

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: P677202

Luminaire Tested: **CCW-SA-2D-835-U-SL4-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P677202  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-2D-835-U-SL4-HSS  
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @800mA w/  
SL4 distribution lens and House Side Shield  
Light Source: (32) 3500K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

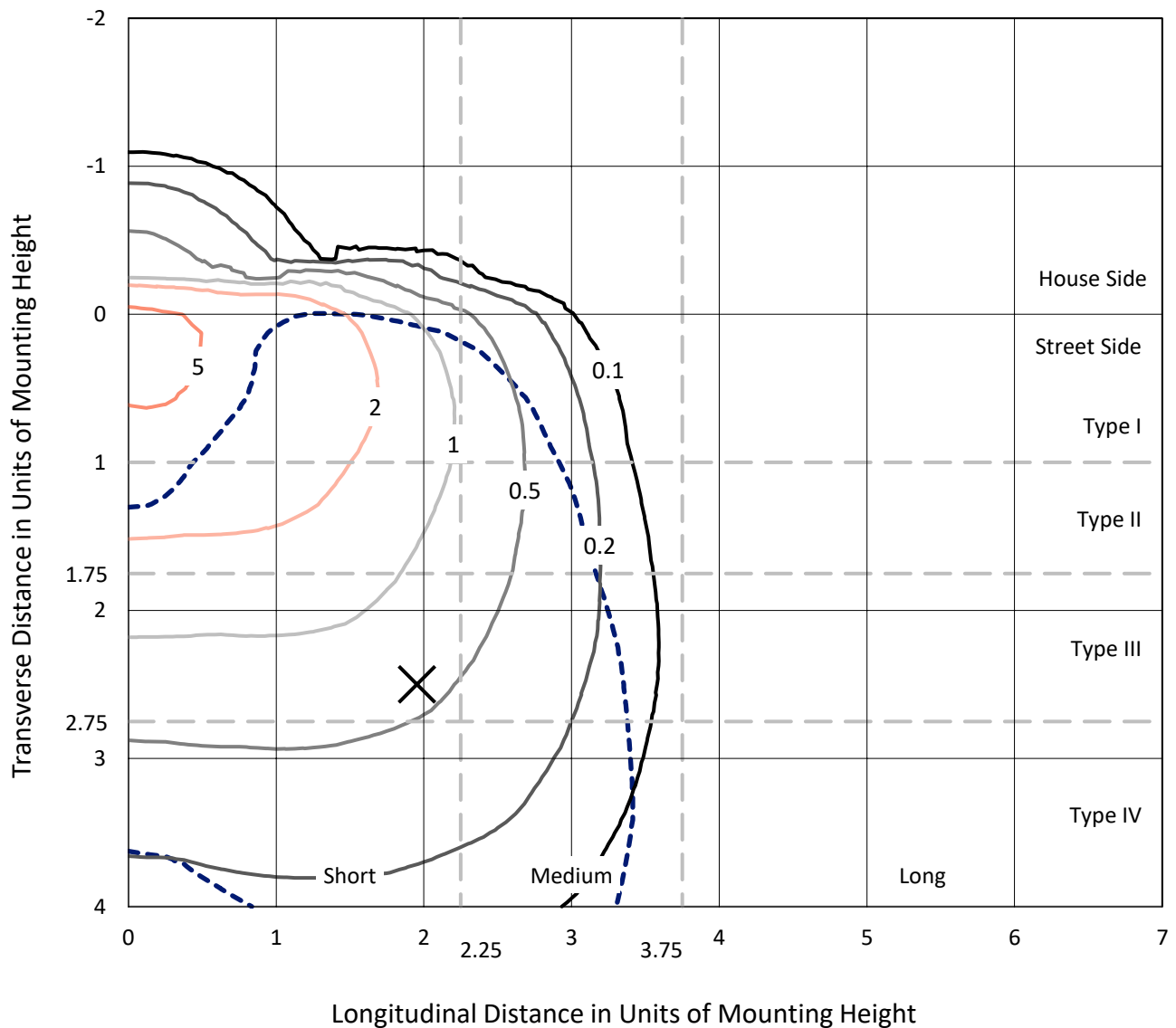
Lumens per Lamp: N/A  
Luminaire Lumens: 7591.1 lumens  
Efficiency: N/A  
Efficacy: 93.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 80.8  
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

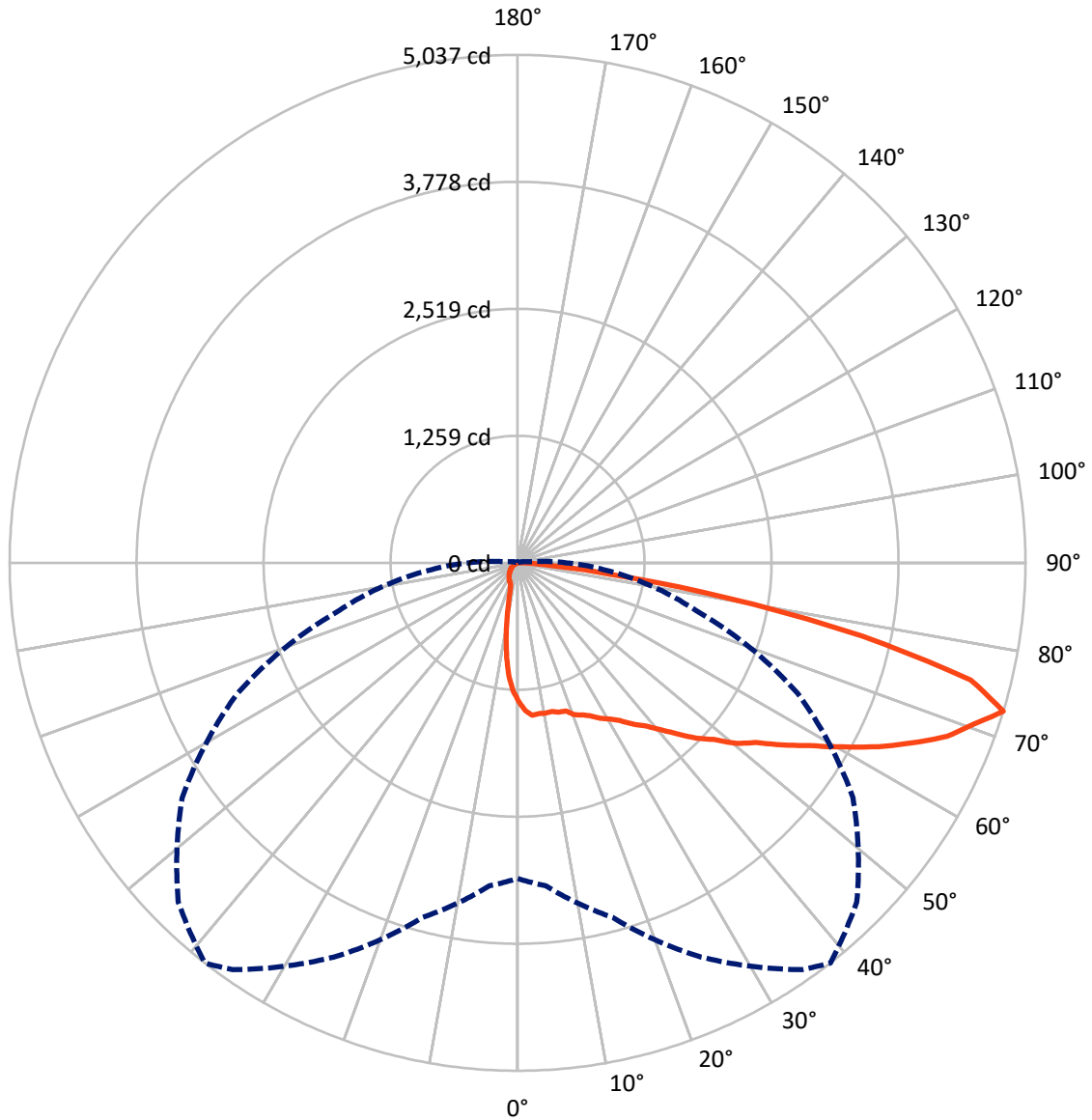
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 6.6 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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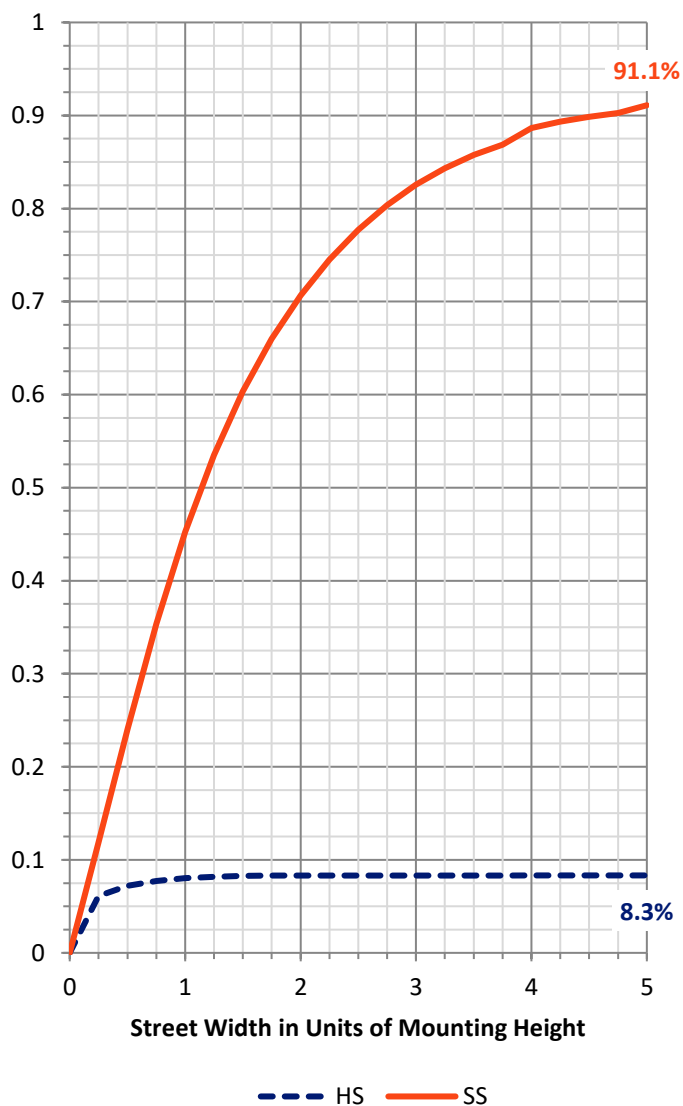
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	635.8	0.0	635.8
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	6955.3	0.0	6955.3
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	7591.1	0.0	7591.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.1	1.6
