

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: P677330

Luminaire Tested: **CCW-SA-1E-830-U-SLL-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677330
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1E-830-U-SLL-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1050mA w/
SLL distribution lens and House Side Shield
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

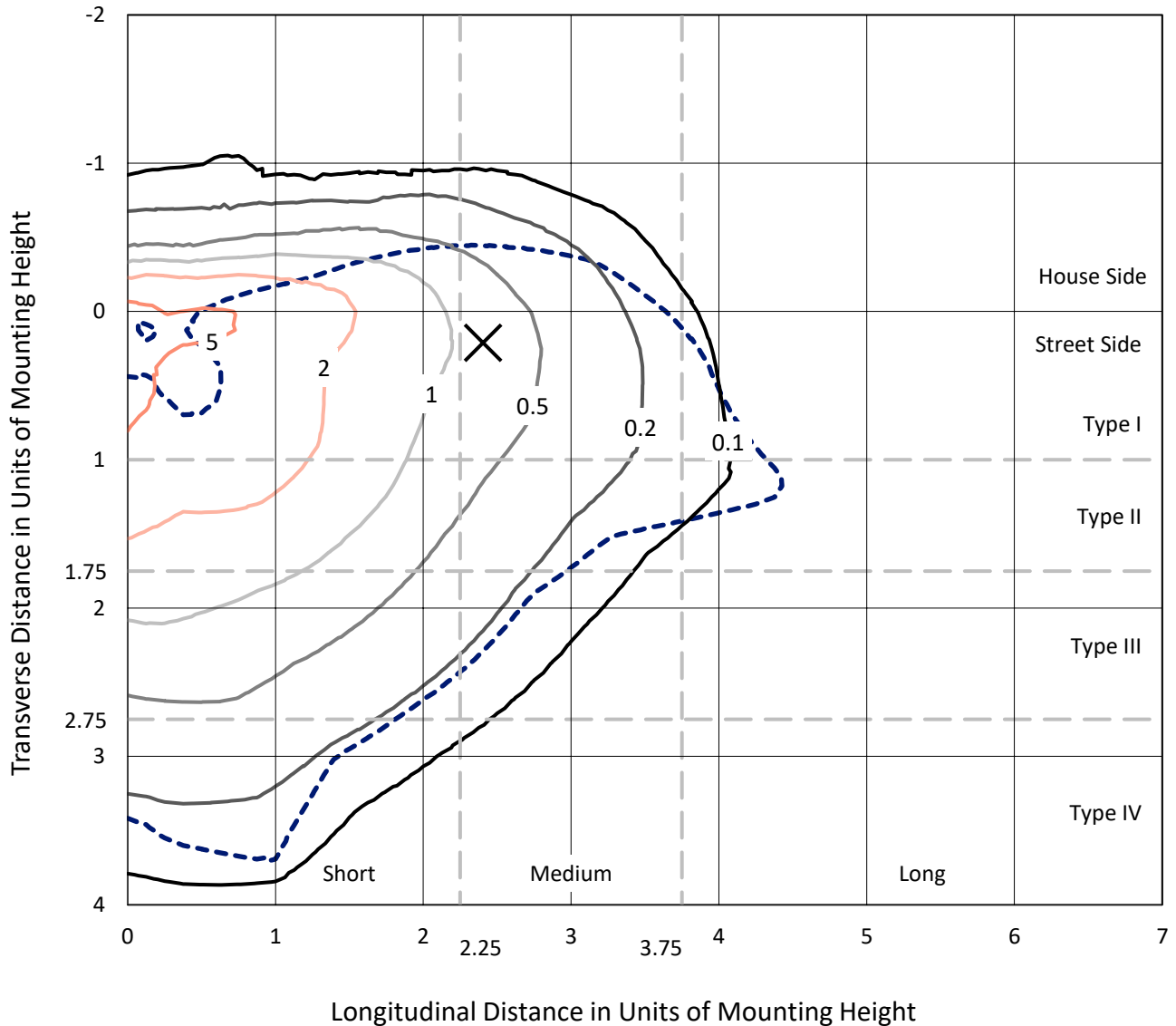
Lumens per Lamp: N/A
Luminaire Lumens: 3941.7 lumens
Efficiency: N/A
Efficacy: 70.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G1

Input Watts (W): 56.1
Input Voltage (V): 120
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: 25 FT

REPORT NUMBER: P677330
 CATALOG NUMBER: CCW-SA-1E-830-U-SLL-HSS

Iso-Footcandle Lines of Horizontal Illumination

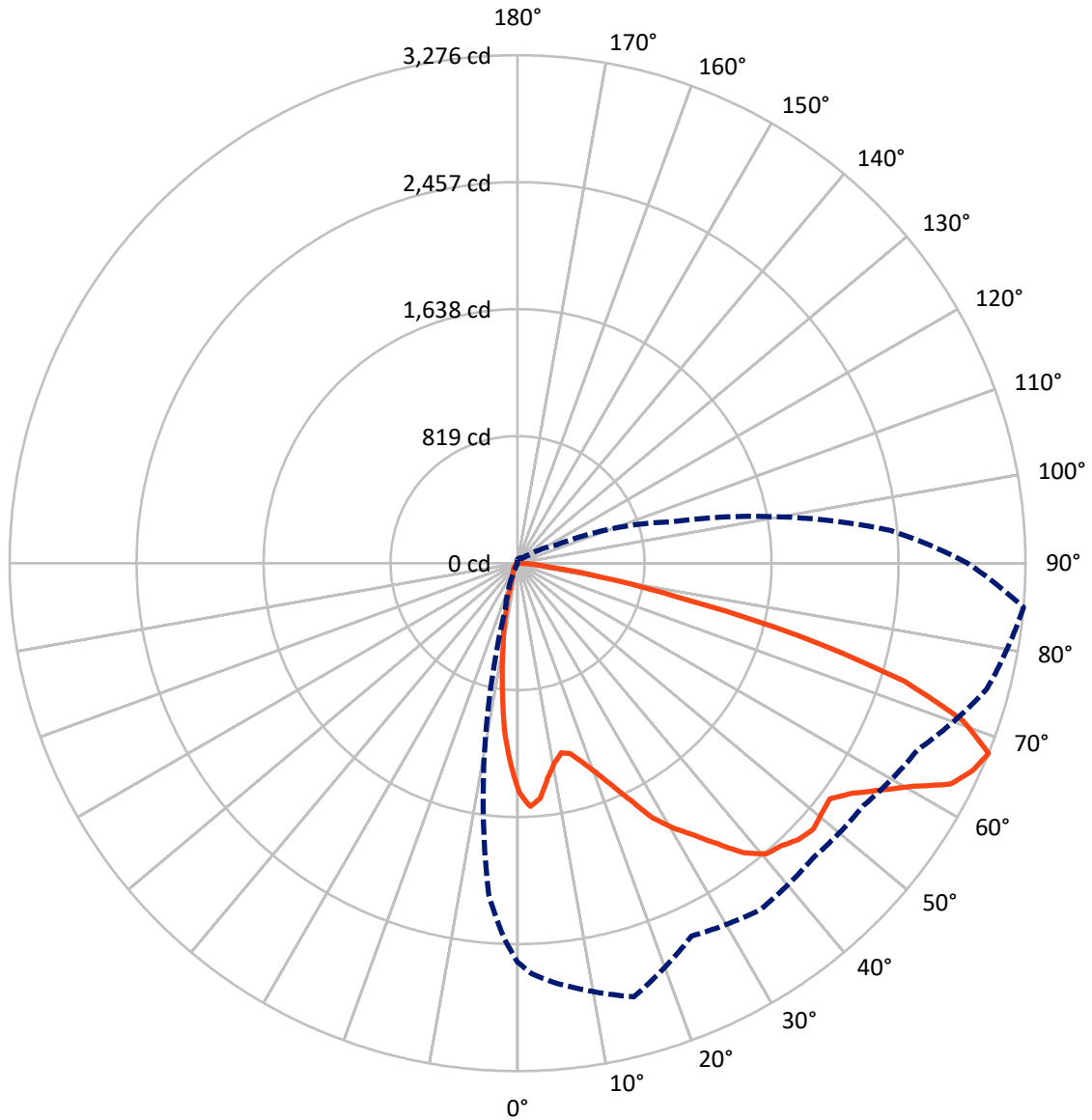
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 7.4 fc
 Type III - Medium - N/A

REPORT NUMBER: P677330
CATALOG NUMBER: CCW-SA-1E-830-U-SLL-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P677330
 CATALOG NUMBER: CCW-SA-1E-830-U-SLL-HSS

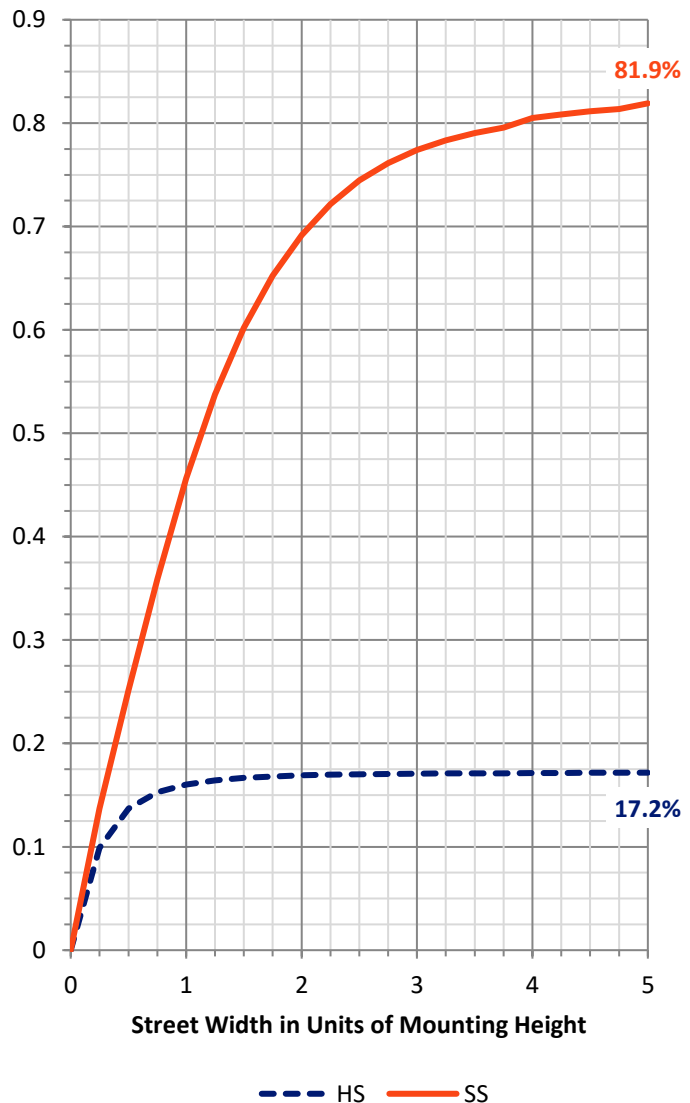
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	684.4	0.0	684.4
	% Fixture	17.4	0.0	17.4
Street Side	Lumens	3257.2	0.0	3257.2
	% Fixture	82.6	0.0	82.6
Total	Lumens	3941.7	0.0	3941.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.6	2.9
10°-20°	220.8	5.6
20°-30°	305.5	7.8
30°-40°	431.8	11.0
40°-50°	587.9	14.9
50°-60°	778.6	19.8
60°-70°	904.0	22.9
70°-80°	512.0	13.0
