

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: P1051164

Luminaire Tested: S122DR-B675DB2750-4F0-XX-W2A-W_3500K

Issue Date: 7/9/2025

Test Information

Test Method: LM-79-2019
Report Number: P1051164
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_3500K
Description: Define 2 Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3075.0 lumens
Efficiency: N/A
Efficacy: 85.7 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

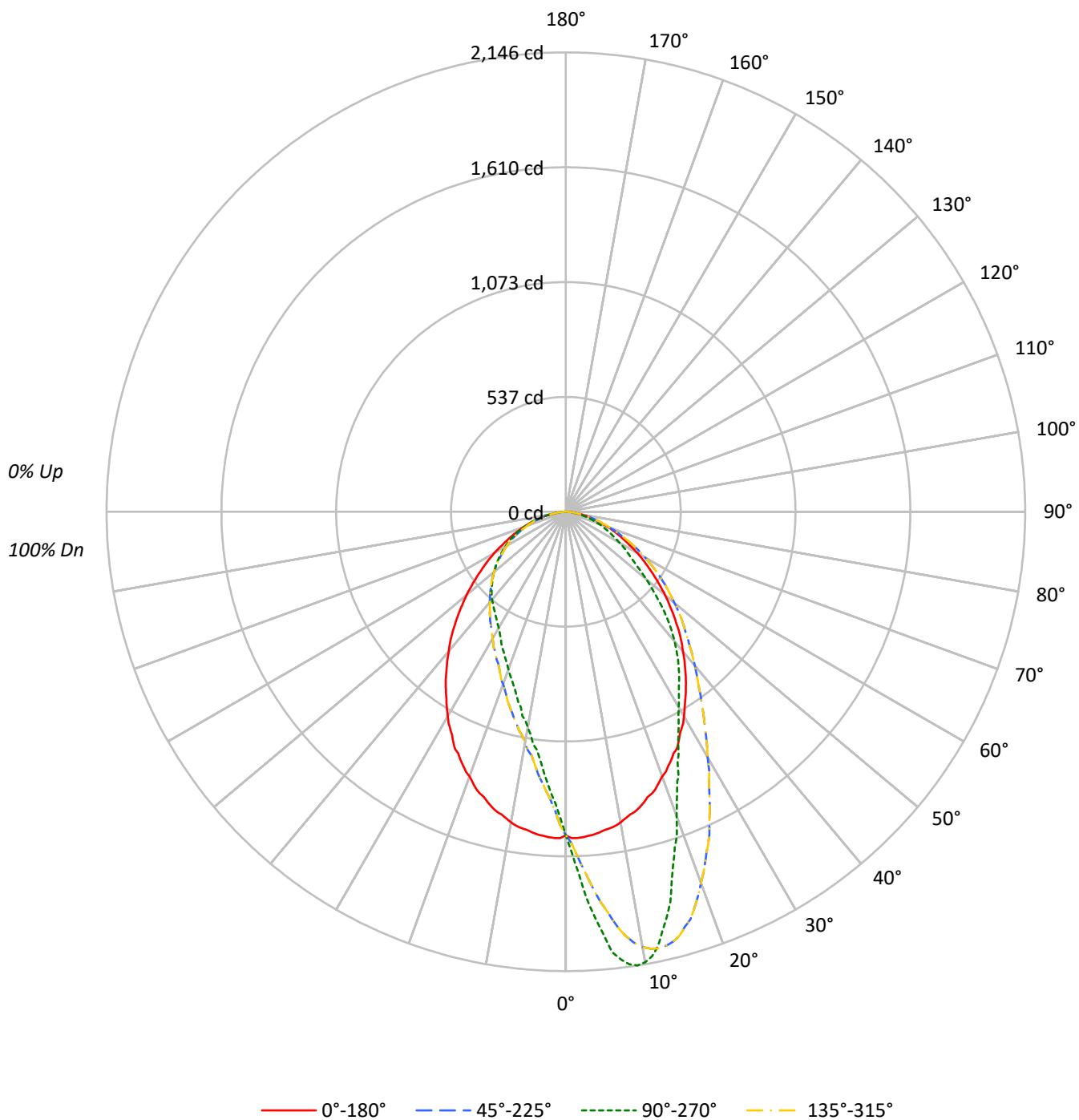
Input Watts (W): 35.9
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				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	0
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°	23923	23923	23923	23923
5°	24048	31376	24048	19244
10°	23691	34343	23691	16429
15°	23048	30896	23048	14570
20°	22168	25493	22168	13210
25°	21388	21788	21388	12245
30°	20163	19271	20163	11468
35°	18909	17824	18909	11140
40°	17599	16312	17599	11076
45°	16277	14370	16277	10929
50°	14914	12099	14914	10794
55°	13473	10175	13473	10606
60°	12233	9175	12233	10390
65°	10892	8326	10892	10192
70°	9807	7498	9807	9664
75°	8385	6544	8385	8831
80°	6819	5488	6819	7384
85°	5085	4159	5085	5285

