

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: P677493

Luminaire Tested: **CCW-SA-1B-840-U-SLR-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P677493  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-1B-840-U-SLR-HSS  
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @450mA w/  
SLR distribution lens and House Side Shield  
Light Source: (16) 4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

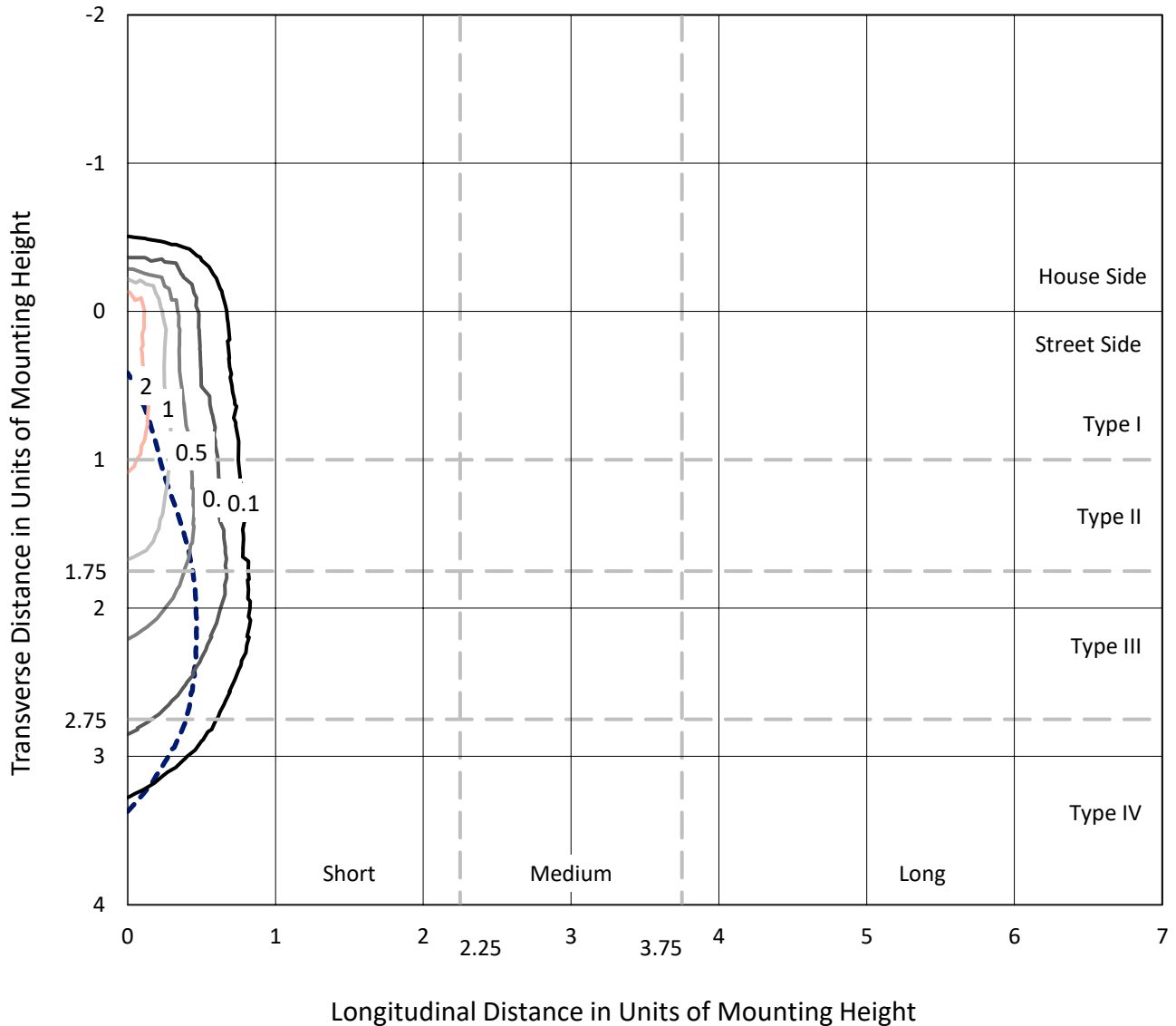
Lumens per Lamp: N/A  
Luminaire Lumens: 2116 lumens  
Efficiency: N/A  
Efficacy: 88.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B0 - U0 - G1

