

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: P677208

Luminaire Tested: **CCW-SA-1E-840-U-SL4-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P677208  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-1E-840-U-SL4-HSS  
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1050mA w/  
SL4 distribution lens and House Side Shield  
Light Source: (16) 4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

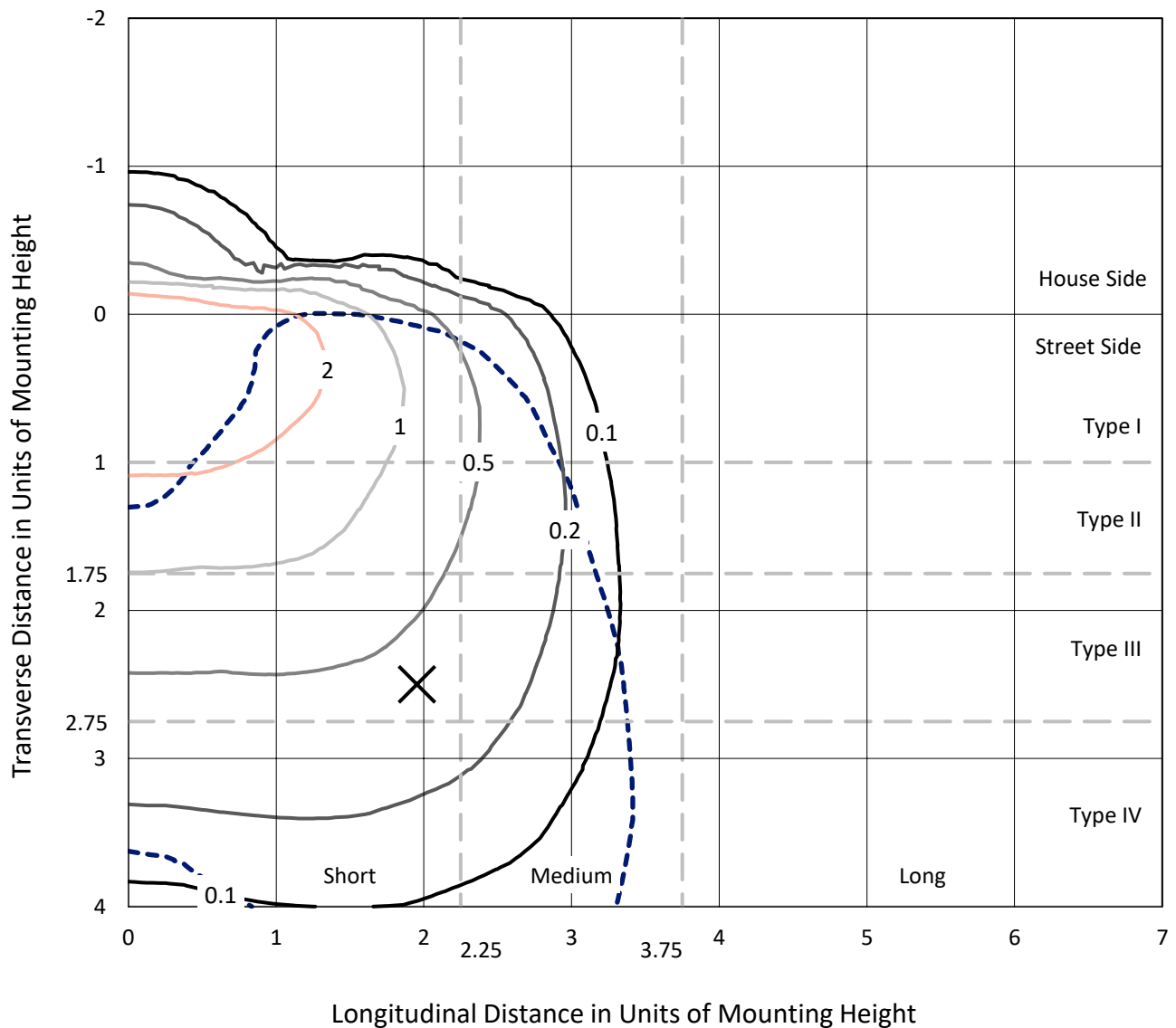
Lumens per Lamp: N/A  
Luminaire Lumens: 4815.1 lumens  
Efficiency: N/A  
Efficacy: 85.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 56.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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

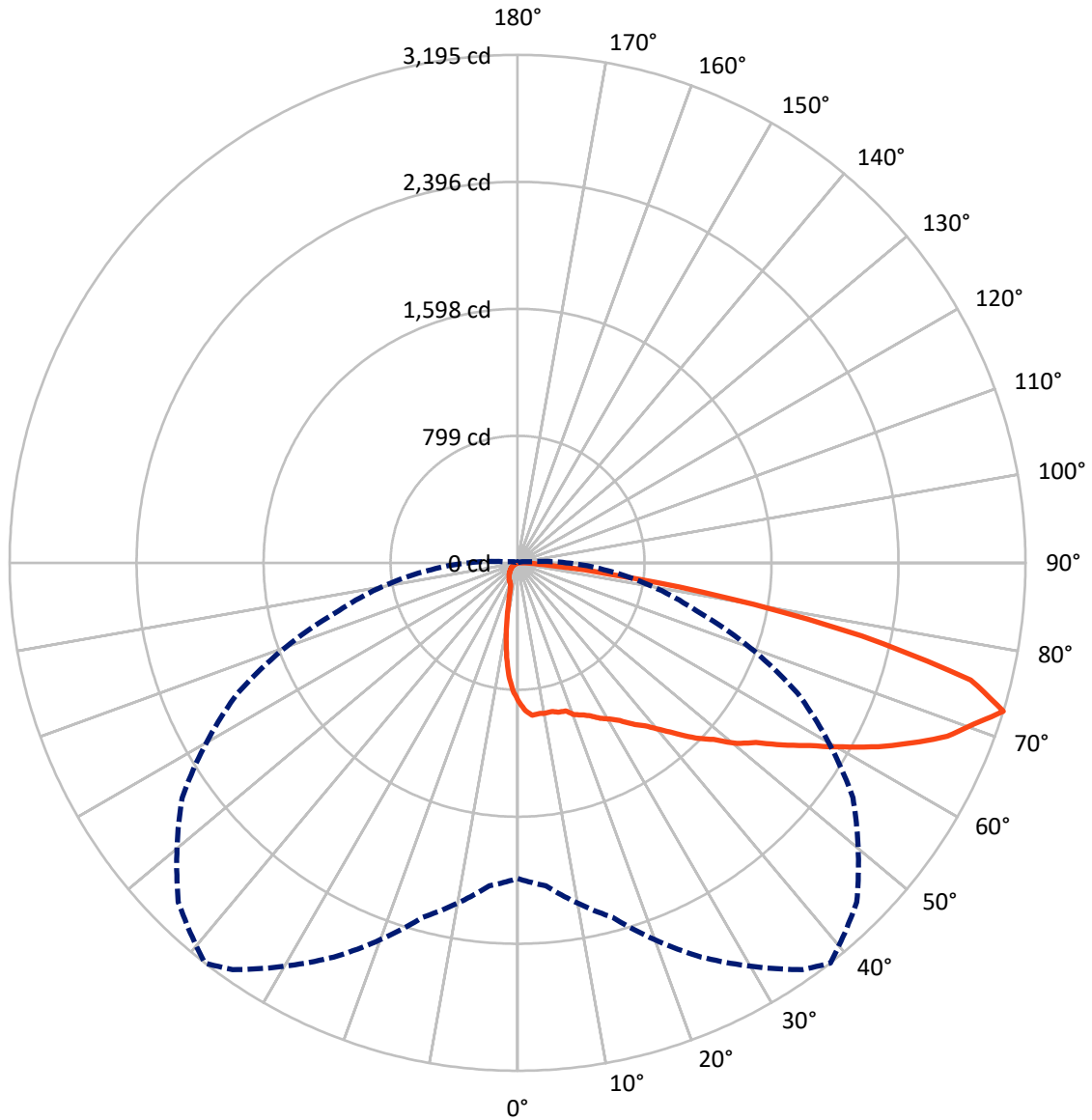
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	403.3	0.0	403.3
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	4411.8	0.0	4411.8
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	4815.1	0.0	4815.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.2	1.6
10°-20°	186.6	3.9
20°-30°	299.2	6.2
30°-40°	451.7	9.4
40°-50°	687.4	14.3
50°-60°	967.8	20.1
60°-70°	1182.2	24.6
70°-80°	858.4	17.8
80°-90°	105.7	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°	4815.1	100.0
0°-180°	4815.1	100.0

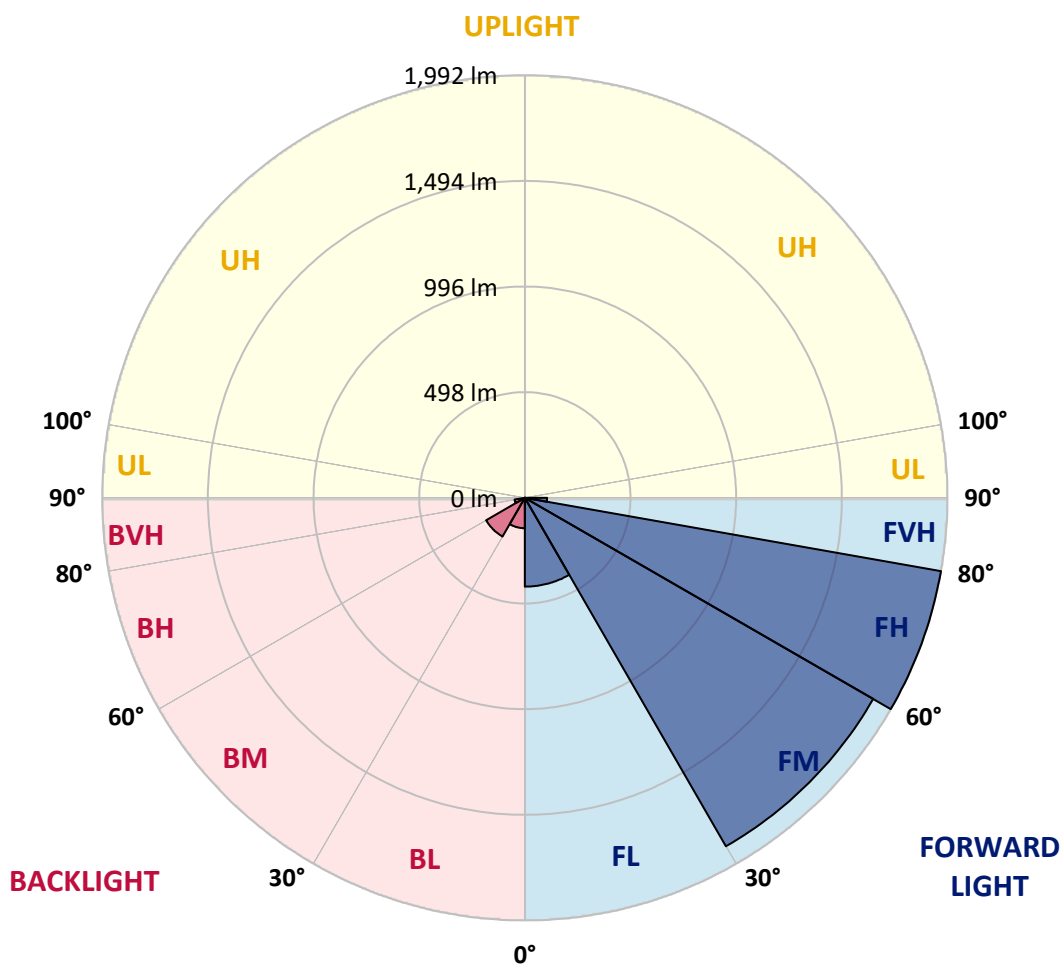


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	418.8	8.7			
