

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: P677197

Luminaire Tested: **CCW-SA-1E-835-U-SL4-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P677197  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-1E-835-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) 3500K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

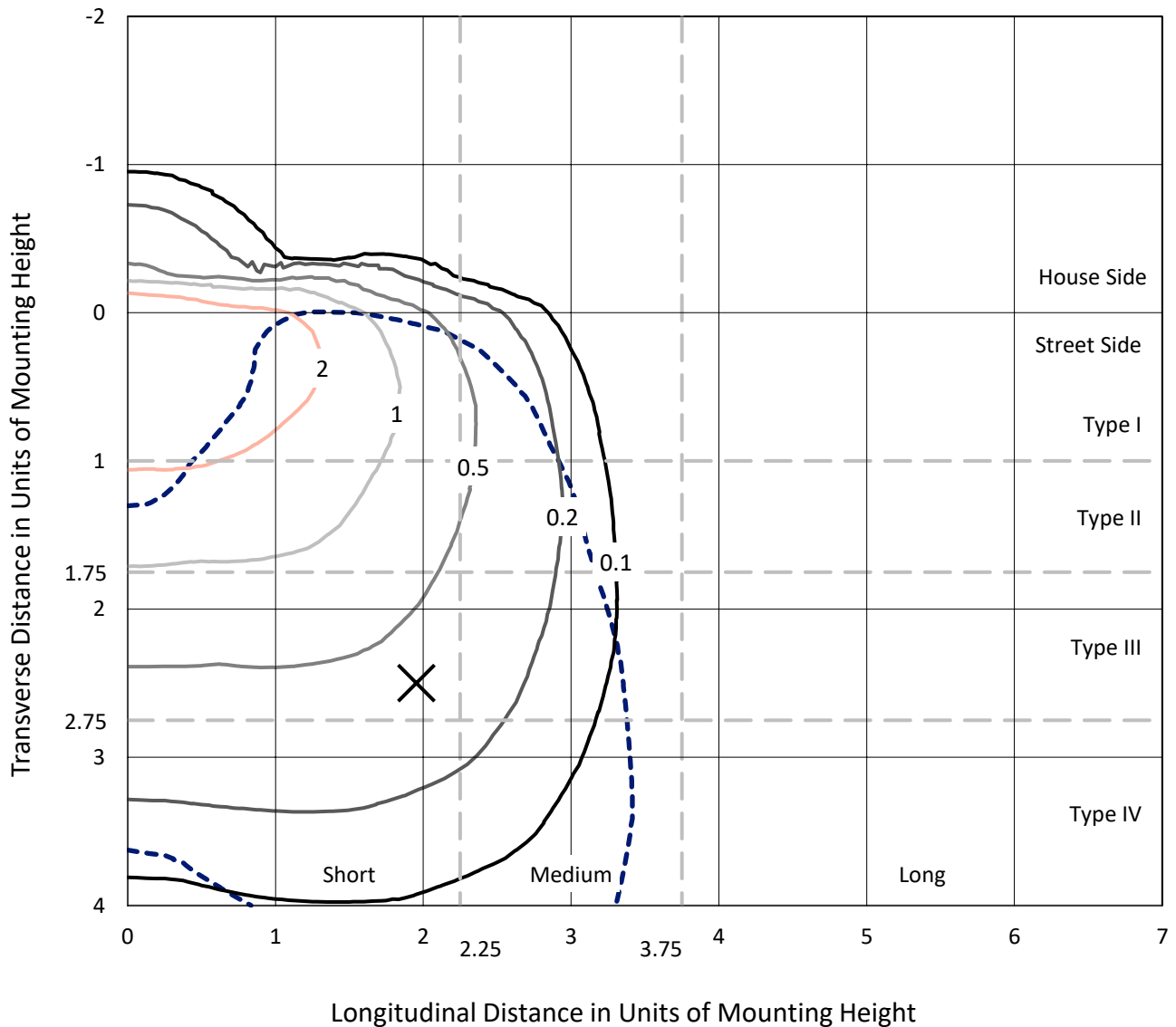
Lumens per Lamp: N/A  
Luminaire Lumens: 4653.6 lumens  
Efficiency: N/A  
Efficacy: 83.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

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

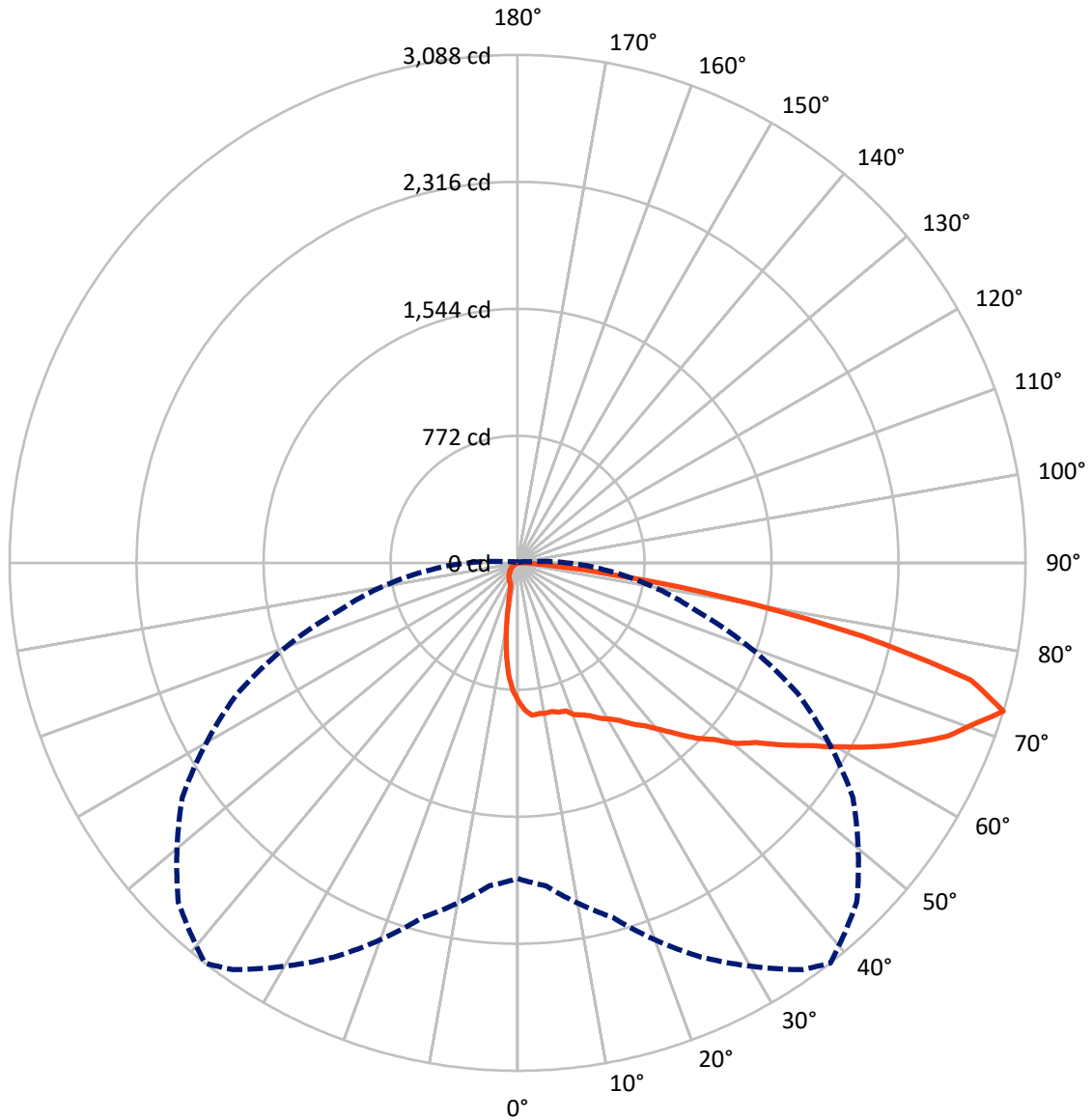
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4 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	389.7	0.0	389.7
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	4263.8	0.0	4263.8
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	4653.6	0.0	4653.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.7	1.6
10°-20°	180.3	3.9
20°-30°	289.1	6.2
30°-40°	436.5	9.4
40°-50°	664.3	14.3
50°-60°	935.3	20.1
60°-70°	1142.5	24.6
70°-80°	829.6	17.8
80°-90°	102.2	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°	4653.6	100.0
0°-180°	4653.6	100.0

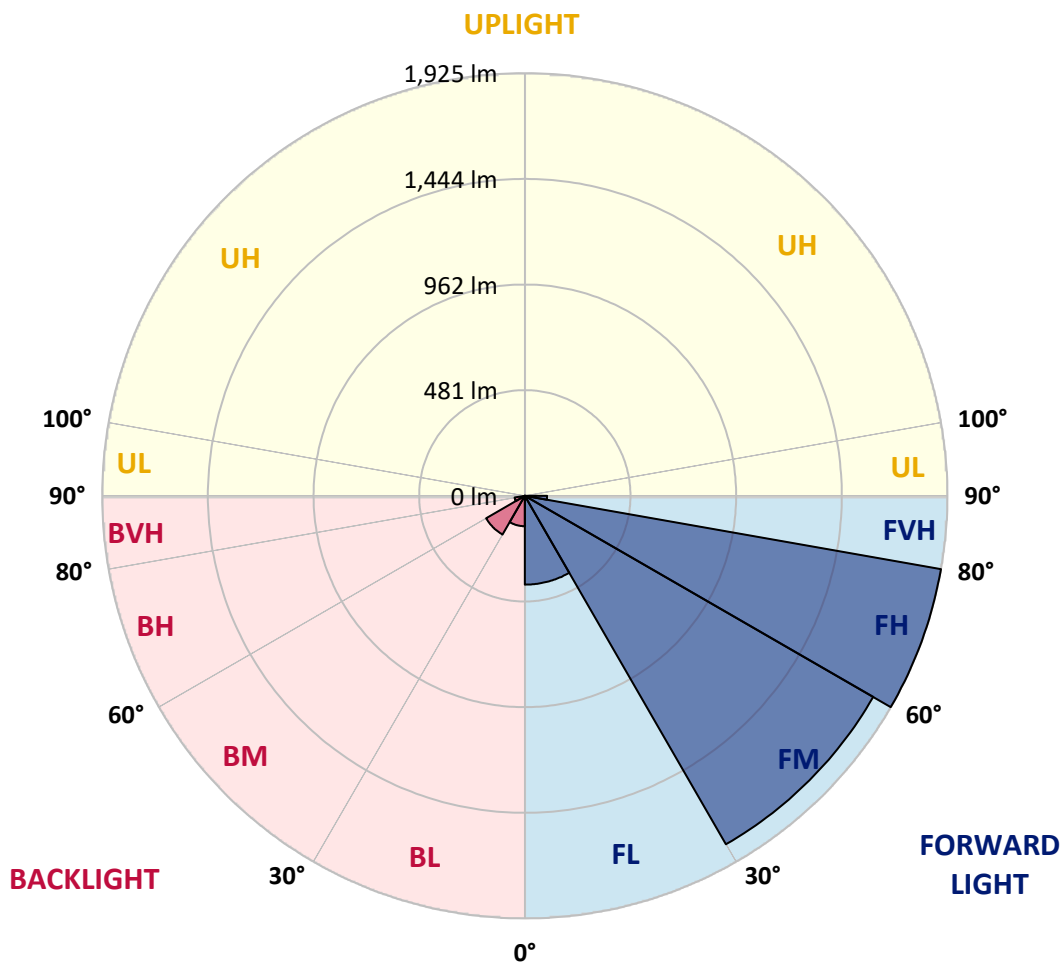


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	404.8	8.7			
FM (30°-60°)	1832.6	39.4			