Input Watts (W): 24  
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: P677493  
 CATALOG NUMBER: CCW-SA-1B-840-U-SLR-HSS

### Iso-Footcandle Lines of Horizontal Illumination

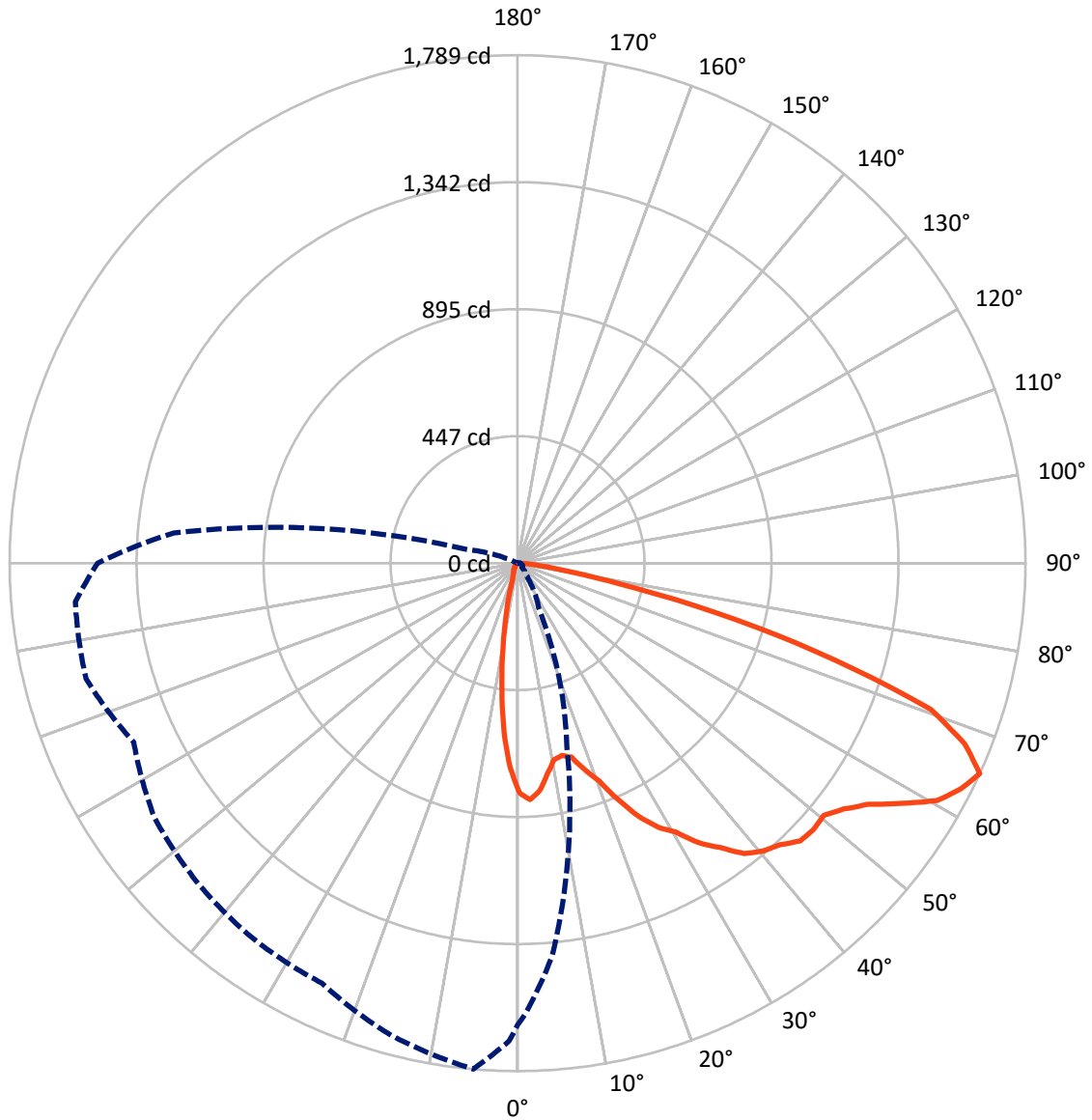
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.6 fc  
 Type IV - Short - N/A

