

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: P676176

Luminaire Tested: **CCW-SA-1C-830-U-T1**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P676176  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-1C-830-U-T1  
Description: INVUE CLEAR CURVE Wall Pack MOUNT LIGHT SQUARE LUMINAIRE @615mA w/  
T1 distribution lens  
Light Source: (16) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

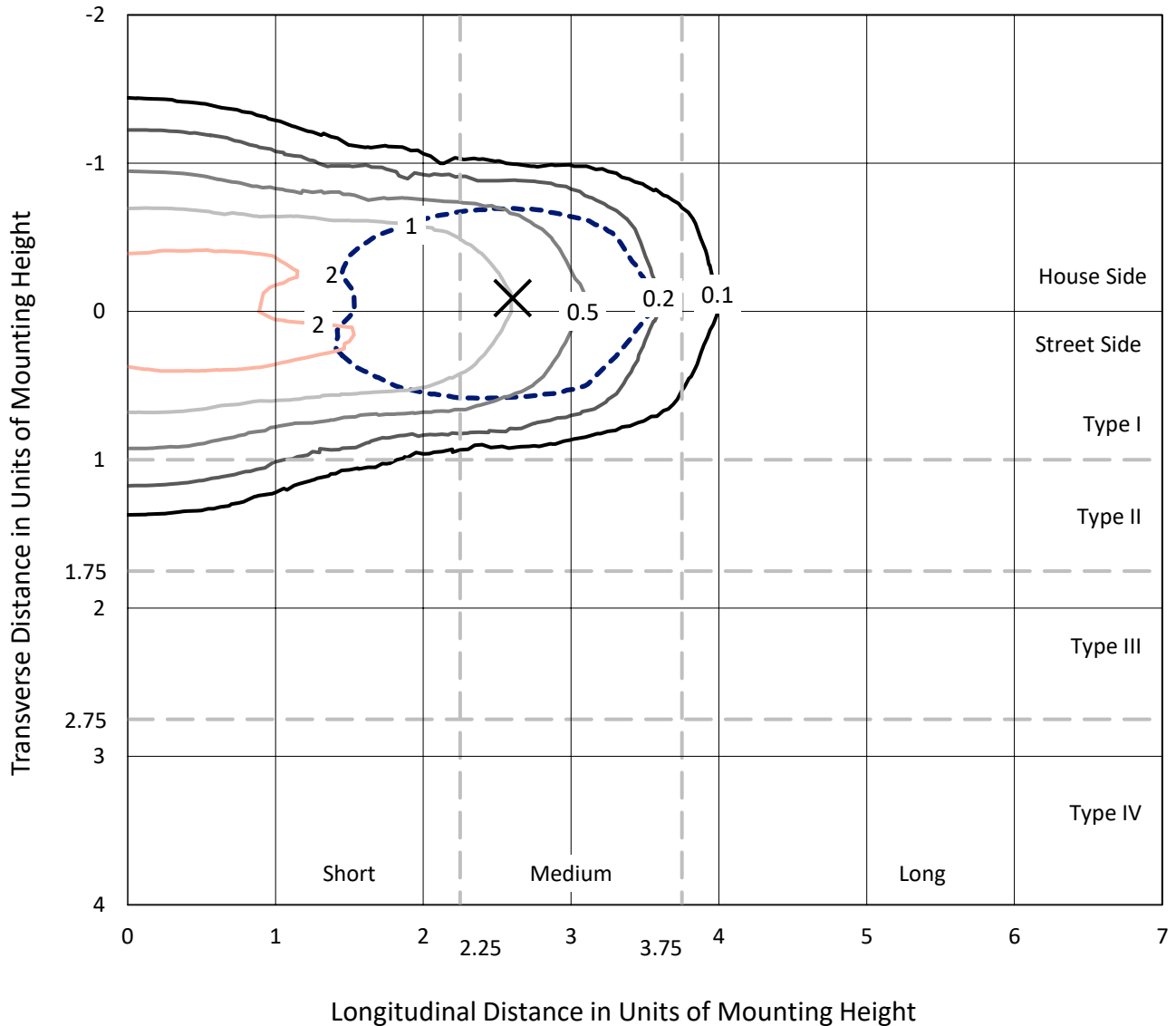
Lumens per Lamp: N/A  
Luminaire Lumens: 3498.4 lumens  
Efficiency: N/A  
Efficacy: 109.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B2 - U0 - G2