FH (60°-80°)	1924.9	41.4			G2/5000
FVH (80°-90°)	101.6	2.2			G2/225
BL (0°-30°)	138.4	3.0	B1/500		
BM (30°-60°)	203.6	4.4	B0/220		
BH (60°-80°)	47.3	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°	841.6	841.6	841.6	841.6	841.6	841.6	841.6	841.6	841.6	841.6	841.6
2.5°	924.5	924.5	933.2	924.5	921.2	900.5	901.6	890.7	879.8	864.5	850.3
5°	935.4	943.1	948.5	940.9	928.9	931.1	938.7	918.0	888.5	869.9	838.3
7.5°	931.1	947.4	943.1	938.7	931.1	925.6	914.7	906.0	891.8	874.3	837.2
10°	927.8	933.2	934.3	931.1	914.7	930.0	918.0	903.8	886.3	865.6	819.7
12.5°	915.8	915.8	925.6	918.0	920.1	927.8	922.3	919.0	900.5	883.0	842.6
15°	902.7	907.0	922.3	934.3	945.2	942.0	938.7	928.9	912.5	892.9	850.3
17.5°	906.0	908.1	932.1	954.0	948.5	946.3	963.8	943.1	926.7	904.9	856.8
20°	918.0	924.5	951.8	980.2	985.6	985.6	979.1	967.1	944.2	914.7	868.8
22.5°	930.0	932.1	976.9	1012.9	1018.4	1004.2	1009.6	974.7	952.9	936.5	880.8
25°	975.8	971.4	1019.5	1047.8	1044.6	1030.4	1024.9	994.4	985.6	956.2	907.0
27.5°	1038.0	1019.5	1066.4	1083.9	1066.4	1070.8	1055.5	1022.7	1004.2	986.7	919.0
30°	1076.2	1087.1	1112.2	1129.7	1100.2	1101.3	1093.7	1057.7	1029.3	1033.7	959.4
32.5°	1135.2	1142.8	1161.4	1169.0	1146.1	1143.9	1136.3	1107.9	1087.1	1082.8	1014.0
35°	1198.5	1212.7	1213.8	1215.9	1195.2	1203.9	1193.0	1152.6	1163.5	1171.2	1079.5
