

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: P997660

Luminaire Tested: SA2XXDP-B865DB2750-4F0-XX-W2A-A_4000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997660
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_4000K
Description: Define 2 Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

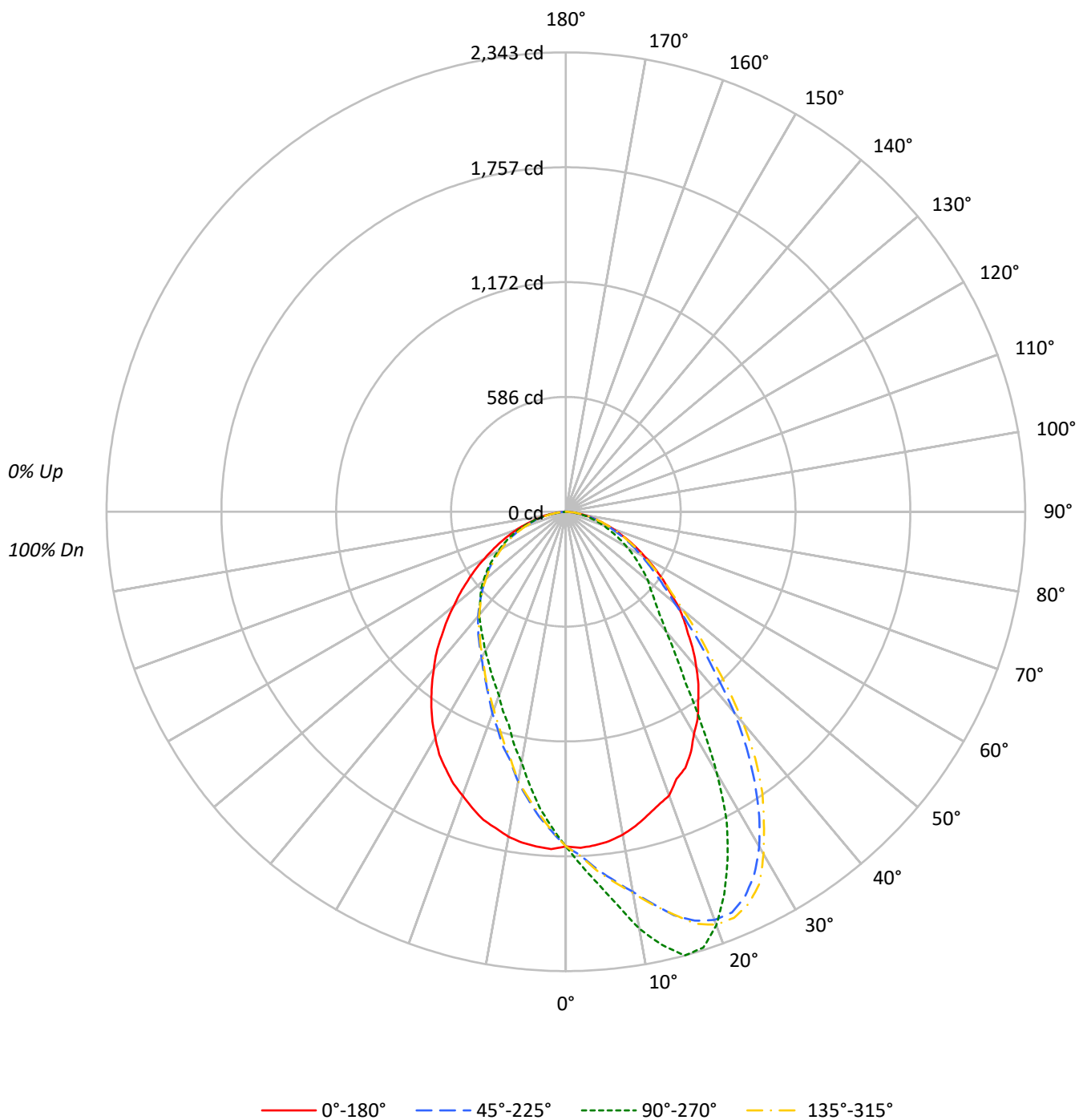
Lumens per Lamp: N/A
Luminaire Lumens: 3765.0 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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°	27013	27013	27013	27013
5°	27137	30283	27240	24094
10°	26881	34703	27050	20851
15°	26289	38390	26655	18421
20°	25940	37806	25940	16793
25°	25177	34090	25292	15761
30°	23878	28170	24334	15008
35°	22737	20530	23115	14474
40°	21412	16399	21656	14175
45°	19760	14329	20085	13772
50°	18346	13470	18378	13502
55°	16724	12416	16832	13139
60°	14990	11378	15199	12581
65°	13461	10368	13709	12038
70°	11959	9409	12265	11233
75°	10269	8342	10672	9945
80°	8368	7174	8970	8013
85°	6193	6429	6665	4758

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 155°

Vertical Angle: 45°

Luminance: 35265 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.5	4.3
10°-20°	473.1	12.6
20°-30°	686.6	18.2
30°-40°	723.8	19.2
40°-50°	640.5	17.0
50°-60°	511.4	13.6
60°-70°	347.4	9.2
70°-80°	177.7	4.7
80°-90°	42.0	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°	1322.2	35.1
0°-40°	2046.0	54.3
0°-60°	3197.9	84.9
0°-90°	3765.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3765.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1706	1706	1706	1706	1706	
5°	1708	1906	1714	1516	1708	162
15°	1604	2343	1626	1124	1604	453
25°	1442	1952	1448	902	1442	659
35°	1177	1062	1196	749	1177	736
45°	883	640	897	615	883	685
55°	606	450	610	476	606	541
65°	359	277	366	321	359	357
75°	168	136	174	163	168	180
85°	34	35	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°	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5
2.5°	1715.7	1719.6	1726.1	1727.5	1740.6	1751.1	1762.9	1762.9	1766.8	1765.5	1755.0
5°	1707.8	1719.6	1736.6	1751.1	1774.7	1785.2	1800.9	1812.7	1823.2	1831.1	1829.8
7.5°	1694.7	1715.7	1740.6	1768.1	1799.6	1818.0	1840.3	1861.2	1875.7	1888.8	1898.0
10°	1672.4	1707.8	1741.9	1778.6	1819.3	1844.2	1870.4	1898.0	1920.3	1945.2	1968.8
12.5°	1642.2	1693.4	1735.3	1783.9	1833.7	1861.2	1903.2	1924.2	1967.5	2030.5	2047.5
15°	1604.2	1673.7	1713.0	1774.7	1840.3	1862.6	1920.3	1954.4	2043.6	2082.9	2130.1
17.5°	1568.7	1646.1	1698.6	1769.4	1833.7	1877.0	1933.4	2002.9	2077.7	2134.1	2186.5
20°	1539.9	1614.7	1677.6	1756.3	1837.6	1892.7	1951.8	2035.7	2117.0	2174.7	2215.4
22.5°	1474.3	1570.1	1643.5	1731.4	1829.8	1905.8	1962.2	2054.1	2141.9	2177.4	2212.8
25°	1441.5	1524.2	1609.4	1709.1	1824.5	1915.0	1963.6	2065.9	2143.3	2156.4	2164.2
27.5°	1381.2	1474.3	1574.0	1688.1	1823.2	1899.3	1960.9	2054.1	2115.7	2106.5	2082.9
30°	1306.4	1420.5	1530.7	1654.0	1804.8	1887.5	1945.2	2030.5	2061.9	2014.7	1972.7
