

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: NEO-RAY

Report Number: P1051163

Luminaire Tested: S122DR-B675DB2750-4F0-XX-W2A-W_3000K

Issue Date: 7/9/2025

Test Information

Test Method: LM-79-2019
Report Number: P1051163
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2308-143-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/9/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DR-B675DB2750-4F0-XX-W2A-W_3000K
Description: Define 2 Direct Recessed with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3061.0 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 0.9 / 1.12
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

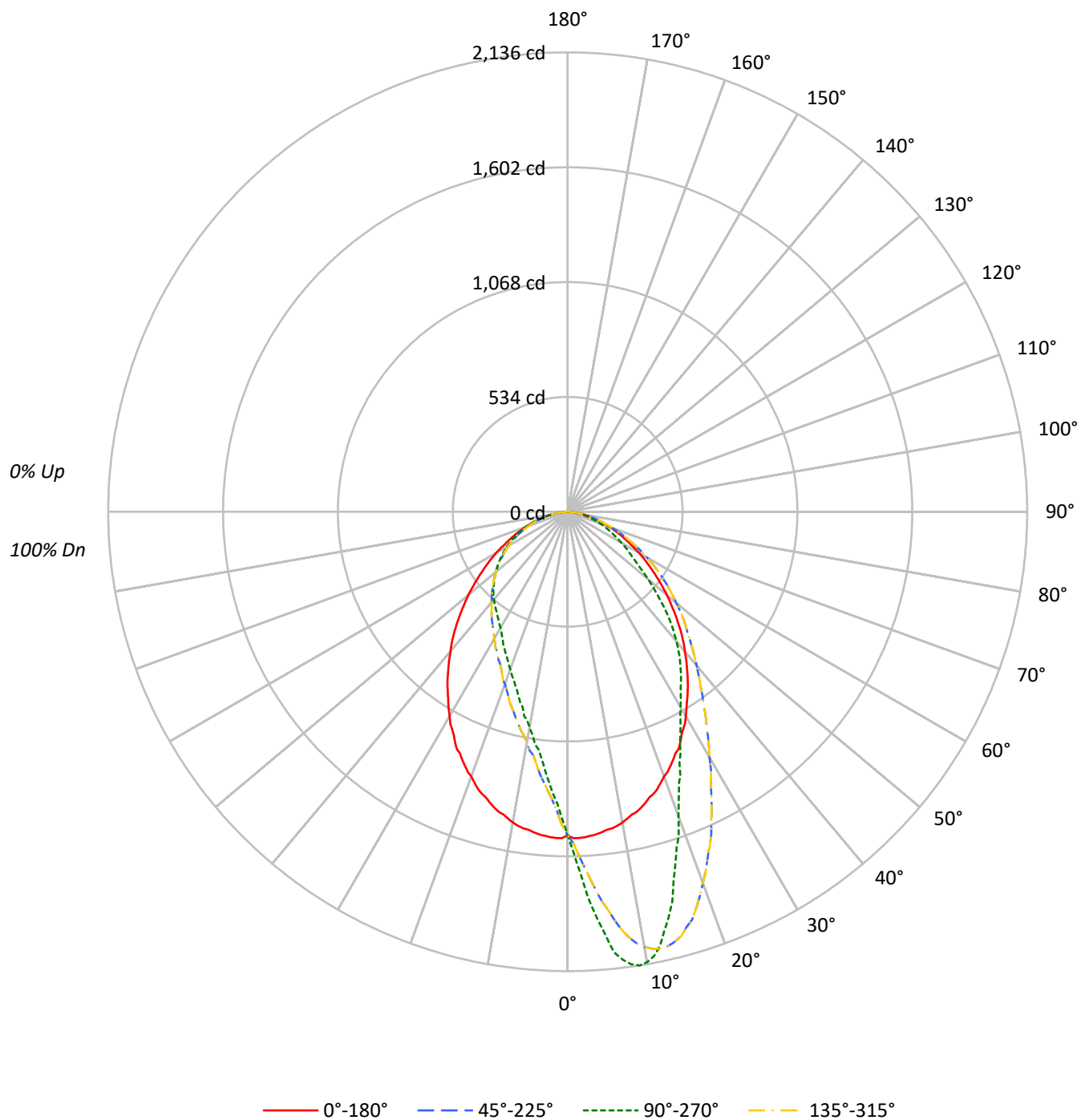
Input Watts (W): 35.9
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86		
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76	74		
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	74	69	66	64		
4	86	75	67	60	83	73	66	60	71	64	59	69	63	58	67	62	58	56		
5	79	67	59	53	77	66	58	53	64	57	52	62	56	52	61	55	51	49		
6	74	61	53	47	72	60	52	47	59	52	46	57	51	46	55	50	46	44		
7	69	56	48	42	67	55	47	42	54	47	42	52	46	41	51	45	41	39		
8	64	51	43	38	63	51	43	38	50	43	38	48	42	37	47	41	37	35		
9	60	48	40	35	59	47	40	34	46	39	34	45	39	34	44	38	34	32		
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	23814	23814	23814	23814
5°	23938	31233	23938	19157
10°	23583	34187	23583	16353
15°	22943	30755	22943	14505
20°	22067	25377	22067	13151
25°	21292	21689	21292	12189
30°	20071	19183	20071	11415
35°	18822	17743	18822	11090
40°	17521	16238	17521	11024
45°	16203	14305	16203	10880
50°	14845	12045	14845	10744
55°	13412	10131	13412	10559
60°	12176	9133	12176	10343
65°	10843	8289	10843	10147
70°	9761	7465	9761	9617
75°	8348	6514	8348	8789
80°	6782	5469	6782	7356
85°	5067	4123	5067	5267