80°-90°	88.5	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°	3941.7	100.0
0°-180°	3941.7	100.0

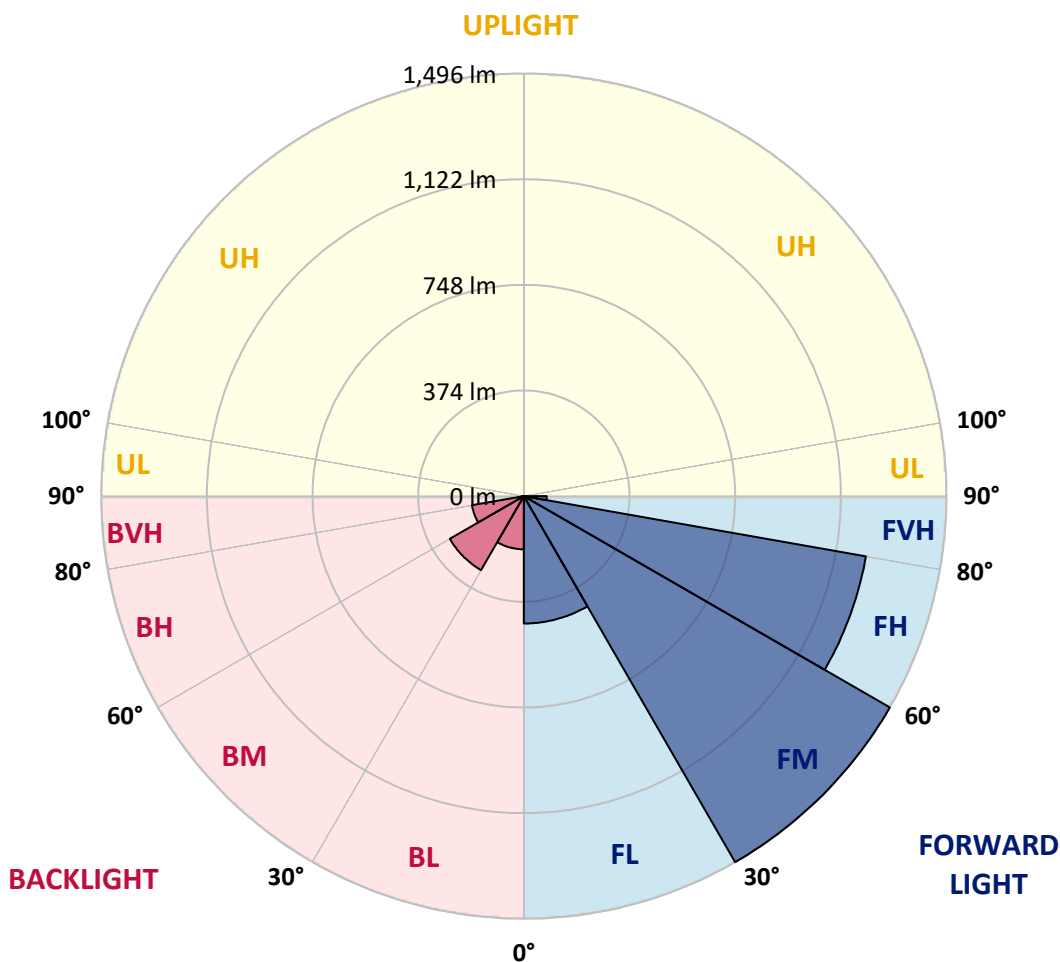


REPORT NUMBER: P677330
 CATALOG NUMBER: CCW-SA-1E-830-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	450.7	11.4			
FM (30°-60°)	1495.9	38.0			
FH (60°-80°)	1229.6	31.2			G1/1800
FVH (80°-90°)	81.0	2.1			G1/100
BL (0°-30°)	188.2	4.8	B1/500		
BM (30°-60°)	302.4	7.7	B1/1000		
BH (60°-80°)	186.4	4.7	B1/500		G1/500
BVH (80°-90°)	7.5	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: P677330

CATALOG NUMBER: CCW-SA-1E-830-U-SLL-HSS

CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0
2.5°	1539.9	1572.6	1573.6	1588.3	1603.1	1603.1	1637.8	1629.4	1598.9	1593.6	1571.5
5°	1551.5	1563.1	1571.5	1646.2	1709.4	1703.1	1722.0	1709.4	1650.4	1574.7	1523.1
7.5°	1451.5	1464.1	1497.8	1625.2	1710.4	1738.9	1774.6	1695.7	1633.6	1496.8	1397.8
10°	1318.9	1343.1	1405.2	1550.4	1655.7	1746.2	1746.2	1683.1	1563.1	1429.4	1308.4
12.5°	1245.2	1293.6	1327.3	1474.7	1611.5	1673.6	1671.5	1637.8	1559.9	1391.5	1254.7
15°	1257.8	1271.5	1343.1	1457.8	1548.3	1545.2	1583.1	1572.6	1517.8	1425.2	1274.7
17.5°	1315.7	1336.8	1398.9	1457.8	1501.0	1488.3	1487.3	1537.8	1541.0	1482.0	1349.4
20°	1410.5	1472.6	1502.0	1519.9	1467.3	1413.6	1407.3	1477.8	1532.6	1554.7	1438.9
22.5°	1562.0	1603.1	1663.1	1571.5	1434.7	1367.3	1354.7	1432.6	1543.1	1641.0	1554.7
25°	1710.4	1742.0	1799.9	1682.0	1471.5	1357.8	1335.7	1403.1	1583.1	1761.0	1694.7
27.5°	1867.3	1894.6	1901.0	1763.1	1491.5	1338.9	1312.6	1403.1	1616.8	1824.1	1862.0