32.5°	1251.3	1358.9	1480.9	1623.8	1783.9	1862.6	1919.0	1985.9	1992.4	1907.2	1836.3
35°	1176.6	1295.9	1433.6	1584.5	1748.4	1819.3	1871.7	1912.4	1880.9	1761.6	1677.6
37.5°	1109.7	1227.7	1374.6	1528.1	1699.9	1769.4	1811.4	1818.0	1740.6	1635.6	1512.3
40°	1036.2	1158.2	1311.7	1473.0	1646.1	1706.5	1732.7	1713.0	1601.5	1479.6	1336.6
42.5°	962.8	1083.4	1248.7	1414.0	1577.9	1629.1	1639.6	1585.8	1449.4	1306.4	1141.1
45°	882.7	1008.7	1173.9	1340.5	1499.2	1528.1	1529.4	1452.0	1290.7	1141.1	987.7
47.5°	817.2	933.9	1097.9	1264.4	1398.2	1417.9	1410.0	1320.8	1145.1	977.2	843.4
50°	745.0	856.5	1019.2	1183.1	1297.2	1302.5	1282.8	1155.6	983.7	830.3	724.0
52.5°	667.6	780.4	930.0	1087.4	1189.7	1181.8	1143.8	1007.4	846.0	718.8	637.5
55°	606.0	705.7	846.0	999.5	1071.6	1049.3	1007.4	868.3	741.1	633.5	562.7
57.5°	537.8	625.7	763.4	897.2	939.2	918.2	876.2	746.3	628.3	547.0	499.7
60°	473.5	553.5	674.2	785.7	818.5	796.2	747.6	630.9	545.7	477.4	442.0
62.5°	414.5	484.0	585.0	687.3	700.4	678.1	636.2	541.7	468.3	414.5	388.3
65°	359.4	425.0	506.3	583.7	595.5	571.9	528.6	460.4	398.7	364.6	339.7
67.5°	305.6	358.1	430.2	486.6	493.2	470.9	435.5	380.4	342.3	305.6	287.3
70°	258.4	297.7	354.1	400.1	402.7	381.7	363.3	313.5	284.6	258.4	244.0
72.5°	212.5	240.0	283.3	317.4	318.7	305.6	288.6	257.1	232.2	213.8	199.4
75°	167.9	191.5	217.7	247.9	246.6	236.1	223.0	203.3	182.3	170.5	164.0
77.5°	128.5	143.0	164.0	183.6	183.6	178.4	170.5	156.1	143.0	131.2	124.6
80°	91.8	101.0	118.0	124.6	127.2	125.9	119.4	108.9	103.6	94.4	91.8
82.5°	59.0	65.6	73.5	80.0	83.9	81.3	80.0	74.8	66.9	64.3	61.6
85°	34.1	36.7	40.7	44.6	45.9	44.6	47.2	43.3	39.3	39.3	38.0
87.5°	14.4	15.7	18.4	18.4	19.7	19.7	18.4	19.7	19.7	18.4	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°	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5
2.5°	1773.4	1774.7	1777.3	1790.4	1797.0	1798.3	1793.0	1804.8	1808.8	1804.8	1802.2
5°	1857.3	1865.2	1880.9	1898.0	1896.7	1898.0	1905.8	1913.7	1916.3	1905.8	1909.8
7.5°	1930.8	1946.5	1963.6	1989.8	1989.8	2002.9	2008.2	2014.7	2030.5	2022.6	2020.0
10°	2014.7	2035.7	2067.2	2109.2	2110.5	2123.6	2136.7	2157.7	2164.2	2159.0	2161.6
12.5°	2119.6	2160.3	2162.9	2208.8	2229.8	2232.5	2253.4	2249.5	2262.6	2262.6	2284.9
15°	2165.6	2228.5	2263.9	2308.5	2321.6	2305.9	2323.0	2341.3	2342.6	2342.6	2341.3
17.5°	2248.2	2273.1	2308.5	2332.1	2337.4	2337.4	2338.7	2346.6	2341.3	2330.8	2338.7
20°	2265.2	2275.7	2288.9	2286.2	2288.9	2275.7	2262.6	2249.5	2250.8	2244.3	2263.9
22.5°	2233.8	2231.1	2201.0	2181.3	2181.3	2155.1	2130.1	2118.3	2106.5	2110.5	2117.0
25°	2155.1	2114.4	2077.7	2048.8	2042.3	2000.3	1966.2	1955.7	1936.0	1951.8	1954.4
27.5°	2029.1	1983.2	1924.2	1899.3	1865.2	1848.1	1824.5	1793.0	1752.4	1776.0	1772.1
30°	1894.0	1825.8	1777.3	1717.0	1663.2	1659.3	1614.7	1562.2	1541.2	1541.2	1553.0
32.5°	1743.2	1652.7	1581.9	1496.6	1444.1	1421.8	1368.1	1315.6	1327.4	1288.1	1302.5
35°	1567.4	1448.1	1358.9	1276.2	1236.9	1210.7	1141.1	1112.3	1080.8	1062.4	1096.6
