

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: P676203

Luminaire Tested: **CCW-SA-2B-840-U-T1**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676203
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-2B-840-U-T1
Description: INVUE CLEAR CURVE Wall Pack MOUNT LIGHT SQUARE LUMINAIRE @450mA w/
T1 distribution lens
Light Source: (32) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

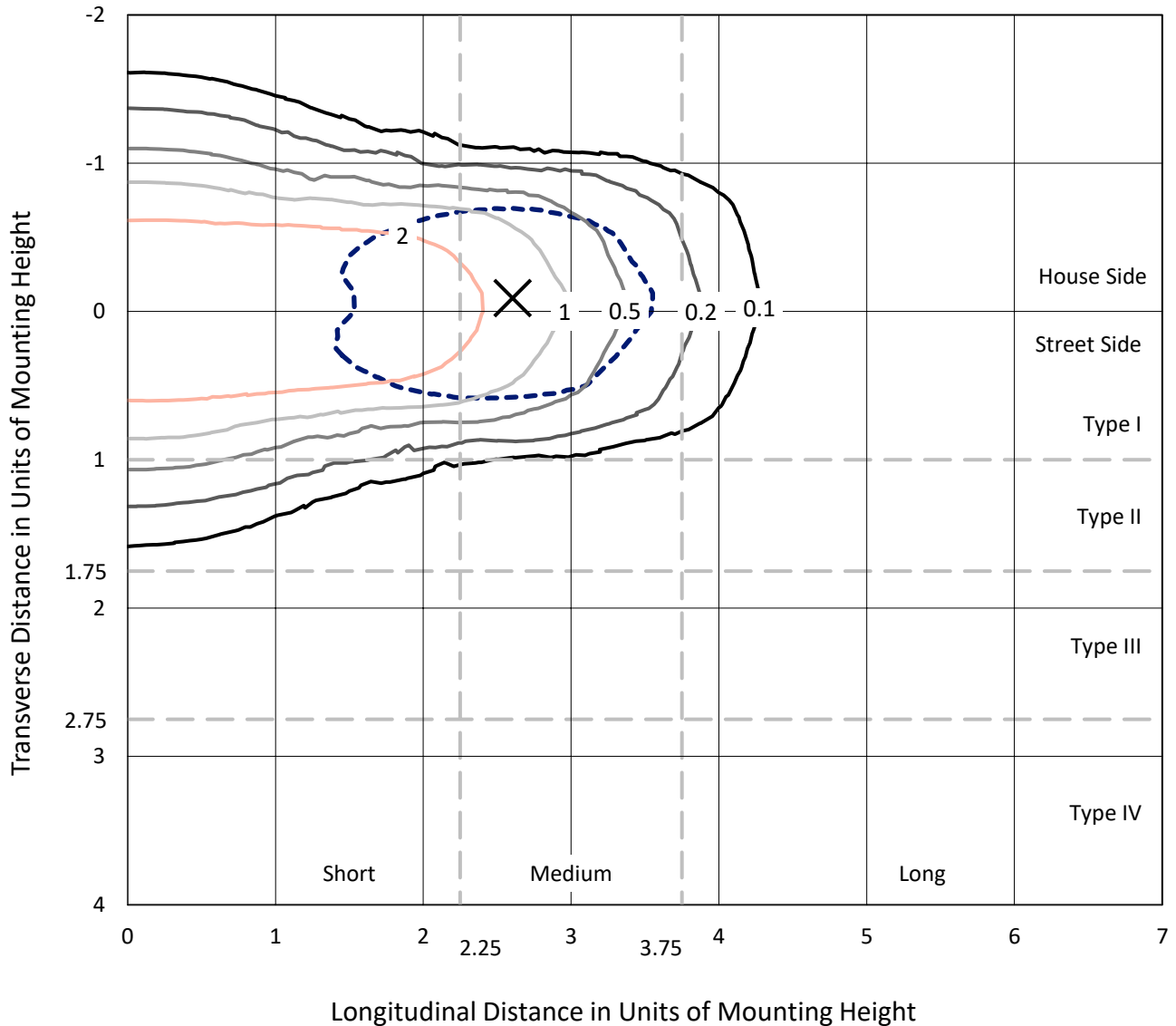
Lumens per Lamp: N/A
Luminaire Lumens: 5733.8 lumens
Efficiency: N/A
Efficacy: 124.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Short
BUG Rating: B3 - U0 - G3

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

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Iso-Footcandle Lines of Horizontal Illumination

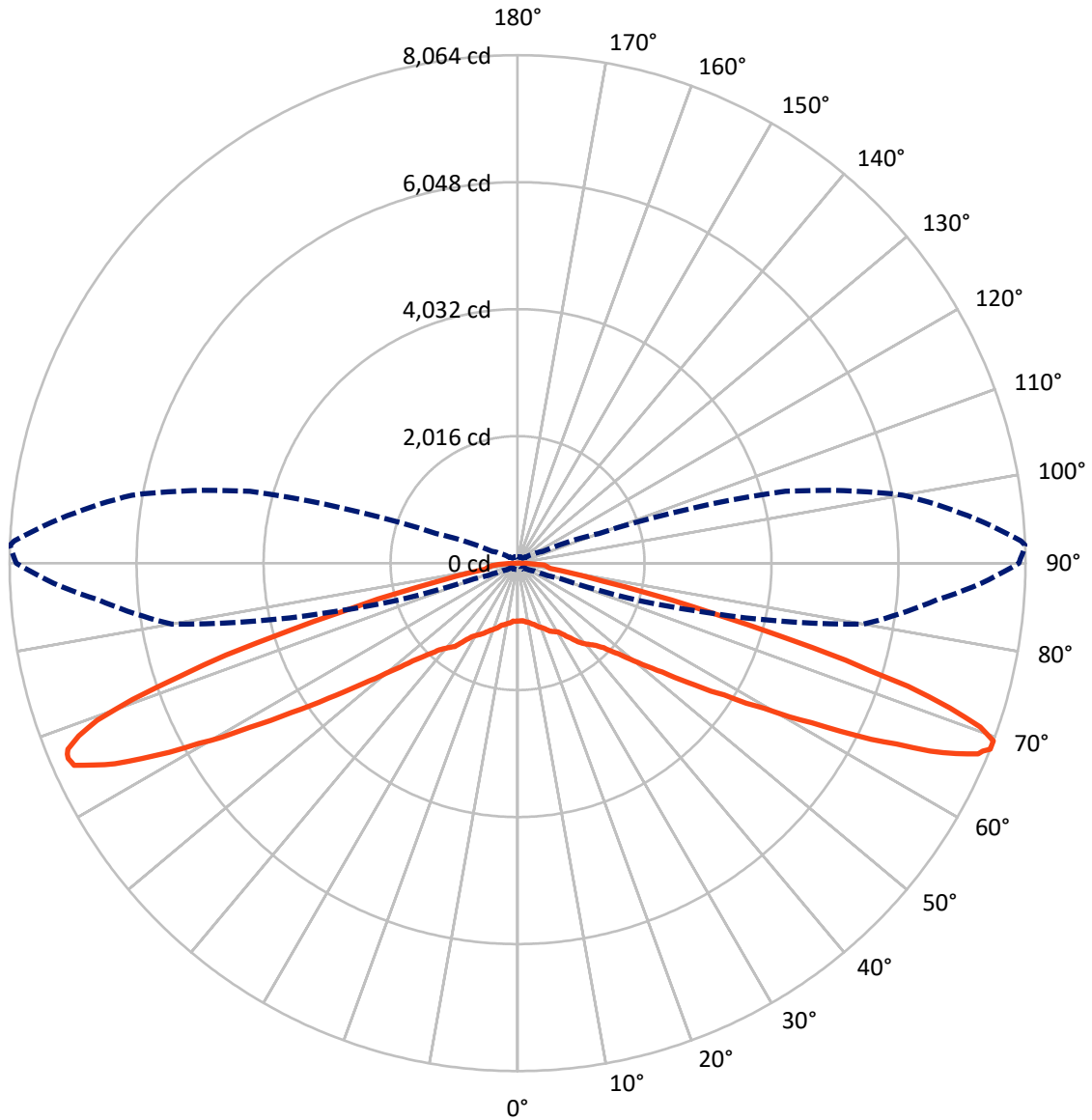
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4.4 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



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

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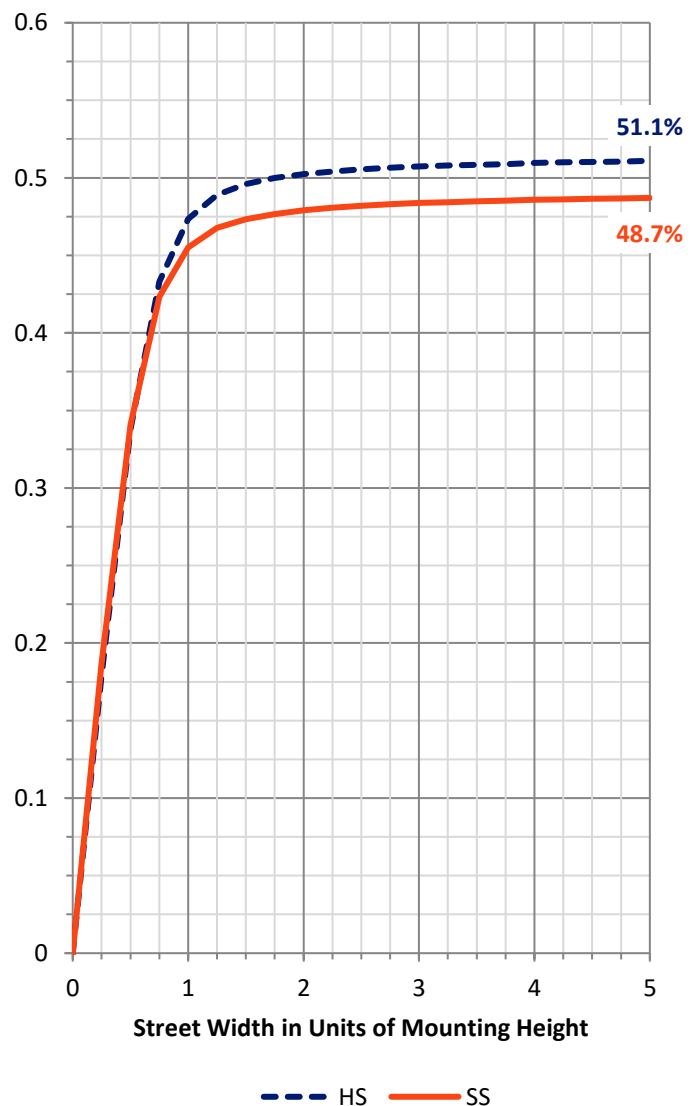
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2952.8	0.0	2952.8
	% Fixture	51.5	0.0	51.5
Street Side	Lumens	2781.0	0.0	2781.0
	% Fixture	48.5	0.0	48.5
Total	Lumens	5733.8	0.0	5733.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.8	1.6
10°-20°	297.4	5.2
20°-30°	507.6	8.9
30°-40°	708.8	12.4
40°-50°	901.6	15.7
50°-60°	1140.0	19.9
60°-70°	1405.9	24.5
70°-80°	614.1	10.7
80°-90°	66.6	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°	5733.8	100.0
