

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: P997658

Luminaire Tested: SA2XXDP-B865DB2750-4F0-XX-W2A-A_3000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997658
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_3000K
Description: Define 2 Direct Recessed with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

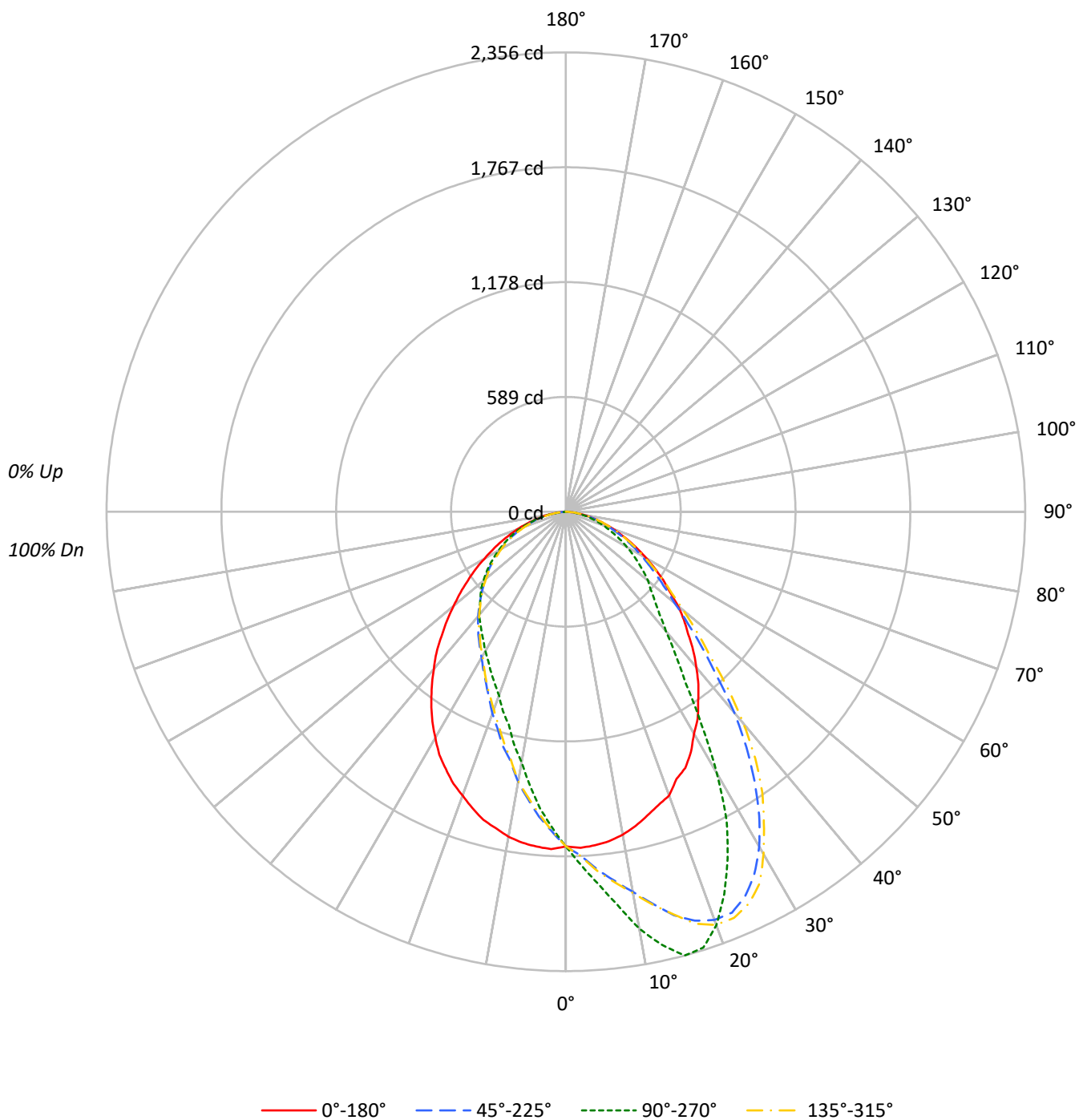
Lumens per Lamp: N/A
Luminaire Lumens: 3786.0 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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					0
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	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°	27163	27163	27163	27163
5°	27287	30453	27392	24227
10°	27031	34896	27200	20968
15°	26435	38604	26802	18525
20°	26085	38016	26085	16886
25°	25318	34278	25434	15850
30°	24012	28327	24471	15092
35°	22862	20646	23245	14553
40°	21532	16490	21777	14254
45°	19872	14410	20197	13848
50°	18450	13544	18482	13576
55°	16818	12485	16926	13214
60°	15076	11441	15282	12654
65°	13536	10424	13784	12102
70°	12024	9460	12329	11293
75°	10324	8391	10727	10006
80°	8414	7211	9015	8058
85°	6230	6466	6702	4795

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 155°

Vertical Angle: 45°

Luminance: 35462 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.4	4.3
10°-20°	475.7	12.6
20°-30°	690.4	18.2
30°-40°	727.8	19.2
40°-50°	644.1	17.0
50°-60°	514.3	13.6
60°-70°	349.3	9.2
70°-80°	178.7	4.7
80°-90°	42.2	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°	1329.6	35.1
0°-40°	2057.4	54.3
0°-60°	3215.7	84.9
0°-90°	3786.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3786.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1716	1716	1716	1716	1716	
5°	1717	1916	1724	1525	1717	163
15°	1613	2356	1636	1130	1613	456
25°	1450	1963	1456	908	1450	663
35°	1183	1068	1203	753	1183	740
45°	888	644	902	619	888	689
55°	609	452	613	479	609	544
65°	361	278	368	323	361	359
75°	169	137	175	164	169	181
85°	34	36	37	26	34	42
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°	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0
2.5°	1725.2	1729.2	1735.8	1737.1	1750.3	1760.8	1772.7	1772.7	1776.7	1775.3	1764.8
5°	1717.3	1729.2	1746.3	1760.8	1784.6	1795.1	1811.0	1822.8	1833.4	1841.3	1840.0
7.5°	1704.1	1725.2	1750.3	1778.0	1809.6	1828.1	1850.5	1871.6	1886.1	1899.3	1908.6
10°	1681.7	1717.3	1751.6	1788.5	1829.4	1854.5	1880.9	1908.6	1931.0	1956.0	1979.8
12.5°	1651.4	1702.8	1745.0	1793.8	1843.9	1871.6	1913.8	1934.9	1978.5	2041.8	2058.9
15°	1613.1	1683.0	1722.6	1784.6	1850.5	1873.0	1931.0	1965.3	2055.0	2094.5	2142.0
17.5°	1577.5	1655.3	1708.1	1779.3	1843.9	1887.5	1944.2	2014.1	2089.3	2146.0	2198.7
20°	1548.5	1623.7	1687.0	1766.1	1847.9	1903.3	1962.6	2047.1	2128.8	2186.9	2227.8
22.5°	1482.5	1578.8	1652.7	1741.1	1840.0	1916.5	1973.2	2065.5	2153.9	2189.5	2225.1
25°	1449.6	1532.7	1618.4	1718.6	1834.7	1925.7	1974.5	2077.4	2155.2	2168.4	2176.3
27.5°	1388.9	1482.5	1582.8	1697.5	1833.4	1909.9	1971.9	2065.5	2127.5	2118.3	2094.5