Input Watts (W): 32  
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: P676176  
 CATALOG NUMBER: CCW-SA-1C-830-U-T1

### Iso-Footcandle Lines of Horizontal Illumination

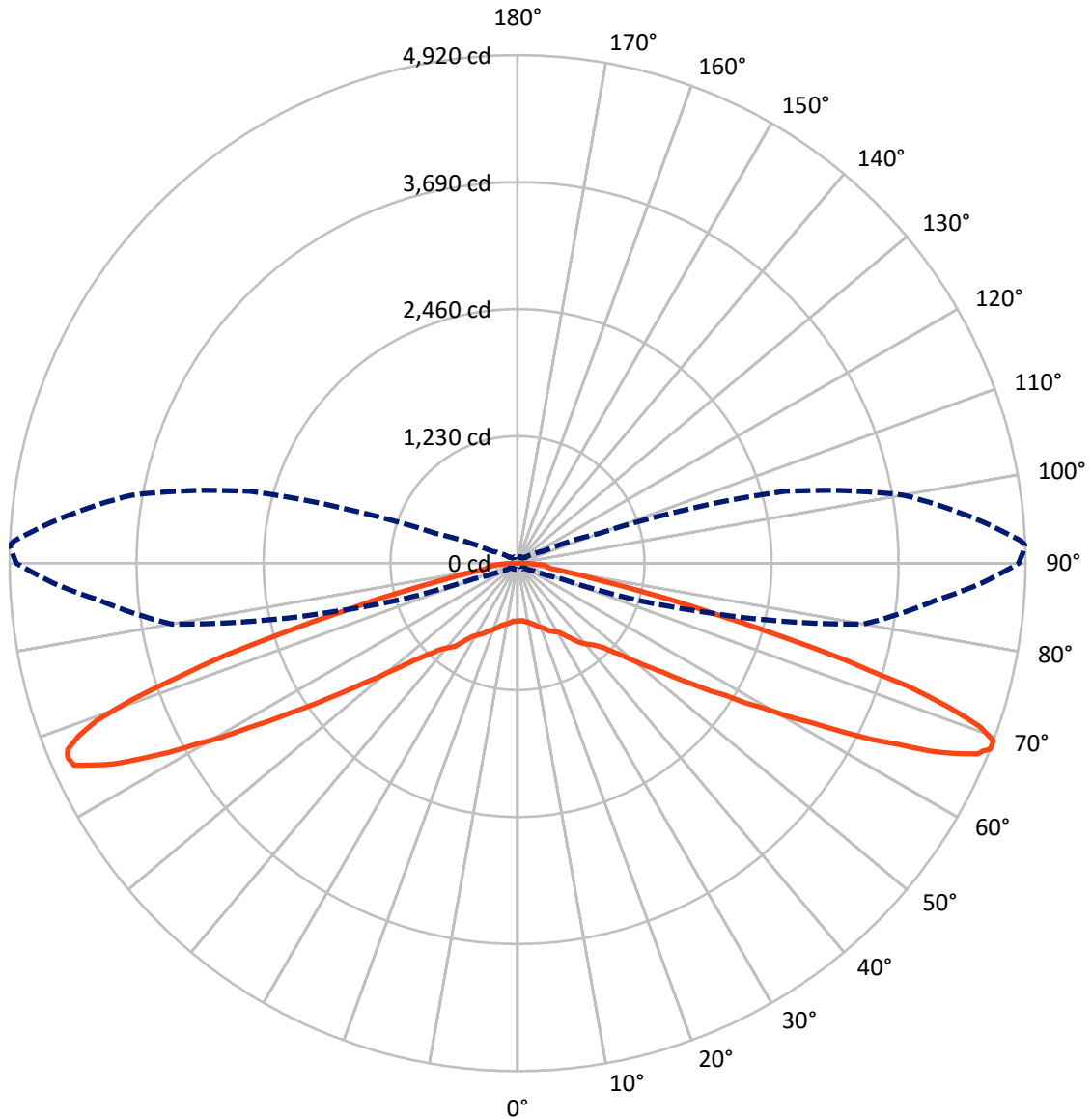
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2.7 fc  
 Type I - Short - N/A