0°-180°	5733.8	100.0



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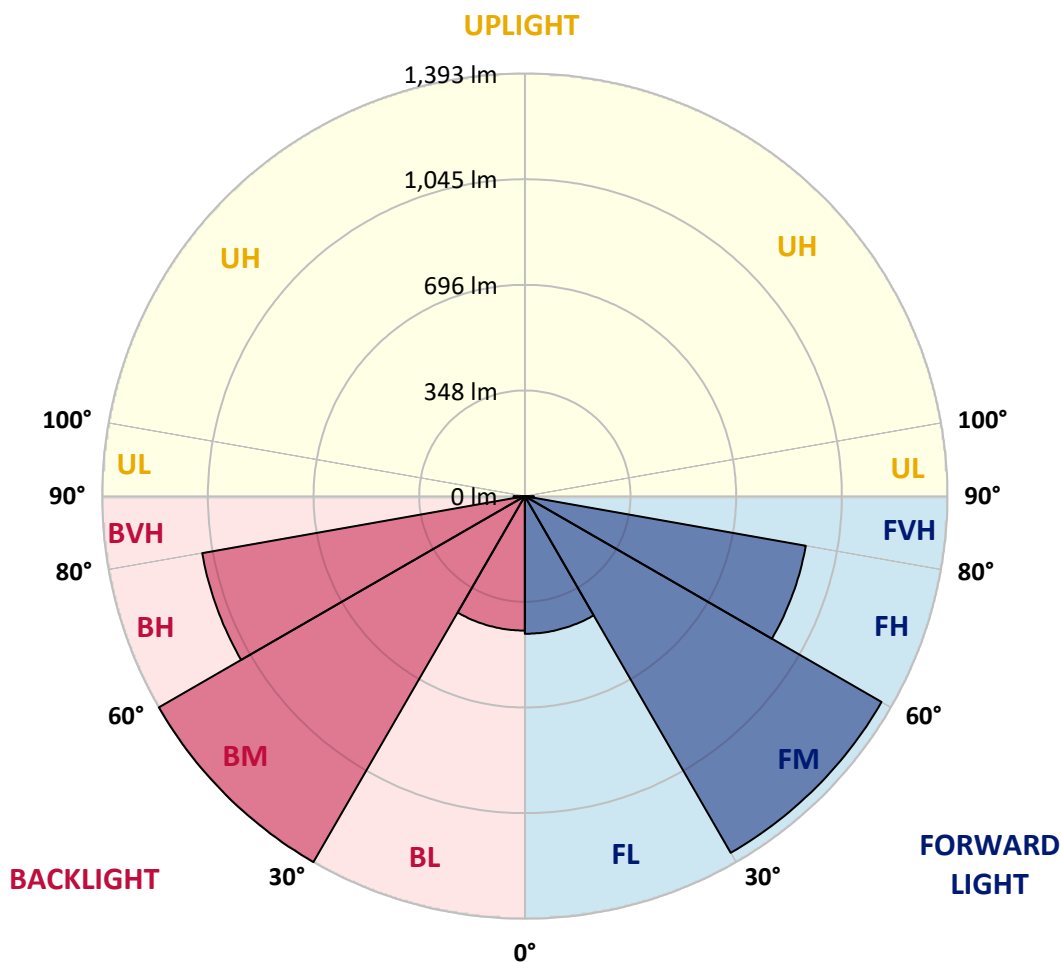
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	453.8	7.9			
FM	(30°-60°)	1357.4	23.7			
FH	(60°-80°)	940.2	16.4			G1/1800
FVH	(80°-90°)	29.5	0.5			G1/100
BL	(0°-30°)	443.1	7.7	B1/500		
BM	(30°-60°)	1392.9	24.3	B2/2500		
BH	(60°-80°)	1079.8	18.8	B3/2500		G3/2500
BVH	(80°-90°)	37.1	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	916.9	916.9	916.9	916.9	916.9	916.9	916.9	916.9	916.9	916.9	916.9
2.5°	936.3	935.2	938.4	940.6	930.9	934.1	932.0	929.8	922.3	919.0	912.6
5°	962.1	965.3	976.1	966.4	970.7	965.3	948.1	953.5	943.8	941.6	935.2
7.5°	1007.3	1000.8	1015.9	1005.1	1008.4	997.6	990.1	980.4	978.2	963.2	964.2
10°	1017.0	1029.9	1036.3	1034.2	1036.3	1041.7	1027.7	1012.7	992.2	987.9	972.8
12.5°	1010.5	1022.4	1039.6	1053.6	1063.2	1065.4	1060.0	1056.8	1048.2	1023.4	1022.4
15°	1004.1	995.4	1006.2	1054.6	1086.9	1108.4	1116.0	1097.7	1099.8	1067.5	1054.6
17.5°	961.0	948.1	990.1	1037.4	1077.2	1124.6	1161.2	1155.8	1155.8	1130.0	1111.7
20°	904.0	925.5	947.0	1007.3	1080.5	1151.5	1221.4	1218.2	1205.3	1197.8	1157.9
22.5°	855.5	865.2	905.0	968.5	1060.0	1159.0	1241.9	1301.1	1270.9	1240.8	1217.1
25°	822.2	813.6	864.2	929.8	1040.6	1146.1	1280.6	1342.0	1358.1	1335.5	1290.3
27.5°	774.8	774.8	814.7	877.1	978.2	1139.7	1318.3	1411.9	1435.6	1402.2	1336.6
30°	721.0	727.5	761.9	832.9	932.0	1092.3	1333.4	1492.6	1512.0	1482.9	1415.1