10°-20°	294.2	3.9
20°-30°	471.6	6.2
30°-40°	712.1	9.4
40°-50°	1083.7	14.3
50°-60°	1525.7	20.1
60°-70°	1863.7	24.6
70°-80°	1353.3	17.8
80°-90°	166.7	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°	7591.1	100.0
0°-180°	7591.1	100.0

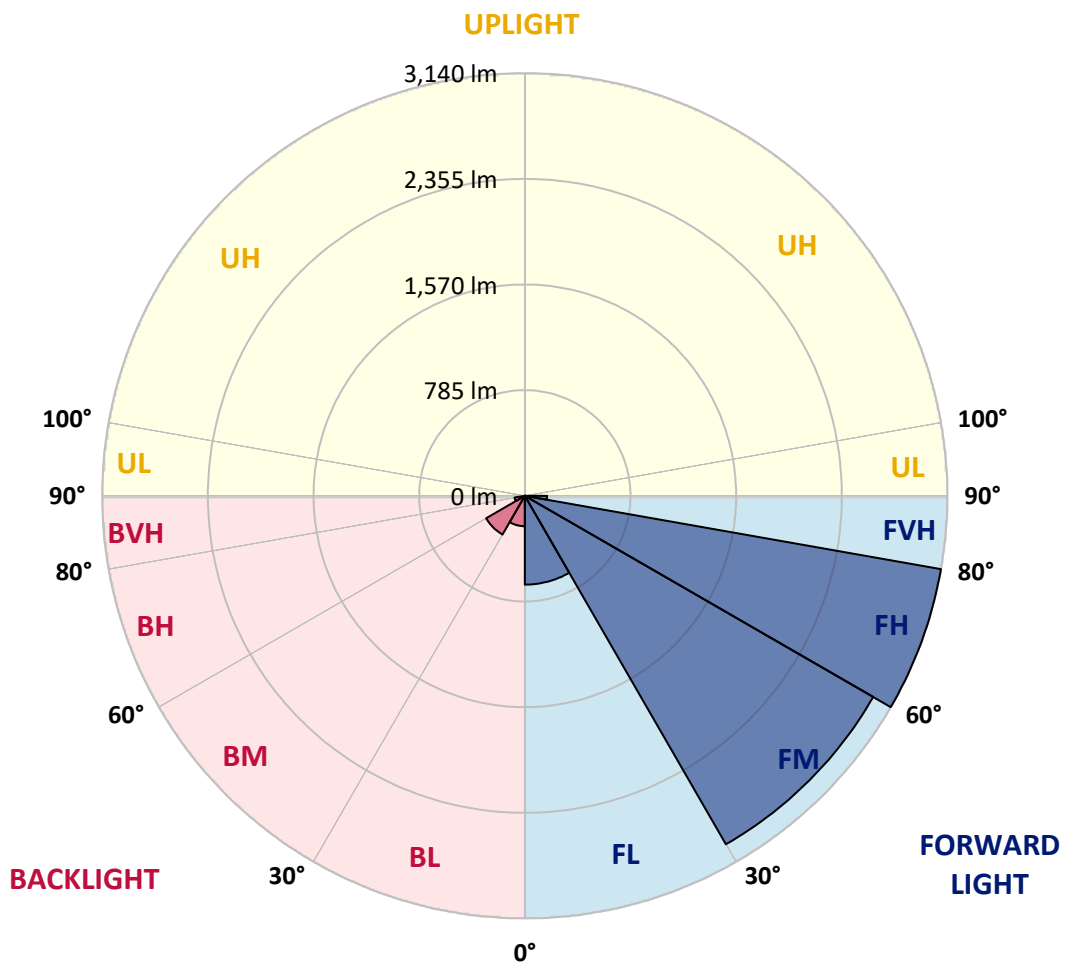


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	660.3	8.7			
FM (30°-60°)	2989.4	39.4			
FH (60°-80°)	3139.9	41.4			G2/5000
FVH (80°-90°)	165.8	2.2			G2/225
BL (0°-30°)	225.7	3.0	B1/500		
BM (30°-60°)	332.1	4.4	B1/1000		
BH (60°-80°)	77.1	1.0	B0/110		G0/110
BVH (80°-90°)	0.9	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°	1372.8	1372.8	1372.8	1372.8	1372.8	1372.8	1372.8	1372.8	1372.8	1372.8	1372.8
2.5°	1508.1	1508.1	1522.3	1508.1	1502.7	1468.9	1470.7	1452.9	1435.1	1410.2	1387.0
5°	1525.9	1538.4	1547.3	1534.8	1515.2	1518.8	1531.2	1497.4	1449.3	1419.1	1367.4
7.5°	1518.8	1545.5	1538.4	1531.2	1518.8	1509.9	1492.1	1477.8	1454.7	1426.2	1365.6
10°	1513.4	1522.3	1524.1	1518.8	1492.1	1517.0	1497.4	1474.3	1445.8	1411.9	1337.2
12.5°	1493.8	1493.8	1509.9	1497.4	1501.0	1513.4	1504.5	1499.2	1468.9	1440.4	1374.5
15°	1472.5	1479.6	1504.5	1524.1	1541.9	1536.6	1531.2	1515.2	1488.5	1456.4	1387.0
