

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: P997661

Luminaire Tested: SA2XXDP-B865DB2750-4F0-XX-W2A-A_5000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997661
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-19)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDP-B865DB2750-4F0-XX-W2A-A_5000K
Description: Define 2 Direct Recessed with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

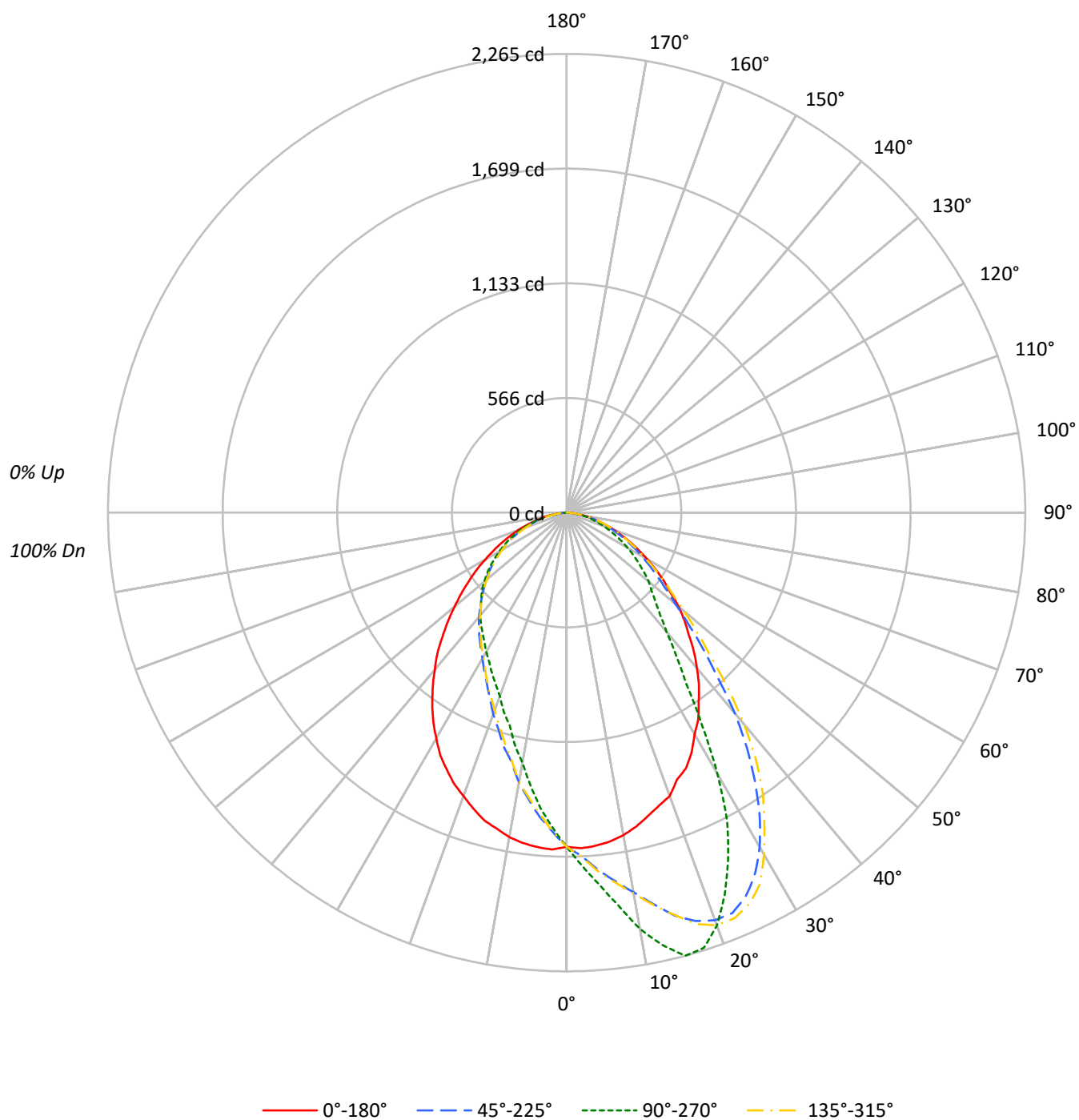
Lumens per Lamp: N/A
Luminaire Lumens: 3640.0 lumens
Efficiency: N/A
Efficacy: 77.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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			0
RW	70	50	30	10	70	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	90	82	75	69	79	73	68		76	71	67		74	69	66	64
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66	62	58	55
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46		57	51	46		55	50	45	43
7	69	56	48	42	67	55	47	42	54	46	41		52	46	41		51	45	41	39
8	64	51	43	38	63	51	43	38	49	42	37		48	42	37		47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34		45	38	34		44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41	35	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	26115	26115	26115	26115
5°	26236	29278	26336	23293
10°	25988	33550	26152	20159
15°	25416	37116	25770	17810
20°	25079	36549	25079	16235
25°	24342	32958	24452	15239
30°	23085	27234	23526	14509
35°	21981	19850	22348	13993
40°	20701	15853	20936	13704
45°	19104	13852	19418	13313
50°	17738	13022	17770	13054
55°	16169	12005	16274	12703
60°	14493	11001	14693	12163
65°	13016	10023	13252	11637
70°	11561	9099	11857	10858
75°	9926	8067	10318	9614
80°	8095	6937	8669	7748
85°	5993	6211	6448	4613

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 155°

Vertical Angle: 45°

Luminance: 34094 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.1	4.3
10°-20°	457.4	12.6
20°-30°	663.8	18.2
30°-40°	699.8	19.2
40°-50°	619.2	17.0
50°-60°	494.4	13.6
60°-70°	335.8	9.2
70°-80°	171.8	4.7
80°-90°	40.6	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°	1278.3	35.1
0°-40°	1978.1	54.3
0°-60°	3091.7	84.9
0°-90°	3640.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3640.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1650	1650	1650	1650	1650	
5°	1651	1843	1657	1466	1651	157
15°	1551	2265	1572	1087	1551	438
25°	1394	1887	1400	872	1394	637
35°	1138	1027	1156	724	1138	712
45°	853	619	867	595	853	662
55°	586	435	590	460	586	523
65°	348	268	354	311	348	345
75°	162	132	169	157	162	174
85°	33	34	36	25	33	40
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8
2.5°	1658.7	1662.5	1668.8	1670.1	1682.8	1692.9	1704.3	1704.3	1708.2	1706.9	1696.7
5°	1651.1	1662.5	1679.0	1692.9	1715.8	1725.9	1741.1	1752.5	1762.7	1770.3	1769.0
7.5°	1638.4	1658.7	1682.8	1709.4	1739.9	1757.6	1779.2	1799.5	1813.4	1826.1	1835.0
10°	1616.8	1651.1	1684.1	1719.6	1758.9	1783.0	1808.3	1835.0	1856.5	1880.6	1903.4
12.5°	1587.7	1637.1	1677.7	1724.6	1772.8	1799.5	1840.0	1860.3	1902.2	1963.0	1979.5
