

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: P676181

Luminaire Tested: **CCW-SA-2B-830-U-T1**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676181
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-2B-830-U-T1
Description: INVUE CLEAR CURVE Wall Pack MOUNT LIGHT SQUARE LUMINAIRE @450mA w/
T1 distribution lens
Light Source: (32) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

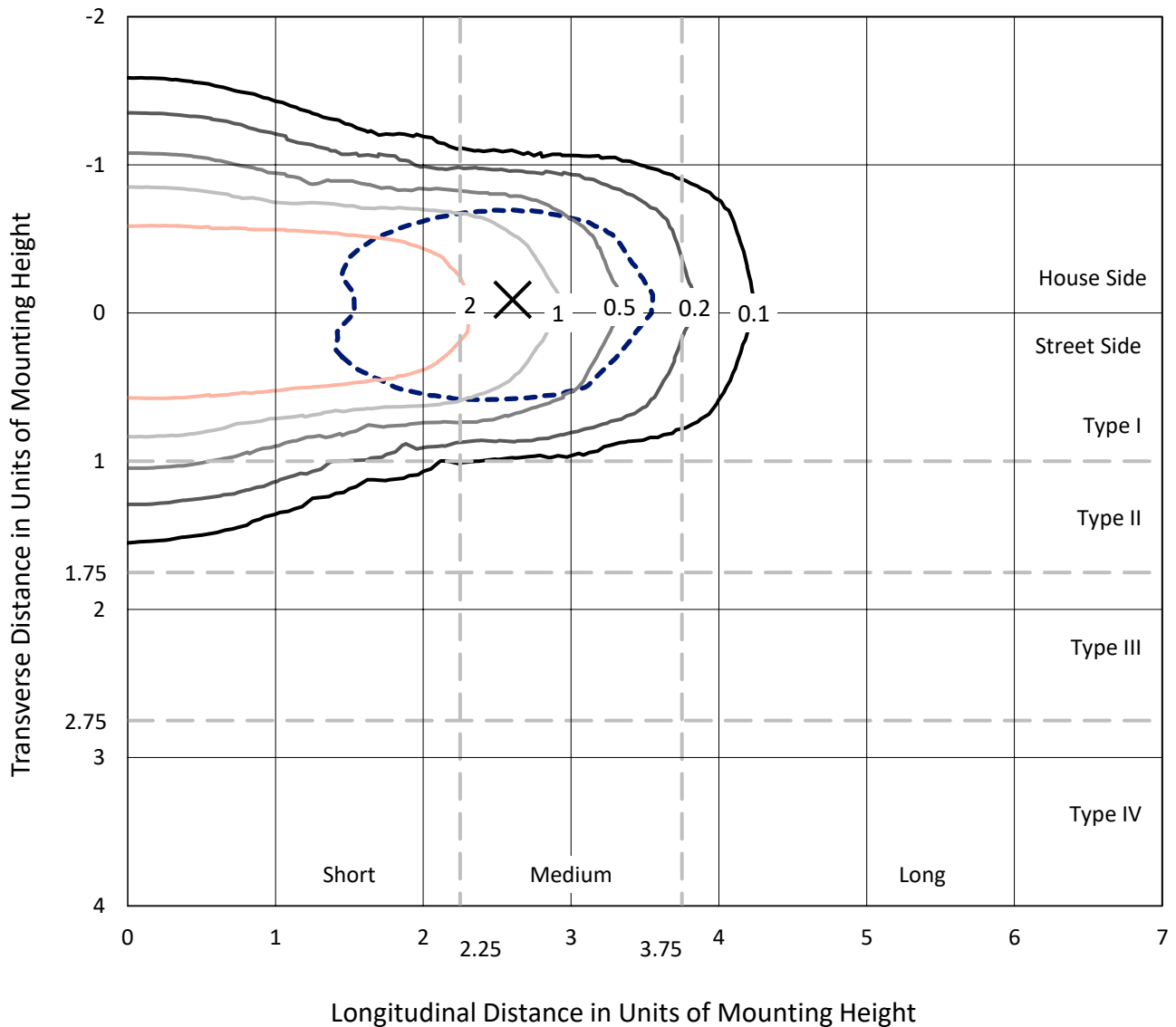
Lumens per Lamp: N/A
Luminaire Lumens: 5343.8 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 46
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: P676181
 CATALOG NUMBER: CCW-SA-2B-830-U-T1