17.5°	1477.8	1481.4	1520.5	1556.2	1547.3	1543.7	1572.2	1538.4	1511.6	1476.0	1397.7
20°	1497.4	1508.1	1552.6	1598.9	1607.8	1607.8	1597.1	1577.5	1540.1	1492.1	1417.3
22.5°	1517.0	1520.5	1593.5	1652.3	1661.2	1638.1	1647.0	1590.0	1554.4	1527.7	1436.9
25°	1591.8	1584.6	1663.0	1709.3	1703.9	1680.8	1671.9	1622.0	1607.8	1559.7	1479.6
27.5°	1693.3	1663.0	1739.5	1768.0	1739.5	1746.7	1721.7	1668.3	1638.1	1609.6	1499.2
30°	1755.6	1773.4	1814.3	1842.8	1794.7	1796.5	1784.1	1725.3	1679.0	1686.1	1565.1
32.5°	1851.7	1864.2	1894.5	1906.9	1869.5	1866.0	1853.5	1807.2	1773.4	1766.3	1654.1
35°	1955.0	1978.1	1979.9	1983.5	1949.6	1963.9	1946.1	1880.2	1898.0	1910.5	1760.9
37.5°	2056.5	2035.1	2070.7	2086.7	2049.4	2049.4	2054.7	2010.2	2042.2	2079.6	1912.3
40°	2095.6	2104.6	2166.9	2154.4	2198.9	2172.2	2191.8	2181.1	2207.8	2293.3	2125.9
42.5°	2136.6	2147.3	2231.0	2254.1	2307.5	2316.4	2344.9	2346.7	2425.0	2565.7	2330.7
45°	2214.9	2197.1	2311.1	2368.1	2455.3	2480.2	2514.1	2542.6	2665.4	2831.0	2563.9
47.5°	2286.2	2261.2	2391.2	2505.2	2612.0	2617.3	2709.9	2740.2	2886.2	3074.9	2795.4
50°	2385.9	2394.8	2450.0	2645.8	2754.4	2816.8	2880.9	2980.6	3142.6	3343.8	2962.8
52.5°	2489.1	2480.2	2572.8	2765.1	2936.0	2959.2	3103.4	3215.6	3391.9	3543.2	3037.5