30°	1963.1	1995.7	2002.0	1834.6	1524.1	1354.7	1342.0	1409.4	1639.9	1877.8	1982.0
32.5°	2070.4	2078.8	2073.6	1847.3	1559.9	1401.0	1348.4	1451.5	1666.2	1942.0	2091.5
35°	2198.8	2213.6	2159.9	1905.2	1639.9	1430.5	1411.5	1503.1	1711.5	1971.5	2224.1
37.5°	2296.7	2343.0	2222.0	1927.3	1655.7	1492.6	1495.7	1610.4	1743.1	2007.3	2370.4
40°	2480.9	2403.0	2327.3	2003.1	1715.7	1597.8	1581.0	1721.0	1849.4	2030.4	2466.2
42.5°	2582.0	2540.9	2368.3	2010.4	1808.3	1743.1	1747.3	1846.2	1905.2	2095.7	2492.5
45°	2607.2	2564.1	2424.1	2015.7	1899.9	1914.6	1987.3	2006.2	1987.3	2138.8	2542.0
47.5°	2671.4	2577.8	2417.8	2086.2	2048.3	2105.2	2197.8	2238.8	2098.8	2123.1	2565.1
50°	2658.8	2605.1	2404.1	2115.7	2229.4	2379.9	2442.0	2425.1	2223.0	2090.4	2539.9
52.5°	2606.2	2548.3	2446.2	2195.7	2398.8	2580.9	2667.2	2625.1	2333.6	2164.1	2523.0
55°	2683.0	2638.8	2500.9	2304.1	2526.2	2757.8	2818.8	2787.2	2469.3	2232.5	2618.8
57.5°	2766.2	2756.7	2649.3	2431.5	2676.7	2939.9	2939.9	2900.9	2587.2	2331.5	2760.9
60°	2886.2	2907.2	2758.8	2515.7	2728.3	2929.3	3081.9	3036.7	2706.2	2505.1	2922.0
62.5°	2847.2	2914.6	2899.9	2696.7	2787.2	2980.9	3064.1	3097.7	2853.5	2716.7	3136.7
65°	2722.0	2793.5	2898.8	2815.6	2743.0	2855.6	2897.7	2999.8	2927.2	2915.6	3225.1
67.5°	2572.5	2650.4	2715.7	2895.6	2653.5	2728.3	2691.4	2724.1	2847.2	3133.5	3275.6
70°	2246.2	2320.9	2424.1	2717.8	2416.7	2349.4	2339.9	2324.1	2515.7	3055.6	3046.2
72.5°	1847.3	1882.0	2052.5	2209.4	1788.3	1775.7	1790.4	1772.5	1994.6	2766.2	2609.3
75°	1383.1	1417.8	1514.7	1696.8	1217.8	1145.2	1229.4	1312.6	1523.1	2147.3	1874.6