Iso-Footcandle Lines of Horizontal Illumination

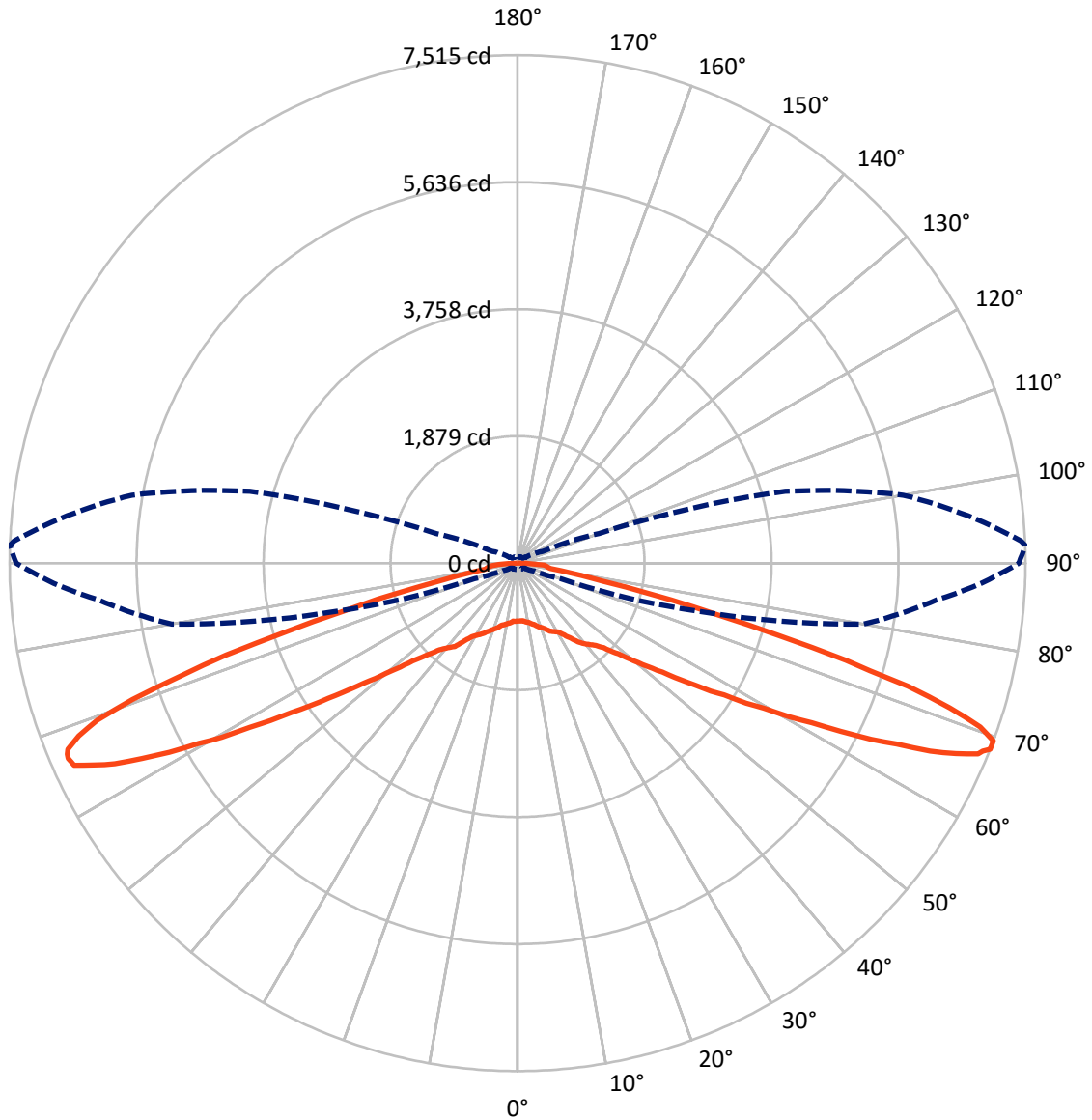
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4.1 fc
 Type I - Short - N/A

