0	592.0	597.8	605.6	609.5	616.9	631.8	642.9	643.7
165°	593.6	597.1	600.6	601.5	604.2	607.7	609.5	614.8	625.5	633.5	634.4
167.5°	603.2	604.9	606.6	607.0	609.2	612.0	613.5	617.0	624.0	629.3	629.7
170°	609.5	611.0	612.7	613.1	613.2	613.4	613.5	617.0	624.0	629.3	629.3
172.5°	612.7	613.1	613.4	613.5	613.5	613.5	613.5	616.3	621.8	626.0	625.7
175°	617.3	617.3	617.3	617.3	616.0	614.3	613.5	615.3	618.8	621.4	621.4
177.5°	617.3	617.3	617.3	617.3	616.3	615.0	614.3	615.7	618.5	620.6	620.2
180°	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3

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CATALOG NUMBER: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-4-2700K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	409.3	409.3
2.5°	436.9	434.3
5°	561.9	564.6
7.5°	756.8	755.4
10°	941.0	952.8
12.5°	1075.2	1077.9
15°	1156.9	1162.0
17.5°	1188.4	1189.7
20°	1189.7	1187.0
22.5°	1175.3	1172.6
25°	1158.1	1156.9
27.5°	1142.3	1143.6
30°	1135.7	1139.7
32.5°	1135.7	1142.3
35°	1138.4	1145.0
37.5°	1137.0	1145.0
40°	1131.9	1141.0
42.5°	1117.3	1123.9
45°	1095.0	1102.9
47.5°	1066.0	1071.3
50°	1029.2	1034.4
52.5°	983.1	984.4
55°	927.8	933.1
57.5°	868.6	869.9
60°	802.8	806.8
62.5°	733.1	733.1
65°	659.4	661.9
67.5°	583.1	589.6
70°	505.4	506.7
72.5°	429.1	429.1
75°	350.1	351.4
77.5°	275.1	275.1
80°	204.0	205.3
82.5°	140.8	143.4
85°	88.1	88.1
87.5°	40.8	36.9
90°	15.7	15.7
92.5°	63.0	50.5
95°	219.8	181.9
97.5°	526.6	454.5
100°	758.8	672.8
102.5°	987.1	913.5
105°	1278.3	1238.7
107.5°	1469.0	1478.6
110°	1541.7	1582.9

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1548.2	1611.5
115°	1507.1	1595.0
117.5°	1420.1	1517.5
120°	1350.0	1444.6
122.5°	1281.7	1375.0
125°	1184.1	1270.2
127.5°	1096.6	1169.1
130°	1044.9	1111.9
132.5°	998.0	1058.1
135°	933.8	985.5
137.5°	882.4	924.7
140°	847.0	886.5
142.5°	817.7	851.8
145°	773.8	799.6
147.5°	740.1	761.4
150°	718.8	736.1
152.5°	700.7	713.8
155°	679.9	688.5
157.5°	663.4	669.5
160°	653.6	657.1
162.5°	647.1	650.4
165°	637.8	641.3
167.5°	631.1	632.6
170°	629.3	629.3
172.5°	624.4	623.1
175°	621.4	621.4
177.5°	618.8	617.3
180°	617.3	617.3

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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	5.07	5.92	6.07	6.93	8.28	18.21	19.06	19.21	20.07	21.42
	3H	5.78	6.54	6.79	7.56	8.93	20.03	20.79	21.04	21.82	23.19
	4H	6.08	6.80	7.10	7.82	9.20	20.67	21.39	21.69	22.41	23.79
	6H	6.33	6.99	7.36	8.02	9.41	21.09	21.75	22.12	22.78	24.17
	8H	6.39	7.03	7.43	8.07	9.46	21.20	21.83	22.24	22.88	24.26
	12H	6.41	7.01	7.45	8.05	9.46	21.26	21.86	22.30	22.90	24.31
4H	2H	12.26	12.98	13.29	14.01	15.38	18.49	19.20	19.51	20.23	21.61
	3H	13.83	14.43	14.87	15.49	16.88	20.51	21.12	21.55	22.17	23.56
	4H	13.92	14.48	14.97	15.52	16.93	21.27	21.82	22.31	22.87	24.28
	6H	13.93	14.41	14.99	15.48	16.89	21.80	22.27	22.85	23.34	24.75
	8H	13.91	14.36	14.97	15.42	16.84	21.95	22.40	23.01	23.46	24.88
	12H	13.87	14.27	14.94	15.35	16.77	22.04	22.44	23.11	23.51	24.94
8H	4H	15.36	15.80	16.41	16.86	18.29	21.33	21.77	22.39	22.84	24.26
	6H	15.60	15.97	16.68	17.07	18.49	21.95	22.31	23.02	23.42	24.84
	8H	15.62	15.94	16.70	17.03	18.47	22.16	22.48	23.24	23.57	25.01
	12H	15.58	15.87	16.67	16.95	18.43	22.29	22.58	23.38	23.66	25.14
12H	4H	15.50	15.90	16.57	16.98	18.40	21.28	21.68	22.36	22.76	24.19
	6H	15.85	16.18	16.94	17.26	18.71	21.93	22.25	23.01	23.34	24.78
	8H	15.92	16.21	17.01	17.29	18.77	22.15	22.44	23.24	23.52	25.00

END OF REPORT