77.5°	1039.9	1084.2	1145.2	1269.4	893.6	780.0	791.5	870.5	1101.0	1719.9	1050.5
80°	674.7	669.4	787.3	873.6	672.6	693.6	664.2	722.1	797.9	920.0	536.8
82.5°	389.5	394.7	444.2	501.0	468.4	535.8	386.3	645.2	569.4	374.7	200.0
85°	218.9	228.4	273.7	347.4	293.7	196.8	161.0	320.0	357.9	153.7	96.8
87.5°	22.1	18.9	36.8	131.6	80.0	32.6	48.4	76.8	86.3	57.9	28.4
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: P677330

CATALOG NUMBER: CCW-SA-1E-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0
2.5°	1539.9	1539.9	1513.6	1469.4	1451.5	1419.9	1376.8	1390.5	1375.7	1322.0	1308.4
5°	1476.8	1426.2	1371.5	1304.1	1265.2	1185.2	1159.9	1114.7	1122.0	1076.8	1078.9
7.5°	1345.2	1305.2	1212.6	1124.2	1047.3	977.8	880.0	843.1	807.3	789.4	810.5
10°	1268.4	1193.6	1067.3	951.5	849.4	787.3	722.1	671.5	625.2	590.5	583.1
12.5°	1212.6	1146.3	993.6	852.6	772.6	722.1	662.1	592.6	547.3	487.3	469.4
15°	1195.7	1114.7	953.6	813.6	735.8	652.6	584.2	515.8	456.8	393.7	371.6
17.5°	1253.6	1159.9	952.6	782.1	672.6	583.1	488.4	411.6	351.6	293.7	280.0
20°	1351.5	1208.4	983.1	763.1	612.6	492.6	385.2	308.4	241.0	203.1	193.7
22.5°	1463.1	1290.5	986.3	712.6	552.6	402.1	281.0	203.1	165.3	147.4	142.1
25°	1599.9	1422.0	1024.2	671.5	482.1	305.2	200.0	155.8	133.7	123.2	121.0
27.5°	1712.5	1513.6	1065.2	628.4	412.6	226.3	156.8	127.4	115.8	105.3	104.2
30°	1829.4	1618.9	1076.8	602.1	352.6	186.3	134.7	112.6	100.0	94.7	93.7
32.5°	1931.5	1733.6	1113.6	558.9	295.8	164.2	122.1	101.0	92.6	84.2	83.2