REPORT NUMBER: P676181
CATALOG NUMBER: CCW-SA-2B-830-U-T1

Luminous Intensity Polar Plot



— Vertical Plane Through 92-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P676181
 CATALOG NUMBER: CCW-SA-2B-830-U-T1

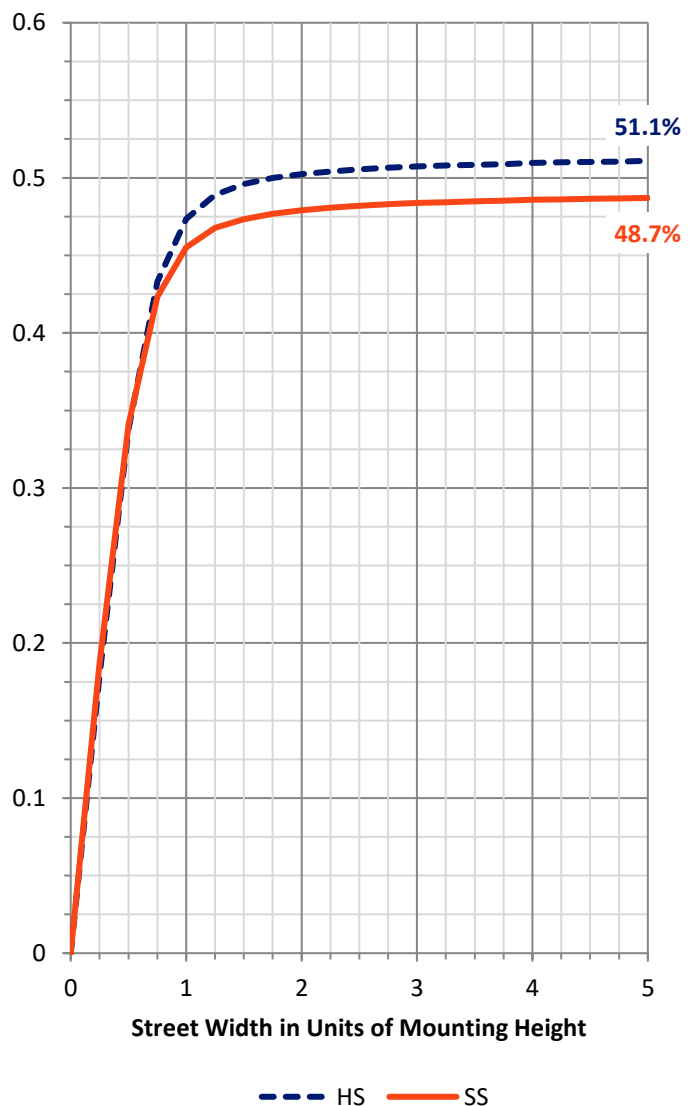
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2752.0	0.0	2752.0
	% Fixture	51.5	0.0	51.5
Street Side	Lumens	2591.8	0.0	2591.8
	% Fixture	48.5	0.0	48.5
Total	Lumens	5343.8	0.0	5343.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.6	1.6
10°-20°	277.2	5.2
20°-30°	473.1	8.9
30°-40°	660.6	12.4
40°-50°	840.2	15.7
50°-60°	1062.4	19.9
60°-70°	1310.2	24.5
70°-80°	572.4	10.7
80°-90°	62.1	1.2
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°	5343.8	100.0
0°-180°	5343.8	100.0