REPORT NUMBER: P677493  
CATALOG NUMBER: CCW-SA-1B-840-U-SLR-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P677493  
 CATALOG NUMBER: CCW-SA-1B-840-U-SLR-HSS

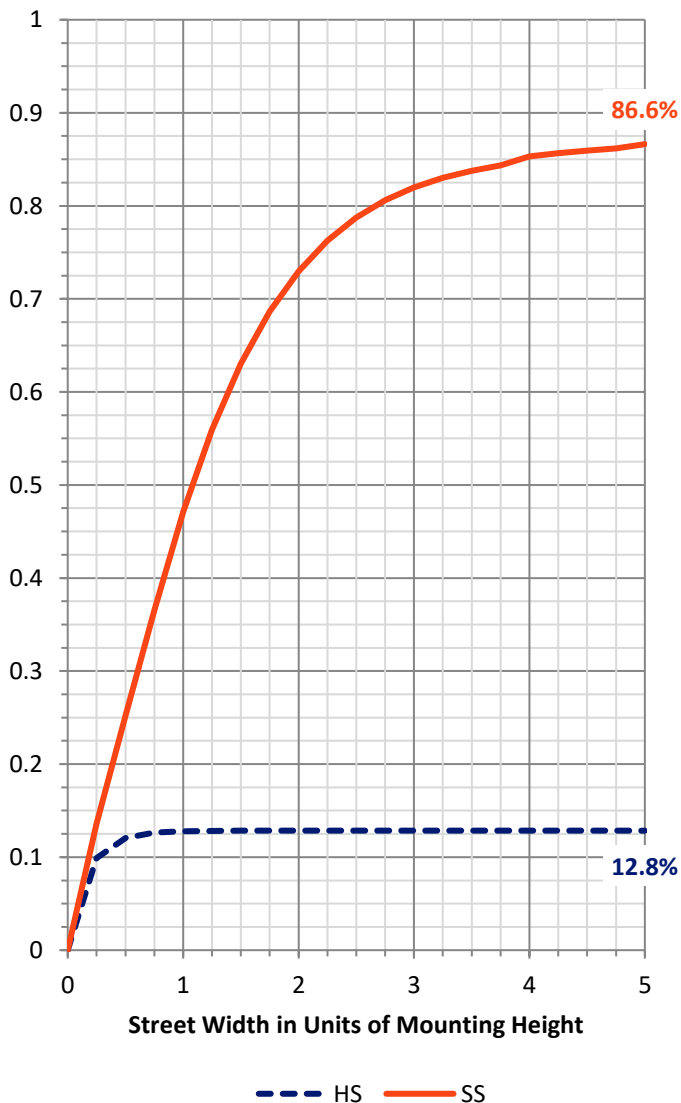
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	274.7	0.0	274.7
	% Fixture	13.0	0.0	13.0
<b>Street Side</b>	Lumens	1841.3	0.0	1841.3
	% Fixture	87.0	0.0	87.0
<b>Total</b>	Lumens	2116.0	0.0	2116.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.3	2.9
10°-20°	118.7	5.6
20°-30°	165.3	7.8
30°-40°	234.8	11.1
40°-50°	325.6	15.4
50°-60°	443.7	21.0
60°-70°	487.8	23.1
70°-80°	239.8	11.3
80°-90°	39.2	1.9
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°	2116.0	100.0
0°-180°	2116.0	100.0