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 25831 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.1	4.8
10°-20°	406.3	13.3
20°-30°	532.9	17.4
30°-40°	563.2	18.4
40°-50°	522.9	17.1
50°-60°	418.5	13.7
60°-70°	286.2	9.4
70°-80°	147.7	4.8
80°-90°	35.1	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1087.3	35.5
0°-40°	1650.5	53.9
0°-60°	2592.0	84.7
0°-90°	3061.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3061.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1504	1504	1504	1504	1504	
5°	1506	1966	1506	1206	1506	143
15°	1400	1877	1400	885	1400	393
25°	1219	1242	1219	698	1219	557
35°	974	918	974	574	974	608
45°	724	639	724	486	724	559
55°	486	367	486	383	486	437
65°	290	221	290	271	290	288
75°	136	106	136	144	136	146
85°	28	23	28	29	28	35
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1504.4	1504.4	1504.4	1504.4	1504.4	1504.4	1504.4	1504.4	1504.4	1504.4	1504.4
1°	1517.9	1544.8	1542.7	1578.9	1587.2	1578.9	1542.7	1544.8	1517.9	1487.9	1460.0
2°	1517.9	1578.9	1606.8	1663.7	1680.2	1663.7	1606.8	1578.9	1517.9	1453.8	1395.9
3°	1515.8	1608.9	1675.0	1753.6	1792.9	1753.6	1675.0	1608.9	1515.8	1422.8	1343.1
4°	1510.6	1639.9	1744.3	1848.8	1883.9	1848.8	1744.3	1639.9	1510.6	1392.8	1302.8
5°	1506.5	1679.2	1816.7	1942.8	1965.6	1942.8	1816.7	1679.2	1506.5	1363.8	1263.5
6°	1499.3	1718.5	1874.6	2013.2	2059.7	2013.2	1874.6	1718.5	1499.3	1335.9	1228.4
7°	1490.0	1744.3	1939.7	2069.0	2097.9	2069.0	1939.7	1744.3	1490.0	1303.8	1183.9
8°	1485.8	1786.7	1991.4	2113.4	2124.8	2113.4	1991.4	1786.7	1485.8	1273.9	1144.6
9°	1478.6	1804.3	2028.7	2126.9	2136.2	2126.9	2028.7	1804.3	1478.6	1258.4	1125.0
10°	1467.2	1831.2	2055.5	2131.0	2126.9	2131.0	2055.5	1831.2	1467.2	1226.3	1091.9
11°	1452.7	1862.2	2070.0	2115.5	2105.2	2115.5	2070.0	1862.2	1452.7	1200.4	1061.9
12°	1439.3	1883.9	2076.2	2086.6	2063.8	2086.6	2076.2	1883.9	1439.3	1177.7	1041.2
13°	1431.0	1893.2	2072.1	2050.4	1999.7	2050.4	2072.1	1893.2	1431.0	1151.9	1015.4
14°	1416.5	1913.9	2060.7	1994.5	1941.8	1994.5	2060.7	1913.9	1416.5	1122.9	991.6
15°	1400.0	1920.1	2042.1	1937.7	1876.7	1937.7	2042.1	1920.1	1400.0	1099.1	966.8
16°	1380.4	1927.3	2008.0	1867.4	1785.7	1867.4	2008.0	1927.3	1380.4	1072.2	944.0
17°	1370.0	1931.5	1982.1	1798.1	1710.2	1798.1	1982.1	1931.5	1370.0	1051.6	924.4