32.5°	679.1	679.1	717.8	793.1	899.7	1070.8	1323.7	1572.3	1608.9	1587.3	1517.4
35°	633.9	630.6	658.6	741.5	848.0	1028.8	1320.4	1635.8	1717.5	1718.6	1645.4
37.5°	569.3	582.2	617.7	683.4	807.1	987.9	1310.8	1712.2	1858.5	1883.3	1832.7
40°	526.2	531.6	563.9	636.0	743.6	939.5	1296.8	1774.6	1952.2	2037.2	1967.2
42.5°	463.8	471.4	496.1	585.4	682.3	870.6	1235.4	1818.7	2085.6	2182.4	2123.3
45°	398.2	402.5	439.1	512.3	616.6	788.8	1169.8	1889.7	2214.7	2412.7	2378.3
47.5°	319.6	321.8	353.0	429.4	538.1	707.0	1068.6	1886.5	2319.1	2643.0	2739.9
50°	249.7	255.0	278.7	341.1	443.4	607.0	951.3	1860.7	2450.4	2905.6	3096.1
52.5°	199.1	200.2	215.2	264.7	342.2	506.9	825.4	1778.9	2574.2	3162.8	3533.0
55°	164.7	164.7	173.3	203.4	262.6	385.3	678.0	1643.3	2589.2	3446.9	4009.8
56°	158.2	156.0	163.6	189.4	236.8	347.6	609.1	1551.8	2610.8	3578.2	4248.7
57°	149.6	150.7	155.0	173.3	213.1	307.8	532.7	1462.5	2595.7	3685.8	4425.2
58°	145.3	143.1	151.7	163.6	188.3	273.3	480.0	1357.0	2572.0	3774.1	4682.4
59°	138.8	137.7	143.1	153.9	175.4	243.2	415.4	1243.0	2525.7	3888.2	4873.9
60°	136.7	135.6	137.7	146.4	161.4	213.1	365.9	1109.5	2402.0	4005.5	5111.8
61°	130.2	131.3	135.6	141.0	152.8	191.6	329.3	972.8	2321.3	4104.5	5374.3
62°	131.3	129.1	131.3	135.6	144.2	176.5	288.4	838.3	2177.1	4216.4	5571.3
63°	124.8	123.8	127.0	132.4	136.7	159.3	251.8	724.3	2013.5	4242.2	5738.1
64°	122.7	121.6	122.7	130.2	131.3	149.6	222.8	618.8	1776.7	4286.3	5952.2
65°	117.3	117.3	119.5	122.7	127.0	141.0	199.1	537.0	1541.1	4170.1	6017.9
66°	113.0	114.1	114.1	119.5	122.7	131.3	182.9	456.3	1315.1	3985.0	6081.4
