

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: INVUE

Report Number: P677364

Luminaire Tested: **CCW-SA-1F-850-U-SLL-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677364
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1F-850-U-SLL-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1200mA w/
SLL distribution lens and House Side Shield
Light Source: (16) 5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

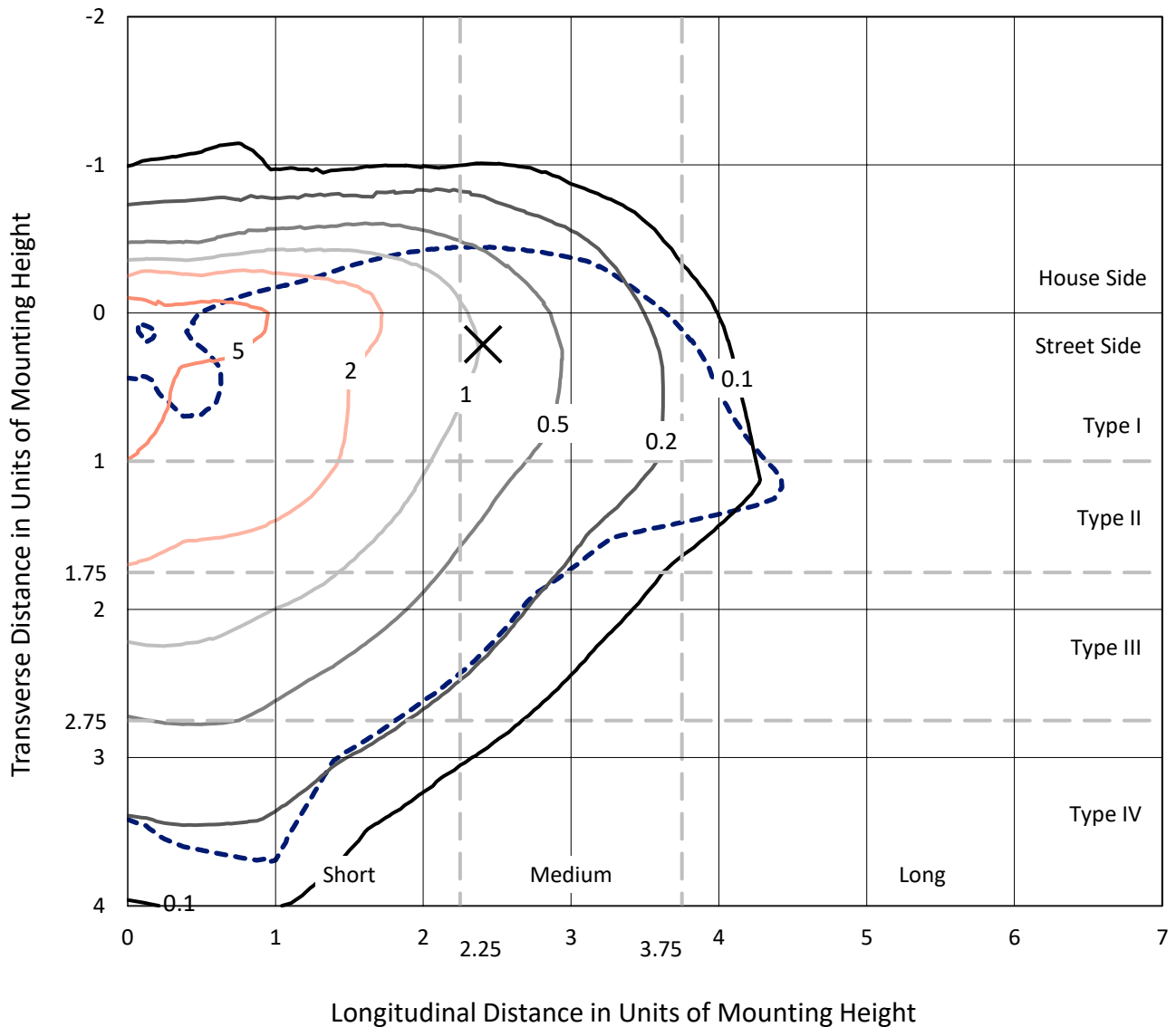
Lumens per Lamp: N/A
Luminaire Lumens: 4746.8 lumens
Efficiency: N/A
Efficacy: 70.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G1