55°	2615.6	2626.2	2661.8	2914.7	3131.9	3187.1	3349.1	3466.6	3658.9	3628.7	3062.5
57.5°	2742.0	2731.3	2811.4	3082.0	3377.6	3418.6	3634.0	3703.4	3833.4	3685.6	3000.1
60°	2866.6	2886.2	2920.0	3270.8	3646.5	3707.0	3877.9	3913.5	3942.0	3712.3	2952.1
62.5°	3009.0	2962.8	3067.8	3470.2	3888.6	4015.0	4150.3	4009.7	3984.8	3664.3	2841.7
65°	3080.3	3094.5	3231.6	3698.1	4210.9	4303.5	4321.3	4139.7	4011.5	3557.4	2738.4
67.5°	3190.7	3210.2	3384.7	3931.3	4542.1	4593.7	4529.6	4257.2	3988.3	3418.6	2366.3
70°	3204.9	3253.0	3589.5	4175.3	4750.4	4794.9	4745.0	4335.5	3801.4	2871.9	1752.0
72.5°	3130.1	3215.6	3639.3	4314.2	4924.9	5037.0	4757.5	4059.5	3064.2	1832.1	897.4
75°	2364.5	2435.7	3331.3	4107.6	4615.1	4641.8	4177.1	3098.1	1744.9	625.0	229.7
77.5°	1225.0	1347.8	2223.8	3139.0	3516.5	3488.0	2907.6	1825.0	600.0	163.8	92.6
80°	703.3	733.6	972.2	1762.7	2211.4	2102.8	1607.8	787.0	263.5	81.9	60.5
82.5°	347.2	389.9	523.5	788.8	1105.7	909.8	603.6	471.8	147.8	44.5	53.4
85°	74.8	78.3	267.1	377.5	448.7	295.6	206.5	397.1	53.4	26.7	51.6
87.5°	53.4	51.6	74.8	169.1	124.6	76.6	122.9	208.3	12.5	12.5	10.7
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1372.8	1372.8	1372.8	1372.8	1372.8	1372.8	1372.8	1372.8	1372.8	1372.8	1372.8