15°	1550.9	1618.1	1656.2	1715.8	1779.2	1800.7	1856.5	1889.5	1975.7	2013.8	2059.4
17.5°	1516.7	1591.5	1642.2	1710.7	1772.8	1814.7	1869.2	1936.4	2008.7	2063.2	2113.9
20°	1488.8	1561.0	1621.9	1698.0	1776.6	1829.9	1887.0	1968.1	2046.7	2102.5	2141.8
22.5°	1425.4	1517.9	1588.9	1673.9	1769.0	1842.6	1897.1	1985.9	2070.8	2105.1	2139.3
25°	1393.7	1473.5	1556.0	1652.4	1763.9	1851.4	1898.4	1997.3	2072.1	2084.8	2092.4
27.5°	1335.3	1425.4	1521.7	1632.1	1762.7	1836.2	1895.8	1985.9	2045.5	2036.6	2013.8
30°	1263.0	1373.4	1479.9	1599.1	1744.9	1824.8	1880.6	1963.0	1993.5	1947.8	1907.2
32.5°	1209.8	1313.8	1431.7	1569.9	1724.6	1800.7	1855.3	1919.9	1926.3	1843.8	1775.4
35°	1137.5	1252.9	1386.0	1531.9	1690.4	1758.9	1809.6	1848.9	1818.5	1703.1	1621.9
37.5°	1072.8	1187.0	1329.0	1477.4	1643.5	1710.7	1751.3	1757.6	1682.8	1581.3	1462.1
40°	1001.8	1119.7	1268.1	1424.1	1591.5	1649.8	1675.2	1656.2	1548.4	1430.4	1292.2
42.5°	930.8	1047.5	1207.2	1367.0	1525.5	1575.0	1585.1	1533.2	1401.3	1263.0	1103.3
45°	853.4	975.2	1135.0	1296.0	1449.5	1477.4	1478.6	1403.8	1247.8	1103.3	954.9
47.5°	790.0	902.9	1061.4	1222.5	1351.8	1370.8	1363.2	1277.0	1107.1	944.7	815.4
50°	720.3	828.1	985.3	1143.8	1254.2	1259.2	1240.2	1117.2	951.1	802.7	700.0
52.5°	645.5	754.5	899.1	1051.3	1150.2	1142.6	1105.8	973.9	817.9	694.9	616.3
55°	585.9	682.2	817.9	966.3	1036.0	1014.5	973.9	839.5	716.5	612.5	544.0
57.5°	519.9	604.9	738.0	867.4	908.0	887.7	847.1	721.6	607.4	528.8	483.2
60°	457.8	535.1	651.8	759.6	791.3	769.7	722.8	610.0	527.5	461.6	427.4
62.5°	400.7	467.9	565.6	664.5	677.2	655.6	615.0	523.7	452.7	400.7	375.4
65°	347.5	410.9	489.5	564.3	575.7	552.9	511.1	445.1	385.5	352.5	328.4
67.5°	295.5	346.2	415.9	470.5	476.8	455.3	421.0	367.8	331.0	295.5	277.7
70°	249.8	287.9	342.4	386.8	389.3	369.0	351.3	303.1	275.2	249.8	235.9
72.5°	205.4	232.1	273.9	306.9	308.2	295.5	279.0	248.6	224.5	206.7	192.8
75°	162.3	185.1	210.5	239.7	238.4	228.3	215.6	196.6	176.3	164.9	158.5
77.5°	124.3	138.2	158.5	177.5	177.5	172.5	164.9	150.9	138.2	126.8	120.5
80°	88.8	97.6	114.1	120.5	123.0	121.7	115.4	105.3	100.2	91.3	88.8
82.5°	57.1	63.4	71.0	77.4	81.2	78.6	77.4	72.3	64.7	62.1	59.6
85°	33.0	35.5	39.3	43.1	44.4	43.1	45.7	41.8	38.0	38.0	36.8
87.5°	13.9	15.2	17.8	17.8	19.0	19.0	17.8	19.0	19.0	17.8	16.5
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8
2.5°	1714.5	1715.8	1718.3	1731.0	1737.3	1738.6	1733.5	1744.9	1748.7	1744.9	1742.4
5°	1795.7	1803.3	1818.5	1835.0	1833.7	1835.0	1842.6	1850.2	1852.7	1842.6	1846.4
7.5°	1866.7	1881.9	1898.4	1923.7	1923.7	1936.4	1941.5	1947.8	1963.0	1955.4	1952.9
10°	1947.8	1968.1	1998.5	2039.1	2040.4	2053.1	2065.8	2086.0	2092.4	2087.3	2089.9
12.5°	2049.3	2088.6	2091.1	2135.5	2155.8	2158.3	2178.6	2174.8	2187.5	2187.5	2209.1
15°	2093.7	2154.5	2188.8	2231.9	2244.6	2229.3	2245.8	2263.6	2264.9	2264.9	2263.6
17.5°	2173.5	2197.6	2231.9	2254.7	2259.8	2259.8	2261.0	2268.7	2263.6	2253.4	2261.0
20°	2190.0	2200.2	2212.9	2210.3	2212.9	2200.2	2187.5	2174.8	2176.1	2169.7	2188.8
22.5°	2159.6	2157.1	2127.9	2108.9	2108.9	2083.5	2059.4	2048.0	2036.6	2040.4	2046.7
