

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: P1051137

Luminaire Tested: S122DR-B1005DB30-4F0-XX-W2A-W

Issue Date: 7/9/2025

Test Information

Test Method: LM-79-2019
Report Number: P1051137
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-B1005DB30-4F0-XX-W2A-W
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: 4582.0 lumens
Efficiency: N/A
Efficacy: 74.7 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

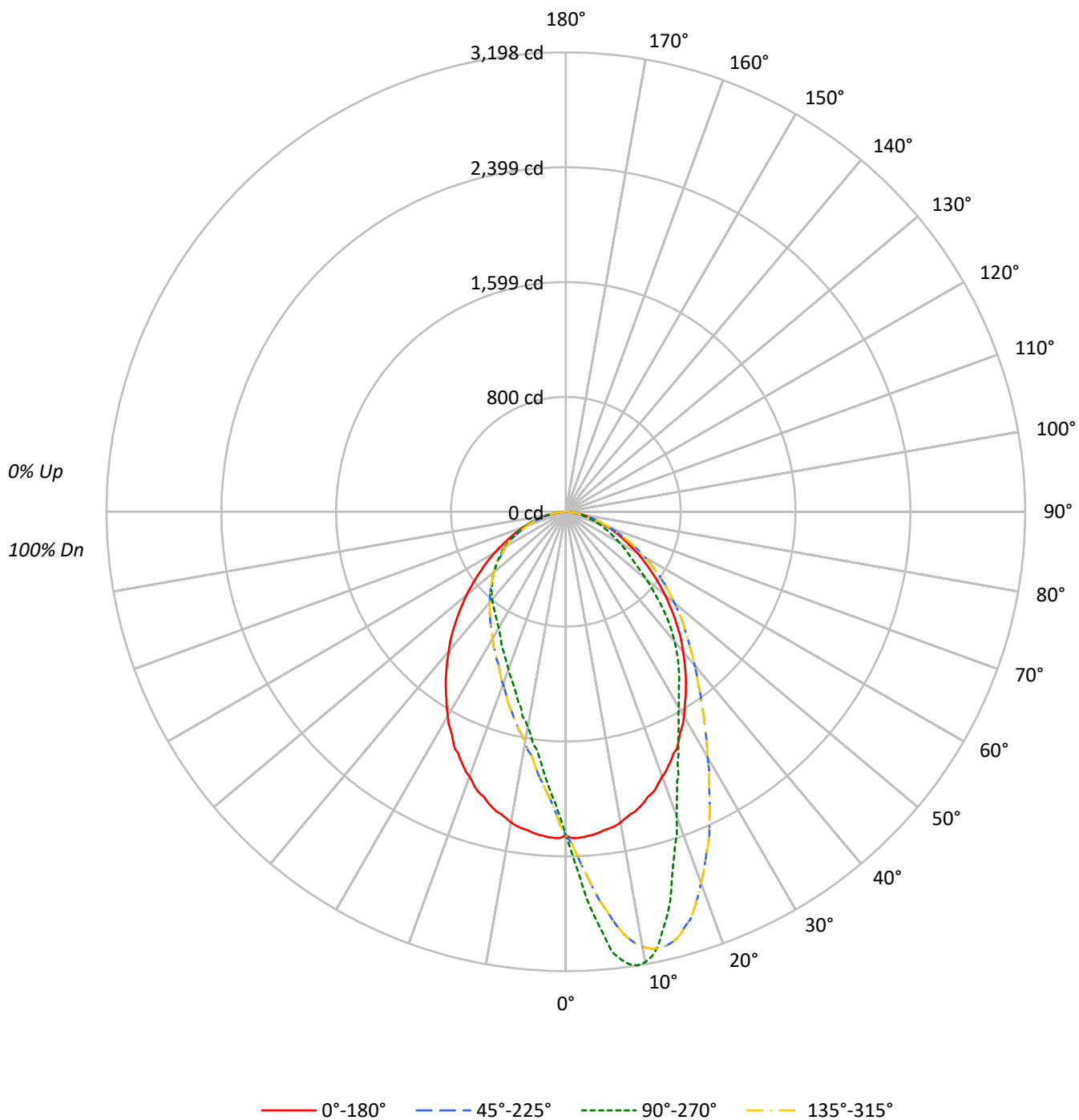
Input Watts (W): 61.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P1051137