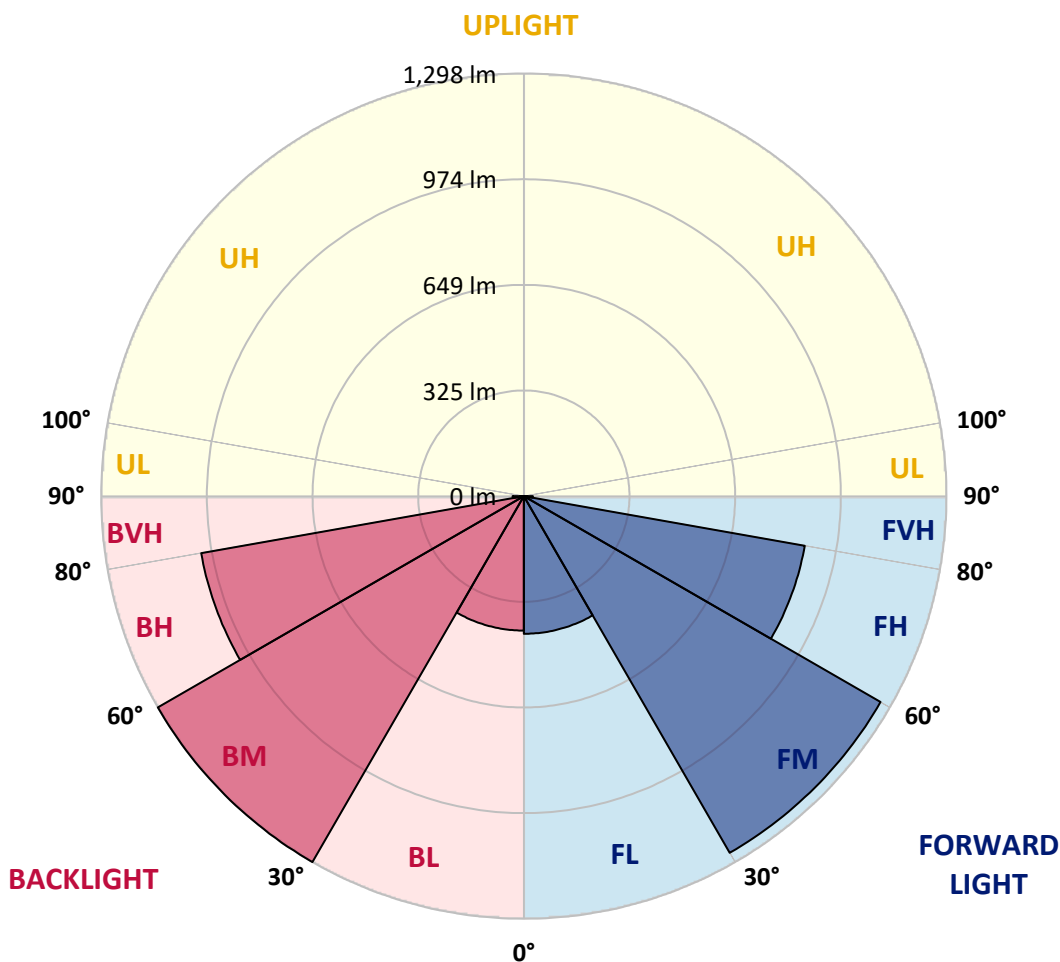
REPORT NUMBER: P676181
 CATALOG NUMBER: CCW-SA-2B-830-U-T1

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	422.9	7.9			
FM (30°-60°)	1265.1	23.7			
FH (60°-80°)	876.3	16.4			G1/1800
FVH (80°-90°)	27.5	0.5			G1/100
BL (0°-30°)	413.0	7.7	B1/500		
BM (30°-60°)	1298.1	24.3	B2/2500		
BH (60°-80°)	1006.3	18.8	B3/2500		G3/2500
BVH (80°-90°)	34.5	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type I Short