25°	2083.5	2044.2	2008.7	1980.8	1974.5	1933.9	1900.9	1890.8	1871.7	1887.0	1889.5
27.5°	1961.8	1917.4	1860.3	1836.2	1803.3	1786.8	1763.9	1733.5	1694.2	1717.0	1713.2
30°	1831.2	1765.2	1718.3	1660.0	1608.0	1604.2	1561.0	1510.3	1490.0	1490.0	1501.4
32.5°	1685.3	1597.8	1529.3	1446.9	1396.2	1374.6	1322.6	1271.9	1283.3	1245.3	1259.2
35°	1515.4	1400.0	1313.8	1233.9	1195.8	1170.5	1103.3	1075.4	1044.9	1027.2	1060.1
37.5°	1353.1	1219.9	1109.6	1022.1	1008.2	962.5	916.8	899.1	881.3	888.9	887.7
40°	1155.3	1037.3	938.4	869.9	845.8	824.3	793.8	772.3	760.9	767.2	768.5
42.5°	976.4	877.5	804.0	755.8	735.5	720.3	705.1	687.3	683.5	683.5	688.6
45°	838.2	757.1	707.6	668.3	656.9	645.5	634.1	626.4	623.9	618.8	622.6
47.5°	727.9	663.2	632.8	603.6	590.9	588.4	578.3	574.5	569.4	568.1	569.4
50°	635.3	594.7	566.8	550.4	541.5	537.7	532.6	525.0	522.5	528.8	526.3
52.5°	570.7	532.6	517.4	500.9	495.8	490.8	483.2	484.4	483.2	480.6	480.6
55°	506.0	481.9	466.7	454.0	452.7	447.6	441.3	438.8	437.5	435.0	438.8
57.5°	454.0	435.0	421.0	409.6	404.5	404.5	398.2	393.1	393.1	391.8	393.1
60°	402.0	383.0	374.1	362.7	358.9	357.6	353.8	351.3	347.5	347.5	347.5
62.5°	353.8	338.6	328.4	318.3	319.6	313.2	308.2	305.6	305.6	306.9	306.9
65°	308.2	298.0	285.3	276.4	273.9	272.6	270.1	268.8	265.0	267.6	267.6
67.5°	266.3	252.4	244.7	240.9	237.1	235.9	233.3	230.8	229.5	228.3	230.8
70°	224.5	213.0	206.7	204.2	200.4	199.1	197.8	194.0	195.3	196.6	197.8
72.5°	186.4	176.3	175.0	167.4	167.4	167.4	162.3	164.9	163.6	161.1	163.6
75°	147.1	142.0	139.5	135.7	137.0	135.7	134.4	130.6	130.6	131.9	133.2
77.5°	116.7	111.6	110.3	106.5	104.0	106.5	104.0	102.7	102.7	104.0	104.0
80°	86.2	83.7	79.9	79.9	79.9	78.6	78.6	78.6	77.4	76.1	77.4
82.5°	57.1	57.1	55.8	54.5	55.8	53.3	54.5	54.5	54.5	54.5	54.5
85°	36.8	35.5	35.5	34.2	34.2	34.2	35.5	33.0	33.0	34.2	34.2
87.5°	16.5	16.5	16.5	17.8	16.5	16.5	16.5	17.8	16.5	16.5	16.5
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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8
2.5°	1748.7	1739.9	1732.2	1733.5	1739.9	1734.8	1722.1	1705.6	1699.3	1691.7	1699.3
5°	1854.0	1846.4	1831.2	1832.4	1828.6	1823.5	1803.3	1777.9	1777.9	1757.6	1755.1
7.5°	1958.0	1946.6	1936.4	1933.9	1919.9	1909.8	1892.0	1856.5	1842.6	1818.5	1804.5
10°	2074.6	2065.8	2054.3	2040.4	2032.8	2015.0	1985.9	1933.9	1908.5	1875.5	1851.4
12.5°	2192.6	2191.3	2165.9	2138.0	2136.8	2108.9	2088.6	2018.8	1984.6	1940.2	1883.2
15°	2267.4	2261.0	2247.1	2233.2	2237.0	2206.5	2160.9	2078.4	2055.6	2002.4	1941.5
17.5°	2266.1	2266.1	2262.3	2259.8	2256.0	2247.1	2221.7	2167.2	2130.4	2063.2	2006.2
20°	2193.8	2210.3	2214.1	2212.9	2225.5	2231.9	2230.6	2196.4	2167.2	2107.6	2049.3
22.5°	2049.3	2087.3	2103.8	2113.9	2140.6	2154.5	2187.5	2174.8	2167.2	2122.8	2073.4
25°	1914.9	1927.5	1977.0	1979.5	2016.3	2050.5	2083.5	2105.1	2133.0	2116.5	2074.6
27.5°	1741.1	1770.3	1805.8	1832.4	1840.0	1909.8	1964.3	2004.9	2068.3	2073.4	2059.4
30°	1544.6	1558.5	1616.8	1652.4	1692.9	1743.7	1822.3	1892.0	1949.1	2001.1	2018.8