CATALOG NUMBER: S122DR-B1005DB30-4F0-XX-W2A-W

Luminous Intensity Polar Plot



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CATALOG NUMBER: S122DR-B1005DB30-4F0-XX-W2A-W

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	35648	35648	35648	35648
5°	35833	46752	35833	28676
10°	35302	51173	35302	24480
15°	34344	46036	34344	21712
20°	33033	37988	33033	19685
25°	31871	32467	31871	18246
30°	30044	28715	30044	17086
35°	28174	26559	28174	16599
40°	26226	24307	26226	16502
45°	24253	21412	24253	16284
50°	22220	18029	22220	16086
55°	20074	15165	20074	15805
60°	18229	13670	18229	15484
65°	16233	12405	16233	15188
70°	14611	11177	14611	14398
75°	12495	9749	12495	13155
80°	10155	8186	10155	11003
85°	7592	6193	7592	7864

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 38667 cd/sqm

TEST NUMBER: P1051137

CATALOG NUMBER: S122DR-B1005DB30-4F0-XX-W2A-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.6	4.8
10°-20°	608.3	13.3
20°-30°	797.7	17.4
30°-40°	843.1	18.4
40°-50°	782.8	17.1
50°-60°	626.5	13.7
60°-70°	428.5	9.4
70°-80°	221.1	4.8
80°-90°	52.5	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°	1627.6	35.5
0°-40°	2470.6	53.9
0°-60°	3879.9	84.7
0°-90°	4582.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4582.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2252	2252	2252	2252	2252	
5°	2255	2942	2255	1805	2255	213
15°	2096	2809	2096	1325	2096	589
25°	1825	1859	1825	1045	1825	834
35°	1458	1374	1458	859	1458	910
45°	1083	956	1083	727	1083	836
55°	727	550	727	573	727	654
65°	433	331	433	406	433	432
75°	204	159	204	215	204	219
85°	42	34	42	43	42	52
90°	0	0	0	0	0	