30°	1313.7	1428.5	1539.2	1663.2	1814.9	1898.0	1956.0	2041.8	2073.4	2026.0	1983.7
32.5°	1258.3	1366.5	1489.1	1632.9	1793.8	1873.0	1929.7	1996.9	2003.5	1917.8	1846.6
35°	1183.1	1303.2	1441.6	1593.3	1758.2	1829.4	1882.2	1923.1	1891.4	1771.4	1687.0
37.5°	1115.9	1234.6	1382.3	1536.6	1709.4	1779.3	1821.5	1828.1	1750.3	1644.8	1520.8
40°	1042.0	1164.7	1319.0	1481.2	1655.3	1716.0	1742.4	1722.6	1610.5	1487.8	1344.0
42.5°	968.1	1089.5	1255.7	1421.9	1586.7	1638.2	1648.7	1594.6	1457.5	1313.7	1147.5
45°	887.7	1014.3	1180.5	1348.0	1507.6	1536.6	1537.9	1460.1	1297.9	1147.5	993.2
47.5°	821.7	939.1	1104.0	1271.5	1406.0	1425.8	1417.9	1328.2	1151.5	982.6	848.1
50°	749.2	861.3	1024.8	1189.7	1304.5	1309.7	1290.0	1162.0	989.2	834.9	728.1
52.5°	671.4	784.8	935.2	1093.4	1196.3	1188.4	1150.1	1013.0	850.7	722.8	641.0
55°	609.4	709.6	850.7	1005.1	1077.6	1055.2	1013.0	873.2	745.2	637.1	565.8
57.5°	540.8	629.2	767.6	902.2	944.4	923.3	881.1	750.5	631.8	550.0	502.5
60°	476.2	556.6	678.0	790.1	823.0	800.6	751.8	634.4	548.7	480.1	444.5
62.5°	416.8	486.7	588.3	691.1	704.3	681.9	639.7	544.7	470.9	416.8	390.4
65°	361.4	427.3	509.1	586.9	598.8	575.1	531.5	463.0	401.0	366.7	341.6
67.5°	307.3	360.1	432.6	489.3	495.9	473.5	437.9	382.5	344.3	307.3	288.9
70°	259.8	299.4	356.1	402.3	404.9	383.8	365.4	315.2	286.2	259.8	245.3
72.5°	213.7	241.4	284.9	319.2	320.5	307.3	290.2	258.5	233.5	215.0	200.5
75°	168.8	192.6	219.0	249.3	248.0	237.4	224.2	204.4	183.3	171.5	164.9
77.5°	129.3	143.8	164.9	184.7	184.7	179.4	171.5	157.0	143.8	131.9	125.3
80°	92.3	101.6	118.7	125.3	127.9	126.6	120.0	109.5	104.2	95.0	92.3
82.5°	59.4	65.9	73.9	80.5	84.4	81.8	80.5	75.2	67.3	64.6	62.0
85°	34.3	36.9	40.9	44.8	46.2	44.8	47.5	43.5	39.6	39.6	38.3
87.5°	14.5	15.8	18.5	18.5	19.8	19.8	18.5	19.8	19.8	18.5	17.1
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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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0
2.5°	1783.3	1784.6	1787.2	1800.4	1807.0	1808.3	1803.0	1814.9	1818.9	1814.9	1812.3
5°	1867.7	1875.6	1891.4	1908.6	1907.2	1908.6	1916.5	1924.4	1927.0	1916.5	1920.4
7.5°	1941.5	1957.4	1974.5	2000.9	2000.9	2014.1	2019.4	2026.0	2041.8	2033.9	2031.2
10°	2026.0	2047.1	2078.7	2120.9	2122.2	2135.4	2148.6	2169.7	2176.3	2171.0	2173.7
12.5°	2131.5	2172.4	2175.0	2221.2	2242.3	2244.9	2266.0	2262.0	2275.2	2275.2	2297.7
15°	2177.6	2240.9	2276.6	2321.4	2334.6	2318.8	2335.9	2354.4	2355.7	2355.7	2354.4
17.5°	2260.7	2285.8	2321.4	2345.1	2350.4	2350.4	2351.7	2359.7	2354.4	2343.8	2351.7
20°	2277.9	2288.4	2301.6	2299.0	2301.6	2288.4	2275.2	2262.0	2263.4	2256.8	2276.6
22.5°	2246.2	2243.6	2213.2	2193.5	2193.5	2167.1	2142.0	2130.2	2118.3	2122.2	2128.8
25°	2167.1	2126.2	2089.3	2060.2	2053.7	2011.4	1977.1	1966.6	1946.8	1962.6	1965.3
27.5°	2040.5	1994.3	1934.9	1909.9	1875.6	1858.4	1834.7	1803.0	1762.2	1785.9	1781.9
30°	1904.6	1836.0	1787.2	1726.5	1672.5	1668.5	1623.7	1570.9	1549.8	1549.8	1561.7
32.5°	1752.9	1661.9	1590.7	1505.0	1452.2	1429.8	1375.7	1322.9	1334.8	1295.2	1309.7