Input Watts (W): 67
Input Voltage (V): 120
Input Current (A_{in}): 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: 25 FT

REPORT NUMBER: P677364
 CATALOG NUMBER: CCW-SA-1F-850-U-SLL-HSS

Iso-Footcandle Lines of Horizontal Illumination

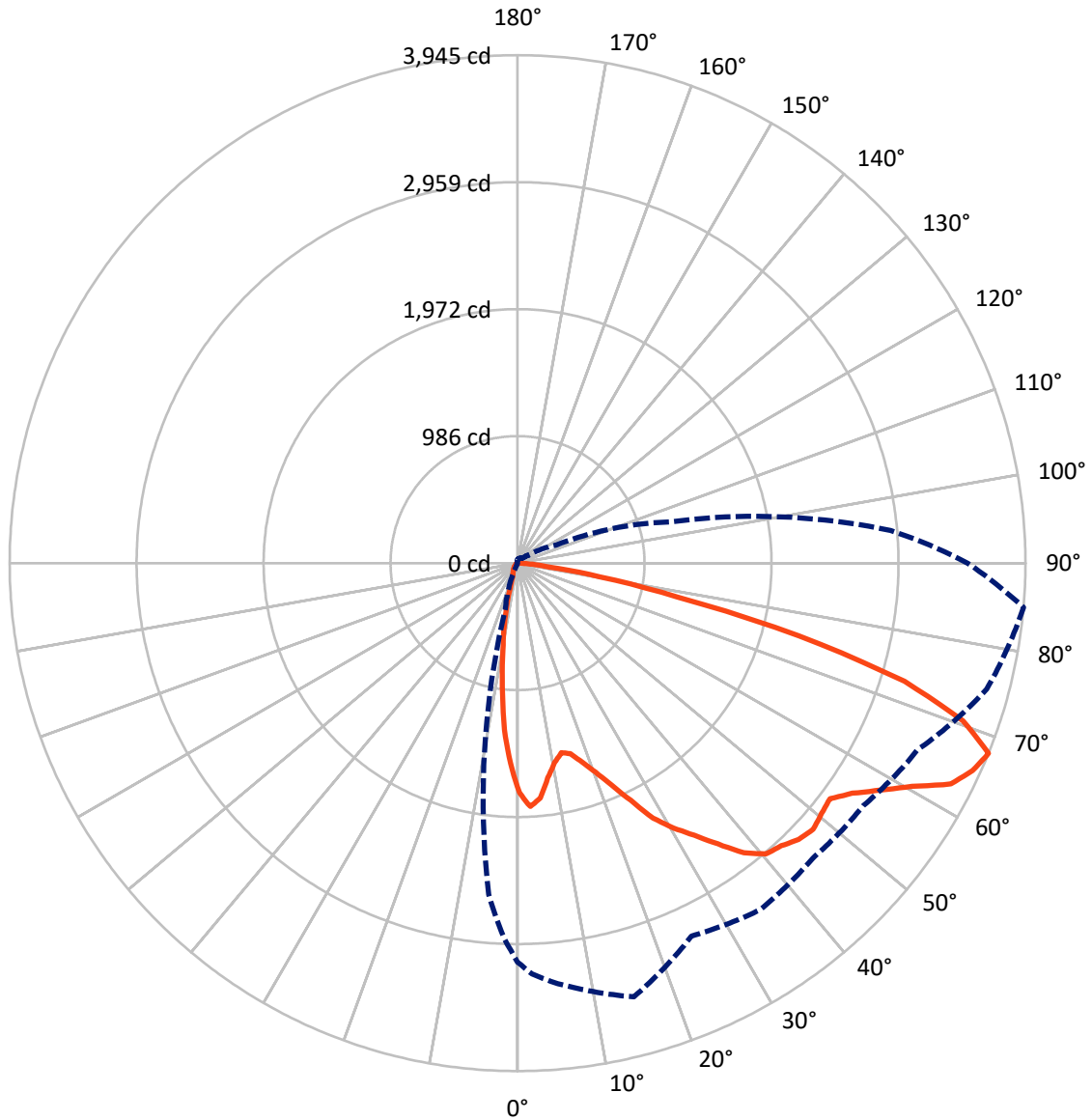
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 8.9 fc
 Type III - Medium - N/A