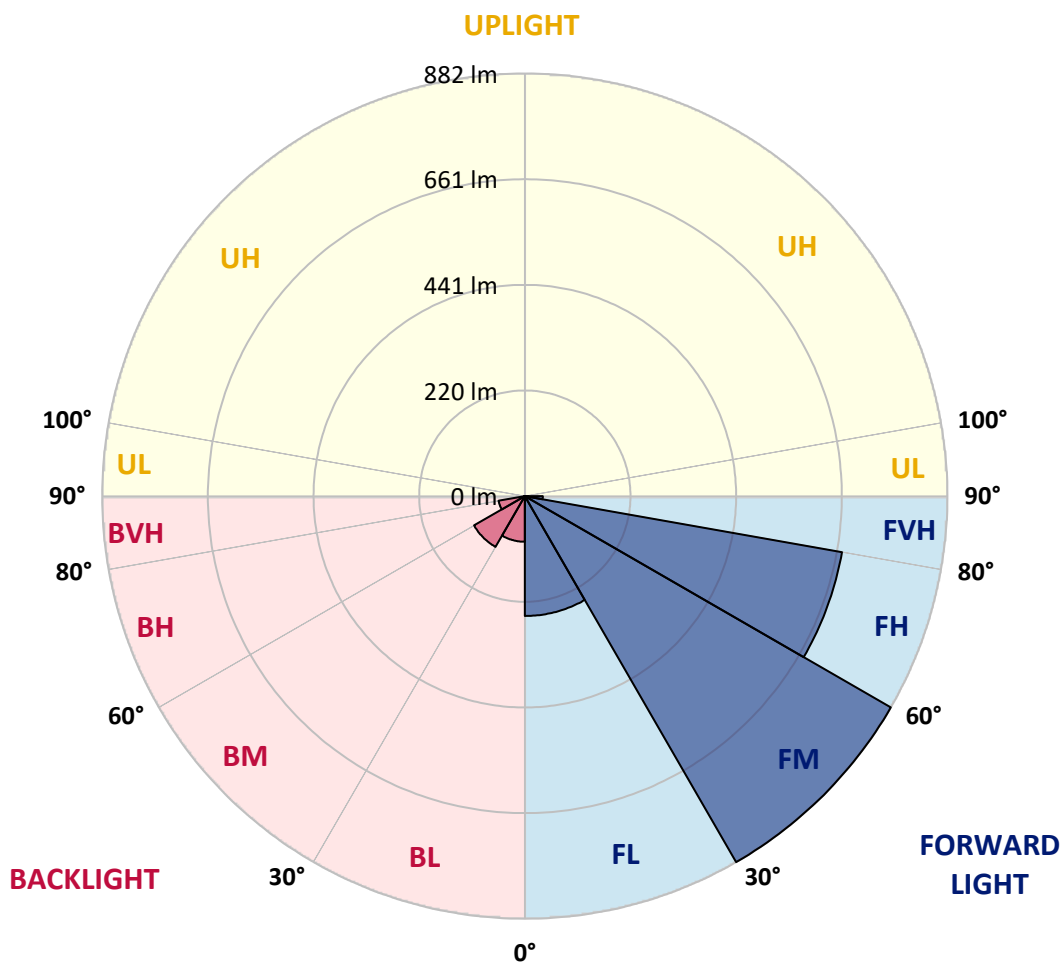
REPORT NUMBER: P677493  
 CATALOG NUMBER: CCW-SA-1B-840-U-SLR-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	250.1	11.8			
FM (30°-60°)	881.8	41.7			
FH (60°-80°)	672.0	31.8			G1/1800
FVH (80°-90°)	37.4	1.8			G1/100
BL (0°-30°)	95.1	4.5	B0/110		
BM (30°-60°)	122.3	5.8	B0/220		
BH (60°-80°)	55.5	2.6	B0/110		G0/110
BVH (80°-90°)	1.8	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

