

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: P936990

Luminaire Tested: SQ4-FB-050U-125D-B2750-1D-UNV-STD-W-6-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936990
REPORT IS A COMBINATION OF REPORTS P933480 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-125D-B2750-1D-UNV-STD-W-6-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

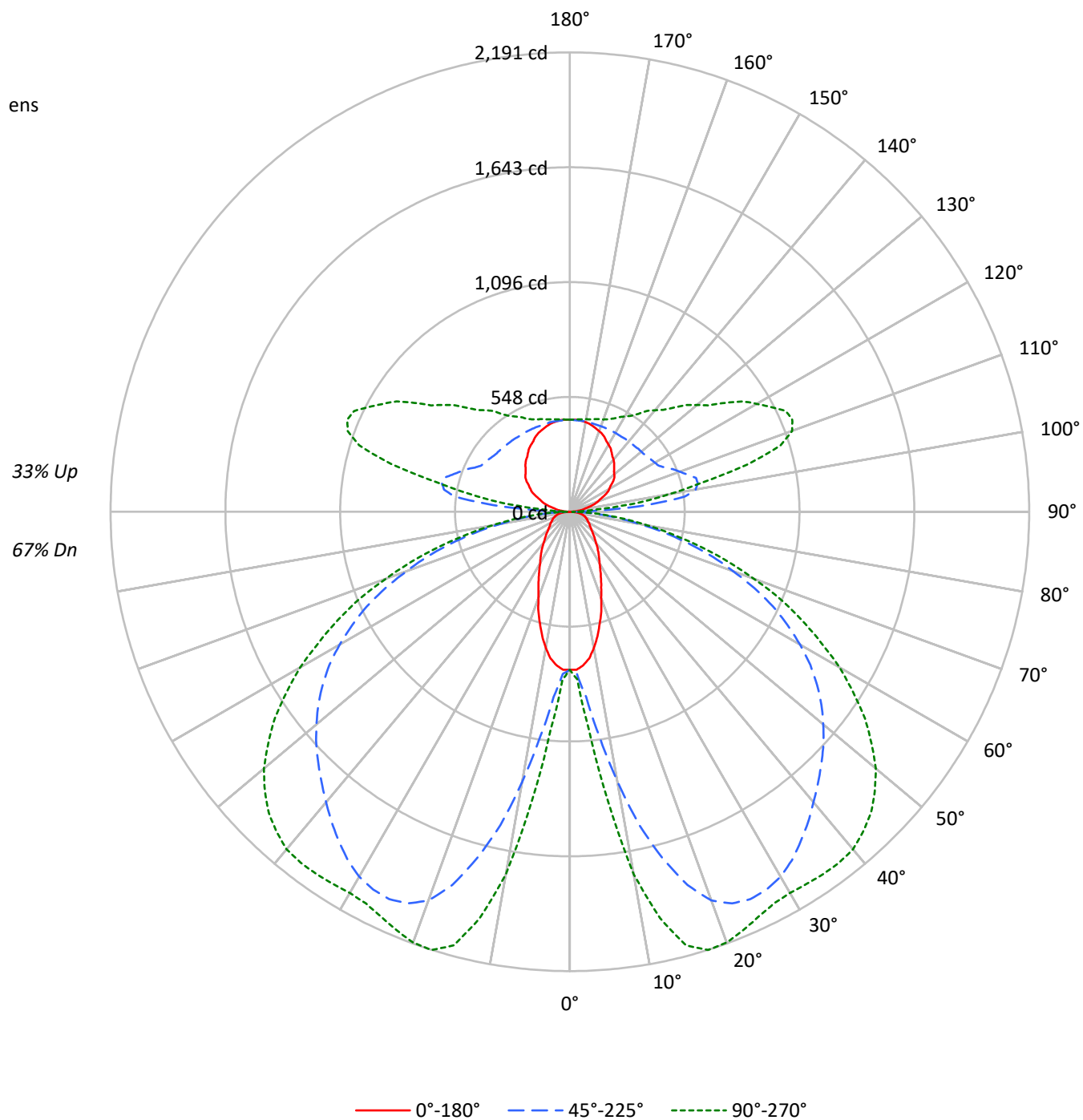
Lumens per Lamp: N/A
Luminaire Lumens: 8685.7 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 84
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4664	4664	4664
5°	4554	5389	6269
10°	4129	7854	10393
15°	3509	10258	12549
20°	2855	11884	12790
25°	2381	12433	12529
30°	2006	12509	12506
35°	1774	12298	12829
40°	1545	12025	13163
45°	1397	11823	13215
50°	1281	11641	12996
55°	1225	11377	12420
60°	1253	10873	11511
65°	1303	10107	10260
70°	1384	8808	8668
75°	1528	7177	6764
80°	1657	4971	4559
85°	1449	2632	2333

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 13215 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.5	1.1
10°-20°	432.2	5.0
20°-30°	756.0	8.7
30°-40°	973.2	11.2
40°-50°	1087.0	12.5
50°-60°	1041.1	12.0
60°-70°	825.1	9.5
70°-80°	485.2	5.6
80°-90°	136.5	1.6
90°-100°	214.4	2.5
100°-110°	563.8	6.5
110°-120°	584.6	6.7
120°-130°	468.9	5.4
130°-140°	367.9	4.2
140°-150°	282.4	3.3
150°-160°	203.4	2.3
160°-170°	124.4	1.4
170°-180°	42.0	0.5
0°-30°	1285.7	14.8
0°-40°	2259.0	26.0
0°-60°	4387.1	50.5
0°-90°	5833.9	67.2
90°-120°	1362.8	15.7
90°-150°	2482.0	28.6
90°-180°	2852.0	32.8
0°-180°	8685.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	754	754	754	754	754	
5°	734	788	887	1004	1040	68
15°	550	1016	1712	2075	2140	153
25°	352	1151	2039	2128	2131	162
35°	238	1100	1920	2029	2109	148
45°	162	878	1697	1944	2031	126
55°	116	558	1440	1673	1719	106
65°	92	296	1069	1202	1219	91
75°	68	182	587	645	647	71
85°	24	56	145	160	162	26
90°	3	8	22	11	11	4
95°	28	111	369	190	130	31
105°	102	154	623	946	883	108
115°	180	219	499	996	1137	178
125°	251	281	454	767	905	223
135°	299	329	440	619	702	231
145°	347	369	434	528	570	217
155°	392	403	434	477	491	180
