

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: P1051170

Luminaire Tested: S122DR-B675DB50-4F0-XX-W2A-W

Issue Date: 7/9/2025

Test Information

Test Method: LM-79-2019
Report Number: P1051170
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-B675DB50-4F0-XX-W2A-W
Description: Define 2 Direct Recessed with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2944.0 lumens
Efficiency: N/A
Efficacy: 82.0 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

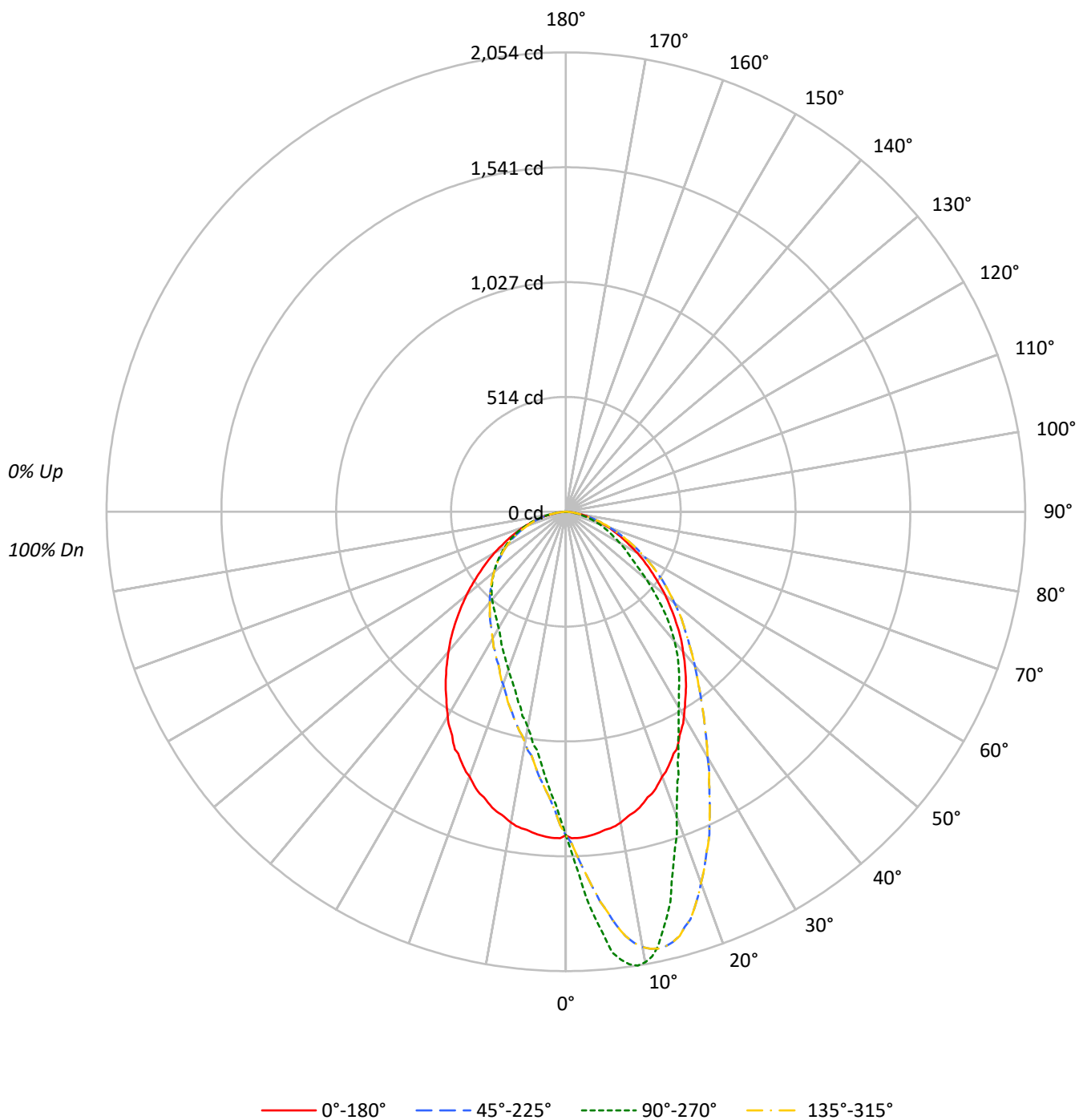
Input Watts (W): 35.9
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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
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°	22903	22903	22903	22903
5°	23023	30040	23023	18424
10°	22681	32880	22681	15728
15°	22066	29578	22066	13951
20°	21225	24407	21225	12647
25°	20479	20859	20479	11725
30°	19303	18450	19303	10980
35°	18103	17065	18103	10665
40°	16851	15618	16851	10603
45°	15583	13758	15583	10463
50°	14278	11584	14278	10336
55°	12899	9742	12899	10153
60°	11711	8785	11711	9947
65°	10428	7970	10428	9757
70°	9391	7178	9391	9252
75°	8030	6263	8030	8452
80°	6527	5260	6527	7074
85°	4886	3977	4886	5049