32.5°	1304.9	1362.0	1396.2	1439.3	1474.8	1564.9	1661.2	1751.3	1817.2	1904.7	1942.8
35°	1085.5	1129.9	1188.2	1206.0	1270.7	1346.7	1472.3	1587.7	1687.9	1776.6	1854.0
37.5°	904.2	939.7	1001.8	1029.7	1067.8	1165.4	1270.7	1413.9	1534.4	1643.5	1739.9
40°	779.9	806.5	853.4	862.3	894.0	982.8	1067.8	1202.2	1362.0	1509.1	1614.3
42.5°	694.9	707.6	739.3	750.7	771.0	830.6	906.7	1033.5	1181.9	1334.1	1482.4
45°	634.1	642.9	662.0	672.1	697.5	724.1	786.2	887.7	1004.3	1157.8	1317.6
47.5°	579.5	590.9	598.6	604.9	618.8	648.0	688.6	763.4	875.0	1015.8	1170.5
50°	533.9	537.7	551.6	552.9	561.8	580.8	618.8	664.5	753.3	867.4	1017.0
52.5°	488.2	492.0	500.9	509.8	513.6	528.8	554.2	592.2	658.2	748.2	881.3
55°	442.6	447.6	456.5	462.9	466.7	479.3	494.6	531.3	583.3	646.7	755.8
57.5°	396.9	408.3	410.9	414.7	421.0	435.0	448.9	470.5	511.1	569.4	649.3
60°	353.8	357.6	366.5	370.3	376.6	384.2	402.0	418.5	447.6	493.3	565.6
62.5°	309.4	318.3	322.1	325.9	331.0	339.9	351.3	369.0	394.4	431.2	488.2
65°	271.4	272.6	280.3	285.3	290.4	296.7	308.2	324.6	339.9	374.1	415.9
67.5°	234.6	237.1	239.7	244.7	251.1	257.4	267.6	276.4	295.5	318.3	351.3
70°	199.1	199.1	205.4	209.2	208.0	215.6	223.2	233.3	247.3	268.8	295.5
72.5°	167.4	166.1	171.2	172.5	175.0	180.1	185.1	195.3	202.9	219.4	239.7
75°	133.2	135.7	138.2	138.2	142.0	145.8	150.9	156.0	164.9	175.0	190.2
77.5°	105.3	105.3	107.8	109.1	112.9	111.6	116.7	121.7	128.1	137.0	148.4
80°	77.4	79.9	79.9	79.9	81.2	82.4	87.5	91.3	95.1	101.4	106.5
82.5°	54.5	54.5	57.1	57.1	57.1	59.6	59.6	60.9	63.4	67.2	71.0
85°	34.2	34.2	34.2	35.5	34.2	35.5	38.0	36.8	38.0	40.6	40.6
87.5°	16.5	16.5	16.5	16.5	16.5	17.8	16.5	17.8	19.0	19.0	19.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P997661

CATALOG NUMBER: SA2XXDP-B865DB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8
2.5°	1692.9	1686.6	1682.8	1685.3	1677.7	1658.7	1658.7	1665.0	1657.4	1649.8	1638.4
5°	1739.9	1727.2	1719.6	1718.3	1700.5	1670.1	1663.8	1657.4	1640.9	1623.2	1604.2
7.5°	1785.5	1762.7	1750.0	1741.1	1715.8	1676.4	1660.0	1646.0	1619.4	1592.8	1568.7
10°	1823.5	1790.6	1775.4	1761.4	1728.4	1679.0	1652.4	1627.0	1592.8	1558.5	1528.1
12.5°	1854.0	1815.9	1796.9	1776.6	1736.0	1671.4	1638.4	1597.8	1563.6	1517.9	1487.5
15°	1904.7	1826.1	1808.3	1789.3	1747.5	1658.7	1618.1	1572.5	1525.5	1464.7	1431.7
17.5°	1945.3	1840.0	1838.8	1798.2	1743.7	1653.6	1591.5	1531.9	1481.2	1420.3	1368.3
20°	1969.4	1861.6	1841.3	1799.5	1731.0	1619.4	1554.7	1488.8	1434.2	1360.7	1308.7
22.5°	1989.7	1892.0	1838.8	1788.0	1704.3	1608.0	1512.9	1450.7	1375.9	1296.0	1246.6
25°	1997.3	1898.4	1842.6	1784.2	1685.3	1575.0	1467.2	1400.0	1316.3	1244.0	1176.8
27.5°	1998.5	1897.1	1828.6	1767.8	1658.7	1531.9	1421.6	1350.5	1258.0	1174.3	1107.1
30°	1985.9	1883.2	1821.0	1755.1	1633.3	1492.6	1365.8	1287.1	1188.2	1104.5	1034.8
32.5°	1947.8	1855.3	1804.5	1732.2	1600.4	1438.0	1312.5	1225.0	1121.0	1038.6	971.4
35°	1884.4	1821.0	1765.2	1698.0	1557.2	1387.3	1259.2	1156.5	1051.3	972.6	909.2
37.5°	1805.8	1771.6	1719.6	1653.6	1507.8	1341.7	1199.6	1085.5	980.3	904.2	842.0