2.5°	1372.8	1356.7	1338.9	1305.1	1296.2	1290.9	1260.6	1258.8	1253.5	1241.0	1235.7
5°	1335.4	1308.7	1274.8	1239.2	1210.7	1159.1	1096.8	1064.7	1025.6	1027.3	1014.9
7.5°	1330.0	1280.2	1232.1	1157.3	1066.5	970.4	874.2	811.9	767.4	740.7	746.0
10°	1305.1	1267.7	1189.4	1050.5	904.5	758.5	635.6	543.1	489.6	448.7	461.1
12.5°	1315.8	1242.8	1132.4	947.2	738.9	559.1	406.0	316.9	277.8	263.5	267.1
15°	1308.7	1242.8	1098.6	835.1	580.4	379.2	263.5	235.0	227.9	227.9	224.3
17.5°	1330.0	1257.0	1041.6	724.7	416.6	252.8	226.1	220.8	215.4	215.4	215.4
20°	1360.3	1264.2	1002.4	601.8	293.8	222.6	211.9	208.3	206.5	206.5	204.8
22.5°	1362.1	1257.0	929.4	466.5	226.1	210.1	201.2	199.4	199.4	195.9	195.9
25°	1372.8	1264.2	851.1	350.8	210.1	197.6	190.5	188.7	190.5	188.7	187.0
27.5°	1399.5	1276.6	772.7	256.4	197.6	187.0	181.6	179.8	179.8	179.8	176.3
30°	1433.3	1276.6	685.5	211.9	187.0	176.3	170.9	169.1	167.4	167.4	167.4
32.5°	1504.5	1317.6	578.7	188.7	172.7	163.8	158.5	158.5	156.7	156.7	154.9
35°	1593.5	1346.1	470.1	174.5	160.2	151.3	146.0	146.0	144.2	144.2	142.4
37.5°	1703.9	1417.3	359.7	163.8	147.8	138.9	133.5	133.5	133.5	131.8	131.8
40°	1860.6	1490.3	267.1	149.6	135.3	126.4	122.9	121.1	119.3	119.3	115.7