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 25950 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.7	4.8
10°-20°	408.2	13.3
20°-30°	535.3	17.4
30°-40°	565.8	18.4
40°-50°	525.3	17.1
50°-60°	420.4	13.7
60°-70°	287.5	9.4
70°-80°	148.4	4.8
80°-90°	35.2	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°	1092.3	35.5
0°-40°	1658.1	53.9
0°-60°	2603.8	84.7
0°-90°	3075.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3075.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1511	1511	1511	1511	1511	
5°	1513	1975	1513	1211	1513	143
15°	1406	1885	1406	889	1406	395
25°	1225	1248	1225	701	1225	560
35°	978	922	978	576	978	611
45°	727	642	727	488	727	561
55°	488	369	488	384	488	439
65°	291	222	291	272	291	290
75°	137	107	137	144	137	147
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°	1511.3	1511.3	1511.3	1511.3	1511.3	1511.3	1511.3	1511.3	1511.3	1511.3	1511.3
1°	1524.8	1551.8	1549.8	1586.1	1594.4	1586.1	1549.8	1551.8	1524.8	1494.7	1466.7
2°	1524.8	1586.1	1614.1	1671.3	1687.9	1671.3	1614.1	1586.1	1524.8	1460.4	1402.3
3°	1522.7	1616.2	1682.7	1761.6	1801.1	1761.6	1682.7	1616.2	1522.7	1429.3	1349.3
4°	1517.6	1647.4	1752.3	1857.2	1892.5	1857.2	1752.3	1647.4	1517.6	1399.1	1308.8
5°	1513.4	1686.9	1825.0	1951.7	1974.6	1951.7	1825.0	1686.9	1513.4	1370.1	1269.3
6°	1506.1	1726.3	1883.2	2022.4	2069.1	2022.4	1883.2	1726.3	1506.1	1342.0	1234.0
7°	1496.8	1752.3	1948.6	2078.5	2107.5	2078.5	1948.6	1752.3	1496.8	1309.8	1189.3
8°	1492.6	1794.9	2000.5	2123.1	2134.5	2123.1	2000.5	1794.9	1492.6	1279.7	1149.8
9°	1485.4	1812.5	2037.9	2136.6	2146.0	2136.6	2037.9	1812.5	1485.4	1264.1	1130.1
10°	1473.9	1839.5	2064.9	2140.8	2136.6	2140.8	2064.9	1839.5	1473.9	1231.9	1096.9
11°	1459.4	1870.7	2079.5	2125.2	2114.8	2125.2	2079.5	1870.7	1459.4	1205.9	1066.8
12°	1445.9	1892.5	2085.7	2096.1	2073.3	2096.1	2085.7	1892.5	1445.9	1183.1	1046.0
13°	1437.6	1901.9	2081.6	2059.8	2008.9	2059.8	2081.6	1901.9	1437.6	1157.1	1020.0
14°	1423.0	1922.6	2070.1	2003.7	1950.7	2003.7	2070.1	1922.6	1423.0	1128.0	996.1
15°	1406.4	1928.9	2051.4	1946.5	1885.3	1946.5	2051.4	1928.9	1406.4	1104.1	971.2
16°	1386.7	1936.1	2017.2	1875.9	1793.8	1875.9	2017.2	1936.1	1386.7	1077.1	948.3
17°	1376.3	1940.3	1991.2	1806.3	1718.0	1806.3	1991.2	1940.3	1376.3	1056.4	928.6
18°	1359.7	1937.2	1944.5	1748.1	1648.4	1748.1	1944.5	1937.2	1359.7	1032.5	899.5
19°	1336.8	1929.9	1897.7	1674.4	1593.4	1674.4	1897.7	1929.9	1336.8	1009.6	877.7
20°	1316.0	1926.8	1845.8	1606.9	1513.4	1606.9	1845.8	1926.8	1316.0	988.8	856.9
21°	1301.5	1916.4	1798.0	1542.5	1446.9	1542.5	1798.0	1916.4	1301.5	969.1	841.4
22.5°	1269.3	1896.7	1718.0	1443.8	1359.7	1443.8	1718.0	1896.7	1269.3	935.9	807.1
23°	1260.0	1890.4	1697.2	1421.0	1349.3	1421.0	1697.2	1890.4	1260.0	928.6	795.6
24°	1236.1	1870.7	1648.4	1359.7	1283.8	1359.7	1648.4	1870.7	1236.1	905.8	777.0
25°	1224.6	1852.0	1588.2	1309.8	1247.5	1309.8	1588.2	1852.0	1224.6	885.0	764.5
26°	1199.7	1825.0	1534.2	1268.3	1196.6	1268.3	1534.2	1825.0	1199.7	866.3	744.8
27°	1170.6	1805.3	1478.1	1219.4	1159.2	1219.4	1478.1	1805.3	1170.6	846.5	729.2
28°	1149.8	1773.1	1424.1	1181.0	1122.8	1181.0	1424.1	1773.1	1149.8	824.7	717.7
29°	1130.1	1748.1	1380.4	1136.3	1085.4	1136.3	1380.4	1748.1	1130.1	806.0	700.1
30°	1103.1	1714.9	1325.4	1101.0	1054.3	1101.0	1325.4	1714.9	1103.1	784.2	684.5
32.5°	1038.7	1636.0	1213.2	1022.1	982.6	1022.1	1213.2	1636.0	1038.7	740.6	647.1
35°	978.5	1547.7	1110.4	948.3	922.4	948.3	1110.4	1547.7	978.5	693.9	617.0
37.5°	915.1	1455.2	1016.9	883.9	859.0	883.9	1016.9	1455.2	915.1	651.3	582.7
40°	851.7	1363.8	936.9	822.7	789.4	822.7	936.9	1363.8	851.7	609.7	552.6
42.5°	792.5	1256.8	859.0	758.3	719.8	758.3	859.0	1256.8	792.5	570.2	523.5
45°	727.1	1159.2	789.4	690.7	641.9	690.7	789.4	1159.2	727.1	532.9	494.4
47.5°	664.8	1058.4	729.2	623.2	560.9	623.2	729.2	1058.4	664.8	495.5	466.4
50°	605.6	960.8	661.7	547.4	491.3	547.4	661.7	960.8	605.6	461.2	437.3
52.5°	545.3	869.4	602.4	478.8	422.8	478.8	602.4	869.4	545.3	430.0	409.3
55°	488.2	773.8	543.2	412.4	368.7	412.4	543.2	773.8	488.2	393.7	377.1
57.5°	435.2	682.4	485.1	360.4	331.3	360.4	485.1	682.4	435.2	358.4	348.0
60°	386.4	598.3	427.9	312.7	289.8	312.7	427.9	598.3	386.4	324.1	318.9
62.5°	333.4	522.5	373.9	272.1	252.4	272.1	373.9	522.5	333.4	290.8	288.8
65°	290.8	445.6	317.8	235.8	222.3	235.8	317.8	445.6	290.8	257.6	256.6