35°	1576.2	1456.2	1366.5	1283.4	1243.8	1217.4	1147.5	1118.5	1086.8	1068.4	1102.7
37.5°	1407.4	1268.9	1154.1	1063.1	1048.6	1001.1	953.6	935.2	916.7	924.6	923.3
40°	1201.6	1078.9	976.0	904.8	879.8	857.3	825.7	803.3	791.4	798.0	799.3
42.5°	1015.6	912.7	836.2	786.1	765.0	749.2	733.4	714.9	710.9	710.9	716.2
45°	871.8	787.4	736.0	695.1	683.2	671.4	659.5	651.6	648.9	643.7	647.6
47.5°	757.1	689.8	658.2	627.8	614.6	612.0	601.5	597.5	592.2	590.9	592.2
50°	660.8	618.6	589.6	572.4	563.2	559.2	554.0	546.1	543.4	550.0	547.4
52.5°	593.5	554.0	538.1	521.0	515.7	510.4	502.5	503.8	502.5	499.9	499.9
55°	526.3	501.2	485.4	472.2	470.9	465.6	459.0	456.4	455.0	452.4	456.4
57.5°	472.2	452.4	437.9	426.0	420.8	420.8	414.2	408.9	408.9	407.6	408.9
60°	418.1	398.3	389.1	377.2	373.3	372.0	368.0	365.4	361.4	361.4	361.4
62.5°	368.0	352.2	341.6	331.1	332.4	325.8	320.5	317.9	317.9	319.2	319.2
65°	320.5	310.0	296.8	287.5	284.9	283.6	280.9	279.6	275.7	278.3	278.3
67.5°	277.0	262.5	254.6	250.6	246.6	245.3	242.7	240.1	238.7	237.4	240.1
70°	233.5	221.6	215.0	212.4	208.4	207.1	205.8	201.8	203.1	204.4	205.8
72.5°	193.9	183.3	182.0	174.1	174.1	174.1	168.8	171.5	170.1	167.5	170.1
75°	153.0	147.7	145.1	141.1	142.4	141.1	139.8	135.9	135.9	137.2	138.5
77.5°	121.3	116.1	114.8	110.8	108.2	110.8	108.2	106.8	106.8	108.2	108.2
80°	89.7	87.1	83.1	83.1	83.1	81.8	81.8	81.8	80.5	79.1	80.5
82.5°	59.4	59.4	58.0	56.7	58.0	55.4	56.7	56.7	56.7	56.7	56.7
85°	38.3	36.9	36.9	35.6	35.6	35.6	36.9	34.3	34.3	35.6	35.6
87.5°	17.1	17.1	17.1	18.5	17.1	17.1	17.1	18.5	17.1	17.1	17.1
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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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0
2.5°	1818.9	1809.6	1801.7	1803.0	1809.6	1804.4	1791.2	1774.0	1767.4	1759.5	1767.4
5°	1928.3	1920.4	1904.6	1905.9	1902.0	1896.7	1875.6	1849.2	1849.2	1828.1	1825.5
7.5°	2036.5	2024.6	2014.1	2011.4	1996.9	1986.4	1967.9	1931.0	1916.5	1891.4	1876.9
10°	2157.8	2148.6	2136.7	2122.2	2114.3	2095.9	2065.5	2011.4	1985.1	1950.8	1925.7
12.5°	2280.5	2279.2	2252.8	2223.8	2222.5	2193.5	2172.4	2099.8	2064.2	2018.0	1958.7
15°	2358.3	2351.7	2337.2	2322.7	2326.7	2295.0	2247.5	2161.8	2138.1	2082.7	2019.4
17.5°	2357.0	2357.0	2353.1	2350.4	2346.5	2337.2	2310.9	2254.1	2215.9	2146.0	2086.6
20°	2281.8	2299.0	2302.9	2301.6	2314.8	2321.4	2320.1	2284.5	2254.1	2192.1	2131.5
22.5°	2131.5	2171.0	2188.2	2198.7	2226.4	2240.9	2275.2	2262.0	2254.1	2208.0	2156.5
25°	1991.7	2004.8	2056.3	2058.9	2097.2	2132.8	2167.1	2189.5	2218.5	2201.4	2157.8
27.5°	1811.0	1841.3	1878.2	1905.9	1913.8	1986.4	2043.1	2085.3	2151.3	2156.5	2142.0
30°	1606.5	1621.0	1681.7	1718.6	1760.8	1813.6	1895.4	1967.9	2027.3	2081.3	2099.8
32.5°	1357.2	1416.6	1452.2	1497.0	1534.0	1627.6	1727.9	1821.5	1890.1	1981.1	2020.7
35°	1129.0	1175.2	1235.9	1254.3	1321.6	1400.8	1531.3	1651.4	1755.6	1847.9	1928.3
37.5°	940.4	977.4	1042.0	1071.0	1110.6	1212.1	1321.6	1470.7	1596.0	1709.4	1809.6