REPORT NUMBER: P676176  
CATALOG NUMBER: CCW-SA-1C-830-U-T1

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P676176  
 CATALOG NUMBER: CCW-SA-1C-830-U-T1

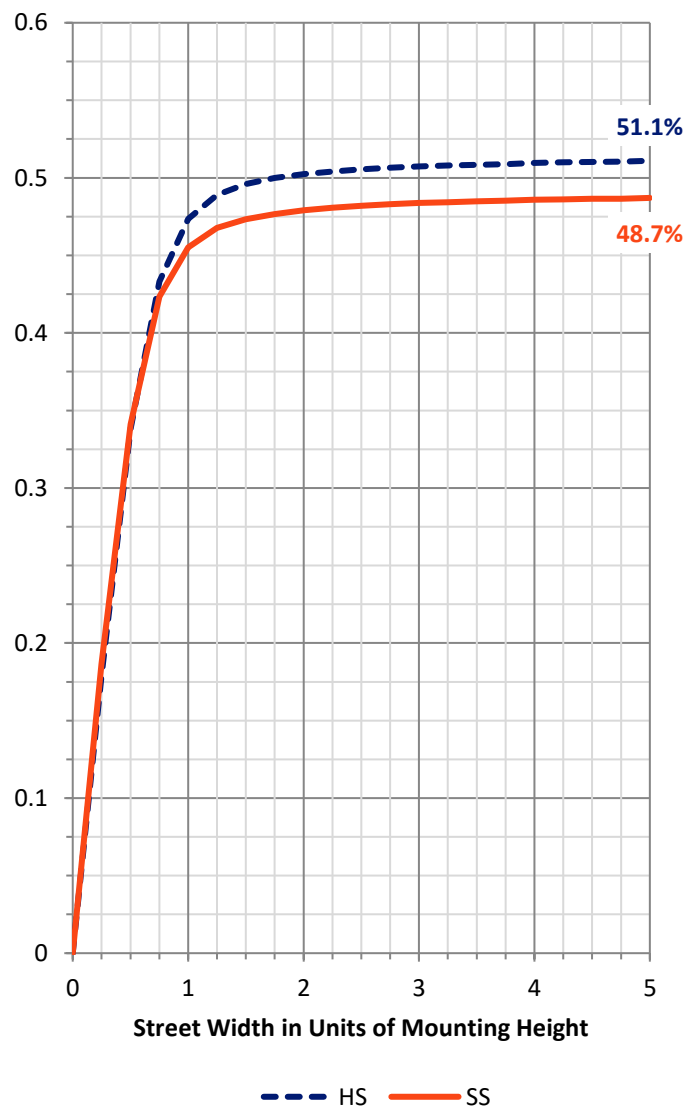
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1801.6	0.0	1801.6
	% Fixture	51.5	0.0	51.5
<b>Street Side</b>	Lumens	1696.8	0.0	1696.8
	% Fixture	48.5	0.0	48.5
<b>Total</b>	Lumens	3498.4	0.0	3498.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.0	1.6
10°-20°	181.5	5.2
20°-30°	309.7	8.9
30°-40°	432.4	12.4
40°-50°	550.1	15.7
50°-60°	695.5	19.9
60°-70°	857.8	24.5
70°-80°	374.7	10.7
80°-90°	40.6	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°	3498.4	100.0
0°-180°	3498.4	100.0