FM (30°-60°)	1896.2	39.4			
FH (60°-80°)	1991.7	41.4			G2/5000
FVH (80°-90°)	105.2	2.2			G2/225
BL (0°-30°)	143.2	3.0	B1/500		
BM (30°-60°)	210.7	4.4	B0/220		
BH (60°-80°)	48.9	1.0	B0/110		G0/110
BVH (80°-90°)	0.5	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	870.8	870.8	870.8	870.8	870.8	870.8	870.8	870.8	870.8	870.8	870.8
2.5°	956.6	956.6	965.6	956.6	953.2	931.7	932.9	921.6	910.3	894.5	879.8
5°	967.9	975.8	981.4	973.5	961.1	963.4	971.3	949.8	919.3	900.1	867.4
7.5°	963.4	980.3	975.8	971.3	963.4	957.7	946.4	937.4	922.7	904.6	866.2
10°	960.0	965.6	966.8	963.4	946.4	962.2	949.8	935.1	917.1	895.6	848.2
12.5°	947.6	947.6	957.7	949.8	952.1	960.0	954.3	950.9	931.7	913.7	871.9
15°	934.0	938.5	954.3	966.8	978.1	974.7	971.3	961.1	944.2	923.8	879.8
17.5°	937.4	939.7	964.5	987.1	981.4	979.2	997.3	975.8	958.9	936.3	886.6
20°	949.8	956.6	984.8	1014.2	1019.8	1019.8	1013.1	1000.6	976.9	946.4	899.0
22.5°	962.2	964.5	1010.8	1048.1	1053.7	1039.0	1044.7	1008.5	986.0	969.0	911.4
25°	1009.7	1005.2	1054.9	1084.2	1080.8	1066.1	1060.5	1028.9	1019.8	989.3	938.5
27.5°	1074.1	1054.9	1103.4	1121.5	1103.4	1107.9	1092.1	1058.2	1039.0	1021.0	950.9
30°	1113.6	1124.9	1150.9	1168.9	1138.4	1139.6	1131.7	1094.4	1065.0	1069.5	992.7
32.5°	1174.6	1182.5	1201.7	1209.6	1185.9	1183.6	1175.7	1146.3	1124.9	1120.4	1049.2
35°	1240.1	1254.8	1255.9	1258.1	1236.7	1245.7	1234.4	1192.6	1203.9	1211.8	1117.0