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 24844 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.4	4.8
10°-20°	390.8	13.3
20°-30°	512.5	17.4
30°-40°	541.7	18.4
40°-50°	503.0	17.1
50°-60°	402.5	13.7
60°-70°	275.3	9.4
70°-80°	142.1	4.8
80°-90°	33.7	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°	1045.7	35.5
0°-40°	1587.4	53.9
0°-60°	2492.9	84.7
0°-90°	2944.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2944.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1447	1447	1447	1447	1447	
5°	1449	1890	1449	1160	1449	137
15°	1346	1805	1346	851	1346	378
25°	1172	1194	1172	671	1172	536
35°	937	883	937	552	937	585
45°	696	615	696	467	696	537
55°	467	353	467	368	467	420
65°	278	213	278	260	278	277
75°	131	102	131	138	131	140
85°	27	22	27	28	27	33
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°	1446.9	1446.9	1446.9	1446.9	1446.9	1446.9	1446.9	1446.9	1446.9	1446.9	1446.9
1°	1459.9	1485.7	1483.7	1518.5	1526.5	1518.5	1483.7	1485.7	1459.9	1431.0	1404.2
2°	1459.9	1518.5	1545.4	1600.1	1616.0	1600.1	1545.4	1518.5	1459.9	1398.2	1342.5
3°	1457.9	1547.4	1611.0	1686.6	1724.4	1686.6	1611.0	1547.4	1457.9	1368.4	1291.8
4°	1452.9	1577.2	1677.6	1778.1	1811.9	1778.1	1677.6	1577.2	1452.9	1339.5	1253.0
5°	1448.9	1615.0	1747.3	1868.6	1890.5	1868.6	1747.3	1615.0	1448.9	1311.7	1215.2
6°	1442.0	1652.8	1802.9	1936.2	1981.0	1936.2	1802.9	1652.8	1442.0	1284.8	1181.4
7°	1433.0	1677.6	1865.6	1989.9	2017.8	1989.9	1865.6	1677.6	1433.0	1254.0	1138.7
8°	1429.0	1718.4	1915.3	2032.7	2043.6	2032.7	1915.3	1718.4	1429.0	1225.2	1100.9
9°	1422.1	1735.3	1951.1	2045.6	2054.5	2045.6	1951.1	1735.3	1422.1	1210.3	1082.0
10°	1411.1	1761.2	1977.0	2049.6	2045.6	2049.6	1977.0	1761.2	1411.1	1179.4	1050.1
11°	1397.2	1791.0	1990.9	2034.7	2024.7	2034.7	1990.9	1791.0	1397.2	1154.6	1021.3
12°	1384.3	1811.9	1996.9	2006.8	1984.9	2006.8	1996.9	1811.9	1384.3	1132.7	1001.4
13°	1376.3	1820.8	1992.9	1972.0	1923.3	1972.0	1992.9	1820.8	1376.3	1107.8	976.6
14°	1362.4	1840.7	1982.0	1918.3	1867.6	1918.3	1982.0	1840.7	1362.4	1080.0	953.7
15°	1346.5	1846.7	1964.1	1863.6	1804.9	1863.6	1964.1	1846.7	1346.5	1057.1	929.8
16°	1327.6	1853.7	1931.2	1796.0	1717.4	1796.0	1931.2	1853.7	1327.6	1031.3	907.9
17°	1317.7	1857.6	1906.4	1729.4	1644.8	1729.4	1906.4	1857.6	1317.7	1011.4	889.0
18°	1301.7	1854.7	1861.6	1673.7	1578.2	1673.7	1861.6	1854.7	1301.7	988.5	861.2
19°	1279.9	1847.7	1816.9	1603.1	1525.5	1603.1	1816.9	1847.7	1279.9	966.6	840.3
20°	1260.0	1844.7	1767.1	1538.4	1448.9	1538.4	1767.1	1844.7	1260.0	946.7	820.4
21°	1246.1	1834.8	1721.4	1476.8	1385.3	1476.8	1721.4	1834.8	1246.1	927.8	805.5
22.5°	1215.2	1815.9	1644.8	1382.3	1301.7	1382.3	1644.8	1815.9	1215.2	896.0	772.7
23°	1206.3	1809.9	1624.9	1360.4	1291.8	1360.4	1624.9	1809.9	1206.3	889.0	761.8
24°	1183.4	1791.0	1578.2	1301.7	1229.1	1301.7	1578.2	1791.0	1183.4	867.2	743.9
25°	1172.5	1773.1	1520.5	1254.0	1194.3	1254.0	1520.5	1773.1	1172.5	847.3	731.9
26°	1148.6	1747.3	1468.8	1214.2	1145.6	1214.2	1468.8	1747.3	1148.6	829.4	713.0
27°	1120.8	1728.4	1415.1	1167.5	1109.8	1167.5	1415.1	1728.4	1120.8	810.5	698.1
28°	1100.9	1697.5	1363.4	1130.7	1075.0	1130.7	1363.4	1697.5	1100.9	789.6	687.2
29°	1082.0	1673.7	1321.6	1087.9	1039.2	1087.9	1321.6	1673.7	1082.0	771.7	670.3
30°	1056.1	1641.8	1268.9	1054.1	1009.4	1054.1	1268.9	1641.8	1056.1	750.8	655.3
32.5°	994.5	1566.3	1161.5	978.5	940.8	978.5	1161.5	1566.3	994.5	709.0	619.5
35°	936.8	1481.7	1063.1	907.9	883.1	907.9	1063.1	1481.7	936.8	664.3	590.7
37.5°	876.1	1393.2	973.6	846.3	822.4	846.3	973.6	1393.2	876.1	623.5	557.9
40°	815.5	1305.7	897.0	787.6	755.8	787.6	897.0	1305.7	815.5	583.7	529.1
42.5°	758.8	1203.3	822.4	726.0	689.2	726.0	822.4	1203.3	758.8	546.0	501.2
45°	696.1	1109.8	755.8	661.3	614.6	661.3	755.8	1109.8	696.1	510.2	473.4
47.5°	636.5	1013.4	698.1	596.7	537.0	596.7	698.1	1013.4	636.5	474.4	446.5
50°	579.8	919.9	633.5	524.1	470.4	524.1	633.5	919.9	579.8	441.5	418.7
52.5°	522.1	832.4	576.8	458.4	404.7	458.4	576.8	832.4	522.1	411.7	391.8
55°	467.4	740.9	520.1	394.8	353.0	394.8	520.1	740.9	467.4	376.9	361.0
57.5°	416.7	653.4	464.4	345.1	317.2	345.1	464.4	653.4	416.7	343.1	333.1
60°	369.9	572.8	409.7	299.3	277.5	299.3	409.7	572.8	369.9	310.3	305.3
62.5°	319.2	500.2	358.0	260.5	241.7	260.5	358.0	500.2	319.2	278.4	276.5
65°	278.4	426.6	304.3	225.7	212.8	225.7	304.3	426.6	278.4	246.6	245.6