67°	109.8	109.8	110.8	115.1	118.4	123.8	164.7	395.0	1109.5	3764.4	5983.4
67.5°	107.6	108.7	108.7	113.0	116.2	123.8	157.1	374.5	992.2	3522.3	5910.3
68°	104.4	105.5	105.5	109.8	113.0	119.5	151.7	342.2	914.7	3365.1	5774.7
69°	102.2	101.2	101.2	105.5	109.8	114.1	141.0	299.2	727.5	2926.1	5576.7
70°	95.8	95.8	97.9	101.2	104.4	108.7	130.2	263.7	615.6	2422.4	5066.6
71°	92.5	91.5	92.5	95.8	99.0	104.4	119.5	233.5	503.6	2011.3	4565.1
72°	86.1	88.2	88.2	91.5	94.7	97.9	111.9	203.4	422.9	1607.8	4013.0
72.5°	85.0	85.0	86.1	89.3	91.5	96.9	107.6	194.8	386.3	1417.3	3781.6
73°	81.8	81.8	82.9	86.1	88.2	93.6	104.4	175.4	351.9	1261.3	3349.0
74°	78.6	77.5	77.5	81.8	82.9	88.2	97.9	155.0	294.9	950.2	2688.2
75°	73.2	73.2	74.3	76.4	77.5	81.8	90.4	137.7	248.6	737.2	2102.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
77.5°	60.3	61.3	62.4	64.6	64.6	67.8	74.3	95.8	151.7	373.4	965.3
80°	44.1	46.3	49.5	52.7	51.7	51.7	58.1	68.9	90.4	167.9	370.2
82.5°	35.5	37.7	34.4	38.7	38.7	36.6	42.0	50.6	61.3	82.9	132.4
85°	23.7	24.8	20.4	23.7	22.6	22.6	28.0	30.1	37.7	46.3	65.6
87.5°	10.8	10.8	8.6	9.7	9.7	9.7	14.0	10.8	16.1	22.6	38.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
0°	916.9	916.9	916.9	916.9	916.9	916.9	916.9	916.9	916.9	916.9	916.9
2.5°	919.0	923.3	923.3	919.0	915.8	919.0	916.9	911.5	916.9	919.0	920.1
5°	932.0	923.3	927.6	918.0	924.4	923.3	921.2	926.6	927.6	927.6	935.2
7.5°	945.9	956.7	942.7	943.8	947.0	934.1	938.4	940.6	936.3	944.9	951.3
10°	970.7	975.0	970.7	954.6	965.3	956.7	953.5	963.2	961.0	963.2	972.8