40°	811.2	838.9	887.7	896.9	929.9	1022.2	1110.6	1250.4	1416.6	1569.6	1679.1
42.5°	722.8	736.0	769.0	780.8	801.9	863.9	943.1	1075.0	1229.3	1387.6	1541.9
45°	659.5	668.7	688.5	699.1	725.4	753.1	817.8	923.3	1044.6	1204.2	1370.4
47.5°	602.8	614.6	622.6	629.2	643.7	674.0	716.2	794.0	910.1	1056.5	1217.4
50°	555.3	559.2	573.8	575.1	584.3	604.1	643.7	691.1	783.5	902.2	1057.8
52.5°	507.8	511.8	521.0	530.2	534.2	550.0	576.4	616.0	684.6	778.2	916.7
55°	460.3	465.6	474.8	481.4	485.4	498.6	514.4	552.7	606.7	672.7	786.1
57.5°	412.8	424.7	427.3	431.3	437.9	452.4	466.9	489.3	531.5	592.2	675.3
60°	368.0	372.0	381.2	385.1	391.7	399.7	418.1	435.3	465.6	513.1	588.3
62.5°	321.8	331.1	335.0	339.0	344.3	353.5	365.4	383.8	410.2	448.5	507.8
65°	282.3	283.6	291.5	296.8	302.0	308.6	320.5	337.7	353.5	389.1	432.6
67.5°	244.0	246.6	249.3	254.6	261.2	267.8	278.3	287.5	307.3	331.1	365.4
70°	207.1	207.1	213.7	217.6	216.3	224.2	232.1	242.7	257.2	279.6	307.3
72.5°	174.1	172.8	178.1	179.4	182.0	187.3	192.6	203.1	211.0	228.2	249.3
75°	138.5	141.1	143.8	143.8	147.7	151.7	157.0	162.2	171.5	182.0	197.8
77.5°	109.5	109.5	112.1	113.4	117.4	116.1	121.3	126.6	133.2	142.4	154.3
80°	80.5	83.1	83.1	83.1	84.4	85.7	91.0	95.0	98.9	105.5	110.8
82.5°	56.7	56.7	59.4	59.4	59.4	62.0	62.0	63.3	65.9	69.9	73.9
85°	35.6	35.6	35.6	36.9	35.6	36.9	39.6	38.3	39.6	42.2	42.2
87.5°	17.1	17.1	17.1	17.1	17.1	18.5	17.1	18.5	19.8	19.8	19.8
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: P997658

CATALOG NUMBER: SA2XXDP-B865DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0
2.5°	1760.8	1754.2	1750.3	1752.9	1745.0	1725.2	1725.2	1731.8	1723.9	1716.0	1704.1
5°	1809.6	1796.4	1788.5	1787.2	1768.8	1737.1	1730.5	1723.9	1706.8	1688.3	1668.5
7.5°	1857.1	1833.4	1820.2	1811.0	1784.6	1743.7	1726.5	1712.0	1684.3	1656.6	1631.6
10°	1896.7	1862.4	1846.6	1832.1	1797.8	1746.3	1718.6	1692.2	1656.6	1621.0	1589.4
12.5°	1928.3	1888.8	1869.0	1847.9	1805.7	1738.4	1704.1	1661.9	1626.3	1578.8	1547.2
15°	1981.1	1899.3	1880.9	1861.1	1817.6	1725.2	1683.0	1635.5	1586.7	1523.4	1489.1
17.5°	2023.3	1913.8	1912.5	1870.3	1813.6	1719.9	1655.3	1593.3	1540.6	1477.3	1423.2
20°	2048.4	1936.3	1915.2	1871.6	1800.4	1684.3	1617.1	1548.5	1491.8	1415.3	1361.2
22.5°	2069.5	1967.9	1912.5	1859.8	1772.7	1672.5	1573.5	1508.9	1431.1	1348.0	1296.6
25°	2077.4	1974.5	1916.5	1855.8	1752.9	1638.2	1526.1	1456.2	1369.1	1293.9	1224.0
27.5°	2078.7	1973.2	1902.0	1838.7	1725.2	1593.3	1478.6	1404.7	1308.4	1221.4	1151.5
30°	2065.5	1958.7	1894.1	1825.5	1698.8	1552.4	1420.5	1338.8	1235.9	1148.8	1076.3
32.5°	2026.0	1929.7	1876.9	1801.7	1664.6	1495.7	1365.1	1274.1	1166.0	1080.2	1010.3
35°	1960.0	1894.1	1836.0	1766.1	1619.7	1443.0	1309.7	1202.9	1093.4	1011.7	945.7
37.5°	1878.2	1842.6	1788.5	1719.9	1568.3	1395.5	1247.8	1129.0	1019.6	940.4	875.8
40°	1767.4	1776.7	1723.9	1661.9	1507.6	1330.8	1167.3	1053.9	951.0	877.1	813.8
42.5°	1647.4	1685.7	1655.3	1596.0	1440.3	1259.6	1107.9	982.6	882.4	805.9	753.1
45°	1518.1	1584.1	1565.6	1522.1	1370.4	1184.4	1023.5	902.2	813.8	739.9	693.8