35°	2063.1	1799.9	1131.5	535.8	274.7	148.4	111.6	92.6	80.0	74.7	72.6
37.5°	2204.1	1864.1	1143.1	517.9	256.8	138.9	105.3	87.4	75.8	68.4	66.3
40°	2335.7	1954.6	1126.3	495.8	243.1	127.4	101.0	81.0	70.5	63.2	60.0
42.5°	2436.7	2043.1	1121.0	474.7	228.4	123.2	95.8	77.9	66.3	57.9	56.8
45°	2493.6	2103.1	1084.2	457.9	216.8	125.3	93.7	73.7	63.2	55.8	51.6
47.5°	2479.9	2149.4	1093.6	452.6	201.0	116.8	92.6	70.5	57.9	51.6	48.4
50°	2555.7	2243.0	1077.8	435.8	189.5	105.3	101.0	70.5	56.8	49.5	46.3
52.5°	2568.3	2328.3	1111.5	405.2	171.6	96.8	100.0	69.5	54.7	47.4	43.2
55°	2673.5	2427.2	1176.8	388.4	156.8	84.2	91.6	67.4	49.5	43.2	41.1
57.5°	2816.7	2632.5	1218.9	372.6	136.8	73.7	76.8	66.3	45.3	40.0	36.8
60°	2954.6	2714.6	1222.0	344.2	117.9	66.3	60.0	66.3	42.1	35.8	32.6
62.5°	3057.7	2714.6	1201.0	320.0	103.2	58.9	52.6	63.2	37.9	31.6	29.5
65°	3002.0	2642.0	1146.3	300.0	93.7	51.6	45.3	48.4	33.7	27.4	25.3
67.5°	2902.0	2415.7	1025.2	275.8	92.6	45.3	38.9	35.8	29.5	24.2	22.1
70°	2742.0	2110.4	853.6	248.4	90.5	41.1	34.7	30.5	26.3	21.1	18.9
72.5°	2209.4	1743.1	701.0	232.6	88.4	35.8	29.5	26.3	22.1	17.9	15.8
75°	1530.4	1113.6	540.0	198.9	86.3	32.6	27.4	23.2	18.9	14.7	13.7
77.5°	917.8	744.2	348.4	149.5	56.8	26.3	23.2	17.9	15.8	12.6	11.6
80°	429.5	351.6	141.0	57.9	27.4	18.9	15.8	13.7	12.6	10.5	9.5
82.5°	168.4	148.4	68.4	33.7	22.1	14.7	12.6	11.6	10.5	8.4	7.4
85°	90.5	80.0	32.6	23.2	15.8	10.5	10.5	9.5	8.4	7.4	6.3
87.5°	20.0	14.7	13.7	13.7	11.6	8.4	8.4	7.4	6.3	5.3	4.2
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: P677330