12.5°	993.3	1000.8	989.0	987.9	982.5	975.0	979.3	978.2	993.3	995.4	1007.3
15°	1039.6	1020.2	1015.9	1014.8	1012.7	1009.4	1011.6	1012.7	1032.0	1035.3	1063.2
17.5°	1079.4	1076.2	1052.5	1061.1	1061.1	1048.2	1042.8	1061.1	1076.2	1092.3	1111.7
20°	1120.3	1117.1	1091.2	1092.3	1082.6	1094.5	1088.0	1105.2	1131.0	1136.4	1153.6
22.5°	1168.7	1154.7	1136.4	1138.6	1141.8	1133.2	1128.9	1152.6	1178.4	1193.5	1194.5
25°	1245.1	1209.6	1194.5	1196.7	1192.4	1185.9	1189.2	1219.3	1232.2	1264.5	1258.0
27.5°	1286.0	1265.6	1254.8	1230.0	1231.1	1221.4	1234.4	1279.6	1305.4	1330.1	1280.6
30°	1335.5	1322.6	1275.2	1266.6	1265.6	1261.3	1284.9	1343.0	1381.8	1395.8	1324.8
32.5°	1432.4	1380.7	1368.9	1361.3	1344.1	1349.5	1361.3	1437.7	1499.1	1495.9	1365.6
35°	1543.2	1507.7	1474.3	1467.9	1465.7	1450.7	1471.1	1560.4	1607.8	1593.8	1380.7
37.5°	1720.8	1667.0	1621.8	1597.0	1592.7	1582.0	1630.4	1701.4	1762.7	1707.9	1392.5
40°	1807.9	1747.7	1705.7	1690.6	1693.9	1708.9	1756.3	1865.0	1891.9	1790.7	1402.2
42.5°	1932.8	1867.1	1784.3	1776.7	1767.1	1774.6	1866.1	2012.4	2035.0	1902.6	1365.6
45°	2154.5	2055.5	1959.7	1916.6	1918.8	1939.2	2081.3	2241.6	2199.7	1980.1	1307.5
47.5°	2434.3	2289.0	2211.5	2153.4	2181.4	2158.8	2384.8	2512.8	2369.7	2078.1	1236.5
50°	2855.0	2651.7	2546.2	2476.2	2488.1	2507.4	2736.7	2845.4	2558.0	2125.4	1127.8
52.5°	3385.6	3124.1	2969.1	2875.5	2884.1	2926.1	3222.0	3188.7	2773.3	2165.2	982.5
55°	4020.5	3751.5	3451.2	3412.5	3402.8	3502.9	3829.0	3548.1	2967.0	2101.7	831.9