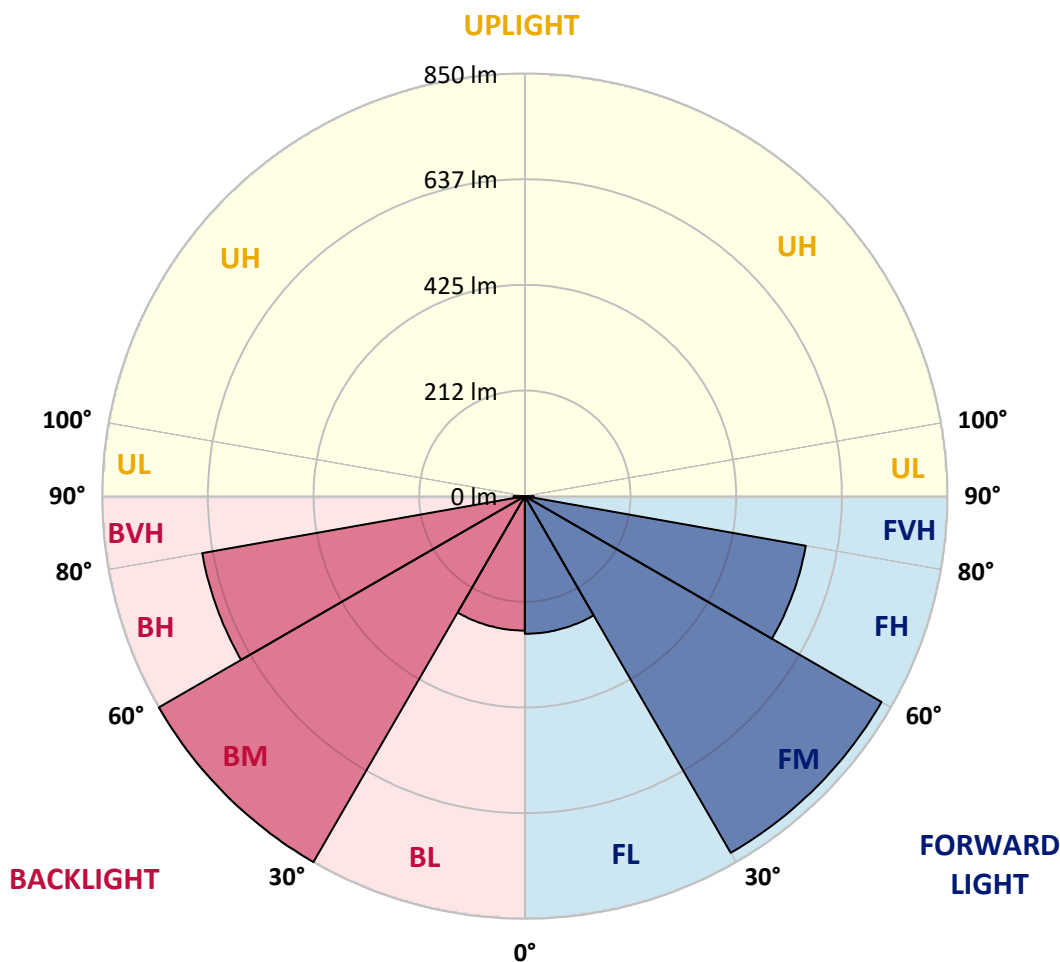
REPORT NUMBER: P676176  
 CATALOG NUMBER: CCW-SA-1C-830-U-T1

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	276.9	7.9			
FM (30°-60°)	828.2	23.7			
FH (60°-80°)	573.7	16.4			G0/660
FVH (80°-90°)	18.0	0.5			G1/100
BL (0°-30°)	270.4	7.7	B1/500		
BM (30°-60°)	849.8	24.3	B1/1000		
BH (60°-80°)	658.8	18.8	B2/1000		G2/1000
BVH (80°-90°)	22.6	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type I Short