47.5°	1377.0	1470.7	1470.7	1439.0	1292.6	1109.3	951.0	827.0	739.9	687.2	642.3
50°	1233.2	1338.8	1355.9	1334.8	1205.5	1023.5	862.6	750.5	675.3	623.9	590.9
52.5°	1082.9	1205.5	1237.2	1226.7	1113.2	941.8	790.1	680.6	612.0	567.2	538.1
55°	939.1	1081.6	1115.9	1119.8	1014.3	852.1	709.6	613.3	547.4	517.0	492.0
57.5°	803.3	940.4	978.7	985.3	914.1	770.3	634.4	550.0	490.7	465.6	445.8
60°	687.2	801.9	852.1	866.6	804.6	675.3	564.5	482.7	437.9	414.2	395.7
62.5°	592.2	684.6	737.3	741.3	713.6	592.2	492.0	423.4	385.1	364.0	354.8
65°	499.9	583.0	614.6	630.5	608.0	513.1	424.7	368.0	337.7	319.2	310.0
67.5°	426.0	478.8	505.2	526.3	503.8	432.6	361.4	315.2	292.8	274.3	269.1
70°	349.5	393.1	412.8	433.9	414.2	360.1	308.6	266.4	246.6	232.1	225.5
72.5°	279.6	313.9	332.4	345.6	333.7	288.9	246.6	217.6	203.1	192.6	188.6
75°	221.6	245.3	255.9	265.1	259.8	225.5	199.2	175.4	162.2	153.0	150.4
77.5°	168.8	186.0	197.8	200.5	193.9	171.5	149.0	134.5	124.0	118.7	116.1
80°	120.0	130.6	137.2	141.1	134.5	125.3	109.5	98.9	89.7	83.1	81.8
82.5°	80.5	85.7	91.0	89.7	87.1	79.1	69.9	64.6	60.7	55.4	55.4
85°	46.2	47.5	50.1	51.4	50.1	44.8	39.6	36.9	34.3	30.3	30.3
87.5°	19.8	21.1	21.1	22.4	19.8	19.8	17.1	14.5	14.5	13.2	11.9
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):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0
2.5°	1697.5	1704.1	1702.8	1689.6	1675.1	1663.2	1640.8	1643.4	1635.5	1636.9	1644.8
5°	1655.3	1655.3	1650.0	1631.6	1607.8	1594.6	1569.6	1563.0	1547.2	1545.8	1544.5
7.5°	1610.5	1603.9	1597.3	1570.9	1541.9	1520.8	1486.5	1478.6	1462.7	1452.2	1446.9
10°	1557.7	1548.5	1535.3	1505.0	1469.3	1443.0	1407.4	1396.8	1366.5	1353.3	1345.4
12.5°	1499.7	1494.4	1473.3	1448.2	1390.2	1361.2	1309.7	1320.3	1290.0	1263.6	1259.6
15°	1441.6	1421.9	1410.0	1369.1	1299.2	1286.0	1245.1	1224.0	1196.3	1175.2	1175.2
17.5°	1384.9	1354.6	1328.2	1284.7	1233.2	1196.3	1166.0	1155.4	1121.1	1100.0	1096.1
20°	1309.7	1275.5	1268.9	1206.9	1171.3	1130.4	1101.3	1075.0	1049.9	1040.7	1034.1
22.5°	1238.5	1199.0	1188.4	1135.6	1100.0	1059.1	1030.1	1011.7	993.2	986.6	974.7
25°	1162.0	1138.3	1122.5	1065.7	1026.2	987.9	968.1	954.9	937.8	936.5	928.6
27.5°	1088.2	1065.7	1049.9	995.8	966.8	931.2	915.4	900.9	891.6	887.7	883.7
30°	1024.8	999.8	981.3	941.8	906.1	877.1	863.9	854.7	849.4	842.8	841.5
32.5°	954.9	940.4	915.4	885.0	857.3	829.6	821.7	815.1	807.2	804.6	803.3
35°	895.6	875.8	860.0	825.7	813.8	790.1	780.8	775.6	765.0	762.4	759.7
37.5°	837.6	819.1	801.9	780.8	758.4	745.2	739.9	732.0	726.8	728.1	725.4
40°	779.5	765.0	751.8	729.4	716.2	709.6	699.1	691.1	688.5	689.8	688.5
42.5°	722.8	709.6	701.7	684.6	671.4	664.8	658.2	650.3	654.2	654.2	658.2
45°	671.4	659.5	654.2	641.0	633.1	622.6	616.0	614.6	619.9	618.6	618.6
47.5°	618.6	614.6	608.0	596.2	585.6	579.0	577.7	577.7	583.0	585.6	584.3
50°	577.7	569.8	561.9	552.7	544.7	542.1	538.1	540.8	546.1	546.1	548.7
52.5°	526.3	521.0	518.4	510.4	505.2	505.2	505.2	506.5	510.4	514.4	513.1
55°	481.4	477.5	474.8	470.9	464.3	465.6	464.3	466.9	470.9	474.8	477.5