56°	4356.3	4070.0	3757.9	3678.3	3654.6	3724.6	4107.7	3727.8	3033.7	2030.7	759.8
57°	4641.5	4368.1	4025.9	3890.3	3920.4	4051.7	4384.3	3896.8	3095.0	1957.5	692.0
58°	5033.2	4721.1	4359.5	4256.2	4229.3	4333.7	4682.4	4066.8	3115.5	1882.2	629.6
59°	5423.8	5049.3	4723.3	4534.9	4542.5	4732.9	4976.2	4269.1	3146.7	1786.4	549.9
60°	5720.9	5532.5	5096.7	4955.7	4936.3	5211.8	5268.9	4404.7	3180.0	1657.3	494.0
61°	6141.6	5896.3	5490.6	5308.7	5361.4	5582.0	5585.3	4574.7	3130.5	1493.7	425.1
62°	6444.0	6379.5	5953.3	5780.0	5763.9	6056.6	5914.6	4724.3	3087.5	1338.7	375.6
63°	6798.1	6798.1	6409.6	6274.0	6281.5	6512.9	6057.7	4873.9	3038.0	1167.6	330.4
64°	6982.1	7213.5	6855.1	6664.6	6714.2	6914.3	6312.7	4971.9	2885.2	994.4	290.6
65°	7141.4	7489.0	7289.9	7201.7	7126.3	7244.7	6533.4	5063.3	2651.7	845.9	258.3
66°	7275.9	7748.3	7682.7	7588.0	7580.5	7553.6	6576.4	5060.1	2410.6	714.6	226.0
67°	7208.1	7753.7	7873.2	7913.0	7901.2	7617.0	6501.1	4944.9	2101.7	603.7	201.2
67.5°	7146.8	7709.6	7987.2	7964.6	8014.1	7670.9	6514.0	4804.0	1882.2	546.7	189.4
68°	7093.0	7650.4	8033.5	8062.6	8037.8	7677.3	6443.0	4692.0	1732.6	513.3	178.6
69°	6685.1	7369.5	7959.3	8063.7	8000.2	7430.9	6217.0	4400.4	1376.4	438.0	164.7
70°	6276.2	7005.8	7598.8	7790.3	7711.7	6954.1	5931.8	3936.6	1135.3	374.5	148.5
71°	5710.1	6330.0	7118.8	7233.9	7139.2	6411.8	5342.0	3446.9	883.5	317.5	132.4
72°	4941.7	5468.0	6221.3	6500.0	6360.1	5631.5	4745.9	2848.6	715.6	266.9	120.5
72.5°	4560.8	5099.9	5826.3	5848.9	5875.8	5292.5	4493.0	2502.1	624.2	247.5	117.3