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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°	248.3	372.9	269.0	201.5	191.1	201.5	269.0	372.9	248.3	224.4	224.4
70°	211.9	307.5	222.3	170.3	162.0	170.3	222.3	307.5	211.9	191.1	192.2
72.5°	171.4	247.2	180.7	139.2	131.9	139.2	180.7	247.2	171.4	160.0	163.1
75°	137.1	195.3	142.3	112.2	107.0	112.2	142.3	195.3	137.1	127.8	131.9
77.5°	104.9	143.3	104.9	86.2	82.1	86.2	104.9	143.3	104.9	99.7	103.9
80°	74.8	100.8	74.8	61.3	60.2	61.3	74.8	100.8	74.8	71.7	76.9
82.5°	49.9	64.4	48.8	41.5	39.5	41.5	48.8	64.4	49.9	48.8	50.9
85°	28.0	35.3	27.0	23.9	22.9	23.9	27.0	35.3	28.0	28.0	30.1
87.5°	12.5	13.5	11.4	10.4	9.3	10.4	11.4	13.5	12.5	13.5	13.5
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°	1511.3	1511.3	1511.3	1511.3	1511.3	1511.3
1°	1449.0	1434.5	1449.0	1466.7	1494.7	1524.8
2°	1386.7	1366.9	1386.7	1402.3	1460.4	1524.8
3°	1321.2	1318.1	1321.2	1349.3	1429.3	1522.7
4°	1278.6	1264.1	1278.6	1308.8	1399.1	1517.6
5°	1227.8	1211.1	1227.8	1269.3	1370.1	1513.4
6°	1184.1	1161.3	1184.1	1234.0	1342.0	1506.1
7°	1135.3	1118.7	1135.3	1189.3	1309.8	1496.8
8°	1116.6	1096.9	1116.6	1149.8	1279.7	1492.6
9°	1075.1	1053.2	1075.1	1130.1	1264.1	1485.4
10°	1049.1	1022.1	1049.1	1096.9	1231.9	1473.9
11°	1017.9	992.0	1017.9	1066.8	1205.9	1459.4
12°	999.2	976.4	999.2	1046.0	1183.1	1445.9
13°	966.0	936.9	966.0	1020.0	1157.1	1437.6
14°	942.1	917.2	942.1	996.1	1128.0	1423.0
15°	912.0	889.1	912.0	971.2	1104.1	1406.4
16°	892.2	862.1	892.2	948.3	1077.1	1386.7
17°	862.1	842.4	862.1	928.6	1056.4	1376.3
18°	840.3	821.6	840.3	899.5	1032.5	1359.7
19°	824.7	802.9	824.7	877.7	1009.6	1336.8
20°	802.9	784.2	802.9	856.9	988.8	1316.0
21°	782.1	765.5	782.1	841.4	969.1	1301.5
22.5°	762.4	739.6	762.4	807.1	935.9	1269.3
23°	751.0	732.3	751.0	795.6	928.6	1260.0
24°	737.5	715.7	737.5	777.0	905.8	1236.1
25°	719.8	701.1	719.8	764.5	885.0	1224.6
26°	704.2	686.6	704.2	744.8	866.3	1199.7
27°	688.7	666.8	688.7	729.2	846.5	1170.6
28°	675.2	654.4	675.2	717.7	824.7	1149.8
29°	657.5	637.8	657.5	700.1	806.0	1130.1
30°	645.0	627.4	645.0	684.5	784.2	1103.1
32.5°	610.8	600.4	610.8	647.1	740.6	1038.7
35°	581.7	576.5	581.7	617.0	693.9	978.5
37.5°	559.9	555.7	559.9	582.7	651.3	915.1
40°	534.9	536.0	534.9	552.6	609.7	851.7
42.5°	511.0	513.1	511.0	523.5	570.2	792.5
45°	488.2	488.2	488.2	494.4	532.9	727.1
47.5°	462.2	464.3	462.2	466.4	495.5	664.8
50°	436.3	438.3	436.3	437.3	461.2	605.6
52.5°	409.3	411.3	409.3	409.3	430.0	545.3
55°	380.2	384.3	380.2	377.1	393.7	488.2
57.5°	350.0	355.2	350.0	348.0	358.4	435.2
60°	323.0	328.2	323.0	318.9	324.1	386.4
62.5°	295.0	300.2	295.0	288.8	290.8	333.4
65°	265.9	272.1	265.9	256.6	257.6	290.8