REPORT NUMBER: P676181
 CATALOG NUMBER: CCW-SA-2B-830-U-T1

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	854.5	854.5	854.5	854.5	854.5	854.5	854.5	854.5	854.5	854.5	854.5
2.5°	872.6	871.6	874.6	876.6	867.6	870.6	868.6	866.5	859.5	856.5	850.5
5°	896.6	899.6	909.7	900.6	904.7	899.6	883.6	888.6	879.6	877.6	871.6
7.5°	938.8	932.7	946.8	936.8	939.8	929.7	922.7	913.7	911.7	897.6	898.6
10°	947.8	959.8	965.8	963.8	965.8	970.9	957.8	943.8	924.7	920.7	906.7
12.5°	941.8	952.8	968.8	981.9	990.9	992.9	987.9	984.9	976.9	953.8	952.8
15°	935.8	927.7	937.8	982.9	1013.0	1033.0	1040.1	1023.0	1025.0	994.9	982.9
17.5°	895.6	883.6	922.7	966.8	1004.0	1048.1	1082.2	1077.2	1077.2	1053.1	1036.0
20°	842.5	862.5	882.6	938.8	1007.0	1073.2	1138.3	1135.3	1123.3	1116.3	1079.2
22.5°	797.3	806.4	843.5	902.7	987.9	1080.2	1157.4	1212.6	1184.5	1156.4	1134.3
25°	766.3	758.2	805.4	866.5	969.9	1068.1	1193.5	1250.7	1265.7	1244.7	1202.5
27.5°	722.1	722.1	759.2	817.4	911.7	1062.1	1228.6	1315.9	1337.9	1306.8	1245.7
30°	672.0	678.0	710.1	776.3	868.6	1018.0	1242.7	1391.1	1409.1	1382.1	1318.9
32.5°	632.9	632.9	669.0	739.2	838.5	997.9	1233.6	1465.3	1499.4	1479.4	1414.2
35°	590.7	587.7	613.8	691.0	790.3	958.8	1230.6	1524.5	1600.7	1601.7	1533.5
37.5°	530.6	542.6	575.7	636.9	752.2	920.7	1221.6	1595.7	1732.1	1755.2	1708.0
40°	490.4	495.5	525.5	592.7	693.0	875.6	1208.6	1653.9	1819.4	1898.6	1833.4
42.5°	432.3	439.3	462.4	545.6	635.9	811.4	1151.4	1695.0	1943.7	2034.0	1978.8
45°	371.1	375.1	409.2	477.4	574.7	735.2	1090.2	1761.2	2064.1	2248.6	2216.5
47.5°	297.9	299.9	329.0	400.2	501.5	658.9	995.9	1758.2	2161.4	2463.2	2553.5
50°	232.7	237.7	259.8	317.9	413.2	565.7	886.6	1734.1	2283.7	2708.0	2885.5
52.5°	185.5	186.5	200.6	246.7	318.9	472.4	769.3	1657.9	2399.1	2947.7	3292.7
55°	153.5	153.5	161.5	189.6	244.7	359.1	631.9	1531.5	2413.1	3212.4	3737.0
56°	147.4	145.4	152.4	176.5	220.6	324.0	567.7	1446.3	2433.2	3334.8	3959.6
57°	139.4	140.4	144.4	161.5	198.6	286.8	496.5	1363.0	2419.1	3435.1	4124.1
58°	135.4	133.4	141.4	152.4	175.5	254.7	447.3	1264.7	2397.1	3517.3	4363.8
59°	129.4	128.4	133.4	143.4	163.5	226.7	387.1	1158.4	2353.9	3623.7	4542.4
60°	127.4	126.4	128.4	136.4	150.4	198.6	341.0	1034.0	2238.6	3733.0	4764.0
61°	121.4	122.4	126.4	131.4	142.4	178.5	306.9	906.7	2163.4	3825.3	5008.7
62°	122.4	120.4	122.4	126.4	134.4	164.5	268.8	781.3	2029.0	3929.6	5192.3
63°	116.3	115.3	118.3	123.4	127.4	148.4	234.7	675.0	1876.5	3953.6	5347.7
64°	114.3	113.3	114.3	121.4	122.4	139.4	207.6	576.7	1655.9	3994.8	5547.3
65°	109.3	109.3	111.3	114.3	118.3	131.4	185.5	500.5	1436.2	3886.4	5608.5
66°	105.3	106.3	106.3	111.3	114.3	122.4	170.5	425.3	1225.6	3713.9	5667.7
67°	102.3	102.3	103.3	107.3	110.3	115.3	153.5	368.1	1034.0	3508.3	5576.4
67.5°	100.3	101.3	101.3	105.3	108.3	115.3	146.4	349.0	924.7	3282.7	5508.2
68°	97.3	98.3	98.3	102.3	105.3	111.3	141.4	318.9	852.5	3136.2	5381.8
69°	95.3	94.3	94.3	98.3	102.3	106.3	131.4	278.8	678.0	2727.0	5197.3
70°	89.3	89.3	91.3	94.3	97.3	101.3	121.4	245.7	573.7	2257.6	4721.9
71°	86.3	85.3	86.3	89.3	92.3	97.3	111.3	217.6	469.4	1874.5	4254.5
72°	80.2	82.2	82.2	85.3	88.3	91.3	104.3	189.6	394.2	1498.4	3740.0
72.5°	79.2	79.2	80.2	83.2	85.3	90.3	100.3	181.5	360.1	1320.9	3524.4
73°	76.2	76.2	77.2	80.2	82.2	87.3	97.3	163.5	328.0	1175.5	3121.2
74°	73.2	72.2	72.2	76.2	77.2	82.2	91.3	144.4	274.8	885.6	2505.4
75°	68.2	68.2	69.2	71.2	72.2	76.2	84.2	128.4	231.7	687.0	1959.8