18°	1353.5	1928.4	1935.6	1740.2	1640.9	1740.2	1935.6	1928.4	1353.5	1027.8	895.4
19°	1330.7	1921.1	1889.1	1666.8	1586.1	1666.8	1889.1	1921.1	1330.7	1005.0	873.7
20°	1310.0	1918.0	1837.4	1599.6	1506.5	1599.6	1837.4	1918.0	1310.0	984.3	853.0
21°	1295.6	1907.7	1789.8	1535.5	1440.3	1535.5	1789.8	1907.7	1295.6	964.7	837.5
22.5°	1263.5	1888.0	1710.2	1437.2	1353.5	1437.2	1710.2	1888.0	1263.5	931.6	803.4
23°	1254.2	1881.8	1689.5	1414.5	1343.1	1414.5	1689.5	1881.8	1254.2	924.4	792.0
24°	1230.4	1862.2	1640.9	1353.5	1278.0	1353.5	1640.9	1862.2	1230.4	901.6	773.4
25°	1219.1	1843.6	1581.0	1303.8	1241.8	1303.8	1581.0	1843.6	1219.1	880.9	761.0
26°	1194.2	1816.7	1527.2	1262.5	1191.1	1262.5	1527.2	1816.7	1194.2	862.3	741.4
27°	1165.3	1797.1	1471.3	1213.9	1153.9	1213.9	1471.3	1797.1	1165.3	842.7	725.9
28°	1144.6	1765.0	1417.6	1175.6	1117.7	1175.6	1417.6	1765.0	1144.6	821.0	714.5
29°	1125.0	1740.2	1374.2	1131.2	1080.5	1131.2	1374.2	1740.2	1125.0	802.4	696.9
30°	1098.1	1707.1	1319.4	1096.0	1049.5	1096.0	1319.4	1707.1	1098.1	780.7	681.4
32.5°	1034.0	1628.5	1207.7	1017.4	978.1	1017.4	1207.7	1628.5	1034.0	737.2	644.2
35°	974.0	1540.6	1105.3	944.0	918.2	944.0	1105.3	1540.6	974.0	690.7	614.2
37.5°	910.9	1448.6	1012.3	879.9	855.1	879.9	1012.3	1448.6	910.9	648.3	580.1
40°	847.9	1357.6	932.6	818.9	785.8	818.9	932.6	1357.6	847.9	606.9	550.1
42.5°	788.9	1251.1	855.1	754.8	716.5	754.8	855.1	1251.1	788.9	567.7	521.1
45°	723.8	1153.9	785.8	687.6	639.0	687.6	785.8	1153.9	723.8	530.4	492.2
47.5°	661.7	1053.6	725.9	620.4	558.3	620.4	725.9	1053.6	661.7	493.2	464.3
50°	602.8	956.4	658.6	544.9	489.1	544.9	658.6	956.4	602.8	459.1	435.3
52.5°	542.8	865.4	599.7	476.7	420.8	476.7	599.7	865.4	542.8	428.1	407.4
55°	486.0	770.3	540.8	410.5	367.1	410.5	540.8	770.3	486.0	391.9	375.3
57.5°	433.2	679.3	482.9	358.8	329.8	358.8	482.9	679.3	433.2	356.7	346.4
60°	384.6	595.6	426.0	311.2	288.5	311.2	426.0	595.6	384.6	322.6	317.4
62.5°	331.9	520.1	372.2	270.9	251.3	270.9	372.2	520.1	331.9	289.5	287.4
65°	289.5	443.6	316.4	234.7	221.3	234.7	316.4	443.6	289.5	256.4	255.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	247.1	371.2	267.8	200.6	190.3	200.6	267.8	371.2	247.1	223.3	223.3
70°	210.9	306.1	221.3	169.6	161.3	169.6	221.3	306.1	210.9	190.3	191.3
72.5°	170.6	246.1	179.9	138.6	131.3	138.6	179.9	246.1	170.6	159.2	162.3