Type IV Short





REPORT NUMBER: P677493

CATALOG NUMBER: CCW-SA-1B-840-U-SLR-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	809.0	809.0	809.0	809.0	809.0	809.0	809.0	809.0	809.0	809.0	809.0
2.5°	825.5	835.2	826.1	794.1	788.4	773.0	749.6	747.9	723.4	726.2	713.1
5°	775.9	785.6	766.2	724.0	684.6	653.2	634.4	600.7	593.3	576.8	576.8
7.5°	725.1	724.5	691.4	656.1	597.3	539.7	513.4	465.0	436.4	421.0	406.2
10°	682.9	673.8	653.2	580.2	516.3	456.4	423.9	391.9	362.3	336.6	310.9
12.5°	653.2	658.9	626.4	547.1	464.4	422.7	387.9	354.3	318.9	289.8	261.3
15°	668.6	659.5	621.3	539.7	455.8	398.8	352.6	311.5	272.1	233.9	212.2
17.5°	716.5	693.2	648.1	539.7	438.1	362.3	306.4	257.9	215.6	181.4	154.6
20°	781.0	754.2	705.7	559.7	425.0	335.5	259.0	198.0	154.0	122.1	101.5
22.5°	847.2	826.1	753.1	567.6	409.6	299.5	204.2	143.2	102.7	82.2	71.9
25°	926.5	896.8	816.9	599.6	386.8	264.7	160.9	99.8	76.4	65.6	59.3
27.5°	989.8	984.7	876.8	619.0	369.7	236.2	127.2	79.3	63.3	55.3	51.3
30°	1069.7	1041.7	949.9	657.8	350.3	203.7	106.1	71.3	58.2	49.6	46.8
32.5°	1117.6	1104.5	988.1	679.5	328.6	176.9	91.3	62.8	53.1	46.8	43.9
35°	1187.2	1161.0	1042.9	693.2	317.2	161.4	82.2	57.0	44.5	38.2	34.8
37.5°	1264.8	1255.1	1108.5	692.6	300.7	152.3	75.9	53.1	42.2	35.4	31.4
40°	1344.1	1304.7	1148.4	708.6	292.1	145.5	71.3	50.8	39.9	33.7	28.5
42.5°	1403.4	1358.3	1194.6	702.8	281.8	133.5	69.6	47.4	38.2	30.8	26.2
45°	1419.4	1403.4	1236.3	701.1	274.4	123.8	66.7	46.8	37.1	29.1	24.5
47.5°	1450.2	1439.4	1287.6	704.0	268.7	116.4	59.9	47.9	35.4	27.4	23.4
50°	1463.9	1444.5	1329.3	710.8	255.6	107.3	53.6	50.2	34.8	26.8	22.2
52.5°	1520.4	1503.3	1386.3	730.2	244.7	95.3	47.4	47.9	35.9	25.1	21.1
55°	1575.7	1556.3	1474.2	774.7	229.3	85.6	40.5	42.2	34.2	22.8	18.8
57.5°	1651.6	1619.6	1532.9	793.0	215.6	72.5	35.9	34.8	31.9	20.5	16.5
60°	1663.0	1676.1	1524.4	781.6	201.4	63.9	31.4	26.8	34.2	18.3	14.3
62.5°	1701.2	1646.4	1484.4	755.3	191.1	58.8	28.0	22.2	29.7	16.0	12.0
65°	1627.6	1587.1	1390.9	670.9	178.0	59.3	24.5	18.3	18.8	13.1	9.7
67.5°	1519.8	1487.8	1235.7	579.1	164.9	58.2	21.7	16.0	14.3	11.4	8.6
70°	1333.8	1264.8	1049.7	470.1	145.5	54.2	18.3	14.3	12.0	9.1	6.3
72.5°	970.4	942.5	753.1	363.4	130.6	49.1	17.1	12.0	10.3	6.8	5.1
75°	653.2	607.0	475.2	238.5	105.0	42.8	14.3	10.8	8.0	5.1	4.0
77.5°	345.1	326.3	269.3	113.5	58.2	20.0	8.0	6.3	4.6	4.0	2.3
80°	149.5	132.9	116.4	46.2	20.5	9.1	5.1	3.4	2.9	2.3	1.1