TEST NUMBER: P1051137

CATALOG NUMBER: S122DR-B1005DB30-4F0-XX-W2A-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2252.0	2252.0	2252.0	2252.0	2252.0	2252.0	2252.0	2252.0	2252.0	2252.0	2252.0
1°	2272.1	2312.3	2309.3	2363.4	2375.8	2363.4	2309.3	2312.3	2272.1	2227.2	2185.4
2°	2272.1	2363.4	2405.2	2490.3	2515.1	2490.3	2405.2	2363.4	2272.1	2176.1	2089.5
3°	2269.0	2408.3	2507.4	2625.0	2683.8	2625.0	2507.4	2408.3	2269.0	2129.7	2010.5
4°	2261.3	2454.7	2611.1	2767.4	2820.0	2767.4	2611.1	2454.7	2261.3	2084.8	1950.2
5°	2255.1	2513.6	2719.4	2908.2	2942.3	2908.2	2719.4	2513.6	2255.1	2041.5	1891.4
6°	2244.2	2572.4	2806.1	3013.5	3083.1	3013.5	2806.1	2572.4	2244.2	1999.7	1838.7
7°	2230.3	2611.1	2903.6	3097.1	3140.4	3097.1	2903.6	2611.1	2230.3	1951.7	1772.2
8°	2224.1	2674.5	2981.0	3163.6	3180.6	3163.6	2981.0	2674.5	2224.1	1906.8	1713.4
9°	2213.3	2700.8	3036.7	3183.7	3197.7	3183.7	3036.7	2700.8	2213.3	1883.6	1684.0
10°	2196.3	2741.1	3076.9	3189.9	3183.7	3189.9	3076.9	2741.1	2196.3	1835.6	1634.4
11°	2174.6	2787.5	3098.6	3166.7	3151.2	3166.7	3098.6	2787.5	2174.6	1796.9	1589.5
12°	2154.5	2820.0	3107.9	3123.4	3089.3	3123.4	3107.9	2820.0	2154.5	1762.9	1558.6
13°	2142.1	2833.9	3101.7	3069.2	2993.4	3069.2	3101.7	2833.9	2142.1	1724.2	1519.9
14°	2120.4	2864.9	3084.7	2985.6	2906.7	2985.6	3084.7	2864.9	2120.4	1680.9	1484.3
15°	2095.7	2874.2	3056.8	2900.5	2809.2	2900.5	3056.8	2874.2	2095.7	1645.3	1447.2
16°	2066.3	2885.0	3005.7	2795.2	2673.0	2795.2	3005.7	2885.0	2066.3	1605.0	1413.1
17°	2050.8	2891.2	2967.1	2691.5	2560.0	2691.5	2967.1	2891.2	2050.8	1574.1	1383.7
18°	2026.0	2886.6	2897.4	2604.9	2456.3	2604.9	2897.4	2886.6	2026.0	1538.5	1340.4
19°	1992.0	2875.7	2827.8	2495.0	2374.3	2495.0	2827.8	2875.7	1992.0	1504.4	1307.9
20°	1961.0	2871.1	2750.4	2394.4	2255.1	2394.4	2750.4	2871.1	1961.0	1473.5	1276.9
21°	1939.3	2855.6	2679.2	2298.4	2156.0	2298.4	2679.2	2855.6	1939.3	1444.1	1253.7
22.5°	1891.4	2826.2	2560.0	2151.4	2026.0	2151.4	2560.0	2826.2	1891.4	1394.5	1202.6
23°	1877.4	2816.9	2529.0	2117.3	2010.5	2117.3	2529.0	2816.9	1877.4	1383.7	1185.6
24°	1841.8	2787.5	2456.3	2026.0	1913.0	2026.0	2456.3	2787.5	1841.8	1349.6	1157.7
25°	1824.8	2759.7	2366.5	1951.7	1858.9	1951.7	2366.5	2759.7	1824.8	1318.7	1139.1
26°	1787.7	2719.4	2286.0	1889.8	1783.0	1889.8	2286.0	2719.4	1787.7	1290.8	1109.7
27°	1744.3	2690.0	2202.5	1817.1	1727.3	1817.1	2202.5	2690.0	1744.3	1261.4	1086.5
28°	1713.4	2642.0	2122.0	1759.8	1673.1	1759.8	2122.0	2642.0	1713.4	1228.9	1069.5
29°	1684.0	2604.9	2057.0	1693.2	1617.4	1693.2	2057.0	2604.9	1684.0	1201.1	1043.2
30°	1643.7	2555.3	1974.9	1640.6	1571.0	1640.6	1974.9	2555.3	1643.7	1168.6	1020.0
32.5°	1547.8	2437.7	1807.8	1523.0	1464.2	1523.0	1807.8	2437.7	1547.8	1103.6	964.3
35°	1458.0	2306.2	1654.6	1413.1	1374.4	1413.1	1654.6	2306.2	1458.0	1033.9	919.4
37.5°	1363.6	2168.4	1515.3	1317.1	1280.0	1317.1	1515.3	2168.4	1363.6	970.4	868.3
40°	1269.2	2032.2	1396.1	1225.8	1176.3	1225.8	1396.1	2032.2	1269.2	908.5	823.4
42.5°	1180.9	1872.8	1280.0	1129.9	1072.6	1129.9	1280.0	1872.8	1180.9	849.7	780.1
45°	1083.4	1727.3	1176.3	1029.3	956.5	1029.3	1176.3	1727.3	1083.4	794.0	736.7
47.5°	990.6	1577.2	1086.5	928.7	835.8	928.7	1086.5	1577.2	990.6	738.3	694.9
50°	902.3	1431.7	985.9	815.7	732.1	815.7	985.9	1431.7	902.3	687.2	651.6
52.5°	812.6	1295.5	897.7	713.5	629.9	713.5	897.7	1295.5	812.6	640.8	609.8
55°	727.4	1153.1	809.5	614.5	549.5	614.5	809.5	1153.1	727.4	586.6	561.8
57.5°	648.5	1016.9	722.8	537.1	493.7	537.1	722.8	1016.9	648.5	534.0	518.5
60°	575.8	891.5	637.7	465.9	431.8	465.9	637.7	891.5	575.8	482.9	475.2
62.5°	496.8	778.5	557.2	405.5	376.1	405.5	557.2	778.5	496.8	433.4	430.3
65°	433.4	664.0	473.6	351.3	331.2	351.3	473.6	664.0	433.4	383.8	382.3