REPORT NUMBER: P676181
 CATALOG NUMBER: CCW-SA-2B-830-U-T1

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
77.5°	56.2	57.2	58.2	60.2	60.2	63.2	69.2	89.3	141.4	348.0	899.6
80°	41.1	43.1	46.1	49.1	48.1	48.1	54.2	64.2	84.2	156.5	345.0
82.5°	33.1	35.1	32.1	36.1	36.1	34.1	39.1	47.1	57.2	77.2	123.4
85°	22.1	23.1	19.1	22.1	21.1	21.1	26.1	28.1	35.1	43.1	61.2
87.5°	10.0	10.0	8.0	9.0	9.0	9.0	13.0	10.0	15.0	21.1	36.1
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: P676181

CATALOG NUMBER: CCW-SA-2B-830-U-T1

CANDELA DISTRIBUTION (continued):

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
0°	854.5	854.5	854.5	854.5	854.5	854.5	854.5	854.5	854.5	854.5	854.5
2.5°	856.5	860.5	860.5	856.5	853.5	856.5	854.5	849.5	854.5	856.5	857.5
5°	868.6	860.5	864.5	855.5	861.5	860.5	858.5	863.5	864.5	864.5	871.6
7.5°	881.6	891.6	878.6	879.6	882.6	870.6	874.6	876.6	872.6	880.6	886.6
10°	904.7	908.7	904.7	889.6	899.6	891.6	888.6	897.6	895.6	897.6	906.7
12.5°	925.7	932.7	921.7	920.7	915.7	908.7	912.7	911.7	925.7	927.7	938.8
15°	968.8	950.8	946.8	945.8	943.8	940.8	942.8	943.8	961.8	964.8	990.9
17.5°	1006.0	1003.0	980.9	988.9	988.9	976.9	971.9	988.9	1003.0	1018.0	1036.0
20°	1044.1	1041.1	1017.0	1018.0	1009.0	1020.0	1014.0	1030.0	1054.1	1059.1	1075.2
22.5°	1089.2	1076.2	1059.1	1061.1	1064.1	1056.1	1052.1	1074.2	1098.2	1112.3	1113.3
25°	1160.4	1127.3	1113.3	1115.3	1111.3	1105.3	1108.3	1136.3	1148.4	1178.5	1172.4
27.5°	1198.5	1179.5	1169.4	1146.4	1147.4	1138.3	1150.4	1192.5	1216.6	1239.6	1193.5
30°	1244.7	1232.6	1188.5	1180.5	1179.5	1175.5	1197.5	1251.7	1287.8	1300.8	1234.6
32.5°	1334.9	1286.8	1275.8	1268.7	1252.7	1257.7	1268.7	1339.9	1397.1	1394.1	1272.7
35°	1438.2	1405.1	1374.0	1368.0	1366.0	1352.0	1371.0	1454.3	1498.4	1485.4	1286.8
37.5°	1603.7	1553.6	1511.4	1488.4	1484.4	1474.3	1519.5	1585.7	1642.8	1591.7	1297.8
40°	1685.0	1628.8	1589.7	1575.6	1578.6	1592.7	1636.8	1738.1	1763.2	1668.9	1306.8
42.5°	1801.3	1740.1	1662.9	1655.9	1646.8	1653.9	1739.1	1875.5	1896.6	1773.2	1272.7
45°	2007.9	1915.6	1826.4	1786.3	1788.3	1807.3	1939.7	2089.1	2050.0	1845.4	1218.6
47.5°	2268.7	2133.3	2061.1	2006.9	2033.0	2011.9	2222.5	2341.9	2208.5	1936.7	1152.4