42.5°	2028.0	1602.5	199.4	138.9	124.6	117.5	112.2	106.8	106.8	101.5	101.5
45°	2209.6	1700.4	162.0	126.4	114.0	105.0	99.7	96.1	90.8	87.2	87.2
47.5°	2387.7	1760.9	142.4	112.2	103.3	96.1	90.8	83.7	76.6	74.8	73.0
50°	2531.9	1778.7	126.4	101.5	94.4	87.2	80.1	71.2	64.1	60.5	58.8
52.5°	2531.9	1680.8	114.0	90.8	85.5	78.3	69.4	58.8	49.9	46.3	44.5
55°	2531.9	1525.9	101.5	83.7	76.6	71.2	58.8	48.1	39.2	33.8	32.0
57.5°	2494.5	1338.9	90.8	74.8	67.7	60.5	49.9	37.4	28.5	23.1	23.1
60°	2391.2	1143.1	78.3	65.9	58.8	49.9	39.2	26.7	17.8	12.5	12.5
62.5°	2259.5	909.8	67.7	55.2	48.1	41.0	30.3	17.8	7.1	3.6	3.6
65°	2029.8	671.2	58.8	46.3	37.4	30.3	19.6	7.1	0.0	0.0	0.0
67.5°	1675.5	448.7	46.3	37.4	32.0	21.4	12.5	1.8	0.0	0.0	0.0
70°	1178.7	254.6	35.6	26.7	23.1	14.2	3.6	0.0	0.0	0.0	0.0
72.5°	484.3	112.2	24.9	19.6	16.0	7.1	0.0	0.0	0.0	0.0	0.0
75°	131.8	49.9	16.0	10.7	8.9	1.8	0.0	0.0	0.0	0.0	0.0
77.5°	76.6	33.8	7.1	3.6	3.6	0.0	0.0	0.0	0.0	0.0	0.0
80°	60.5	16.0	3.6	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	60.5	8.9	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	51.6	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.1	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)