REPORT NUMBER: P677364
CATALOG NUMBER: CCW-SA-1F-850-U-SLL-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P677364
 CATALOG NUMBER: CCW-SA-1F-850-U-SLL-HSS

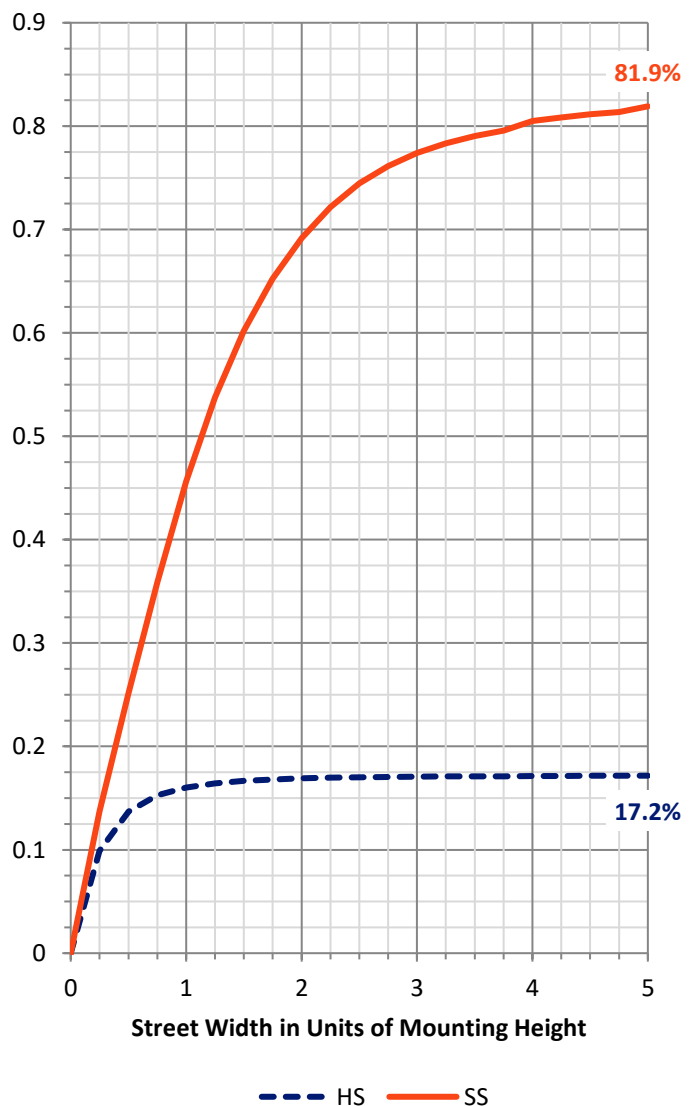
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	824.2	0.0	824.2
	% Fixture	17.4	0.0	17.4
Street Side	Lumens	3922.6	0.0	3922.6
	% Fixture	82.6	0.0	82.6
Total	Lumens	4746.8	0.0	4746.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.6	2.9
10°-20°	265.9	5.6
20°-30°	367.9	7.8
30°-40°	520.0	11.0
40°-50°	708.0	14.9
50°-60°	937.7	19.8
60°-70°	1088.7	22.9
70°-80°	616.5	13.0
80°-90°	106.5	2.2
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°-90°	4746.8	100.0
0°-180°	4746.8	100.0