REPORT NUMBER: P676176

CATALOG NUMBER: CCW-SA-1C-830-U-T1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	559.4	559.4	559.4	559.4	559.4	559.4	559.4	559.4	559.4	559.4	559.4
2.5°	571.2	570.6	572.6	573.9	568.0	569.9	568.6	567.3	562.7	560.7	556.8
5°	587.0	589.0	595.5	589.6	592.3	589.0	578.5	581.7	575.8	574.5	570.6
7.5°	614.6	610.6	619.8	613.3	615.2	608.7	604.1	598.2	596.8	587.7	588.3
10°	620.5	628.4	632.3	631.0	632.3	635.6	627.1	617.9	605.4	602.8	593.6
12.5°	616.5	623.8	634.3	642.8	648.7	650.0	646.7	644.8	639.5	624.4	623.8
15°	612.6	607.4	613.9	643.5	663.2	676.3	680.9	669.7	671.0	651.3	643.5
17.5°	586.3	578.5	604.1	633.0	657.3	686.1	708.5	705.2	705.2	689.4	678.3
20°	551.5	564.7	577.8	614.6	659.2	702.6	745.2	743.3	735.4	730.8	706.5
22.5°	522.0	527.9	552.2	590.9	646.7	707.2	757.7	793.8	775.4	757.1	742.6
25°	501.6	496.4	527.2	567.3	634.9	699.3	781.4	818.8	828.6	814.8	787.3
27.5°	472.8	472.8	497.0	535.1	596.8	695.3	804.3	861.5	875.9	855.5	815.5
30°	439.9	443.9	464.9	508.2	568.6	666.4	813.5	910.7	922.5	904.8	863.4
32.5°	414.3	414.3	438.0	483.9	548.9	653.3	807.6	959.3	981.6	968.5	925.8
35°	386.7	384.8	401.8	452.4	517.4	627.7	805.6	998.0	1047.9	1048.6	1003.9
37.5°	347.3	355.2	376.9	416.9	492.4	602.8	799.7	1044.6	1133.9	1149.0	1118.2
40°	321.1	324.4	344.1	388.0	453.7	573.2	791.2	1082.7	1191.1	1242.9	1200.3
42.5°	283.0	287.6	302.7	357.2	416.3	531.2	753.8	1109.7	1272.5	1331.6	1295.5
45°	242.9	245.6	267.9	312.5	376.2	481.3	713.7	1153.0	1351.3	1472.1	1451.1
47.5°	195.0	196.3	215.4	262.0	328.3	431.4	652.0	1151.0	1415.0	1612.6	1671.7
50°	152.3	155.6	170.1	208.1	270.5	370.3	580.4	1135.3	1495.1	1772.8	1889.0
52.5°	121.5	122.1	131.3	161.5	208.8	309.3	503.6	1085.4	1570.6	1929.7	2155.6
55°	100.5	100.5	105.7	124.1	160.2	235.1	413.7	1002.6	1579.8	2103.1	2446.5
56°	96.5	95.2	99.8	115.6	144.5	212.1	371.6	946.8	1592.9	2183.2	2592.2
57°	91.3	91.9	94.6	105.7	130.0	187.8	325.0	892.3	1583.7	2248.8	2699.9
58°	88.6	87.3	92.6	99.8	114.9	166.8	292.8	828.0	1569.3	2302.7	2856.9
59°	84.7	84.0	87.3	93.9	107.0	148.4	253.4	758.4	1541.0	2372.3	2973.7
60°	83.4	82.7	84.0	89.3	98.5	130.0	223.2	677.0	1465.5	2443.9	3118.8
61°	79.4	80.1	82.7	86.0	93.2	116.9	200.9	593.6	1416.3	2504.3	3279.1
62°	80.1	78.8	80.1	82.7	88.0	107.7	176.0	511.5	1328.3	2572.6	3399.2
63°	76.2	75.5	77.5	80.8	83.4	97.2	153.6	441.9	1228.5	2588.3	3501.0
64°	74.9	74.2	74.9	79.4	80.1	91.3	135.9	377.5	1084.0	2615.2	3631.6
65°	71.6	71.6	72.9	74.9	77.5	86.0	121.5	327.6	940.2	2544.3	3671.7
66°	68.9	69.6	69.6	72.9	74.9	80.1	111.6	278.4	802.4	2431.4	3710.4
67°	67.0	67.0	67.6	70.3	72.2	75.5	100.5	241.0	677.0	2296.8	3650.7
67.5°	65.7	66.3	66.3	68.9	70.9	75.5	95.9	228.5	605.4	2149.0	3606.0
68°	63.7	64.3	64.3	67.0	68.9	72.9	92.6	208.8	558.1	2053.2	3523.3
69°	62.4	61.7	61.7	64.3	67.0	69.6	86.0	182.5	443.9	1785.3	3402.5
70°	58.4	58.4	59.8	61.7	63.7	66.3	79.4	160.9	375.6	1478.0	3091.3
71°	56.5	55.8	56.5	58.4	60.4	63.7	72.9	142.5	307.3	1227.2	2785.3
72°	52.5	53.8	53.8	55.8	57.8	59.8	68.3	124.1	258.0	981.0	2448.5
72.5°	51.9	51.9	52.5	54.5	55.8	59.1	65.7	118.8	235.7	864.7	2307.3
73°	49.9	49.9	50.6	52.5	53.8	57.1	63.7	107.0	214.7	769.5	2043.3
74°	47.9	47.3	47.3	49.9	50.6	53.8	59.8	94.6	179.9	579.8	1640.2
75°	44.6	44.6	45.3	46.6	47.3	49.9	55.2	84.0	151.7	449.8	1283.0