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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°	237.7	357.0	257.6	192.9	183.0	192.9	257.6	357.0	237.7	214.8	214.8
70°	202.9	294.4	212.8	163.1	155.1	163.1	212.8	294.4	202.9	183.0	184.0
72.5°	164.1	236.7	173.0	133.3	126.3	133.3	173.0	236.7	164.1	153.1	156.1
75°	131.3	187.0	136.2	107.4	102.4	107.4	136.2	187.0	131.3	122.3	126.3
77.5°	100.4	137.2	100.4	82.5	78.6	82.5	100.4	137.2	100.4	95.5	99.4
80°	71.6	96.5	71.6	58.7	57.7	58.7	71.6	96.5	71.6	68.6	73.6
82.5°	47.7	61.7	46.7	39.8	37.8	39.8	46.7	61.7	47.7	46.7	48.7
85°	26.9	33.8	25.9	22.9	21.9	22.9	25.9	33.8	26.9	26.9	28.8
87.5°	11.9	12.9	10.9	9.9	9.0	9.9	10.9	12.9	11.9	12.9	12.9
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°	1446.9	1446.9	1446.9	1446.9	1446.9	1446.9
1°	1387.3	1373.3	1387.3	1404.2	1431.0	1459.9
2°	1327.6	1308.7	1327.6	1342.5	1398.2	1459.9
3°	1264.9	1262.0	1264.9	1291.8	1368.4	1457.9
4°	1224.2	1210.3	1224.2	1253.0	1339.5	1452.9
5°	1175.4	1159.5	1175.4	1215.2	1311.7	1448.9
6°	1133.7	1111.8	1133.7	1181.4	1284.8	1442.0
7°	1086.9	1071.0	1086.9	1138.7	1254.0	1433.0
8°	1069.0	1050.1	1069.0	1100.9	1225.2	1429.0
9°	1029.3	1008.4	1029.3	1082.0	1210.3	1422.1
10°	1004.4	978.5	1004.4	1050.1	1179.4	1411.1
11°	974.6	949.7	974.6	1021.3	1154.6	1397.2
12°	956.7	934.8	956.7	1001.4	1132.7	1384.3
13°	924.8	897.0	924.8	976.6	1107.8	1376.3
14°	902.0	878.1	902.0	953.7	1080.0	1362.4
15°	873.1	851.3	873.1	929.8	1057.1	1346.5
16°	854.2	825.4	854.2	907.9	1031.3	1327.6
17°	825.4	806.5	825.4	889.0	1011.4	1317.7
18°	804.5	786.6	804.5	861.2	988.5	1301.7
19°	789.6	768.7	789.6	840.3	966.6	1279.9
20°	768.7	750.8	768.7	820.4	946.7	1260.0
21°	748.8	732.9	748.8	805.5	927.8	1246.1
22.5°	729.9	708.1	729.9	772.7	896.0	1215.2
23°	719.0	701.1	719.0	761.8	889.0	1206.3
24°	706.1	685.2	706.1	743.9	867.2	1183.4
25°	689.2	671.3	689.2	731.9	847.3	1172.5
26°	674.2	657.3	674.2	713.0	829.4	1148.6
27°	659.3	638.4	659.3	698.1	810.5	1120.8
28°	646.4	626.5	646.4	687.2	789.6	1100.9
29°	629.5	610.6	629.5	670.3	771.7	1082.0
30°	617.6	600.7	617.6	655.3	750.8	1056.1
32.5°	584.7	574.8	584.7	619.5	709.0	994.5
35°	556.9	551.9	556.9	590.7	664.3	936.8
37.5°	536.0	532.0	536.0	557.9	623.5	876.1
40°	512.1	513.1	512.1	529.1	583.7	815.5
42.5°	489.3	491.3	489.3	501.2	546.0	758.8
45°	467.4	467.4	467.4	473.4	510.2	696.1
47.5°	442.5	444.5	442.5	446.5	474.4	636.5
50°	417.7	419.7	417.7	418.7	441.5	579.8
52.5°	391.8	393.8	391.8	391.8	411.7	522.1
55°	364.0	367.9	364.0	361.0	376.9	467.4
57.5°	335.1	340.1	335.1	333.1	343.1	416.7
60°	309.3	314.2	309.3	305.3	310.3	369.9
62.5°	282.4	287.4	282.4	276.5	278.4	319.2
65°	254.6	260.5	254.6	245.6	246.6	278.4