50°	2660.8	2471.3	2373.0	2307.8	2318.8	2336.9	2550.5	2651.8	2384.0	1980.8	1051.1
52.5°	3155.3	2911.6	2767.1	2679.9	2687.9	2727.0	3002.8	2971.7	2584.6	2017.9	915.7
55°	3747.0	3496.3	3216.5	3180.4	3171.3	3264.6	3568.5	3306.7	2765.1	1958.8	775.3
56°	4059.9	3793.2	3502.3	3428.1	3406.0	3471.2	3828.3	3474.2	2827.3	1892.6	708.1
57°	4325.7	4071.0	3752.0	3625.7	3653.7	3776.1	4086.0	3631.7	2884.5	1824.4	644.9
58°	4690.8	4399.9	4063.0	3966.7	3941.6	4038.9	4363.8	3790.1	2903.5	1754.2	586.7
59°	5054.9	4705.8	4401.9	4226.4	4233.5	4411.0	4637.6	3978.7	2932.6	1664.9	512.5
60°	5331.7	5156.2	4750.0	4618.6	4600.5	4857.3	4910.4	4105.1	2963.7	1544.5	460.4
61°	5723.8	5495.2	5117.1	4947.6	4996.7	5202.3	5205.3	4263.5	2917.6	1392.1	396.2
62°	6005.7	5945.5	5548.3	5386.8	5371.8	5644.6	5512.2	4403.0	2877.5	1247.7	350.0
63°	6335.6	6335.6	5973.6	5847.2	5854.2	6069.9	5645.6	4542.4	2831.3	1088.2	307.9
64°	6507.1	6722.8	6388.8	6211.3	6257.4	6444.0	5883.3	4633.6	2688.9	926.7	270.8
65°	6655.6	6979.5	6794.0	6711.7	6641.5	6751.9	6088.9	4718.9	2471.3	788.3	240.7
66°	6780.9	7221.2	7160.1	7071.8	7064.8	7039.7	6129.0	4715.9	2246.6	666.0	210.6
67°	6717.8	7226.3	7337.6	7374.7	7363.7	7098.9	6058.8	4608.6	1958.8	562.7	187.6
67.5°	6660.6	7185.1	7443.9	7422.8	7469.0	7149.0	6070.9	4477.2	1754.2	509.5	176.5
68°	6610.4	7130.0	7487.0	7514.1	7491.0	7155.0	6004.7	4372.9	1614.7	478.4	166.5
69°	6230.3	6868.2	7417.8	7515.1	7455.9	6925.4	5794.0	4101.1	1282.8	408.2	153.5
70°	5849.2	6529.2	7081.8	7260.4	7187.1	6481.1	5528.3	3668.8	1058.1	349.0	138.4
71°	5321.7	5899.4	6634.5	6741.8	6653.6	5975.6	4978.6	3212.4	823.4	295.9	123.4
72°	4605.5	5096.0	5798.1	6057.8	5927.4	5248.4	4423.0	2654.8	667.0	248.7	112.3
72.5°	4250.5	4753.0	5430.0	5451.0	5476.1	4932.5	4187.3	2331.9	581.7	230.7	109.3
73°	3913.5	4406.0	4991.7	5065.9	4959.6	4399.9	3835.3	2085.1	531.6	210.6	105.3
74°	3171.3	3452.2	3937.6	4009.8	3916.5	3587.6	3134.2	1598.7	423.2	181.5	96.3
75°	2495.3	2649.8	3089.1	3045.0	2905.5	2790.2	2430.1	1221.6	343.0	159.5	89.3



REPORT NUMBER: P676181
 CATALOG NUMBER: CCW-SA-2B-830-U-T1

CANDELA DISTRIBUTION (continued):