TEST NUMBER: P1051137

CATALOG NUMBER: S122DR-B1005DB30-4F0-XX-W2A-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	369.9	555.6	400.9	300.3	284.8	300.3	400.9	555.6	369.9	334.3	334.3
70°	315.7	458.1	331.2	253.8	241.5	253.8	331.2	458.1	315.7	284.8	286.3
72.5°	255.4	368.4	269.3	207.4	196.6	207.4	269.3	368.4	255.4	238.4	243.0
75°	204.3	291.0	212.0	167.2	159.4	167.2	212.0	291.0	204.3	190.4	196.6
77.5°	156.3	213.6	156.3	128.5	122.3	128.5	156.3	213.6	156.3	148.6	154.8
80°	111.4	150.1	111.4	91.3	89.8	91.3	111.4	150.1	111.4	106.8	114.5
82.5°	74.3	96.0	72.7	61.9	58.8	61.9	72.7	96.0	74.3	72.7	75.8
85°	41.8	52.6	40.2	35.6	34.1	35.6	40.2	52.6	41.8	41.8	44.9
87.5°	18.6	20.1	17.0	15.5	13.9	15.5	17.0	20.1	18.6	20.1	20.1
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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CATALOG NUMBER: S122DR-B1005DB30-4F0-XX-W2A-W

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2252.0	2252.0	2252.0	2252.0	2252.0	2252.0
1°	2159.1	2137.5	2159.1	2185.4	2227.2	2272.1
2°	2066.3	2036.8	2066.3	2089.5	2176.1	2272.1
3°	1968.7	1964.1	1968.7	2010.5	2129.7	2269.0
4°	1905.3	1883.6	1905.3	1950.2	2084.8	2261.3
5°	1829.4	1804.7	1829.4	1891.4	2041.5	2255.1
6°	1764.4	1730.4	1764.4	1838.7	1999.7	2244.2
7°	1691.7	1666.9	1691.7	1772.2	1951.7	2230.3
8°	1663.8	1634.4	1663.8	1713.4	1906.8	2224.1
9°	1601.9	1569.4	1601.9	1684.0	1883.6	2213.3
10°	1563.2	1523.0	1563.2	1634.4	1835.6	2196.3
11°	1516.8	1478.1	1516.8	1589.5	1796.9	2174.6
12°	1488.9	1454.9	1488.9	1558.6	1762.9	2154.5
13°	1439.4	1396.1	1439.4	1519.9	1724.2	2142.1
14°	1403.8	1366.7	1403.8	1484.3	1680.9	2120.4
15°	1358.9	1324.9	1358.9	1447.2	1645.3	2095.7
16°	1329.5	1284.6	1329.5	1413.1	1605.0	2066.3
17°	1284.6	1255.2	1284.6	1383.7	1574.1	2050.8
18°	1252.1	1224.3	1252.1	1340.4	1538.5	2026.0
19°	1228.9	1196.4	1228.9	1307.9	1504.4	1992.0
20°	1196.4	1168.6	1196.4	1276.9	1473.5	1961.0
21°	1165.5	1140.7	1165.5	1253.7	1444.1	1939.3
22.5°	1136.1	1102.0	1136.1	1202.6	1394.5	1891.4
23°	1119.0	1091.2	1119.0	1185.6	1383.7	1877.4
24°	1098.9	1066.4	1098.9	1157.7	1349.6	1841.8
25°	1072.6	1044.7	1072.6	1139.1	1318.7	1824.8
26°	1049.4	1023.1	1049.4	1109.7	1290.8	1787.7
27°	1026.2	993.7	1026.2	1086.5	1261.4	1744.3
28°	1006.0	975.1	1006.0	1069.5	1228.9	1713.4
29°	979.7	950.3	979.7	1043.2	1201.1	1684.0
30°	961.2	934.8	961.2	1020.0	1168.6	1643.7
32.5°	910.1	894.6	910.1	964.3	1103.6	1547.8
35°	866.7	859.0	866.7	919.4	1033.9	1458.0
37.5°	834.2	828.1	834.2	868.3	970.4	1363.6
40°	797.1	798.6	797.1	823.4	908.5	1269.2
42.5°	761.5	764.6	761.5	780.1	849.7	1180.9
45°	727.4	727.4	727.4	736.7	794.0	1083.4
47.5°	688.8	691.8	688.8	694.9	738.3	990.6
50°	650.1	653.2	650.1	651.6	687.2	902.3
52.5°	609.8	612.9	609.8	609.8	640.8	812.6
55°	566.5	572.7	566.5	561.8	586.6	727.4
57.5°	521.6	529.3	521.6	518.5	534.0	648.5
60°	481.4	489.1	481.4	475.2	482.9	575.8
62.5°	439.6	447.3	439.6	430.3	433.4	496.8
65°	396.2	405.5	396.2	382.3	383.8	433.4