75°	136.5	194.4	141.7	111.7	106.5	111.7	141.7	194.4	136.5	127.2	131.3
77.5°	104.4	142.7	104.4	85.8	81.7	85.8	104.4	142.7	104.4	99.3	103.4
80°	74.4	100.3	74.4	61.0	60.0	61.0	74.4	100.3	74.4	71.3	76.5
82.5°	49.6	64.1	48.6	41.4	39.3	41.4	48.6	64.1	49.6	48.6	50.7
85°	27.9	35.2	26.9	23.8	22.7	23.8	26.9	35.2	27.9	27.9	30.0
87.5°	12.4	13.4	11.4	10.3	9.3	10.3	11.4	13.4	12.4	13.4	13.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1504.4	1504.4	1504.4	1504.4	1504.4	1504.4
1°	1442.4	1427.9	1442.4	1460.0	1487.9	1517.9
2°	1380.4	1360.7	1380.4	1395.9	1453.8	1517.9
3°	1315.2	1312.1	1315.2	1343.1	1422.8	1515.8
4°	1272.8	1258.4	1272.8	1302.8	1392.8	1510.6
5°	1222.2	1205.6	1222.2	1263.5	1363.8	1506.5
6°	1178.7	1156.0	1178.7	1228.4	1335.9	1499.3
7°	1130.1	1113.6	1130.1	1183.9	1303.8	1490.0
8°	1111.5	1091.9	1111.5	1144.6	1273.9	1485.8
9°	1070.2	1048.5	1070.2	1125.0	1258.4	1478.6
10°	1044.3	1017.4	1044.3	1091.9	1226.3	1467.2
11°	1013.3	987.4	1013.3	1061.9	1200.4	1452.7
12°	994.7	971.9	994.7	1041.2	1177.7	1439.3
13°	961.6	932.6	961.6	1015.4	1151.9	1431.0
14°	937.8	913.0	937.8	991.6	1122.9	1416.5
15°	907.8	885.1	907.8	966.8	1099.1	1400.0
16°	888.2	858.2	888.2	944.0	1072.2	1380.4
17°	858.2	838.6	858.2	924.4	1051.6	1370.0
18°	836.5	817.9	836.5	895.4	1027.8	1353.5
19°	821.0	799.3	821.0	873.7	1005.0	1330.7
20°	799.3	780.7	799.3	853.0	984.3	1310.0
21°	778.6	762.0	778.6	837.5	964.7	1295.6
22.5°	758.9	736.2	758.9	803.4	931.6	1263.5
23°	747.6	729.0	747.6	792.0	924.4	1254.2
24°	734.1	712.4	734.1	773.4	901.6	1230.4
25°	716.5	697.9	716.5	761.0	880.9	1219.1
26°	701.0	683.5	701.0	741.4	862.3	1194.2
27°	685.5	663.8	685.5	725.9	842.7	1165.3
28°	672.1	651.4	672.1	714.5	821.0	1144.6
29°	654.5	634.9	654.5	696.9	802.4	1125.0
30°	642.1	624.5	642.1	681.4	780.7	1098.1
32.5°	608.0	597.6	608.0	644.2	737.2	1034.0
35°	579.0	573.9	579.0	614.2	690.7	974.0
37.5°	557.3	553.2	557.3	580.1	648.3	910.9
40°	532.5	533.5	532.5	550.1	606.9	847.9
42.5°	508.7	510.8	508.7	521.1	567.7	788.9
45°	486.0	486.0	486.0	492.2	530.4	723.8
47.5°	460.1	462.2	460.1	464.3	493.2	661.7
50°	434.3	436.3	434.3	435.3	459.1	602.8
52.5°	407.4	409.5	407.4	407.4	428.1	542.8
55°	378.4	382.6	378.4	375.3	391.9	486.0
57.5°	348.5	353.6	348.5	346.4	356.7	433.2
60°	321.6	326.7	321.6	317.4	322.6	384.6
62.5°	293.6	298.8	293.6	287.4	289.5	331.9
65°	264.7	270.9	264.7	255.4	256.4	289.5