REPORT NUMBER: P676176  
 CATALOG NUMBER: CCW-SA-1C-830-U-T1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
77.5°	36.8	37.4	38.1	39.4	39.4	41.4	45.3	58.4	92.6	227.8	589.0
80°	26.9	28.2	30.2	32.2	31.5	31.5	35.5	42.0	55.2	102.4	225.9
82.5°	21.7	23.0	21.0	23.6	23.6	22.3	25.6	30.9	37.4	50.6	80.8
85°	14.4	15.1	12.5	14.4	13.8	13.8	17.1	18.4	23.0	28.2	40.1
87.5°	6.6	6.6	5.3	5.9	5.9	5.9	8.5	6.6	9.8	13.8	23.6
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: P676176

CATALOG NUMBER: CCW-SA-1C-830-U-T1

**CANDELA DISTRIBUTION (continued):**

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
0°	559.4	559.4	559.4	559.4	559.4	559.4	559.4	559.4	559.4	559.4	559.4
2.5°	560.7	563.4	563.4	560.7	558.8	560.7	559.4	556.1	559.4	560.7	561.4
5°	568.6	563.4	566.0	560.1	564.0	563.4	562.0	565.3	566.0	566.0	570.6
7.5°	577.1	583.7	575.2	575.8	577.8	569.9	572.6	573.9	571.2	576.5	580.4
10°	592.3	594.9	592.3	582.4	589.0	583.7	581.7	587.7	586.3	587.7	593.6
12.5°	606.0	610.6	603.4	602.8	599.5	594.9	597.5	596.8	606.0	607.4	614.6
15°	634.3	622.5	619.8	619.2	617.9	615.9	617.2	617.9	629.7	631.6	648.7
17.5°	658.6	656.6	642.2	647.4	647.4	639.5	636.2	647.4	656.6	666.4	678.3
20°	683.5	681.5	665.8	666.4	660.5	667.8	663.8	674.3	690.1	693.4	703.9
22.5°	713.1	704.5	693.4	694.7	696.7	691.4	688.8	703.2	719.0	728.2	728.8
25°	759.7	738.0	728.8	730.1	727.5	723.6	725.5	743.9	751.8	771.5	767.6
27.5°	784.6	772.2	765.6	750.5	751.1	745.2	753.1	780.7	796.5	811.6	781.4
30°	814.8	807.0	778.1	772.8	772.2	769.5	784.0	819.4	843.1	851.6	808.3
32.5°	873.9	842.4	835.2	830.6	820.1	823.4	830.6	877.2	914.6	912.7	833.2
35°	941.6	919.9	899.5	895.6	894.3	885.1	897.6	952.1	981.0	972.4	842.4
37.5°	1049.9	1017.1	989.5	974.4	971.8	965.2	994.7	1038.1	1075.5	1042.0	849.6
40°	1103.1	1066.3	1040.7	1031.5	1033.5	1042.7	1071.6	1137.9	1154.3	1092.6	855.5
42.5°	1179.3	1139.2	1088.6	1084.0	1078.1	1082.7	1138.5	1227.8	1241.6	1160.9	833.2
45°	1314.5	1254.1	1195.7	1169.4	1170.7	1183.2	1269.9	1367.7	1342.1	1208.1	797.8
47.5°	1485.2	1396.6	1349.3	1313.9	1330.9	1317.1	1455.0	1533.2	1445.8	1267.9	754.4
50°	1742.0	1617.9	1553.5	1510.8	1518.1	1529.9	1669.7	1736.0	1560.7	1296.8	688.1
52.5°	2065.7	1906.1	1811.6	1754.4	1759.7	1785.3	1965.9	1945.5	1692.1	1321.1	599.5
55°	2453.1	2288.9	2105.7	2082.1	2076.2	2137.2	2336.2	2164.8	1810.2	1282.3	507.6