57.5°	433.9	432.6	430.0	423.4	423.4	422.1	426.0	427.3	433.9	436.6	440.5
60°	391.7	387.8	387.8	382.5	382.5	382.5	386.5	390.4	395.7	397.0	399.7
62.5°	346.9	346.9	345.6	341.6	341.6	345.6	346.9	352.2	354.8	354.8	358.8
65°	304.7	303.4	302.0	303.4	304.7	304.7	308.6	311.3	313.9	315.2	316.6
67.5°	262.5	261.2	263.8	262.5	265.1	270.4	269.1	273.0	277.0	277.0	278.3
70°	222.9	225.5	224.2	226.9	225.5	228.2	232.1	233.5	233.5	234.8	238.7
72.5°	186.0	186.0	186.0	184.7	186.0	188.6	191.3	192.6	195.2	196.5	200.5
75°	150.4	150.4	147.7	150.4	150.4	153.0	155.6	155.6	155.6	158.3	162.2
77.5°	113.4	114.8	113.4	116.1	116.1	117.4	120.0	118.7	121.3	122.7	124.0
80°	83.1	81.8	81.8	81.8	83.1	83.1	85.7	87.1	87.1	91.0	88.4
82.5°	52.8	54.1	52.8	54.1	54.1	55.4	54.1	55.4	56.7	59.4	58.0
85°	30.3	29.0	29.0	30.3	29.0	29.0	30.3	29.0	30.3	29.0	30.3
87.5°	11.9	10.6	10.6	10.6	10.6	9.2	9.2	7.9	7.9	7.9	6.6
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: P997658

CATALOG NUMBER: SA2XXDP-B865DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0
2.5°	1635.5	1639.5	1630.3	1627.6	1630.3	1621.0	1623.7	1626.3	1626.3	1630.3	1632.9
5°	1540.6	1535.3	1526.1	1523.4	1520.8	1524.7	1522.1	1526.1	1527.4	1536.6	1537.9
7.5°	1446.9	1439.0	1431.1	1423.2	1420.5	1413.9	1420.5	1420.5	1429.8	1427.1	1433.7
10°	1336.1	1334.8	1324.3	1320.3	1315.0	1304.5	1319.0	1315.0	1321.6	1333.5	1336.1
12.5°	1254.3	1239.8	1246.4	1228.0	1234.6	1224.0	1225.3	1225.3	1235.9	1237.2	1234.6
15°	1176.5	1164.7	1147.5	1139.6	1135.6	1130.4	1147.5	1148.8	1140.9	1159.4	1152.8
17.5°	1097.4	1097.4	1081.6	1077.6	1067.1	1072.3	1069.7	1071.0	1068.4	1081.6	1088.2
20°	1028.8	1022.2	1016.9	1018.3	1005.1	1002.4	999.8	1002.4	1011.7	1020.9	1023.5
22.5°	973.4	969.4	956.3	958.9	948.3	952.3	949.7	956.3	957.6	957.6	966.8
25°	920.6	915.4	916.7	911.4	907.5	907.5	903.5	907.5	912.7	915.4	916.7
27.5°	881.1	877.1	870.5	866.6	869.2	862.6	867.9	871.8	871.8	869.2	871.8
30°	833.6	836.2	836.2	823.0	828.3	825.7	829.6	832.3	832.3	833.6	831.0
32.5°	801.9	794.0	792.7	791.4	791.4	786.1	786.1	790.1	791.4	792.7	796.7
35°	759.7	759.7	753.1	757.1	751.8	753.1	751.8	753.1	755.8	751.8	755.8
37.5°	721.5	722.8	720.2	722.8	724.1	721.5	718.8	724.1	721.5	721.5	718.8
40°	688.5	687.2	688.5	688.5	688.5	689.8	687.2	687.2	687.2	684.6	681.9
42.5°	660.8	652.9	655.5	656.9	652.9	652.9	654.2	652.9	656.9	648.9	648.9
45°	621.2	618.6	619.9	619.9	622.6	618.6	621.2	622.6	618.6	617.3	614.6
47.5°	585.6	588.3	585.6	588.3	588.3	590.9	585.6	586.9	588.3	583.0	579.0
50°	550.0	550.0	554.0	552.7	554.0	551.3	551.3	550.0	551.3	548.7	544.7
52.5°	517.0	513.1	519.7	518.4	517.0	515.7	514.4	515.7	513.1	510.4	510.4
55°	476.2	476.2	480.1	481.4	481.4	478.8	476.2	477.5	476.2	474.8	473.5
57.5°	443.2	437.9	440.5	441.9	441.9	437.9	440.5	437.9	437.9	439.2	435.3
60°	401.0	401.0	398.3	402.3	402.3	399.7	399.7	401.0	398.3	397.0	395.7
62.5°	356.1	357.4	361.4	362.7	364.0	361.4	358.8	360.1	360.1	356.1	357.4
65°	317.9	320.5	325.8	324.5	321.8	323.1	320.5	321.8	317.9	319.2	315.2