40°	1699.3	1708.2	1657.4	1597.8	1449.5	1279.5	1122.3	1013.2	914.3	843.3	782.4
42.5°	1583.9	1620.7	1591.5	1534.4	1384.8	1211.0	1065.2	944.7	848.4	774.8	724.1
45°	1459.6	1523.0	1505.3	1463.4	1317.6	1138.8	984.1	867.4	782.4	711.4	667.0
47.5°	1323.9	1413.9	1413.9	1383.5	1242.8	1066.5	914.3	795.1	711.4	660.7	617.6
50°	1185.7	1287.1	1303.6	1283.3	1159.1	984.1	829.3	721.6	649.3	599.8	568.1
52.5°	1041.1	1159.1	1189.5	1179.3	1070.3	905.4	759.6	654.3	588.4	545.3	517.4
55°	902.9	1039.9	1072.8	1076.6	975.2	819.2	682.2	589.7	526.3	497.1	473.0
57.5°	772.3	904.2	940.9	947.3	878.8	740.6	610.0	528.8	471.7	447.6	428.6
60°	660.7	771.0	819.2	833.2	773.6	649.3	542.8	464.1	421.0	398.2	380.4
62.5°	569.4	658.2	708.9	712.7	686.1	569.4	473.0	407.1	370.3	350.0	341.1
65°	480.6	560.5	590.9	606.2	584.6	493.3	408.3	353.8	324.6	306.9	298.0
67.5°	409.6	460.3	485.7	506.0	484.4	415.9	347.5	303.1	281.5	263.8	258.7
70°	336.1	377.9	396.9	417.2	398.2	346.2	296.7	256.2	237.1	223.2	216.8
72.5°	268.8	301.8	319.6	332.2	320.8	277.7	237.1	209.2	195.3	185.1	181.3
75°	213.0	235.9	246.0	254.9	249.8	216.8	191.5	168.7	156.0	147.1	144.6
77.5°	162.3	178.8	190.2	192.8	186.4	164.9	143.3	129.3	119.2	114.1	111.6
80°	115.4	125.5	131.9	135.7	129.3	120.5	105.3	95.1	86.2	79.9	78.6
82.5°	77.4	82.4	87.5	86.2	83.7	76.1	67.2	62.1	58.3	53.3	53.3
85°	44.4	45.7	48.2	49.5	48.2	43.1	38.0	35.5	33.0	29.2	29.2
87.5°	19.0	20.3	20.3	21.6	19.0	19.0	16.5	13.9	13.9	12.7	11.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P997661

CATALOG NUMBER: SA2XXDP-B865DB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8
2.5°	1632.1	1638.4	1637.1	1624.5	1610.5	1599.1	1577.5	1580.1	1572.5	1573.7	1581.3
5°	1591.5	1591.5	1586.4	1568.7	1545.8	1533.2	1509.1	1502.7	1487.5	1486.2	1485.0
7.5°	1548.4	1542.0	1535.7	1510.3	1482.4	1462.1	1429.2	1421.6	1406.3	1396.2	1391.1
10°	1497.6	1488.8	1476.1	1446.9	1412.7	1387.3	1353.1	1342.9	1313.8	1301.1	1293.5
12.5°	1441.8	1436.8	1416.5	1392.4	1336.6	1308.7	1259.2	1269.4	1240.2	1214.9	1211.0
15°	1386.0	1367.0	1355.6	1316.3	1249.1	1236.4	1197.1	1176.8	1150.2	1129.9	1129.9
17.5°	1331.5	1302.4	1277.0	1235.1	1185.7	1150.2	1121.0	1110.9	1077.9	1057.6	1053.8
20°	1259.2	1226.3	1219.9	1160.3	1126.1	1086.8	1058.9	1033.5	1009.4	1000.5	994.2
22.5°	1190.8	1152.7	1142.6	1091.8	1057.6	1018.3	990.4	972.6	954.9	948.5	937.1
25°	1117.2	1094.4	1079.2	1024.6	986.6	949.8	930.8	918.1	901.6	900.4	892.8
27.5°	1046.2	1024.6	1009.4	957.4	929.5	895.3	880.1	866.1	857.2	853.4	849.6
30°	985.3	961.2	943.5	905.4	871.2	843.3	830.6	821.7	816.7	810.3	809.1
32.5°	918.1	904.2	880.1	850.9	824.3	797.6	790.0	783.7	776.1	773.6	772.3
35°	861.1	842.0	826.8	793.8	782.4	759.6	750.7	745.7	735.5	733.0	730.4
37.5°	805.3	787.5	771.0	750.7	729.2	716.5	711.4	703.8	698.7	700.0	697.5
40°	749.5	735.5	722.8	701.3	688.6	682.2	672.1	664.5	662.0	663.2	662.0
42.5°	694.9	682.2	674.6	658.2	645.5	639.1	632.8	625.2	629.0	629.0	632.8
45°	645.5	634.1	629.0	616.3	608.7	598.6	592.2	590.9	596.0	594.7	594.7
47.5°	594.7	590.9	584.6	573.2	563.0	556.7	555.4	555.4	560.5	563.0	561.8