37.5°	1399.5	1261.8	1147.7	1057.2	1042.8	995.6	948.3	930.0	911.6	919.5	918.2
40°	1194.9	1072.9	970.6	899.8	874.9	852.6	821.1	798.8	787.0	793.6	794.9
42.5°	1010.0	907.7	831.6	781.8	760.8	745.0	729.3	710.9	707.0	707.0	712.2
45°	867.0	783.1	731.9	691.2	679.4	667.6	655.8	648.0	645.3	640.1	644.0
47.5°	752.9	686.0	654.5	624.4	611.2	608.6	598.1	594.2	588.9	587.6	588.9
50°	657.1	615.2	586.3	569.3	560.1	556.1	550.9	543.0	540.4	547.0	544.3
52.5°	590.2	550.9	535.2	518.1	512.9	507.6	499.7	501.1	499.7	497.1	497.1
55°	523.4	498.4	482.7	469.6	468.3	463.0	456.5	453.8	452.5	449.9	453.8
57.5°	469.6	449.9	435.5	423.7	418.4	418.4	411.9	406.6	406.6	405.3	406.6
60°	415.8	396.1	386.9	375.1	371.2	369.9	366.0	363.3	359.4	359.4	359.4
62.5°	366.0	350.2	339.7	329.2	330.5	324.0	318.7	316.1	316.1	317.4	317.4
65°	318.7	308.2	295.1	285.9	283.3	282.0	279.4	278.1	274.1	276.8	276.8
67.5°	275.4	261.0	253.2	249.2	245.3	244.0	241.3	238.7	237.4	236.1	238.7
70°	232.2	220.4	213.8	211.2	207.2	205.9	204.6	200.7	202.0	203.3	204.6
72.5°	192.8	182.3	181.0	173.1	173.1	173.1	167.9	170.5	169.2	166.6	169.2
75°	152.2	146.9	144.3	140.3	141.7	140.3	139.0	135.1	135.1	136.4	137.7
77.5°	120.7	115.4	114.1	110.2	107.6	110.2	107.6	106.2	106.2	107.6	107.6
80°	89.2	86.6	82.6	82.6	82.6	81.3	81.3	81.3	80.0	78.7	80.0
82.5°	59.0	59.0	57.7	56.4	57.7	55.1	56.4	56.4	56.4	56.4	56.4
85°	38.0	36.7	36.7	35.4	35.4	35.4	36.7	34.1	34.1	35.4	35.4
87.5°	17.1	17.1	17.1	18.4	17.1	17.1	17.1	18.4	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°	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5
2.5°	1808.8	1799.6	1791.7	1793.0	1799.6	1794.4	1781.2	1764.2	1757.6	1749.8	1757.6
5°	1917.7	1909.8	1894.0	1895.4	1891.4	1886.2	1865.2	1839.0	1839.0	1818.0	1815.3
7.5°	2025.2	2013.4	2002.9	2000.3	1985.9	1975.4	1957.0	1920.3	1905.8	1880.9	1866.5
10°	2145.9	2136.7	2124.9	2110.5	2102.6	2084.2	2054.1	2000.3	1974.1	1939.9	1915.0
12.5°	2267.9	2266.6	2240.3	2211.5	2210.2	2181.3	2160.3	2088.2	2052.8	2006.8	1947.8
15°	2345.3	2338.7	2324.3	2309.8	2313.8	2282.3	2235.1	2149.8	2126.2	2071.1	2008.2
17.5°	2343.9	2343.9	2340.0	2337.4	2333.4	2324.3	2298.0	2241.6	2203.6	2134.1	2075.1
20°	2269.2	2286.2	2290.2	2288.9	2302.0	2308.5	2307.2	2271.8	2241.6	2180.0	2119.6
22.5°	2119.6	2159.0	2176.0	2186.5	2214.1	2228.5	2262.6	2249.5	2241.6	2195.7	2144.6
25°	1980.6	1993.7	2044.9	2047.5	2085.5	2121.0	2155.1	2177.4	2206.2	2189.2	2145.9
27.5°	1800.9	1831.1	1867.8	1895.4	1903.2	1975.4	2031.8	2073.7	2139.3	2144.6	2130.1
30°	1597.6	1612.0	1672.4	1709.1	1751.1	1803.5	1884.9	1957.0	2016.0	2069.8	2088.2
32.5°	1349.7	1408.7	1444.1	1488.7	1525.5	1618.6	1718.3	1811.4	1879.6	1970.1	2009.5
35°	1122.8	1168.7	1229.0	1247.4	1314.3	1393.0	1522.8	1642.2	1745.8	1837.6	1917.7
37.5°	935.2	971.9	1036.2	1065.1	1104.4	1205.4	1314.3	1462.5	1587.1	1699.9	1799.6
40°	806.7	834.2	882.7	891.9	924.7	1016.5	1104.4	1243.5	1408.7	1560.9	1669.7
42.5°	718.8	731.9	764.7	776.5	797.5	859.1	937.8	1069.0	1222.5	1379.9	1533.3