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	233.7	238.8	233.7	223.3	223.3	247.1
70°	203.7	207.8	203.7	191.3	190.3	210.9
72.5°	172.7	176.8	172.7	162.3	159.2	170.6
75°	140.6	143.7	140.6	131.3	127.2	136.5
77.5°	111.7	111.7	111.7	103.4	99.3	104.4
80°	80.7	80.7	80.7	76.5	71.3	74.4
82.5°	53.8	53.8	53.8	50.7	48.6	49.6
85°	30.0	29.0	30.0	30.0	27.9	27.9
87.5°	11.4	12.4	11.4	13.4	13.4	12.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

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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	21.88	23.40	22.24	23.71	24.03	19.19	20.71	19.56	21.03	21.34
	3H	23.09	24.46	23.47	24.79	25.15	20.52	21.89	20.90	22.21	22.57
	4H	23.49	24.77	23.89	25.12	25.50	20.98	22.26	21.38	22.61	22.99
	6H	23.73	24.92	24.14	25.28	25.67	21.28	22.47	21.69	22.83	23.22
	8H	23.79	24.92	24.22	25.31	25.71	21.36	22.49	21.79	22.88	23.28
	12H	23.81	24.89	24.25	25.28	25.71	21.40	22.48	21.83	22.86	23.29
4H	2H	22.16	23.45	22.56	23.79	24.17	20.15	21.44	20.55	21.78	22.16
	3H	23.66	24.72	24.07	25.12	25.52	21.62	22.68	22.03	23.08	23.49
	4H	24.22	25.18	24.65	25.59	26.03	22.14	23.10	22.57	23.51	23.95
	6H	24.59	25.42	25.04	25.86	26.32	22.51	23.34	22.97	23.79	24.25
	8H	24.68	25.46	25.14	25.90	26.37	22.61	23.39	23.07	23.83	24.30
	12H	24.73	25.43	25.21	25.90	26.38	22.67	23.37	23.16	23.85	24.32
8H	4H	24.36	25.14	24.82	25.58	26.05	22.54	23.32	23.01	23.77	24.23
	6H	24.82	25.46	25.32	25.96	26.43	22.99	23.64	23.49	24.13	24.60
	8H	24.97	25.55	25.48	26.05	26.54	23.14	23.71	23.65	24.22	24.71
	12H	25.07	25.58	25.58	26.07	26.64	23.24	23.75	23.75	24.24	24.81
12H	4H	24.36	25.05	24.84	25.53	26.00	22.59	23.28	23.07	23.76	24.23
	6H	24.83	25.40	25.34	25.91	26.40	23.05	23.63	23.57	24.14	24.63
	8H	25.02	25.53	25.53	26.02	26.58	23.24	23.75	23.75	24.24	24.81