37.5°	1260.7	1247.6	1269.4	1279.2	1256.3	1256.3	1259.6	1232.3	1252.0	1274.9	1172.3
40°	1284.7	1290.2	1328.4	1320.7	1348.0	1331.6	1343.6	1337.1	1353.5	1405.9	1303.3
42.5°	1309.8	1316.4	1367.7	1381.8	1414.6	1420.1	1437.5	1438.6	1486.6	1572.9	1428.8
45°	1357.8	1346.9	1416.8	1451.7	1505.2	1520.5	1541.2	1558.7	1634.0	1735.5	1571.8
47.5°	1401.5	1386.2	1465.9	1535.8	1601.2	1604.5	1661.3	1679.8	1769.3	1885.0	1713.7
50°	1462.6	1468.1	1501.9	1622.0	1688.6	1726.8	1766.1	1827.2	1926.5	2049.9	1816.3
52.5°	1525.9	1520.5	1577.2	1695.1	1799.9	1814.1	1902.5	1971.3	2079.3	2172.1	1862.1
55°	1603.4	1610.0	1631.8	1786.8	1920.0	1953.8	2053.1	2125.2	2243.0	2224.5	1877.4
57.5°	1680.9	1674.4	1723.5	1889.4	2070.6	2095.7	2227.8	2270.3	2350.0	2259.4	1839.2
60°	1757.3	1769.3	1790.1	2005.1	2235.4	2272.5	2377.3	2399.1	2416.6	2275.8	1809.7
62.5°	1844.6	1816.3	1880.7	2127.3	2383.9	2461.3	2544.3	2458.1	2442.8	2246.3	1742.0
65°	1888.3	1897.0	1981.1	2267.1	2581.4	2638.2	2649.1	2537.8	2459.2	2180.8	1678.7
67.5°	1956.0	1968.0	2075.0	2410.0	2784.4	2816.1	2776.8	2609.8	2445.0	2095.7	1450.6
70°	1964.7	1994.2	2200.5	2559.6	2912.1	2939.4	2908.9	2657.8	2330.4	1760.6	1074.0
72.5°	1918.9	1971.3	2231.0	2644.7	3019.1	3087.9	2916.5	2488.6	1878.5	1123.2	550.1
75°	1449.5	1493.2	2042.2	2518.1	2829.2	2845.6	2560.7	1899.2	1069.7	383.1	140.8
77.5°	751.0	826.3	1363.3	1924.3	2155.7	2138.3	1782.4	1118.8	367.8	100.4	56.8