73°	4199.2	4727.6	5356.0	5435.7	5321.6	4721.1	4115.2	2237.3	570.4	226.0	113.0
74°	3402.8	3704.1	4225.0	4302.5	4202.4	3849.4	3363.0	1715.4	454.1	194.8	103.3
75°	2677.5	2843.2	3314.6	3267.2	3117.6	2993.9	2607.5	1310.8	368.0	171.1	95.8



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CANDELA DISTRIBUTION (continued):

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
77.5°	1203.1	1303.2	1381.8	<i>1381.8</i>	1390.4	1326.9	1202.1	601.6	227.1	123.8	78.6
80°	458.4	513.3	530.5	<i>531.6</i>	539.2	558.5	519.8	295.9	134.5	88.2	63.5
82.5°	332.5	464.9	500.4	<i>474.6</i>	476.7	430.5	199.1	131.3	85.0	61.3	46.3
85°	301.3	404.6	428.3	<i>425.1</i>	426.2	398.2	117.3	64.6	49.5	38.7	32.3
87.5°	146.4	143.1	151.7	<i>171.1</i>	166.8	216.3	99.0	32.3	21.5	16.1	16.1
90°	0.0	0.0	0.0	<i>0.0</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CATALOG NUMBER: CCW-SA-2B-840-U-T1

CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
0°	916.9	916.9	916.9	916.9	916.9	916.9
2.5°	911.5	910.4	925.5	910.4	919.0	912.6
5°	922.3	926.6	929.8	936.3	921.2	936.3
7.5°	954.6	958.9	959.9	965.3	958.9	957.8
10°	979.3	990.1	996.5	975.0	987.9	986.8
12.5°	1027.7	1017.0	1015.9	1011.6	999.8	995.4
15°	1062.2	1046.0	1036.3	1019.1	1005.1	999.8
17.5°	1110.6	1079.4	1039.6	1004.1	979.3	959.9
20°	1140.7	1084.8	1005.1	963.2	925.5	934.1
22.5°	1160.1	1079.4	973.9	920.1	882.4	893.2
25°	1166.6	1052.5	952.4	885.7	849.1	841.6
27.5°	1148.3	1021.3	910.4	835.1	802.8	809.3
30°	1139.7	976.1	871.7	797.4	754.4	760.8
32.5°	1117.1	929.8	820.0	744.7	713.5	702.7