45°	655.8	665.0	684.7	695.2	721.4	749.0	813.2	918.2	1038.8	1197.5	1362.8
47.5°	599.4	611.2	619.1	625.7	640.1	670.3	712.2	789.6	905.0	1050.6	1210.7
50°	552.2	556.1	570.6	571.9	581.1	600.7	640.1	687.3	779.1	897.2	1052.0
52.5°	505.0	508.9	518.1	527.3	531.2	547.0	573.2	612.5	680.8	773.9	911.6
55°	457.8	463.0	472.2	478.8	482.7	495.8	511.5	549.6	603.4	668.9	781.8
57.5°	410.6	422.4	425.0	428.9	435.5	449.9	464.3	486.6	528.6	588.9	671.6
60°	366.0	369.9	379.1	383.0	389.6	397.4	415.8	432.8	463.0	510.2	585.0
62.5°	320.0	329.2	333.2	337.1	342.3	351.5	363.3	381.7	407.9	446.0	505.0
65°	280.7	282.0	289.9	295.1	300.4	306.9	318.7	335.8	351.5	386.9	430.2
67.5°	242.7	245.3	247.9	253.2	259.7	266.3	276.8	285.9	305.6	329.2	363.3
70°	205.9	205.9	212.5	216.4	215.1	223.0	230.9	241.3	255.8	278.1	305.6
72.5°	173.1	171.8	177.1	178.4	181.0	186.3	191.5	202.0	209.9	226.9	247.9
75°	137.7	140.3	143.0	143.0	146.9	150.8	156.1	161.3	170.5	181.0	196.7
77.5°	108.9	108.9	111.5	112.8	116.7	115.4	120.7	125.9	132.5	141.7	153.5
80°	80.0	82.6	82.6	82.6	83.9	85.3	90.5	94.4	98.4	104.9	110.2
82.5°	56.4	56.4	59.0	59.0	59.0	61.6	61.6	63.0	65.6	69.5	73.5
85°	35.4	35.4	35.4	36.7	35.4	36.7	39.3	38.0	39.3	42.0	42.0
87.5°	17.1	17.1	17.1	17.1	17.1	18.4	17.1	18.4	19.7	19.7	19.7
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: P997660

CATALOG NUMBER: SA2XXDP-B865DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5
2.5°	1751.1	1744.5	1740.6	1743.2	1735.3	1715.7	1715.7	1722.2	1714.3	1706.5	1694.7
5°	1799.6	1786.5	1778.6	1777.3	1758.9	1727.5	1720.9	1714.3	1697.3	1678.9	1659.3
7.5°	1846.8	1823.2	1810.1	1800.9	1774.7	1734.0	1717.0	1702.5	1675.0	1647.4	1622.5
10°	1886.2	1852.1	1836.3	1821.9	1787.8	1736.6	1709.1	1682.9	1647.4	1612.0	1580.6
12.5°	1917.7	1878.3	1858.6	1837.6	1795.7	1728.8	1694.7	1652.7	1617.3	1570.1	1538.6
15°	1970.1	1888.8	1870.4	1850.8	1807.5	1715.7	1673.7	1626.5	1577.9	1515.0	1480.9
17.5°	2012.1	1903.2	1901.9	1859.9	1803.5	1710.4	1646.1	1584.5	1532.0	1469.1	1415.3
20°	2037.0	1925.5	1904.5	1861.2	1790.4	1675.0	1608.1	1539.9	1483.5	1407.4	1353.6
22.5°	2058.0	1957.0	1901.9	1849.4	1762.9	1663.2	1564.8	1500.5	1423.2	1340.5	1289.4
25°	2065.9	1963.6	1905.8	1845.5	1743.2	1629.1	1517.6	1448.1	1361.5	1286.7	1217.2
27.5°	2067.2	1962.2	1891.4	1828.5	1715.7	1584.5	1470.4	1396.9	1301.2	1214.6	1145.1
30°	2054.1	1947.8	1883.5	1815.3	1689.4	1543.8	1412.7	1331.3	1229.0	1142.5	1070.3
32.5°	2014.7	1919.0	1866.5	1791.7	1655.3	1487.4	1357.6	1267.1	1159.5	1074.3	1004.7
35°	1949.1	1883.5	1825.8	1756.3	1610.7	1435.0	1302.5	1196.2	1087.4	1006.0	940.5
37.5°	1867.8	1832.4	1778.6	1710.4	1559.6	1387.7	1240.8	1122.8	1013.9	935.2	870.9
40°	1757.6	1766.8	1714.3	1652.7	1499.2	1323.5	1160.8	1048.0	945.7	872.3	809.3
42.5°	1638.3	1676.3	1646.1	1587.1	1432.3	1252.6	1101.8	977.2	877.5	801.4	749.0
45°	1509.7	1575.3	1556.9	1513.7	1362.8	1177.9	1017.9	897.2	809.3	735.8	689.9
47.5°	1369.4	1462.5	1462.5	1431.0	1285.4	1103.1	945.7	822.4	735.8	683.4	638.8