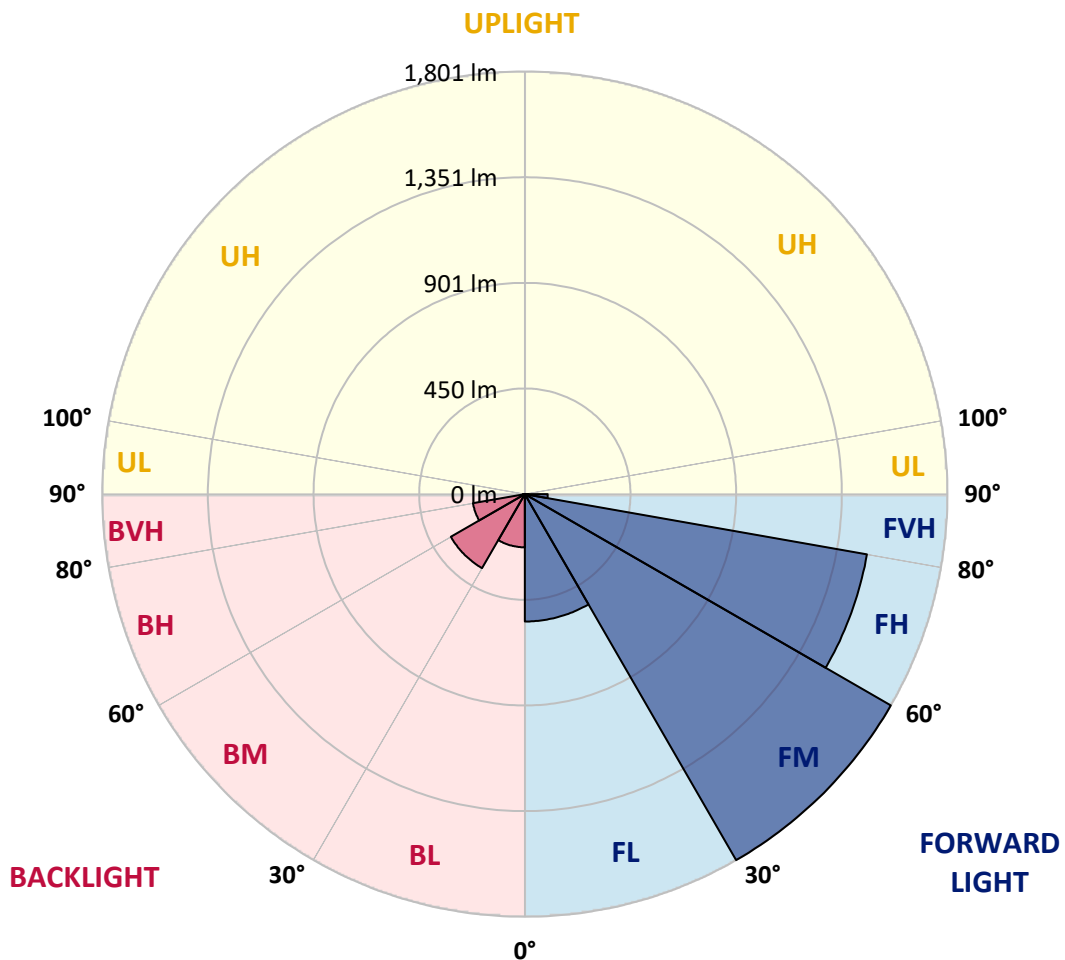


REPORT NUMBER: P677364
 CATALOG NUMBER: CCW-SA-1F-850-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	542.8	11.4			
FM (30°-60°)	1801.5	38.0			
FH (60°-80°)	1480.8	31.2			G1/1800
FVH (80°-90°)	97.5	2.1			G1/100
BL (0°-30°)	226.6	4.8	B1/500		
BM (30°-60°)	364.2	7.7	B1/1000		
BH (60°-80°)	224.5	4.7	B1/500		G1/500
BVH (80°-90°)	9.0	0.2			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
 Type III Medium