 CATALOG NUMBER: CCW-SA-1E-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0
2.5°	1301.0	1316.8	1291.5	1307.3	1285.2	1302.0	1304.1	1288.4	1292.6	1313.6	1323.1
5°	1108.4	1097.8	1074.7	1067.3	1068.4	1054.7	1059.9	1067.3	1078.9	1085.2	1104.2
7.5°	798.9	823.1	822.1	840.0	841.0	838.9	824.2	792.6	803.1	794.7	805.2
10°	571.6	582.1	602.1	613.7	634.7	623.1	589.4	576.8	570.5	569.4	580.0
12.5°	456.8	431.6	429.5	433.7	444.2	430.5	413.7	398.9	406.3	421.0	432.6
15°	353.7	332.6	305.2	301.0	303.1	296.8	278.9	260.0	265.2	280.0	288.4
17.5°	271.6	247.4	228.4	215.8	211.6	189.5	163.1	147.4	143.2	142.1	149.5
20°	183.1	178.9	175.8	160.0	160.0	128.4	106.3	94.7	94.7	96.8	97.9
22.5°	136.8	131.6	132.6	129.5	121.0	95.8	84.2	81.0	81.0	83.2	83.2
25°	118.9	111.6	109.5	108.4	100.0	82.1	73.7	70.5	70.5	72.6	72.6
27.5°	101.0	98.9	95.8	91.6	84.2	70.5	65.3	62.1	63.2	64.2	63.2
30°	92.6	87.4	83.2	83.2	74.7	63.2	58.9	56.8	54.7	56.8	57.9
32.5°	82.1	78.9	76.8	73.7	64.2	55.8	51.6	49.5	48.4	48.4	49.5
35°	70.5	70.5	68.4	64.2	55.8	50.5	45.3	43.2	42.1	43.2	43.2
37.5°	63.2	60.0	61.0	56.8	49.5	44.2	38.9	36.8	36.8	35.8	36.8
40°	58.9	53.7	50.5	48.4	44.2	37.9	33.7	31.6	30.5	30.5	30.5
42.5°	52.6	48.4	42.1	41.1	40.0	32.6	27.4	26.3	25.3	24.2	24.2
45°	49.5	43.2	37.9	32.6	32.6	27.4	23.2	21.1	20.0	18.9	20.0
47.5°	45.3	38.9	32.6	27.4	26.3	22.1	17.9	15.8	14.7	14.7	14.7
50°	43.2	34.7	28.4	23.2	20.0	17.9	13.7	11.6	10.5	10.5	10.5
52.5°	40.0	32.6	25.3	20.0	15.8	13.7	10.5	8.4	7.4	7.4	7.4
55°	35.8	29.5	22.1	16.8	13.7	10.5	7.4	5.3	4.2	4.2	4.2
57.5°	33.7	26.3	18.9	14.7	10.5	7.4	4.2	3.2	3.2	2.1	3.2