37.5°	1304.4	1290.9	1313.5	1323.6	1299.9	1299.9	1303.3	1275.1	1295.4	1319.1	1213.0
40°	1329.3	1334.9	1374.5	1366.6	1394.8	1377.9	1390.3	1383.5	1400.4	1454.7	1348.5
42.5°	1355.3	1362.0	1415.1	1429.8	1463.7	1469.3	1487.4	1488.5	1538.2	1627.5	1478.4
45°	1405.0	1393.7	1466.0	1502.1	1557.4	1573.2	1594.7	1612.8	1690.7	1795.7	1626.3
47.5°	1450.1	1434.3	1516.8	1589.1	1656.8	1660.2	1718.9	1738.1	1830.7	1950.5	1773.1
50°	1513.4	1519.0	1554.0	1678.3	1747.2	1786.7	1827.4	1890.6	1993.4	2121.0	1879.3
52.5°	1578.9	1573.2	1632.0	1753.9	1862.4	1877.0	1968.5	2039.7	2151.5	2247.5	1926.7
55°	1659.1	1665.9	1688.4	1848.8	1986.6	2021.6	2124.4	2198.9	2320.9	2301.7	1942.6
57.5°	1739.3	1732.5	1783.3	1955.0	2142.5	2168.4	2305.1	2349.1	2431.6	2337.8	1903.0
60°	1818.3	1830.7	1852.2	2074.7	2313.0	2351.4	2459.8	2482.4	2500.5	2354.8	1872.5
62.5°	1908.7	1879.3	1945.9	2201.2	2466.6	2546.8	2632.6	2543.4	2527.6	2324.3	1802.5
65°	1953.8	1962.9	2049.8	2345.7	2671.0	2729.7	2741.0	2625.8	2544.5	2256.5	1737.0
67.5°	2023.9	2036.3	2147.0	2493.7	2881.1	2913.8	2873.2	2700.4	2529.8	2168.4	1501.0
70°	2032.9	2063.4	2276.9	2648.4	3013.2	3041.5	3009.8	2750.1	2411.3	1821.7	1111.3
72.5°	1985.5	2039.7	2308.5	2736.5	3123.9	3195.0	3017.7	2575.0	1943.7	1162.1	569.2
75°	1499.8	1545.0	2113.1	2605.5	2927.4	2944.3	2649.6	1965.1	1106.8	396.4	145.7