82.5°	76.4	73.0	60.5	20.0	12.0	6.8	2.9	2.3	1.7	1.1	0.6
85°	37.7	38.8	31.9	6.3	6.8	4.0	0.6	0.6	0.0	0.0	0.0
87.5°	2.9	2.9	2.3	1.1	1.7	0.6	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: P677493  
 CATALOG NUMBER: CCW-SA-1B-840-U-SLR-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	809.0	809.0	809.0	809.0	809.0	809.0	809.0	809.0	809.0	809.0	809.0
2.5°	708.0	716.0	702.3	710.8	706.8	708.6	710.3	705.7	706.8	722.8	723.4
5°	567.1	582.5	576.8	584.8	598.4	591.6	597.9	596.7	597.9	600.2	610.4
7.5°	404.5	399.9	410.8	431.9	456.4	471.2	463.8	459.8	457.5	451.8	458.7
10°	305.2	302.9	300.1	306.4	322.3	338.9	348.0	332.6	324.0	313.2	309.2
12.5°	253.3	239.0	231.1	221.4	225.9	240.7	241.3	226.5	212.8	207.1	213.4
15°	199.7	190.0	175.7	162.0	155.2	166.6	156.9	142.6	124.9	122.7	122.1
17.5°	142.6	136.9	126.6	120.9	113.0	110.1	99.8	78.2	65.6	62.2	63.3
20°	97.0	92.4	91.8	86.7	83.3	81.0	64.5	50.2	46.2	46.8	47.4
22.5°	71.9	69.6	66.7	66.2	63.3	60.5	47.4	42.2	39.4	39.4	41.1
25°	58.8	57.6	54.8	53.6	52.5	48.5	39.9	35.9	34.8	33.7	35.4
27.5°	50.2	49.6	47.9	46.2	45.1	41.1	34.8	31.4	30.2	30.2	30.2
30°	45.1	45.1	42.8	39.4	39.4	34.8	29.7	27.4	26.2	26.2	25.7
32.5°	42.2	41.1	38.2	35.9	34.2	29.7	26.2	24.0	22.2	22.2	22.8
35°	34.2	34.2	33.7	31.9	29.7	25.1	22.2	20.0	18.8	18.3	18.8
37.5°	30.2	28.5	26.2	26.8	25.7	21.7	18.8	17.1	15.4	15.4	15.4
40°	27.4	25.7	23.4	21.7	21.1	19.4	16.5	13.7	12.0	11.4	11.4
42.5°	24.5	23.4	20.0	17.1	16.5	16.5	12.6	10.3	8.6	8.6	8.6
45°	22.8	21.1	18.3	14.8	12.0	12.6	10.3	7.4	6.3	5.7	5.7
47.5°	21.7	20.0	16.0	12.6	9.1	9.1	7.4	5.1	4.0	3.4	3.4
50°	20.0	18.3	14.3	10.3	6.8	5.7	4.6	2.9	1.7	1.1	1.1
52.5°	18.8	17.1	12.6	8.6	5.7	4.0	2.9	0.6	0.0	0.0	0.0
55°	17.1	14.8	10.8	6.8	4.6	2.3	0.6	0.0	0.0	0.0	0.0
57.5°	14.8	13.1	8.6	5.1	2.9	0.6	0.0	0.0	0.0	0.0	0.0
60°	12.6	10.8	6.8	4.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	10.3	9.1	5.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	8.6	6.8	4.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	7.4	5.7	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	5.7	4.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	4.0	2.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	2.9	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	1.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	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: P677493  
 CATALOG NUMBER: CCW-SA-1B-840-U-SLR-HSS