35°	1084.8	891.1	770.5	699.5	661.8	653.2
37.5°	1044.9	842.6	727.5	641.4	608.0	601.6
40°	985.8	784.5	665.1	590.8	552.1	551.0
42.5°	934.1	728.6	607.0	530.5	491.8	494.0
45°	868.5	653.2	540.2	474.6	435.8	438.0
47.5°	784.5	583.3	476.7	403.6	371.3	369.1
50°	685.5	503.6	399.3	336.8	309.9	304.6
52.5°	590.8	422.9	327.2	271.2	248.6	246.4
55°	471.4	329.3	255.0	213.1	195.9	196.9
56°	428.3	303.5	232.5	194.8	181.9	181.9
57°	387.4	269.0	210.9	179.7	167.9	167.9
58°	342.2	236.8	191.6	162.5	157.1	152.8
59°	311.0	215.2	173.3	153.9	145.3	144.2
60°	274.4	193.7	161.4	144.2	137.7	136.7
61°	243.2	174.3	148.5	134.5	132.4	132.4
62°	217.4	161.4	137.7	130.2	129.1	125.9
63°	194.8	148.5	132.4	123.8	120.5	123.8
64°	174.3	136.7	128.1	121.6	117.3	119.5
65°	158.2	131.3	122.7	118.4	114.1	115.1
66°	147.4	122.7	118.4	113.0	110.8	111.9
67°	133.4	118.4	114.1	108.7	107.6	108.7
67.5°	129.1	115.1	111.9	106.5	105.5	106.5
68°	125.9	113.0	110.8	105.5	104.4	103.3
69°	117.3	108.7	105.5	103.3	101.2	100.1
70°	109.8	104.4	102.2	99.0	96.9	95.8
71°	105.5	99.0	97.9	94.7	92.5	91.5
72°	100.1	95.8	93.6	89.3	88.2	89.3
72.5°	99.0	93.6	92.5	88.2	87.2	87.2
73°	95.8	89.3	90.4	86.1	83.9	86.1
74°	89.3	87.2	85.0	81.8	80.7	80.7
75°	83.9	81.8	79.6	77.5	77.5	77.5



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	135°	145°	155°	165°	175°	180°
77.5°	71.0	70.0	71.0	66.7	65.6	64.6
80°	57.0	57.0	58.1	54.9	52.7	51.7
82.5°	43.0	44.1	46.3	43.0	40.9	38.7
85°	28.0	29.1	29.1	25.8	30.1	28.0
87.5°	14.0	15.1	14.0	12.9	15.1	15.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)