56°	2657.9	2483.3	2292.8	2244.3	2229.8	2272.5	2506.2	2274.5	1851.0	1239.0	463.6
57°	2831.9	2665.1	2456.3	2373.6	2392.0	2472.1	2675.0	2377.5	1888.4	1194.4	422.2
58°	3070.9	2880.5	2659.9	2596.8	2580.4	2644.1	2856.9	2481.3	1900.9	1148.4	384.1
59°	3309.3	3080.8	2881.8	2766.9	2771.5	2887.7	3036.1	2604.7	1919.9	1090.0	335.5
60°	3490.5	3375.6	3109.6	3023.6	3011.8	3179.9	3214.7	2687.5	1940.2	1011.2	301.4
61°	3747.2	3597.5	3350.0	3239.0	3271.2	3405.8	3407.7	2791.2	1910.0	911.4	259.4
62°	3931.7	3892.3	3632.3	3526.6	3516.7	3695.3	3608.7	2882.5	1883.8	816.8	229.2
63°	4147.7	4147.7	3910.7	3828.0	3832.6	3973.7	3696.0	2973.7	1853.6	712.4	201.6
64°	4260.0	4401.2	4182.5	4066.3	4096.5	4218.6	3851.6	3033.5	1760.3	606.7	177.3
65°	4357.2	4569.3	4447.8	4394.0	4348.0	4420.2	3986.2	3089.3	1617.9	516.1	157.6
66°	4439.3	4727.5	4687.5	4629.7	4625.1	4608.7	4012.5	3087.3	1470.8	436.0	137.9
67°	4397.9	4730.8	4803.7	4828.0	4820.7	4647.4	3966.5	3017.1	1282.3	368.4	122.8
67.5°	4360.5	4703.9	4873.3	4859.5	4889.7	4680.2	3974.4	2931.1	1148.4	333.6	115.6
68°	4327.6	4667.8	4901.5	4919.2	4904.1	4684.2	3931.1	2862.8	1057.1	313.2	109.0
69°	4078.8	4496.4	4856.2	4919.9	4881.2	4533.8	3793.2	2684.8	839.8	267.2	100.5
70°	3829.3	4274.5	4636.2	4753.1	4705.2	4242.9	3619.2	2401.8	692.7	228.5	90.6
71°	3483.9	3862.1	4343.4	4413.7	4355.9	3912.0	3259.4	2103.1	539.1	193.7	80.8
72°	3015.1	3336.2	3795.8	3965.9	3880.5	3436.0	2895.6	1738.0	436.6	162.8	73.5
72.5°	2782.7	3111.6	3554.8	3568.6	3585.0	3229.1	2741.3	1526.6	380.8	151.0	71.6
73°	2562.0	2884.4	3267.9	3316.5	3246.9	2880.5	2510.8	1365.1	348.0	137.9	68.9
74°	2076.2	2260.0	2577.8	2625.1	2564.0	2348.7	2051.9	1046.6	277.1	118.8	63.0
75°	1633.6	1734.7	2022.3	1993.4	1902.2	1826.7	1590.9	799.7	224.6	104.4	58.4



REPORT NUMBER: P676176  
 CATALOG NUMBER: CCW-SA-1C-830-U-T1

**CANDELA DISTRIBUTION (continued):**

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
77.5°	734.1	795.1	843.1	843.1	848.3	809.6	733.4	367.0	138.5	75.5	47.9
80°	279.7	313.2	323.7	324.4	329.0	340.8	317.1	180.6	82.1	53.8	38.7
82.5°	202.9	283.7	305.3	289.6	290.9	262.6	121.5	80.1	51.9	37.4	28.2
85°	183.8	246.9	261.3	259.4	260.0	242.9	71.6	39.4	30.2	23.6	19.7
87.5°	89.3	87.3	92.6	104.4	101.8	132.0	60.4	19.7	13.1	9.8	9.8
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: P676176  
 CATALOG NUMBER: CCW-SA-1C-830-U-T1