165°	423	429	434	451	457	119
175°	440	440	437	443	443	42
180°	440	440	440	440	440	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	753.9	753.9	753.9	753.9	753.9	753.9	753.9	753.9	753.9	753.9	753.9
2.5°	753.9	753.9	758.7	761.1	766.0	768.5	773.3	778.1	792.6	795.1	800.0
5°	734.5	744.2	775.7	787.9	821.8	867.8	887.2	918.7	984.2	1003.6	1015.7
7.5°	705.5	727.2	804.8	824.2	909.1	1030.3	1081.2	1149.1	1253.2	1304.1	1345.4
10°	659.3	705.5	843.6	889.7	1027.9	1212.1	1306.6	1401.2	1558.8	1629.0	1655.7
12.5°	608.4	683.6	884.8	947.8	1146.6	1415.7	1529.6	1633.8	1813.3	1907.8	1922.3
15°	550.3	652.1	923.6	1015.7	1272.6	1585.4	1711.5	1839.9	2007.2	2075.0	2092.0
17.5°	499.4	627.8	960.0	1056.9	1369.7	1738.1	1866.5	1973.2	2109.0	2155.1	2167.2
20°	436.3	589.0	984.2	1110.3	1471.5	1849.6	1973.2	2055.6	2147.8	2176.8	2181.7
22.5°	390.3	547.9	998.7	1129.7	1539.4	1917.4	2021.7	2087.2	2150.2	2159.9	2162.3
25°	351.5	501.8	996.4	1151.4	1597.5	1958.7	2038.7	2087.2	2123.5	2128.4	2128.4
27.5°	315.2	450.9	986.6	1156.3	1641.2	1968.4	2031.4	2065.4	2082.3	2092.0	2092.0
30°	283.6	402.4	962.4	1146.6	1660.6	1958.7	2009.6	2026.6	2043.5	2058.1	2065.4
32.5°	259.4	356.3	926.0	1127.2	1662.9	1934.4	1970.8	1980.5	2004.7	2038.7	2050.8
35°	237.6	310.3	884.8	1100.5	1648.4	1895.7	1919.9	1929.6	1978.1	2029.0	2046.0
37.5°	215.7	276.4	831.5	1054.5	1626.6	1849.6	1866.5	1883.5	1958.7	2019.3	2038.7
40°	194.0	247.2	768.5	1003.6	1592.7	1793.9	1808.4	1835.0	1934.4	2004.7	2024.1
42.5°	177.0	223.0	700.6	950.2	1549.0	1730.8	1752.6	1791.4	1905.3	1980.5	2002.3
45°	162.4	198.7	627.8	877.5	1493.2	1665.3	1696.8	1750.2	1871.4	1944.2	1963.6
47.5°	147.8	181.8	552.7	802.4	1432.7	1599.9	1641.2	1701.7	1825.4	1895.7	1912.7
50°	135.7	164.8	477.6	722.4	1367.2	1529.6	1578.1	1641.2	1767.2	1832.6	1854.4
52.5°	126.1	150.3	407.2	642.4	1292.0	1456.9	1512.6	1578.1	1696.8	1759.9	1774.5
55°	116.3	138.2	346.7	557.5	1214.5	1379.3	1439.9	1503.0	1619.3	1672.7	1682.3
57.5°	111.5	128.4	295.8	477.6	1132.1	1292.0	1359.9	1418.1	1527.2	1568.4	1578.1
60°	104.2	121.2	257.0	409.7	1042.4	1209.6	1267.9	1326.0	1418.1	1452.1	1459.3