80°	431.1	449.7	596.0	1080.6	1355.7	1289.1	985.6	482.4	161.5	50.2	37.1
82.5°	212.8	239.0	320.9	483.5	677.8	557.8	370.0	289.2	90.6	27.3	32.7
85°	45.8	48.0	163.7	231.4	275.1	181.2	126.6	243.4	32.7	16.4	31.7
87.5°	32.7	31.7	45.8	103.7	76.4	46.9	75.3	127.7	7.6	7.6	6.5
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°	841.6	841.6	841.6	841.6	841.6	841.6	841.6	841.6	841.6	841.6	841.6
2.5°	841.6	831.7	820.8	800.1	794.6	791.3	772.8	771.7	768.4	760.8	757.5
5°	818.6	802.3	781.5	759.7	742.2	710.6	672.4	652.7	628.7	629.8	622.2
7.5°	815.4	784.8	755.3	709.5	653.8	594.9	535.9	497.7	470.4	454.1	457.3
10°	800.1	777.2	729.1	644.0	554.5	465.0	389.7	332.9	300.2	275.1	282.7
12.5°	806.6	761.9	694.2	580.7	453.0	342.7	248.9	194.3	170.3	161.5	163.7
15°	802.3	761.9	673.5	511.9	355.8	232.5	161.5	144.1	139.7	139.7	137.5
17.5°	815.4	770.6	638.5	444.2	255.4	155.0	138.6	135.3	132.1	132.1	132.1
20°	833.9	775.0	614.5	368.9	180.1	136.4	129.9	127.7	126.6	126.6	125.5
22.5°	835.0	770.6	569.8	286.0	138.6	128.8	123.3	122.2	122.2	120.1	120.1
25°	841.6	775.0	521.7	215.0	128.8	121.2	116.8	115.7	116.8	115.7	114.6
27.5°	857.9	782.6	473.7	157.2	121.2	114.6	111.3	110.2	110.2	110.2	108.1
30°	878.7	782.6	420.2	129.9	114.6	108.1	104.8	103.7	102.6	102.6	102.6
32.5°	922.3	807.7	354.7	115.7	105.9	100.4	97.1	97.1	96.1	96.1	95.0