REPORT NUMBER: P677364

CATALOG NUMBER: CCW-SA-1F-850-U-SLL-HSS

CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8
2.5°	1854.5	1893.8	1895.1	1912.8	1930.5	1930.5	1972.4	1962.2	1925.5	1919.1	1892.5
5°	1868.4	1882.4	1892.5	1982.5	2058.6	2051.0	2073.8	2058.6	1987.6	1896.3	1834.2
7.5°	1748.0	1763.2	1803.8	1957.2	2059.8	2094.1	2137.2	2042.1	1967.3	1802.5	1683.4
10°	1588.3	1617.5	1692.2	1867.2	1993.9	2102.9	2102.9	2026.9	1882.4	1721.4	1575.6
12.5°	1499.6	1557.9	1598.4	1775.9	1940.7	2015.5	2012.9	1972.4	1878.6	1675.8	1511.0
15°	1514.8	1531.3	1617.5	1755.6	1864.6	1860.8	1906.5	1893.8	1827.9	1716.3	1535.1
17.5°	1584.5	1609.8	1684.6	1755.6	1807.6	1792.4	1791.1	1852.0	1855.8	1784.8	1625.1
20°	1698.6	1773.4	1808.9	1830.4	1767.0	1702.4	1694.8	1779.7	1845.6	1872.2	1732.8
22.5°	1881.1	1930.5	2002.8	1892.5	1727.7	1646.6	1631.4	1725.2	1858.3	1976.2	1872.2
25°	2059.8	2097.9	2167.6	2025.6	1772.1	1635.2	1608.6	1689.7	1906.5	2120.7	2040.8
27.5°	2248.7	2281.7	2289.3	2123.2	1796.2	1612.4	1580.7	1689.7	1947.0	2196.7	2242.4
30°	2364.1	2403.4	2411.0	2209.4	1835.5	1631.4	1616.2	1697.3	1974.9	2261.4	2386.9
32.5°	2493.4	2503.5	2497.2	2224.6	1878.6	1687.2	1623.8	1748.0	2006.6	2338.7	2518.7
35°	2648.0	2665.8	2601.1	2294.3	1974.9	1722.7	1699.8	1810.1	2061.1	2374.2	2678.4
37.5°	2765.9	2821.7	2675.9	2321.0	1993.9	1797.4	1801.3	1939.4	2099.1	2417.3	2854.6
40°	2987.7	2893.9	2802.7	2412.2	2066.2	1924.2	1903.9	2072.5	2227.2	2445.2	2970.0
42.5°	3109.4	3060.0	2852.1	2421.1	2177.7	2099.1	2104.2	2223.4	2294.3	2523.8	3001.7
45°	3139.8	3087.9	2919.3	2427.4	2288.0	2305.8	2393.2	2416.0	2393.2	2575.8	3061.2
47.5°	3217.2	3104.3	2911.7	2512.4	2466.7	2535.2	2646.7	2696.2	2527.6	2556.7	3089.1
50°	3201.9	3137.3	2895.2	2547.9	2684.8	2866.0	2940.8	2920.5	2677.2	2517.4	3058.7
52.5°	3138.6	3068.8	2945.9	2644.2	2888.8	3108.1	3212.1	3161.4	2810.3	2606.2	3038.4
55°	3231.1	3177.9	3011.8	2774.8	3042.2	3321.1	3394.6	3356.6	2973.8	2688.6	3153.8
57.5°	3331.2	3319.8	3190.5	2928.1	3223.5	3540.4	3540.4	3493.5	3115.7	2807.7	3324.9
60°	3475.7	3501.1	3322.4	3029.5	3285.6	3527.7	3711.5	3657.0	3259.0	3016.9	3518.8
62.5°	3428.8	3510.0	3492.2	3247.6	3356.6	3589.8	3690.0	3730.5	3436.4	3271.7	3777.4
65°	3278.0	3364.2	3491.0	3390.8	3303.4	3439.0	3489.7	3612.6	3525.2	3511.2	3883.9
67.5°	3098.0	3191.8	3270.4	3487.2	3195.6	3285.6	3241.2	3280.5	3428.8	3773.6	3944.8
70°	2705.0	2795.0	2919.3	3272.9	2910.4	2829.3	2817.9	2798.8	3029.5	3679.8	3668.4
72.5°	2224.6	2266.5	2471.8	2660.7	2153.6	2138.4	2156.2	2134.6	2402.1	3331.2	3142.4
75°	1665.6	1707.4	1824.1	2043.4	1466.6	1379.1	1480.5	1580.7	1834.2	2585.9	2257.6
77.5°	1252.4	1305.6	1379.1	1528.7	1076.2	939.3	953.2	1048.3	1325.9	2071.2	1265.1
80°	812.5	806.2	948.2	1052.1	810.0	835.3	799.9	869.6	960.8	1107.9	646.5
82.5°	469.0	475.3	534.9	603.4	564.1	645.2	465.2	777.0	685.8	451.3	240.8
85°	263.7	275.1	329.6	418.3	353.7	237.0	193.9	385.3	431.0	185.1	116.6
87.5°	26.6	22.8	44.4	158.4	96.3	39.3	58.3	92.5	103.9	69.7	34.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P677364