50°	1226.4	1331.3	1348.4	1327.4	1198.9	1017.9	857.8	746.3	671.6	620.4	587.6
52.5°	1076.9	1198.9	1230.3	1219.8	1107.0	936.5	785.7	676.8	608.6	564.0	535.2
55°	933.9	1075.6	1109.7	1113.6	1008.7	847.3	705.7	609.9	544.3	514.2	489.3
57.5°	798.8	935.2	973.3	979.8	909.0	766.0	630.9	547.0	487.9	463.0	443.3
60°	683.4	797.5	847.3	861.8	800.1	671.6	561.4	480.1	435.5	411.9	393.5
62.5°	588.9	680.8	733.2	737.2	709.6	588.9	489.3	421.0	383.0	362.0	352.8
65°	497.1	579.8	611.2	627.0	604.7	510.2	422.4	366.0	335.8	317.4	308.2
67.5°	423.7	476.1	502.4	523.4	501.1	430.2	359.4	313.5	291.2	272.8	267.6
70°	347.6	390.9	410.6	431.5	411.9	358.1	306.9	265.0	245.3	230.9	224.3
72.5°	278.1	312.2	330.5	343.7	331.9	287.3	245.3	216.4	202.0	191.5	187.6
75°	220.4	244.0	254.5	263.6	258.4	224.3	198.1	174.5	161.3	152.2	149.5
77.5°	167.9	184.9	196.7	199.4	192.8	170.5	148.2	133.8	123.3	118.0	115.4
80°	119.4	129.9	136.4	140.3	133.8	124.6	108.9	98.4	89.2	82.6	81.3
82.5°	80.0	85.3	90.5	89.2	86.6	78.7	69.5	64.3	60.3	55.1	55.1
85°	45.9	47.2	49.8	51.2	49.8	44.6	39.3	36.7	34.1	30.2	30.2
87.5°	19.7	21.0	21.0	22.3	19.7	19.7	17.1	14.4	14.4	13.1	11.8
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: P997660

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CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5
2.5°	1688.1	1694.7	1693.4	1680.2	1665.8	1654.0	1631.7	1634.3	1626.5	1627.8	1635.6
5°	1646.1	1646.1	1640.9	1622.5	1598.9	1585.8	1560.9	1554.3	1538.6	1537.3	1536.0
7.5°	1601.5	1595.0	1588.4	1562.2	1533.3	1512.3	1478.2	1470.4	1454.6	1444.1	1438.9
10°	1549.1	1539.9	1526.8	1496.6	1461.2	1435.0	1399.5	1389.1	1358.9	1345.8	1337.9
12.5°	1491.4	1486.1	1465.1	1440.2	1382.5	1353.6	1302.5	1313.0	1282.8	1256.6	1252.6
15°	1433.6	1414.0	1402.2	1361.5	1292.0	1278.9	1238.2	1217.2	1189.7	1168.7	1168.7
17.5°	1377.2	1347.1	1320.8	1277.6	1226.4	1189.7	1159.5	1149.0	1114.9	1093.9	1090.0
20°	1302.5	1268.4	1261.8	1200.2	1164.8	1124.1	1095.2	1069.0	1044.1	1034.9	1028.3
22.5°	1231.7	1192.3	1181.8	1129.3	1093.9	1053.3	1024.4	1006.0	987.7	981.1	969.3
25°	1155.6	1132.0	1116.2	1059.8	1020.5	982.4	962.8	949.6	932.6	931.3	923.4
27.5°	1082.1	1059.8	1044.1	990.3	961.4	926.0	910.3	895.9	886.7	882.7	878.8
30°	1019.2	994.2	975.9	936.5	901.1	872.3	859.1	850.0	844.7	838.2	836.8
32.5°	949.6	935.2	910.3	880.1	852.6	825.0	817.2	810.6	802.7	800.1	798.8
35°	890.6	870.9	855.2	821.1	809.3	785.7	776.5	771.3	760.8	758.1	755.5
37.5°	832.9	814.5	797.5	776.5	754.2	741.1	735.8	728.0	722.7	724.0	721.4
40°	775.2	760.8	747.6	725.3	712.2	705.7	695.2	687.3	684.7	686.0	684.7
42.5°	718.8	705.7	697.8	680.8	667.6	661.1	654.5	646.6	650.6	650.6	654.5
45°	667.6	655.8	650.6	637.5	629.6	619.1	612.5	611.2	616.5	615.2	615.2
47.5°	615.2	611.2	604.7	592.9	582.4	575.8	574.5	574.5	579.8	582.4	581.1
50°	574.5	566.6	558.8	549.6	541.7	539.1	535.2	537.8	543.0	543.0	545.7
52.5°	523.4	518.1	515.5	507.6	502.4	502.4	502.4	503.7	507.6	511.5	510.2
55°	478.8	474.8	472.2	468.3	461.7	463.0	461.7	464.3	468.3	472.2	474.8