60°	30.5	23.2	15.8	11.6	8.4	5.3	3.2	1.1	1.1	1.1	1.1
62.5°	26.3	20.0	13.7	9.5	6.3	3.2	1.1	0.0	0.0	0.0	0.0
65°	22.1	15.8	10.5	7.4	4.2	1.1	0.0	0.0	0.0	0.0	0.0
67.5°	18.9	13.7	8.4	5.3	3.2	0.0	0.0	0.0	0.0	0.0	0.0
70°	16.8	11.6	6.3	4.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	13.7	9.5	5.3	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	11.6	7.4	3.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	9.5	5.3	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	7.4	4.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	6.3	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.2	1.1	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: P677330
 CATALOG NUMBER: CCW-SA-1E-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0	1482.0
2.5°	1336.8	1330.5	1362.0	1413.6	1439.9	1491.5	1504.1	1536.8	1528.3	1539.9
5°	1106.3	1118.9	1165.2	1241.0	1268.4	1343.1	1413.6	1484.1	1529.4	1551.5
7.5°	821.0	863.1	920.0	989.4	1059.9	1157.8	1277.8	1359.9	1404.1	1451.5
10°	611.5	656.8	722.1	790.5	905.2	1014.7	1134.7	1236.8	1274.7	1318.9
12.5°	481.0	551.6	627.3	701.0	769.4	873.6	1022.1	1170.5	1211.5	1245.2
15°	334.7	421.0	529.4	625.2	721.0	811.5	965.2	1145.2	1201.0	1257.8
17.5°	185.3	253.7	377.9	512.6	653.7	792.6	984.2	1191.5	1275.7	1315.7
20°	107.4	134.7	223.1	383.1	569.4	751.5	993.6	1278.9	1390.5	1410.5
22.5°	88.4	97.9	126.3	240.0	466.3	725.2	1042.1	1401.0	1514.7	1562.0
25°	75.8	83.2	97.9	144.2	352.6	669.4	1072.6	1553.6	1658.9	1710.4
27.5°	67.4	74.7	86.3	106.3	240.0	592.6	1123.1	1691.5	1796.8	1867.3