CATALOG NUMBER: CCW-SA-1F-850-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8
2.5°	1854.5	1854.5	1822.8	1769.6	1748.0	1710.0	1658.0	1674.5	1656.7	1592.1	1575.6
5°	1778.4	1717.6	1651.7	1570.5	1523.6	1427.3	1396.9	1342.4	1351.3	1296.7	1299.3
7.5°	1620.0	1571.8	1460.3	1353.8	1261.3	1177.6	1059.7	1015.3	972.2	950.7	976.0
10°	1527.5	1437.5	1285.3	1145.9	1022.9	948.2	869.6	808.7	753.0	711.1	702.2
12.5°	1460.3	1380.4	1196.6	1026.8	930.4	869.6	797.3	713.7	659.1	586.9	565.3
15°	1440.0	1342.4	1148.4	979.9	886.0	785.9	703.5	621.1	550.1	474.1	447.5
17.5°	1509.7	1396.9	1147.2	941.8	810.0	702.2	588.2	495.6	423.4	353.7	337.2
20°	1627.6	1455.2	1183.9	919.0	737.7	593.2	463.9	371.4	290.3	244.6	233.2
22.5°	1762.0	1554.1	1187.7	858.2	665.5	484.2	338.4	244.6	199.0	177.5	171.1
25°	1926.7	1712.5	1233.4	808.7	580.6	367.6	240.8	187.6	161.0	148.3	145.8
27.5°	2062.4	1822.8	1282.8	756.8	496.9	272.5	188.9	153.4	139.4	126.8	125.5
30°	2203.1	1949.6	1296.7	725.1	424.6	224.4	162.3	135.6	120.4	114.1	112.8
32.5°	2326.0	2087.7	1341.1	673.1	356.2	197.7	147.0	121.7	111.5	101.4	100.1
35°	2484.5	2167.6	1362.7	645.2	330.8	178.7	134.4	111.5	96.3	90.0	87.5
37.5°	2654.3	2244.9	1376.6	623.7	309.3	167.3	126.8	105.2	91.3	82.4	79.9
40°	2812.8	2353.9	1356.3	597.0	292.8	153.4	121.7	97.6	84.9	76.1	72.3
42.5°	2934.5	2460.4	1350.0	571.7	275.1	148.3	115.4	93.8	79.9	69.7	68.5
45°	3002.9	2532.7	1305.6	551.4	261.1	150.8	112.8	88.7	76.1	67.2	62.1
47.5°	2986.5	2588.4	1317.0	545.1	242.1	140.7	111.5	84.9	69.7	62.1	58.3
50°	3077.7	2701.2	1298.0	524.8	228.2	126.8	121.7	84.9	68.5	59.6	55.8
52.5°	3092.9	2803.9	1338.6	488.0	206.6	116.6	120.4	83.7	65.9	57.0	52.0
55°	3219.7	2923.1	1417.2	467.7	188.9	101.4	110.3	81.1	59.6	52.0	49.4
57.5°	3392.1	3170.3	1467.9	448.7	164.8	88.7	92.5	79.9	54.5	48.2	44.4
60°	3558.1	3269.1	1471.7	414.5	142.0	79.9	72.3	79.9	50.7	43.1	39.3
62.5°	3682.4	3269.1	1446.3	385.3	124.2	71.0	63.4	76.1	45.6	38.0	35.5
65°	3615.2	3181.7	1380.4	361.3	112.8	62.1	54.5	58.3	40.6	33.0	30.4
67.5°	3494.8	2909.1	1234.6	332.1	111.5	54.5	46.9	43.1	35.5	29.2	26.6
70°	3302.1	2541.5	1028.0	299.2	109.0	49.4	41.8	36.8	31.7	25.4	22.8
72.5°	2660.7	2099.1	844.2	280.1	106.5	43.1	35.5	31.7	26.6	21.5	19.0
75°	1843.1	1341.1	650.3	239.6	103.9	39.3	33.0	27.9	22.8	17.7	16.5
77.5°	1105.3	896.2	419.6	180.0	68.5	31.7	27.9	21.5	19.0	15.2	13.9
80°	517.2	423.4	169.9	69.7	33.0	22.8	19.0	16.5	15.2	12.7	11.4
82.5°	202.8	178.7	82.4	40.6	26.6	17.7	15.2	13.9	12.7	10.1	8.9
85°	109.0	96.3	39.3	27.9	19.0	12.7	12.7	11.4	10.1	8.9	7.6
87.5°	24.1	17.7	16.5	16.5	13.9	10.1	10.1	8.9	7.6	6.3	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