77.5°	777.0	854.9	1410.6	1991.1	2230.5	2212.5	1844.3	1157.6	380.6	103.9	58.7
80°	446.1	465.3	616.6	1118.1	1402.7	1333.8	1019.8	499.2	167.2	52.0	38.4
82.5°	220.2	247.3	332.0	500.3	701.4	577.1	382.9	299.3	93.7	28.2	33.9
85°	47.4	49.7	169.4	239.4	284.6	187.5	131.0	251.9	33.9	16.9	32.8
87.5°	33.9	32.8	47.4	107.3	79.1	48.6	77.9	132.1	7.9	7.9	6.8
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	870.8	870.8	870.8	870.8	870.8	870.8	870.8	870.8	870.8	870.8	870.8
2.5°	870.8	860.6	849.3	827.8	822.2	818.8	799.6	798.5	795.1	787.2	783.8
5°	847.0	830.1	808.6	786.1	768.0	735.2	695.7	675.4	650.5	651.7	643.8
7.5°	843.7	812.0	781.5	734.1	676.5	615.5	554.5	515.0	486.8	469.8	473.2
10°	827.8	804.1	754.4	666.3	573.7	481.1	403.2	344.5	310.6	284.6	292.5
12.5°	834.6	788.3	718.3	600.8	468.7	354.6	257.5	201.0	176.2	167.2	169.4
15°	830.1	788.3	696.8	529.7	368.2	240.6	167.2	149.1	144.6	144.6	142.3
17.5°	843.7	797.4	660.7	459.7	264.3	160.4	143.4	140.0	136.7	136.7	136.7
20°	862.9	801.9	635.8	381.7	186.3	141.2	134.4	132.1	131.0	131.0	129.9
22.5°	864.0	797.4	589.5	295.9	143.4	133.3	127.6	126.5	126.5	124.2	124.2
25°	870.8	801.9	539.8	222.5	133.3	125.4	120.8	119.7	120.8	119.7	118.6
27.5°	887.7	809.8	490.2	162.6	125.4	118.6	115.2	114.1	114.1	114.1	111.8
30°	909.2	809.8	434.8	134.4	118.6	111.8	108.4	107.3	106.2	106.2	106.2
32.5°	954.3	835.8	367.1	119.7	109.6	103.9	100.5	100.5	99.4	99.4	98.3