**CANDELA DISTRIBUTION (continued):**

	135°	145°	155°	165°	175°	180°
0°	559.4	559.4	559.4	559.4	559.4	559.4
2.5°	556.1	555.5	564.7	555.5	560.7	556.8
5°	562.7	565.3	567.3	571.2	562.0	571.2
7.5°	582.4	585.0	585.7	589.0	585.0	584.4
10°	597.5	604.1	608.0	594.9	602.8	602.1
12.5°	627.1	620.5	619.8	617.2	610.0	607.4
15°	648.1	638.2	632.3	621.8	613.3	610.0
17.5°	677.6	658.6	634.3	612.6	597.5	585.7
20°	696.0	661.9	613.3	587.7	564.7	569.9
22.5°	707.8	658.6	594.2	561.4	538.4	545.0
25°	711.8	642.2	581.1	540.4	518.1	513.5
27.5°	700.6	623.1	555.5	509.5	489.8	493.8
30°	695.3	595.5	531.8	486.5	460.3	464.2
32.5°	681.5	567.3	500.3	454.4	435.3	428.8
35°	661.9	543.7	470.1	426.8	403.8	398.6
37.5°	637.6	514.1	443.9	391.3	371.0	367.0
40°	601.4	478.7	405.8	360.5	336.8	336.2
42.5°	569.9	444.5	370.3	323.7	300.1	301.4
45°	529.9	398.6	329.6	289.6	265.9	267.2
47.5°	478.7	355.9	290.9	246.2	226.5	225.2
50°	418.3	307.3	243.6	205.5	189.1	185.8
52.5°	360.5	258.0	199.6	165.5	151.7	150.4
55°	287.6	200.9	155.6	130.0	119.5	120.2
56°	261.3	185.2	141.8	118.8	111.0	111.0
57°	236.4	164.1	128.7	109.7	102.4	102.4
58°	208.8	144.5	116.9	99.1	95.9	93.2
59°	189.8	131.3	105.7	93.9	88.6	88.0
60°	167.4	118.2	98.5	88.0	84.0	83.4
61°	148.4	106.4	90.6	82.1	80.8	80.8
62°	132.6	98.5	84.0	79.4	78.8	76.8
63°	118.8	90.6	80.8	75.5	73.5	75.5
64°	106.4	83.4	78.1	74.2	71.6	72.9
65°	96.5	80.1	74.9	72.2	69.6	70.3
66°	90.0	74.9	72.2	68.9	67.6	68.3
67°	81.4	72.2	69.6	66.3	65.7	66.3
67.5°	78.8	70.3	68.3	65.0	64.3	65.0
68°	76.8	68.9	67.6	64.3	63.7	63.0
69°	71.6	66.3	64.3	63.0	61.7	61.1
70°	67.0	63.7	62.4	60.4	59.1	58.4
71°	64.3	60.4	59.8	57.8	56.5	55.8
72°	61.1	58.4	57.1	54.5	53.8	54.5
72.5°	60.4	57.1	56.5	53.8	53.2	53.2
73°	58.4	54.5	55.2	52.5	51.2	52.5
74°	54.5	53.2	51.9	49.9	49.2	49.2
75°	51.2	49.9	48.6	47.3	47.3	47.3



REPORT NUMBER: P676176  
CATALOG NUMBER: CCW-SA-1C-830-U-T1

**CANDELA DISTRIBUTION (continued):**

	135°	145°	155°	165°	175°	180°
77.5°	43.3	42.7	43.3	40.7	40.1	39.4
80°	34.8	34.8	35.5	33.5	32.2	31.5
82.5°	26.3	26.9	28.2	26.3	25.0	23.6
85°	17.1	17.7	17.7	15.8	18.4	17.1
87.5°	8.5	9.2	8.5	7.9	9.2	9.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)