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	349.8	357.5	349.8	334.3	334.3	369.9
70°	304.9	311.1	304.9	286.3	284.8	315.7
72.5°	258.5	264.7	258.5	243.0	238.4	255.4
75°	210.5	215.1	210.5	196.6	190.4	204.3
77.5°	167.2	167.2	167.2	154.8	148.6	156.3
80°	120.7	120.7	120.7	114.5	106.8	111.4
82.5°	80.5	80.5	80.5	75.8	72.7	74.3
85°	44.9	43.3	44.9	44.9	41.8	41.8
87.5°	17.0	18.6	17.0	20.1	20.1	18.6
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	23.28	24.80	23.64	25.12	25.43	20.59	22.12	20.96	22.43	22.74
	3H	24.50	25.86	24.87	26.19	26.55	21.92	23.29	22.30	23.61	23.98
	4H	24.89	26.17	25.29	26.52	26.90	22.38	23.66	22.78	24.01	24.39
	6H	25.13	26.32	25.54	26.68	27.08	22.68	23.87	23.09	24.23	24.63
	8H	25.19	26.32	25.62	26.71	27.11	22.76	23.89	23.19	24.28	24.68
	12H	25.22	26.30	25.65	26.68	27.11	22.80	23.88	23.23	24.27	24.69
4H	2H	23.57	24.85	23.97	25.20	25.57	21.56	22.84	21.96	23.19	23.56
	3H	25.06	26.13	25.47	26.53	26.93	23.02	24.09	23.43	24.49	24.89
	4H	25.62	26.58	26.05	26.99	27.43	23.54	24.50	23.97	24.91	25.35
	6H	25.99	26.82	26.44	27.26	27.72	23.91	24.75	24.37	25.19	25.65
	8H	26.08	26.86	26.54	27.30	27.77	24.01	24.79	24.48	25.24	25.70
	12H	26.13	26.83	26.61	27.31	27.78	24.08	24.77	24.56	25.25	25.72
8H	4H	25.76	26.54	26.22	26.98	27.45	23.95	24.72	24.41	25.17	25.64
	6H	26.22	26.87	26.72	27.36	27.83	24.39	25.04	24.89	25.53	26.01
	8H	26.37	26.95	26.88	27.46	27.94	24.54	25.11	25.05	25.62	26.11
	12H	26.47	26.98	26.98	27.48	28.04	24.64	25.15	25.15	25.64	26.21
12H	4H	25.76	26.45	26.24	26.93	27.40	23.99	24.69	24.47	25.16	25.63
	6H	26.23	26.80	26.74	27.31	27.80	24.45	25.03	24.97	25.54	26.03
	8H	26.42	26.93	26.93	27.42	27.98	24.64	25.15	25.15	25.64	26.21