57.5°	431.5	430.2	427.6	421.0	421.0	419.7	423.7	425.0	431.5	434.2	438.1
60°	389.6	385.6	385.6	380.4	380.4	380.4	384.3	388.3	393.5	394.8	397.4
62.5°	345.0	345.0	343.7	339.7	339.7	343.7	345.0	350.2	352.8	352.8	356.8
65°	303.0	301.7	300.4	301.7	303.0	303.0	306.9	309.6	312.2	313.5	314.8
67.5°	261.0	259.7	262.3	261.0	263.6	268.9	267.6	271.5	275.4	275.4	276.8
70°	221.7	224.3	223.0	225.6	224.3	226.9	230.9	232.2	232.2	233.5	237.4
72.5°	184.9	184.9	184.9	183.6	184.9	187.6	190.2	191.5	194.1	195.4	199.4
75°	149.5	149.5	146.9	149.5	149.5	152.2	154.8	154.8	154.8	157.4	161.3
77.5°	112.8	114.1	112.8	115.4	115.4	116.7	119.4	118.0	120.7	122.0	123.3
80°	82.6	81.3	81.3	81.3	82.6	82.6	85.3	86.6	86.6	90.5	87.9
82.5°	52.5	53.8	52.5	53.8	53.8	55.1	53.8	55.1	56.4	59.0	57.7
85°	30.2	28.9	28.9	30.2	28.9	28.9	30.2	28.9	30.2	28.9	30.2
87.5°	11.8	10.5	10.5	10.5	10.5	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: P997660

CATALOG NUMBER: SA2XXDP-B865DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5
2.5°	1626.5	1630.4	1621.2	1618.6	1621.2	1612.0	1614.7	1617.3	1617.3	1621.2	1623.8
5°	1532.0	1526.8	1517.6	1515.0	1512.3	1516.3	1513.7	1517.6	1518.9	1528.1	1529.4
7.5°	1438.9	1431.0	1423.2	1415.3	1412.7	1406.1	1412.7	1412.7	1421.8	1419.2	1425.8
10°	1328.7	1327.4	1316.9	1313.0	1307.7	1297.2	1311.7	1307.7	1314.3	1326.1	1328.7
12.5°	1247.4	1233.0	1239.5	1221.2	1227.7	1217.2	1218.5	1218.5	1229.0	1230.3	1227.7
15°	1170.0	1158.2	1141.1	1133.3	1129.3	1124.1	1141.1	1142.5	1134.6	1153.0	1146.4
17.5°	1091.3	1091.3	1075.6	1071.6	1061.1	1066.4	1063.8	1065.1	1062.4	1075.6	1082.1
20°	1023.1	1016.5	1011.3	1012.6	999.5	996.9	994.2	996.9	1006.0	1015.2	1017.9
22.5°	968.0	964.1	951.0	953.6	943.1	947.0	944.4	951.0	952.3	952.3	961.4
25°	915.5	910.3	911.6	906.4	902.4	902.4	898.5	902.4	907.7	910.3	911.6
27.5°	876.2	872.3	865.7	861.8	864.4	857.8	863.1	867.0	867.0	864.4	867.0
30°	829.0	831.6	831.6	818.5	823.7	821.1	825.0	827.7	827.7	829.0	826.3
32.5°	797.5	789.6	788.3	787.0	787.0	781.8	781.8	785.7	787.0	788.3	792.2
35°	755.5	755.5	749.0	752.9	747.6	749.0	747.6	749.0	751.6	747.6	751.6
37.5°	717.5	718.8	716.2	718.8	720.1	717.5	714.9	720.1	717.5	717.5	714.9
40°	684.7	683.4	684.7	684.7	684.7	686.0	683.4	683.4	683.4	680.8	678.1
42.5°	657.1	649.3	651.9	653.2	649.3	649.3	650.6	649.3	653.2	645.3	645.3
45°	617.8	615.2	616.5	616.5	619.1	615.2	617.8	619.1	615.2	613.9	611.2
47.5°	582.4	585.0	582.4	585.0	585.0	587.6	582.4	583.7	585.0	579.8	575.8
50°	547.0	547.0	550.9	549.6	550.9	548.3	548.3	547.0	548.3	545.7	541.7
52.5°	514.2	510.2	516.8	515.5	514.2	512.9	511.5	512.9	510.2	507.6	507.6
55°	473.5	473.5	477.4	478.8	478.8	476.1	473.5	474.8	473.5	472.2	470.9
57.5°	440.7	435.5	438.1	439.4	439.4	435.5	438.1	435.5	435.5	436.8	432.8
60°	398.7	398.7	396.1	400.1	400.1	397.4	397.4	398.7	396.1	394.8	393.5
62.5°	354.1	355.5	359.4	360.7	362.0	359.4	356.8	358.1	358.1	354.1	355.5
65°	316.1	318.7	324.0	322.7	320.0	321.4	318.7	320.0	316.1	317.4	313.5