REPORT NUMBER: P677364
 CATALOG NUMBER: CCW-SA-1F-850-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8
2.5°	1566.7	1585.8	1555.3	1574.4	1547.7	1568.0	1570.5	1551.5	1556.6	1582.0	1593.4
5°	1334.8	1322.1	1294.2	1285.3	1286.6	1270.1	1276.5	1285.3	1299.3	1306.9	1329.7
7.5°	962.1	991.3	990.0	1011.5	1012.8	1010.3	992.5	954.5	967.2	957.0	969.7
10°	688.3	701.0	725.1	739.0	764.4	750.4	709.9	694.6	687.0	685.8	698.4
12.5°	550.1	519.7	517.2	522.2	534.9	518.4	498.2	480.4	489.3	507.0	521.0
15°	425.9	400.6	367.6	362.5	365.1	357.5	335.9	313.1	319.4	337.2	347.3
17.5°	327.0	297.9	275.1	259.9	254.8	228.2	196.5	177.5	172.4	171.1	180.0
20°	220.6	215.5	211.7	192.7	192.7	154.6	128.0	114.1	114.1	116.6	117.9
22.5°	164.8	158.4	159.7	155.9	145.8	115.4	101.4	97.6	97.6	100.1	100.1
25°	143.2	134.4	131.8	130.6	120.4	98.9	88.7	84.9	84.9	87.5	87.5
27.5°	121.7	119.2	115.4	110.3	101.4	84.9	78.6	74.8	76.1	77.3	76.1
30°	111.5	105.2	100.1	100.1	90.0	76.1	71.0	68.5	65.9	68.5	69.7
32.5°	98.9	95.1	92.5	88.7	77.3	67.2	62.1	59.6	58.3	58.3	59.6
35°	84.9	84.9	82.4	77.3	67.2	60.8	54.5	52.0	50.7	52.0	52.0
37.5°	76.1	72.3	73.5	68.5	59.6	53.2	46.9	44.4	44.4	43.1	44.4
40°	71.0	64.6	60.8	58.3	53.2	45.6	40.6	38.0	36.8	36.8	36.8
42.5°	63.4	58.3	50.7	49.4	48.2	39.3	33.0	31.7	30.4	29.2	29.2
45°	59.6	52.0	45.6	39.3	39.3	33.0	27.9	25.4	24.1	22.8	24.1
47.5°	54.5	46.9	39.3	33.0	31.7	26.6	21.5	19.0	17.7	17.7	17.7
50°	52.0	41.8	34.2	27.9	24.1	21.5	16.5	13.9	12.7	12.7	12.7
52.5°	48.2	39.3	30.4	24.1	19.0	16.5	12.7	10.1	8.9	8.9	8.9
55°	43.1	35.5	26.6	20.3	16.5	12.7	8.9	6.3	5.1	5.1	5.1
57.5°	40.6	31.7	22.8	17.7	12.7	8.9	5.1	3.8	3.8	2.5	3.8
60°	36.8	27.9	19.0	13.9	10.1	6.3	3.8	1.3	1.3	1.3	1.3
62.5°	31.7	24.1	16.5	11.4	7.6	3.8	1.3	0.0	0.0	0.0	0.0
65°	26.6	19.0	12.7	8.9	5.1	1.3	0.0	0.0	0.0	0.0	0.0
67.5°	22.8	16.5	10.1	6.3	3.8	0.0	0.0	0.0	0.0	0.0	0.0
70°	20.3	13.9	7.6	5.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	16.5	11.4	6.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	13.9	8.9	3.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	11.4	6.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	8.9	5.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	7.6	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P677364
 CATALOG NUMBER: CCW-SA-1F-850-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8