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	224.7	229.7	224.7	214.8	214.8	237.7
70°	195.9	199.9	195.9	184.0	183.0	202.9
72.5°	166.1	170.1	166.1	156.1	153.1	164.1
75°	135.2	138.2	135.2	126.3	122.3	131.3
77.5°	107.4	107.4	107.4	99.4	95.5	100.4
80°	77.6	77.6	77.6	73.6	68.6	71.6
82.5°	51.7	51.7	51.7	48.7	46.7	47.7
85°	28.8	27.8	28.8	28.8	26.9	26.9
87.5°	10.9	11.9	10.9	12.9	12.9	11.9
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	21.74	23.27	22.11	23.58	23.89	19.06	20.58	19.42	20.89	21.21
	3H	22.96	24.33	23.34	24.65	25.02	20.38	21.75	20.76	22.08	22.44
	4H	23.35	24.64	23.75	24.98	25.36	20.84	22.12	21.24	22.47	22.85
	6H	23.60	24.78	24.01	25.15	25.54	21.14	22.33	21.56	22.70	23.09
	8H	23.65	24.78	24.08	25.17	25.57	21.23	22.35	21.65	22.74	23.14
	12H	23.68	24.76	24.11	25.14	25.57	21.27	22.35	21.70	22.73	23.16
4H	2H	22.03	23.31	22.43	23.66	24.04	20.02	21.30	20.42	21.65	22.03
	3H	23.52	24.59	23.93	24.99	25.39	21.48	22.55	21.89	22.95	23.35
	4H	24.08	25.04	24.52	25.46	25.90	22.00	22.96	22.43	23.38	23.81
	6H	24.45	25.28	24.91	25.73	26.19	22.37	23.21	22.83	23.65	24.11
	8H	24.54	25.32	25.00	25.76	26.23	22.47	23.25	22.94	23.70	24.17
	12H	24.60	25.29	25.08	25.77	26.24	22.54	23.23	23.02	23.71	24.18
8H	4H	24.22	25.00	24.69	25.45	25.91	22.41	23.19	22.87	23.63	24.10
	6H	24.69	25.33	25.18	25.82	26.30	22.86	23.50	23.35	23.99	24.47
	8H	24.83	25.41	25.35	25.92	26.41	23.00	23.58	23.51	24.09	24.57
	12H	24.94	25.45	25.45	25.94	26.50	23.11	23.61	23.62	24.11	24.67
12H	4H	24.22	24.92	24.70	25.39	25.87	22.45	23.15	22.93	23.63	24.10
	6H	24.69	25.27	25.20	25.78	26.27	22.92	23.49	23.43	24.00	24.49
	8H	24.88	25.39	25.39	25.88	26.45	23.11	23.62	23.62	24.11	24.67