67.5°	280.9	279.6	280.9	280.9	283.6	282.3	279.6	279.6	278.3	282.3	278.3
70°	241.4	241.4	241.4	241.4	242.7	244.0	241.4	238.7	240.1	237.4	236.1
72.5°	200.5	201.8	200.5	203.1	199.2	201.8	201.8	200.5	199.2	199.2	199.2
75°	162.2	164.9	160.9	162.2	160.9	163.6	162.2	162.2	159.6	158.3	159.6
77.5°	124.0	125.3	122.7	124.0	122.7	124.0	124.0	122.7	122.7	122.7	122.7
80°	88.4	89.7	88.4	87.1	85.7	88.4	85.7	87.1	88.4	87.1	89.7
82.5°	56.7	56.7	55.4	56.7	54.1	54.1	55.4	55.4	54.1	56.7	54.1
85°	27.7	27.7	30.3	27.7	26.4	26.4	26.4	27.7	26.4	29.0	27.7
87.5°	6.6	5.3	6.6	6.6	5.3	5.3	6.6	5.3	6.6	7.9	5.3
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: P997658

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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0	1716.0
2.5°	1628.9	1639.5	1635.5	1621.0	1638.2	1638.2	1650.0	1650.0	1664.6	1669.8	1677.7
5°	1536.6	1544.5	1551.1	1544.5	1556.4	1574.9	1585.4	1594.6	1614.4	1622.3	1634.2
7.5°	1437.7	1452.2	1458.8	1458.8	1478.6	1499.7	1520.8	1534.0	1561.7	1572.2	1584.1
10°	1341.4	1358.5	1371.7	1370.4	1403.4	1416.6	1443.0	1473.3	1501.0	1516.8	1534.0
12.5°	1239.8	1249.1	1267.5	1293.9	1301.8	1325.6	1355.9	1394.2	1444.3	1458.8	1483.9
15°	1155.4	1180.5	1195.0	1206.9	1225.3	1247.8	1280.7	1317.7	1367.8	1399.4	1425.8
17.5°	1084.2	1117.2	1126.4	1123.8	1147.5	1181.8	1220.1	1247.8	1292.6	1330.8	1355.9
20°	1026.2	1039.4	1055.2	1061.8	1080.2	1117.2	1154.1	1185.8	1222.7	1253.0	1282.0
22.5°	968.1	978.7	991.9	1003.7	1018.3	1039.4	1075.0	1114.5	1150.1	1179.2	1212.1
25°	920.6	927.2	939.1	948.3	964.2	978.7	1003.7	1047.3	1089.5	1106.6	1135.6
27.5°	874.5	879.8	887.7	898.2	906.1	920.6	943.1	978.7	1022.2	1039.4	1078.9
30°	833.6	837.6	845.5	850.7	854.7	871.8	889.0	916.7	949.7	973.4	1002.4
32.5°	795.3	799.3	807.2	808.5	813.8	823.0	838.9	863.9	892.9	912.7	937.8
35°	753.1	755.8	763.7	766.3	770.3	778.2	790.1	808.5	834.9	849.4	871.8
37.5°	720.2	718.8	724.1	728.1	733.4	737.3	741.3	759.7	779.5	792.7	809.9
40°	684.6	681.9	683.2	688.5	691.1	696.4	696.4	714.9	728.1	738.6	751.8
42.5°	648.9	647.6	645.0	647.6	650.3	651.6	652.9	666.1	679.3	688.5	703.0
45°	613.3	612.0	609.4	610.7	610.7	613.3	617.3	622.6	631.8	639.7	647.6
47.5°	580.4	577.7	573.8	572.4	575.1	575.1	575.1	580.4	589.6	592.2	600.1
50°	546.1	542.1	536.8	534.2	534.2	532.9	535.5	536.8	544.7	547.4	554.0
52.5°	509.1	506.5	501.2	495.9	497.3	494.6	495.9	497.3	499.9	503.8	507.8
55°	472.2	466.9	463.0	461.6	457.7	457.7	453.7	459.0	457.7	459.0	464.3
57.5°	436.6	431.3	424.7	422.1	418.1	416.8	414.2	412.8	414.2	418.1	422.1
60°	394.4	391.7	387.8	383.8	381.2	377.2	374.6	374.6	373.3	373.3	374.6
62.5°	353.5	352.2	346.9	345.6	342.9	340.3	336.3	333.7	333.7	336.3	337.7
65°	313.9	312.6	308.6	307.3	300.7	298.1	296.8	295.5	292.8	292.8	292.8
67.5°	277.0	273.0	273.0	266.4	261.2	258.5	255.9	254.6	254.6	254.6	255.9
70°	236.1	236.1	232.1	228.2	222.9	224.2	220.3	216.3	216.3	213.7	215.0
72.5°	196.5	195.2	191.3	189.9	186.0	182.0	179.4	182.0	178.1	176.7	178.1