**CANDELA DISTRIBUTION (continued):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	809.0	809.0	809.0	809.0	809.0	809.0	809.0	809.0	809.0	809.0	809.0
2.5°	725.7	742.8	758.8	763.3	775.9	810.7	810.7	827.2	856.9	867.7	870.0
5°	612.1	630.4	633.8	669.2	685.7	721.1	744.5	800.4	834.1	855.2	868.3
7.5°	465.5	471.8	484.9	518.0	550.5	593.3	637.8	709.1	768.5	792.4	836.9
10°	320.0	338.9	367.4	397.1	447.8	495.2	552.8	620.1	693.2	722.8	761.0
12.5°	215.6	241.9	287.5	329.7	376.5	424.4	479.2	569.4	652.1	693.2	731.4
15°	126.1	158.0	197.4	265.9	328.0	381.7	436.4	527.7	628.1	681.2	728.0
17.5°	63.9	73.6	106.1	165.4	247.6	335.5	417.0	533.4	646.4	711.4	750.2
20°	47.9	50.8	59.9	87.9	169.4	277.3	398.8	542.0	697.1	776.4	797.6
22.5°	41.6	43.9	47.9	57.0	95.3	212.2	373.1	563.1	766.2	840.9	885.4
25°	35.4	37.7	41.1	46.8	61.0	144.3	341.7	585.3	827.8	921.9	963.6
27.5°	30.8	32.5	35.9	40.5	49.6	91.8	287.5	615.0	921.9	1020.0	1030.9
30°	26.2	28.0	30.8	35.9	42.2	65.0	211.1	619.0	973.8	1062.8	1093.1
32.5°	22.8	23.4	26.8	31.4	35.4	51.3	148.3	623.0	1012.1	1118.2	1124.4
35°	18.8	20.0	23.4	26.2	30.8	40.5	112.4	603.0	1061.7	1175.2	1173.5
37.5°	15.4	17.1	19.4	21.7	25.1	34.2	89.6	565.9	1123.9	1263.6	1210.0
40°	12.0	13.7	16.0	18.8	21.1	30.8	67.3	510.0	1188.9	1307.0	1250.0
42.5°	8.6	9.7	12.0	14.8	18.8	25.7	48.5	443.8	1214.6	1357.8	1297.9
45°	6.3	7.4	9.1	12.6	19.4	20.5	33.7	383.4	1242.0	1380.0	1287.0
47.5°	3.4	4.6	6.8	10.8	17.1	15.4	24.0	329.2	1273.3	1400.0	1295.6
50°	1.1	1.7	4.0	11.4	13.7	12.0	18.8	300.1	1304.2	1404.0	1312.7
52.5°	0.0	0.0	2.3	12.0	10.3	9.1	16.5	288.7	1296.2	1416.5	1301.9
55°	0.0	0.0	0.6	5.1	5.7	6.8	13.7	288.1	1352.6	1420.5	1361.2
57.5°	0.0	0.0	0.0	1.7	3.4	5.7	12.0	269.8	1388.6	1519.8	1441.1
60°	0.0	0.0	0.0	0.6	2.3	4.0	9.1	253.9	1425.1	1564.3	1526.6
62.5°	0.0	0.0	0.0	0.0	0.6	1.7	6.3	229.3	1351.5	1560.9	1609.4
65°	0.0	0.0	0.0	0.0	0.0	0.0	4.0	181.4	1215.7	1479.3	1563.7
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.3	125.5	1064.5	1376.6	1479.9
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.9	859.2	1207.2	1255.1
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5	613.3	958.4	1029.7
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.1	379.4	700.6	788.4
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	245.9	530.6	598.4
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	131.2	332.6	386.8
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.0	202.0	232.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.3	122.7	139.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.8	25.1
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: P677493