50°	555.4	547.8	540.2	531.3	523.7	521.2	517.4	519.9	525.0	525.0	527.5
52.5°	506.0	500.9	498.4	490.8	485.7	485.7	485.7	487.0	490.8	494.6	493.3
55°	462.9	459.1	456.5	452.7	446.4	447.6	446.4	448.9	452.7	456.5	459.1
57.5°	417.2	415.9	413.4	407.1	407.1	405.8	409.6	410.9	417.2	419.7	423.6
60°	376.6	372.8	372.8	367.8	367.8	367.8	371.6	375.4	380.4	381.7	384.2
62.5°	333.5	333.5	332.2	328.4	328.4	332.2	333.5	338.6	341.1	341.1	344.9
65°	292.9	291.7	290.4	291.7	292.9	292.9	296.7	299.3	301.8	303.1	304.3
67.5°	252.4	251.1	253.6	252.4	254.9	260.0	258.7	262.5	266.3	266.3	267.6
70°	214.3	216.8	215.6	218.1	216.8	219.4	223.2	224.5	224.5	225.7	229.5
72.5°	178.8	178.8	178.8	177.5	178.8	181.3	183.9	185.1	187.7	188.9	192.8
75°	144.6	144.6	142.0	144.6	144.6	147.1	149.6	149.6	149.6	152.2	156.0
77.5°	109.1	110.3	109.1	111.6	111.6	112.9	115.4	114.1	116.7	117.9	119.2
80°	79.9	78.6	78.6	78.6	79.9	79.9	82.4	83.7	83.7	87.5	85.0
82.5°	50.7	52.0	50.7	52.0	52.0	53.3	52.0	53.3	54.5	57.1	55.8
85°	29.2	27.9	27.9	29.2	27.9	27.9	29.2	27.9	29.2	27.9	29.2
87.5°	11.4	10.1	10.1	10.1	10.1	8.9	8.9	7.6	7.6	7.6	6.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P997661

CATALOG NUMBER: SA2XXDP-B865DB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8
2.5°	1572.5	1576.3	1567.4	1564.9	1567.4	1558.5	1561.0	1563.6	1563.6	1567.4	1569.9
5°	1481.2	1476.1	1467.2	1464.7	1462.1	1465.9	1463.4	1467.2	1468.5	1477.4	1478.6
7.5°	1391.1	1383.5	1375.9	1368.3	1365.8	1359.4	1365.8	1365.8	1374.6	1372.1	1378.4
10°	1284.6	1283.3	1273.2	1269.4	1264.3	1254.2	1268.1	1264.3	1270.7	1282.1	1284.6
12.5°	1206.0	1192.0	1198.4	1180.6	1187.0	1176.8	1178.1	1178.1	1188.2	1189.5	1187.0
15°	1131.2	1119.7	1103.3	1095.7	1091.8	1086.8	1103.3	1104.5	1096.9	1114.7	1108.3
17.5°	1055.1	1055.1	1039.9	1036.0	1025.9	1031.0	1028.4	1029.7	1027.2	1039.9	1046.2
20°	989.1	982.8	977.7	979.0	966.3	963.8	961.2	963.8	972.6	981.5	984.1
22.5°	935.9	932.1	919.4	921.9	911.8	915.6	913.0	919.4	920.7	920.7	929.5
25°	885.1	880.1	881.3	876.3	872.5	872.5	868.7	872.5	877.5	880.1	881.3
27.5°	847.1	843.3	837.0	833.2	835.7	829.3	834.4	838.2	838.2	835.7	838.2
30°	801.4	804.0	804.0	791.3	796.4	793.8	797.6	800.2	800.2	801.4	798.9
32.5°	771.0	763.4	762.1	760.9	760.9	755.8	755.8	759.6	760.9	762.1	765.9
35°	730.4	730.4	724.1	727.9	722.8	724.1	722.8	724.1	726.6	722.8	726.6
37.5°	693.7	694.9	692.4	694.9	696.2	693.7	691.1	696.2	693.7	693.7	691.1
40°	662.0	660.7	662.0	662.0	662.0	663.2	660.7	660.7	660.7	658.2	655.6
42.5°	635.3	627.7	630.3	631.5	627.7	627.7	629.0	627.7	631.5	623.9	623.9
45°	597.3	594.7	596.0	596.0	598.6	594.7	597.3	598.6	594.7	593.5	590.9
47.5°	563.0	565.6	563.0	565.6	565.6	568.1	563.0	564.3	565.6	560.5	556.7
50°	528.8	528.8	532.6	531.3	532.6	530.1	530.1	528.8	530.1	527.5	523.7
52.5°	497.1	493.3	499.6	498.4	497.1	495.8	494.6	495.8	493.3	490.8	490.8
55°	457.8	457.8	461.6	462.9	462.9	460.3	457.8	459.1	457.8	456.5	455.3
57.5°	426.1	421.0	423.6	424.8	424.8	421.0	423.6	421.0	421.0	422.3	418.5
60°	385.5	385.5	383.0	386.8	386.8	384.2	384.2	385.5	383.0	381.7	380.4