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
77.5°	1121.3	1214.6	1287.8	1287.8	1295.8	1236.6	1120.3	560.6	211.6	115.3	73.2
80°	427.3	478.4	494.5	495.5	502.5	520.5	484.4	275.8	125.4	82.2	59.2
82.5°	309.9	433.3	466.4	442.3	444.3	401.2	185.5	122.4	79.2	57.2	43.1
85°	280.8	377.1	399.2	396.2	397.2	371.1	109.3	60.2	46.1	36.1	30.1
87.5°	136.4	133.4	141.4	159.5	155.5	201.6	92.3	30.1	20.1	15.0	15.0
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: P676181

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CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
0°	854.5	854.5	854.5	854.5	854.5	854.5
2.5°	849.5	848.5	862.5	848.5	856.5	850.5
5°	859.5	863.5	866.5	872.6	858.5	872.6
7.5°	889.6	893.6	894.6	899.6	893.6	892.6
10°	912.7	922.7	928.7	908.7	920.7	919.7
12.5°	957.8	947.8	946.8	942.8	931.7	927.7
15°	989.9	974.9	965.8	949.8	936.8	931.7
17.5°	1035.0	1006.0	968.8	935.8	912.7	894.6
20°	1063.1	1011.0	936.8	897.6	862.5	870.6
22.5°	1081.2	1006.0	907.7	857.5	822.4	832.4
25°	1087.2	980.9	887.6	825.4	791.3	784.3
27.5°	1070.1	951.8	848.5	778.3	748.2	754.2
30°	1062.1	909.7	812.4	743.2	703.1	709.1
32.5°	1041.1	866.5	764.2	694.0	665.0	654.9
35°	1011.0	830.4	718.1	651.9	616.8	608.8
37.5°	973.9	785.3	678.0	597.8	566.7	560.6
40°	918.7	731.2	619.8	550.6	514.5	513.5
42.5°	870.6	679.0	565.7	494.5	458.3	460.4
45°	809.4	608.8	503.5	442.3	406.2	408.2
47.5°	731.2	543.6	444.3	376.1	346.0	344.0
50°	638.9	469.4	372.1	313.9	288.8	283.8
52.5°	550.6	394.2	304.9	252.7	231.7	229.7
55°	439.3	306.9	237.7	198.6	182.5	183.5
56°	399.2	282.8	216.6	181.5	169.5	169.5
57°	361.1	250.7	196.6	167.5	156.5	156.5
58°	318.9	220.6	178.5	151.4	146.4	142.4
59°	289.9	200.6	161.5	143.4	135.4	134.4
60°	255.8	180.5	150.4	134.4	128.4	127.4
61°	226.7	162.5	138.4	125.4	123.4	123.4
62°	202.6	150.4	128.4	121.4	120.4	117.3
63°	181.5	138.4	123.4	115.3	112.3	115.3
64°	162.5	127.4	119.4	113.3	109.3	111.3
65°	147.4	122.4	114.3	110.3	106.3	107.3
66°	137.4	114.3	110.3	105.3	103.3	104.3
67°	124.4	110.3	106.3	101.3	100.3	101.3
67.5°	120.4	107.3	104.3	99.3	98.3	99.3
68°	117.3	105.3	103.3	98.3	97.3	96.3
69°	109.3	101.3	98.3	96.3	94.3	93.3
70°	102.3	97.3	95.3	92.3	90.3	89.3
71°	98.3	92.3	91.3	88.3	86.3	85.3
72°	93.3	89.3	87.3	83.2	82.2	83.2
72.5°	92.3	87.3	86.3	82.2	81.2	81.2
73°	89.3	83.2	84.2	80.2	78.2	80.2
74°	83.2	81.2	79.2	76.2	75.2	75.2
75°	78.2	76.2	74.2	72.2	72.2	72.2



REPORT NUMBER: P676181
CATALOG NUMBER: CCW-SA-2B-830-U-T1

CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
77.5°	66.2	65.2	66.2	62.2	61.2	60.2
80°	53.2	53.2	54.2	51.2	49.1	48.1
82.5°	40.1	41.1	43.1	40.1	38.1	36.1
85°	26.1	27.1	27.1	24.1	28.1	26.1
87.5°	13.0	14.0	13.0	12.0	14.0	14.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)