CATALOG NUMBER: CCW-SA-1B-840-U-SLR-HSS

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	809.0	809.0	809.0	809.0	809.0	809.0	809.0	809.0	809.0	809.0
2.5°	871.1	887.7	894.0	884.3	885.4	865.4	862.6	834.6	823.2	825.5
5°	911.1	935.0	948.2	937.3	912.8	874.6	839.8	806.7	786.1	775.9
7.5°	902.0	928.8	945.3	955.6	927.6	866.0	813.0	750.8	724.5	725.1
10°	851.7	907.7	941.3	928.2	915.1	853.5	771.3	704.0	680.6	682.9
12.5°	811.2	873.4	893.4	903.7	876.8	827.8	772.4	695.4	669.2	653.2
15°	786.1	832.4	833.5	849.5	838.6	838.6	784.4	709.1	686.3	668.6
17.5°	786.1	796.4	795.3	801.0	819.2	840.9	814.7	764.5	719.4	716.5
20°	803.8	771.9	764.5	766.7	782.1	846.6	881.4	818.7	790.1	781.0
22.5°	844.9	774.7	729.7	721.7	769.0	846.0	924.2	904.2	854.6	847.2
25°	901.4	769.6	720.5	710.3	746.2	866.6	983.0	987.0	941.9	926.5
27.5°	955.0	792.4	719.4	717.1	764.5	862.0	1023.5	1053.1	1002.4	989.8
30°	973.3	815.2	740.5	710.3	771.3	878.6	1022.3	1099.9	1066.8	1069.7
32.5°	994.9	838.1	742.8	730.8	800.4	905.4	1054.8	1175.2	1151.3	1117.6
35°	1026.9	868.9	764.5	753.6	820.9	929.3	1061.7	1230.6	1226.6	1187.2
37.5°	1054.3	899.1	809.5	811.2	883.7	968.1	1091.9	1298.4	1291.6	1264.8
40°	1073.7	941.3	879.7	884.3	938.5	1011.5	1145.6	1332.7	1383.4	1344.1
42.5°	1076.5	979.0	960.1	996.7	1047.4	1078.8	1167.2	1356.1	1429.1	1403.4
45°	1087.4	1038.9	1091.4	1118.2	1159.8	1138.1	1166.1	1396.0	1432.5	1419.4
47.5°	1129.6	1147.8	1214.0	1295.6	1310.4	1239.1	1193.5	1402.3	1451.9	1450.2
50°	1173.5	1264.8	1357.8	1412.0	1430.8	1308.7	1219.1	1397.1	1477.6	1463.9
52.5°	1222.6	1366.3	1500.4	1567.1	1556.9	1385.7	1248.2	1438.8	1524.9	1520.4
55°	1253.4	1412.0	1592.3	1685.2	1677.3	1471.9	1340.7	1498.7	1587.1	1575.7
57.5°	1335.0	1486.1	1683.5	1726.9	1748.0	1584.8	1405.1	1596.8	1639.0	1651.6
60°	1402.3	1534.6	1707.5	1770.2	1777.7	1652.2	1518.1	1697.8	1705.2	1663.0
62.5°	1501.0	1553.5	1656.7	1713.2	1751.4	1690.4	1619.6	1752.0	1704.1	1701.2
65°	1573.4	1491.8	1562.0	1593.4	1617.9	1632.2	1721.8	1789.1	1683.0	1627.6
67.5°	1532.9	1375.5	1362.3	1364.1	1371.5	1457.6	1687.5	1698.4	1565.4	1519.8
70°	1349.2	1128.4	1110.8	1124.4	1087.4	1191.2	1548.9	1543.8	1381.2	1333.8
72.5°	1091.4	822.7	792.4	811.2	819.8	929.9	1303.0	1170.7	1007.5	970.4
75°	867.2	603.0	508.9	554.5	583.6	677.2	1017.8	795.3	703.4	653.2
77.5°	681.2	456.4	395.9	377.7	404.5	492.3	740.5	417.6	368.5	345.1
80°	431.9	335.5	364.0	337.7	349.1	351.4	385.7	190.0	151.2	149.5
82.5°	260.1	229.3	272.7	150.0	273.3	244.2	160.3	86.1	76.4	76.4
85°	184.3	142.1	94.1	61.0	121.5	134.1	62.2	44.5	38.8	37.7
87.5°	92.4	43.9	21.1	13.7	15.4	25.1	7.4	3.4	3.4	2.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)