62.5°	342.4	343.7	347.5	348.7	350.0	347.5	344.9	346.2	346.2	342.4	343.7
65°	305.6	308.2	313.2	312.0	309.4	310.7	308.2	309.4	305.6	306.9	303.1
67.5°	270.1	268.8	270.1	270.1	272.6	271.4	268.8	268.8	267.6	271.4	267.6
70°	232.1	232.1	232.1	232.1	233.3	234.6	232.1	229.5	230.8	228.3	227.0
72.5°	192.8	194.0	192.8	195.3	191.5	194.0	194.0	192.8	191.5	191.5	191.5
75°	156.0	158.5	154.7	156.0	154.7	157.2	156.0	156.0	153.4	152.2	153.4
77.5°	119.2	120.5	117.9	119.2	117.9	119.2	119.2	117.9	117.9	117.9	117.9
80°	85.0	86.2	85.0	83.7	82.4	85.0	82.4	83.7	85.0	83.7	86.2
82.5°	54.5	54.5	53.3	54.5	52.0	52.0	53.3	53.3	52.0	54.5	52.0
85°	26.6	26.6	29.2	26.6	25.4	25.4	25.4	26.6	25.4	27.9	26.6
87.5°	6.3	5.1	6.3	6.3	5.1	5.1	6.3	5.1	6.3	7.6	5.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P997661

CATALOG NUMBER: SA2XXDP-B865DB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8
2.5°	1566.1	1576.3	1572.5	1558.5	1575.0	1575.0	1586.4	1586.4	1600.4	1605.4	1613.0
5°	1477.4	1485.0	1491.3	1485.0	1496.4	1514.1	1524.3	1533.2	1552.2	1559.8	1571.2
7.5°	1382.2	1396.2	1402.5	1402.5	1421.6	1441.8	1462.1	1474.8	1501.4	1511.6	1523.0
10°	1289.7	1306.2	1318.8	1317.6	1349.3	1362.0	1387.3	1416.5	1443.1	1458.3	1474.8
12.5°	1192.0	1200.9	1218.7	1244.0	1251.6	1274.5	1303.6	1340.4	1388.6	1402.5	1426.6
15°	1110.9	1135.0	1148.9	1160.3	1178.1	1199.6	1231.3	1266.8	1315.0	1345.5	1370.8
17.5°	1042.4	1074.1	1083.0	1080.4	1103.3	1136.2	1173.0	1199.6	1242.8	1279.5	1303.6
20°	986.6	999.3	1014.5	1020.8	1038.6	1074.1	1109.6	1140.0	1175.5	1204.7	1232.6
22.5°	930.8	940.9	953.6	965.0	979.0	999.3	1033.5	1071.6	1105.8	1133.7	1165.4
25°	885.1	891.5	902.9	911.8	927.0	940.9	965.0	1006.9	1047.5	1063.9	1091.8
27.5°	840.8	845.8	853.4	863.6	871.2	885.1	906.7	940.9	982.8	999.3	1037.3
30°	801.4	805.3	812.9	817.9	821.7	838.2	854.7	881.3	913.0	935.9	963.8
32.5°	764.7	768.5	776.1	777.4	782.4	791.3	806.5	830.6	858.5	877.5	901.6
35°	724.1	726.6	734.2	736.8	740.6	748.2	759.6	777.4	802.7	816.7	838.2
37.5°	692.4	691.1	696.2	700.0	705.1	708.9	712.7	730.4	749.5	762.1	778.6
40°	658.2	655.6	656.9	662.0	664.5	669.6	669.6	687.3	700.0	710.1	722.8
42.5°	623.9	622.6	620.1	622.6	625.2	626.4	627.7	640.4	653.1	662.0	675.9
45°	589.7	588.4	585.9	587.1	587.1	589.7	593.5	598.6	607.4	615.0	622.6
47.5°	558.0	555.4	551.6	550.4	552.9	552.9	552.9	558.0	566.8	569.4	577.0
50°	525.0	521.2	516.1	513.6	513.6	512.3	514.9	516.1	523.7	526.3	532.6
52.5°	489.5	487.0	481.9	476.8	478.1	475.5	476.8	478.1	480.6	484.4	488.2
55°	454.0	448.9	445.1	443.8	440.0	440.0	436.2	441.3	440.0	441.3	446.4
57.5°	419.7	414.7	408.3	405.8	402.0	400.7	398.2	396.9	398.2	402.0	405.8
60°	379.2	376.6	372.8	369.0	366.5	362.7	360.1	360.1	358.9	358.9	360.1
62.5°	339.9	338.6	333.5	332.2	329.7	327.2	323.4	320.8	320.8	323.4	324.6
65°	301.8	300.5	296.7	295.5	289.1	286.6	285.3	284.1	281.5	281.5	281.5
67.5°	266.3	262.5	262.5	256.2	251.1	248.6	246.0	244.7	244.7	244.7	246.0
70°	227.0	227.0	223.2	219.4	214.3	215.6	211.8	208.0	208.0	205.4	206.7
72.5°	188.9	187.7	183.9	182.6	178.8	175.0	172.5	175.0	171.2	169.9	171.2