30°	58.9	65.3	76.8	90.5	166.3	506.3	1166.3	1792.5	1941.0	1963.1
32.5°	52.6	57.9	66.3	77.9	123.2	384.2	1201.0	1896.7	2022.0	2070.4
35°	45.3	51.6	56.8	66.3	93.7	289.5	1179.9	1977.8	2140.9	2198.8
37.5°	40.0	44.2	49.5	55.8	78.9	226.3	1136.8	2074.6	2243.0	2296.7
40°	33.7	36.8	43.2	49.5	71.6	174.7	1087.3	2191.5	2386.2	2480.9
42.5°	28.4	31.6	35.8	46.3	58.9	129.5	987.3	2282.0	2502.0	2582.0
45°	22.1	26.3	32.6	46.3	47.4	95.8	884.2	2349.4	2567.2	2607.2
47.5°	16.8	21.1	31.6	40.0	37.9	66.3	762.1	2426.2	2634.6	2671.4
50°	12.6	16.8	35.8	34.7	31.6	50.5	685.2	2479.9	2638.8	2658.8
52.5°	8.4	12.6	29.5	26.3	26.3	44.2	664.2	2477.8	2649.3	2606.2
55°	6.3	9.5	16.8	18.9	23.2	38.9	645.2	2556.7	2652.5	2683.0
57.5°	4.2	7.4	11.6	14.7	20.0	33.7	606.3	2651.4	2750.4	2766.2
60°	2.1	5.3	8.4	11.6	16.8	29.5	551.6	2720.9	2869.3	2886.2
62.5°	1.1	3.2	6.3	9.5	13.7	23.2	494.7	2610.4	2817.8	2847.2
65°	0.0	2.1	4.2	6.3	8.4	16.8	402.1	2356.7	2613.6	2722.0
67.5°	0.0	0.0	2.1	4.2	5.3	12.6	303.1	2144.1	2425.1	2572.5
70°	0.0	0.0	1.1	1.1	3.2	9.5	193.7	1775.7	2165.2	2246.2
72.5°	0.0	0.0	0.0	0.0	1.1	6.3	112.6	1318.9	1696.8	1847.3
75°	0.0	0.0	0.0	0.0	0.0	5.3	56.8	848.4	1181.0	1383.1
77.5°	0.0	0.0	0.0	0.0	0.0	4.2	30.5	547.3	870.5	1039.9
80°	0.0	0.0	0.0	0.0	0.0	1.1	17.9	317.9	556.8	674.7
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	7.4	155.8	332.6	389.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	2.1	83.2	166.3	218.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	11.6	22.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)