62.5°	96.9	116.3	227.9	344.2	950.2	1112.7	1170.8	1224.2	1301.8	1326.0	1335.7
65°	92.2	111.5	206.1	295.8	855.7	1010.9	1069.0	1115.1	1178.1	1202.3	1207.2
67.5°	87.3	106.7	189.1	254.5	761.1	909.1	952.7	996.4	1044.8	1069.0	1071.5
70°	80.0	101.8	174.6	225.5	664.2	792.6	829.0	875.1	913.9	926.0	933.3
72.5°	75.2	94.5	164.8	203.6	564.8	681.2	715.1	741.7	775.7	787.9	787.9
75°	67.9	84.8	155.2	181.8	463.0	557.5	586.7	613.3	639.9	644.8	637.6
77.5°	60.6	75.2	133.3	152.7	361.2	441.2	465.5	480.0	501.8	506.6	509.1
80°	50.9	65.4	104.2	118.8	261.8	324.8	341.8	353.9	373.3	373.3	378.2
82.5°	38.8	50.9	75.2	84.8	177.0	223.0	237.6	244.9	257.0	257.0	257.0
85°	24.3	31.5	48.5	55.8	106.7	135.7	145.4	147.8	157.6	160.0	160.0
87.5°	12.1	17.0	31.5	33.9	55.8	70.3	70.3	75.2	75.2	72.8	70.3
90°	3.0	5.3	7.7	8.3	13.0	19.3	22.4	20.0	14.9	11.2	11.2
92.5°	11.8	31.9	52.0	57.0	80.1	111.0	126.3	110.7	79.5	56.1	53.9
95°	28.4	65.0	101.8	111.0	197.1	312.0	369.4	329.7	250.1	190.4	183.6
97.5°	49.0	81.5	113.8	122.0	265.6	457.1	552.8	527.6	477.3	439.6	426.7
100°	64.9	94.4	123.8	131.1	290.4	502.9	609.1	610.9	614.6	617.4	602.1
102.5°	78.5	106.0	133.4	140.3	301.9	517.3	625.0	657.0	721.1	769.2	756.1
105°	101.6	124.8	148.0	153.9	310.3	518.9	623.2	695.0	838.6	946.3	939.2
107.5°	125.2	146.9	168.5	173.9	311.9	495.8	587.8	687.9	888.2	1038.4	1040.1
110°	141.1	160.6	180.2	185.1	309.5	475.4	558.3	670.2	894.2	1062.1	1069.4

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	156.8	175.4	194.1	198.7	309.6	457.5	531.5	646.1	875.2	1047.0	1058.2
115°	180.4	197.6	214.8	219.1	312.5	437.0	499.3	609.7	830.4	995.9	1011.5
117.5°	203.7	219.4	234.9	238.8	318.3	424.2	477.1	576.7	775.9	925.3	942.7
120°	217.3	232.0	246.7	250.4	323.0	419.8	468.2	559.2	741.3	877.7	894.6
122.5°	230.6	245.4	260.2	264.0	329.8	417.5	461.5	543.4	707.4	830.3	846.9
125°	251.0	264.4	278.0	281.3	338.9	415.7	454.1	523.7	663.0	767.3	782.6
127.5°	267.5	281.2	294.8	298.2	348.1	414.7	447.9	507.7	627.1	716.8	729.7
130°	276.4	291.1	305.8	309.4	354.8	415.2	445.5	498.7	605.2	685.0	697.0
132.5°	285.5	300.3	315.0	318.6	360.2	415.7	443.5	491.2	586.4	657.8	668.5