2.5°	1609.8	1602.2	1640.3	1702.4	1734.1	1796.2	1811.4	1850.7	1840.5	1854.5
5°	1332.2	1347.5	1403.2	1494.5	1527.5	1617.5	1702.4	1787.3	1841.8	1868.4
7.5°	988.7	1039.4	1107.9	1191.5	1276.5	1394.4	1538.9	1637.7	1691.0	1748.0
10°	736.5	791.0	869.6	952.0	1090.1	1222.0	1366.5	1489.4	1535.1	1588.3
12.5°	579.3	664.2	755.5	844.2	926.6	1052.1	1230.8	1409.6	1459.0	1499.6
15°	403.1	507.0	637.6	753.0	868.3	977.3	1162.4	1379.1	1446.3	1514.8
17.5°	223.1	305.5	455.1	617.3	787.2	954.5	1185.2	1434.9	1536.3	1584.5
20°	129.3	162.3	268.7	461.4	685.8	905.1	1196.6	1540.1	1674.5	1698.6
22.5°	106.5	117.9	152.1	289.0	561.5	873.4	1254.9	1687.2	1824.1	1881.1
25°	91.3	100.1	117.9	173.7	424.6	806.2	1291.7	1871.0	1997.7	2059.8
27.5°	81.1	90.0	103.9	128.0	289.0	713.7	1352.5	2037.0	2163.8	2248.7
30°	71.0	78.6	92.5	109.0	200.3	609.7	1404.5	2158.7	2337.4	2364.1
32.5°	63.4	69.7	79.9	93.8	148.3	462.7	1446.3	2284.2	2435.0	2493.4
35°	54.5	62.1	68.5	79.9	112.8	348.6	1421.0	2381.8	2578.3	2648.0
37.5°	48.2	53.2	59.6	67.2	95.1	272.5	1369.0	2498.4	2701.2	2765.9
40°	40.6	44.4	52.0	59.6	86.2	210.4	1309.4	2639.1	2873.6	2987.7
42.5°	34.2	38.0	43.1	55.8	71.0	155.9	1189.0	2748.1	3013.1	3109.4
45°	26.6	31.7	39.3	55.8	57.0	115.4	1064.8	2829.3	3091.7	3139.8
47.5°	20.3	25.4	38.0	48.2	45.6	79.9	917.7	2921.8	3172.8	3217.2
50°	15.2	20.3	43.1	41.8	38.0	60.8	825.2	2986.5	3177.9	3201.9
52.5°	10.1	15.2	35.5	31.7	31.7	53.2	799.9	2983.9	3190.5	3138.6
55°	7.6	11.4	20.3	22.8	27.9	46.9	777.0	3079.0	3194.3	3231.1
57.5°	5.1	8.9	13.9	17.7	24.1	40.6	730.1	3193.1	3312.2	3331.2
60°	2.5	6.3	10.1	13.9	20.3	35.5	664.2	3276.7	3455.5	3475.7
62.5°	1.3	3.8	7.6	11.4	16.5	27.9	595.8	3143.6	3393.3	3428.8
65°	0.0	2.5	5.1	7.6	10.1	20.3	484.2	2838.1	3147.4	3278.0
67.5°	0.0	0.0	2.5	5.1	6.3	15.2	365.1	2582.1	2920.5	3098.0
70°	0.0	0.0	1.3	1.3	3.8	11.4	233.2	2138.4	2607.4	2705.0
72.5°	0.0	0.0	0.0	0.0	1.3	7.6	135.6	1588.3	2043.4	2224.6
75°	0.0	0.0	0.0	0.0	0.0	6.3	68.5	1021.7	1422.2	1665.6
77.5°	0.0	0.0	0.0	0.0	0.0	5.1	36.8	659.1	1048.3	1252.4
80°	0.0	0.0	0.0	0.0	0.0	1.3	21.5	382.8	670.6	812.5
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	8.9	187.6	400.6	469.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	100.1	200.3	263.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	13.9	26.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)