35°	1010.8	853.8	298.2	110.7	101.6	96.0	92.6	92.6	91.5	91.5	90.4
37.5°	1080.8	899.0	228.1	103.9	93.7	88.1	84.7	84.7	84.7	83.6	83.6
40°	1180.2	945.3	169.4	94.9	85.8	80.2	77.9	76.8	75.7	75.7	73.4
42.5°	1286.4	1016.5	126.5	88.1	79.1	74.5	71.2	67.8	67.8	64.4	64.4
45°	1401.6	1078.6	102.8	80.2	72.3	66.6	63.2	61.0	57.6	55.3	55.3
47.5°	1514.5	1117.0	90.4	71.2	65.5	61.0	57.6	53.1	48.6	47.4	46.3
50°	1606.0	1128.3	80.2	64.4	59.9	55.3	50.8	45.2	40.7	38.4	37.3
52.5°	1606.0	1066.1	72.3	57.6	54.2	49.7	44.0	37.3	31.6	29.4	28.2
55°	1606.0	967.9	64.4	53.1	48.6	45.2	37.3	30.5	24.8	21.5	20.3
57.5°	1582.3	849.3	57.6	47.4	42.9	38.4	31.6	23.7	18.1	14.7	14.7
60°	1516.8	725.1	49.7	41.8	37.3	31.6	24.8	16.9	11.3	7.9	7.9
62.5°	1433.2	577.1	42.9	35.0	30.5	26.0	19.2	11.3	4.5	2.3	2.3
65°	1287.5	425.8	37.3	29.4	23.7	19.2	12.4	4.5	0.0	0.0	0.0
67.5°	1062.8	284.6	29.4	23.7	20.3	13.6	7.9	1.1	0.0	0.0	0.0
70°	747.7	161.5	22.6	16.9	14.7	9.0	2.3	0.0	0.0	0.0	0.0
72.5°	307.2	71.2	15.8	12.4	10.2	4.5	0.0	0.0	0.0	0.0	0.0
75°	83.6	31.6	10.2	6.8	5.6	1.1	0.0	0.0	0.0	0.0	0.0
77.5°	48.6	21.5	4.5	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0
80°	38.4	10.2	2.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	38.4	5.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	32.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.5	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

(END OF REPORT)