135°	299.1	312.5	325.8	329.2	366.1	415.3	440.0	479.9	559.6	619.4	628.7
137.5°	313.0	326.2	339.4	342.7	374.9	417.8	439.3	473.0	540.4	591.0	598.6
140°	324.5	336.7	348.9	351.9	380.4	418.3	437.3	466.4	524.7	568.3	575.4
142.5°	333.3	344.6	355.8	358.7	384.9	419.8	437.3	462.9	514.0	552.4	558.5
145°	347.0	356.8	366.6	369.1	390.9	419.8	434.3	455.2	497.1	528.5	533.1
147.5°	360.5	370.1	379.7	382.1	399.5	422.7	434.3	450.8	483.7	508.4	512.3
150°	369.4	378.1	386.7	388.9	404.1	424.2	434.3	448.3	476.1	496.9	499.9
152.5°	378.5	385.1	391.6	393.3	406.9	425.2	434.3	446.2	470.0	487.7	490.0
155°	392.1	397.0	401.8	403.0	413.4	427.4	434.3	443.8	462.7	476.8	478.4
157.5°	402.2	406.8	411.6	412.8	419.9	429.6	434.3	441.7	456.4	467.4	468.4
160°	408.9	412.6	416.2	417.1	422.9	430.5	434.3	440.6	453.2	462.7	463.3
162.5°	415.7	418.5	421.3	421.9	426.0	431.6	434.3	439.7	450.3	458.2	458.8
165°	423.1	425.5	428.0	428.7	430.6	433.1	434.3	438.2	445.7	451.4	452.1
167.5°	429.8	431.0	432.2	432.5	434.1	436.2	437.3	439.8	444.7	448.5	448.8
170°	434.3	435.5	436.7	437.0	437.1	437.2	437.3	439.8	444.7	448.5	448.5
172.5°	436.7	437.0	437.2	437.3	437.3	437.3	437.3	439.2	443.1	446.1	445.9
175°	440.0	440.0	440.0	440.0	439.1	437.9	437.3	438.5	441.0	442.8	442.8
177.5°	440.0	440.0	440.0	440.0	439.3	438.3	437.9	438.8	440.8	442.3	442.0
180°	440.0	440.0	440.0	440.0	440.0	440.0	440.0	440.0	440.0	440.0	440.0

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	753.9	753.9
2.5°	804.8	800.0
5°	1035.1	1040.0
7.5°	1393.9	1391.4
10°	1733.2	1755.1
12.5°	1980.5	1985.3
15°	2130.8	2140.5
17.5°	2189.0	2191.4
20°	2191.4	2186.6
22.5°	2164.7	2159.9
25°	2133.2	2130.8
27.5°	2104.2	2106.5
30°	2092.0	2099.3
32.5°	2092.0	2104.2
35°	2096.9	2109.0
37.5°	2094.4	2109.0
40°	2084.8	2101.7
42.5°	2058.1	2070.2
45°	2016.9	2031.4
47.5°	1963.6	1973.2
50°	1895.7	1905.3
52.5°	1810.8	1813.3
55°	1709.0	1718.7
57.5°	1599.9	1602.3
60°	1478.7	1486.0
62.5°	1350.3	1350.3
65°	1214.5	1219.3
67.5°	1073.9	1086.0
70°	930.8	933.3
72.5°	790.3	790.3
75°	644.8	647.2
77.5°	506.6	506.6
80°	375.7	378.2
82.5°	259.4	264.2