35°	976.9	825.2	288.2	107.0	98.2	92.8	89.5	89.5	88.4	88.4	87.3
37.5°	1044.6	868.8	220.5	100.4	90.6	85.1	81.9	81.9	81.9	80.8	80.8
40°	1140.6	913.6	163.7	91.7	83.0	77.5	75.3	74.2	73.1	73.1	70.9
42.5°	1243.2	982.4	122.2	85.1	76.4	72.0	68.8	65.5	65.5	62.2	62.2
45°	1354.6	1042.4	99.3	77.5	69.9	64.4	61.1	58.9	55.7	53.5	53.5
47.5°	1463.7	1079.5	87.3	68.8	63.3	58.9	55.7	51.3	46.9	45.8	44.8
50°	1552.1	1090.4	77.5	62.2	57.8	53.5	49.1	43.7	39.3	37.1	36.0
52.5°	1552.1	1030.4	69.9	55.7	52.4	48.0	42.6	36.0	30.6	28.4	27.3
55°	1552.1	935.4	62.2	51.3	46.9	43.7	36.0	29.5	24.0	20.7	19.6
57.5°	1529.2	820.8	55.7	45.8	41.5	37.1	30.6	22.9	17.5	14.2	14.2
60°	1465.9	700.7	48.0	40.4	36.0	30.6	24.0	16.4	10.9	7.6	7.6
62.5°	1385.1	557.8	41.5	33.8	29.5	25.1	18.6	10.9	4.4	2.2	2.2
65°	1244.3	411.5	36.0	28.4	22.9	18.6	12.0	4.4	0.0	0.0	0.0
67.5°	1027.1	275.1	28.4	22.9	19.6	13.1	7.6	1.1	0.0	0.0	0.0
70°	722.6	156.1	21.8	16.4	14.2	8.7	2.2	0.0	0.0	0.0	0.0
72.5°	296.9	68.8	15.3	12.0	9.8	4.4	0.0	0.0	0.0	0.0	0.0
75°	80.8	30.6	9.8	6.5	5.5	1.1	0.0	0.0	0.0	0.0	0.0
77.5°	46.9	20.7	4.4	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0
80°	37.1	9.8	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	37.1	5.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	31.7	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.4	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)