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	234.7	239.9	234.7	224.4	224.4	248.3
70°	204.6	208.8	204.6	192.2	191.1	211.9
72.5°	173.5	177.6	173.5	163.1	160.0	171.4
75°	141.3	144.4	141.3	131.9	127.8	137.1
77.5°	112.2	112.2	112.2	103.9	99.7	104.9
80°	81.0	81.0	81.0	76.9	71.7	74.8
82.5°	54.0	54.0	54.0	50.9	48.8	49.9
85°	30.1	29.1	30.1	30.1	28.0	28.0
87.5°	11.4	12.5	11.4	13.5	13.5	12.5
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	21.89	23.42	22.26	23.73	24.04	19.21	20.73	19.57	21.04	21.36
	3H	23.11	24.48	23.49	24.80	25.17	20.53	21.90	20.91	22.23	22.59
	4H	23.50	24.79	23.90	25.14	25.51	20.99	22.27	21.39	22.62	23.00
	6H	23.75	24.93	24.16	25.30	25.69	21.30	22.48	21.71	22.85	23.24
	8H	23.81	24.93	24.23	25.32	25.72	21.38	22.50	21.80	22.89	23.29
	12H	23.83	24.91	24.26	25.29	25.72	21.42	22.50	21.85	22.88	23.31
4H	2H	22.18	23.46	22.58	23.81	24.19	20.17	21.45	20.57	21.80	22.18
	3H	23.67	24.74	24.09	25.14	25.54	21.63	22.70	22.04	23.10	23.50
	4H	24.23	25.19	24.67	25.61	26.05	22.15	23.11	22.59	23.53	23.97
	6H	24.60	25.44	25.06	25.88	26.34	22.52	23.36	22.98	23.80	24.26
	8H	24.69	25.47	25.16	25.92	26.38	22.63	23.40	23.09	23.85	24.32
	12H	24.75	25.44	25.23	25.92	26.39	22.69	23.39	23.17	23.86	24.33
8H	4H	24.37	25.15	24.84	25.60	26.06	22.56	23.34	23.02	23.78	24.25
	6H	24.84	25.48	25.33	25.97	26.45	23.01	23.65	23.50	24.14	24.62
	8H	24.98	25.56	25.50	26.07	26.56	23.15	23.73	23.66	24.24	24.72
	12H	25.09	25.60	25.60	26.09	26.66	23.26	23.77	23.77	24.26	24.82
12H	4H	24.37	25.07	24.85	25.55	26.02	22.60	23.30	23.08	23.78	24.25
	6H	24.84	25.42	25.36	25.93	26.42	23.07	23.65	23.58	24.16	24.64
	8H	25.03	25.54	25.54	26.03	26.60	23.26	23.77	23.77	24.26	24.82