75°	152.2	150.9	148.4	145.8	147.1	143.3	139.5	138.2	138.2	135.7	135.7
77.5°	116.7	119.2	114.1	112.9	110.3	107.8	106.5	105.3	105.3	105.3	107.8
80°	81.2	82.4	82.4	79.9	81.2	77.4	77.4	77.4	73.6	74.8	76.1
82.5°	52.0	52.0	50.7	52.0	50.7	50.7	49.5	49.5	48.2	48.2	49.5
85°	29.2	27.9	26.6	29.2	27.9	27.9	26.6	26.6	26.6	26.6	26.6
87.5°	6.3	7.6	7.6	7.6	7.6	8.9	8.9	8.9	10.1	10.1	10.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P997661

CATALOG NUMBER: SA2XXDP-B865DB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1649.8	1649.8	1649.8	1649.8
2.5°	1619.4	1619.4	1638.4	1658.7
5°	1583.9	1592.8	1623.2	1651.1
7.5°	1549.6	1564.9	1602.9	1638.4
10°	1507.8	1528.1	1575.0	1616.8
12.5°	1467.2	1486.2	1540.8	1587.7
15°	1410.1	1434.2	1492.6	1550.9
17.5°	1353.1	1377.2	1448.2	1516.7
20°	1285.9	1317.6	1397.5	1488.8
22.5°	1223.7	1263.0	1351.8	1425.4
25°	1155.3	1216.1	1298.5	1393.7
27.5°	1094.4	1155.3	1238.9	1335.3
30°	1025.9	1088.0	1174.3	1263.0
32.5°	960.0	1017.0	1100.7	1209.8
35°	891.5	946.0	1027.2	1137.5
37.5°	829.3	882.6	971.4	1072.8
40°	768.5	824.3	900.4	1001.8
42.5°	711.4	760.9	829.3	930.8
45°	659.4	694.9	758.3	853.4
47.5°	604.9	636.6	694.9	790.0
50°	554.2	580.8	631.5	720.3
52.5°	504.7	527.5	574.5	645.5
55°	460.3	481.9	516.1	585.9
57.5°	414.7	431.2	464.1	519.9
60°	370.3	385.5	412.1	457.8
62.5°	325.9	338.6	363.9	400.7
65°	286.6	296.7	315.8	347.5
67.5°	248.6	254.9	270.1	295.5
70°	211.8	216.8	229.5	249.8
72.5°	172.5	177.5	191.5	205.4
75°	139.5	140.8	150.9	162.3
77.5°	109.1	107.8	115.4	124.3
80°	74.8	78.6	85.0	88.8
82.5°	50.7	52.0	54.5	57.1
85°	27.9	29.2	29.2	33.0
87.5°	11.4	12.7	12.7	13.9
90°	0.0	0.0	0.0	0.0

TEST NUMBER: P997661

CATALOG NUMBER: SA2XXDP-B865DB2750-4F0-XX-W2A-A_5000K

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	23.31	24.82	23.67	25.14	25.45	19.57	21.09	19.94	21.40	21.72
	3H	24.42	25.78	24.80	26.11	26.47	20.99	22.35	21.36	22.68	23.04
	4H	24.75	26.02	25.15	26.37	26.75	21.49	22.77	21.89	23.12	23.50
	6H	24.94	26.11	25.35	26.48	26.87	21.85	23.03	22.26	23.40	23.79
	8H	24.98	26.10	25.40	26.49	26.89	21.96	23.09	22.39	23.48	23.88
	12H	24.99	26.06	25.42	26.45	26.88	22.04	23.11	22.47	23.49	23.92
4H	2H	23.43	24.70	23.83	25.05	25.43	20.37	21.65	20.77	22.00	22.37
	3H	24.76	25.82	25.17	26.22	26.62	21.95	23.01	22.36	23.41	23.81
	4H	25.23	26.18	25.66	26.60	27.04	22.55	23.50	22.98	23.92	24.35
	6H	25.56	26.39	26.02	26.83	27.29	23.00	23.83	23.46	24.27	24.73
	8H	25.64	26.41	26.10	26.86	27.32	23.14	23.92	23.61	24.36	24.83
	12H	25.68	26.37	26.16	26.85	27.32	23.25	23.94	23.73	24.42	24.89
8H	4H	25.31	26.09	25.78	26.53	27.00	22.96	23.73	23.42	24.17	24.64
	6H	25.72	26.36	26.22	26.85	27.33	23.50	24.14	23.99	24.63	25.11
	8H	25.85	26.42	26.36	26.93	27.42	23.70	24.27	24.21	24.78	25.27
	12H	25.94	26.45	26.45	26.94	27.50	23.86	24.37	24.37	24.86	25.42
12H	4H	25.31	26.00	25.79	26.48	26.95	23.01	23.70	23.49	24.18	24.65
	6H	25.72	26.29	26.23	26.80	27.29	23.57	24.15	24.09	24.66	25.15
	8H	25.88	26.39	26.39	26.88	27.45	23.82	24.33	24.33	24.82	25.39