67.5°	279.4	278.1	279.4	279.4	282.0	280.7	278.1	278.1	276.8	280.7	276.8
70°	240.0	240.0	240.0	240.0	241.3	242.7	240.0	237.4	238.7	236.1	234.8
72.5°	199.4	200.7	199.4	202.0	198.1	200.7	200.7	199.4	198.1	198.1	198.1
75°	161.3	164.0	160.0	161.3	160.0	162.6	161.3	161.3	158.7	157.4	158.7
77.5°	123.3	124.6	122.0	123.3	122.0	123.3	123.3	122.0	122.0	122.0	122.0
80°	87.9	89.2	87.9	86.6	85.3	87.9	85.3	86.6	87.9	86.6	89.2
82.5°	56.4	56.4	55.1	56.4	53.8	53.8	55.1	55.1	53.8	56.4	53.8
85°	27.5	27.5	30.2	27.5	26.2	26.2	26.2	27.5	26.2	28.9	27.5
87.5°	6.6	5.2	6.6	6.6	5.2	5.2	6.6	5.2	6.6	7.9	5.2
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: P997660

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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5	1706.5
2.5°	1619.9	1630.4	1626.5	1612.0	1629.1	1629.1	1640.9	1640.9	1655.3	1660.6	1668.4
5°	1528.1	1536.0	1542.5	1536.0	1547.8	1566.1	1576.6	1585.8	1605.5	1613.3	1625.2
7.5°	1429.7	1444.1	1450.7	1450.7	1470.4	1491.4	1512.3	1525.5	1553.0	1563.5	1575.3
10°	1334.0	1351.0	1364.1	1362.8	1395.6	1408.7	1435.0	1465.1	1492.7	1508.4	1525.5
12.5°	1233.0	1242.1	1260.5	1286.7	1294.6	1318.2	1348.4	1386.4	1436.3	1450.7	1475.6
15°	1149.0	1173.9	1188.4	1200.2	1218.5	1240.8	1273.6	1310.4	1360.2	1391.7	1417.9
17.5°	1078.2	1111.0	1120.2	1117.5	1141.1	1175.2	1213.3	1240.8	1285.4	1323.5	1348.4
20°	1020.5	1033.6	1049.3	1055.9	1074.3	1111.0	1147.7	1179.2	1215.9	1246.1	1274.9
22.5°	962.8	973.3	986.4	998.2	1012.6	1033.6	1069.0	1108.4	1143.8	1172.6	1205.4
25°	915.5	922.1	933.9	943.1	958.8	973.3	998.2	1041.5	1083.4	1100.5	1129.3
27.5°	869.6	874.9	882.7	893.2	901.1	915.5	937.8	973.3	1016.5	1033.6	1072.9
30°	829.0	832.9	840.8	846.0	850.0	867.0	884.1	911.6	944.4	968.0	996.9
32.5°	790.9	794.9	802.7	804.0	809.3	818.5	834.2	859.1	888.0	907.7	932.6
35°	749.0	751.6	759.5	762.1	766.0	773.9	785.7	804.0	830.3	844.7	867.0
37.5°	716.2	714.9	720.1	724.0	729.3	733.2	737.2	755.5	775.2	788.3	805.4
40°	680.8	678.1	679.4	684.7	687.3	692.6	692.6	710.9	724.0	734.5	747.6
42.5°	645.3	644.0	641.4	644.0	646.6	648.0	649.3	662.4	675.5	684.7	699.1
45°	609.9	608.6	606.0	607.3	607.3	609.9	613.9	619.1	628.3	636.2	644.0
47.5°	577.1	574.5	570.6	569.3	571.9	571.9	571.9	577.1	586.3	588.9	596.8
50°	543.0	539.1	533.8	531.2	531.2	529.9	532.5	533.8	541.7	544.3	550.9
52.5°	506.3	503.7	498.4	493.2	494.5	491.9	493.2	494.5	497.1	501.1	505.0
55°	469.6	464.3	460.4	459.1	455.1	455.1	451.2	456.5	455.1	456.5	461.7
57.5°	434.2	428.9	422.4	419.7	415.8	414.5	411.9	410.6	411.9	415.8	419.7
60°	392.2	389.6	385.6	381.7	379.1	375.1	372.5	372.5	371.2	371.2	372.5
62.5°	351.5	350.2	345.0	343.7	341.0	338.4	334.5	331.9	331.9	334.5	335.8
65°	312.2	310.9	306.9	305.6	299.1	296.4	295.1	293.8	291.2	291.2	291.2
67.5°	275.4	271.5	271.5	265.0	259.7	257.1	254.5	253.2	253.2	253.2	254.5
70°	234.8	234.8	230.9	226.9	221.7	223.0	219.0	215.1	215.1	212.5	213.8
72.5°	195.4	194.1	190.2	188.9	184.9	181.0	178.4	181.0	177.1	175.8	177.1