85°	162.4	162.4
87.5°	75.2	67.9
90°	11.2	11.2
92.5°	44.9	36.0
95°	156.6	129.6
97.5°	375.3	323.9
100°	540.8	479.5
102.5°	703.5	651.0
105°	911.1	882.8
107.5°	1046.9	1053.7
110°	1098.7	1128.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1103.4	1148.5
115°	1074.1	1136.7
117.5°	1012.1	1081.5
120°	962.1	1029.6
122.5°	913.5	979.9
125°	843.9	905.2
127.5°	781.5	833.2
130°	744.7	792.5
132.5°	711.3	754.1
135°	665.5	702.4
137.5°	628.9	659.0
140°	603.6	631.8
142.5°	582.7	607.0
145°	551.5	569.8
147.5°	527.4	542.6
150°	512.4	524.7
152.5°	499.4	508.7
155°	484.6	490.7
157.5°	472.8	477.1
160°	465.8	468.2
162.5°	461.2	463.6
165°	454.6	457.1
167.5°	449.8	450.9
170°	448.5	448.5
172.5°	444.9	444.1
175°	442.8	442.8
177.5°	441.0	440.0
180°	440.0	440.0

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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	7.78	8.87	8.56	9.69	10.69	20.94	22.04	21.73	22.85	23.85
	3H	8.50	9.49	9.30	10.31	11.34	22.79	23.78	23.59	24.61	25.64
	4H	8.81	9.75	9.63	10.58	11.62	23.45	24.38	24.26	25.21	26.25
	6H	9.07	9.94	9.90	10.78	11.83	23.89	24.75	24.71	25.59	26.64
	8H	9.15	9.97	9.99	10.83	11.89	24.01	24.84	24.85	25.70	26.75
	12H	9.17	9.96	10.02	10.81	11.90	24.08	24.87	24.93	25.72	26.81
4H	2H	15.01	15.95	15.83	16.78	17.82	21.25	22.18	22.06	23.01	24.05
	3H	16.60	17.39	17.43	18.25	19.31	23.31	24.09	24.14	24.96	26.01
	4H	16.71	17.42	17.55	18.29	19.37	24.08	24.80	24.93	25.66	26.74
	6H	16.73	17.35	17.59	18.24	19.33	24.63	25.25	25.49	26.14	27.22
	8H	16.72	17.30	17.58	18.18	19.28	24.80	25.38	25.66	26.26	27.36
	12H	16.68	17.21	17.57	18.11	19.22	24.90	25.42	25.78	26.33	27.43
8H	4H	18.17	18.75	19.03	19.63	20.73	24.16	24.74	25.03	25.63	26.73
	6H	18.42	18.91	19.32	19.83	20.93	24.80	25.28	25.69	26.21	27.30
	8H	18.44	18.87	19.35	19.79	20.91	25.02	25.45	25.92	26.36	27.48
	12H	18.42	18.80	19.33	19.71	20.88	25.17	25.55	26.08	26.46	27.63
12H	4H	18.32	18.85	19.21	19.75	20.86	24.13	24.65	25.01	25.55	26.66
	6H	18.68	19.11	19.59	20.03	21.15	24.78	25.21	25.69	26.13	27.25
	8H	18.76	19.14	19.67	20.05	21.22	25.02	25.40	25.93	26.31	27.48

END OF REPORT