75°	158.3	157.0	154.3	151.7	153.0	149.0	145.1	143.8	143.8	141.1	141.1
77.5°	121.3	124.0	118.7	117.4	114.8	112.1	110.8	109.5	109.5	109.5	112.1
80°	84.4	85.7	85.7	83.1	84.4	80.5	80.5	80.5	76.5	77.8	79.1
82.5°	54.1	54.1	52.8	54.1	52.8	52.8	51.4	51.4	50.1	50.1	51.4
85°	30.3	29.0	27.7	30.3	29.0	29.0	27.7	27.7	27.7	27.7	27.7
87.5°	6.6	7.9	7.9	7.9	7.9	9.2	9.2	9.2	10.6	10.6	10.6
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: P997658

CATALOG NUMBER: SA2XXDP-B865DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1716.0	1716.0	1716.0	1716.0
2.5°	1684.3	1684.3	1704.1	1725.2
5°	1647.4	1656.6	1688.3	1717.3
7.5°	1611.8	1627.6	1667.2	1704.1
10°	1568.3	1589.4	1638.2	1681.7
12.5°	1526.1	1545.8	1602.6	1651.4
15°	1466.7	1491.8	1552.4	1613.1
17.5°	1407.4	1432.4	1506.3	1577.5
20°	1337.4	1370.4	1453.5	1548.5
22.5°	1272.8	1313.7	1406.0	1482.5
25°	1201.6	1264.9	1350.6	1449.6
27.5°	1138.3	1201.6	1288.6	1388.9
30°	1067.1	1131.7	1221.4	1313.7
32.5°	998.5	1057.8	1144.9	1258.3
35°	927.2	984.0	1068.4	1183.1
37.5°	862.6	918.0	1010.3	1115.9
40°	799.3	857.3	936.5	1042.0
42.5°	739.9	791.4	862.6	968.1
45°	685.9	722.8	788.7	887.7
47.5°	629.2	662.1	722.8	821.7
50°	576.4	604.1	656.9	749.2
52.5°	525.0	548.7	597.5	671.4
55°	478.8	501.2	536.8	609.4
57.5°	431.3	448.5	482.7	540.8
60°	385.1	401.0	428.7	476.2
62.5°	339.0	352.2	378.5	416.8
65°	298.1	308.6	328.4	361.4
67.5°	258.5	265.1	280.9	307.3
70°	220.3	225.5	238.7	259.8
72.5°	179.4	184.7	199.2	213.7
75°	145.1	146.4	157.0	168.8
77.5°	113.4	112.1	120.0	129.3
80°	77.8	81.8	88.4	92.3
82.5°	52.8	54.1	56.7	59.4
85°	29.0	30.3	30.3	34.3
87.5°	11.9	13.2	13.2	14.5
90°	0.0	0.0	0.0	0.0

TEST NUMBER: P997658

CATALOG NUMBER: SA2XXDP-B865DB2750-4F0-XX-W2A-A_3000K

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	23.44	24.96	23.81	25.27	25.59	19.71	21.23	20.08	21.54	21.85
	3H	24.56	25.92	24.94	26.25	26.61	21.12	22.48	21.50	22.81	23.17
	4H	24.88	26.16	25.28	26.51	26.89	21.63	22.91	22.03	23.26	23.63
	6H	25.07	26.25	25.48	26.62	27.01	21.99	23.17	22.40	23.53	23.93
	8H	25.11	26.24	25.54	26.63	27.03	22.10	23.22	22.53	23.61	24.01
	12H	25.13	26.20	25.56	26.58	27.01	22.17	23.25	22.61	23.63	24.06
4H	2H	23.56	24.84	23.96	25.19	25.57	20.51	21.78	20.91	22.13	22.51
	3H	24.89	25.95	25.30	26.35	26.75	22.08	23.14	22.50	23.54	23.95
	4H	25.37	26.32	25.80	26.74	27.18	22.68	23.64	23.12	24.05	24.49
	6H	25.70	26.53	26.15	26.97	27.43	23.14	23.97	23.59	24.41	24.87
	8H	25.77	26.55	26.24	26.99	27.46	23.28	24.06	23.74	24.50	24.97
	12H	25.81	26.51	26.30	26.99	27.46	23.39	24.08	23.87	24.56	25.03
8H	4H	25.45	26.23	25.91	26.67	27.14	23.09	23.87	23.56	24.31	24.78
	6H	25.86	26.50	26.36	26.99	27.47	23.63	24.27	24.13	24.77	25.24
	8H	25.99	26.56	26.50	27.07	27.56	23.83	24.41	24.35	24.92	25.40
	12H	26.08	26.58	26.59	27.08	27.64	24.00	24.50	24.51	25.00	25.56
12H	4H	25.44	26.13	25.92	26.61	27.08	23.15	23.84	23.63	24.32	24.79
	6H	25.85	26.43	26.37	26.94	27.42	23.71	24.28	24.22	24.79	25.28
	8H	26.02	26.53	26.53	27.02	27.58	23.96	24.46	24.47	24.96	25.52