75°	157.4	156.1	153.5	150.8	152.2	148.2	144.3	143.0	143.0	140.3	140.3
77.5°	120.7	123.3	118.0	116.7	114.1	111.5	110.2	108.9	108.9	108.9	111.5
80°	83.9	85.3	85.3	82.6	83.9	80.0	80.0	80.0	76.1	77.4	78.7
82.5°	53.8	53.8	52.5	53.8	52.5	52.5	51.2	51.2	49.8	49.8	51.2
85°	30.2	28.9	27.5	30.2	28.9	28.9	27.5	27.5	27.5	27.5	27.5
87.5°	6.6	7.9	7.9	7.9	7.9	9.2	9.2	9.2	10.5	10.5	10.5
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):

	345°	350°	355°	360°
0°	1706.5	1706.5	1706.5	1706.5
2.5°	1675.0	1675.0	1694.7	1715.7
5°	1638.3	1647.4	1678.9	1707.8
7.5°	1602.9	1618.6	1657.9	1694.7
10°	1559.6	1580.6	1629.1	1672.4
12.5°	1517.6	1537.3	1593.7	1642.2
15°	1458.6	1483.5	1543.8	1604.2
17.5°	1399.5	1424.5	1497.9	1568.7
20°	1330.0	1362.8	1445.5	1539.9
22.5°	1265.8	1306.4	1398.2	1474.3
25°	1194.9	1257.9	1343.1	1441.5
27.5°	1132.0	1194.9	1281.5	1381.2
30°	1061.1	1125.4	1214.6	1306.4
32.5°	992.9	1052.0	1138.5	1251.3
35°	922.1	978.5	1062.4	1176.6
37.5°	857.8	912.9	1004.7	1109.7
40°	794.9	852.6	931.3	1036.2
42.5°	735.8	787.0	857.8	962.8
45°	682.1	718.8	784.4	882.7
47.5°	625.7	658.5	718.8	817.2
50°	573.2	600.7	653.2	745.0
52.5°	522.0	545.7	594.2	667.6
55°	476.1	498.4	533.8	606.0
57.5°	428.9	446.0	480.1	537.8
60°	383.0	398.7	426.3	473.5
62.5°	337.1	350.2	376.4	414.5
65°	296.4	306.9	326.6	359.4
67.5°	257.1	263.6	279.4	305.6
70°	219.0	224.3	237.4	258.4
72.5°	178.4	183.6	198.1	212.5
75°	144.3	145.6	156.1	167.9
77.5°	112.8	111.5	119.4	128.5
80°	77.4	81.3	87.9	91.8
82.5°	52.5	53.8	56.4	59.0
85°	28.9	30.2	30.2	34.1
87.5°	11.8	13.1	13.1	14.4
90°	0.0	0.0	0.0	0.0

TEST NUMBER: P997660

CATALOG NUMBER: SA2XXDP-B865DB2750-4F0-XX-W2A-A_4000K

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	23.42	24.94	23.79	25.25	25.57	19.69	21.21	20.06	21.52	21.84
	3H	24.54	25.90	24.92	26.23	26.59	21.10	22.47	21.48	22.79	23.16
	4H	24.86	26.14	25.26	26.49	26.87	21.61	22.89	22.01	23.24	23.62
	6H	25.05	26.23	25.47	26.60	26.99	21.97	23.15	22.38	23.51	23.91
	8H	25.09	26.22	25.52	26.61	27.01	22.08	23.20	22.51	23.59	23.99
	12H	25.11	26.18	25.54	26.56	26.99	22.16	23.23	22.59	23.61	24.04
4H	2H	23.54	24.82	23.94	25.17	25.55	20.49	21.76	20.89	22.11	22.49
	3H	24.87	25.93	25.28	26.33	26.74	22.07	23.13	22.48	23.53	23.93
	4H	25.35	26.30	25.78	26.72	27.16	22.66	23.62	23.10	24.03	24.47
	6H	25.68	26.51	26.14	26.95	27.41	23.12	23.95	23.57	24.39	24.85
	8H	25.75	26.53	26.22	26.97	27.44	23.26	24.04	23.72	24.48	24.95
	12H	25.80	26.49	26.28	26.97	27.44	23.37	24.06	23.85	24.54	25.01
8H	4H	25.43	26.21	25.90	26.65	27.12	23.07	23.85	23.54	24.29	24.76
	6H	25.84	26.48	26.34	26.97	27.45	23.62	24.25	24.11	24.75	25.22
	8H	25.97	26.54	26.48	27.05	27.54	23.81	24.39	24.33	24.90	25.38
	12H	26.06	26.56	26.57	27.06	27.62	23.98	24.48	24.49	24.98	25.54
12H	4H	25.42	26.12	25.91	26.59	27.06	23.13	23.82	23.61	24.30	24.77
	6H	25.83	26.41	26.35	26.92	27.41	23.69	24.26	24.20	24.77	25.26
	8H	26.00	26.51	26.51	27.00	27.56	23.94	24.45	24.45	24.94	25.50